EUROPE GOES CIRCULAR

OUTLINING THE IMPLEMENTATION OF A CIRCULAR ECONOMY IN THE EUROPEAN AREA

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This international overview has been conducted at the request of the EEAC Network working group on circular economy and was written by the secretariat of the Dutch Council for the Environment and Infrastructure (Rli).

EEAC

Rli Council for the Environment and Infrastructure

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FOREWORD

This international overview was conducted at the request of the EEAC Network working group on circular economy and was drawn up by the secretariat of the Dutch Council for the Environment and Infrastructure (Rli).

The document provides an overview of the strategies and policy initiatives for implementing a circular economy in various EU member countries; the role played by environmental and sustainable development advisory councils in the implementation process; and the reflections of these advisory councils on the progress made in implementing a circular economy at the national and regional level.

With this document, the Rli and the EEAC Network working group on circular economy aim to contribute to the process of knowledge exchange by unique reflections of the EEAC Network member councils on the implementation process.

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Secretary-General of the Council for the Environment and Infrastructure (Rli)

1 KNOWLEDGE SHARING

The past 150 years of industrial evolution have been dominated by a one-way or linear model based on the principle of 'take-make-waste'. This model has caused a great dependency on scarce resources, environmental pressure, and huge amounts of waste. It is therefore necessary to develop a new economic model known as the 'circular economy', based on the principle of not unnecessarily destroying recourses (see Box 1). The transition to a circular economy will also create opportunities: less dependence on imported raw materials, new economic revenue models, and a lower environmental burden. Due to its complexity and novelty, no blueprint is currently available for the implementation of a circular economy. Consequently, sharing knowledge between the various stakeholders is of the utmost importance. With this document, the EEAC Network working group on circular economy is aiming to contribute to the process of knowledge exchange, not only by providing concise updates on the implementation of a circular economy (including examples at the European, national and regional level), but also by sharing information on the role and the opinions of the member councils of the EEAC Network regarding the implementation of a circular economy in their respective country or region.

This document includes an analysis of and opinions on policy initiatives relating to the circular economy in ten European countries and regions. These ten countries and regions all have an advisory council that is a member of the European Environment and Sustainable Development Advisory Councils Network (EEAC Network). This document is not intended to present an exhaustive study, but should instead be regarded as a concise overview of the status quo regarding the circular economy in different European countries and regions.

The aim of the document is to serve as a useful source of information, and to provide an overview of opinions on the implementation of a circular economy from the perspective of environment and sustainable development advisory councils.

Box 1. Circular economy

In discussions on the circular economy, the starting point of not unnecessarily destroying resources is sometimes interpreted as the reduction of waste through recycling, but the principles of a circular economy encompass much more than that. Other focal points include, for example, reducing the consumption of raw materials, designing products in such a manner that they can be easily disassembled and reused (eco-design), prolonging the lifespan of products through maintenance and repair, the use of recyclates in products, and recovering raw materials from waste flows. This broad perspective on a circular economy is emphasised in the reports of the Ellen MacArthur

Foundation.[1] A circular economy is defined as “an economic and industrial system that takes the reusability of products and raw materials and the resilience of natural resources as a starting point, minimises the destruction of value throughout the entire system and strives for the creation of value in each link of the system.”[2]

1 https://www.ellenmacarthurfoundation.org/assets/downloads/publications/Ellen-MacArthur-Foundation-Towards-the-Circular-Economy-vol.1.pdf
2 http://en.rli.nl/sites/default/files/advice_rli_circular_economy_interactive_def.pdf

2 A CIRCULAR EUROPE: DEVELOPMENT OF EU POLICY

The European Union (EU) has a tradition when it comes to waste legislation. From the 1990s onwards, Europe has had policies in place on waste and landfill. Although waste management in the EU has improved in the past decades, over a quarter of municipal waste is still land-filled and approximately less than half is recycled or composted. However, considerable variations exist between member states.[3] In order to modernise and transform the European economy and shift its development in a more sustainable direction[4], the European Commission withdrew the legislative proposal on waste in 2014 in order to be able to present an overarching package.

The European Commission came forward with such an overarching approach in 2015 in the form of the Circular Economy Package.[5] This package includes legislative proposals aimed at reducing land-filling, promoting waste recycling, and introducing a broad range of measures to close the loop of product lifecycles throughout the value chain. This includes production, consumption, repair and remanufacturing, as well as waste management and secondary raw materials that are reintroduced into the economy.

Since the introduction of the Circular Economy Package, the European Commission has launched a range of related policy initiatives. The specific legislative proposals regarding waste, land-filling and recycling are important elements of these initiatives. After the introduction of these specific legislative proposals, the Commission gave the floor to the European Parliament and the European Council of Ministers. Whereas the Council did not yet take a position on these legislative initiatives, the Parliament did. In March 2017, a considerable majority of the Parliament's plenary session voted in favour of more ambitious targets in the area of recycling, reducing food waste, and decreasing landfill activities in the EU. It remains to be seen whether the Council of Ministers has the same level of ambition as the Parliament.

Although the Council of Ministers has not yet voted on the legislative proposals of the Commission, the Council did provide an initial indication of its position by generally welcoming the Circular Economy Package as an improvement on the previous version of the legislative proposal.[6] The Council attributed specific importance to topics such as integrated policy

3 http://www.europarl.europa.eu/RegData/etudes/BRIE/2017/599288/EPRS_BRI(2017)599288_EN.pdf
4 http://ec.europa.eu/environment/circular-economy/implementation_report.pdf
5 https://ec.europa.eu/growth/industry/sustainability/circular-economy_en

6 http://www.europarl.europa.eu/EPRS/EPRS-Briefing-573936-Circular-economy-package-FINAL.pdf

approaches, product policies and resource efficiency, as well as circular innovation and proper monitoring and cooperation.

Besides the proposed policy and legislative initiatives of the previous year, the Commission has also laid down its ambitions for 2017 with regard to the implementation of the Circular Economy Package. During a major stakeholder conference in early 2017, the Commission announced that plastics will be high on the agenda. Furthermore, the Commission will focus on the existing problems at the interface between chemicals, product and waste legislation, as well as the establishment of a stakeholder forum on the circular economy. For more background information, please refer to Appendix A.

3 THE CIRCULAR ECONOMY AS AN UPCOMING POLICY ISSUE AT THE NATIONAL AND REGIONAL LEVEL

Whereas the European level has an important role to play in implementing a circular economy, initiatives at the national and regional level also have a significant impact on the development of a circular economy. Consequently, this chapter will focus on the national and regional level, considering questions such as: What kind of policy initiatives have been presented by the various countries and regions? Are these policy initiatives focused on elements in the circular chain, or on a value chain approach? What is the political importance of implementing a circular economy and which timetable and cooperation mechanisms have been chosen? This chapter addresses the situation in eight European countries and two regions: Belgium, Catalonia (Spain), Flanders (Belgium), France, Germany, Hungary, Ireland, Luxembourg, the Netherlands and Portugal. Background information to this chapter may be found in Appendix B.

3.1 State of play in different countries and regions

After the introduction of the Circular Economy Package by the European Commission in 2015, the concept of a circular economy gained further traction. Nevertheless, implementing a circular economy poses a challenge for any country. Such a transition requires adaption to the specific situation of each country and region, utilising its inherent qualities and strengths.

Countries and regions have implemented different types of policies to support the transition to a circular economy. Some have come forward with policy initiatives that encompass a long-term and overarching strategy solely dedicated to developing a circular economy. The Netherlands, for example, has opted for such an approach. The Dutch government has committed to implementing a circular economy in a holistic and long-term strategic way.

Other countries aim to implement a circular economy as part of a general long-term strategy for the economy, sustainable development or energy, for example. Consequently, developing a circular economy is not the sole aim in these cases. France and the regions of Catalonia and Flanders have such a general long-term strategic approach. The federal governments of both Belgium and Germany have opted for other, more short-term types of

initiatives by launching policies which are solely dedicated to supporting the implementation of a circular economy in 2019/2020.

While the six countries and regions mentioned above have dedicated strategies aimed at developing a circular economy, other countries have policies in place that support specific elements of a circular economy but which do not deliver an overarching and integrated strategy to a circular economy as such. This is the case in Ireland and Hungary, for example.

The countries and regions considered here often have different approaches to the use of timetables as part of the implementation of a circular economy. Some countries and regions have dedicated timetables for certain elements of their policy initiatives (e.g. Belgium, France and Germany), while other countries, such as the Netherlands, have also set a binding timetable for their entire overarching strategy. Also, the scope of the timetables differs. Whereas Flanders, France and the Netherlands have defined their horizon at 2030 to 2050, Catalonia has a more short-term perspective, i.e. the 2020-2025 period. Belgium has also defined a short-term scope, with 2019 as the horizon for its policy initiatives related to the circular economy. The scope of the German programme is also short-term, since it is revised every four years (2012, 2016, etc.).

Luxembourg and Portugal have not yet published a national strategy for the transition to a circular economy. However, both countries are expected to come forward with a strategy in the course of 2017.

3.2 From elements in the circular chain to complete value chains for specific products

Besides having different types of policies and varying time horizons, countries and regions also have different focuses with regard to developing a circular economy. The emphasis ranges from policy activities which address specific elements in the circular chain to measures focusing on value chains as a whole.

The Netherlands, for example, has chosen to focus on implementing a circular economy throughout the entire value chain, instead of only considering elements in the circular chain. The country has designated five economic sectors in which at least 50% reduction of primary raw materials (minerals, fossil and metals) use should be accomplished by 2030, and which should become completely circular by 2050. This ambition applies to the value chain as a whole, and may be seen as a next step following a Dutch policy initiative in 2014 that focused on elements of the circular chain, including eco-design, consumption, waste separation and collection, waste policy, specific chains, finance and business models, knowledge and education and measurement methods.[7] This value chain-focused approach, combined with a long-term vision solely dedicated to developing a circular economy, makes the Dutch approach unique compared to the other countries and regions considered in this document.

