

# Integrating resource efficiency and EU State aid

An evaluation of resource efficiency considerations in the current EU State aid framework



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# Executive summary

State aid, which can be defined as an advantage in any form conferred on a selective basis to undertakings by national public authorities, is generally prohibited under the Treaty of the Functioning of the European Union (Article 107) because it distorts competition and trade inside the EU. However, in some circumstances, government interventions are considered necessary for a well-functioning and equitable economy. A number of guidelines and pieces of legislation have been adopted which provide for exemptions to the general prohibition of State aid.

As with any advantage provided to undertakings, State aid may have environmental impacts as well as social and economic impacts. In some cases, State aid can be considered an environmentally harmful subsidy (EHS). Also, State aid can interfere with Europe's ambition to achieve sustainable economic growth and to shift towards a resource-efficient, low-carbon economy, which is expressed in the Europe 2020 flagship initiative for a resource-efficient Europe.

This study analysed the issues that need to be addressed in the revision of various State aid guidelines to ensure that they do not hinder environmental, resource efficiency and sustainable development goals, hereafter summarised as resource efficiency considerations. 'Sustainable development' encompasses environmental, social and economic development objectives aimed at the long-term durability of these developments. 'Environmental protection' encompasses safeguarding of natural ecosystem services such as water, air, biodiversity, land and soil. 'Resource efficiency' encompasses the efficient use of energy, water and raw materials in the sense that as little inputs per unit of output are being used.

Specifically, the study:

- Analyses the extent to which the Environmental Aid Guidelines (EAG) need to be changed to take into account recent European environmental policy developments.
- Analyses existing and potential resource efficiency considerations in a) the Regional Aid Guidelines; b) the Research, Development and Innovation (R&D&I) Guidelines and c) the Agriculture and Forestry Guidelines.
- Assesses cases and schemes using these guidelines to identify whether resource efficiency considerations are taken into account. The study also considers the social, environmental and economic impacts of these cases and schemes.
- Develops recommendations for the review of the EAG and a number of horizontal guidelines.

## Environmental Aid Guidelines

In the EAG, the emphasis lies on the environmental impacts of State aid measures. In particular, the EAG mentions the possibility to grant State aid to measures that go beyond Community environmental standards or that provide a solution for lack thereof. With regard to other resource efficiency considerations, attention is given to State aid for energy saving and renewable energy related measures that contribute to a more sustainable energy supply (sustainable development). State aid for better waste management is mentioned explicitly, thus contributing to the objective of the Sixth Environment Action Programme to ensure that 'EU growth will not lead to more waste' (de-coupling; resource efficiency). However, based on the analysis of recent policy developments, there is room to broaden the scope of the EAG to other non-environmental, resource efficiency considerations (as well as sustainable development in general and environmental protection considerations in particular) beyond the field of waste management and energy specifically. The following recommendations are relevant in that respect.

### **General**

- The EAG contains generic references to environmental and sustainability benefits (see, for example, Section 1.2 (6) of the EAG)<sup>1</sup>. It is recommended that a list of the benefits expected to arise from State aid measures is provided in the EAG (e.g. 'measures shall: result in no net biodiversity loss; contribute to the protection of ecosystem services; minimise water consumption and the impact on water bodies and water quality; lead to a reduction in greenhouse gas emissions; and result in an improvement in air quality).

### **Incorporating recent policy developments**

- It is strongly recommended that biodiversity and ecosystem services (including marine, land use and soils) feature in the updated EAG. Aid measures with a positive impact on biodiversity and ecosystem services could be used to improve knowledge of the links between biodiversity and climate change mitigation and adaptation, which is identified as a key research gap in the EU biodiversity strategy. In light of this, the R&D&I Guidelines could be updated to include a provision for contributions to ecosystem services-related research. In a similar vein, Agriculture and Forestry Guidelines should take account of impacts on ecosystem services.
- The EAG should contain provisions for the efficient use of minerals and metals in the waste management sections (1.5.8 and 3.1.9). These provisions could include requesting applicants to identify how life-cycle impacts will be taken into account, and the extent to which the aid will contribute to improved research and innovation, and improved market structures.

### **Coverage of non-environmental objectives (see also Annex L)**

- The guidelines should encourage assessment of the social impacts of aid measures; although the environment should remain the number one priority.
- Communication of the wider economic and social impacts (e.g. job creation, local income and consumer cost savings) in case assessments should be more explicit, as they are already typically considered due to the balancing test criteria.
- Explicit links should be made to the regional development guidelines, the R&D&I Guidelines and the EAG since common interests are evident.

### **Monitoring and evaluating State aid measures**

- A ranking system could be developed for Member States to 'score' State aid measures in terms of the resource efficiency/environmental protection/sustainable development targets and objectives they meet. Targets and objectives might be agreed at the Member State level or the same scores could be applied across EU Member States.
- Monitoring and evaluation should take place of all measures which are granted State aid. Targets for resource efficiency, environmental protection and sustainable development could be agreed when State aid is awarded, and evaluations of progress could take place at agreed intervals. This will depend on the existing monitoring and evaluation procedures in place, and the additional burden that this would cause the European Commission and State aid recipients. Lessons learned from the monitoring and evaluation could be translated into best practice for future assessment of measures.
- All State aid measures should contribute to Europe-wide resource efficiency-related targets and indicators.

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<sup>1</sup> "The primary objective of State aid control in the field of environmental protection is to ensure that State aid measures will result in a higher level of environmental protection than would occur without the aid"

## Regional Aid Guidelines

For the Regional Aid Guidelines, focus clearly lies on the economic and social impacts of measures concerned (GDP per capita compared to EU average; low population density; high unemployment; geographically isolated communities; areas undergoing structural change/serious decline; or a combination of these factors). The Regional Aid Guidelines do not require impact(s) on the environment, sustainable development and resource efficiency to be taken into account.

As a result, the case studies show that environmental, sustainable development and resource efficiency considerations are not taken into account when applying for regional aid. Although, in some countries, sustainable development and/or environmental protection is made a horizontal priority for EU funds implementation, there is much more emphasis on economic and social factors in regional aid projects and schemes. Consideration of environmental impacts seems to be incidental due to the type of investment or priorities set by the Member State concerned.

It is recommended that the Regional Aid Guidelines contain criteria in the balancing test to assess the impact of regional aid on the natural environment and sustainable development, particularly in relation to ecosystems, biodiversity and land use. Also, to screen for environmentally harmful subsidies, the guidelines should require that the applicants specify whether a project will have positive, neutral or negative impact on the environment and, in the latter case, also specify how negative environmental impacts are avoided or tackled (mitigation measures, environmental permits or by complying with other regulations).

## Research, development and innovation (R&D&I) Guidelines

The objective of State aid granted under the R&D&I Guidelines is to enhance economic efficiency and, thereby, contribute to sustainable growth. The environmental impacts and resource efficiency considerations are not explicitly mentioned, but they are indirectly taken into account through targeting market failures and through synergies between innovation for quality and performance, and innovation to optimise energy use, waste and safety. Social impacts (cohesion, job quality and health effects) are not referred to in the guidelines.

In the selected cases analysed for the R&D&I Guidelines, it appears that economic and environmental impacts are taken into account to a certain extent. However, the positive environmental impacts in the selected cases do not seem to stem from provisions in the R&D&I Guidelines. Generally, they stand alone and no explicit reference is made to R&D&I Guideline requirements in that respect. Investments in R&D&I are mostly likely to have a positive impact on employment, income generation and knowledge transfer. Regarding the environmental impact in the R&D&I cases studied, investments in R&D&I are likely to have a positive impact on energy efficiency levels and, hence, lower emissions. The cases analysed often involve projects in the aviation and shipping sector to improve engines or other specific characteristics that lead to improved energy efficiency. However, other factors related to resource efficiency are not taken into account (e.g. waste generation, use of alternative or renewable energy sources, and impact on ecosystems).

We recommend that the environmental impacts of R&D&I investments should be included in more detail in the guidelines. Furthermore, the environmental impacts that need addressing should be extended by including the effects on waste management; impacts on ecosystems, land and water use; the use of renewable energy sources; and use of raw/secondary materials to fully cover the resource efficiency agenda.

- An increase in R&D&I may contribute to sustainable development, including jobs and greater prosperity. Despite this, the R&D&I Guidelines have given limited attention to resource efficiency, environmental protection and sustainable development. The R&D&I Guidelines should, therefore, be updated to ensure that State aid for R&D&I has a positive impact on resource efficiency, sustainable development and environmental protection, and prevents aid being granted for projects that have a negative impact.
- Environmental impacts of R&D&I investments should be included in more detail in the guidelines. The case on the development of a new business-jet engine by Rolls Royce Deutschland (N195/2007) could serve as an example, where the environmental impact was calculated by means of a lower fuel consumption and a lower percentage of GHG emissions. In this case, the decrease in emissions in percentages per greenhouse gas was specified as well as the estimated noise reduction corresponding with the development of this new engine.

- Furthermore, the environmental impacts that need addressing should be extended by including the effects on waste management, impact on ecosystems, land and water use, use of renewable energy sources and use of raw/secondary materials to fully cover the resource efficiency agenda.

### Agriculture and Forestry Guidelines

In the Agriculture and Forestry Guidelines, environmental protection is well defined. To this end, the guidelines could serve as a role model for the other guidelines. The guidelines emphasise that "... particular attention therefore needs to be given to environmental issues in future State aid notifications, even in cases where the aid schemes are not specifically concerned with environmental issues". However, impacts on resource efficiency, sustainable development (i.e. social and economic impacts) are stated less clearly and could be improved.

We recommend that a requirement is included stipulating that aid must not create conflicts with resource efficiency and environmental quality targets. Provisions for this could and should be included in the guidelines along the following lines: "The positive and negative economic, social and environmental impacts should be identified. The estimated positive effects of granting State aid should be explicitly, and as far as possible quantitatively, counterbalanced against possible negative impacts relating to resource efficiency and environmental quality targets." This way, the applicant is obliged to provide information on the impacts of the project on resource use and how these are managed for the specific project (e.g. through environmental permits or by complying with other regulations).

Also, a provision for compensating farmers for damage done by species protected by EU law, such as large carnivores and beavers, should be included to improve resource efficiency in terms of biodiversity.

### Overall recommendations

- Article 11 of the Treaty of the Functioning of the European Union (TFEU) states that "Environmental protection requirements must be integrated into the definition and implementation of the Union's policies and activities, in particular with a view to promoting sustainable development". It is recommended that all State aid guidelines require the identification of economic, social and environmental impacts and, where appropriate, their quantification, so that these impacts can be used in the balancing procedure. This would also help screening for environmentally harmful subsidies.
- The Commission should ensure the EAG, R&D&I and Regional Aid Guidelines promote a consistent approach to assessing State aid measures and that they cross-reference each other where relevant. For example, the EAG promote State aid for environmental innovation through incentives to counterbalance externalities. However, State aid for R&D&I in the environmental field is subject to the rules set out in the R&D&I Guidelines, which give limited consideration to resource efficiency, environmental protection and sustainable development.
- Within the transport schemes studied, the environmental impact has been well addressed, quantified and monetised on the basis of external costs (cost avoidance). Although these environmental cost-benefit calculations are specifically related to transport, the way in which the environmental impact is monetised could serve as an example for the other schemes. In schemes for regional aid on investments in renewable energy, for example, the reductions in emissions of carbon dioxide (CO<sub>2</sub>) and other greenhouse gas (GHG) emissions compared to conventional energy could be quantified in the same way.
- Appropriate consideration should be given to the fact that State aid does not create conflicts with European Community environmental legislation, resource efficiency and environmental quality targets. Relevant provisions on this should be included in all guidelines undergoing revision.

- Regarding projects that are subject to an environmental impact assessment (EIA) obligation based on EU/national legislation (with reference to EU Directive 2011/92/EU), it is recommended that the guidelines prescribe that information must be provided, from official documents, on the environmental impacts related to the aid measures in question. This might be either limited to a short statement that the “project will have no or minimal potential adverse social and environmental impacts” or include the executive summary of the assessment (if an EIA Report is available at the stage of application for State aid)<sup>2</sup>. Alternatively, the Commission could consider adding checklist provisions to the relevant set of guidelines. These provisions would oblige applicants to provide a list of the benefits expected to arise from State aid measures or to indicate that there are no risks with regard to environmental harmful subsidies (minimum requirements). For example, the applicant could be obliged to confirm that measures will:
  - not result in net biodiversity loss;
  - contribute to the protection of ecosystem services;
  - minimise water consumption and the impact on water bodies and water quality;
  - lead to a reduction in greenhouse gas emissions;
  - result in an improvement in air quality, etc.

In Annex M, an example is provided of what these checklist provisions could look like.

- In general, we conclude that in most *schemes* that have been analysed, the way in which multiple objectives and impacts are balanced is unclear and there is no requirement to provide information on certain types of impacts. To guarantee that multiple objectives and impacts are sufficiently balanced, it is recommended that the State aid guideline framework prescribes that applicants identify social, economic and environmental objectives and impacts and describe how these are taken into account in the balancing procedure. In schemes where the method of external cost calculation according to “the Handbook on estimation of external costs in the transport Sector” is not applicable, the requirements as stated in Regional Aid scheme N373/2008 (EE) can be applied. To get financing under this scheme, an applicant will have to submit an application fulfilling the seven evaluation criteria which concern regional development impact, sustainability, reduction of CO<sub>2</sub> emission, energy efficiency, etc. In this way, the balancing of multiple impacts can be achieved. It would be recommended to apply requirements such as those found in scheme N373/2008 (EE) to other Regional Aid schemes, or to schemes subject to other Guidelines.
- When a project relies on procedures outside the scope of the scheme to manage environmental or social impacts (e.g. by requiring environmental permits) applicants should be obliged to clarify this in their application for State aid.
- In motivating its State aid granting decision the Commission should consider providing information on how it took the balancing of multiple objectives into account when deciding whether or not to grant State aid.

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<sup>2</sup> It should be noted that, although the EIA Directive (2011/92/EU) ensures that all environmental impacts are assessed, it does not impose implementation details with regard to project decision considerations.

# Contents

<b>1</b>	<b>Introduction.....</b>	<b>1</b>
1.1	Objectives of the study.....	1
1.2	State aid legal framework .....	1
<b>2</b>	<b>Scope and methodology .....</b>	<b>6</b>
2.1	Task 1a: Review of existing and potential resource efficiency considerations in State aid guidelines.....	6
2.2	Task 1b: Analysis of incorporation of recent policy developments in the environmental aid guidelines.....	8
2.3	Task 2: Analysis of State aid cases and schemes.....	9
2.4	Task 3: Methodology for future assessment of resource efficiency .....	10
<b>3</b>	<b>Review of State aid guidelines.....</b>	<b>11</b>
3.1	Introduction.....	11
3.2	Assessment of Environmental Aid Guidelines.....	11
3.3	Regional aid.....	15
3.4	Research, development and innovation aid .....	16
3.5	State aid related to agriculture and forestry.....	16
3.6	Assessment of relevant policy context for the Regional Aid, R&D&I and Agriculture and Forestry Guidelines .....	17
3.7	Conclusions: review of State aid guidelines .....	20
<b>4</b>	<b>Task 2: Case studies.....</b>	<b>23</b>
4.1	Introduction.....	23
4.2	Environmental Aid Guidelines .....	23
4.3	Regional Aid guidelines .....	28
4.4	R&D&I Guidelines.....	32
4.5	Agriculture and Forestry Guidelines .....	33
4.6	Transport cases (schemes).....	36
<b>5</b>	<b>Conclusions and recommendations.....</b>	<b>38</b>
5.1	Introduction.....	38
5.2	Environmental Aid Guidelines recommendations .....	38
5.3	Regional Aid Guidelines.....	41
5.4	R&D&I Guidelines.....	42
5.5	Agriculture and forestry .....	42
5.6	Overall recommendations (concerning ALL of the guideline documents) .....	43

**Annexes**

Annex A	Fiche Environmental Aid Guidelines
Annex B	Fiche Regional Aid Guidelines
Annex C	Fiche R&D&I Framework
Annex D	State aid Guidelines Agriculture and Forestry
Annex E	Overview cases studied
Annex F	Environmental Aid (cases)
Annex G	Regional Aid (cases)
Annex H	R&D&I (cases)
Annex I	Agriculture and Forestry (cases)
Annex J	Transport (cases)
Annex K	Detailed analysis of Environmental Aid Guidelines
Annex L	Recommendations for incorporating guidance on other resource efficiency objectives into the environmental aid guidelines
Annex M	Checklist (Environmental) Resource Efficiency Issues

# 1 Introduction

## 1.1 Objectives of the study

This study is concerned with the integration of resource efficiency considerations within the EU State aid framework. State aid is defined as an advantage in any form conferred on a selective basis to undertakings by national public authorities, and is generally prohibited under the Treaty of the Functioning of the European Union (TFEU; Article 107) because it distorts competition and trade inside the EU.

However, in some circumstances, government interventions are considered necessary for a well-functioning and equitable economy. Therefore, the TFEU allows for State aid to reach specific policy objectives. A number of guidelines and pieces of legislation have been adopted which provide for exemptions to the general prohibition of State aid. Some of these guidelines and policies are to be reviewed in the coming years.

As with any advantage provided to undertakings, State aid may have environmental impacts as well as social and economic impacts. In some cases, State aid can be considered an environmentally harmful subsidy (EHS). State aid can also interfere with Europe's ambition to achieve sustainable economic growth and to shift towards a resource-efficient, low-carbon economy, which is expressed in the Europe 2020 flagship initiative for a resource-efficient Europe.

Within this context, the overall aim of this study is to assess the issues that need to be addressed in the revision of various State aid guidelines to ensure that they do not hinder environmental, resource efficiency and sustainable development goals. The specific aims are:

1. Analyse existing State aid schemes and the impacts of State aid cases.
2. Assess how, and to what extent, resource efficiency objectives can be strengthened in the revision of the relevant State aid guidelines.

To achieve the objectives in this study, a series of three distinct tasks were carried out:

- Task 1: Review of the State aid regime and its role in the broader context of resource efficiency.
- Task 2: Review of case studies (ad-hoc cases and individual applications) and the lessons to be learned with regard to improving the overlying guidelines.
- Task 3: Contribute to a methodology for future assessment of resource efficiency.

## 1.2 State aid legal framework

State aid is defined as: *an advantage in any form whatsoever conferred on a selective basis to undertakings by national public authorities*. A company is said to (have) receive(d) State aid if the support meets the following, cumulative, criteria:

- There has been an intervention by the State or through State resources which can take a variety of forms (e.g. grants, interest and tax reliefs, guarantees, government holdings of all or part of a company, or the provision of goods and services on preferential terms).
- The intervention confers an advantage to the recipient on a selective basis, for example to specific companies or sectors of the industry, or to companies located in specific regions.
- Competition has been or may be distorted.
- The intervention is likely to affect trade between Member States.

By contrast, general measures are not regarded as State aid because they are not selective and apply to all companies regardless of their size, location or sector. Examples include general taxation measures or employment legislation. Subsidies granted to individuals or general measures open to all enterprises are not covered by Article 107 of the TFEU and do not constitute State aid.

In general, State aid is prohibited. However, sometimes government interventions are necessary for a well-functioning and equitable economy. They can sometimes be effective tools for achieving objectives of common interest (services of general economic interest, social and regional cohesion, employment, research and development, sustainable development, promotion of cultural diversity, etc.) and for correcting 'market failures'. For various reasons (externalities, market power, coordination problems between market operators), markets do not always function efficiently from an economic point of view. Member States may then intervene by granting State aid. Article 107 of the TFEU leaves room for a number of policy objectives for which State aid can be considered compatible with the common market.

**Box 1      *Relevant State aid provisions in the TFEU***

**Article 107 (TFEU)**

Save as otherwise provided in this Treaty (TFEU), any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods shall, in so far as it affects trade between Member States, be incompatible with the common market.

The following shall be compatible with the common market:

- Aid having a social character, granted to individual consumers, provided that such aid is granted without discrimination related to the origin of the products concerned.
- Aid to make good the damage caused by natural disasters or exceptional occurrences.
- Aid granted to the economy of certain areas of the Federal Republic of Germany affected by the division of Germany, in so far as such aid is required to compensate for the economic disadvantages caused by that division.

The following may be considered to be compatible with the common market:

- Aid to promote the economic development of areas where the standard of living is abnormally low or where there is serious underemployment.
- Aid to promote the execution of an important project of common European interest or to remedy a serious disturbance in the economy of a Member State.
- Aid to facilitate the development of certain economic activities or of certain economic areas, where such aid does not adversely affect trading conditions to an extent contrary to the common interest.
- Aid to promote culture and heritage conservation where such aid does not affect trading conditions and competition in the Community to an extent that is contrary to the common interest.
- Such other categories of aid as may be specified by decision of the Council acting by a qualified majority on a proposal from the Commission.

A number of guidelines and pieces of legislation have been adopted which provide for exemptions to the general prohibition of State aid (horizontal and sector-specific guidelines). Together with Article 107 of the TFEU they provide the State aid framework under which the European Commission assesses whether (financial) support by governments is acceptable. Cross-industry or 'horizontal' rules are based on Article 107(3)(a) and (c) of the TFEU and set out the Commission's position on particular categories of aid which are aimed at tackling problems which may arise in any industry and region. The Commission has also adopted industry-specific or 'sectoral' rules defining its approach to State aid in particular industries. In Table 1, an overview is given of the horizontal and sector-specific guidelines for State aid.

**Table 1 Overview horizontal and sector-specific guidelines**

Type of State aid	Guidelines/framework	Official Journal
<b>Regional aid</b>	Guidelines on regional aid for 2007/13	OJ C 54, 04.03.2006
<b>Other horizontal rules</b>		
Aid for small and medium-sized enterprises	Commission Recommendation of 6 May 2003 concerning the definition of micro, small and medium-sized enterprises	OJ L 124, 20.05.2003
Aid for environmental protection	Community guidelines on State aid for environmental protection	OJ C 82 of 01.04.2008
Aid for research and development and innovation	Community Framework for State aid for Research and Development and Innovation	OJ C 323 of 30.12.2006, p. 1
Training aid	Criteria for the compatibility analysis of training State aid cases subject to individual notification	OJ C 188 of 11.8.2009
Aid in the form of risk capital	Community guidelines on State aid to promote risk capital investments in small and medium-sized enterprises	OJ C 194, 18.08.2006
Aid for disadvantaged or disabled workers	Criteria for the compatibility analysis of State aid to disadvantaged and disabled workers subject to individual notification	OJ C 188 of 11.8.2009
Aid for rescuing and restructuring firms in difficulty	Community guidelines on State aid for rescuing and restructuring firms in difficulty	Official Journal C 244, 01.10.2004
<b>Specific sectors</b>		
Agriculture and forestry	Community guidelines for State aid in the agriculture and forestry sector 2007-2013	OJ C 319 of 27.12.2006
Fisheries and aquaculture	Guidelines for the examination of State aid to fisheries and aquaculture	OJ C84 of 03.04.2008
Audio-visual production	Communication from the Commission to the Council, The European Parliament, the Economic and Social Committee	COM(2001) 534 final of 26.09.2001

Type of State aid	Guidelines/framework	Official Journal
	and the Committee of the Regions on certain legal aspects relating to cinematographic and other audiovisual works	
Broadband	Community Guidelines for the application of State aid rules in relation to rapid deployment of broadband networks	OJ C235 of 30.09.2009
Broadcasting	Communication from the Commission on the application of State aid rules to public service broadcasting	OJ C257 of 27.10.2009
Coal industry	COUNCIL DECISION of 10 December 2010 on State aid to facilitate the closure of uncompetitive coal mines	OJ 2010/787/EU of 21.12.2010
Electricity (stranded costs)	COMMISSION COMMUNICATION relating to the methodology for analysing State aid linked to stranded costs	Commission letter SG (2001) D/290869 of 6.8.2001
Postal services	Notice from the Commission on the application of the competition rules to the postal sector and on the assessment of certain State measures relating to postal services (98/C 39/02)	OJ C039 of 06.02.1998
Steel	COMMUNICATION FROM THE COMMISSION Rescue and restructuring aid and closure aid for the steel sector  COMMUNICATION FROM THE COMMISSION Multisectoral framework on regional aid for large investment projects  Communication from the Commission concerning certain aspects of the treatment of competition cases resulting from the expiry of the ECSC Treaty	OJ C70, 19.3.2002 and OJ C 152, 26.06.2002
Ship management	FRAMEWORK ON STATE AID TO SHIPBUILDING	OJ C364 of 14.12.2011
Maritime transport	Communication from the Commission providing guidance on State aid to ship-management companies  Communication from the Commission providing guidance on State aid complementary to Community funding for the	OJ C 132, 11.6.2009; OJ C 317, 12.12.2008 and OJ C 013, 17.01.2004

Type of State aid	Guidelines/framework	Official Journal
	launching of the motorways of the sea  Commission communication C(2004) 43 — Community guidelines on State aid to maritime transport	
Airports	COMMUNICATION FROM THE COMMISSION  COMMUNITY GUIDELINES ON FINANCING OF AIRPORTS AND START-UP AID TO AIRLINES DEPARTING FROM REGIONAL AIRPORTS	OJ C 312, 9.12.2005
Rail, road and inland waterways	REGULATION (EC) No 1370/2007 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL  of 23 October 2007  on public passenger transport services by rail and by road and repealing Council Regulations (EEC)  Communication from the Commission  Community guidelines on State aid for railway undertakings	OJ L 315, 3.12.2007 and OJ C184 of 22/07/2008

Source: [http://ec.europa.eu/competition/state\\_aid/legislation/legislation.html](http://ec.europa.eu/competition/state_aid/legislation/legislation.html).

Next to these horizontal and sector-specific guidelines one can distinguish rules with regard to 'specific aid instruments'. Examples of these instruments are: state guarantees, export credit insurance fiscal aid, and capital injections. These rules on specific aid instruments do not fall under the scope of this study. Also, with regard to the horizontal and sector-specific guidelines studied a selection is made (please refer to Chapter 2).

## 2 Scope and methodology

As noted in Section 1.1, the study comprised three tasks:

- Task 1: Review of the State aid regime and its role in the broader context of resource efficiency.
- Task 2: Review of case studies (ad-hoc cases and individual applications) and the lessons to be learned with regard to improving the overlying guidelines.
- Task 3: Contribute to a methodology for future assessment of resource efficiency.

In this chapter, the research methodology is clarified for each task.

### 2.1 Task 1a: Review of existing and potential resource efficiency considerations in State aid guidelines

The following three horizontal guidelines were part of the study: the Environmental Aid Guidelines (EAG); the Regional Aid Guidelines and the Research and Development and Innovation (R&D&I) Framework (also referred to as R&D&I Guidelines). Regarding sector specific guidelines the guidelines on State aid in the agriculture and forestry sector are part of the study.

For the EAG, we have analysed whether recent policy developments in the field of resource efficiency have been included in the guidelines so that activities in this field can qualify for State aid under these guidelines. For the other guidelines mentioned, the aim is to analyse whether resource efficiency, environmental protection and sustainable development considerations have been given (sufficient) weight in the guidelines. Where they have not been given sufficient weight, the analysis provides recommendations of how these considerations can be taken into account in future revisions of the guidelines and whether there is a rationale to do so. In the context of the study, 'sustainable development' encompasses environmental, social and economic development objectives aimed at the long-term durability of these developments. 'Environmental protection' encompasses safeguarding of natural ecosystem services such as water, air, biodiversity, land and soil. 'Resource efficiency' encompasses the efficient use of energy, water and raw materials in the sense that as little inputs per unit of output are being used.

Sector-specific guidelines relating to transport are not brought under the scope of the assignment. However, the project team looked into two case studies related to transport in which the Handbook on estimation of external costs in the transport Sector (CE et al, 2008) was applied to quantify estimated external costs (and benefits) using shadow prices. This was done to assess whether prescribing such a methodology as a general criterion in the State aid guideline framework concerned would be of added value.

**Table 2 Guidelines studied (scope)**

	DG COMP	In force?	Large total amount of cases?	Aimed at resource intensive sectors?	Include?
<b>Horizontal</b>					
Aid to disadvantaged and disabled workers	Yes	Yes	No	No	No
Training aid	Yes	Yes	No	No	No
Regional aid	Yes	Yes	Yes	Yes	Yes
Research and Development and Innovation	Yes	Yes	Yes	Yes	Yes
Environmental aid	Yes	Yes	Yes	Yes	Yes
Risk capital	Yes	Yes	Yes	Yes	No
Rescue and restructuring aid	Yes	Yes; expires 2012			No
<b>Sector-specific</b>					
Agriculture and forestry	No (DG AGRI)	No (DG AGRI)			Yes
Audio-visual production	Yes	Yes; expires 2012			No
Broadband	Yes	Yes			No
Broadcasting	Yes	Yes			No
Coal industry	Yes	No; expired 2010			No
Electricity (stranded costs)	Yes	Yes/No; linked to liberalisation - expiring			No
Fisheries	No (DG MARE)	Yes			No
Postal services	Yes	Yes			No
Shipbuilding	Yes	Yes; expires 2013			No
Steel	Yes	No; expired 2009			No
<b>Transport</b>					
Ship management	Yes	Yes			No

	DG COMP	In force?	Large total amount of cases?	Aimed at resource intensive sectors?	Include?
<i>Maritime transport</i>	Yes	Yes			No
<i>Airports</i>	Yes	Yes			No
<i>Rail, road and inland waterways</i>	Yes	Yes			No

For each of the included guidelines a ‘fiche’ is made containing a list of provisions and an assessment regarding their relevance for the resource efficiency agenda. The analysis results with regard to Task 1a can be found in sections 3.2 to 3.5 of Chapter 3.

## 2.2 Task 1b: Analysis of incorporation of recent policy developments in the environmental aid guidelines

The EAG are (already) relevant when looking at resource efficiency issues. Part of the assessment with regard to the EAG therefore consisted of a review of the extent to which relevant recent policy developments, from 2008 until today, are sufficiently reflected in the guidelines.

A total of 10 policy developments were taken into consideration as part of the review, with five policies considered in more detail. The results of the five policy developments (highlighted in **bold**) that were analysed in more detail, can be found in sections 3.2.2 and 3.6 of Chapter 3.

**Table 3 Policy developments taken into consideration (EAG)**

	Relevant document/policy/regulation	Year
	<i>Renewable energy</i>	
1.	<b>Energy Roadmap</b>	2011
2.	Renewable Energy Directive (2009/28/EC)	2009
	<i>GHG emissions</i>	
3.	Roadmap for moving to a competitive low carbon economy in 2050	2011
4.	Investing in the Development of Low Carbon Technologies (SET-plan) – A technology Roadmap	2009
	<i>Energy efficiency</i>	
5.	<b>European Energy Efficiency Plan 2011</b>	2011
	<i>Impact on ecosystems/biodiversity</i>	
6.	<b>2020 EU biodiversity policy and strategy</b>	2011
	<i>Transport</i>	
7.	<b>White paper on the future of transport</b>	2011
	<i>Resource efficiency</i>	
8.	<b>Flagship Initiative for a Resource Efficient Europe</b>	2011
9.	Roadmap for a resource-efficient Europe	2011
10.	Tackling the challenges in commodity markets and on raw materials	2011

## 2.3 Task 2: Analysis of State aid cases and schemes

The objective of Task 2 was to identify, for several Member States, existing State aid cases which (a) could be environmentally harmful or (b) already take into account resource efficiency considerations, environmental protection and sustainable development.

Notifications of State aid fall in three categories: schemes, individual applications and ad-hoc cases. According to the DG COMP website, from 2008 up to and including 2011, the Commission published 559 decisions relating to the EAG; Regional Aid Guidelines; R&D&I Guidelines and Agriculture and Forestry Guidelines. Of these, 90 are individual applications (often referring to schemes) and 52 involve ad-hoc cases. We have taken a sample of individual applications/ad-hoc cases under each guideline. The sample was selected to cover several sectors in several countries and thus ensure a broad sectoral and geographical scope.

**Table 4 Case study sample: individual applications and ad-hoc cases**

Guidelines	Number of decisions published from 2008 through 2011			Sample
	Total	Individual application	Ad-hoc case	
Environmental Aid	126	16	10	5
Regional Aid	152	49	25	13 <sup>3</sup>
R&D&I	190	22	17	10
Agriculture and Forestry	91	3		8 <sup>4</sup>
<b>Total</b>	<b>559</b>	<b>90</b>	<b>52</b>	<b>36</b>

Table 5 indicates the number of schemes that are part of the study for each of the set of guidelines under review.

**Table 5 Case study sample: schemes**

Environmental Aid Guidelines	Regional Aid Guidelines	Agriculture and Forestry	Transport	Total
2	9	7	3	21

As can be seen, a total of 57 selected cases were studied. The results from the analysis of these case studies can be found in Chapter 4.

The analysis of the case studies is based on publicly available information (state aid granting decisions), either downloaded from the DG COMP case website<sup>5</sup> or sent directly to the project team by the Commission<sup>6</sup>. In some cases interviews were used as a means of complementing the information found in the state aid granting decision documents. The selected case studies represent, as far as possible, different sectors such as: energy, transport, water, agriculture and waste/recycling.

The selected case studies were scanned for their potential for environmentally harmful outcomes and/or resource efficiency impacts. Positive examples of how resource efficiency is taken into account were also identified. This step also provided insights into ways in which desirable outcomes can be ensured in the future (i.e. how the respective guidelines could be reviewed).

The analysis of the use and effectiveness of State aid included an assessment of its economic, social and environmental impacts. At present the information collected on these impacts, for the purposes of making a determination of State aid under a 'Standard Assessment' or 'Detailed Assessment', largely concerns itself with the efficiency of the measure in overcoming a market failure (barrier, externality, information asymmetry, etc.) to the delivery of a common interest benefit (which may be related to

<sup>3</sup> When offsetting additional transport costs in the outermost and low population density regions external costs should be taken into account. We will try to look for examples on this (e.g. the type of evidence MSs provided to substantiate this).

<sup>4</sup> Partly based on cases which were not found on the Commission's website but directly sent to the project team.

<sup>5</sup> [http://ec.europa.eu/competition/elojade/iseff/index.cfm?clear=1&policy\\_area\\_id=3](http://ec.europa.eu/competition/elojade/iseff/index.cfm?clear=1&policy_area_id=3)

<sup>6</sup> Only the state aid granting decision documents itself were studied; the underlying dossier was not studied.

economic cohesion, support for disadvantaged groups or regions, or transitions to better functioning markets).

For our case studies, we undertook a brief assessment of economic, social and environmental impacts taking care to consider the impact of the State aid itself (rather than the total impact of the industry or recipient) and compared as far as possible to the counterfactual scenario of no aid given. This takes into account the following considerations:

- Economic:
  - value of the subsidy;
  - scale of benefit (perhaps relative to share of GDP, etc) within the Member State;
  - nature of purpose of aid;
  - economic impact; scale of markets accessed or anticipated as a result.
- Social:
  - socio-economic conditions in the Member State or region in which State aid is given;
  - impact on vulnerable groups and on unemployment (job creation).
- Environmental:
  - impact on natural resource use;
  - greenhouse gas emissions (increase of decrease);
  - change in energy use;
  - other impacts on land, air and water of the increase in activity brought about by the State aid.

The assessment gives an idea of the extent to which costs (direct and indirect) are counterbalanced by social and economic benefits. For example, if a State aid regime is ineffective and environmentally harmful, its 'score' will be relatively negative since environmental costs are insufficiently counterbalanced by social or economic benefits.

## 2.4 Task 3: Methodology for future assessment of resource efficiency

Based on the analysis of the European State aid regime in general (Task 1) and specific case studies (Task 2) conclusions were drawn and a draft set of recommendations were prepared. These recommendations provide an insight into improvements that are deemed necessary to make the resource efficiency argument an integral part of the current State aid guidelines. The recommendations cover:

- Possible options to (better) align the State aid framework with the resource efficiency agenda.
- Tools and methods that can be used to assess measures that promote several Community objectives at the same time, for example, tools and methods which allow underpinning resource efficiency objectives to be included in assessments of applications for State aid promoting regional development.
- Tools and methods that can be used to assess measures relevant to several Community objectives where there is a potential conflict between them, for example, where an aid measure to ensure security of supply or aid promoting regional development of a poor region goes against the low-carbon objectives of energy policy or leads to environmental degradation.

The output of Task 3 is a recommended amendment to the State aid regime in light of the objective to ensure the State aid guidelines are in line with the resource efficiency agenda.

## 3 Review of State aid guidelines

### 3.1 Introduction

This chapter describes the results of the analysis of the State aid regime falling under the scope of the study (Task 1a) and recent policy developments relevant for the environmental State aid guidelines in particular (Task 1b). The EAG are addressed first, including an analysis of recent policy development and the extent to which these are already, or should be, included in the EAG. Following this, the other guidelines are discussed: Regional Aid; Research, Development and Innovation; and Agriculture and Forestry, including a discussion of the relevant policy context.

### 3.2 Assessment of Environmental Aid Guidelines

Under some conditions, State aid can correct market failures thereby improving the functioning of markets and enhancing competitiveness. It can also help to promote sustainable development, irrespective of the correction of market failures<sup>7</sup>. The State Aid Action Plan stresses that environmental protection can provide opportunities for innovation, create new markets, and increase competitiveness through resource efficiency and new investment opportunities. Under some conditions, State aid can be conducive to these objectives, thus contributing to the core Lisbon strategy objectives of more sustainable growth and jobs. Decision No 1600/2002/EC of the European Parliament and of the Council of 22 July 2002 laying down the Sixth Community Environment Action Programme<sup>8</sup> identifies the priority areas for actions to protect the environment<sup>9</sup>.

