

ROADMAP	
Title of the initiative	Roadmap to a Resource Efficient Europe
Type of initiative	X CWP
Lead DG – responsible unit	DG ENV - Task Force on Resource Efficiency
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This indicative roadmap is provided for information purposes only and is subject to change. It does not prejudge the final decision of the Commission on whether this initiative will be pursued or on its final content and structure.

A. Context, problem definition
<p>(i) What is the political context of the initiative?</p> <p>(ii) How does it relate to past and possible future initiatives, and to other EU policies?</p> <p>(iii) What ex-post analysis of the existing policy has been carried out and what results are relevant for this initiative?</p>
<p>The Europe 2020 Strategy sets the priority of moving to a more resource efficient, greener and more competitive economy, with a Flagship Initiative on "Resource Efficient Europe" to achieve absolute decoupling (i.e. reducing overall resource use or pollution from economic activity). This is seen as the means to achieve our economic, environmental and social goals under fast-changing patterns of global resource use.</p> <p>The Roadmap for a Resource Efficient Europe will describe the vision of a more resource-efficient economy in 2020 and 2050, it will propose new policy initiatives that enhance synergies between policies, in particular to stimulate greater innovation for short-term and long-term economic and environmental benefits.</p> <p>An essential part of the process of preparing the Roadmap will also be close co-operation with other DGs, to identify the common objectives and policy measures, and to ensure coherence with the other Flagship Initiatives.</p> <p>The Roadmap will build on the experience of the Thematic Strategy on Natural Resources (COM/2005/0670) and the Thematic Strategy on Waste prevention and recycling (COM/2005/0666), and on the two progress reports to be adopted by the Commission in December 2010. It will build on the experience and the knowledge base provided by the implementation of water, biodiversity and sustainable consumption and production (SCP) policies.</p>
<p>What are the main problems which this initiative will address?</p>

The increasing wealth and population growth in a rapidly industrialising world – including the BRIC countries, such as China, India and Brazil, but also more widely, has led to rising demand for resources. Greatly increasing demand for and pressure on natural and material resources are now among the key global challenges that we face today, and that is set to become even more acute in the future. These trends have significant consequences for competitiveness, mitigation of and adaptation to climate change, the EU and global environment and therefore the strength and resilience of global economies and for the sustaining of quality of life.

Globally, the 'middle class' (those spending more than the living cost equivalent of \$22,500/year) has now reached 2 billion – and their spending is predicted (by McKinsey) to triple in the next decade. Pressure on resources is bound to be accelerated further as the global population heads toward 9 billion by 2050. These developments lead to accelerating scarcity, and increasing difficulty of access to key resources (minerals, eg. rare earth metals, phosphate, water, biotic resources) as well as price increases.

These trends have major implications for the economic fundamentals of the global economy and therefore the relative competitiveness of industry sectors. To remain competitive, the EU economy will have to adjust faster than our competitors to these global trends. At the same time, scarcity increases the risk of disruption by exacerbating the EU's dependency on some supplier countries.

Increased environmental pressures – for example, fish stocks (80% of global stocks overfished) will further weaken the resource base and take global production further from a path that can lead to continued increases in quality of life. In some cases it may also reduce the capacity of the natural environment to absorb and neutralize pollution - with related risks to the economy and society as a whole. A major impact on the competitiveness of our economy depends on natural resources. This includes greenhouse gas emissions and sequestration capacity. The UNEP Resource Panel has recently looked at the lifecycles of products across the economy and found that the majority of environmental impacts are driven by agriculture and food consumption (causing in particular biodiversity loss, climate change, fish depletion, water use and toxic emissions) or come from the use of fossil fuels for heating, transportation, materials production and the production and use of electrical appliances.

The challenge is widely recognised and some countries, who understand the potential competitive advantage of improved resource efficiency both in terms of costs reduction and prospects for future markets, have set themselves ambitious targets and policy frameworks in that respect (e.g. Japan, China, Korea).

Resource efficiency is a cross-cutting issue with far-reaching implications on a significant number of policy areas. Evidence on our past performance indicates that the EU's response must go beyond existing current and planned policy action (access to raw materials, sustainable use of natural resources, and an array of policy actions aiming at decarbonisation...) whilst building on these initiatives. In particular, achievement of the EU's environmental policy goals depends on greater resource efficiency in the EU economy and internationally.

There are various market failures and broad aspects of the market economy which prevent the EU's adequately fast transition to a resource efficient economy. A policy on resource efficiency is needed to contribute to:

- integrating the long term perspective in how markets take the decisions. This has especially impacts on the current overexploitation of limited natural resources, as market prices currently do not reflect future scarcity. (Short-term decision making has been most obvious – and widely recognised - in the financial markets).
- overcome of the inherent inertia to change and sub-optimal levels of innovation in the economy, by providing a vision and market signals that drive greater eco-innovation.
- accelerate the change in the infrastructure investments for greater efficiency, without which the market economy based on the current infrastructure can lag behind changing external conditions and our competitors, to adapt to the needs of a resource constrained economy, as without a clear policy change
- remove market failures that prevent investment in resource efficiency or fail to internalise externalities that damage the global resource base.

