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The needs of European regions for a smooth transition to the circular economy

SCREEN-Lab ('www.screen-lab.eu(is the Policy Lab for a Europe made by Circular Regions, a think tank open to all those regional stakeholders willing to co-create and implement policies enabling EU industry, SMEs and citizens to adopt a circular sustainable approach.

It works through this free platform where European Regions dealing with Circular Economy can collaborate, explore possible scenarios and co-design solutions for better policies.

The international not-for-profit association Veltha (www.veltha.eu) manages the Policy Lab technical secretariat

This publication is the second outcome of the "Policy Lab for a Europe made by Circular Regions" (SCREEN-Lab), a free platform where European Regions can co-design Circular Economy solutions for better policies



Executive summary

The second round of the SCREEN Policy lab meetings, held in the period March-May 2021 and attended by officers coming from 17 EU regions, departed from the conclusions of the first round¹, where the main challenges identified by the participants were the need for collaboration between research and industry, the establishment of clear strategies and the involvement of private stakeholders. A critical issue underlined by the participating regions was their need for assistance in developing and increasing their current knowledge about circularity, to develop a joint and harmonized transition within all the EU regions. The preliminary questions posed to the regions in the new round were focused on the existence and effectiveness of tools used by them, the desired improvement of the existing tools, and the desired functionalities for the new ones. This was necessary for defining a first framework of knowledge and operational capabilities. The results of the first workshop with regional officers were also discussed in the one reserved to the stakeholders, according to the Policy Lab methodology described in section 2.

The analysis of the first workshop results led to the following fundamental questions posed to the regional officers in the second:

- How should a specific Circular economy office/service in your institution be structured?
- Circular economy data: what do the Regions want/need from the local companies?
- How would regional officers get the needed skills?

This was followed by a round table on the involvement of new generations, specifically requested by the local stakeholders. The main outcomes of the discussions highlighted the need for a clear definition of the concept of Circular Economy, as well as the development of a common language for dealing with Circular Economy. All participating regional officers agreed on the need of having a key figure in each region for coordination with both public and private actors; however, the approach to such a key figure currently differs in each of the regions: some charge an already existing internal office (e.g. economic development) with tasks related to CE; others appoint a task force composed by internal officers, or external experts with specific contracts, etc. Another important need is an effective capacity building process for the public authorities, to enhance the understanding of the concept and expand the competence within and between regions and universities. The willingness of the younger generation should be taken into consideration to better target the future development. The third and last workshop was focused on current solutions for some of the highlighted issues, as well as future solutions under development within a large European circular economy project. A CE stakeholder forum organized by Alentejo region (Pt) is now involving more than 160 participants. The H2020 DigiPrime project is developing a new concept of Circular Economy digital platform overcoming current information asymmetries among value-chain stakeholders and with its services covers a technical and practical approach of designing a circular tool and service for regions and private stakeholders. Such services will be officially presented during the 2021 European Week of Regions and Cities and will be available for free to Regions and local stakeholders.

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¹ http://www.screen-lab.eu/documents/Policy Lab Publication Vol1-Jan2021-1.pdf



1. Introduction

"Laboratory on Policies" (Policy Lab) was established in 2016 within the H2020 SCREEN² project, participated by Veltha and 17 European Regions who worked together to co-create a replicable systemic approach towards a transition to Circular Economy in EU regions within the context of their Smart Specialization Strategy. Due to the results achieved, which went far beyond what was expected at the beginning, the Policy Lab continued after the end of the project as an informal cooperation network between European regions, open to other regions and stakeholders in the field of circular economy.

After the EU adoption in March 2020 of the new Circular Economy Action Plan "For a cleaner and more competitive Europe"³, Veltha decided to set up the Policy Lab 2.0 "Policy Lab for a Europe made by Circular Regions (SCREEN-Lab)"⁴. The Policy Lab 2.0 is a think-tank operating on a free platform open to all regional stakeholders willing to co-create and implement policies enabling EU industry, SMEs, and the public to adopt a circular sustainable approach.

