

Circular Economy:

The Latest EU Strategy on Raw Materials Management

Summary and recommendations to the Czech Government arising from the roundtable of the National Convention on the EU which took place on 25 September 2015 in Prague

The recommendations have been prepared by Pavel Růžička and Vladimír Dobeš, EMPRESS, o.p.s. – platform for resource efficiency and sustainable consumption and production.



Introduction

In the context of resource efficiency and reduction of raw material and energy dependency, the theme of so-called circular economy is at the forefront. Circular economy is a system of production and consumption, in which the added value of products is maintained as long as possible, reducing simultaneously the volume of waste and adverse environmental impacts.

As soon as a product reaches the end of its life span in circular economy, it is kept as a resource in the system to be re-used in production and generate a new value. Thus, consumers have the opportunity to use products (or their functions) for longer periods; in the business sphere, new economic opportunities arise in the form of product reusing, maintenance and repairs of such products, recycling or servicing, or providing other services (not merely the sales of products).

On the contrary, the traditional linear principle, which is the predominant basis of economy today, consists in extraction of primary raw materials, production and consumption of products and their later disposal in the form of waste - 'take - make - use - dispose'. This model exerts great pressure on availability of the planet's natural resources, which have been becoming scarce. Their prices continually grow, causing higher costs both for manufacturers and service providers. From the macroeconomic point of view, the linear model of economy increases dependency on imports of raw materials.

Such a model is not sustainable in the long term, and it is necessary to switch over to a circular model, which provides for recovery, relies on renewable energy sources and minimises the use of natural resources.

The European initiative on circular economy is stipulated in the European Commission communication Towards a Circular Economy: a zero waste programme for Europe¹, issued in July 2014, which follows up preceding initiatives in natural resource management and sustainable consumption and production².

More than 30 million jobs in the EU depend on access to sources of raw materials. The European Union uses non-renewable resources in 89 %; European industrial corporations significantly depend on imports of such materials from other parts of the world³ - often from unstable or otherwise problematic regions. Besides, expenses on raw and other materials are considerable cost items in many industries, often higher than expenses on labour force or energy.

¹ COM (2014) 398 final of 02/07/2014.

² For example, the legislative package Sustainable Consumption and Production (2008), the Action Plan for Resource Efficient Europe (2011), Innovations for a Sustainable Future - Eco-innovation Action Plan (2011), European innovation partnership on Raw Materials, Green Action Plan for Small and Medium-sized Enterprises (2014), etc.

³ A recent analysis conducted by the European Environment Agency shows that the European Union imports of primary raw materials are eight times higher than exports.

Because of the Czech Republic's insufficient stock of raw materials and its significant orientation to industrial production, implementation of circular economy principles is an opportunity for savings of primary resources, reduction of costs in industrial enterprises, as well as reduction of adverse impacts on the environment and human health.

Roundtable Framework

The roundtable of the National Convention on the EU, which was moderated by Vladimír Dobeš, director of the EMPRESS o.p.s., focused on the issues of creating conditions for a transition of the Czech economy to a circular economy, setting up objectives and instruments in disposal of waste and secondary materials, which contribute to the efficient use of resources, and on the desirable form of European legislation relating circular economy, including the Czech Republic's priorities.

The discussion was specifically defined by the following questions:

- 1) Are there conditions for transition to the circular economy in the Czech Republic? If not, what needs to be changed?
- 2) On what priority areas under the shift towards the circular economy should be the attention focused? (Changing the existing legislative framework, economic instruments, voluntary activities of the industry, expanding obligations of producers, etc.)
- 3) How should goals, procedures and instruments (registering, statistics, etc.) in the field of waste management in the Czech Republic be set in order to ensure the efficient use of resources under the conditions of economic as well as environmental sustainability of the system? Is it more economical to recycle, incinerate or landfill?
- 4) What form should the European legislation have in the area of the circular economy to support economical use of raw materials and resources? What priorities should the Czech Republic promote during its negotiations?

Opening speech on behalf of the Office of the Government of the Czech Republic was delivered by **Tomáš Prouza**, State Secretary for European Affairs, who highlighted the significance of circular economy issues in the current EU political agenda. He mentioned the contributions of circular economy for the promotion of economic growth and creation of jobs. He appreciated the European Parliament's proactive role and, within the context of subsequent negotiations on the so-called Circular Economy Package, stressed the need for the Czech Republic to join a broader coalition of countries supporting a common opinion.

