

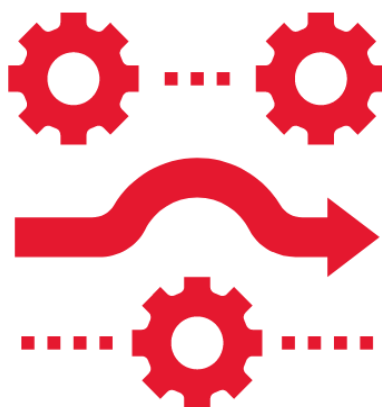


Co-funded by the  
Erasmus+ Programme  
of the European Union



# CIRCLE VET

## COMPENDIUM OF CIRCULAR METHODS IN VET



COMPARATIVE RESEARCH NETWORK:



Published 2020 by Comparative Research Network e.V., Berlin

Booklet edited in the frame of  
the Erasmus+ Partnership  
CircleVET®

Comparative Research Network,  
by Ewelina Barthel, Rimante  
Rusaite, Katarzyna Wlusek,  
Martin Barthel

Partner institutions:

Comparative Research Network,  
Berlin, Germany

Circular Berlin, Germany

Future Fashion Forward, Berlin  
Germany

GODesk, Potenza, Italy

Izmir Chamber of Izmir Dry  
Goods and Haberdashery, Izmir,  
Turkey

National Recycling Agency of  
Slovakia (NARA-SK), Zvolen,  
Slovakia

Somos Mas, Madrid, Spain

Sykli - Environmental School  
of Finland, Helsinki, Finland

Contact Address

Comparative Research Network  
e.V.

[www.crnonline.de](http://www.crnonline.de)  
[central@comparative-](mailto:central@comparative-research.net)  
[research.net](mailto:central@comparative-research.net)

Belziger Str. 60  
10823 Berlin, Germany

ISBN 978-3-94683-2126 (ebook)  
978-3-946832-164 (Print)

Last update: 30th of September  
2020

The booklet was edited and  
published in the frame of the  
Erasmus+ Strategic Partnership

CircleVET. 2018-1-DE02-KA202-  
005022

Erasmus Plus is financed by  
the European Union. *The  
European Commission support to  
produce this publication does  
not constitute an endorsement  
of the contents which reflects  
the views only of the authors,  
and the Commission cannot be  
held responsible for any use  
which may be made of the  
information contained therein.*

The external links in the  
ebook are being provided as a  
convenience and for  
informational purposes only;  
they do not constitute an  
endorsement or an approval by  
the project partners of any of  
the products, services or  
opinions of the corporation or  
organization or individual.  
The project team bears no  
responsibility for the  
accuracy, legality, or content  
of the external site or for  
that of subsequent links.  
Contact the external site for  
answers to questions regarding  
its content.

Images displayed in this  
booklet are the property of  
their respective photographers  
or creators. IMAGES MAY NOT BE  
REDISPLAYED ON WITHOUT  
PERMISSION OF THE PHOTOGRAPHER  
OR CREATOR. Contact the  
creator if you wish to obtain  
a reproduction of an image or  
if you wish to obtain  
permission to redisplay an  
image on another web site. For  
information on the creators  
please contact the project  
coordinator via the address  
above.



Funded by the  
Erasmus+ Programme  
of the European Union



Open Educational Resources



# Index

<b>CHAPTER I INTRODUCTION AND SUMMARY.....</b>	<b>6</b>
What was the Circle Vet Project? .....	7
What is the compendium about?.....	7
How and why have we chosen the practices presented here? .....	7
How were the selected practices tested? .....	8
Not offline but online.....	8
Policy recommendation.....	9
What else have we reached? .....	9
<b>CHAPTER II GOOD PRACTICES AND ASSESMENT GRID .....</b>	<b>10</b>
Assessment grid for evaluation of good practises in English.....	11
<b>GOOD PRACTICES PLACES .....</b>	<b>12</b>
GreenLab .....	13
The Ecodesign Learning Factory .....	16
Escuela TCP Sistemica Fashion = Sustainable Fashion + Circular Fashion .....	18
Hugo Boss Company “Big Business Company About to move to Circular Economy” .....	22
Senemiscoo Company “Small Business Company About to Circular Economy” .....	25
NochMall – secondhand shopping center of BSR .....	28
Radici Social cultural association.....	31
Green City Farm.....	34
POH, Ltd. - registered social enterprise for circular solutions .....	37
<b>GOOD PRACTICES COMMUNITY BUILDING + EVENTS .....</b>	<b>42</b>
Zero Waste Events .....	43
CURE – Centres for Urban Re-manufacture.....	45
Circular Berlin – digital ecosystem for circular economy .....	48
Green Fashion Tours .....	50
Conference – Circular Economy The Textile Waste.....	53
<b>GOOD PRACTICES GAMES AND METHODS.....</b>	<b>60</b>
Ecocanvas.....	61
Circulab Circular Canvas.....	64
EcoCEO- It’s your business Game .....	68
CELLL - a toolkit for co-creating circular economy business models .....	72



Circular Economy - Role playing game.....	76
Circula® - The Circular Economy and Entrepreneurship Game.....	80
Close the loop – a guide towards circular fashion industry .....	83
The catalogue of recommended technical solutions.....	85
<b>CHAPTER III LABS.....</b>	<b>90</b>
Berlin ONLINE LAB (LAB 1), 22.06.-01.07.2020.....	91
Izmir ONLINE LAB (LAB 2) on CE in textiles, 08.-16.07.2020 .....	95
Zvolen ONLINE Lab (LAB 3) on CE in Recycling, 02.-10.09.2020 .....	101
Evaluation of all labs by participants.....	103
<b>CHAPTER IV CONCLUSIONS .....</b>	<b>106</b>
Policy Recommendation.....	107
Quality assurance and monitoring .....	109
Closing words .....	111
<b>Summaries Einführung und Projektübersicht .....</b>	<b>114</b>
Was war das Projekt Circle Vet? .....	115
Worum geht es in dem E-Book?.....	115
Wie und warum haben wir die vorgestellten Praktiken ausgewählt? .....	115
Wie wurden die ausgewählten Praktiken getestet? .....	116
Nicht offline, sondern online.....	116
Richtlinienempfehlungen.....	117
<b>Johdanto ja hankkeen tiivistelmä suomeksi .....</b>	<b>118</b>
Mikä oli CircleVET -hanke? .....	118
Mistä tämä e-kirja kertoo?.....	118
Miten valitsimme kirjan menetelmät? .....	118
Miten olemme testanneet valikoituja menetelmiä? .....	119
Käytännön työtä verkossa.....	119
Suositus menettelytavaksi.....	120
Mitä muuta olemme saavuttaneet tai haluamme vielä saavuttaa CircleVET-hankkeella tai tällä e-kirjalla? .....	120
<b>Introduzione e progetto estivo .....</b>	<b>121</b>
Cosa è stato il progetto Circle Vet? .....	121
Di cosa parla l'e-book? .....	121
Come e perché abbiamo scelto le pratiche?.....	121
Come abbiamo testato le prassi scelte? .....	122

Non offline ma online.....	122
Raccomandazione politica ...	123
Cos'altro abbiamo raggiunto e vogliamo ottenere nell'ambito del progetto Circle Vet e di questo e-book? .....	123
<b>Wprowadzenie i podsumowanie projektu .....</b>	<b>124</b>
Circle Vet – co to za projekt? .....	124
O czym jest ten e-book? .....	124
Jak i dlaczego wybraliśmy te metody – najlepsze praktyki? .....	124
W jaki sposób przetestowaliśmy wybrane praktyki? .....	125
Nie w trybie offline, ale online.....	125
Rekomendacja dla polityki... ..	126
Co jeszcze osiągnęliśmy i chcemy osiągnąć w ramach projektu Circle Vet i tego e-booka? .....	126
<b>Uvod a predstavenie projektu .....</b>	<b>127</b>
Čo bol projekt Circle Vet? .....	127
O čom je elektronická kniha? .....	127
Ako a prečo sme si vybrali postupy? .....	127
Ako sme vyskúšali vybrané postupy? .....	128
Nie offline, ale online.....	128
Politické odporúčanie.....	128
Čo ďalšie sme dosiahli a chceme dosiahnuť v rámci projektu CircleVET a tejto elektronickej knihy .....	129
<b>Introducción y resumen del proyecto.....</b>	<b>130</b>
¿Qué fue el proyecto CircleVET? .....	130
¿De qué trata el libro electrónico?.....	130
¿Cómo y por qué hemos elegido las prácticas?.....	130
¿Cómo hemos probado las prácticas elegidas?.....	131
No presencial, sino en línea .....	131
Recomendación de política.....	132
¿Qué más hemos alcanzado y queremos lograr dentro del proyecto CircleVET y este libro electrónico? .....	132
<b>Giriş ve Circle Vet Proje Özeti.....</b>	<b>133</b>
Circle Vet Projesi neydi? .....	133
E-kitap ne hakkında? .....	133
Uygulamaları nasıl ve neden seçtik?.....	133



Funded by the  
Erasmus+ Programme  
of the European Union

Seçilen uygulamaları nasıl test ettik? .....	134
Çevrimdışı değil, çevrimiçi.....	134
Politika önerisi .....	134
Circle Vet projesi ve bu e-kitap içinde başka nelere ulaştık ve ulaşmak istiyoruz? ....	134
<b>Partner .....</b>	<b>136</b>

# Introduction



# Introduction and project summary

Ewelina Barthel

## What was the Circle Vet Project?

Circular Economy – we all care about it, collectively and individually, but somehow, we have so far remained apart. This is one of the main lessons we have learned during the CircleVET project.

While countries like Finland are ahead in integrating circular economy in their vocational education (VET), others, like Germany, are catching up and still others, such as Turkey, seem to be lagging behind. However, all over Europe, new ideas are emerging on how to integrate circular economy into vocational education. Their practical implementation is a European topic, and this is precisely what CircleVET has focused on.

The Circle Vet Project started on 1 October 2018 and finished on 30 September 2020. It has been funded by the Erasmus+ Vocational KA2 Program. For two years, seven partners from six countries exchanged, evaluated, and tested several educational methods to promote circular economy skills in VET.

The partners went through different processes, learnt a lot from each other and improved the knowledge and skills of their staff.

All participants of the project have become more aware of the need to use circular economy skills in their work. They are ready to share their newly gained knowledge, to teach and encourage others to understand the ongoing transition towards circular economy and its potential. The trained facilitators have acquired new tools for training and teaching circular economy in VET.

## What is the compendium about?

This compendium was produced as part of the Circle VET project. It has taken the form of a

comprehensive compendium of hands-on methods used across Europe. This manual provides easy-to-apply innovative tools and methods designed to motivate learners to stay involved and update their skills for the ongoing transition from a linear to a circular economy. We want readers to learn new skills, making them more aware of the ongoing transformational processes in the economy and play a role in them.

## How and why have we chosen the practices presented here?

Frans van Houten, CEO of Royal Phillips and



leader of the Platform for Accelerating the Circular Economy (PACE) has stated that *“like all major transitions in human history, the shift from a linear to a circular economy will be a tumultuous one. It will feature heroes and pioneers, naysayers and obstacles, and moments of victory and doubt. If we persevere, however, we will put our economy back on a path of growth and sustainability.”*

Keeping these words in mind, CircleVET has developed an assessment grid for practices based on the following four principles:

- interdisciplinary approaches;
- real-life relevance and applicability;

- critical Thinking (rethinking) of the current status;
- flexibility and versatility.

After identifying and evaluating smart practices in teaching and applying circular economy principles, we came to the conclusion that our foremost task should be to focus on determining methods that provide an introduction into and a general overview of the possibilities to teach the basics of circular economy. Indeed, our needs assessment has shown that only Finland has implemented an advanced curriculum for teaching circular economy in VET. In all other countries, the subject is either being taught as part of educational efforts about sustainability or does not exist at all.

At the same time, our visits to various organisations and businesses have demonstrated that good practices exist in all partner countries, even though they are often not yet being identified and labelled as “circular”.

During several transnational meetings, we have presented more than 70 smart practices, not only from Finland, Germany, Italy, Slovakia, Spain and Turkey but also from Belgium, France, and the Netherlands.

During the second meeting in Madrid, we established an assessment grid – a tool which was very helpful for selecting practices that are among the smartest. Those presented in this e-book are in our opinion the most interesting, representative, useful and transferable ones. The grid, which can be consulted in the e-book, will help you to not just understand the evaluation criteria adopted but to test your own approach in discovering areas of excellence and identifying room for improvement.

### How were the selected practices tested?

All practices, methods and experiences collected were tested and reviewed in three thematic training labs: one about general

circular method, a second one about those presently fashionable and a third one about those emphasising recycling.

The design of the training labs was based on David Kolb’s experiential learning theory, represented by a four-stage cycle: concrete experience, reflective observation of the new experience, abstract reflection, and active experimentation.

The three labs consisted of practical activities during which a diverse group of peers shared their experience and explored potential solutions with the aim of co-discovery, that is exploration in a collaborative setting. The co-creation of the labs also facilitated and enabled prospective thinking, using the present aspirations, struggles and experiences of the participants as a starting point to look to the future. This way of collaborating gave rise to discussions and created valuable insights into all aspects of a particular topic being investigated and (re)designed. Participants became deeply involved, especially in a peer-learning process that allowed for the development of tailored solutions for their everyday world.

### Not offline but online

Initially, we had planned to meet physically for these labs, but the onset of the Covid-19 pandemic and the restrictions on traveling and meeting during the last part of the project made this impossible. Thanks to the German National Agency we were able to move the labs online. While the redesigning of the training sessions represented a huge challenge, it also led to innovative practices through the use of various online and communication tools, such as Zoom, Jitsi, Google Meet for online meetings, as well as Miro and Mural for online visual collaboration, a first for several of the partner organisations. Particular attention was being paid to those methods that are most suitable for online teaching and meetings but still could be tested regarding the real challenges’ partners are facing. As a result, we have created valuable prototypes that are now being used by the consortium.

## Policy recommendation

The detailed discussion of the selected practices has allowed us to work out recommendations on where and how to use them. Based on the lessons learned while testing these methods in our labs, we have decided to target the recommendations at practitioners and decision-makers.

## What else have we reached, and want to achieve within the Circle Vet project and this e-book?

On the local level, our project has resulted in an increasing awareness of the importance of the circular economy and of the potential of

using local dissemination circuits, especially in the fashion and recycling sectors.

Through this publication, its presentation of smart practices and its recommendations, we aim to contribute to European discourses on teaching and learning skills required for a future circular economy. All project results are intended to help designing curricula for schools and providers of adult, youth and vocational education providers by offering ways to promote further education, mobilisation, and greater social innovation in this field.

Our ultimate goal is to contribute to finding new, innovative means that allow us to move away from a culture of “produce to discard”, as outlined by the European Commission, and work toward the European Union’s Circular Economy Action Plan.



# Circular Practices





# Assessment grid for evaluation of good practices in English

<b>Multidisciplinary aspects</b>	
Is the practice collaborative and inclusive by design? If yes, please explain	
Does the method integrate an interdisciplinary approach to problem solving? Elaborate	
<b>Real life relevance/aspects</b>	
Have you started your project from a local need? Give an example	
How does the methodology integrate real life cases into the curriculum?	
<b>Critical Thinking</b>	
Does the method stimulate critical thinking between participants? In which ways?	
Does the method challenge common conceptions about economy?	
<b>Flexibility/Versatility</b>	
Does the practice put circular economy in the context of sustainability?	
How is the workshop result-oriented and process-based?	


# Circular Practices Places



# GreenLab

Dina Padalkina


#communitybuilding #programmes #places



LABORATORY  
FOR SUSTAINABLE  
DESIGN STRATEGIES  
weißensee


**News & Events   Projects   Publications   About**

**NEWS**



**greenlab Awards and Exhibitions**

**GreenDesign 9.0 – Context**




**Green Design 9.0**

Food in the Time of Corona  
Food & Soil | Food & City  
Food & Sensorics & Technology


**GreenDesign 9.0 – Food in the Time of Corona**

**Teaching Course - Green Design 9.0**




**Compagno**


**Bachelor Project**



**Teaching Course – GreenDesign 8.0**



**Teaching Course – GreenDesign 8.0**



## Short description of practice

What was the motivation to establish it?  
Target groups, transferable to national, international, or local focus?

The environmental design initiative greenlab at the Kunsthochschule Berlin Weißensee connects higher education, practice-led design research and industry to support, inspire and create innovative approaches to the development of sustainable and ethical products, services, and systems. This

practice-led design research initiative, first introduced in 2010, employs design methods and strategies to critically analyse and give a material form to concepts that balance ecology, society, and culture.

## How does the practice engage learner?

What makes the practice collaborative and inclusive?



The practice has diverse objective to engage learner

- to inform students and the interested public of state-of-the-art developments in sustainable and eco concepts, strategies and design.
- to stimulate the development of the field through practice-led design research and thinking.
- to give an informative and critical analysis of these developments by placing them into wider environmental, economic, socio-cultural, and technological contexts.
- to create innovative und integrated solutions through an interdisciplinary approach.

### How does the practice integrate interdisciplinary/cross sectoral approaches to circular economy?

The methods include interdisciplinary approach, such as:

- Every year, there is slightly different content around circular material design
- Multidisciplinary approach engaging a lot of external guests
- Focus on the local solutions and thinking in the local limitations through collaboration

Berlin, Germany

<http://greenlab.kunsthochschule-berlin.de>

Prof. Dr. Zane Berzina, Dr. Lucy Norris, Prof.

Dr. Jörg Petruschat, Prof. Steffen

Schuhmann, Prof. Susanne Schwarz-

Raacke, Prof. Heike Selmer

Design students, mainly operating with materials and textile sector

Age 19-23

Formal education, as part of summer semester curriculum (~ 4 months' time)

Individual project development

### Real Life relevance

How does the practice respond to local needs? How does the practice integrate real life cases?

The approach teaches student to explore the problem and research individually on its solution. It engages students with the practical environment where they have to face real life challenges, like material harvesting and new material development.

### Critical Thinking aspects

How does the practice foster reflections on re-design liner economy processes/products to circular economy principles?

The specific materials are needed because it is practical work with physical material. Materials are harvested by students to create full project design.

How does the practice challenge common conceptions about economy?

It provides in depth understanding of specific processes of circular material development as well as teaches about systemic approach to tackle the problem.

How is the practices transferable to other sectors/branches/countries and context?

In 2019 the focus of GreenLab was: Green Design 8.0 - Circular City: Mapping Berlin's Material Streams

Starts with serious of talks by invited guests (around 2 weeks' time), with the introduction into circular material world:

Fokus #1 - Circular Design Strategies

Fokus #2 - Berlin Material- und Waste Streams & Life Cycle Analyses

Fokus #3 - Plastic and Bioplastic

Fokus #4 - Biotechnology & Bioökonomie & Biodesign

## What kind of change is created due to the practice?

Evaluation is conducted via note system, and final presentation of the project  
Students have to explain the system approach reflected in the designed product  
Evaluation is based on how systemic the approach is, how the material cycle completion is tackled, environmental impact, design thinking

## Conclusion

The practice leaves students with the solid understanding about the world of circular materials, and explanation about current challenges to transform from linear to circular system. It also combines the knowledge of design and material science.

Link to the webpage  
[greenlab.kunsthochschule-berlin.de](https://greenlab.kunsthochschule-berlin.de)



Jannis Kempkens, <https://www.plasticula.com>

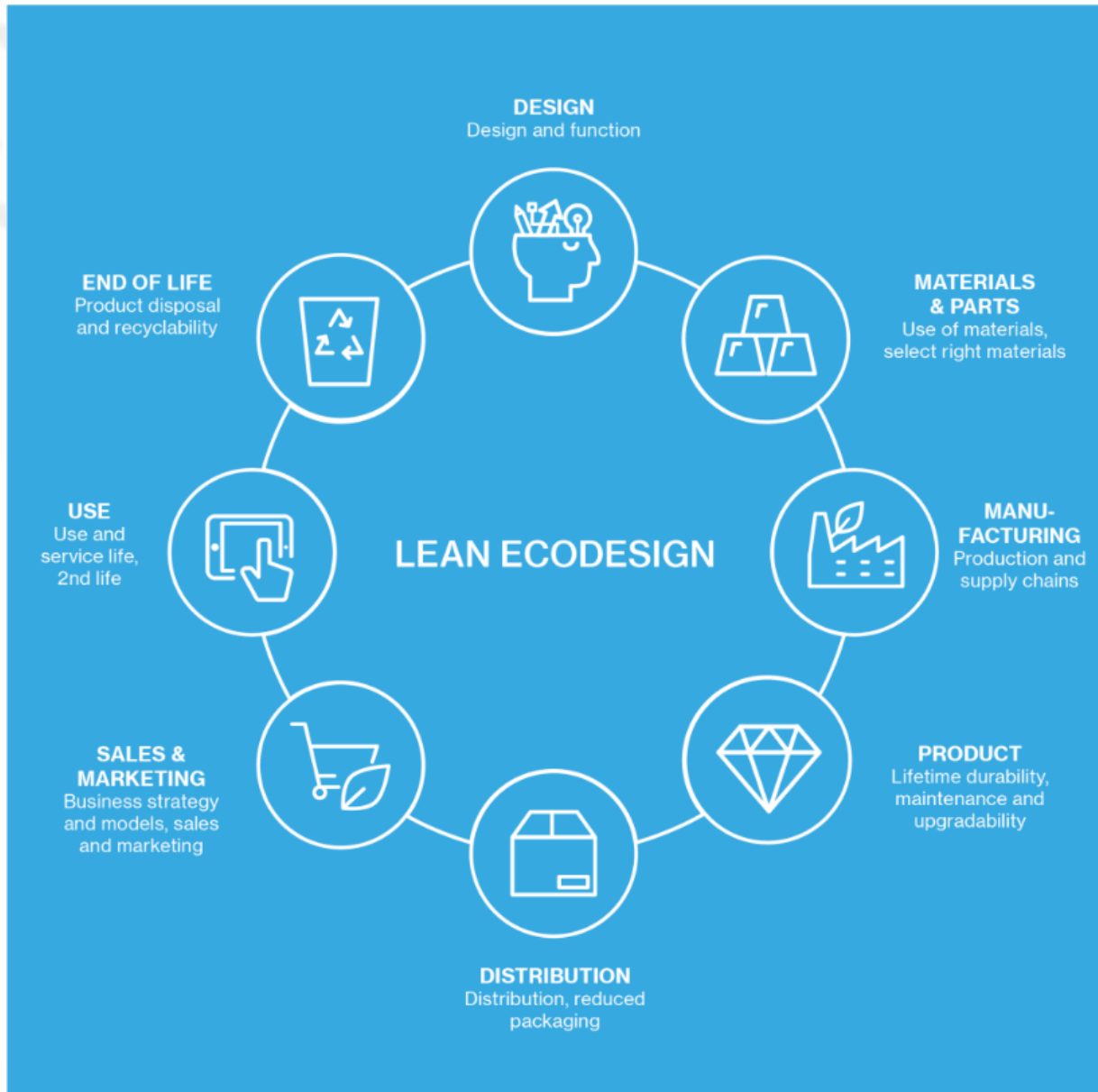




# The Ecodesign Learning Factory

Dina Padalkina

#communitybuilding #programmes #places



## Short description of practice

The Ecodesign Learning Factory is a training programme for developing innovative products and services. Our practical approach focuses on bringing forward the circular economy opportunities by emphasizing design thinking and life cycle thinking. The user-centric ecodesign tools and methods will help you to minimize the

environmental impacts while maximizing the benefits for all stakeholders.