The EAG were introduced in response to the Energy Action Plan for 2007-2009. The EAG constitute one of the instruments to implement the Action Plan and the environmental aspects of the energy and climate change-related targets decided by the European Council. **The primary objective of State aid control in the field of environmental protection is to ensure that State aid measures will result in a higher level of environmental protection than would occur without the aid and to ensure that the positive effects of the aid outweigh its negative effects in terms of distortions of competition, taking account of the polluter pays principle ('PPP') established by Article 191 of the TFEU.**

In Annex A, a 'fiche' is given which provides details on the content of the EAG. Specific attention is given to the (lack of) attention to resource efficiency (RE), environmental protection (EP) and sustainable development (SD) objectives.

#### 3.2.1 Findings

In the EAG the focus is, understandably, on environmental impacts. In the section addressing the balancing test it is stressed that the relevant common interest objective under the EAG is the protection of the environment.

The EAG mention the possibility of granting State aid to undertakings or investments aimed at:

- Achieving a level of environmental protection going beyond Community standards (e.g. cleaner transport vehicles).
- Increasing the level of environmental protection in the absence of Community standards.
- Early/earlier adoption of future commodity standards.
- (Studying) energy saving, production of renewable energy, cogeneration, district heating and waste management.

<sup>7</sup> State Aid Action Plan, Paragraph 10.

<sup>8</sup> OJ L242, 10.9.2002, P.1.

<sup>9</sup> The priority areas are: climate change, nature and biodiversity, environment and health and natural resources and waste. Health is not covered by these guidelines.

With regard to other resource efficiency considerations attention is given to State aid for energy saving and renewable energy related measures which contribute to a more sustainable energy supply (sustainable development). Also State aid for better waste management is mentioned explicitly. This contributes to the objective of the Sixth Environment Action Programme to ensure that 'EU growth will not lead to more waste' (de-coupling; resource efficiency).

Resource efficiency and environmental protection objectives are already well covered by the EAG, as illustrated by guidance on compatible measures for:

- 3.1.5. Aid for energy saving (RE).
- 3.1.6. Aid for renewable energy sources (RE).
- 3.1.7. Aid for cogeneration (RE).
- 3.1.8. Aid for energy efficiency district heating (RE).
- 3.1.9. Aid for waste management (RE).
- 3.1.10. Aid for the remediation of contaminated sites (EP).

However, the analysis of recent policy developments has identified a number of resource efficiency, sustainable development and environmental protection themes that would benefit from further provisions in the EAG. In the next section an assessment is made with regard to the degree to which recent policy developments (between 2008 and 2011) make it necessary to 'update' the EAG to fully incorporate the content of these policy developments.

### 3.2.2 Recent policy developments

Between 2008 and 2011 several EU policy developments have been identified as relevant to the necessity of updating the EAG (Table 6). Those highlighted in bold were examined in detail.

**Table 6 Policy developments taken into consideration (EAG)**

	Relevant document/policy/regulation	Year
	<i>Renewable Energy</i>	
1.	<b>Energy Roadmap</b>	<b>2011</b>
2.	Renewable Energy Directive (2009/28/EC)	2009
	<i>GHG emissions</i>	
3.	Roadmap for moving to a competitive low carbon economy in 2050	2011
4.	Investing in the Development of Low Carbon Technologies (SET-plan) – A technology Roadmap	2009
	<i>Energy Efficiency</i>	
5.	<b>European Energy Efficiency Plan 2011</b>	<b>2011</b>
	<i>Impact on ecosystems/biodiversity</i>	
6.	<b>2020 EU biodiversity policy and strategy</b>	<b>2011</b>
	<i>Transport</i>	
7.	<b>White paper on the future of transport</b>	<b>2011</b>
	<i>Resource efficiency</i>	
8.	Flagship Initiative for a Resource Efficient Europe	2011
9.	<b>Roadmap for a resource-efficient Europe</b>	<b>2011</b>
10.	Tackling the challenges in commodity markets and on raw materials	2011

Below an assessment is provided of the degree to which the EAG need updating as a consequence of these policy developments. A more detailed assessment is presented in Annex K.

Most provisions in the recent policy developments are addressed in the current EAG. However, it is strongly recommended that biodiversity and ecosystem services (including marine, land use and soils), along with the efficient use of minerals and metals, are given increased prominence in the updated EAG. Additionally, the EAG could be updated to contain more explicit references to air quality and the energy efficiency of buildings.

### **EU biodiversity strategy to 2020**

The Biodiversity Strategy calls for protection of global biodiversity. The EAG currently do not contain provisions for assessing the impact of State aid measures on biodiversity and ecosystem services. Indeed market failure for goods and services provided by biodiversity is one of the main reasons behind their unsustainable use and the high losses of biodiversity currently being experienced (Brauer et al, 2006<sup>10</sup>). The State aid guidelines have a crucial role to play in screening out subsidies which result in the loss of biodiversity or ecosystem services, thereby helping to correct this market failure. Without provisions for protection of biodiversity and ecosystem services, State aid could be granted for measures which cause harm to these critical resources. It is therefore recommended that the EAG are updated to include guidance on assessing the impact of State aid measures on biodiversity and ecosystem services. The following are examples of questions that could be asked during the assessment of aid measures (e.g. in the supplementary information sheet for State aid for environmental protection).

- Is the aid for a measure within, or close to, a designated site (e.g. Special Area of Conservation, Special Protected Area, Ramsar or UNESCO biosphere reserve)?
- Are any European protected species present on or around the affected site?
- Is biodiversity going to be negatively impacted by construction or operation resulting from State aid?
- Will the aid measure help to conserve biodiversity or ecosystem services (e.g. remediation of contaminated land)?

The EAG should contain provisions for aid measures that address challenges to biodiversity and ecosystem services (e.g. those that foster investments in natural capital and strengthen ecosystem resilience (including by contributing to climate change adaptation)). Aid measures should be able to seize the growth and innovation potential of green infrastructure. The Roadmap to a resource-efficient Europe also identifies ecosystems and biodiversity as being under pressure and in need of support, and the Biodiversity Strategy calls for protection of global biodiversity. The State aid guidelines have an important role to play in screening out subsidies which result in the loss of biodiversity or ecosystem services, thereby helping to correct the market failure. It is therefore strongly recommended that biodiversity and ecosystem services (including marine, land use and soils) are given increased prominence in the updated EAG. Aid measures with a positive impact on biodiversity and ecosystem services could be used to improve knowledge of the links between biodiversity and climate change mitigation and adaptation, which is identified as a key research gap in the EU biodiversity strategy. In light of this, the R&D&I Guidelines could be updated to include a provision for contributions to ecosystem services-related research. In a similar vein, Agriculture and Forestry Guidelines should take account of impacts on ecosystem services.

### **Roadmap to a resource-efficient Europe (2011)**

The Roadmap to a resource-efficient Europe also identifies ecosystems and biodiversity as being under pressure and in need of support. As identified above, the EAG currently do not contain provisions for assessing the impact of State aid measures on biodiversity and ecosystem services. The State aid guidelines have an important role to play in screening out subsidies which result in the loss of biodiversity or ecosystem services, thereby helping to correct the market failure. Therefore the recommendation to increase the prominence of biodiversity and ecosystem services (including marine, land use and soils) in the updated EAG is reiterated. The Roadmap to a resource efficient Europe aims for more efficient use of minerals and metals, especially in the context of resource

<sup>10</sup> Brauer, I, Mussner, R, Marsden, K, Oosterhuis, F, Rayment, M, Miller, C and Dodokova, A (2006) The Use of Market Incentives to Preserve Biodiversity. A project under the Framework contract for economic analysis ENV.G.1/FRA/2004/0081 <http://ec.europa.eu/environment/enveco/biodiversity/pdf/mbi.pdf>

efficiency and waste prevention. Specific risks in the efficient use of minerals and metals include security of supply, technical challenges and skills shortages (see Raw Materials Initiative<sup>11</sup> for more information). The Roadmap states that as we move towards a genuinely consumption based, sustainable materials management or a "circular economy", where waste becomes a resource, a more efficient use of minerals and metals will result. To assist in the transition to a "circular economy", the EAG should contain provisions for the efficient use of minerals and metals in the waste management sections (1.5.8 and 3.1.9). These provisions could include requesting applicants to identify how life-cycle impacts will be taken into account, and the extent to which the aid will contribute to improved research and innovation, and improved market structures.

The Roadmap also states that clean air is a precious resource. Several air quality standards are widely exceeded in the EU's most densely populated areas, especially from the most problematic pollutants such as particulate matter, ground-level ozone, and nitrogen dioxide. Despite significant efforts to reduce polluting emissions, current concentrations of fine particles cause 500 000 premature deaths each year<sup>12</sup> in the EU and immediate neighbourhood. Other studies have shown that the number of working days lost due to air pollution induced illnesses is higher than the working days required to pay for additional pollutant abatement measures. Significantly, ecosystems and agriculture also suffer damage from airborne impacts such as acidification, eutrophication and ozone damage to vegetation. The annual economic cost in 2020 has been estimated at EUR537 bn<sup>15</sup>.

Better implementation of existing legislation and new, science-based standards would help address these problems and steer innovation. With appropriate lead-times, these can ensure air quality benefits from transition to a low-carbon economy, and by other actions in the Roadmap, for example through reductions in waste, through more efficient production methods, as well as action in agricultural policy and the transport sector.

Currently the EAG only addresses air quality in relation to cogeneration and aid for district heating (DH) (1.5.7). The EAG also state "State aid may be an appropriate instrument only for those uses of renewable energy sources where the environmental benefit and sustainability is evident" which could include improved air quality, but this is not communicated explicitly. State aid could also be provided for air quality measures under section 1.5.1 "aid for undertakings which go beyond Community standards or which increase the level of environmental protection in the absence of Community standards".

The only explicit reference to air quality is in relation to cogeneration and district heating, but measures could also be justified under S 1.5.1 if they go beyond Community standards. It is recommended that the guidelines are updated with more explicit references to air quality and not limited to district heating.

The Roadmap identifies marine resources as being in need of protection. The Guidelines could be updated to take account of the sensitivity of marine resources (including biodiversity and ecosystems). In other guidelines, the impact of State aid measures on coastal resources should be assessed (e.g. using spatial planning instruments for marine areas so that pressures resulting from State aid measures are negated, such as discharging pollutants from freshwater into the sea).

## Energy Roadmap 2050

The Energy Roadmap 2050 aims for considerably better energy efficiency of buildings, and argues that nearly zero energy buildings should become the norm. S1.5.5. of the EAG already covers aid for energy savings; a reference to the potential of buildings to contribute to energy savings could be included here to support the priorities set out in the Energy Roadmap 2050. It would be helpful also to cross reference with the R&D&I Guidelines, to assess if and how State aid can contribute to research and innovation in this area. The EU is committed to reducing greenhouse gas emissions to 80-95% below 1990 levels by 2050. The EAG must be updated to reflect this.

In addition, recent policy developments highlight the need for the EAG to give more thorough consideration to the impact of State aid on water efficiency and quality (e.g. by promoting better demand management through economic instruments (pricing, water allocation), as well as research and innovation surrounding the use of labelling and certification schemes measuring life-cycle impact and the virtual water content of products).

<sup>11</sup> <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2008:0699:FIN:en:PDF>

<sup>12</sup> Assessment of Health-Cost Externalities of Air Pollution at the National Level using the EVA Model System, J. Brandt et al., CEEH 2011.

Finally the EAG stipulate that State aid for relocations of undertakings must be dictated by environmental protection/prevention and must comply with strictest environmental standards. In line with this, there could be a need for a section on State aid for prevention of soil erosion and/or soil quality improvement.

To take all of these recommendations on board, the Commission could consider requesting the applicant to submit the results of the environmental impact assessment (EIA). This will only be possible in case an EIA obligation exists and the results of this EIA are available when applying for State aid consent. Alternatively, the Commission could consider the inclusions of checklist provisions to the EAG. These provisions would oblige applicants to provide a list of the benefits expected to arise from State aid measures or to indicate that there are no risks with regard to environmental harmful subsidies (minimum requirements). For example, the applicant could be obliged to conform that measures will not result in net biodiversity loss; contribute to the protection of ecosystem services; minimise water consumption and the impact on water bodies and water quality; lead to a reduction in greenhouse gas emissions; result in an improvement in air quality, etc. In Annex M an example is provided of what these checklist provisions could look like<sup>13</sup>.

### 3.3 Regional aid

National regional investment aid is designed to assist the development of the most disadvantaged regions by supporting investment and job creation. It promotes the expansion and diversification of the economic activities of enterprises located in the less-favoured regions by encouraging firms to set up new establishments there. By addressing the handicaps of the disadvantaged regions, national regional aid promotes the economic, social and territorial cohesion of Member States and the European Union as a whole. This geographical specificity distinguishes regional aid from other forms of horizontal aid (such as aid for research, development and innovation, employment, training or the environment, which pursue other objectives of common interest in accordance with Article 107(3) of the TFEU).

The regional development aid may be applied, if the region has a per capita gross domestic product (GDP), measured in purchasing power standards (PPS), of less than 75 % of the Community average.

As a general rule, regional aid should be granted under a multi-sectoral aid scheme which forms an integral part of a regional development strategy with clearly defined objectives. It is the responsibility of the Member State to demonstrate that the project contributes towards a coherent regional development strategy and that, having regard to the nature and size of the project, it will not result in unacceptable distortions of competition. Large enterprises and SMEs can be recipients of regional aid.

These Regional Aid Guidelines are applicable to regional aid granted in every sector of the economy apart from the fisheries sector and the coal industry, which are subject to special rules (laid down by specific legal instruments). As well, guidelines foresee, that certain types of activity, such as steel production, synthetic fibres production, or primary agricultural production (with exception of processing and marketing of agricultural products) are excluded from regional development aid. In addition, some other sectors (namely, transport and shipbuilding) are also subject to specific rules which take account of the particular situation of the sectors concerned.

In Annex B to this report a 'fiche' is given which goes into the details of the content of the Regional Aid Guidelines. Specific attention is given to the (lack of) attention to resource efficiency issues. Below these review findings are summarised.

#### 3.3.1 Findings

In the Regional Aid Guidelines, the focus is mainly on the economic impacts. Considerations with regard to impacts on the environment and resource efficiency are only present in the evaluation of transport projects, which are required to take external costs into account.

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<sup>13</sup> This draft checklist was inspired by the environmental and social screening process of the European Investment Bank (EIB) and feedback from Latvian officials (interview).

The aim of national regional aid is to promote the economic, social and territorial cohesion of Member States. Also the selection criteria for State aid to eligible regions are based only on economic and social criteria, such as GDP per capita, unemployment level and population density. The assumed/described impact of regional aid on environmental protection or resource efficiency is however very limited. The only provision regarding environmental protection is the fact 'aid (partly) aimed at offsetting additional transport costs has to meet the criterion that the cost estimate should take into account the external costs to the environment'. To prevent deterioration of environmental protection and resource efficiency, provisions on this matter should be included.

### 3.4 Research, development and innovation aid

Promoting R&D&I is an important objective of common interest. Article 179 of the Treaty of the Functioning of the European Union (TFEU) stipulates that 'The Community shall have the objective of strengthening the scientific and technological bases of Community industry and encouraging it to become more competitive at international level, while promoting all the research activities deemed necessary ...'. Articles 164 to 189 of the Treaty of the Functioning of the European Union determine the activities to be carried out in this respect and the scope and implementation of the multi-annual framework programme.

The objective is through State aid to enhance economic efficiency and thereby, contribute to sustainable growth. Therefore, State aid for R&D&I shall be compatible if the aid can be expected to lead to additional R&D&I and if the distortion of competition is not considered to be contrary to the common interest, which the Commission equates for the purposes of this framework with economic efficiency. **The aim of this framework is to ensure this objective and in particular, to make it easier for Member States to better target the aid to the relevant market failures.**

In Annex C to this report a 'fiche' is given which goes into the details of the content of the R&D&I Guidelines. Specific attention is given to the (lack of) attention to resource efficiency issues. Below these review findings are summarised.

#### 3.4.1 Findings

The R&D&I Guidelines take resource efficiency, environmental protection and sustainable development into account, but improvements in this respect are possible.

In the guidelines it is mentioned that the framework applies to State aid for R&D&I in the environmental field and that synergies of innovation for quality and performance may optimise energy use, waste and safety. Resource efficiency is not explicitly mentioned, but might be indirectly taken into account by the fact that (granted) State aid should be targeted at market failures. However, no criteria or further conditions with respect to environmental protection are mentioned.

With respect to sustainable development, the Commission states the objective of the framework is to enhance economic efficiency and thereby contributing to sustainable growth. It is considered that an increase in R&D&I may contribute to growth, prosperity and sustainable development. These statements could however be stated in much more detail and applied as framework criteria for allowing State aid for a particular project. This is to prevent State aid granting to projects which might have a (too) negative effect on environmental protection and resource efficiency.

Furthermore, in the R&D&I Guidelines a balance test is required that balances the positive impact of the aid measure in reaching an objective of common interest against its potentially negative side effects. However, the test only considers the negative effects regarding distortion of trade and competition, not on the environment, resource efficiency or sustainable development.

### 3.5 State aid related to agriculture and forestry

The objectives of the common agricultural policy are defined in Article 39 of the TFEU. An important pillar of the common agricultural policy is rural development. In Article 88 of Regulation (EC) No 1698/2005, it is expressly provided that aid should be granted by Member States to support rural development. To ensure coherence with the several rural development measures, the guidelines for agriculture and forestry includes aids for investments, environmental and animal welfare aid, aid to compensate for handicaps in certain areas, aid for meeting standards, and aid for the setting up of young farmers.

Furthermore, State aid is granted to compensate for damage to agricultural production or the means of agricultural production and to rescue and restructure firms in difficulty. This could be for example compensation for damage caused by natural disasters, adverse weather conditions or combating animal and plant diseases. These guidelines apply to all State aid, granted in connection with activities related to the production, processing and marketing of agricultural products falling within the scope of Annex I of the TFEU. These guidelines do not apply to State aid in the fisheries and aquaculture sector. Also export related activities are not eligible for aid.

With respect to forestry, the commission has accepted State aid for measures promoting the maintenance of the forest environment including plantation, felling and pruning of trees or removing fallen trees, phytosanitary measures and soil improvement. Such aid should continue to be accepted in the future where the Member State can show that they contribute to increasing long-term forest cover and maintaining or restoring biodiversity and a healthy forest ecosystem and the protective function of forests. To contribute to the maintenance and improvement of forests and to promote their ecological, protective and recreational function the Commission will declare State aid up to 100 % compatible with Article 107(3)(c) of the TFEU when it is demonstrated that these measures are directly contributing to maintaining or restoring ecological, protective and recreational functions of forests, biodiversity and a healthy forest ecosystem.

In Annex D to this report a 'fiche' is given which goes into the details of the content of the Agriculture and Forestry Guidelines. Specific attention is given to the (lack of) attention to resource efficiency issues. Below these review findings are summarised.

### 3.5.1 Findings

In the Agriculture and Forestry Guidelines, the objective of environmental protection is well defined. It is clearly stated that environmental protection requirements must be integrated into the definition and implementation of the policies and activities, with reference to the community guidelines for environmental protection (e.g. on page 4-22 (General Principles) it is mentioned):

...'in the case of an aid scheme for investments which are intended to increase production, and which involve an increased use of scarce resources or an increase in pollution, it will be necessary to show that the **scheme will not result in an infringement of Community environmental protection legislation, or otherwise cause environmental damage**. All State aid notifications should in future contain an assessment of the expected environmental impact of the activity aided. In many cases, this will involve no more than a confirmation that there is no expected environmental impact. **The Commission reserves the right to require additional information, undertakings and conditions it deems necessary for ensuring adequate environmental protection.**'

It even requires that all State aid notifications should contain an assessment of expected environmental impact. However, impacts on resource efficiency and sustainable development are stated less clearly and reference to these impacts could be improved.

## 3.6 Assessment of relevant policy context for the Regional Aid, R&D&I and Agriculture and Forestry Guidelines

The analysis of recent policy developments relevant for the EAG in Task 1b (section 3.2.2) has highlighted six resource efficiency themes which require careful consideration in respect of the other guidelines under study, namely the Regional Aid Guidelines, R&D&I Guidelines and Agriculture and Forestry Guidelines. These six resource efficiency themes are:

1. Energy efficiency.
2. Renewable energy.
3. Ecosystems and biodiversity.
4. Land use.
5. Water.
6. Eco-innovation.

The relative importance of each of these themes varies for each of the set of guidelines (see Table 7). For the Regional Aid Guidelines and Agriculture and Forestry Guidelines, environmental protection and sustainable development are the most relevant objectives, whereas resource efficiency and sustainable development are deemed the most relevant objectives for the R&D&I Guidelines.

**Table 7 Priority themes for each of the horizontal guidelines analysed and summary of extent to which they are already addressed by the horizontal guidelines**

Regional Aid Guidelines	Addressed	R&D&I Guidelines	Addressed	Agriculture and Forestry Guidelines	Addressed
Ecosystems and biodiversity	No	Environmental research, development and innovation	No	Ecosystems and biodiversity	Yes
Land-use	No	Energy efficiency	No	Land use	Yes
		Renewable energy	No	Water	Yes

These themes are covered extensively in the policy developments (Energy Roadmap (2011); European Energy Efficiency plan (2011); 2020 European Biodiversity policy and strategy; White Paper on the future of transport (2011) and Roadmap for a resource efficient Europe). This section explores the extent to which the Regional Aid Guidelines, R&D&I Guidelines and Agriculture and Forestry Guidelines reflect resource efficiency, environmental protection and sustainable development themes covered in recent policy developments, and the relative importance of each theme to the set of guidelines concerned.

### 3.6.1 Regional Aid Guidelines

National regional investment aid is designed to assist the development of the most disadvantaged regions by supporting investment and job creation. Environmental protection and sustainable development themes are of particular relevance to the Regional Aid Guidelines because environmental protection has an economic dimension as well. A clean environment makes a region more attractive to investors who are increasingly aware of customer demand for positive environmental credentials. Protecting natural resources also contributes to sustainable growth and long-term competitiveness providing benefits for regional investment.

Despite this, resource efficiency, environmental protection and sustainable development are not primary objectives of the Regional Aid Guidelines; the only provision regarding environmental protection is that *“aid (partly) aimed at offsetting additional transport costs has to take into account the external costs to the environment”*. The main focus of the Regional Aid Guidelines is on economic impacts and the selection criteria for regional aid measures are based only on economic and social criteria such as GDP. Environmental protection and resource efficiency considerations are very limited. To prevent deterioration of environmental protection and resource efficiency, relevant selection criteria should be included. In particular, the Regional Aid Guidelines should contain provisions to mitigate negative impacts (and promote positive impacts) on ecosystems and biodiversity and land use.

The Roadmap for a resource-efficient Europe (2011) and EU Biodiversity Strategy to 2020 contain goals for protecting natural resources, biodiversity and ecosystems services. S.6.1 of the Roadmap states that taking natural resources such as water quality and availability into account would *“reinforce new sources of sustainable growth and strengthen competitiveness in the longer term.”* Because biodiversity and ecosystem services are treated as ‘free’ commodities, their economic value is not properly accounted for on the market and they continue to be overly depleted or polluted threatening long-term sustainability and resilience to environmental shocks (S.4.1 of the Roadmap). To contribute to the EU’s goals of a) halting biodiversity loss and ecosystem degradation; and b) fully valuing natural capital and ecosystem services by 2020, the Regional Aid Guidelines should contain

provisions which ensure the impact of aid measures on the local natural environment is taken into account.

Land-use is nearly always a trade-off between social, economic and environmental needs. Decisions on land use are long term commitments which are difficult or costly to reverse. At the moment, these decisions are often taken without proper prior analysis of such impacts, for example through a Strategic Environmental Assessment. Any regional aid measures should undergo a high-level assessment to ensure that long-term, irreversible impacts on land-use are avoided.

***The Regional Aid Guidelines should contain criteria to assess the impact of regional aid on the natural environment and sustainable development, particularly in relation to ecosystems, biodiversity and land use.***

In Annex M a checklist is given which could serve as an example of those questions relevant to ask Member States in the State aid granting application process.

### 3.6.2 R&D&I Guidelines

The R&D&I Guidelines have given resource efficiency, environmental protection and sustainable development only slight attention (e.g. considering that State aid innovation measures may lead to optimal energy use and waste levels). It is thought that an increase in R&D&I may contribute to sustainable development, including more jobs and greater prosperity, however more detail should be provided and criteria should be introduced to prevent State aid being granted for projects which have a negative impact on resource efficiency and environmental protection.

Environmental research, development and innovation will be key to a low-carbon, sustainable society, ranging from incremental change to major technological change. In addition, a “comprehensive and credible knowledge base” relating to environmental impacts of different pressures is required (s. 3.3, Roadmap for a resource-efficient Europe, 2011). In light of this, criteria should be introduced to the R&D&I Guidelines to assess the extent to which State aid measures contribute to environmental research, development and innovation.

Innovation is a central component of the Roadmap to a Single European Transport Area (2011). Section 3 of the Roadmap states “EU research needs to address the full cycle of research, innovation and deployment in an integrated way through focusing on the most promising technologies...innovation can also play a role in promoting more sustainable behaviour”. Article 3 of Regulation (EEC) No 1107/70 on the granting of aids for transport by rail, road and inland waterway provides special rules for the compatibility of State aid to R&D in the sector of transport by rail, road and inland waterway. It is important to ensure provisions for innovation in the transport sector are updated in light of European policy developments.

The Energy Roadmap 2050 contains the provision for investment in energy efficient technology (including renewable energy) in light of the projected increases in the average capital costs of the energy system. Investments are needed in, for example, power plants and grids, industrial energy equipment and heating and cooling systems (including district heating and cooling) and local renewable energy schemes. These investments would have a widespread impact on the economy and jobs in manufacturing, services, construction, transport and agricultural sectors, creating opportunities for European industry and service providers to satisfy an increasing demand. This stresses the importance of research and innovation which develops more cost-competitive technologies. The R&D&I Guidelines acknowledge that State aid for R&D&I in the environmental field can lead to energy efficiency, however a balance test criterion could be introduced to the R&D&I Guidelines to encourage research, development and innovation specifically in energy efficient (including renewable energy) technology.

***Overall, the R&D&I Guidelines should include specific criteria (in the balance test, for example) to ensure that State aid for R&D&I contributes to resource efficiency, sustainable development and environmental protection.***

In Annex M a checklist is given which could serve as an example of those questions relevant to ask Member States in the State aid granting application process.

### 3.6.3 Agriculture and Forestry Guidelines

The objective of environmental protection is well defined in the Agriculture and Forestry Guidelines. It is stated that environmental protection must be integrated into policies and activities: “the scheme will

*not result in an infringement of Community environmental protection legislation, or otherwise cause environmental damage*" (page 4-22, General Principles). However impacts on resource efficiency and sustainable development as such are less clearly defined; ecosystems and biodiversity, land-use and water are of particular relevance to the Agriculture and Forestry Guidelines, given their interdependence.

The Roadmap for a resource-efficient Europe (2011) contains a milestone that by 2015, good status (quality, quantity and use) of waters is attained in all EU river basins. Additionally, the impacts of droughts and floods should be minimised, with adapted crops, increased water retention in soils and efficient irrigation. Alternative water supply options should only be relied upon when all cheaper savings opportunities have been exhausted. Water abstraction should stay below 20% of available renewable water resources (S.4.4).

The Agriculture and Forestry Guidelines already take into account that water scarcity may increasingly become a determining feature of agricultural production in certain parts of Europe. Furthermore, agriculture and forestry cases are closely related to the Common Agriculture Policy (CAP). The aim of the CAP is to provide farmers with a reasonable standard of living, consumers with quality food at fair prices and to preserve rural heritage.

Farmers and Member States must actively contribute to good water management in order to mitigate the effect of drought. The Agriculture and Forestry Guidelines prescribe that *"no compensation for drought should be authorised in Member States that have not fully implemented Article 9 of Directive 2000/60/EC in respect of agriculture, and do not ensure full recovery of the costs of water services provided to agriculture"* (V.B.3.1, 125). Additionally, the guidelines permit aid for investment in specific agricultural products and in respect of drainage works or irrigation equipment and irrigation works as long as they *"do not lead to a reduction of previous water use of 25%"* (IV.A.2.). Therefore, the guidelines already contain provisions that prevent state aid being granted to projects that might be harmful with respect to water quality and excessive water consumption.

In relation to forestry, the guidelines stipulate that to contribute to the maintenance and improvement of forests and to promote their ecological, protective and recreational function the Commission will declare State aid up to 100 % compatible with Article 107(3)(c) of the Treaty of the Functioning of the European Union for *"maintaining and improving the soil quality in forests and ensuring balanced and healthy tree growth"* as long as the Member State can demonstrate that these measures are directly contributing to maintaining or restoring ecological, protective and recreational functions of forests, biodiversity and a healthy forest ecosystem. Aid is also permitted for the cost of purchasing forestry land used or to be used as nature protection areas. Thus the guidelines already contain suitable provisions for considering the impact of aid measures on biodiversity, ecosystems and soil quality.

***Article 11 of the TFEU provides that 'environmental protection requirements must be integrated into the definition and implementation of the Union's policies and activities, in particular with a view to promoting sustainable development.' All State aid notifications should in future contain an assessment of the expected environmental impact of the activity aided.***

### 3.7 Conclusions: review of State aid guidelines

In this chapter, we analysed the degree to which resource efficiency, environmental protection and sustainable development considerations have (already) been given sufficient weight in the guidelines under study. For the EAG in particular an assessment was made whether recent policy developments in the field of resource efficiency have been included in the guidelines so that activities in this field qualify for State aid under these guidelines.

Table 8 gives an overview to what extent the guidelines address the impacts of activities supported by State aid with respect to environmental protection, sustainable development and resource efficiency.

**Table 8 Overview: consideration of environmental protection, sustainable development and resource efficiency in State aid guidelines**

Guidelines	Environmental protection	Sustainable development	Resource efficiency
Environmental Aid	Orange	Orange	Orange
Regional Aid	Red	Orange	Red
R&D&I	Orange	Orange	Orange
Agriculture and Forestry	Green	Red	Red

Green = impact is sufficiently taken into account.

Orange = impact is not sufficiently taken into account (improvements seem possible).

Red = impact is not taken into account.

### 3.7.1 Environmental Aid Guidelines

In the EAG, the emphasis lies on the environmental impacts of State aid measures. The EAG especially mentions the possibility to grant State aid to measures which go beyond Community environmental standards or which provide a solution for lack thereof. With regard to other resource efficiency (RE) considerations attention is given to State aid for energy saving and renewable energy related measures which contribute to a more sustainable energy supply (sustainable development). Also State aid for better waste management is mentioned explicitly. This contributes to the objective of the Sixth Environment Action Programme to ensure that ‘EU growth will not lead to more waste’ (de-coupling; resource efficiency). However, there should be room to broaden the scope of the EAG to other, non-environmental, RE-considerations (as well as sustainable development and environmental protection considerations) beyond the field of waste management and the energy supply.

With regard to the analysis of recent policy developments it is clear that the EAG should be updated to incorporate wider RE-related developments, specifically:

- Guidance for assessing projects aiming to improve biodiversity, natural capital and ecosystem services, including marine resources, fresh water, land and soils.
- Integration of impacts on minerals and metals into the waste management section of the EAG.
- Promotion of aid for investment in energy systems (not exclusively district heating), including the need for research and innovation.
- Promotion of aid for construction and investment in energy efficient buildings (for example the Guidelines could mention the role of buildings in contributing to energy savings in S 1.5.5).
- The guidelines must be updated to reflect the new greenhouse gas emission target for 2050.

The EAG contains generic references to environmental and sustainability benefits (see for example Section 1.2 (6) of the EAG)<sup>14</sup>, it is recommended that a list of the impacts expected from State aid measures is provided (e.g. no net biodiversity loss, protection of ecosystem services, minimising water consumption/impact on water bodies and water quality, reduction in greenhouse gas emissions, improvement in air quality).

In Chapter 5, recommendations on how to improve the guidelines on the above mentioned points are given.

### 3.7.2 Regional Aid Guidelines

For the Regional Aid guidelines we conclude that they focus on the economic and social impacts of measures concerned, while the impact on the environment, sustainable development and resource efficiency are not addressed. Addressing these impacts, particularly in relation to ecosystems,

<sup>14</sup> “The primary objective of State aid control in the field of environmental protection is to ensure that State aid measures will result in a higher level of environmental protection than would occur without the aid”

biodiversity and land-use, would help prevent deterioration and would make it possible to better balance the different objectives of Common interest.

### **3.7.3 R&D&I Guidelines**

The R&D&I Guidelines take resource efficiency, environmental protection and sustainable development only to a limited extent into account. The provisions could be stated in more detail, for example in the balancing test, and applied as framework criteria for allowing State aid for a particular project. This to prevent State aid granting to projects which might have a (too) negative effect on environmental protection and resource efficiency.

### **3.7.4 Agriculture and Forestry Guidelines**

In the Agriculture and Forestry Guidelines, environmental protection is well defined and could serve as a role model for the other guidelines. However, impacts on resource efficiency, sustainable development as well as social and economic impacts are less stated clearly and could be improved.

## 4 Task 2: Case studies

### 4.1 Introduction

This chapter presents the results from the examination of 56 case studies. In Annex E an overview is given of the case studies selected for analysis. For each of the guideline documents studied, firstly the individual applications and ad-hoc cases are discussed to determine the extent to which resource efficiency considerations can be found in the information provided. Secondly, a number of schemes are analysed. Schemes differ from ad hoc and individual application cases in the sense that they have an abstract and general character, and on this basis aid is granted to the undertakings without needing to notify individually to the Commission. The selected schemes have been analysed with regard to the question *how* multiple objectives of common interest are balanced. Also, if a national measure (scheme) goes beyond or introduces stricter and/or more elaborated criteria compared to those required in the guidelines, this could be useful information. It might explain results in favour of the environmental and resource efficiency point of view and could be an inspiration for other Member States as well as for the review of the State aid framework.

### 4.2 Environmental Aid Guidelines

#### 4.2.1 General findings individual application/ad-hoc cases and schemes

In the five individual application/ad-hoc cases and the two schemes studied under the EAG, the environmental impacts of State aid measures are well accounted for. This is to be expected given that the primary objectives of the cases and schemes are resource efficiency, environmental protection and sustainable development. Due to the balancing test criteria, economic impacts are also accounted for. On the contrary, the guidelines promote limited consideration of social impacts. In the case studies, the social impacts (and to an extent the economic impacts) have been inferred based on the Commission's assessments of the cases and schemes. See Annex F for the full analysis of the individual application/ad-hoc cases and schemes.

All aid measures are assessed in a methodological manner according to the balancing test criteria laid out in the EAG. To this end the guidelines provide an effective and thorough assessment tool for considering environmental impacts but less so for considering economic and social impacts. Indeed, of the three Member States contacted and spoken to<sup>15</sup>, all three conducted their assessments in strict accordance with the EAG and did not use elaborated criteria. However in Austria, since 2012 there is a national elaborated set of criteria within the cost-effectiveness-analysis (CEA). This set of criteria is now obligatory when applying for national funding<sup>16</sup>.

Based on these findings, the following recommendations for the improvement of the EAG are made:

- Update the guidelines to encourage assessment of the social impacts of aid measures; although the environment should remain the number one priority.
- Improve communication of the wider economic impacts (e.g. job creation, local income, and consumer cost savings), as these are already typically considered due to the balancing test criteria.
- Introduce explicit links in the EAG to the regional aid guidelines (RAG) and the R&D&I guidelines since common interests are evident, e.g. environmental protection and sustainable development are of relevance to the RAG guidelines because a clean environment makes a region more attractive to investors. This (introducing cross-references) can also be seen as a more general recommendation, relevant for all of the guideline documents.
- Develop an "impact assessment" methodology (or checklist) which would allow the negative environmental, social and economic impacts of aid measures to be assessed. Additionally it is

<sup>15</sup> UK, Estonia, Austria and Finland were contacted regarding state aid cases and schemes.

<sup>16</sup> Unfortunately following a written directive of the Austrian Federal Ministry of Environment we were unable to obtain further information about case N135/210.

recommended that the case assessments should consider as far as possible the magnitude, severity and likelihood of impacts occurring, as well as whether the impacts are short-term, long-term, reversible or irreversible.

For more information see Task 1b on the assessment of policy developments – other guidelines.

## 4.2.2 Examples of (lack of) resource efficiency considerations (individual application/ad-hoc cases)

### *Environmental impacts*

In some cases the environmental impacts are described in more detail than others (e.g. reconstruction of district heating infrastructure in Estonia (N707/2007)). In one case, “Tax exemption and subsequent tax rate reduction for the pilot manufacture of NExBTL (Next Generation Biomass to Liquid)” in Finland (N58/2008) the environmental impact is uncertain. This is expected given that the objective is to analyse the technical viability, and the environmental benefits in terms of avoided NO<sub>x</sub>, CO, CH<sub>4</sub>, CO<sub>2</sub> and particle emissions in public transport and waste collection sectors owing to the fact that the fuel is new. Despite this, the case presents details of how the negative impacts of the aid measure are mitigated (e.g. the life cycle and the origin of the feed stocks are known to the beneficiary).

An example of a case that describes environmental impacts in more detail is N707/2007 involving the reconstruction of district heating infrastructure in Estonia. The case assessment details the expected energy and fuel savings, and the associated reductions in pollutants (dust, SO<sub>2</sub>, NO<sub>x</sub>, CO and CO<sub>2</sub>).

The Estonian authorities advised that, based on the EAG and supplementary information sheet on state aid for environmental protection<sup>17</sup>, the following questions were asked about the case:

3.1.1 What are the energy savings expected as a result of the ad hoc aid or aid scheme? Is the amount of the expected savings assessed by an independent expert? Please give examples of eligible investments.

