



Circular Economy policy and practice in six European regions

Lessons learned from the REDUCES project



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1 Introduction



Partners from six regions cooperated on the project REthinking Sustainable Development in European Regions by Using Circular Economy Business ModelS (REDUCES). REDUCES aimed to contribute to the EU2020 strategy by advocating the priorities of Sustainable, Inclusive and Smart Growth. In addition, improving resource efficiency by sharing experiences on circular economy practices was to translate into lower greenhouse gas emissions and to giving a much-needed boost to economic growth in the regional context.

This lessons learned report gives an overview of the output and results of the first phase of the REDUCES project. The introduction states the relevance of combining a policy approach with business model analysis, and defines the objectives. Next, an overview is given of circular economy good business practices in the regions involved. Examining these business practices helped to define the regional needs for circular economy policy. This business approach proved to be a solid base for developing regional circular economy action plans, the last chapter of this report.



Figure 1. REDUCES brings together six European regions.

1.1 Bringing together policies and circular business development

The REDUCES project contributed to the vision of "Resource-efficient Europe" via inter- and intraregional cooperation and learning processes. This kind of interaction is vital in order to reach the EU2020 strategy goals. In this way REDUCES the fundamental objectives supported of decoupling economic growth from the use of resources and increasing the use of renewable energy sources that are underlying themes in the EU2020 strategy. The EU action plan of the circular economy also accentuates the need to create the conditions under which a circular economy can flourish and resources be mobilised. The REDUCES project accentuated the importance of bringing together policy and sustainable business development.

Circular economy changes the methods and revenue models of business. Instead of traditional ownership, for instance, consumption is based on the use of services: sharing, leasing and reusing. The new method challenges countries and regions to develop and construct new business models that can be used to respond to global objectives, such as the Sustainable Development Goals. REDUCES brought together six European regions. For each region, the status quo of circular economy was mapped at the beginning of the project:

- Southwest Finland
- Utrecht, the Netherlands
- Greater Manchester, UK
- Valencia, Spain
- <u>Bulgaria</u>
- Maramures, Romania

1.2 Improving regional policies

The overall objective of the REDUCES project was to improve the implementation of regional policies in order to enable regions to adopt more environmentally sustainable ways of production and to reduce the negative environmental impacts of economic development. REDUCES results aim to facilitate and better enable the adoption of environmentally sustainable circular business models with the support of improved regional policies.

Sub-objectives of the REDUCES project were:

- To increase the knowledge and capacity of regional and European policymakers and stakeholders on circular economy business models.
- 2. To improve the competence of partners and involved stakeholders to make informed decisions on promoting the transition to the circular economy in regions.

- 3. To discover innovative and the most feasible circular economy business models in each region, which are instrumental to transforming production value chains towards environmental sustainability.
- 4. To improve the competence of regional actors to assess the environmental impacts of circular economy business models in order to choose the most feasible and environmentally sustainable models recognizing regional assets, barriers, needs and strengths necessary for the circular economy transition.
- 5. To improve policy instruments (4 ERDF policies and 2 regional plans) via 6 action plans to better introduce or integrate circular economy business models into the policy instruments and supporting the theme by proposing new project ideas or funding.

The REDUCES collaboration started in August 2019 and is made up out of two phases. During the first phase, the partners studied and exchanged experiences on both circular economy business development and policy forming. This phase resulted in a collaboration in the form of six interregional learning events, and over 40 regional stakeholder gatherings.

The research culminated in six status quo reports on regional CE context, more than 50 good practices from all regions, and study reports on lessons learned and evaluation of the good practices being studied. Based on this work, the project developed regional action plans with suggestions for each city or region to guide them towards sustainable circular economy business. These regional CE action plans will be implemented during the following years, and in the second phase (until the end of July 2023) of the project the first findings will be shared.

2 Circular Economy business practices at the core



The 50+ good practices studied as part of the REDUCES project enabled the regions to define their needs concerning circular economy. What is more, the good practices led to useful insights on their potential impact and upscaling or replication considerations. The collected good practices were evaluated in order to assess the quality of the circular economy business models in the contexts of their environmental impact, replicability and upscaling potentials. It was also done to get a better picture of the CE practices in the partner regions and their impact in transitioning to sustainable economies. The evaluation highlighted the success factors of different business cases, crucial for replication and upscaling in different regions.

