

CIRCULAR ECONOMY, A NEW MODEL OF THE EUROPEAN UNION. NEW MEASURES AND OBJECTIVES IN RECYCLING

***Abstract:** This article presents considerations on the concept and model of circular economy, starting from the positive approach of the European Commission according to which the circular economy represents a fundamental transformation to the current consumerist model that prevails in the European Union and in most other developed economies. In the mean time presented are the measures and rules proposed by the European Commission in 2018 to achieve the new waste recycling and waste management objectives in the circular economy that implicitly change the behavior of businesses and consumers. For the first time, the Member States of the European Union will be obliged to follow a single and common legislative framework. The European Commission estimates that the full adoption of a circular economy model could save 1,800 billion euros for the European Union economy by 2030.*

***Key words:** European Union (EU), new objectives, measures, circular economy.*

***JEL:** F60, F64, F68.*

1. Considerations on the concept and model of circular economy

The world population is growing, and the demand for raw materials needed to produce products is on the same footing. However, the supply of essential raw materials is limited so that some countries in the European Union depend on other raw materials countries. Also, the extraction and use of raw materials has a major impact on the environment by increasing energy consumption and carbon dioxide emissions. Waste has a negative impact on the environment, climate, human health and the economy, and although waste management in the European Union has improved considerably over the past decades, more than a quarter of municipal waste is still in storage and less than half is recycled or composted. However, smarter use of raw materials can reduce CO₂ emissions.

The concept of circular economy is rooted in sustainable development and corporate responsibility. It is relatively new at European level, although the term has been used for many years, and many businesses around the world have already adopted it.

In essence, moving to a circular economy is a fundamental transformation to the current consumerist model that prevails in the European Union and most other developed economies. The current economic model is based more on consumption

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than on resource use and tends to assume that natural resources are abundantly available.

United Nations analysts estimate that in 2030, global resource use will double compared to 2018 as the global population will increase from 7.4 billion in 2018 to 11 billion by 2100. At this time, recycling in the European Union and recovery energy is achieved at about 5% of the initial value of the feedstock.

The concept of a circular economy has gained more ground in the process of European policy making lately, as it is considered to be a positive solution based approach to economic development in the context of growing environmental constraints. The European Commission estimates that the full adoption of a circular economy model could save 1,800 billion euros for the European Union's economy by 2030. At the same time, the European Commission notes that the governments of the European countries are increasingly identifying the circular economy as a political priority at national level.

Reducing the European Union's dependence on natural resources is a key objective of the European Commission's plan, and this is significant for both commodity producers and the supply chain of raw materials. The economy of Europe depends on an uninterrupted flow of: natural and material resources, water, crops, wood, metals, minerals and energy. Imports represent a substantial proportion of these materials. Increasingly, this addiction is seen as a source of vulnerability for the European Union and its enterprises.

A circular economy ultimately aims at decoupling global economic development from raw material consumption and translating from the sustainable economic model to the waste-based business model as a resource. This involves new models of business-to-consumer and business transactions between enterprises based in particular on access to services and less on the purchase of products.

In a circular economy, products are designed specifically for remanufacturing, refurbishment and recycling; waste is "projected"; prices reflect real costs over the entire life cycle of the product; and renewable energy sources fuel the economy. By preserving materials incorporated in high-value products or by returning waste to the economy as secondary high-quality raw materials, a circular economy deliberately reduces the demand for primary raw materials.

The traditional economic model is a model that includes the processes of producing – buying – consuming – throwing products. This model is based on large quantities of cheap, easily accessible materials and energy. Also, part of this model includes consumer planning that requires a product to be designed to have a limited lifetime to encourage consumers to buy it again. Thus, in 2018, the European Parliament called for measures to combat this practice and move towards the circular economy model.

Circular economy is a new production and consumption model involving processes: sharing, leasing, reuse, repair, refurbishment and recycling of existing materials and products for as long as possible. In this way, the life cycle of products is expanded. In practice, this involves minimizing waste. When a product reaches

the end of its lifetime, its materials are kept within the economy whenever possible. They can be used again and again productively, creating additional value.