During the second round of the Policy Lab, held between 19th of March to the 4th of June in 2021, the following regions were represented at least once:

Sweden, Region Värmland

Sweden, Region Skåne

Austria, Region Upper Austria

Portugal, Region CCDR Alentejo

Portugal, Region CCDRC

Greece, Region Crete

Germany, Weser-Ems Region

Germany, Thueringen

Poland, Urząd Marszałkowski Województwa Pomorskiego

Poland. Lodzkie

Netherlands, Cities Northern Netherlands

Scotland, Glasgow Region

Spain, Government of Catalonia

Czech Republic, Moravian Region

Croatia, Primorje-Gorski Kotar

Spain, Basque Region

Finland, Region of Kymenlaakso

This document explains the working methodology and the results raised from the second round of discussions within the Policy Lab.

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² SCREEN "(Synergic Circular Economy across European Regions) <u>www.screen-lab.eu/index2.html</u>

³ COM/2020/98Final https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1583933814386&uri=COM:2020:98:FIN

⁴ http://www.screen-lab.eu/index2.html

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2. How the Policy lab works

The new version of the Policy Lab works in 3-month periods in which a main research question is posed by Veltha to the participating Regions, based on their needs. During each period, a subquestion is asked each month, followed by a dedicated workshop. After each meeting, Veltha merges all the information received from the internal discussions of the Regions, its own research and from the three workshops. Furthermore, each month there is a parallel meeting with external stakeholders and experts, which will use the input of the Regions as a starting point to discuss the viability and effectiveness of policies. This dual nature ensures a multidisciplinary approach to the discussed issues.



Figure 1: Policy Lab working scheme

3. Background and the main research question

3.1 Conclusions of the previous Policy lab

The previous Policy Lab focused on three main challenges for a just transition process towards a circular economy throughout the European Union's regions: (1) creation of a common set of criteria, (2) development of experts on circular economy in each region, and (3) motivating companies to include circularity as part of their strategies. Private stakeholders and regional officers emphasised during the sessions that the process of creating a common criterion for how to adapt to circularity in the regions was hindered by the diversity of structure and approach between European regions. They also pointed towards the lack of expertise on circular economy in the regions, and how it affects the possibility of organizing the assessment process. Lastly, the previous Policy Lab also presented the



need for clear financial incentives for local companies, to motivate the creation of change in their business models and to include circularity in the regional strategy.

Veltha's Policy Lab is designed to keep its participants up to date with the latest issues and possibilities concerning the transition to a circular economy in the EU. The latest and future Policy Lab sessions are therefore based on the outcomes extracted from the private stakeholders and regional officers from earlier sessions, and aim to create a free platform for everyone willing to co-create and implement policies enabling EU industry, SMEs, and the public to adopt a circular sustainable approach.

A full report on the previous Policy Lab is available online at: http://www.screen-lab.eu/repository.html

3.2 The main research question for this Policy lab period

The key principle of European regional development is that each country progresses at its own rate. This means that it is crucial, when formulating and implementing the research question for each Policy Lab period, that the theme and content follow an even level. The Policy Lab sessions cannot expect that the variety of European regions will hold the same understanding and framework, considering regional approaches towards circularity and circular economy; hence the following research question for this Policy Lab period:

The needs of European regions for a smooth transition to the circular economy

Related to the first round of the Policy Lab that took place last year, in 2020, this period's main research question is based on its outcome. The key issues surrounding the progress of the circular economy in each region and country are still the elements of expertise, data, capacity building, and the role of the private sector and its collaboration with local authorities. By predicting the regions' diverse understanding of circular economy, the Policy Lab focuses on creating a think tank that not only advances the participants' own knowledge, but also gives the opportunity and the space to share tools, ideas, and solutions with others. The research question for the Policy Lab is therefore designed to include as many different aspects as possible, to ease the interchange between our participants and foster synergies and cooperation between our involved actors.