7 https://www.government.nl/documents/parliamentary documents/2014/01/28/waste-to-resource-elaboration-of-eight-operational-objectives

The other countries and regions that have a strategy in place (like Belgium, France, Germany, Catalonia and Flanders) focus on a variety of elements in the circular chain. There are quite a few similarities in the ways in which countries support these focus areas, for instance by providing eco-design strategies, introducing green public procurement, combating (food) waste, setting reduction and collection targets, introducing targets for resource efficiency (predominantly in the construction, water and energy sector) and combating planned obsolescence.

Although Hungary and Ireland have no overarching strategy, the policy focus of these countries does not differ much from that of France and Belgium, for example. Hungary and Ireland focus predominantly on waste, recycling and resource efficiency. In both Hungary and Ireland, there has been a broadening of scope and an increase in the variety of initiatives and focus areas in several of these countries' policies regarding waste and recycling.

3.3 Circular economy is on the policy agenda, timetables have been set

Besides different types of policies and different focus areas, the level of importance assigned to the circular economy at the political level also varies. Although there is no general information available on this matter, subjective assessments can be made. In general, the member councils of the EEAC Network ranked the political importance of implementing a circular economy in their countries as 'medium'. This applies to countries like Belgium, France, Germany and the Netherlands. However, the EEAC member councils in countries like Hungary and Ireland observed that the policy momentum for implementing a circular economy was relatively low, as no actual coherent policy initiatives to support the implementation of a circular economy have been launched to date. At the same time, councils active at the regional level (Flanders and Catalonia) rated the importance assigned by politicians to the circular economy as 'high'. These differences may be partially due to the different competences of the various governmental levels with regard to the implementation of a circular economy. "It is especially at the regional and local levels that a circular economy will take place. This is where initiatives by groups of citizens take hold and companies unfold their circular plans. It is therefore an important scale level. It is the scale level at which regional and local authorities can deploy a mix of measures to facilitate and encourage the development of a circular economy."[8]

Regardless of the differences between the various countries and regions in terms of focus and types of policies, it seems that implementing a circular economy often requires inter-ministerial cooperation. Except for France, Hungary and Ireland, all other countries and regions covered in this document have indicated that at least two ministries are involved in the transition to a circular economy. These include in most cases the ministries of the environment / sustainable development, finance, economics, agriculture and the interior. This inter-ministerial approach seems to

8 http://en.rli.nl/sites/default/files/advice_rli_circular_economy_interactive_def.pdf

demonstrate that most of the countries and regions described have a clear understanding about the overarching and interdisciplinary character of this policy domain. Moreover, it also demonstrates that the topic is, in most cases, dealt with in an increasingly dedicated way.[9]

9 http://www.terraqui.com/blog/wp-content/uploads/2017/04/RR2017-08_CircularEconomy1-3.pdf

4 ROLE OF STRATEGIC COUNCILS

Many of the advisory councils on the environment and sustainable development that are members of the EEAC Network have contributed to the transition to a circular economy by publishing advisory reports, issuing opinions, or engaging in multi-stakeholder dialogues. This chapter introduces the different types of councils and their contributions to implementing a circular economy. Background information for this chapter may be found in Appendix C.

4.1 Types of councils advising on circular economy

The key task of the advisory councils that are members of the EEAC Network is to provide well-informed advice to their governments on topics such as the circular economy. Most councils have been established in accordance with either national or sub-national legislation, although there are differences between the various countries and regions in this respect. For example, the Belgian council has been established by law to coordinate sustainable development, whereas the Dutch council has been established in accordance with the national legislation that provides for formal advice to the government. The German councils have been created by cabinet decision.

The councils' members have many different backgrounds. Some members have been appointed as representatives of certain organisations. This is the case for the French, Hungarian and Portuguese councils as well as the Belgian councils (federal and Flemish). Some council members have been appointed because of their personal position and expertise (e.g. because they are prominent political/business leaders or excellent scientist). They are expected to operate independently. This is the case in the Netherlands, Luxembourg and with respect to the German Council for Sustainable Development. A third group of council members are appointed solely because of their scientific expertise, and are also expected to operate independently. This is the case for the German Advisory Council on the Environment, for example.

Differences can also be identified with respect to the degree of independence. Generally, there are two kinds of councils when we look at the degree of independence in the relationship with the responsible government. Independent councils such as those of Belgium (federal and Flemish), Catalonia, Germany, Luxembourg, the Netherlands and Portugal do not have government representatives as members. However, the councils of France, Hungary and Ireland, for example, are chaired by representatives of the government. The Minister for the Environment is a member of the French council, while the Hungarian Council for Sustainable Development is chaired by the president of the national assembly and its counterpart (the Hungarian Environmental Council) is co-chaired by the minister for the environment. In Ireland, the council is chaired by a representative of the prime minister's office.

4.2 Councils and their contributions to the transition to a circular economy

Most councils have issued an advisory report on the transition to a circular economy (Catalonia, Flanders, Germany, the Netherlands, Portugal). The Belgian council published a study and an opinion. The Irish council has undertaken case study research on the circular economy, identifying current commercial and social enterprise practices. The councils of Hungary and Luxembourg have not yet submitted a formal advice to their government on the circular economy. For an overview of recent publications of the advisory councils, please refer to Appendix C.2.1.

The advisory work on the circular economy is presented in, roughly, two ways: advice that is based on a strategic systemic approach and advice that focuses on specific elements of a circular economy. Most councils have issued both types of advice over the past years. For example, the councils of Belgium (both federal and Flemish), Catalonia, Germany and the Netherlands issued reports focusing on the strategic and systemic level. However, these councils have also submitted advice on more specific operational elements of a circular economy. However, it should be noted that the line between strategic and operational issues is sometimes diffuse and making a clear distinction is therefore a bit of a theoretical exercise.

Although most councils have provided advice and applied both the systematic and the more practical approach, there are distinctive differences in areas such as the inclusion of external stakeholders in the advisory process. Whereas several councils include stakeholders in their approach (such as the Dutch council, the German Council for Sustainable Development and the Catalonian council), other councils (such as the German Advisory Council on the Environment and the Belgian federal-level and Flemish councils) have not done so. The reason for including external stakeholders in the advisory process is mostly determined by the role and composition of councils. Expert councils and councils that include stakeholder representatives (such as the Belgian and French councils and the German Advisory Council on the Environment) often do not include external stakeholders in the advisory process. Other councils such as the German Council for Sustainable Development and the Catalan, Dutch and Portuguese councils have included stakeholders in the advisory process.

4.3 Governmental response to the work of the councils

Most councils that have submitted an advice have indicated that they received a positive response from their government. The Belgian federal government, for example, included specific elements such as product service systems[10] in its circular economy policy initiative. The Dutch government formulated a government-wide programme and followed the systematic approach (defining goals and designating promising resource / product chains for a circular approach[11]) as recommended by the Dutch council. In addition, the advice to use the Dutch EU presidency in 2016 to elaborate the European circular economy agenda was taken into consideration.

10 The offering of products in combination with services, in contrast to the focus on products only.
11 Because of their importance to the Dutch economy and their major impact on the environment.

The German councils indicated that they have received a less direct response. However, the advisory report of the German Advisory Council on the Environment on the phasing-out of sewage sludge utilisation in agriculture and the recovery of phosphorus from sewage sludge, for example, was directly implemented in the form of concrete measures. Even though government responses are not required by law in Germany, the work of the councils was referred to by both state and non-state actors.

At the sub-national level, the Flemish and Catalonian councils indicated that they have good working relationships with their governments in the area of the circular economy. In Catalonia, the government responded positively to the advisory work of the council. As a consequence, the council was included in the inter-ministerial governance structures on the circular economy (the inter-ministerial commission for eco-design). Although the Portuguese Action Plan is currently being prepared, some of the points raised by the Portuguese council are being taken into consideration in the process of drafting the Action Plan.

The councils of Hungary, Ireland and Luxembourg have not yet submitted advice on the national transition to a circular economy to their governments.

5 COUNCILS IDENTIFY BIGGEST CHALLENGES IN TRANSITION TO A CIRCULAR ECONOMY

For some of the countries and regions, the implementation of a circular economy is a relatively new subject, whereas others have been involved in the endeavour for a much longer period. However, major challenges remain for both groups. This chapter provides a summary of the challenges identified by the member councils of the EEAC Network, highlighting relevant differences and similarities. For more background information, please refer to Appendix D.

Challenges with regard to the implementation of a circular economy differ between countries and regions, depending on the stage of the transition to a circular economy, the governance structure, and the (political) focus of the country or region concerned.

In Hungary, the implementation of a circular economy as such is considered a challenge. The country is in the process of recognising that this transition will entail a radical change from the current linear economic model, defining what a circular economy is, and discussing binding targets. While Ireland is at the early stages of considering the circular economy, it has a well-established National Waste Prevention Programme. Countries like Belgium and Germany have a richer policy tradition regarding the transition to a circular economy. However, these countries face challenges in their attempts to bring coherence to measures taken by the different regions and at the federal level. Others, such as the French ministry and the Dutch council, identify 'maintaining momentum' and changing the current linear system as important challenges. Strategies have been drawn up and targets have been set, yet this positive momentum needs to be preserved to really achieve a transition from the current linear system to a circular one.

For its part, Portugal identified the relationship between the existing rules of international trade and the new trade agreements currently being negotiated or undergoing ratification as a major challenge to the development of a circular economy. The Catalonian council underlined the difficulties involved in gaining access to best practices and financial resources.

Although there seems to be a wide range of challenges, there are several topics of general concern throughout Europe. In Belgium, Catalonia,

Germany, Portugal and the Netherlands, consumer behaviour has been identified as a major challenge. There is a serious need to raise awareness and to promote behavioural change in consumption patterns, ranging from prevention and the use of leasing/services to re-use and waste separation.