Who will be affected by it?

The Flagship Initiative will affect the direction of structural change in the economy, to increase future competitiveness across the economy, with net beneficial effects on employment, public budgets, firms in many sectors - including services - and the citizens - including through greater chances of achieving the EU's environmental goals. Measures to reach the required improvements in resource efficiency may be wide ranging and concern many policy areas: Environment, Agriculture and fisheries policy, Climate Action, Research, innovation and industrial policy, Energy, Economic and Monetary Affairs, Regional policy, Trade and development policies, Taxation. The identification of concrete objectives, an understanding of how the policies aimed at meeting them affect each other; and finding the trade-offs between them is key to success in ensuring coherence and consequently successful EU action.

- (i) Is EU action justified on grounds of subsidiarity?
- (ii) Why can Member States not achieve the objectives of the proposed action sufficiently by themselves?  
(Necessity Test)
- (iii) Can the EU achieve the objectives better? (Test of EU Value Added)

Some of the measures to improve resource efficiency are of exclusive EU competence, such as agriculture, fisheries, internal market or trade. In some others the EU has a shared competence and a well established policy or legislative role (such as environment, energy, transport) or a more general coordination role (such as industrial or economic policies).

In order to address the existing or potential market failures, EU action is needed for sufficient scale of influence in the internal market, and to avoid gaming for short-term advantage by industry sectors in Member States.

Furthermore, the aspect of the international competition for resources, the needs of emerging markets, and the need to limit EU footprint on world resources giving at the same time the possibility to other countries to develop, requires the adoption of a coordinated cross-cutting policy on resource efficiency by the Commission. Because of the interlinkages across the economy, such an approach would ensure synergies and coherence between EU policies.

## B. Objectives of the initiative

What are the main policy objectives?

To bring about the policy changes needed to meet the EU's objectives of a Smart, Sustainable, Inclusive Economy for 2020 and beyond, in the face of changing economic and resource conditions. An essential part of this is to overcome hurdles to the EU's transition to a Resource-Efficient Economy. The Roadmap will identify the changes needed to achieve this transition and set out a range of policies to improve resource-efficiency for 2020, defining the plans for introduction of these policies at EU and Member State level. This aims at an absolute decoupling of resource use from economic growth; and of environmental degradation from resource use.

Given the degree of interactions across the economy and the environment, policy needs to take a coherent approach promoting natural, energy and material resource efficiency and the Roadmap will identify those areas where greater integration can deliver significant economic and environmental benefits, particularly in light of changing economic and resource-availability trends.

This is particularly in the areas of production of food; economy wide material efficiency - particularly for the impact on competitiveness and fossil fuel demand, energy savings and water.

Do the objectives imply developing EU policy in new areas?

In principle not. Most of the initiatives would require new approaches in policy-making and a simultaneous and coherent application of a mix of policy instruments.

## C. Options

- (i) What are the policy options being considered?
- (ii) What legislative or 'soft law' instruments could be considered?
- (iii) How do the options respect the proportionality principle?

Achieving the transition will require a mix of instruments. Meeting the goals will require shaping the market conditions to promote increased competitiveness in the long-term - something which will involve policy change and coherence across several policy areas, delivering on their synergies. Policy options will focus on:

- Creating the market conditions which promote the development and uptake of innovation that will take the EU to a resource-efficient economy; and
- Removing the obstacles to the market delivering a resource-efficient economy. For example, by removing market failures and over-coming 'lock-in' to the current production and consumption patterns – for example by providing the new infrastructure needed for new transport, logistic or energy provision, or by removing skills gaps needed for the resource-efficient economy.

The policy options to be proposed will need to be both horizontal (i.e. covering more than one resource) and specific to a type of resource.

Selection of policies will involve examining the supply and demand chain for a resource to identify where policy intervention will best tackle the problem. This may be anywhere from extraction of a resource to the drivers of demand for the final product. It is likely that, in many, cases, simultaneous application of different policies will be needed to bring about change in the markets, as in the Lead Markets Initiatives: a stimulation of both the supply side and the demand side of the market.

Policies will focus on resource efficiency for those resources which are economically important, or are significant because of their externalities.

Options will be considered for intervention at the appropriate level, whether EU, MS or regional.

#### D. Initial assessment of impacts

What are the benefits and costs of each of the policy options?

The benefits and costs of one or more transition paths to the resource efficient economy will be estimated, in particular taking into account:

- the stimulus to greater innovation and the promotion of beneficial structural change
- the benefits that may arise from the first-mover advantage in global markets adjusting to resource and environmental pressures, and incidence on balance of trade;
- the degree to which the rate of structural change in the EU economy would be changed – and therefore the extent of increase in transition costs (eg. frictions in the labour market);
- the change in distribution and magnitude of transition costs between groupings/classes of employees, entrepreneurs and investors - including regional differences
- costs and benefits to public budgets, including consideration of changes in fiscal policy, economic benefits of losses from changes in the availability or productivity of eco-system services

Could any or all of the options have significant impacts on (i) simplification, (ii) administrative burden and (iii) on relations with other countries, (iv) implementation arrangements? And (v) could any be difficult to transpose for certain Member States?

