

Europe goes Circular

Challenges in the transition to a circular economy

January 2018
EEAC Network



EEAC Working group on circular economy

The EEAC Network

The European Environment and Sustainable Development Advisory Councils (EEAC) is a network of advisory bodies established by national or regional governments. EEAC members offer independent advice to their respective national or regional governments and parliaments related to the environment and sustainable development.

Fourteen advisory bodies from eleven European countries and regions are member of the EEAC Network. With representatives from academia, civil society, the private sector and public bodies the EEAC network brings together experts with years of experience producing independent advice.

1. Introduction

In June 2017, the EEAC working group on circular economy launched the '[Europe goes Circular](#)' report, which includes an overview of the strategies and policy initiatives for implementing a circular economy in various European countries; the role played by EEAC Network member 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. The report defines several key challenges, including changing the current economic model, education and raising awareness, behavioural changes, and technology.

Nowadays, most of EU countries have adopted specific political frameworks for boosting circular economy. However, due to its complexity and novelty, no blueprint is currently available. Moreover, it should be taken into account that the shift from a linear to a circular economy requires adequate transition strategies. In this context the following questions arise: What strategies have been adopted in terms of governance? What are the noteworthy elements? What has been learned so far?

In order to discuss these questions, over 30 experts coming from different European countries gathered in Brussels on 12 September 2017. The workshop was organised by Dr Nicole van Buren, chair of the EEAC working group on circular economy, and hosted by the Belgian Federal Council for Sustainable Development.

We would like to thank Dr Chris Roorda, Senior Researcher & Advisor at the Erasmus University Rotterdam, for providing attendants with a scientific perspective on transition strategies. After his presentation, three national experts from Germany, Flanders, and France shared the state of affairs of existing policies and strategies to push circular economy in their region and countries. We would also like to thank Dr Axel Borchmann, from the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety, Ms Lieze Cloots, from the Public Waste Agency of Flanders (OVAM), and Mr Emile Pennekamp, from the French Ministry for the Ecological and Inclusive Transition, for their contributions.

This document contains a brief summary of [the presentations](#) and a set of conclusions from the workshop, drafted by the WG chair. We hope they contribute to enrich the debate on how the shift to a circular Europe needs to be developed. A transition -to circularity- that will contribute not only to reduce environmental impacts, but to reduce dependence on imported raw materials, to create new economic revenue models, and increase competitiveness of EU's economy.

Sincerely yours,

Arnau Queralt-Bassa,
Chair of the EEAC Network

2. Content

1. Introduction	3
2. Content	4
3. Workshop conclusions	5
4. Transition strategy theory	6
4.1. Introduction	6
4.2. Insufficient solutions	6
4.3. Systemic change	6
4.4. Non-linear development	6
4.5. Need for a breakthrough.....	8
4.6. What is needed for change?	8
5. Strategies for the transition to a circular economy: (sub-)national practices	8
5.1. Germany	8
5.1.1. Existing policies.....	9
5.1.2. What has been a success?.....	10
5.1.3. Lessons learned	10
5.2. Flanders.....	11
5.2.1. Existing policies.....	11
5.2.2. What has been a success?.....	12
5.2.3. Lessons learned	12
5.3. France	12
5.3.1. Existing policies.....	12
5.3.2. What has been a success?.....	13
5.3.3. Lessons learned	13
6. Appendix A. Workshop Programme	14
7. Appendix B. Participant list	15