Many countries and regions also identified stopping the facilitation and promotion of the current linear economy as a major overarching challenge, due to vested interests and deeply rooted systemic causes. Among others, the Catalonian, German and Dutch councils mentioned the implementation of a holistic circular economy concept as the biggest challenge. Specialists understand that implementing a circular economy requires more than mitigating the effects of the current economic model. A genuine transition and a comprehensive approach are needed to change the relevant economic processes. This transition includes, for example, tax, finance, new business models, markets for goods and services, regulatory frameworks, institutions, technology and knowledge. Countries need to manage resources in a different manner, to find new ways of collaborating throughout the lifecycles of materials and products, to facilitate closed loops, as well as to innovate value chains. According to Loorbach[12], such a transition implies fundamental changes in culture, structure and practices in many different subsystems of society.

The transition to a circular economy is in its early phases, which are characterised by emerging alternative visions and growing experimentation.

12 Presentation given at the kick-off event for the circular transition agendas in the Netherlands (18 April 2017).

At the same time, the existing systems (waste management, industrial production, fast-paced consumption, industrial food production, fossil energy use) are still predominantly linear and face disruptive and fundamental changes if they become circular.

The transition perspective suggests that existing structures, cultures and practices will prefer to develop along an established pathway (making existing systems 'less bad'), and will therefore not necessarily adopt, or even actively oppose, more radical alternatives. If we seek to guide and accelerate the transition to a circular economy, this implies questioning patterns of optimisation and lock-in, as well as focusing on experiments that could help change the system instead of maintaining and optimising the current system. Optimising the current situation leads to chaos and degradation and phasing-out of the circular economy, as illustrated in Figure 1.

The work of Loorbach on the 'transition governance mix' is useful in analysing and categorising the different challenges that countries face in the transition to a circular economy. A well-thought-out governance strategy is required to facilitate and guide the desired transition to a circular economy. The necessary 'governance mix' combines strategic experimentation with developing or changing institutional, economic and physical structures in established linear systems. Linear routines, rules and behaviours should be transformed to circular models, Loorbach argues. At the kick-off event for the Dutch circular transition agendas, Loorbach

Figure 1: Model of transition dynamics as developed by D. Loorbach (2014)[13]

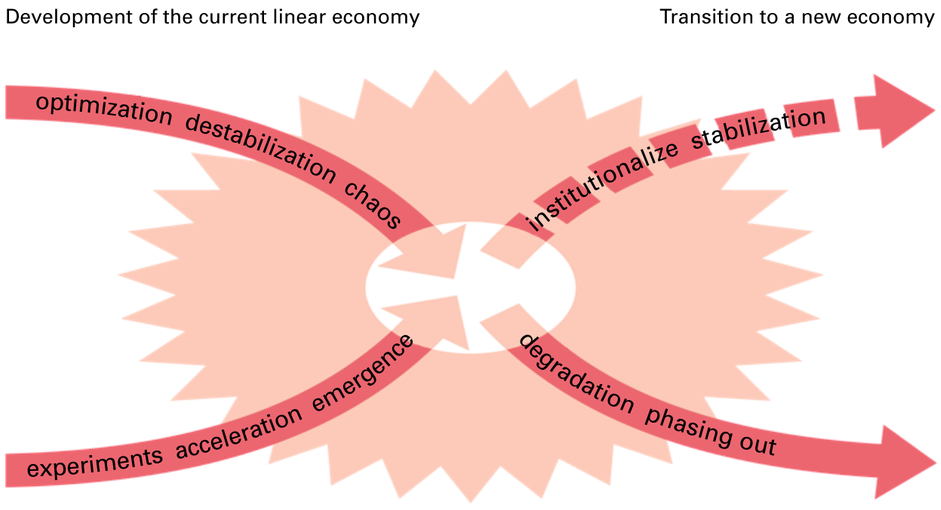
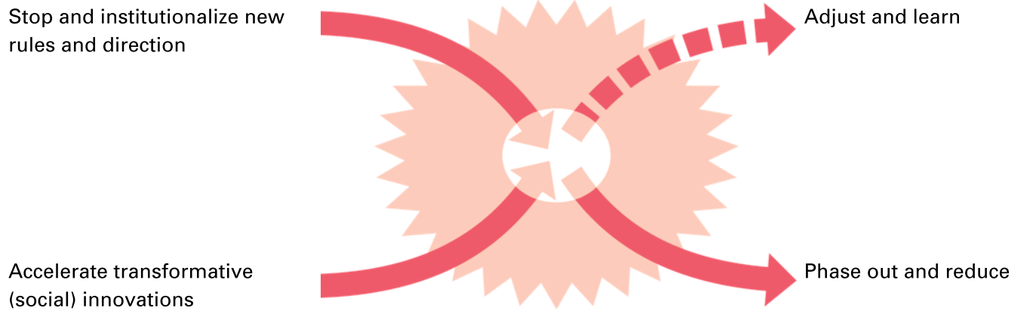
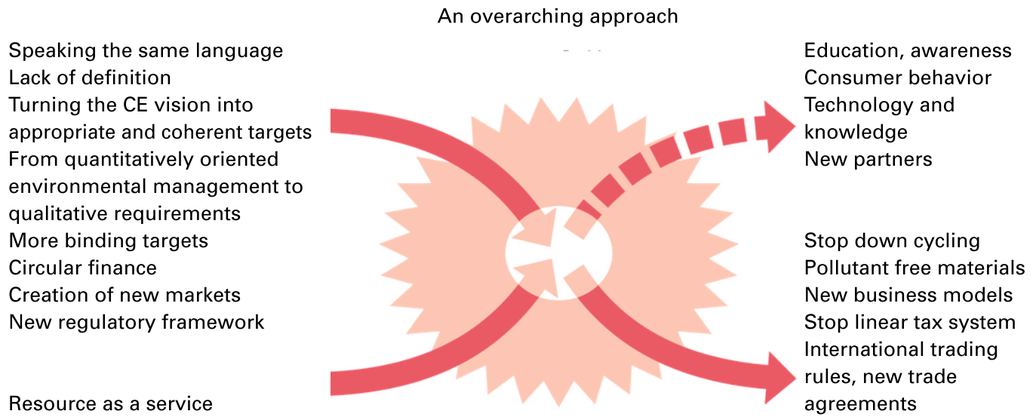


Figure 2: Four governance strategies for the transition to a circular economy



Source: D. Loorbach

Figure 3: Biggest challenges identified by EEAC member councils



13 http://www.transitiefocus.com/wp-content/uploads/2014/11/To_Transition-Loorbach-2014.pdf

distinguished between four governance strategies that comprise the transition path (see Figure 2):

- discontinuing the linear system and institutionalising new rules and a new direction;
- accelerating transformative (social) innovations;
- phasing-out and reducing the linear system;
- continuously reflecting, learning and adjusting.

Many of the challenges identified by the EEAC member councils can be assigned to one of these strategies (Figure 3).

6 EUROPE GOES CIRCULAR

In this document, we analyse whether and how Europe is moving to a circular economy by examining the situation in countries and regions in which an EEAC member council is located.

The analyses show that the vast majority of these countries and regions are working on (elements of) a circular economy. Policies in these countries and regions are increasingly shifting their primary focus from waste towards the entire resource and value chain. The policy goals are also more and more ambitious in realising (elements of) a circular economy. In this primary stage of the transition, differences are still apparent between the countries/regions, e.g. in focus, timetable and approaches.

Almost all councils have drawn up advisory reports on the circular economy and have submitted these to their government. Often their advisory work has contributed to the current policy ambitions on the circular economy.

Although the countries and regions are steadily move to a circular economy, many challenges still need to be tackled. The councils have identified the main challenges for their region or country. Consumer behaviour and stopping the facilitation and promotion of the current linear economy have been identified as major challenges in the transition to a circular economy. However, one of the biggest challenges identified concerns the implementation of a holistic concept of the circular economy. In addition, plastics will be high on the agenda at the European level.

Based on the challenges identified by the councils, it seems that there is still a long way to go. However, the common direction seems to be: Europe goes circular!

APPENDIX A:
IMPLEMENTING THE CIRCULAR ECONOMY PACKAGE

A.1 Introduction of the Circular Economy Package

In 2014, the European Commission withdrew its legislative proposal on waste to be able to present an overarching package, which should cover the entire economic cycle, from production and consumption to waste management and the market for secondary raw materials. The European Commission presented the Circular Economy Package in 2015. The package included legislative proposals with regard to the reduction of land-filling and waste, and a broad range of actions to close the loops of product lifecycles throughout the entire value chain, 'from production to consumption, repair and manufacturing, waste management and secondary raw materials that are fed back into the economy'.[14] One year after adopting its Circular Economy Package, the Commission reported on the delivery and progress of key initiatives of its 2015 Action Plan, and the European Parliament has submitted its amendments.

A.2 Work of the European Commission

Following the adoption of the Circular Economy Action Plan, the Commission has undertaken several actions. The first action taken by the Commission concerned legal guarantees for consumer goods, followed by the introduction of regulations for fertilisers and the presentation of so-called 'innovation deals', an attempt by the Commission to bring producers and investors together to enhance a circular economy approach.

As a follow-up to the Action Plan, the Commission presented the Eco-design Working Plan 2016-2019, as part of the Clean Energy for All Europeans Package. This Working Plan goes beyond energy efficiency, including a more systemic exploration of the possibility 'to establish product requirements relevant for the circular economy such as durability, reparability, upgradeability, design for disassembly, information, and ease of reuse and recycling.'[15] Simultaneously with the introduction of the Eco-design Working Plan, the Commission launched a platform which includes the European Investment Bank (EIB), financial market participants and businesses and the European Commission itself, to increase awareness, know-how and involvement by investors.

Besides these initiatives, the Commission has launched several related policy initiatives, such as an updated Guidance on Unfair Commercial

14 http://ec.europa.eu/environment/circular-economy/implementation_report.pdf

15 Ibidem

Practices Directive – Action on environmental claims, and strengthened enforcement of the revised Waste Shipment Regulation. Furthermore, the Commission aims to promote research and innovation through its initiative 'Industry 2020 in a Circular Economy'.

Plastics will be high on the Commission's agenda in 2017. At the conference 'Circular Economy: one year after adoption, working together for the future', the Commission announced that a plastics strategy will be launched which will improve the economics, quality and uptake of plastic recycling and reuse, reduce plastic leakage in the environment, and decouple plastics production from fossil fuels.

