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Resource Efficiency Indicators

In the light of the recently published Resource Efficiency Scoreboard by Eurostat and envisaged Circular Economy Package, Orgalime would like to provide further thoughts on the debate on developing meaningful and appropriate resource efficiency indicators following its [earlier position paper](#) on the matter:

Resource use and resource efficiency is a matter of great interest to the companies represented by Orgalime. On average, some 45% of costs in our sector are related to raw material input. Therefore, our sectors have to invest continuously into improving their own resource efficiency performance in manufacturing processes and for their products to remain competitive and cut down costs. Our companies aim at driving costs down for their customers while improving the environmental performance of manufactured goods without compromising their overall “fitness for purpose” with lower resource consumption or waste treatment costs. Indeed, our industry stands harsh international competition and therefore resource efficiency is a constant challenge. Orgalime would like to comment on the debate of measuring resource efficiency from this perspective.

1. The role of indicators

Indicators should help to steer European environmental policy to maximize resource efficiency and competitiveness alike. We welcome the ongoing work on resource indicators in this regard: If established in the proper way, indicators could serve as a helpful information tool and help for understanding:

- a) the link between economic growth, industrial competitiveness and resource efficiency.
- b) the case for resource efficiency as an economic agenda: they should support the EU Industrial Policy agenda and promote manufacturing in Europe.
- c) the trends of resource use and their environmental impact.
- d) how to identify the biggest improvement potentials for resource use.

In particular, Orgalime believes that indicators could guide political priority-setting. Indicators can help identifying those areas of relevance for action, both in terms of cost-effectiveness and environmental impact. We believe this is a step that should be made before endeavouring to set specific targets in the field of resource efficiency.

The significant investments made by our sector in energy efficiency investments should not be undermined in particular.

Setting an overall resource productivity target is a delicate matter, which has to acknowledge the realities of a wide variety of industrial sectors so that it can indeed deliver the right signal. On the basis of current knowledge and data availability, setting numerical targets (such as indicators' absolute values) would in our view risk harming the EU economy.

Orgalime, the European Engineering Industries Association, speaks for 38 trade federations representing some 130,000 companies in the mechanical, electrical, electronic, metalworking & metal articles industries of 23 European countries. The industry employs some 10.3 million people in the EU and in 2012 accounted for some €1,840 billion of annual output. The industry not only represents some 28% of the output of manufactured products but also a third of the manufactured exports of the European Union.

Resource efficiency targets, if any, should be aligned with the 20% manufacturing target of the EU's Industrial Policy: we believe in [a Europe with manufacturing at its heart](#) instead of driving such businesses out of Europe in favour of a mostly service based European economy. As unemployment figures show, reduced investment in manufacturing has immediate consequences. Any target should be assessed with regards to the policy measures necessary to achieve it. There is also the need for a clear understanding of the implications of policy measures. Indicators should help to achieve this kind of understanding and point towards those sectors with highest potentials. We therefore recommend to focus first on getting the indicators right.

2. Setting the right indicators

In the pursuit of obtaining information on the current situation as a basis for policy-making, indicators should provide a comprehensive picture and be methodologically sound.

A comprehensive picture is drawn with more than just one colour. Instead of using one lead indicator, **Orgalime prefers focusing on dashboard indicators.**

We would additionally see a need for **describing RE-developments in four categories: Economy, Environment, Technology and Policy (see [position paper of 22.10.2012](#))**. Such a comprehensive approach could give an indication of how to best keep manufacturing industry in Europe.

If one single indicator is needed, the DMC indicator should be replaced by an indicator representing the real relative decoupling of economic growth and material consumption in each Member State.

The move from a DMC-based lead indicator to an RMC-based lead indicator would be a positive step in the right direction, notwithstanding its limitations in the field of data availability and consideration of local circumstances.

