



Republic of Bulgaria
ECONOMIC
AND SOCIAL COUNCIL

OPINION

on:

Circular Economy - Features and Opportunities for Development

(own-initiative opinion)

Sofia, 2019

The Economic and Social Council of the Republic of Bulgaria included in its Action Plan for 2019 the elaboration of an opinion on "Circular Economy - Features and Opportunities for Development". The elaboration of the opinion was distributed to the Standing Commission on Regional Policy, Sustainable Development and the Environment, the Commission on Labour, Revenue, Living and Industrial Relations, the Commission on Economic Policy and the Commission on Budget, Finance, Insurance and Social Security. Georgi Stoev, a member of ESC Group I - employers, and Bogomil Nikolov, member of ESC Group III - other organizations, were appointed rapporteurs.

At its plenary session, held on 13 December, ESC discussed and adopted this opinion.

ABBREVIATIONS USED

ESC	Economic and Social Council
EESC	European Economic and Social Committee
EC	European Commission
EU	European Union
EP	European Parliament
SMEs	Small and medium-sized enterprises
GDP	Gross Domestic Product
VAT	Value-Added Tax
EEPA	Executive Environmental Protection Agency
NSI	National Statistical Institute
MoEW	Ministry of Environment and Water
FI	Food industry
ICE	Internal Combustion Engine

1. RECOMMENDATIONS

1.1. ESC recommends speeding up the development of a National Strategy, Roadmap and Action Plan for transition to Circular Economy with clearly defined deadlines, procedures, budget, innovative financial and other supporting instruments.

1.2. ESC calls for the development of a long-term awareness programme to inform businesses and consumers of the need to gradually reduce the linear economic model and accelerate the transition to the circular model. Throughout the campaign, mechanisms can be created to measure consumer awareness and education, with a particular focus on young people, in order to create sustainable production and consumption attitudes.

1.3. Moreover, ESC recommends the establishment of open national-level platforms dedicated to the circular economy, bringing together stakeholders from the public and private sectors, local government, academia and civil society.

1.4. ESC pays special attention to the role of education as an essential part of the transition to a circular economy and one of the driving forces for a large-scale change in the behaviour of consumers, workers, businesses, incl. SMEs, financiers, central government and local government.

1.5. ESC believes that tax incentives should also be considered as economic stimuli for the production of recyclable or reusable products, as well as for the promotion of public-private partnerships in the production of new commodities.

1.6. ESC recommends ensuring access to finance for businesses, incl. for SMEs seeking to take advantage of the opportunities created by the circular economy through the use of various sources of funding such as European Structural and Investment Funds, the European Strategic Investment Fund, the future Horizon Europe programme and thematic programmes such as LIFE and COSME.

1.7. ESC supports the implementation of voluntary labelling incentive mechanisms with product longevity information to help consumers make better choices and enable them to make decisions based on truly comparable product characteristics.

1.8. ESC recommends the periodic evaluation of the share of the so called green public procurement, which is an important driving force for promoting sustainable consumption of green products. The commonly used "lowest price" public procurement criterion should be complemented by another standard criterion - environmentally friendly - so that any proposal that falls short on this criterion should require specific circumstances to be indicated and appropriate justification.

1.9. ESC supports the implementation of monitoring of public funds and the creation of a mechanism to encourage public investment in circular economy initiatives, so that not only the money spent but also the environmental impact achieved can be measured.

1.10. ESC recommends that research and innovation should be promoted, incl. bio-product development, recycling, development of a culture of eco-design of polymer materials, so as to facilitate their re-use and subsequent applications.

1.11. ESC draws attention to the need to regulate the provision of equipment for waste collection vehicles in the formulation of waste policy, as well as to formulate clearly the obligations for owners and lessees of transport vessels to follow the regulatory requirements and procedures for waste disposal.

1.12. ESC believes that it is necessary to envisage such building materials in the design process of construction activities that would make possible their subsequent reuse or recycling. It is appropriate to establish a set of rules for the classification of materials with a view to their future use, with a focus on high biodegradability and the introduction of quality standards.

1.13. ESC recommends the development of a national strategy for the plastics industry aimed at promoting their reuse, with the involvement of businesses with experience in recycling processes.

1.14. ESC also recommends the development of support schemes and mechanisms to enable poorer people to have access to goods with a defined minimum life expectancy and designed to include all elements of a circular nature. These mechanisms can be in the form of a government-backed lending scheme or in the form of a lower-interest-rate financing scheme that applies exclusively to products.

1.15. ESC also draws attention to the need to put in place mechanisms to protect consumers who have purchased goods that are the subject of misleading information practices or unsubstantiated environmental claims.

1.16. ESC appreciates the role of consumer associations in the circular economy process and shares the need for further technical assistance and dedicated resources by promoting local consumption networks and Do-it-yourself or Produce-it-yourself practices. Technical assistance should be provided on pre-standardized criteria and subject to state aid restrictions.

2. INTRODUCTION

2.1. The changes caused by human activity observed in the five subsystems of the planet's climate system (atmosphere, hydrosphere, cryosphere, biosphere and lithosphere) require adaptation of the economy and society and achieving a new equilibrium.

