



European Economic and Social Committee

**Employers' Group**

# The Circular Economy: Beneficial for All

**The Threefold Challenge: Climate Change, Competitiveness  
& Dependence on Raw Materials**



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## Introduction

**Climate change is perhaps the greatest challenge of the century, and Europe has to do its fair share as it is responsible for around 11% of global CO<sub>2</sub> emissions. If global warming is to be limited to 2°C, humanity needs to halve its total amount of greenhouse gas (GHG) emissions by 2050. Industrialised countries bear an even greater responsibility, as they need to reduce their emissions by 80% by 2050.**

For Europe, this means a drastic reduction to two tonnes of CO<sub>2</sub> in 2050 from the average of 10 tonnes per capita in 2008, based on IEA calculations. In order to reach the 2°C target, the reduction in carbon emitted per unit of GDP should be 2.8% a year, reaching annual rates of 5.5% from 2020 to 2035. Simultaneously, Europe is faced with tougher competition from other parts of the world.

Overall, in 2012 it had a comparative advantage in ten aggregated manufacturing sectors and comparative disadvantages in twelve. However, half of the sectors in which the EU had comparative advantages are characterised as high or medium-high technology intensity. Cutting costs is imperative under such circumstances.

Moreover, Europe is highly dependent on foreign resources; most of its raw materials for production are imported, and a number of specific raw materials are in the possession of a small group of countries. The trade balance for raw materials in the EU-28 was in deficit by EUR 28 809 million in 2015. This means that massive reliance on such imports not only increases Europe's dependence on foreign resources, but also jeopardises its security.

## Circular Economy – A Comprehensive Solution

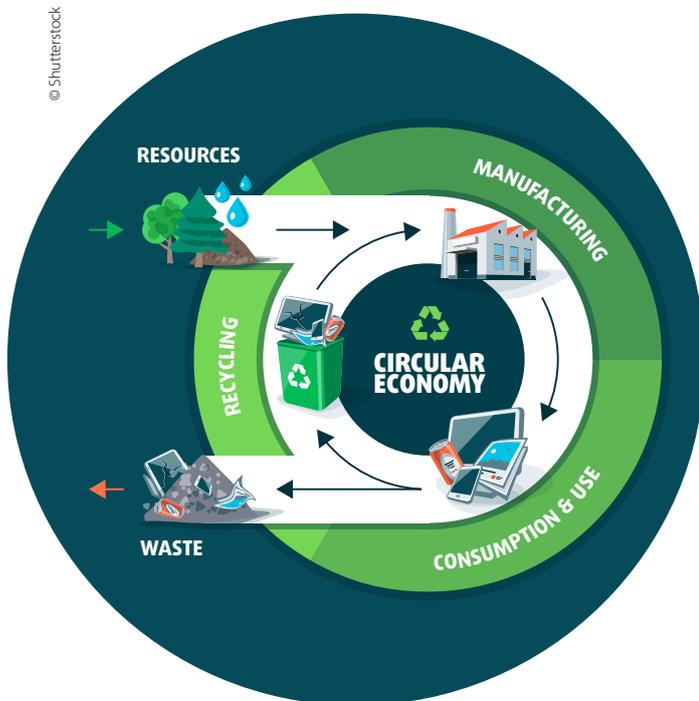
How can we tackle this set of issues? The answer lies in the concept of the circular economy. The hallmark of a sustainable circular economy is a society that reduces its burden on nature by ensuring that resources remain in use for as long as possible. In practical terms, this means that once the maximum value of a product has been exhausted, that same value can then be recovered, remanufactured, reused and recycled to create new products.

In principle, this is different from the concept of the “recycling economy”; while conversion of waste materials into usable raw materials is certainly an option, recycling offers limited appeal due to its cost-effectiveness. The circular economy goes beyond recycling as it is based on a restorative industrial system. A circular economy is a closed loop system that ensures that the product is not discarded after use. There is therefore no waste at the end of a production cycle, making it more efficient and sustainable in the long term.

The cost opportunities of a circular economy are immense. Raw materials often represent from 30% to over 50% of production costs. If resource efficiency were to be improved by 30%, possible savings could exceed EUR 600 billion annually, thereby providing a competitive boost to European industry. Other opportunities for cutting costs lie in water and energy savings. This represents a potential saving of up to 8% of turnover - figures that cannot be ignored. The European Union could see a £90 billion improvement in its trade balance and the creation of 160 000 jobs. At the same time, this would help cut greenhouse gas emissions by between 2 and 4%. Suffice it to say, if the materials used in production could be reused, remanufactured or recycled in the production process, it would go a long way towards lessening the EU's dependence on foreign imports.

