

Proofing the European Commission's Competitiveness Proofing

For the GREENS/EFA Group in the European Parliament

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2 July 2013

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Executive summary

The Ecologic Institute has been asked to review the methodology of the competitiveness proofing guidelines¹ (CP guidelines) suggested by the European Commission and to evaluate whether the chosen methodology provides sufficient information to evaluate the impact of policies on the competitiveness of the European economy. The study should also take into account whether the information collected in a competitiveness proofing (CP) will help or hinder the long-term structural change and innovation needed in the European economy.

Assessing the methodology of CP against these objectives has led to the following conclusions:

- The CP methodology does not formulate important new requirements but summarises several working steps already required in the Impact Assessment guidelines² (IA guidelines) into one coherent framework. The CP focuses on three thematic areas: 1) cost and price competitiveness of sectors, 2) innovation in sectors, and 3) international competitiveness. The CP methodology summarises all sector-specific analysis of the impact assessment.
- The availability of information was found to differ significantly between the three thematic areas. While the information available on costs and price competitiveness is substantial, the guidelines provide less detail on how to assess the impacts on innovation and the impacts on international competitiveness. On the assessment of innovation impacts, the CP guidelines provide even less information than is already available in the overall IA guidelines. The CP guidelines focus strongly on costs, price competitiveness, and international competitiveness and less so on innovation impacts.
- The biggest challenge of the CP guidelines is its clear focus on the current state of the most affected sectors. The methodology assumes that all cost increases for the most affected sectors are necessarily negative or damaging for their competitiveness and the competitiveness of the European economy as a whole. The guidelines, therefore, do not take into consideration that current economic structures need to change from their current mode of production to one that is more sustainable, resilient, and competitive over the long term. Examples for this could be:
 - measures aimed at the internalisation of external costs to society (e.g., pollution permits, environmental taxes);
 - measures to foster substitution processes towards the use of less toxic substances or better degradable waste substances (e.g., product or process norms);

See http://ec.europa.eu/governance/impact/commission_guidelines/commission_guidelines_en.htm

See http://ec.europa.eu/enterprise/policies/smart-regulation/impact-assessment/competitiviness-proofing/index en.htm

- measures to create new products and value chains with lower environmental impacts (e.g., e-mobility);
- measures to improve the potential of products to be reused or repaired if broken; and
- measures to internalise or reduce the significant societal risks of large-scale industrial processes.

Measures such as those mentioned above would show up unfavourably in CP proofing following the CP guidelines because they induce short-term costs for selected sectors. However, many of these measures would foster and strengthen the competitiveness of the European economy as a whole over the longer term. The impacts of a measure should be compared to the vision of a sustainable and competitive economy and should distinguish between different types of costs, specifically those that contribute to the economic change needed and those that do not.

- The methodology provided requires the identification of the most affected sectors relatively early in the evaluation process. Focusing exclusively on the most affected sectors might skew results significantly if the disadvantages of a measure are concentrated in some sectors while the advantages are broadly shared in all other sectors. For example, an environmental subsidy for one sector would appear favourable because the necessary tax increases for all sectors would not be shown. Similarly, an environmental tax levied on one or several sectors would be judged unfavourable despite the resulting advantage of lower taxes in the rest of the economy, which would not be an issue in the CP. The CP needs to include some analysis of the rest of the economy to make sure that winners and losers of any measure are shown with equal weight.
- The focus on sectors also diminishes the value of public (or induced private) investments to improve productivity. In the long term, the competitiveness of the European sectors depends on the quality and the price of the inputs used and the productivity of their companies and workers. Public measures aiming at increasing the productivity of European workers could potentially be costly in the short run. If sectors gain in other ways besides costs (e.g., by training), the long-term impact on productivity in the affected and other sectors might be understated compared to the short-term costs. The CP needs to distinguish between investments and costs and focus on the long-term drivers of competitiveness.
- Lastly, the focus on sectors also has practical disadvantages as the definition of a
 sector might change the results significantly, leaving the process open for
 manipulation. For example, a policy to increase the use of wood in the construction
 sector might be assessed differently depending on whether the impact on the entire
 construction sector is analysed or only the effect on the cement industry, and whether
 or not forestry is considered a sector in the assessment.