2.1 Five Circular Economy business models and ten good practice examples

The corporate world is shifting from the traditional model of a linear economy towards a circular economy. In the circular economy, production and consumption are increasingly based on services instead of owning. The operating methods and earning models of companies change, and operations need to be updated so that they will support the mitigation of climate change.¹ The themes of the circular economy business models investigated in the REDUCES project are based on the definitions of the Finnish Innovation Fund Sitra.² The themes are:

- Renewability: "Renewable, recyclable and biodegradable materials, as well as the principles of eco-design, are performed for products and their design. Fossil fuels are replaced by renewable energy."
- Sharing platforms: "Digital-based platforms are used to promote the increased use of goods and resources and the extension of their life cycle, such as by renting, selling, sharing and re-use."
- Product as a service: "The customer pays for certain functions or performance and avoids the risks of ownership. The total costs of ownership remain with the service provider, with revenue being earned by means of, for example, a leasing or rental agreement."
- Product-life extension: "Products are used according to their original purpose for as long as possible or repaired and refurbished for multiple re-uses, thus reducing the need for purchasing and manufacturing new products."

1 SITRA. (2019). Dictionary - The circular economy. 2 The definition by Sitra and Finnish examples.

 Resource efficiency and recycling: "Technological development enhances resource efficiency in value chains, processes and products, and allows for more effective recycling. Side-streams are valuable raw materials for recycled products and materials."

A circular economy business model is an economic model in which business is largely based on the forms of business mentioned above, i.e. consumption is based on the use of services – sharing, renting and recycling – instead of owning and increasing production of goods. Materials are not destroyed at the end but used over and over again for making new products.³ Design plays a crucial role in ensuring that products are durable and environmentally friendly and that the materials can be reused at the end of the product life cycle. The circular economy requires us to redesign our ways of working: our products, business models, cities and the linear systems that have lasted for the past centuries. Choices made at the start of the life cycle have impacts in each phase during the product life cycle.⁴



PRODUCT AS A SERVICE

The customer pays for certain functions or performance and avoids the risks of ownership. The total costs of ownership remain with the service provider, with revenue being earned by means of, for example, a leasing or rental agreement.

BENEFITS

Paying for the service means that the customer does not need to take care of the maintenance of the product and to think what to do with the product at the end of its life. The service provider earns revenue as long as the customers uses the service.

Get inspired!

Clothing as a service model (Southwest Finland)

By growing the utilization rate of clothes and keeping them in use as long as possible, clothing rental chain Vaatepuu offers sustainable alternative to fast fashion. The business is a rental scheme through which customers are able to have a rotating wardrobe of quality products without having to burden the planet with production and consumption of clothing and associated materials.

Read more about the case!

Cloud Based Waste Management (Manchester, UK)



Waste Logics is a service contributing to the delivery of a data product. It offers cloud-based waste management software that effectively enables data to be used to manage waste operations and materials flows more effectively. The aim of the service is to improve commerciality of waste management and materials recovery, which is often challenging.

Read more about the case!



More inspiring examples: interregeurope.com/reduces

3 <u>SITRA. (2019). The most interesting companies in the circular</u> <u>economy in Finland</u>. 4 <u>Ellen MacArthur Foundation 2017a. Learning path - Circular</u> <u>design</u>.



PRODUCT LIFE EXTENSION

Product life extension means that products are used according to their original purpose for as long as possible or repaired and refurbished for multiple reuses, thus reducing the need for purchasing and manufacturing new products.

BENEFITS

Extending the product life reduces the need for purchasing and manufacturing new products. It saves costs and resources.

Get inspired!

Circular renovation (Utrecht, NL)



The renovation of buildings is a preferable circular strategy because the product is refurbished instead of demolished and recycled. The existing structure and partly the existing skin is being re-used, which leads to a substantial saving of materials. For example, the Werkspoorkwartier project aims to develop an inner industrial area into a creative and circular area.

