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**LOCAL AND REGIONAL STRATEGIES ACCELERATING
THE TRANSITION TO A BALANCED CIRCULAR
ECONOMY**

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BRIEF



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Local and regional strategies accelerating the transition to a balanced circular economy

This Spatial Foresight Brief derives from the expertise gathered during a number of projects. Most recently, Spatial Foresight carried out a review of circular economy strategies and roadmaps issued in European member states and regions (EESC 2019). Other projects include, the ESPON study “Possible European Territorial Futures” (ESPON 2018), a study assessing the territorial implications of the 3rd Industrial Revolution in Luxembourg, and a study for the German Federal Environment Agency (UBA) to elaborate an action programme in support of the Green Economy in the Alps. Building on this expertise, this paper illustrates the need for local and regional strategies to stimulate the transition to a circular economy.

Introduction

Imagine a functioning circular economy. You start your day with a biological locally produced croissant with jam and a cup of herbal tea. A coffee would have been nice to wake up, but unfortunately that has become too expensive since transport costs, including emissions are considered in the price. Luckily, your bike ride to work will wake you up soon. While unlocking your bike with your phone you are reminded to fetch a new phone battery. The shopkeeper called yesterday that the new battery made from recycled minerals is ready. The shopkeeper guaranteed an increased lifespan of three years for your phone. Finally arrived at work you have a busy day ahead. As procurement officer for a furniture recycling factory, you are responsible for buying additional resources, such as wood or fabric to upgrade chairs and tables. At the same time, you make sure that the residual streams from upgrading the furniture are sold to other businesses. Luckily the local authority encouraged networking and clustering of companies. Hence, the neighbouring construction company, specialised in building wooden homes, can sell you their leftover pieces of wood. You buy the fabric from the plastic recycling company across the city, that transforms plastics collected from the sea into textiles. Once back home, you take a long hot shower: the water is warmed up thanks to the excess heat from the scrap metal recycling plant a few blocks down the road. The wastewater is collected in the house and turned into drinking water with a domestic solar-powered water purifier.

The above scenario illustrates various changes in society based on a circular economic model compared to today. A circular economy assumes a new economic model in which today's linear model is replaced by a model that focuses on reducing, reusing, recycling and recovering materials during production, distribution and consumption (Kirchherr, Reike, and Hekkert 2017). In other words, in a circular economy production and consumption cycles are brought together to create a resource-efficient system that reduces waste to a minimum. Besides industrial symbioses¹, this implies changing habits and attitudes of people, demanding durable products and options for re-use and recycling. The transition to a circular economy demands thus a societal change. All economic processes, including people's habits and attitudes would need to change, improving at the same time environmental quality, economic prosperity and social equity, for the benefit of current and future generations (Kirchherr et al. 2017).

¹ Industrial symbiosis is a concept originating from industrial ecology that implies a collective engagement of traditionally separate industries towards business and environmental management while including exchanges of materials, by-products, energy or water (Chertow, 2000)



Indeed, adopting a circular economy implies various changes that have territorial implications. Among others, transport and distribution flows change and, as result of the new economic model, there may be changes in the balance of comparative advantages between economic sectors. Territorial characteristics such as the current economic base, population density and innovation capacity could determine whether a territory is able to adopt to a circular economy model smoothly, or whether it has many challenges to overcome. To limit negative territorial consequences of the transition, initiatives and activities in support of the circular economy shall be coordinated (ESPON, 2018).

Currently, a large variety of initiatives contribute to the development of a circular economy throughout Europe. Different players in various places have been busy for years in launching activities that support the transition, both under the name of circular economy and independently from its conceptual framework. Increased coordination between these initiatives and activities may help to leverage their impact and lay the foundation to change economic processes and people's habits and attitudes.

Public authorities can encourage such coordination in their territory for example by adopting a circular economy strategy. Such strategies provide a common vision and objectives that single initiatives can relate to. In addition, public authorities can envisage measures to avoid negative (territorial) implications of the transition to a circular economy (EESC, 2019).