The discussion paper was presented by **Pavel Růžička** from the EMPRESS, o.p.s. He stressed the importance of circular economy in the context of natural resource management, since Europe highly relies on their imports from other regions. He presented the related communication from the European Commission and its basic aspects, which are highlighted

in the document: (eco)design and innovations, economic instruments, supporting activities of enterprises and consumers, and changes in the waste policies and legislation.

Then, the main stakeholders presented their positions. The director of the Waste Management Department, Ministry of the Environment of the Czech Republic, **Jaromír Manhart**, stressed the importance of waste prevention and growing use of secondary materials, as stipulated in the new Waste Management Plan of the Czech Republic and in laws being prepared. He mentioned some concrete measures, such as reduced landfilling from 2024, the new duty to sort metals and bio-waste in municipalities, the possibility to finance relevant projects from the Operational programme The Environment, and the planned increase of landfilling fees.

Pavlína Kulhánková, director of the Department of Ecology, Ministry of Industry and Trade of the Czech Republic, accentuated the need to consider total material flows in economy. She highlighted the importance of supporting education and dissemination of information, as well as of broad discussions with all involved parties. She introduced the Secondary Materials Policy prepared by the Ministry of Industry and Trade, and mentioned the opportunity to receive financial grants to innovative technologies in secondary material recovery, processing and use from the Operational programme Enterprise and Innovations for Competitiveness. She believes the circular economy objectives should be set up in such a way which would not compromise competitiveness of European enterprises.

The last position was presented by the member of the board of the Czech Chamber of Commerce Jan Mraček. He considers the transition to a circular economy as a natural process involving all sections of society, which cannot be regulated in a strict way. He believes the stipulated ban on landfilling for selected kinds of waste is important; however, next steps towards waste prevention and improving resource efficiency should not be regulated and should be left to the market to cope with. Financial support should be granted to projects of long-term characater, i.e. to investments in research and development (R&D) and innovation.

Foreign experience with implementation of circular economy principles was presented by **Søren Freil** from Denmark (Head of Section, Ministry of Environment and Food – Environmental Protection Agency) and Simon Johnson from Great Britain (Senior Policy Advisor, Department for Environment, Food & Rural Affairs). Denmark managed in the past decades to divert waste from landfilling to a higher level of recycling (and also to energy recovery), amongst other, using economic instruments - taxes on landfilling and incineration. They also strive to avoid waste generation, using mainly "soft" instruments (education, dissemination of information).

Simon Johnson stressed that circular economy does not mean only waste prevention and better use of waste, but it means a generally efficient use of raw and other materials. It requires innovations also in the form of new business models (e.g. products to be replaced with services) and changes in thinking and behaviour. From this point of view, it is necessary to communicate with enterprises and consumers, support technical capacity building, and

finance R&D and innovation. Voluntary, industry-specific agreements are also frequently used in Great Britain.

Then, many participants guests joined the discussion: Martin Hájek, director, Association for District Heating of the Czech Republic; Vlado Volek, director, SYBA Packaging Institute; independent consultant Bohumil Beneš; Zbyněk Kozel, director, EKO-KOM; Josef Šrefl from Agrointeg; Daniel Javurek from the Association of Municipal Services of the city Most; Jaroslav Tymich, vice-president, Association of the Pulp and Paper Industry of the Czech Republic; Ivo Kropáček from the Friends of the Earth Czech Republic; Milan Chromík, country manager, Waste line CZ & SK, Veolia Czech Republic; Jan Bláha, general secretary, Industrial Coalition for Packaging and the Environment of the Czech Republic; Markéta Chýlková from the Federation of the Food and Drink Industries of the Czech Republic; Jiří **Študent**, director, Czech Ecology Management Centre; **Petr Šulc**, executive director, Association of Secondary Material Industry of the Czech Republic; Zdeněk Horsák, CEO, SITA CZ and SUEZ environnement Group; Ivana Jenerálová from the Institute of Circular Economy, and Jakub Rudý from the Office of the Government of the Czech Republic. Pavel Telička, member of the European Parliament, and Ivo Moravec from the Union of Towns and Municipalities of the Czech Republic provided with their written contributions on the topic.

The speakers agreed on the importance of circular economy as a change involving all sections of society, for which adequate framework conditions should be created in the Czech Republic.

The Czech Republic should strive to set up unified rules in the EU and should not support the option of every state setting up their own rules covering ecodesign requirements, so that the principle of free market is not breached.