By adopting waste measures, ecodesign and product reuse, European companies could save 600 billion euros, equivalent to 8% of annual turnover – while reducing total greenhouse gas emissions by 2–4%.

Moving to the circular economy model could bring benefits such as: reducing environmental pressure, improving the security of raw materials supply, increasing competitiveness, stimulating innovation, stimulating growth, creating jobs (minimum 580 000 jobs in European space). Consumers will also benefit from more sustainable and innovative products that they can save on a long-term basis and enhance their quality of life.

2. Waste management

To take care of the environment, waste should be avoided or treated to reduce its impact. The European Union promotes the disposal of waste by re-using the products. If this is not possible, the acceptable option is recycling (including composting), followed by the use of waste to generate energy.

The European Union produces annually over 2.5 billion tonnes of waste. Currently, waste management legislation is being updated at European level to promote a shift towards a more sustainable model, namely the circular economy. There are wide variations between Member States.

According to statistics published by Eurostat in 2016², 47% of all municipal waste in the European Union is recycled or composted. However, waste management practices vary widely between EU Member States, and in some countries there are still large quantities of municipal waste.

Storage is almost non-existent in countries such as Belgium, the Netherlands, Denmark, Sweden, Germany, Austria and Finland, as waste incineration plays an important role in recycling, particularly in Germany and Austria.

The practice of landfill remains popular in the eastern and southern regions of Europe, twelve countries in this area deposit almost half or more of their municipal waste. Thus, in Malta, Greece, Cyprus and Romania, storage accounts for more than 80%; in Croatia, Latvia, Slovakia and Bulgaria over 60%; while in Spain, Hungary, the Czech Republic and Portugal waste disposal reaches 50%.

Other countries use incineration and send only one third or less of their waste to landfills: Estonia, Luxembourg, France, Ireland, Slovenia, Italy, the United Kingdom, Lithuania and Poland. Apart from Estonia, these countries recycled more than 40% of household waste.

Between 2004 and 2014, the number of landfills dropped substantially in Estonia (57 percentage points), Finland (41 percentage points), Slovenia (41 percentage points) and the United Kingdom (41 percentage points).

² A se consulta: http://ec.europa.eu/eurostat/statistics-explained/index.php/Municipal_waste_statistics.

3. The new package of measures on circular economy

This new package sets ambitious waste recycling and storage targets in the European Union³. On 18 April 2018, Members of the European Parliament adopted the circular economy package setting legally binding targets and fixed deadlines for waste recycling and reduction of landfills. Waste management in a more efficient way is the first step towards a circular economy where most of the products and materials are recycled or repeatedly reused.

The package includes a common EU target for recycling at least 55% of municipal waste by 2025; this target would increase to 60% by 2030 and 65% by 2035. It is also planned to recycle 65% of packaging waste by 2025 and 70% by 2030. By 2035, not more than 10 % of municipal waste should be located in a landfill.

Measures are expected to bring economic benefits and reduce the impact on the environment and human health. According to the European Commission and the European Parliament, the four legislative proposals would create over 170 000 direct jobs in the European Union by 2035; avoiding greenhouse gas emissions – over 600 million tonnes of CO₂ equivalent between 2015 and 2035; increasing the competitiveness of the European Union's waste, recycling and production sectors; reducing EU dependence on raw material imports and reducing administrative burdens.

“With this package of measures, Europe is firmly committed to sustainable economic and social development that will eventually integrate industrial policies and environmental protection”, said Simona Bonafè, a member of the European Parliament. “The circular economy is not just a management policy of waste, but it is a way to recover raw materials and not exaggerate the use of our already limited resources on our planet to deepen our production system.” This package contains important waste management measures but at the same time goes further by defining rules that take into account the entire life cycle of a product and aims to change the behavior of businesses and consumers. For the first time, EU Member States will be bound to follow a single, single legislative framework, added Simona Bonafè.