2.2. ESC recognises that adapting to changes in the climate system requires from the Bulgarian economy accelerated adaptation of production processes and consumption patterns. One of the

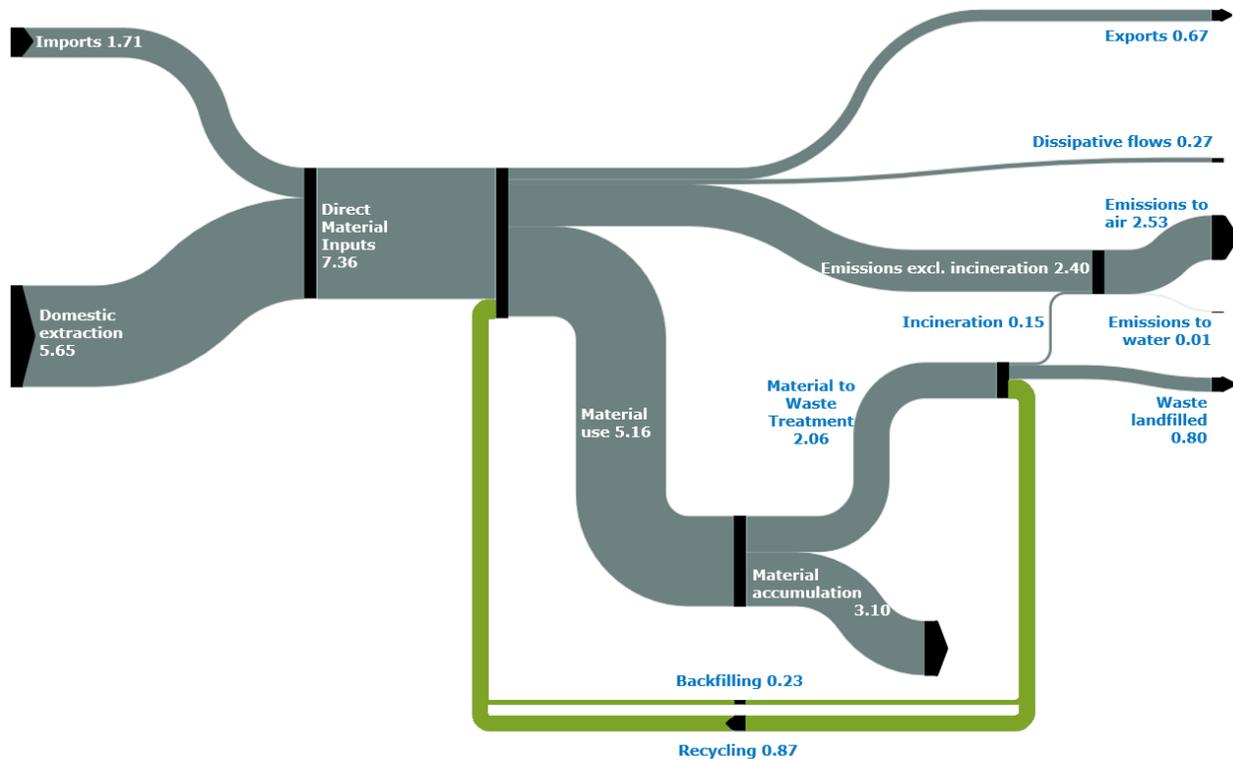
measures in this direction is the transition from a linear to a non-wasteful circular economy. The necessary transition in the culture of production and consumption in the circular economy is based on the understanding of scarce natural resources in linear economy with exponential economic growth. Economic models show that such a system does not have a good prospect.¹

2.3. According to ESC, in recent years it has become increasingly clear that there is a need to gradually curtail the current linear economic model of the produce-consume-discard type and replace it with a circular model whereby materials are retained for as long as possible in the production and consumption cycle. The circular economy contributes to sustainable development, improving the environment, economic prosperity and social equality for the benefit of future generations.

2.4. Circular economy is a broad concept that encompasses changes in the use of materials, in management models, production models, the bioeconomy, the flow of reserves, the markets for secondary raw materials and in the role of consumers. It focuses on reducing, repairing, reusing, recycling, transformation and restoration of materials, thus changing the traditional notion for product life cycle.

2.5. The idea of circular economy can be exemplified by the material flow diagram for the EU in 2016. (Fig. 1).

¹ Donella H. Meadows, et al., *The Limits to Growth; a Report for the Club of Rome's Project on the Predicament of Mankind*. New York, Universe Books, 1972.



Material flows in Gt/year (billion tonne per year) in 2016, EU28.

Source: Eurostat: env_wassd; env_ac_sd; env_ac_mfa.

Fig. 1

The diagram shows that only a small fraction (~ 11%) of the material flow that is extracted from the earth's resources is "rotated" into the reuse economy. The majority of material flow (~ 88%) ends up in generated emissions, accumulation of materials in products and disposal.