The participants also stressed the issue of waste, proposing clear orientation to waste generation avoidance. Both the presenting and discussing participants accentuated the need to harmonise and standardise monitoring requirements, data reporting and statistics, which they miss at the moment.

When implementing the circular economy, it isimperative to be consumer-oriented. Consumers will finally decide what products will be marketed, what will and will not happen to waste, or rather what will be possible to do with such materials.

Recommendations

The initiative on circular economy is the latest trend in the European Union policy in raw materials management, resource efficiency and protection of the environment. It supplements activities already developed in those areas; however, the stress on material cycle closing within an economic system brings forth a partially new insight in the issues being discussed. Circular economy can become a unifying initiative for the activities, which are often implemented separately - for example, also because of institutional fragmentation of their implementation.

From the thematic point of view, the position stressing only the areas of waste management and recycling should be avoided; the circular economy should be understood in a broader context of the use of resources focused on the whole life cycle of products and resource efficiency throughout value (supply) chains.

Summarised below are the areas, which form the basis for suitable framework conditions for the development of circular economy in the Czech Republic.

1. Political Support

To implement circular economy in an efficient way in the Czech Republic, it is crucial to achieve political consensus on the highest government level and set a clear strategy (vision, long-term objectives) - political leadership. Practical fulfilment of the strategy should take place across departments.

Presented at the roundtable were approaches of Denmark and Great Britain. Germany is also a good example; in 2012 they adopted a national strategy for resource efficiency (ProgRess). It is a complex strategic document for natural resources management, which stipulates a clear target to double resource productivity by 2020 compared to 1994 and which covers all lifecycle stages. The strategy is the responsibility of the Federal Ministry of the Environment, but individual implementation programmes are conducted by many other ministries.

Whereas other developed EU countries also implement similar strategies, the Czech Republic does not have a quite clearly stipulated own vision and strategy. Department-oriented approach still prevails on the central government level, which results in fragmentation of this agenda. Besides, only two central government bodies deal with the issues of resource use and circular economy - the Ministry of Industry and Trade and the Ministry of the Environment. Circular economy is still a marginal matter for other bodies (e.g. the Ministry of Agriculture, the Ministry of Transport, the Ministry of Finance), although they represent significant parts of the agenda.

2. Economic Conditions

After the past years of decline, the Czech economy has been growing again since 2014, even above the average compared to the other EU states. This fact offers a very good prerequisite for the business sphere to invest in development activities, research projects and innovations. For the public sector, this should be an impulse to implement a proactive policy and introduce circular economy principles.

Financial Support

Mentioned several times during the roundtable discussion was the opportunity to support projects dealing with resource efficiency from the existing operational programmes - OP ENV and OP EIC, or from other aid schemes. An opinion was strongly voiced that public aid should primarily be given to activities with long-term benefits, in particular to innovation projects, investments in R&D and in education.

Tax System

Some participants referred to a partial economic disadvantage of circular economy, since many enterprises still find it more profitable to buy primary raw materials rather than recycle and recover secondary materials. Potential solutions could include a VAT modification for waste services directly using household waste and consistent elimination of duplicate tax burden on products made of secondary materials. And vice versa, processes, which inevitably prevent recovery of materials contained in products, such as landfilling, should be imposed a higher tax burden.

This issue is also associated with the overall setup of the tax system in the Czech Republic, which is characterised by a relatively high tax burden on labour compared to low taxes on resources consumption and pollution of the environment. Since the circular economy is based on products, practices and services requiring a higher ratio of human labour, the current tax conditions can be a disincentive for application of the circular economy principles.

3. Education and Labour Force

Availability of skilled workers and corresponding training also are important prerequisites for implementation of circular economy. While suitable capacities among technical assistance providers exist in the Czech Republic, sufficient capacities on the level of technical assistance beneficiaries, i.e. enterprises, have not yet been built.

Programmes of tertiary education and vocational training do not yet satisfy sufficiently the needs of the labour market; for example, no specific branch exists for secondary materials

and waste recovery. Studies focusing on this issue by students and scientists, whose results could be practically applied, are scarce. The labour market lacks sufficient skilled workers who could deal with the issues of resource efficiency, material-cycle closing, etc.

4. Waste Management

How conditions are to be set in waste management is one of important elements of the European package on circular economy. That is also why the roundtable discussion focused strongly on this topic.

Definitions and Statistics

The need of unified definitions and harmonisation of statistics was a flagship of comments raised by presenting and discussing participants. Certain terms are not clearly defined in the national and European legislation (for example, there is no definition of "secondary material") or they are understood differently by different states (for example, in the areas of municipal waste or recycling rate). This situation makes it impossible to compare EU member states and, eventually, it can result in incorrect conclusions and wrong political decisions.