3.1.2 What are the CO<sub>2</sub> savings expected as a result of the ad hoc aid or aid scheme?”

The beneficiary AS Sillamäe SEJ did not have to undertake the assessment of energy savings or CO<sub>2</sub> savings when compiling the state aid notification process as they had the calculations already. This might be because the rules of the Norwegian Financial Mechanism (NFM) required such calculations while submitting the application for assistance – the project was implemented under the priority area “Protection of Environment” of NFM which aimed at the reduction of pollution and promotion of renewable energy.

The case could be improved by including an assessment of the impacts on water use, ecosystems and biodiversity. Secondary impacts such as the impacts on noise pollution and traffic/number of vehicles gaining access to the site during the construction should also be considered. Although this case is held up as a good example, all the cases examined to date have assessed environmental impacts to a good level of detail.

### *Social and economic impacts*

In the environment cases studied to date, social and economic impacts are rarely addressed in any detail. However given that the primary objective of State aid control in the field of environmental protection is to ensure that State aid measures will result in a higher level of environmental protection than would occur without the aid, it is unsurprising that the case assessments do not focus more on the social and economic impacts of the aid measure. Despite this, the State Aid Action Plan stresses that environmental protection can provide opportunities for innovation, create new markets and increase competitiveness through resource efficiency and new investment opportunities. Under some conditions, State aid can be conducive to these objectives, thus contributing to the core Lisbon strategy objectives of more sustainable growth and jobs. In this respect, it is recommended that social impacts should be a consideration of all applications for state aid, and that the environmental aid guidelines should include provisions for social and economic impacts. However, the environment should remain the number one priority.

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<sup>17</sup> Annex I – Part III. 10 Supplementary Information sheet on state aid for environmental protection  
[http://ec.europa.eu/competition/state\\_aid/legislation/forms.html](http://ec.europa.eu/competition/state_aid/legislation/forms.html)

A positive example of where social impacts were taken into account is in the assessment of Estonian case N707/2007. The beneficiary promised to reflect the possible cost savings due to the reconstruction of pipeline in the consumer's heating price. The heating price had (and still has) to be agreed with the Estonian Energy Market Inspectorate (currently Competition Board).

Social impacts are rarely explicit; however the aid measures and schemes are likely to lead to positive social impacts, e.g. improved aesthetic and recreational amenity of formerly contaminated sites, as well as the related health benefits that ensue. This can also lead to community pride whereby residents are more likely to pursue further environmental protection/resource efficiency measures. Demand for research, development and innovation, e.g. Finland (N58/2008), can also enhance social cohesion.

Economic impacts are considered in relation to the balancing test criteria but the cases do not explicitly address the economic impacts of the aid measure. It is possible for these impacts to be inferred, e.g. job creation and income generation. Cases centring on research, development and innovation may have a positive effect whereby the community/region develops a reputation of excellence thus making it attractive to other research institutions.

### 4.2.3 Connection of Environmental Aid cases to the guidelines (EAG)

The environmental aid guidelines support a wide range of resource efficiency objectives (refer to Task 1b Policy Analysis for a full discussion of areas that are and are not covered by the guidelines). The balancing test criteria promote aid cases relating to resource efficiency objectives, e.g. incentives for companies to achieve higher environmental protection that goes beyond mandatory standards, and for aid cases which lead to significantly quicker implementation of newly adopted Community standards which are not yet in force, thus contributing to reducing pollution at a faster pace than would have been the case without the aid. The environmental aid guidelines were designed to lead to a higher level of environmental protection than would occur without the aid and to ensure that the positive effects of the aid outweigh its negative effects in terms of distortions of competition, taking account of the polluter pays principle ('PPP') established by Article 191 of the TFEU.

As a result, it is not surprising that environmental cases contribute to higher resource efficiency and environmental protection. From the three interviews (including the WRAP scheme), it is clear that the assessments were carried out in strict accordance with the EAG. In all cases, assessments are linked to the balancing test criteria in the environmental aid guidelines which relate to environmental and economic impacts.

Investment in cases which promote resource efficiency or environmental protection leads to a positive impact on the environment (e.g. increased energy efficiency, reduced greenhouse gas emissions, decontamination of the environment leading to improved soil and water quality). However impacts on biodiversity and wider ecosystems (unless involving decontamination) are rarely considered in the case assessments.

### 4.2.4 Environmental Aid Guidelines: WRAP scheme

The UK WRAP (Waste & Resources Action Programme) scheme is a not-for-profit private company backed by Government funding from England, Northern Ireland, Scotland, Wales and the European Union. WRAP's vision is a world without waste, where resources are used sustainably. WRAP helps businesses, individuals and communities reap the benefits of reducing waste, developing sustainable products and using resources in an efficient way.

The WRAP scheme clearly complies with the provisions in the EAG. The EAG state that for aid for waste management, "the PPP must not be circumvented and the normal functioning of secondary materials markets should not be distorted" (section 1.5.8.)

The general objective of the scheme (and the thinking behind it) is well summarised in section 2.1 of the clearance: the general objective of the prolongation and modification of the WRAP horizontal aid measures remains the kick-start and promotion of waste minimisation, recycling and waste reprocessing initiatives, creating new markets and developing new technologies, thereby improving the EU physical environment. WRAP's aid measures are therefore focused on assisting firms to innovate in order to overcome market failures and to develop new markets in line with the hierarchical classification of the principles of waste management. (see Annex F for more information and detailed assessment).

Based on the case assessment, the environmental, social and economic impacts of the WRAP scheme are deemed to be positive. The impact on the environment was the driving force (the environment effectively being WRAP's raison d'etre). Social objectives were not considered in great detail as this is not WRAP's main focus, although social issues are considered whenever a grant is awarded. The scheme was cleared in accordance with the criteria set out in the EAG (earlier WRAP schemes had been cleared directly in accordance with the Treaty) - WRAP did not use any additional, elaborated criteria.

**Table 9 Assessment: WRAP scheme against EAG criteria**

Conditions for investment for aid for waste management	Evidence that WRAP meet criteria
a) the investment is aimed at reducing pollution generated by other undertakings ('polluters') and does not extend to pollution generated by the beneficiary of the aid;	WRAP aims to provide aid in-line with the polluter pays principle. It ensures that aid does not relieve polluters from a burden they should bear under existing EU rules and only grants aid to projects where at least 50% of waste comes from third parties. This should avoid the support of beneficiaries who treat significant amounts of their own waste, in which case the wider economic and environmental benefits of aid would not be felt.
b) the aid does not indirectly relieve the polluters from a burden that should be borne by them under Community law, or from a burden that should be considered a normal company cost for the polluters;	See above.
c) the investment goes beyond the 'state of the art' (46) or uses conventional technologies in an innovative manner;	From WRAP's experience there are many recycling projects which go beyond the minimum legislative requirements, however only a small sub-set of such projects goes beyond state of the art. The UK authorities thus conclude that the stricter of these sets of compatibility rules shall be applied. As further safeguard to make certain that WRAP has an appropriate understanding of the relevant market, WRAP ensures that the assessment panels include appropriate external advisors (e.g. from relevant EU research bodies) who can provide independent views as to whether WRAP has correctly identified state of the art.
d) the materials treated would otherwise be disposed of, or be treated in a less environmentally friendly manner; the investment does not merely increase demand for the materials to be recycled without increasing collection of those materials.	<p>A primary aim of the aid measures is to increase recycling and promote other treatments of waste in line with the hierarchical classification of the principles of waste management. This will ultimately improve the EU physical environment by favouring projects where the materials treated would otherwise be disposed of or be treated in a less environmentally friendly manner.</p> <p>A wider range of materials than were previously supported is covered through these schemes (WEEE, textiles and flooring, tiles, insulation and composites), thus enabling greater diversions from landfill.</p>

The environmental impacts of the UK WRAP scheme are not quantified but they are discussed qualitatively. The scheme aims to increase recycling and divert waste from landfill and ultimately improve the EU environment by favouring projects where the materials treated would otherwise be disposed of or be treated in a less environmentally friendly manner. The scheme is in-line with the polluter pays principle and ensures that aid does not relieve polluters from a burden they should bear under existing EU rules.

The economic impacts of the UK WRAP scheme are also addressed, e.g. it is stated that the lowest amount of aid required to achieve the specified change in behaviour will be granted so there is minimal distortion of competition. Projects for the Capital Grant Scheme are selected on the basis that they are the most economically advantageous, alongside environmental considerations. For example, the amount of waste diverted from landfills and other less environmentally friendly uses will be

considered in the identification of which project provides the most economically advantageous offer. WRAP ensures that the least amount of aid necessary is awarded so that there is minimal distortion of competition<sup>18</sup>.

In the UK WRAP scheme, social objectives were not considered in great detail as this is not the main focus; however social issues are considered whenever a grant is awarded<sup>19</sup>. WRAP does not think social impacts should, as such, be a requirement of the EAG as this could risk compromising the most effective outcome from an environmental perspective. For example, if project A is the most effective and promising from an environmental perspective this should be chosen by WRAP rather than option B which provides lesser economic gains but will generate, for example, employment. This does not stop a particular project run, for example, by a local authority being developed in part for social reasons but the availability of funding from WRAP, and approval under the EAGs should be based on environmental considerations.

Similarly, from WRAP's perspective the temptation should be resisted to muddle up environmental and other objectives. A classic example of this which WRAP has met in the past is where the best potential recipient of a WRAP grant (from an environmental perspective) is a company based, for example, in South East of England (indeed, this may be a large company in the South East of England) rather than another company based in one of the (relatively few) remaining regions qualifying for regional support.

The WRAP scheme highlights the flexibility that is available for authorities to interpret the EAG and to make decisions that best suit the Member State context. For example, two sections of the Environmental aid guidelines can be applied for waste management: section 3.1.1 and section 3.1.9. WRAP is of the opinion that the compatibility conditions under Section 3.1.9 (Aid for waste management) are much stricter than the general compatibility conditions of Section 3.1.1. (Aid for undertakings which go beyond Community standards or which increase the level of environmental protection in their absence), therefore used these conditions in their assessment.

From WRAP's experience there are many recycling projects which go beyond the minimum legislative requirements, however only a small sub-set of such projects goes beyond state of the art. The UK authorities thus conclude that the stricter of these sets of compatibility rules shall be applied. As further safeguard to make certain that WRAP has an appropriate understanding of the relevant market, WRAP ensures that the assessment panels include appropriate external advisors (e.g. from relevant EU research bodies) who can provide independent views as to whether WRAP has correctly identified state of the art.

#### 4.2.5 Environmental Aid Guidelines: SDE scheme

Next to the WRAP scheme, we have looked into the Dutch scheme for promoting renewable energy ('SDE'; N478/2007), to gain more insight into the balancing process of multiple objectives. The SDE scheme is aimed at compensating for the difference between the production cost of the various renewable energy technologies and the market price of electricity. The scheme is designed in such a way that projects are ranked according to their cost-effectiveness. Beneficiaries are stimulated to accept the lowest subsidy per produced kWh possible for their business case. This is achieved by the fact that the subsidy amount (EUR/kWh) increases when applicants decide to sign in at a later stage during the subsidy year (different phases of making funds available) but, at the same time, subsidy security diminishes (the risk of depletion of funds increases).

The environmental and economic impacts of the SDE scheme are deemed to be positive. The social impacts of the scheme are unclear. The environmental impacts are not quantified. Quantitatively it is mentioned that the scheme is aimed at promoting renewable energy and meeting set targets in that respect.

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<sup>18</sup> WRAP encourages those responding to its tender processes to specify whether they were applying for a capital grant or for a soft loan. In determining which is the most economically advantageous tender WRAP would then compare the level of funding requested by the various bidders (which is likely to be lower through a loan given the repayment of the capital sum over an agreed period). In this way, WRAP would continue to ensure that the least amount of aid necessary would be awarded and that as a consequence there would be minimal distortions of competition.

<sup>19</sup> The WRAP scheme strives to kick-start and promote waste minimisation, recycling and waste reprocessing initiatives, creating new markets and developing new technologies which is likely to lead to jobs and training. The Scheme also facilitates viable investment in recycling infrastructure, providing a financial boost to new business ventures and stimulating growth for existing ones.

The economic impacts of the SDE scheme are addressed (e.g. it is stated that the lowest amount of aid required to achieve the national renewable energy target will be granted, so there is minimal distortion of competition and targets are met as cost-effectively as possible).

Overall, when studying the SDE scheme, the following insights were gained:

- Environmentally harmful subsidies – specifically subsidies to unsustainable biomass – are prevented by the fact that support is only allowed if this biomass meets the sustainability requirements following from the renewable energy directive.
- Economic considerations – specifically cost-effectiveness considerations – are included in the balancing procedure by ranking projects according to their cost-effectiveness.
- Other environmental considerations are not included in the balancing procedure of this scheme, but rather through other procedures, such as environmental permits which cover nuisance.

This leads to the conclusion that the balancing of multiple objectives doesn't always take place within the scheme itself. To gain full insight into the weighting of different objectives when designing the scheme applicants should be obliged to provide information on this within the State aid granting procedure.

## 4.3 Regional Aid guidelines

### 4.3.1 General findings individual applications/ad-hoc cases RAG

In Annex G the detailed assessment for 13 individual applications/ad-hoc cases can be found. In these 13 cases, it appears that there is strong prevalence of addressing economic and social impacts; while attention to environmental, sustainable development and resource efficiency considerations varies widely from case to case. With respect to cases analysed the following conclusions can be drawn:

- Regarding economic impacts, investments in regional development are assumed to have a positive impact on employment, income generation and technological advancement of regions concerned.
- Investments are expected to generally have positive social impacts and contribute to improvement of socio-economic situation of local population, although rarely these impacts are mentioned/described.
- Regarding environmental impacts, investments in regional development are expected to have various impacts, mostly depending on scale and type of investment.
- In some cases, investment in a wood briquettes and granules plant 'Ekobriketes' (Karsava, Latvia) resource efficient impacts are clearly considered to be positive, since local renewable material (wood waste) is used; and product contributes to use of sustainable fuel and reduction of GHG emissions to the atmosphere.
- Investments in public infrastructure (improvement of electricity supply, case of Murcia, Spain; building new waste water treatment plant, Germany; or hazardous waste landfill, Lithuania) are considered to have net positive resource efficiency impacts; contrary to investments in production/industrial activities, where some environmentally harmful/polluting effects are expected to take place.
- Some types of investment, such as a new lignite mining cave in Slovakia or major investment in production activities (EUR600 million of State aid to Ford Kraiova, Romania; or investment in a glass factory in Germany), are very likely to result in major resource and environmental impacts. However, no considerations are given on this in the case information studied.

### 4.3.2 Examples of (lack of) resource efficiency considerations (individual application/ad-hoc cases RAG)

In most of the cases environmental impacts were not described or even mentioned (with the exception of Latvia (Ekobriketes); Italy (Fiat), Portugal (Petrogal), and Lithuania(Toksika)).

Positive environmental effects were not included as a criterion in the Regional Aid Guidelines, therefore there is no need to address them by the applicant at this moment. This is not desirable situation in a long term, with a view to resource efficiency and environmental goals.

An example of a good case that included environmental effects in more detail, is an investment project in Latvia (Wood briquettes plant in Karsava, Latvia; case No.730/2007):

- Environmental protection is mentioned as one of the aims of the project and reference is made to national environmental policy priorities. An interview with an official at the Latvian Ministry of Environment and Regional Development made clear that sustainable development is one of the horizontal priorities for EU funds implementation in Latvia for the planning period 2007-2013 (national strategic framework document). Environmental protection is seen as an essential boundary condition for sustainable development. For projects to be eligible for government funding, they have to indicate, quantitatively, to what extent they contribute to reductions of: air and water contamination, water and energy consumption, and waste generation, for example. Also, environmental requirements by financiers (EEA grants – Norwegian grants)<sup>20</sup> are made, namely: projects have to contribute to preventing and reducing pollution and promotion of renewable energy. No additional information on how this is translated into concrete eligibility criteria was obtained, however.
- Environmental effects are explicitly mentioned in a separate paragraph of the Decision text (reduction of GHG emissions, promotion of renewable energy sources, and utilisation of wood waste).
- The Decision text contains a brief analysis of availability of wood materials in the neighbourhood, feasibility of their processing, taking into account transport and other costs, and specific benefits to the local community.

Based on the selected cases studied, the case of 'Ekobriketes' still seems to be an exception. In most of the other cases, environmental impacts are not specified. In the Petrogal SA case in Portugal, it was mentioned that investment will lead to environmental improvements, but this statement lacks any further specification. The same holds for the Fiat case in Italy.

In some major investment cases like lignite mining in Baňa Čáry (Slovakia), tyre production in Pirelli factory (Italy), and Ford automobile factory in Kraiova (Romania) type and size of the investment suggest a resource intensive activity, release of GHG emissions, and other serious environmental impacts, but there is no reference whatsoever made to these implications. The decision is solely based on economic and social impacts.

### 4.3.3 Connection of regional aid cases to the guidelines

This part will draw some conclusions with respect to the environmental impact of the cases in relation to the provisions in the Regional Aid Guidelines.

- In the cases analysed, the Decisions appear to be based either solely or largely in favour of economic impacts. Social and environmental impacts seem insufficiently reflected.
- According to the guidelines, selection criteria are based only on economic and social criteria (GDP per capita compared to EU average; low population density; high unemployment; geographically isolated communities; areas undergoing structural change/serious decline; or combination of these factors). Thus, environmental/sustainable development/resource efficiency considerations are currently not required by the Regional Aid Guidelines.
- It is not surprising that regional development investments primarily contribute to the economic growth and welfare of inhabitants of disadvantaged regions. Moreover, the positive environmental effects currently are not stimulated by criteria or provisions of the RAG. Considerations on the

<sup>20</sup> Source: <http://www.eeagrants.org/>

environmental impact seem to be incidental due to type of investment or the results of different priorities set by the Member State.

- There are considerable differences in the level of detail of the description of environmental impacts, as a consequence of the type of investment concerned (for example, renewable energy investment has generally positive impact, comparing to building major automotive plant; energy plant or glass production plant which involves use of fossil fuel).
- For large investment projects and Environmental (and Social) Impact Assessment is mandatory by EU and national legislation. To align investment decisions better with environmental/social objectives, it would be recommended to submit an environmental impact statement by project Proponent prior to decision on the State aid; and to reflect the information on the impacts in official documents.

#### 4.3.4 Regional Aid Guidelines: schemes

Among the regional aid schemes, aid is often granted to projects regarding energy production (heat supply, bio-components, gas/electricity distribution networks), aid to small and medium enterprises and compensation for transport costs. We have selected 9 cases on schemes which are most likely to contain provisions with respect to environmental protection, resource efficiency and sustainable development (see Annex G).

In general, we find that in the schemes under the Regional Aid Guidelines, the economic impact is mostly addressed. The description of the economic effects, varies from slightly mentioned to explicitly addressed. For example, the scheme regarding the increase of efficiency of centralised heat supply systems in Latvia (N426, 2008) mentions that ‘...modernisation investment opportunities in small towns and regional centres will increase, which in turn will accelerate new business establishment and development and creation of new jobs...’. This is still vaguely addressed and could be expressed in more detail. In other schemes the number of jobs to be created is explicitly addressed, as in scheme in Estonia (N373, 2008), where ‘approximately 100 new direct jobs will be created, mostly in rural areas’.

Regional aid is mostly granted to rural and underdeveloped areas with lower incomes. Therefore it is important that the economic impacts are sustainable. Most of the schemes studied so far did not take this into account, except for the scheme on the creation of new commercialisations structures in Spain (N322, 2009), where sustainable employment is safeguarded by the requirement that ‘... *the aid is conditioned on the obligation of maintaining the investment or the jobs created during a minimum period of respectively five or three years.*’

Social impacts are not often addressed in the schemes studied. Only in two cases the social effects were taken into account. In the scheme of Estonia on renewable energy production (N373, 2008) it is stated that ‘the scheme is designated to contribute to regional development (with particular emphasis on socially disadvantaged areas), with preference to low income areas and socially disadvantaged indirect beneficiaries...’. A scheme in Latvia on heat supply systems (N426, 2008) views the socio-economic point of view in a different way and points out that ‘due to a safe and reliable energy infrastructure and to the improvement of quality of life and increased cohesion. An efficient and secure energy supply has a significant impact on successful development of entrepreneurship, welfare of residents, development of particular areas and of the whole country in general’.

However, in the schemes other than on (renewable)energy production, social impacts are not taken into account.

The environmental impacts are often not taken into account. In the schemes studied so far, effects on the environment are only discussed in the schemes concerning energy production, such as heat supply systems in Latvia (N426, 2008) and renewable energy projects in Estonia (N373, 2008).

In these schemes the environmental effects are limited to specific priorities concerning ‘environment friendly energy infrastructure and energy efficiency measures aiming at energy security including diversification of energy sources’ as stated in the scheme on a gas distribution network in Poland (N435, 2008). An interview with an official at DG COMP indicates that environmental or energy-efficiency issues are not taken into consideration in a quantified or systematised manner for assessing the compatibility of aid under the regional aid guidelines for 2007-2013. Despite that, there are some good examples of schemes that are taking these issues more into account than others. Scheme N435/2008 in Poland seems to take effects on resource efficiency and sustainable

development well into account. The investments supported on the basis of the scheme contribute to the increase of security of supply of natural gas, rational use of use of natural resources and to the improvement of environment protection. Regarding regional development, the aid is conditioned on the obligation of maintaining the investment in the region during a minimum period of five years (three years in case of SMEs) after its completion. In addition, it is expected that the scheme will bring further benefits in terms of the creation of additional employment and development of local entrepreneurship. The reason why this scheme is taking these effects into account stems from the fact that it is linked to different National Programmes, Strategies and Frameworks. This implies that it has to fulfil several objectives:

- The scheme implements several objectives of the Infrastructure and Environment Operational Programme which concern an environment friendly energy infrastructure and energy efficiency and measures aiming at energy security including diversification of energy sources.
- With respect to the objectives laid down in the National Reference Framework for Poland for 2007-2013, the scheme aims to promote sustainable growth, competitiveness increase and employment growth.
- Furthermore, the scheme aims at realising the objectives laid down in the National Development Strategy for years 2007-2015 on the social and economic development of Poland.

The scheme does not indicate explicitly how these different objectives should be weighted against each other. However, with respect to the criteria for the selection of projects for financing, it is mentioned that *“the criteria for the selection of projects under the individual schemes for the financing under the Structural Funds and the Cohesion Fund are adopted by the Monitoring Committee of the Infrastructure and Environment Operational Programme. They consist of formal and substantial requirements which enable the selection of the best projects via a three-stage competitive procedure ...”*

Another scheme in Poland (436, 2008) state that *“the investments undertaken under the scheme will lead to the rational use of natural resources, environment protection through the use of renewable sources, ensuring of the uninterrupted stocks of fuels to cover the demand, increase of energy efficiency, implementation of clean technologies for the electricity generation, including renewable energy sources, diversification of fuel production which will in turn lead to energy security”*. Other environmental effects such as biodiversity, waste generation or use of materials are not taken into account.

Under at least one scheme (Portugal, N584/2009), aid for environmental purposes is allowed. However, the criterion used for granting aid under that scheme appears to be exclusively social (the number of jobs) and economic (competitiveness of enterprises).

Therefore, we can conclude that, in general, economic impacts are addressed within the schemes of the Regional Aid Guidelines. However, the level of detail varies greatly. Social impacts are not addressed in detail in the schemes, and regard only social impact in relation to schemes in the sector of (renewable)energy. The same holds for the environmental impact, which is lacking in most of the schemes other than on (renewable) energy.

The scheme on investment aid for the creation of new commercialisation structures in Spain (N322/2009) refers to Agriculture and Forestry Guideline: ‘In consequence, the Commission has to assess the aid scheme in conformity with Chapter IV.B.2 of the Community guidelines for State aid in the agriculture and forestry sector 2007–2013 (hereinafter: the Guidelines)’

Furthermore there were no references made in the schemes to the Guidelines. Also, there are hardly any considerations with respect to *balancing* economic, social and environmental objectives. Social objectives are sometimes taken into account in the sense that the envisaged number of jobs constitute a criterion in the assessment of the aid applications (N435/2008, PL) or that the newly created jobs that were declared necessary to the implementation of the project shall be maintained for at least 3 years (N322/2009, ES). An exception to this is the scheme on wider use of renewable energy sources for energy production in Estonia (N373/2008). The measure is part of the Living Environment Operational Programme (related to environmental targets) and co-financed from ERDF funds (related to regional development targets, including economic and social aspects). The scheme is designated to contribute to regional development (with particular emphasis on socially disadvantaged areas), and is at the same time contributing to reduction of CO<sub>2</sub> emissions. Environmental, economic and social objectives are all taken into account. To get the financing under

the scheme, an applicant will have to submit an application fulfilling the 7 evaluation criteria of the regulation of the Ministry of Environment, which concerns regional development impact, sustainability, reduction of CO<sub>2</sub> emission and energy efficiency. Aid is granted to the applicant with the highest score. This scheme shows that by national regulations (from the Ministry of the Environment) and implementation practice, where environmental and development goals are kept in mind, multiple balancing can be achieved. Therefore, this scheme could serve as an example for other schemes.

## 4.4 R&D&I Guidelines

### 4.4.1 General findings individual application/ad-hoc cases R&D&I

In Annex H, the detailed assessment for 10 individual applications/ad-hoc cases can be found. No schemes were analysed. In the cases studied for the R&D&I Guidelines, it appears that economic and environmental impact has been taken into account to a certain extent. Social impact is often not addressed. With respect to these cases we can make some general conclusions:

Regarding economic impacts, investments in R&D&I are mostly likely to have a positive impact on employment, income generation and knowledge spill overs. Social impacts are not mentioned.

Regarding environmental impact, investments in R&D&I have in general a positive impact on energy efficiency levels and hence lower emissions. The cases to which State aid was provided often involved projects in the aviation and shipping sector to improve engines or other specific characteristics which often led to improved energy efficiency. However, other factors concerning the environment, like waste generation, use of alternative or renewable energy sources, and impact on ecosystems are not taken into account.

### 4.4.2 R&D&I cases: examples of (lack of) resource efficiency considerations

In the R&D&I cases that were studied so far we found that environmental effect were often mentioned as a side effect, just mentioned in passing. Positive environmental effects were not included as a criterion, which would, regarding the environmental goals, of the EU be more desirable. Regarding the weighting of multiple objectives, the R&D&I Guidelines state that a balancing test is required to balance positive impacts of the aid measure in reaching an objective of common interest against its potentially negative side effects by distortion of trade. This balancing test operates in three steps to decide upon the approval of a state aid measure, of which the first requires that measures should aim at a well defined objective of common interest (e.g. growth, employment, cohesion, environment). Furthermore, the distortions of competition and trade should be limited, so that overall balance is positive.

In the R&D&I cases that have been studied however, these objectives of common interest are often not formulated. Where they are formulated they are ambiguous. The most commonly mentioned positive effect was knowledge spill over within the sector to universities, research centres and other industries (N4/2010 ES and N144/2010 NL). Remarkable is that in most R&D&I cases resource efficiency and sometimes job creation are mentioned as a positive effect, but do not seem to be taken into account in the balancing test. An interview with an official at DG COMP confirms that there is no mechanism, or evaluation grid to weigh (and quantify) these effects in a precise manner and that it is rather a qualitative assessment.

A case that seems to be an exception to this is case (N195/2007) in Germany, on the development of a new business-jet engine by Rolls Royce Deutschland. Here both environmental, employment and knowledge spill over effects are taken into account in the balancing test. A separate sub paragraph was included on environmental aspects which stated lower fuel consumption and a lower percentage of GHG-emissions. They specified the decrease in emissions in percentages per greenhouse gas and specified the noise reduction by the development of this new engine. This is a good example on how the project takes the environmental impact into consideration. The case could be even more improved by including the effects on waste management, impact on ecosystem, land and water use, use of renewable energy sources and use of raw/secondary materials. Also, secondary effects could be taken into account, such as balancing the effect of more flight traffic versus the benefit of more fuel efficient engines.

It is, however, not mentioned how positive and negative effects are weighted against each other. An interview with an official at DG COMP confirms that, within case N195/2007, the Member State proactively mentioned the different positive externalities generated by the project. Since sufficiently substantiated arguments have been put forward, the positive externalities are included in the balancing test to arrive at a complete economic assessment. In other R&D&I cases, Member States often fail to provide information, e.g. on concrete projects and publications, on where or how positive effects will occur. Projects eligible for State Aid are assessed on a case-by-case approach, and it depends very much on arguments made and the quality of supporting data produced whether positive effects like job creation, knowledge spill overs and positive environmental effect are included in the balancing test. In that sense, the case for Rolls Royce is still an exception. In most of the other cases, the quantitative environmental effect is not specified (see also Annex E for more information).

#### 4.4.3 Connection of R&D&I cases to the guidelines

This part will draw some conclusions with respect to the environmental impact of the cases in relation to the provisions in the R&D&I Guidelines.

- It does not seem the case that the positive environmental impacts in the selected cases stem from the provisions in the R&D&I Guidelines. They seem to stand alone and are not linked to the guideline. Only in one case (N204/2010) for Sweden, a reference was made to the R&D&I Guidelines with respect to the criteria for assessments of the positive and negative effects of the aid and the balancing effects in the R&D&I Guidelines.
- It should be mentioned that it is not surprising that innovative investments are contributing to higher efficiency levels as innovations frequently aim to improve efficiency. This is however not stimulated or caused by criteria or statements in the R&D&I Guideline. Considerations on the environmental impact could be incidentally cases initiated by the enterprise or be the results of different requirements per Member State.

## 4.5 Agriculture and Forestry Guidelines

### 4.5.1 General findings individual applications/ad-hoc cases agriculture and forestry

In the eight individual application cases studied for the agriculture guidelines, it was observed that cases vary very much regarding their impacts. Investments in forestry (case of Poland and Slovakia) are solely of 'environmental' character, because of restrictions in the guidelines, which are linked to restrictions put in the Rural Development Regulation. These restrictions are based on the fact that support for forestry uses the environmental Treaty base. Regarding investments in agriculture, some cases (France, Italy and Spain) has the character of maintaining traditional small scale industries, and has strong prevalence of positive economic and social impacts, and environmental impacts varies in scale, but are generally negative, but there is also a case in Germany (Bavaria) where investment has a strong environmental objective and added value (protection of beavers (e.g. species of European importance)). The case in Hungary has also strong economic and social impact; and reference is made in the text that Environmental Impact is assessed and documentation submitted, but no further information is provided.

With respect to cases analysed the following conclusions are drawn:

- Analysed cases are very different in their impacts – some are characterised mainly by socio-economic gains for the regions concerned (investments in agricultural production or production of bio ethanol; but others are solely investments in maintaining or restoring ecosystems (investments in forestry); and present little or no immediate socio-economic gains.
- Investments in forestry with 'environmental' objective have potential for socio-economic gains in long-term perspective (maintaining and restoring healthy forest ecosystems might lead to commercial gains from timber sale and non-timber forest products, such as tourism and recreation and other related economic activities).
- Most of investments in agricultural production lack sufficient description/reference to social and environmental impacts.

- The State aid case from Germany shows, that compatibility of economic, social and environmental objectives in agriculture cases is possible (compensation to farmers for beaver damage in Bavaria).

#### 4.5.2 Agriculture cases: (lack of) resource efficiency considerations

Some cases analysed (Poland and Slovakia) are in the forestry sector; these have environmental protection and maintenance and restoration of healthy ecosystem as a primary objective. Others (France and Italy) comprise support to traditional agricultural activities, or construction of new agricultural production processing facilities (Spain and Hungary) which by type of activity might have some negative impacts to the environment. Still, in most of cases, the text of decisions doesn't contain reference to environmental impacts and/or resource efficiency considerations. In the case of France, reference is made to environmental impact, but the conclusion is that the investment is in line with rural development objectives. In the case of Hungary, reference to environmental impact assessment is made, but the status is not clear (e.g. whether or not the new plant will have negative impact on the environment, and in case of negative impact, whether appropriate mitigation measures have been designed).

The compatibility of economic, social and environmental objectives in agriculture cases is possible, as can be seen in case of Germany (compensation to farmers for beaver damage in Bavaria). This case shows that national/regional authorities can take steps to promote environmental objectives through designation of aid measure. Case is considered to be example of good practice for resource efficiency in terms of biodiversity.

In the case of Bulgaria, investment appears to go against water protection objectives.

According to guidelines, in the case of an aid scheme for investments which are intended to increase production, and which involve an increased use of scarce resources or an increase in pollution, it will be necessary to show that the scheme will not result in an infringement of Community environmental protection legislation, or otherwise cause environmental damage. In none of the cases studied information was found on an assessment of the expected environmental impact of the activity in question. Therefore, it is recommended to pay more attention to this requirement, stated in the guidelines, and provide information in the State aid (granting) decision on how this impact assessment was taken into account.

#### 4.5.3 Connection of agriculture and forestry cases to the guidelines

This part will draw conclusions with respect to the environmental impact of the cases in relation to the provisions in the Agriculture and Forestry Guidelines.

- In principle, Agriculture and Forestry Guidelines contain reference/provisions for environmental and resource efficiency considerations. The guidelines emphasise (consideration 22) that: *"... particular attention therefore needs to be given to environmental issues in future State aid notifications, even in cases where the aid schemes are not specifically concerned with environmental issues. For example, in the case of an aid scheme for investments which are intended to increase production, and which involve an increased use of scarce resources or an increase in pollution, it will be necessary to show that the scheme will not result in an infringement of Community environmental protection legislation, or otherwise cause environmental damage. All State aid notifications should in future contain an assessment of the expected environmental impact of the activity aided"*. In case of forestry, 100% of aid can be provided to maintaining or restoring ecological, protective and recreational functions of forests, biodiversity and a healthy forest ecosystem.
- Despite of provisions in the guidelines, not all cases examined contain statements of its environmental impacts. Also, there are cases, where reference is made to environmental impacts, but they have not been sufficiently described. This is the case for the case study of Bulgaria, where the expected impact on water bodies is negative, but the description of these impacts is vague and not very informative. In the case of Hungary an environmental impact assessment is mentioned, but no further information was found on how expected negative environmental impacts are taken care of (mitigations measures). Thus, environmental/sustainable development/resource efficiency considerations seem insufficiently addressed at the moment when looking at the individual case level.

- There are considerable differences in the environmental impacts, as a consequence of the type of investment. For example, investments in forestry in general have a positive impact. This is due to the requirement that they have to be for environmental reasons. Investments in agricultural production have varied impacts, from clearly positive, to clearly negative). The difference in impacts is explained by prioritisation/decisions made at the Member State or regional level.
- It is recommended that more attention is paid to the requirement that an assessment of the expected environmental impact of the activity in question is obligatory. Also, the State aid (granting) decisions should information on how this impact assessment was taken into account.

#### 4.5.4 Agriculture and Forestry Guidelines: schemes

Among the agriculture and forestry schemes, aid is often granted to projects regarding compensations for losses caused by natural disaster, weather conditions and animal diseases<sup>21</sup>. Other schemes concern forestry, and the development and conservation of nature. We have selected 7 cases which are most likely to contain provisions with respect to environmental protection, resource efficiency and sustainable development. In the scheme on restoring forestry potential in military areas in Slovakia (SA 33228, 2011), it is stated that ...'in line with point 174 of the Guidelines the aid measures should contribute to maintaining, restoring or improving ecological and protective functions of forests, biodiversity and a healthy forest ecosystem'. Also regarding the case on investment in the non-commercial Natura 2000 forests in Murcia, Spain (352/2010) several references are made to the provisions of the guidelines (points 175 and 176), concerning compliance of measures with environmental objectives. There are no additional requirements found in the schemes apart from the conditions set in the Guidelines. An exception to this is found in scheme SA 33182/201 (DE), where it is mentioned that conditions must be coherent with the ongoing Rural Development program in that particular region. However, no additional requirements were found with respect to social or economic objectives on top of that. Annex E gives an overview of the selected cases for the Agriculture and Forestry Guideline; in Annex I results of the analysis are presented.

In the schemes studied under the Agriculture and Forestry Guidelines, the environmental impacts of the State aid measures are typically well accounted for. In many of the schemes it is stated clearly that the measures will directly contribute to maintaining, restoring or improving ecological, protective and recreational functions of forests, biodiversity and a healthy forest ecosystem. Besides the stimulation of positive environmental effects of the granted aid, it is also expected to prevent negative effects. For example, in a scheme on the improvement of agricultural structures and coastal Protection in Germany (SA 32134/2010), it is clearly stated that *"...the granted aid excludes aid to forest based industries or for commercially viable extraction of timber, transportation of timber or for the processing of wood or other forestry resources into products or for energy generation..."* and that *"...the measures do not reduce biodiversity, cause nutrient leaching or adversely affect natural water ecosystems or water protection zones..."*. Investments in private non-commercial Natura 2000 forests in Murcia, Spain (352/2010), have the following environmental objectives: restoration of vegetation cover/habitats in Natura 2000 forests; conservation of biodiversity; limited use of chemicals by application of biological and mechanical pest control. The Catchment Sensitive Farming Grant Scheme in United Kingdom (XA 185/2008) has the specific objectives to minimise diffuse pollution from agriculture, and contributing to the implementation of The Water Framework Directive. Therefore, this case can be considered as good practice in the area of water protection, whereas agricultural sectorial aid is used to achieve water quality targets.

Within the schemes studied so far, social impacts, like job creation, are not taken into account in detail. Although positive impacts are to be expected, in terms of indirect positive health effects and social cohesion from recreational services provided by forests, these are not mentioned explicitly in the schemes. Also the economic impact of the measures is not explicitly addressed in the schemes, such as long-term productivity and income generation. This impact has not been taken into account, although some positive employment effects would be expected since environmental protection can provide opportunities for innovation, create new markets and increase competitiveness through resource efficiency and new investment opportunities.