This paper illustrates the need to develop local and regional strategies in a coordinated way to support a transition to a circular economy. It argues that European institutions and programmes can facilitate this coordination, not least due to the EU's commitment to international objectives and agreements such as the Paris climate change agreement and UN Sustainable Development Goals.

As such, this paper first illustrates current challenges to advancing a circular economy paradigm shift. Secondly, the advantages of local and regional strategies as key carriers for a coordinated transition are presented. The final section presents advantages and ways to enhance coordination between these strategies.

Advancing a societal change in Europe

A societal change assumes new ways of thinking, acting, and organising for a new cognitive-normative discursive framework and context (Burns 2012). In other words, a successful societal change sets a new framework against which people (unconsciously) reflect their daily behaviour. Such a change may occur as response to an acute problem, for example the ban on nuclear power in Germany after the Fukushima crisis, but it most often happens gradually (ibid.), as is the case with the transition to a circular economy so far. More "organic" transformations of the cognitive-normative framework require however efforts from all players.

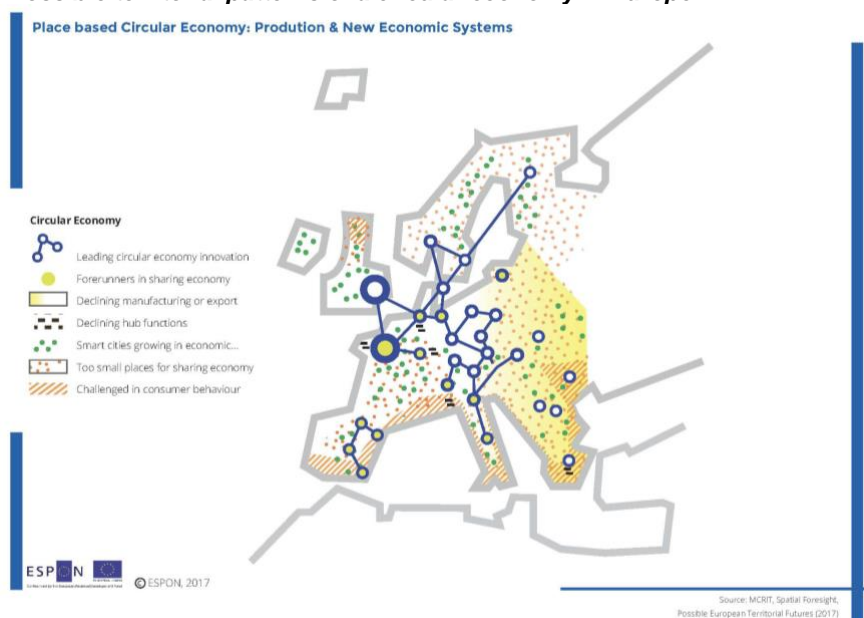
In relation to a circular economy this requires involving all players along a value chain, from research centres and universities developing new approaches or recyclable products, SMEs transforming new solutions into commercial products, large retail companies bringing the products to the market and consumers. Besides economic players also the broader society shall be considered, including public authorities that adopt regulations and introduce incentives for other players and civil society organisations that adopt education, organisation, motivation and facilitation roles, to link different players, monitor the progress to change and create a societal demand (Ellen MacArthur Foundation, Danish Business Authority, and Danish Environmental Protection Agency 2015).



Collective and coordinated actions among these players stimulate transforming cognitive-normative frameworks (Burns 2012:1125). In relation to the transition towards a circular economy all stages of value chains shall be considered, namely, innovation and investment, production, secondary raw material use, consumption and waste management. For most products and services such value chains operate higher geographic levels across different regions and countries.

Moreover, a transformation to a circular economy implies different activities in European regions and cities, depending on their socio-economic, environmental, demographic and geographic characteristics as well as the potential impact of a new economic model. In line with this variety, initiatives and policy response differ largely across Europe, challenging collective and coordination actions at European level. In fact, changed production, consumption and distribution patterns may alter the territorial balance between European regions and cities. Cities and regions that are currently less developed may become the most advanced territories of Europe and vice versa (ESPON 2018). Map 1 illustrates a possible territorial impact of a circular economy in Europe.