On the level of the Czech Republic, there is also a persisting problem of duplicate collection and reporting of data on waste production and management. Data are collected both by the Ministry of the Environment of the Czech Republic and by the Czech Statistical Office; unclear definitions of waste flows or different calculation methodologies cause differences in the reported production of waste by up to 30%. Respective data are then reported using different values to European institutions (European Commission – DG Environment, Eurostat). The methodology and definitions used by institutions in the Czech Republic should be unified to correspond to those used in other EU member states.

Recycling and Ecodesign

Waste management regulation includes, amongst other, so-called recycling quotas. Ecodesign requirements for selected products can be expected as part of measures to support circular economy. Currently, ecodesign is stipulated for the area of energy⁴; in the future, however, this requirement will probably cover also raw and other materials.

Similarly to the issue of definitions and statistics, participants stressed the need to stipulate same requirements throughout the EU. Member states should not be allowed to stipulate

⁴ Directive 2009/125/EC of the European Parliament and of the Council establishing a framework for the setting of ecodesign requirements for energy-related products.

requirements on a national level. Otherwise, the system of free trade and the European single market would be compromised.

Too strict requirements could also have an adverse impact on the competitive power of enterprises and even decelerate implementation of circular economy principles.

Charges

As mentioned by the Danish expert **Søren Freil**, this country had managed to reduce dramatically landfilled waste by means of high charges for landfilling. Charges for landfilling are very high also in other European countries, which are leaders in implementation of circular economy principles and which record high rates of waste recovery.

The Czech Republic should adopt a similar approach; the cost of waste disposal through landfilling in the Czech Republic is still low compared to the other technologies. The Ministry of the Environment has already been taking steps in this direction.

Recommendations of the National Convention on the EU:

- 1. Conditions for the development of circular economy should be set up in the Czech Republic. Political leadership on the government level is needed and a clear strategy should be formulated what objectives are to be achieved by the Czech Republic and how they should be fulfilled with concrete activities.
- 2. Circular economy should be adopted in a broad context of natural resources and raw materials management, focusing not only on waste management and recycling, but on the whole life cycle of products and resource efficiency throughout value (supply) chains. In this context, the term "secondary material" should be defined in an applicable regulation.
- 3. Public aid to circular economy projects should primarily be given to activities with long-term benefits, in particular to innovation projects, investments in R&D and in education.
- 4. Waste prevention should be the priority in waste management. Furthermore, the Czech Republic should increase charges for landfilling and support in this way material-recovery (or waste-to-energy) technologies.
- 5. On the European level, the Czech Republic should support harmonisation and standardisation of definitions, processes, calculations, statistics and monitoring in waste management. Data reporting duplicities on the national level should be eliminated.
- 6. All aforementioned regulatory requirements should be stipulated in the same way on the level of the EU. Member states should not be allowed to stipulate requirements on a national level so that the system of free trade and single European market is not compromised.
- 7. The Czech Republic should consider changes in the tax system so as to increase attractiveness and advantages of actions taken to implement circular economy, for example, through modification of VAT on waste services directly using household waste and on products made of secondary materials. Lower labour tax burden should also be considered and, simultaneously, higher taxes should be imposed on the use of natural resources and on pollution (the so-called environmental tax reform). VAT burden on households associated with waste sorting should be consistently minimised, both through lower VAT rates for related services and through elimination of double taxation, which exists in this area.
- 8. Support infrastructure building for the efficient use of waste and secondary materials (preference should be given to material infrastructures), possibly using public funds.

This text is not the minutes of speeches as presented during the discussion. Therefore, it does not contain all what was said during the discussion and it does not express the opinions of all participants as regards all discussed topics. The text is a summary of the most important points and a formulation of recommendations based on the discussion, which were drafted by Pavel Růžička and Vladimír Dobeš, EMPRESS, o.p.s. – platform for resource efficiency and sustainable consumption and production.

The National Convention on the European Union, launched by the Office of the Government of the Czech Republic in November 2014, is a permanent venue for debate on European issues in the Czech Republic.

The project brings together representatives of the Government, state administration, both chambers of the Czech Parliament as well as European institutions, social partners, business, academia, NGOs, and other relevant stakeholders.

For more information about the National Convention on the EU go to www.narodnikonvent.eu and Twitter @KonventEU.