2.6. EU statistics confirm that the circular turnover of materials in the Bulgarian economy in 2016 makes up only 4.3% as compared to the EU average of 11%. Meanwhile, the Netherlands has reached 29%, France - 19.5% and Belgium - 18.9%.²

2.7. At the same time, the circular economy is a key approach to achieving the Sustainable Development Goals and the low carbon economy. It allows for the actual achievement of the UN Sustainable Development Goals and the climate targets set out in the Paris Agreement. The EU circular economy package was adopted in December 2015 together with the signing of the Paris Agreement on Climate Change under the auspices of the United Nations Framework Convention on Climate Change (UNFCCC).

² Eurostat: (online data code: env_ac_cur)

2.8. ESC recalls that, according to the UN, urgent measures are needed to ensure that current material needs do not lead to resource overexploitation or damage to the environment, and include policies that increase resource efficiency, reduce waste and push through sustainable practices in all economic sectors.³

2.9. ESC notes that there is no waste in nature - in the biosphere, waste from life-sustaining processes is a resource for another process of the living system. In a linear economy, processes start from resource extraction, and in most processes, noise, vibration, greenhouse gases (carbon dioxide, methane, nitrogen oxides), sulfur oxides, ozone, etc., particulate matter, solid, toxic, are generated. , hazardous waste, etc., which greatly threatens the health and quality of life of workers. In the circular economy, we follow the patterns of natural circles, striving to reduce energy and material losses in production, as well as generate through consumption waste for landfills.

2.10. ESC acknowledges that the twelfth UN Sustainable Development Goal, adopted at the 47th session of the UN Statistical Commission, in March 2016 is "Establishing sustainable consumption and production patterns". Among its targets are:

- preparation of ten-year framework programmes for sustainable consumption and production;
- achieving sustainable management and efficient use of natural resources by 2030;
- halving food waste and losses by 2030;
- substantial restriction by 2030 of the generation of waste by preventing, limiting, recycling and reusing it;
- promotion of green public procurement;
- widespread promotion by 2030 of models that are in harmony with nature;
- the abolition of inappropriate subsidies for fossil fuels that encourage wasteful consumption, the elimination of market distortions and the gradual elimination of inappropriate subsidies to reflect their environmental impact.⁴

2.11. In October 2018 the Intergovernmental Panel on Climate Change (IPCC) published a special report on the impact of global warming by 1.5°C above pre-industrial levels and related options for action on global greenhouse gas emissions. This report confirmed the prediction that, in case of global rise in temperature by 2°C, 13% of the total surface of the earth will be transformed. In this regard, ESC points out that this could have a serious impact on economic productivity, infrastructure development, food production opportunities, public health,

³ Special edition: progress towards the Sustainable Development Goals Report of the Secretary-General, UN ESC, 2019.

⁴ COM (2018) 773 - A Clean Planet for all - A European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy.

biodiversity, political stability and security. At the same time, delayed and uncoordinated action could increase the risks of dependence on high-carbon infrastructure and make this much-needed change for the economy much more expensive.

2.12. ESC notes that the Roadmap for Resource Efficiency in Europe offers ways to increase resource productivity and break the link between economic growth, on the one hand, and the use of resources and their environmental impact, on the another.⁵

3. MAIN FEATURES OF THE CIRCULAR ECONOMY

3.1. Basic elements of the circular economy

3.1.1. Production

3.1.1.1. Product sustainability is mainly ensured by means of stimuli and restrictions. Restrictions are imposed by applying minimum requirements for the products, while stimuli are used by introducing incentives for manufacturers to design and offer products with better than minimum requirements. There are several approaches in the EU that are expected to develop in the future, namely:

- **Ecodesign and energy labelling**

This is one of the most successful instruments contributing to achieving about half of the EU's energy savings targets by 2020. By informing consumers, it simultaneously limits the supply of inefficient products and encourages the demand for more and more economical products.

- **Eco-label**

This is a voluntary tool, created back in 1992, which enables consumers to identify the most environmentally friendly products, which encourages businesses to develop products with high environmental performance.

- **Green public procurement**

Public procurement in the EU accounts for around 14% of GDP⁶, through which they can stimulate the development and marketing of greener products that would otherwise be difficult to introduce into the market. As the implementation of such public procurement is voluntary, we can expect that in the future it will provide ever greater potential to stimulate the circular economy.

- **Extended producer responsibility**

This is an approach that ensures the financial involvement of producers in waste management processes, but is also an incentive for better design that will result in reduced waste costs.

⁵ European Union Handbook, 2019.

⁶ http://ec.europa.eu/environment/gpp/what_en.htm

3.1.1.2. ESC notes that the EC has placed a strong emphasis on the requirement of the Ecodesign Directive (Directive 2009/125 / EC), which aims to increase the efficiency and sustainability of energy-related products. Ecodesign requirements address the energy efficiency of production, repair options, longer-term use, modernization and recycling of used goods, and the recovery of certain materials or substances.

3.1.1.3. In this regard, the Juncker Commission has begun phasing in requirements for certain products related to the circular economy. ESC acknowledges the positive application (within the framework of the eco-design policy) of mandatory requirements for home appliances (refrigerators, washing machines, dishwashers, etc.) in relation to their reuse, durability, repair and recycling options.⁷

3.1.1.4. According to ESC, designing products better for circular economy purposes can also help recycling companies dismantle more efficiently to extract valuable materials and components. This will help to conserve natural resources.