Ecodesign Learning Factory was developed within the EU project EcoDesign Circle by ecodesign experts from Fraunhofer IZM and Circular Devices during 2016 and 2017 commissioned by the German Environment Agency and cofounded by the Interreg Baltic Sea Region.

## How does the practice engage learner?

The training could be organised for individuals and organisations.

For individuals:

- Ecodesign and Circular Economy tools and practices
- Experience in applying ecodesign in practise
- Feedback from ecodesign and sustainability experts
- Networking with likeminded professionals

For organisations:

- New process for product and service innovation
- User centric method to optimise product and service design
- Holistic approach to competitive advantage
- Strengthen your brand as a sustainable business

## How does the practice integrate interdisciplinary/cross sectoral approaches to circular economy?

To implement interdisciplinary approach the training combines

- User centric design
- Design thinking methods
- The methods is built on the ecodesign toolbox

## Real Life relevance

The practice works on the real-life cases with the participants, and corporate challenges that could be handled during the workshop.

## Critical Thinking aspects

No special materials needed from the participants. The Trainers provide authored and adapted multiple useful tools and principles to assist the ecodesign process.

You get to experience how these tools are used at our training events.

EcoDesgin tool box: <https://sustainabilityguide.eu>, is part of sustainability guide. The Sustainability Guide provides inspiration and knowledge by gathering information, methods, and good examples of how to use design to achieve a sustainable and circular business as well as social development.

## How are the practices transferable to other sectors/branches/countries and context?

The training could be conducted across different sectors but the with the focus on design methodology.

## What kind of change is created due to the practice?

It brings forward the eco-design thinking for the product designers and engineers. It implements understanding the circular

Berlin, Germany / Finland  
<https://www.ecodesignlearningfactory.com>  
Project of Fraunhofer IZM  
Target group: Individuals,  
Organization  
Professional product designers and developers, engineers, teachers, design lecturers, start-ups, SMEs, business model developers.

economy processes and specifics for this target group.

## Conclusion: what makes it in your opinion a smart practice?

The approach remains a comprehensive toolbox combined with the extensive training for professionals to understand eco-design principles, which are empowered by circular economy.

# Escuela TCP Sistemic Fashion = SF + CF

## Sustainable Fashion + Circular Fashion

Paloma García López

#programmes #places #training



### Reflection about the fashion industry and how it can transform the world when it becomes Circular

Escuela TCP (TCP School) has been developed since 2017 by Paloma García and start with short seminars until it becomes a quarterly course where the evolution of conventional fashion is taught into a disruptive and systemic fashion that transforms everything around it.

The world is experiencing unprecedented change. After decades of limitless development, limitless production, and limitless consumption we now discover the dramatic consequences of these excesses and the need to act quickly and consciously.

Organization and country:  
The Circular Project / Spain  
Target group: Fashion Professionals, Companies and Public Institutions  
Age group: 18 – 65+  
Context / Learning environment:  
Professional Education, Non formal education, Business, Corporate Responsibility, Agenda 2030  
References:  
<https://www.thecircularproject.com/>

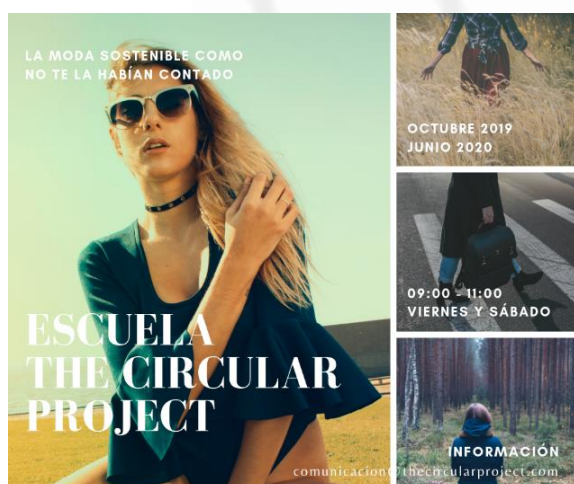
The textile industry as one of the most polluting major industries on the planet and as a driver of social and environmental deterioration has a fundamental role in the struggle to build a new model of society.





The Circular Project School, through its classes focused on sustainable fashion, teaches how to be a driver of change from many fronts: from the creation of a brand to its communication or the application of the Sustainable Development Goals in companies and in life.

At the TCP School a real, coherent, solid project is created, committed to its time. The student discovers sustainable fashion as they have never been told before.



## Competences and Skills

The course is appropriate for fashion professionals in any field. Designers working on the traditional way of the fast fashion looking for a sustainable and ethic change. Design and Fashion students who want to do things well.

People concerned about climate change who want to expand their knowledge in sustainability applied to fashion, with environmental and social concerns.

It also aims to train women in vulnerable situations in sustainable fashion, circular fashion and textile reuse for their future employability.



This training is considered as the first phase of a longer and more specific training journey according to the sector in which these women are going to be employed or are going to undertake.

Work orientation, empowerment, technical training, the keys to the sector and the different employment and self-employment opportunities will be worked on within the framework of sustainability.

## Practical Implementation

What is needed to prepare the usage of the practice? Which materials are needed? What is practically done step by step?

The quarterly course in the sustainable and circular fashion of the TCP School, being an approach to the keys that are beginning to be a reality in the textile industry and being a purely theoretical syllabus does not need specific materials and it would only be necessary a classroom where the students could be comfortable and a projector to show different documentaries on the topics to be discussed.

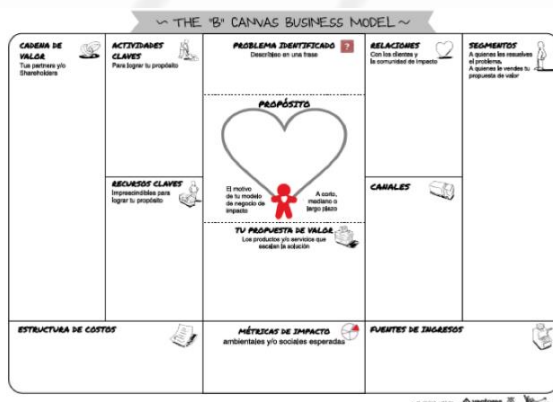
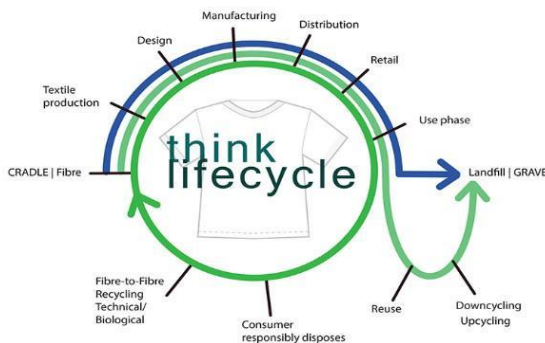
On the other hand, it would also be possible to take the course online through a good internet connection and an appropriate connection platform.

## Trimester TCP School

The TCP School term is designed as a journey towards the project and the ideal sustainable company. In this way, one module per month is proposed and leads to the Fourth Sector company where all the pieces of the puzzle come together.

## Sustainable Fashion

- Why sustainable fashion is now presented as a solution to the textile industry.
- First beginnings.
- What I have to take into account in the first steps of a sustainable project.
- What principles govern sustainable fashion.
- What impacts of my activity do I have to measure and what do I have to fight against.
- What techniques help me to minimize my footprint on the environment.
- What commitments I have to make.



## Circular Fashion

- Sustainable Fashion and Circular Fashion, is it the same?
- Ecodesign an exciting way to transform the world
- How I close the circle in my daily life.
- What I have to do to close the circle with my daily activity.
- Waste does not exist.

## Systemic Fashion

- Create a different company
- We are part of a whole, with multiple social and personal interactions that are integrated into our daily work.

## Transferability

How do you think the practices can be implemented in other contexts/countries/classrooms?

The systemic change that the course raises is a necessary change in any sector of activity and therefore the training path that is proposed here is easily transferable and

## LA CADENA DE VALOR DE MICHAEL PORTER

Identifique y optimice su ventaja competitiva





Funded by the  
Erasmus+ Programme  
of the European Union

implementable in other sectors, countries or situations.

The problem that we face from sustainable fashion is a universal problem and in which international cooperation, knowledge transfer and the creation of alliances are essential to successfully address the systemic change that we demand:

- Systemic and holistic thinking
- New Economies
- New business models
- New organizational models
- Management tools.

Link to the webpage:  
<https://thecircularproject.com/escuela-tcp/>

# Hugo Boss Company “Big Business Company About to move to Circular Economy”

Buray Tüzün

#places #business



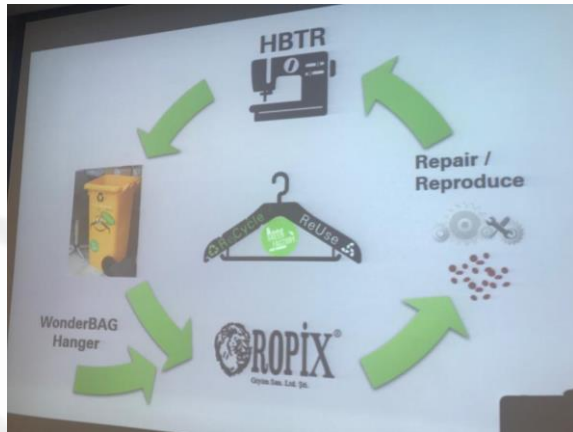
## About Hugo Boss

HUGO BOSS is one of the leading companies in the premium segment of the global apparel market. Around 14,600 employees worldwide work to always offer our customers the best. From collections to service. The BOSS and HUGO Men's and Womenswear not only cover businesswear, casual outfits and athleisurewear, but also elegant eveningwear for special occasions. Our claim: no matter what the day brings, our customers should be perfectly dressed in every situation and for every occasion. Shoes and accessories as well as licensed products such as fragrances, eyewear and watches round off the range. In

fiscal year 2019 HUGO BOSS generated sales of EUR 2.9 billion.

In addition to the actual product range, HUGO BOSS is also known for its events, campaigns, and cooperation. They sharpen the positioning of the two brands BOSS and HUGO in the market. These include shows at international fashion weeks, art awards, international exhibitions, the sponsorship of sports tournaments and top athletes, and much more. Our digital-savvy fans around the world are invited to follow their favourite brand and engage in social media campaigns on the official brand channels.





### Short description of the practice

For years, there have been many voices that have warned and warn of environment and world degradation around us. Despite this, many industries, including fashion, continue producing and overexploiting the resources of nature with the only goal of increasing its economic benefit regardless of the planet.

Some sources consider that the fashion sector is the second of the world's most polluting industries. An example or a consequence of this is the amount of low-cost or throwaway clothing that we find in storefronts and shops. This is large tons of waste from dresses, shirts or pants that could have had a greater durability over time.

How does the practice integrate interdisciplinary/ cross sectoral approaches to circular economy?

Hugo Boss company is also highly specialized in the circular economy waste management. All waste is programmed to be recycled into the economy. All waste materials are separated professionally. Paper, cardboard, fabric, plastic, wood, etc.

In this way, it recycles its products and integrates them into the circular economy.

### Practical Implementation

The most important factor to operate the circular economy practice in a company is to

inform the employees and the ownership of the subject by the company managers.

### Real Life relevance

How does the practice respond to local needs? How does the practice integrate real life cases?

Recycling and circular economy products can be used in real life, such as dolls, souvenirs, toys. The products are highly satisfactory for consumers who are dampening the recycling and circular economy. All products can be used in real life and are invaluable for consumers who love the circular economy.



### Critical Thinking aspects

When we consider critical thinking aspects, the recycled products produced may be suitable for individuals who have adopted this lifestyle. However, it will not be suitable and important for individuals who do not adopt recycling and circular economy.

### Transferability

We think that companies can transfer and transfer circular economy, waste management and recycling systems to each other.

What kind of change is created due to the practice?

Recovery systems have been established with company practices. The waste management program is implemented very successfully.



Funded by the  
Erasmus+ Programme  
of the European Union

## Conclusion: what makes it in your opinion a smart practice?

We chose Hugo Boss:

- Because they are very professionals,
- Because it is an exemplary company
- Because it is a very good example of contributing to a circular economy,
- Because it is a very good example of recycling

- Because it is a very good creativity and design story
- Because it is an environmentally friendly work and an environmental project.

Link to the webpage:

<https://group.hugoboss.com/de/verantwortung/produkt/circular-design-strategie>

# Senemiscoo Company “Small Business Company About to Circular Economy”

Buray Tüzün

#places #business



## Short description

The small business called Senemiscoo is a small example of how circular economy can be applied in textile products in Izmir. This small business is also our Chamber of member. It is an example of the change of the textile industry by producing small textile products from waste materials.

## General information

Who makes it? For whom is it? Since when is it done?

Senemiscoo is a small family business. It has been run by Ms. Senem for 6 years. It produces products from waste materials for consumers who attach importance to circular economy.

Ms. Senem sells her products online and face to face. It makes and sells dolls, toys, souvenirs from waste textile products.

## How does the practice engage learner?

Ms. Senem gives various trainings to students in her business. It shows practices and informs people about recycling and circular education.

What makes the app inclusive and collaborative is that it is 100% concerned with the circular economy.



How does the practice integrate interdisciplinary/ cross sectoral approaches to circular economy?

Ms. Senem uses waste materials. It produces products from waste materials. It uses many materials while producing its products. Cloth, wool, cotton, wood chips, plastic, etc. It provides transitions between sectors as it uses a wide variety of products. In this way, it recycles its products and integrates them into the circular economy.

### Competences and Skills

Which skills and competences are tackled by the practice?

The products that Ms. Senem has brought in and integrated into the circular economy are of great interest to consumers. Its products are delivered to all kinds of consumers over the internet and social media. To those who like the products it produces, it shows how that product is made with the application. She uses her workshop as a classroom while practicing and working.

### Practical Implementation

What is needed to prepare the usage of the practice? Which materials are needed? What is practically done step by step?

Atelier and recycling tools are needed for Ms. Senem to make recycling and circular economy applications. These vehicles can be any kind of waste material. Pieces of cloth, woollen pieces, cotton pieces, plastic, paper, cardboard, etc.

<https://www.n11.com/magaza/senemiskoo>  
[www.instagram.com ›senemiskoo](https://www.instagram.com/senemiskoo)  
<https://www.facebook.com/Senemiskoo/>  
[www.senemiskoo.com](https://www.senemiskoo.com)

### Real Life relevance

How does the practice respond to local needs? How does the practice integrate real life cases?

Recycling and circular economy products can be used in real life, such as dolls, souvenirs, toys. The products are highly satisfactory for consumers who are dampening the recycling and circular economy. All products can be used in real life and are invaluable for consumers who love the circular economy.

### Critical Thinking aspects

When we consider critical thinking aspects, the recycled products produced may be suitable for individuals who have adopted this lifestyle. However, it will not be suitable and important for individuals who do not adopt recycling and circular economy. Of course, this year will not be important for Senemiskoo Ms. Senem.

### Transferability

I think the Senemiskoo project can be applied in any country wherever desired. because it is an important project. The parties need to think about this issue and try. Circular economy has become more important than ever in these days when our world resources are starting to run out. This project can be transferred very easily. Application workshops can be opened in cities in countries, practices can be carried out, training can be given to young people.

What kind of change is created due to the practice?

Senemiskoo project has caused many changes and developments. Many businesses took the senemiskoo project as an example. As our Chamber, we attach great importance to the senemiskoo project. Because senemiskoo should be a role model for other member businesses.

The Senemiskoo project is also a family business. A small role model business. It cares



about production and manufacturing from recycling. It cares about the circular economy. Ms. Senem has devoted herself to this sector since she was young. He is an artist interested in textile. Designer. It produces a variety of recycled products and sells them online on social media and in its small shop.

### Conclusion: what makes it in your opinion a smart practice?

We chose Senemisko:

- Because it is innovative,
- Because it is a good example of entrepreneurship,

- Because a very good example of contributing to a circular economy,
- Because it is a women entrepreneurship example,
- Because a very good example of recycling
- Because a very good creativity and design story,
- Because it is an environmentally friendly work and an environmental project

Link to the webpage:  
<http://elyapimitasarimlar.com/>



# NochMall – secondhand shopping center of BSR

Ewelina Barthel

#communitybuilding #places



## General information on the practice

Who makes it? For whom is it? Since when is it done?

Berlin City Cleaning Company (Berliner Stadtreinigung - BSR) has opened in September 2020 a shopping center NochMall (OnceAgain) in the north of Berlin with used goods. We are used that secondhand shops are dark, to full and smelling not nice. This place is different. The assortment of the NochMall currently comprises around 15,000 articles in ten product groups like e.g. furniture, clothing, electrical appliances, household goods, toys, books and much more on 2,500 square meters. NochMall GmbH" is a 100 percent subsidiary of BSR and employs almost 20 people. The NochMall business model is

not profit-oriented. It is only intended to cover the costs of running the department shop.

Many things do not have to be thrown away carelessly but can be used again and again. Well-preserved objects are sold, which are given a second life in this way, i.e. "nochmal(l)" are used. Under the motto "Re-Use instead of throwing away" the BSR thus makes an important contribution to a "Zero-Waste-City". The second-hand goods offered there are currently collected at the recycling yards Hegauer Weg and Lengeder Straße or are handed in by citizens directly at the NochMall.

Beside selling goods, the NochMall wants to have a role of a circular center in Berlin with the space for different courses and trainings, coffee shop and a sitting place between books



where you each customer can sit, read and take a rest.

## Competences and Skills

Which skills and competences are tackled by the practice? How is the success measured?

NochMall gives things a second life contributes to resource protection and waste avoidance. It expands the range of offers in a sustainable way and it should become places where a new consumer behavior is tried out and creatively developed. This re-use initiative and the model of a low-waste city become very concrete and an environmentally friendly shopping experience. It supports sustainable effect in daily life.

The BSR NochMall wants to be more than just another department shop for used goods, it wants to support the attention to all offers for sustainable consumption. The NochMall is to become a place where people can experience sustainability. Apart from browsing and discovering good used goods, they are also going to hold repair cafés and upcycling workshops. There will also be discussion events on reuse and pop-up stores for sustainable products. It should be not just a new second-hand department shop, but an innovative platform for re-use and sustainability.



## Practical Implementation

BSR as a semipublic company is following the policy of city Berlin. In 1997 they have opened a similar place – secondhand department

which was working for around 4 years. Its interior was arranged in the old style and looked as most of the second hand or charity shops – dark, chaotic and with much to many things. Based on this experience BSR wanted to have a shopping center with used thing in very different style. The space of NochMall is big (2500 square meters), bright and arranged in the hipster Berlin style. The main target group beside activists, hipsters, poorer population should be middle class.

The crucial for creating such space was the growing role of sustainability in city politics. This understanding and willness of the change to the more sustainable society gives BSR a green light to open NochMall. Before opening there was a long process of rearrangement of the concept, looking for a right space and CEOs, employees. It took around 1 year and brought an impressed result.

Berliners are known for their independence, their creativity, and their pursuit of new paths. Their trying out new ways of life and functioning. Alternative solutions or innovative

practices are everyday life for the people of Berlin. The community, which is more sustainable than in other European capitals wants modern and environmentally friendly solutions and is ready to use a shopping center as NochMall.

## Transferability

This solution can be carried out in countries and communities where the re-use of discarded items is culturally accepted as in the most European countries. However, to open such a re-use shopping center you need support of politician and a city manager and administration, who will create such an initiative with appropriate laws and capital.

As part of the CircleVet project, we visited NochMall in September 2019 during the last project meeting. One partner of NARA-SK is working with the administration of the city of Hrad on Ziar in order to develop the concept of such a solution in Slovakia.





# Radici Social cultural association

Leonardo Filiani

#communitybuilding #places



## Short description of the practice

Radici is a socio-cultural association that operates in the district of Poggio Tre Galli, in Potenza, in territorial redevelopment and social inclusion. He has created and manages the RadiciPark municipal park which currently includes a dog walking area, a basketball area for children and a garden square.

There are many objectives that the association proposes and many activities still to be carried out.

## General information

“Radici” has been operating since 2015, the year in which it began the redevelopment of a green area located in Budapest Square for the creation of the park. The redevelopment works and social activities are organized and carried out by voluntary.

The project “Radici” is aimed at all the citizens of the neighbourhood, especially children and dog lovers

## How does the practice engage learner?

What makes the practice collaborative? and inclusive?

People are involved by example, the place where the garden square was born was once an uncultivated and degraded waste receptacle, today it is frequented by children, cyclocross enthusiasts, dog lovers. "Radici" is based on the principles of democracy and active citizenship and promotes the culture of the common good, the sense of the culture of the common good, democracy and participation is explained to citizens who approach the project. Citizens can actively participate in associative life by registering and participating in assemblies, where actions are decided on the management of the park and carrying out the necessary activities to allow the correct and wide use of public spaces.

### How does the practice integrate interdisciplinary/ cross sectoral approaches to circular economy?

"Radici" makes concrete the principle of recovery and circularity. An abandoned public space, which had become waste, created management problems for the municipality both from an economic point of view, it no longer has to do the mowing of the grass and public hygiene practices such as rodent control, which from the point of view of safety, the place was frequented by stray dogs dangerous for the citizens of the neighbourhood.

Now it has been returned to the community and generates inclusion, relationship, and sociality. In fact, Radici offers activities for people of all ages, for example:

- the dog walking area where elderly people and for the most part alone, because children work far away, taking the dog for a walk in the high-cut area they meet other people to talk
- the basketball area and bike park area dedicated to guy
- the latest initiative proposed, or a painting competition dedicated to children from 0 to 12 years.

### Competences and Skills

The deeper meaning of the project is to raise awareness of the common good, respect for nature, neighbour, and animals.

It leads people to think about the fact that we are inserted in an ecosystem where everyone generates value for the other and deserves respect, be it man, plant, or animal.

It also develops the skills of active citizenship and individual and collective responsibility, it is necessary to roll up one's sleeves and engage in the first person to find solutions to a problem and not delegate to others.

Develop lateral thinking skills (an abandoned place can become a bike park) and systemic and circular vision, each must have its own space and must not damage the other. Practical Implementation.

For the construction of the park it was necessary to form an association to request the management of the public area from the Municipality.

Then it was necessary to carry out a crowdfunding action to raise the funds and buy all the necessary goods: poles and net for the fence, garden tools, wood for the creation of benches and games for dogs and children.

### Real Life relevance

Radici responds to the need to see the common good, a place for everyone, as one's own home to take care of. It responds to the right of dogs to socialize with their own kind. For people to benefit from a public area as a place for meeting and socializing. The need to actively participate in decisions regarding the management of public affairs.

### Critical Thinking aspects

The project has two objectives which coincide with the principles of the circular economy.

The first objective is to spread the practice of recycling, for example the benches were made by recovering pallets, some toys for



dogs were made using the wheels of cars filled with earth.

The other goal, perhaps more ambitious, is to introduce the principles of the circular economy in public administration, thus giving space to citizens, through associations, to participate in the choices of destination and management of public affairs.

### Transferability

Radici is not unique as a project, there are other examples such as roots in other areas of Italy and abroad, for example in London.

First, the rules that allow citizens to participate in the management of public affairs should be studied.

If there are spaces, a project as roots is not difficult to implement as in my opinion it is a virtuous experiment that aims at respect and collaboration.

### What kind of change is created due to the practice?

Radici is a best practice that works on the necessary assumption underlying the change from the linear economy system to that of the circular economy, values.

