Final draft

Comments on the country reports are welcome until June 1, 2019

Please send your comments to info@ecopreneur.eu. Only concrete text suggestions with sources and links where available and/or a brief explanation where needed will be taken under consideration.

CIRCULAR ECONOMY UPDATE

OVERVIEW OF CIRCULAR ECONOMY IN EUROPE

2019
DISCLAIMER

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About the author - Ecopreneur.eu

Ecopreneur.eu, the European Federation of Sustainable Business, sets a course toward sustainable economic policies on the European level to support the economic and societal transformation across Europe and beyond. Ecopreneur.eu aims at opening solidified structures and brings sustainable matters to European policy-makers. Ecopreneur is a non-profit non-governmental organisation that now holds five associations from different countries of the European Union. Together they represent over 3000 green businesses, mostly small and medium-sized enterprises.

www.ecopreneur.eu

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The circular economy is not a new idea, but over the past few years it has built up a potential to transform our economy for the better. An essentially zero waste economy is about as different to the current one as we can imagine. Realising this requires great changes in institutions and incentives. The European Union has shown leadership by creating the first foundations for this new economic framework. Meanwhile, it remains true that the pace of change is largely determined by initiatives within and differences between the member states.

This observation caused Ecopreneur to turn from the EU level, where it is advocating ambitious circular economy policies, to the member states. What was keeping them from accepting excellent proposals for extended producer responsibility? To what extent do member states see economic opportunities from circular models? What models are they using to move forward? Especially the last question culminated in this report, showing a richness of approaches across the EU.

While the EU as a whole has made an excellent start, the real work on creating incentives and regulations to mainstream the circular economy has to be done during the period of the next European Commission – and beyond, because this is a long-term project with a 10-20 year time scale. The analysis by Ecopreneur shows that this work requires leadership, targets, and new resource policies across the EU, as aligned and harmonised as can be. A first step would be to make circular economy a priority again, based on its potential to reach the climate goals in the Paris agreement, reduce plastics pollution in our oceans, rivers and lakes, and generate less waste all round.

However, it will not be easy, and will require commitment – from policy makers, businesses and civil society. Yet many local authorities have other concerns and problems. Businesses, including the SMEs and leading companies in the membership of Ecopreneur, have more incentives for going circular, but their circular activities are as yet largely confined to niche markets. Mainstreaming circularity requires bold policies such as a tax shift from labour to resources, transparency throughout the value chain and a shift away from waste incineration. I hope the best practice examples from individual member states will inspire others to fast-track their economy and the EU in the circular direction.

Paul Ekins
Director UCL Institute for Sustainable Resources
Professor of Resources and Environmental Policy

“Everything made by people should be separable by people as well.”

— Herwart Wilms, REMONDIS
This report intends to inspire EU member states to accelerate their transition into a circular economy. Combining the Circular Economy Monitoring Framework of the European Commission with available rankings, databases and reports, Ecopreneur presents 28 country profiles using a combination of available quantitative data and qualitative information to highlight specific indicators covering various aspects of the circular economy. These indicators, which range from the waste generated per person to the voting behaviour on EU proposals concerning the circular economy, are accompanied by a description of their current performance, initiatives, most relevant organisations, policies, challenges and examples of good practice. Each country profile is concluded with Ecopreneur’s recommendations.

The overall picture is rich and diverse. The country profiles show 28 different trajectories into the circular economy, reflecting their unique character as well as the presence of leadership. Some countries are leading the way, such as the Netherlands, Scotland, Slovenia, France, Belgium and Finland. Some examples of good practice of circular economy policies are given by the Netherlands with a Green Deal Circular Procurement invoking over € 100 million in procurement done circular, France with 20 extended producer responsibility (EPR) schemes in 14 sectors, and Sweden with a low VAT rate and income tax reduction for certain repairs. Others are making impressive strides, such as Italy which increased their municipal waste recycling rate from 17 to 45 per cent since 2001 and Portugal with a broad circular economy policy mix including many EPR schemes. And some have only just begun the journey, such as Cyprus, Greece, Malta and Romania. Some leading countries including the Netherlands have the longest way to go because they generate enormous amounts of waste per person, on which Romania scores best. Leading countries typically have a long way to go as well, with enormous amounts of waste generated per person.

Out of many country-specific recommendations, the following stand out as relevant for all member states:

1. Start a Green Deal on Circular Procurement
2. Create circular “hubs” to support companies with circular models
3. Create a national circular economy roadmap with concrete targets
EXECUTIVE SUMMARY

4. Improve and extend the extended producer responsibility (EPR) schemes to cover eco-modulation of fees

5. Introduce low VAT rates for repair services, resold goods and transactions with clearly defined social reasons

6. Create a “Green New Deal” to shift taxes from labour to resources

7. Shift investments away from municipal waste incineration.

In addition, Ecopreneur recommends the following to the EU:

- Initiate and fund a massive free training programme on Circular Procurement in all member states and lead by example with circular procurement across the board
- Initiate and fund the development of circular hubs in all member states
- Encourage the development of circular economy roadmaps while ensuring their alignment
- Ensure alignment of national EPR schemes by strong guidelines and reconsider the introduction of harmonised, mandatory schemes
- Prepare the VAT rate proposal in the context of its potential for the circular economy, table it when adoption by all member states can be reached, and continue investigating majority voting on tax matters.
- Keep advising member states to introduce a tax shift from labour to resources and set up pilots to demonstrate its potential, including VAT differentiation.
- Prevent the use of EU funds for investments in residual waste incineration.
- Create a general regulatory framework that creates harmonised transparency and traceability, introduces minimum requirements for circular design by expanding the EU Ecodesign Directive from energy to resource efficiency for all end products, and removes existing obstacles for cross-border shipment of waste within the EU.
This report intends to inspire EU member states to accelerate their transition into a circular economy. In a circular economy, the value of products and materials is maintained for as long as possible. Waste and resource use are minimised, and when a product reaches the end of its life, it is used again to create further value. During the past five years, one after the other country has embarked on this journey, especially after the European Commission acknowledged the huge potential for jobs and economic growth and launched the EU Circular Economy Action Plan in 2015. The European Commission and Parliament have been progressive in forwarding this. The European Council however, while in favour of the transition to a circular economy and having adopted several important new regulations to foster it, has blocked many ambitious proposals over the past five years. For Ecopreneur, this illustrates the importance of the member states for realising the transition from a linear to a circular economy. The report intends to show how individual member states have managed to move forward, including good practices that can hopefully bring other member states further and convey the key message that going “circular” is good for your economy. If this works, this will hopefully allow the European Union to fast-track the circular economy by harmonised and aligned approaches.

**Explanation of the indicators**

Presenting an overview of circular economy performance, initiatives and policies for all 28 EU member states requires some form of circular economy “yardstick” that is as factual as possible. Combining the Circular Economy Monitoring Framework of the European Commission made available by Eurostat with available rankings, databases and reports, Ecopreneur decided on a combination of available data to highlight specific indicators covering various aspects of the circular economy:

- **The Eurostat data on per capita municipal waste production** (indicated as “per capita waste production” throughout this report, using the 2016 data), per capita waste incineration, recycling rate of municipal waste, recycling rate of packaging, circular material use rate, reflecting the progress towards minimising waste.
- **The European Commission’s Eco-innovation Index resource efficiency ranking** from the Eco-innovation Observatory (2018), specifically highlighting innovation performance and obstacles.
- **POLITICO’s circular economy index**, offering a different perspective on official datasets by giving more weight to waste avoidance.
- **The European Commission’s Flash Eurobarometer 456 (2018)**, reporting on the share of SMEs minimising waste.
- **Extended Producer Responsibility (EPR) schemes**, important as an economic incentive system (see also below).

To further complement the picture of policies and initiatives to foster the circular economy, the presence of the following qualitative indicators were added:

- **The presence of a circular economy roadmap**, reflecting the government’s effort and stakeholder support for the circular economy.
- **Circular economy initiatives**, reflecting the bottom-up movement.
- **Circular economy tax incentives**, including VAT measures as well as elements of the so-called tax shift from labour to resources. Just like EPR, these incentives are crucial to create demand for circular products and services.
- **The most relevant organisations – indicative and not exhaustive**. Insofar present, the national Ecopreneur member is also listed.
- **Examples of good practice** – if present.

Finally, on a completely different note, the voting behaviour in the European Parliament on the following recent EU proposals connected to the circular economy is listed on:

- **The revised directives for the Waste framework, Landfill, Packaging and End-of-Life Vehicles (ELV’s).**

The votes reflect the member states’ support for and/or resistance against these proposals. This is important because they determine the ability of the European Union to accelerate the circular economy by harmonised and aligned approaches. As already mentioned, resistance from member states has been even more apparent in the European Council.

Obviously, these additional indicators are not incorporated in or acknowledged by the Circular Economy Monitoring Framework of the European Commission, so the total picture presented will deviate from the official one. This choice reflects the perspective of Ecopreneur on the circular economy, which is that of green SMEs and leading companies operating at the forefront of circular economy. It aims to highlight certain aspects that would otherwise remain uncovered because the member states chose not to include them in monitoring framework. While it may be tempting to rank the profiles and decide on “winners” and “losers”, we decided not to do this because our purpose is to inspire and because our yardstick is not a generally accepted one.
INTRODUCTION

At the same time, the data presented give only a partial picture. This is why the 28 country profiles are accompanied by a short story to give some background for their current performance, initiatives, most relevant organisations, policies and challenges. Each country profile is concluded with “examples of good practice” (if any) and Ecopreneur’s recommendations.

Finally, the publication of the European Commission’s second Environment Implementation Review (EIR) was written in parallel and published a few days before this report was finalised, and could unfortunately not be integrated any more other than with a few last-minute changes.

Reading guide
Chapter 2, the core of this report, presents country profiles for all 28 EU Member states. Each country profile is accompanied by a list of recommendations. While most of them speak for themselves, some require more explanation, such as those concerning EPR. This explanation is given in Chapter 3, which lists Ecopreneur’s conclusions and overall recommendations. The report ends with acknowledgements of dozens of experts from all over the EU that have provided feedback and additional input to the country reports, and with references.
This Chapter describes the country profiles by a listing of the data presented in Chapter 1, accompanied by a short story describing their current performance, initiatives, most relevant organisations, policies, challenges and examples of good practice. Each country profile is concluded with Ecopreneur’s recommendations.

### 2.1 AUSTRIA

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<thead>
<tr>
<th>Indicator</th>
<th>Value</th>
<th>Recommendation</th>
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<tbody>
<tr>
<td>Eco-innovation Index resource efficiency: 9th</td>
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<tr>
<td>POLITICO’s circular economy index: 9th</td>
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<tr>
<td>% of SMEs minimising waste: 59%, 13th</td>
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<td>Per capita waste production(^1): 564 kg, 22nd ↑</td>
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<td>Per capita waste incineration: 405 kg, 21st</td>
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<td>Recycling rate of municipal waste: 58%, 3rd ↑</td>
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<td>Recycling rate of packaging: 67%, 12th ↓</td>
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<td>Circular material use rate: 9%, 10th ↑</td>
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<td>EPR schemes: 14 in 4 sectors</td>
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<td>Circular economy roadmap:</td>
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<td>Circular economy tax incentives:</td>
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<td>Circular economy initiatives:</td>
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<td>Ecodesign: For: 18, Against: 0, Abstention: 0</td>
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<td>ELV’s: For: 18, Against: 0, Abstention: 0</td>
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<td>Circular Economy Coalition for Europe</td>
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<td>(CECAEurope), Umweltdachverband</td>
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<td>Circular Futures Platform, Resources</td>
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<td>RepaNET, REVITAL</td>
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<td>Grüne Wirtschaft</td>
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\(^1\) Indicating the per capita municipal waste production (throughout this report)
Austria can be recognised as a hub for environmental innovation within Europe, home to the “Green Tech” cluster located in and around Graz and the “Clean Tech” cluster situated in upper Austria. This is reflected in its high municipal waste recycling rate, ranking 3rd out of all member states, and in good rankings on resource efficiency and POLITICO’s circular economy index. Austria has several extended producer responsibility (EPR) schemes in place for batteries, waste electrical and electronic equipment (WEEE), packaging, and end-of-life vehicles (ELV’s).

There are various initiatives to further foster the circular economy, mainly from NGO side such as the unique Vienna Repair Network, RepaNet – the Austrian Re-Use and Repair Network and the recently founded Circular Futures Platform. Recently, the Austrian Water and Waste Management Association (ÖWAV) released a position paper setting out clear measures to achieve the respective goals of its numerous stakeholders. These include building a respective data basis, implementation of eco-design, defining quality standards, efficient and effective implementation of an extended producer responsibility (EPR) and several others.

Austria has a well-established environmental technologies sector, with readily available financial support from the state to develop them further. In addition, the Cabinet recently approved a ban on non-biodegradable plastic bags set to come into effect in Austria at the start of 2020. New legislation will ban plastic particles in cosmetic and cleaning products if the European Union fails to come up with a solution for this issue before 2020. Regarding circular economy tax incentives currently only the city of Graz reimburses 50% repair costs up to maximum € 100. At the EU level, Austria voted in favour of all recent EU proposals regarding Ecodesign, single-use plastics and waste, with little to no resistance. The only vote to receive moderate resistance was the Council directive amending Directive 2006/112/EC as regards rates of value added tax (VAT). Moreover, Austria has shown leadership and ambition to drive the European Circular Economy agenda during its Presidency in 2018 and was praised for realising the adoption of the Single Use Plastics Directive.

However, while all this gives Austria a good starting position to become a circular economy, the country is by no means there. With 564 kg per person per year, Austria is amongst the highest waste producers. Additionally, SMEs perform below the EU average on waste minimisation. Austria does not have a circular economy roadmap. Existing initiatives mainly driven by NGOs, small, not aligned and not coordinated. Circular economy is currently not a focus of the Austrian Government. It is widely interpreted as waste recycling where Austria is perceived to be already among the top performer. A comprehensive approach towards circular economy in the public debate is missing. Awareness seems focused on waste and environmental concerns rather than economic opportunities in, for instance, the service sector - which accounts for approximately 63% of the country’s gross domestic product.

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Existing barriers include a lack of corporate awareness, little focus on the circular economy from the government and missing market action, for example through public procurement.