3. Workshop conclusions

By Nicole van Buren, Chair of the EEAC working group on circular economy

- Current solutions to battle unsustainability is repeatedly starting from vested interests, focus on the short term and are, often, self-reinforcing for institutions, whereas a systemic long term oriented transition strategy needs to be deployed to achieve a circular economy.
- Governments, as well as other relevant stakeholders, need to overcome vested sector thinking (overcoming shared values, existing/persisting paradigms, worldviews and discourses), move towards a chain-approach (changing economic structures, physical infrastructures and routines) and push for a change in behaviour and lifestyles.
- The transition to a circular economy requires a mix of voluntary and binding measures and an equilibrium of bottom-up and top-down initiatives.
- Materializing a circular economy needs commitment and initiative by many actors, including policy-makers, business, science and civil society. However, it is vital to make sure that there is a balanced representation of these different stakeholders. Disbalance will, at least, hinder and slow down the transition towards a circular economy.
- Creating a critical-mass of relevant stakeholders (including citizens) is needed to maintain political momentum. Creating this critical mass by, for example, communication is however not easy. Consequently, relevant stakeholders should step up efforts to position circular economy higher at the societal agenda.
- To avoid high social, ecological and economic costs, political leadership should show more courage and address the price of a linear economic model right away. Although some costs, impacts and consequences of the current economic model are only foreseen for the future and political urgency still seems not high enough to easily defend more far-reaching policies.
- Governments need to provide a long-term orientation to encourage businesses to make the necessary changes and investments. Within governmental institutions, shared accountability is a successful element of transition strategies applied to achieve a circular economy. So, making sure that horizontal policy integration within governmental bodies is applied.

4. Transition strategy theory

4.1. Introduction

The current symptoms of unsustainability are overwhelming, especially when we ‘zoom out’ and consider the bigger – global – picture. Several planetary boundaries¹ have been exceeded and many others are on the brink of being exceeded. These ‘Unsustainability trends’ are persistent: deeply rooted in societal structures, cultures and practices. They are very serious and difficult to address: we disagree on problems and solutions and there are no easy solutions, said Chris Roorda.

4.2. Insufficient solutions

Chris Roorda not only argued that dealing with persistent problems by definition is an ambiguous, normative and contested activity, but that the proposed solutions to sustainability problems are part of the meta-problems. Current solutions to address unsustainability are superficial, reactive and incremental. Furthermore, most of these solutions are based on vested interests, focus on the short term and are – often – self-reinforcing for institutions, whereas a systemic long-term transition strategy needs to be deployed to achieve fundamental change.

4.3. Systemic change

The transformation from a linear to a circular economy requires a process of structural, non-linear systemic change in the dominant culture, structures and practices, Chris Roorda argued. Such a transition takes place over a period of decades and changes shared values, existing/persisting paradigms, worldviews and discourses (culture), as well as institutions, economic structures, physical infrastructures (structures) and routines, behaviour, actions and lifestyles (practices).

4.4. Non-linear development

Transitions develop from a pre-development phase via a tipping phase and reconfiguration to the ‘new normal’ or stabilization phase, Chris Roorda explained (see Figure 1a below).

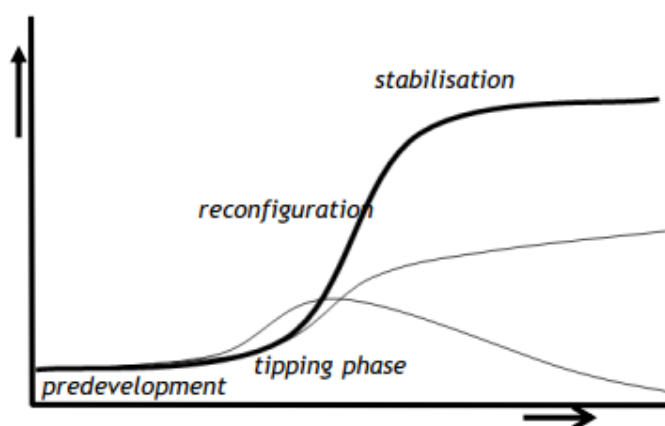


Figure 1a. The transition process and phases. Source: DRIFT

¹ The concept of ‘planetary boundaries’ is a scientific concept which aims to define a ‘safe operating space for humanity’ for the international community, as a precondition for sustainable development.