Many of the disadvantages of the current CP guidelines are demonstrated in actual examples of CPs that have been conducted following the introduction of CP guidelines. For example, the CP on GHG emission limits for cars and vans naturally focuses on car manufacturers and the upstream and downstream sectors also affected by the measures. The biggest long-term effect on the competitiveness of European companies, the reduction

of fuel use and the resulting increase in purchasing power, is mentioned in the CP but receives only minor attention compared to the direct effects on the costs for car manufacturers.

To understand the impact of the measure on the competitiveness of the European economy, the CP needs to compare the impacts of the measure to a sustainable competitive economy and take into account the whole of the economy. The focus should avoid being too much on what incumbents lose in the economic changes needed.

In summary, the CP methodology of the European Commission would need to change systematically to integrate environmental protection requirements and allow for a broader CP, considering long-term sustainability, flexibility and resilience, innovation capacity, and dynamic competitiveness of the European economy.

I Introduction and objectives of the study

This study for the Greens/EFA Group in the European Parliament conducts a critical evaluation of the European Commission's CP methodology. The study evaluates whether the Commission adequately includes the potential for innovation, increased competition, and the creation of new markets via legislation. In this context, the study makes proposals on what a "green" competitiveness proofing (CP) could look like. A summary of the Terms of Reference sets out the objectives of the study as follows:

- To critically evaluate the European Commission's CP exercise by making a succinct analysis of the European Commission's methodology for CP;
- To look at one specific exercise of CP that the Commission has already done (for example, CO₂ emissions of cars and vans or the Roadmap towards a 2050 lowcarbon economy) and to evaluate to what extent the results of the CP exercises could have been different if a more innovation-specific approach was used;
- The study should ideally be able to make some proposals on the components of a "green" CP.

For the analysis, Ecologic Institute evaluated the CP toolkit and the impact assessment toolkit of the European Commission and studied briefings and communications related to the topic.

Additionally, Ecologic Institute compared the provisions of the toolkit with policy objectives of the green economy, sustainable development, and the Europe 2020 agenda to analyse whether the requirements set out in the toolkit are in accordance with those goals.

The study report is structured as follows:

- Chapter 2 provides a summary of the CP toolkit;
- Chapter 3 assesses the methodology by comparing it with sustainable development objectives and the current impact assessment framework;
- Chapter 4 analyses the practical implementation of the toolkit on two examples;
- Chapter 5 sets out a general framework for a "green" CP.

2 Competitiveness proofing

2.1 History

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In response to the economic crisis of 2009, national and European business associations³ argued that to reignite economic growth in Europe, every major European initiative had to be

E.g., An integrated Industrial Policy for Europe, Business Europe, 9.11.2011, http://www.businesseurope.eu/DocShareNoFrame/docs/1/OBDFALKBICMMNFFFOOAPMEBNPDWY9DWNAD9LTE4Q/UNICE/docs/DLS/2011-01630-E.pdf

checked for its impacts on industrial competitiveness. Although most of the analytical steps summarized under CP were already part of the IA guidelines⁴ of 2009, they requested that the CP focus on impacts on specific sectors of the European economy.

The European Commission reacted to this call in its Communication⁵ (2010)614 "An Integrated Industrial Policy for the Globalisation Era Putting Competitiveness and Sustainability at Centre Stage". The communication spelled out the need for an integrated CP of every major European policy initiative.

DG Enterprise provided a toolkit for CP⁶ (CP guidelines) on 27 January 2012 to provide a standard for this check, which is obligatory as part of the overall IA guidelines of 2009.

2.2 Methodology

The CP guidelines provide further detail on four specific working steps anyway required in the IA guidelines.

- Impacts on technological development and innovation;
- Impacts on firms in terms of investment, operating costs, products, and services;
- Impacts on international trade and cross-border investments;
- Impacts on SMEs (the "SME-test").

The main aim of the provided methodology is to summarise all sectoral impacts on EU business and thereby complement the aggregate impact analysis provided on the basis of the EU IA guidelines.

The following table summarises how the CP guidelines are set out:

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See http://ec.europa.eu/governance/impact/commission_guidelines/commission_guidelines_en.htm .