In order to measure well, the methodology needs to be sound. **We underline the need to follow the RACER¹- principle** in choosing indicators (data availability, fitness for purpose to guide regulators in their policy making, consistency, completeness or timeliness). In particular, data availability is an issue and there is still a need for improvements to ensure reliable databases and standardization processes on data measurement.

3. Indicators showing progress towards a resource efficient economy

Next to the indicators on resource use, which are employed by Eurostat, it will be necessary to carry out a careful check if existing indicators can measure the progress towards a resource efficient economy. In this context, particular attention should be given to the **absolute growth of the green economy**, such as investments in and turnover of clean-tech and green technology and RE infrastructure, provided that proper criteria and in particular if a proper definition of Clean Tech as a broad concept including all technological efficiency measures could be defined.

Technological progress could also be measured with a set of indicators, including the green R&D in the public sector. As definitions and data are still in their infancy, additional efforts are needed in this respect.

The proposed dashboard indicators seem to be too vague in order to provide **information for steering actions towards more resource efficient economy.**

¹ Relevant, Acceptable, Credible, Easy, Robust

There is a need to separate consumer-based indicators measuring consumption and other indicators measuring industrial production and raw materials use. In addition to the macro-level indicators that give aggregated perspectives, indicators should be able to account for:

- The export and the import of raw materials and industrial products.
- The indicators **need to be adjusted to local circumstances** to take into account:
 - o Scarcity: depending on the geographical area, resources might be scarce or the availability of resources might not cause major problems.
 - o Economic structure: to illustrate the most relevant trends. For example, some industrial processes need more water than others, and the level of greenhouse gases is dependent on the economic structure and products.
 - o Natural conditions: quantities do not always indicate the level of efficiency. They rather express the natural conditions contributing to the establishment of the industry in certain location (e.g. availability of ores).

The annex to this position paper lists our reflections on further indicators as proposed and clustered by Eurostat. We consider some of them as recommendable. For instance, the indicators referring to a specific challenge, such as energy dependency or development of the share of renewable energy, find our full support. Likewise, the thematic indicators describing the envisaged transformation are recommendable.

4. Conclusions

Indicators should be able to appropriately inform of the trends and provide a comprehensive picture about resource use and resource efficiency in the European Union. As the resource efficiency agenda combines the economic and environmental spheres, so should indicators. They should depict resource use and consider technological developments alike. The shift from a DMC based lead indicator to a RMC based one would be an improvement, but might still be too aggregated to provide meaningful insights. Orgalime's preference remains on dashboard indicators. Data availability and the adjusting indicators to local circumstances remain an issue at this stage.

Orgalime believes that indicators should aim at guiding political priority-setting. Indicators can help identifying those areas of relevance for action, both in terms of cost-effectiveness and environmental impact.

We believe this is a step that should be made before endeavouring to set targets, in particular if the intention were to set numerical targets (such as indicators' absolute values) rather than targets that focus on the policy objectives, such as decoupling of growth and resource use, impact for environment, growth of green economy, technological transformation, consumption of products, efficiency in mobility, recycling and energy consumption.

The 20% manufacturing target of the EU's Industrial Policy Communication needs to remain the EU's focal point and mainstreaming industrial competitiveness across all EU policy areas as determined in the European Council's conclusions must be the driver.

