27.6.2019

Informal Meeting of Environment/Climate Ministers 11-12 July Helsinki

Working session II Circular economy: Circular economy 2.0 – Circular society

Europe is advancing in implementing the Circular Economy Action Plan launched in 2015. In March 2019, the European Commission published a report highlighting the results of the implementation of the 54 actions under the Action Plan, which have been completed or are still underway. The Commission has established new ecodesign requirements to encourage the reparability, reuse and recyclability of products. Additionally, it has revised green public procurement criteria including circular economy elements, and proposed a regulation on fertilisers from recycled biowaste and a single-use plastics directive.

Nevertheless, the report shows that the EU's circular economy goals remain far from complete and the EU Member States still have to make more progress on reaching the UN Sustainable Development Goals and especially the target on sustainable consumption and production (SDG 12).

A framework for making the transition to the circular economy

The Commission’s report highlights those areas where progress is still needed to scale up action at EU level and globally. Increased efforts will be necessary to implement the revised waste legislation, to phase out substances of concern in goods, to develop markets for secondary raw materials and to improve product policy. Opportunities lie in expanding the scope of ecodesign requirements and improvements in the transparency and reliability of environmental claims.

Our production and consumption habits are still heavily based on the use of virgin natural resources. For the next wave of policy initiatives and economic incentives making the EU even more circular a strategic and coherent framework for the circular economy would be useful. A possible way forward would be a long-term strategy for a circular economy with an ambitious vision, actions and monitoring system.

In future policies it is crucial to make the transition towards a circular economy a shared policy goal to which all people and sectors can commit. The transition has effects on everyone and on every stakeholder in a society. The overall impact on employment is assumed to be mostly positive, but new skills and education will be necessary. Internalising the costs of carbon emissions and other environmental impacts of consumption in product pricing have the greatest effect on low-income households. These and other possible side effects of the transition need to be taken carefully into account by using well-planned compensation mechanisms and other measures.

Strategic approach for key sectors

Circularity will be an important way to reach the emissions reductions under the Paris Agreement on climate change. A circular transition in the mobility, food and built environment sectors could reduce the pressure on ecosystems while also reducing emissions by around 50 % by 2030 and around 80 % by 2050 compared to 2012 levels. These sectors, along with the textiles and electronics sectors, could benefit from a holistic approach similar to the European Strategy for Plastics to become more circular.

The construction sector uses around 50 % of raw materials and 40 % of primary energy, and produces 35 % of the greenhouse gases. The sector also consumes nearly all of the cement, half of the steel, one quarter of the aluminium and one fifth of the plastics. Approaches that may help to decrease the environmental footprint of buildings are modular design, materials substitution, and adopting requirements that support circularity in construction products when revising the Construction Products Regulation (CPR) and in harmonised product standards. Measuring the resource efficiency of buildings throughout their lifecycle can also advance the transition.

Food and farming systems contribute up to 30 % of greenhouse gas emissions globally. Within the territory of the European Union, more than 11 % of the land area suffers from moderate to high soil erosion. The food sector faces challenges related to an unhealthy diet, which is a leading risk factor for disease and mortality. Farming and horticulture consume substantial amounts of plastics. Achieving the target under Sustainable Development Goal 12 of halving per capita food waste by 2030 also requires faster action. Future food systems should include circularity in production, packaging and consumption, as well as a reduction in food loss and waste, and efficient recycling of nutrients.

Transport presents almost a quarter of Europe's CO_2 emissions and is the main cause of air pollution in cities. According to the European Strategy for Low-Emission Mobility by 2050, CO_2 emissions from transport will be at least 60 % lower than in 1990 and firmly on the path towards zero. The transport sector requires maybe the greatest change in attitude. We need to move from privately owned cars to public transport and light transportation. Ultimately, we need to move even further to mobility as a

service. Circularity is also key to the sustainability of the automotive and aeronautic sectors. The success of the ongoing transformation to electro-mobility will largely be dependent on the environmental performance of batteries, from production to recycling.

Textiles constitute a fast growing sector that still operates in a linear way. This makes the textile sector one of the world's most polluting and resource-intensive sectors. The total amount of CO_2 emissions from textile production is higher than the amount generated by all international flights and maritime shipping combined. Of clothing fibres, 97 % are of virgin origin, and more than half of them are plastic-based fibres. Closing the loop in textiles production requires changes in the entire value chain and switching consumers' mindset to slow fashion.

Plastics production is expected to double over the next 20 years. The European Strategy for Plastics and, for example, the Single-Use Plastics Directive guide the use of plastics towards a more sustainable and circular economy. However, this transition still requires more efficient policy instruments to make the changes in practice. For example, quality standards for secondary raw material of plastics need to be developed to boost the markets for recycled material. Furthermore, clarifying the framework applicable to bio-based plastics and biodegradability will be instrumental. One of the quantified objectives is that by 2030 plastic packaging in the EU market must be reusable or recyclable. Actions to support multilateral initiatives on plastics, along with private sector commitments and alliances, are necessary, and this will require further work at EU level.