Read more about the case!

Industrialized, reassembling and reusable buildings (Valencia, Spain)

The inHAUS practice provides an example of sustainable design and modularization that are instrumental for CE in the construction sector and in extending the life cycle of the buildings and increasing their reusability and recyclability. As a result of the controlled construction process, water consumption is very low, waste management is controlled, and the volume of waste is very small.

Read more about the case!



More inspiring examples: interregeurope.com/reduces



RENEWABILITY

Renewable, recyclable and biodegradable materials, as well as the principles of eco-design, are preferred for products and their design. Fossil fuels are replaced by renewable energy.

BENEFITS

Basing a business model on renewability stimulates companies to look for different resources and suppliers for both material production and energy. It enables the replacement of fossil fuels.

Get inspired!

Green roofing services for renewability (Valencia, Spain)

The building insulation provided by the green roof installation impacts the thermal behavior of the building and reduces the energy consumption of the air conditioning system, mainly in the summer in a Mediterranean climate. It also benefits for the stormwater management.

Read more about the case!

Traditional houses with eco-design (Maramures, Romania)



Building a house respecting local architectural style by using such common projects for specific houses in historical areas, represents many advantages for investors and local communities in preserving the local values, revitalizing the villages' architecture and enhancing the tourism potential.

Read more about the case!



More inspiring examples: interregeurope.com/reduces



RESOURCE EFFICIENCY AND RECYCLING

Producing goods using recycled materials is often much less energy intensive than manufacturing goods from virgin materials. Recycling thus has a great potential to improve resource efficiency by reducing production costs and carbon emissions.

BENEFITS

Resource efficiency and recycling means using renewable and recyclable materials as well as renewable energy in product design and manufacturing.

Get inspired!

New generation materials (Maramures, Romania)

The composite materials can be obtained from a wide range of cheap row materials: linen, hemp, jute, willow/poplar, coir, textile waste, etc. For example, TAPCOM project of TAPARO CO. aims is to replace wood or other materials used in furniture and automotive industry with new composites made of recycled and recyclable material.

Read more about the case!

Closed loop recycled and sustainable packaging (Manchester, UK)



By using sustainable packaging, it is possible to reduce waste and lower the carbon footprint. DUO produces sustainable packaging for large global online retailers and collects their returned packaging, creating a closed loop in the recycling and manufacturing process.

Read more about the case!

Food, home & personal supplies manager (Bulgaria)

According to UN data, one third of the food that the world produces is discarded. CozZo App is a food manager, combined with a versatile shopping and cooking planner, that helps to avoid food waste by tracking what you have and when it expires.

Read more about the case!

More inspiring examples: interregeurope.com/reduces





SHARING PLATFORMS

Sharing platforms maximize the usage of goods and resources and extend their life cycles by using digital platforms for renting, selling, sharing and reuse, for instance.

BENEFITS

The business is typically based on, for example, additional services and advertising revenue. Users and consumers benefit through low prices and a diverse and flexible selection

Get inspired!

City mobility (Bulgaria)

The car sharing helps to make cities and human settlements inclusive, safe, resilient, and sustainable and ensures sustainable consumption and production patterns. For example, SPARK offers a new generation service that allows the consumers to find and rent an electric vehicle no matter if it is for 15 minutes or a few days.

Read more about the case!

Platform for sharing re-usable building materials (Utrecht, NL)



The building and demolition industry is one of the major consumers of raw (virgin) materials, and the major contributor of waste. By sharing materials, it is possible to have better use of resources. For example, Insert is an online marketplace for repurposing resources and materials from demolition projects.

Read more about the case!