Concluding we can state that in the schemes studied only environmental impacts and the animal welfare impacts are taken into account with respect to granting State aid. The manner in which the

<sup>21</sup> This brings about the unwanted risk of moral hazard in paying compensation for climate change related damage to agriculture, and in some cases for damage by animal diseases.

schemes address environmental protection, biodiversity and other measures to improve the maintaining and restoring of the ecosystem could be an example for the other guideline's cases and schemes. Social and economic impacts have not been addressed in the schemes, or are only briefly mentioned, and should therefore be improved and more taken into account. Since economic and social objectives are not taken into account in general it is not surprising that they are also not taken into account in the balancing procedure. Furthermore, no information was found on *what* the balancing procedure looks like and how, for example, environmental impacts and animal welfare impacts are weighted against each other.

The other schemes did not refer directly to the guidelines, but did demonstrate that the schemes contribute to environmental quality goals, and maintaining or restoring ecological, protective and recreational functions of forests, biodiversity and a healthy forest ecosystem, as is required according to the Guidelines (point 174).

Furthermore, in one scheme, on safeguarding natural biological diversity and natural rural heritage in Saxony (Germany) (SA 33182, 2011), references were made to the guidelines with respect to rural development and that the notified measures are coherent with the on-going rural development programme for the respective area.

## 4.6 Transport cases (schemes)

In addition to the cases which were studied in combination with the associated guidelines, we will at the request of the European Commission also have a look at two transport cases. These cases are studied with regard to the Handbook on estimation of external costs in the transport Sector (CE et al, 2008). See also Annex E and Annex J.

**Table 10 Selected schemes for Transport**

Type	Case no.	Name	Country
Transport	SA 62603/2011	Subsidy scheme 'Ferrobonus' for combined transport	Italy
Transport	N247/2009	Mode Shift Revenue Support Scheme	United Kingdom
Transport	N246/2009	Waterborne Freight Grant Scheme	United Kingdom

The three transport schemes that have been studied involve a modal shift from road transport to rail and inland waterway freight transport to secure environmental benefits with the retention of growth in this sector.

Within the transport schemes the main focus is on the environmental impact of the measures. The environmental benefits of these measures are defined in terms of less congestion, accidents, noise, pollution, climate change, and infrastructure. The mode shift benefits are expressed as the net unpaid external costs and calculated on the basis of avoided external costs of rail/water compared to road. Values have been drawn on the European Commission's Handbook on Estimation of External Costs in the Transport Sector (CE et al, 2008)<sup>22</sup>. This assures that external costs connected with accidents, air pollution, climate change, noise and congestion are taken into account in the balancing procedure. Table 10 gives an overview on these mode shift benefits.

<sup>22</sup> [http://ec.europa.eu/transport/sustainable/doc/2008\\_costs\\_handbook.pdf](http://ec.europa.eu/transport/sustainable/doc/2008_costs_handbook.pdf).

**Table 11 Marginal average external costs of transport by mode for Italy, in EUR per 1,000 tonnes-kilometres, 2012**

Cost element	Road	Electric rail
Accident	5.1	0.29
Noise	2	2.3
Pollutants	5.8	0.31
Climate costs	2.3	1.24
Congestions	2.8	0.24
Total	17.9	4.38
<b>Cost difference compared to road</b>		<b>13.52</b>

Source: SA 32603/2011 (JRC of the Commission).

Although these environmental cost benefit calculations are specifically related to transport, the way in which the environmental impact is monetised, they could serve as an example for weighing resource efficiency costs and benefits when deciding on whether or not to grant State aid under the EU State aid framework. Grants are calculated on the basis of environmental benefits according to the 'Handbook'. With this method the avoided external costs of transportation by rail or inland waterways are compared to road transportation. Therefore, not only infrastructure costs are taken into account, but also external costs connected to accidents, air pollution, climate change, noise and congestion. The available budget is then allocated to those services which offer the greatest environmental benefits. By using this method of avoided external costs, multiple objectives seem to be well taken into account in the balancing procedure. However, no information was found on *what* the balancing procedure looks like and *how* the result of this procedure influences the decision whether or not to grant aid.

With respect to social impact, there was no mention about any positive or negative social externalities. The same holds for the economic impact, there was no mention about change in employment or income generation. However, in a shift from road transport to rail or inland waterways, it seems logical to expect that employment with respect to road transport is likely to diminish and that employment in water and rail transport is to increase.

As a concluding remark: within the transport schemes the environmental impact has been well addressed and quantified and monetised on basis of external costs (cost avoidance). Although these environmental cost benefit calculations are specifically related to transport, the way in which the environmental impact is monetised could serve as an example for the other schemes. In schemes for regional aid on investments in renewable energy for example, the reductions of emissions of CO<sub>2</sub> and other GHG compared to conventional energy could be quantified.

# 5 Conclusions and recommendations

## 5.1 Introduction

This report has analysed several State aid guidelines. These analyses serve two different aims.

For the EAG, the aim is to analyse whether recent policy developments in the field of resource efficiency have been included in the guidelines. This report has identified a number of improvements that could be made to the guidelines to take recent policy developments into account.

For the other guidelines, the aim is to analyse whether resource efficiency, environmental protection and sustainable development considerations have been given (sufficient) weight in the guidelines. If not, the analysis aims to provide methodologies of how these considerations can be taken into account in future revisions of the guidelines.

In this chapter conclusions are drawn with regard to the above mentioned topics of research. Also recommendations are provided on how to improve resource efficiency considerations in the current State aid framework.

## 5.2 Environmental Aid Guidelines recommendations

### 5.2.1 General provisions

- The guidelines should explicitly state, as the Agriculture and Forestry Guidelines do, that State aid under the EAG cannot be approved if it causes environmental damage or there is a serious risk of this (e.g. many renewable energy projects can assist with greenhouse gas emissions reductions, but can also have negative impacts on biodiversity and water quality/quantity).
- The EAG contains generic references to environmental and sustainability benefits (see for example Section 1.2 (6)). It is recommended that a list of the benefits expected to arise from State aid measures is provided in the EAG (e.g. 'measures shall: result in no net biodiversity loss; contribute to the protection of ecosystem services; minimising water consumption and the impact on water bodies and water quality; lead to a reduction in greenhouse gas emissions; result in an improvement in air quality).
- To screen for environmentally harmful subsidies, the EAG should require that applicants for State aid specify how negative environmental impacts are managed and/or will be mitigated (e.g. through environmental permits or by complying with other regulations).
- The guidelines must be updated to reflect the new European greenhouse gas emission reduction target of 80-95% below 1990 levels by 2050.
- To take all of these recommendations on board, the Commission could consider requesting the applicant to submit the results of the Environmental Impact Assessment (EIA). This will only be possible in case an EIA obligation exists and the results of this EIA are available when applying for State aid consent<sup>23</sup>. Alternatively, the Commission could consider to add checklist provisions to the EAG. These provisions would oblige applicants to provide a list of the benefits expected to arise from State aid measures or to indicate that there are no risks with regard to environmental harmful subsidies (minimum requirements). In Annex M an example is provided of what these checklist provisions could look like.
- Also, Annex L contains initial recommendations for incorporating guidance on other, non-environmental, resource efficiency objectives into the EAG.

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<sup>23</sup> It should be noted that, although the EIA Directive (2011/92/EU) ensures that all environmental impacts are assessed, it does not impose implementation details with regard to project decision considerations.

## 5.2.2 Incorporate recent policy developments into the EAG

### *Biodiversity and ecosystem services (environmental protection; sustainable development)*

- The Biodiversity Strategy to 2020 and Roadmap to a resource efficient Europe calls for protection of global biodiversity and states that biodiversity loss is the most critical global environmental threat alongside climate change — and the two are inextricably linked. The State aid guidelines have a crucial role to play in screening out subsidies which result in the loss of biodiversity or ecosystem services, thereby helping to correct this market failure. It is therefore recommended that the EAG are updated to include guidance on assessing the impact of State aid measures on biodiversity and ecosystem services.
- The value of ecosystem services differs with changing ecological priorities and with differing characteristics of beneficiaries; indeed priority species and habitats will vary from one Member State to another. To this end development of guidance to promote ecosystem services and protect biodiversity via State aid measures will likely require further research.
- As a starting point, the following are examples of questions that could be asked as part of the assessment of all aid measures:
  - Is the aid for a measure within, or close to, a designated site (e.g. Special Area of Conservation, Special Protected Area, Ramsar or UNESCO biosphere reserve)?
  - Are any European protected species present on or around the affected site?
  - Is biodiversity going to be negatively impacted by construction or operation resulting from State aid?
  - Will the aid measure help to conserve biodiversity or ecosystem services (e.g. remediation of contaminated land)?
- The EAG should contain provisions for aid measures which address challenges to biodiversity and ecosystem services (e.g. those that foster investments in natural capital and strengthen ecosystem resilience (including by contributing to climate change adaptation)). Aid measures should be able to seize the growth and innovation potential of green infrastructure.
- It is recommended that aid measures with a positive impact on biodiversity and ecosystem services could be used to improve knowledge of the links between biodiversity and climate change mitigation and adaptation, which is identified as a key research gap in the EU biodiversity strategy. The Guidelines for Regional Aid, R&D&I, and Agriculture and Forestry should also be updated to ensure that impacts of State aid measures on biodiversity and ecosystem services are assessed appropriately.

### *Land and soils*

- Guidance on the impact of State aid on land and soils should be incorporated into existing guidance on aid for contaminated land, waste management and renewable energy. The guidelines already contain provisions for aid for the remediation of contaminated sites: s3.1.10 (132) states ‘investment aid to undertakings repairing environmental damage by remediating contaminated sites will be considered compatible with the common market within the meaning of Article 107(3)(c) of the TFEU(48) provided that it leads to an improvement of environmental protection. The environmental damage concerned covers damage to the quality of the soil, or of surface water or groundwater’ (s 3.1.10).
- One easy amendment would be to include a statement to the effect: “the environmental damage concerned covers damage to the quality of the soil including soil erosion. Improvement to soil quality should be promoted where possible...”
- However improving soil quality should not be limited to remediation of contaminated land; it should also be a consideration for aid for waste management and renewable energy developments (e.g. installation of wind turbines). Therefore it is recommended that guidance is written into these sections, to highlight that aid must not lead to deterioration in soil quality.

### *Efficient use of minerals and metals (resource efficiency; sustainable development)*

- The Roadmap to a resource efficient Europe aims for more efficient use of minerals and metals, especially in the context of resource efficiency and waste prevention. Specific risks to the efficient use of minerals and metals include security of supply, technical challenges and skills shortages.

The Roadmap states that as we move towards a genuinely consumption based, sustainable materials management or a "circular economy", where waste becomes a resource, a more efficient use of minerals and metals will result. To assist in the transition to a "circular economy", the EAG should contain provisions for the efficient use of minerals and metals in the waste management sections (1.5.8 and 3.1.9). These provisions could include requesting applicants to identify how life-cycle impacts will be taken into account, and the extent to which the aid will contribute to improved research and innovation, and improved market structures. Guidance on eligible costs (section 3.1.9, point 134) could be updated to read 'eligible costs must be limited to the extra investment costs necessary to realise an investment leading to waste management and efficient use of minerals and metals'.

- The Integrated pollution prevention and control (IPPC) Directive concerns industrial and agricultural activities with a high pollution potential including production and processing of metals and the mineral industry. One factor for assessing impacts on minerals and metals may be whether the applicant has an IPPC permit (only applicable for large companies). Tailored guidance on aid intensity and operating aid for installations seeking to go beyond the requirements of their IPPC permit by accessing State aid could be developed.

#### *Energy efficiency of buildings (resource efficiency; sustainable development)*

- The Energy Roadmap 2050 aims for considerably better energy efficiency of buildings, and argues that nearly zero energy buildings should become the norm. Higher energy efficiency in new and existing buildings is key. Buildings, including homes, could produce more energy than they use, thereby contributing to climate change mitigation and adaptation. However this will require greater access to capital for consumers and innovative business models. S1.5.5. of the EAG already covers aid for energy savings; a reference to the potential of buildings to contribute to energy savings could be included here to support the priorities set out in the Energy Roadmap 2050.
- It would be helpful also to cross reference with the R&D&I Guidelines, to assess if and how State aid can contribute to research and innovation in this area.

#### *Water resources and quality*

- Recent policy developments highlight the need for the EAG to give more thorough consideration to the impact of State aid on water efficiency and quality (e.g. by promoting better demand management through economic instruments (pricing, water allocation), as well as research and innovation surrounding the use of labelling and certification schemes measuring life-cycle impact and the virtual water content of products).
- Section 3.1.10 (132) Aid for the remediation of contaminated sites already refers to aid investment to remediate surface water or groundwater. However it is recommended that improvements in water quality are not limited to remediation of contaminated land. Instead it would be beneficial to include a new section containing guidance on "aid for improving water quality and efficiency". The contents of this new guidance could be similar in structure to 'aid for energy savings' (e.g. by substituting energy savings for water savings in the eligible costs guidance):
  - a) the part of the investment directly related to water savings;
  - b) a level of water savings higher than Community standards;
  - c) extra investment for water savings.
- Guidance on assessing the impact of aid measures on water quality and efficiency would need to be developed by DG ENV (e.g. to identify minimum legislative standards which aid measures must go beyond).

#### *Climate change adaptation*

Given that the EAGs constitute one of the instruments to implement the environmental aspects of the energy- and climate change-related targets decided by the European Council, it is recommended that climate change adaptation is incorporated into the revised guidelines. Consultation with DG CLIMA on the best way to integrate climate change adaptation is recommended in light of the development of the European Adaptation Strategy (due February 2013). Prior to the introduction of the European Adaptation Strategy, aid for measures contributing to adaptation could be provided under the guise of 'early adaptation to future Community standards'; however it is likely that the revision of the State aid guidelines and the introduction of the European Adaptation Strategy will overlap. 'Reduced

vulnerability to climate change' or 'increased resilience to climate change' might be suitable assessment criteria/objectives to include in the revised State aid guidelines.

### 5.2.3 Monitoring and evaluation of State aid measures

- It is understood that progress is being made by the Commission to integrate environmental, economic and social accounting systems (e.g. through the use of indicators (see Roadmap for a resource efficient Europe)). Ambitious targets and robust, timely indicators will help to transform the economy towards greater resource efficiency. In light of this, it is suggested that relevant targets and indicators should be written into the guidelines to ensure that State aid leads to positive trends and outcomes in resource efficiency.
- A ranking system could be developed for Member States to 'score' State aid measures in terms of the resource efficiency/environmental protection/sustainable development targets and objectives they meet. Targets and objectives might be agreed at the Member State level depending on the priorities they face (e.g. one Member State might weigh efficient use of minerals and metals more greatly than an improvement in air quality depending on the current state of the environment). Alternatively, it might be decided that the same weightings are applied across EU Member States. The Commission should investigate this further.
- It is recommended that monitoring and evaluation takes place of all measures which are granted State aid, at an individual measure level as well as at a strategic, Commission level. At the individual measure level, this could include setting agreed targets for resource efficiency, environmental protection and sustainable development at the outset and completing half-yearly or yearly evaluations of progress towards targets.
- The Commission could then develop indicators to allow the impact of all State aid measures to be monitored and evaluated, and lessons learned to be translated into best practice for future assessment of measures. An example of an indicator for environmental protection could be *"the number of State aid cases and schemes which contribute to climate change adaptation/increase climate resilience/r reduce climate vulnerability"*.

## 5.3 Regional Aid Guidelines

### 5.3.1 Conclusions

For the Regional Aid Guidelines focus clearly lies on the economic and social impacts of measures concerned (GDP per capita compared to EU average; low population density; high unemployment; geographically isolated communities; areas undergoing structural change/serious decline; or a combination of these factors). The Regional Aid Guidelines do not require addressing the impact(s) on the environment, sustainable development and resource efficiency.

Therefore, as can be expected, the case studies show that taking into account environmental, sustainable development and resource efficiency considerations when applying for regional aid is not a given. Considerations on environmental impacts seem to be incidental due to the type of investment or to different priorities set by the Member State concerned.

### 5.3.2 Recommendations

- To integrate resource efficiency considerations in the Guidelines, they should require that the economic, social and environmental impacts of projects are identified, so that these can be taken into account in the balancing procedure. Information which is available from environmental impact assessments, environmental permits, et cetera, should be included in the project description. Where appropriate (e.g. for projects over a certain threshold, impacts should be quantified (and monetised, where possible), so that the impacts can be balanced in a quantitative way).
- To screen for environmentally harmful subsidies, the guidelines should require that the applicants specify what impact on the environment project is expected to have - positive, neutral or negative, and in latter case, specify how negative environmental impacts are to be managed (e.g. whether there will be mitigation measures and compliance with standards and regulations).

## 5.4 R&D&I Guidelines

### 5.4.1 Conclusions

The objective of State aid granted under the R&D&I Guidelines is to enhance economic efficiency and thereby, contribute to sustainable growth. The environmental impacts and resource efficiency considerations are not explicitly mentioned, but are indirectly taken into account through targeting market failures and through synergies between innovation for quality and performance and innovation to optimise energy use, waste and safety. Social impacts (cohesion, job creation and job quality and health effects) are not referred to in the guidelines.

In the selected cases analysed for the R&D&I Guidelines, it appears that economic and environmental impacts has been taken into account to a certain extent. However, the positive environmental impacts in the selected cases do not seem to stem from provisions in the R&D&I Guideline itself. Generally, they stand alone and no explicit reference is made to R&D&I Guideline requirements in that respect. Investments in R&D&I are mostly likely to have a positive impact on employment, income generation and knowledge spill-overs. Regarding the environmental impact in the R&D&I cases studied, investments in R&D&I are likely to have a positive impact on energy efficiency levels and hence lower emissions. The cases analysed often involve projects in the aviation and shipping sector to improve engines or other specific characteristics which often led to improved energy efficiency. However, other non-environmental factors related to resource efficiency, like waste generation, use of alternative or renewable energy sources, and impact on ecosystems are not taken into account.

As can be expected, based on the content of the R&D&I Guidelines, social impacts are generally not taken into account.

### 5.4.2 Recommendations

- An increase in R&D&I may contribute to sustainable development, including jobs and greater prosperity. Despite this the R&D&I Guidelines have given limited attention to resource efficiency, environmental protection and sustainable development. The R&D&I Guidelines should therefore be updated to ensure that State aid for R&D&I has a positive impact on resource efficiency, sustainable development and environmental protection and prevents aid being granted for projects which have a negative impact.
- Environmental impacts of R&D&I investments should be included in more detail in the guidelines. The case on the development of a new business-jet engine by Rolls Royce Deutschland (N195/2007) could serve as an example, where the environmental impact was calculated by means of a lower fuel consumption and a lower percentage of GHG emissions. In this case the decrease in emissions in percentages per greenhouse gas was specified as well as the estimated noise reduction corresponding with the development of this new engine.
- Furthermore, the environmental impacts which need addressing should be extended by including the effects on waste management, impact on ecosystem, land and water use, use of renewable energy sources and use of raw/secondary materials to fully cover the resource efficiency agenda.

## 5.5 Agriculture and forestry

### 5.5.1 Conclusions

In the Agriculture and Forestry Guidelines, environmental protection is well defined and they could serve as a role model for the other guidelines. The guidelines emphasise that: “... *particular attention therefore needs to be given to environmental issues in future State aid notifications, even in cases where the aid schemes are not specifically concerned with environmental issues. For example, in the case of an aid scheme for investments which are intended to increase production, and which involve an increased use of scarce resources or an increase in pollution, it will be necessary to show that the scheme will not result in an infringement of Community environmental protection legislation, or otherwise cause environmental damage. All State aid notifications should in future contain an assessment of the expected environmental impact of the activity aided*”. In case of forestry, 100% of aid can be provided to maintaining or restoring ecological, protective and recreational functions of forests, biodiversity and a healthy forest ecosystem.

However, impacts on other issues relating to resource efficiency, sustainable development and social and economic impacts are stated less clearly and could be improved.

### 5.5.2 Recommendations

- In the Agriculture and Forestry Guidelines, environmental protection is very well defined and could serve as a role model for the other guidelines. Impacts on other issues relating to resource efficiency, sustainable development and social and economic impacts are stated less clearly and could be improved.
- Consideration should be given to the fact that aid does not create conflicts with resource efficiency and environmental quality targets. Provisions for this could and should be included in the guidelines.
- A provision for compensating farmers for damage done by species protected by EU law, such as large carnivores and beavers, should be included to improve resource efficiency in terms of biodiversity.
- The guidelines should contain provisions which oblige the applicant to provide information on the impacts of the project on resource use and how these are managed for the specific project (e.g. through environmental permits or by complying with other regulations).

## 5.6 Overall recommendations (concerning ALL of the guideline documents)

- Article 11 of the TFEU states that “Environmental protection requirements must be integrated into the definition and implementation of the Union’s policies and activities, in particular with a view to promoting sustainable development”. It is recommended that all State aid notifications should in future contain an assessment of the expected environmental impact of the activity aided.
- The Commission should ensure the EAG, R&D&I and Regional Aid Guidelines promote a consistent approach to assessing State aid measures and that they cross-reference each other where relevant. For example, the EAG promote State aid for environmental innovation through incentives to counterbalance externalities. However State aid for R&D&I in the environmental field is subject to the rules set out in the R&D&I Guidelines which give limited consideration to resource efficiency, environmental protection and sustainable development.
- Within the studied transport schemes the environmental impact has been well addressed and quantified and monetised on basis of external costs (cost avoidance). Although these environmental cost benefit calculations are specifically related to transport, the way in which the environmental impact is monetised could serve as an example for the other schemes. In schemes for regional aid on investments in renewable energy for example, the reductions of emissions of CO<sub>2</sub> and other GHG compared to conventional energy could be quantified in the same way. With regard to agriculture and forestry, monetising external costs with regard to impacts on ecosystems or biodiversity might prove more difficult. The same holds for R&D&I where outcomes will be more uncertain due to the innovative character of investments concerned.
- Appropriate consideration should be given to the fact that aid does not create conflicts with Community environmental legislation, resource efficiency and environmental quality targets. Relevant provisions on this should be included in all guidelines undergoing revision.
- Regarding projects that are subject to an Environmental Impact Assessment obligation based on EU/national legislation (with reference to EU Directive 2011/92/EU) it is recommended that the guidelines prescribe that information must be provided, from official documents, on the environmental impacts related to the aid measures in question. This might be either limited to a short statement that the “project will have no or minimal potential adverse social and environmental impacts”; or include the Executive summary of the Assessment (if an EIA Report is available at the stage of application for State aid). Alternatively, the Commission could consider including checklist provisions to the relevant set of guidelines. These provisions would oblige applicants to provide a list of the benefits expected to arise from State aid measures or to indicate that there are no risks with regard to environmental harmful subsidies (minimum requirements). For example, the applicant could be obliged to conform that measures will not result in net

biodiversity loss; contribute to the protection of ecosystem services; minimise water consumption and the impact on water bodies and water quality; lead to a reduction in greenhouse gas emissions; result in an improvement in air quality, etc. In Annex M an example is provided of what these checklist provisions could look like.

- In general, we conclude that in most *schemes* that have been analysed the way in which multiple objectives and impacts are balanced is unclear and there is no requirement to provide information on certain types of impacts. To guarantee that multiple objectives and impacts are sufficiently balanced, it is recommended that the State aid guideline framework prescribes that applicants identify social, economic and environmental objectives and impacts and describe how these are taken into account in the balancing procedure. In schemes where the method of external cost calculation according to “the Handbook on estimation of external costs in the transport Sector” is not applicable, the requirements as stated in Regional Aid scheme N373/2008 (EE) can be applied. To get financing under this scheme, an applicant will have to submit an application fulfilling the seven evaluation criteria, which concern regional development impact, sustainability, reduction of CO<sub>2</sub> emission, energy efficiency, etc. In this way, the balancing of multiple impacts can be achieved. It would be recommended to apply requirements, such as those found in scheme N373/2008 (EE), to other Regional Aid schemes or even schemes subject to other Guidelines.
- When a project relies on procedures outside the scope of the scheme to manage environmental or social impacts (e.g. by requiring environmental permits, applicants should be obliged to clarify this in their application for State aid).
- In motivating its State aid granting decision the Commission should consider providing information on how it took the balancing of multiple objectives into account when deciding whether or not to grant State aid.

## References

### **EFTA Surveillance Authority, 1994**

State aid Guidelines

Online available at: <http://www.eftasurv.int/state-aid/legal-framework/state-aid-guidelines/>

(Last visited at 9th January, 2012)

### **European Commission, 2009**

Treaty Provisions on State aid

Online available at: <http://ec.europa.eu/competition/information/treaty.html>

(Last visited at 9th January, 2012)

### **European Commission, 2011**

Roadmap to a Resource Efficient Europe

Online available at: [http://ec.europa.eu/environment/resource\\_efficiency/pdf/com2011\\_571.pdf](http://ec.europa.eu/environment/resource_efficiency/pdf/com2011_571.pdf)

(Last visited at 9th January, 2012)

### **European Commission, 2010**

Scoreboard: Data on State aid measures

Online available at: [http://ec.europa.eu/competition/state\\_aid/studies\\_reports/measures.html](http://ec.europa.eu/competition/state_aid/studies_reports/measures.html)

### **Eurostat, 2011**

State aid in percentage of GDP (2001-2009)

Online available at: [http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=gov\\_oth\\_staid&lang=en](http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=gov_oth_staid&lang=en)

### **CE et al., 2008**

Handbook on estimation of external cost in the transport sector (IMPACT)

[http://ec.europa.eu/transport/sustainable/doc/2008\\_costs\\_handbook.pdf](http://ec.europa.eu/transport/sustainable/doc/2008_costs_handbook.pdf)

### **European Investment Bank (EIB), 2010**

Environmental and social screening process European Investment Bank - Environmental and Social Practices Handbook

[http://www.eib.org/attachments/thematic/environmental\\_and\\_social\\_practices\\_handbook.pdf](http://www.eib.org/attachments/thematic/environmental_and_social_practices_handbook.pdf)

**Annexes**

Annex A	Fiche Environmental Aid Guidelines
Annex B	Fiche Regional Aid Guidelines
Annex C	Fiche R&D&I framework
Annex D	State aid guidelines agriculture and forestry
Annex E	Overview cases studied
Annex F	Environmental aid (cases)
Annex G	Regional aid (cases)
Annex H	R&D&I (cases)
Annex I	Agriculture and forestry (cases)
Annex J	Transport (cases)
Annex K	Detailed analysis of Environmental Aid Guidelines
Annex L	Recommendations for incorporating guidance on other resource efficiency objectives into the Environmental Aid Guidelines
Annex M	Checklist (environmental) resource efficiency issues

# Annex A Fiche Environmental Aid Guidelines

Type: Horizontal guidelines

Reference: 2008/C 82/01

## Key definitions

- **Environmental protection** means by action designed to remedy or prevent damage to physical surroundings or natural resources by a beneficiary's own activities, to reduce the risk of such damage or to lead to more efficient use of natural resources, including energy saving measures and the use of renewable sources of energy.
- **Energy saving measure** means any action which enables undertakings to reduce the amount of energy used in particular in their production cycle.
- **Eco-innovation** means all forms of innovation activities resulting in or aimed at significantly improving environmental protection. Eco-innovation includes new production processes, new products or services, and new management and business methods, whose use or implementation is likely to prevent or substantially reduce the risks for the environment, pollution and other negative impacts of resources use, throughout the life cycle of related activities.
- **Renewable energy sources** means the following renewable non-fossil energy sources: wind, solar, geothermal, wave, tidal, hydropower installations, biomass, landfill gas, sewage treatment plant gas and biogases.

## Overview provisions and relevance regarding resource efficiency, environmental protection and/or sustainable development considerations

The Commission has identified a series of measures for which State aid may, under specific conditions, be compatible with Article 107(3)(c) of the Treaty of the Functioning of the European Union (TFEU). These are outlined in the following table.

Page/reference	Provisions	Impact (RE/SD/ENV)	Comments
Page 9	1.5.1. Aid for undertakings which go beyond Community standards or which increase the level of environmental protection in the absence of Community standards	ENV, SD	This type of aid provides individual incentives to companies to achieve higher environmental protection since normally an undertaking does not have an incentive to go beyond mandatory targets if the cost of doing so exceeds the benefits for the undertaking.
Page 9	1.5.2. Aid for the acquisition of new transport vehicles which go beyond Community standards or which increase the level of environmental protection in the absence of	ENV, SD	Transport is responsible for a large share of overall greenhouse gas emissions (approximately 30%) as well as

Page/reference	Provisions	Impact (RE/SD/ENV)	Comments
	Community standards		for local pollution by dust, particulates, NOx and SOx. Therefore, it is important to encourage the acquisition of clean transport vehicles.
Page 9	1.5.3. Aid for early adaptation to future Community standards	ENV, SD, RE	State aid may ensure significantly quicker implementation of newly adopted Community standards which are not yet in force and thereby contribute to reducing pollution at a faster pace than would have been the case without the aid. In such situations State aid may therefore create individual incentives for enterprises to counterbalance the effects of the negative externalities linked to pollution.
Page 9	1.5.4. Aid for environmental studies	ENV, SD	Aid to companies for studies on investments aimed at achieving a level of environmental protection going beyond Community standards or increasing the level of environmental protection in the absence of Community standards, as well

Page/reference	Provisions	Impact (RE/SD/ENV)	Comments
			as studies on energy saving and production of renewable energy, addresses the market failure linked to asymmetric information.
Page 9	1.5.5. Aid for energy saving	RE, SD	This type of aid addresses the market failure linked to negative externalities by creating individual incentives to attain environmental targets for energy saving and for the reduction of greenhouse gas emissions.
Page 10	1.5.6. Aid for renewable energy sources	RE, SD	This type of aid addresses the market failure linked to negative externalities by creating individual incentives to increase the share of renewable sources of energy in total energy production. Increased use of renewable energy sources is one of the Community's environmental priorities as well as an economic and energy-related priority. In addition, as highlighted in the Biofuel Progress Report biofuel promotion should benefit security of supply and climate change policy in a sustainable way. Thus State aid may be an appropriate instrument only for

Page/reference	Provisions	Impact (RE/SD/ENV)	Comments
			those uses of renewable energy sources where the environmental benefit and sustainability is evident.
Page 10	1.5.7. Aid for cogeneration and aid for district heating (DH)	RE, SD	These types of aid address market failure linked to negative externalities by creating individual incentives to meet environmental targets in the field of energy savings.
Page 11	1.5.8. Aid for waste management	RE, SD	The Sixth Environment Action Programme identifies waste prevention and management as one of the four top priorities. Its primary objective is to separate waste generation from economic activity, so that EU growth will not lead to more waste. Thus State aid may be granted to the producer of the waste (under section 3.1.1) as well as to undertakings managing or recycling waste created by other undertakings (under section 3.1.9). However, the positive effects on the environment must be ensured, the PPP must not be circumvented and the normal functioning of the secondary materials markets

Page/reference	Provisions	Impact (RE/SD/ENV)	Comments
			should not be distorted.
Page 11	1.5.9. Aid for the remediation of contaminated sites	ENV, SD	<p>Aid is intended to create an individual incentive to counterbalance the effects of negative externalities, where it is not possible to identify the polluter and make it pay for repairing the environmental damage it has caused. State aid may be justified if the cost of remediation is higher than the resulting increase in the value of the site.</p>
Page 11	1.5.10. Aid for the relocation of undertakings	ENV	<p>This type of investment aid aims to create individual incentives to reduce negative externalities by relocating undertakings that create major pollution to areas where such pollution will have a less damaging effect, which will reduce external costs.</p>
Page 11	1.5.11. Aid involved in tradable permit schemes	RE	<p>Tradable permit schemes may involve State aid in various ways, for example, when Member States grant permits and allowances below their market value and this is imputable to Member States. This type of aid may be used to</p>

Page/reference	Provisions	Impact (RE/SD/ENV)	Comments
			target negative externalities by allowing market-based instruments targeting environmental objectives to be introduced <sup>24</sup> .
Page 11	1.5.12. Aid in the form of reductions of or exemptions from environmental taxes	ENV	Reductions of and exemptions from environmental taxes concerning certain sectors or categories of undertakings may make it feasible to adopt higher taxes for other undertakings, thus resulting in an overall improvement of cost internalisation, and to create further incentives to improve on environmental protection.
<b>The balancing test and its application to aid for environmental protection (s1.3, page 5)</b>			
Page 5	Is the aid measure aimed at a well-defined objective of common interest? (e.g. environment, energy security).		
Page 5	Is the aid well designed to deliver the objective of common interest that is to say, does the proposed aid address the market failure or other objective?		
Page 5	Is State aid an appropriate policy instrument?		
Page 5	Is there an incentive effect, namely does the aid change the behaviour of undertakings?		
Page 5	Is the aid measure proportional, namely		

<sup>24</sup> This forms the basis for the Commission's assessment of situations arising during the trading period ending on 31 December 2012. With respect to situations arising during the trading period after that date, the Commission will assess the measures according to whether they are necessary and proportional. Finally, this will inform the revision of these Guidelines taking into account, in particular, the new Directive on the EU CO<sub>2</sub> Emission Trading System, for the trading period after 31 December 2012.

Page/reference	Provisions	Impact (RE/SD/ENV)	Comments
	could the same change in behaviour be obtained with less aid?		
Page 5	Are the distortions of competition and effect on trade limited, so that the overall balance is positive?		
<b>Compatibility with common market</b>			
Page 15	State aid for environmental protection is compatible with the common market within the meaning of Article 107(3)(c) of the TFEU if, on the basis of the balancing test, it leads to increased environmental protection activities without adversely affecting trading conditions to an extent contrary to the common interest.	ENV	

## Annex B Fiche Regional Aid Guidelines

Type: Horizontal guidelines

Reference: 2006/C 54/08

### Overview provisions and relevance regarding resource efficiency, environmental protection and/or sustainable development considerations

Page/reference	Provisions	Impact (RE/SD/ENV)	Comments
Page 1. PURPOSE (AIM)	Art. 2. ...national regional aid promotes the economic, social and territorial cohesion of Member States and the European Union as a whole.		Considerations with regard to resource efficiency, environmental protection and/or sustainable development are not explicitly mentioned.
Page 2. SCOPE	Art. 10. Regional aid should be granted under a multi-sectoral aid scheme which forms an integral part of a regional development strategy with clearly defined objectives. Such a scheme may also enable the competent authorities to prioritise investment projects according to their interest for the region concerned.	RE/SD	No specific provisions are laid down in guidelines, but it is presumed that national strategies would contain some provisions for RE/SD/ENV.
Page 6 – 7. <b>SELECTION OF ELIGIBLE REGIONS</b> Etc.	Selection criteria are based only on economic and social criteria (GDP per capita compared to EU average; low population density; high unemployment; geographically isolated communities; areas undergoing structural change/serious decline; or combination of these factors).		Considerations with regard to resource efficiency, environmental protection and/or sustainable development are not explicitly mentioned.

Page/reference	Provisions	Impact (RE/SD/ENV)	Comments
Page 9. <b>AID CEILINGS</b>	Differentiation is made only on the basis of economic factors (GDP per capita compared to EU-25 average).		Possible positive contribution to resource efficiency, environmental protection and sustainable development is not explicitly taken into account
Page 15. <b>ADDITIONAL COSTS</b>	Art. 81. ...additional transport costs may be authorised under the following conditions:  ...  - the estimate of additional cost must be based on the most economical form of transport and the shortest route between the place of production or processing and commercial outlets using that form of transport; external costs to the environment should also be taken into account.	SD/ENV	External costs to environment to be taken into account.
P. 20. <b>COMPATIBILITY.</b>	Art. 109. The Commission may decide to review or amend these guidelines at any time if this should be necessary for reasons associated with competition policy or to take account of other Community policies and international commitments.	RE/SD/ENV	Amendments may be implemented on behalf of with regard to other Community interests at any time.

# Annex C Fiche R&D&I framework (guidelines)

Type: Horizontal guidelines

Reference: 2006/C 323/01

## Overview provisions and relevance regarding resource efficiency, environmental protection and/or sustainable development considerations

Page/reference	Provisions	Impact (RE/SD/ENV)	Comments
Page 4 - 1.1 <b>Objectives of State aid for R&amp;D&amp;I</b>	The objective is through State aid to enhance economic efficiency and thereby, contribute to sustainable growth. The aim of this framework is to ensure this objective and in particular, to make it easier for Member States to better target the aid to the relevant market failures. (A 'market failure' is said to exist when the market, if left to its own devices, does not lead to an economically efficient outcome. It is in those circumstances that state intervention, including State aid, has the potential to improve the market outcome in terms of prices, output and use of resources).	SD/RE	Considerations with regard to sustainable development are taken into account. Resource efficiency is not explicitly mentioned, but indirectly taken into account by targeting market failures
Page 5 – 1.3 <b>The balancing test</b>	The Commission balances the positive impact of the aid measure in reaching an objective of common interest against its potentially negative side effects by distortion of trade and competition. It operates in three steps to decide upon the approval of a State aid measure.  (1) Is the aid measure aimed at a well-defined objective of common interest (e.g. growth, employment, cohesion, environment)?  (2) Is the aid well designed to deliver the objective of common interest (i.e. does the proposed aid address the		Balance test only considers negative effects in form of distortion of trade and competition. Proposal to include 4 <sup>th</sup> step in balance test which guarantees no distortional effects on environment, resource efficiency and sustainable development.