4. Package of measures on recycling in the circular economy

The European Parliament's Committee on the Environment, Public Health and Food Safety (ENVI) has adopted the European Commission's proposals on waste, landfills, packaging, batteries.

The main measures of the package are:

1. Change targets:
 - for reuse and recycling of urban waste – at least 70% by 2030, with a 5% target for re-use;
 - for municipal waste storage – up to 5% by 2030; (5% by 2025 and 10% by 2030);

³ A se consulta la: <http://www.europarl.europa.eu/news/en/headlines/priorities/circular-economy/20170120STO59356/the-circular-economy-package-new-eu-targets-for-recycling>.

- recycling – 70% by 2025 and 80% by 2030 with the introduction of a single computational method;
- Introducing new goals:
 2. For food waste and marine litter – a 30% reduction by 2025 and a reduction of 50% by 2030;
 3. For waste oils – 85% by 2025;
 4. Introducing a specific hierarchy of food waste;
 5. As far as 65% packaging materials are concerned, they will have to be recycled by 2025 and 70% by 2030. This general provision is specified for certain packaging materials, such as:
 - Plastic – 50% by 2025, 55% by 2030
 - Ferrous metals – 70% by 2025, 80% by 2030
 - Aluminum – 50% by 2025, 60% by 2030
 - Glass – 70% by 2025, 75% by 2030
 - Paper and cardboard – 75% by 2025, 85% by 2030.
 6. Biodegradable waste, textiles and hazardous waste will have to be collected separately by 2024 and/or 2025. Alternatively, biodegradable waste can be composted at home.
 7. The Circular Economy Package encourages 30% reduction of food waste by 2025 and a 50% reduction by 2030.

MEPs also called on the Member States to provide incentives for the collection of unsold food and its re-distribution in safe conditions, as well as focusing on raising consumer awareness of the meaning of terms of use and labeling.

This package of measures for the circular economy is similar to the United Nations' sustainable development goals. However, with the exception of recycling and storage targets, these targets are not legally binding.

According to Ms Simona Bonafè, Member of the European Parliament, “for the first time, Member States will be obliged to pursue a common and unique legislative framework. [...] Through this package, Europe is firmly committed to sustainable economic and social development will finally integrate industrial policies and environmental protection”

5. The next steps

Once approved by the Members of the European Parliament, the package is returned to the Council of Ministers of the European Union for the final official approval before becoming the law of the European Union. The text then follows the European Council for formal approval before the publication in the Official Journal of the European Union of the official file of all legal acts of the European Union.

“Once implemented properly, the new EU waste package will turn the European Union into a world leader in waste management,” said Frans Timmermans, the first Vice-President of the European Commission.

Conclusion

Local, regional and national authorities facilitate the transition to the circular economy and the adoption of the package but the European Union has a key role to play in supporting it. The objective is to ensure the establishment of the appropriate regulatory framework for the development of the single market circular economy and to send clear signals to economic operators and to society in general about the way forward with the long-term objectives in the field of waste as well as a set of concrete, comprehensive and ambitious measures to be achieved before 2030.

Action at European level will boost investment and create a level playing field, remove the obstacles created by European legislation or inappropriate application of the rules.

The European Commission will work in close cooperation with the European Environment Agency (EEA) and in consultation with the Member States to implement a simple and effective monitoring framework for the circular economy.

In order to assess the progress made towards a more circular economy and the effectiveness of action at European and national level, a set of common indicators will be applied and there will be monitoring by Eurostat through the collection of relevant data. A scoreboard on resource efficiency and a raw material scoreboard will also be produced, based on which relevant analyzes will be carried out to track progress.

On this basis, this package sets out concrete objectives for the Member States of the European Union to support the transition to a circular economy. An important role will be to respect the constant commitment at all levels of government, the Member States, regions, cities and all stakeholders.

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