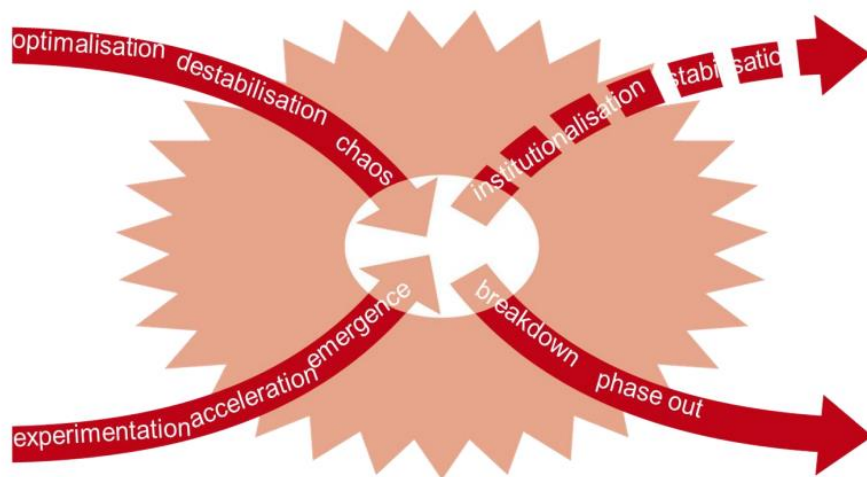


Figure 1b. The transition process and phases. Source: Loorbach, D., 2014, *To Transition! Governance Panarchy in the New Transformation*, Inaugural Address, Erasmus University Rotterdam

Different processes occur in these phases. Figure 1b shows both the emerging phase and the established phase and the processes which occur. Chris Roorda utilised this model (Figure 1b) to provide an overview of the transition dynamics (phases and actions) that the circular economy concept went through and is still going through in the Netherlands.

EMERGING	ESTABLISHED
Experimentation	Optimalisation
<ul style="list-style-type: none"> – Vision popular since 2006 – Experiments regarding both technical solutions as well as how to organize 	<ul style="list-style-type: none"> – Bulk = take-make-waste – Many ‘sustainable’ solutions involve – down cycling (incl. burning waste) – Strong lobby against stronger measures
Acceleration	Destabilisation
<ul style="list-style-type: none"> – More and more sectors, actors, ... – First movers gain higher market share – NL positioning as ‘frontrunner’ in EU 	<ul style="list-style-type: none"> – Uncertainty geological developments – Growth of consumption, population, etc. – But: in general no real need for change felt
Emergence	Chaos
<ul style="list-style-type: none"> – Stronger networks like Ellen MacArthur Foundation, Nederland Circular!, Cirkelstad – In some sectors significant (esp. b2b) – But: towards which circular economy? 	<ul style="list-style-type: none"> – Uncertainty waste companies – Some companies seek to secure supply chains – Innovation programmes contradict dominant policies, but at limited scale
Institutionalisation	Break down
<ul style="list-style-type: none"> – Limited examples, like circular procurement – Tax on plastic bags; lobby for changing waste regulations 	<ul style="list-style-type: none"> – Losses for waste companies; dependent on waste from abroad – Some vision, some lobby; but hardly changes
Stabilisation	Phase out

Table 1: The circular economy in the Netherlands. Source: Lodder, M., C. Roorda, D. Loorbach, C. Spork, *Staat van Transitie: patronen van opbouw en afbraak in vijf domeinen*. DRIFT, Erasmus University Rotterdam, 2017

The transition to a circular economy is – in general terms – in a predevelopment phase, as the optimisation of the current (linear) economic model is still very much the dominant approach. Moving towards the acceleration phase, it can be assumed that all actors will exercise some influence, but no-one will dictate the transitions.

Furthermore, specific actors anticipate persistence and unsustainability by developing (radical) alternatives that challenge existing regimes. According to Roorda, the process of transition governance requires targeted interventions to guide and accelerate desired social transformations in the long term. In general terms, this implies systematically challenging and destabilising regimes while empowering and scaling up alternative solutions. As a matter of fact, a persistent desire to achieve a breakthrough is needed, Chris Roorda argued.

4.5. Need for a breakthrough

A breakthrough requires people to move outside their ‘bubble’. Different perspectives, backgrounds, motivations and positions need to interact, and roles and relationships need to change. Furthermore, a breakthrough requires mental and institutional change. In practice, this means that paradigms and belief systems need to be challenged and that we need to go beyond ‘business as usual’. We should allocate time for reflection and learning, Chris Roorda argued.

4.6. What is needed for change?

When asked whether we can change, Chris Roorda quoted professor Willem Schenkel, who stated that “The world is no more and no less than a perfectly normal improbability. All that occurs, appears only probable – if that is the case – because it is made probable.” Moreover, Chris Roorda argued, a mix of top-down and bottom-up strategies is needed.