⁵See http://ec.europa.eu/enterprise/policies/industrial-competitiveness/industrial-policy/files/communication on industrial policy en.pdf

See http://ec.europa.eu/enterprise/policies/smart-regulation/impact-assessment/competitiviness-proofing/index_en.htm

Table I: CP guidelines

Working Step	Content			
	The CP guidelines use a list of questions to identify whether a CP is needed. The analyst is asked to assess whether any impacts of the following three types can be expected:			
Step 1: Need for	 Costs and price competitiveness (inputs, capital, labour, compliance costs, production costs, and prices of inputs); 			
competitiveness proofing	 Innovation costs (R&D costs, product innovation, process innovation, access to risk capital); 			
	 International competitiveness (single market, international markets, revealed comparative advantages). 			
	At this point no deeper analysis is conducted but needs are identified on the basis of existing knowledge.			
Step 2: Decision on depth of proofing	The CP guidelines suggest a qualitative screening of impacts to assess whether further evaluation of the impacts is necessary and proportionate. The screening should provide a qualitative screening for every identified impact, assessing the size, the likelihood, the certainty, the duration, and the expected timing of the impact. On this basis the analyst should decide which impacts to evaluate and in how much depth.			
Step 3: Identification of affected sectors	The CP guidelines advise on how to identify the most affected sectors for the planned policy. The analysis concentrates on sectors directly affected by the measure and additionally on sectors that are providers of inputs, users of outputs, or producing complementary or substitute goods to the directly affected sectors.			
Step 4: SME competitiveness	The CP guidelines analyse the effect on SME competitiveness by providing information on the relative weight of SMEs in the affected sectors.			
	The CP guidelines advise a detailed qualitative analysis of the impacts on price competitiveness with a special focus on the following areas:			
	Compliance costs (information requirements, staff time, service costs, relative weight of costs, SMEs);			
	 Prices of intermediate consumption (price or availability of raw materials, restrictions or bans, indirect cost effects); 			
Step 5: Costs and	3. Cost of capital;			
price competitiveness	 Cost of labour (including all indirect effects like retirement age, minimum wage, social insurance contributions, labour mobility, employee protection and others); 			
	5. Cost of energy;			
	6. Consumer choice and prices;			
	 Major restructuring (adjustment costs for enterprises with major restructuring or closing of enterprises). 			

Working Step	Content		
Step 6: Innovation	The CP guidelines analyse qualitatively the impacts on innovation with a strong emphasis on the enterprise's capacity for R&D, product and process innovation, and access to risk capital.		
Step 7: International competitiveness	The CP guidelines look directly on international competitiveness and ask for a qualitative assessment of the impacts on competitive position, trade and trade barriers, international standards, and investment flows.		
Step 8: Quantitative analysis on importance of directly affected sectors	The CP guidelines ask for a detailed analysis of the current weight of the directly affected sectors. The user should provide details on the value added, employment, labour productivity, profitability, and market share in world markets for the affected sectors. Additionally, details on the regional spread and the distribution of firms are required. The guidance provides some details on potential sources.		
Step 9: Quantitative analysis on indirectly affected sectors	The CP guidelines require similar information for the indirectly affected sectors.		
Step 10: Quantification of compliance costs	If proportionate, the CP guidelines ask for numbers on the cost impacts identified as significant in step 5.		
Step 11: Quantification of innovation impacts	If proportionate, the CP guidelines ask for numbers on the innovation impacts identified as significant in step 6.		
Step 12: Quantification of impacts on international competitiveness	If proportionate, the CP guidelines ask for numbers on the international competitiveness impacts identified as significant in step 7.		

3 Assessment of the methodology

3. I Added value of CP guidelines

According to the CP guidelines, the CP should not set any new requirements but instead provide guidance and support for various steps of analysis which are required under the IA guidelines.

The IA guidelines⁷ already require a detailed analysis of the impact on innovation (Annex 8.5); the impact on firms in terms of investment, operating costs, products, and services (Annex (8.6); the impacts on international trade and cross-border investments (Annex 8.7); and the impact on SMEs (Annex 8.4).

No significant extra requirements have been set out in addition to the IA guidelines, but much more practical information is provided in terms of data sources, definitions, and working steps.