Page/reference	Provisions	Impact (RE/SD/ENV)	Comments
	market failure or other objective)?  (3) Are the distortions of competition and effect on trade limited, so that the overall balance is positive?		
Page 6 - 1.3.6  <b>Negative effects of the aid to R&amp;D&amp;I</b>	Negative effects of the aid to R&D&I must be limited so that the overall balance is positive. The possible distortions of competition resulting from State aid for R&D&I can be categorised as:  — disrupting the dynamic incentives of undertakings and crowding out;  — supporting inefficient production;  — exclusionary practices and enhancing market power;  — effects on the localisation of economic activities across Member States;  — effects on trade flows within the internal market.	RE/SD/ENV	Include bullet with distortions with respect to environmental protection, resource efficiency and sustainable development
Page 9 – 2.1  <b>Scope of application of the Framework</b>	This framework applies to State aid for R&D&I in the environmental field, as there are many synergies to exploit between innovation for quality and performance and innovations to optimise energy use, waste and safety.	ENV	When describing the scope of application of the Framework it is explicitly mentioned that considerations with regard to environmental protection are relevant
Page 19 – 7.  <b>COMPATABILITY OF AID SUBJECT TO A DETAILED ASSESSMENT</b>	The Commission considers that an increase in the level of R&D&I activity in the Community is in the common interest of the Community <b>as it can be expected to significantly contribute to growth, prosperity and sustainable development.</b> In this context, the Commission recognises that State aid	SD	Considerations with regard to sustainable development are taken into account

Page/reference	Provisions	Impact (RE/SD/ENV)	Comments
	<p>has a positive role to play when it is well targeted and creates the right incentive for undertakings to increase R&amp;D&amp;I. Nevertheless, State aid may also lead to significant distortions of competition which must be taken into consideration.</p>		
<p>Page 20 – <b>7.3. Positive effects of the aid</b></p>	<p>The fact that the aid induces undertakings that pursue R&amp;D&amp;I in the Community which they would not otherwise have pursued constitutes the main positive element to take into consideration when assessing the compatibility of the aid. In this context, the Commission will notably pay attention to the following elements:</p> <ul style="list-style-type: none"> <li>The net increase of R&amp;D&amp;I conducted by the undertaking,</li> <li>The contribution of the measure to the global improvement of the sector concerned as regards the level of R&amp;D&amp;I,</li> <li>The contribution of the measure to the improvement of the Community situation regarding R&amp;D&amp;I in the international context.</li> </ul>		<p>Possible positive contribution to resource efficiency, environmental protection and sustainable development is not explicitly taken into account.</p>

# Annex D State aid guidelines agriculture and forestry

Type: Sector-specific guidelines

Reference: 2006/C 319/01

Overview provisions and relevance regarding resource efficiency, environmental protection and/or sustainable development considerations

Page/reference	Provisions	Impact (RE/SD/ENV)	Comments
Page 4 – 22 General principles	Article 6 of the Treaty provides that <b>'environmental protection requirements must be integrated into the definition and implementation of the Community policies and activities referred to in Article 3, in particular with a view to promoting sustainable development.'</b> The activities referred to in Article 3 cover agricultural and competition policy. Particular <b>attention therefore needs to be given to environmental issues in future State aid notifications, even in cases where the aid schemes are not specifically concerned with environmental issues.</b> For example, in the case of an aid scheme for investments which are intended to increase production, and which involve an increased use of scarce resources or an increase in pollution, it will be necessary to show that the <b>scheme will not result in an infringement of Community environmental protection legislation, or otherwise cause environmental</b>	ENV/SD	Considerations with regard to environmental protection and/or sustainable development are explicitly mentioned and taken into account.

Page/reference	Provisions	Impact (RE/SD/ENV)	Comments
	<p><b>damage.</b> All State aid notifications should in future contain an assessment of the expected environmental impact of the activity aided. In many cases, this will involve no more than a confirmation that there is no expected environmental impact. The <b>Commission reserves the right to require additional information, undertakings and conditions it deems necessary for ensuring adequate environmental protection.</b></p>		
<p>p. 8 -49 Environmental and animal welfare aid</p>	<p>(A) In accordance with Article 174 of the Treaty, <b>Community policy on the environment shall aim at a high level of protection</b> taking into account the diversity of situations in the various regions of the Community. It shall be based on the precautionary principle and on the principles that preventative action should be taken, that <b>environmental damage should as a priority be rectified</b> at source and that the polluter should pay;</p>	<p>ENV</p>	<p>Considerations with regard to environmental protection are explicitly mentioned and taken into account.</p>
<p>p. 8 -49 Environmental and animal welfare aid</p>	<p>(B) <b>All environmental aid schemes in the agricultural sector should be compatible with the general objectives of Community environmental policy.</b> In particular, aid schemes which fail to give sufficient priority to the elimination of pollution at source or to the correct application of the polluter pays</p>	<p>ENV</p>	<p>Considerations with regard to environmental protection are explicitly mentioned and taken into account.</p>

Page/reference	Provisions	Impact (RE/SD/ENV)	Comments
	principle cannot be considered compatible with the common interest, and therefore cannot be authorised by the Commission;		
<p>p. 8 -49 Environmental and animal welfare aid</p>	<p>(C) since the adoption of the Community guidelines for State aid in the agriculture sector in 1999 (18), Community State aid policy <b>in favour of environmental protection</b> has been changed substantially, for example as far as operating aid or aid <b>in favour of renewable energy</b> is concerned. The rules set out in the 1999 guidelines for State aid in the agriculture sector are now in part stricter than those applied to other sectors. To avoid discrimination and to allow Member States to implement environmental policy across all sectors, the Commission has on various occasions applied the rules developed for other sectors also to the agriculture sector. For these reasons, apart from various measures that remain specific to the agriculture sector such as agri-environmental support, the <b>Community guidelines on State aid for environmental protection (19) shall in the future also apply to the agriculture sector;</b></p>	ENV	<p>Considerations with regard to environmental protection and resource efficiency are explicitly mentioned and taken into account.</p>
<p>p. 8 -49 Environmental and animal welfare aid</p>	<p>(D) Article 5 imposes an obligation to keep all agricultural land in good agricultural and environmental condition.</p>	ENV	<p>Considerations with regard to environmental protection are explicitly</p>

Page/reference	Provisions	Impact (RE/SD/ENV)	Comments
	No State aid under this chapter should be granted to farmers not meeting these conditions...		mentioned and taken into account.
p. 9 -50 Environmental and animal welfare aid	(A) Regulation (EC) No 1698/2005 and in particular Articles 39 and 40 thereof set out a framework for Community <b>support for agricultural production methods designed to protect the environment</b> and to maintain the countryside, and for animal welfare payments.	ENV	Considerations with regard to environmental protection are explicitly mentioned and taken into account.
p.9-54 Environmental and animal welfare aid	Aid exceeding the amounts fixed in the Annex to Regulation (EC) No 1698/2005 shall in principle only be declared compatible with Article 107(3)(c) of the TFEU if it is granted for demonstrated additional costs and/or income foregone, in exceptional cases taking into account of specific circumstances to be duly justified, in favour of commitments which entail a real change of current agricultural practice and <b>lead to a demonstrable and significant positive effect on the environment.</b>	ENV	Considerations with regard to environmental protection are explicitly mentioned and taken into account.
p.10 – 58 Environmental and animal welfare aid	Where, exceptionally, a Member State proposes to grant State aid in respect of commitments of a shorter duration than that prescribed in accordance with Regulation (EC) No 1698/2005, it should provide a detailed justification, including a demonstration that the <b>full environmental effects of the measure can be realised</b> in the	ENV	Considerations with regard to environmental protection are explicitly mentioned and taken into account.

Page/reference	Provisions	Impact (RE/SD/ENV)	Comments
	shorter time proposed.		
p.10- IV.C.4. Other aid in favour of environmental protection	(62) <b>The Commission will examine any other aid in favour of environmental protection</b> on the basis of the Community guidelines on State aid for environmental protection, which are thus declared applicable to the agriculture sector. Should those guidelines be modified or replaced, such new provisions shall be applied unless specified otherwise in such rules.	ENV	Considerations with regard to environmental protection are explicitly mentioned and taken into account
	(63) <b>Aid for environmental protection in favour of companies active in the processing and marketing of agricultural products shall be declared compatible</b> with Article 107(3)(c) of the TFEU if it fulfils all the conditions of the Community guidelines on State aid for environmental protection. In case of investment aid in favour of environmental protection, a possible higher maximum aid rate resulting from the application of the rules for investment aid set out above in chapter IV.B may be applied.	ENV	Considerations with regard to environmental protection are explicitly mentioned and taken into account
p.11 – Aid to compensate for Handicaps in certain areas	(73) B. The level of compensatory payments shall be <b>proportionate to the economic impact</b> of the handicaps	SD	Considerations with regard to sustainable development in terms of economic welfare are explicitly mentioned and taken into account
p.12 – Aid to compensate for Handicaps in certain areas	(74) The Commission, in coherence with <b>rural development rules</b> ,	SD	Considerations with regard to sustainable

Page/reference	Provisions	Impact (RE/SD/ENV)	Comments
	reserves the right to require degressive payments for farms above a certain size. To that effect, notifications should specify the size of the farm that will benefit from these payments.		development are taken into account
p.12 –Aid for meeting standard	(76) a Article 31 of Regulation (EC) No 1698/2005 <b>provides for support to farmers towards parts of the costs incurred and income foregone as a result of the application standards in the fields of environmental protection</b> , public health, animal and plant health, animal welfare and occupational safety	ENV	Considerations with regard to environmental protection are explicitly mentioned and taken into account
p. 13 – 83 Aid for the setting up of young farmers	(83) Support for the setting-up of young farmers tends to encourage the development of the sector as a whole and prevent the depopulation of rural areas.	SD	Considerations with regard to sustainable development are explicitly mentioned and taken into account
p.22 – 144 Aid for closing production processing and marketing capacity	(144) a Aid must be demonstrated to be <b>in the interest of the sector as a whole</b> . Where excess capacity does not exist and it is clear that capacity respecting all applicable standards and which would otherwise not close is being reduced for animal or human health, sanitary or <b>environmental reasons such as reduction of overall stocking densities</b> , this will be sufficient to show that this condition is met	ENV/SD	Considerations with regard to environmental protection and sustainable development are taken into account
p.23 -144 Aid for closing production processing and marketing	(144) h To <b>avoid erosion and other negative effects on the environment</b> , open	ENV	Considerations with regard to environmental protection taken

Page/reference	Provisions	Impact (RE/SD/ENV)	Comments
capacity	farmland or orchards taken out of production must in principle be afforested in such a way as to ensure that negative effects on the environment are avoided.		into account
p.25 – 152 Aid for advertising of agricultural products	(d) If aid granted for the advertising of agricultural products is not to be regarded as operating aid but compatible with the common market under Article 107(3)(c) of the TFEU, it <b>should not interfere with trade to an extent contrary to the common interest and should facilitate the development of certain economic activities</b> or of certain economic areas;	SD	Considerations with regard to sustainable development are taken into account
p. 29 – 173 Aids for the forest sector	In addition to the rules and instruments mentioned it is established Commission practice to <b>authorise State aid for conservation, improvement, development and maintenance of forests on account of the ecological, protective and recreational functions of forest.</b>	ENV	Considerations with regard to environmental protection are taken into account
p.29 – 174 Aids for the forest sector (Analysis)	(C)The Commission has traditionally accepted State aid up to 100 % of eligible costs for measures <b>promoting the maintenance of the forest environment</b> including plantation, felling and pruning of trees or removing fallen trees, phytosanitary measures and soil improvement. Such aid should continue to be accepted in the future where the Member State can show that the measures contribute to	ENV	Considerations with regard to environmental protection are taken into account

Page/reference	Provisions	Impact (RE/SD/ENV)	Comments
	<p><b>increasing long-term forest cover and maintaining or restoring biodiversity and a healthy forest ecosystem and the protective function of forests.</b></p>		
<p>p.29 – 175 Policy concerning forestry</p>	<p>To contribute to the maintenance and improvement of forests and to <b>promote their ecological, protective and recreational function</b> the Commission will declare State aid up to 100 % compatible with Article 107(3)(c) of the TFEU for the following eligible costs where the Member State can <b>demonstrate that these measures are directly contributing to maintaining or restoring ecological, protective and recreational functions of forests, biodiversity and a healthy forest ecosystem:</b></p> <p>(a) planting, pruning, thinning and felling of trees and other vegetation in existing forests, removing fallen trees, as well as restoring forests damaged by air pollution, animals, storms, fire, floods or similar events, and the planning costs of such measures, where the primary objective of such measures is to <b>contribute to maintaining or to restoring forest ecosystem and biodiversity or the traditional landscape</b></p> <p>(b) <b>maintaining and improving the soil</b></p>	<p>ENV</p>	<p>Considerations with regard to environmental protection are taken into account</p>

Page/reference	Provisions	Impact (RE/SD/ENV)	Comments
	<p><b>quality in forests and ensuring balanced and healthy tree growth.</b>                      Measures may include soil improvement by fertilisation and other treatments to maintain its natural balance, reducing excessive vegetation density and ensuring sufficient water retention and proper drainage. Aid may cover the planning costs of such measures. The measures must not reduce biodiversity, cause nutrient leaching or adversely affect natural water ecosystems or water protection zones.</p>		
<p>p. 31 – 177                      Policy concerning forestry</p>	<p>Aid exceeding the amounts fixed in the Annex to Regulation (EC) No 1698/2005 shall in principle only be declared compatible with Article 107(3)(c) of the TFEU if granted for demonstrated additional costs and/or income foregone, in exceptional cases taking into account specific circumstances to be duly justified, <b>in favour of commitments which lead to a demonstrable and significant positive effect on the environment.</b></p>	ENV	Considerations with regard to environmental protection are taken into account

## Annex E Overview cases studied

	<i>Individual application</i>	<i>Ad-hoc case</i>	<i>Scheme</i>
<b>Environmental Aid Guidelines (7)</b>	<ul style="list-style-type: none"> <li>• N58/2008 (Finland): tax exemption and tax rate reduction for the pilot manufacture of NExBTL, transport biodiesel and fuel blends containing NExBTL</li> <li>• N135/2010 (Austria): grant aimed at eliminating all soil contamination on site to ensure good quality groundwater in the region</li> <li>• N364/2009 (Italy): creation of a cogeneration power plant for the recovery and use of waste heat from industrial processes to be connected to a district heating network in the area of Aosta - Italy</li> </ul>	<ul style="list-style-type: none"> <li>• N707/2007 (Estonia): reconstruction district heating infrastructure</li> <li>• N143/2008 (Slovakia): remediation of an industrial site contaminated by the production of primary aluminium from bauxite ore</li> </ul>	<ul style="list-style-type: none"> <li>• N517/2010 (United Kingdom): WRAP (Waste and Resources Action Programme) – Capital Grants and Lease Guarantee Fund Scheme (prolongation and modification)</li> <li>• N478/2007 (Netherlands): SDE (Stimulating renewable energy, modification of the MEP)</li> </ul>
<b>Regional Aid Guidelines (22)</b>	<ul style="list-style-type: none"> <li>• N730/2007 (Latvia): investment in an extension of wood briquettes and granules plant “Ekobriketes” in Karsava</li> <li>• N199/2008 (Germany): investment to build a new Intico Solar AG production plant for thin film solar modules in Kabelsketal</li> <li>• N180/2009 (Italy): investment to build a new En Plus thermo electric power plant (San Severo)</li> <li>• N191/2008 (Germany): LIP-f/glass (Osterweddingen)</li> <li>• N381/2008 (Italy): Investment to Pirelli Industrie Pneumatici S.r.l.</li> <li>• C30/2010 (Germany): Infrastructure Aid to Propapier</li> <li>• N767/2007 (Romania): Investment to LIP - Ford</li> </ul>	<ul style="list-style-type: none"> <li>• N500/2009 (Slovakia): investment in building a new lignite mining cave in Bana Cary</li> <li>• C34/2009 (Portugal): investment for modernisation and extending two existing oil refinery units of Petrogal S.A. (Sines and Matosinhos)</li> <li>• N676/2009 (Spain): Improvement of the quality of electricity provision in Murcia</li> <li>• N67/2010 (Lithuania): Investment for UAB</li> </ul>	<ul style="list-style-type: none"> <li>• N435/2008 (Poland): Regional aid scheme for investments in the construction and reconstruction of the gas distribution network and to ensure the smooth operation of the gas distribution system</li> <li>• N93/2008 (Italy): Direct grants for investments projects in Sardinia</li> <li>• N373/2008 (Estonia): Wider use of renewable energy sources for energy production</li> </ul>

	<i>Individual application</i>	<i>Ad-hoc case</i>	<i>Scheme</i>
	Craiova <ul style="list-style-type: none"> <li>• N27/2010 (Italy): Investment to LIP – Fiat Powertrain Technologies (Verrone)</li> <li>• N513/2008 (UK): Investment Aid to Babcock Marine Rosyth Ltd</li> </ul>	“Toksika”: construction of new hazardous waste landfill (Augstrakiai)	<ul style="list-style-type: none"> <li>• N426/2008 (Latvia): Scheme regarding the increase of efficiency of centralised heat supply systems</li> <li>• N322/2009 (Spain): Investment aid for the creation of new commercialisation structures</li> <li>• N436/2008 (Poland): Aid scheme for investments in the setting-up and extension of enterprises producing machines and installations for the renewable energy generation, bio-components and liquid fuels</li> <li>• N584/2009 (Portugal): Operating aid for SMEs and micro-enterprises in Madeira</li> <li>• X159/2008 (UK): Scottish local authority support to regional and SME investment and employment aid</li> <li>• X838/2009 (Latvia): Soft loans for development of SMEs and micro-enterprises</li> </ul>
<b>R&amp;D&amp;I Guidelines (10)</b>	<ul style="list-style-type: none"> <li>• N342/2007 (Germany): innovation aid to Nordseewerke (shipbuilding framework)</li> <li>• N144/2010 (Netherlands): Rekkof.</li> </ul>	<ul style="list-style-type: none"> <li>• N4/2010 en N7/2010 (Spain): individual R&amp;D aid to ALESTIS</li> </ul>	<ul style="list-style-type: none"> <li>• N593/2007 (UK): The Energy Technologies Institute (ETI)</li> <li>• N15/2008 (UK):</li> </ul>

	<i>Individual application</i>	<i>Ad-hoc case</i>	<i>Scheme</i>
	Individual aeronautics R&D aid <ul style="list-style-type: none"> <li>• N447/2007 (France): Aid d'Etat Turbomeca</li> <li>• N647/2007 (France): aide individuelle a la R&amp;D pour le projet "PAMELAT, Pointe avant mixte Latecoere, Recherche et innovation dans la filiere composite aeronautique</li> </ul>	Aerospace SL <ul style="list-style-type: none"> <li>• N195/2007 (Germany): individual R&amp;D aid for Rolls Royce Deutschland</li> <li>• N204/2010 (Sweden): R&amp;D aid to Volvo Aero for Trent XWB ICC</li> <li>• C33/2008 (Sweden): large R&amp;D aid to Volvo Aero Corporation – Genx</li> </ul>	national endowment for Science, Technology and the Arts – Young Innovative Enterprise Scheme (NESTA YIE)
<b>Agriculture and Forestry (15)</b>	<ul style="list-style-type: none"> <li>• N635/2009 (Poland): reclamation for nature purposes of degraded post-military areas</li> <li>• N566/2008 (Slovakia): aid for protection measures in National Parks TANAP and PIENAP and their buffer zones</li> <li>• N168/2009 (Italy; Sardinia): restructuring aid to agricultural cooperative Azienda Cantina de Marribiu</li> <li>• N403/2009 (Spain): investment aid to Naturiber S.A. (Castilla y Leon)</li> <li>• SA 33053 (2011/N): development tax benefit to Pannonia Ethanol Zrt (Dunaföldvár; Hungary)</li> <li>• SA 33516 (N/2011): Compensation for damages caused by beavers (Bavaria; Germany)</li> <li>• SA 33157 (2011/N): Aid for investment in agricultural holdings (Bulgaria)</li> <li>• SA 33855: Aid to support cheese production in Auvergne-Limousin (Haute Dordogne; France)</li> </ul>		<ul style="list-style-type: none"> <li>• SA 32134/2010 (Germany): Framework of the Common Task "Improvement of Agricultural Structures and Coastal Protection" (GAK)</li> <li>• SA32706/2011 (Hungary): Forest environment measures-EAFRD</li> <li>• SA 33182/2011 (Germany): Directive of the Saxony Environment and Agriculture Ministry on support measures aiming at safeguarding natural biological diversity and natural rural heritage in Saxony</li> <li>• SA 33228/2011 (Slovakia): Restoring</li> </ul>

	<i>Individual application</i>	<i>Ad-hoc case</i>	<i>Scheme</i>
			<p>forestry potential and introducing prevention actions in the military areas</p> <ul style="list-style-type: none"> <li>• N352/2010 (Spain): Non-productive investment in private Natura 2000 forests in Murcia</li> <li>• XA185/2008 (UK): Catchment Sensitive Farming Capital Grant Scheme</li> <li>• N89/2010 (Bulgaria): Aid to agricultural holdings to meet the minimum standards for the protection of laying hens</li> </ul>
<b>Transport (3)</b>			<ul style="list-style-type: none"> <li>• SA 32603/2011 (Italy): Subsidy scheme "Ferrobonus" for combined transport</li> <li>• N247/2009 (United Kingdom): Mode Shift Revenue Support Scheme</li> <li>• N246/2009 (UK): Waterborne Freight Grant Scheme</li> </ul>

### Additional information on Regional Aid schemes

- **N93/2008 (IT)** No economic or environmental objectives are taken into account in the balancing procedure within this scheme; only a sustainable development condition was found: that the investment must be maintained at least for 5 years as well as that the newly created jobs that were declared necessary to the implementation of the project shall be maintained for at least 3 years from the conclusion of the project.
- In scheme **N322/2009 (ES)**: economic and social objectives are taken into account by requirements with respect to sustainable development, employment and sales. Aid is granted, provided that the supported investment project results in the setting up of a new market establishment, which sells at least 70% of the production of each of the companies in the cooperation. With respect to the contribution to sustainable development of the regional aid, the investment must be maintained at least for 5 years. Furthermore, the newly created jobs that were declared necessary to the implementation of the project shall be maintained for at least 3 years from the conclusion of the project. Environmental objectives are not taken into account in the balancing procedure.
- In scheme **N426/2008 (LV)**, it is stated that, as a general rule, regional aid should be granted under a multi-sectoral aid scheme, which forms an integral part of a regional development strategy with clearly defined objectives. However, there is no further information on how multiple objectives are balanced or conditioned in the granting procedure.
- **Scheme N373/2008 (EE)** is designed to contribute to regional development (with particular emphasis on socially disadvantaged areas) and is, at the same time, contributing to a reduction in CO<sub>2</sub> emissions. Environmental, economic and social objectives are well taken into account and balanced. To receive financing under the scheme, an applicant will have to submit an application fulfilling the seven evaluation criteria of the regulation of the Ministry of Environment, which concern regional development impact, sustainability, reduction of CO<sub>2</sub> emission, energy efficiency. Aid is granted to the applicant with the highest score.
- **Scheme N435/2008 (PL)** aims to provide incentives for the investments enabling effective functioning and balanced development of natural gas distribution network in Poland. The scheme implementing several objectives of the Operational Programme Infrastructure and Environment in terms of promotion of sustainable growth, competitiveness increase and employment growth. With respect to environmental, social and economic objectives, conditions on granting State aid are only stated in form of the obligation of maintaining the investment region where the investment takes place during a minimum period of five years (three years in case of SMEs) after its completion in accordance with paragraph 40 of the Regional Guidelines.
- The investment project of scheme **N436/2008 (PL)** and intend to lead to the rational use of natural resources, environment protection through the use of renewable sources, ensuring of the uninterrupted stocks of fuels to cover the demand, increase of energy efficiency, implementation of clean technologies for the electricity generation, including renewable energy sources, diversification of fuel production and energy security. To receive State aid, certain conditions with respect to economic and social objectives must be met:
  - a) the number of jobs created by the envisaged projects will constitute a criterion in the assessment of the aid applications in the competitive procedure (economic objective);
  - b) The aid under the schemes is conditioned on the obligation of maintaining the investment region where the investment takes place during a minimum period of five years (three years in case of SMEs) after its completion (sustainability condition). No conditions with respect to environmental objectives.

### Additional information on R&D&I individual application/ad-hoc cases (multiple objective weighting)

- **C33/2008 Sweden:** no social or economic impacts mentioned, only environmental impacts (RE)
  - The GENx is developed towards extremely challenging targets of low fuel consumption, low noise, low emissions and low weight.
  - No mention of how multiple objectives are balanced. The only focus is on how market failures are addressed and effects on competition (incentives).
  
- **SA 30282 – Sweden:** positive economic and environmental impact (employment and RE/ENV PR)
  - Positive effects expected with respect to knowledge spill-over to the benefit of the aeronautic sector, other industries and eventually the EU as a whole. Volvo Aero will share R&D results with suppliers and provide them with technical, logistical and programme management support. The suppliers will then use the new technology to develop new materials, machinery and services within their own domains, which will further contribute to knowledge spill-over. Since many suppliers of parts and sub-assemblies will be involved in developing and manufacturing the fabricated ICC, positive employment effects are expected.
  - The Trent XWB is expected to achieve high reliability and low ownership costs. It will draw on the latest manufacturing, materials and thermodynamic expertise to deliver lower fuel burn and maintenance costs while minimising noise and reducing environmental impact. It seeks in particular to reduce fuel consumption, emissions and lifecycle costs
  - Only balancing test regarding positive and negative effects on competition (Guideline 7.5), not for balancing resource efficiency, environmental protection and sustainable development considerations.
  
- **N4/2010 – Spain:** no social impact, positive economic impact (employment, knowledge spill-over)
  - R&D project will sub-contract a high proportion of work and will increase employment for its partners and suppliers by the development of a range of materials, machinery and services. Project will contribute to knowledge spill-over and dissemination of technical knowledge to the benefit of the entire aeronautical sector, including other industries and universities and research centres
  - The R&D project aims to make the A-350 XWB more efficient and reliable, in particular by using technologies and procedures resulting in improved fuel efficiency, reduced emissions of carbon dioxide and lower noise levels.... A general decrease of 25% fuel consumption per passenger is estimated for the improved airplane
  - No information on how economic, social and environmental impacts are weighted. Positive knowledge spill-over included in balancing test.
  
- **N195/2007 – Germany:** positive economic, social and environmental impact
  - The project will bring significant employment effects. ... RRD will hire more R&D-personnel for the project. 150 new jobs will be created between 2005 and 2011 and directly assigned to development activities in RRD's site in Land Brandenburg. Approximately 30 new employments are expected in RRD's site in Land Hesse sites. RRD currently employs 600 persons in its R&D-department.... In the development phase (2005-2014) a total of 343 jobs is estimated, in the production phase (2010-2024) 910 jobs and in the aftersales phase (2025-2049) 197 jobs.... Other expected positive economic effects are knowledge spill-overs: an efficient use of knowledge by other firms situated in the assisted region as well as an expected increase in other firms' R&D, in order to absorb more of the knowledge generated by the project.
  - According to information provided by the German authorities, the positive impact on the region will last beyond the project's lifetime, as the aid will have allowed an upgrading of the competencies in the region, [...]. According to the German government, the project will be second only to the very large airport project in the south-east of Berlin (Berlin-Brandenburg International 'BBI'), as regards its positive effects on the region.

- Sub paragraph (28) states a lower percentage of emissions of Nox (4%), CO<sub>2</sub> (4%), and noise (5 dB) on the new BR725 business jet series compared to the old BR710series. Also fuel consumption is estimated to decrease by more than 4%.
  - Conditions to assess aid are based on community framework for state aid for R&D&I, on aid intensity, compatibility, necessity and incentive effect. Second level: on risks for trade and competition. RE, SD and EP are not taken into account.
  - Successful outcome as a condition for repayment: this depends on development of profit, private wealth, technical necessity and demand development.
  - Balancing negative and positive effects: environmental, employment and spill-over effects are taken into account in the balancing. Not known what weight factor is applied.
- **N324/2007 Germany:** no mentioning of social and economic impact
    - Less fuel needed when ship can stay offshore for longer period of time without having to return to the harbour every day.
    - No balancing test performed, no positive effects mentioned.
- **N144/2010 Netherlands:** No social impact; positive economic and environmental impact
    - Positive effects on employment for subcontractors, suppliers and research institutes. Investment will contribute to technological knowledge spill-over and an increase in human capital.
    - The development will focus on combining the proven concept of the predecessor aircraft with the latest advancements. In particular as regards ... fuel efficiency and noise reduction.... And is expected to meet the demand of airlines that are replacing aircraft due to aircraft age, operating economics and environmental requirements.
    - Positive spill-over effects mentioned with regard to balancing test.
- **N647/2007 – France:** no mention of social impact; positive economic and environmental impact
    - Positive effects on employment and knowledge spill-over. Almost EUR6 million will be spent on research jobs and another EUR7.5 million on costs for consultants.
    - The technological innovation meets performance criteria, particularly in terms of reduction mass, but also in terms of no corrosion, tolerance damage, etc. These performance improvements should result in reduced operating costs by service (fuel consumption, preventive inspections, maintenance, etc...)
    - Positive effects regarding knowledge spill over are taken into account in balancing test.
- N447/2007 – France:** no social or economic impact; positive environmental impact
- The engine has low fuel consumption... Considerations of environmental requirements are taken into account: low emissions of gas and noise, removal of hazardous substances (cadmium, lead). Research will be conducted to reduce the noise level and to contribute to an index of gases/smoke ("indice de fumée inférieur).
  - No positive environmental impacts taken into account in balancing test.
- N593/2007 UK:** no social or economic impact; positive environmental impact
- The UK authorities confirmed that the economic and non-economic activities and their costs and funding will be clearly separated to prevent cross-subsidy, and to ensure that the research organisations charge full economic costs for their economic activities..... It is expected that the collaboration will not provide any advantages to the enterprises.
  - The objective is to accelerate the development, demonstration and commercial deployment of energy technologies in order to increase energy efficiency, reduce greenhouse gas emissions and help achieve energy and climate change goals; however there is no mention of how this will be realised later on in the project plan. The ETI will focus on key energy challenges, such as large-scale energy supply technologies, energy security of supply, end-use efficiency and demand management, transport, small-scale energy-supply technologies, support infrastructure, and the alleviation of energy poverty.
  - No mention of balance test or positive effects taken into account.

**N15/2008 UK:** Positive social impact; no mention of environmental and economic impacts

- The objective of the notified measure is to conduct social and commercial investment in young innovative enterprises in order to support and promote talent, innovation and creativity in the fields of science, technology and the arts.
- No mention of balancing test or positive effects taken into account.

#### **Additional information on Agriculture and Forestry schemes**

- **SA 32134/2010 (DE):** The scheme refers often to conditions that have to be met according to the Community Guidelines for State aid in the agriculture and forestry sector 2007-2013. Economic and social objectives are not taken into account in the balancing procedure. Only with respect to environmental conditions it is stated that State aid will be declared 100% compatible if it can be demonstrated that the measures are directly contributing to maintaining or restoring ecological, protective and recreational functions of forests, biodiversity and a health forest ecosystem.
- **SA 32706 2011(HU)** No considerations with respect to economic or social objectives. There are 9 target programs for which State aid can be granted. Payments are per hectare of forest to beneficiaries who make forest environmental commitments going beyond the relevant mandatory commitments. Minimum and maximum amount per ha depend on target program. These commitments should be undertaken for a period between 5-7 years. State aid for the additional costs and income foregone due to the use of environmentally friendly forestry technology going beyond the relevant mandatory requirements is authorised.
- **SA 33182/2011 (DE):** Scheme supports measures aiming at safeguarding natural biological diversity and natural rural heritage in Saxony. The currently notified standard costs are calculated on the basis of several data basis, including relevant cost data previously gathered in the on-going Rural Development Programme for Sachsen. For aid calculations, costs should be differentiated to take into account regional or local site conditions and actual land use as appropriate. Furthermore, non-productive investments in relation to agri-environmental commitments (such as upgrading or re-wetting of green areas) or protecting endangered species, are taken into account. Last condition to be met is that the notified measures should be coherent with the ongoing Rural Development program for Sachsen. No requirements with respect to social or economic objectives.
- **SA 33228/2011(SK):** Scheme supports measures that restore forests potential in the forests in the military districts of the Slovak Republic which are substantially damaged by natural disaster, pest, diseases and forest fires. Scheme refers to the Community Guidelines for State aid in the Agriculture and Forestry Sector 2007 to 2013, which states that the aid measures should contribute to maintaining, restoring or improving ecological and protective functions of forests, biodiversity and a healthy forest ecosystem. No mention on balancing social, economic and environmental objectives in balancing procedure.

#### **Additional information on Transport schemes**

- **In scheme SA 32603/2011 (IT)** , the awarding criteria of the scheme have been designed to generate a sustainable trend of modal shift to reduce congestion and accidents by a modal shift from road transport to train or water inland transportation. Environmental and social objectives are balanced in granting aid by the fundamental charging principle that for using infrastructure not only infrastructure costs must be covered, but also external costs connected with accidents, air pollution, noise and congestion. Social and economic considerations (in terms of job or income creation are) are not considered, except for the obligation that is made to the beneficiaries to maintain the modal shift in traffic for a certain period of time. In this way sustainability of the investment project is being ensured.
- **Scheme N 247/2009 (UK)** aims to secure the environmental benefits associated with the retention and growth of rail and inland waterway freight traffic and provide incentives for mode shift from road to inland waterway services. Environmental and social considerations are explicitly mentioned in the balancing procedure: the available budget is allocated to those services which offer the greatest environmental benefits. Grants are calculated on the basis of avoided external costs of rail compared to road transportation. These external costs concern congestion and accidents (social) and noise, pollution, climate change (environmental). Furthermore, it is stated that grants will not exceed 30% of the total cost of rail transport or the total cost of inland waterway transport, up to 50% of the avoided external costs compared with road transport.

# Annex F Environmental aid (cases)

## F.1 Individual applications/ad-hoc cases

Measure/case	Summary	Economic	Scale of impact	Social	Scale of impact	Environmental	Scale of impact
<p><i>Estonia</i> (N707/2007)</p> <p><i>Duration</i> 01.02.2008 to 30.04.2009</p> <p>Contact T.E. hr. Urmas PAET</p> <p>Välisminister Islandi väljak 1 15049 Tallinn Estonia Neelie KROES Member of the Commission</p>	<p>This case describes a notified <b>ad-hoc aid measure</b> with energy saving as its primary objective. The project involves reconstruction of district heating infrastructure.</p> <p>The aid is in the form of a direct grant (EEK 5.072 million (EUR324 174) from the Norwegian Financial Mechanism<sup>25</sup>. The means will be allocated to Estonia's State budget, and the payments to beneficiaries will be made from the State budget<sup>26</sup>. The notified intensity is 60%<sup>27</sup>.</p> <p>The beneficiary is a company called AS Sillamäe SEJ (Sillamäe</p>	<p>The assessment does not address in detail the economic impacts of the aid.</p> <p>The aid recipient will not receive an advantage on the fuel economy, or on the decrease of heat losses due to the reconstruction of pipeline.</p> <p>Possible cost savings will be reflected in the end consumer's heating price, which might be lower than it would be in case of no support. There will be increased energy efficiency and reduced dependency on imported energy sources.</p> <p>The reconstruction of the pipeline will provide local employment opportunities (e.g. dismantling the pipeline, installation works and conducting energy audits).</p>	+/-	<p>Social impacts are not explicitly addressed however the following impacts can be inferred.</p> <p>The beneficiary AS Sillamäe SEJ is the sole heat producer of Sillamäe town's energy market and owner of the district heating network (grid), supplying all the heat in the town. Thus it is likely that the cost savings will be passed on to the end-consumers of heat due to the price regulation of heat in force in Estonia<sup>28</sup>. This may reduce fuel poverty in the town and wider region.</p> <p>Replacing the pipeline situated in the beach area will create recreational area for the town residents, creating a positive health and social impact.</p>	+	<p>The notified aid is targeted at supporting investment in energy efficiency. The pipelines to be replaced are situated on the ground, and create great heat losses in comparison with the pipelines situated underground.</p> <ul style="list-style-type: none"> <li>• Savings of heat energy (2,443 MWh per year) amount to approximately 1.63% of the average output, and result in the corresponding decrease of the pollution.</li> <li>• Reduced fuel consumption (1,945 tonnes per year).</li> <li>• Reduced pollution levels (tonnes per year):                         <ul style="list-style-type: none"> <li>– Dust: 7.12;</li> <li>– SO<sub>2</sub>: 13.8;</li> <li>– NO<sub>x</sub>: 0.8;</li> <li>– CO: 1.89;</li> <li>– CO<sub>2</sub>: 1,600<sup>29</sup>.</li> </ul> </li> <li>• Investments in buildings,</li> </ul>	+

<sup>25</sup> The Norwegian Financial Mechanism is parallel to the European Economic Area (hereinafter EEA) Financial Mechanism. The three EEA-EFTA states: Iceland, Liechtenstein and Norway will make a total of EUR600 million available to the 10 countries that joined the EU and the EEA in May 2004, as well as to Greece, Portugal and Spain through the EEA Financial Mechanism. In addition, Norway will make an additional EUR567 million available to the 10 countries that joined the EU and the EEA in 2004 through the Norwegian Financial Mechanism. The funds of the two Mechanisms cannot be committed after 30.04.2009.

<sup>26</sup> The general policy tools of the priority area "Protection of Environment" of the Norwegian and EEA financial mechanisms are i.a. reduction of pollution and promotion of renewable energy. In Estonia, the specific objectives of the priority area are promotion of energy efficiency, including energy auditing in buildings, development of monitoring systems for ground water and air pollution, reduction of greenhouse gases in Estonia, and development and implementation of waste assembling (collection) and recycling systems.

<sup>27</sup> The Estonian Authorities refer to point 34 (b) of the Community Guidelines on State Aid for Environmental Protection (Environmental Guidelines) according to which the aid intensity in assisted regions can be the regional aid rate plus 10 percentage points gross. The project is executed in the region outside North-Estonia. This means that the basic aid intensity is 50%. By adding the regional bonus 10 percentage points, the environmental aid intensity is 60% of the project costs.

<sup>28</sup> The retail prices of district heat in Estonia must be approved by the Estonian Energy Market Inspectorate (EMI), a government agency: the heat supplier is generally entitled to charge only costs, and a fair operating margin. In this case all the benefits will be passed on to the end-consumer as confirmed by the Estonian Authorities.