In his concluding remarks, he stated that “in order to move away from the established linear economic model, we should start pricing externalities, changing subsidies and setting ambitious goals.” In the emergence phase, stakeholders should find, connect and empower cooperatives, promote circular production and new diets, and invest in sustainable technologies.

5. Strategies for the transition to a circular economy: (sub-)national practices

Representatives from Germany, Flanders and France shared their strategies for implementing the circular economy. Which governance strategies have been adopted? What are the noteworthy elements and which lessons have been learned so far?

5.1. Germany

Axel Borchmann of the German Federal Ministry for the Environment explained that there are multiple reasons to promote resource efficiency in Germany. The country has an export-oriented economy with a strong industrial base, it depends on the import of raw materials (66.8% of metals imported), raw materials account for 45% of costs in the German manufacturing sector (labour costs: 19%; energy costs: less than 3%), and Germany considers itself a leader in green technologies, e.g. recycling technologies. The conservation and efficient use of resources throughout the value chain is a high priority in German environmental and economic policies.

5.1.1. Existing policies

The Resource Efficiency Programme (ProgRes) is the main policy strategy that addresses these issues in Germany, Axel Borchmann explained. First adopted by the Federal Cabinet on 29 February 2012 and updated on 2 March 2016, the programme aims to decouple economic growth from resource use, and to double raw material productivity (GDP/DMI) by 2020 relative to 1994. In 2016, a second indicator was defined in the form of the total raw material productivity (GDP plus imports/RMI). This step was taken to address the international value chain and therefore reduce the overall environmental impacts of resource use. The programme is also aimed at strengthening the competitiveness and independence of the German economy.

Various aspects of the European Circular Economy Package are addressed in the German Resource Efficiency Programme. In Germany, the term ‘circular economy’ (*Kreislaufwirtschaft*) was already introduced in 1996 in the Closed Cycle and Waste Management Act (*Kreislaufwirtschafts- und Abfallgesetz*). However, this Act focused on 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.

Following an update, the so-called ‘ProGress II’ programme has a stronger emphasis in thematic areas such as sustainable construction and urban development and resource-efficient Information and Communications Technology (ICT), as well as the close interdependencies between energy and material efficiency. Figure II provides an overview of the priority areas of the current German policy package for resource efficiency.

	Raw Material Supply	Raw Material Strategy	Regenerative Resources	Sustainability & Transparency	Progress II – Thematic areas
	Production	Efficiency Consulting	Efficient Production	Efficient Product Development	
	Consumption	Awareness Raising	Retailers & Consumers	Certification Schemes	
	Circular Economy	Product Responsibility	Recycling	Avoid Illegal Exports	
NEW	Building & Urban Development	Infrastructure	Construction, Renovation	Labelling of Building Products	
	ICT	Efficient ICT Products	Efficient Software	Public Procurement	
	Cross-Cutting	Research & Innovation	Education	Legal Framework	

Figure 2. Priority areas of the current German policy package for resource efficiency. Source: German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety

In addition to the priority areas, the ProgRes II package also contains some voluntary measures. These measures include advice, training and support, strengthening voluntary measures and initiatives in industry and society, developing and improving standards and guidelines, and the creation of platforms for knowledge and information transfer.

The introduction of improved indicators is also an important element in Germany's ProgRes II package. The Federal Statistical Office of Germany has developed and improved the economic indicators and the recycling and recovery indicators. Some examples of these indicators are given in Figure III below.

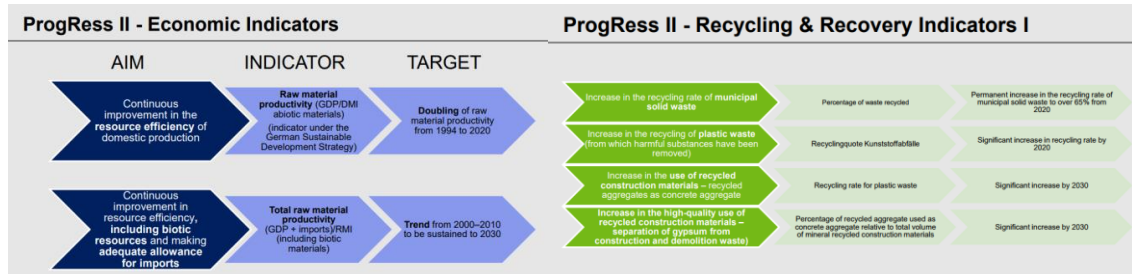


Figure 3. Indicators used in ProgRes II package. Source: German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety

5.1.2. What has been a success?

Decoupling of economic growth and resource use has been accomplished gradually, with overall decreasing use of raw materials and rising Gross Domestic Product. The aim is for the trend established between 2000 and 2010 to be maintained until 2030. In addition, Germany has seen a successful expansion of efficiency consulting; faster exchange of knowledge (by facilitating networks or competence centres like VDI ZRE); and the successful development and dissemination of material-efficient production processes, e.g. through the Environmental Innovation Programme.

The amendment of the Waste Prevention Programme contributed to the development of a resource-efficient circular economy, stronger legislation prevents illegal exports of electronic equipment and other products, and Germany is unique in its efforts to put resource efficiency on the global agenda. This has been accomplished through the 2030 Agenda for Sustainable Development, in which Germany takes a leading role, and through Germany's role in the G20 and in the G7, which it hosted in 2017.

Germany also made a significant contribution to introduce resource efficiency in the G7. During its presidency in 2015, the G7 established this issue as a working area, showing their commitment to ambitious action to protect natural resources and use them efficiently. Furthermore, the G7 created its Alliance on Resource Efficiency as a forum to exchange best practices and requested reports to the UNEP International Resource Panel (synthesis report) and the OECD (policy guidance). This work continued during the Japanese presidency of the G7 (2016) with the approval of the Toyama Framework on Material Cycles, and also the Italian presidency (2017) with the approval of the Bologna Roadmap as 5-year working plan for resource efficiency in G7.

5.1.3. Lessons learned

When considering the lessons learned, Axel Borchmann concluded that implementing resource efficiency in the entire economy is a process that requires the commitment and initiative of many actors, including policy-makers, the private sector, science, civil society and the regions. Just 'commitment' may not be enough, there is a need for the close involvement of all stakeholders, Borchmann argued.

In addition to involvement, governments need to provide a long-term orientation to encourage companies to make the necessary changes and investments. Axel Borchmann also mentioned the importance of not only introducing ‘hard’ measures and indicators, but also implementing ‘soft’ measures: awareness-raising, information and education. He concluded by underlining the importance of strong political support for resource efficiency in the German National Sustainability Strategy.

5.2. Flanders

Flanders and Germany face comparable challenges in terms of resources. The Flanders region was also pushed towards more resource-efficient policies by civil action which already started in the 1980s. Approximately thirty years down the road, Flanders has now taken significant steps towards implementing sustainable materials management and the circular economy.

However, there is another important incentive to ‘go circular’ in Flanders, Lieze Cloots of the Public Waste Agency of Flanders (OVAM) explained. The waste management and recycling sector has grown by more than 5% per year in recent decades and currently employs 12,000 people in Flanders alone. This accounts for 0.5% of all jobs in the region. Furthermore, every direct job creates 1.3 indirect jobs elsewhere in the economy, according to studies conducted in Flanders.

5.2.1. Existing policies

The Flemish Materials Programme is an important policy initiative that promotes the circular economy. Introduced in 2012, this programme is aimed at laying the foundation for a circular economy by 2020, in which materials rotate in ‘smart closed cycles’. These cycles should be introduced in four ‘economic clusters’ by five ‘enablers’.

The four clusters are: sustainable materials management in construction; the bio-economy; sustainable chemistry; and plastics and metals. These economic clusters were chosen for their potential to provide a resource and materials perspective, and because of the existing expertise within these domains in Flanders. To enable these clusters to thrive, Flanders focused its energy on five so-called ‘enablers’: sustainable design, smart collaboration, smart investments, new materials and new material technologies, and better regulation. These enablers were chosen to ensure that projects, business cases and innovations do not keep running into the same obstacles, Lieze Cloots explained.