Besides plastics, the Commission will also engage with another set of problems which have appeared in connection with the further maturation of a circular economy. This concerns the problems at the interface of chemical, product and waste legislation, which may hinder the transition of recycled materials. However, this dossier is rather complex. The examples of children's toys and roof tiles containing recycled toxic elements were mentioned during the conference.

Furthermore, the Commission will present a legislative proposal on minimum quality requirements to promote the safe reuse of treated wastewater, introduce a monitoring framework to assess the progress of the circular economy in the EU and its member states, and publish the 'Fitness Check' on the EU eco-label and the Eco-Management and Audit Scheme (EMAS) in the first quarter of 2017.

Finally, the Commission will dedicate 2017 to the establishment of a circular economy stakeholder forum. To mark the establishment of this forum, an inter-institutional stakeholders' conference on the circular economy was held in Brussels on 9-10 March 2017.

A.3 European Parliament

In several resolutions, the European Parliament has expressed its commitment to the implementation of a circular economy.[16] Parliament recently voted on the proposed waste regulations (first the Committee on Environment, Public Health and Food Safety in January 2017 and later the plenary session in March 2017). As part of the Circular Economy Package, the Commission introduced four proposals to amend the relevant legislation on waste, landfill, packaging waste and the end-of-life of vehicles. In response to the Commission's proposals, the Parliament submitted four reports which included a number of strengthened ambitions.[17]

For example, the Parliament reintroduced the initial targets for waste as presented by the European Commission in 2014. With a firm majority, the parliament voted in favour of more ambitious recycling and landfill targets. By 2030, at least 70% of municipal waste (measured in terms of weight) should be recycled or prepared for re-use. In comparison, the Commission

16 http://www.europarl.europa.eu/news/en/news-room/20170120STO59356/waste-more-ambitious-targets-towards-a-circular-economy
17 http://www.europarl.europa.eu/EPRS/EPRS-Briefing-573936-Circular-economy-package-FINAL.pdf

proposed a target of 65% by 2030. Furthermore, the Parliament included a target of 80% recycling (measured in terms of weight) for packaging materials such as paper and cardboard, plastics, glass, metal and wood.

The European Parliament proposed more ambitious targets than the Commission in other areas besides recycling. Regarding landfill, Parliament added a 5% reduction target to the Commission's ambition of reducing the share of municipal waste to be land-filled to 10% by 2030. These upgraded reduction targets called for no more than 5% of all waste to end up in landfill by 2030, and were accompanied by a proposal to achieve this reduction through a possible five-year extension for member states which land-filled more than 65% of their municipal waste in 2013.

Parliament was also quite outspoken on its desire to reduce food waste. MEPs advocated a food waste reduction target of 30% by 2025 and 50% by 2030, compared to 2014 levels. They also proposed a similar target for marine litter.

However, it remains to be seen how the Council of Ministers, the third partner in the co-legislative procedure, will react to the Parliament's proposals. In its proposed amendments to the Commission's proposal, Parliament has presented a clear negotiating position ahead of negotiations with the Council of Ministers, which has to establish its own position.

A.4 Council of Ministers

At a Council meeting of Environment Ministers on 16 December 2015, member states generally welcomed the new Circular Economy Package as an improvement on the previous version of the legislative proposal. Since then, two additional ministerial debates on the Action Plan have taken place in the European Councils (e.g. dealing with competitiveness and environment).

The Environment Council drew its conclusions along four lines. With regard to integrated policy approaches, the Council underlined that the transition to a circular economy requires long-term commitment and action, in a wide range of policy areas in the EU, and at all levels of government in member states. Furthermore, the council underlined the importance of the private sector, the need for thorough impact assessments and that policy measures need to be in line with the principles of Better Law-Making.

Regarding product policies and resource efficiency, the Council drew attention to the importance of a coherent product policy framework at the EU level. Moreover, the Council called for action at the European level to extend the lifetime of products, and stressed the importance of a well-functioning and efficient market for secondary raw materials and for policies which stimulate demand for secondary raw materials. To conclude, the Council underlined the importance of reduced food waste in the EU.

The third issue on which the Council focused in its conclusion was related to support for circular innovation and business. The Council underlined

that government has a key role to play in creating incentives and ensuring effective application of Green Public Procurement (GPP) towards the circular economy. Furthermore, the Council focused on Small- and Medium-Size Enterprises (SMEs) by recognising that SMEs, while often drivers of innovation and at the forefront of the transition to a circular economy, face specific challenges. The Council also stressed the often-mentioned importance of education and training and agreed on the importance of reducing unemployment while creating high-quality jobs.

The final topic addressed in the Council's conclusions concerned monitoring, follow-up and cooperation. The Council argued that the Commission should develop a governance structure at EU level and a monitoring framework to strengthen and assess the progress to a circular economy, while minimising the administrative burden. Furthermore, the Council underlined that it is important to keep progress made with the Action Plan under regular review.

The Council did not yet share its opinion on the four legislative proposals as brought forward by the European Commission and as amended by the European Parliament.

APPENDIX B:
POLICIES ON THE CIRCULAR ECONOMY IN TEN EU COUNTRIES AND REGIONS

B.1 Policy initiatives at national and regional level

This section provides a summary of the various policy initiatives related to the circular economy in ten countries and regions within the European Union. The type of policy initiative is described, and information is provided on existing timetables and the legal status of the policy initiatives. This section aims to give a concise overview of the various initiatives taken, in order to identify similarities and differences in terms of policy initiative types.

In October 2016, the Belgian federal government published a communication (in Dutch) outlining a set of 21 measures it wants to implement before the end of 2019. This communication describes an overarching policy approach for implementing a circular economy by bringing together measures in areas including eco-design, product-service systems, plastics recycling, public procurement, information, planned obsolescence, repairability, (healthy) recycling, and the promotion of knowledge exchange. The communication as such is not legally binding and has a short-term focus.

The Flemish long-term circular economy strategy is part of a broader vision on a sustainable future for Flanders (2050). The transition to a circular economy is one of the seven so-called 'transition priorities' of this 2050 agenda. The transition to a circular economy is supported by an overarching policy approach which includes policy initiatives in areas such as waste and recycling. The strategy as such is not binding. However, there is a binding timetable for the various policy initiatives, primarily setting goals for the 2020-2025 period.

Since May 2015, the region of Catalonia has had a framework strategy in place on the circular economy, entitled the 'Promoting green and circular economy in Catalonia' (in Catalan). Similarly to Flanders, the Catalan strategy for the transition to a circular economy is part of an overarching agenda for the Catalan economy. The strategy for a circular economy includes an overarching approach that brings together a variety of policy initiatives on matters such as eco-design, waste and recycling. The strategy as such is not legally binding, but has been approved by the government in 2015. However, there are elements in the strategy that are legally binding, for example with regard to waste.

France has adopted a national strategy on the circular economy as part of its Law on energy transition and green growth (in French), which came into force on 18 August 2015. The French dedicated Chapter IV of the law to the promotion of a circular economy, embedding the circular economy in a broader strategy aimed at developing a green economy in France. The law has a binding character and timetable, setting the horizons at 2030 and 2050. The French approach is cross-cutting and aims to address several elements of a circular economy, such as waste reduction, recycling and energy efficiency.

In Germany, the general requirements for a circular economy are laid down in the Law on Closed Cycle Management and Waste. This law is supplemented by various regulations on specific elements of a circular economy, such as waste management, resources and raw materials efficiency. The various pieces of legislation have different timetables and have elements that are obligatory and legally binding.

Hungary has no overarching policy initiative in place for a circular economy. However, the European Environment Agency (EEA) has noted that, although there is no targeted policy initiative, Hungary has several policies in place that are related to specific elements of a circular economy, particularly waste and resource management.[18]

Like Hungary, Ireland has not yet developed a policy initiative that is dedicated to the implementation of a circular economy as an overarching and holistic principle. According to the EEA, "circular economy activities are largely fragmented and ad-hoc at present" in Ireland.[19] Nevertheless, the Irish government has policies in place that address elements of a circular economy such as waste management, recycling and resource efficiency. Several of these policies have legally binding elements.

Luxembourg has not yet put policy initiatives in place, but is expected to do so in the course of 2017. In preparation, Luxembourg has commissioned two reports that will look into the possibilities of implementing a circular economy in the country.

In the Netherlands, the government-wide programme for a circular economy, entitled 'A circular economy in the Netherlands by 2050', is a long-term strategic vision solely dedicated to supporting the transition to a circular economy. The programme was presented to the Dutch House of Representatives on 14 September 2016. This government-wide programme identifies five economic sectors and value chains that will be the first to switch to a circular economy. The programme has a binding time horizon: the value chain as a whole is to accomplish a 50% reduction of the use of primary raw materials (minerals, fossil and metals) by 2030 and is to become completely circular by 2050. One hundred and eighty parties signed the National Raw Materials Agreement. This document sets

18 https://www.eea.europa.eu/publications/more-from-less

19 Ibidem

out arrangements for having the Dutch economy operate on the basis of reusable raw materials. The agreement will underpin the development of transition agendas for the five value chains, which will be implemented in the next five years.

In Portugal, a National Action Plan for the circular economy entitled 'Leading the transition' is currently being prepared, and therefore is not yet available. The draft Action Plan will be finalised in early May 2017, and presented to the Council of Environment Ministers in June 2017. The plan is expected to establish a set of measures to be taken under the umbrella of an overarching strategy for a circular economy. The actions should be accomplished by the end of 2020, at which time they will be reviewed; the review and implementation of the actions must be completed within 5 years.

In Belgium, the federal strategy focuses on matters such as:

- eco-design: the federal government will support the development of smart product designs;
- plastics recycling: developing recycling criteria;
- public procurement: the government will adjust its procedures to become a launching costumer;
- information: combating misleading 'green washing' claims and informing the public about product lifecycles
- combating planned obsolescence of products caused by fixed programming;
- drawing up criteria for repairability;
- healthy recycling: 'Green Deals' and North Sea Resources Roundabout;
- promotion of knowledge exchange by creating a knowledge hub for the circular economy.