3.1.1.5. ESC emphasizes that the extraction of primary raw materials, incl. renewable materials will continue to play an important role in production processes and in the circular economy. In this context, consideration must be given to environmental impacts and the social consequences of their production.⁸

3.1.2. Consumption

3.1.2.1. Circular economy would be unthinkable without the active involvement of consumers. ESC draws attention to the fact that the circular model and the reduction of overconsumption will only achieve the necessary intensity and efficiency if the role of consumers in overcoming the current linear model of production and consumption is increased. Everyday consumer decisions are the most effective factor for change.

3.1.2.2. Consumer participation in the circular economy is fully stimulated by providing comprehensive and reliable product information. Consumer awareness of the environmental, social and economic damage caused by today's over-consuming society is not a matter of choice. Consumer awareness and engagement are critical for the success of the transition to a circular economy. In this regard, ESC believes that it would be important to introduce a product label incorporating information related to the circular economy. This could speed up the transition and help consumers make the right and sustainable choices. In the context of current problems, information on the durability of the product, its repair options and its environmental performance would be most useful.

⁷ SWD(2019) 90, REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS on the implementation of the Circular Economy Action Plan

⁸ COM (2015) 614, Closing the cycle - An EU circular economy action plan.

3.1.2.3. ESC notes that the active involvement of consumers in the consolidation of the circular economy is also achieved through cooperation in various networks of the economy of sharing the use of products for which this is possible (e.g. appliances), including repeated borrowing, renting, giving as a present instead of one-time purchase.

3.1.2.4. Recent studies show that consumers are willing to engage in good circular economy practices, but actual engagement is lower. This was found to be due to the lack of information on the durability of the appliances, as well as the lack of a developed secondary market - for renting, buying second hand, sharing, etc. At the same time, 93% of consumers keep what they have purchased and use it for a long time, and more than half repair the defective appliances. Many consumers are willing to pay more for products with better durability and repair capability, but low prices divert interest in more sustainable products. Similarly, when replacement is more convenient than repair, consumers easily buy new products. Data indicates that, with the relevant information available, consumers are three times more likely to buy a high-end product and twice as likely to buy a product with high repair capabilities.

3.1.2.5. Many users claim to be aware of the durability and repair capability of the products they buy, however research shows that durability information and the ability to repair the product are difficult to find. Therefore, consumers need better information in this regard.

3.1.2.6. Environmental awareness and a positive attitude towards environmentally friendly practices (such as purchasing second-hand products and repairing products) have been identified as key factors for sustainable consumer choice. At the same time, too descriptive or completely missing information on the lifecycle of products and services is an obstacle to informed choice and impedes the entry of low-carbon products and products based on circular economy models.⁹

3.1.2.7. Significant discrepancies between the various national policies related to the management of chemicals, products and waste, as well as the presence of certain compounds, are still being observed, hampering the recycling and reuse efforts required by the circular economy.¹⁰ In this regard, in the ESC's view, it would be useful to develop common and sectoral guidelines for action, oriented towards ever more informed decision-making by consumers.

3.1.2.8. ESC also stresses the urgent need to develop curricula at all levels of education related to the circular economy - from kindergarten and elementary school to university and on-the-job training, so that children and citizens are educated and informed on the long-term challenges the circular economy. Education programmes should look at the horizontal methodology of the product life cycle (production, durability, repair, reuse and energy efficiency) and have a broad practical focus.

3.1.3. Sustainable waste management and losses

⁹ Behavioural Study on Consumers' Engagement in the Circular Economy, EC 2018.

¹⁰ Creating a digital roadmap for a circular economy, Hedberg et al., European policy Centre, 2019.

3.1.3.1. In the circular economy, waste management is a fundamental and shared value. In the waste requirements hierarchy, priority is given to the prevention, preparation for reuse, recycling and recovery of energy prior to disposal. This order can be illustrated by the inverted pyramid, in which the wider part is of higher priority.¹¹ (Scheme 1)



(Scheme 1) Prevention>Reuse>Recycling>Recovery of Energy>Disposal

3.1.3.2. In the area of waste, measures to introduce the circular economy set ambitious targets in the coming years:

- EU-wide target for recycling 65% of household waste by 2035 (55% by 2025 and 60% by 2030);
- EU-wide target for recycling 70% of packaging waste by 2030;
- reducing landfill to no more than 10% of municipal waste by 2035;
- ban on the disposal of separately collected waste, requiring separate collection of bio-waste by 2023, as well as textiles and household hazardous waste by 2025;
- promoting economic instruments to reduce landfill;

¹¹ COM (2015) 614, Closing the cycle - An EU circular economy action plan

- simplified and improved definitions and harmonized methods for calculating EU recycling levels;

3.1.3.3. ESC notes that in order to move from the level of recycling of municipal waste in the EU from 42% now to 50% in 2020 and 70% in 2030, Bulgaria, together with other Member States, will have to make significant efforts to manage waste. Steps should also be taken to improve the quality of the starting products and their ingredients as well as the overall recycling process.