Ecopreneur recommendations: (see also Chapter 3)

- Formulate and launch an Austrian Circular Economy Strategy, including objectives to reduce raw materials use and waste production, to foster secondary raw material use, to establish an appropriate materials accounting system and to become fully circular in 2050
- Adopt a proposal for the reduction of labour costs for repair and exempt repair from VAT. Also introduce low VAT rates for resold goods and transactions with clearly defined social reasons and discuss the EU VAT rate proposal in the context of the circular economy
- Set-up a national R&D and support program for SMEs with focused activities and access to finance to initiate circular economy pilot projects and create a circular economy “hub”
- Launch a Green Deal on Circular Procurement for both the public and the private sector, including commitments from companies and a free training programme
- Evaluate the existing EPR schemes based on the latest recommendations of the OECD, EY and Ecopreneur as a basis for improvement, and extend them to cover more sectors and eco-modulation of fees
- Make sure to implement circular economy principles in existing programs for sustainable tourism, the dominant economic sector
Belgium is doing well in many aspects of the circular economy. Especially with a total packaging recycling rate of 82 per cent, the country ranks 1st out of all member states\(^2\). Belgium has quite a few (11) EPR schemes, they encompass the most important waste streams and are well established\(^6,18\). The three regions in Belgium (Flanders, Wallonia and Brussels) have implemented landfill and incineration bans (in Flanders combined with landfill and incineration taxes), pay as you throw schemes for household waste, an extensive infrastructure for separate collection, sorting and recycling, and an extensive network of reuse centres, supported by subsidies. There are many circular economy initiatives currently running, with a select few such as Circular Flanders receiving government backing. Belgium is home to a highly innovative base of companies with circular economy policies being well supported by institutions and individuals alike. Additionally, circular economy initiatives are well integrated and coordinated with other policies on a governmental level.\(^3\) Belgium offers a reduced VAT rate of 6 per cent to social enterprises providing goods and services relating to reuse and the preparation of products for reuse, providing that they are engaged in the social development of disadvantaged groups.\(^7\) The Flemish government recently streamlined various initiatives into a programme focusing on procurement, cities and entrepreneurship. Crucially, they recently introduced a Green Deal Circular Procurement, an initiative that fosters collaboration between organisations and encourages the purchase of circular goods and services.\(^21\) By further improving on the successful Dutch approach, this initiative has kick-started implementation of circular economy in Flanders. The Wallonian government was the first to join the Ellen MacArthur Foundation.\(^22\) In 2018 it has adopted a “Waste-Resource” plan for the region, with which it aims to integrate the new European circular economy obligations as well as increase recycling.\(^23\) The three regions launched a common tool for calculating the environmental footprint of buildings. Despite widespread support for the circular economy, Belgium still faces issues slowing development such as independent policy administration by region, low environmental taxation and a trend in difficult to repair products (expensive repair parts, lack appropriate repair information, product designed without re-use potential or breaks on repair attempt). Finally, in recent years there has been an increase in the operational costs of selective waste collection, resulting partly from new initiatives tackling litter\(^3\).
2.3 BULGARIA

Eco-innovation Index resource efficiency: 27th
POLITICO’s circular economy index: 24th
% of SMEs minimising waste: 28%, 26th
Per capita waste production: 404 kg, 8th ↓
Per capita waste incineration: 65 kg, 5th ↑
Recycling rate of municipal waste: 32%, 18th ↑
Recycling rate of packaging: 64%, 17th ↓
Circular material use rate: 4%, 22nd ↑
EPR schemes: 9 in 5 sectors

Circular economy roadmap:
Circular economy tax incentives:
Circular economy initiatives:
Most relevant organisations:
- Cleantech Bulgaria
- Bulgarian Institute for Circular Economy,
- Green Synergy Cluster, Cleantech Bulgaria Cluster

Ecodesign: For: 12, Against: 0, Abstention: 0
SUP: For: 14, Against: 0, Abstention: 0
VAT: For: 16, Against: 0, Abstention: 0
Waste: For: 16, Against: 0, Abstention: 0
Landfill: For: 16, Against: 0, Abstention: 0
Packaging: For: 15, Against: 0, Abstention: 0
ELV’s: For: 16, Against: 0, Abstention: 0

Belgium

Ecopreneur recommendations: (see also Chapter 3)

- Add objectives to the national strategy to reduce raw materials use, to foster secondary raw material use, and to become 50 per cent circular in 2030 and fully in 2050
- Expand the regional support programs for SMEs with focused activities and access to finance to initiate circular economy pilot projects and create a circular economy “hub”
- Evaluate the existing EPR schemes based on the latest recommendations of the OECD[191], EY[192] and Ecopreneur[193] as a basis for further improvement, and extend them to cover eco-modulation of fees
- Introduce tax incentives such as low VAT rates for repair services and resold goods and discuss the EU VAT rate proposal in the context of the circular economy
2.4 CROATIA

Eco-innovation Index resource efficiency: 17th
POLITICO’s circular economy index: 19th
% of SMEs minimising waste: 64%, 10th
Per capita waste production: 403 kg, 7th
Per capita waste incineration: 8 kg, 2nd
Recycling rate of municipal waste: 21%, 24th
Recycling rate of packaging: 55%, 26th
Circular material use rate: 4%, 21st
EPR schemes: 5 in 3 sectors

Voting behaviour on recent EU proposals connected to the circular economy:
- Ecodesign: For: 11, Against: 0, Abstention: 0
- SUP: For: 8, Against: 0, Abstention: 0
- VAT: For: 9, Against: 0, Abstention: 0
- Waste: For: 11, Against: 0, Abstention: 0
- Landfill: For: 11, Against: 0, Abstention: 0
- Packaging: For: 11, Against: 0, Abstention: 0
- ELV’s: For: 11, Against: 0, Abstention: 0

Ecopreneur recommendations: (see also Chapter 3)
- Launch a Green Deal Circular Procurement for both the public and the private sector, including a free training programme and commitments from companies
- Apply for EU funds to set-up a national support programme for SMEs with focused activities and access to finance to create a circular economy “hub”
- Implement the new EU regulations on waste management and plastics as soon as possible
- Formulate and launch a Bulgarian Circular Economy Roadmap or Strategy, including objectives to reduce raw materials use and waste production and to become fully circular in 2050
- Evaluate the existing EPR schemes based on the latest recommendations of the OECD, EY and Ecopreneur as a basis for improvement, and extend them to cover eco-modulation of fees
- Monitor the waste per capita as to keep the advantage with growing prosperity
- Introduce tax incentives such as low VAT rates for repair services, resold goods and transactions with clearly defined social reasons and discuss the EU VAT rate proposal in the context of the circular economy

BULGARIA

Bulgaria is struggling regarding circular economy efforts. On the bright side, it has a low per capita waste production with of about 400 kg per year, a solid number of EPR schemes in place.

On all other circular economy indicators, Bulgaria ranks very low. Resource efficiency is of particularly concerning, ranking second to last amongst all EU member states and little focus on waste minimisations by SME’s according to the Flash Eurobarometer. Barriers to circular economy implementation are mostly economic with limited funding available for enterprises to modernise equipment and a notably low level of domestic, private and foreign capital investments. The largest contributing factor to the poor performance can be attributed to a lack of funding at the country’s disposal for the circular economy. Government support is lacking and initiatives are few and far between, with those in place focusing primarily on collaboration between businesses.

Bulgaria has a long way to go to contend with the pioneers of circular economy within Europe. The country does however have a wealth of human capital, with a multitude of qualified engineers, scientists and R&D institutions increasing the potential for a well monitored transition to a circular economy. Additionally, the country’s accession to the EU improved quality of life for the populace, in turn ramping up demand for high quality products and services. Bulgaria voted wholly in favour of all recent legislative proposals in the EU Parliament regarding the circular economy.
CROATIA

CROATIA

Croatia is one of fourteen countries recognised by the European commission as being at risk of not meeting their recycling targets by 2020.24 Positives are its low per capita waste production3 and respectable Flash Eurobarometer SME waste minimisation ranking5. Extended Producer Responsibility (EPR) seems relatively well developed with schemes in place for 7 sectors6,25 and an act on producer responsibility coupled to an environmental fund.9 The country has however one the lowest recycling rates of municipal waste and packaging in the EU at just 21 per cent and 55 per cent respectively7.

While Croatia does not have any initiatives focusing on circular economy as such, it is working on waste management and on sustainable tourism.27 For waste management, the country has access to 475 million euros made available by the EU’s Competitiveness and Cohesion Operational Programme for the adoption of a Waste Management Plan for the years 2017-2022.28 The plan focusses on developing a recycling and recovery system to separate waste, reducing the total quantity of mixed municipal waste. After a strong shift towards sustainable solutions including increasing recycling from 10 per cent to 50 per cent by adoption of new Waste Management Plan at beginning of 2017,29 a new minister for the environment took a step backwards in May of the same year by releasing a document with less ambitious targets for the reduction of the incineration capacity for residual waste.30 Noteworthy are huge differences among counties within the country, with recycling rates varying from 3 per cent to 38 per cent reflecting local differences in awareness and willingness to change behaviour.31 The Croatian Business Council for Sustainable Development and ECO-OZRA are working on awareness raising.

Concerning tourism, Croatia’s economy is service sector dominated with tourism accounting for a large portion of the country's GDP.29 In recent years there has been a push for sustainable tourism with the establishment of the Croatian Sustainable Tourism Observatory and an several international conferences, such as the one on Protected Areas and Sustainable Tourism organised by partners of the Central Europe Eco-Tourism project.30 Meanwhile the country’s voting behaviour on EU circular economy proposals is one-sided, with all votes in favour of recent proposals.7,

Croatia is by no means a frontrunner and much more must be done to combat the barriers preventing a smooth transition to a circular economy. A lack of awareness and willingness to engage in circular economy principles by the general population and the country's territorial topography are particularly problematic.3

Ecopreneur recommendations:
(see also Chapter 3)

- Launch a Green Deal Circular Procurement for both the public and the private sector, including a free training programme and commitments from companies.
- Set-up a national support programme for SMEs with focused activities and access to finance to create a circular economy “hub”
- Formulate and launch a Croatian Circular Economy Strategy, including objectives to reduce raw materials use and waste production and to become fully circular in 2050.
- Evaluate the existing EPR schemes based on the latest recommendations of the OECD191, EY192 and Ecopreneur193 as a basis for improvement, and extend them to cover more sectors and eco-modulation of fees.
- Introduce tax incentives such as low VAT rates for repair services, resold goods and transactions with clearly defined social reasons and discuss the EU VAT rate proposal in the context of the circular economy.
- Implement the new EU regulations on waste management and plastics as soon as possible.
2.5 CYPRUS

Eco-innovation Index resource efficiency: 21st
POLITICO’s circular economy index: 28th
% of SMEs minimising waste: 29%, 25th
Per capita waste production: 640 kg, 27th ↑
Per capita waste incineration: 87 kg, 7th
Recycling rate of municipal waste: 17%, 25th ↓
Recycling rate of packaging: 59%, 21st ↑
Circular material use rate: 2%, 24th ↓
EPR schemes: 3 in 3 sectors

Voting behaviour on recent EU proposals connected to the circular economy:
Ecodesign: For: 5, Against: 0, Abstention: 0
SUP: For: 5, Against: 1, Abstention: 4
VAT: For: 1, Against: 0, Abstention: 1
Waste: For: 5, Against: 0, Abstention: 0
Landfill: For: 6, Against: 0, Abstention: 0
Packaging: For: 4, Against: 0, Abstention: 2
ELV’s: For: 4, Against: 0, Abstention: 0

Circular economy roadmap:
Circular economy tax incentives:
Circular economy initiatives:
Most relevant organisations:
Cyprus Energy Agency, TESURA Cyprus

Cyprus performs well below average in all relevant circular economy indicators, most notably regarding per capita waste production with 640 kg per year, the second highest waste producer per capita of all EU member states. In addition, the country has only 3 EPR schemes established with no coverage for multiple waste streams. Cyprus does not have any ongoing circular economy focused initiatives although one-off events were identified.

Cyprus provides several tools that help with accessing crucial information to increase innovation and growth. For example, “Ariadni”, a government gateway listing e-services and relevant information, is an online portal for SMEs and the digitalisation of public records. The country also benefits from its natural capital for renewable energy, mainly wind and solar. Additionally, Cyprus has been allocated € 874 million from ESI Funds over the period 2014-2020 to be used in areas such as resource usage efficiency, competitiveness for SMEs and the digitalisation of public records.

The lack of initiatives combined with a poor legislative framework towards eco-innovation, puts the country far behind other EU countries in terms of circular economy efforts. Cyprus has several barriers hindering the circular economy, mainly concerning structural factors. The R&D sector is relatively new in the country, resulting in a fragmented system that lacks coordination between stakeholders. The physical location and structure of the economy is not conducive to innovation. The market is small and the island is remote from other countries which acts as a massive disincentive for tech companies to invest and establish a foothold.

Ecopreneur recommendations: (see also Chapter 3)
• Implement the new EU regulations on waste management and plastics as soon as possible
• Apply for additional EU funds to set-up a national support programme for SMEs with focused activities and access to finance to create a circular economy “hub”
• Launch a Green Deal on Circular Procurement for both the public and the private sector, including a free training programme
• Formulate and launch a Cyprus Circular Economy Roadmap or Strategy, including objectives to reduce raw materials use and waste production and to become fully circular in 2050, innovation support, and plans for improving EPR
• Evaluate the existing EPR schemes based on the latest recommendations of the OECD, EY and Ecopreneur as a basis for improvement, and extend them to cover more sectors and eco-modulation of fees
• Introduce tax incentives such as low VAT rates for repair services, resold goods and transactions with clearly defined social reasons and discuss the EU VAT rate proposal in the context of the circular economy
CZECH REPUBLIC

The Czech Republic has the third highest packaging waste recycling in Europe in 2016. Many SMEs are also taking steps to reduce waste, ranking 9th in the Flash Eurobarometer for percentage of SME's minimising waste. The country is also well versed in creating innovative technologies, particularly in the form of start-ups – even without significant funding. It has a large concentration of scientific institutions and universities to facilitate the need for human capital. The Czech Republic has a well-established extended producer responsibility (EPR) system for municipal waste packaging. Still, resource efficiency is a weak point for the country, placing 25th out of all EU member states.

Government support is strong as circular economy policy has been aligned with environmental strategy goals. The transition to a circular economy is the main objective of the national Waste Management Plan 2015 – 2024. The Czech Republic has also started work on a national circular economy strategy "Circular Czechia 2040". Adoption is scheduled for 2021 by the Government. Another initiative is Dostybyloplastu, "Enough Plastic", a governmental campaign against single-use plastics by means of voluntary agreements with retailers and the catering sector. The Czech Republic was very active during the circular economy legislative procedure for packaging waste. The country’s voting behaviour on EU circular economy proposals is relatively positive with minimal resistance to all proposals.

On the other hand, an observation has been made that the mentality of the general public and management of industrial companies towards circular economy principles is low. Investors tend not to take risks into areas of eco-innovation. There is also a lack of venture capital to be used to develop new technologies coupled with an overall stagnation of people applying for placements in research institutions. Finally, the Czech Republic receives a substantial amount of EU funding in the form of European Structural and Investment Funds.

**Ecopreneur recommendations:** (see also Chapter 3)

- Reduce landfilling of waste and boost waste prevention and recycling of waste
- Adopt and launch the Circular Czechia 2040 Strategy, including objectives for increasing circular business models and to become fully circular in 2050
- Launch a Green Deal Circular Procurement for both the public and the private sector, including a free training programme and commitments from companies
- Apply for EU funds to set-up a national support programme for SMEs with focused activities and access to finance to create a circular economy "hub"
- Implement the new EU regulations on waste management and plastics as soon as possible

(see next page)
2.7 DENMARK

- Eco-innovation Index resource efficiency: 8th
- POLITICO’s circular economy index: 13th
- % of SMEs minimising waste: 49%, 19th
- Per capita waste production: 783 kg, 28th ↓
- Per capita waste incineration: 651 kg, 26th
- Recycling rate of municipal waste: 48%, 9th ↑
- Recycling rate of packaging: 79%, 2nd ↑
- Circular material use rate: 8%, 13th ↓
- EPR schemes: 7 in 4 sectors
- Circular economy roadmap: Yes
- Circular economy tax incentives: -
- Circular economy initiatives: 15 government funded initiatives
- Most relevant organisations: State of Green, The Ecological Council

3.1 CZECH REPUBLIC

- Evaluate the existing EPR schemes based on the latest recommendations of the OECD, EY and Ecopreneur as a basis for improvement, and extend them to cover more sectors and eco-modulation of fees
- Introduce tax incentives such as low VAT rates for repair services, resold goods and transactions with clearly defined social reasons and discuss the EU VAT rate proposal in the context of the circular economy
Denmark is increasingly committed to the circular economy. It is the 2nd highest recycler of packaging and has long been an international leader in waste management and the reduction of landfill. EPR schemes cover most major sectors, although packaging is a government-lead scheme, which has been well adopted. At the same time, Denmark’s performance is conflicted because it is also the highest per capita producer of municipal waste and a high rate of waste incineration. Additionally, Denmark is well below the EU average for the percentage of SME’s minimising waste according to the Flash Eurobarometer.

Circular economy initiatives are plentiful and coordinated. Recently the Danish government published the Danish Strategy for Circular Economy which plans to divide about 16 million euros between 15 initiatives to facilitate the transition towards a circular economy. The strategy focuses on recirculating materials and minimising waste, but also pays attention to eco-innovation and SMEs. While Denmark’s attitude towards circular economy is reportedly very positive with individuals, enterprises and regional governments making noticeable strides in adopting circular economy principles, the general awareness is still low and focused on waste. Denmark did show moderate resistance to a recent vote regarding amendments to rates of value added tax (VAT), while other circular economy related votes received virtually no opposition.

Denmark’s approach to circular economy is gaining traction, however the massive amount of waste produced and incinerated cannot go unnoticed. A massive barrier still to overcome Denmark’s focus on waste for energy, which it has utilised for decades, it requires a fundamental mind shift to gear the waste management sector to reuse, recycling and waste prevention. The potential for Denmark is large, as highlighted by a case study from the Ellen MacArthur Foundation in 2015. A well-structured plan and “acceptance” of a transition to a circular economy cannot manifest results if not adhered to and practiced.