More inspiring examples: interregeurope.com/reduces

2.2 Sustainable Development Goals guiding evaluation

In order to assess the potential impact of each good practice collected, an evaluation framework was devised, including assigning indicators to demonstrate potential impact of each good practice. The REDUCES assessment framework was structured around the UN Sustainable Development Goals (SDGs) and their targets. The UN Sustainable Development Goals indicate the most relevant global sustainability challenges of the moment, ranging from poverty and justice and to climate change and environmental degradation.⁵ There are 17 interconnected Goals and the UN tries to achieve them by 2030.6 Applying a methodology by Schroeder et al⁷, the most relevant goals in relation to the circular economy were identified. Each good practice was evaluated in relation to the SDGs, with additional indicators outside the SDGs assigned to a good practice when needed.

This mapping showed that the REDUCES good practices mostly contributed to the following SDGs:

- SDG7 Affordable and clean energy: The goal aims to ensure access to affordable, reliable, sustainable and modern energy for all. The goal includes for example a target for renewable energy share in the total final energy consumption.
- SDG 8 Decent work and economic growth: The goal is to promote inclusive and sustainable economic growth, employment and decent work for all. The goal includes, for example, a

5 <u>United Nations. Sustainable development goals.</u>

6 United Nations. The Sustainable Development Agenda.

target for decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value.

- SDG 9 Sustainable Industrialization and use of resources: The goal aims to build resilient infrastructure, promote sustainable industrialization and foster innovation. The goal includes for example a target for promoting inclusive and sustainable industrialization and significantly raising industry's share of employment and gross domestic product.
- SDG 11 Sustainable cities and communities: The goal is to make cities inclusive, safe, resilient and sustainable. The goal includes, for example, a target for reducing the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management.
- SDG12Sustainableconsumption and production patterns: The goal is to ensure sustainable consumption and production patterns. The goal includes, for example, a target for substantially reducing waste generation through prevention, reduction, recycling and reuse.
- SDG 12 Sustainable consumption and production patterns: The goal aims to ensure sustainable consumption and production patterns. The goal includes for example a target for substantially reducing waste generation through prevention, reduction, recycling and reuse.

It has been recognized that CE business models are not always automatically environmentally sustainable on the whole. Thereby it is important that there are tools and methods available to assess the sustainability aspects of business models, and that these methods are used in all sectors. Evaluating business practices is very useful in gaining insight into their environmental and other impacts - however, it became clear during the project that impact evaluation can be very challenging due to the lack of quantitative data. To

⁷ Schroeder, P., Anggraeni K., and Weber, U. 2018. The relevance of circular economy practices to the Sustainable Development Goals. Journal of Industrial Ecology.

add, the SDGs form a good basis for evaluation but in order to uncover more in-depth information on the impacts of business practices, more specific success indicators are needed in addition. Although the lack of quantitative data can be somewhat mitigated by the valuable qualitative data gained from interviews with companies, concrete numbers on business impacts are still needed. One option for companies to demonstrate the sustainability aspects of their activities would be to use different environmental impact calculators available. Here, however, a challenge can be encountered in the lack of know-how of the companies.

2.3 Transversal success factors uncovered what drives businesses towards CE

It is not always clear what lies behind the successful transition towards circular economy. Many times reasons are value-based, not market driven. That's why it is beneficial to ask directly from the businesses their views about the factors behind their success. The transversal success factors of each good practice were reviewed in more detail by carefully assisting the interview process of businesses with a list of aiding questions based on eight factors presented by Rizos et al.⁸ This list of questions aimed to assist the project partners in examining in more detail why a particular good practice has proven successful. Transversal factors also aimed to shed light on the possible connecting success factors and learning points between five different CE business model types examined during the REDUCES project. Three questions concerning transversal factors that may have played a role in the success of the practice were posed to the interviewees and these

8 Rizos V., Behrens A., van der Gaast W., Hofman E., Ioannou A., Kafyeke T., Flamos A., Rinaldi R., Papadelis S., Hirschnitz-Garbers M., and Topi C. 2016. Implementation of Circular Economy Business Models by Small and Medium-Sized Enterprises (SMEs): Barriers and Enablers, Sustainability 2016, 8, 1212. factors were then analyzed jointly on all the good practices.