<sup>29</sup> Calculations have been assessed by an independent expert (consultant of Norsk Energi).

Measure/case	Summary	Economic	Scale of impact	Social	Scale of impact	Environmental	Scale of impact
	Thermoelectric Power Station). The project consists of dismantling the pipelines and installing a new pipeline to replace them. The Notified Measure consists of 60% funding of these project costs.					<p>plant and equipment which are intended to reduce or eliminate pollution and nuisances.</p> <ul style="list-style-type: none"> <li>Replacing the pipeline situated in the beach area may lead to habitat improvements for biodiversity.</li> </ul> <p>The Commission finds that the Notified Measure can be found compatible with Article 107(3)(c) of the TFEU, since it complies with the provisions of the Environmental Guidelines.</p>	

Scale of impact is represented by + positive impact; +/- neutral impact; - negative impact; ? uncertain.

Measure/case	Summary	Economic	Scale of impact	Social	Scale of impact	Environmental	Scale of impact
Slovakia (N143/2008) C24 - Manufacture of basic metals Duration from 24.12.2008	<p>This case describes a notified <b>ad-hoc aid measure</b> with environmental protection as its primary objective. The aid will be used for “the remediation of an industrial site contaminated by the production of primary aluminium from bauxite ore”.</p> <p>The aid is in the form of a soft loan provided by the Environment Fund, amounting to SKK250 million (EUR7.7 million). The eligible costs amount to SKK 607.7 million (EUR18.7 million).</p> <p>The beneficiary is a large company called ZSNP a.s. which is active in the metallurgical sector and focuses on aluminium processing. The company is situated in Žiar nad Hronom in a region eligible for assistance under 107 (3) (a) of the TFEU.</p> <p>The aid amount expressed is GGE19 is SKK 65.8 million (EUR2.03 million).</p> <p>The aid intensity is 11.7 % of the eligible costs,</p>	<p>The beneficiary will be relieved of a part of the remediation work costs which it would normally have to bear itself. Consequently, the aid will strengthen its financial position in relation to its competitors in the Community and therefore will have potentially distorting effects on competition.</p> <p>Products of the beneficiary concerned might be subject to cross-border trade within the Community, thus the aid grant is likely to affect trade between Member States. Therefore, the notified scheme constitutes State aid within the meaning of Article 107 (1) of the TFEU.</p> <p>In addition, materials and plant may be sourced locally (e.g. purchase and installation of geofolds, drainage pipes with equipment, high-density polyethylene foils, drainage elements, bentonite mats, soil substrate, wood species, hydroseed; purchase and rent of construction machinery).</p>	+/-	<p>Discussion of the social impacts of this measure are absent from the assessment. However the following impacts are inferred.</p> <p>The potential for local employment and income generation creates a positive social impact and social cohesion in the form of community pride.</p> <p>The remediation works are likely to create jobs/work for local companies due to the need for construction of new roads, project management and work force.</p> <p>Additionally, the remediation of the site will reduce the risk of contaminating drinking water supplies and increase the landscape aesthetic level of the area providing health and social benefits for the local community.</p>	+ ?	<p>The aim of the remediation works carried out by ZSNP a.s is to prevent the creation of emergency situations endangering the ground and underground waters<sup>30</sup>.</p> <p><i>Environmental objectives</i></p> <ul style="list-style-type: none"> <li>Eliminate risks of contamination of the adjacent lands, surface and underground water by alkaline water.</li> <li>Significantly decrease infiltration of rain water into the mud disposal site.</li> <li>Isolation of the site against seepage of rain water to eliminate the risk of alkaline water which creates a constant risk of contamination of adjacent land and surface and ground water.</li> <li>Reduce/eliminate dust emissions.</li> <li>Prevention of future water pollution.</li> <li>Revitalisation of countryside of Žiar valley.</li> <li>Neutralisation of waste waters from mud disposal site.</li> <li>Biological remediation of the disposal site for red and brown mud.</li> </ul> <p>Original remediation based exclusively on 'greening' the mud disposal site through placing soil substrate and planting grass, bushes and wood species however this still led to seepage of rain waters to the mud disposal site and creation of additional volumes alkaline waters. Thus ZSNP a.s. decided to pursue the rehabilitation of the polluted site through the combination of technical and biological methods, including draining and treatment of alkaline water from the top basins of mud disposal site, upgrading pumping equipment, draining rain water, placing drainpipes in the seepage canals and</p>	+

<sup>30</sup> In the privatisation agreement concluded in 2002, ŽHS a.s. as buyer, undertook within the scope of the contractual obligations of ZSNP a.s. to carry out investments to ensure the environmental revitalisation of ZSNP a.s. up to the level of SKK 500 million (EUR15.4 million) by the end of 2012. The sum of SKK 500 million is linked to the implementation of different environmental measures including decrease of emissions of organic elements from production of tubes.

Measure/case	Summary	Economic	Scale of impact	Social	Scale of impact	Environmental	Scale of impact
	and is fully in line with the maximum level of 100% of the eligible costs set in point 133 of the EAG.					constructing access roads.	

Scale of impact is represented by + positive impact; +/- neutral impact; – negative impact; ? uncertain.

Measure/case	Summary	Economic	Scale of impact	Social	Scale of impact	Environmental	Scale of impact
Finland (N58/2008) C19.02 - Manufacture of refined petroleum products Duration from 01.07.2007 to 31.12.2010 The overall notified budget on 2007 tax levels is EUR7 154 560 based on the fact that the Scheme will subsidise 22.4 million litres of fuel.	<p>This case describes an <b>individual aid measure</b> with the primary objective of environmental protection. The measure consists of tax exemption and subsequent tax rate reduction for the pilot manufacture of NExBTL (Next Generation Biomass to Liquid) transport bio diesel (2nd generation biofuel) and fuel blends containing NExBTL (the Measure).</p> <p>The measure consists of a full exemption from excise duties (energy tax and so called strategic stockpile fee) in the first half year of operation. Finland shall levy energy tax of EUR0.0446 per litre in the subsequent years (to 31/12/2010). The normal rate of energy tax would be EUR 0.364 per litre.</p> <p>The beneficiary is Neste Oil Plc, which is the fuel producer. Benefits include an increased demand for biofuels as well as technical experience and know how received from the trial use of NExBTL transport bio diesel by undertakings active in commuter traffic and waste collection sectors.</p>	<p>The costs for companies that would use NExBTL transport bio diesel are higher than for service providers using conventional fuel. The Measure aims to reduce the price of NExBTL transport biodiesel compared to conventional transport fuel, thus the cost reduction in taxes is transferred to the final energy consumer (i.e. the undertakings providing commuter and waste collection services). The price of NExBTL Bio Diesel will remain higher than the price of conventional diesel even after the Measure. The Measure has a potential to distort competition and affect trade between member states. The Notified aid will strengthen the position of the beneficiary, an undertaking active in markets – energy products – where there is intra-community trade.</p>	-	<p>The use of second generation biofuels would have a positive health impact for residents of Helsinki due to the reduced emissions of NOx, CO, CH<sub>4</sub>, CO<sub>2</sub> and particle from commuter buses and waste collection services. The Finnish Authorities have granted EUR308 600 of public R&amp;D funding towards a budget of EUR 576 600 to Neste Oil Plc. This aid was granted to measuring, analysing and follow-up measures relating to the quantification of the results of using NExBTL Bio Diesel the project. Neste Oil Plc. will pay EUR268 000 of these ancillary costs. A positive employment effect will be created by the trial (and following the trial if it is successful.)</p>	+	<p>The purpose of the measure is to perform a practical experiment with the new second generation biofuel. The objective is to analyse the technical viability, and the environmental benefits in terms of avoided NOx, CO, CH<sub>4</sub>, CO<sub>2</sub> and particle emissions in public transport and waste collection sectors owing to the fact that the fuel is new. Impacts:</p> <ul style="list-style-type: none"> <li>• Reduced emissions from commuter traffic and waste collection services (namely half of the commuter traffic buses and the majority of waste collection vehicles in the greater capital area of Helsinki).</li> <li>• The life cycle and the origin of the feed stocks are known to the beneficiary. The suppliers are selected with emphasis on the health, safety and environment and social performance. Neste Oil Plc. only sources sustainably produced feed stocks, carries out supplier audits or otherwise screens the performance of the supply chain, and works together with suppliers to improve their performance. It is also committed to certification systems and rulings which improve the sustainability of feed stocks. The definition for sustainability complies with point 70 of the Environmental Guidelines.</li> <li>• Raw materials include palm oil, rapeseed oil, and animal fat. Neste Oil Plc's aim is to move on to using only inedible feed stocks. The medium term goal is to increase the proportion of inedible feed stocks to 60% in 10 years.</li> <li>• From the greenhouse gas balance, availability and price perspectives, sustainable palm oil is currently the most competitive raw material<sup>31</sup>. Neste Oil Plc. has developed a monitoring system that ensures its palm oil is separated from other palm oil from the field onwards. It knows where the oil palms that produce its palm oil are grown, how they are cultivated, how the oil is extracted, and how it is transported all the way to its sites. The</li> </ul>	

<sup>31</sup> Tests of IFEU (Institute for Energy and Environmental Research Heidelberg, Germany).

Measure/case	Summary	Economic	Scale of impact	Social	Scale of impact	Environmental	Scale of impact
	<p>The Commission finds that the Notified Measure can be found compatible with Article 107(3)(c) of the TFEU, since it complies with the provisions of the new Community Guidelines on State aid for Environmental Protection (the Environmental Guidelines). The Scheme also complies with the Energy Taxation Directive. It can thus be authorised.</p>					<p>Company and outside auditors check the monitoring system and the information that it generates on a regular basis to ensure its accuracy. However there is still the possibility of trade-offs/loss of valuable ecosystems.</p> <ul style="list-style-type: none"> <li>The life-cycle analysis of NExBTL Bio Diesel confirms that the precise reductions of greenhouse gases depend on the raw materials used in production, but are from 40% to 60% throughout the whole product life cycle. In practice, this means 1.3 – 2.6 t CO<sub>2</sub> per tonne of NExBTL as compared with 3.8 t CO<sub>2</sub> per tonne of diesel. Majority of NExBTL emissions are generated on raw material production.</li> <li>Other environmental benefits<sup>32</sup> of the fuel include 15% less nitrogen oxides, 30% less small particle emissions, 50% less hydrocarbons, 28% less carbon monoxide, 40-45% less aldehydes, 40-45% less benzene, and a reduction of the level of mutagenicity.</li> </ul>	

<sup>32</sup> Tests performed by motor-manufacturers.

Measure/case	Summary	Economic	Scale of impact	Social	Scale of impact	Environmental	Scale of impact
Austria (N135/2010) C24 - Manufacture of basic metals Duration 01.01.2011 to 31.12.2020 EUR146.27 million	This <b>individual measure</b> is a direct grant which aims to eliminate all soil contamination on site to ensure good quality groundwater in the region. The Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management intends to grant EUR146.27 million to the Voestalpine Stahl GmbH (the beneficiary), a manufacturer of steel and steel products, for the remediation of a site contaminated i.a. with polycyclic aromatic hydrocarbons (hereafter: PAHs) and mineral oil hydrocarbons.	The costs of the remediation will amount to EUR153.9 million and the value of the land will increase by approximately EUR2.9 million. The scale of the economic impact is deemed to be negative due to the substantial losses and the fact that remediation of the site will have no effect on the production process of the beneficiary.	-	The social impacts are not discussed in the assessment of the aid measure. However the presence of contaminants in soil and groundwater presents a health risk to local community therefore it is likely that the remediation will have a substantial positive impact on the health and wellbeing of the local community.	+ ?	The aid leads to an improvement in environmental protection, particularly of the groundwater. The aid will be used to remediate all soil contamination on the site (largely benzene and tar products). This should mitigate the threat to the environment in general and should enhance the quality of groundwater in the region in particular. However there is no further discussion on the specific environmental benefits.	+

Scale of impact is represented by + positive impact; +/- neutral impact; – negative impact; ? uncertain.

Measure/case	Summary	Economic	Scale of impact	Social	Scale of impact	Environmental	Scale of impact
Italy (N364/2009) D - Electricity, gas, steam and air conditioning supply Direct grant – EUR5.6 million Duration from 31.12.2009	<p>The primary objective of this <b>individual aid measure</b> is environmental protection which will be achieved through the creation of a cogeneration power plant for the recovery and use of waste heat from industrial processes to be connected to a district heating network in the area of Aosta - Italy (Valle d'Aosta). The beneficiary is a company called Telechauffage Aosta S.r.l. - "TELCHA S.r.l."</p> <p>The aid will be aimed at financing the acquisition of a) a high efficiency cogeneration power plant, which will consist of two methane fuelled co-generators (heat capacity 7.644 kW, generation capacity 8.490kW), for the generation of heat and electricity, and of b) one pump (heat capacity 17.633kW), which will recover the hot waste water of the closely located steel work, to generate heat.</p>	Heat generated from the plant will be entirely injected into the local district heating network, whereas the electricity will be partly used by the heat pump and partly sold to the national grid. This will provide a) a renewable energy source for the local community and b) a source of income for the local community from sales to the grid however the benefits are not quantified.	+ ?	The social impacts are not addressed in the assessment of this aid measure. However it can be inferred that the new plant and district heating network will contribute to social cohesion and a more pleasant local environment to the extent that the community may take pride in pursuing further resource efficiency objectives.	+ ?	<p>The aid measure will allow completion of an energy efficient cogeneration power plant and equipment for the recovery and use of waste heat from industrial processes, which will be both.</p> <p>connected to the energy efficient district heating network designed to serve the town of Aosta.</p> <p>Energy savings equivalent to 10,000 tep (tonne equivalent of petroleum) per year and CO<sub>2</sub> emissions reduction of around 30,000 tonnes/year. The use of water recycled from industrial process will result in a lower consumption of water from natural sources and will have an additional positive impact on the environment.</p>	+

### Estonia, N707/2007 – Compliance with the Environmental Guidelines: Environmental protection

According to point 30 of the Environmental Guidelines (OJ C 37, 3.2.2001), investments in energy saving are deemed equivalent to investments to promote environmental protection. The purpose of the Notified Measure is to attain energy savings and efficiencies. The Estonian Authorities have demonstrated that the notified measure is in proportion to the energy savings and efficiencies achieved, and also their extent.

#### Eligible costs

According to point 33 of the Environmental Aid Guidelines (OJ C 37, 3.2.2001), in regions which are eligible for national regional aid, it is possible to provide additional aid towards any environmental investment. Point 34 (b) of the Environmental Guidelines allows the Member States to pay aid towards eligible costs as defined in point 37 up to the regional aid rate plus 10 percentage points gross. The Estonian Authorities comply with this provision, as the aid intensity is 60%, and the investment takes place in a region, where the regional aid rate is 50%.

Under point 37(1) of the Environmental Aid Guidelines (OJ C 37, 3.2.2001), eligible costs must be confined strictly to the extra investment costs necessary to meet the environmental objectives. The Estonian Authorities have demonstrated that the investment is necessary, and limited to achieving the environmental objective.

Further under point 37(3), eligible costs must be calculated net of the benefits accruing from any increase in capacity, cost savings engendered during the first five years of the life of the investment and additional ancillary production during that five-year period in all cases. The Estonian Authorities have demonstrated that all the possible benefits accruing from the increase of capacity, and cost savings engendered during the first five years of the life of the investment will benefit the consumers of heat, as heat prices are regulated.

#### Energy savings

**Table 12 Calculations on energy savings, savings in fuel and decrease in pollution**

<b>RESULTS</b>	<b>INDICATORS</b>	<b>BASELINE</b>
Savings of the heat energy, MWh per year	2 443	0
Decrease of the amount of the fuel consumed, tons per year	1 945	0
Decrease of the pollution level, tons per year		
Dust	7,12	0
SO <sub>2</sub>	13,8	0
NO <sub>x</sub>	0,8	0
CO	1,89	0
CO <sub>2</sub>	1 600	0

Calculations have been assessed by an independent expert (consultant of Norsk Energi).

- The savings in heat amount to approximately 1.63% of the average output, and result in the corresponding decrease of the pollution.
- “INDICATORS” mean the energy savings or the reductions of pollution in case the project is implemented.
- “BASELINE” means the current showing, which reflects no change in the heat distribution of AS *Sillamäe SEJ* in case the project will not be implemented.

### N143/2008 Slovakia - Compliance with environmental guidelines: Environmental protection

As regards the improvement of environmental protection, the Commission notes that the pollution is caused by red and brown mud from alumina production which is classified as dangerous waste. The deposited waste contaminated the soil and the seepage of rain water into the mud disposal site leads to creation of alkaline water which consequently creates a constant risk of contamination of adjacent land and surface and underground water. Through remediation of the site the risk of such contamination will be eliminated, the disposal site will be stabilised and dust emissions reduced.

Therefore, it can be concluded that in line with point 132 of the EAG the aid measure leads to the improvement of environmental protection.

### **Polluter pays principle**

The Slovak authorities confirm that on the basis of the Slovak legal order company ZSNP a.s. is not under any public law obligation to remediate the mud disposal site. The liability of ZSNP a.s. with respect to the remediation of the mud disposal site is limited exclusively to its contractual obligation towards EBRD under the 2001 agreement, which amounts to USD5.55 million (SKK272.8 million, approximately EUR8.4 million). The Commission considers that for the amount exceeding the contractual liability limit the polluter cannot be considered as liable under national law. Accordingly, it can be implied that the polluter cannot be identified thus the notified measure complies with the polluter pays principle and the aid amounting to SKK65.8 million (EUR2.03 million) is in line with the conditions of point 132 of the EAG.

### **Presence of incentive effect**

There is only one environmentally acceptable solution for the remediation of the site at hand (i.e. the theoretically possible temporary solutions without the aid would not prevent the creation of further environmental damage). The Slovak authorities put forward that without the aid the remediation works on the approved remediation project would slow down substantially what would lead to the prolongation of the period during which the mud disposal site is exposed to rain and additional alkaline waters are created. Thus the condition of presence of incentive effect pursuant to Section 3.2 of the EAG is complied with.

### **Conclusion**

The notified scheme complies with the Environmental guidelines and is therefore compatible with the common market in accordance with Article 107 (3) (c) of the TFEU.

## F.2 Schemes

Measure/case	Summary	Economic	Scale of impact	Social	Scale of impact	Environmental	Scale of impact
Netherlands (N478/2007)  SDE – Stimulating renewable energy, modification and prolongation of the MEP (N 707/02) and MEP stimulating CHP (N 543/05)	<p>The case concerns a modification and a prolongation of aid schemes MEP stimulating renewable energy and combined heat and power (CHP) N 707/02 and N 708/02 (joint decision) and MEP stimulating CHP N 543/055 which were approved on 19 March 2003 and 15 June 2006.</p> <p>The subsidies for renewable and CHP electricity serve to compensate for the difference between the production costs of renewable and CHP electricity and the market price of conventional energy. The level of subsidy varies for the different forms of renewable electricity generation based on the difference of the production costs of the specific form of renewable energy (wind, solar, etc) and the electricity market price of conventional electricity.</p>	<p>The SDE(+) scheme will (only) compensate for the difference between the production costs of the renewable energy techniques and the market price of the form of power concerned.</p> <p>The scheme is designed in such a way that projects are ranked by their cost-effectiveness (different phases of making available the necessary funds). Beneficiaries are stimulated to accept the lowest subsidy per produced kWh possible for their business case. Relatively 'cheap' techniques sign in first.</p>		Social impacts are not discussed in this case.		<p>Promotion of renewable energy which has positive environmental impacts.</p> <p>Environmentally harmful subsidies – specifically subsidies to unsustainable biomass – are prevented by the fact that support is only allowed if this biomass meets the sustainability requirements following from the renewable energy directive.</p> <p>Other environmental considerations are not included in the balancing procedure of this scheme, <i>but rather through other procedures</i>, such as environmental permits which cover nuisance.</p>	

<p>United Kingdom (N517/2010)</p> <p>WRAP (Waste and Resources Action Programme) – Capital Grants and Lease Guarantee Fund Scheme (prolongation and modification)</p> <p>Duration 05.01.2011-31.03.2015</p> <p>The total budget for the whole duration of the measure will be approximately GBP50 million (EUR57.9 million)</p>	<p>This case describes the prolongation and modification of aid measures with an objective to promote waste minimisation, recycling and reprocessing initiatives that will create new markets and develop new technologies. Ultimately this will increase the recycling of waste and reduce the amount of waste diverted from landfill in the UK.</p> <p>The measures concern two schemes administered by WRAP: The Capital Grant Scheme (CGS) provides funding to support investments by private companies in recycling facilities. It has a maximum aid intensity of 50% for large companies, 60% for medium enterprises and 70% for small enterprises. Aid can be in the form of a capital grant or a soft loan (at a reduced interest rate).</p> <p>The Lease</p>	<p>For the Capital Grant Scheme, projects are selected on the basis that they are the most economically advantageous (alongside environmental considerations<sup>34</sup>). WRAP ensures that the least amount of aid necessary is awarded so that there is minimal distortion of competition<sup>35</sup>.</p> <p>The Scheme facilitates viable investment in recycling infrastructure, providing a financial boost to new business ventures and stimulating growth for existing ones.</p> <p>For the LGF, all undertakings that satisfy the eligibility criteria and demonstrate the existence of a sound business plan can benefit.</p> <p>The Scheme is designed to increase the availability of cost-effective lease contracts as resale value is guaranteed. This reduces risk premiums charged to lessees, therefore facilitating business growth.</p> <p>Although not quantified, both schemes are designed to encourage increased investment in waste technologies and increase the availability of suitable reprocessing facilities. This</p>	<p>+</p>	<p>Social impacts are not discussed in this case but it could be assumed that there will be social benefits as a result of this aid.</p> <p>Jobs are likely to be created in the engineering and manufacture of equipment as well as the operation of reprocessing facilities and increased material collection infrastructure. A boost to the economy and availability of secure jobs will have a knock-on effect on people's health and wellbeing.</p> <p>Many social and community enterprises already operate in the waste management sector, so by increasing the demand for feedstock, more opportunities could become available. This could provide jobs and training for vulnerable people and contribute to overall community health and morale.</p>	<p>+</p>	<p>Expected environmental impacts are not quantified in this case but are discussed qualitatively.</p> <p>A primary aim of the aid measures is to increase recycling and promote other treatments of waste in line with the hierarchical classification of the principles of waste management. This will ultimately improve the EU physical environment by favouring projects where the materials treated would otherwise be disposed of or be treated in a less environmentally friendly manner.</p> <p>A wider range of materials than were previously supported is covered through these schemes (WEEE, textiles and flooring, tiles, insulation and composites), thus enabling greater diversions from landfill.</p> <p>The modified schemes do not cover batteries and tyres. This is presumably because these materials are already banned from landfill in the UK and have significant recycling infrastructure already in place.</p> <p>WRAP aims to provide aid in-line with the polluter pays principle. It ensures that aid does not relieve polluters from a burden they should bear under existing EU rules and only grants aid to projects where at least 50% of waste comes from third parties. This should avoid the support of beneficiaries who treat significant amounts of their own waste, in which case the wider</p>	<p>+</p>
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<sup>34</sup> The amount of waste diverted from landfills and other less environmentally friendly uses will be considered in the identification of which project provides the most economically advantageous offer.

<sup>35</sup> WRAP encourages those responding to its tender processes to specify whether they were applying for a capital grant or for a soft loan. In determining which is the most economically advantageous tender WRAP would then compare the level of funding requested by the various bidders (which is likely to be lower through a loan given the repayment of the capital sum over an agreed period). In this way, WRAP would continue to ensure that the least amount of aid necessary would be awarded and that as a consequence there would be minimal distortions of competition.

	<p>Guarantee Fund (LGF) guarantees to the lessor that the residual value of recycling equipment at the end of a lease will be an agreed amount, thus reducing the risk of the investment and increasing the availability of cost-effective lease contracts. The maximum aid intensity for SMEs is 7.5% of eligible costs<sup>33</sup>. For large companies, the maximum aid intensity is 50% of eligible costs.</p> <p>The measures are not sector-specific and the number of beneficiaries is estimated to be between 101 and 500.</p>	<p>creates a demand for increased feedstock<sup>36</sup> and should lead to the strengthening of existing markets and the development of new ones, thereby contributing to economic growth.</p> <p>There is none, or very little inter-state trade in the waste materials concerned, consequently the potential impact on competition caused by the schemes is expected to be minimal.</p> <p>Supported investment must go beyond state of the art or use conventional technologies in an innovative manner. This ensures continued development and innovation.</p>				<p>economic and environmental benefits of aid would not be felt.</p> <p>An assessment of the extent to which beneficiaries are able to show that they have secured supply chains and will be able to secure enough feedstock, ensures that aid supports projects that are viable over the longer term and therefore deliver a significant diversion from landfill.</p>	
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<sup>33</sup> As regards the calculation of eligible costs, namely with respect to the fact that they should be calculated without any operating costs and benefits, the UK authorities explain that due to the very low aid intensity applied (7.5%), the maximum aid intensity of the Environmental aid guidelines (i.e. 50% of the eligible costs), will be always effectively respected without actual deduction of the operating benefits for the first five years. The UK authorities submitted the calculation example based on the worst case scenario (which is in their view not at all realistic) demonstrating the compliance with the maximum aid intensities as laid down by the Environmental Guidelines. This approach to the calculation of eligible costs will be applicable exclusively to SMEs. For large companies the actual deduction will be carried out in the calculation of the eligible costs.

<sup>36</sup> One of the assessment criteria used in determining whether a project may be eligible for grant assistance is the extent to which the beneficiaries are able to show that they have secured supply chains and will be able to obtain enough waste 'feedstock' over the longer term to ensure that the recycling facility in question will be viable and will therefore generate a suitable level of environmental benefits.

# Annex G Regional aid (cases)

## G.1 Individual application/ad-hoc cases

Measure	Country	Economic	Scale of impact	Social	Scale of impact	Environmental	Scale of impact
Investment in an extension of wood briquettes and granules plant "Ekobriketes" in Kārsava (Case No. 730/2007)	Latvia	Production of local (renewable) fuel from waste wood; increased energy efficiency and reduction of dependency from imported fuel; increased income in the region. increased income and welfare of local population	+	Improved socio-economic situation and wellbeing (including better access to health care and education services ) of local population; Creating of 6 new job places and safeguarding of 8 existing ones; increase of indirect employment at local wood processing firms	+	Promotion of environmentally friendly renewable local fuel; reduction of GHG emissions due to reduced consumption of fossil fuels; efficient utilisation of wood waste	+
Investment in building new lignite mining cave in Baňa Čáry (Case No. 500/2008)	Slovakia	Contribution to the economic growth of the region; reduction of dependency from imported energy sources.	+	Improved socio-economic situation and wellbeing ( incl. better access to health care and education services ) of local population.  Creation of 90 direct new job places, and 45-90 indirect job places; increased welfare of local population.	+	No change in GHG emissions/use of energy source. Potential negative impacts on land use/landscape; groundwaters and surface waters, trough generation of waste, etc (to be verified).	-

Measure	Country	Economic	Scale of impact	Social	Scale of impact	Environmental	Scale of impact
Investment to build a new Intico Solar AG production plant for thin film solar modules in Kabelsketal (Sachsen-Anhalt; Case No. 199/2008)	Germany	Contribution to economic growth of the region.	+	Improved socio-economic situation and wellbeing of local population.  Creation of at least 500 direct and 500 indirect job places; increased income and welfare of local population.	+	Project contributes towards wider application of renewable energy technologies. Local impacts to be verified (no significant impact is expected; if the state-of-art technology is applied; and appropriate material handling and waste management implemented on-site).	+/-
Investment for modernisation and extending two existing oil refinery units of Petrogal S.A. (Sines and Matosinhos, Case No. C34/2009)	Portugal	Promotion of economic growth, due to extension of the capacity of the refinery.	+	Improved socio-economic situation and wellbeing of local population.  Creation of 150 direct jobs, 450 indirect jobs, and 3000 temporary jobs (for construction period).	+	Modernisation is expected to lead to improved environmental situation at the two sites. Possible negative impact on sea environment by oil products (some products will be shipped for 450 km by marine transport from one refinery site to other).	+/-
Investment to build a new En Plus thermo - electric power plant (San Severo, Case No. 180/2009)	Italy	Contribution to economic growth and energy security of the region.	+	Improved socio-economic situation and wellbeing of local population.  No employment information available from text of decision; but presumably creation of new jobs.	+	Release of GHG emissions due to use of fossil fuels. Use of non-renewable resources. Other local impacts to be verified.	-

## G.2 Schemes

	Type	Case no	Name	Measure	Case Type	Country	Economic	Scale of impact	Social	Scale of impact	Environment	Scale of impact
	Regional Aid	N435/2008	Regional aid scheme for investments in the construction and reconstruction of the gas distribution network and to ensure the smooth operation of the gas distribution system.	Direct grant of EUR200 million for the construction of gas distribution networks in areas not supplied with gas and for the modernisation of the existing distribution networks. To this end it aims at providing incentives for the investments enabling effective functioning and balanced development of natural gas distribution network in Poland.	Scheme	PL	The Polish authorities expect that the scheme will bring further benefits in terms of the creation of additional employment and development of local entrepreneurship.	+	No mention	+/-	Within a broader domain of priorities envisaged by the Infrastructure and Environment Operational Programme, the scheme is limited to specific priorities concerning an environment friendly energy infrastructure and energy efficiency and measures aiming at energy security including diversification of energy sources. .The investments supported on the basis of the scheme will contribute to the increase of security of supply of natural gas, rational use of use of natural resources, to the improvement of environment protection by replacing coal with environmentally friendly fuels, to the uninterrupted supply of fuels necessary to cover the current demand, to the increase of energy efficiency and diversification of the available fuels from renewable energy sources (gas as a transitory fuel).	+

Type	Case no	Name	Measure	Case Type	Country	Economic	Scale of impact	Social	Scale of impact	Environment	Scale of impact
Regional Aid	N436/2008	Aid scheme for investments in the setting-up and extension of enterprises producing machines and installations for the renewable energy generation, bio-components and liquid fuels.	Direct grant of EUR38.8 million for the development of the branch of industry for producing appliances for the production of fuels and energy from renewable source. The scheme aims at the creation of incentives for investments relating to the construction or expansion of enterprises setting-up modern manufacturing lines for the production of machinery and equipment for the generation of the energy from renewable sources and of the bio-components and bio-fuels. (installations concern wind-power stations, heat with use of biomass and solar energy, electricity generation using biomass and geothermal energy).	Scheme	PL	The schemes would also lead to the increase of the attractiveness and competitiveness of the regions and other benefits measured in terms the increased entrepreneurship, expansion and diversification of certain activities and improved life standard.	+	The schemes will also lead to direct and indirect job creation during the implementation of the investments and/or after their completion.	+/-	Within a broader domain of priorities envisaged by the Infrastructure and Environment Operational Programme, the scheme is limited to specific priorities concerning an environment friendly energy infrastructure and energy efficiency and measures aiming at energy security including diversification of energy sources. The investments undertaken under the scheme will lead to the rational use of natural resources, environment protection through the use of renewable sources, ensuring of the uninterrupted stocks of fuels to cover the demand, increase of energy efficiency, implementation of clean technologies for the electricity generation, including renewable energy sources, diversification of fuel production which will in turn lead to energy security.	+

Type	Case no	Name	Measure	Case Type	Country	Economic	Scale of impact	Social	Scale of impact	Environment	Scale of impact
Regional Aid	N373/2008	Wider use of renewable energy sources for energy production – Estonia	<p>Direct grant of EUR48 million to support investment projects which aim to encourage the use of renewable energy sources to implement Estonia's Operational Programme for the Development of the Living Environment for the period 2007-2013. It contributes to the improvement of quality of services and job creation especially in areas with low average income, reliability of energy supply in insufficiently developed areas, reduction of energy losses, increased use of renewable energy sources and reduction of pollution.</p>	Scheme	EE	<p>The changeover from fossil fuels to renewable fuels will create additional workplaces in the local area, because collecting renewable energy carriers is significantly more work-intensive than the use of imported fossil fuels. The scheme will make social infrastructure in the form of district heating available at reduced net costs compared with the individual heating.</p>	+	<p>The scheme is designated to contribute to regional development (with particular emphasis on socially disadvantaged areas), with preference to low income areas and socially disadvantaged indirect beneficiaries. From socio-economic point of view, the supported activities will lead to energy savings, which will eventually lead to lower prices for consumers. The measure contributes towards a coherent regional development strategy as it contributes to the reliability of energy supply in insufficiently developed areas, thereby creating better conditions for the development of enterprises. Approximately 100 new direct jobs will be created, mostly in</p>	+	<p>There are 7 evaluation criteria, which includes reduction in CO<sub>2</sub> emission and improvement in the reliability of fuel supply and energy efficiency. The renovation of smaller-scale district heating networks, the establishment or the conversion of smaller boiler plants, as well as the establishment of cogeneration plants will be supported to increase the share of renewable sources of energy in heat production, to secure heating supply for consumers at minimum possible prices and to ensure sustainable use of energy resources.... <b>The scheme will contribute to meeting the Estonian environmental objectives.</b> The load of pollutants and greenhouse gas emissions from power production will be reduced by minimising losses in the production, transmission and final consumption of energy and by introducing environmentally friendlier power production technologies. The renovation of heating networks will support the reduction of heat losses and, therefore, more efficient use of natural resources.</p>	

Type	Case no	Name	Measure	Case Type	Country	Economic	Scale of impact	Social	Scale of impact	Environment	Scale of impact
								rural areas. The Estonian authorities also expect that indirect job creation will result thanks to the improvements in the stability of heat and electricity supply.			
Regional Aid	N426/2008	Scheme regarding the increase of efficiency of centralised heat supply systems.	Direct grant of EUR60.2 million supports investment projects which aim to increase the efficiency of heat supply production, reduce losses of heat energy in the transmission and distribution systems and to foster the replacement of fossil fuel with renewable. Investments consist of (re)construction of combustion plants and district heating services.	Scheme	LV	Due to modernisation, investment opportunities in small towns and regional centres will increase which, in turn, will accelerate new business establishment.	+	Modernisation and development of heat supply energy systems will contribute to a safe and reliable energy infrastructure and to the improvement of quality of life and increased cohesion. An efficient and secure energy supply has a significant impact on successful development of	+	No mention on environmental protection or reduction of CO <sub>2</sub> . Assumable that reduction of heat energy loss will lead to reduction of emissions. Replacement of fossil fuel with renewable fuel	

Type	Case no	Name	Measure	Case Type	Country	Economic	Scale of impact	Social	Scale of impact	Environment	Scale of impact
								entrepreneurship, welfare of residents, development of particular areas and of the whole country in general. Development and creation of new jobs.			
Regional Aid	N93/2008	Direct grants for investment projects in Sardinia.	Direct grant of EUR36 million for investment aid towards small and medium-sized enterprises in the industrial and handicraft sectors which are active in the areas of region Sardinia.	Scheme	IT	(10) The scheme provides aid to firms active in the following sectors: 1) processing and marketing of agricultural products listed in annex I of the 'old' EC Treaty; 2) mining and quarrying, manufacturing industry, textiles, pulp and paper, chemical and pharmaceutical industry, industrial machinery, electrical and optical equipment, motor vehicles, transport, computer and related activities, as well as research and development, technical testing and analysis, other business and activities... (30) The scheme foresees that the investment must be maintained at least for 5 years ...	+/-	(30) The scheme foresees that ... as well as that the newly created jobs that were declared necessary to the implementation of the project shall be maintained for at least 3 years from the conclusion of the project....	+/-	no mention	+/-

Type	Case no	Name	Measure	Case Type	Country	Economic	Scale of impact	Social	Scale of impact	Environment	Scale of impact
Regional Aid	N322/2009	Investment aid for the creation of new commercialisation structures	Direct grant of EUR20 million to support the creation of new commercial structures which aim at the marketing of agricultural products. Scheme applies to all enterprises in the rural areas of Andalusia to promote cooperation between companies active in the processing and marketing of agricultural products.	Scheme	ES	(35) The agriculture sector is one of the main economic sectors in this region, being a source of employment. The implementation of the aid scheme will thus facilitate economic development in Andalusia, by generating employment and allowing the companies of the region to be competitive in the distribution sector, by encouraging the establishment of new manufacturing facilities.	+	(76) sustainable employment is safe guarded by the following: ... the aid is conditioned on the obligation of maintaining the investment or the jobs created during a minimum period of respectively five or three years	+/-	no mention	+/-
Regional Aid	N584/2009	Operating aid for SMEs and micro-enterprises in Madeira		Scheme	P	Compensation of additional costs to SMEs located in remote (outermost) region. Improvement of viability of enterprises, maintaining employment and economic growth in the region.	+	Improved socio-economic situation and wellbeing of local population	+	Presence of initiatives to improve quality (including environment and energy aspects) are included as project assessment criteria	+
Regional Aid	X159/2009	Promotion of all types of economic activities and employment generation in disadvantaged regions.		Scheme	UK	Promotion of all types of economic activities and employment generation in disadvantaged regions.	+	Improved socio-economic situation and wellbeing of local population	+	Environmental impacts not directly addressed. Given the small (local) scale and diversity of activities, no significant environmental impacts are expected.	+/-

	Type	Case no	Name	Measure	Case Type	Country	Economic	Scale of impact	Social	Scale of impact	Environment	Scale of impact
	Regional Aid	X838/2009	Soft loans for development of SMEs and micro-enterprises		Scheme	LV	Provisions of soft loans (combination of loans and grants) to SMEs to stimulate all kinds of economic activities. Promotion of entrepreneurship and employment generation in a Member State with GDP considerably below EU average.	+	Improved social stability, wellbeing, better access to health services and education for local population	+	Environmental impacts not directly addressed. Given the small (local) scale and diversity of activities, no significant environmental impacts are expected.	+/-