4. First workshop

The first workshop was targeted to regional officers and started with charting the existence and effectiveness of current or missing tools being used around European Regions. Response from the participants staggered between successful stories to non-existing examples from regions being eager but restricted to progress. The reaction directed the session into the next theme in the workshop: how to improve existing tools or desired functionalities for new tools. The willingness surrounding the shift of a linear economic system towards a circular economy differed not only between regions around Europe, but also within regions and their local authorities. According to the regional officers, regardless of the level of coordination within their regional framework, a circular economy approach is yet to be the standard form of approaching growth in the regions. Regional officers often end up being

VELTHA

alone or in a minority of groups trying to push circularity measures within the structure of regional development. They also emphasise that convincing doubters lies in the effect of different strategies. Such strategies can be developed together with the kind of synergy and co-creation that the Policy Lab represents.

One source of difficulties for many regions lies, according to the regional officers, in the lack of knowledge and understanding of circularity, which hinders the willingness or conviction of other actors to get involved within the region (both at the public and private level). By shifting the focal point on one process or one perspective of the circularity wheel, the regional officers suggest a substantial change of looking at the bigger picture. Such as, for example, using circular economy not only for the description of recycling, but also to find possible changes in the production scheme and value-chain, by circular design.

4.1 The role of the private sector

In order to stimulate Europe's transition towards a circular economy, inclusion of not only the larger companies and actors, but also focusing on SMEs in local communities is pivotal in guaranteeing that the transition encloses the region on every level. During the session the regional officers expressed that if the local authorities function as facilitators and coordinators, the private sector needs to be involved in the execution. As an industrial model, the circular economy is regenerative and restorative by intent, but also by design. Implementation of a circular economy keeps materials, components, and products at its highest value at all times. As a system it tries to look at all possible options throughout the entire chain and sets out to use as few resources as possible. Then, the goal is to keep those resources in circulation, to extract the value from the resources, and, finally, to regenerate and recover the products and materials. However, circular economy as a new systematic approach for sustainable growth is reliant on not only the private sector. Regional officers expressed during the sessions that they are willing to support the change but need the private sector to do their part.

4.2 The role of the experts and academia

Before developing tools that can be used by the regions, there is a need for achieving a baseline of research and evidence of the existence of potential areas of improvement. Before implementing a specific tool for a "circular service", a tool can be used as an identification instrument of the current situation and needs. Regions express a substantial trust and belief in including close cooperation with experts and academia. Through close collaboration with these institutions, the regional officers and service providers' methods and implementations will be continuously up to date with the progress of research. Education programmes for local authorities that focus on the operation of a circular economy, can give the local authorities the final skills and understanding needed to implement circular economy policies and practices. The relation between academia and local authorities is not only reliant on what academia offers the public sector: regions need to push academia to change how the subject of circular economy is being studied. Regional officers argue that the subject of circularity and circular economy usually classifies only at the environment departments, which leads to a bolt on



perspective. By instead observing circularity through a multidisciplinary lens, the outcome and result of research will benefit the practices of circular methods efficiency.

Concerning the lack of understanding of circular economy and how to improve and promote a systematic approach towards it, the experts touched upon the definition. Defining with higher accuracy what the model, term and system of circular economy implies eases the utilization of circular methods in the regions. Creating a common language to interpret and define circular solutions and issues will enable and facilitate the communication and coordination between public and private actors. A common language should come from a bottom-up approach, meaning starting from the initiative of local authorities to reach EU actors.

4.3 Coordination by the local authorities to assist the private stakeholders

The possibilities that a circular economy offers the private sector need to be nurtured and developed with the help of regions. According to the two sessions with both regional officers and private stakeholders from the first workshop, arguing that having a key figure in each region for coordination between public and private actors will enhance and ease the transition for all involved actors. Yet, due to the early stages of implementation of circularity in the EU's regions, though the concept cannot be regarded as a new phenomenon, there are indications of varied commencement of circular economy around the EU. Some regions call for key coordinators from one local authority or even from one department, while others argue that, for efficiency and effectiveness, the whole regional office needs to be included.