B.2 Policy focus

This section is dedicated to providing a more in-depth summary of the policy focus of the existing policy initiatives aimed at implementing a circular economy, highlighting similarities and differences between the countries and regions.

In Flanders, implementing a circular economy is part of the region's broader effort to achieve the goals and targets set out in the 2030 Agenda, the vision for 2050 of the Flanders government. With regard to the circular economy, this vision document focuses primarily on elements such as the economy and the environment (possible contribution of the transition to a circular economy in mitigating climate change and other environmental impacts), broadening of scope (the initial focus related to a circular economy was on closing material cycles, but now it clearly identifies the

sub-themes in the circular economy: materials, water, energy, space and food) and governance (combining different policy pillars into one).

The specific shorter term policies set out in the Flanders strategy for a circular economy focus on:

- household waste and comparable industrial waste: reducing the total quantity of residual waste produced by households, companies and organisations during the 2016-2022 period;
- sustainable management of biomass (residual) flows during the 2015-2020 period: a guiding framework for the sustainable and efficient use of biomass;
- food waste in the 2015-2020 period: an action plan to reduce food losses in Flanders by 15% by 2020;
- promoting resource efficiency in construction by introducing the stony cycle, the non-stony cycle, selective demolition and disassembly, material performance of buildings, and dynamic or change-oriented construction methods.

For most of these policy initiatives, there is a binding timetable with a time horizon of 2020-2025.

The Catalan government has published an overarching strategy entitled 'Promoting green and circular economy in Catalonia'. This strategy fits in with the broader Catalonia 2020 Strategy, in which the government has set a timetable for implementing a competitive economy in Catalonia.[20] The strategy for developing a green and circular economy focuses not so much on a dot on the horizon, but rather sets out an overarching approach that addresses particular elements of a circular economy such as:

- eco-design: Catalonia has had a regional strategy for eco-design since 2015;
- green public procurement: the Catalan government will promote green public procurement and consider the environmental impacts of goods and services throughout their lifecycle;
- waste management: the Catalan government aims to reduce the total volume of generated primary waste and, specifically, to achieve a 15% weight reduction in waste generation by 2020 (compared to 2010) and to collect separately at least 60% of all municipal waste;
- biomass and bio-based products: a strategy to promote the use of energy generated from forestry and agriculture biomass.

France has introduced the transition to a circular economy as part of a broader long-term strategy for developing a green economy. The French government has presented an overarching approach in which the different elements of a circular economy are combined under one 'policy umbrella'. The French policies in support of the transition to a circular economy are focused on the following aims:

- waste management: halve landfill by 2025, increase recycling rate to 65% by 2025, extension of extended producer responsibility;

20 The Catalan programme to foster competitiveness according to the EU strategy document 'Europe 2020: a European strategy for smart, sustainable and inclusive growth'.

- consumption and production: combating planned obsolescence, measures to promote the extension of the lifetime of consumer products, ban on single-use plastic bags, plates, glasses and cups, promotion of eco-design;
- resource efficiency: national objective and hierarchy in the use of natural resources;
- sustainable public procurement;
- combating food waste;
- industrial symbiosis: developing synergies and sharing between economic stakeholders in terms of materials, energy, water, infrastructures, goods and services in order to make the best possible use of resources.

Various aspects of the European Circular Economy Package are addressed in the German Resource Efficiency Programme. The aim of the programme is to conserve resources in order to reduce environmental pollution. The measures considered include securing a sustainable supply of raw materials, increasing resource efficiency in production, resource-conserving design of products and consumption, and the expansion of a resource-efficient circular economy. The special material streams in the building and ICT sectors are specifically addressed. In Germany, the term 'circular economy' (*'Kreislaufwirtschaft'*) was introduced in 1996 in the Closed Substance Cycle Waste Management Act (*Kreislaufwirtschafts- und Abfallgesetz*). However, this Act only considered the waste phase of products, and the term 'circular economy' is therefore-used differently in Germany than the broader definition stipulated in the Circular Economy Package. Like the Circular Economy Package, however, the German Resource Efficiency Programme addresses the entire lifecycle: from raw materials mining and production to the utilisation phase (consumption patterns, green public procurement) and the waste phase, including waste prevention.

Hungary has not presented an overarching approach to a circular economy. Yet, there are some initiatives that support elements of a circular economy, including obligatory targets and policy measures deriving from EU legislation (e.g. mandatory waste recovery). Hungary seems to focus predominantly on resource efficiency (energy efficiency and renewable energy, fresh water, decoupling of socio-economic development from environmental pressures) and waste (reduction of construction and demolition waste, re-use, green public procurement, environmentally conscious production and business operations, awareness-raising and waste hierarchies).

Ireland has no overarching strategy for the transition to a circular economy. As mentioned in the previous section, there are, however, several policy initiatives that support specific elements of a circular economy. These policy initiatives mainly focus on topics such as resource efficiency, waste and recycling.

Luxembourg has issued two studies, although it remains to be seen which areas the government will focus on with regard to the circular economy.

In 2014 the Netherlands implemented the Waste to Resource programme, which focuses on eight operational objectives in the sequence of the value chain (eco-design, consumption, waste separation and collection, waste policy, specific chains, finance and business models, knowledge and education and measuring methods). The Dutch government has since chosen to focus on the entire value chain in its latest 2016 initiative. The government-wide policy strategy therefore designated five economic sectors in which the entire value chain needs to accomplish a 50% reduction in the use of primary raw materials by 2030 and which should become completely circular by 2050. These five economic sectors and value chains have been chosen because of their importance to the Dutch economy and their major impact on the environment. The five sectors are: biomass and food, plastics, the manufacturing industry, the construction sector, and consumer goods.

The Portuguese Action Plan for the circular economy is expected to focus on topics such as expanded national product responsibility, prevention, design, consumer information, construction and demolition waste, plastics, public purchases, green deals, education and information, innovation and research, and industrial by-products and symbiosis. Although the Action Plan is still in the preparation stage, measures are being taken at three different levels to promote the transition to a circular economy:

- policy: development of instruments that promote the efficient use of resources throughout the value chain, from design to the valuation of by-products and waste;
- knowledge: communicating the economic and environmental benefits of a circular economy; disseminating and promoting best practices and fostering networks of stakeholders for collaborative projects;
- economy: investing in the development of 'circular'solutions; helping to develop fiscal and financial instruments that value initiatives that contribute effectively to the circular economy.

B.3 Political importance and inter-ministerial cooperation

The circular economy has environmental, social and economic aspects. Because of the multifaceted nature of this transition, it is not by definition a theme to be addressed by just one ministry or department.

In Belgium, for example, a cross-departmental communication has been published by. The communication belongs to two ministers and ministries: The Minister of Work and Economy and the Minister of Energy, Environment and Sustainable Development. Some aspects of the circular economy (like waste collection) are mainly regional competencies, whereas other aspects are addressed at the national level. Therefore, the Belgian federal government has devoted attention to federal competencies like eco-design, consumer protection and fiscal rules. Overall, it seems that the federal government has not only identified and recognised the importance of a circular economy, but has also taken political action.

When considering the policy initiatives and the numerous activities of public-private partnerships such as 'Flanders Circular', it is clear that the

implementation of a circular economy is high on the political agenda in Flanders, argues the Flemish council. As on the federal level, the Flemish government has also assigned responsibility to two ministers for managing the transition to a circular economy: the Flemish Minister for Environment, Nature and Agriculture and the Flemish Minister for Work, Economy, Innovation and Sport have been designated.

The Catalan council explained that the circular economy is one of the six 'axes' on which the Catalonia 2020 Strategy is based. Furthermore, the theme of the circular economy has also been integrated into the main sectoral policies of the Catalan Government, including in areas like research and innovation, industry (with a National Agreement currently being approved), waste legislation (including waste prevention, separate collection and re-use), and knowledge exchange projects, for example with the Ellen MacArthur Foundation (focused on SMEs). This wide range of domains requires close ministerial cooperation. Implementation of the strategy is therefore overseen by the Ministry of Territory and Sustainability, with the involvement of three additional ministries: The Ministry of Economy and Treasury, the Ministry of Business and Knowledge, and the Ministry of Agriculture, Livestock, Fisheries and Food. Based on the level of governmental involvement and the strategies presented, the Catalan council regards the political importance assigned to the circular economy to be 'high'.

In France, policies on the circular economy are part of a broad policy initiative for green growth. Building on the momentum created before, during and after the Paris Agreement on climate change (2015) and the introduction of the energy transition bill, the French government dedicated serious political attention to this topic. The French Ministry of Ecology, Energy, Sustainable Development and Spatial Planning is in the lead with respect to implementation of the law on the energy transition.

In Germany, the concept of the circular economy was first introduced into regulations in 1986. The objectives and measures were, however, always based solely on the product's waste phase; the meaning of circular economy did not go beyond this. First steps concerning tackling the whole life cycle are done in the German Resource Efficiency Programme. However, a truly broad approach, from the start of the product lifecycle a connection of the waste phase and e.g. a sound eco-design has not yet got sufficient political attention and action, the German Advisory Council on the Environment argued. However, a broad variety of ministries is involved in Germany's effort to support the transition to a circular economy. The German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety is in the lead when it comes to overseeing the transition to a circular economy. In addition, the Federal Ministry for Economic Affairs and Energy is involved in ensuring a safe supply of raw materials. Other ministries are also involved in specific issues, such as the Federal Ministry of Food and Agriculture.

In Hungary, supporting the introduction of a circular economy by means of an overarching strategy seems to have less political priority. The Hungarian council mentioned that the lack of political commitment to an overarching

strategy for the implementation of a circular economy may be due to the policy focus on certain elements of a circular economy, such as energy efficiency, water quality issues and waste management.

Like many other European countries, Ireland seems to have focused mostly on matters of energy efficiency and waste management to date and has not yet developed a distinct circular economy strategy.

The Luxembourg council has stated that increasing political attention is being devoted to the circular economy. The Luxembourg government, for example, is investing in events such as 'Luxembourg Circular Economy Hotspot' and has published several studies.

