

HOW CAN WE SPEED UP CIRCULAR ECONOMY?

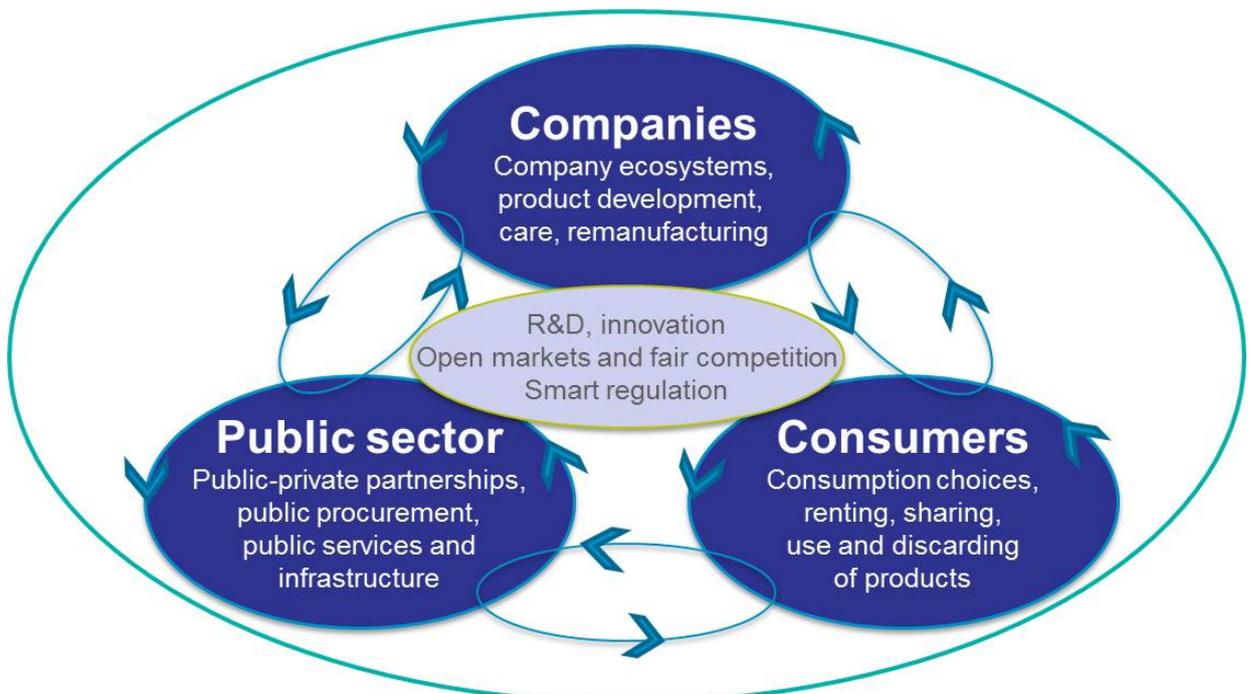
Views for EU policy making

Key messages

Circular economy offers significant opportunities for growth. In order to enable successful implementation of these opportunities, a holistic approach and understanding of the circular economy is required. Policy makers and all relevant stakeholders need to work together in order to identify the best solutions. Industry has an important role to play in both identifying and delivering solutions.

- Circular economy can be enhanced by developing and embracing new ways of behavior, building new business models and learning from existing resource efficient businesses. New platforms for business development as well as including circular economy messages at all levels of education are needed to promote this.
- Growth of the circular economy leans on markets, which means that both an open and functioning internal market as well as a level playing field that supports European competitiveness needs to be prioritized. In policy making, it should be ensured that secondary raw materials are not at a disadvantage because of regulatory requirements.
- It is also important that relevant policies and regulations support the opportunities for innovation, renewal and new forms of cooperation. Some of the existing regulations, for example waste hierarchy as well as certain product requirements need to be reassessed from this point of view.
- Any possible metrics need to describe the level and growth of circular economy in a relevant manner. Harmonizing the different methods for collecting statistics and making assessments within the EU is important, also aiming at international harmonization.

Circular economy: actors and systems



Circular economy is dependent on different market actors

The aim of circular economy is to separate the natural ecosystem from the "technosystem" created by human activity so that natural resources are used in the technosystem as efficiently and as productively as possible, while at the same time minimizing the environmental impact, for example waste and pollution.

Ensuring security of supply of raw materials, preventing negative environmental impacts as well as fostering new businesses are the drivers for circular economy. It is important to ensure that policies that aim at supporting circular economy benefit from the strategies and initiatives that already exist in this area. These include, for example, the raw material strategy, the bioeconomy strategy as well as innovation programs and funding opportunities. It is also imperative that circular economy initiatives are aligned with climate efforts.

It is not possible to have a centrally controlled technosystem, instead the decisions on circular economy – like economic decisions in general – are made in many smaller units, using the creativity of the different actors in the market.

Companies, consumers and public sector are all actors in a circular economy. There are interactions both within as well as between these different actors. The activity may be recovering or reusing waste materials, or remanufacturing products or sharing the use of products ("sharing economy"). Because of the large variety of different types of activity, there is no panacea to solve all issues related to circular economy.

Industry is typically able to find the solutions, as long as the business environment is favourable for innovations and investments. Consumer behavior and consumer choices also have an important role as they guide company activity by creating demand. Public sector can also create demand through public procurement, and it also takes care of necessary public services and infrastructure.

The interactions between the different actors can happen locally or nationally, but there are also many international activities across borders. Because raw material and product flows are global, circular economy should also be viewed from a global perspective instead of limiting it to single countries or regions.