Ecopreneur recommendations: (see also Chapter 3)

- Stop investing in waste incineration capacity and adjust the the taxes on landfill and incineration to ensure waste handling according to the EU waste hierarchy
- Revise the Government’s Utility Strategy to streamline waste handling at a national scale, across municipal boundaries by private companies. At the same time, ensure public sector control of the recycling value chain to enhance optimal resource handling according to the waste framework directive by EPR schemes
- Launch a Green Deal Circular Procurement for both the public and the private sector, including a free training programme and commitments from companies
- Add objectives to the Danish Circular Economy Strategy to reduce raw materials use and waste production and to become 50 per cent circular in 2030 and fully in 2050
Back in 2007, a crazy Estonian idea urged people to clean up their countries in one day - the NGO Let’s Do It established on the same day eventually organised the World Cleanup Day on 15 September 2018 with the participation of 147 countries and over 17 million people. Today Estonia produces little waste - but is very resource inefficient at the same time. The country ranks well in both per capita waste production and circular material use rate coming in 5th and 6th respectively. Still, Estonia is known for its very efficient deposit-refund system for beverage packaging; the system has ensured a collection rate of over 90 per cent. There are plenty of initiatives. In 2017 the Tallinn TTK University of Applied Sciences established The Institute of Circular Economy and Technology, which offers courses teaching skills necessary to progress a circular economy. In 2018 the Circular Economy Forum was established, a national circular economy network to unite interested businesses, experts, public sector and other institutions. It is managed by Estonian Association for Environmental Management and aims to gather the expertise, provide encouragement and knowledge, facilitate dialogue between different parties, and support government in their development. Additionally, the Ministry of Environmental Affairs has also recently shown initiative by reaching out to stakeholders, spurring a discussion into creating national circular economy strategy. Mandatory green public procurement for certain categories is planned for launch. An Estonian Circular Economy strategy and action plan are currently being developed with the aim to adopt them by the end of 2020. In 2019 Estonia is concentrating on the development of a methodology to measure the circular economy in Estonia and to assess potential measures supporting the transition. The methodology will include a set of numeric indicators to map the current situation and to reflect changes in circular economy areas. Strategy development process is supported by stakeholder involvement through seminars and a circular economy webpage. Estonia is also a top labour market performer within the EU and has embraced a strong start-up culture leading to concrete developments in eco-innovation. Voting behaviour on EU circular economy proposals is 100 per cent positive to proposals related to the circular economy. During its EU presidency in 2017, it forwarded the circular economy agenda with an excellent conference on Circular Procurement. However, while these are positive elements to Estonia’s progress towards a circular economy, there are also many negatives. Estonia ranks last in two significant measures of a circular economy, these being resource efficiency and the SMEs’ commitment to waste minimisation. The country ranks close to the bottom for both the recycling rate of municipal waste and packaging. EPR is also a
2.9 FINLAND

**Eco-innovation Index resource efficiency:** 24th
**POLITICO’s circular economy index:** 22nd
**% of SMEs minimising waste:** 55%, 16th
**Per capita waste production:** 504 kg, 19th †
**Per capita waste incineration:** 1037 kg, 28th
**Recycling rate of municipal waste:** 42%, 12th †
**Recycling rate of packaging:** 65%, 16th †
**Circular material use rate:** 5%, 17th ↓

**EPR schemes:** 16 in 6 sectors
**Circular economy roadmap:**
**Circular economy tax incentives:**
**Circular economy initiatives:**
**Most relevant organisations:**
**Example of good practice:**

Voting behaviour on recent EU proposals connected to the circular economy:
- **Ecodesign:** For: 0, Against: 0, Abstention: 0
- **SUP:** For: 0, Against: 0, Abstention: 0
- **VAT:** For: 0, Against: 0, Abstention: 0
- **Waste:** For: 0, Against: 0, Abstention: 0
- **Landfill:** For: 0, Against: 0, Abstention: 0
- **Packaging:** For: 1, Against: 0, Abstention: 0
- **ELV’s:** For: 0, Against: 0, Abstention: 0
- **Yes**
- **No**

**Ecopreneur recommendations:** (see also Chapter 3)
- Launch a Green Deal Circular Procurement for both the public and the private sector, including a free training programme and commitments from companies
- Adopt and launch an Estonian Circular Economy Roadmap or Strategy, including objectives to reduce raw materials use and waste production and to become fully circular in 2050, R&D support, and a focused programme for the ICT industry
- Apply for EU funds to set-up a national support programme for SMEs with focused activities and access to finance to create a circular economy “hub”
- Implement the new EU regulations on waste management and plastics as soon as possible
- Evaluate the existing EPR schemes based on the latest recommendations of the OECD\(^{131}\), EY\(^{192}\) and Ecopreneur\(^{193}\) as a basis for improvement, and extend them to cover more sectors and eco-modulation of fees
- Introduce tax incentives such as low VAT rates for repair services, resold goods and transactions with clearly defined social reasons and discuss the EU VAT rate proposal in the context of the circular economy
- Monitor the waste per capita as to keep the advantage with growing prosperity

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**ESTONIA**

weak point for the country, covering 3 sectors only with competition in just packaging and WEEE\(^{6}\). Barriers include low R&D intensity in the country’s major industries and little diversification making it difficult for newly developing economic drivers, mainly ICT focused, to establish a support network\(^4\).
Finland is on its way to become one of the leaders in the circular economy. It is mostly ranked around the midpoint for circular economy indicators. Notably, EPR scheme coverage in Finland is quite impressive, encompassing 6 sectors with a total of 16 schemes.

Circular economy initiatives are well established and coordinated. Finland, promisingly, released a circular economy roadmap in 2016. Driving force behind this is the Finnish Innovation Fund Sitra, with a long-standing track record in innovation support, and a circular economy programme. There are a dozen of initiatives on different subjects, including a material efficiency programme, voluntary agreements of Green Deals, a national programme for the recycling of nutrients (RAKI), thematic projects, and a roadmap for plastics and circular economy in all education levels -entity. For example, CIRCWASTE, a seven-year programme funded by the EU LIFE programme, was created by 20 partners and 10 Finnish funding organisations including Sitra to tackle issues such as efficient use of materials, resource management and waste prevention in order guide Finland towards a circular economy. Sitra also organises the annual World Circular Economy Forum conference and has produced an outstanding list of 100 circular economy examples and a “playbook” for SMEs. In 2018, Business Finland has launched the Bio and Circular Finland programme which aims to make Finland a leader in the circular economy. The circular economy is seen as an opportunity for the industries traditionally important to Finland, which also opens incredible opportunities for a new kind of business. The expected volume of the four-year programme is €300 million, of which the share of Business Finland’s innovation funding is €150 million. In addition, the programme will offer internationalisation services and renewing ecosystems that will also attract foreign experts, companies and investors to Finland. Finally, since March 2018 a new Competence Centre for sustainable and innovative public procurements (KEINO) is accelerating circular procurement by advising public and private sector actors and piloting with a Green Deal. Green deals in other themes are also being prepared.

Finns are generally very receptive to environmental concepts and for the most part willing to adopt circular economy principles and concrete changes that come along with the transition. Finland offered VAT reductions on minor repair services for bicycles, shoes and leather goods but this experiment has ended without follow-up. The country’s voting behaviour for proposals relating to circular economy are all positive with virtually no resistance.

At the same time, the country has to come from far. Two low rankings do stand out, these being resource efficiency and POLITICO’s circular economy index, coming in 24th and 22nd respectively. Barriers to circular economy implementation are identified as a decline in research and innovation investment, a conservative nature or lack of risk-taking regarding eco-innovation and conflicting views on waste incineration and bioeconomy sustainability. The latter was reflected in Finnish resistance against attempts by the European Parliament to formulate harmonised criteria for sustainable forestry, while the lack of such criteria is a major barrier for circular economy policies to close the “biocycle”. But these are obstacles to be overcome. All in all, Finland is on the right track!

Ecopreneur recommendations:
(see also Chapter 3)

- top investing in incineration capacity and introduce taxes on landfill and incineration reflecting the EU waste hierarchy
- Introduce more concrete objectives to reduce raw materials use, waste incineration and waste production and to become partly circular in 2025 and fully in 2050.
- Take a leading role in formulating harmonised criteria for sustainable forestry, renewable materials and biomaterials.
- Expand existing activities for SMEs (such as the Smart & Clean Foundation in the Helsinki region and the national platform on experiments kokeilunpaikka.fi) with focused activities such as free circular design trainings and communities of practice to create a circular economy “hub”.
- Evaluate the existing EPR schemes based on the latest recommendations of the OECD, EY and Ecopreneur as a basis for improvement, and extend them to cover more sectors and eco-modulation of fees.
- Building on the outcome of a pilot with low VAT rates for repair, introduce tax incentives such as low VAT rates for repair services, resold goods and transactions with clearly defined social reasons and discuss the EU VAT rate proposal in the context of the circular economy.
France is on its own, unique path to transform into a circular economy. The country ranks well for all circular economy indicators apart from per capita waste production, coming in 20th place. It ranked 2nd in the Flash Eurobarometer for the percentage of SME’s minimising waste and 3rd in POLITICO’s circular economy index, two quality measures for the circular economy. Year over year the country has performed well improving in waste production, recycling rate of municipal waste, recycling rate of packaging and circular materials use rate. France is internationally known as a leader on EPR schemes, including the only scheme for textiles and the implementation of eco-modulation of fees. EPR schemes cover a total of 20 in 14 sectors, including three required by EU directives, and besides two voluntary schemes. In addition, both the scope and the nature of EPR are currently being redefined (see below).

France published its circular economy roadmap in April 2018, the preparation of which was undertaken by the Ministry for an Ecological and Solidary Transition and Ministry for the Economy and Finance. The Roadmap was created in close cooperation with the Institut National de l’Économie Circulaire (INEC) and contains concrete objectives. It was presented alongside the first circular economy package (waste, landfill, packaging, and ELV’s) and rates of value added tax. France did show moderate resistance to multiple legislative proposals by the European Commission including all those presented alongside the first circular economy package (waste, landfill, packaging and ELV’s) and rates of value added tax. On the other hand, it is now the first country to increase taxes on burying trash in landfills while cutting taxes for recycling operations.

Circular economy efforts are well supported by the French government funding research and development through institutions such as ADEME (Agence de l’Environnement et de la Maîtrise de l’Energie). Additionally, there a few local stakeholder networks, closely linked to the industrial sector that focus on driving the circular economy. France also offers specialised tax incentives for social enterprises that collect and sell used goods, exempting them from VAT as they are directly linked to the employment of disadvantaged people. France participated in the circular economy North Sea Roundabout project. And last but not least, INEC launched a Green Deal called the “Procurement and Circular Economy Action Programme”, co-sponsored by the Paris Metropolitan area and the Observatory or responsible procurement (Obsar), to support approximately thirty people linked to the employment of disadvantaged people. circular economy North Sea Roundabout project.

2.10 FRANCE

Eco-innovation Index resource efficiency: 12th

POLITICO’s circular economy index: 3rd

% of SMEs minimising waste: 83%, 2nd

Per capita waste production: 514kg, 20th ↓

Per capita waste incineration: 247 kg, 19th

Recycling rate municipal waste: 42%, 13th ↑

Recycling rate packaging: 66%, 13th ↑

Circular material use rate: 20%, 3rd ↓

EPR schemes: 20 in 14 sectors

Circular economy roadmap: Yes

Circular economy tax incentives: Yes

Circular economy initiatives: Green Deal Achats Circulaires de Paris

Most relevant organisations: Institut national de l’économie circulaire, ADAME, cd2e - creation development eco-enterprises

Example of good practice: Worldwide leader in EPR schemes, including eco-modulation

- Proposals for VAT reduction and penalties on non-recycled plastic

- First to implement new EU Circular Economy regulations
transpose the circular economy European directives into national law.\(^1\)

Despite all this, as with every country at this moment in time there are still barriers to transition. Individual behaviours towards circular economy principles have proven to be underwhelming, while overly convoluted legislative procedures that would need to be applied in France, particularly in the construction industry, may discourage companies engaging in the circular economy.\(^2\)

**Ecopreneur recommendations: (see also Chapter 3)**

- Expand the Green Deal Circular Procurement to more companies and regions and include a free training programme for all participants
- Develop and implement a New Green Deal to couple extra taxation of linear products (including fossil fuels) and services to compensating income tax reductions, especially for low income groups
- Building on the French strength to pass innovative legislation, keep piloting with instruments such as EPR, the VAT and other tax incentives. Evaluate the existing EPR schemes based on the latest recommendations of the OECD\(^1\)\(^9\), EY\(^1\)\(^0\) and Ecopreneur\(^1\)\(^0\) as a basis for their further improvement concerning harmonisation of fee calculations and extension to cover eco-modulation of fees
- At the same time closely align these initiatives with other progressive member states and the European Commission as to prevent distortion of the internal market

- Set-up a national support programme for SMEs with focused activities including circular design training, communities of practice and access to finance to create a circular economy “hub”
- Establish national concrete objectives to reduce raw materials use and waste production, to increase reuse, repair and sharing, and to become 50 per cent circular in 2030 and fully in 2050
- Introduce low VAT rates for repair services, resold goods and transactions with clearly defined social reasons and discuss the EU VAT rate proposal in the context of the circular economy

**FRANCE**

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- Building on the French strength to pass innovative legislation, keep piloting with instruments such as EPR, the VAT and other tax incentives. Evaluate the existing EPR schemes based on the latest recommendations of the OECD\(^1\)\(^9\), EY\(^1\)\(^0\) and Ecopreneur\(^1\)\(^0\) as a basis for their further improvement concerning harmonisation of fee calculations and extension to cover eco-modulation of fees
- At the same time closely align these initiatives with other progressive member states and the European Commission as to prevent distortion of the internal market

- Set-up a national support programme for SMEs with focused activities including circular design training, communities of practice and access to finance to create a circular economy “hub”
- Establish national concrete objectives to reduce raw materials use and waste production, to increase reuse, repair and sharing, and to become 50 per cent circular in 2030 and fully in 2050
- Introduce low VAT rates for repair services, resold goods and transactions with clearly defined social reasons and discuss the EU VAT rate proposal in the context of the circular economy

**2.11 GERMANY**

Eco-innovation Index resource efficiency: 10th
POLITICO’s circular economy index: 1st
% of SMEs minimising waste: 60%, 12th
Per capita waste production: 633 kg, 26th
↓
Per capita waste incineration: 529 kg, 24th
Recycling rate of municipal waste: 67%, 1st
↑
Recycling rate of packaging: 71%, 5th
↑
Circular material use rate: 11%, 8th
↓
EPR schemes: 13 in 4 sectors

Voting behaviour on recent EU proposals connected to the circular economy:

- Ecodesign: For: 69, Against: 9, Abstention: 4
- SUP: For: 78, Against: 8, Abstention: 0
- VAT: For: 77, Against: 5, Abstention: 4
- Waste: For: 74, Against: 7, Abstention: 1
- Landfill: For: 76, Against: 7, Abstention: 1
- Packaging: For: 74, Against: 7, Abstention: 0
- ELV’s: For: 75, Against: 7, Abstention: 0

Circular economy roadmap:
Circular economy tax incentives:
Circular economy initiatives:
Most relevant organisations:

Yes (The German Resource Efficiency Programme II)
- Many, including TextilBündnis, Recyclable Materials Act reforms
- Umweltbundesamt, UnternehmensGrün (Ecopreneur member), Kompetenzzentrum Nachhaltiger Konsum, BUND, DUH, NABU, EPEA, Cradle-to-Cradle e.V., CSCP, Wuppertal Institute, Bundesverband der deutschen Entsorgungs-, Wasser- und Rohstoffwirtschaft e.V. - besides many others
GERMANY

Germany ranks first out of all EU member states in two circular economy indicators, namely the recycling rate of municipal waste and POLITCO’s circular economy index. EPR schemes have a solid base, although the overall number is heavily weighted towards packaging with a total of 9 collective schemes, indicating strong competition between the producer responsibility organisations.

Public circular economy initiatives are plentiful and particularly well-coordinated at the national level. For example, the German national resource efficiency programme ProgRess presents strategies to foster resource conservation along the entire value chain, including improving the circular economy through better design, more sustainable and resource-efficient production and consumption and product after-use/waste management. It is currently under revision, with a renewed programme scheduled for publication in 2020 after intensive stakeholder consultations. A new Packaging Act has entered force as of January 2019 with increased recycling targets, incentives for reuse and design for recycling, and mandatory registration with the central packaging registry. The VDI programme to engage SMEs in resource efficiency forms the core of the European Resource Efficiency Knowledge Centre EREK. Finally, a voluntary Partnership for Sustainable Textiles, the so-called Textilbündnis, was launched in 2018 by the fashion industry and the government.