The attitudes of the companies themselves in the global marketplace are key. Companies recognise the circular economy as an opportunity. “Going green” is beneficial not just for the environment, but for businesses as well, providing real savings in terms of raw materials, water and energy. Apart from its environmental and economic benefits, the circular economy also has social advantages, providing new jobs and new business models. This is an important step forward.

In order to achieve a successful transition, society has to act as a whole. Member States, regions, municipalities and business all have a role to play. Although the circular economy was originally designed for large companies, there was also increasing interest on the part of SMEs. Businesses are willing to play an active role in promoting the circular economy, by creating a platform to showcase existing best practices and share them across various sectors.



## The Slovak perspective: moving towards a circular economy

**The town of Košice in Slovakia is a shining example of the successful and efficient transition to a circular economy in the local industry. The steel industry, which is crucial for the region, has already made significant progress in waste reduction, increasing usage of recycled raw materials and using raw materials, energy and water more efficiently.**

The circular economy could also potentially yield substantial benefits to another branch of industry - the automotive sector. The use of water and energy can sometimes be reduced by as much as 70%, thereby cutting costs and enhancing competitiveness. Competitiveness in the global arena may be more dependent on Slovakia's ability to innovate. The circular economy is therefore imperative. Resources are no longer there for a one-time use; they must be used over and over again. The traditional linear production process must be transformed into a circular production process.

In order for the transition to a circular economy to go smoothly, three factors need to be taken into consideration: the legislative dimension, business and the general public. The interaction of these factors is such that the legislative dimension prepares a legislative framework, while business comes up with a product that the general public consumes.

The success of the circular economy is also based on three pillars. The first pillar is energy consumption and our ability to lessen it, i.e. energy efficiency. This applies not only to electricity, but to all energy sources. The second pillar involves lowering the cost of processing the product, such as for landfilling. The third pillar relates to employment, as we need to make sure that employment levels are maintained, if not increased.

The Slovak government has undertaken a number of initiatives to put the circular economy into practice. An analytical institute has been established to conduct the research necessary to implement the policy changes planned and Slovakia is now cooperating closely with the World Bank to decarbonise its industry.

However, there are still issues that need to be addressed. For instance, at European level, the steel industry uses 28% of blast furnace slag – a by-product of steel-making operations - in road construction, but Slovakia is scraping 1%. There is convincing evidence that it can be used for road construction but despite this, legislators are asking for all types of certificates and it is hard to cut through the red tape.

Moreover, the processing of gases during the steel-making process poses another challenge. The gases are used to generate electricity and to heat the plant itself, but legislators offer little incentive to use that energy if the same contributions and fees apply as for energy purchased from outside. There needs to be some sort of mechanism in the legislation that enables by-products to be reused, so that the framework is profitable for companies.



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There is also limited encouragement for innovation projects and processes. Innovation requires funds and government involvement to provide these financial incentives. This is not to say that they should necessarily be obtained through state aid, as incentives come in different forms. At European level, companies can obtain free CO<sub>2</sub> credits that they do not need to purchase and can use for their own operations. This has yet to be implemented in Slovak legislation. A smarter fiscal policy to help companies take the green and circular road is still needed. Additionally, more needs to be done in terms of flooding risks and construction policy to reduce the energy footprint of our buildings and houses. That too is part of the circular economy approach.

There are deadlines by which the circular economy needs to be implemented. In the Slovak example, the Act on Waste, effective from 1 January 2016, stipulates deadlines by which industries, municipalities, etc. must meet certain criteria. This is the information and overall picture that legislators need to convey to the public, and thereby stress that the circular economy is not new and must be implemented as soon as possible.



**This document provides a summary of the discussion entitled "Sustainable industry in the Context of the Circular Economy" which was held in Košice, Slovakia on 13 September 2016. The conference was organised jointly by the National Union of Employers of Slovakia and the European Economic and Social Committee.**



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## About the Employers' Group

The Employers' Group brings together entrepreneurs and representatives of entrepreneur associations working in industry, commerce, services and agriculture in the 28 Member States of the European Union. Our members are genuinely committed to putting their own experiences to good use to further the European venture.

The European Economic and Social Committee is the only European institution that brings together entrepreneurs and people fully involved in the economic and social life of their home country. We make the voice of business heard at European level.



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