



Incentivizing new circular economy business models

CIRC4Life Webinar - event summary

Brussels, 14 October 2020, 11:00-12:30 (CET)

Venue: Zoom conference

About 145 people attended the webinar, which took place through the Zoom platform and also included interaction with the audience through Slido. The presentations are shared on the event page [here](#).

Welcome by Vasileios Rizos, Research Fellow & Head of Sustainable Resources and Circular Economy, CEPS

Welcome remarks were given by **Vasileios Rizos** who gave an introduction of the speakers and an overview of the focus of the event.

Presentation by Professor Daizhong Su, Coordinator of CIRC4Life, Nottingham Trent University

Professor **Daizhong Su**, as the Coordinator of CIRC4Life, gave an introduction to the CIRC4Life project including an overview of its objectives, which is to develop and implement a circular economy approach for sustainable products and services through their supply chains. He presented the three circular economy business models (CEBMs) which are being developed as a part of the project, namely the 1) co-creation of products and services model, 2) a sustainable consumption model, and 3) a collaborative recycling/reuse model. The three CEBMs cover the whole product life cycle in a circular manner, and are supported by an eco-cost/eco-credit theme, ICT platform, traceability technique and living labs. The approach is demonstrated in four industrial sectors, including meat supply chain, vegetable farming, recycle and reuse of computer



tablets, and industrial/domestic lighting. He then further introduced the eco-cost/eco-credit theme which aims to assess different products' environmental footprints, reward consumers' recycling activities, encourage eco-shopping, and the information will be made available to consumers to incentivize more sustainable choices.

Keynote presentation by Paola Migliorini, Deputy Head of Unit, DG Environment, European Commission

The keynote presentation was delivered by **Paola Migliorini** from the DG Environment of the European Commission. She reminded the audience of the challenges that the Circular Economy Action Plan is tackling; growing amounts of waste, loss of biodiversity, low levels of industrial recycling and the environmental impact of resource extraction. An overview of the Circular Economy Action Plan was then presented with the 35 different actions addressing the entire life cycle of products in seven key value chains. She then highlighted one of the flagship initiatives of the Action Plan which seeks to make sustainable products the norm in the EU.

She introduced this new initiative, which will be proposed by the Commission: *Sustainable Products Initiative – “Green Products”* which will widen the scope of the current Ecodesign Directive to cover a broader range of products. She reminded the audience that around 80% of the impact of a product is determined in the design phase and it is therefore crucial to act on the way products are designed through product requirements on durability, reusability, upgradeability and repairability. The proposed requirements will also aim to increase recycled content, facilitate remanufacturing, restrict certain single-use plastics, counter premature obsolescence, ban destruction of unsold durable goods and incentivize product-as-a-service models. She also commended the work done within CIRC4Life in developing circular business models.

A key novelty of the recent Circular Economy Action Plan is the development of digital product passports and she pointed to the issues raised by Professor Daizhong Su concerning traceability and the need for what information to be available when and by who, taking into consideration proprietary information and privacy issues. She described this as a daunting challenge to be addressed in the upcoming years. She also raised the aspect of the Circular Economy Action Plan aimed at rewarding sustainable actions by linking incentives to sustainability performance levels and pointed to the work done on this within the CIRC4Life project. She also highlighted the need for minimum sustainability requirements on public procurement, the revision of the consumer law on information available for products, and legislation on green claims using the PEF methods, and the establishment of the “Right to repair”.

Key issues raised during the discussion

Question: What can be done to incentive the product-as-a-service model among consumers?

Answer: The Commission is working on increasing communication efforts to influence the perceptions and habits of consumers to be more sustainable, in a similar manner as businesses when they launch a new product. Consumer incentives are key aspects to get consumers to

change their habits, and overall it requires more efforts on communication. In addition, working on the digital product passports from a consumer perspective and deciding what information should be available for consumers at the point of sale will require cooperation with retailers.

Question: Have the social aspects of the circular economy been taken into account in the Circular Economy Action Plan?

Answer: Paola responded that such aspects will be taken into account in the initiatives under the Circular Economy Action Plan where relevant. For example, in regards to the global value chains of the textile sector, where the Commission cooperate with EU agencies on development, as well as businesses, to sensitize areas of textile production to social standards. Similar considerations will be taken within all key sectors to address industry specific issues whenever relevant. In addition, horizontal work on skills development through developing guides and providing trainings is being developed, for example in the field of procurement.

Question: Does traceability mean that consumers will know exactly from which supplier all embedded parts come from? And is this realistic in terms of confidentiality issues?

Answer: One of the key questions of the product passport is to determine what information is necessary for consumers to have access to and then to decide on a common system for traceability aspects. A similar mechanism to have only one method to assess environmental impacts and then to make the information available to consumers is being developed with the initiative on green claims where amongst several LCA methods available the PEF-method has been finally chosen as the basis to substantiate any green claim made on a product.

Question: How will the interaction between the circular and the digital technology agendas take place in practice and are there already criteria in place for selecting products to be covered by the digital product passports?

Answer: The digital product passport is a work in progress and criteria are still to be developed. It is feasible from a technological point of view, but it is a question of determining what information is needed by whom and at which point in the value chain. There is a need to better understand what is feasible in terms of traceability.

Presentation by Francesca Poggiali, Public Policy Europe Coordinator, GS1

Francesca Poggiali held a presentation on the role of digital twins related to the discussion on sustainable products and how this can be done at scale. She explained that this will require usage of common standards regarding what information should accompany which product, and how this data should be structured, stored and governed and finally how it should be made available for the various actors. She introduced the concept of Circular Data as a first step in the transition from a linear to a circular economy and underlined the need for the development of scalable data architecture based on a common data language to will ensure interoperability. She hopes that the Commission is taking into consideration the already existing open standards on the market developed by industries on product identification and data sharing.