ANNEX : Orgalime comments on 30 EUROSTAT indicators

	Indicator	Unit	EU-27	Comment
LEAD INDICATOR				
<u>Resources</u>				
1	Resource productivity	EUR per kg	1,6	good to know but doesn't work as an indicator or target setting, DMC biased not comparable, DMC is too biased not comparable, DMC biased, per capita depend on natural circumstances
1 b	Resource productivity (index) GDP/DMC	Index (2000 = 100)	119,7	
2	Domestic material consumption per capita	Tonnes per capita	14,6	
DASHBOARD INDICATORS				
<u>Land</u>				
3	Productivity of built-up areas ⁽¹⁾	Million PPS per km ²	198,7	ok
4	Built-up areas as a share of total land ⁽¹⁾	%	1,5	ok
<u>Water</u>				
5	Water exploitation index ⁽²⁾	%		depends on hydrological circumstances
6	Water productivity ⁽²⁾	EUR per m3		relevant only on scarcity areas
<u>Carbon</u>				
7	Greenhouse gas emissions per capita	Tonnes of CO2 equivalent	9,1	dependent on structure of industry and climate
8	Energy productivity	EUR per kg of oil equivalent	6,9	
9	Energy dependence	%	53,8	ok
10	Share of renewable energy in gross final energy consumption	%	13	ok
THEMATIC INDICATORS				
<u>Transforming the economy</u>				
<u>Turning waste into a resource</u>				
11	Generation of waste excluding major mineral wastes	Kilograms per capita	1847	data not harmonised, dependent on economic structure
12	Landfill rate of waste excluding major mineral wastes	%	23	
13	Recycling rate of municipal waste	%	38,5	
14	Recycling rate of e-waste ⁽²⁾	%		
<u>Supporting research and innovation</u>				

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15	Eco-innovation index	Index (EU27 = 100)	100	ok	
	<u>Getting the prices right</u>				
16	Total environmental tax revenues as a share of total revenues from taxes and social contributions	%	6,17	good to know, but doesn't work in target setting, depends on energy tax	
17	Energy taxes by paying sectors - Households ⁽²⁾	%			
17	Energy taxes by paying sectors - Industry and construction ⁽²⁾	%			
17	Energy taxes by paying sectors - Transportation and storage ⁽²⁾	%			
17	Energy taxes by paying sectors - Services (except transportation and storage) ⁽²⁾	%			
17	Energy taxes by paying sectors - Agriculture, forestry and fishing ⁽²⁾	%			
	<u>Nature and ecosystems</u>				
	<u>Biodiversity</u>				
18	Index of common farmland bird species ⁽²⁾	Index (1990 = 100)	75,1	No particular comments	
19	Area under organic farming	%	5,7		
20	Landscape fragmentation ⁽²⁾	Number of meshes per 1000 km ²			
	<u>Safeguarding clean air</u>				
21	Urban population exposure to air pollution by particulate matter	Micrograms per cubic metre	27		
22	EU urban population exposed to PM10 concentrations exceeding the daily limit value - on more than 35 days in a year ⁽²⁾	%			
	<u>Land and soils</u>				
23	Soil erosion by water – area eroded by more than 10 tonnes per hectare per year ⁽²⁾	%			
23	Soil erosion by water – area eroded by more than 10 tonnes per hectare per year ⁽²⁾	km ²			
24	Gross nutrient balance in agricultural land - nitrogen	Kilograms per hectare			
24	Gross nutrient balance in agricultural land - phosphorus	Kilograms per hectare			
	<u>Marine resources⁽³⁾</u>				
	<u>Key areas</u>				
	<u>Addressing food</u>				
25	Daily calorie supply per capita by source - total	Kilocalories	3456		
26	Supply from animal products	Kilocalories	1003		
26	Supply from vegetal products	Kilocalories	2453		
	<u>Improving buildings⁽³⁾</u>				
	<u>Ensuring efficient mobility</u>				
27	Average carbon dioxide emissions per km from new passenger cars	Gram of CO2/km	132,2	ok	

28	Pollutant emissions from transport - NOx	Index (2000 = 100)	76,6	ok
28	Pollutant emissions from transport - NMVOC	Index (2000 = 100)	35,1	ok
28	Pollutant emissions from transport - PM10	Index (2000 = 100)	85,7	ok
29	Modal split of passenger transport - passenger cars	% in total inland passenger-km	84,1	ok
30	Modal split of freight transport - by road	% in total inland freight tonne-km	75,5	ok

(1) For 2009, the value provided for EU-27 regards only 23 EU countries. The missing countries are: BG, CY, MT, RO.

(2) No value for the European Union. Values exist only for some individual EU countries.

(3) Indicators coming soon



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