It is worth noting that the level of detail provided in the CP guidelines does not increase proportionally in the affected areas:

- 1. Costs, products, and services: Very little detail is provided in the IA guidelines (half a page). In the CP guidelines, the amount of details and support available has increased to six pages (Step Five and Ten). Even more information on costs is available in the annexes of the CP guidelines. The added information consists mainly of a list of nearly 40 questions on different cost categories (Step Five) and some guidance on how to analyse the cost structure and the compliance costs over the whole product cycle. No information on the formulation of the right counterfactual is given.
- 2. Innovation: On the other hand, the IA guidelines already have provided more detailed support on the impacts of innovation (three pages). The added information in the CP guidelines is rather limited (overall less than one page). The CP guidelines focus on quantitative indicators and do not give any guidance on how to qualitatively analyse policy changes that will foster or impede disruptive innovation processes. Due to the sectoral nature of the analysis, innovation processes which create new sectors will be ignored.
- 3. International competitiveness: In the IA guidelines, the information provided on international competitiveness is only less than half a page, while the subject gains more importance in the CP guidelines with two pages overall. Again, more information is provided in the annex of the CP guidelines. The focus is on indicators which can be assessed quantitatively (e.g., FDI, FDI stocks, revealed comparative advantage). Due to the sectoral nature of the analysis, the potential creation of new sectors will be ignored.

⁷ See http://ec.europa.eu/governance/impact/commission_guidelines/commission_guidelines_en.htm

The focus of the CP guidelines is on the impacts on specific sectors while the IA guidelines focus on the impacts on all sectors. This extra analysis is useful for policy making as it identifies winners and losers of the proposals. The assessment focuses clearly on cost impacts and international competitiveness impacts and less so on impacts on innovation.

The added value of the CP guidelines is therefore the additional support for analysts and policy makers, which enables them to identify and analyse sectoral impact on competitiveness quicker and in a more robust way and to better identify the winners and losers of a policy measure.

3.2 CP guidelines and existing policy objectives

For the purpose of this paper, it is important to understand in which way the indicators set out in the CP guidelines are aligned with other objectives of EU policy. We have used the EU 2020 targets⁸ and the EU sustainable development indicators⁹ as the basis for a list of indicators to discuss.

The relationship of all relevant indicators and targets from the two sets with the CP was analysed. Three categories in the relationship were identified:

- Contradiction: If the development of the same indicator would be judged to be positive
 in the CP exercise and negative in the sustainability indicators or the EU 2020 targets
 (or vice versa), the indicator would be said to be in contradiction;
- 2. Potential trade-off: If indicators are not in direct contradiction but in practice are often not well-aligned, the indicator is judged to be a potential trade-off. One example would be car ownership. It is possible to imagine a scenario where rising car sales (good in CP) would correspond with lower car ownership rates and more car sharing (good in sustainable development indicators), but in most scenarios these two indicators would have a trade-off;
- 3. Alignment: If the development of an indicator is judged in the same way in CP as in the sustainability objectives, CP is aligned with the objective.

The assessments are shown and explained in the table below, but two overall results can be drawn from the comparison:

- 1. Wherever the sustainability target provides a vision as to where the European economy and society should be in the future, the objectives are either in clear contradiction with the assessment provided in the CP or are likely to involve some tradeoffs. Examples for this are emission reduction targets, higher taxes on energy, or a desired shift in transport modes. The focus of the CP analysis of the current situation makes any shift in the European economic structure look undesirable even if the EU 2020 targets or the EU sustainable development goals suggest otherwise.
- 2. These contradictions are not uniform in the economy but are most likely to occur in sectors that currently benefit from unsustainable modes of production or

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⁸ See http://ec.europa.eu/europe2020/targets/eu-targets/

⁹ See http://epp.eurostat.ec.europa.eu/portal/page/portal/sdi/indicators

consumption. The biggest examples are the fishing industry, energy-intensive sectors, or sectors which overuse water. If the CP assessment focuses on one of those sectors, the assessment will not align well with EU 2020 targets or EU sustainable development objectives.