3.1.3.4. Illegal transportation of waste and incineration in combustion plants are significant obstacles to the development of sustainable waste management. In this regard, ESC believes that the implementation of the EU-wide Regulation (EU) No 660/2014 on shipments of waste will only support the objectives of the circular economy.

3.1.3.5. The promotion of the use of non-toxic materials and the strict control of the presence of hazardous chemicals in products will facilitate recycling and improve the use of secondary raw materials.¹²

3.1.3.6. An important step in the regulation of circular processes is the review of existing regulations and the existence of provisions that impede the operation of circular models (these are outdated or non-harmonized parts of the current regulatory framework of the country).

3.1.3.7. In this regard, ESC draws attention to the problems of the national legislation and the waste management systems that impede the development of the circular economy in Bulgaria, incl. the need to link the municipal waste levy with the amount of waste generated and treated, the transformation of the product levy model, and the so-called recovery organizations, immediate launching of the national waste information system, full transparency of national schemes for the management of widespread waste, change in the status, functions and funding provided by the Enterprise for the Management of Environment Protection Activities (EMEPA), refocusing Operational Programme Environment (OPE) financing on landfills and incinerators of waste.

3.2. Basic processes in the circular economy

3.2.1. In a circular economy, products and their materials go through different processes (circles) that aim to maintain the potential of products and materials to create value. In 2016 these circular activities generated almost 147 billion Euros while attracting around 17.5 billion Euros of investments.¹³

3.2.2. Sharing or pooling. Many consumer-owned products are not fully utilized during their economic lives. For example, automobiles are parked an average of 95% of their lives, and when used they transport an average of 1.5 people. Sharing-based business models have been very

¹² COM (2015) 614, Closing the cycle - An EU circular economy action plan.

¹³ According to Eurostat data: <https://ec.europa.eu/eurostat/web/circular-economy/indicators/monitoring-framework>

successful in leveraging this untapped potential, and digitalization provides platforms for such models.

3.2.3. Repairs can extend the life of the product, provide jobs in the repair sector, and save on the cost of replacing products. Also, repairs result in reduces need for materials, thus reducing the environmental impact. However, products on the market are becoming more complex and often contain electronic components, which complicates repairs. High labour costs can also make repair less attractive than replacement. There are also concerns that consumers may be tied down to branded repair shops or discouraged by high spare parts prices or by designing products that are difficult or impossible to repair by using glued or welded parts or screws that require special tools.

3.2.4. Reuse and second-hand markets. It is estimated that 1/3 of the goods arriving at recycling centres can be reused or sold for second-hand use. The use of these products has potential for job creation in the second-hand market sector, including in social enterprises, for increasing material efficiency and reducing waste. Reuse can be applied to different product groups and represent an affordable and high-quality alternative for new products that, although of lower quality, can continue to be used.¹⁴

3.2.5. Processing. It is a process of bringing discarded, obsolete or no longer functioning products to a new state or a better state, after which they can re-enter the market. The refurbished product may be as good as the new product, the consumer can expect the performance after the reconstruction to be in accordance with the original specifications of the manufacturer, and the guarantee provided is in practice equal to that given to an equivalent new product.

3.2.6. Recycling and use of recycled content. Recycling is a vital activity to avoid environmental damage (when products become waste) and to provide material resources for production. Recycling contributes to the security of supply of (secondary) raw materials and helps to improve the sustainability of materials in the EU economy. To the extent that materials are usually degraded to some extent (some materials more than others), recycling undoubtedly contributes to the preservation and use in subsequent cycles.

3.3. Specific topics in the circular economy

3.3.1. Planned obsolescence of products

3.3.1.1. ESC is pleased to note that the problem of planned obsolescence is in the view of the EC over the last few years, which is why it is expected that a series of measures will be taken to address it.

3.3.1.2. In the 2016 Commission Guide for the implementation of the Unfair Commercial Practices Directive (UCPD), states that "Planned obsolescence or built-in obsolescence in

¹⁴ <http://www.rreuse.org/wp-content/uploads/RREUSE-response-to-CEP-FINAL-28.4.2016.pdf>

industrial design is a commercial policy involving deliberate planning or design of a product with a limited useful life so that it becomes obsolete or dysfunctional after a period of time". Therefore, planned obsolescence in its strict sense consists in designing a product with a shorter life. At the same time, technological obsolescence should not be overlooked and it can take many forms:

- Indirect obsolescence is present when the components needed to repair the product are inaccessible or when the product cannot be repaired or replaced (for example, a non-replaceable battery in an electronic device).
- Incompatibility obsolescence occurs when a device no longer functions adequately as a result of a software update or is unable to use new software versions (for example, a broken printer due to lack of a driver for a new operating system).
- Style obsolescence is another form used by marketing campaigns that make consumers perceive existing products as no longer fashionable.