The first workshop resulted in regions experiencing less willingness and practicing of circular economy calling for at least someone being assigned to coordinate public or private actors willing to work with circularity methods. That is, if someone is willingly working towards a circular economy, there needs to be at least someone to support their efforts. While regions that have progressed further, with actual practices functioning and with supporters within the regional office and private sector, argue that one key coordinator or team is not enough, without the support of a framework designed by all departments in the regional office, the shift towards a circular economy will be substantially delayed. Regardless of where the progress in the regions is coming from or who is most successful in promoting it, the regions express a need of being in the front line and leading the fostering process with a top-down approach instead of being passive spectators from a bottom-up approach.

5. Second workshop

From the first workshop the outcome clearly concentrated around the design and structure of regional offices in charge for circular economy and the services they should provide or request. Regional officers and private stakeholders discussed in two separate sessions how a specific office/service should be structured, but also, concerning the data capacity building, what kind of data the regions acquire and how "data", in this sense, is defined as the information/material/specifications/procedures etc. that involves the work and surroundings of the circular economy.



5.1 How should a specific office/service be structured in the Regions?

Regional officers proposed two ways of approaching the setup of an office/service in the regions. The difference between the approaches is based on the progress in each regional context. Regions with less experience or understanding of the concept of circular economy might benefit from having a specific specialist or department that functions as a coordinator in charge of handling the information stream related to circular economy. Such action would enhance the motivation among actors involved with the circular economy and push the regional office as a whole to progress towards circular targets. The other approach argues that in the early stages of confronting circular actions in the regions, the progress needs to be shared between departments and actors from the very beginning. Both approaches devise different starting points for the development of an internal capacity building and a circular economy action plan to be applied in each individual region. Nevertheless, the common thread through both approaches remains the urge to involve all possible actors in the implementation of circular economy strategies. To achieve an efficient and effective progress, the regional officers emphasise the need to involve not only local actors but also those working at an interregional level, in line with the ultimate goal of reaching a shared global vision of what a circular economy entails. The regional officers also highlight that the circular economy is business driven, hence the importance of spreading information about the possible benefits of shifting into a circular model for businesses.

5.2 What kind of data are the Regions crying out for? And how do they want to acquire it?

Regional officers stress the crucial issue of the availability of common data. The achievement of a circular model is based on not only common materials but also data and procedures. The difficulty that regions highlight is that the current situation is the result of individual strategies, rather than being a joint effort involving all the actors needed. This reinforces the mind-set of local companies not realising their role in a circular model and how it could be beneficial. Other inputs during the workshop orbited around the relationship between producers and buyers. Regions argue that there is a gap between producers and buyers and proposed a solution based on the idea of processing a logistic framework that would facilitate companies getting closer for the two.

In conclusion, the lack of availability of data at the moment hampers the process of identifying what kind of data are useful for the regions and consequently slows down the transition towards an economic system based on circularity. Nevertheless, the relationship between local companies and local authorities has an essential role in order to enhance the transition to a circular economy on a regional level. The difficulties in acquiring the needed data stem not only from availability but also from determining what kind of data is needed. This leads to regions being willing to obtain and collect data wherever possible. Policy labs, international cooperation, and interregional collaborations are, to mention a few, different examples that can function as platforms for sharing skills, experiences, and tools.