Talking about the role of open standards, she raised the possibility of unintended consequences that can occur if interoperability is not taken into consideration in the development of product passports. This can be prevented through the use of open and global standards that are widely available. She also raised the issue of the data architecture needed to implement digital product passports and linked this to the efforts within CIRC4Life on making product data available to consumers. She added that in addition to consumers, also operators need to have access to information about the product at various stages of the supply chain to be able to properly handle products at their end-of-life stage. The idea is that different entities have the right to have access, share and receive the intended information, but that the basic information about the product is available as open standards and in that way be interoperable among the different sectors and their data spaces, as well as between countries and globally. She then presented work done in collaboration with W3C on developing the ontology needed for the circular data transition.

Presentation by Ming Ma, Principle Design Engineer, Kosnic

Ming Ma introduced the two circular activities they are implementing as part of CIRC4Life, the leasing service model applied for their industrial lightning and the modular design solution for industrial lighting. He described the objective of modular design which is to reduce waste by allowing each module to be replaced when defect, which also extends the lifetime of the product. He then provided a detailed explanation of the leasing model concept and the structure of the multi-parties leasing contract covering the different stakeholders included (end-user, wholesalers, contractor, manufacturer and maintenance). He also provided the audience with an illustration of the pricing model of the leasing service which covers the repairs parts, cost of goods, profit on goods, installation cost and maintenance fee and the option of a payback plan. He then gave input on what is needed in terms of policy support to promote such a leasing service from a manufacturer point of view. The two suggested policies were 1) tax incentives for R&D to expand on modular design and 2) fiscal interest-subsidised loan for lessors or for the end-users.

Presentation by William Clark, Bioeconomy Policy Analyst Zero Waste Scotland

William Clark held a presentation on circular food systems and the role of protein. He argued that it is necessary to change the way we produce and consume protein to be able to tackle issues related to climate change. He gave an overview of national protein strategies aimed at ensuring the viability of domestic agricultural industries and presented their common features: stakeholder engagement and collaboration; reducing environmental impacts; increasing domestic protein production; integrating circular economy principles; acceleration of innovation and sustainable product development; de-risking and mobilisation of public and private finance and legislate and policy reform to support circular economy.

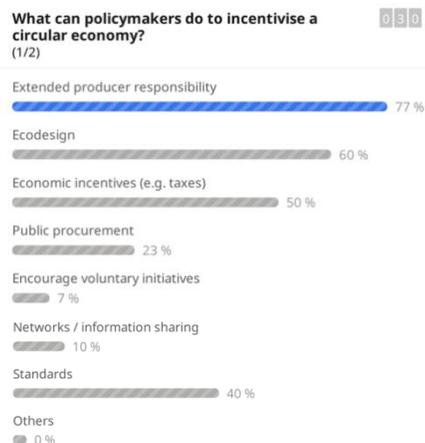
He raised the example of insect farming, which has been gaining increasing attention as a circular enabler for food production, and gave a detailed overview of its value chain and the benefits of using insects as a source of protein. He also showed that circular food systems does not only mean new food, but also new solutions and gave examples of products developed from

regenerating fungus and algae. Circular food systems are not just about capturing nutrients, but also to be inspired by nature to create new solutions.

Interaction through Slido

The participants were asked the following question:
What can policymakers do to incentivize a circular economy?

Extended producer responsibility was the most popular option among the 30 participants who submitted their answers, while Ecodesign and economic incentives such as taxes came as popular second and third choices for what policymakers can do to incentivize a circular economy.



Q&A section moderated by Vasileios Rizos

Question: What are the key elements that should be prioritized by the Commission in the process of developing digital material passports?

Answer by Francesca Poggiali: All products and sectors are different, and GS1 propose a light digital product passports including basic information like brand, size and picture. The circular economy is an opportunity for companies to develop their digital twins and GS1 believes that if the structure is kept light, industries across sectors will be able to respond faster in developing product passports as open standards are already available. As pointed out by the Commission, the PEF is available for certain industries who have already invested in this. When the sector is ready, the discussion is mature and the industry is putting this data in the right format and making it available, we can boost the circular economy. Open standards and the architecture of data put to the disposal of all, including consumers, will also contribute to the development of the data economy.

Question: As many countries launch their national strategies on circular economy and bioeconomy, how do we ensure coherence between different policies?

Answer by William Clark: Governments have recognized the existing conflicts between different strategies, but it can be difficult to communicate this to the public, and this is where protein can be an element incorporating all aspects into one strategy. With insects as an example, there is a need to take an evidence-led approach and aligning this with current policies to unlock opportunities within this. Protein strategies have the potential to incorporate different elements of

the bioeconomy, the circular economy and agricultural aspects and minimize conflict between different these by incorporating them all under a common protein strategy.

Question: How is your circular economy business model perceived by partners? And is there a way for policymakers to encourage business to develop such models?

Answer by Ming Ma: Partners have shown interest in the leasing model and have also put them in contact with new customers. It seems to be of particular interest for public institutions as the leasing service model allows the institutional costs to be spread over a specific period of time which can make financial planning easier and removed the need for the large initial sum. He confirmed that the concept is promising and partners are indeed interested. He also complimented what Francesca Poggiali said in regards to digital product passport, and he explained how Kosnic is currently working on developing a sensor system for their industrial lighting which will enable predictive maintenance of the products and they will be able to trace all points of service for the lighting.