3.3.2. Reduction of food waste

3.3.2.1. ESC notes that, according to expert estimates, a total of over 670,000 tonnes of edible food are discarded in one year in Bulgaria, the poorest EU Member State. That amount is close to 2.2 billion servings of 300 g. Households discard 40% edible food, while over 1.5 million Bulgarians live below or around the poverty line, with at least 400,000 of them being children.¹⁵

3.3.2.2. Fewer than half of the citizens surveyed understand the importance of the "best before" food label. Only 21% of Bulgarians give a correct answer to the meaning of the "best before" label, which means that the majority of consumers discard perfectly fit food because of the lack of awareness of the label.¹⁶

3.3.2.3. It should be emphasized that recycled nutrients are an important part of the secondary raw materials that are found in organic waste for example, and can be utilized in soils as fertilizers. At the same time, their sustainable use in agriculture reduces the need for mineral fertilizers, the production of which has a negative impact on the environment and depends on the import of phosphorus, which is a scarce resource. This also shows the strategic need to stimulate the waste-based fertilizer market.¹⁷

3.3.3. Reuse of water

3.3.3.1. Water scarcity has increased in some parts of the EU in recent decades, damaging the environment and the economy. Water reuse in agriculture will also contribute to the recycling of

¹⁵ Study of Your Food Consortium, 2019.

¹⁶ Flash Eurobarometer 425, "Food waste and date marking", Sep 2015

¹⁷ COM (2015) 614, Closing the cycle - An EU circular economy action plan.

nutrients as substitutes for solid fertilizers. The circular economy also offers a balanced integration of technological processes into the natural cycles and in harmony with them.¹⁸

3.3.3.2. The reuse of water can have environmental, economic and social benefits, although it has a lower environmental impact than water transfer or desalination. Policies limiting minimum water reuse requirements are being developed to promote safe, efficient and cost effective reuse use of treated urban wastewater. In this way, waste product becomes a valuable resource for further use and further combat water scarcity.

Reuse of water will reduce water stress on water bodies. In order to accelerate the process of expanding water reuse, a corresponding increase in research support in this field is needed, as well as providing better access to EU funding for the creation of water reuse infrastructure and improved governance. and planning for their use.¹⁹

3.3.3.3. ESC welcomes the formulation of the strategic objective of the National Action Programme for Sustainable Land Management and Combating Desertification - "Limiting land degradation and combating desertification to preserve and develop the capacity of ecosystems to achieve a clean, safe and attractive environment, economic stability and improved quality of life". Key to mitigating the impact of climate change on the economy is knowledge of the entire food production chain by citizens. In this regard, ESC supports the measures set out in this programme: the development and integration of curricula for sustainable management of land resources at all levels of the education system; the scientific, informational and applied provision of sustainable land management measures; as well as participation in international knowledge sharing processes, know-how and good practices for sustainable land management will only help stakeholder efforts to become more involved in the process of transformation towards a circular economy.²⁰

3.3.4. **Plastics**

3.3.4.1. According to NSI, plastic waste ranks second with a share of 27% of all packaging waste generated by manufacturers and consumers. According to EEA data in 2017 453,194 tonnes of packaging waste are generated in the country, of which 119,962 tonnes are plastic waste, and the achieved recovery rate is 65%.²¹

3.3.4.2. ESC notes that some of the main problems with plastics are the low reuse and recycling of plastic waste, greenhouse gas emissions related to the production and burning of plastics, the presence of plastic waste in rivers, seas and oceans, as well as the harmful the impact of plastics on human health.

¹⁸ COM (2015) 614, Closing the cycle - An EU circular economy action plan.

¹⁹ EU-level instruments on water reuse Final report to support the Commission's Impact Assessment, October 2016.

²⁰ National Action Programme for Sustainable Land Management and Combating Desertification in the Republic of Bulgaria (2014-2020 programming period update).

²¹ Source: EEA.

3.3.4.3. Marine waste, and in particular plastics and plastic microparticles, represent another significant threat to the oceans and are therefore a worldwide problem affecting all oceans in the world. Every year, millions of tonnes of waste are thrown into the oceans around the world, causing environmental, economic, aesthetic and health problems. Marine waste can cause economic damage such as losses to coastal communities, restriction of tourism, obstacles to maritime transport and fishing.²²

3.3.4.4. In the short term, the EU has put in place mechanisms to ban disposable plastics. The products that will be banned include plastic utensils, plastic plates and straws, food and beverage containers made of expanded polystyrene, and cotton earbuds made of plastic.

3.3.4.5. Looking further ahead, the EU has set a goal by 2030 all plastic bottles should have at least 30% recycled content. Increasing the recycling of plastics is fundamental to the transition to a circular economy. The use of plastics in the EU is growing steadily, but less than 25% of the collected plastic waste is recycled, while about 50% is landfilled.²³

3.3.4.6. ESC underlines that innovation in this sector is also an important aspect, and they can contribute to the circular economy by improving food preservation, improving the recycling of plastics and reducing the weight of materials used in vehicles.