Radici generates a new culture of the common good, of individual and collective social responsibility, of active citizenship and respect for all forms of life. A new culture of the

common good, of individual and collective social responsibility, of active citizenship and respect for all forms of life

### A story of how the practice works:

"I believe that adolescent experiences (construction of pseudo sports facilities, houses for dogs and children) have left me with such a sense of fullness and harmony with the environment that, once an adult, I wanted to propose them again, hoping to relive and make relive to as many people as possible the emotion of having a good impact on the environment through the creation of a park. " These are just the words of the president of the Radici association.

### Conclusion:

I quote the words of the president of the Radici association, Giovanni Santangelo: << The improvement of a green area, especially if prey to decay and abandonment, cannot fail to give the interpreters of change a sense of inner growth and I believe the innovation is this, to improve the places and ourselves at the same time. What is special is that nature observes and in different ways gives unique moments to those who are committed to safeguarding it.

Link to the webpage:  
<https://www.facebook.com/poggio3galli/>



# Green City Farm

Aura Piha

#communitybuilding #places #programmes



## Green City Farm – learning environment for sustainable gastronomy

Green City Farm is part of the campus of: Perho Culinary, Tourism & Business College. The farm is located on the Malmi campus in Helsinki, Finland.

The farm brings together various sectors, including gastronomy, tourism, business and horticulture into a multi-disciplinary learning environment. It represents sustainable urban farming and gives students the possibility to learn about sustainable food production, biodiversity, and soil well-being.

Organization and country: Perho Culinary, Tourism & Business College; Finland  
Target group: vocational students  
Age group: all ages  
Education sector: Vocational college  
Website:

<https://www.kestavagastronomia.fi/fi/green-city-farm/>

Introduction

video:

[https://youtu.be/2hvg\\_vHi6Mo](https://youtu.be/2hvg_vHi6Mo)

On the side of the farm there are beehives, whose residents ensure a successful pollination and yield. The beehives offer the possibility to teach about the importance of pollinators to our very existence.



Farming at the Green City Farm started in 2017. The first task was to increase the soil well-being through organic farming methods.

Five different food plants were planted to improve the soil. This year, over 30 vegetable crops grow on the farm.

Perho is developing a Learning Centre of Sustainable Gastronomy around the farm and is aiming to create a wide network of stakeholders: teachers, students, farmers and so on. The network will work towards a sustainable, ecological, healthy, nutritional, and delicious food culture in Finland.

The farm works on a Community Supported Agriculture (CSA) partnership. The farmer produces food primarily only for its members. Members pay a share in advance, which gives financial stability to the farm and possibilities for investment.



### How does the practice engage learner?

On this “learning field” students of Perho College can deepen their understanding of sustainability and food production.

Perho includes a visit to the Green City Farm into all its degree curricula. In addition, it is possible for all citizens and visitors to book a tour and help at the farm.

Students of Restaurant and Catering Services can see where the essence of their trade comes from. Students of Business Studies and of Tourism can engage in farm activities and use the knowledge for product

development, sales and marketing. The learning farm can also be connected to learning about entrepreneurship.

One aim of the Green City Farm is to generate well-being to the surrounding area and its citizens. It is possible for anyone to visit the field and even to volunteer their time.

On an afternoon stroll it is possible to stop by to admire the growing tomatoes or pumpkins or smell the herbs.

In September, a harvest festival is organized, with music and delicacies prepared from the harvest by the Perho cook students. In this festival it is possible to meet other local producers.



### How does the practice integrate interdisciplinary/ cross sectoral approaches to circular economy?

Circular economy in food production is an extremely important topic. It is especially important in terms of closing the nutrient cycles of nitrogen and phosphorus. We all eat and most of us prepare food ourselves – therefore it is not only a challenge to be solved by farmers but by all of us.

Perho has decided to integrate a visit to the Green City Farm into its curriculum also for business and tourism students.

The partnerships include many different types of stakeholders, which ensures good practices and new ideas to be incorporated.

### Real Life relevance

The practice has important real-life relevance in terms of bringing into the attention the origin of our food.

Furthermore, it is increasingly important for restaurants to know the origin of their ingredients, and such restaurants are often members of such Community Supported Agriculture farms.

### Critical Thinking aspects

In nature, all flows are circular. Also farming was circular until the last century. Today, conventional farming is based on intensive linear processes, especially in terms of nutrients. Nutrients are lost from the harvest and also from runoff.

Organic farming, such as is practiced at Green City Farm, aims to close the nutrient cycle. Not only that, it aims to improve soil quality and encourage biodiversity.

### How does the practice challenge common conceptions about economy?

Community Supported Agriculture is a very different style of producing and running

farming businesses. There is a more intimate relationship between producers and consumers. We are all dependent on farmers to produce our food, but currently farmers carry most of the risk. Farming is also more hit by environmental degradation than other sectors, so new business models are essential.



[https://youtu.be/2hvq\\_vHi6Mo](https://youtu.be/2hvq_vHi6Mo)

### Conclusion: what makes it in your opinion a smart practice?

The Green City Farm gives an example of how to incorporate sustainability into all the functions of food production. It also serves as an example of urban farming. In sustainability we need to think global and act local. Green City Farm proves this is possible.

Link to the webpage:  
<https://perho.fi/en/sustainable-development-guide/diverse-and-responsible-learning-environments/green-city-farm-learning-environment/>



# POH, Ltd. - registered social enterprise for circular solutions

Radovan Grollmus, Matej Plesník

#socialenterprise #places #business



## Short description

What was the motivation to establish it?  
Target groups, transferable to national,  
international, or local focus?

On April 14th, 2018 the Slovak Parliament passed the law nmb.112/2018 on the Institutions of the Social Economy. In this legislative motion already 2nd attempt culminated in Slovakia march towards setting the modern landscape for development of more collaborative and socially sensitive economy. Slovak post communistic first attempt in 2008 failed (mainly because being heavily corrupted from previous national policymakers). It dismissed even the positive legacy of EU' EQUAL Initiative (2000-2006) as well as violated historical positive attitude of the Slovak catching up regions suffering since of post communism transformation (1989) for cooperative principles of producing & sharing.

The Law numbs. 112/2018 - already well adapted European social economy approach - gained impressive respond from the Slovak society, immediately.



On April 2020, the number of registered social enterprises (SE) in SK reached more than 100 and on last statistics already 224. However, most of them were so called INTEGRATIVE SE



with its sharp focus on social and work integration being established by municipalities for its marginalized citizens' integration.

NARA-SK reacts in innovative manner. Only two out of SE in Slovakia - like POH, Ltd. (est.23.1.2020) - belongs to category of GENERAL SE - tackling other general and common challenges: nature sustainability & environment resilience. POH, Ltd., is mentoring of cooperating municipalities and its local low-skilled labor force to produce superb, high added value via doing green building construction and environment maintenance + innovative waste up cycling construction and "green jobs".

Organization and country: POH, Ltd – r.s.e. (spin-off to NARA-SK) Slovakia  
Target groups:  
owners of building construction projects  
local (low-skilled) labor force  
whole society via rising public awareness  
Age group: 18-80  
Context / Learning environment:  
Informal education on doing circular construction via social economy.  
Web link: <http://www.narask.sk/>  
<https://www.poh.sk/>  
<https://www.facebook.com/podnik.obehoveho.hospodarstva>

## How does the practice engage learner?

What makes the practice collaborative and inclusive?

The POH serves as medium between NARA-SK (serving as green solutions knowledge institution & reservoirs) and particular building construction project owner – the investor. Doing construction in social and green manner (as much and as fast as possible) means transforming value chains which generates roughly 8% EU' GDP in whole society - no matter what is sector or social status of partner for this win-win business

negotiation comes from municipality, private developer/investor or public authority.



How does the practice integrate interdisciplinary/cross sectoral approaches to circular economy?

If we would talk about the ECONOMY as single coin its two flat faces are circular and social (economy). It is absolutely evident of the attention which EU as well as UN high profile documents, plus global intellectual think-tanks' outputs pay to GREEN & SOCIAL PROCUREMENT.

Environmental solutions presented at the Catalog of Recommended Technical Solutions (hereinafter CRTS, - presented as 2. Slovak Smart Practice) represents the harvest from the merge of science & NARA-SK' nongovernmental keen motivation. Previous volumes of catalogued POHs promoted solutions for construction business sector. It is characteristic by fierce competition and corruptive manners which degenerate ex-ante pre-construction talks onto fighting the lowest price criterion.



POH offers doing construction via social enterprises with added value of solving environmental resilience & sustainability via low-skilled labor green jobs/industry. "Made by POH" includes promotion of green & social procurement principles on the ground of municipal spending. For NARA-SK - POH spin-off partnership this makes sense of its existence, fulfillment of their mission, vision and reaching the gold standard doing business on the ground of Quadruple Helix (<https://ec.europa.eu/digital-single-market/en/open-innovation-20>).

#### Practical information:

POH serves as NARA-SK' green construction solution knowledge supplier/mentor, or coop-contractor for any local social integrative enterprise

Scale: POH is ready to operate from size of residential house' roofs up to industrial parks construction scale and size technicalities

Group Size: POH is ready to operate either as single contractor or part of consortium

Level of difficulty for learners: High – lack of understanding difference between price and value in business talk between contractor/supplier vs. customer/buyer/bidder

## Real Life relevance

How does the practice respond to local needs?

Promoting such complex issue as doing construction in circular and social manner is attractive reading. Every construction project managing authority or owner understands social & environmental message via reading marketing points from the POH web (<https://www.poh.sk/>) - below:

- OCHRANA ŽIVOTNÉHO PROSTREDIA / ENVIRONMENTAL PROTECTION (POH uses materials from recovered waste to implement technical solutions, valuation of the waste streams plus adding the value of increase local countryside' water retain capacity, revitalization of small

water circles in area of intervention = construction.

- LOKÁLNA ZAMESTNANOSŤ / LOCAL LABOUR FORCE (POH hires local work force handicapped by its low mobility, social affinity to native community and its common Weaknesses & Threats but if well managed turned into the Strengths & Opportunities)
- 10% DAŇ Z PRIDANEJ HODNOTY / 10% VALUE ADDED TAX (following the Law numb. 222/2004 Z. z. on the Added Value Tax the invoicing from social enterprises' is due of 10% VAT charge. Means any individuals as well as legal bodies of public administration or its subsidiaries may be charged of 10% VAT (in spite the 20% being charged from standard business contractor/ supplier.
- REGISTROVANÝ SOCIÁLNY PODNIK TYP "VŠEOBECNÝ" / REGISTERED SOCIAL ENTERPRISE AS "GENERAL" (POH is attractive contractor for (public) spending in environment, general regional development & local labor trade improvement. Saying in other way: POH is eligible for any measures of common general municipal challenges as like local flood & drought, soil erosion, general environmental resilience in spite of "exclusive EU' ESF objectives (politically speaking less attractive because of its potential generate social & ethnic "community" tensions)

## Critical Thinking aspects

Within one calendar year of its existence of which more than 70% of its business season was crashed from C-19 pandemic - POH took part in many public procurements. The results of this year of operation may be interpreted as:

1. POH lose in attended public procurement or market competition.

Lesson learnt: if the investor and its winner / contractor are satisfied with the victory over the social & green friendly solution, there is nothing for celebration and there is time to think about the sense of money, value for money and “being rich”, actually.

2. POH lose however was accepted as mentoring (consultancy, knowledge provider) Lesson learnt: POH is institutional innovation and its presence is changing the attitude of all particular construction stakeholders via coping the whole institutional and methodological setting of POH = being “looser” of procurement.
3. POH won attended public procurement or market competition. Lesson learnt: following the provision of § 6, (1), c, 5 up to 100% of profit is subject of reinvesting in accordance to the mission of SE = promoting circular economy via implementation of NARA-SK best available techniques enlisted in its The Catalog of Recommended Technical Solutions.

### How does the practice challenge common conceptions about economy?

NARA-SK understands the lack of time which was defined through the timeline and roadmap defined by COP 24 (<https://cop24.gov.pl/>) in respect of year 2030, UNFCCC’ Paris Agreement. In course off this there is no time for doing global economy transformation via implementing separate projects or programs. Despite this piece-by-piece approach huge institutional change of operational mindset is needed.

NARA-SK established its spin-off implementing body = POH for immediate & instant action in practice and learning by doing approach. It is based on global understanding as business r/evolutionary circular scale up is the most effective if existing linear economy stakeholders in particular sector launch cooperation with innovative start up

organization as the POH, ltd. – registered social enterprise definitely is.

### How are the practices transferable to other sectors/branches/countries and context?

The subject of POH’ field of intervention may vary upon the NARA-SK’ previous volumes of The Catalog of Recommended Technical Solutions.

In next volumes these methodological manuals will once again reflects the need of knowledge in particular economy sector which undergoes the circular transformation. NARA-SK as the association of expertise legal bodies & individuals is capable to give advice and counseling in various fields of expertise. (See: Conclusion: what makes it in your opinion as smart practice – Lesson learnt)

### What kind of change is created due to the practice?

POH, ltd. – registered GENERAL social enterprise as the first runner opens the new perspective for more than 100 registered social economy enterprises in Slovakia (mainly defined as working integration business bodies established by municipalities). POH, ltd. invites them to the field of small local or micro regional circular projects/programs in course of creating so called small economy circles – as the focal point of decrease (transportation) carbon footprint and recovering community’s sustainability from the sickness of linear economy and globalization. For instance, see:

- <https://link.springer.com/article/10.1007/s10584-019-02480-z>
- [https://www.researchgate.net/publication/299343568\\_Local\\_Circles\\_in\\_a\\_Circular\\_Economy-The\\_Case\\_of\\_Smartphone\\_Repair\\_in\\_Denmark](https://www.researchgate.net/publication/299343568_Local_Circles_in_a_Circular_Economy-The_Case_of_Smartphone_Repair_in_Denmark)

### Conclusion: what makes it in your opinion as smart practice?

The Banská Bystrica regional branch of the Slovak Chamber of Commerce and the Slovak

Environmental Agency organize biannual competition for innovative projects in field of circular economy implementation. See:

<http://bb.sopk.sk/view.php?cislocianku=2019101101>

- <https://www.sazp.sk/zivotne-prostredie/environmentalne-manazerstvo/konferencie-seminare/zeleny-merkur.html>,

The competition is the tool for promoting BATs which follow the mission of rally: “the competition is intended for companies that develop activities in accordance with nature,

with the goals of sustainable development and the principles of the circular economy”.

POH, Ltd. – registered social enterprise soon after its registration (est.23.1.2020) was awarded on March 3rd 2020 by Diploma for acting in field of “water retention measures, noise control measures, thermal and acoustic insulation of buildings” – as seen at picture of the Diploma of this 3rd smart practice of NARA-SK, above.

Link to the webpage:

<https://www.poh.sk/>





# Circular Practices Community and Events





# Zero Waste Events

Laura Konieczny

#training #consulting



**Who makes it? What is done? What was the motivation to establish it? Which needs are covered?**

Zero Waste Your Life has been founded by Laura Konieczny. Using learnings from being a regular festivalgoer and several practical evaluations on event sites and in collaboration with event organisers, Zero Waste Your Life implements zero waste practices into the event sector, focussing on large scale music and workshop events. Based on transitioning a regular into a zero-waste event is evaluating the status quo. Waste streams are defined and solutions for preventing waste are implemented together with the event organiser. This is done by adjusting along the

Organization: Zero Waste Your Life, Germany

Target group: Event organizers

Context: Professional trainings, suitable for VET-trainings in a formal (theoretical) or informal (practical application on site) environment

Contact for further information:

Laura Konieczny

Zero Waste Your Life

hallo@zerowasteyourlife.de

supply chain from order placement, planning, procurement, infrastructure before, during and after the event. The organization's goal is to transform as many festivals as possible



from wasteful events to those that leave the space in equal or even better conditions than before.

### How is the practice Applied in the context of CE?

The practice follows the waste hierarchy (refuse, reduce, reuse, recycle, rot), adding the aspect “rethink” to the core of it. The current status quo is challenged by rethinking, reevaluating current common practices, and replacing them by those that have a positive impact on the event locations’ social, economic, and environmental environment.

The concept of zero waste festivals goes beyond reducing physical waste by replacing single use items by reusable ones. As an additional benefit, crowd engagement and education for both, festival organizers and festivalgoers is encouraged, resulting in long-term behavioural change that goes beyond the duration of the event itself.

### Validation and reflection

#### How is the reflection on circular ideas embedded in the teaching?

The concept for zero waste event consulting and trainings is constantly further developed together with event organisers, taking into consideration their needs, capabilities, and experiences from past events.

Reusable products following circular design standards are preferred when optimizing an event’s procurement process.

### Practical Implementation

Materials needed: Beamer, Computers for participants to fill out practice surveys,

Duration: 1-day onboarding / ongoing for 10 weeks during implementation phase / 1-day post-event evaluation

### Real life aspects and needs

The practice is evolving around and dealing with real life cases. If this practice were regularly included into vocational education trainings for e.g. prospective event managers, they could function as multipliers to introduce zero waste and circular practices to events in their working area.

### Evaluation

Zero Waste Your Life’s consulting and training for zero waste event organization includes self- and external evaluation by the event organizers before and after an event. Best practices are shared with event organizers to spread the word about it and encourage more events to get engaged in the topic. The post-event evaluation results in a roadmap that leads to further improvement for the upcoming edition of an event.

### Which aspects are transferable?

Zero waste trainings like these could be transferred to other sectors and disciplines, e.g. restaurants and other events such as fairs and conventions. With the pre-work of doing research on the respective local legal framework, the practice could be transferred into almost any other country.

### Conclusion

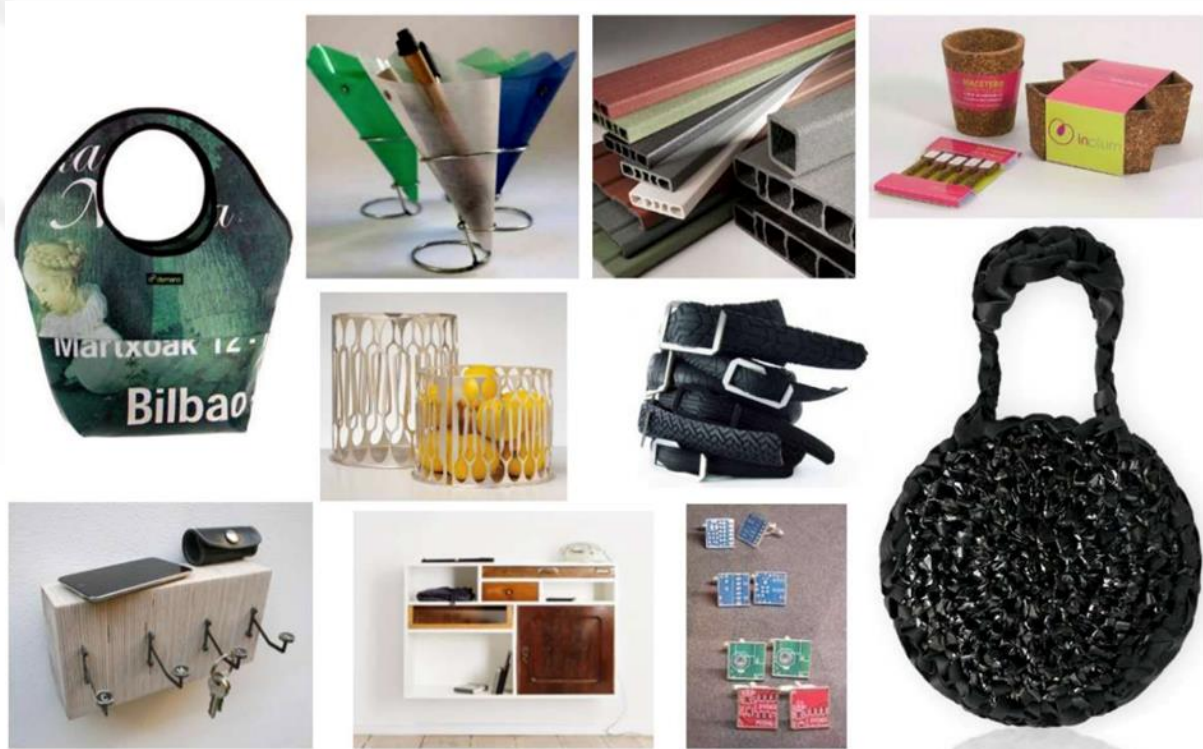
Integrating zero waste practices into the event sector leads to drastic savings in terms of waste, resources, and money in the event sector. As the event sector is prone to being rather wasteful, using these practices can result in a large leverage. Challenging the status quo and transitioning from supposedly “easy to handle” yet wasteful single use items to reusable, sustainable solutions is a long overdue innovation.

Link to the webpage:  
<https://www.zerowasteyourlife.de/>

# CURE – Centres for Urban Re-manufacture

Isabel Ordonez

#communitybuilding #programmes #places



## CURE – Workshop

A Centre for Urban Re-manufacture is a meeting place for anybody interested in engaging in improvised re-manufacturing. It is a place for experimentation, where locally available secondary materials are sorted, stored and prepared to be reused and/or re-manufactured.

Circular Berlin together with the CURE project partners (TU Berlin – Chair for Circular Economy and Recycling Technologies, Material Mafia, and OMA e.V.) hosted a workshop on the topic of Berlin Centre for Urban Re-manufacture.

Among others, we wanted to discuss what type of materials are mostly possible to reuse and remanufacture locally in Berlin, how to engage the local community in Berlin in this process, what are the existing skills and potentials already there and what is necessary

to develop, how to professionalise work in

Organization and country: TU Berlin, Germany

Target group: Age group: from 20 and above

Context / Learning environment:

Non-formal education

Material reuse / recycling References, Link to the practices:

[http://www.cure.tu-berlin.de/EN\\_project.html](http://www.cure.tu-berlin.de/EN_project.html)

waste prevention, and use waste as resources.

How does the practice engage learner?

What makes the practice collaborative and inclusive? (briefly).

Already during the preparation phase, we were more than excited to receive more than 100 registrations from local NGOs, initiatives



involved in reuse or remanufacture, open workshop spaces, academia, design, housing companies, funding institutions, and the public sector. The outreach and interest in the topic were extraordinary. It confirmed the assumption Berlin needs more centres for Circular Economy.

### How does the practice integrate interdisciplinary/cross sectoral approaches to circular economy?

With a creative approach CUREs aim to find uses for materials that are currently not recovered, focusing on specific industrial and commercial waste (e.g. resources discarded from events, theatre plays, films, construction sites, large commercial houses, etc) as well as consumer products that are not covered by the current extended producer responsibility regulations (e.g. furniture, textiles). These centres aim to become a matchmaking arena to connect existing secondary materials to local needs, recovering in that way material resources locally. CUREs do not engage in material recycling, but rather in preparing materials and products for reuse and re-manufacturing, as well as reusing and re-manufacturing items.

### Real Life relevance

Together with the participants we generated large amounts of input to what they would like to see in a Berlin Centre for Urban Remanufacture and suggested what they or their organizations could concretely do. This material will serve for the base of future co-creation meetings.

Some result highlights were that there is high interest to focus on reuse / remanufacture of wood, textile, and fair waste. The centres have to be open and generate knowledge for the internal community about materials but also serve as a multiplier for circular economy in the city. Also, as the interesting result was discussed around warehouse and logistics. The creation of a physical warehouse with pick-up area for companies is a key aspect a central objective. The physical warehouse would serve for initiative and material bundling, sorting and inventory.

The quality assurance of used materials is also one of the main steps. Testing and evaluation of materials for safety and harmless use is important for storing materials. Such approach may be served as a companies' label that always have high quality used materials.