Drivers for the circular economy Germany are its high level of import dependence for resources and a population that is becoming more and more receptive to environmentally friendly consumption. The country’s voting behaviour has been very positive towards circular economy related proposals, displaying only a minimal level of resistance. A debate about the definition of recycling was fortunately settled without lowering the EU ambitions.

The only stain on Germany’s record is its per capita waste production, with a total of 627 kg per year, ranking 26th overall. Also, barriers to the circular economy are certainly present. Green start-ups are well represented but those with disruptive business models seem to struggle with breaking through political frameworks, while conditions for investment by venture capitalist are not particularly attractive for future-oriented sectors. Finally, although promising initiatives concerning sharing and repair workshops are emerging, the continued focus on waste management and resource efficiency may disincentivise industries and individuals from introducing circular business models to prevent waste as long as waste management with recycling offers easy alternatives.

Ecopreneur recommendations:
(see also Chapter 3)

- Launch a Green Deal Circular Procurement for both the public and the private sector, including a free training programme and commitments from companies
- Formulate concrete policy goals for waste reduction and for increasing reuse, repair and sharing, and to become fully circular in 2050, as well as financial incentives such as a lower VAT rate for reuse and repair
- Expand existing activities for SMEs with free circular design trainings and communities of practice to create a circular economy “hub” including frontrunners
- Evaluate the existing EPR schemes based on the latest recommendations of the OECD, EY and Ecopreneur as a basis for improvement, and extend them to cover more sectors and eco-modulation of fees
- Introduce tax incentives such as low VAT rates for repair services, resold goods and transactions with clearly defined social reasons and discuss the EU VAT rate proposal in the context of the circular economy
Greece's circular economy indicator performance is poor with the majority of rankings coming in the bottom quarter. The most pronounced weaknesses are in circular material use rate\(^2\) and POLITICO's circular economy index\(^4\) coming in last place and third to last respectively. Greece also showed considerable resistance to proposals by the EU Commission.

The country is taking action however. Greek companies in many sectors are slowly approaching the EU-28 averages for resource efficiency.\(^8\) EPR schemes seem to be well established and cover most major sectors.\(^6\) Moreover, several circular economy initiatives have been initiated. In early 2018 Greece released its "National Action Plan on Circular Economy", centred around a long-term adoption and implementation of circular economy principles. Priority actions include removing barriers to a circular economy through new regulatory and legislative interventions, designating funds for these interventions, enhancing knowledge on circular economy and improving governance structures by establishing an Executive Secretariat for the Circular Economy.\(^81\)

Another example is City PLUS, organised by the Social Economy Institute, a sustainable Greek city network that focuses on sharing resources, leveraging public, private and governmental capital to empower employability, enhancing social entrepreneurship and laying down the groundwork to shift the populace towards environmental sustainability.\(^82\) The Technological Educational Institute of Thessaly cooperates in research programs with the bricks and tiles industry on the valorisation of various types of waste as substitutes to clayey raw material.\(^83\) Additionally, Greece has strong natural capital in renewable energies being well situated to take advantage of solar, wind and tidal.\(^3\)

Although these recent efforts are positive, they are far from enough to make up for the country's pitfalls as is evident by the underwhelming rankings. Most of EY's conclusions from 2016 to move forward still stand, such as the need for law enforcement of hazardous waste legislation.\(^84\) Malpractices by local authorities and law enforcement turning a blind eye still continues to undermine sustainability efforts.\(^3\) Waste management is the area where the biggest problems can be observed, with illegal landfilling, very low recycling rates and the management of hazardous waste at the top of the list.\(^85\) Greece's poor economic situation also creates a bottleneck of research and development funding by the government, relying heavily on EU Structural Funds with a total of over € 20 billion allocated to the country between 2014-2020.\(^86\)

Ecopreneur recommendations: (see also Chapter 3)

- Invest in separate collection and recycling and the use of economic instruments to improve the country's overall waste management and recycling performance, which can create jobs and revenues
- Further apply the waste hierarchy by stimulating waste prevention by design, sharing, maintenance, repair and reuse
GREENE

before recycling, incineration and landfill
• Speed up delivery of concrete actions for implementing the National Action Plan on Circular Economy and improve the involvement of all related line ministries and stakeholders (local authorities, businesses and civil society), with specific regional strategies for the Greek islands. Also put in place an efficient national system for the comprehensive administration and functioning of the National Action Plan including improving the capacity of competent authorities, ensuring effective environmental and circular economy assessments at plan, project and island level
• Add concrete objectives to the National Action Plan to reduce raw materials use and waste production, to increase reuse, repair and sharing, and to become 50 per cent circular in 2030 and fully in 2050
• Step up market surveillance of environmental laws and regulations, launch a separate programme to foster transparency in the value chain
• Simplify administrative procedures and improve cooperation among those public authorities involved in the application of circular economy and environmental policies
• Implement the new EU regulations on waste management and plastics as soon as possible, giving priority to those agglomerations that are subject to an infringement cases
• Launch a Green Deal Circular Procurement for both the public and the private sector, including a free training programme and commitments from companies
• Apply for EU funds to set-up a national support programme for SMEs with focused activities including the creation of collaboration platforms and access to finance to create a circular economy “hub”

2.13 HUNGARY

Eco-innovation Index resource efficiency: 18th
POLITICO's circular economy index: 15th
% of SMEs minimising waste: 40%, 21st
Per capita waste production: 379 kg, 6th
Per capita waste incineration: 105 kg, 12th
Recycling rate of municipal waste: 35%, 16th
Recycling rate of packaging: 50%, 27th
Circular material use rate: 6%, 16th
EPR schemes: 9 schemes in 3 sectors
Voting behaviour on recent EU proposals connected to the circular economy:
Ecodesign: For: 13, Against: 0, Abstention: 0
SUP: For: 6, Against: 0, Abstention: 9
VAT: For: 5, Against: 1, Abstention: 8
Waste: For: 6, Against: 0, Abstention: 11
Landfill: For: 5, Against: 0, Abstention: 11
Packaging: For: 10, Against: 0, Abstention: 7
ELV’s: For: 15, Against: 0, Abstention: 1

Circular economy roadmap:
Circular economy tax incentives:
Circular economy initiatives:
Most relevant organisations:
The Circular Economy Platform
Hungarian Association of Environmental Enterprises (KSZGYSZ), Business Council for Sustainable Development in Hungary (BCSDH), CEEweb for Biodiversity
HUNGARY

Hungary is mostly positioned in the middle for all circular economy indicator rankings, however the resource productivity is low\textsuperscript{20} while packaging is a clear weakness for the country coming in 27th of all EU member states.\textsuperscript{3} EPR schemes are quite limited covering only 3 sectors and the majority of EPR schemes accounting for batteries.\textsuperscript{6}

Since the Hungarian Foundation for Circular Economy and CEEWeb for Biodiversity organised a conference “Circular Hungary” in 2017,\textsuperscript{89} there have been few circular economy initiatives. However, in November of 2018 the “Circular Economy Platform” was established by the Business Council for Sustainable Development in Hungary, the Embassy of the Kingdom of the Netherlands, and the Ministry of Innovation and Technology.\textsuperscript{90} The platform’s goal is to build a network of forward-thinking companies that can exchange knowledge and forward the cause of a circular economy.\textsuperscript{91} Hungary has access to a wealth of R&D and innovation funds from the EU and domestic sources available for the period from 2014-2020.\textsuperscript{82} Additionally, a survey conducted amongst 200 Hungarian companies displayed a general consensus that material prices are expected to rise in the next 5-10 years, which coupled with ever increasing awareness of circular economy policies, could lead to an increase in resource-efficient production of materials.\textsuperscript{3}

Nevertheless, Hungary is lagging behind in the area of circular economy. Barriers include a lack of widespread resource-efficient strategic thinking and outdated research infrastructure.\textsuperscript{1} Rather than planning for a national strategy, the government is planning to integrate circular economy principles into the economic development strategy. The general awareness of the concept and importance of a circular economy is low. Furthermore, systemic flaws and distortions in the current Hungarian economic model discourage circular business models (e.g., strong state presence in certain sectors, an unpredictable regulatory environment and public procurement favouring certain business interests) while companies are not incentivised for the valorisation of waste or by-product materials. In addition, the countries’ EU voting behaviour is a worrying indicator for the future. Hungary showed significant resistance to proposed amendments to single-use plastics, value added tax, waste, landfill of waste and packaging by the European commission.\textsuperscript{7}

Ecopreneur recommendations: (see also Chapter 3)

• Formulate and launch a Hungarian Circular Economy Roadmap or Strategy, including objectives to reduce raw materials use and waste production, to increase reuse, repair and sharing, and to become fully circular in 2050
• Further apply the waste hierarchy by stimulating waste prevention by design, sharing, maintenance, repair and reuse, before recycling, incineration and landfill
• Evaluate the existing EPR schemes based on the latest recommendations of the OECD\textsuperscript{191}, EY\textsuperscript{192} and Ecopreneur\textsuperscript{193} as a basis for improvement, and extend them to cover more sectors and eco-modulation of fees
• Introduce tax incentives such as low VAT rates for repair services, resold goods and transactions with clearly defined social reasons and discuss the EU VAT rate proposal in the context of the circular economy
• Launch a Green Deal Circular Procurement for both the public and the private sector, including a free training programme and commitments from companies
• Apply for EU funds to set-up a national support programme for SMEs with focused activities and access to finance to create a circular economy “hub”
• Implement the new EU regulations on waste management and plastics as soon as possible

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50 51
IRELAND

2.14 IRELAND

Eco-innovation Index resource efficiency: 3rd

POLITICO’s circular economy index: 25th

% of SMEs minimising waste: 84%, 1st

Per capita waste production: 581 kg, 23rd ↓

Per capita waste incineration: 118 kg, 16th↓

Recycling rate of municipal waste: 40%, 14th ↑

Recycling rate packaging: 67%, 10th ↓

Circular material use rate: 2%, 26th ↓

EPR schemes: 5 in 3 sectors

Voting behaviour on recent EU proposals connected to the circular economy:

- Ecodesign: For: 9, Against: 0, Abstention: 0
- SUP: For: 8, Against: 0, Abstention: 0
- VAT: For: 7, Against: 0, Abstention: 1
- Waste: For: 9, Against: 0, Abstention: 0
- Landfill: For: 10, Against: 0, Abstention: 0
- Packaging: For: 10, Against: 0, Abstention: 0
- ELV’s: For: 10, Against: 0, Abstention: 0

Circular economy roadmap:

Yes (Towards a Resource Efficient Ireland: A National Strategy to 2020)

Circular economy tax incentives:

Yes

Circular economy initiatives:

Innovation for a Circular Economy Programme, SMILE Resource Exchange service

Most relevant organisations:

The Rediscovery Centre, Community Reuse Network

At first glance, Ireland’s rankings vary substantially, placing both at the top and bottom of the pack for several indicators. SMEs exceed in waste minimisation and the country’s resource efficiency ranks 3rd amongst all EU member states. Towards the bottom are POLITICO’s circular economy index and circular material use rate placing 25th and 26th. EPR for the country is lacking with just 5 schemes covering 3 sectors.

Circular economy initiatives are abundant with a strong re-use and repair network and government support programmes. Ireland’s commitment to resource efficiency goes back to 2002, when it inspired the world with a levy on plastics bags which reduced their usage with 90 per cent in 10 years. A recent example is the “Innovation for a Circular Economy” programme, funded by the national Environmental Protection Agency (EPA). The programme is intended to help companies and organisations to develop solutions that encourage resource efficiency and the circular economy. There are several drivers promoting the transition to a circular economy. Ireland has a low corporate tax rate which attracts significant foreign investments. The country has a strong research and development base, while SME’s perform extremely well on innovation. Additionally, Ireland’s policy environment is well suited to promoting a circular economy with the country committed to achieving EU targets on renewable energy, recycling, resource efficiency and others. Ireland has also implemented VAT reductions on minor repairs to movable goods. The country’s EU voting behaviour is very positive, with virtually no resistance to Commission proposals.

Ireland seems to be pointed in the right direction, although the sparse EPR coverage and high per capita waste production are still issues that need to be addressed. In addition, Brexit will pose a number of challenges, with Ireland likely to take the biggest economic hit of all European countries. This may affect Ireland’s consensus on the priority of eco-innovation, letting it take a back seat during a period of economic downturn.

Ecopreneur recommendations: (see also Chapter 3)

- Launch a Green Deal Circular Procurement for both the public and the private sector, including a free training programme and commitments from companies
- Formulate and launch an Irish Circular Economy Roadmap or Strategy, including objectives to reduce raw materials use and waste production, to increase reuse, repair and sharing, and to become fully circular in 2050
- Use the national support programme to create a circular economy “hub”
- Evaluate the existing EPR schemes based on the latest recommendations of the OECD, EY and Ecopreneur as a basis for improvement, and extend them to cover more sectors and eco-modulation of fees
- Introduce tax incentives such as low VAT rates for resold goods and transactions with clearly defined social reasons and discuss the EU VAT rate proposal in the context of the circular economy
ITALY

Eco-innovation Index resource efficiency: 2nd
POLITICO’s circular economy index: 5th
% of SMEs minimising waste: 74%, 6th
Per capita waste production: 497 kg, 17th ↑
Per capita waste incineration: 91 kg, 8th
Recycling rate of municipal waste: 45%, 10th ↑
Recycling rate of packaging: 67%, 11th ↑
Circular material use rate: 17%, 5th ↑
EPR schemes: 40 in 5 sectors

Voting behaviour on recent EU proposals connected to the circular economy:
- Ecodesign: For: 52, Against: 0, Abstention: 7
- SUP: For: 49, Against: 13, Abstention: 1
- VAT: For: 45, Against: 21, Abstention: 2
- Waste: For: 55, Against: 0, Abstention: 5
- Landfill: For: 56, Against: 0, Abstention: 5
- Packaging: For: 54, Against: 0, Abstention: 5
- ELV’s: For: 55, Against: 0, Abstention: 5

Circular economy roadmap: Yes
Circular economy tax incentives: -
Circular economy initiatives:
The Italian Circular Economy Stakeholder Platform (ICESP)
ReMade in Italy, Symbola, Enel

Most relevant organisations:

Italy performs very well in terms of circular economy indicator rankings, with all but one indicator, per capita waste production, placing in the top half of all EU member states. Particularly noteworthy is Italy’s resource efficiency rank, coming in 2nd just below Luxembourg. At first glance EPR numbers look impressive, however out of the total 40 schemes, batteries and WEEE account for 21 and 16 programmes respectively. Nevertheless, EPR schemes in Italy cover a total of 5 sectors.

The overall performance is even more impressive given the improvements since 2001, with for instance only 17 per cent municipal waste recycling.

Circular economy initiatives are well-established on both a grassroots and corporate level as described by Enel S.p.A. and the Symbola foundation. Many “circular champions” are active at the regional level, for instance in the industrial Lombardia. An Italian Circular Economy Strategy was launched in 2017 as the outcome of a shared and participatory process with contributions of all institutions, firms, experts and citizens who deal with the issue. Remarkably, it stresses the need for fiscal instruments including the use of VAT rates for tax differentiation between circular and linear products or services. Additionally, the Italian government is also showing support with the recent introduction of the “Italian Circular Economy Stakeholder Platform” workshop by the Italian National Agency for New Technologies, Energy and Sustainable Economic Development. The country’s EU voting behaviour is quite positive overall with the exception of single-use plastics and value-added tax votes which received moderate resistance.

Italy certainly has impressive statistics, yet barriers to a circular economy do exist and should not go unnoticed. The regulatory framework is difficult to navigate with environmental policies being implemented at regional, provincial and municipal levels. The rate of research and development investments is low, partly resulting from the high percentage of small and family owned businesses that do not have the capital at their disposal and a low natural resources capacity compared to other advanced economies.