Table 2: Comparison with EU 2020 Targets

EU 2020 Targets	Alignment with CP	
75% employment rate	Potential trade-off, as negative employment impacts on specific sectors could be outweighed by positive employment impacts in the overall economy	
3% of GDP R&D expenditure	Alignment, but qualitative criteria would be needed to judge impact	
20% less GHG emissions	Potential trade-off, as a decrease in GHG emissions will very often increase current costs for sectors with high GHG emissions	
20% of energy from renewables	Potential trade-off, as use of renewable energy might increase short-term costs for energy suppliers and energy-intensive sectors (although not for the overall economy)	
20% increase in energy efficiency	Potential trade-off, as most measures to boost energy efficiency might boost short-term costs for energy-intensive sectors (although not for the overall economy)	

Table 3: Comparison with EU sustainable development indicators

EU Sustainability Dev	elopment Indicators	Alignment with CP
	Investment (Level 2)	Alignment
Socio-economic development	Energy intensity (Level 3)	Potential trade-off, as many policies increasing energy efficiency will cause short-term costs in energy-intensive sectors
	Resource productivity (Level 1)	Potential trade-off, as many policies increasing resource productivity will cause short-term costs in resource-intensive sectors
Sustainable production and consumption	Domestic material consumption (DMC) (Level 3)	Potential trade-off, as many policies reducing DMC will cause short-term costs in resource-intensive sectors.
	Electricity consumption (Level 2)	Potential trade-off, as many policies reducing electricity consumption will cause short-term costs in sectors using a lot of electricity

Sustainable	Car ownership (Level 3)	Potential trade-off, as many policies reducing car ownership will lower the demand for cars and hurt car producers
production and consumption	Organic farming (Level 3)	Alignment, as many policies promoting organic farming will increase revenues of farmers
	Livestock density (Level 3)	Potential trade-off, as a decrease in livestock density will often lead to less revenues for farmers
Public Health	Production of toxic chemicals (Level 2)	Contradiction, as a decrease in the production of toxic chemicals will lead to lower turnover in the respective sectors
	Air pollution (Level3)	Potential trade-off, as a decrease in air pollution will very often increase costs for emitting sectors
	Greenhouse gas emissions (Level 1)	Potential trade-off, as a decrease in GHG emissions will very often increase costs in sectors causing high emissions
Climate change and	Implicit tax rate on energy (Level 3)	Contradiction, as the sustainable development indicators aim for higher tax rates on energy which would appear as additional costs in the CP
energy	Modal split of freight transport (Level 2)	Contradiction, as the EU favours a decrease in road transport but CP would show this as reduced revenues for affected sectors
	Modal split of passenger transport (Level 2)	Contradiction, as the EU favours a decrease in road transport but CP would show this as reduced revenues for affected sectors
	Water abstraction (Level 2)	Contradiction, as less abstraction would mean less revenues for water companies (if it is currently paid for)
Natural resources	Water quality in rivers (Level 3)	Potential trade-off, as most improvement measures for water quality will cause short-term costs for polluters
	Conservation of fish stocks (Level 1)	Contradiction, as less catch would mean less revenues for fishers
	Increase in built-up land (Level 2)	Potential trade-off, as less land use normally means less building and less revenue for the construction sector

3.3 CP guidelines and industrial policy for innovation

There is growing consensus that the European economy needs to change and to innovate in many different ways to be more sustainable and competitive in the future. The methodology of the CP would mark many of these changes and the policies to foster them as undesirable, as can be seen in the following list of issues.