Most of the options imply a change in the policy approaches, tackling the possible trade-offs and highlighting the potential synergies among different policies with an impact on the resource use. No specific impact identified at this stage on simplification, on administrative burden and on specific Member States. Better implementation of policy will be a key part of the Roadmap. As our economy is part of the global economy, with both economic and environmental impacts from our decisions, the impacts on third countries and trade will be a part of the Roadmap.

(i) Will an IA be carried out for this initiative and/or possible follow-up initiatives? (ii) When will the IA work start? (iii) When will you set up the IA Steering Group and how often will it meet? (iv) What DGs will be invited?

The Roadmap will cover many existing and planned policy streams (eg. review of the Natural Resources and Waste Thematic Strategies, Eco-Innovation Action Plan, Biodiversity targets, Water Efficiency in Buildings, REACH implementation, Marine Environment Framework Directive, review of SCP Action Plan) and so will deal with the complexity of the interaction between the different policies and more in general economy and the environment.

Given the strategic nature of the Roadmap, no Impact Assessment will be carried out, but a Staff Working Paper will provide evidence on the benefits and costs of the transition to resource efficiency. Impact Assessments will be performed on the individual policy proposals that will precede or follow the Roadmap and any which form a part of it.

Upstream coordination with the DG's associated with the Flagship "Resource Efficiency" is an essential part of the work in the Roadmap identifying requirements and integrated policy solutions. The establishment of an Interservice Group will take place in the autumn.

(i) Is any of options likely to have impacts on the EU budget above €5m?

(ii) If so, will this IA serve also as an ex-ante evaluation, as required by the Financial regulation? If not, provide information about the timing of the ex-ante evaluation.

No impact on the EU budget foreseen at this stage.

#### E. Evidence base, planning of further work and consultation

(i) What information and data are already available? Will existing impact assessment and evaluation work be used?

(ii) What further information needs to be gathered, how will this be done (e.g. internally or by an external contractor), and by when?

(iii) What is the timing for the procurement process & the contract for any external contracts that you are planning (e.g. for analytical studies, information gathering, etc.)?

(iv) Is any particular communication or information activity foreseen? If so, what, and by when?

The preparation of the Roadmap will be based on:

- new modelling that better reflects the linkages between different sectors of the economy and resource flows, with more realistic assumptions on endogenous growth, resource constraints and flow of assets between sectors of the economy
- information and data already available from the Commission (for instance in the context of the work on the Natural Resources Thematic Strategy, studies on SMEs and the Competitiveness of the Eco-Industries, i-Grow Green, water scarcity and drought, water efficiency, water quality, soil and land use and land use change, biodiversity, sustainable consumption and production, Green Growth, eco-innovation, climate change adaptation, beyond GDP, environmental harmful subsidies, etc.)
- external studies, for example, TEEB: the Economics of Ecosystems and Biodiversity, the State and Outlook of the European Environment 2010, OECD's work on Green Growth, UNEP studies, including the studies of the UNEP International Resources Panel and work by Member States;
- cooperation with other DGs on the preparation of the raw material initiative, on the decarbonisation of energy and transport, and on energy efficiency;
- reviews of the Thematic Strategies on Natural Resources and Waste and Recycling;
- new studies being outsourced to fill specific knowledge gaps, most planned to deliver their results by spring 2011 at the latest. Some of these are already launched, others will run beyond spring 2011 to inform future policy development.

A range of indicators to measure and inform future policy will be considered, some of which will be newly developed.

Work to build up the necessary statistics to allow for the development of resource efficiency indicators has already started some years ago, namely the work of DG ESTAT on the environmental accounts of material flows and the work of DG JRC on the European Reference Life Cycle Database. These statistics have been started to support the Thematic Strategy of natural resources and the Integrated Product Policy. The two approaches can now be brought together to contribute to the development of resource efficiency indicators. This work is complemented by large scale research project co-financed by the Commission, such as the EXIOPOL project.

Resource efficiency and sustainable consumption and production are being considered as the main communication priority for DG ENV for 2011, in relation to the adoption of the Roadmap and to a wider awareness raising campaign. Commission's Green Week in May/June 2011 will be fully dedicated to resource efficiency.

Which stakeholders & experts have been or will be consulted, how, and at what stage?

All major stakeholders in the business community, including SMEs, and civil society will be consulted in public meetings and/or with a public online consultation that will stay open for 8 weeks. This has already started in many fora. Broad public and inter-institutional discussion on Resource Efficiency will also take place around a Staff Working Paper from the Commission earlier in 2011, and around initiatives which fall within the Flagship Initiative. Exchange of views with key European experts from Academia and other sectors have already taken place with more planned in the autumn 2010 in a series of workshops.