Ecopreneur recommendations:
(see also Chapter 3)

• Launch a Green Deal Circular Procurement for both the public and the private sector, including a free training programme and commitments from companies
• Formulate concrete objectives to reduce raw materials use and waste production, to increase reuse, repair and sharing, and to become fully circular in 2050
• Apply for EU funds to expand existing activities for SMEs with free circular design trainings and communities of practice to create a circular economy “hub”
• Evaluate the existing EPR schemes based on the latest recommendations of the OECD, EY and Ecopreneur as a basis for improvement, and extend them to cover more sectors and eco-modulation of fees
ITALY

- Introduce tax incentives such as low VAT rates for repair services, resold goods and transactions with clearly defined social reasons and discuss the EU VAT rate proposal in the context of the circular economy
- Implement the new EU regulations on waste management and plastics as soon as possible

2.16 LATVIA

Eco-innovation Index resource efficiency: 19th
POLITICO’s circular economy index: 23rd
% of SMEs minimising waste: 35%, 23rd
Per capita waste production: 410 kg, 9th ↑
Per capita waste incineration: 63 kg, 4th
Recycling rate of municipal waste: 25%, 22nd ↓
Recycling rate of packaging: 58%, 23rd ↑
Circular material use rate: 4%, 23rd ↑
EPR schemes: 10 in 4 sectors

Voting behaviour on recent EU proposals connected to the circular economy:
Ecodesign: For: 6, Against: 0, Abstention: 0
SUP: For: 6, Against: 0, Abstention: 0
VAT: For: 3, Against: 0, Abstention: 0
Waste: For: 7, Against: 0, Abstention: 0
Landfill: For: 7, Against: 0, Abstention: 0
Packaging: For: 6, Against: 0, Abstention: 0
ELV’s: For: 6, Against: 0, Abstention: 0

Circular economy roadmap:
- Circular economy tax incentives:
- Circular economy initiatives:
Most relevant organisations:
Green Technology Incubator
Green Liberty (Zaļā brīviba)

ITALY

- Introduce tax incentives such as low VAT rates for repair services, resold goods and transactions with clearly defined social reasons and discuss the EU VAT rate proposal in the context of the circular economy
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Circular material use rate: 4%, 23rd ↑
EPR schemes: 10 in 4 sectors

Voting behaviour on recent EU proposals connected to the circular economy:
Ecodesign: For: 6, Against: 0, Abstention: 0
SUP: For: 6, Against: 0, Abstention: 0
VAT: For: 3, Against: 0, Abstention: 0
Waste: For: 7, Against: 0, Abstention: 0
Landfill: For: 7, Against: 0, Abstention: 0
Packaging: For: 6, Against: 0, Abstention: 0
ELV’s: For: 6, Against: 0, Abstention: 0

Circular economy roadmap:
- Circular economy tax incentives:
- Circular economy initiatives:
Most relevant organisations:
Green Technology Incubator
Green Liberty (Zaļā brīviba)
Latvia’s circular economy performance is poor with the majority of indicator rankings placing in the bottom quarter. Only one indicator is above the midpoint, namely per capita waste production coming in 9th\(^5\). EPR is slightly more promising with a total of 10 schemes covering 4 sectors, a solid effort in its own right\(^6\).

Circular economy initiatives seem to be very limited and primarily come from the waste management industry, such as separate collection and sorting of materials with the highest economic value. The general awareness of the circular economy and its importance is low, along with a lack of credible information and statistics on waste management. Good news is that Latvia has received funding from in the form of European Economic Area/Norway grants which have been instrumental in the area of ecological innovation\(^7\). An example of this is the “Green Technology Incubator” which supports and encourages new businesses developing products and services that utilise renewable materials, prioritise energy efficiency, minimise the use of natural resources and minimise waste\(^8\). Latvia’s EU voting behaviour is very positive and without any opposition to circular economy focused proposals\(^9\).

Latvia still has a long way to go regarding the circular economy as is evident by its underwhelming indicator rankings and lack of a concrete plan for the future. Barriers such as the willingness and capacity of business to step out of their comfort zone and invest time into innovative solutions are particularly concerning\(^{10}\). Motivation to apply circular economy principles is lacking along with a general understanding of the processes required to create an environment of innovation, often seen as an expensive alternative\(^{11}\).

**Ecopreneur recommendations:**

(see also Chapter 3)

- Use government policies to improve the waste management infrastructure with common rules for all waste management companies following the waste hierarchy, starting with separate collection for more waste streams (e.g. drink cartons)
- Create a solid waste management data monitoring system (deployment in the market, collection, reuse, incineration, recycling, landfilling, imports and exports) with public access
- Launch a Green Deal on Circular Procurement for both the public and the private sector, including a free training programme
- Formulate and launch a Latvian Circular Economy Roadmap or Strategy, including objectives to reduce raw materials use and waste production and to become fully circular in 2050, and innovation support
- Apply for EU funds to set-up a national support programme for SMEs with focused activities and access to finance to create a circular economy “hub”
- Implement the new EU regulations on waste management and plastics as soon as possible

Evaluate the existing EPR schemes based on the latest recommendations of the OECD\(^{12}\), EY\(^{13}\) and Ecopreneur\(^{14}\) as a basis for improvement, and extend them to cover more sectors and eco-modulation of fees.

Introduce tax incentives such as low VAT rates for repair services, resold goods and transactions with clearly defined social reasons and discuss the EU VAT rate proposal in the context of the circular economy.

Monitor the waste per capita as to keep the advantage with growing prosperity.
LITHUANIA

2.17 LITHUANIA

Eco-innovation Index resource efficiency: 15th
POLITICO’s circular economy index: 20th
% of SMEs minimising waste: 20%, 27th
Per capita waste production: 444 kg, 12th ↓
Recycling rate of municipal waste: 48%, 8th ↑
Recycling rate of packaging: 70%, 7th ↑
Circular material use rate: 5%, 20th ↓
EPR schemes: 4 in 4 sectors
Circular economy roadmap:
Circular economy tax incentives:
Circular economy initiatives:
Most relevant organisations:

Voting behaviour on recent EU proposals connected to the circular economy:
Ecodesign: For: 10, Against: 0, Abstention: 0
SUP: For: 8, Against: 0, Abstention: 1
VAT: For: 9, Against: 1, Abstention: 0
Waste: For: 10, Against: 0, Abstention: 0
Landfill: For: 10, Against: 0, Abstention: 0
Packaging: For: 7, Against: 0, Abstention: 1
ELV’s: For: 9, Against: 0, Abstention: 0

Lithuania has done well year-over-year, moving up the rankings in four circular economy indicators namely, per capita waste production, recycling rate of both municipal waste and packaging, and circular material use rate. EPR schemes cover a respectable 4 major sectors, although the total number of schemes is not particularly stellar, breaking down to 1 per waste stream.

Lithuania’s fondness for eco-innovation has been quantifiably increasing with businesses investing in non-technology innovation, reporting a 157 per cent increase between 2010 and 2016, and venture capital investment.Circular economy initiatives seem to be rather limited however, towards the end of 2017 NGO Žiedinė ekonomika began organising seminars on circular economy in Vilnius high schools, where students could learn the principals of circular economy and waste minimisation processes. Additionally, Lithuania has been allocated € 8.39 billion from European Structural Investment Funds over the period 2014-2020, with the intention of the endowment being invested in areas such as innovation and competitiveness, SME support and resource efficiency. The country does not have any tax incentives in place for circular products or services. Lithuania’s EU voting behaviour is very positive towards recent proposals by the European Commission touching on the circular economy.

However much more is to be done if the country is to compete with the top performers. Lithuania’s performance in the 3 major circular economy related index’s covered is lacklustre with all 3 ranking in the bottom half of EU member states. Particularly concerning is the Flash Eurobarometer 456, measuring SMEs minimising waste, with Lithuania ranking second to last. In addition, the government has recently announced plans to build two new waste incineration facilities. Combined with the already rising rate of incineration this effectively marginalises any positive effects of introducing a circular economy package.

Finally, a lack of policy measures for the promotion of eco-innovation and little government involvement continues to hinder circular economy efforts in Lithuania.

Ecopreneur recommendations: (see also Chapter 3)
• Stop investing in incineration capacity and introduce taxes on landfill and incineration reflecting the EU waste hierarchy
• Implement the new EU regulations on waste management and plastics as soon as possible
• Apply for additional EU funds to set-up a national support programme for SMEs with focused activities and access to finance to create a circular economy “hub”
• Launch a Green Deal on Circular Procurement for both the public and the private sector, including a free training programme
• Formulate and launch a Lithuanian Circular Economy Roadmap or Strategy, including objectives to reduce raw materials use and waste production and to become fully circular in 2050, and innovation support...
2.18 LUXEMBOURG

Eco-innovation Index resource efficiency: 1st
POLITICO’s circular economy index: 11th
% of SMEs minimising waste: 57%, 14th
Per capita waste production: 609 kg, 25th ↑
Per capita waste incineration: 414 kg, 22nd ↑
Recycling rate of municipal waste: 48%, 7th ↑
Recycling rate of packaging: 62%, 18th ↑
Circular material use rate: 11%, 7th ↓
EPR schemes: 4 in 4 sectors
Circular economy roadmap:
Circular economy tax incentives:
Circular economy initiatives:
Most relevant organisations:

Voting behaviour on recent EU proposals connected to the circular economy:
Ecodesign: For: 5, Against: 0, Abstention: 0
SUP: For: 5, Against: 0, Abstention: 0
VAT: For: 5, Against: 0, Abstention: 0
Waste: For: 4, Against: 0, Abstention: 0
Landfill: For: 4, Against: 0, Abstention: 0
Packaging: For: 4, Against: 0, Abstention: 0
ELV’s: For: 4, Against: 0, Abstention: 0

Circular economy tax incentives:
Yes
Circular economy initiatives:
Fit 4 Circularity, Wiltz circular economy hotspot
Most relevant organisations:
Luxinnovation, Institut National pour le Développement durable et la Responsabilité sociale des entreprises (INDR), Inspiring More Sustainability Luxembourg, SuperDrecksKëscht
LUXEMBOURG

Luxembourg is doing well in several areas concerning the circular economy, particularly resource efficiency, ranking 1st out of all member states. Moreover, the country has recently released a roadmap of sorts highlighting issues and drawing out concrete plans to facilitate the transition to a circular economy. EPR schemes cover 4 sectors, although the total number of current programmes available is fairly limited.

Circular economy initiatives are abundant with governmental and non-governmental organisations expressing interest and dedication to the cause. Back in 2015, the Institut National pour le Développement durable et la Responsabilité sociale des entreprises (INDR) co-signed the first Manifesto of Ecopreneur members for a European Circular Economy. In 2017, Luxembourg was appointed Circular Hotspot of the Year. Luxinnovation and the Luxembourg National Innovation agency introduced their “Fit 4 Circularity” programme tasked with accelerating companies’ transition to a circular economy. Objectives include exploring the possibilities of extending the life cycle of products, highlighting potential gains linked to circular supply chains, studying the benefits of collaborative platforms and proliferating the use recyclable materials for responsible production. SuperDrecksKëscht (Super Litter Box) has the task to implement the newest technologies for circularity; it develops applications such as the ECOBOX return-and-refill system for take away food and leftovers. Additionally, since June 2017 all Luxembourgish municipalities have adopted the “Climate Pact” under the sign of the circular economy as established by the Grand Duchy of Luxembourg’s Ministry of Sustainable Development and Infrastructure and “Innergy”; the national entity for the promotion of a sustainable energy transition. The measures introduced include procurement of Cradle-to-Cradle certified material, sharing economy initiatives, the use of renewable sources within local circuits and several other circular economy focused strategies and a new category of certification called “Circular Economy Climate Pact”. Besides the Climate Pact, Luxembourg also has a Living lab for municipalities, a methodology for circular industrial zones, pilot projects in the construction sector. The governmental plan for 2018-2023 contains 27 circular economy references in 6 different domains, in shared responsibility between the ministry of the Economy and the ministry of Energy and Spatial Planning. The Dutch State Visit to Luxembourg in May 2018 focused largely on circular economy. Luxembourg also offers VAT reduction on minor repair services, voted wholly in favour of all proposals put forward by the EU Commission regarding the circular economy and emphasised the importance of financing the circular economy during its 2015 EU presidency by drafting report with the EIB and organising a large conference on the topic. Overall, Luxembourg’s circular economy efforts are certainly gaining traction, yet a few issues still exist. The countries per capita waste production is high at 614 kg per year, placing it 24th amongst all EU member states.

Additionally, the small size but strong influence of Luxembourg on bordering regions puts pressure on the demand for housing, services, infrastructure and transportation flow, increasing the energy demands. Therefore, any eco-innovation solutions developed to mitigate its own resource dependency should also take into account bordering regions.

Ecopreneur recommendations: (see also Chapter 3)

• Launch a Green Deal Circular Procurement for both the public and the private sector, including private sector commitments and a free training programme
• Add objectives to the Luxembourg Circular Economy Strategy to reduce raw materials use and waste production and to become fully circular in 2050
• Expand existing activities for SMEs with additional focused ones such as circular design training and access to finance to create a circular economy “hub”
• Evaluate the existing EPR schemes based on the latest recommendations of the OECD, EY and Ecopreneur as a basis for improvement, and extend them to cover more sectors and eco-modulation of fees
• Introduce tax incentives such as low VAT rates for resold goods and transactions with clearly defined social reasons and discuss the EU VAT rate proposal in the context of the circular economy
Malta is trailing behind the vast majority of EU member states regarding circular economy indicators. The country ranks last in both the recycling rate of municipal waste and packaging, while per capita waste production is not much better coming in 24th at 593 kg per year. Additionally, POLITICO’s circular economy index places it 27th, second last only to Cyprus. Just eight per cent is being recycled or sent for composting, while the rest is disposed of at the Magħtab landfill.

Circular economy initiatives are somewhat limited although a few concrete plans have taken shape. In 2016 the Ministry for Sustainable Development, the Environment and Climate Change released a short to medium term strategy and action plan titled “Greening our Economy - Achieving a Sustainable Future”, covering several circular economy concepts. Furthermore, the aforementioned ministry recently published a long-term framework for advancing sustainable development in Malta titled “Malta’s Sustainable Development Vision for 2050”, focusing on identifying existing gaps in the country’s sustainability efforts where further development is required.

Circular economy initiatives are somewhat limited although a few concrete plans have taken shape. In 2016 the Ministry for Sustainable Development, the Environment and Climate Change released a short to medium term strategy and action plan titled “Greening our Economy - Achieving a Sustainable Future”, covering several circular economy concepts. Furthermore, the aforementioned ministry recently published a long-term framework for advancing sustainable development in Malta titled “Malta’s Sustainable Development Vision for 2050”, focusing on identifying existing gaps in the country’s sustainability efforts where further development is required.

Malta faces multiple natural barriers that negatively impact eco-innovation and circular economy efforts. A strong dependence on external energy sources, lack of natural resources, in particular water and little usable space all contribute to the need for innovative solutions but at the same time make the transition harder. Finally, access to financing options presents a hinderance to SMEs with approximately a quarter of them investing in resource efficiency experiencing higher production costs in the short term leading to need of external funds.