### Critical Thinking aspects

How does the practice foster reflections on re-design liner economy processes/products to circular economy principles?

CUREs are both the physical place and network of actors that provides, experiments, and eventually reuses and/or re-manufactures secondary material. These centres intend to increase the amount of local secondary material used, helping redirect waste volumes into value creation activities.

How is the practices transferable to other sectors/branches/countries and context? Please give one example.



The practice is easily transferable to other locations, only local context of waste streams, secondary materials specifics must be analysed more concrete.

### What kind of change is created due to the practice?

New value of the secondary material is created. It is expected that once initiated, CURES could find a model of operations that would make them financially sustainable, so that they generate employment and revenue in a model that would be closer to a desired circular system.

### Conclusion: what makes it in your opinion a smart practice?

This is the smart practice because it engages diverse stakeholders in the topic of material remanufacture on the city level, mainly practitioners. It also provides opportunity for the cooperation and to connect the streams of the items that could be named as “waste” in the linear economy but have second or third life in the circular one.

Link to the webpage:

<https://www.cure.tu-berlin.de/index.html>

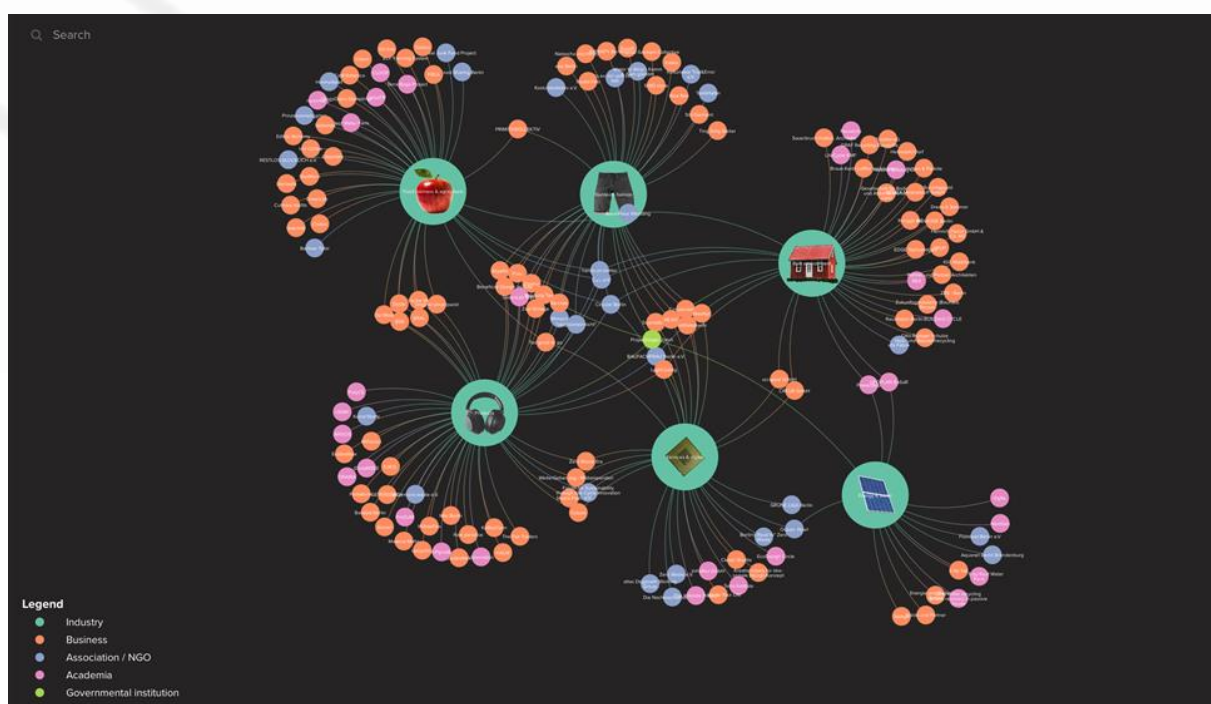




# Circular Berlin – digital ecosystem for circular economy

Dina Padalkina

#communitybuilding #programmes



## Short description of practice

Circular Berlin is a non-profit reshaping Berlin's metabolism – by developing the local circular economy agenda and its implementation, through research, community-building and practical programmes. Among our activities we dedicate a lot of work to community building and education.

## How does the practice engage learner?

Circular Berlin supports Berlin's circular economy actors, by connecting them through open-source tools and regular events.

We regularly host events where the community meets, debates and exchanges. Topics range from sharing knowledge on

specific industries to collaborative planning sessions.

Organization and country: Circular Berlin, Germany

Target group: professionals, working in the field Circular Economy

Age group: adults

Context / Learning environment: non-formal

Education sector: business, NGO, local municipalities

References, Link to the practices:

<https://circular.berlin/community/>

We build open-source digital tools that allow information to be exchanged more quickly, such as Berlin's collaborative calendar for Circular Economy events, or the ecosystem of local circular organisations.

How does the practice integrate interdisciplinary/cross sectoral approaches to circular economy?

In our work we focus on food & biomass, textile & fashion, the built environment, materials & products, and city metabolism.

### Real Life relevance

On the digital ecosystem map you can find a lot of information relevant for the local community. Organizations and individuals can discover other initiatives in the interactive format.

### Critical Thinking aspects

This visual tool primarily helps to understand stakeholder landscape and see who is active on which area of work of circular economy.

How is the practices transferable to other sectors/branches/countries and context?

The practice is easily transferable. It is important only to know the local ecosystem of actors. Little digital knowledge is needed, to realize visual part. Current work is built on the open tools for everyone. More details how to use KUMU tool could be found on <https://kumu.io>

### A story of how the practice works:

Digital ecosystem is very good and engaging format to start collaboration with other similar initiatives. We receive quite often interested requests either to join the map or to share the approaches how it was realized. It is powerful tool to visualize work of your stakeholders and grow the circular economy community.

### Conclusion: what makes it in your opinion a smart practice?

We would like to share this approach, as it is easy, interactive, and accessible approach to bring circular economy knowledge and showcase the local practitioners.

Link to the webpage:  
<https://circular.berlin/>

# Green Fashion Tours

Ewelina Barthel

#communitybuilding #event



## Short description of practice

Green Fashion Tours are existing in Berlin, Hamburg and Munich, in Germany. This is different kind of excursions through those 3 cities about chosen topic as sustainable and fair fashion, upcycling design, local production, and circular economy. It was created 2015 as a combination of Anna from 'GetChanged!', Arianna from 'The Upcycling Fashion Store' and Mariangeles from 'HolaBerlin'. Right now, it is functioning as social business of Arianna Nicoletti (August 2019).

Three urban tours: Upcycling & Circular Economy for Textiles, Handcrafts and Local Manufactories, - Fair Fashion & Sustainable Consume are helping to explore interesting spots in the town from exceptional fashion designers, creative minds, upcycling points,

circular practices, and many other places. They are based on a chosen neighbourhood or personal interest. They can be held in English, German, Italian and Spanish.

They have been created for an audience interested in sustainable topics like for example design students, professionals, corporates and NGO's. As well they are





addressed to tourist, expats and citizens who wants experience more about fair fashion, sustainability or circular economy.

They can be booked as half day or 2 days tour with or without additional workshop and sessions, expert talks etc. for groups from 5 till 45 participants.

## Competences and Skills

Which skills and competences are tackled by the practice? How is the success measured?

The educational concept behind is to educate the public about environmental and social issues of the fashion industry and circular economy through visits, meetings and presenting alternative options for an ethical consumption.

This experience is called by Green Fashion Tours a transformative experience. And it is a journey of self-empowerment and exchange. Experience guides lead the group through chosen spots. Teams are meeting experts, have discussions and are as well active and can learn from each other and meet persons.

Through real examples guided groups are inspired and learn about existing and innovative solutions through diversified expertise and wide range of activities. They get to know closer the social and ecological issues linked to the global fashion industry. They discover the local alternatives to the conventional fashion. They personally learn persons, who are changing the fashion scene and experts active in different fields.

Beside the introduction to the topic of circular economy in textile participants of the tour learn real cases with their problems, they have an inside overview about the business and organization needs.

This method is working very good for the adult audience because it is based on the Kolb experience circle.

CRN has tried the tours 2 times; They were taking a place in Berlin and they were customized to the group of 15 and 18 persons and took 4-6 hours. The chosen topic was

circular economy. Both times we have finished with a circular diner, what gave a very special atmosphere and time to discuss all visited places and many other topics. This kind of the end of the tour was spectacular and not unforgettable for all participants. The first tour we have tried with the partners for the Circle Vet project during the kick-off meeting in Berlin in autumn 2018. We can recommend the tour.



## Practical Implementation

What is needed to prepare the usage of the practice? Which materials are needed? What is practically done step by step?

This method is locally based in 3 cities in Germany and it is a product which is old to the interested groups. To book tours, you need to contact via their webpage (the link you can find at the end of the article).

The tours are guided by one person, who is contacting all spots and organize the schedule and welcoming packet with information about visited places. The price for the tour depends on the group size, chosen topic or the duration of the tour. There are public tours with the price 22 – 28 Euro per person or customized

ones, where for the group of 6 – 15 persons you need to pay 389 Euro with VAT. This tour is including 2,5 hours walk with visiting 3- 4 shops, ateliers, or projects.

What is needed to make a tour are your legs, cloths prepared for the time of the year and transport (public, bikes, cars etc.).



## Transferability

This concept can be transferred in other cities and countries. There is a good knowledge of the local circular scene and needed to develop similar tour.

It would be good to have an experienced guide and circular expert of the circular economy in the chosen location in the preparation of that tour. The local guide knows the city/ town and has experience with guidance of groups. The expert knows the topic and has probably contacts to the local scene. Putting them together gives the opportunity to cover this 4 fields.

For more information please visit Green Tours webpage: <https://greenfashiontours.com>



# Conference – Circular Economy The Textile Waste

Radovan Grollmus, Matej Plesník

#communitybuilding #event



## Short description of the practice

The essential motivation for NARA-SK was to organize conference in absolutely different mode (in respect of understanding it as “one way” communication educational gathering) to shift it into the melting pot for circular practitioners in waste textile recycling/up cycling. The original inspiration has been taken from the HOLLAND CIRCULAR WEEK-2018

(<https://circulareconomy.europa.eu/platform/en/news-and-events/all-events/holland-circular-economy-week-2018>)

This event NARA-SK attended as the Working Group member in ERAZMUS+ project HOPE for Environment

(<https://handsonplastic.wordpress.com/>) through the SK´ project coor.´attendace. The spirit of Dutch approach in sifting ASAP from being linear to circular is in brutal tearing down the sectoral vertical hierarchies (business -

Organization and country: NARA-SK, Slovakia

Target groups: the stakeholders of paradigmatic change named “circular economy” – it means all sectors of society/national economy

Age group: 18-80

Context / Learning environment:

Non-formal education on Circular economy – textile waste

Web link: <http://www.narask.sk/> practices: <http://www.narask.sk/konferencia.html>

administration - knowledge institutions - NGOs) and DOING BY LEARNING/ LEARNING BY DOING on one floor in intuitive interactions of all motivated attendees = challenge stakeholders involved in any particular issue/agenda/problem.

The lesson learnt from formal organization´ point was stressed by entitling the conference “CIRCULAR ECONOMY PARTNERSHIP –

PPP project” as because PPP approach is misunderstood both in Slovakia as in whole continental Europe solely on heavy infrastructural projects (highways...) in spite the fact that overcrossing the vertical sectors is the essence of going circular from linear and is absolutely clear, understand in Anglo-Saxon cultural environment. It means that beside the main innovative theme of conference (circularity versus linearity and its wastes) the formal framework (melting pot as tool for the collateral approach of solving problem) both sides of this event NARA-SK as the main organizer and “Deus ex machine” has promoted as the social innovation itself in whole complexity of the form & content.

Conference goals:

1. environmental responsibility for reuse of value from up cycled (textile) waste in economy generating the impact onto social environment in society
2. the education – research - innovation-transfer to practice
3. eco-innovative industrial application of up-cycled textile waste
4. products’ transfer to practice & its application on the ground of the legislative framework/background in Slovakia\*\*\*LCC&LCA assessment Green Pass – environmental assessment of circular production impact onto environment & public well-being, innovative solutions, SME/start-up & bottom-up initiatives in Slovakia’ circular textile environment
5. Made in Holland – innovative solutions & approaches in organization of circular textile BATs, developing circular institutional settings and cooperation framework at both national and regional level in Netherlands

Target Groups:

1. Towns & Municipalities: Human settlements are the very essential playground for the circular change. After 2050 more than 70% of global population will be resident of commuter to (heavily) urbanized landscape/countryside. Local authorities runs for state & EU subsidy schemes onto recycling projects, calls & announce public spending via public procurements, do daily political business which, finally, transforms the amount of spent money into the gained value of quality of inhabitants lives. The conference offered the different point of view onto daily waste produced by inhabitants in statistically expressed 4-8% of textile in black bins. The conference offered solution for local building, construction projects including the solutions for heat, sound, fire isolation, strengthening the micro circular water applications for urbanized area & countryside.
2. Business & Business Consultancy Tax incomes of societies stands on businesses success. However, the 250 years old machine of the “western” Smith’s economy is dying. Business leaders already know that the change is coming however “how to catch the subject” is still unclear magic and witchcraft. Conference’ stakeholders are passionate about eco-friendly, innovative, knowledge smart ideas rising from newly emerged frame; however, circularity’ added value is not monetized, yet.

3. The Knowledge Institutions & Community Applied Science & Research The input from general and preferably applied science & research has the potential to verify & validate new ideas and production approaches on the level of hard-data onto new ideas and production' objective functional characteristics. Research and science participants translate the ideas of green visionaries into the scalable excel sheets which businessmen understands. Experiences from Holland as the European circular forerunner proves its global soft value as the circular economy' ambassadors. International networking makes this run for live even more inspiring and successful.
4. State Administration Authorities & its Institutional Agents Massive promotion of Best Available Techniques and successful circular business applications and solutions is the most effective approach in course of Lifelong Learning, informal education via "Learning by Doing. Responds to urgent transformation from all around rotating Slovak strategic documents' goals (headed by The Vision and Development Strategy of Slovakia by 2030) into the real, obligatory legislative framework.
5. Non-governmental sector Formal/Non formal civic society is the most dynamic circularity & sustainability stakeholder, the most motivated promoter & advocate of circularity in daily live. By own heart motivated individuals, circular economy practitioner, circular economy start-ups, talks not (only) about the price-of-production, but rather about the products' full live-cycle value hidden behind the environmental burden we put on nature today as unbearable backpack for our children.



### How does the practice engage learner?

Conference included as special participative part the Elevator Pitch Workshop ([https://www.youtube.com/watch?v=Lb0Yz\\_5ZYzl&t=310s](https://www.youtube.com/watch?v=Lb0Yz_5ZYzl&t=310s)) one another unusual (social





innovation) toll for the environment of Slovak/Slavic “too wordy, one way conference communication”. Lesson learnt:

- No matter how skilled talker, storyteller are you!
- We want to feel your emotional engagement into the topic of your circular practice!

It is always thrilling to see/hear one's individual motivation which moves hills aside! The melting pot of conference 'participants enjoyed authentic issue-oriented lectures without high-tech profile ppt/xls/miro/zoom conference presentation... It was just pure joy of meeting any single lecturer' circular creativity. No one high-heeled, well-styled (plastic) home seller... In other words: Perfect is the Enemy of Good. (Voltaire).



### How does the practice integrate interdisciplinary/cross sectoral approaches to circular economy?

Regardless NARA-SK within the process of preparation this event spoken about PPP approach, on the high level of EU theory for methodological approach was slowly reaching the point of promotion the QUADRUPLE HELIX approach. (<https://ec.europa.eu/digital-single-market/en/open-innovation-20>). (Beside of this the SDG17, QH, CSR, ISO26000 are approaching the one meeting point from four different sides.) Tactically speaking, as because the paradigmatically scoped agenda

of circularity has potential to gain the most rapid intervention / implementation / incorporation of the daily live' agenda of the society via multilateral streaming the target group was once again “particles” in above mentioned “MELTING POT”.

### Real Life relevance

There can be no doubt on the relevance of this even in respect of the Slovak Republic. In course of announcement of this event each month before the direct mailing remainder campaigns was done which proved huge interest from open society.

Doing this NARA-SK has harvested its 5-year existence as the Association of Legal and Private Bodies (\*2015) devoted to the challenge of rising public awareness (means talking about) for recycling. It reflects EU industrial standards which have had policies in place on waste and landfill as an integral part of Business As Usual. However, as the waste topics becomes unbearable, the withdraw of EU 'BAU Waste legislation made place for circular package on this topic [https://ec.europa.eu/growth/industry/sustainability\\_en](https://ec.europa.eu/growth/industry/sustainability_en) NARA-SK has gained the best ever backup for its mission for understanding recycling as just pre-essential step towards the march on The Ellen MacArthur Foundation' first ever roadmap onto the track of global full circularity <https://www.ellenmacarthurfoundation.org/circular-economy/concept/infographic>. The most relevant qualitative indicator for “Just in Time” organization this event is the fact that the Office of the Government of the Slovak Republic 'Vice Chairman for Investment and Informatization had taken the position of key partner/ stakeholder of this conference.

### Critical Thinking aspects

NARA-SK did and will do avoid unilateral activities in course of promote the only one correct respond to urgent need of circular economy' acceleration - the Private-Public-Partnership / Quadruple Helix approach (hereinafter PPP/QH). We vote for assembling



individual gifts into the holistic work, virtuous circle of collective intelligence.

### How does the practice challenge common conceptions about economy?

NARA-SK and conference partners delivered CIRCULAR TEXTIL Conference 'outputs to the Slovak policymakers through:

1. The Conference' strategic partner - Office of the Government of the Slovak Republic 'Vice Chairman for Investment and Informatization (in charge of NARA-SK)
2. The Chair of Slovak Chamber of Commerce meeting to all political party' leaders which exceed the threshold of 5% for entering the Parliament at ongoing elections (March 2020) (in charge of Banská Bystrica Branch Office of the Slovak Chamber of Commerce & Industry' + NARA-SK)
3. NARA-SK follows in serving as the catalyst, focal point for bottom-up coagulation of informal and in course as live will goes even formal regional circular economy hub in (one of eight Slovak) district of Banská Bystrica-hub, as we promote our first and one of most European strategic partner – Kingdom of the Netherlands, as the global leader in circular economy promoter and first runner

### How is the practice transferable to other sectors/branches/countries and context? Please give one example.

Opening gates in doing circularity to any single individual legal/private body is crucial for creating global initiative for starting the sustainable change not as the subject for policy makers in their operational mode Business As Usual is the Crucial Agenda. The global movement Extinction Rebellion (<https://extinctionrebellion.uk/>) says "Beyond the Politics". Circularity is and must not be the

Practical information:  
Standard conference backup & services  
Duration: 2 days  
Group Size: 120 participants  
Level of difficulty for learners: medium

high-profile agenda for any particular organization, society sphere, sector...

Any powers overconcentration without public involvement and division is false and trouble making. Beside the fact that rapid respond to environmental crises will certainly be the agenda for high-tech research& innovation' investment, the concept of circularity has to stay elementary clear, manageable, comprehensive and accessible for by heart motivated individuals, solo-runners & circular economy practitioners, as well as any natural nations the very bottom level where the live goes on all around the world (hereinafter PPP/QH). We vote for assembling individual gifts into the holistic work, virtuous circle of collective intelligence.



### What kind of change is created due to the practice?

NARA-SK - because of the urgent need for circular (economy) acceleration reads the social (economy) as the second side of the circular on the coin of economy. Because of this NARA-SK – has established in course of 2020 appropriate pro-active institutional landscape its spin-off organization:

- XI/2019 - social enterprise PODNIK OBEHOVÉHO HOSPODÁRSTVA, Ltd., which implements the circular building construction & green infrastructure on the base of investors' public procurements
- I/2020 – regional innovative industrial cluster REPRIK in one of the most vulnerable county of Slovakia



collateral action. It is not possible to be delivered from one institution, or any kind of individual leader

- being delivered from out of box perspective it means should – shake and change the mindset of all participants at once = for this reason it is a collective work and it is not possible in the 21st century to claim some kind of copyright for smart social innovations

Link to the webpage:

<http://www.narask.sk/konferencia.html>

### A story of how the practice works:

NARA-SK is rapidly business consulting growing organization after previous years as serving as storyteller only. Now, the playground has been changed from linear economy to the obligatory circular mindset without any excuse of exceptions.

Because of this the most important for NARA-SK is to organize such gathering of various stakeholders particular next activities are the subject of individual preferences of each stakeholders – however the spirit and atmosphere of such event makes for NARA-SK generates many best quality interactions.

### Conclusion: what makes it in your opinion as smart practice?

In common understanding of NARA-SK smart concept for 21centruy must:

- Contains the sense and external visibility as shared intelligence &



Funded by the  
Erasmus+ Programme  
of the European Union



# Circular Practices Games + Methods





# Ecocanvas

Nicola Cerantola

#resources



## Short description of practice

Ecocanvas has been developed since 2012 to bridge the gap between business creation and innovation and circular economy strategies application focussing on the circular business model design. It aims to explicit the role of the environmental and social aspects and impacts on the business evaluation, prototyping and validation stages. It is structured into 15 tools to support the circular transformation, step by step, but with a modular approach.

## How does the practice engage learners?

The Ecocanvas methodology is offered in an open source license, to foster a community of users worldwide. The tools are designed to generate a conversation around each topic and the format has been adapted for a 100%

digital workshop to help users to collaborate from everywhere.

## How does the practice integrate interdisciplinary/cross sectoral approaches to circular economy?

The Ecocanvas methodology combines disciplines such as life cycle assessment, business design methods with agile approach, customer journey and business intelligence with a PESTEL analysis. The process incentivizes an holistic approach to the evaluation of the current situation and the design of a circular one.

## Real Life relevance

Ecocanvas methodology helps organizations generate and respond to important questions, critical questions. The approach is quite general and leaves space to get deeper and

for customization by users. Some of the tools have been simplified over the years to allow organizations to work freely instead of getting stuck into closed or rigid templates, for example in the D1 or F1 tools in which a white “canvas” is preferable since it is easier to be customized.

## Critical Thinking aspects

The methodology relies on 15 tools that support the evaluation of the linear model, provide inspiration through more than 100 strategies (F0 tool) with an interactive web based app that help the process of redesigning the value chain towards a circular economy.

## How does the practice challenge common conceptions about the economy?

Along the journey, it is asked to explain problems and needs from 4 perspectives, environmental, social, market and even personal, bringing to the spotlight the importance of inclusiveness and motivation. A2 tool allows users to work on Vision, Mission and Value, while D0 focuses on the stakeholder mapping to avoid leaving anyone behind.

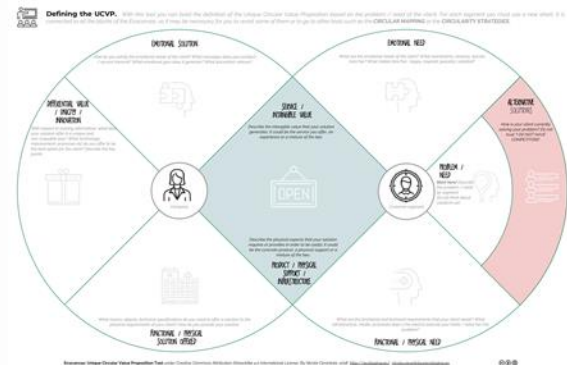
## How is the practice transferable to other sectors/branches/countries and context?