Circular markets

To find a balance between the economy and ecology, we need to create the highest possible use value for the longest possible time while consuming as few material resources and energy as possible. The '6 R' policy (refuse, reduce, reuse, repair, remanufacture and recycle) should become the basis of product policy and, at the same time, the consumption of resources and generation of waste should be minimised. This principle leads to new ways of consuming and business models based on ecodesign, industrial ecology, collaborative consumption and services, longer use, recycling and waste recovery. Extending the use time and new business models providing improved user experiences can also benefit the economy and consumers' quality of life.

We are surrounded by ever-more complex products, which are not designed to last a long time and which contain components that cannot be repaired, reused or remanufactured. Policy tools set safety or waste-handling requirements for most products, but policy tools that lay down minimum requirements for sustainable performance are less widely used. The Ecodesign Directive, the Packaging and Packaging Waste Directive and the Single-Use Plastics Directive cover a few high-impact products. However, there is the potential to decrease the environmental footprint of a great variety of products by setting minimum requirements for circular

design. Therefore, the Ecodesign Directive should be evaluated and revised to promote innovation by establishing long-term requirements on sustainability as a benchmark and to cover other product groups as well.

In addition to product requirements on circular design, transparency concerning the chemical content of products and the traceability of the chemicals used is critical in ensuring safe and sustainable materials cycles and enabling efficient recycling. A coherent legislative framework, innovative procedures in risk assessment and standards for secondary raw materials are a necessity in creating markets for secondary raw materials. Safe and traceable materials loops also ensure the trust of consumers and markets in recycled products and materials.

Digitalisation, in best case, does not just improve resource efficiency, but it also helps to close the loop of materials cycles and helps to keep materials in use for a longer time. Intelligent solutions also enable optimisation of logistics chains and provide access to material-specific data and resource consumption, which facilitates the reuse of waste. Furthermore, digitalisation helps in the transition from ownership to sharing and in the development of new business models for delivering services that are as smooth and accessible as possible.

Economic instruments for the circular economy

Different organisations (World Bank and the OECD) have recommended that states internalise external costs of carbon and other emissions by pricing mechanisms. Environmental fiscal reform offers a fair and efficient way to promote the circular economy by shifting taxation from labour to taxing emissions and the use of natural resources. There are ways to reduce emissions, while simultaneously supporting resource efficiency, employment and low-income households, and benefiting the economy. In addition to fiscal instruments, there is for example Extended Producer Responsibility (EPR), which could be developed further to encourage circularity.

Public procurement, which accounts for around 15 % of the European Union’s GDP, can be a key lever towards the circular economy. Circular procurement promotes better-quality products, new circular products, the use of business concepts that support clean and non-risky cycles, and investments in circular ecosystems.

The transition to a circular economy will involve transition costs. However, if well managed, it can create an opportunity for economic and industrial renewal. Companies face a number of challenges in financing circular economy projects, so there is also the need for risk-sharing instruments with guarantees from the public sector. In addition, EU financing mechanisms such as the Horizon innovation programme and the LIFE Programme, along with the European Investment Bank (EIB), are supporting the transition to the circular economy.

Local governments can explore financial instruments such as municipal bond markets and green bonds. One new approach is impact investment. A public organisation acquires not only goods and services, but also results and impacts. The public sector defines specific targets for improving the wellbeing of people or the environment and makes only those investments that can deliver results. In some cases, the private sector also helps to finance the results. Impact investment might require a fund to pay results-based bonuses for projects that produce beneficial impacts.

Cities and regions to take the lead

Cities can act as both testbeds and catalysts for a circular transition. Today, cities consume 70 % of global resources and generate 50 % of all waste. Cities also have a huge potential in terms of land use planning and can create circumstances and ecosystems for closed loops and circular business models such as industrial symbiosis.

Municipalities can promote circular economy through leading by example. The circular economy is also an opportunity to strengthen local economies, resilience and social inclusion by improving self-sufficiency and enabling more effective use of local resources. Certain countries and regions have prepared strategies including an evaluation of potential, a regional roadmap, public incentive and support policies, and assessments. In many European countries, individual cities or regions have set targets for climate neutrality. These strategies would benefit from a circular economy approach.

Questions

1. What are the next steps to make the EU even more circular both regionally and globally? Do we need a strategic and coherent long-term strategy with an ambitious vision, actions and monitoring system to continue transitioning towards a circular economy? Do we need EU-wide or national targets on the use of natural resources?

2. How do we promote circularity within the priority sectors — such as construction, food, textiles and mobility? Should we have a similar approach as we do with plastics, that is, an EU-wide strategy as a policy framework?

3. What current policy instruments should we improve and what kind of new policy instruments do we need to boost the circular economy? How to use economic incentives to encourage targeted investments and sharing the risks?