Map 1 Possible territorial patterns of a circular economy in Europe



Source: ESPON, 2018

Different territories are thus differently impacted by a fully functioning circular economy.

- Large urban centres and metropolises will among others profit from a need for green innovations. This reinforces today's tendencies of territorial inequalities and dominance of urban agglomerations for territorial development. At the same time, some large urban centres may become less important as transport and export hub.
- Secondary and medium-sized cities will among others profit from a stronger focus on decentralised production and a sharing economy. Production processes will be of smaller scale, but well connected to other production centres for optimal resource efficiency. Concentration of enterprises and people in secondary and medium-sized cities, yet with a human touch for trust building give these territories a comparative advantage against major urban centres and less densely populated areas. Cities currently hosting large scale manufacturing may lose their competitive advantage.



- Small cities and less developed regions benefit among others from a focus on repair, reuse and recycling as economic activities. These activities are generally labour intensive and require close proximity to the market, hence currently small cities and less developed regions may have a comparative advantage after a transition. In particular, when considering a de-coupling of growth and environment and a common understanding of prosperity beyond GDP may change the values and attitude towards these regions. At the same time these territories will face challenges in reaching critical mass to establish effective sharing economy schemes.

In other words, collaboration between local and regional stakeholders can advance a societal change such as adopting a circular economic model. Together these players can propose initiatives and actions that are most suitable to the territory, considering the territorial needs and possible impact of the change.

Local and regional strategies to support a societal change

Local and regional circular economy strategies can be key to bottom-up approaches to advance a societal change in a territorial balanced manner. Local and regional circular economy strategies offer an overarching framework for the variety of initiatives in their territory. This restricted geographic scope allows to define targeted actions addressing specific territorial needs. Such a bottom-up approach creates thus an opportunity to focus on aspects that are most relevant for the territory.

Furthermore, strategies offer a long-term perspective by formulating visions and strategic objectives. Indeed, the strategies assessed for the European Circular Economy Stakeholder Platform show long-term perspectives by expressing their visions and formulating their objectives for 2030, 2040 or 2050.

Strategies also provide a common objective for the players in the territory of focus. The overview of initiatives at the European Circular Economy Stakeholder Platform² illustrates a large variety of initiatives in relation to the circular economy. These initiatives differ

- by geography, from very local to regional and national initiatives;
- by sector, from agriculture to the textile industry and from transport to social entrepreneurship; and
- in scope, with some initiatives focusing on processes such as the establishment of platforms and the exchange of ideas, and others focusing on innovative actions to ensure that residual streams from one player can be used as resources by others.

A common objective provides ongoing initiatives with a clear purpose in line with the strategy. As such, strategic documents help to steer and guide individual initiatives.

In addition, a strategy might motivate players to start new initiatives following the joint vision, objectives, measures and possible activities described in the strategy. Indeed, many of the strategies assessed for the European Circular Economy Stakeholder Platform include main ways to achieve the common vision or objective. For example by encouraging network building, establishing platforms to exchange ideas, introducing new regulation, or through public procurement (EESC 2019).

Even though strategy development takes time and demands the involvement of many players, the benefits of a strategy may outweigh the investment costs in the long run. Particularly, benefits related to

² The platform is a joint initiative by the European Commission and European Economic and Social Committee to encourage interaction among players dealing with circular economy and exchange ideas.



the ability of strategies to ensure commitment and ownership for the common objective, support a shift to a circular economy to be shared among larger shares of the population (European Commission 2015).

Although many cities and regions currently work on circular economy strategies, only 33 operating strategies and 29 strategies under development were identified³ until December 2018 during a scoping study for the European Circular Economy Stakeholder (EESC 2019). Against more than 280 European regions and more than 10,000 local communities this number is relatively low. Also, when considering the number of initiatives listed of the European Circular Economy Stakeholder Platform, more local and regional strategies could have been expected.