In the REDUCES regions, it seems that company values and so-called green consumer preferences or green customer base/profile are the most significant factors for developing the **product-life extension** circular economy business models. Most of the companies emphasized sustainable values in their businesses, a factor that is likely to make the transition to a circular economy easier. In a similar manner to traditional businesses, the demand from the customers affects how companies with a CE business model develop and brand their products and services to a great extent.

Businesses said that their product-as-aservice cases were benefitting from new digital opportunities like apps, webstores and ways of collecting and analysing data. Digital services help especially in optimizing the use of the product and widen the service options and make them easily replicable. The modern customer is also looking for digital non-material solutions, which can be observed in the answers where many of the case owners valued green consumer preferences high in their factors contributing to the success of the cases.



While traditional linear economy still dominates the global markets, no business can survive without the company's shared values, relevant networks and competent people supporting and leading the business into a new emerging circular economy. In addition, the readiness for innovation is essential in the transition from traditional business models to circular ones, and the innovation lies in the brilliant minds of both start-ups and seasoned professionals, which are both represented in the REDUCES cases. Especially in the renewability cases, it became clear that the role of policies and authorities and their attitudes is important for the success of the renewability business model. Innovative ways of using existing and new infrastructures, like intermodality, were emphasised.

In **sharing platform** companies where the platform is usually digital, the role of younger generation entrepreneurs and employees and customers as first adapters is significant. Networks

are important to sharing platforms, particularly when the range of the platform is local, like in car sharing or in a food hub. The local customer base appreciates nowadays products that are supplied or shared as close to the customer as possible.

In recycling and resource efficiency companies, where the quality and availability of the material are important for the business, all the combined effects of the values, leadership, networks and underlying regulations provide a suitable environment for successful recycling and resource-efficiency ecosystems. The combination of equally important success factors means that businesses may have a high threshold for starting a business in this field because of added bureaucracy, the needed knowledge base and high initial investments. The upside of this business model is that it has regional and local importance everywhere in Europe as well as also political will for investments.



3 Developing regional Circular Economy actions



In the end, the REDUCES project aimed to improve the implementation of regional circular economy policies. The regional action plans provide details on **how the lessons learnt from the cooperation** were **implemented** in order **to improve the policy instrument** tackled within that region. The six regions involved in the REDUCES project selected the following policy instruments:

- Southwest Finland: Sustainable growth and jobs 2014–2020 – Finland's structural funds programme and Regional Programme for Southwest Finland 2022-2025
- Utrecht, Netherlands: Chances for West 2: Operational Programme ERDF West-Netherlands
- Greater Manchester, UK: Greater Manchester Sustainable Consumption & Production Plan 2022-2025
- Valencia, Spain: DECREE 151/2009, of October 2, of the Consell, basic requirements of design and quality in housing and accommodation buildings DC09
- Bulgaria: Operational Programme "Environment" 2014–2020, Priority Axis - Waste
- Maramures, Romania: Regional Development Plan of North West Region 2014–2020 and an additional policy instrument: County Plan of Waste Management in Maramures County (2019–2025)

3.1 Better action plan quality through peer review process

In order to assist with the successful completion and acceptance of each regional Action Plan, the REDUCES project implemented a peer review process to enable each partner to benefit from the support of a critical eye of another partner within the consortium.

The role of the Peer Review was to give partners a chance to receive recommendations from another REDUCES partner and for the reviewing partners to see the approach that their paired partner has taken in their own approach in the completion of their Action Plan. With this approach, the best possible Action Plan was prepared by each region. The following guidelines were used:

• Profile of Reviewers within the Peer Review Team

 Reviewers had to be involved in the development of their own Peer Review in order to ensure they had an understanding of the Action Plan criteria. The reviewed Action Plan and region were to benefit from helpful comments and suggestions to improve and ensure the Action Plan's logic and completeness. Reviewers were to

gain from experiencing another partner's approach and content for consideration in their own Region's Action Plan.

• Peer review process instructions

• Each partner region, including selected relevant stakeholders, participated in two peer reviews of another region and gave feedback by using the Action Plan peer review framework on the action plan drafts. Partners were matched according to previous experience of Interreg Europe action plans and also knowledge of the actions (for example if they have provided a good practice that the action plan refers to).