The Netherlands was one of the first European countries to present a holistic strategy for developing a circular economy throughout entire value chains. Although the national political agenda is largely devoted to topics such as healthcare, the energy transition, security and foreign affairs[21], the implementation of a circular economy also has political importance in the Netherlands. Two leading ministries submitted a government-wide programme for a circular economy in September 2016. This programme includes firm and binding commitments, and aims to outline a vision for a future-proof sustainable economy. Together with the energy transition, the development of a circular economy is a spearhead of Dutch sustainability policies at the domestic level, overseen by the Minister for the Environment and the Minister of Economic Affairs, supported by the Minister for Foreign Trade and Development Cooperation and the Minister of the Interior and Kingdom Relations.

There seems to be increasing public and political awareness around the circular economy in Portugal. The transition to a circular economy has been included in the government's strategic programme. Furthermore, the Ministry of the Environment has identified the circular economy, together with e.g. decarbonisation, as one of its main vectors of policy intervention. As in Luxembourg, it remains to be seen how the political attention will play out in terms of implementing an overarching strategy to develop a circular economy.

21 https://www.royal-house.nl/topics/role-of-the-head-of-state/documents/speeches/2016/09/20/speech-from-the-throne 2016

APPENDIX C:
COUNCILS' RECOMMENDATIONS ON THE CIRCULAR ECONOMY

C.1 EEAC members

C.1.1 Belgium: Federal

The **Federal Council for Sustainable Development (FRDO-CFDD)**[22] advises the Belgian federal government on federal policy on sustainable development. Particular attention is paid in fulfilling Belgium's international commitments, such as Agenda 21, the Framework Convention on Climate Change and the Convention on Biological Diversity. The statutory duties of the council are:

- to advise the government on all measures concerning federal policy on sustainable development and to take part in policy dialogue with members of the government;
- to serve as a forum for the exchange of ideas on sustainable development. This includes the organization of dialogues with stakeholders in preparation for the drafting of opinions within the statutory bodies, working groups and forums.
- to provide information and raise awareness about sustainable development among citizens, individuals and public bodies. This mainly takes the form of study days, the sustainable development press award, and publications;
- to conduct research in all areas relating to sustainable development.

The council draws up opinions at the request of ministers or secretaries of state, the parliament or on its own initiative. The ministers or secretaries of state subsequently inform the council on what action the government has taken on the basis of the opinions and, where relevant, its reasons for diverging from them. The members of the council are representatives of various social groups: environmental organizations, organization for development cooperation, users', employees' and employers' bodies, youth organizations and the scientific world. Representatives of the federal government, the language communities and the regions, and environmental councils and economic and social councils are non-voting members.

22 http://www.frdo-cfdd.be/en

C.1.2 Belgium: Flanders

The **Environment and Nature Council of Flanders**, referred to as the **Minaraad**[23], is an advisory body of the Flemish government. The members of the council are civil society actors, such as the environmental movement, trade unions, employers' organizations. The council has a general competence on study and advice for everything related to the environment and nature. The council also deals with themes such as sustainable development, spatial planning, energy, transport, agriculture and natural resources. The advices provided by the council are not binding. The decision makers are free whether or not to integrate into their policies the arguments and comments put forward by the council.

C.1.3 Catalonia (Spain)

The **Advisory Council for sustainable development of Catalonia (CADS)**[24] is the governing body of strategic advice to the government of the Generalitat of Catalonia in the field of sustainability. According to the regulation that rules de Council, this institution has the following functions:

- to advise the Government of Catalonia on issues affecting sustainable development, especially on incorporating the principles of sustainability in policy, regional and sectoral planning instruments, draft legislation and regulations, and in the strategic projects and initiatives led by the Government;
- to assess the strategic policies for sustainable development put forward by the Government of Catalonia, especially those related to energy, water, food security, climate change and the green economy, and to formulate proposals for these areas;
- to encourage the transfer of knowledge between the Government, the academic world and civil society in the field of sustainable development;
- to advise the Government on the design and implementation of measures to raise awareness of sustainability;
- to encourage the involvement of economic and social sectors in the development process in Catalonia.

C.1.4 France

The **National Council for Ecological Transition (CNTE)**[25] is the forum for dialogue on ecological transition and sustainable development in France. Its creation aims to strengthen the environmental social dialogue. The National Council for Ecological Transition (CNTE) is consulted on draft legislation regarding environment and energy issues and is included in the preparatory process of the national strategies for sustainable development and biodiversity. Furthermore, the Council is involved in topic such as social responsibility and environmental business and the low-carbon economy. In addition, the CNTE can take up any issue of national interest concerning ecological transition and sustainable development. The council, chaired by the minister in charge of ecology, is composed of 6 colleges and brings together 50 members which among others include governmental representatives of the different administrative levels, employers'organizations, environmental protection associations, civil

23 https://www.Minaraad.be/ (in Dutch)
24 http://cads.gencat.cat/ca/inici/ (in Catalan)
25 http://www.developpement-durable.gouv.fr/cnte (in French)

society and trade unions. The council meets approximately once every two months in plenary session. The council may set up specialized committees. The purpose of the specialized committees is to deal with a specific subject, within the framework of a mandate approved by the Council in its plenary session.

C.1.5 Germany

The German **Council for Sustainable Development (RNE)**[26] advises the government on its sustainable development policy and, by presenting proposals for targets and indicators, seeks to advance the Sustainability Strategy as well as propose projects for its realization. A further task of the German council is to foster social dialogue on the issue of sustainability. The objective here is to increase the level of awareness among all concerned and the population as to what sustainable development actually means by demonstrating the consequences of social action and discussing possible solutions. The RNE advises the German government and may also initiate projects and dialogues of its own. Council members are public figures.

The German **Advisory Council on the Environment (SRU)**[27] is an expert advisory body whose mission is to describe and assess environmental conditions, problems, and political trends and to point out solutions and preventive measures. The SRU submits an Environmental Report to the German federal government every four years. The report describes and assesses environmental policy developments and provides in-depth analyses of selected topics. In addition, the SRU issues Special Reports in which specific environmental problems are examined in detail. In order to be able to advise the federal government in a timely manner before important environmental decisions are made, the SRU also issues Statements and Comments in which it formulates recommendations on topical environmental questions, for example in relation to ongoing legislative processes. The SRU is bound by the mission established in its charter but is fully independent to determine its advice and the focus and scope of its reports. The SRU consists of university professors from different disciplines who have special expert knowledge and experience in matters of environmental protection.

C.1.6 Hungary

The **National Council on Environment of Hungary (OKT)** was established as the advisory board of the government by law in 1996. It's members are derived from science, employers, industry and ngo's. The co-chair is represented and delegated by the government. The council is tasked to form opinions on the proposals of laws and decrees regarding environmental matters, submitted by the government before decision-making. The council produces statements about the environmental impact assessments of plans and programs. The council also makes recommendations to the government about making the institutional system more effective in protecting the environment and conserving nature. Special attention is paid to scientific research, education, environmental

26 http://www.sustainabilitycouncil.de/
27 http://www.umweltrat.de/EN/TheGermanAdvisoryCouncilOnTheEnvironment/thegermanadvisorycouncilontheenvironment_node.html

information systems, the development of the appropriate industrial background and financial tools.

The **National Council for sustainable development (NFFT**)[28], established in 2008 by the National Assembly, is a conciliatory and deliberative body, a forum of the representatives of political parties, government, science, economy, churches and civil organisations. The council's task is two-fold: to inform the members of parliament about the sustainability risks and effects of proposals (policy strategies, programs, bills) submitted to the parliament, and to take part in informing the public, as well as in creating our national strategy for sustainable development.

C.1.7 Ireland

The **National Economic and Social Council (NESC)**[29] advises the Taoiseach (Prime Minister) on strategic policy issues relating to sustainable economic, social and environmental development in Ireland. The members of the council are representatives of business and employers' organisations, trade unions, agricultural and farming organisations, community and voluntary organisations, and environmental organisations; as well as heads of government departments and independent experts.

28 http://www.nfft.hu/hu/nfft
29 http://www.nesc.ie/

C.1.8 Luxembourg

The **National Council for Sustainable Development (NSDD)**[30] acts as a forum of discussion for sustainability. It proposes research and studies in all the fields of sustainability. It establishes bonds with comparable committees of the member states of the EU. In addition, it invests in the broadest participation of the public and private organizations to achieve these objectives. Lastly, it gives opinions to all measures relating to the national policy of sustainability taken or under consideration by the government, in particular on the national level and on the execution of international engagements of Luxembourg. The council fulfils the missions on its own initiative or at the request of the government.

C.1.9 Netherlands

The **Council for the Environment and Infrastructure (Rli)**[31] is the primary strategic advisory board for the Dutch government and parliament in matters relating to the physical environment and infrastructure (housing, spatial planning, environment, climate, policy, water, agriculture, nature, food (quality), traffic and transport, spatial-economic development, energy infrastructure, external safety). The council members are independent and are appointed on the basis of their broad expertise and experience. They are drawn from various backgrounds including public administration, the private sector and academia. The council operates independently and provides solicited and unsolicited advice on policy affecting the sustainable development of the human environment. The policy domains in which

30 http://www.csdd.public.lu/fr.html (in French)
31 http://en.rli.nl/

it is active are therefore those of the ministry of Infrastructure and the Environment, the ministry of Economic Affairs and the ministry of the Interior and Kingdom Relations. The advices provided by the council are not binding.

C.1.10 Portugal

The **National Council of the Environment and Sustainable Development (CNADS)**[32] is an independent body that aims at advising government members responsible for the environment and the sustainable development, public entities and NGOs on all matters associated with the environment and sustainable development. It is also a forum for the design and implementation of environmental and sustainable development policies. Tasks of the council:

- environmental policy;
- strategic plans and programs for environmental and sustainable development policies;
- public participation for decision-making;
- international agreements (ratification and internal regulatory process);
- follow-up of international and EU policies;
- follow-up of the co-operation policy, mainly with Portuguese-Speaking Countries Community
- follow-up the implementation of the Framework Law on Environment;
- to give advice on the National Plan for the Environment and the National Strategy for Nature Conservation.