The methodology is based on the widest range of product-services life cycles. It allows us to get deeper within each value chain, with no specific exclusion. The only limitation is related to pure service business where the impact of

the methodological process is limited, but it is just because circular strategies are less effective if there is no materiality on the system under study.

It has been used in several sectors such as agri-food, fashion or building industries, with no problems. The modularity also provides the necessary flexibility to adjust the process to the specific challenges of each sector.

### B · ECOCANVAS: CIRCULAR VALUE PROPOSITION



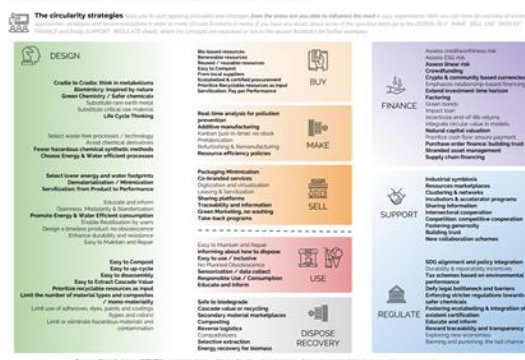
## What kind of change is created due to the practice?

Explicating the role of environmental and social impact on value proposition is a clear message. Sustainability is not an appendix; it should be at the core of business mindset.

### A · ECOCANVAS: CIRCULAR BUSINESS MODEL PROTOTYPING



### F0 · ECOCANVAS: CIRCULARITY STRATEGIES



## A story of how the practice works:

Ecocanvas has been widely adopted all these years in many countries, mostly in Europe and LATAM. One of the most exciting was being contacted by a schoolteacher from the Patagonia region in Argentina who used the tools with the students to help them to understand the importance of sustainability.

## Conclusion: what makes it in your opinion a smart practice?

Since the beginning it has been upgrading and extending a powerful tool such as Business Model Canvas, just a few years after the launching of the original model, receiving attention and positive feedback worldwide. This long journey allowed Ecocanvas to be improved and to collect feedback along the years. In the current version, open source and self-explaining many businesses have been finding new questions to answer, questions that are critical for their future and everyone is in this planet.

Link to the webpage:  
<https://ecologing.es/ecocanvas/>

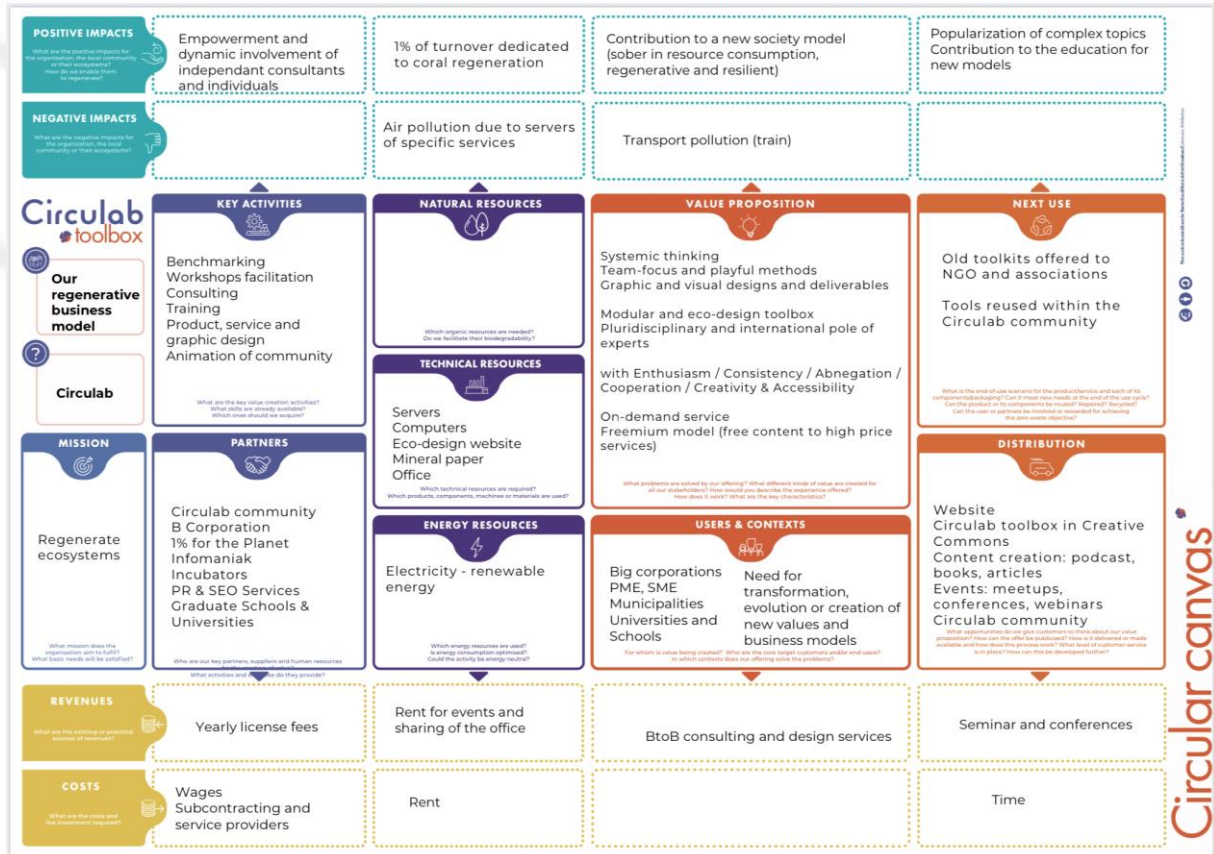




# Circulab Circular Canvas

Ewelina Barthel

#resources



## General information on the practice

Circulab Circular Canvas is business canvas created to map and analyse a company or an organization in order to change it from being a part of linear to circular economy. Normal business canvas is documenting or developing new business models with a visual chart describing different elements. The business model describes firm's or organization's value proposition, infrastructure, customers, and finances. It is a strategic management tool used to define, work, and improve on that fields/ activities of functioning. The classical business model canvas was created in 2005 by A. Osterwalder. It is used and developed since then for many business leaders and students for analyse of companies or organizations from linear economy, where generating profit is the main value and aim to be reached. That

canvas consists of 9 building blocks of the business model as customer segment, value position, channels, customer relations, revenue streams, key resources, key activities, key partners.

In circular economy the most important are values (economic, social, and environmental) and positive externalities. And Circulab Circular Canvas are created to grasp all opportunities offered by circular economy and design business or organization model into a complex and sustainable way. Through circular thinking this canvas calls stakeholders to review how they cooperate, innovate, and think. They are translated into 7 languages and improved with many customers on 5 continents since 2014. The user of that tool can explore the context of their organization or company, learn from the experience, map a business model with all its impacts and identify

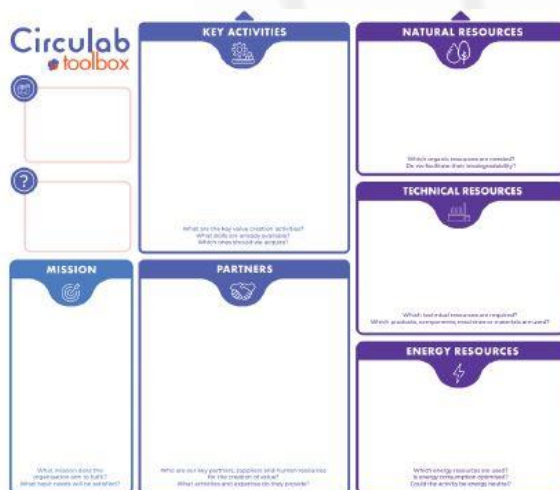


key stakeholders. But the most valuable in that tool is that users of that canvas can start to generate a circular a regenerative idea with systematic thinking. The practice can be used in minimum 2 hours session with optimal time of 1 day, up to even few days training.

Next to the canvas there are 60 'what about' cards which can be used for 'live' workshops and be targeted for problem-solving. With the cards 'players' received scenarios which based on the real examples and problems met in different businesses. For using canvas there is a need of creating a team of different employees of the organization or business to have as many different perspectives as possible.

## Competences and Skills

Which skills and competences are tackled by the practice? How is the success measured?



Canvas can be used in 3 different ways, by: mapping a business/ organization model to visualize its main impacts and facilitate analysis and feedback from teams. Changing the perspective: adopt a systemic point of view to consider economic, social, and environmental impacts of analysed company or organization.

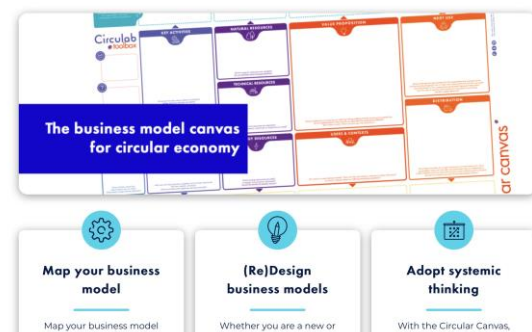
designing business/ organization model for already existing or new companies or organization. To this way of using the canvas belong as well exploring different scenarios, anticipating threats, and multiplying positive

impacts by designing new business or organization models. Here the whole functioning of a company or organization can be rethink along circular principles.

Adopting systematic thinking the users of Circular Canvas do not consider the viability of the model merely in terms of cost and revenue. They also consider value creation through the social and environmental impacts of the analysed business or organization. They can easily identify new opportunities and the points to watch.

The biggest achievement and skilled gained by using the canvas are the systematic thinking and brighter perspective on the function of the company or organization. Using canvas is feeling like playing a board game – the aspect of play and fun makes the tool very interesting and easy to use.

The success can be measured by opening companies design with using the canvas or restructuration of analysed organization to be 100 % circular.

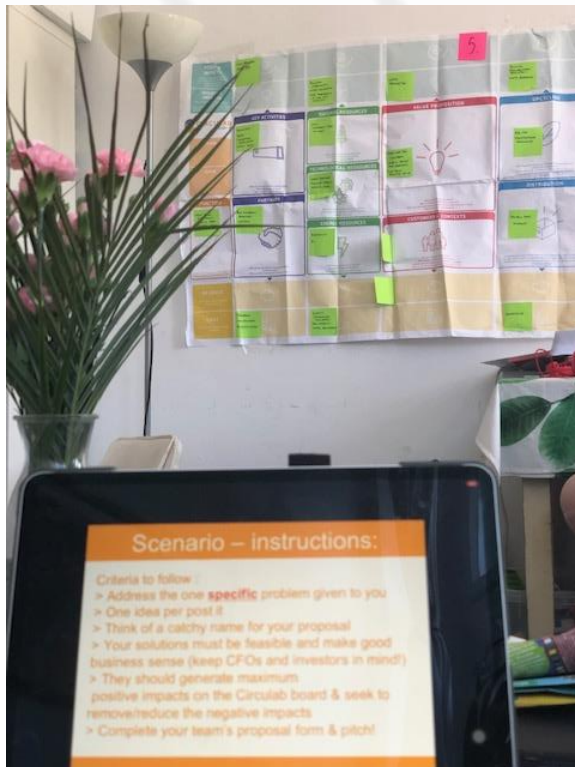


## Practical Implementation

To be able to use the canvas we need to have the template, a team of “players”, a facilitator who knows canvas, chosen case (company or business) and if they should be deeper analysis . 60 ‘what about’ cards with already existing challenges.

The team should consist of many employees of the company or organization from as many departments as possible to collect many different points of view and information.

The canvas should be introducing and the rules of using it should be explained Then



there should be different teams created as diverse as possible.

After the whole session there should be time for presentation of work of each time und discussion.

## Transferability

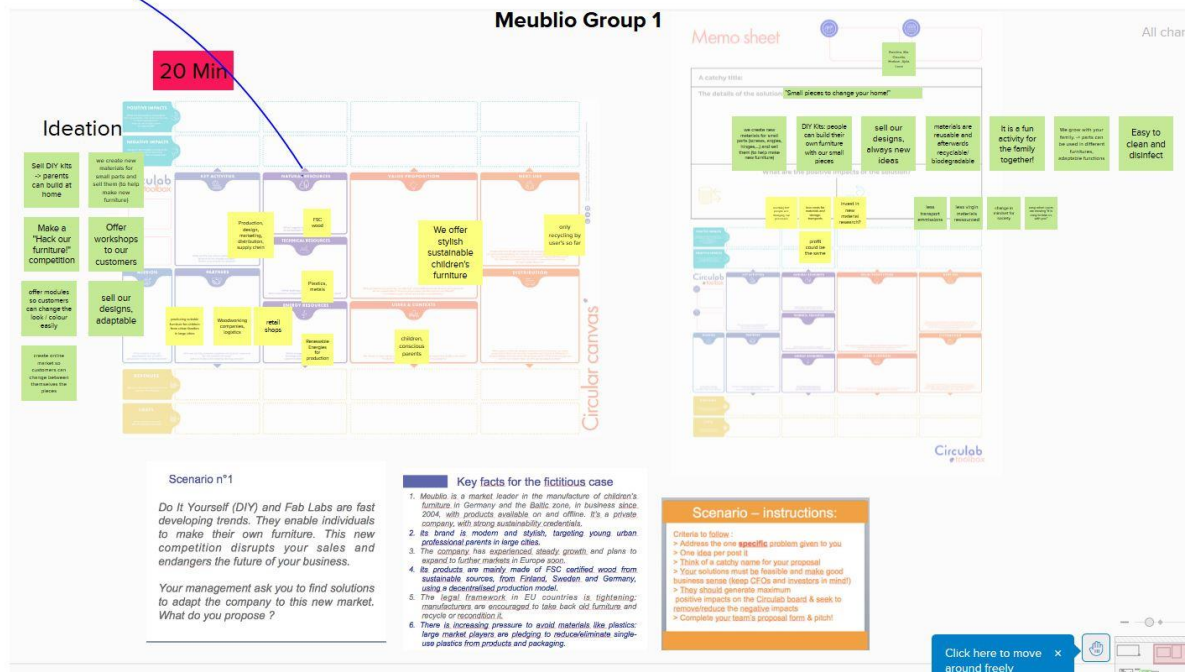
The tool can be very easy implemented in different companies and organizations. It is easy to use in different countries and environments.

Students, companies’ owners, and employees of the second and third sector can use them in a variety of languages or cultures.

In the project of Circle Vet we have tried the canvas in 2 days session playing online. Of course, the best effect can be reach by ‘playing it’ in the real meetings, but due to the situation of the lockdowns in spring 2020 we could meet only online. All participants of the users have been inspired and wanted to continue. We have played 2 different scenarios in first session (with using cards). In the second session we have mapped NARA-SK (already existing institution) inside the partnership with 2 different groups. The partnership can recommend of using that tool.

Link to the webpage:  
<https://circulab.com/toolbox-circular-economy/>



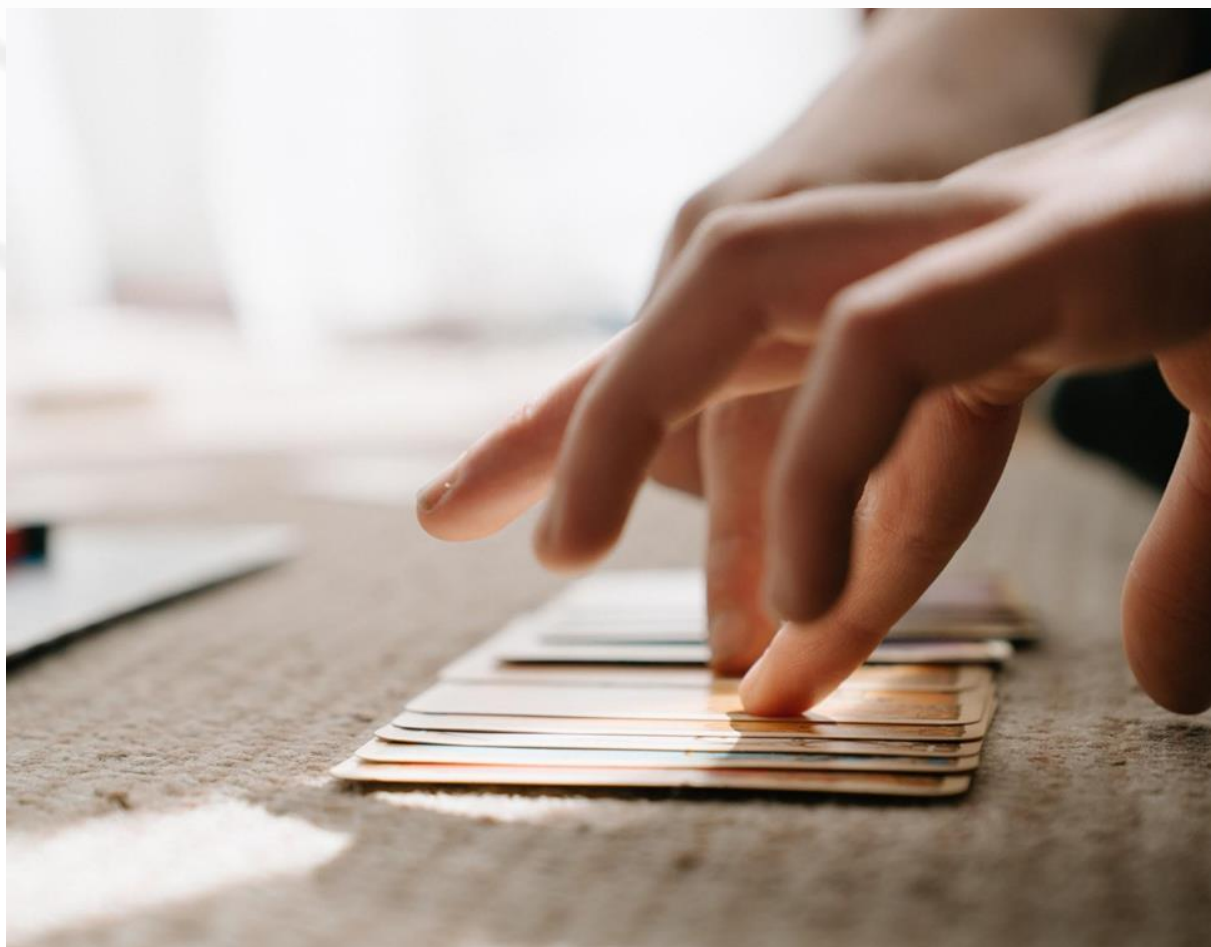




# EcoCEO - It's your business Game

Leonardo Filiani

#resources #game



## Short description of the practice

The current economy is largely linear: raw materials such as oil, minerals and metals are extracted and used to make products that are thrown away after use. This approach - which has a high cost from an economic, social and environmental point of view - can be replaced by the circular economy, in which products, components and materials are designed for reuse and reuse

## General information on the practice

Who makes it? For whom is it? Since when is it done? How long is the practice (one session, a month, a term, long-term?)

EcoCEO is an educational game that teaches the logic of the circular economy by letting players experience the role of the CEO of a company that produces electronic items

The game was created thanks to the international collaboration of CNR with VITO (Belgium), Wuppertal Institute (Germany) and Tallinn University of Technology (Estonia) as part of a grant from the European Institute of Innovation and Technology (EIT) in the field of raw materials (EIT RawMaterials).

The game lasts an hour, players (3-8) must take on the role of the CEO who has finite resources: only two workers, little money to invest to create new objects and improve the production system and, above all, limited resources.



## How does the practice engage learner?

The participant is immediately involved in a group discussion because he has to answer not as an individual, but precisely as a group to questions like these:

- How old is the phone in your pocket?
- Have you ever tried to repair it?
- How often do you buy a new one?
- Do you know what your phone is made of?
- What did you do with your old phone?
- Have you ever heard of the concept of "circular economy"?

These simple questions allow participants to enter the topic and have a general picture before entering the game and explore the concepts of circular economy on their own through the game.

In the debriefing the player is again involved because he will have to answer these questions:

How did it go?

- What strategies have you invested in? They have paid?
- What challenges did you encounter while managing your company?
- What choices did you have to make?
- Can you think of real-life examples of the activities / strategies mentioned?

This activity allows the various participants to discuss the concept of circular economy

## How does the practice integrate interdisciplinary/ cross sectoral approaches to circular economy?

EcoCeo is structured in such a way that competitors learn the concepts of the circular economy in a natural way because it stimulates discussion, comparison, divergent thinking, to find better alternative solutions to the problem that players will face during the game. By playing, players will learn:

- -The fundamental principles of entrepreneurship and business management.
- -The difference between the business model of the linear economy and that of the circular economy
- -The basic concepts and strategies of a circular economy, such as recycling, take-back, reuse, design for repair and product-service systems;
- -The impact that the scarcity of resources and other external events can have on a company;
- -The management of resources, personnel, investments and capital in a simplified business context.

## Competences and Skills

In EcoCEO, players have to manage a company that produces electronic items, making decisions on resource management, production processes and economic models to apply. The aim of the game is to show the different impact that linear and circular business strategies have on a company's performance and to teach players the importance of strategies such as recycling and the use of recovery, reuse, repair and recovery systems. provision of services (eg rental).

The skills that are addressed are those that are the basis of the circular economy: the ability to have a general vision, even if



superficial, of the many mechanisms, all interconnected, which form our economy and which are fundamental in our society.

By the end of the game, players understand the different impact linear and circular business strategies have on a company's performance.

The winner is the one who, at the end of time, still has the cards in hand because they have made the most of the basic dynamics of the circular economy.

## Practical Implementation

What is needed to prepare the usage of the practice? Which materials are needed? What is practically done step by step?

- a table
- a deck of cards with the rules of the game
- a classroom

It starts with a frontal lesson where future challenges are presented, for example the problems of supplying raw materials that are essential for technological development (for example renewable energies), and some possible solutions. After this first smattering, the game begins with the presentation of the game material and the explanation of the game rules. Later, depending on the time available, further meetings can be organized, for example workshops in which specific aspects are explored.

## Real Life relevance

EcoGeo talks about companies that produce everyday products such as a telephone. The whole game reproduces real life, a part of the Resource, Investments and Events card reproduce exactly the choices that a CEO of a company working according to the linear economy must make every day. Another part of the Resource, Investments and Events paper reproduces the choices that a CEO can make to reduce the impact that his linear economy company has on the ecosystem (eg waste production) and to reduce production

costs. (eg. Designing the product to be reused).

## Critical Thinking aspects

The aim of the ecoCEO game is to educate about the relevance, roles and opportunities of the circular economy, as well as the challenges that come with it. The game fosters discussion on sustainable entrepreneurship, resource scarcity, waste management and business strategies.

During the game, players will learn:

- the fundamental principles of entrepreneurship and business management;
- the difference between the business model of the linear economy and that of the circular economy;
- the basic concepts and strategies of a circular economy, such as recycling, take-back, reuse, design for repair and product-service systems;
- the impact that scarcity of resources and other external events can have on a company;
- the management of resources, personnel, investments and capital in a simplified business context.

## Transferability

As first thing.. It's a game made with a deck of cards and with simple rules it is easily replicable in all contexts / countries / classrooms.

In addition, being very versatile, it can be integrated into more structured learning paths and finally it can also be used in schools

## What kind of change is created due to the practice?

The introduction questionnaire, the game and the final debrief allow participants to understand the impact that their behaviors and not just production choices have on the system in general.



Furthermore, EcoCeo demonstrates the impact of linear and circular business strategies on a company's performance and its resilience against external events such as political measures, market disruptions and the availability of resources.

Finally, it teaches the importance and opportunities of circular strategies such as recycling, take-back systems, reuse and repair activities and product-service systems.

### A story of how the practice works:

The game permits to develop discussions and exchange of opinions among the payers on sustainable entrepreneurship, resource scarcity, waste management and business strategies so it is very useful to promote the sustainability.