4. OPPORTUNITIES FOR THE DEVELOPMENT OF THE CIRCULAR ECONOMY

4.1. **Priority EU product categories in the circular economy.** The EC has created a framework for the development of the circular economy, but has also identified priority product categories to be developed as soon as possible: packaging; food; electrical and electronic equipment and batteries; transport and mobility; furniture; textiles; buildings and construction; chemical products.²⁴

4.1.1. **Packaging.** The packaging is not a product in itself, but it contributes significantly to the pollution of nature both before and after the purchase. They also have extreme short-term use, but difficult degradability in nature. At the same time, packaging falls under Directive 94/62/EC on packaging and packaging waste. The Commission has started preparatory work, putting in place the Plastics Strategy to develop new harmonized rules to ensure that by 2030 all packaging on the market can be reused or recycled in a cost-effective manner.

4.1.2. **Food.** The food industry accounts for about 10% of Bulgaria's GDP, unites many subsectors of the economy and provides employment to many workers. At the same time, the food and beverage production is associated with a very strong environmental impact, with 60%

²² "European strategy for plastics in the circular economy", COM (2018) 28, EESC.

²³ COM (2015) 614, Closing the cycle - An EU circular economy action plan

²⁴ COMMISSION STAFF WORKING DOCUMENT Sustainable Products in a Circular Economy - Towards an EU Product Policy. Framework contributing to the Circular Economy {SWD(2019) 92 final}.

of global biodiversity loss attributable to food production. Moreover, the food and beverage production contaminates water and air and is responsible for a significant part of the greenhouse gas emissions. The EU has comprehensive policies in the fields of agriculture, food and feed safety, nutrition, health and plant protection. Policymaking in a circular economy implies large-scale economic potential for a beneficial impact on workers and the environment.

4.1.3. Electrical and electronic equipment and batteries. The information society and the digitalisation of the economy are impossible without the necessary electrical and electronic equipment, which is the basis of the information technology infrastructure and the Internet. However, there is concern among consumers that the durability of electronic products is diminishing and increasingly difficult to repair. As electronic devices are increasingly designed for lower-cost automation, they are more difficult to repair at an affordable cost. In 2017 the Joint Research Centre (JRC) has revealed that the newer models of washing machines are more difficult to repair. While eco-design and energy label have until recently focused primarily on energy efficiency, now parameters such as durability, reparability and recyclability are being considered systematically. The main potential for a better contribution to the circular economy of electrical and electronic equipment lies, in particular, in enhancing the implementation of existing instruments - e.g. resource efficiency requirements, while continuing to seek synergies between different policies, instruments and strategic deployment of measures to maximize results.

4.1.4. Transport and mobility. The transport sector generates over 15% of the country's GDP while employing over 150,000 workers. The European market for car tires is expected to increase on a European scale (a major consumable of both ICE and EV cars), while at the same time there is a decline in the secondary tire market in the EU. Tires are recyclable into other products and their usage time may be extended before being burned in an incinerator to capture their energy. About 50% of the motor oils are lost during work and the other half are waste oil - about 30% of them are poured into the wild or burned illegally. Under the EU Ecolabel, there are 114 Ecolabel certificates issued for around 500 lubricants. This sector has great potential for developing circular economy models, including the production of more sustainable cars and more consumer information.

4.1.5. Furniture. More than a quarter of the world's furniture is manufactured in the EU, representing a market of around 84 billion Euros. Furniture can retain its value over time, in some cases even becoming more valuable, as in the case of antiques. Furniture manufactured in the EU often contains certified wood and generally enjoy a long life, but there are indications that its durability and reusability is diminishing. The recycling volume of furniture is only estimated at 10%. In the furniture sector, there are many opportunities for circular processes and materials, in particular through material replacement, improved recycling and reuse. Enhanced application of EU Ecolabel criteria and green public procurement can realize some of this potential.

4.1.6. Textiles. 1.5 million people are employed in the European textile industry with a turnover of 149 billion Euros. In Bulgaria the branch provides employment for over 100 thousand people, accounting for 8% of the country's total exports and a turnover of over 2 billion Euros. The textile and footwear industries together account for 8% of global greenhouse gas emissions worldwide and emissions are expected to increase if there is no change. Textile production often involves the use of chemicals (e.g. for colouring), which can have adverse effects on the environment and human health. The production of organic-based materials, such as cotton or wool, requires a lot of water and agricultural raw materials, while the synthetic fibres and yarns used for textile production are mainly fossil and their use creates problems similar to those resulting from the use of plastics - microfiber and microplastic release in the environment.

There are eco-label criteria for textiles and a number of manufacturers cover them. The EU's green procurement criteria also influence suppliers by imposing sustainability requirements on textile purchases. However, there are no common minimum criteria for sustainable textile life in EU legislation.

The recycling of textiles is limited and, when done, often involves downcycling, where the recycled material is of lower quality and functionality than the original. There is limited knowledge of the feasibility of recycling a number of mixed fibres from an economic and environmental point of view. It is estimated that if the duration of the first use, second use and clothing repair increases, there will be a correction in the new clothing market, while developing micro and small businesses related to clothing repair or rental in sync with the shared economy.