In addition to the materials programme, the Flemish government recently launched its 2050 vision for the transition to a circular economy. In Flanders, implementing a circular economy is part of the region’s broader effort to achieve the goals and targets set out in the 2050 Agenda. With respect to the circular economy, this vision document focuses primarily on a broadening of scope. The initial focus relating to the circular economy was on closing material cycles, but now a number of sub-themes in the circular economy have been clearly identified: materials, water, energy, space, food supply, and governance. Previously separate pillars have been combined, while at the administrative level the circular economy competencies have been transferred from a single responsible ministry to shared accountability. To conclude, the Vision 2050 document will move from a more sector-specific to a cross-cutting approach. For example, the Flanders regional government will look for ways in which the transition to a circular economy can contribute to mitigating climate change and other environmental impacts.

5.2.2. What has been a success?

Like their German counterparts, the Flemish authorities underlined the vital importance of cooperation and inclusion along the value chain. According to Lieze Cloots, the Flemish programme worked because it enabled cooperation between entrepreneurs, researchers, policy-makers and civil society in Flanders. She argued that the programme really supports the transition to a circular economy, making it a *'one plus one is three'* approach.

At the administrative level, the creation of shared accountability was mentioned as a successful element in the transition strategy being applied by Flanders. Different ministries see the benefits of the transition and are willing to contribute. The topic is no longer 'owned' by a single ministry, and the 'silo mentality' is gradually being abandoned.

Using a mix of (policy) instruments proved crucial in Flanders. Legally binding instruments (a ban on landfill and incineration, mandatory separate collection, extended producer responsibility), economic instruments (fees on landfill and incineration, 'Pay As You Throw' pricing, investments in infrastructure to enable a circular economy) as well as awareness-raising and communication were deployed in combination. This made an important contribution to facilitating the transition to sustainable materials management.

5.2.3. Lessons learned

Make sure you strike the right balance when discussing ownership and inclusion, Lieze Cloots argued. At the start of the transition process, it seemed that the balance was not always sufficiently established in Flanders. Imbalance will not benefit the transition process.

Binding instruments such as fiscal policies, GPP criteria and some product policies are currently controversial in many countries. The shift from taxing labour to taxing resources has not yet been implemented, Lieze Cloots explained. Among some parties, this creates a fear that the 'next steps needed to truly accelerate the transition' will not be taken, or will not be implemented in time.

Lieze Cloots also mentioned the difficulties faced by Flanders in conveying the advantages of a circular economy to the wider public. 'It's hard to get the message across to people who do not belong to the usual target audience.'

5.3. France

In France, the concept of a circular economy developed from a buzzword to a real opportunity. Emile Pennekamp of the French Ministry of the Ecological and Inclusive Transition explained that the waste approach was developed and expanded by including environmental, economic and social elements. Furthermore, the number of jobs related to the circular economy is increasing (545,000 jobs in 2013), underlining the multitude of advantages expected to result from the introduction of a circular economic model in France.

5.3.1. Existing policies

France has known waste legislation from the mid-1970s onwards. This legislation has developed until the circular economy emerged as a probable concept in the second decade of the twenty-first century, Emile Pennekamp explained.

The most recent policy impulse came in 2015 with the introduction of the Energy Transition for Green Growth Act. The French government dedicated Chapter IV of the Act to the promotion

of a circular economy, embedding the circular economy in a broader strategy aimed at developing a green economy in France. The Act has a binding character and timetable, setting the horizons at 2030 and 2050. The French approach is comprehensive and aims to address several elements of a circular economy, such as sustainable production, sustainable consumption, waste management and the use of cross-cutting tools, and aims to promote progress at the European level.

France applies an arsenal of policies, many of which include (binding) legislation, Pennekamp said. The French, for example, introduced legislation to support longer product lifetimes by changing the definition of 'planned obsolescence'. Furthermore, France is exploring the option of extending the guarantees of some products from 2 to 5/10 years at the EU level. In addition to a ban on single-use plastic bags which has been in place since July 2016, France has also implemented a ban on the use of microbeads in cosmetics by 2018 and in plastic cups and dishes by 2020. In the area of waste management, the French government also applies a combination of binding measures (waste prevention, a 65% reduction of landfill by 2025, and developing 'Pay As You Throw' schemes) and 'soft' approaches (the green deals).