### Conclusion: what makes it in your opinion a smart practice?

The game is an interactive and engaging educational game for the classroom. It increases awareness of and transfers knowledge about circular economy strategies and circular business models in a hands-on and fun way.

The aim of the game is to educate on relevance, roles and opportunities of a circular economy, as well as the challenges arising. The game fosters discussion about sustainable entrepreneurship, consumption patterns, resource scarcity and waste management and provides a clear link to the UN Sustainable Development Goals.

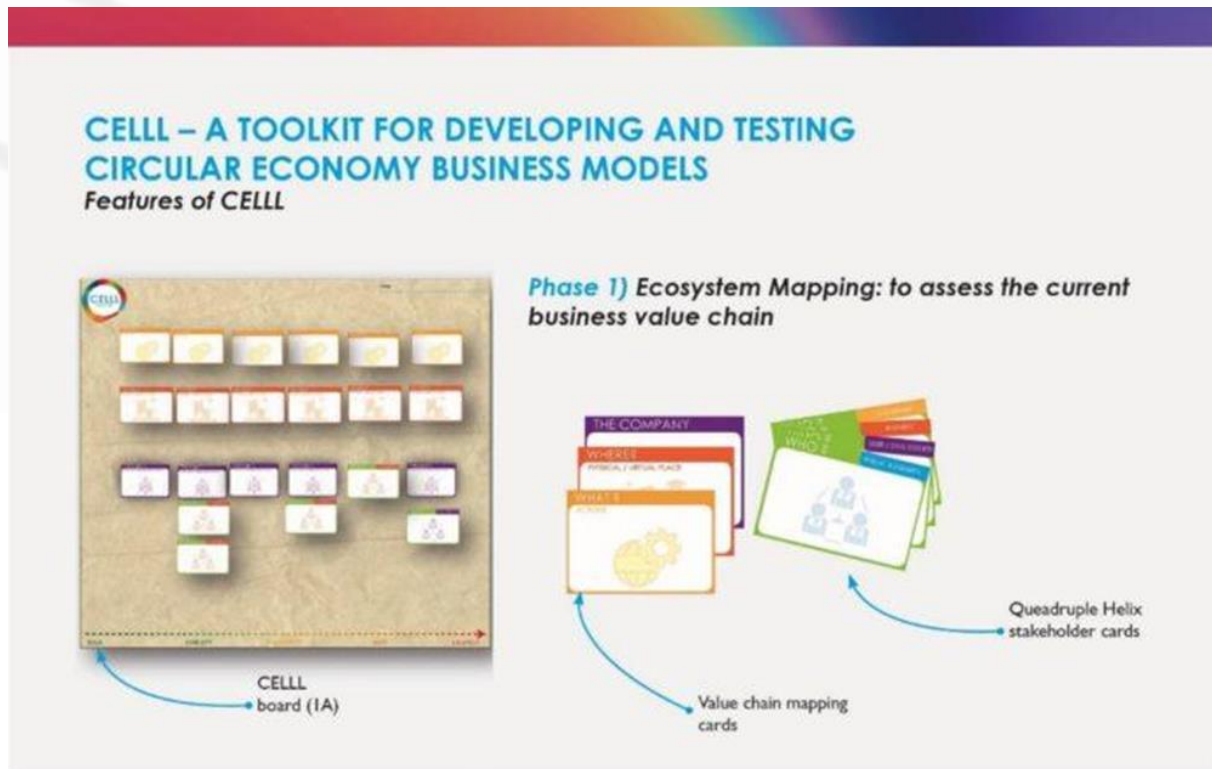
Link to the webpage:

<https://ecoceo.vito.be/en>

# CELLL - a toolkit for co-creating circular economy business models

Aura Piha

#resources



## Co-creating CE business models in three phases

As a part of on-going H2020 project (CIRC4Life), Laurea University of Applied Sciences has developed CELLL toolkit for 1) co-creating shared understanding of BM (business model) ecosystem, 2) identifying ecosystemic CEBM (circular economy business model) opportunities and 3) defining implementation plans for CEBM development.

The CELLL toolkit includes also project-planning feature, which can be used to define end-user and other key stakeholder engagement activities for co-creating and testing the proposed CEBMs across the innovation process starting from opportunity identification to large-scale demonstration and launch of the CEBM.

The different game modules can also be used individually, depending on the stage of the development process as well as the combination of participating stakeholders. Varying on the scope and scale, the duration of the CELLL workshop can range from three hours to few days.

The CELLL toolkit is based on a facilitated group board game approach, which uses predefined cards as a visual method of blueprinting business model settings and co-creation activities across all CE and innovation process phases. CELLL is mainly designed for companies to define their CEBMs in multi stakeholder setting, but it can be used also e.g. for CE teaching.





### How does the practice engage learner?

Using visual and tangible design thinking tools and service design methodology to transform complex data into a form that is suitable for effective decision-making, as well as having comprehensive methods and tools for managing co-operation, are essential to successful co-creation and shared understanding and vision, especially in the context of complex topics, such as circular economy.

The toolkit is based on a facilitated group board game approach, which uses predefined cards as a visual method of blueprinting business model settings, opportunities and co-creation activities across all CE stages and innovation process phases. Thus, during the facilitated workshop a group of participants, having complementary expertise across CE value chain, will work together to identify possible options within the industry scope, and select the most valuable approaches for further development.

### How does the practice integrate interdisciplinary/ cross sectoral approaches to circular economy?

Transition to circular economy (CE) is a complex process that requires a systemic transformation of entire value chains. Such complex process requires a deep

understanding of business processes, value chains, consumption patterns, resource management and waste management practices, in addition to regulatory environment. Often connections between these processes and patterns are missing, especially in industrial sector, where transformation is driven mainly by resource optimization, rather than broader environmental and societal impacts. In addition, transition to CE requires collaboration based on mutual understanding among supply chain partners, which is a long and often complicated process, especially if the supply chain is international and does not belong to the same organization.

Organization and country: Laurea University of Applied Sciences, Finland  
Target group: SMEs  
Age group: adult  
Education sector: Education within companies  
Website: <https://journal.laurea.fi/celll-a-toolkit-for-co-creating-circular-economy-business-models/>

Co-creation and design thinking can help companies in their transition towards CE, however the knowledge and expertise of co-creation is often limited in industrial sector, especially among production-oriented SMEs. According to the study conducted by Seikkula (2019), co-creation is considered useful, but too laborious process, in which engagement of stakeholders and understanding their needs is crucial. The study also found that business owners need simple solutions and tools to practice co-creation.

CELLL has been developed in response to above defined challenges to facilitate co-creation of Circular Economy Business Models within CIRC4Life project, which aims to develop the following three business models along the product value chain:

- co-creation of products/services,
- sustainable consumption, and
- collaborative recycling and reuse.
-

Circular Economy Business Model (CEBM) innovations are by nature networked, since they require collaboration, communication, and coordination within complex networks of interdependent but independent actors and stakeholders.

## Critical Thinking aspects

The CELLL toolkit follows a modular approach. First two modules address the issues of challenging the common conceptions and re-designing the processes according to CE principles.

### Module 1. Co-creating shared understanding of BM ecosystem

The goal of the first module is to bring together stakeholders representing value chain and other ecosystem actors around certain business/company, and to create a shared understanding of a current business ecosystem.

In the first module of the toolkit, participants create a linear illustration of the current business environment and value stream, by using WHAT, WHERE, and WHO cards. This phase enables participants to understand the current business model and working environment around case company driving the transition towards CE.

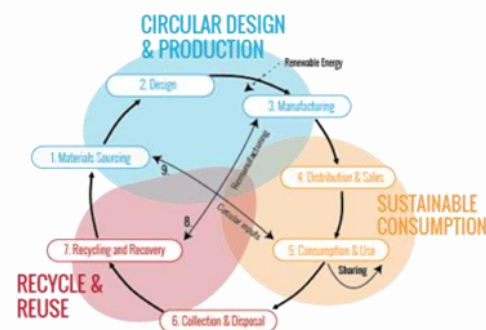
Outcome of the first module is an agreed understanding of a current ecosystem, in other words, supply chain actors and other cooperation partners. Including users is an important part of this phase, as users are often forgotten in value chain mapping.

### Module 2: Identifying ecosystemic CEBM opportunities

Module 2 allows companies and their stakeholders to identify and select CE opportunities in different stages of a CE value chain, starting from materials sourcing and circular design and production to sustainable consumption and collaborative recycling and reuse. For that purpose, CELL Circular Board

is used as the basis for development work. The CELLL toolkit currently contains over 45 CE opportunity cards, identified from the literature review and from workshops already run with CELLL.

Outcome of Module 2 gives companies an understanding of development options and required changes in supply chain in their transition to CE. In addition, it creates an understanding of a customer perspective on value creation and helps to identify potential pain points and challenges with implementation from a customer point of view.



## Real Life relevance

The third module brings the game to the phase of drawing up plans for implementation.

### Module 3 Defining implementation plans for CEBM development

As the implementation methodology for CEBM development, we suggest Living Lab approach, which is based on systematic engagement of users and stakeholders. Thus, to plan the implementation, participants use Living Lab action cards for planning the co-creation and testing activities, from opportunity identification to large-scale demonstration, and launch of the CEBM. At the end of the CELLL process companies have a clear understanding of partners, resources, and changes in their supply chain, and can proceed with real-life implementation.

## Conclusion: what makes it in your opinion a smart practice?

CELLL modules cover most important parts of BM development: mapping current ecosystem and stakeholders, identifying new CE opportunities, creating new CEBM and identifying new stakeholders for implementation, and planning the development process based on Living Lab methodology.

CELLL is an excellent learning tool, which can be used in educational purposes, for example, to raise awareness about CE opportunities among business students; to be used as a tool in decision-making and change management studies; and to facilitate service design capacity building in service innovation studies.

As the tool is designed to be used as a team exercise, it also facilitates teamwork and social communication skills, facilitate dialog, interactions and common understanding of complex issues, helps develop conflict resolution skills, time management and diversity management skills.

The CELLL toolkit was developed at Laurea University of Applied Sciences with the support of H2020 CIRC4Life project: H2020-IND-CE-2016-2017/CIRC-2017/TwoStage CIRC4Life-776503A circular economy approach for lifecycles of products & services.

Link to the webpage:

<https://journal.laurea.fi/celll-a-toolkit-for-co-creating-circular-economy-business-models/#e5d2c4d2>





# Circular Economy - Role playing game

Leonardo Filiani

#resources #game



## Short description of the practice

Reflection about the fashion industry and how it can transform the world when it becomes Circular

The best practice that is described below is a role play on a meeting organized by the mayor of a small island to discuss and solve the problems that mass tourism produces on the quality of life of its fellow citizens.

## General information on the practice

The role-playing game on the circular economy was designed by the Competence Centre Italy together with 6 other European partners.

This game does not have a specific target, it is not aimed exclusively at children or people with special knowledge. The role-playing game on the circular economy was designed to be played by anyone, children, young people, adults with an average culture. In our opinion this game is aimed at any citizen who is at least 15 years old.

The game features 5 players facing this challenge which concerns the economy of a small island that bases its wealth on tourism.

Each player has a role. The roles are the president of an agricultural cooperative, the director of the Tourism Department, the representative of an ecological NGO and the head of the municipal waste service.



There is no maximum game duration limit, it could last several days if not entire weeks.

Because there is no maximum limit, it is advisable to play for at least 2 hours. A shorter time would not allow players to go deeper into the issues related to the economy of tourism and the impacts on waste management, agriculture, on the quality of life of residents because it is necessary different time to assign to each player the role, give them time to read the instructions for the role and explain the rules common to all.

### The challenge

The high season has just ended on Bonito Island. It has been the busiest season to date, with over 20,000 tourists visiting the small island of 6,400 inhabitants. However, it can hardly be a success. The season ended with a viral video on social media that caused a scandal. The video was made by one of the tourists. It shows the island's most famous beach full of garbage and the image of a dead bird with plastic in its stomach has reached international media. The video ends with a question "Is this the paradise you want to visit? To deal with this difficult situation, you decided to create an Anti-Crisis Council, you invited four interested parties in search of a solution: an agricultural cooperative, the director of the tourism council, and a Ecological NGO and the head of the Municipal Waste Service.

### How does the practice engage learner?

The game, simulating a meeting in which various characters participate, each with a clear and distinct role, is based on the participation and collaboration of the players. As the rules of the game are, no player can fail in his role and not participate in the discussion. I would say that in this case, collaboration and inclusion are the essence of the game

### How does the practice integrate interdisciplinary/ cross sectoral approaches to circular economy?

To participate actively, players have various sources of information available, which stimulates them to study interdisciplinary and intersectoral because the same aspect is seen from different points of view that depend on the role that the player covers.

### Competences and Skills

The skills and competences that are faced by playing the role-playing game on the circular economy are varied and multiple, affecting different areas of the knowledge sector.

A first area is that of technical skills (hard skills) because each player will immerse himself in the role that has been assigned to him. The roles of president of agricultural cooperative, director of the Tourism Department, representative of ecological NGOs and head of the Municipal Waste Service, all have a very technical component that characterizes them and that players will learn about trying to deepen the specific skills of each profession.

Another area of skills that players will explore and deepen is the area of interdisciplinary and behavioural skills (soft skills) which are the knowledge necessary to perform at best any type of occupation.

During the game, players will experience on the pitch the ability to reason by objectives, weigh the proposed solutions, evaluate the pros and cons, develop a holistic vision of an action taking into consideration not only the action itself but also the effects it produces. They will also experience public speaking, teamwork and under stress because they will have a deadline. Finally, they will develop the ability to develop divergent, convergent, and creative thinking to devise proposals that address the problem in its entirety.

A third area of expertise that participants will have the opportunity to know is the regulatory one. They will know not only the rules that regulate living in society, and therefore what is possible to do and what is forbidden, but above all the values that are the basis of the legislation to ensure that the transaction can



be supported in a framework of certainties and security from linear to circular economy.

## Practical Implementation

For the correct performance of the role-playing game on the circular economy, a quiet place is needed where people can meet and talk without distractions.

It is necessary also to have:

- The scenario of the challenge printed on 5 A4 sheets and on one A3 sheet
- The 5 roles printed on A4 sheets
- The rules of the game printed in A4
- Material on the technical skills of the individual roles
- The laws applicable to the subject matter of the challenge
- Articles from newspapers, blogs, magazines, and any other source of information useful to allow players to deepen the subject in question
- Sheets and pens and various stationery materials.

Before starting the game, a place is identified, always in the meeting room, easy to access where to make stationery material, sources of information and laws available to the players. Then the roles are assigned, and the card of the role assigned to him and the sheet with the scenario is distributed to each individual participant.

Finally, the scenario in A3 format is hung on a wall and the common rules are explained. Lastly, is indicated the time limit within the proposed solution to the problem that came out must be delivered.

## Real Life relevance

There is very little more local than the problem of how to manage the impact that a flow of tourists has on the quality of life of a

community. The role play simulates what happens in every part of the world because how to integrate the different needs of the stakeholders of a company (business, organizations, citizens, associations) is something that affects everyone's real life

## Critical Thinking aspects

The game allows you to experience how the circular economy is a model that takes into account the interests of all not as the sum of the parts, but as the integration of the individual interest in the common interest.

The game allows you to experiment with hand as a circular approach, even if more difficult it is to be preferred to the linear one not only in the economic sector, but also in the political-administrative one, where a linear approach often creates imbalances in the system of civil coexistence.

## Transferability

How do you think the practices can be implemented in other contexts/countries/classrooms?

It is a game that reproduces a very popular real-life event, so it is easily replicable in other contexts / countries / classrooms.

The role-playing game on the circular economy deals with global issues such as the impact of mass tourism on a small town, waste management, the environment.

The materials used to play the game are easy to find. Considering these two characteristics of the game: real global themes, and easy to find material, the game and its experience can be easily replicated in other contexts / countries / classes.

What kind of change is created due to the practice?

The game produces a change in the awareness of the complexities of the choices that cannot be answered with a linear approach, according to the scheme who



Funded by the  
Erasmus+ Programme  
of the European Union

commands decides, but rather a circular approach is useful where all the stakeholders are involved and the decision is the result of the contribution of all

### Conclusion: what makes it in your opinion a smart practice?

This best practice is an intelligent example of the application of the principles of the circular

economy because it demonstrates how the same principles applied at the level of political decision makers, where the principles of circular economy allow and facilitate greater and more mature democratic participation

Link to the webpage:

<http://cyclecc.eu/italian/2019/04/12/20/>

# Circula® - The Circular Economy and Entrepreneurship Game

Aura Piha

#resources #game



## Short description of practice

The Circula® Circular Economy and Entrepreneurship Game introduces circular economy through creative teamwork. Circula® offers the players models for responsible business and sustainable lifestyle, self-awareness, and appreciation of one's own strengths as well as hope for a better future. The game consists of an orientation, a Circular Economy Walk and the Game.

The purpose of the game is to come up with an idea for a company that

- is a response to a real need or problem
- uses natural resources in an imaginative and sustainable manner

SYKLI – Environmental School of Finland

Target group: Learners from a variety of backgrounds, from secondary school students to experienced specialists and product developers.

Age group: 13+

Suitable for sustainability and entrepreneurship education, in formal and non-formal learning modules (e.g. secondary school, vocational, universities and universities of applied sciences, youth recreational activities).

Learn more: [www.circula.fi/en](http://www.circula.fi/en)

- is a profitable business



The game board represents the team's company: the players place the cards and ideas on the board that the team needs for the business. At the end of the game, the team pitches its idea to a jury and other player and receives feedback.

### How does the practice engage learners?

Gamification is an approach that works with many kinds of learners if the goals and instructions are adapted to the players. Gamification does not equal competition. Instead, it means being playful, having the freedom to think and working together.

Recognizing and appreciating strengths and skills of every member of the team is an essential step in the game.

### How does the practice integrate interdisciplinary/ cross sectoral approaches to circular economy?

Circula is at its most rewarding when it is played in mixed groups consisting of players from various fields of study: this ensures that the teams benefit from diverse ideas and skills. If possible, it is encouraged to invite entrepreneurs to visit the game event. Visitors and companies can be engaged in various ways. In the orientation, Companies engaged in circular economy can describe their practices to the group. Entrepreneurs can also be asked to participate as members of the jury



### Real Life relevance

The surplus resource cards used as the base for the game are common real-life surplus resources from companies.

An even higher level of real-life relevance can be achieved by cooperating with local companies. In addition to inviting them to introduce their practices and act as members of the jury, the game can be played with the real surplus resources of those companies.

#### Practical information:

What materials are needed: Circula game package, sticky notes, pens. Space with tables (min. 1 m x 1 m) arranged for groups of 3-5 players.

Duration: 2-4 hours

Group Size: 12-25

Level of difficulty for learners: Intermediate (adaptable)

### Critical Thinking aspects

The principles of linear economy and circular economy are introduced in the orientation of the game. Real-life examples of innovative companies and ideas are given during the Circular Economy Walk.

During the game, the players have to innovate a business based on CE principles. They are also encouraged to think about CE and sustainable development in all aspects of the business: energy, office space, social sustainability, procurement etc.

During the Circular Economy Walk, players are introduced to companies that are already making profitable business based on CE principles.

During the game, the players have to come up with an idea for a company that will be economically viable. They are challenged to think about economic sustainability in the CE context.

## How is the practice transferable to other sectors/branches/countries and context?

The game can be adapted to many sectors and countries. The business examples given in the game package are from Finland, but game organizers are encouraged to find examples from their own country and cooperate with local businesses.

Example and partner companies can also be chosen in terms of relevance to a desired field. Example 1: if the game is played among a group of mechanics students, the business examples for the Circular Economy Walk and the surplus resource cards for the game can be ones that are of relevance in the mechanics field.

Example 2: The game is played at a company capacity building event aimed at product development or problem solving. The surplus resources used as the basis of the game are the ones the company has.

## What kind of change is created due to the practice?

New thinking is needed from companies as well as their customers. New thinking and learning are facilitated by personal experience and thinking as well as interaction and working together.

Change is hopefully created in the consumer behaviour of the players. They become aware of another way of consuming and become more critical in their choices.

## A story of how the practice works:

In an ideal situation, Circula can be the spark to an actual product, that utilizes surplus resources and thus contributes to reducing waste.

One such case occurred to two young men playing Circula at an Economy and Youth TAT entrepreneurship camp. During the game they innovated a non-alcoholic beer that uses bread waste as its base and old pages of books as the bottle etiquettes. The product was named Story.



## Conclusion: what makes it in your opinion a smart practice?

The Circula Game combines many engaging aspects into one learning method: gamification, inventiveness, and circular economy. It allows players to consider real-life problems and find solutions – in a fun and interesting way.

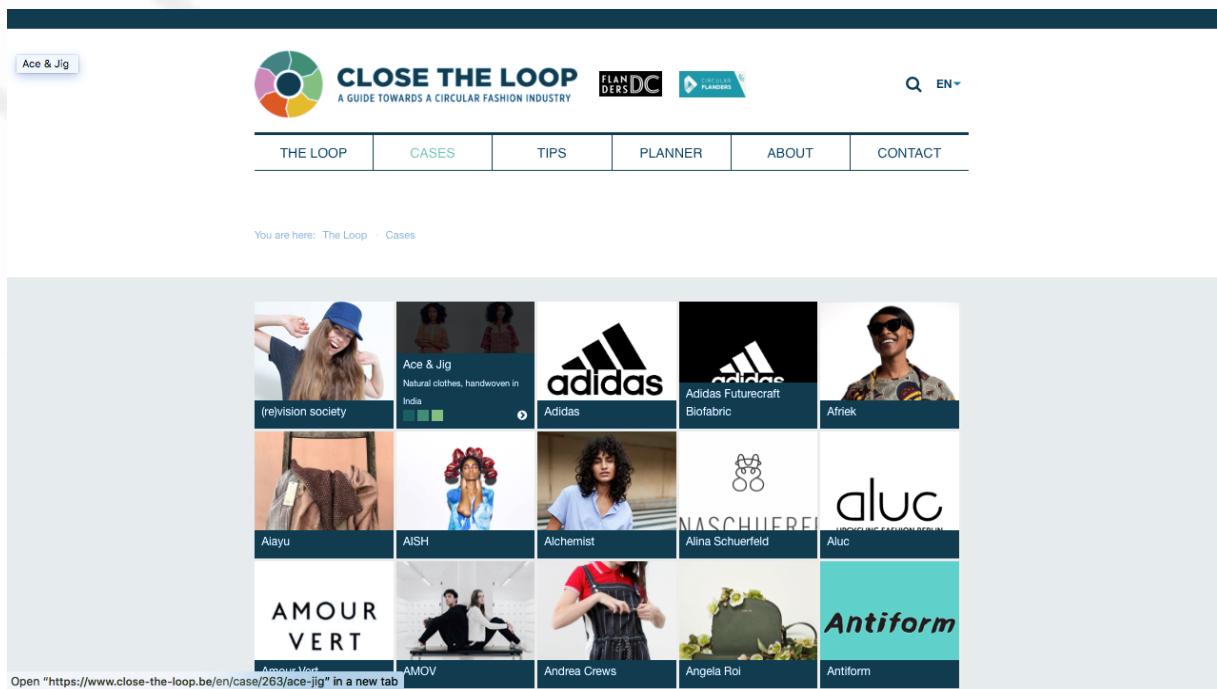
A new solution can arise from the smallest of sparks and grow into something big. In an ideal world, Circula can be such a spark.