32 http://www.cnads.pt/en/

The council has members designated by central and regional governments and more than 2/3 designated by civil society, including NGO, local communities, universities, business and trade unions.

C.2 Councils and their contribution to a circular economy

C.2.1 Councils' activities related to the circular economy

The Belgian federal council has issued two advisory reports dedicated to the transition to a circular economy. One study (in Dutch) was dedicated to Product-Services Systems (PSS), with several associated communication events. In this study, the council looked into the option of making Product-Services Systems supportive of the concept of sustainable development in Belgium. Furthermore, in 2016 the council issued an opinion (in Dutch) on the set of measures being implemented to promote a circular economy. The opinion was commissioned by the two lead ministries on the circular economy, and examined a broad variety of possible policy interventions to support the transition to a circular economy.

In the past years, the Flemish council has issued a variety of advisory reports (in Dutch) related to the transition to a circular economy. With the exception of the 'Chain Roadmap Food Waste 2015-2020', the council issued opinions / advisory reports for each of the government's strategic plans on the circular economy: Draft Implementation Plan for Household Waste and Comparable Industrial Waste; Vision 2050, a Long-term Strategy for Flanders; Action Plan for Sustainable Management of Biomass

(Residue) Flows 2015-2020; Prevention Programme for Sustainable Materials Management in the Building Sector 2014-2020. Furthermore, in 2014 the council issued a general, unsolicited policy advisory report to support the transition to a circular economy. The council also provides advice on more specific policy instruments that are of strategic importance, in spite of the more operational aspects involved. Examples include a number of environmental policy agreements (within the context of extended producer responsibility) concluded between the Flemish government and the producers involved. These cover products like (waste) batteries, (end-of-life) vehicles, etc.

The Catalan council has published three reports (in Catalan) on the circular economy. The first report entitled 'Towards a More Resource-Efficient, Competitive and Low-Carbon Economy' focused on the necessary elements of the government's strategy to promote the development of a green economy in Catalonia. The second report of the council covered waste and resources prevention and management programme in the 2013-2020 period.[33] This report focused on specific aspects of waste policies to support the development of a circular economy. A third report of the council was dedicated to the Catalan strategy for eco-design.[34] This report aims to support resource efficiency. The council also coordinated a joint response from the Catalan Government to the European Commission public consultation on the Circular Economy Package.

33 Report 2/2014
34 Report 1/2015

The German Advisory Council on the Environment has systematically studied the different streams of the waste management sector in its Environmental reports. The council has published three reports that included elements of a circular economy were included: the Environmental Report 2008 (covering landfill, expert regulations, organic residues and packaging); the Environmental Report 2012 (addressing Germany's responsibility for raw material management and the importance of recycling instruments); and the Environmental Report 2016 (which discussed Germany's pioneering role in waste management and recycling, and emphasised the necessary links with the eco-design of products). For its part, the German Council for Sustainable Development has issued one advisory report (in German) on the circular economy. This publication presents a vision of Germany as a resource-rich country (*'Rohstoffland Deutschland'*). The advisory report defines practical, far-reaching aims that tie in with the United Nations Sustainable Development Goals (SDGs) as well as with the transition to a circular economy. Furthermore, the Council for Sustainable Development has issued a Challenger Report (in German) on resource and municipal waste management, discussing 'real' recycling quotas and barriers to a more ambitious recycling programme. As part of a recent project, the German Council is preparing a report on circular economy approaches and the resultant opportunities for German industry (to be published in late June 2017).

The Hungarian National Council on the Environment reviewed the European Circular Economy Package in a plenary session immediately after the package's publication, and is also evaluating the progress of the

activities of the intersectoral governmental committee. The Hungarian Council for Sustainable Development also submitted a reply after the launch of the European Circular Economy Package.

The Irish council has recently undertaken some research work as part of its sustainability research programme (completed at the end of 2016). The report 'Moving Towards the Circular Economy: Irish Case Studies' will be published in the summer of 2017. This work has identified case studies of circular economy practices in businesses and social enterprises.

The Dutch council has issued two advisory reports related to the circular economy. The first advisory report focused on the implications of a circular economy in high-tech, chemicals and agri-food for the logistic sector in the Netherlands (2014). The second advisory report was issued in 2015, and focused on the overall implementation of a circular economy. The crux of the recommendations was to encourage the state to draw up a government-wide circular agenda. Furthermore, this agenda should be linked to strategic goals and concrete actions for the different departments, using the inherent strengths of the Netherlands as a starting point. The advisory report includes proposals to achieve this end. Furthermore, the council has published a flyer that was helpful in communicating the circular economy message at various forums. In addition, an article was published in the scientific journal *Sustainability*. Following the publication of the second report by the council, the Social and Economic Council of the Netherlands (SER)[35] published an advisory report in 2016, using the council's report as a starting point. This advisory report provides further details on the possibly promising value chains that serve as a figurehead for the Dutch circular agenda. SER is now working on an advisory report on the possibilities offered by financial instruments which could support the transition to a circular economy. This publication will also cover the possible impact of the circular economy on the labour market. The Health Council of the Netherlands is working on an advisory report that will address the possible health risks of toxic pollutants associated with the handling materials throughout the value chain.

The Portuguese council approved a reflection on the European Union's Plan of Action for the circular economy that identified the critical aspects for Portugal's transition to a circular economy: meeting waste targets, excessive bureaucratic burden and administrative costs, the need for further legislation on water resources and waste status, juridical insecurity, planned obsolescence, innovation, and risks in the professional environment. Some of the points raised by the Portuguese council are being taken into consideration by the government in the process of drafting the Action Plan. The council's working group on the circular economy promoted a round-table forum, which provided the council with a general picture of the problems and challenges associated with the transition from

35 The Social and Economic Council of the Netherlands (SER) is the main advisory body to the Dutch government and Parliament on national and international social and economic policies. The Council consists of three groups: members representing employers, members representing trade unions, and independent or 'Crown' members appointed by the government. Other relevant stakeholders (such as environmental groups) are also invited to participate in preparing advisory reports.

a predominantly linear economy to a circular economy in the national context.

C.2.2 From practical to strategic advice

In Belgium (both at the federal level and in Flanders), the councils have provided strategic/practical advice on the implementation of the circular economy, as well as advice on specific practical sub-topics. For example, the federal council published a document outlining a strategic approach to governance and the circular economy, as well as several reports on sub-topics such as Product-Services Systems and the collaborative economy. The Flemish council also issued both types of advisory reports. Because of its role as a strategic advisory council, the aim is to focus on strategic and overarching issues and more focus therefore seems to be placed on these types of approaches.

The Catalan council submitted both a strategically oriented advisory report on how to implement a circular economy as part of a broader strategy towards a competitive economy in Catalonia, as well as advice on sub-topics such as eco-design.

The German Advisory Council on the Environment works on the subordinate level with regard to the development of a circular economy. Specific waste streams – such as electrical and electronic equipment waste streams or organic waste – have not been separately analysed in recent years. The current focus of the council is on raw material and recycling aspects in the context of climate policy measures. The German Council for Sustainable Development has examined both kinds of topics in the past (strategic/sub-topics), the former more so than the latter.

For its part, the Dutch council presented two advisory reports. The first report focused on the sub-topic of the circular economy and logistics in specific economic sectors, and was followed by a strategic report, which focused on the steps that need to be taken to implement a circular economy throughout the entire value chain.

The Portuguese council issued a reflection to the European Union's Plan of Action for the circular economy that identified the critical aspects for Portugal's transition to a circular economy.

The Irish council will focus on issues arising from case studies, as well as overarching challenges and opportunities. The council has not yet officially undertaken this work, and has not yet submitted an advisory report. The councils from Hungary and Luxembourg also have not yet submitted an advisory report that deals (solely) with the topic of implementing a circular economy at the national level.

C.2.3 Stakeholder inclusion

Both Belgian councils (at the federal level and in Flanders) have stakeholder representatives as members. In the case of the federal council, the preparation of the advisory report on the circular economy was strengthened by the input of representatives of civil society, the private sector and the scientific community. However, no external stakeholders

were included in this process. The Flemish council is not tasked with external stakeholder engagement as such. Due to the councils' nature and composition, broad stakeholder involvement lies at the heart of the consultation process.

The Catalan council is composed of experts and does not include official representatives of civil society or the private sector, for instance. However, the council has held consultation sessions as part of the preparation of its reports. In recent years, the council has organised a number of public debates and closed workshops on the circular economy. These events were attended by members of government, representatives of multilateral and European institutions, experts and stakeholders (business community, trade unions, NGOs).

The two German councils have a distinct profile. The German Advisory Council on the Environment consists solely of experts, although key stakeholders and specialist experts are consulted on a case-by-case basis (through hearings, peer reviews, etc.). By way of contrast, the German Council for Sustainable Development brings together people with a variety of backgrounds, including civil-society organisations, scientists, representatives of the private sector and other stakeholders.

In November 2016, the Hungarian National Council on the Environment organised a 'Conference about the circular economy aims as well as the institutional tasks and possibilities in the interest of them' in November of 2016. This conference brought together a wide range of different stakeholders.

The Irish council convened an invitation-only stakeholder event / round-table session in April 2017 to discuss the results of its research project and to obtain input from national and international experts. Invitees included representatives of government departments, civil society, the private sector, and the academic community.[36]

The Dutch council consulted a variety of external experts and organised working sessions. Both processes included stakeholders from civil society and the scientific and business communities, but also members of citizen's initiatives. Furthermore, the council fulfils the role of observer when the Social and Economic Council of the Netherlands (SER) provides advice on the circular economy. The SER's commission on this topic consists of representatives of all stakeholders involved.[37]

In preparing its reflection on the European Circular Economy Package, the Portuguese council consulted a variety of external experts by organising round-table discussions on the topic. These included representatives of public authorities, civil society, the private sector, consumer protection NGOs, universities, technology centres, environmental NGOs, and waste management organisations and businesses. The participants' informed

36 http://www.nesc.ie/en/news events/events/roundtable-moving-towards-the-circular-economy-in-ireland1/
37 See footnote 35

opinions facilitated the vision of a general picture of the problems and the challenges posed in the national context by the transition from a predominantly linear economy to a circular economy.