Catalysts of circular economy

For companies circular economy means primarily resource efficiency, **developing and adopting new kinds of business models** as well as new possibilities for conducting business. When it comes to consumers, it is mostly about **behavioural changes** based on changes in their values. To strengthen and to enhance circular economy, **activities that can help speed up these changes need to be developed.**

The development of markets for circular economy can be facilitated either by promoting demand or supply. Demand can be created by **educating consumers to make new choices** that support circular economy, and by utilizing **public procurement**. These depend very much on attitudes.

Supply, on the other hand, can best be promoted by facilitating **research, development and innovation** as well as maintaining a **favourable investment environment**. It is also important to have an **infrastructure** that is well tuned to serving the needs of circular economy. When it comes to infrastructure, the different situations and conditions in different countries need to be taken into account.

Because circular economy grows as the markets expand, the **openness and fairness of the markets** play a key role. This applies both to internal as well as external markets.

The most sustainable way of promoting circular economy in business is voluntary activity. There are many reasons for this: resource efficiency **makes perfect business sense**; in addition to environmental benefits, cost efficiency and improved productivity can be achieved simultaneously. **Market expectations** also have a fundamental role through the demands and expectations voiced by customers, investors and financiers.

Product development has an important role to play in order to be able to make the recovery of products and materials that are no longer used as efficient as possible. The primary target is naturally that the products meet the needs of the users. **User centric product development** can also lead to **new kinds of concepts for circular economy**.

Resource efficiency of products needs to be promoted, for example, by financing piloting, technical guidance and sharing best practices. Product innovations must not be limited by excessive or very specific regulation. For example, possibilities related to durability and recovery vary from product to product and the impacts of any new requirements need to be assessed from different perspectives.

New kinds of cooperation between companies or developing **new “ecosystems”** can facilitate efficient use of resources and prolong the use of products and raw materials. **Cooperation between large corporations and small companies** may offer promising examples of this.

Bioeconomy is an example of a system, where there are several cycles that focus on sustainable use of renewable resources. Bioeconomy is based on the natural cycle, which is complemented by technical cycles of products and waste materials. Also non-renewable (mineral) natural resources will remain in the cycle longer, as improved techno-economic possibilities are developed.

Creating interaction between different actors is very relevant in successful implementation of circular economy practices. Because there are a large number of possible interactions, they cannot be controlled by regulation or political guidance, but rather by facilitating the development of new ways to cooperate. New types of businesses are needed to deliver better possibilities for different actors to meet and start innovating. Digital services are one way of sharing information and bringing different actors together.

Digitalization can facilitate circular economy also in many other ways. Automation, robotics and internet of things can increase the efficiency of resource use both in production as well as logistics, for example by real time surveillance of material and waste flows. Because of e-commerce, also the cycles of consumer products are changing.

New products and solutions may require fundamental changes to existing policy framework: on the one hand to **help remove barriers and promote new models** and on the other hand to help **combat “grey circular economy”**. This means that a future oriented approach to finding solutions to speed up circular economy needs to be adopted, instead of trying to fine-tune existing policies.

Proposals for actions to promote circular economy

1 Education and building platforms for development and innovation

- New platforms should be developed to facilitate creation of new business models and new interactions between different actors (between companies, between companies and consumers, companies and public sector, consumers and public sector, and between consumers). Focus should be especially on the opportunities offered by digitalization and cleantech.
- In order to scale up, information and existing best practices should be shared between different countries and different sectors.
- In order to increase awareness and build relevant competences, the concept of circular economy should be included at all levels of education, from primary school to university. Also EU wide consumer campaigns would be needed to encourage consumers to take action and make choices that support circular economy.

2 Opening and expanding markets

- In order for materials to be used as efficiently as possible and to ensure security of supply of raw materials, a functioning internal market for secondary raw materials and recoverable waste is needed. It should be ensured that secondary raw materials are not at a disadvantage because of regulatory requirements.
- Waste management offered by the public sector should be opened up for competition, as this would offer new possibilities for business and would help make services more efficient.
- Possibilities to export European products and solutions that promote circular economy should be improved through international cooperation and trade agreements.

3 Product and waste policies that facilitate circular economy

- Traditional waste hierarchy is based on linear thinking, and it has not evolved to encompass new ways to utilize waste materials. "Out of the box" -thinking is therefore needed to develop waste policies that take into account different types of material flows as well as technological development, and encourage innovations that support circular economy.
- Because of the risk of sub-optimization, targets should not be set for different ways of recovering or treating waste. Instead, the objective should be that there is as little residual waste as possible in all cycles. The long term objective should be that reuse and recovery of waste would make landfills redundant. At the same time, more development is needed to facilitate recovery of the material content in existing landfills.
- In order to be able to identify the regulatory framework and barriers to circular economy, assessments of product, chemical and waste legislation, their complementarity, possible interlinks and overlaps are needed. It should also be ensured that product requirements do not limit or slow down product renewal or bringing new innovations to market.
- To prepare the way for fair competition and a level playing field, it is important to evaluate how the new models match with the existing policy framework. For example, the impacts of e-commerce on producer responsibility models, the impact of temporary renting of apartments on taxation or the conflicts between openness of data and privacy are examples of questions that need to be looked into.

4 Monitoring circular economy

- Metrics that monitor the development of circular economy both in a quantitative as well as qualitative manner are needed. Because in circular economy there are many different levels and actors, metrics are needed for many different aspects, including for measuring consumer behaviour.
- In order to improve the reliability of monitoring, the different methods for collecting statistics and making assessments within the EU should be harmonized, also aiming at international harmonization. This is relevant for compiling statistics, for example, for natural resources, materials and waste.
- Different actors can also set themselves targets, which is a natural way of working especially when it comes to business operations. It is not, however, meaningful to set macro level quantitative targets, because their implementation does not happen on macro level either.

Further information

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