Increasing the number of local and regional circular economy strategies can support a paradigm shift by offering individual initiatives a framework to relate to and inspire other players to make a contribution as well. Furthermore, strategy development allows to consider and address future dimensions of the transition to a circular economy. In particular, local and regional players that are familiar with the territory could support formulating a vision and common objectives that consider territorial implications, including possible measures to stimulate desired and avoid undesired effects.

A first step to stimulate a paradigm shift would be to conclude more local and regional circular economy strategies. Secondly, coordination and cooperation between these strategies needs to be sought to ensure that value chain loops can be closed at European level and to limit the territorial imbalances at European level.

Ways to advance the circular economy in a coordinated manner

More local and regional circular economy strategies imply a greater variety of ways to encourage a transition to a circular economy in line with the different territorial impacts. This larger variety may hinder the possibility for collective actions to establish new thinking, acting, and organisation for a societal change. Coordination among these strategies can counterbalance this tendency and could even boost the speed of the transition to a circular economy.

Coordination allows stakeholders of circular economy strategies to learn from each other's practices and can serve as an eye-opener to support the transition in different ways. More precisely, coordination allows

- enlarging the scope of value chain loops to more territories, making them more effective or even enabling the closure of new loops;
- addressing spill-over effects of interventions in one region to the other or from one sector to the other;
- enabling knowledge sharing to spread existing approaches towards a circular economy.

Taken together coordinated actions could provide a critical mass to change cognitive-normative frameworks through European societies. Hence, some degree of coordination among the local and regional strategies shall be aimed for despite the different territorial impacts of a transition. In particular

³ A strict definition of "circular economy strategies" has been applied for this study, focusing on strategic documents with a clear focus on circular economy, that present a vision for the region and possible activities to implement the strategies. More generic documents that consider circular economy as one of their focus areas have been excluded for pragmatic reasons.



European institutions could provide incentives to coordinate local and regional strategies, aiming to close the numerous value chains loops that operate at European level.

Coordinating activities at European level benefits a paradigm shift, but this is a complex task. Although there are initiatives at European level to support the transition to a circular economy (see Box 1), the scope is often too narrow to capture the variety of initiatives currently ongoing in Europe.

Box 1 EU circular economy framework

The European Commission took initiatives to provide a common framework for coordinated and collective actions in relation to a circular economy since the early 2000s. The European Commission has adopted several strategic documents to encourage resources efficiency and reducing waste (e.g. European Commission, 2005; European Commission, 2011; European Commission, 2012;). Through these documents the European Commission set the basis to de-couple growth and the use of natural resources, initiating policy coordination processes and encouraging a wide range of stakeholders to set priorities for a resource efficient Europe. In addition, the European Commission adopted the EU Action Plan for the Circular Economy (European Commission, 2015) and a Circular Economy Package covering several directives to limit waste. More recently, the European Commission started defining European wide strategic documents on specific sectors of the circular economy, an eminent example being the recently published European Strategy for Plastics in a Circular Economy (European Commission 2018).

Instead, European level actions could focus on aligning bottom-up approaches presented in local and regional circular economy strategies. The combination of bottom-up approaches and top-down incentives for coordination provides a stable framework to recognise the need for a transition. Moreover, this interlinkage encourages dialogue and the use of ambitious policy instruments and may overcome fragmentation by providing broad ownership (ESPON 2019; Martin, Mehlbye, and Schön 2018).

In doing so, European institutions could offer incentives and encourage cooperation with a focus on capacity building. As such the EU could make use of existing and future programmes. Current programmes already consider a broad understanding of the circular economy and thus reflect well the current initiatives and future local and regional strategies. Moreover, a stronger focus on building capacities to smoothen and accelerate the transition to a circular economy aligns with the ambitions of the new president of the European Commission Ursula von der Leyen to deliver a European Green Deal in the first 100 days of her mandate⁴.