- Type of innovation: CP as set out in the guidelines will always prefer gradual innovation that does not change the relative weight of the sectors. This means that gradual innovation with relatively little or positive impact on sectors (e.g., biofuels) will always look preferable to more radical changes (e.g., e-mobility), which produce winning but also losing sectors.
- Substitution policy: If industrial policy is aiming at substituting some practices or materials due to their environmental impacts (like toxicity or overuse), this will most certainly show up negatively in the CP assessment, as the sectors producing the materials or using it will be negatively affected.
- Flexibility and resilience: The challenge of fostering innovation is the difficulty to predict which technologies will be market-ready and most relevant in 10 or 20 years. Innovation policy therefore needs to ensure that it contributes to economic resilience by fostering alternative technologies and not picking winners too early in the process. As it is currently set out, the CP will not take those ambiguities into account, instead relying on standard indicators (R&D spending or access to capital) to measure any impact on innovation. An innovation policy relying only on currently large companies and sectors to innovate would score highly in the CP.
- Value creation: In its current methodology, the CP does not differentiate between investments and costs. This means that policy measures obliging companies to invest will show up as costs whereas potential long-term gains in productivity or output in the future would not be taken into account. This deficit is mainly caused by the use of flow variables (turnover or return) and the lack of stock variables (physical capital stock or human capital stock).
- Cleanup of contaminated sites: CP as set out would make public funding of any cleanup of a contaminated site look preferable to private funding by the polluter. This is an obvious violation of the polluter-pays principle enshrined in the European Treaties. Private funding shows up as costs for some sectors in the CP framework, but in the case of public funding only the benefiting sectors (decommissioning companies) would be visible in the CP. The relevance of this can be seen in the current discussion on the decommissioning of oil platforms¹⁰.
- Large risks: The same line of argument can be used for large risks of industrial processes. To force companies to make provisions for such large risks, and in doing so make it more likely that the companies focus on mitigating those risks, would not show up as beneficial in the CP compared to leaving that risk to the public.

See for example "Scenarios Living North Sea Initiative - Description and assessment", IMSA Amsterdam, January 2013.

These are some examples of the numerous ways in which the current version of the CP could have a negative impact on an industrial policy aiming at fostering innovation and structural change towards a more sustainable model of production.

4 Case study of existing competitiveness proofings

CP have been applied in several cases. For our purposes, two impact assessments with substantial impacts on the environment have been chosen to assess the practical implications of a CP in the political process:

- Emissions performance standards for cars and vans in 2020 (Regulation 443/2009 and Regulation 510/2011)
- A Roadmap for moving to a competitive low-carbon economy in 2050 (SEC (2011) 287-289)

4. I Emission performance standards

The competitiveness proofing

One CP has been conducted on the emission standards for cars and vans in the regulations 443/2009¹¹ and 510/2011¹². The emission standards set maximum emission rates per car for every car manufacturer in the EU.

The assessment of competitiveness set out in Annex 7.9 to the impact assessment closely follows the structure set out in the CP guidelines. It starts with the identification of the relevant sectors (car manufacturing and sectors that buy or sell to this sector) and an overview on those affected sectors (value added, productivity, market shares).

The analysis then sets out the potential impacts on compliance costs, the prices of intermediate consumption, the costs of capital, the costs of labour, the costs of energy, consumer choice, and the structure of the sectors. The effects are thought to be mostly not significant.

Subsequently, the analysis provides some information on the impact of the measure to the enterprise's capacity to innovate. The conclusion of the work is that the measures will drive up the rate of innovation and focus R&D spending on emission reduction innovation.

Following that, the analysis provides a conclusion on the impact of the measure of competitiveness on the following sectors: car manufacturers, component suppliers, other supplier sectors, car dealers, suppliers of alternative goods, and the fuel supply sector.

See http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=SWD:2012:0213%2852%29:FIN:EN:PDF.

See http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=SWD:2012:0213%2852%29:FIN:EN:PDF.

Assessment

Generally, the analysis of the CP is embedded into the wider analysis of the impact assessment and does not focus much on sectoral effects compared to the effects on the wider economy. Nonetheless, the focus of the analysis and the results provide some important insights:

- Sectoral shifts: The new emission standards will lead to lower fuel use in the future, which will free additional purchasing power of businesses and private consumers for other consumption. In terms of the beneficiaries of this policy, while the direct costs for the car manufacturers have been analysed in depth, the savings for vehicle users have been named but not further assessed. This means the assessment is unbalanced since an important benefit of the measure has been underplayed. The main reason for this neglect is the sectoral viewpoint, which does not work well with shifts that affect the whole economy.
- Current weight of sectors: Following the guidelines, the assessment provides ample
 information on the weight and importance of the affected sectors. Currently, important
 sectoral shifts are happening in the economy which need to be boosted to reach the
 sustainability objectives. A detailed analysis of the current value of the affected
 sectors will therefore overemphasize the economic losses as most of the losers of the
 existing sectoral shifts will be the sectors most negatively affected by environmental
 policies.