5.3 The European Union's role in sparking the transition

Relations between the national, regional, local, and international levels are always complicated regardless of the issue at hand. This report highlights that the possibility of a transition to a circular economy around Europe is reliant on all different actors, of which the European Union is not an exception. If the regions are assigned to facilitate and coordinate circular actions and the local companies and SMEs are responsible for performing the actions, the EU's role lies in sparking the transition with its intergovernmental decision-making. In a greater sense, this means supporting the regions and companies from a supranational perspective regarding legal or policy decisions. The kind of data the regions need from local companies are most of the time considered to be confidential, meaning that it is difficult to acquire the necessary data for identifying and analysing new solutions. The European Union also has the possibility to progress the capacity building necessary around Europe, regardless of varied progress in individual regions/countries. By distributing the understanding and knowledge of circular economy around the EU, regions urge the union to support the need of spreading and implementing circular economy on national levels.

5.4 Involving the future generation

Assessing how to guarantee that current procedures and decisions are aligned with what awaits in the future, is of key importance for the sustainability of a circular economy within the EU. Regional officers continuously set up strategies for how to involve the future generations to come. There are two views and suggestions for how to engage the upcoming generations. First, by focusing on the consumption pattern and the power of product labels: an ethical perspective motivates the buyers, and especially the younger generation, to view circular economy and circular products as an investment and path to go by not only economically but also from an ethical environmental point of view. Second, other regional officers and private stakeholders shed light on the power of education instead. Education on circular economy should not only be confined to environment-related studies and issues. Rather, it should be a topic to embrace on a broader scale, by including different educational settings and backgrounds. This will create a foundation for the next generation to understand circular economy and to turn their ideas into actions.

6. Third workshop

The third and final workshop of this Policy Lab period focused on examples of successful tools currently being used or developed. The third workshop therefore can be seen as an answer to what has been discussed and highlighted by the regions in the earlier session.

6.1 FECA – Forum of the Alentejo Circular Economy

FECA - Forum of the Alentejo Circular Economy - was established in 2017 with five objectives: (1) to increase the involvement of local institutions and businesses, private and public entities and national



and regional entities, (2) to have an open dialogue about the opportunities and constraints of circular economy, (3) to promote synergies between different sectors for implementation possibilities concerning projects based on circular economy, (4) to formulate strategies, dissemination and implementation of initiatives based on circularity, and (5) to increase the promotion of interregional cross-border cooperation.

The Forum of Alentejo consists of 160 different partners, spanning from actors within academia, industry, civil society, government and natural environment agencies and associations. The forum exemplifies how regions can be leading the fostering process by facilitating and coordinating different actors. With actions of promoting, stimulating, and integrating, FECA has induced a strategy with a present and long-term plan. Earlier workshop sessions have orbited around the inclusion of as many different actors from the public and private sector as possible. By promoting and participating in regional, international, and national events, the forum has managed to expand its service. Disseminating projects on national and international platforms and promoting successful practices in a national program has led to the actions of carrying out local and national events that stimulate different partners in several projects. With the organic structure of continuously inviting new partners without complicated requirements, FECA aims to continue its forum for future collaborations. The forum displays one way of organizing and directing the regional service towards the transition to a circular economy. It becomes clear that the approach of the region of Alentejo concentrates on involving a broader scale of partners, instead of identifying a few but of greater importance.

Regional officers of Alentejo express that the difficulty of bringing greater partners onto the project of the forum, becomes easier with time. After a well-established structure of 160 partners, the project pressures other actors to join. The success of the forum also brought obstacles on the way, due to the inclusion of 160 different partners, the coordination of facilitating different interests hindered occasionally the outcome of different sessions and events. Its purpose to stimulate national, local, and international events was hampered by the Covid-19, due to the difficulty of hosting physical meetings.

6.2 Digital services: the DigiPrime platform

If FECA exemplifies a service and tool based on exchange of experiences and dialogue of different actors, the DigiPrime project covers a technical and practical approach of designing a circular tool and service for regions and private stakeholders. DigiPrime⁵ is an H2020 project financed under the call DT-ICT-07-2018-2019, aiming at the development of a new concept of Circular Economy digital platform overcoming current information asymmetries among value-chain stakeholders.