3.2 Interregional inspiration leading the activity planning

The action plans developed in the regions involved in the REDUCES project benefited greatly from the exchange of good practices during the project. Figure 2 shows from which regions inspirational good practices were utilized during the development of the action plans in other regions. Arrows go from one region to another, the direction of the arrow indicating from which region the inspiration came from. Each region was assigned a colour: South-West Finland (blue), Utrecht (orange), Greater Manchester (dark red), Maramures (yellow), Sofia (green), and Valencia (pink).



Figure 2. Interregional inspiration within REDUCES⁹

Blue: Southwest Finland, Orange: Utrecht, NL, Dark red: Greater Manchester, UK, Yellow: Maramures, Romania, Green: Sofia, Bulgaria, Pink: Valencia, Spain

9 Map from Wikipedia.

In addition to the explicit examples indicated in figure 2, the interregional exchange was a significant source of inspiration for the learning process. Several examples are highlighted. The different kinds of stakeholder involvement practices in policy development led to different perspectives on cooperation between regional governments and local businesses. The regions also demonstrated different kinds of networks and involvement. Inspiration was also drawn for monitoring and assessment. Here, the assessment framework created as part of the REDUCES project was especially helpful. Next to developing indicators, this tool enabled the evaluation of the potential for scalability and replicability.

3.3 Benefits of developing regional circular economy action plans

The six regions from the REDUCES project worked out twelve specific action to further develop the policy instrument they focus on.

3.3.1 Valencia, Spain

DC-09, Regulation on basic design and quality requirements for housing and accommodation buildings

The Valencia action plan aims to increase the number of dwellings built and renovated under circular economy principles in order to decrease the environmental impact of the building sector, increase the quality of life of citizens while creating new circular economy business models that promote a fairer and sustainable economic growth, either by eliminating the existing hampering conditions in this regulation that current CE businesses are facing, or by introducing new conditions that drive forward CE business models that do not yet exist in the market. These goals are achieved via following actions:

- Action 1: Incorporating circular economy perspective in the construction and rehabilitation of Housing in Valencian Community
- Action 2: Standardise the assessment of housing renovation projects in compliance with circular requirements (in the frame of Next Generation funds)

Blog text Circular construction & renovation of housing

Read the Valencia action plan

3.3.2 Maramures, Romania

Regional Development Plan of North West Region 2014–2020 and an additional policy instrument: County Plan of Waste Management in Maramures County (2019–2025)

The Maramures action plan "Circular Approach of Waste Management in Maramures County" aims to contribute to the improved of regional governance of the waste management policy with a special attention to the construction and demolition waste, having in mind green transition and decarbonization. Our action plan will also contribute to the extension, modernization and increased efficiency of the actual waste complementing management system, the project that is currently implemented in the county: Integrated Waste Management System in Maramures County.

These goals are achieved via following actions:

- Action 1: Efficient management of construction and demolition waste
- Action 2: Improved waste identification, sorting and recycling by using software technology to inform, build capacity and connect citizens with the public services

<u>Blog text Focus on waste - Maramures Action</u> <u>Plan's main topic</u>

Read the Maramures action plan

3.3.3 Utrecht, the Netherlands

Chances for West 2: Operational Programme ERDF West-Netherlands

The Utrecht action plan aims to both improve governance on the implementation of circular economy practices in the region and provide funding for circular initiatives, either to start-up or scale up these initiatives. This action leads to successful collaborations between companies, with a specific focus on circular economy hubs, supported by active involvement of both business and policy stakeholders.

These goals are achieved via following actions:

- Action 1: A Climate for Circular Business place making for new and existing circular business in the region
- Action 2: Developing Circular (Building) Hubs in the region for the development of sustainable supply chains

<u>Blog text "Stimulating Circular business in</u> <u>Utrecht"</u>

Read the Utrecht action plan

3.3.4 Bulgaria

Operational Programme "Environment" 2014–2020, Priority Axis - Waste

The Bulgaria action plan aims to improve the implementation of regional policy in order to enable the region to adopt more environmentally sustainable ways of production and to introduce circular economy principles at company as well as local level. The focus is on separate collection models, which is only possible when local authorities businesses and citizens join efforts for high quality recycling and reuse.