4.2 Low-carbon economy 2050

The competitiveness proofing

The roadmap for moving to a competitive low-carbon economy in 2050¹³ had an impact assessment with a detailed analysis of potential scenarios for the development of the European economy.

The first scenario is a reference scenario, where current trends in GHG emissions and industrial development are extrapolated. The two other scenarios both assume more European action on climate change but differ in respect to how robust the climate change mitigation efforts in other countries will be. One scenario foresees fragmented climate change action and the other assumes global action on climate change mitigation. For both policy scenarios the impact assessment assumes a reduction of European GHG emissions by around 80%. This general assumption is transferred into forecasts for the development of the economy using several distinct sub-scenarios on the use and development of technologies.

The analytic work is based around those three scenarios. For each scenario, general equilibrium models are used to forecast the development of the world economy. The forecasts include a macro-economic forecast as well as the development of different economic sectors in the different world regions and the prices for fossil fuels, which are an important driving factor of change. Without global action oil and gas prices are predicted to

 $^{^{13}\,} See \,\, \underline{\text{http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=SEC:2011:0288:FIN:EN:PDF}} \,\, .$

increase substantially from the current levels, while with global action, decreasing prices for oil and gas from 2020 onwards are predicted due to lack of demand. Isolated EU action on climate change mitigation will have some limited impact on prices of fossil fuels.

Assessment

Judged from the published impact assessment, the impact of the CP guidelines was relatively small. There are detailed descriptions of sector-specific impacts for the most affected sectors (power generation, industry, forestry, agriculture, the built environment). These descriptions do not give a detailed account of projected costs. Only the investment needed for the structural changes are estimated.

The reason is that the long-term outlook of the strategy provided left little opportunity to calculate concrete costs for sectors in the short term. As the measures needed to achieve the changes are not set out in detail, the costs for the sectors affected by it are not yet clear. The sector-specific impacts focus on the general development of demand in the different scenarios but do not set how the sectors might change due to the changes in demand.

This provides an important conclusion for the relevance of the CP exercise for policy making. In the assessment of long-term strategies which (do not yet) have any concrete measures attached to them, the CP guidelines as they stand now will not have a significant impact as the focus on current costs and current sectors is not relevant for those long—term strategies. The CP could cloud the general strategic component of the policy more at the practical policy making level with its focus on short-term costs.

5 Green CP – Outline of a concept

The usefulness of a CP for the shift to a more sustainable economy could be improved by changing the methodology of the CP. The key changes needed for a green CP would be:

- The CP should provide a fair overview on winners and losers of the measure by including an assessment of the "rest of the economy". Such an assessment would also include government spending, making sure that winners and losers of tax increases or extra spending are taken into account.
- 2. The CP should compare the effects with desired future situations as explicitly stated in policy objectives (like EU 2020). Costs to achieve those goals should not count as costs in the CP methodology. The CP should differentiate between the "unnecessary burden" put on companies and the "necessary burden" to achieve a stated policy objective like an emission reduction target. This would also be in line with the IA guidelines, which request a comparison with a counterfactual development without the measure and not a comparison with the status quo.
- 3. The CP should not only rely on flow variables (gross investment, turnover) to measure its costs, but it should also include stock variables (company values, human capital) to measure the costs of a proposal. This would enable policy makers to distinguish between "enforced" investments and other costs for companies.
- 4. The concept of innovation set out in the CP guidelines would need to be widened. The current methodology favours non-disruptive innovations which do not produce losing sectors. To change this, the CP methodology should allow assessments of the potential for new sectors as a counterweight to the losses of the losing sectors.

With these changes implemented the CP could make a significant contribution to the sectoral changes needed as it focuses on assessing the economic winners and losers of certain policy measures. As Janez Potočnik, European Commissioner for Environment said in his speech on "New Environmentalism" in the Scottish Parliament in Edinburgh on the 20 June 2013:

"We should work in parallel on three different time-frames:

- First, the transition requires a long term vision for investments and systemic changes.
- Second we need to support the medium term potential of our green technology industries in Europe, which have a technological and market lead in markets are developing fast globally.
- And third, in the short term we need to stimulate economic growth in the most promising sectors for quick growth.