Link to the webpage:  
<https://circula.fi/en/>

# Close the loop – a guide towards circular fashion industry

Dina Padalkina

#programmes #resources



## Short description of practice

Flanders DC and Circular Flanders have developed a tool to guide fashion entrepreneurs through the basics of a more sustainable way of working.

With this online platform we want to encourage the industry to steer clear of a linear system (take-make-waste) and to embrace a more circular approach instead (with a focus on durability and avoiding waste).

### How does the practice engage learner?

The practice operates online and engage learners through the platform: <https://www.close-the-loop.be/en>  
You can work in groups or individually with this tool. It helps to discover different circular

Organization and country: Flanders, Belgium  
<https://www.close-the-loop.be/en>  
Target group: fashion designers  
Age group: adult  
Context / Learning environment: non-formal  
Education sector: textile



strategies applied for the fashion sector and link approaches with diverse use cases.

### How does the practice integrate interdisciplinary/cross sectoral approaches to circular economy?

For each phase which are resources, design, production, retail, get to work, consumption, end of life, 5 strategies formulated to contribute to a circular fashion industry.

Seeing that it is impossible to apply all strategies to every part of the chain,

The success of a strategy depends on several factors (such as the size, focus and location of your business).

### Real Life relevance

This tool offers quite a lot of practical tips and tricks and cases database by adding more and more inspirational examples for both entrepreneurs and consumers. The database now contains over 350 cases.

### Critical Thinking aspects

Going through each step of the process it is very easy to identify the circular economy opportunities applying one or another strategy. The tool and approach itself is built to make a shift from linear to circular thinking in the fashion industry.

### How is the practices transferable to other sectors/branches/countries and context?

The practice is not transferable to other countries, but as it has the digital nature it is possible to use it everyone. It is only applicable for textile and fashion



### What kind of change is created due to the practice?

The tool also helps to plan your future steps to transition towards circular economy thinking. After completing a simple questionnaire that covers every stage in Close The Loop (from resources to end of life), you will receive a personalized summary. This helpful document contains short-term and long-term actions along with ready-to-use tips and tools. In addition, it identifies your quick wins: sustainability efforts you are already making but have not yet incorporated into a proper policy.

### Conclusion: what makes it in your opinion a smart practice?

The selected practice demonstrates easy approach to inspire young fashion designers to create their products according to circular economy principles. It gives step by step explanation and inspires the explanation with good cases studies to demonstrate how others handled with similar challenge.

Link to the webpage:  
<https://www.close-the-loop.be/en>



# The catalogue of recommended technical solutions

Radovan Grollmus, Matej Plesník

#resources



## Short description of the practice

What was the motivation to establish it?

Target groups, transferable to national, international, or local focus?

The Catalogue of Recommended Technical Solutions (hereinafter CRTS) is the very first complete educational and public awareness rising product of NARA-SK in promoting the transition from BAU “Business as Usual” approach towards circular economy through presenting “Best Available Techniques”.

As far as NARA-SK’ spin-off (mother) organization XANTO, ltd. was active in construction, the catalogue was/is focused on the transition of construction sector to the circular economy.

The very first volume of NARA-SK’ CRTS was issued in early 2015. Soon after the booklet’ dissemination was awarded by the Ministry of Environment of the Slovak Republic 2015 (The Gold Ant – the annual gala/competition for

environmental innovations) as the innovative list of BAT solutions via in-formal raising the circular public awareness. CRTS which was originally the information about using the waste as construction material is now regular tool of NARA-SK' direct mailing campaign onto various subjects. It reflects the current agenda of climate change as is formatted in one complex problem which runs on the ground of global well-formatted political agenda (UNFCCC' Paris Agreement, EU' lex Closing the Loop\* 2015, EU' Resilience & climatic neutral Europeans) for future generations.

Organization and country: NARA-SK, Slovakia

Target groups: the building construction designers, municipal public procurement officers and policymakers, construction material value chain stakeholders

Age group: 18-80

Context / Learning environment:

Non-formal, informal education and real circular solution promoting in construction sector.

Web link: <http://www.narask.sk/practices>:  
<http://www.narask.sk/konferencia.html>

Of course, as time passes by, the CRTS has gone through nearly hundred upgrades, facelifts, and actualizations. It serves as the essential tool for opening NARA-SK' consultations, B2B negotiations led by NARA-SK' spin-off social enterprise PODNIK OBEHOVÉHO HOSPODÁRSTVA (offering to climatic friendly public procurement organizers) doing real construction in circular way rather than only talking about circularity as "any fashion agenda of today".

## How does the practice engage learner?

The CRTS reacts to general understanding that best for introduce the circular approach and change the circular mindset towards sustainable production and consumption is via BATs. However, the knowledge of the whole

concept of circularity was in time of introduction of the CRTS unknown. BAU approach = "business as usual" was running Slovak daily economy practice. It was absolutely like this in construction national sector which had been facing continual growth in decades since the fall of communism (1989) disrupted for short period of global recession 2008/2009.

Introducing building construction approach which is looking onto the building construction waste as the challenging value, as the next material input for new construction methods via the up cycling based on precise and proper recycling was - simply - either the mad prophets screaming, or the sound of revolution.

The CRTS since its first appearance gave to learners (the building construction designers,



municipal public procurement officers, developers, policymakers, construction material' value chain stakeholders) the evidence that the fundamental change is coming into the sector which traditionally adored mass building materials' production based on natural resources extraction as the never ending success story. The CRTS starts to attack the moral and ethical grounds of every single building & construction stakeholder, if the new building project/site is reflecting this challenge, or still sits on valuating the construction only monetary without any link to environmental / social point consequences.

## How does the practice integrate interdisciplinary/cross sectoral approaches to circular economy?

Circular construction is not any more the agenda of solely material technology innovation. From its profound ground it overturns the construction projects not as the goal of spending money rather than allocating some (construction investment) into the biotic / abiotic landscape of particular country. It means presented BATs demands from any construction stakeholder to think about the water, temperature, soil, wind, biodiversity as pre-conditions for creation of sustainable technical work (construction = money + energy).

### Practical information:

Standard DTP´ prepared and office printed booklet counting a sets of building construction circular BATs

Scale: 10-50 A3 pages rich in photos, hard-data diagrams, materials´ certificates, links to producers and consultancy support

Group Size: from 1 – xyz, applicable on any group of listeners

Level of difficulty for learners: high as the CRTS serves for introduction for circular construction projects

## Real Life relevance

The CRTS gives to the policymakers/learners on every level the essential waste mecum of spending their own budget (once approved for local building construction projects) in way which may solve out the problems of:

1. local waste management in circular way = using waste streams as the material input in the existing or newly created production
2. increase the local labour trade offer for (mainly) low and lower educated work force (which is once again) characteristic with

critically low mobility in field of so called green jobs /sustainability & environment maintenance

3. strengthening the community tights, decrease the social volatility and increase the community´ resilience on the ground of triangular (stability) working approach:
  - SOCIALY –
  - ENVIRONMENTALY –
  - ECONOMIICALY

Promoting CRTS as circular construction promotion NARA-SK disseminates its operational approach & mission/vision (NARA-SK is the Association of Legal and Private Bodies est.2015). It means via this catalogue is promoting the community social strengthening via designing projects/working approach which has the potential to double or even triple the added value of one monetary spending through any implemented project. Correct and well (politically) marketed presentation of such construction projects has the potential to gain relevant political capital for policymakers which are in-caged in political cycles.

## Critical Thinking aspects

NARA-SK´CRTS responds to the highest EU political declarative addresses onto:

1. Increase reuse approach in construction sector which counts 7% GDP in Slovakia and some about 8-10% GDP in EU and addresses the supply risks of raw materials. The high standards of EU´ nature protection makes it heavily depended on imports (some of them on the list of called critical raw materials)
2. Traditional “rich (EU) national economies” prefer using / spending raw materials – it turns these economic units under threat on global raw material trade.

3. Avoiding waste generation and starting to think on waste as the value for next production is critical “if” in seeing the challenge in so called fishing circle (seeing the problem not the challenge). It is the easiest way to comprehend the circular concept on the top of European landfill/s = failed waste management policies - reuse, remanufacturing and recycling are the first steps on healing path towards secure and sustainable consumption.

### How does the practice challenge common conceptions about economy?

CRTS is change maker in understanding any construction as solely isolated and monetary expressed “material and energy hub”, as the only “managerial project of some technicalities”. CRTS is speaking about reusing of something, what – as used to be - in previous economy practice entitled as the waste. CRTS is changing the battlefield or playground for saying what is and what is NOT effective and efficient.

Serious talk about money was in linear economy (which is based on high level hierarchies of decision/policy/money making) the agenda for exclusive business making representatives. Circularization of the linear economy means emerge of profound change in participation in these high-profile business and policy talks. NARA-SK´CRTS is therefore secondarily changing:

- The environment of local policymakers/budget-traders as very complex socio-cultural-political issue. As one of the most effective tool for acceleration of implementing CRTS is promoting the social and green public procurement (SPP, GPP) as the obligatory percentage what portion of public spending must be

entitled for SPP, GPP at every policy level

- The habit of doing real economy. Doing economy circular means that public spending has to be managed via participatory approach as the fundamental. Promoting the public-private-partnerships / which are defined on the EU social innovation map as Quadruple Helix approach (hereinafter PPP/QH <https://ec.europa.eu/digital-single-market/en/open-innovation-20>) is vital for over crossing tribal selection of doing economy linearly.

### How are the practices transferable to other sectors/branches/countries and context?

As mentioned above for the whole existence of NARA-SK since 2015 there where up to 100 CRTS´ reprinting and new version published. All of them reflected the group/ core business of lecturers/learners. They were adjusted for different business sectors of construction (water constructions, linear infrastructure, brown fields revitalization, and industrial parks, as well as residential and public buildings.

### What kind of change is created due to the practice?

Via NARA-SK´CRTS the mainly technical and engineering problem (building and construction projects) starts to be re-think and ex-ante assessed from point of view of nature quality´ exact hard data.

### A story of how the practice works:

The last version of CRTS reflects the dissemination of NARA-SK´ knowledge accumulated (as consultancy association) in field of green urban infrastructure and countryside water-retains and resilience capacity. This CRTS issue/version reflects the call for proposals which is financed from EU



funds and is open for municipalities. (Deadline date: XII/2020). Village and town authorities are benefiting from having environmentally friendly consultancy in subject which is for them purely financial and managerial challenge.

### Conclusion: what makes it in your opinion as smart practice?

The circularity and circular economy never will be isolated subject for formal education. The circular economy is changing the mindset of way how particular sectors in hierarchic,

structuralized society see themselves in very isolative way of thinking.

Circularity and circular economy demands from all society stakeholders to let a part of their previous mandate to stakeholders from any other sector of society talk to each other, think, re-design preparatory phase of project/s and finally implement solution which fits to all society stakeholders mutually - via collateral effort - which finally saves the most resources spent in linear economy isolate in one (sector) by other one.

# Circular EDU Labs



## ONLINE LAB (LAB 1) CE in Entrepreneurship

The first lab was planned for the end of March 2020 in Berlin. The partnership of the project has noticed that there is a lack of knowledge about circular economy and the same need for general training methods. That is why we have changed the concept of the first lab from good practices used in the coworking and hub to the general ones. During the transnational meeting in Izmir presented partners of the project prepared challenges based on needs organizations.

At the beginning of 2020 participants have been chosen by partner organizations and the program has been prepared in the cooperation of Comparative Research Network, Circular Berlin and Future Forward Fashion. At the beginning of March tickets were bought and accommodation booked but pandemic Covid2019 and lockdowns came, and the lab was cancelled.

Dedictaed to:		ReThinking/ReDesign/Share and ReDiscovery/P
Date	DAY	Topic
22.06.2020	1	Starting day/ challenges 1
24.06.2020	2	Circular economy platform - blended learning (self learning day)
25.06.2020	3	Reflection from blended learning + Introduction to the CE by CB
26.06.2020	4	Self learning day
29.06.2020	5	Mapping Nara SK
30.06.2020	6	Work on challenges in groups
01.07.2020	7	Closing day

After 3 months we have rearranged the structure and programme of the lab to the online version and from the 22. of June till the 01. of July an online lab took place with 18

participants. We have met for 7 days and tested different practises with the help of different online tools. For many participants it was the first time where they could be a part of this kind of training. We have chosen tree challenges and divided participants in 3 diverse teams. 3 days of the lab have been dedicated to work on those tasks. At the end of the lab we have ready 3 action plans which can be used as scenarios to fulfil the challenge. Chosen scenarios can be found after description of the lab.

**GROUP 1:** CRN is running trainings for local citizens in Berlin-Wedding. We want to integrate sessions on how to help citizens to understand their individual carbonate-foot-print and how to adapt their personal life to a more circular lifestyle. Please draft a 45 minutes session.

**GROUP 2:** Somos Mas is teaching people to think and work collectively and have common conversations. In this context Somos Mas wants to inspire people to connect with the needs of a CE Mindset through storytelling. Please develop an invitation to have a conversational session on the topic.

**GROUP 3:** Go Desk discovered that entrepreneurs have misconceptions of CE. Please conceptualize a role play which is helping to understand and use the 'real' concept of CE and understand the economic potential of CE.

During the other 4 days we have tried out different good practises which can be attended in online form. We have worked with a circular economy learning platform of Climate Kick How to Develop Circular Economy Strategies: module 1 and 2. Then we took part in the CE workshop of Circular Berlin. One day was dedicated as a self-learning day with different videos and articles.

Other day we spent with Circular Canvas. They have been already introduced to the partners before the lab. During one of the training days we have mapped NARA-SK to show how it can be turned into a more circular organisation. All chosen practices were interesting for partners and they will introduce them into their training curricula in their organisations.

Beside testing new CE methods and practises participants of the lab had a possibility of developing other skills and acquiring new knowledge. The biggest improvement we

have observed was in the field of online cooperation and languages skills. Some of the participants had almost no experience in the field and they have been quite afraid of working online together. At the end of the lab most of them were not afraid of these tools and the lab piqued the curiosity of them. We have observed the generation as well change at the Turkish partner. Its participants have been chosen to be able to communicate well in English and represented young generation active in textile businesses.

### Let's learn and discuss each others' hopes and fears before starting





## LAB 1 Action Plans

<b>Topic</b> (Please describe the topic you are addressing. Think about what is needed to translate the topic in your everyday work.)					
CRN is running trainings for local citizens in Berlin-Wedding. We want to integrate sessions on how to help citizens to understand their individual carbonate-footprint and how to adapt their personal life to a more circular lifestyle. Please draft a 45 minute session.					
<b>Goal</b> (Be sure to write "SMART" goals (specific, measurable, attainable, relevant and time sensitive.)					<b>Duration:</b>
helping citizens to understand their individual carbonate-footprint and adapting their personal life to a more circular lifestyle.					whole process – around 2 months
<b>Action Steps</b> (What will you do?)	<b>Target</b> (Who will benefit?)	<b>Timeline</b> (By when?)	<b>Resources</b> (list financial, human, organizational resources or materials needed) A. Resources available B. Resources needed	<b>Knowledge</b> (What more do I need to know? Where could I find the information?)	<b>Potential Barriers</b> (What are the potential challenges you face? How will you overcome them?)
<b>Step 1:</b> First planning of the session – choosing exercises: Cases/ profiles/ models - 4/ 5 examples - picture and description with indicators and typical day/ choices with information of reducing plying the game of Andrea	Facilitators Attendees	At least 9 weeks before event	A. Facilitators; goal  B. Materials; computer, internet, information	Who is living in the district? How much footprint which behaviour leave (numbers)?	Choosing wrong profiles
<b>Step 2:</b> Collecting data about the inhabitants/ background research and choosing the	Facilitators Attendees	At least 6 weeks before event	A. Facilitators; goal	Who is living in the district? Which persons could be the most	Choosing wrong profiles

COMPARATIVE RESEARCH NETWORK:

most representative profiles for the district			B. Materials; computer, internet, information	representative for the district	
<b>Step 3:</b> Preparation of the meeting / session: Scenario, working on exercises – lego movies, big posters pictures of the person and big foot print, preparing ice breakers, including BSR in building scenarios and waste announcing and looking for participants, optional: involving local market/ stores into the building the scenario and session	Facilitators Attendees	At least 3 weeks before event	A. Facilitators; BSR, goal  B. Materials; computer, software for producing movies and drawing internet, camera, printer, information	How many people will attend? (Registration); How long will be the session? (Plan)	Low attendance (dissemination); Meet expectations (clear agenda); Length (planning)
<b>Step 4:</b> Performing the session	Attendees	Session day – 45 minutes session with open end	A. Facilitators; goal  B. Venue; materials; catering	Were the expectations met? (Feedback form); Was the session transformative? (Feedback form)	Low understanding of the topic by the attendee
<b>Step 5:</b> Evaluation and changes of the future session plan	Facilitators Future Trainings	After the session maximum 1 week	A. Facilitators; BSR, goal  B. Materials; computer	What was not working and not working during the session? What can we improve for the next time?	

COMPARATIVE RESEARCH NETWORK:

## Inspire people to connect with the needs of a Circular Economy Mindset through storytelling, participating in a one-day conversational session.

### Group 2

Carolina Escobar Mejía (Somos Más)  
Rado Grollmus (NARA SK)  
Katarzyna Wlusek (CRN)

Wed, 1 July 2020



## ONLINE LAB (LAB 2) - CE in textile and fashion

The second lab was dedicated to the circular economy in fashion industry. In the application we have planned that this lab will take a place at the host of the Izmir Chamber of Dry Goods and Haberdashery in Turkey (ITMBO). This organisation is quite traditional, and they were not able to change the concept of online training to online alone. That is why CRN and Circular Berlin with Future Fashion Forward help and prepared together with the Izmir Chamber of Dry Goods and Haberdashery the programme of the lab.

Dedicated to:	Textile industry	
Date	DAY	Topic
08.07.2020	1	Starting day/ challenges 2
09.07.2020	2	Work on challenges in groups
10.07.2020	3	Blended learning with Close the loop <a href="https://www.close-the-loop.be/en/cases">https://www.close-the-loop.be/en/cases</a>
13.07.2020	4	Reflection from the blended learning and Arienne's workshop on textiles
14.07.2020	5	Module ITMBO
15.07.2020	6	Self learning day - Corona crisis in textile industry and circular economy
16.07.2020	7	Closing day

14 participants took a part in the training. As in the first Berlin lab we have started with the challenges from the transnational meeting in February in Izmir. We have worked in 3 groups

using different digital tools and ways of communication. This exercise started with the brainstorm and gave very concrete results, which has been 3 actions plans. 2 of them can be found at the end of this description. For that cooperation we spent 3 days.

We dedicated one of the days to work with the online collection of different examples and solutions Close the loop. Participants of the task had got introduction to the page and task which structured the work with this online casebook. Each participant has chosen the most interesting and, in its opinion, sustainable and circular companies and solutions. This practise was very inspiring for everybody.

During another day we have took a part in the workshop on textiles of Arienne Nicoletti from Future Fashion forward and Circular Berlin, who is one of the first pioneers of the sustainable fashion researchers, activist and changemaker in that field in Berlin. This was very interactive, with a lot of useful information, facts and "food" for our thought and behaviours.

ITMBO was responsible for the next day and has prepared it together with one of the presented good practises in Turkey Senemisoo. This was a practical exercise – we sewn a new thing from an old one. We have made cell phone bag from the old jeans pocket. It was very different from other training

### GROUP 1

ITMBO is training VET students in textile industry. At this point there is no training plan of CE in Turkey. Please create a 45 minutes session on how to teach the basics of CE.

### GROUP 2

NARA SK and SPK are working replacing on fillings of car seats with a more environmental and circular material. Please design a programme for a public event to open a discussion on the topic.

### GROUP 3

ITMBO will create a series of events where their member companies will come to learn about CE in Textile. Please create a 30 minutes session to help the Entrepreneurs to discover CE potential in their companies.

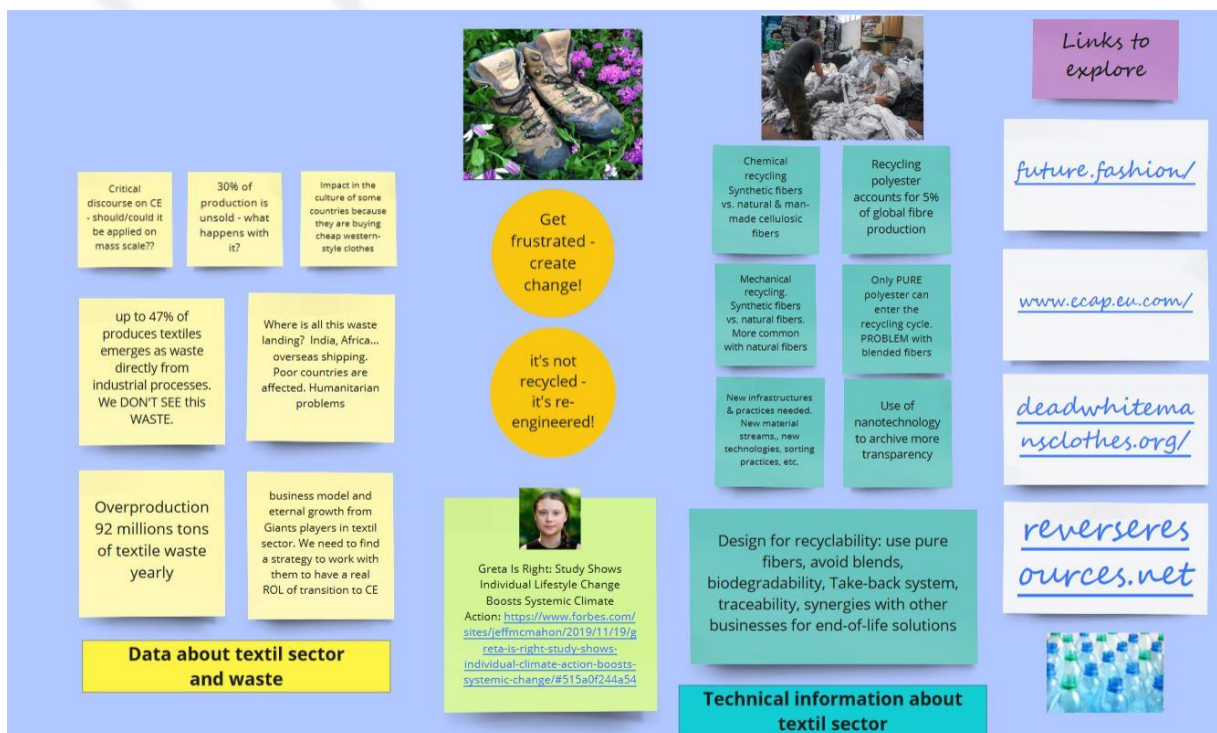


methods tried in the lab. Participants liked this part the most. Originally, we have planned to dedicate to this activity this kind of exercise 2 days in Izmir, but it was not possible, so we have reduced it to few hours. Nevertheless, it was very good idea and enriching for the whole lab.

One day was planned as a self-learning day, so participants have been reading proposed articles and watching chosen video. We have concentrated on the influence of the Covid2019 crisis on textile industry.

As before we met on the last day to finish action plans based on the challenges, summarize the whole lab and all used methods.

At this lab we tried interesting tools. Participants had been more confident with the online tools and took many inspirations for their lives and jobs. Some of the most important thought can be read on the picture below that text. 2 chosen actions plans are to find on next pages.