In particular, the new Policy Objective number 5 – a Europe closer to citizens - encourages bottom-up strategy development as well as Interreg programmes provide incentives for cooperation and capacity building for strategy development. In addition, other programmes of the 2021-2027 programming period such as Horizon Europe, LIFE and InvestEU encourages cooperation across national borders (see Box 2 for an overview of possible EU support to the transition to circular economy in the 2021-2027 period). Cooperation can take place between territories with similar or complementary socio-economic, demographic, environmental and geographical characteristics, or territories that focus their support to a

⁴ In her opening statement in the European Parliament Plenary session on 16 July 2019, Ursula von der Leyen sketched her ideas and ambitions for a European Green Deal that shall make Europe the first climate-neutral continent by 2050 by revitalising Europe's industry and ensure long-term growth and jobs.
https://ec.europa.eu/commission/presscorner/detail/en/speech_19_4230



transition on similar or complementary sectoral focus or priority sectors. Similarities in value chains could for example enable territories to collaborate and quickly learn about specific elements relating to, for instance, the closure of material loops. Cooperation between different places may focus on capacity building and sharing of good practices ensuring that no region is left behind in the transition.

In addition, the activities from the European Circular Economy Stakeholder Platform could be expanded. The platform already encourages coordination and cooperation among players active in the field of the circular economy. It actively shares and disseminates knowledge and examples in relation to the transition, and the annual Circular Economy Stakeholder Conference is one of the prime opportunities for players in the field to share experiences and advance the transition.

Box 2 EU support to the transition to a circular economic model

The following programmes and incentives for coordinated circular economy are and will be available in Europe.

- ESIF support to productive investment, investments in infrastructure, and skills and capacities in the labour market provides a wide range of support from innovative actions to acquiring new skills and competences that are required in a circular economy.
- The LIFE programme supports investment in green infrastructure and offers a clear link with maintaining or improving the quality of life in the territory.
- Horizon Europe is the new research and innovation programme following up the Horizon 2020 programme, this programme supports particularly new solutions innovations that support the circular economy. One cluster under the second pillar is dedicated to climate, energy and mobility suggesting sufficient funding possibilities for the transition.
- InvestEU, is the successor of the Juncker Plan and offers financial instruments to enterprises and groups of enterprises. The programme supports, among others, activities related to resource efficiency and may thus become an important programme to provide funding or facilitate the access to funding for enterprises in this field.
- The Single Market Programme (SMP) combines several current programmes that support the European Single Market. It details among others the main principles for Eurostat that shall continue providing harmonised data on the UN Sustainable Development Goals and circular economy and thus providing relevant (monitoring) data to local and regional authorities for strategy development. In addition, the programme succeeds the parts of the current COSME programme for SME support, providing funding, facilitating access to funding and building capacities of SMEs, that could help this type of player to adapt to the changes in relation to the transition to a circular economy.

Coordinated local and regional circular economy strategies furthering the transition

Strategies at local and regional levels are thus a relevant policy instrument to further the transition to a circular economy. Besides offering an overarching framework for activities in a specific territory, they provide a common objective among a variety of players and may encourage more players to make a contribution to the transition. Furthermore, local and regional strategies can be made specific to the territorial needs considering the specific territorial impact of the transition. Their impact could be a tool



for territories that benefit less from the integration with global value chains to develop comparative advantages in relation to other regions.

To ensure a critical mass and collective active action some degree of coordination between local and regional strategies is needed, not least since many value chains operate at European level. European institutions can encourage this coordination. This can build upon existing European programmes and policies but shall focus more on combining providing an overarching framework for the bottom-up activities, including local and regional strategy development.

Combining bottom-up initiatives, such local and regional strategies with top-down incentives promoting coordination could thus accelerate the transition to a circular economy. Such an approach does not only allow to consider specific territorial needs to circular economic models, but also encourages collective actions and collaboration. In other words, this approach encourages a societal change to a circular economy by place-sensitive thinking, acting locally and organising at European level.

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