# Annex H R&D&I (cases)

## H.1 Individual applications/ad-hoc cases

Case no	Measure	Country	Economic	Scale of impact	Social	Scale of impact	Environment	Scale of impact
N342/2007 Innovation aid to Nordseewerke	Reimbursable grant for innovation aid of EUR1 million to construct two SWATH ships with specific characteristics to improve displacement and speed	DE	Likely positive effect on employment and income generation (however, not mentioned in de case)	+	No mention of social impact	+/-	Less fuel needed when ship can stay offshore for longer period of time without having to return to the harbour every day.	+
C33/2008 Large R&D aid to Volvo Aero Corporation – Genx	Soft loan of EUR39 million for the development of certain components for the engine (GENx) for 2 aircraft types of Boeing	SE	Likely positive effect on employment and income generation (however, not mentioned in de case)	+	No mention of social impact	+/-	The GENx is developed towards extremely challenging targets of low fuel consumption, low noise, low emissions and low weight.	+
N144/2010 Rekkof. Individual aeronautics R&D aid	Grant of EUR19.7 million repayable advance for the development of a new generation of Dutch regional aircraft (Fokker)	NL	Positive effects on employment for subcontractors, suppliers and research institutes. Investment will contribute to technological knowledge spillovers and an increase of human capital	+	No mention of social impact	+/-	The development will focus on combining the proven concept of the predecessor aircraft with the latest advancements.. In particular as regards ... fuel efficiency and noise reduction.... And is expected to meet the demand of airlines that are replacing aircraft due to aircraft age, operating economics and environmental requirements.	+
N447/2007 Aid d'Etat Turbomeca	Reimbursable grant of EUR30.5 million in form of repayable advances for research and development on a new turboshaft engine generation for helicopters, called Ardiden 31.	FR	Likely positive effect on employment in other sectors as well by additional work (travaux complémentaires), but not mentioned explicitly	+	No mention of social impact	+/-	The engine has low fuel consumption... Considerations of environmental requirements are taken into account: low emissions of gas and noise, removal of hazardous substances (cadmium, lead, ...).... Research will be conducted to reduce the noise level... and to contribute to an index of gases/smoke ("indice de fumée inférieure")	

Case no	Measure	Country	Economic	Scale of impact	Social	Scale of impact	Environment	Scale of impact
N4/2010 and N7/2010  Individual R&D aid to ALESTIS Aerospace SL	Two interest free loans with total of EUR38.67 million for R&D project regarding tail cone and belly fairing of a new generation of Airbus XWB	ES	R&D project will sub-contract a high proportion of work and will increase employment for its partners and suppliers by the development of a range of materials, machinery and services. Project will contribute to knowledge spillovers and dissemination of technical knowledge to the benefit of the entire aeronautical sector, including other industries and universities and research centres	+	No mention of social impact	+/-	The R&D project aims to make the A-350 XWB more efficient and reliable, in particular by using technologies and procedures resulting in improved fuel efficiency, reduced emissions of carbon dioxide and lower noise levels.... A general decrease of 25% fuel consumption per passenger is estimated for the improved airplane.	+
N593/2007  The Energy Technologies Institute (ETI) SCHEME	Direct grant of EUR693 million to ETI, which acts as an intermediary and transfers the public funding to research providers. The objective of the notified measure is to accelerate the development, demonstration and commercial deployment of energy technologies.... The measure aims at coordinating R&D efforts by the state and the industry and addressing the barriers to effective deployment of new energy technologies in the UK.... The ETI will engage in three main categories of activity: funding R&D, ensuring its effective deployment and engaging in socio-economic analysis	UK	The UK authorities also confirmed that the economic and non-economic activities and their costs and funding will be clearly separated to prevent cross-subsidy and ensure that the research organisations charge full economic costs for their economic activities..... It is expected that the collaboration will not provide any advantages to the enterprises	+/-	No mention of social impact	+/-	The objective is to accelerate the development, demonstration and commercial deployment of energy technologies to increase energy efficiency, reduce greenhouse gas emissions and help achieve energy and climate change goals. .... (however no mention on how this will be realised later on in the project plan) The ETI will focus on key energy challenges, such as large-scale energy supply technologies, energy security of supply, end-use efficiency and demand management, transport, small-scale energy-supply technologies, support infrastructure, and the alleviation of energy poverty.	+

Case no	Measure	Country	Economic	Scale of impact	Social	Scale of impact	Environment	Scale of impact
N195/2007 Individual R&D-aid for Rolls-Royce Deutschland	Reimbursable grant of EUR83.6 million. The notified aid will be granted to Rolls-Royce Deutschland Ltd & Co KG, for the experimental development of the new 'BR725' business-jet engine (for aircrafts). The purpose of the aid is mitigating the risk inherent to that development project. The aid will be granted in the form of a repayable advance. Reimbursement depends on the project's successful outcome	DE	Expected positive economic effects are knowledge spillovers: an efficient use of knowledge by other firms situated in the assisted region as well as an expected increase in other firms' R&D, to absorb more of the knowledge generated by the project, are also to be expected.	+	<p>According to information provided by the German authorities, the positive impact on the region will last even beyond the project's lifetime, as the aid will have allowed an upgrading of the competencies in the region, [...]. According to the German government, the project will only be second to the very large airport project in the south-east of Berlin (Berlin-Brandenburg International 'BBI'), as regards its positive effects on the region.</p> <p>The project will bring significant employment effects. ... RRD will hire more R&amp;D-personnel for the project. 150 new employments will be created between 2005 and 2011 and directly assigned to development activities in RRD's site in Land Brandenburg. Approximately 30 new employments are expected in RRD's site in Land Hesse sites. RRD currently employs 600 persons in its R&amp;D-department.... In the development phase (2005-2014) a total of 343 jobs is estimated, in the production phase (2010-2024) 910 jobs and in the aftersales phase (2025-2049) 197 jobs....</p>	+	Sub paragraph (28) included on environmental aspects which states a lower percentage of emissions of NOx (4%), CO <sub>2</sub> (4%), and noise (5 dB) on the new BR725 business jet series compared to the old BR710series. Also fuel consumption is estimated to decrease by more than 4%.	+

Case no	Measure	Country	Economic	Scale of impact	Social	Scale of impact	Environment	Scale of impact
N647/2007 Aide individuelle à la R&D pour le projet "PAMELAT, Pointe avant mixte Latécoère, Recherche et innovation dans la filière composite aéronautique"	Direct grant of EUR14 million. The measure under consideration is a project of State aid to a French company, Latécoère, for the program PAMELAT, which concerns the study and development of composite materials for the aircraft nose. It is part of a goal to introduce materials composites in the manufacture of aerostructures.	FR	Positive effects on employment and knowledge spillovers. Almost EUR6 million will be spent on research jobs, and another EUR7.5 million on costs for consultants		No mention of social impact	+/-	The technological innovation meets performance criteria, particularly in terms of reduction mass, but also in terms of no corrosion, tolerance damage, etc. These performance improvements should result in a reducing operating costs by service (fuel consumption, preventive inspections, maintenance, etc).	+
N15/2008 National Endowment for Science, Technology and the Arts - Young Innovative Enterprise Scheme (NESTA YIE) SCHEME	Direct grant, provision of risk capital, Soft loan of EUR67 million. The objective of the notified measure is to conduct social and commercial investment in young innovative enterprises to support and promote talent, innovation and creativity in the fields of science, technology and the arts.	UK	Likely positive effects since the grant is used for investments in young innovative enterprises (however, not employment effects mentioned in the selected case)	+	The objective of the notified measure is to conduct social and commercial investment in young innovative enterprises to support and promote talent, innovation and creativity in the fields of science, technology and the arts.	+	No mention	+/-
N204/2010 R&D aid to Volvo Aero for Trent XWB ICC	Repayable Advance of EUR12 million to Volvo Aero Corporation ("Volvo Aero") to support the research and development of the Intermediate Compressor Case2 (the "ICC") for the new Rolls-Royce's Trent XWB engine (the "Trent XWB") that will equip the new Airbus A350 Extra Wide Body aircraft family (the "A350 XWB").	SE	Positive effects expected with respect to knowledge spillovers to the benefit of the aeronautic sector, other industries and eventually the EU as a whole. Volvo Aero will share R&D results with suppliers and provide them with technical, logistics and programme management support. The suppliers will then use the new technology to develop new materials, machinery and services within their own domains, which will	+	No mention of social impact	+/-	The Trent XWB is expected to achieve high reliability and low ownership costs. It will draw on the latest manufacturing, materials and thermodynamic expertise to deliver lower fuel burn and maintenance costs while minimising noise and reducing environmental impact. It seeks in particular to reduce fuel consumption, emissions and life-cycle costs.	+

Case no	Measure	Country	Economic	Scale of impact	Social	Scale of impact	Environment	Scale of impact
			further contribute to knowledge spill-over.... Since many suppliers of parts and sub-assemblies will be involved in developing and manufacturing the fabricated ICC positive employment effects are expected.					

# Annex I Agriculture and forestry (cases)

## I.1 Individual applications/ad-hoc cases

Measure	Country	Economic	Scale of impact	Social	Scale of impact	Environmental	Scale of impact
Reclamation for nature purposes of degraded post-military areas (Case No. 635/2009)	Poland	No immediate economic gains. Restoration of degraded areas will lead to increased forestry potential in a long term.	+/-	Minimisation of risk to population safety (related to accessing areas where explosives might still be present)	+	Reclamation of contaminated areas and restoration of their forestry potential; protection of valuable species and nesting sites.	+
Aid for protection measures in National Parks TANAP and PIENAP and their buffer zones (Case No. N566/2008)	Slovakia	Aid will not be used for commercial activities; thus no immediate economic gains.	+/-	Increase of recreational potential of forests may lead to increased opportunities for local population (leisure, recreation, ecotourism related services, etc.)	+	Primary objective of the aid is objective protection of healthy forest ecosystem, to improve protection of the forests against biotic pests and to ensure sustainable management of the forests in national parks and their buffer zones. Aid measure will allow mechanical and biological pest control methods to be used (instead of chemical).	+
Restructuring aid to agricultural cooperative Azienda Cantina de Marribiu (Case No. N168/2009)	Italy (Sardinia)	Restructuring will allow enterprise to recover and to ... and to develop new products; thus contributing to local economic development		Project will have positive contribution to social stability local population.  Restructuring will allow to safeguard part of jobs (currently 11 permanent and 2 seasonal jobs)	+	Traditional wine production involves use of pesticides and fertilisers; and large amount of water; posing soil and water contamination risks, and posing risk of water shortages.	-

Measure	Country	Economic	Scale of impact	Social	Scale of impact	Environmental	Scale of impact
Investment aid to Naturiber S.A. (Castilla y Leon; Case No. N403/2009)	Spain	Setting up new production unit for production of salted and cured hams and shoulders (cerdo iberico) will contribute to local economic growth.	+	Improved socio-economic situation and wellbeing of local population.  Presumably creating new direct and indirect jobs (number not specified).	+	Setting up new meat processing facility will contribute to increased GHG emissions, generation of waste and by-products, cause environmental disturbance in the area and risk of water contamination. Other local impacts to be verified.	-
Development tax benefit to Pannonia Ethanol Zrt (Dunaföldvár; Case number SA 33053 (2011/N))	Hungary	Setting up a new plant for producing bioethanol as final product and Dry Distillery Grain with Solubles (DDGS) as by-product will contribute to local economic growth.		Improved socio-economic situation and wellbeing of local population.  Will create new direct and indirect jobs (number not specified).		It's mentioned in the text of decision, that assessment on the expected environmental impact of the aided project was also submitted, but no further information is provided. The final product will contribute to use of more environmentally friendly, renewable fuel.	-/+
Compensation for damages caused by beavers (Bavaria; Case number SA.33516 (N/2011))	Germany	The aid will be granted to partially compensate for damages caused to primarily agricultural, fishery and forestry undertakings by beavers. The following costs are eligible: feeding and rewetting damages to crops including field crops, but also fruit crops, vegetables and special crops, such as Christmas trees; field damages, caused for	+	Stabilised socio-economic situation of local population/Improved risk management.	+	A positive environmental impact for animal species protected by European law (beavers).	+

Measure	Country	Economic	Scale of impact	Social	Scale of impact	Environmental	Scale of impact
		instance by river bank break of; damages on agriculture machinery; damages on ponds/aquaculture; forestry damages					
Aid for investment in agricultural holdings (Case number SA 33157 (2011/N))	Bulgaria	<p>Taxable entities registered as agricultural producers may retain up to 60% of corporate tax relief in respect of the tax profit derived from agricultural activities. The eligible investments under the scheme: the construction/ acquisition of new buildings or improvement of existing buildings; and the purchase of new agricultural machinery and equipment. Thus, the aid positively contributes to maintaining employment in a rural area, and increased income of local population from agricultural activities.</p>	+	Improved socio-economic situation and wellbeing of local population.	+	The text of decision informs, that Bulgarian authorities could not confirm whether the particular investments in irrigation equipment would lead to the reduction of previous water use with a minimum of 25%. So the aid measure might contradict EC environmental objectives (water resources protection).	+/-

Measure	Country	Economic	Scale of impact	Social	Scale of impact	Environmental	Scale of impact
Aid to support cheese production in Auvergne-Limousin (Haute Dordogne; Case number SA 33855)	France	Support to investments in cheese production activities. Eligible investments: construction, purchase and improvement of fixed assets/ building, purchase of equipment, etc. Thus, the aid positively contributes to maintaining employment in a rural (mountain) area, as well as increased income of local population from agricultural activities.	+	Improved social stability in the area and socio-economic situation of the local population.	+	Investment contributes to significant reduction of water pollution (90% of baseline situation). However there is formal compliance with the environmental legislation, the area is considered with high eutrophication risk (River Haute Dordogne), therefore there is concern that investment might contribute to pollution discharge to environmentally sensitive area.	-

## I.2 Schemes

	Type	Case no.	Name	Measure	Case Type	Country	Economic	Scale of impact	Social	Scale of impact	Environment	Scale of impact
	Agri/ Forestry	SA 32134/2010	Framework of the Common Task "Improvement of Agricultural Structures and Coastal Protection" (GAK);	Support of 180 million euros. The GAK programme "Forestry" provides for support for measures promoting the ecological, protective and recreational functions of the forests and a healthy forest ecosystem, the afforestation of agricultural or non-agricultural land, non-productive investments and the use of environment-friendly forestry technology through various sub-measures. The modification planned concerns the maintaining and improving of soil quality	Scheme	DE	No mention	+/-	No mention. Likely positive effect on health and cohesion by recreational services of the forest	+/-	The German authorities confirmed that the measures under the present scheme <b>exclude aid to forest based industries or for commercially viable extraction of timber</b> , transportation of timber or for the processing of wood or other forestry resources into products or for energy generation....(16) The German authorities confirmed that the <b>measures do not reduce biodiversity, cause nutrient leaching or adversely affect natural water ecosystems or water protection zones....(29)</b> where the member State can demonstrate that these measures are directly contributing to <b>maintaining or restoring ecological, protective and recreational functions of forests, biodiversity and a healthy forest ecosystem.</b>	+

	Type	Case no.	Name	Measure	Case Type	Country	Economic	Scale of impact	Social	Scale of impact	Environment	Scale of impact
	Agri/Forestry	SA32706/2011	Forest environment measures-EAFRD	Compensatory payment of 77.8 million euros. The notified aid scheme consists of the following target programs: 1) Repression of aggressively expanding, non-indigenous trees and shrub species; 2) Selection forest management; 3) Manual treatment of forest stands; 4) Reduction of regeneration following clear-cutting in indigenous forest stands; 5) Ensuring special forest habitats and the conditions for natural forest regeneration (5.A. Creation and maintenance of micro-habitats, 5. B. Leaving groups of trees after final felling and 5.C. Bush regulation to ensure the success of forest regeneration); 6) Postponement of final felling to protect soil habitat; 7) Conversion of forests with public welfare purposes; 8) Creation and maintenance of forest clearings; 9) Application of environmental friendly materials handling method.	Scheme	HU	no mention	+/-	no mention	+/-	(10) The Hungarian authorities confirmed that the notified aid scheme contributes to <b>maintaining, restoring or improving ecological, protective and recreational functions of forests, biodiversity and a healthy forest ecosystem</b> or it does concern eligible costs mentioned in points 175-181 in Chapter VII of the Guidelines... (13) <b>The notified scheme consists of the following target programs:</b> Repression of aggressively expanding, non-indigenous trees and shrub species; 2) Selection forest management; 3) Manual treatment of forest stands; 4) Reduction of regeneration following clear-cutting in indigenous forest stands; 5) Ensuring special forest habitats and the conditions for natural forest regeneration (5.A. Creation and maintenance of micro-habitats, 5. B. Leaving groups of trees after final felling and 5. C. Bush regulation to ensure the success of forest regeneration); 6) Postponement of final	+

Type	Case no.	Name	Measure	Case Type	Country	Economic	Scale of impact	Social	Scale of impact	Environment	Scale of impact
										felling to protect soil habitat; 7) Conversion of forests with public welfare purposes; 8) Creation and maintenance of forest clearings; 9) Application of environmental friendly materials handling method. (14) The justification for the commitments is provided, based on their expected environmental impact in relation to environmental needs and priorities. 14)The scheme serves the maintenance and improvement of <b>biodiversity and the protection of native forest associations.... achieve sustainable forest management in ecological and economic terms.....</b> The creation and maintenance of <b>microhabitats, forest management under cutting system, voluntary preservation of tree groups and with the aim of natural forest regeneration</b> , bush regulation with a view to creating natural forests all play a very significant role.	

	Type	Case no.	Name	Measure	Case Type	Country	Economic	Scale of impact	Social	Scale of impact	Environment	Scale of impact
	Agri/Forestry	SA 33182/2011 (amendment N367/2009)	Directive of the Saxony Environment and Agriculture Ministry on support measures aiming at safeguarding natural biological diversity and natural rural heritage in Saxony	Support measures of EUR7 million aiming at safeguarding natural biological diversity and natural rural heritage in Saxony	Scheme	DE			No mention	+/-	The German authorities have confirmed that all of these measures are linked to the achievements of commitments undertaken under the aforementioned agri environmental commitments and that none of them leads to a net increase in farm value or profitability. They further demonstrated for the notified investments that each of them aims at protecting the environment (including the protection of natural habitats) and, as a consequence, cannot lead to any increase in farm value or profitability. Separate paragraph on compliance with the guidelines w.r.t. rural development programme (24) The German authorities have given assurances that the notified measures are, where applicable, coherent with the on-going <b>Rural Development Programme</b> for Sachsen.	+

	Type	Case no.	Name	Measure	Case Type	Country	Economic	Scale of impact	Social	Scale of impact	Environment	Scale of impact
	Agri/Forestry	SA 33228/2011	Restoring forestry potential and introducing prevention actions in the military areas	Direct grant of 900.000 euros for restoring forests potential in the forests in the military districts of the Slovak Republic substantially damaged by natural disaster, pest, diseases and forest fires and introducing prevention actions.	Scheme	SK	No mention	+/-	No mention. No social impact expected since forest is not open for recreational purpose.	+/-	Scheme has primarily for objective to contribute to maintaining and restoring the ecological and protective functions of forests, biodiversity and healthy forest ecosystem by restoring damaged forests, maintaining and improving soil quality, introducing preventative actions against diseases and forest fires, etc. <b>Reference to the guideline:</b> In line with point 174 of the Guidelines the aid measures should contribute to maintaining, restoring or improving ecological and protective functions of forests, biodiversity and a healthy forest ecosystem.	+
	Agri/Forestry	N352/2010	Non-productive investment in private Natura 2000 forests in Murcia		Scheme	ES	Improvement/maintenance of protected (Natura 2000) private forests. No immediate economic gains, as this is non-commercial investment.	+/-	Limited social gains, except enhanced recreation opportunities.	+/-	Implementation of environmental objectives: restoration of vegetation cover/habitats in Natura 2000 forests; conservation of biodiversity; limited use of chemicals by application of biological and mechanical pest control.	+

	Type	Case no.	Name	Measure	Case Type	Country	Economic	Scale of impact	Social	Scale of impact	Environment	Scale of impact
	Agri/Forestry	XA185/2008	Catchment Sensitive Farming Capital Grant Scheme		Scheme	UK	Encouragement of early voluntary action by farmers to tackle diffuse water pollution from agriculture in priority catchments by giving aid towards the cost of items which will reduce pollution. All subsectors of agricultural production are eligible to benefit from the scheme, thus more sustainable production practice is promoted.	+	Improved quality of environment will have positive effect on welfare of population.	+	Scheme has environmental objectives: reduction of diffuse pollution from agriculture and contribution to the achievement of domestic and international environmental targets, in particular the Water Framework Directive.	+
	Agri/Forestry	N89/2010	Aid to agricultural holdings to meet the minimum standards for the protection of laying hens		Scheme	Bulgaria	The primary objective of this scheme is the improvement of hygiene conditions and animal welfare standards. The installation of new automatic rearing systems will lead to technological and animal	+	No apparent social gains	+/-	Reference is made to preservation and improvement of natural environments, but no further specifications provided	+

	Type	Case no.	Name	Measure	Case Type	Country	Economic	Scale of impact	Social	Scale of impact	Environment	Scale of impact
							welfare improvement and a decrease of the production costs. The eligible expenses include the renovation and improvement of the existing laying hens establishments and the purchase of new equipment					

# Annex J Transport (cases)

J.1 Schemes

	Type	Case no	Name	Measure	Case Type	Country	Economic	Scale of impact	Social	Scale of impact	Environment	Scale of impact
	Transport	N 247/2009	Mode Shift Revenue Support Scheme	Aid scheme (of GBP95 million) providing for support for mode shift from road to rail and inland waterway services provided that they generate environmental benefits within the UK. The purpose of the MSRS scheme is to continue to secure the environmental benefits associated with the removal of lorries from the network by encouraging rail or inland waterway freight transport through grants which take account of the unpaid external costs of road transport.	Scheme	UK	Only environmental benefits mentioned (expressed in net unpaid external costs). Expected that employment in for water transport increases, but transport on road diminishes	+/-	Benefits are mentioned in terms of less accidents and congestions by less transportation on the road. Benefits are expressed in net unpaid external costs	+	Mode shift benefits are expressed for factors such as noise, pollution, climate change for different types of transport. Benefits are expressed in net unpaid external costs. Modeshift benefit difference between road (44) vs water/rail (5,7)	+

	Type	Case no	Name	Measure	Case Type	Country	Economic	Scale of impact	Social	Scale of impact	Environment	Scale of impact
	Transport	SA 32603/2011	Subsidy scheme "Ferrobonus" for combined transport	The aid scheme (of EUR25.7 million) has the objective of reducing the cost of combined transport which uses electrified rail transport for at least part of the journey. It consists of a partial payment of the operating costs to logistic companies or to final users of transport services	Scheme	IT	Only environmental benefits mentioned (expressed in net unpaid external costs). Expected that employment in for rail transport increases, but transport on road diminishes	+/-	Benefits are mentioned in terms of less accidents and congestions by less transportation on the road.		Mode shift benefits are expressed for factors such as noise, pollution, climate change for different types of transport. Cost difference road (17.9 euro per 1000 ton-kilometres) vs rail (EUR4.38 per tonne-kilometres). Cost difference of EUR13.52 euro per 1,000 tonnes-kilometres	+
	Transport	N246/2009	Waterborne Freight Grant Scheme		Scheme	UK	Promotion of coastal and short-sea shipping instead of road (lorry) transport	+/-	No significant social impacts expected/mentioned	+/-	Avoidance of journeys by lorries, this reaching reduction of GHG emissions; generation environmental benefits within UK. Environmental impacts amongst project selection criteria (in the event of budget restrictions, applications can be ranked according to foreseen environmental benefits	+

# Annex K Detailed analysis of Environmental Aid Guidelines

**Roadmap for a resource-efficient Europe (2011)**

[http://ec.europa.eu/environment/resource\\_efficiency/pdf/com2011\\_571.pdf](http://ec.europa.eu/environment/resource_efficiency/pdf/com2011_571.pdf)

Europe 2020 is the EU's growth strategy for the coming decade, pushing the EU to become a smart, sustainable and inclusive economy. Under the Europe 2020 strategy the flagship initiative for a resource-efficient Europe points the way towards sustainable growth and supports a shift towards a resource-efficient, low-carbon economy. One of the building blocks of this initiative is the European Commission's Roadmap for a resource-efficient Europe, a Communication adopted on 20 September 2011.

Provision	Resource efficiency themes	Resource efficiency themes in <i>Roadmap for a resource-efficient Europe</i>	Provisions for resource efficiency themes in the Environmental Aid Guidelines	Summary assessment – do the Environmental Aid Guidelines need updated?
1	Environmental research, development and innovation	<p>S. 3.3: The transition to a green and low-carbon economy will require significant innovation, from incremental changes to major technological breakthroughs. At the same time a more comprehensive and credible knowledge base about how natural systems react to the different pressures exerted on them is needed. Basic and applied research should identify challenges and guide actions, including social sciences research to develop our understanding of behaviour. To trigger this push in research and innovation, the right set of incentives needs to be in place so that the private sector invests more in resource efficient research and innovation. Demand side measures will help create incentives for green innovation by building markets. Clear framework conditions are needed to increase investor certainty and better access to finance for companies making green investments that are seen as riskier or that have longer payback times. The Commission will assess how best to encourage <u>private sector innovation in construction</u> (S 5.2).</p>	<p><i>1.5.3 Aid for early adaptation to future Community standards:</i> State aid may ensure significantly quicker implementation of newly adopted Community standards which are not yet in force and thereby contribute to reducing pollution at a faster pace than would have been the case without the aid. In such situations, State aid may therefore create individual incentives for enterprises to counterbalance the effects of the negative externalities linked to pollution.</p> <p><i>1.4.6 Aid for environmental studies</i></p> <p>Aid to companies for <u>studies on investments</u> aimed at achieving a level of environmental protection going beyond Community standards or increasing the level of environmental protection in the absence of Community standards, as well as studies on energy saving and production of renewable energy, addresses the market failure linked to asymmetric information. Often undertakings underestimate the possibilities and benefits related to energy saving and renewable energy, which leads to under-investment.</p> <p>S 1.5 (43) The Guidelines state that more favourable treatment can be accepted for eco-innovation projects that address the double market failure linked to the higher risks of innovation, coupled with the environmental aspect of the project. Aid for eco-innovation thus aims to accelerate the market diffusion of eco-innovations.</p>	<p>The Guidelines already promote State aid for environmental innovation (e.g. through incentives to counterbalance negative externalities). They also promote studies which increase environmental protection. However State aid for research, development and innovation in the environmental field is subject to the rules set out in the Community framework for State aid for research and development and innovation, and it is recommended that a link is made between the Guidelines and the Community framework for State aid for research and development and innovation. The market diffusion stage of eco-innovation (acquisition of an eco-innovation asset) is covered by the guidelines already.</p>

Provision	Resource efficiency themes	Resource efficiency themes in <i>Roadmap for a resource-efficient Europe</i>	Provisions for resource efficiency themes in the Environmental Aid Guidelines	Summary assessment – do the Environmental Aid Guidelines need updated?
2	Resource efficiency: improving buildings	5.2. Existing policies for promoting energy efficiency and renewable energy use in buildings need to be strengthened and complemented with policies for resource efficiency, which look at a wider range of environmental impacts across the life cycle of buildings and infrastructure. Significant improvements in resource and energy use during the life cycle will contribute to a competitive construction sector and the development of a resource efficient building stock. This requires the active engagement of the whole value chain in the construction sector.	<p><i>1.5.5 Aid for energy saving</i></p> <p>This type of aid addresses the market failure linked to negative externalities by creating individual incentives to attain environmental targets for energy saving and for the reduction of greenhouse gas emissions.</p>	The guidelines already promote State aid for measures linked to energy savings and reduction of greenhouse gas emissions. It would be helpful if the guidelines could include a reference to the role of buildings and the construction industry in contributing to energy savings.
3	Resource efficiency: improving buildings – SMEs and eco-innovation	S 5.2: Specific policies are needed to <u>stimulate SMEs</u> , which make up the vast majority of construction companies – to train and invest in resource efficient building methods and practices ('eco-innovation').	<p>The intensity of investment aid for resource efficiency objectives for SMEs can be increased. <i>Aid for undertakings going beyond Community standards or increasing the level of environmental protection in the absence of Community standards in small enterprises: 80% if eco-innovation; medium enterprises 70% if eco-innovation; large enterprises 60% if eco-innovation (see Annex).</i></p> <p>Eco-innovation means all forms of innovation activities resulting in or aimed at significantly improving environmental protection. Eco-innovation includes new production processes, new products or services, and new management and business methods, whose use or implementation is likely to prevent or substantially reduce the risks for the environment, pollution and other negative impacts of resources use, throughout the life cycle of related activities.</p>	The guidelines already support aid for resource efficiency objectives in SMEs, including eco-innovation.

Provision	Resource efficiency themes	Resource efficiency themes in <i>Roadmap for a resource-efficient Europe</i>	Provisions for resource efficiency themes in the Environmental Aid Guidelines	Summary assessment – do the Environmental Aid Guidelines need updated?
4	Impact of targets for greenhouse gas emissions, energy efficiency and renewable energy on ecosystems/biodiversity, water, waste, air pollution and socio-economic factors	<p>S 6.1: Achieving targets relating to greenhouse gas emissions, energy efficiency and renewable energy is vital for protecting natural resources, and action in the Roadmap will also contribute to reaching them. However, they do not capture some important adverse consequences to our economy, health and quality of life, for example factors such as inefficient land use, low water quality and availability, waste, air pollution, and losses of ecosystem services, fish stocks and biodiversity. Taking these into account would reinforce exploiting new sources of sustainable growth and strengthening competitiveness in the longer term.</p> <p><b>Milestone:</b> By 2020 stakeholders at all levels will be mobilised to ensure that policy, financing, investment, research and innovation are coherent and mutually reinforcing. Ambitious resource efficiency targets and robust, timely indicators will guide public and private decision-makers in the transformation of the economy towards greater resource efficiency<sup>37</sup>.</p>	<p>The guidelines consider wider environmental impacts to a limited extent, for example:</p> <p>S 1.5.6 (50) <i>Aid for renewable energy sources:</i> With regard to hydropower installations it should be noted that their environmental impact can be twofold. In terms of low greenhouse gas emissions they certainly provide potential. Therefore, they can play an important part in the overall energy mix. On the other hand, such installations might also have a negative impact, for example on <u>water systems and biodiversity</u>.</p> <p>S 1.3.2 <i>The objective of common interest addressed by the Guidelines</i></p> <p>Article 174(2) of the EC Treaty on European Union states that environment policy is to be based on the principles of precaution, prevention, rectifying pollution at source and 'polluter pays'. This can include activities such as the release of chemical pollutants into the <u>environment, or for instance physically altering the aquatic environment, and thereby causing disturbances of ecosystems or activities having a negative impact on the status of water resources</u>.</p>	<p>Guidance for assessing the wider impacts of State aid on resource efficiency (e.g. on ecosystems and natural environment), should be an on-going theme throughout the guidelines. Also health is not covered by the guidelines. Given the dependency of good health on a clean environment, the guidelines should provide guidance on assessing the impact of State aid on such factors as health and quality of life.</p> <p>To maximise consideration of resource efficiency objectives in State aid, indicators and targets currently being developed by the Commission should be written into the guidelines to ensure that State aid leads to positive trends in indicators and positive outcomes of targets.</p>
5	Environmental protection: market based instruments for resource efficiency (including energy)	<p>S 3.4.2, <i>Getting the prices right and reorienting the burden of taxation</i>, paragraph 4: Some Member States have achieved, through various steps of environmental tax reforms, a share of environmental tax revenues in total taxes of more than 10%, while at the same time preserving fiscal revenues and improving competitiveness and <u>energy efficiency</u>. This demonstrates that it is possible to shift taxation onto environmentally harmful activities within a sound economic framework. However, to measure more effectively the shift in the price signals needed to encourage greater investment in more efficient use of resources an additional indicator may be needed, such as the effective tax rate on environmental pollution or resource use.</p>	<p>S 1.2. <i>State aid policy and environmental protection (10)</i>. To increase the level of environmental protection, Member States may want to use State aid to create incentives on an individual level (at the level of the undertaking) to achieve a higher level of environmental protection than required by Community standards or to increase the environmental protection in the absence of Community standards. They may also set national standards or environmental taxation at a higher level than required by Community legislation or they may use environmental taxation to implement PPP unilaterally in the absence of Community legislation.</p> <p>The most common market failure in the field of environmental protection is related to negative</p>	<p>The Guidelines already encourage the use of State aid to create incentives to achieve a higher level of environmental protection. However the provision in the Guidelines to provide reductions or exemptions from environmental taxes runs counter to what is said on this issue in the Roadmap and could be deleted or amended.</p>

and social accounting systems, but there are several competing ideas on what indicators need to be used. The Commission proposes Domestic Material Consumption (expressed in Euro/tonne). A higher ratio would indicate better performance, with growth consuming relatively fewer resources. A dashboard of indicators that measure environmental impacts while taking into account EU consumption is needed to complement this.

Provision	Resource efficiency themes	Resource efficiency themes in <i>Roadmap for a resource-efficient Europe</i>	Provisions for resource efficiency themes in the Environmental Aid Guidelines	Summary assessment – do the Environmental Aid Guidelines need updated?
		<p><b>Milestone:</b> By 2020 a major shift from taxation of labour towards environmental taxation, including through regular adjustments in real rates, will lead to a substantial increase in the share of environmental taxes in public revenues, in line with the best practice of Member States.</p>	<p>externalities. Through the introduction of standards, taxation, economic instruments and other regulation, the undertakings producing pollution have to pay for the cost to society of pollution in accordance with the PPP.</p> <p><i>S 1.5.1.2 Aid in the form of reductions of or exemptions from environmental taxes.</i> This type of aid may be necessary to target negative externalities indirectly by facilitating the introduction or maintenance of relatively high national environmental taxation.</p>	
6	Environmental protection: waste	<p><i>S 3.2 Turning waste into a resource</i></p> <p><b>Milestone:</b> By 2020, waste is managed as a resource. Waste generated per capita is in absolute decline. Recycling and re-use of waste are economically attractive options for public and private actors due to widespread separate collection and the development of functional markets for secondary raw materials. More materials, including materials having a significant impact on the environment and critical raw materials, are recycled. Waste legislation is fully implemented. Illegal shipments of waste have been eradicated. Energy recovery is limited to non-recyclable materials, landfilling is virtually eliminated and high quality recycling is ensured. To assist, the Commission will Stimulate the secondary materials market and demand for recycled materials through economic incentives; and Ensure that public funding from the EU budget gives priority to activities higher up the waste hierarchy as defined in the Waste Framework Directive (e.g. priority to recycling plants over waste disposal) (in 2012/13).</p>	<p><i>S 3.1.9 Aid for waste management (126)</i></p> <p>Environmental investment aid for the management of waste of other undertakings, including activities of re-utilisation, recycling and recovery, will be considered compatible with the common market within the meaning of Article 107(3)(c) of the TFEU, provided that such management is in accordance with the <u>hierarchical classification of the principles of waste management</u> and is in accordance with the following conditions:</p> <p>(127) Investment aid for waste management shall be granted only if each of the following conditions are met:</p> <p>a) the investment is aimed at <u>reducing pollution</u> generated by other undertakings ('polluters') and does not extend to pollution generated by the beneficiary of the aid;</p> <p>b) the aid does not indirectly relieve the polluters from a burden that should be borne by them under Community law;</p> <p>c) the investment goes beyond the 'state of the art' or uses conventional technologies in an <u>innovative</u> manner;</p> <p>d) the materials treated would otherwise be disposed of, or be treated in a less environmentally friendly manner;</p> <p>e) the investment does not merely increase demand for the materials to be recycled without increasing</p>	The Guidelines already make provisions for State aid measures which promote management of waste in a resource efficient manner.

Provision	Resource efficiency themes	Resource efficiency themes in <i>Roadmap for a resource-efficient Europe</i>	Provisions for resource efficiency themes in the Environmental Aid Guidelines	Summary assessment – do the Environmental Aid Guidelines need updated?
			collection of those materials.	
7	Environmental protection: ecosystems	S 4.1: Ecosystem services are treated as ‘free’ commodities, their economic value is not properly accounted for on the market, and therefore they continue to be overly depleted or polluted, threatening our long-term sustainability and resilience to environmental shocks. <b>Milestone:</b> By 2020 natural capital and ecosystem services will be properly valued and accounted for by public authorities and businesses.	Not addressed.	The Guidelines do not mention ecosystem services and should therefore be updated to ensure that impacts of State aid measures on ecosystem services are assessed appropriately. The Guidelines should be adapted to favour State aid measures that address challenges to ecosystems (and biodiversity) at a national level (e.g. those that foster investments in natural capital), and to seize the growth and innovation potential of green infrastructure.
8	Environmental protection: biodiversity	S 4.2: Biodiversity underpins many of our ecosystems and is vital to their resilience. Its loss can weaken an ecosystem, compromising the delivery of ecosystem services and making it more vulnerable to environmental shocks. Restoring degraded ecosystems is costly, and in some cases, change can become irreversible. <b>Milestone:</b> By 2020 the loss of biodiversity in the EU and the degradation of ecosystem services will be halted and, as far as feasible, biodiversity will be restored.	Not addressed, except with regard to the environmental impact of hydropower installations.	The Guidelines mention biodiversity only once. The Guidelines should encourage the prevention of degradation to ecosystems (e.g. by providing State aid for investments in natural capital and ecosystems services that ultimately support biodiversity and strengthen ecosystem resilience).
9	Environmental protection: minerals and metals	S 4.3: Recognises the interaction between use of minerals and metals and other natural resources. Measures to take life-cycle impacts into account, to avoid waste, reuse and recycle more, improved research and innovation and other measures to improve market structures will lead to more efficient use of minerals and metals.	Not addressed.	Efficient use of minerals and metals should be addressed in the waste management section of the Guidelines.
10	Environmental protection: water	S 4.4: <b>Milestone:</b> By 2020, all WFD River Basin Management Plans (RBMPs) have long been implemented. Good status – quality, quantity and use - of waters was attained in all EU river basins in 2015. The impacts of droughts and floods are minimised, with adapted crops, increased water retention in soils and efficient irrigation. Alternative water supply options are only relied upon when all cheaper savings opportunities are taken. Water abstraction should stay below 20% of available renewable water resources.	S 3.3.10 (132) states that “Investment aid to undertakings repairing environmental damage by remediating contaminated sites will be considered compatible with the common market within the meaning of Article 107(3)(c) of the TFEU (48) provided that it leads to an improvement of environmental protection. The environmental damage concerned covers damage to the quality of the soil or of <u>surface water or groundwater</u> .”  The guidelines are built on the premise of the polluter pays principle. Article 174(2) of the EC Treaty on European Union (the foundation of the Guidelines) states that environment policy is to be	The Guidelines acknowledge the benefit of investment aid measures which repair environmental damage and improve water quality. However, a more thorough consideration of the impact of State aid on water efficiency and quality should be given (e.g. by promoting better demand management through economic instruments (pricing, water allocation) and research and innovation into use of labelling and certification schemes measuring life-cycle impact and virtual water content of products).