Ecopreneur recommendations:
(see also Chapter 3)

- Implement the new EU regulations on waste management and plastics as soon as possible
- Launch a Green Deal on Circular Procurement for both the public and the private sector, including a free training programme
2.20 THE NETHERLANDS

Eco-innovation Index resource efficiency: 11th
POLITICO’s circular economy index: 12th
% of SMEs minimising waste: 65%, 7th
Per capita waste production: 520 kg, 21st ↓
Per capita waste incineration: 622 kg, 25th
Recycling rate of municipal waste: 53%, 5th ↑
Recycling rate of packaging: 73%, 4th ↑
Circular material use rate: 29%, 1st ↑
EPR schemes: 14 in 5 sectors

Circular economy roadmap:
Circular economy tax incentives:
Circular economy initiatives:
Most relevant organisations:
Examples of good practice:
- Goals for raw materials use reduction in 2030 and 2050
- Green Deal Circular Procurement
- Circular hub “Nederland Circulair”

MALTA

- Apply for EU funds to set-up a national support programme for SMEs with focused activities, access and innovation support to finance to create a circular economy “hub”
- Add objectives to the Maltese Circular Economy Strategy to reduce raw materials use and waste production and to become fully circular in 2050, and innovation support
- Evaluate the existing EPR schemes based on the latest recommendations of the OECD, EY and Ecopreneur as a basis for improvement, and extend them to cover more sectors and eco-modulation of fees
- Introduce tax incentives such as low VAT rates for resold goods and transactions with clearly defined social reasons and discuss the EU VAT rate proposal in the context of the circular economy

Voting behaviour on recent EU proposals connected to the circular economy:
Ecodesign: For: 18, Against: 4, Abstention: 0
SUP: For: 19, Against: 4, Abstention: 0
VAT: For: 19, Against: 6, Abstention: 0
Waste: For: 19, Against: 5, Abstention: 0
Landfill: For: 19, Against: 5, Abstention: 0
Packaging: For: 19, Against: 5, Abstention: 0
ELV’s: For: 18, Against: 5, Abstention: 0

Circular economy roadmap:
- Goals for raw materials use reduction in 2030 and 2050
- Green Deal Circular Procurement
- Circular hub “Nederland Circulair”

Grondstoffenakkoord
MVO Nederland (Ecopreneur member), Holland Circular Hotspot, Circle Economy, CIRCO, RVO, Natuur & Milieu, PBL – besides many others

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The Netherlands is at the forefront of the circular economy in Europe with a multitude of initiatives too vast to cover comprehensively and very respectable rankings in the majority of circular economy performance indicators. The PBL institute estimates a total of about 85,000 activities involving 420,000 jobs are contributing to the circular economy, out of which about 1,500 innovative initiatives.\textsuperscript{1,2} Year-over-year the country has improved in per capita waste production, recycling rate of both municipal waste and packaging, and circular material use rate.\textsuperscript{3} The circular material use rate is indeed particularly impressive for the Netherlands, coming in 1st with a total of 29 per cent, far above the 2nd ranking country.\textsuperscript{4} EPR is well catered for with a total of 14 schemes covering 5 sectors.\textsuperscript{5}

Within the abundance of circular economy initiatives, one of the most recognised is the national strategy document “A circular economy in the Netherlands by 2050” developed and published by the Ministry of Infrastructure and the Environment and the Ministry of Economic Affairs in 2016. Setting an example, the programme establishes measures aimed at developing a circular economy in the Netherlands by 2050 including: the objective to reduce the use of raw materials by 50 per cent in 2030 and become 100 per cent circular in 2050, unifying policy on an international level, interventions (legislation and regulations), waste as a raw material, smart design, conscious use, extending product life and various others.\textsuperscript{6} Additionally, the Netherlands was the first to introduce Green Deal Circular Procurement, an initiative that fosters collaboration between organisations and encourages the purchase of circular goods and services invoking over €100 million in procurement done circular, and which has since been copied by Belgium and Finland.\textsuperscript{7}

Also, “Nederland Circular” managed by Ecopreneur member MVO Nederland is regarded as an example of good practice of a circular hub and a public-private partnership.\textsuperscript{8} The EPR scheme for packaging recently introduced a eco-modulated fee on the basis of recyclability by offering a low tariff for plastic packaging with a positive market value that can be well sorted and recycled, as well as for certain drink cartons, while the low fee for biodegradable plastic packaging was cancelled because they remain present in current composting installations.\textsuperscript{9} In line with the EU VAT directive, the Netherlands also offers VAT reduction on minor repair services, particularly for bicycles, shoes and leather goods\textsuperscript{10,11} and on second hand goods.\textsuperscript{12} In 2017 more than 80 organisations including the government, MVO Nederland and industry federation VNO-NCW signed the “Grondstoffenakkoord” (Resource covenant) with commitments contributing to the national circular economy strategy. Finally, in February 2019 the government launched the “Versnellingshuis” (Acceleration House) as a joined initiative to implement the Grondstoffenakkoord, including sufficient “process” money for intermediary organisations assisting companies and municipalities.

Barriers to achieving a fully circular economy, although this will not come without its challenges. Per capita waste production is high with a total of 520 kg per year\textsuperscript{13} while the performance on renewable energy is trailing behind in the EU with a share of only 6.6 per cent.\textsuperscript{14,15} Barriers to achieving a circular economy are generic and probably present in all member states, such as counteracting regulations, lack of commitment from value chain partners and a lack of access to funding. Additionally, companies are finding it difficult to form a specific strategy to become circular and circular entrepreneurship is often still based on existing revenue models.\textsuperscript{16}

Ecopreneur recommendations: (see also Chapter 3)

- Take a leading role in the implementation of the Versnellingshuis to keep the Dutch circular economy “hub” in the international forefront – other countries are rapidly catching up!
- Ensure additional budget for the circular economy programme connected to the Versnellingshuis and the Grondstoffenakkoord, including sufficient “process” money for intermediary organisations assisting companies and municipalities
- Building on the Circular Procurement Academy and the Green Deal Circular Procurement 2.0, launch a massive training for both the public and the private sector
- Evaluate the existing EPR schemes based on the latest recommendations of the OECD\textsuperscript{17}, EY\textsuperscript{18} and Ecopreneur\textsuperscript{19} as a basis for improvement, and extend them to cover more sectors and eco-modulation of fees
- Introduce tax incentives such as low VAT rates for transactions with clearly defined social reasons, discuss the EU VAT rate proposal in the context of the circular economy and issue a study on the possibilities for positive price incentives for circular products and services via VAT differentiation or other tax measures
- Further apply the waste hierarchy by stimulating waste prevention by design, sharing, maintenance, repair and reuse before recycling
At first glance Poland may seem to be amongst the lesser circular economy focused EU member states. However, there are a few valuable areas where the country exceeds the majority of the competition, particularly the per capita waste production with 307 kg (2nd) a year and EPR coverage with a total of 12 schemes spanning 5 sectors. Additionally, Poland ranked very respectably in POLITICO’s circular economy index (6th).

Circular economy initiatives are abundant, particularly by NGOs, although the government is also supportive, involved and in favour of an EU-wide circular economy initiative. The country has also hosted numerous international conferences on the circular economy with “Polish Circular Week” likely drawing the most attention. A major step forward in Poland’s commitment to a circular economy was taken in 2016 with the establishment of an Interdepartmental Circular Economy Group by the Polish Ministry of Development. This Ministry is now working on a circular economy roadmap and has concluded public consolations, however there are still many issues to be addressed before receiving final approval. The Ministry of Enterprises and Technology is very active and open to implement and promote the circular economy, which is listed as a National Smart Specialisation.

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Poland offers VAT reductions on minor repair services for bicycles shoes and leather goods. The country’s voting behaviour towards circular economy related proposals is relatively positive, however moderate resistance can be seen in the area of single-use plastic and packaging waste.

Although Poland is progressing in some areas, it is clearly regressive in others. Reports of hundreds of thousands of tons of garbage being burned in Poland, sourced not only domestically but also from abroad by the so called “waste mafia” has prompted the EU commission to monitor the situation.

Ecopreneur recommendations:
(see also Chapter 3)

- Finalise and launch the Polish Circular Economy Roadmap or Strategy, including objectives to reduce raw materials use and waste production, to increase reuse, repair and sharing, and to become fully circular in 2050
2.22 PORTUGAL

Eco-innovation Index resource efficiency: 13th
POLITICO’s circular economy index: 16th
% of SMEs minimising waste: 55%, 15th
Per capita waste production: 474 kg, 15th
Per capita waste incineration: 113 kg, 15th
Recycling rate of municipal waste: 31%, 19th
Recycling rate of packaging: 61%, 19th
Circular material use rate: 2%, 25th
EPR schemes: 12 in 7 sectors

Circular economy roadmap:
Circular economy tax incentives:
Circular economy initiatives:
Most relevant organisations:

Voting behaviour on recent EU proposals connected to the circular economy:
Ecodesign: For: 20, Against: 0, Abstention: 0
SUP: For: 19, Against: 0, Abstention: 0
VAT: For: 14, Against: 0, Abstention: 4
Waste: For: 17, Against: 0, Abstention: 3
Landfill: For: 20, Against: 0, Abstention: 0
Packaging: For: 16, Against: 0, Abstention: 3
ELV’s: For: 19, Against: 0, Abstention: 0

- Yes (SIFIDE programme)

Portuguese Green Growth initiative, INCOVER project
Circular Economy Portugal, Portuguese Association of Environmental Technology Companies (APEMETA), Portuguese Association for Circular Economy and Bioeconomy, COLAB Circular, SmartWaste Portugal

• Further apply the waste hierarchy by stimulating waste prevention by design, sharing, maintenance, repair and reuse, before recycling, incineration and landfill
• Launch a Green Deal Circular Procurement for both the public and the private sector, including a free training programme and commitments from companies
• Step up market surveillance of environmental laws and regulations and launch a separate programme to foster transparency in the value chain
• Building on existing activities, apply for EU funds to set-up a national support programme for SMEs with focused activities including training, communities of practice and access to finance to create a circular economy “hub”
• Implement the new EU regulations on waste management and plastics as soon as possible
• Evaluate the existing EPR schemes based on the latest recommendations of the OECD, EY, and Ecopreneur as a basis for improvement, and extend them to cover eco-modulation of fees and more sectors
• Introduce tax incentives such as low VAT rates for resold goods and transactions with clearly defined social reasons and discuss the EU VAT rate proposal in the context of the circular economy

POLAND

- Further apply the waste hierarchy by stimulating waste prevention by design, sharing, maintenance, repair and reuse, before recycling, incineration and landfill
- Launch a Green Deal Circular Procurement for both the public and the private sector, including a free training programme and commitments from companies
- Step up market surveillance of environmental laws and regulations and launch a separate programme to foster transparency in the value chain
- Building on existing activities, apply for EU funds to set-up a national support programme for SMEs with focused activities including training, communities of practice and access to finance to create a circular economy “hub”
- Implement the new EU regulations on waste management and plastics as soon as possible
- Evaluate the existing EPR schemes based on the latest recommendations of the OECD, EY, and Ecopreneur as a basis for improvement, and extend them to cover eco-modulation of fees and more sectors
- Introduce tax incentives such as low VAT rates for resold goods and transactions with clearly defined social reasons and discuss the EU VAT rate proposal in the context of the circular economy
Portugal finds its place in the middle-ground of other member states when it comes to circular economy performance rankings, however EPR coverage does stand out with a total of 12 schemes covering 7 sectors.

The Portuguese government’s dedication to forwarding the circular economy was preceded by the establishment of the “Green Growth Coalition” in 2014, which was signed by over one hundred organisations and formed a “Green Growth Commitment” agenda. In 2015, the Ministry of Environment decided to focus this agenda around three policy axes, one of them being the circular economy. The approach for the circular economy is focused on culture, policy and investment. The promotion of a circular culture included the launch of a web portal as a “one-stop-shop” with information, examples, opportunities and an agenda of events. Workshops initiated the discussion on circular economy in many sectors. A circular economy roadmap titled “Leading the transition: Action plan for circular economy in Portugal: 2017-2020” was published in late 2017 by an inter-ministerial group which benefited from extensive public interaction and collaboration with the Dutch government. The plan includes policy changes towards research and innovation, tax and other economic incentives and supporting circular economy networks, including approaches at the regional and local level. Under the SIFIDE programme, investments by SMEs in R&D benefit from a tax reduction which can be higher for eco-design. Meanwhile the development of circular economy is accelerated by public funding designed to promote emergent solutions, for instance, the Environment Fund alone has invested € 6.6 million in circular economy projects in 2017 - 2018. In 2018, initiatives began to pick up across the country, driven by local communities, NGOs, business associations and professional guilds, such as the National Guild of Engineers that established 2019 as the “Year of Resource Efficiency and Circular Economy”.

Regarding circular economy drivers, Portugal has a wide array of natural resources, Portuguese research institutions, despite their size have managed to join European research networks and funding schemes for example “Horizon 2020” and INTERREG, and growing political and private support for circular economy. Regarding EU regulations, Portugal was the first EU country to ban single-use fossil-based plastic products at the government, direct administration and public companies level as of January 1st 2019. Overall, Portugal’s circular economy voting behaviour is very positive, displaying only minimal resistance.

Portugal has made great strides in recent years, however there is still more to be done. The country’s municipal waste recycling rate and circular material use rate are particularly underwhelming and several barriers to circular economy exist including lack of private-sector investment, little technological development in eco-industry sectors, notably water and waste, low public awareness and insufficient human capital to pursue innovation pathways.

Ecopreneur recommendations: (see also Chapter 3)

- Building on preparation in the Centro region, launch a Green Deal Circular Procurement for both the public and the private sector, including a free training programme and commitments from companies
- Add concrete objectives to the Circular Economy Action Plan to increase reuse, repair and sharing, and to become fully circular in 2050
- Building on existing activities, apply for more EU funds to extend the national support programme for SMEs with focused activities including training, communities of practice and access to finance to create a circular economy “hub”
- Evaluate the existing EPR schemes based on the latest recommendations of the OECD, EY and Ecopreneur as a basis for improvement, and extend them to cover eco-modulation of fees and even more sectors
- Introduce tax incentives such as low VAT rates for repair services, resold goods and transactions with clearly defined social reasons and discuss the EU VAT rate proposal in the context of the circular economy.
Romania is evidently struggling regarding circular economy efforts with the majority of circular economy performance indicators ranking in the bottom quarter of member states and EPR coverage somewhat limited with 9 schemes in three sectors. Meanwhile its potential for transitioning to the circular economy is high and it has the lowest per capita waste production with just 261 kg per year, compared to 783 kg in Denmark. Circular economy initiatives are sparse but follow a growing trend. They can be identified both at the social entrepreneurship level, with initiatives such as: the development of new products from reused or recycled materials, reusable products, food banks, to that of public local municipalities, that are pursuing the zero waste certification and affiliation to the "Zero Waste Cities" European initiative. The Green Group Holding is a new public-private partnership established to facilitate the collection and recycling of consumer waste, to divert this from landfill. Genesis Biopartner promotes using more organic waste from food processing for the generation of biogas. An initiative in Cluj-Napoca has been established to help ensure that edible but left unsold food can reach those who need it most. At the same time Romania is implementing key concepts such as pay-as-you-throw (PAYT) and a deposit-system for beverages in the national and local legislation. The circular economy roadmap is connected to the circular economy: ecodesign: For: 25, Against: 0, Abstention: 0, SUP: For: 28, Against: 1, Abstention: 0, VAT: For: 30, Against: 0, Abstention: 0, Waste: For: 26, Against: 0, Abstention: 0, Landfill: For: 27, Against: 0, Abstention: 0, Packaging: For: 25, Against: 0, Abstention: 0, ELV’s: For: 25, Against: 0, Abstention: 0. Additionally, the EIB provided a loan up to € 7.5 million with EFSI guarantee to Green Fibre International to use PET from discarded plastic bottles to produce Polyester Staple Fibre (PSF) and expand its recycling scope into Waste Electrical and Electronic Equipment. Romania’s voting behaviour towards circular economy related proposals by the EU Commission is completely positive with virtually no resistance. Currently, Romania offers no tax incentives for circular goods or services.
2.24 SLOVAKIA

Eco-innovation Index resource efficiency: 16th
POLITICO's circular economy index: 21st
% of SMEs minimising waste: 44%, 20th
Per capita waste production: 348 kg, 4th
↑
Per capita waste incineration: 103 kg, 11th
Recycling rate of municipal waste: 23%, 23rd
↑
Recycling rate of packaging: 66%, 14th
↑
Circular material use rate: 5%, 19th
↓
EPR schemes: 16 in 4 sectors
Voting behaviour on recent EU proposals connected to the circular economy:
Ecodesign: For: 10, Against: 1, Abstention: 0
SUP: For: 11, Against: 0, Abstention: 2
VAT: For: 10, Against: 0, Abstention: 1
Waste: For: 9, Against: 0, Abstention: 2
Landfill: For: 10, Against: 0, Abstention: 1
Packaging: For: 9, Against: 0, Abstention: 2
ELV's: For: 11, Against: 0, Abstention: 0

Circular economy roadmap:
Circular economy tax incentives:
Circular economy initiatives:
Most relevant organisations:
Yes (Slovak Republic goes green economy)
- Circular 100 programme, 54, Circular Change platform

ROMANIA

To prevent Romania from a continued lagging behind the circular economy frontrunners, the country needs a comprehensive circular economy plan and collaboration between all stakeholders involved. Several barriers continue to hinder circular economy efforts. These include: an uncertain political landscape, burdensome regulatory framework, lack of adequate infrastructure for waste management, high risk of non-compliance of environmental regulations by companies due to lack of awareness of proper procedure and difficulties in public-private cooperation.