C.3 Governmental action in response to advisory reports

As proposed in the advisory report of the federal council, the Belgian federal government has incorporated Product-Services Systems in its set of measures aimed at realising a circular economy. Furthermore, several amendments were made to the federal policy proposal on a circular economy, after the federal council shared its opinion on the draft measures.

The circular economy topics on which the Flemish council has provided advice are important to the Flemish government. The Flemish council recommended sustainable materials management. In 2010, the Flemish region then placed sustainable materials management on the European political agenda during the Belgian EU presidency. 'Resource efficiency'was subsequently one of the flagship initiatives of the EU 2020 strategy.

The Catalan government and its council have a close and effective working relationship. This was again demonstrated when the council issued an advisory report on the transition to a circular economy. As a follow-up to the council's advice, the Catalan government included the council in the inter-ministerial commission for eco-design.

The German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety carefully analyses the recommendations of both German council, although it does not typically implement them directly. A positive example, however, is the phasing-out of sewage sludge utilisation in agriculture and the recovery of phosphorus from sewage sludge, which was recommended by the German Advisory Council for Sustainable Development. Both German councils do not receive formal replies from the government after providing advice. However, both councils' recommendations concerning the circular economy play an important role in the public debate about the issue.

The Dutch government has integrated the systematic approach, as presented by the Dutch council, in the government-wide programme. Links were made to strategic goals and concrete actions, and promising value chains were selected that serve as a figurehead for the Dutch circular agenda. The council argued that the advisory report was the basis for the transition agendas for the five promising value chains, which are part of the Dutch initiatives to transform the economy from a linear to a circular model. Also, the government used the Dutch EU presidency in 2016 to promote and elaborate the circular economy, as was recommended by the council.

The Portuguese government welcomed the council's reflection on the European Union's Action Plan for the circular economy, and considered the identified critical aspects for Portugal's transition to a circular economy useful.

The councils from Hungary, Ireland and Luxembourg have not yet submitted to their respective governments an advisory report on the transition to a circular economy at the national level, and have therefore not received an official reply from the government.

APPENDIX D:
PROMISING, UNIQUE AND CHALLENGING ELEMENTS

D.1 Promising elements of a circular economy

At the sub-national level in Belgium (Flanders), the council identified the selective collection of diverse materials as one of the promising concrete elements of the transition to a circular economy. In more general terms, in the past decade the Flemish council supported the broadening of the focus on sustainable waste management towards a focus on sustainable materials management. Furthermore, the current broadening of the scope to a 'sustainable and circular Flanders', with attention to policy integration, including energy and climate, industry, work, housing and living, and mobility is considered promising by the council.

The Catalan council underlined the promising aspects of the objectives for food waste. A reduction of food waste in the retail, hospitality, catering and domestic sectors is not only important, but is expected to be successful. Furthermore, Catalonia banned the free distribution of plastic shopping bags in March 2017. This initiative is not only ambitious, but should make a distinct difference. The council also recognises the importance of public procurement as a driver for the transition to a circular model. This is why the council considers it so important that the Ministry of Economy and Treasury has taken the initiative in this area, by using calls for tenders issued by public authorities to promote innovative public procurement within the domain of the circular economy.

Although the French council did not provide the authors with any input on the promising elements of the circular economy approach in France, the French Ministry of Ecology, Energy, Sustainable Development and Spatial Planning did that on their behalf. The Ministry argued that the implementation of the law on the Energy Transition is of major importance for the transition to a circular economy as a whole, and is considered particularly promising.

The German Advisory Council on the Environment is cautiously optimistic, and identified the approaches embedded in the German Resource Efficiency Programme as initiatives which are heading in the direction of a circular economy. However, the council added that the quantitatively oriented environmental management objectives must be supplemented by qualitative requirements in order to create high-quality ecological standards and thus a sound circular economy (e.g. by preventing down-cycling). The German Council for Sustainable Development identified several elements of a circular economy as promising, including phosphorus

recovery and the recent publication of new packaging legislation (*Verpackungsgesetz*).

The Luxembourg council identified as promising the systemic and bottom-up approach to promoting the transition to a circular economy in Luxembourg. The council also referred to the creation of a complete ecosystem as important and meaningful.

The Dutch council identified as promising the broad acceptance by a wide range of stakeholders that the circular economy is the future (refer to the National Raw Materials Agreement) as promising. Furthermore, the council is positive about the concrete, government-wide and binding targets set by the government, and the fact that value chains have been selected to take centre stage in the Dutch approach.

The Portuguese council indicated that promising actions taken so far include incentives for research and development, SME projects focusing on the eco-design of products, the developed Ecological Public Procurement Strategy, the E-Gar programme for dematerialisation of procedures, and policies which focus on by-products and end-of-waste.

D.2 Unique selling points

The Flemish council identified as characteristic strengths in Flanders the strong interdisciplinary approach and the broad partnerships that have been established for the implementation of a circular economy (in the context of the 'Flanders Circular' programme).

Catalonia has a very dynamic and innovative entrepreneurial system. It hosts some of the world's top-ranked business schools and a number of pioneering research and technology centres. Combined with the pressure exerted by a lack of raw materials, this unique ecosystem is an important driver for the transition to a circular economy, according to the Catalan council.

According to the French Ministry of Ecology, Energy, Sustainable Development and Spatial Planning, France has a well-developed policy initiative in place on extended producer responsibility. This strategy is designed to promote the integration of environmental costs associated with goods throughout their lifecycles into the market price of the products, and is rather unique and could therefore be utilised by other countries.

Traditionally, citizens in Germany are very aware of the importance of separate waste collection and have a long tradition in this area. The first regulations in this area were already introduced in the 1990s. This has resulted in extensive know-how and an effective waste management infrastructure. At the same time, this means that innovation in waste management follows a specific and long-established path, argues the German Advisory Council on the Environment. In addition, the German Council for Sustainable Development has indicated that Germany has

excess capacity in waste incineration plants, and imports waste from other European countries for processing in these plants.

Circular economy initiatives and project in Luxembourg are considered as so-called 'high visibility projects'. Furthermore, the Luxembourg government has chosen to involve leading thinkers in order to further strengthen the vision of a circular economy. Examples include William McDonough, EPEA, Zachariasse Consulting, and Circle Economy. This approach promotes 'buy-in' and allows for quick upscaling, the Luxembourg council stated.

The Dutch council identified broad stakeholder inclusion as a special element in the transition to a circular economy in the Netherlands. A bottom-up approach is applied that involves civil society, industry, SMEs, NGOs, banking, science and education, as well as local and national governments. The government has a stimulating and facilitating role.
In Portugal, the projects which involve cooperation between academia and industry cooperation stand out, according to the Portuguese council.

D.3 Biggest remaining challenges

We still have a long way to go before the circular economy is a reality. The councils have indicated what they see as the biggest challenges on the path to a 'circular Europe'.

In Belgium, for example, the country's governance model presents unique challenges. Both the federal and the Flemish council consider the lack of coherence between measures taken in the different regions and at the federal level as a major challenge. Moreover, although agreement seems to exist between different stakeholders on the long-term overarching principles of the circular economy, the varying perspectives of stakeholders pose challenges for the effective translation of a circular economy vision into coherent targets for sustainable resource use. This situation is partly a consequence of opposing forces: a short-term focus including the preservation of a level playing field in order to remain competitive in the short-term, as opposed to a long-term focus including awareness of the dangers of further exceeding planetary boundaries and awareness of possible consequences of failing to translate the vision into concrete objectives.

Like its Dutch and German counterparts, the Catalan council regarded the introduction of a circular economy as a holistic approach to one of the region's main challenges. Furthermore, it is challenging to gain access to the financial resources needed to promote a circular economy, according to the Catalan council. The same goes for technology and knowledge transfers. Catalonia needs additional technological, practical and scientific insights to facilitate the necessary transition to a circular economy.

According to the French Ministry of Ecology, Energy, Sustainable Development and Spatial Planning, maintaining the positive momentum of the past few years (including successful implementation of the adopted

strategy and plan and the associated goals) is the biggest challenge faced by France. The Netherlands, Flanders, Belgium and Luxembourg expressed similar views.

The German councils mentioned the need for more effective policies covering the 'classical' elements of a circular economy (waste management and recycling), as well as for policies that address the entire lifecycle, such as pollutant-free recycling, strengthening the relationship between eco-design and recycling, and higher-quality secondary raw materials in order to achieve a reduction in primary raw material extraction.

Like the Catalan and German councils, the Dutch council mentioned the implementation of a holistic circular economy concept as the biggest challenge. Specialists understand that implementing a circular economy requires more than mitigating the effects of the current economic model. A genuine transition and a comprehensive approach are needed to change the relevant economic processes. This transition includes, for example, tax, finance, new business models, markets for goods and services, regulatory frameworks, institutions, technology and knowledge. Countries need to manage resources in a different manner, to find new ways of collaborating throughout the lifecycles of materials and products, to facilitate closed loops, as well as to innovate value chains.

The Portuguese council identified consumer behaviour as a major challenge. Consumers play an important role in the transition to a circular economy. There is a serious need to raise awareness and to promote behavioural change in consumption patterns, ranging from prevention and the use of leasing/services to waste separation and recycling. Other councils, including the German and Dutch councils, also emphasised this challenge.

In addition, the Portuguese council mentioned specific challenges related to the inconsistency of good practices in respect to the circular economy, the rules of international trade and the new trade agreements currently being negotiated or undergoing ratification. Another challenge mentioned by the Portuguese council concerns a lack of clarity at the EU and national level about the future regulatory framework, in particular regarding the use of waste as a secondary raw material. According to the council, this uncertainty introduces a high level of insecurity in the design of investment projects.

APPENDIX E:
RESPONSIBILITY AND ACKNOWLEDGEMENT

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