These goals are achieved via the following action:

 Action 1: Demonstration project in waste management to achieve circular economy goals for increased recycling and re-use capacity at municipal level

Blog text "Circular economy guided tour"

Read the Bulgaria action plan

3.3.5 Greater Manchester, UK

Greater Manchester Sustainable Consumption & Production Plan 2022–2024

The Greater Manchester action plan aims to work towards the achievement of circularity in the Fashion & Textiles sector in Greater Manchester and in addition the delivery of education, training and awareness of CE for municipalities, Higher Education and SMEs with the inclusion of CE principles and REDUCES case studies.

These goals are achieved via following actions:

- Action 1: GM Textiles Working Group & Delivery Plan/Value Chain Plan
- Action 2: Carbon Literacy and Circular Economy
 Training

Blog text "Action plan in Greater Manchester"

Read the Greater Manchester action plan

3.3.6 Southwest Finland

Sustainable growth and jobs 2014–2020 – Finland's structural funds programme

Regional Programme for Southwest Finland 2022–2025

The Southwest Finland action plan aims to promote the development of circular economy business in the region and supports the transition to circular economy business for small and mediumsized enterprises, strengthens circular economy expertise in the region, and promotes innovation activities and product development. In addition, aim is to develop the possibilities of public funding, to identify and support the development opportunities of circular economy business, and assess the effectiveness of the funded measures.

These goals are achieved via following actions:

- Action 1: Better measuring and identifying the business potential and impact of circular economy projects in the region of Southwest Finland.
- Action 2: Development and promotion of business based on renewal and energy efficiency competence.
- Action 3: Developing business, product development, and support services, in accordance with the circular economy for SMEs in Southwest Finland region.

Blog text "The potential of the CE highlighted in <u>SW Finland</u>"

Read the Southwest Finland action plan



4 Concluding remarks on the project

During phase 1 of the REDUCES project (August 2019–July 2022), circular economy has become a more pressing theme worldwide. Consequently, it is a theme that has received more and more attention on a regional level as well. The awareness of the urgency to act led to ample interest from policy makers with different responsibilities, as well as a growing group of companies and business representatives. Many want to share their story, many are keen to listen, and a growing group is eager to get inspired to write up a story of their own.

The circular momentum helped the project members create the output realized: 6 interregional learning events, over 40 regional stakeholder gatherings, 6 status quo reports on regional CE context, more than 50 good practices from all regions, and study reports on lessons learned and evaluation of the good practices. This solid base for an exchange of experience got a warm welcome in the different regions involved. The interregional inspiration, as shown in figure 2, supports the benefit for regions of such an extensive international exchange. The REDUCES project shows that sharing good practices, reviewing these and discussing them at (online) indepth meetings can lead to concrete inspiration and tools to enhance local circular economy policies in the form of regional circular economy

action plans. Still, the actions presented are only a first step. They are achievable, but at the same time regions have to keep developing their policies in order to meet mid and long term challenges.

Regions acknowledge that the issue of transforming to a circular economy is as complicated as it is pressing. Although many wonderful examples within the REDUCES project prove the viability of circular economy business models, companies are aware of the difficulty to change their business model and influence both clients, suppliers and their internal organisation. In-depth understanding of circular economy and circular economy business models is an important driver for identifying opportunities. The shared framework of five circular economy business model types - Renewability, Sharing platforms, Product as a service, Product-life extension, Resource efficiency and recycling - provided a useful common understanding in this process.

This common understanding also holds true for applying the Sustainable Development Goals (SDGs) as and evaluation framework, since each region could relate to these objective. The review process showed that the SDGs do not provide sufficient indicators to assess business impact. The lack of useful SDG indicators is also shown in the expressed need of many of the circular

economy action plans to develop appropriate monitoring and evaluation indicators. The benefit is that during phase 2 of the REDUCES project (August 2022 – July 2023), regional partners will be able to appropriately share the progress of the actions defined and implemented.