Ecopreneur recommendations: (see also Chapter 3)
• Formulate and launch a Romanian Circular Economy Roadmap or Strategy, including objectives to reduce raw materials use and waste production and to become fully circular in 2050, innovation support
• Apply for EU funds to set up a national support programme for SMEs, existing initiatives and tools with focused activities including training, communities of practice and access to finance to create a circular economy “hub”
• Launch a Green Deal Circular Procurement for both the public and the private sector, including a free training programme and commitments from companies
• Step up market surveillance of environmental laws and regulations and launch a separate programme to foster transparency in the value chain
• Implement the new EU regulations on waste management and plastics as soon as possible
• Evaluate the existing EPR schemes based on the latest recommendations of the OECD, EY and Ecopreneur as a basis for improving existing ones and setting up new schemes covering more sectors and eco-modulation of fees
• Introduce tax incentives such as low VAT rates for repair services, resold goods and transactions with clearly defined social reasons and discuss the EU VAT rate proposal in the context of the circular economy
• Monitor the waste per capita as to keep the advantage with growing prosperity

Voting behaviour on recent EU proposals connected to the circular economy:
Ecodesign: For: 10, Against: 1, Abstention: 0
SUP: For: 11, Against: 0, Abstention: 2
VAT: For: 10, Against: 0, Abstention: 1
Waste: For: 9, Against: 0, Abstention: 2
Landfill: For: 10, Against: 0, Abstention: 1
Packaging: For: 9, Against: 0, Abstention: 2
ELV’s: For: 11, Against: 0, Abstention: 0

Yes (Slovak Republic goes green economy)
- Circular 100 programme, 54, Circular Change platform

Circular Change
SLOVAKIA

To facilitate the implementation of the principles of circular economy in practice, a Green Economy information platform has been established. It offers the possibility to present green solutions and to share the experience with their implementation. During the EU Council presidency in 2016, the main goal within the Environment Council was to actively contribute to the current European discussion about the transition to the green economy and circular economy. The Slovak presidency triggered the development of the „Bratislava Green Economy Process“ the main goal of which is to enable regular and broad discussion about progress towards the green economy in the EU context. Slovakia’s circular economy voting behaviour is overall positive, displaying minimal resistance. The country does not currently offer circular economy tax incentives.

Slovakia still has a multitude of issues affecting its transition to a circular economy and its less than impressive circular economy indicator performance cannot be overlooked. The total landfill percentage of municipal waste is very high at approximately 70 per cent with around 80 per cent of this waste being mixed municipal waste of non-defined content. Regarding barriers to circular economy: there is a lack of financial resources, lack of funding for research and innovation, little market demand for innovative solutions, low level of public awareness and a highly fragmented regulatory and policy framework non-conducive environmentally conscious behaviour to name a few.

To improve these issues, several key recommendations have been made for both the public and private sector. These include:

- Launch a Green Deal Circular Procurement for both the public and the private sector, including a free training programme and commitments from companies.
- Apply for EU funds to set-up a national R&D and support programme for SMEs with focused activities and access to finance to initiate circular economy pilot projects and create a circular economy “hub”.
- Based on the green growth strategy document from 2016, formulate and launch a Slovak Republic Circular Economy Roadmap, including an action plan with concrete measures and objectives to reduce raw materials use and waste production, to increase reuse, repair and sharing, and to become fully circular in 2050.
- Implement the new EU regulations on waste management and plastics as soon as possible.
- Evaluate the existing EPR schemes based on the latest recommendations of the OECD, EY and Ecopreneur as a basis for improvement, and extend them to cover more sectors and eco-modulation of fees.
- Introduce tax incentives such as low VAT rates for repair services, resold goods and transactions with clearly defined social reasons and discuss the EU VAT rate proposal in the context of the circular economy.
- Monitor the waste per capita as to keep the advantage with growing prosperity.

Slovakia has in recent years shown genuine initiative towards circular economy, however the results are still to come in to fruition as if reflected by the country’s less than stellar circular economy indicator performance. The majority of rankings are in the bottom half of all EU member states. Particularly concerning is the recycling rate of municipal waste at just 23 per cent (ranked 23rd). On a positive note, Slovakia’s per capita waste production is low at 348 kg per year (ranked 4th). EPR coverage is also solid with a total of 16 schemes spanning 4 sectors.

Circular economy is gradually winning political support in Slovakia and several framework conditions have been created to facilitate progress, e.g. in the area of waste management. There are several circular economy initiatives currently running in the country by NGO’s, private companies and the government alike. Already in 2016 the Ministry of Environment published a strategy paper about the Slovak Republic towards a green economy that included the principles of the circular economy. In September 2017 a multi-organisational initiative entitled “Circle of Circular Economy” began. The goal of the project is to present the principles of the circular economy to school students in both Slovakia and Hungary. A prime example of another, private initiative is “Ekovir”, started by the Slovak branch of the company “CURADEN”, aiming to support the circular economy and corporate social responsibility. Several conferences and workshops were held, including an international conference on circular economy and the automotive industry, one of Slovakia’s main economic sectors.
SLOVENIA

Slovenia is doing relatively well in terms of circular economy performance indicators. The country’s two highest rankings are in the recycling rate of municipal waste and POLITICO’s circular economy index coming in 2nd and 7th respectively. EPR on the other hand is somewhat limited, with 9 schemes covering only 3 sectors.

Slovenia’s government joined the Ellen Macarthur foundation’s circular economy 100 programme in 2016 and has shown genuine dedication towards circular economy. Representatives from the ministries of environment, finance, agriculture, economic development, transport and education all attended Slovenia’s CE100 workshop held shortly after joining the programme. As a member of this programme, the country aims to form a network of like-minded economic partners, create a number of circular economy tools to benefit SMEs, share best practices, build a national circular case study library and explore resource efficiency opportunities.

The Cities of Ljubljana and Maribor are very active with circular economy policies. Moreover, Slovenia is home to the influential “Circular Change” stakeholder engagement platform, which aims to create a competence network in collaboration with a network of international partners in order to facilitate Slovenia’s transition to a circular economy. It contributed to the country’s circular economy roadmap and its annual Circular Change Conference has grown into a noteworthy annual international event. Slovenia showed no resistance to circular economy proposals by the European Commission.

Voting behaviour on recent EU proposals connected to the circular economy:
- Ecodesign: For: 3, Against: 0, Abstention: 0
- SUP: For: 8, Against: 0, Abstention: 0
- VAT: For: 8, Against: 0, Abstention: 0
- Waste: For: 8, Against: 0, Abstention: 0
- Landfill: For: 8, Against: 0, Abstention: 0
- Packaging: For: 8, Against: 0, Abstention: 0
- ELV’s: For: 8, Against: 0, Abstention: 0

Ecopreneur recommendations: (see also Chapter 3)

- Together with stakeholders, develop an action plan for the Circular Transition of Slovenia, building on the Slovenian Circular Economy Strategy, including the following recommendations
- Set up a national support programme for R&D and for SMEs with focused activities including training, communities of practice and access to finance to initiate circular economy pilot projects, and expand the Circular Change Platform into a circular economy “hub”
- Launch a Green Deal on Circular Procurement for both the public and the private sector, including commitments from companies and a free training
2.26 SPAIN

Eco-innovation Index resource efficiency: 5th
POLITICO’s circular economy index: 10th
% of SMEs minimising waste: 65%, 8th
Per capita waste production: 443 kg, 14th ↓
Per capita waste incineration: 82 kg, 6th
Recycling rate of municipal waste: 30%, 20th ↓
Recycling rate of packaging: 70%, 6th ↑
Circular material use rate: 8%, 12th ↑
EPR schemes: 13 in 5 sectors

Voting behaviour on recent EU proposals connected to the circular economy:
Ecodesign: For: 40, Against: 1, Abstention: 0
SUP: For: 39, Against: 0, Abstention: 0
VAT: For: 36, Against: 0, Abstention: 3
Waste: For: 36, Against: 0, Abstention: 0
Landfill: For: 39, Against: 0, Abstention: 0
Packaging: For: 31, Against: 0, Abstention: 0
ELV’s: For: 32, Against: 0, Abstention: 0

Circular economy roadmap:
Circular economy tax incentives:
Circular economy initiatives:
Most relevant organisations:
Extremadura 2030, Spanish Circular Economy Strategy
Circular Economy Foundation (FEC), Ecoembes, Circular Basque, TheCircularLab

SLOVENIA

programme
• Set objectives to reduce raw materials use and waste production, to foster secondary raw material use, to establish an appropriate materials accounting system and to become fully circular in 2050
• Evaluate the existing EPR schemes based on the latest recommendations of the OECD, EY and Ecopreneur as a basis for improvement, and extend them to cover more sectors and eco-modulation of fees
• Introduce tax incentives such as low VAT rates for resold goods and transactions with clearly defined social reasons and discuss the EU VAT rate proposal in the context of the circular economy
Spain is doing relatively well in terms of circular economy with the majority of performance indicators placing in the top half of all EU member states. The country’s best effort is in resource efficiency, ranking 5th overall. EPR is another strong point for Spain, with a total of 13 schemes covering 5 sectors.

Spain is home to a solid number of initiatives both at a national and region level. In September 2017 the Ministry of Agriculture and Fisheries, Food and Environmental Affairs held a circular economy based workshop, aimed at devising a new Spanish circular economy strategy with its participants. The workshop resulted in a total of 55 social and business stakeholders signing a pact on the circular economy. The commitment of the pact includes reducing the use of non-renewable resources, improving the analysis of the life cycle of products, incorporating eco-design criteria, updating digital infrastructures and promoting common initiatives that are conducive to developing a circular economy. At regional level, in March 2017 the region of Andalusia held a meeting in Seville with relevant local authorities, municipalities, companies and organisations from civil society. Their “Seville Declaration”, a Manifesto showing their commitment to circular economy policies, has since been signed by over 200 municipalities. In 2018 the region of Extremadura released its own strategy for circular economy entitled “Extremadura 2030”. The underlining vision of the strategy is to convert the area into an example of a functioning circular economy for others to follow with concrete objectives, amongst others, outlined as: developing entrepreneurship in emerging sectors, leveraging research and innovation processes related to green and circular economy, focusing on regional smart specialisation related to circular economy and gaining connecting to experienced international circular economy stakeholders. Additionally, in respects to regional circular economy development, the government of Catalonia joined the Ellen MacArthur Foundations CE100 list, making large strides in developing a regulatory framework of policies and measures. Spain’s commitment to the circular economy was confirmed at the highest level by a treaty with Finland and Portugal. Spain offers tax reductions to companies and individuals who donate to charities. No differentiation is made between donating new and used goods, incentivising the reuse of functioning devices and extending product life. The country’s circular economy voting behaviour is positive, with practically no resistance shown. Concerning innovation and research, a pioneering lab called “TheCircularLab” was founded in May 2017 in Northern Spain to develop best practices in the field of packaging and its subsequent recycling.

Spain is making solid progress regarding the circular economy, although a few particular areas are in need of attention, for example the recycling rate of municipal waste which is relatively low at just 30 per cent. Additionally, several prominent barriers to circular economy continue to slow the process including: little stimulus from the national government, lack of environmental awareness from both buyers and sellers, cost of circular economy development for SMEs, and a lack of technical skills needed expand the circular economy.

Ecopreneur recommendations: (see also Chapter 3)

- Launch a Green Deal Circular Procurement for both the public and the private sector, including a free training programme and commitments from companies
- Implement the new EU regulations on waste management and plastics as soon as possible
- Formulate and launch a Spanish Circular Economy Roadmap or Strategy, as announced by the Pact in 2017, including concrete actions, measures and objectives to reduce raw materials use and waste production and to become fully circular in 2050
- Building on existing activities, apply for EU funds to set-up a national support programme for SMEs with focused activities including training, communities of practice and access to finance to create a national circular economy “hub” with regional hotspots in Extremadura and Catalonia
- Evaluate the EPR schemes based on the latest insights of the OECD, EY and Ecopreneur as a basis for further improving the schemes and extend them to cover eco-modulation of fees and even more sectors
- Adopt a proposal for the reduction of labour costs for repair and exempt repair from VAT. In addition, introduce tax incentives such as low VAT rates for resold goods and discuss the EU VAT rate proposal in the context of the circular economy.
2.27 SWEDEN

Sweden’s circular economy efforts are impressive. The country is home to numerous initiatives and ranks respectfully in all circular economy indicators covered. In fact, all indicators are in the top half of EU members states with the country’s top ranking coming in the percentage of SMEs minimising waste (4th)\(^5\). EPR coverage is equally remarkable with a total of 11 schemes spanning 5 sectors\(^6\).

In 2018 the Royal Swedish Academy of Engineering Sciences (IVA) initiated a new project entitled “Resource Effectiveness and the Circular Economy” intent on creating a platform to identify and link the multitude of current circular economy initiatives. From this, IVA can begin to draw conclusions as to what choices Sweden as whole needs to make to facilitate the transition to a circular economy. The project focuses on five main areas, namely: mobility, facilities, food, textiles and plastics.\(^174\)

The initiative expands on the Academy’s previous project “Resource Efficient Business Models – Greater Competitiveness”. This project ran between 2014-2016 in cooperation with 45 companies and highlighted attractive commercial opportunities to make the economy more resource efficient.\(^175\) Another prime example of a coordinated initiative is “Re:Source”, a collaboration between the Swedish Energy Agency, the Swedish agency Vinnova that administers state funding for research and development, and the Swedish Research Council (Formas). Re:Source provides an arena for various stakeholders from Swedish industry, waste management and research sectors to share and develop innovative solutions regarding resource efficiency, but also a platform to apply for funding. The projects objectives are to: be an easily accessible innovation arena, successfully apply sustainable resource business models in the real world, influence the general public’s awareness, create world-class expertise and industry know-how, achieve a higher level of representation for Sweden in international innovation projects and create new jobs in eco-innovation.\(^176,177\) In addition, the non-for-profit business network organisation CirEko aims to facilitate the business community’s transition to the circular economy by acting as a development and collaboration arena.\(^178\)

Sweden offers a 50 per cent tax reduction on labour charged to repair large household appliances up to a maximum of about € 2.400 per year (€ 4.800 for persons of 65), if the repairs are performed by a professional at the owner’s residence.\(^19\)

Overall, the country’s voting behaviour is positive regarding circular economy focused proposals by the EU Commission.\(^7\) Sweden is on the right track when it comes to the circular economy with few barriers hindering eco-innovation. The pilot with tax reduction for repair is an example of leadership. The only considerable challenges that may impede overall innovation include: high taxes, difficult to navigate labour regulations, high city rent prices dissuading young international talent compared to other EU based cities, and the high level of incineration of residual waste.\(^179,180\)

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**Eco-innovation Index resource efficiency:** 7th
**POLITICO’s circular economy index:** 14th
**% of SMEs minimising waste:** 76%, 4th
**Per capita waste production:** 443 kg, 11th ↓
**Per capita waste incineration:** 920 kg, 27th
**Recycling rate of municipal waste:** 49%, 6th ↑
**Recycling rate of packaging:** 68%, 9th ↓
**Circular material use rate:** 7%, 14th ↑
**EPR schemes:** 11 in 5 sectors

**Circular economy roadmap:**
- Yes

**Circular economy tax incentives:**
- Resource Effectiveness and the Circular Economy Project, Re:Source

**Most relevant organisations:**
- IVA, The Swedish Sustainable Economy Foundation, Swedish Energy Agency, Vinnova, Formas, Cradlenet, CirEko

**Example of good practice:**
- Low VAT rate and income tax reduction for certain repairs
SWEDEN

Ecopreneur recommendations:
(see also Chapter 3)

- Launch a Green Deal Circular Procurement for both the public and the private sector, including a free training programme and commitments from companies.
- Insofar not already there, add objectives to the Swedish Circular Economy Roadmap to reduce raw materials use and waste production, increase reuse, repair and sharing, and become fully circular in 2050.
- Set up a national support programme for SMEs with focused activities including circular design training, communities of practice and access to finance to create a circular economy “hub”.
- Evaluate the existing EPR schemes based on the latest recommendations of the OECD, EY and Ecopreneur as a basis for improvement, and extend them to cover more sectors and eco-modulation of fees.
- Evaluate the pilot with the reduction of labour costs and VAT exemption for repair on its effectiveness to actually foster repair, and communicate the outcome to the EU and other member states. In addition, introduce tax incentives such as low VAT rates for resold goods and transactions with clearly defined social reasons and discuss the EU VAT rate proposal in the context of the circular economy.
- Consider developing a “New Green Deal” to couple extra taxation of linear products (including fossil fuels) and services to compensating income tax reductions, especially for low income groups — essentially starting the budget-neutral tax shift from labour to resources.
- Stop investing in incineration capacity and introduce taxes on landfill and incineration reflecting the EU waste hierarchy.