Provision	Resource efficiency themes	Resource efficiency themes in <i>Roadmap for a resource-efficient Europe</i>	Provisions for resource efficiency themes in the Environmental Aid Guidelines	Summary assessment – do the Environmental Aid Guidelines need updated?
			based on the principles of precaution, prevention, rectifying pollution at source and 'polluter pays'. This can include <u>physically altering the aquatic environment, and thereby causing disturbances of ecosystems or activities having a negative impact on the status of water resources.</u>	
11	Environmental protection: air quality	S 4.5 Better implementation of existing legislation and new, science-based standards would help improve compliance with air quality standards and steer innovation. With appropriate lead-times, these can ensure air quality benefits from transition to a low-carbon economy, and by other actions in this Roadmap, for example through reductions in waste, through more efficient production methods, as well as action in agricultural policy and the transport sector. <b>Milestone:</b> By 2020, the EU's interim air quality standards will have been met, including in urban hot spots, and those standards will have been l to further oving levels impacts on health and the environment.	<p>1.5.7. <i>Aid for cogeneration and aid for district heating (DH)</i> Cogeneration of heat and electricity (hereafter 'CHP') is the most efficient way of producing electricity and heat simultaneously. By producing electricity and heat together, less energy is wasted in production. DH may be more energy-efficient than individual heating and may provide a significant improvement in <u>urban air quality</u>. It is also stated "State aid may be an appropriate instrument only for those uses of renewable energy sources where the environmental benefit and sustainability is evident." This can include improved air quality.</p> <p>State aid could also be provided for air quality measures under section 1.5.1 "aid for undertakings which go beyond Community standards or which increase the level of environmental protection in the absence of Community standards".</p>	The only explicit reference to air quality is in relation to cogeneration and district heating, but measures could also be justified under S 1.5.1 if they go beyond Community standards. It is recommended that the guidelines are updated with specific references to air quality and not limited to district heating.
12	Environmental protection: land and soils	<p>S 4.6 <i>Land and soils</i> The use of land is nearly always a trade-off between various social, economic and environmental needs (e.g. housing, transport infrastructure, energy production, agriculture, nature protection). Decisions on land use are long term commitments which are difficult or costly to reverse. At the moment, these decisions are often taken without proper prior analysis of such impacts, for example through a Strategic Environmental Assessment.</p> <p><b>Milestone:</b> By 2020, EU policies take into account their direct and indirect impact on land use in the EU and globally, and the rate of land take is on track with an aim to achieve no net land take by 2050; soil erosion is reduced and the soil organic matter increased, with remedial work on contaminated sites well underway.</p>	<p>3.1.10. <i>Aid for the remediation of contaminated sites</i> Investment aid to undertakings repairing environmental damage by remediating contaminated sites will be considered compatible with the common market within the meaning of Article 107(3)(c) of the TFEU (48) provided that it leads to an improvement of environmental protection. The environmental damage concerned covers <u>damage to the quality of the soil</u>.</p> <p>3.1.11. <i>Aid for the relocation of undertakings</i> Investment aid for relocation of undertakings to new sites for environmental protection reasons will be considered compatible with the common market within the meaning of Article 107(3)(c) of the TFEU provided that the following conditions are met:</p> <p>a) the change of location must be dictated by environmental protection or prevention grounds and must have been ordered by</p>	The Guidelines stipulate that State aid for relocations of undertakings must be dictated by environmental protection/prevention and must comply with strictest environmental standards. In line with this, there could be a need for a section on State aid for prevention of soil erosion and/or soil quality improvement. The Guidelines should promote a thorough assessment of environmental impact, including the impact of aid measures on land use.

Provision	Resource efficiency themes	Resource efficiency themes in <i>Roadmap for a resource-efficient Europe</i>	Provisions for resource efficiency themes in the Environmental Aid Guidelines	Summary assessment – do the Environmental Aid Guidelines need updated?
			the administrative or judicial decision of a competent public authority or agreed between the undertaking and the competent public authority;  b) the undertaking must comply with the strictest environmental standards applicable in the new region where it is located.	
13	Environmental protection: marine resources	<i>S 4.7 Marine resources</i>  <b>Milestone:</b> By 2020, good environmental status of all EU marine waters is achieved, and by 2015 fishing is within maximum sustainable yields.	Not addressed.	The Guidelines could be updated to take account of the sensitivity of marine resources (including biodiversity and ecosystems). In other guidelines, the impact of State aid measures on coastal resources should be assessed (e.g. using spatial planning instruments for marine areas so that pressures resulting from State aid measures are negated, such as discharging pollutants in freshwater into the sea).

**EU biodiversity strategy to 2020** [http://ec.europa.eu/environment/nature/biodiversity/comm2006/pdf/2020/1\\_EN\\_ACT\\_part1\\_v7%5b1%5d.pdf](http://ec.europa.eu/environment/nature/biodiversity/comm2006/pdf/2020/1_EN_ACT_part1_v7%5b1%5d.pdf)

Fully valuing nature's potential will contribute to a number of the EU's strategic objectives including a more resource efficient economy: The EU's ecological footprint is currently double its biological capacity<sup>38</sup>. By conserving and enhancing its natural resource base and using its resources sustainably, the EU can improve the resource efficiency of its economy and reduce its dependence on natural resources from outside Europe.

Provision	Resource efficiency themes	Resource efficiency themes in <i>EU biodiversity strategy to 2020</i>	Provisions for resource efficiency themes in the Environmental Aid Guidelines	Summary assessment – do the Environmental Aid Guidelines need updated?
1	Biodiversity conservation	<b>Target 6: help avert global biodiversity loss</b> , Action 17: Reduce indirect drivers of biodiversity loss. 17a: Under the EU flagship initiative on resource efficiency, the EU will take measures (which may include demand and/or supply side measures) to reduce the biodiversity impacts of EU consumption patterns, particularly for resources that have significant negative effects on biodiversity.	Not addressed.	The Guidelines should be updated to encourage biodiversity conservation and to prevent degradation to ecosystems. The Guidelines should provide positive incentives for biodiversity conservation and its sustainable use (e.g. supporting State aid for investments in natural capital and ecosystems services that support biodiversity and strengthen ecosystem resilience). Other guidelines could be updated by identifying and evaluating potential impacts of State aid measures on biodiversity so that harmful subsidies/taxes are eliminated.
2	Land use	<b>4.1: Partnerships for biodiversity:</b> The benefits of actions to combat biodiversity loss have been outweighed by continued and growing pressure on Europe's biodiversity caused by land-use change (and other factors). The Commission will further encourage collaboration between researchers and other stakeholders involved in spatial planning and land use management in implementing biodiversity strategies at all levels, ensuring coherence with relevant recommendations set out in the European Territorial Agenda.	<b>3.1.11. Aid for the relocation of undertakings</b> Investment aid for relocation of undertakings to new sites for environmental protection reasons will be considered compatible with the common market within the meaning of Article 107(3)(c) of the TFEU provided that the following conditions are met:  a) the change of location must be dictated by environmental protection or prevention grounds and must have been ordered by the administrative or judicial decision of a competent public authority or agreed between the undertaking and the competent public authority;  b) the undertaking must comply with the strictest environmental standards applicable in the new region where it is located.	Most Guidelines largely do not cover the impact of State aid measures on land-use change. Greater emphasis should be placed on promoting avoidance of land-use conflicts (industrial or infrastructure installations versus valuable ecosystems or land used for agriculture). State aid measures should not lead to trade-offs or loss of valuable ecosystems.

<sup>38</sup>

<http://www.eea.europa.eu/data-and-maps/indicators/ecological-footprint-of-european-countries/>.

Provision	Resource efficiency themes	Resource efficiency themes in <i>EU biodiversity strategy to 2020</i>	Provisions for resource efficiency themes in the Environmental Aid Guidelines	Summary assessment – do the Environmental Aid Guidelines need updated?
3	Biodiversity and ecosystem services	<b>2.1. A dual mandate for action.</b> By 2050, European Union biodiversity and the ecosystem services it provides — its natural capital — are protected, valued and appropriately restored for biodiversity's intrinsic value and for their essential contribution to human wellbeing and economic prosperity, and so that catastrophic changes caused by the loss of biodiversity are avoided.	Not addressed.	The Guidelines do not mention ecosystem services. The Guidelines should be adapted to favour State aid measures that address challenges to ecosystems (and biodiversity) at a national level (e.g. those that foster investments in natural capital, and to seize the growth and innovation potential of green infrastructure. Other guidelines should be updated to ensure that impacts of State aid measures on ecosystem services are assessed appropriately.
4	Soils	<b>2.3. Building on the biodiversity knowledge base</b> The Commission will continue its work to fill key research gaps, including on mapping and assessing ecosystem services in Europe, which will help improve our knowledge of the links between biodiversity and climate change, and the role of soil biodiversity in delivering key ecosystem services, such as carbon sequestration and food supply.	<i>3.1.10. Aid for the remediation of contaminated sites</i> Investment aid to undertakings repairing environmental damage by remediating contaminated sites will be considered compatible with the common market within the meaning of Article 107(3)(c) of the TFEU (48) provided that it leads to an improvement of environmental protection. The environmental damage concerned covers <u>damage to the quality of the soil.</u>	The Guidelines stipulate that State aid for relocations of undertakings must be dictated by environmental protection/prevention and must comply with strictest environmental standards. The Guidelines should also be updated so that the impact of State aid measures on land use and the biodiversity supported by this system are properly assessed (e.g. by undergoing an environmental impact assessment).
5	Sustainable growth	<b>3.2. Maintaining and enhancing ecosystems and their services</b>  Maintaining and enhancing ecosystem services and restoring degraded ecosystems contribute to the EU's sustainable growth objectives and to mitigating and adapting to climate change, while promoting economic, territorial and social cohesion and safeguarding the EU's cultural heritage.	<i>1.2 (5) State aid policy and environmental protection</i>  Environmental protection can provide opportunities for innovation, create new markets and increase competitiveness through resource efficiency and new investment opportunities. Under some conditions, State aid can be conducive to these objectives, thus contributing to the core Lisbon strategy objectives of more <u>sustainable growth and jobs.</u>	The Guidelines already acknowledge the importance of sustainable growth and jobs in light of State aid. In the State aid Action Plan, the Commission announced that 'to best contribute to the re-launched Lisbon Strategy for growth and jobs, the Commission will, when relevant, strengthen its economic approach to State aid analysis.' The updated Guidelines should also take into account the economic impact of biodiversity and ecosystem services in State aid analysis.

**Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system** <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0144:FIN:EN:PDF>.

Transport is fundamental to our economy and society. Mobility is vital for the internal market and for the quality of life of citizens as they enjoy their freedom to travel. Transport enables economic growth and job creation: it must be sustainable in the light of the new challenges we face.

Provision	Resource efficiency themes	Resource efficiency themes in <i>Roadmap to a Single European Transport Area</i>	Provisions for resource efficiency themes in the Environmental Aid Guidelines	Summary assessment – do the Environmental Aid Guidelines need updated?
1	Use of fossil fuels versus renewable energy and greenhouse gas emissions	<p>The transport system is not sustainable. Looking 40 years ahead, it is clear that transport cannot develop along the same path. If we stick to the business as usual approach, the oil dependence of transport might still be little below 90%, with renewable energy sources only marginally exceeding the 10% target set for 2020.</p> <p>S 1 (6) A reduction of at least 60% of GHGs by 2050 with respect to 1990 is required from the transport sector, which is a significant and still growing source of GHGs. By 2030, the goal for transport will be to reduce GHG emissions to around 20% below their 2008 level. Given the substantial increase in transport emissions over the past two decades, this would still put them 8% above the 1990 level.</p>	<p><i>1.5.2. Aid for the acquisition of new transport vehicles which go beyond Community standards or which increase the level of environmental protection in the absence of Community standards</i></p> <p>S 1.5.2 (44) Transport is responsible for a large share of overall greenhouse gas emissions (approximately 30 %), as well as for local pollution by dust, particulates, NOx and SOx. Hence, it is important to encourage clean modes of transport, to fight global climate change and to reduce local pollution, in particular in cities. In this context, <u>it is particularly important to encourage the acquisition of clean transport vehicles</u> (including clean ships).</p>	<p>The Guidelines encourage the acquisition of clean transport vehicles but they should be more explicit about what 'clean' transport constitutes. For example, the Guidelines should offer clear guidance on assessing the impact of State aid measures on fossil fuel consumption and greenhouse gas emissions, as well as considering whether it uses renewable energy.</p>
2	Market based instruments: social and environmental impacts	<p><i>3.3. Getting prices right and avoiding distortions</i></p> <p><i>S 39 Smart pricing and taxation</i></p> <p>Develop guidelines for the application of internalisation charges to road vehicles, covering the social costs of congestion, CO<sub>2</sub> – if not included in fuel tax – local pollution, noise and accidents. Provide incentives to Member States who launch pilot projects for the implementation of schemes along such guidelines. A vigilant enforcement of the competition rules across all transport modes will complement the Commission's actions in this area. A higher degree of convergence and enforcement of social, safety, security and environmental rules, minimum service standards and users' rights must be an integral part of this strategy, to avoid tensions and distortions.</p>	<p><i>S 1.2. State aid policy and environmental protection (10)</i></p> <p>To increase the level of environmental protection, Member States may want to use State aid to create incentives on an individual level (at the level of the undertaking) to achieve a higher level of environmental protection than required by Community standards or to increase the environmental protection in the absence of Community standards. They may also set national standards or environmental taxation at a higher level than required by Community legislation or they may use environmental taxation to implement PPP unilaterally in the absence of Community legislation.</p> <p>The most common market failure in the field of environmental protection is related to negative externalities. Through the introduction of standards,</p>	<p>From the information in S 1.2 and S 1.5.1.2 it becomes clear that the Guidelines already encourage the use of State aid to create incentives to achieve a higher level of environmental protection in the transport sector. For example, this is achieved by the option to grant State aid to projects aimed at a higher level of environmental protection than required by Community standards or in the absence of such standards.</p>

Provision	Resource efficiency themes	Resource efficiency themes in <i>Roadmap to a Single European Transport Area</i>	Provisions for resource efficiency themes in the <i>Environmental Aid Guidelines</i>	Summary assessment – do the <i>Environmental Aid Guidelines</i> need updated?
			<p>taxation, economic instruments and other regulation, the undertakings producing pollution have to pay for the cost to society of pollution in accordance with the PPP.</p> <p>S 1.5.1.2 Aid in the form of reductions of or exemptions from environmental taxes. This type of aid may be necessary to target negative externalities indirectly by facilitating the introduction or maintenance of relatively high national environmental taxation.</p>	
3	Innovation	<p><i>3. The strategy – what needs to be done</i></p> <p>Innovation is essential for the strategy. EU research needs to address the full cycle of research, innovation and deployment in an integrated way through focusing on the most promising technologies and bringing together all actors involved. Innovation can also play a role in promoting more sustainable behaviour.</p>	<p>S 1.5 (43) of the Guidelines state that more favourable treatment can be accepted for eco-innovation projects<sup>39</sup> that address the double market failure linked to the higher risks of innovation, coupled with the environmental aspect of the project. Aid for eco-innovation thus aims to accelerate the market diffusion of eco-innovations.</p> <p>The intensity of investment aid for resource efficiency objectives for SMEs can be increased. Aid for undertakings going beyond Community standards or increasing the level of environmental protection in the absence of Community standards in small enterprises: 80% if eco-innovation; medium enterprises 70% if eco-innovation; large enterprises 60% if eco-innovation (see Annex).</p> <p>Aid for early adaptation to future standards and for the acquisition of new transport vehicles is possible under the conditions developed in sections 3.1.2 and 3.1.3.</p>	<p>The Guidelines support early acquisition of clean transport vehicles, and they support eco-innovation. An explicit link should be made to encourage eco-innovation in the sustainable transport sector.</p>

<sup>39</sup> Eco-innovation means all forms of innovation activities resulting in or aimed at significantly improving environmental protection. Eco-innovation includes new production processes, new products or services, and new management and business methods, whose use or implementation is likely to prevent or substantially reduce the risks for the environment, pollution and other negative impacts of resources use, throughout the life cycle of related activities.

**Energy Roadmap 2050** [[http://ec.europa.eu/energy/energy2020/roadmap/doc/com\\_2011\\_8852\\_en.pdf](http://ec.europa.eu/energy/energy2020/roadmap/doc/com_2011_8852_en.pdf)]

The EU is committed to reducing greenhouse gas emissions to 80-95% below 1990 levels by 2050 in the context of necessary reductions by developed countries as a group. In the Energy Roadmap 2050 the Commission explores the challenges posed by delivering the EU's decarbonisation objective while at the same time ensuring security of energy supply and competitiveness.

Provision	Resource efficiency themes	Resource efficiency themes in <i>Energy Roadmap 2050</i>	Provisions for resource efficiency themes in the Environmental Aid Guidelines	Summary assessment – do the Environmental Aid Guidelines need updated?
1	Greenhouse gas emissions	The EU is committed to reducing greenhouse gas emissions to 80-95% below 1990 levels by 2050.	<p><i>S1.1 (3)</i> The European Council made a firm independent commitment for the EU to achieve at least a 20 % reduction in greenhouse gas emissions by 2020 compared to 1990. It also stressed the need to increase energy efficiency in the EU so as to achieve the objective of saving 20 % of the EU's energy consumption compared to projections for 2020.</p>	The Guidelines must be updated to reflect the new greenhouse gas emissions reduction target of 80-95% below 1990 levels by 2050.
2	Energy efficiency: investment in technology	The average capital costs of the energy system will increase significantly - investments in power plants and grids, in industrial energy equipment, heating and cooling systems (including district heating and cooling), smart meters, insulation material, more efficient and low carbon vehicles, devices for exploiting local renewable energy sources (solar heat and photovoltaic), durable energy consuming goods, etc. This has a widespread impact on the economy and jobs in manufacturing, services, construction, transport and agricultural sectors. It would create major opportunities for European industry and service providers to satisfy this increasing demand and stresses the importance of research and innovation to develop more cost-competitive technologies.	The Guidelines do not address most of the investments in energy technology mentioned in the Energy Roadmap 2050. However they do address <i>1.5.7. Aid for cogeneration and aid for district heating (DH)</i> stating “provided that DH is shown to be less polluting and more energy efficient in the generation process and the distribution of the heat, but more costly than individual heating, State aid can be granted with a view to giving incentives to attain environmental targets. However, as in the case of renewable energies, the progressive internalisation of environmental externalities in the costs of other technologies can be expected to reduce the need for aid by bringing about a gradual convergence of these costs with those of CHP and DH.”	<p>The Guidelines state that there is an increasing internalisation of environmental externalities in the cost of renewable technologies, thus reducing the need for aid. However this may run counter to the increased costs of energy capital outlined in the Energy Roadmap 2050.</p> <p>The Guidelines should be updated to include a section on aid for investment in energy systems (not exclusively district heating), including the need for research and innovation (which is already covered by the Guidelines). Investing in energy systems will bring high levels of investment to the European economy.</p>
3	Energy efficiency: role of electricity	Electricity will have to play a much greater role to help meet the EU target for greenhouse gas emissions reduction. It is therefore important to provide the signals necessary to minimise investments in carbon intensive assets in the next two decades.	Not applicable.	The Guidelines already promote measures which are resource efficient but they could be updated to avoid investment in carbon intensive assets. This should involve a more detailed carbon impact assessment for State aid measures – how much carbon is released during the planning/construction/operation/decommissioning phase? Energy savings for all State aid measures should be quantified. Additionally the

				Guidelines must promote investment in electricity infrastructure.
4	Energy efficiency: buildings	Higher energy efficiency in new and existing buildings is key. Nearly zero energy buildings should become the norm. Buildings – including homes - could produce more energy than they use. This will require greater access to capital for consumers and innovative business models.	S1.5.5. already covers aid for energy savings. A reference to the potential of buildings to contribute to energy savings might be included.	The Guidelines could mention the role of buildings in contributing to energy savings in S1.5.5, given its prominence in the Energy Roadmap 2050.
5	Energy efficiency: cost optimal policies	An analysis of more ambitious energy efficiency measures and cost-optimal policy is required. Energy efficiency has to follow its economic potential. This includes questions on to what extent urban and spatial planning can contribute to saving energy in the medium and long term; how to find the cost-optimal policy choice between insulating buildings to use less heating and cooling and systematically using the waste heat of electricity generation in combined heat and power (CHP) plants.	Not addressed.	The Guidelines do not weigh up the cost benefit of State aid measures compared to their resource efficiency benefits. However it is recognised that the cost-efficiency of technologies will vary from one Member State to another, thus a flexible approach should be designed.
6	Renewable energy sources	The second major pre-requisite for a more sustainable and secure energy system is a higher share of renewable energy beyond 2020. The challenge for Europe is to enable market actors to drive down the costs of renewable energy through improved research, industrialisation of the supply chain and more efficient policies and support schemes. As technologies mature, costs will decrease and financial support can be reduced. Trade among Member States and imports from outside the EU could reduce costs in the medium to long-run. The existing targets for renewable energy appear to be useful for giving predictability to investors while encouraging a European approach and market integration of renewables.	<i>S 1.5.6 Aid for renewable energy sources</i> The high cost of production of some types of renewable energy does not allow undertakings to charge competitive prices on the market and thus creates a market-access barrier for renewable energy. However, due to technological developments in the field of renewable energy and to gradually increasing internalisation of environmental externalities (resulting, for example, from Directive 2008/1/EC of the European Parliament and of the Council of 15 January 2008 concerning integrated pollution prevention and control, air quality legislation and the emissions trading scheme), the cost difference has shown a decreasing trend over the past years, thus reducing the need for aid.	The Guidelines acknowledge a reducing need for State aid for renewable energy due to the increasing internalisation of environmental externalities due to other policy drivers. While the EU will need to continue to facilitate renewable energy development in the short terms, it is likely that the need for State aid for renewable energy measures will decline as the market becomes integrated.
7	Renewable energy support (e.g. energy subsidies).	Support (e.g. energy subsidies) could continue to be necessary beyond 2020 to ensure that the market encourages the development and deployment of new technologies and will need to be phased out as technologies and supply chains mature and market failures are resolved.  Public support schemes in Member States should be clearly targeted, predictable, limited in scope,	As above.	Financial support will continue to be necessary in the short-medium term until market failures are resolved. Support schemes will need to be reformed in light of maturation of technologies.

		<p>proportionate and include phase-out provisions. Any support measure has to be implemented in compliance with the internal market and the relevant EU State aid rules. The process of reform must continue to move rapidly to ensure more effective support schemes.</p>		
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**Energy Efficiency Plan 2011** <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0109:FIN:EN:PDF>

Energy efficiency is at the heart of the EU's Europe 2020 Strategy for smart, sustainable and inclusive growth and of the transition to a resource efficient economy. The Union has set itself a target for 2020 of saving 20% of its primary energy consumption compared to projections, and why this objective was identified in the Commission's Communication on Energy 2020 as a key step towards achieving our long-term energy and climate goals.

Provisions	Resource efficiency themes	Resource efficiency themes in <i>Energy Efficiency Plan 2011</i>	Provisions for resource efficiency themes in the Environmental Aid Guidelines	Summary assessment – do the Environmental Aid Guidelines need updated?
1	Energy saving in buildings and industry	Addressing heat consumption in buildings will be of prime importance in the coming years. The Commission will further explore the range of available solutions, including possibilities to promote the use of district heating in the context of integrated urban planning.	1.5.7. Aid for cogeneration and aid for district heating (DH) Cogeneration of heat and electricity (hereafter 'CHP') is the most efficient way of producing electricity and heat simultaneously. By producing electricity and heat together, less energy is wasted in production. DH may be more energy-efficient than individual heating and may provide a significant improvement in urban air quality.	The Guidelines already promote State aid for cogeneration and district heating but a reference to the role of buildings in contributing to energy efficiency should be included given its prominence in the Energy Efficiency Plan 2011.
2	Energy saving for competitive European industry	About 30% of the EU's primary energy consumption is consumed by the energy sector, mainly for transforming energy into electricity and heat and for distributing it. New generation capacity and infrastructure need to be built to replace ageing equipment and meet demand. It is important to ensure that energy efficiency is taken into account and that new capacity reflects the best available technology (e.g. The Emissions Trading Scheme and Industrial Emissions Directive).	Not addressed.	The Guidelines do not address the use of State aid for electricity generation and distribution networks. A section could be added to the Guidelines to promote infrastructure upgrades using best available technology.
3	Energy saving SMEs	The obstacles to investment in energy efficient technologies are most acute for SMEs. The Commission will therefore encourage Member States to provide them with information (for example about legislative requirements, criteria for subsidies to upgrade machinery, availability of training on energy management and of energy experts) and develop appropriate incentives (such as tax rebates, financing for energy efficiency investments, or funding for energy audits).	The intensity of investment aid for resource efficiency objectives for SMEs can be increased. Aid for undertakings going beyond Community standards or increasing the level of environmental protection in the absence of Community standards in small enterprises: 80% if eco-innovation; medium enterprises 70% if eco-innovation; large enterprises 60% if eco-innovation (see Annex).	The Guidelines already promote eco-innovation in SMEs as well as aid for energy saving.

# Annex L Recommendations for incorporating guidance on other resource efficiency objectives into the Environmental Aid Guidelines

The following table contains initial recommendations for incorporating guidance on other resource efficiency objectives into the EAG: some of these can be implemented with relative ease while others will require further research and development, such as to identify the circumstances under which aid can be granted (e.g. aid for early adaptation to future Community standards) or to identify standards which State aid beneficiaries must go beyond. Examples of relevant legislation have been listed to inform this exercise where appropriate.

Recommendations for adapting guidance for other resource efficiency objectives	Existing, relevant guidance in EAG	Level of effort (time, further research)
<p><b>All resource efficiency objectives</b>                      The guidance states that aid must be granted via a “<i>genuinely competitive bidding process</i> on the basis of <i>clear, transparent and non-discriminatory criteria</i>, effectively ensuring that the aid is limited to the minimum necessary for achieving the maximum energy saving/renewable energy, the aid intensity may amount to up to 100 % of the eligible investment cost”.</p> <p>This is standard guidance which could be written into sections for other resource efficiency objectives.</p>	3.1.5. Aid for energy saving  3.1.6. Aid for renewable energy  3.1.8. Aid for energy-efficient district heating	Easy
<p><b>Minerals and metals – incorporate into existing guidance on aid for waste management</b>                      The Roadmap for a resource-efficient Europe states that measures to take life-cycle impacts into account, to avoid waste, reuse and recycle more, improved research and innovation and other measures to improve market structures will lead to more efficient use of minerals and metals.</p> <p>One option is to adapt the guidance in s3.1.9 aid for waste management to include a condition that investment aid for waste management must take account of efficient uses of minerals and metals (under point 127).</p> <p>Guidance on eligible costs could be updated to read “Eligible costs must be limited to the extra investment costs necessary to realise an investment leading to waste management <i>and efficient use of minerals and metals</i>”.</p> <p><i>Relevant legislation</i>                      The Integrated pollution prevention and control (“IPPC”) Directive concerns industrial and agricultural activities with a high pollution potential including production and processing of metals and the mineral industry. One factor for assessing impacts on minerals and metals may be whether the applicant has an IPPC permit – although this is only applicable for large companies. Tailored guidance on aid intensity and operating aid for installations seeking to go beyond the requirements of their IPPC permit by accessing State aid could be developed.</p>	3.1.9. Aid for waste management	Easy - moderate
<p><b>Land and soils – incorporate into existing guidance on aid for contaminated land, waste management and renewable energy</b></p>	3.1.10. Aid for the remediation of contaminated sites	Easy

<p>The guidelines already contain provisions for aid for the remediation of contaminated sites. S3.1.10 (132) states 'Investment aid to undertakings repairing environmental damage by remediating contaminated sites will be considered compatible with the common market within the meaning of Article 107(3)(c) of the TFEU (48) provided that it leads to an improvement of environmental protection. The environmental damage concerned covers damage to the quality of the soil, or of surface water or groundwater' (s 3.1.10).</p> <p>One easy adaptation would be to update the guidance to read "<i>The environmental damage concerned covers damage to the quality of the soil including soil erosion. Improvement to soil quality should be promoted where possible ...</i>"</p> <p>However improving soil quality should not be limited to remediation of contaminated land; it should also be a consideration for aid for waste management and renewable energy developments (e.g. installation of wind turbines). Therefore it is recommended that guidance is written into these sections, to highlight that aid must not lead to deterioration in soil quality.</p> <p><i>Examples of relevant legislation</i> Common Agricultural Policy and Cross Compliance IPPC (see above)</p>		
<p><b>Water – new guidance required</b></p> <p>S3.1.10 (132) Aid for the remediation of contaminated sites already refers to aid investment to remediate surface water or groundwater.</p> <p>However it is recommended that improvements in water quality are not limited to remediation of contaminated land. Instead it would be beneficial to include a new section containing guidance on "<i>aid for improving water quality and efficiency</i>". The contents of this new guidance could be similar in structure to "aid for energy savings" (e.g. by substituting energy savings for water savings in the eligible costs guidance):</p> <ul style="list-style-type: none"> <li>a) the part of the investment directly related to <i>water savings</i></li> <li>b) a level of <i>water savings</i> higher than Community standards</li> <li>c) extra investment for <i>water savings</i>.</li> </ul> <p>Guidance on assessing the impact of aid measures on water quality and efficiency would need to be developed by DG ENV, (e.g. to identify minimum legislative standards which aid measures must <i>go beyond</i>).</p> <p><i>Examples of relevant legislation</i> Water Framework Directive Drinking water Directive Urban Wastewater Directive Nitrates Directive</p>	3.1.10 Aid for the remediation of contaminated sites	Moderate
<p><b>Ecosystem services and biodiversity – new guidance required</b></p> <p>The impact of State aid measures on ecosystem services and biodiversity requires new guidance due to its complexity and the difficulty faced in quantifying the value of ecosystem services. Human well-being is dependent upon ecosystem services provided by nature for free, such as water and air purification, fisheries, timber and nutrient cycling. These are predominantly public goods with no markets and no prices, so their loss often is not detected by our current economic incentive system and can thus continue unabated. A variety of pressures resulting from population growth, changing diets, urbanisation, climate</p>	N/A	Significant

<p>change and many other factors is causing biodiversity to decline, and ecosystems are continuously being degraded<sup>40</sup>.</p> <p>The values of ecosystem services differ with changing ecological priorities and with differing characteristics of beneficiaries<sup>41</sup>. Thus it is likely that Member States will place different values on different ecosystems. Development of guidance to promote ecosystem services and protect biodiversity via State aid measures requires further research.</p> <p><i>Examples of relevant legislation and policy</i>                  EU Biodiversity Strategy to 2020                  Birds Directive                  Habitats Directives</p>		
<p><b>All environmental protection objectives</b></p> <p>At present, environmental protection is well covered by the EAG. It would be helpful if guidance could be inserted upfront in the EAG on the types of environmental protection, resource efficiency and sustainable development objectives required to be met by State aid measures. This would provide Member States and organisations with guidance on exactly what is meant by terms such as ‘promoting sustainability’ and ‘higher level of environmental protection’. For example, it would be helpful to provide a list of the objectives expected as a result of State aid (e.g. no net biodiversity loss, protection of ecosystem services, efficient use of minerals and metals, reduction in greenhouse gas emissions, improvement in air quality, improvement in soil quality).</p> <p>A ranking system could be developed for Member States to ‘score’ State aid measures in terms of the objectives they meet. This might be agreed at the Member State level depending on the priorities they face (e.g. one Member State might weigh efficient use of minerals and metals more greatly than an improvement in air quality depending on the current state of the environment). Alternatively, it might be decided that the same weightings are applied across EU Member States.</p> <p>Given that the EAG constitute one of the instruments to implement the environmental aspects of the energy- and climate change-related targets decided by the European Council, it is recommended that climate change adaptation is included in the updated guidelines. Consultation with DG CLIMA on the best way to integrate climate change adaptation is recommended in light of the development of the European Adaptation Strategy. Aid might be provided under the guise of ‘early adaptation to future Community standards’. In line with the above suggestions, ‘reduction in vulnerability to climate change’ might be a suitable objective for State aid measures.</p>		

<sup>40</sup> [http://ec.europa.eu/environment/nature/biodiversity/economics/index\\_en.htm](http://ec.europa.eu/environment/nature/biodiversity/economics/index_en.htm)

<sup>41</sup> [http://www.teebweb.org/Portals/25/TEEB%20Synthesis/TEEB\\_SynthReport\\_09\\_2010\\_online.pdf](http://www.teebweb.org/Portals/25/TEEB%20Synthesis/TEEB_SynthReport_09_2010_online.pdf)

# Annex M Checklist (environmental) resource efficiency issues

INDIVIDUAL APPLICATIONS/AD-HOC CASES			
	Issue	Response	Clarification (obligatory)
1.	<p><b>The project, eligible for support, is subject to an Environmental Impact Assessment (EIA) obligation<sup>42</sup></b></p>	<ul style="list-style-type: none"> <li>• Yes, and an EIA was (already) drafted → <i>EIA is submitted as one of the documents accompanying the notification of the State aid measure to the Commission. <b>Please complete questions 4 and 5</b></i></li> <li>• Yes, but an EIA is not available yet → <b>please complete questions 2 to 5</b></li> <li>• No → <b>please complete questions 2 to 5</b></li> </ul>	
<p><i>Question 2 only relevant in case (1) an EIA is not yet available or (2) an EIA-obligation is not applicable</i></p>			
2.	<p><b>The project, eligible for support, is unlikely to have a significant effect on the environment, including:</b></p> <ul style="list-style-type: none"> <li>• <b>greenhouse gas emissions;</b></li> <li>• <b>biodiversity;</b></li> <li>• <b>extraction of underground and surface water (excessive water consumption);</b></li> <li>• <b>(hazardous) waste generation;</b></li> <li>• <b>impact on soil, water bodies and water quality; and/or</b></li> <li>• <b>air quality</b></li> </ul>	<p>Agree/disagree/not sure/not applicable</p>	
<p><i>Question 3 only relevant in case (1) an EIA is not yet available or (2) an EIA-obligation is not applicable</i></p>			
3.	<p><b>The project, eligible for support, is unlikely to be at or near a nature conservation site or in an area rich in biodiversity</b></p>	<p>Agree/disagree/not sure/not applicable</p>	

<sup>42</sup> It should be noted that, although the EIA Directive (2011/92/EU) ensures that all environmental impacts are assessed, it does not impose implementation details with regard to project decision considerations.

4.	<b>The project, eligible for support, contributes to a resource efficient use of fossil fuels (oil and gas )</b>	Agree/disagree/not sure/not applicable	
5.	<b>Please indicate how balancing of multiple objectives (economic, social, environmental) took place when assessing the (external) cost and benefits of the project, eligible for support. Also, present the net outcome of this exercise and indicate to what extent the project contributes to sustainable development</b>	<ul style="list-style-type: none"> <li>Balancing of multiple objectives took place quantitatively/qualitatively applying the following methodology...The net outcome is...</li> <li>No balancing of multiple objectives took place, because ...</li> </ul>	
<b>SCHEMES</b>			
	<b>Issue</b>	<b>Response</b>	<b>Clarification (obligatory)</b>
6.	<b>The scheme is unlikely to have a significant effect on the environment (no risk of environmental harmful subsidies), including:</b> <ul style="list-style-type: none"> <li>greenhouse gas emissions;</li> <li>biodiversity;</li> <li>extraction of underground and surface water (excessive water consumption);</li> <li>(hazardous) waste generation;</li> <li>impact on soil, water bodies and water quality; and/or</li> <li>air quality</li> </ul>	Agree/disagree/Not sure/not applicable	
7.	<b>The scheme is unlikely to contribute to biodiversity loss</b>	Agree/disagree/Not sure/not applicable	
8.	<b>The scheme contributes to a resource efficient use of fossil fuels (oil and gas)</b>	Agree/disagree/Not sure/not applicable	
9.	<b>Please indicate how balancing of multiple objectives (economic, social, environmental) took place when assessing the (external) cost and benefits of the scheme . Also, present the net outcome of this exercise and indicate to what extent the scheme contributes to sustainable development</b>	<ul style="list-style-type: none"> <li>Balancing of multiple objectives took place quantitatively/qualitatively applying the following methodology...The net outcome is...</li> <li>No balancing of multiple objectives took place, because ...</li> </ul>	

Inspired by: *Environmental and social screening process European Investment Bank - Environmental and Social Practices Handbook* (EIB, 2010) and feedback from Latvian officials (interview).



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