A specific service of the platform has the scope to identify cross-sectorial and cross-regional circular economy value-chains, based on the methodology developed within the H2020 SCREEN project; while the original procedure was specifically conceived to be used by regional officers only, the open innovation approach adopted for the translation enables local stakeholders - companies, universities, and research centers, to directly insert their data and to be directly notified about circular business opportunities. A further advantage of the automated identification mechanism consists in avoiding the

⁵ DigiPrime – Digital Platform for Circular Economy in Cross-sectorial Sustainable Value Networks, 2021. https://www.digiprime.eu/.

VELTHA

support of a circular economy expert for the first identification of value chains and synergies matching, thus leaving the regional officer more freedom. The automated mechanisms replace the previous human operated ones, with the only exception of the regional mapping tool preparation.

Another DigiPrime service designed and implemented a material flow monitoring system generating aggregated KPIs at system level, including flow efficiency and losses, to be integrated in the DigiPrime platform in a way to allow an easy visualization of the flows. This would support decision makers and institutions while defining directives or new legally binding requirements to influence circular economy practices, based on the observation of the real material flows. In fact, public institutions can trace aggregated and bulk movement of materials, components, products and visualized how these materials flow across different nodes of the federation and geographical areas.

A further service of the DigiPrime platform developed a software module to systematically monitor, capture, and present emerging limitations and barriers to the transition toward a circular business model; obstacle that can be influenced and removed through specific policy interventions by policy makers at European, national and regional level, as well as by facilitators such as regional clusters and associations. Once embedded in the DigiPrime platform, this service will represent the meeting and exchange point between the public authorities and the industry, making the case for a participatory mechanism of identification and definition of policy interventions.

The above services will be officially presented during the European Week of Region and Cities (https://europa.eu/regions-and-cities/) on 12th of October 2021

7. Conclusions

The second round of the Policy Lab has, after three months and a great number of participants from all across the EU, successfully come to an end. This edition of the Policy Lab has allowed regions to present and discuss the issues and obstacles faced in the implementation of circular economies, as well as current and potential future solutions. And while the regional officers have expressed their willingness to be in the front line and foster the transition from a linear towards a circular economy with sustainable growth, their own limitations need to be addressed, and regions cannot be held solely responsible for such a process. A systemic change and shift from the take-make-waste model into a sustainable system from beginning to end calls for support and collaboration between the public and private sectors.

The workshops highlighted the differences among regions in terms of the existence and effectiveness of circularity tools. With so many regions represented, the understanding, knowledge, and experience in circularity varied, but it also became clear that circularity builds upon itself: the least advanced regions are eager to establish some bases for circularity, and those who have already started their circular transformations, tend to want to continue advancing in the process. In other words, once the ball of circularity gets rolling, it does not tend to stop easily. This is not to say, however, that a circular approach is close to being the standard approach towards growth in the regions, but it is a source of hope for positive and effective developments.



For this, the regions point towards the need for a research and education agenda, devised and carried out in close cooperation with experts and academia from a wide array of fields and disciplines. As a whole, there seems to be a consensus that involvement of all possible actors in the implementation of circular economy strategies is key, needing the participation of not only the regional officers and the experts and academia, but also businesses, which should be made aware of the benefits that circular economy can have for them. Closer collaboration between all actors should also facilitate the process of identification of the needed data, which is at the moment unclear, and in which the European Union can and should play a role as well.

The exploration of DigiPrime and the Alentejo Circular Economy Forum (FECA) in the third workshop provided great examples of successful tools currently being implemented and fulfilling the needs expressed by the participants. FECA presents a very successful expansion strategy, fostering and facilitating the circular economy transition with a large number of partners. DigiPrime, on the other hand, shows the potential of introducing digital tools for circular economy. During the above mentioned official presentation, as well as in one of the next Policy Lab sessions, Regions and local stakeholders will be invited to register themselves (for free) to the Platform services and use them.

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