2.28 UNITED KINGDOM

Eco-innovation Index resource efficiency: 6th
POLITICO’s circular economy index: 2nd
% of SMEs minimising waste: 82%, 3rd
Per capita waste production: 483 kg, 16th
↑
Per capita waste incineration: 112 kg, 14th
Recycling rate of municipal waste: 44%, 11th
↑
Recycling rate of packaging: 65%, 15th
↑
Circular material use rate: 17%, 4th
↑
EPR schemes: 58 in 4 sectors
Voting behaviour on recent EU proposals connected to the circular economy:
- Ecodesign: For: 38, Against: 19, Abstention: 1
- SUP: For: 43, Against: 18, Abstention: 0
- VAT: For: 40, Against: 16, Abstention: 1
- Waste: For: 44, Against: 19, Abstention: 1
- Landfill: For: 45, Against: 19, Abstention: 0
- Packaging: For: 43, Against: 16, Abstention: 0
- ELV’s: For: 44, Against: 19, Abstention: 0
- Circular economy roadmap:
- Circular economy tax incentives:
- Circular economy initiatives:
- Most relevant organisations:
  - Ellen MacArthur Foundation, EMF, Cambridge Cleantech, WRAP
- Example of good practice:
  - Zero Waste Scotland’s ability to track circular investments
The United Kingdom does well regarding circular economy indicators, with a four out of seven rankings covered in the top 25 per cent of all member states. Particularly impressive is the effort in POLITICO’s circular economy index and percentage of SMEs minimising waste, placing 2nd and 3rd overall. EPR schemes are numerous with 58 schemes covering 4 sectors, however they are disproportionately divided between waste streams with packaging (22) and WEEE (29) taking the lion’s share. Municipal waste management performs around the EU average.

For the UK as a whole, there is no circular economy strategy. Instead, the circular economy has been incorporated into a new industrial strategy called “Building a Britain fit for the future”. The importance of a circular economy, resource efficiency, and resource productivity are recognised in achieving clean growth, meaning increased economic growth while decreasing carbon emissions. These strategies are supported by the 25-year Environmental Plan and forthcoming Resource and Waste Strategy, aiming to make the UK a world leader in competitiveness, resource productivity, and resource efficiency. However, with material efficiency perceived as more of a future challenge, these general ambitions are not accompanied by national circular economy targets or policies, and those policies existing focussed on creating a linear economy with waste management. There are nevertheless a multitude of initiatives currently running within the UK and a respectable level of involvement displayed by the government, regions, NGO’s and private organisations alike. First, the UK is home to the Ellen MacArthur Foundation (EMF), an influential organisation leading the charge towards the proliferation of circular economy at home and abroad – although their impact at home seems to take off relatively slowly. In 2018 the EMF launched an international initiative titled “New Plastics Economy” which brought together over 250 organisations, including large multinationals, to sign an ambitious pact showing their commitment to rethinking and redesigning how plastics, particularly packaging, are used in their operations. The plan outlined overall targets but also the main areas of focus, namely: dialogue mechanism, global plastics protocol, innovation, evidence base and stakeholder engagement. Second, Scotland is displaying regional leadership in accelerating the circular economy. A Government Strategy was already published in 2016. In 2018, Zero Waste Scotland organised Circular Economy Hotspot Scotland, an international three-day event in Glasgow. Impressively, they are able to report on investments in circular economy made by companies they advised. Third, an example of a national UK based initiative gaining traction is the Sustainable Clothing Action Plan (SCAP), run by the renowned agency WRAP. It uses collective action to reduce the environmental impact of clothing. Organisations can adopt the action plan which delivers positive environmental and economic outcomes through reductions in carbon and water footprints, and greater use of lower-impact fibres. It covers five key areas: resource efficient business models, design for extending clothing life, fibre and fabric selection, consumer behaviour and recycling. The UK currently offers VAT exemption for donated items that are resold by a registered charity which has agreed in writing to give all profits to charity. At the same time, the UK showed significant resistance to all proposals made by the EU commission regarding the circular economy.

While the UK is doing relatively well in terms of circular economy efforts, there are still several barriers to overcome and, with Brexit looming, it will likely get harder before it gets easier. These barriers include: misaligned incentives (no payoff for suppliers), lack of consumer awareness, low SME innovation capability, industry’s short-term perspective, budget cuts and a focus on waste and resource efficiency rather than circular business models.

Ecopreneur recommendations: (see also Chapter 3)

- Develop a mix of supporting regulatory approaches including taxation, reporting, extended producer and consumer responsibility, product bans or standards, mandatory recycling regimes, and a new Waste Prevention Act.
- Launch a Green Deal Circular Procurement for both the public and the private sector, including a free training programme and commitments from companies.
- Building on Scotland’s circular economy Strategy and other regional strengths, continue the current positive curve by formulating and launching a national Circular Economy Roadmap or Strategy, including objectives to reduce raw materials use and waste production, to increase reuse, repair and sharing, and to become fully circular in 2050.
- Set up a national strategy providing support programs for SMEs in all regions, with focused activities including circular design training, communities of practice and access to finance to create a circular economy “hub.”
- Evaluate the existing EPR schemes based on the latest recommendations of the OECD, EY and Ecopreneur as a basis for improvement, and extend them to cover even more sectors and eco-modulation of fees.
- In line with the EU VAT directive, introduce tax incentives such as low VAT rates for repair services, resold goods and transactions with clearly defined social reasons and discuss the EU VAT rate proposal in the context of the circular economy.
- Implement the new EU regulations on waste management and plastics as soon as possible.
CONCLUSIONS AND RECOMMENDATIONS

Taking in view the country profiles in Chapter 2, what is striking is that we see 28 different trajectories into the circular economy. These differences reflect their unique character in terms of culture, history, economic structure and political reality – as well as the presence of leadership. Some countries are leading the way, such as the Netherlands, Scotland, Slovenia, France, Belgium and Finland. Some are making great strides, such as Italy and Portugal. And some have only just begun the journey, such as Cyprus, Greece, Malta and Romania. Some leading countries including the Netherlands have the longest way to go because they generate enormous amounts of waste per person, on which Romania scores best. The overall picture is rich and diverse, with not just the usual suspects leading the way, reflecting the complex nature of the transition to a circular economy, which touches on many aspects of our society.

Out of 24 different country-specific recommendations in Chapter 2, the following seven stand out as relevant for all member states:

1. Start a Green Deal on Circular Procurement
2. Create circular hubs
3. Create a national circular economy roadmap with concrete targets
4. Improve and extend the EPR schemes to cover eco-modulation of fees
5. Introduce low VAT rates for repair services, resold goods and transactions with clearly defined social reasons
6. Create a “Green New Deal” to shift taxes from labour to resources
7. Shift investments away from municipal waste incineration.

Together, they address many of the obstacles to a circular economy, including especially a lacking awareness and demand. In addition these are topics where member states can learn much from each other, which is why each recommendation is further explained below. For more information we refer to our recent report on Circular Fashion Advocacy.

Recommendation 1: Start a Green Deal on Circular Procurement

The successful Dutch and Flemish examples show that a Green Deal on Circular Procurement can fast-track the development of circular economy. Circular procurement can accelerate the transition by creating demand for circular products and services, thereby helping to create economies of scale. It builds on Green Public Procurement, which can lack concrete results even when mandatory, generates enthusiasm among stakeholders for the economic potential of circular models.
Moreover, it addresses a fundamental barrier by creating business for leading companies with circular products and services. One element of the Deal is a Circular Procurement Academy, with subsidised training for municipalities and companies on how to procure in a circular way. Another element is the commitment of partners to start piloting and share the results. The Green Deals have already started to spread out to the Baltic States and France.

**Recommendation to the European Commission:** initiate and fund a massive free training programme on Circular Procurement in all member states, building on the Dutch example, and lead by example with circular procurement across the board.

**Recommendation 2: Create circular hubs**

Creating “circular hubs”, i.e. multi-stakeholder initiatives in public-private partnerships aiming to accelerating the transition to a circular economy by providing support to SMEs and companies for the implementation of circular models at local, regional and national level, is emerging as a key step in making the transition. This is why they should be set up in each member state. Depending on the regional culture, such hubs can take various forms and be “virtual” or have a physical centre. Existing hubs contain various elements and be run by stakeholders and organisations providing for example:

- A Green Deal and training on circular procurement (see previous recommendation)
- Training on circular design for companies
- Communities of practice
- Management of circular projects
- Support for access to private funding (venture capital, banks) and subsidies
- Matchmaking between supply and demand for circular solutions
- Advocacy for ambitious circular economy policies
- Collecting and communicating inspiring examples
- Communicating news
- Research, e.g. on circular economy obstacles and government policies
- Organising challenges
- Incubators for circular start-up companies
- Organising circular cafés and meet-ups
- Organising national or international circular economy conferences
- Tools, such as the free Circularity Check launched by Ecopreneur and MVO Nederland and WeSustain, which can be used by companies for self-assessment, as input for internal discussions about their circularity strategy and to measure the completeness of their circular strategy. The Check is already used within the Enterprise Europe Network (E.E.N.)
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The schemes are funded or backed up by national or EU financial programmes. At the national level, the Dutch “Nederland Circulair” is an example of good practice.

Another example is Zero Waste Scotland’s ability to track circular investments. At the European level, the European Resource Efficiency Knowledge centre (ERek) was founded to foster this kind of activities, while the E.E.N. is already supporting enterprises on the topic of the circular economy, e.g. by matchmaking activities. The European Circular Economy Stakeholder Platform (ECESP) enhances knowledge exchange and networking. Together with KPMG, MVO Nederland has trained circular economy stakeholders in various member states as part of a project for the European Commission.

**Recommendation 3: Create a national circular economy roadmap with concrete targets**

Many member states have already established national and/or regional circular economy roadmaps, strategies and/or programmes. This is another powerful lever for change. The process of formulating it creates support within the government, fostering cooperation between the ministries involved, and from stakeholders. In addition, Ecopreneur advises to follow the example of the Netherlands (again…) to set a target to develop a circular economy by 2050 and the (interim) objective of a 50 per cent reduction in the use of primary raw materials (minerals, fossil and metals) by 2030. While the 2050 goal may not be 100% clear because no one knows exactly what a fully circular economy will look like, these targets create a sense of direction and urgency with enough time to clarify the end goal.

**Recommendation 4: Improve and extend the EPR schemes**

As explained in our recent report on circular fashion advocacy, EPR is a strategy to add all of the environmental costs associated with a particular product’s life cycle to the market price of that product. While in need of further improvements, EPR is a proven policy in sectors such as packaging, electronics, tires, cars and batteries. The coverage and quality of EPR schemes is important because they give economic incentives needed for two reasons: to accelerate the new, circular regime and to destabilise the old, linear one. From the perspective of sustainable companies, such as those in the membership of Ecopreneur, the lack of demand for circular products and services at current prices is the number one hurdle for implementing circular business models. First, France and Belgium present excellent examples of EPR. Second, detailed recommendations on how to improve existing schemes are given by the OECD and EY.
Instead, the European Commission is now vested interests in waste incineration. Problems with their own EPR systems or including the principle of subsidiarity, resistance had various backgrounds lacking transparency. The member states’ fee calculation regimes, many of which are schemes with different compliance and business because there are dozens of harmonisation of EPR is important for the Waste Framework Directive. Approaches to EPR as part of the revision resisted a proposal from the European undocumented, in 2017, several Nordic member states, more sectors could be covered, while the implementation of eco-modulation of fees has only just begun. Alignment of these national approaches is crucial. Unfortunately, an opportunity to harmonise EPR systems was recently missed which may or may not come back in the following years. While VAT differential can, as part of a tax shift (see recommendation 6), play a role to accelerate circular fashion by ‘nudging’ consumers towards circular. This approach can be very effective, as evidenced by the plastic bag levy scheme. Furthermore, companies investing a lot in the circular economy keep asking for positive incentives, often starting with a low VAT. In line with the current EU VAT Directive, several member states have implemented VAT reductions on minor repairs to movable goods, including Sweden, France, Slovenia and the Netherlands, on resold goods in the UK, and/or for “clearly defined social reasons”, including Spain, Belgium and the UK.100 However, since the European Council decides on tax matters on the basis of unanimity, all member states must vote for the proposal before adoption.

Recommendation 4: Introduce low VAT rates for repair services, resold goods and transactions with clearly defined social reasons and discuss the EU VAT rate proposal in the context of the circular economy

Recommendation 4: Introduce low VAT rates for repair services, resold goods and transactions with clearly defined social reasons and discuss the EU VAT rate proposal in the context of the circular economy

Recommendation 6: Create a “Green New Deal” for a tax shift from labour to resources. The need for tax reform in general is becoming more apparent. Recent protests in France (the yellow vests movement) and other countries across the globe against rising fossil fuel prices show that environmental taxes can only be successfully introduced in combination with social policies, connecting social and environmental domains. Maybe this requires a new type of green deal or “Green New Deal”. The political support for introducing a tax shift from labour to resource use and environmental impact is considerable and growing. An example of good practice in the context of the circular economy is Sweden, which combined a VAT rate reduction for repair services with an income tax reduction.

Recommendation to the European Commission: Keep advising member states to introduce a tax shift from labour to resources and set up pilots to demonstrate its potential, including VAT differentiation

Recommendation 7: Shift investments away from municipal waste incineration. Investing in waste incineration or “energy recovery” creates a growing problem for many countries because over capacity is being created. Especially the Nordic countries score low on incineration per person, and some countries including the Netherlands are already importing waste to fill their ovens with non-reusable waste. Waste incinerators form a “honey trap” for municipalities and governments because they can prevent landfill, bring financial rewards and generate energy. However, creating an over capacity invites to incinerate reusable waste, which goes against the waste hierarchy and poses a financial risk if the capacity can no longer be filled in the future, when the waste per capita decreases due to the transition to a circular economy or if a European over capacity is created. Member states with high rankings on incineration, such as Malta, Croatia, Greece and Latvia, have a unique opportunity to leap-frog to the circular economy by investing in waste prevention and recycling instead.

CONCLUSIONS AND RECOMMENDATIONS
Recommendation to the European Commission: Prevent the use of EU funds for investments in residual waste incineration.

These seven recommendations do not cover everything. The first recommendation to the UK, to develop a mix of supporting regulatory approaches including taxation, reporting, extended producer and consumer responsibility, product bans or standards, mandatory recycling regimes, and a new Waste Prevention Act, actually applies to all member states and the EU. The five pillars identified for circular fashion seem to apply as well: innovation policies, economic incentives, regulation, trade policies and voluntary actions. This includes creating a general regulatory framework that creates harmonised transparency and traceability, introduces minimum requirements for circular design by expanding the EU Ecodesign Directive from energy to resource efficiency for all end products, and removes existing obstacles for cross-border shipment of waste within the EU.

Final key message of this report: Make circular economy a priority

A key message Ecopreneur wants to convey to all member states to make circular economy a priority at the national and European level. Embarking on the transition to a circular economy is good for your economy. The European Commission and many governments already fully acknowledge that it provides new jobs, substantial additions to the GDP, saves valuable resources and decreases dependence on import. Creating a circular economy “hub” at the member state level is probably the only way to generate national examples that can convince national stakeholders. The benefits this brings will in turn increase the support at the member state level and in the European Council for bold European circular economy policies in the years to come.

In addition, there is a strong link between climate and circular economy policies. Since EU citizens have become broadly concerned about the impacts of climate change, climate policy will be politically important in the coming years. About 50 per cent of greenhouse gas emissions stems from resource extraction and processing. This strong link between climate and resources means that circular economy policies can be further accelerated by demonstrating their importance for meeting the climate goals.

Colophon
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REFERENCES


15 RREUSE. (2018). Households in Graz offered 100 € per year to have their things repaired, 5 May 2018. Retrieved from https://www.reuse.org/households-in-graz-offered-100-eur-per-year-to-have-their-things-repaired/


According to Joanna Kulczycka. (Private communication, 2019)


According to Simina Lakatos. (Private communication, 2019)