4.1.7. Buildings and construction. In the construction sector, there is great potential for the development of circular models, given the scale of the use of materials, the value contained in buildings, the complexity and the long-term effect of the measures taken. Construction and demolition wastes account for approximately 25% - 30% of all waste generated in the EU, while the production of materials has a severe environmental impact. Circular buildings would reduce the impact of the life cycle of their production and would provide healthy spaces, reduced carbon consumption during service life, increased re-use, recycled ingredients in materials, and sustainable construction waste management. Sustainability-promoting market incentives are important in this sector, as circular investment payback periods are usually linked to the performance throughout the life of the buildings.

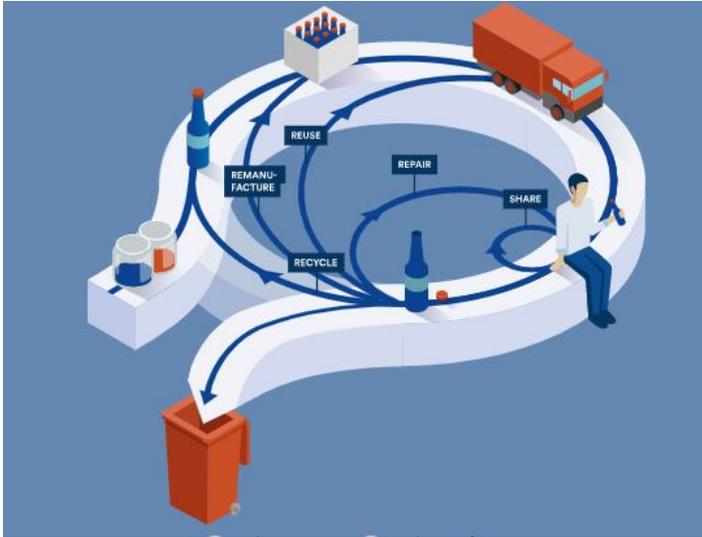
4.1.8. Chemical products. A comprehensive chemical safety policy is in place in the EU. The REACH Regulation is aimed at the safe use of chemicals - for example, by reducing the exposure of consumers and workers to hazardous substances. Particular attention is paid to the effects of endocrine disrupting chemicals as well as to chemical mixtures and chemicals that are persistent or bioaccumulative. Chemical leasing where the manufacturer sells the final product in which the chemicals are used (e.g. painted wall instead of paint) is a business model that shifts the approach of increasing chemical sales to a value-added approach.

Prof. Lalko Dulevski

PRESIDENT OF THE ECONOMIC AND SOCIAL COUNCIL

APPENDIX 1: Graphic representation of the traditional and circular product life cycle model





APPENDIX 2: GOOD PRACTICES IN EU MEMBER STATES

1. Production

Name, country	Description	Additional information
Starlinger, Austria	To create a circular economy for flexible bulk containers, Starlinger simulates a closed loop for polypropylene - a major component of large bags.	https://www.starlinger.com/de/aktuelles/details/article/starlinger-circular-packaging-auf-der-k-2019-kreislaufwirtschaft-fuer-big-bags-aus-polypropylen-ge/
CuanTec, United Kingdom	The biotechnology company CuanTec has solved packaging problems by offering sustainable packaging .	https://www.cuantec.com
Rohepakend, Estonia	Rohepakend manufactures an alternative to plastic packaging for food that can be produced at home: food packaging made from recycled material, Estonian pine resin and beeswax.	https://www.rohepakend.ee/
Wao, Italy	Wao shoes are all eco-friendly footwear made entirely of natural, innovative and	https://shop.wearewao.com/

	sustainable materials.	
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2. Consumption

Name, country	Description	Additional information
Belgian Labour Council, Belgium	Ecocheques are an incentive for Belgian households to buy eco-friendly goods and services, including second-hand and refurbished ones.	http://www.cnt-nar.be/DOSSIERS/Ecocheques/2019-09-01-Liste-produits.pdf
Eat and Back, France	With the introduction of a reusable bent box bin scheme , Eat and Back makes "zero waste" take-off food a reality.	http://www.niiji.fr/
Usitoo, Belgium	In order not to buy products that are used only a few times a year, Usitoo enables customers to rent them. The cooperative has a catalogue of hundreds of items that its customers can borrow, thus extending the scope of ownership to these items.	https://usitoo.be/en
Türmerleim, Germany	Türmerleim is a company that produces adhesives, including for reusable bottles. Its adhesives have a high level of alkaline solubility, which makes them easy to remove and thus promote bottle reuse and recycling .	http://www.feica.eu/information-center/good-practices/food-packaging-ii.aspx

3. Waste Management

Name, country	Description	Additional information
CleanCup, France	CleanCup distributes, collects and washes reusable cups automatically in place to eliminate the use of disposable cups and improve drinking.	http://www.clean-cup.com/

EcoBean, Poland	EcoBean is a Polish company that converts the coffee sludge that is otherwise deposited into a clean energy product - coffee pellets .	https://ecobean.pl/
ZERO BRINE, Poland	ZERO BRINE is implementing a pilot project to recover valuable wastewater resources in the Polish mining industry so that they can be reused in other sectors.	https://zerobrine.eu/
Stella Soomlais, Estonia	Stella Soomlais offers cleverly designed handbags, allowing old or damaged leather bags to be converted into new leather items with little residual material.	https://stellasoomlais.com/en