The appointment of Nicolas Hulot as Minister of Ecology marks a new step in the transition to a circular economy. The Minister has requested a roadmap to prepare for integration of the circular economy in the French national climate plan in 2018. This integration should not be regarded as a departure from the Energy Transition for Green Growth Act of 2015, but rather as an attempt to further integrate circular economy policies, Emile Pennekamp argued. It is expected that the integrated policy approach will focus on resource efficiency and the end-of-life of products. Furthermore, an integrated approach is expected to boost markets for recycled products. New policies will make a serious effort to mobilise all stakeholders, including the existing advisory councils dealing with this topic.

5.3.2. What has been a success?

France has a well-developed policy initiative in place for extended producer responsibility. This unique strategy is designed to promote the integration of environmental costs associated with goods throughout their lifecycles into the product's market price. It could also be utilised by other countries, either individually or even at the EU level in all member states.

5.3.3. Lessons learned

According to Emile Pennekamp, it is positive that many measures are being taken and that many stakeholders are involved in the process. However, there is still a risk of a fragmented approach and it will be challenging to maintain political attention, especially at the EU level. At the national level, the roadmap will therefore pursue an approach aimed at coherence and the involvement of stakeholders.

6. Appendix A. Workshop Programme

- 11:00 – 11:30 Registration
- 11:30 – 11:45 Opening
Arnau Queralt-Bassa, Chairman of the EEAC Network Network
- 11:45 – 12:00 Europe goes Circular: State of affairs in EU member states
Dr. Nicole van Buren, Chair of the EEAC WG on circular economy
- 12:00 – 12:30 Session I: Status quo of transition: patterns of construction and deconstruction
Dr Chris Roorda, Senior Researcher & Advisor, Erasmus University Rotterdam
- 12:30 – 13:00 Session II: Status quo of transition in Germany
Dr Axel Borchmann, Deputy Head of Unit WR III 1 (National and Fundamental Aspects of Resource Efficiency), German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety
- 13:00 – 13:30 *Refreshment Break*
- 13:30 – 14:00 Session III: Status quo of transition in Belgium
Lieve Cloots, Head International Policy Team, Public Waste Agency of Flanders (OVAM)
- 14:00 – 14:30 Session IV: Status quo of transition in France
Emile Pennekamp, Circular economy team leader, French Ministry for the Ecological and Inclusive Transition
- 14:30 – 15:00 Plenary Dialogue and Wrap-up
Dr Chris Roorda, Senior Researcher & Advisor, Erasmus University Rotterdam

7. Appendix B. Participant list

Country of origin	Name and Family name	Organization
Belgium	Dirk Uytendale	Minaraad
Belgium	Fabrice Dehoux	FRDO
Belgium	Laura Morel	Gent University
Belgium	Lize Cloots	VEPA
Belgium	Natalie Noucquey	CFDD
Belgium	Pieter Noens	Minaraad
Bulgaria	Monika Romenska	Extenede Producer Responsibility Alliance (EXPRA)
France	Emile Pennekamp	Ministry of the environment
Germany	Axel Borchmann	BMUD
Germany	Diana Nissler	BMUD
Germany	Kristine Sperlich	German Advisory Council on the Environment (SRU)
Germany	Vera Susanne Rotter	German Advisory Council on the Environment (SRU)
Great Brittain	David Baldock	IEEP
Great Brittain	Fiona Craddock	ACR+
Hungary	Gábor Bartus	NFFT
Hungary	Miklos Bulla	OKT
Portugal	Anabela Carvalho	Fundação para a Ciência e a Tecnologia (FCT)
Portugal	Natalia Faísco	CNADS
Spain	Alfredo Balmaceda	ZICLA
Spain	Arnau Queralt	CADS
Spain	Jean Piere HANNEQUART	FUNDACION ECONOMIA CIRCULAR
Spain	Josep Maria Serena	CADS
Spain	Ignasi Puig Ventosa	ENT Environment and Management / Fundació ENT
The Netherlands	Chris Roorda	Erasmus University
The Netherlands	Michiel de Vries	EEAC
The Netherlands	Nicole van Buren	Rli

EEAC Network Foundation

Bezuidenhoutseweg 30

P.O. Box 27

2501 CA The Hague

The Netherlands

www.eeac.eu and [@EEAC_Network](https://twitter.com/EEAC_Network)