## LAB 2 Action Plans

<b>Topic</b> (Please describe the topic you're addressing. Think about what is needed to translate the topic in your everyday work.)					
<b>NARA SK and SPK are working on replacing car seats cushion with more environmental and circular material. Please design a programme for a public event to open a discussion on the topic.</b>					
<b>Goal</b> (Be sure to write "SMART" goals (specific, measurable, attainable, relevant and time-sensitive).)					<b>Duration:</b>
<b>To influence all stakeholders to adopt, in the shortest period of time possible, a new material for car seat cushion. SCIENTIFIC DESIGN OF PROBLEM FIND <a href="#">HERE</a> (in English):</b>  ***** The resources can not be designated since the beginning of the process because NARA SK is always starting to do something from its own initiative, and as the multilateral partnership grows, the resources grow together. Therefore, what is needed vs available is the subject of the permanent change up to the moment the event is done... (THE WAY IS THE GOAL...JUST DO IT! LEARNING BY DOING.)  <b>The attendees should leave the event with a clear understanding of:</b> 1. Technical properties of the new materials (safety grade, softness, odour, etc...) 2. Economic impact of the change (Slovakia and world wide), 3. Environmental pollution mitigation 4. Social benefits.					<b>1 day</b> From 09:30 to 12:00 / 14:00 to 17:00
<b>Action Steps</b> (What will you do?)	<b>Target</b> (Who will benefit?)	<b>Timeline</b> (By when?)	<b>Resources</b> (list financial, human, organizational resources or materials needed) A. Resources available B. Resources needed *****	<b>Knowledge</b> (What more do I need to know? Where could I find the information?)	<b>Potential Barriers</b> (What are the potential challenges you face? How will you overcome them?)
<b>Step 1:</b> <b>Stakeholders mapping = Definition of the Landscape of Challenge Stakeholders</b> Create a comprehensive stakeholders map who have to be invited to the conference/s.  Conference lines:	<b>1. Event organizers:</b> easy way to clarify who has to be invited. <b>2. Stakeholders:</b> their needs will		<b>A.</b> - Technical people with knowledge of the topic - Influential actors that can help to create a good network (Matej's uncle)	<b>How does the value chain of a car seat cushion look like?</b> (Talk with car producer, with car seats suppliers)	<b>Errors that may occur while creating the map and landscape are determined.</b> Successful planning and monitoring before

COMPARATIVE RESEARCH NETWORK:

1. Car producers, State administration, Plastic injection industry, automotive supply chain companies.	be recognized in this process.	<b>2nd half 2020</b>	<b>B.</b> Time to map thoroughly the stakeholders scene. It may demand consultants with knowledge in different industries. Agriculture, Car production, plastics, etc...	<b>What are the associations involved in this topic?</b> Search for industry association (Agriculture, car parts suppliers, car producers, etc...)	creating the stakeholders mapping.
2. Farmers of special technical (crops, processing of crops)					
3. Knowledge institutions (universities, research & innovation intellectual property rights owners)					
4. Marketing and public influencers (media, nongovernmental organizations, citizens participation groups in locations where the new factories are going to be established.					
<b>Step 2:</b> <b>Designing the Conference Agenda.</b> 1. General outline of PUR thermoplastics waste in perspective of high level of environmental and health consequences if the situation isn't solved properly and quickly. - status quo of the situation, - what is the problem, - how is the linear process - how the process would look like if circular  2. Private-Public-Partnership should be organised: - <a href="#">EU regulation on plastic waste</a> on the Horizon of 2023 as the final curand why there is an urgency to act to make change.  3. Partners short presentations on how they can contribute to the solutions and what is their	<b>1. Event organizers:</b> have a clear guidance on how the event will look like  <b>2. Event participants:</b> have a clear guidance of how they will contribute to the event and what are the goals expected to each industry.	<b>1st half 2021</b>	<b>We should keep on mind that:</b> <b>A.</b> The conference will be opened for any attendees which are active in environment protection, public awareness (means any ngo, institution individuals are free to ask for registration to the event.  <b>B.</b> The stakeholders of the car seats/plastic injection/extrusion industries of car seats production, ministries reflecting national waste, circular	<b>Who are the experts that can create these presentations?</b> Ask associations and universities to recommend experts.  <b>What are the best social and negotiation techniques to organize a session of negotiation?</b> Ask negotiation experts or Art of Hosting practitioners to help to design a compelling session.	<b>1. Not being able to test the impressive power of presentation. Because the presentations will be prepared by different partners individually.</b> Double check the presentations by the center before the event.  <b>2. Getting some negative answers while planning the Agenda. So it may have to make some changes.</b> To try to solve problems by communicating again. If the problem is not

COMPARATIVE RESEARCH NETWORK:

<p>role (should give everyone common ground to understand each other).</p> <p>4. Set up the roadmap &amp; timeline for long-term strategy of:</p> <p>4.1. Applied research &amp; innovation support for new "car seats strategy", in respect of phasing out of PUR 100% dependency for automotive seating supply-chain</p> <p>4.2. Change the attitude of general public towards increasing WASTE TO ENERGY recycling using the most advanced W2E technologies as absolutely safe from point of view of public health harm</p> <p>4.3. Increase support for farmers shifting from production of mass agriculture plants (wheat, maize, oilseed rape) towards new technical crops which may produce both financial as well as environmental added value) Negotiation should be facilitated -&gt; define common agenda, plan and timing and roles for each other in each working group</p>			<p>economy policies) will be high-profile speakers</p> <p>In different words: conference is PROGRAMME CONFERENCE for tackling general issue of automotive shift towards green future and particular attendees will my not be talking very much at conference (just listening) but then after they may create their own (small, local) projects in accordance to general PROGRAMME conference outputs</p>		<p>solved, rearrange the agenda.</p> <p><b>3. Not being able to find a suitable date for each participant and stakeholders.</b> Finding the appropriate date range by quick communication with partners about available dates.</p>
<p><b>Step 3: Defining an impactful and convincing invitation.</b></p> <p>The problem to be addressed is an emergency for SK.</p> <p>Slovakia is producing more than 1M cars, the highest number per capita in the EU, environmental redesign of the whole automotive industry is essential from the point of view of the Slovak GDP, which depends now</p>	<p><b>1. Participants and attendees.</b></p>		<p><b>1. The conference Partnership will be created</b></p> <p><b>2. Memorandum of Understanding (definition of common task, goal of this conference)</b></p> <p><b>3. Detailed work package/budgeting,</b></p>	<p><b>**** What are the needs and goals of each organization /sector?</b> Deep interview with each stakeholder to understand each of one point of view.</p>	<p><b>1. Problems that may occur in publicity activities.</b> Focusing to select the correct marketing ways.</p> <p><b>2. Problems that may occur with co-organized business associations and</b></p>

COMPARATIVE RESEARCH NETWORK:

<p>Create a link with the Farmers associations in Slovakia and municipal social enterprises to take a chance to create clusters, association of producing technical crops which may have potential in replacing polyester fibres, not only in car seats supply chain but generally speaking, in the whole textile industry. It'd address the problem of using chemical fibers (microplastics from laundry) and cotton production because of global warming and drought dismissal of natural cotton production (1kg of cotton see <a href="#">link</a>)</p>					<p>+ textile) is technologically speaking higher than producing car seats from one single (virgin plastic/oil material) easily processed and non natural = low level of deterioration</p> <p>Conservative approach of farmers from growing heavily subsidised crops (maize, oilseed rape...) towards new technological crops with more complicated fyto technical growing plan and higher need of labor workforce</p> <p>Conservative approach of general public against the waste incineration as danger way of dismissing the waste (as the result of lod not safe and effective technologies from period of communism)</p>
--	--	--	--	--	---

COMPARATIVE RESEARCH NETWORK:



				Ask the government marketing department.	To work to identify and then eliminate risks during the event.
<b>Step 5: Delivery of the event.</b>	<b>All participants.</b>	<b>Sep 2nd 2021</b>	<b>A.</b> Venue <b>B.</b>	<b>What can go wrong?</b> Built a risk assessment matrix. Invite an event company to help.	<b>Problems that may occur during the event, audio system errors, visual system errors etc.</b> Building a supervisory team in the background during the event.
<b>Step 6: Dissemination post-event. Follow-up of individual projects in line with this strategic conference.</b>  Create a link with Slovak masmedia network to prepare for the national multilateral multimedia campaign based on the fact that automotive creates 20% of Slovak GDP and all kinds of stakeholders have to understand the necessity of transforming automotive to be more green, vital and nature-friendly.  Create a link with Slovak Bank institutions which may be partners for the EU GREEN DEAL after COVID-19 (economical recovery financial scheme for supporting such multiple individual project interlinked business from the EU RECOVERY BUDGET) which will goes to all EU country on the matrix of strategic financial EU grants/loans.	<b>Slovakian society and maybe the whole world.</b>	<b>2nd half 2021 - 2027</b>  <b>during the whole next EU financial perspective as the GREEN DEAL priority project/ programme</b>	<b>A.</b>  <b>B.</b> Online work collaborative tools that fit all partners.		<b>Conservative position of current seats producers because of need to change rapidly the production process and redesign the whole supply chain (from one PUR producer) towards new inputs producers</b> Rising public awareness towards the newest research & innovation like this intellectual property solution is  <b>The risk of material standards in case of composite car seats filling (must be mixed from natural fiber + appropriate chemicals)</b>

COMPARATIVE RESEARCH NETWORK:

on more than 20% from the automotive industry.  The conference shall be co-organized, not with individual farmers/businessmen, but rather with business associations, of regional and municipal government level, the central state administration and the leading SSK knowledge institutions (e.i.: Slovak Plastic Cluster, Slovak Hemp Cluster, Slovak Automotive Cluster, Ministry of Environment, Ministry of Economy...)		<b>1st half 2021</b>	<b>operational plan will be designed, and launched</b>  <b>The main message from the conference has to be that there will be enough room for many other organisation (state administration-businesses-knowledge institutions, ngos...) and its role of every single organization has to be adequate to its political power and real - in-live budget &amp; influence.</b>		<b>municipal governments, disputes.</b> Trying to compromise with co-organized business associations and municipal governments.  <b>3. It may not get enough support from political actors.</b> Set-up meetings with politicians for some political negotiations.
<b>Step 4: Preparation of the venue and event materials. Dissemination of the invitation.</b>  Find the right venue in size and atmosphere to hold the event.  Prepare all materials and facilities (catering, technological devices, etc...)  Send out invitations to all participants and to recruit attendees.	<b>1. Event organizers.</b>  <b>2. Attendees.</b>	<b>1st half 2021</b>	<b>A.</b> - Tech: Softwares for presentations; projectors.  <b>B.</b> - Facilitators to help during the sessions.	<b>How many people will attend the event?</b> Number of speakers/ participants confirmed to participate.  <b>What are the best channels (Social Media, TV, etc..) to reach citizens?</b>	<b>Delays in preparation of venue and event materials.</b> It needs teamwork to solve problems and speed up material production.  <b>Failure to get efficiency of the first event. For instance, not being able to reach the required participants, etc.</b>

COMPARATIVE RESEARCH NETWORK:

<b>Topic</b> (Please describe the topic you're addressing. Think about what is needed to translate the topic in your everyday work.)					
ITMBO will create a series of events where their member companies will come to learn about CE in Textile. Please create a 30 minutes session to help the Entrepreneurs to discover CE potential in their companies.					
<b>Goal</b> (Be sure to write "SMART" goals (specific, measurable, attainable, relevant, and time-sensitive).)					<b>Duration:</b>
Create a 30 minutes session to help the Entrepreneurs to discover CE potential in their companies in the Textile sector <i>Assumptions: minimum of 12 participants to have at least 3 subgroups of 4 people in each group.</i>					<b>2-3 weeks</b>
<b>Action Steps</b> (What will you do?)	<b>Target</b> (Who will benefit?)	<b>Timeline</b> (By when?)	<b>Resources</b> (List financial, human, organizational resources or materials needed) A. Resources available B. Resources needed	<b>Knowledge</b> (What more do I need to know? Where could I find the information?)	<b>Potential Barriers</b> (What are the potential challenges you face? How will you overcome them?)
<b>Step 0:</b> Design an invitation and SAVE THE DATE (let the community members of ITMBO know that a session is coming).	- Entrepreneurs - ITMBO team - Textile sector	At least 2 weeks before the session	A. Current Human Resources (Leader and assistant from the ITMBO team)	- We need to know how to design an effective invitation for the target group.	-The target group may not be interested in it or they cannot see the benefits of CE in the Textile sector.  -Explaining the importance of being a part of this kind of session for the future of their company and the environment.
<b>Step 1:</b> Short empathy interviews to discover the needs of entrepreneurs	- Entrepreneurs - ITMBO team	At least 1 week before the session	B. Current Human Resources (Leader and assistant from the ITMBO team) C. External people: Designers in the Textile sector with know-how	- We need to know how to run empathy interviews and design the interview focused on the Textile sector.	- Maybe we don't have enough resources available or we can't find volunteers to support the ITMBO team to design the interviews.

COMPARATIVE RESEARCH NETWORK:

<b>Step 4:</b> Promote the invitation with specific information about the session and open registration.	- Entrepreneurs - ITMBO team	At least 1 week before the session	<b>A. Poster (Printer, paper)</b> <b>B. Announcement on the website and social media</b>	Specific information about the sessions (entrepreneurs, challenges, topic)	
<b>Step 5:</b> Run the 30 minutes session. - Checkin (body movements, 2min) - Inspiration (5 min showing the "amazing" example) - Ideation session (20 min) - Checkout (one word how you leave this session, 3 min)	- Entrepreneurs - ITMBO team - Textile sector	- The day of the event	Same info. from step 1.	Specific information about the sessions (entrepreneurs, challenges, topic)	
<b>Step 6:</b> Publish the harvest of the session. - Brief document (very visual) with the results of the session to inspire other entrepreneurs members of ITMBO. - Short videos from 2-3 participants (entrepreneurs) sharing their experience in the session. <i>Note: it can be published on the website of ITMBO and local newspapers.</i>	- Entrepreneurs - ITMBO team - Textile sector - The wider community of Izmir	Day of the event (short videos with feedback on social media)  A story in the newspaper and update on the website as soon as possible, within a week	A. A short video (could be made with a mobile phone) B. Photos during the event C. A recycled badge for the participants (to motivate them and showing what they do is a nice step for the environment) D. Social media	A short summary of the event  Feedback of the participants, short story	Same info. from step 1.

COMPARATIVE RESEARCH NETWORK:



<p><i>Note: at least 3 different entrepreneurs with different profiles in the Textile sector.</i></p>			<p>in Design Thinking to design and run the session. It could be volunteers (MakeSense could be advisors and facilitators to support the ITMBO team, by online sessions or face to face if there is any facilitator available in the area), financial resources and materials to run the 30 min session (catering, post-it, markers, templates, etc.)</p>		<p>- We can put an ad both on our and the local newspaper's website to receive volunteer support.</p>
<p><b>Step 2:</b> Framing the challenges based on the information gathered in the interviews <i>Note: frame a few challenges for different textile subsectors.</i></p>	<ul style="list-style-type: none"> <li>- Entrepreneurs</li> <li>- ITMBO team</li> </ul>	<p>At least 2 days before the session</p>	<p>Same info. from step 1.</p>	<ul style="list-style-type: none"> <li>- How to frame a challenge</li> </ul>	<p>Same info. from step 1.</p>
<p><b>Step 3:</b> Define one "amazing" and relatable example to explain in storytelling way an inspiration about the potential of CE in the textile sector. It has to be chosen in accordance with the designed challenges to have a start point. <i>Note: we show the example in a visual way (cartoons or video or product itself that people can touch). Less than 5 min explanation.</i></p>	<ul style="list-style-type: none"> <li>- Entrepreneurs</li> <li>- ITMBO team</li> </ul>	<p>At least 2 days before the session</p>	<p>Same info. from step 1. + Materials and resources needed to show the example (depending on what it is).</p>	<ul style="list-style-type: none"> <li>- A well-known example. It has to be enough representative to show impactful results in the market and CE ecosystem.</li> </ul>	<p>Same info. from step 1.</p>

## ONLINE Lab (LAB 3) - CE in Recycling and Construction

In the first week of September National Recycling Agency of Slovakia, in short NARA-SK has prepared the last lab of our project about circle economy in recycling. The Slovak partner from Zvolen is an expert in the field of recycling. The training was prepared with cooperation with the municipality department of Waste Management of Ziar nad Hradem. The training has 18 participants.

The first 2 days we have got a lot of presentation about the waste management in North of Slovakia and we have learnt problems and needs of the city Ziar in that field. NARA-SK has presented their circular methods and achievements in building industry and recycling. One of the trainers of NARA-SK Radovan Grollmus has introduced to the participants different international frames of circular economy as law, strategic regulations, and strategies. During other days

we have worked on possible solutions for existing problems in the region of Banska Bystrica. As in other 2 labs we have dedicated one day for self-learning to learn

Preparation of the online format of the workshop was quite challenging for the Slovak partner as they did it first time.

There was a place for trying many ways of presentation and teamwork. We have seen that Slovakian trainers were becoming more and more confident in the use of online tools every day. They moved from a very frontal form of training in the first days to interactive exercises on the last day. One of the biggest improvements and impact of the lab was that Slovak partner started to offer online course after facilitating of this lab.

Date	DAY	
2.9.2020	1	<b>Starting day</b> 1.Introduction and outline of the lab. 2.Introduction of City Žiar nad Hronom & circular economy, waste management, green thinking
3.9.2020	2	1. Presentation of issues of CE tackled by municipalities - Žiar nad Hronom (Circular economy good practise) 2. REUSE center 3. Problem solving in groups, brainstorming
4.9.2020	3	Work in groups - strategic planning, green infrastructure: 1. Brainstorming possible solutions (to avoid waste and recycle) 2. Summarising on one sheet
7.9.2020	4	MADE IN NARASK 1st - workshop circular TEXTIL, GREEN DEAL
8.9.2020	5	MADE IN NARASK 2nd - best practise towards circular economy
9.9.2020	6	Self-learning day - working on materials to be provided through links
10.9.2020	7	<b>Closing day</b> Feedback from participants Administrative tasks for certificates obtaining

# Evaluation of all labs by participants

Rimante Rusaite

During the first part of the project, partner organisations were collecting and sharing smart practices that could feed valuable insights into how to integrate Circular Economy related skills into VET curriculum. To test and build on the ideas, the partnership organised three co-creative labs.

Due to COVID 19, the labs took an online format. The partners supported each other in

challenges and novelty of the events. The first Lab addressed general CE topics, definitions, concepts, CE canvas. The second Lab was about the CE and Textile industry, the third one - the CE and Waste Management/Recycling.

Total of 48 staff members and associated partners participated in the training events.

Key takeaways	Knowledge and skills
<p>Each Lab was followed by an evaluation form, as well as a final feedback session. The following information reflects a summary and qualitative and quantitative evaluation.</p> <p><b>Tools</b></p> <p>One of the most important learnings mentioned by the participants is taking part in an Online Education Experience. This was possible by available tools like Miro, Mural, Jitsi, Zoom, Google Meet.</p> <p>Participants were satisfied about the possibility to collaborate and work in teams, creatively solving problems, discussing, and designing various learning and collaborative formats that could be used in diverse working scenarios by partner organisations.</p> <p>Participants had a chance to experience Blended learning (e.g. Climate KIC course) and explore different interactive resources (e.g. Close the Loop - a guide towards a circular fashion industry)</p>	<p>Besides the increased general knowledge about CE, CE and Textile Industry, CE and Waste Management, participants gained skills in teaching/communicating about the mentioned topics. Due to the unusual situation, participants also gained insight into teaching in online environment leading international groups, and presenting and moderating teamwork using online tools</p> <p>More than 30% of participants were very happy, and nearly 50% were happy about the overall experience during all the three Labs. Majority of respondents found the contents and methods relevant to their professional life.</p>
Expectations	Positive feedback and points to improve
<p>41.9 % of participants stated that their expectations were fully met, 37.2% said that the expectations were mostly met and 20.9% said that expectations were met.</p> <p>The expectations that were listed, could be grouped in general knowledge about CE, Project work and cooperation, and Meta or gaining teaching skills.</p> <p><b>Circular Economy</b></p> <p>Deeper understanding of CE</p> <p>CE sector specific: "Improve my knowledge about CE in Textile industry and learn about</p>	<p><b>Interactive aspects</b></p> <ul style="list-style-type: none"> <li>• Group work, working on challenges</li> <li>• Reflection exercise; ice breakers.</li> <li>• Practical activities</li> </ul> <p><b>Tools and resources</b></p> <ul style="list-style-type: none"> <li>• Using MIRO</li> <li>• Blended learning: Climate KIC Platform.</li> <li>• CE Canvas</li> <li>• films about fashion industry</li> <li>• links or videos about CE</li> </ul>

interconnections between CE and waste management/recycling”

#### Project and cooperation

- Work with project partners
- “Understand how EU funded projects work”
- Deepening international partnerships

#### Meta

- Learn to work online.
- Create good training practices.
- Create a "learning experience about CE"
- How to train others about it using innovative practices and activities
- Understand how to teach circular textile in the international context
- “Have more solid foundations to raise awareness among people about the importance of the circular economy”

What could be improved: as some of the technical issues (e.g. Internet connection) cannot always be addressed, some things could be done to have better experience:

- Testing and choosing most optimal video conferencing tools
- Spending more time to learn using new tools before starting work
- More engaging and interactive activities
- Clearer objectives for each activity





Funded by the  
Erasmus+ Programme  
of the European Union

# Conclusions

# Recommendation



# Recommendations for teaching Circular in VET

Rimante Rusaite

## Introduction

This policy brief is part of the publication Circle VET eBook, created by CRN. The publication is issued as a part of the Circle VET project. The overall aim of the project is to evaluate and exchange smart practice methods in developing circular economy skills in the VET sector.

## Background

The first phase of the project carried out a desktop-research on identifying smart practices in teaching and applying circular economy principles based on critical design thinking and co-design.

Parallel a need assessment was performed to understand the demands of the education provider in the three chosen case study sectors (Fashion, co-working, recycling) and the learners in the partnership countries.

The results were presented at Transnational Meetings and resulted in developing an assessment grid for smart practices, suited for the self-assessment of educators.

The collected practices, methods and experiences have been tested and reviewed in three thematic online training labs:

Testing circular methods

Testing circular methods in Fashion

Testing circular methods in Recycling/Waste Management

## 3. Key Messages to Decision Makers

As with many educational subjects, timing is a crucial aspect. However, as Circular Economy is a very broad and complex concept, it should be adapted and introduced to different age groups and educational levels. In order to achieve a long-term change and sustainable

transitioning towards circular production and consumption systems, it needs to address shift in mindset and values.

*“Integrate CE principles and practices in all education in order to change mindset and behaviour of future adult citizens”*

Currently, educational offer on concrete CE educational offer is very disperse and limited. To conceptualize and spread the principles of CE, the decision makers should encourage CE courses across formal and non-formal educational institutions.

*“Support educational offer in Circular Economy”*

To stimulate a coherent development and skill application, the CE principles need to be tested in practical situations. Internships and work training are perfect arenas to do that.

*“Support organisations that provide internships in the area of circular economy for those who wants to gather experience in this field”*

## 4. Key Messages to Education Practitioners

Keep it practical. Especially in VET sector, problem-based learning, case study analysis, interactive and blended teaching methods should be considered over traditional didactic practices.

*“Transform the programs to create learning experiences like a learning journey”*

*“Integrate Learning by doing or action learning process using real cases and gamification.”*

Cultural aspects. Project partnership observed that country/region specifics are of high importance to achieve the best teaching results in CE. There is a huge difference between European countries in using CE in

the training (e.g. from very advanced in Finland to less known in Turkey). Clear understanding of the environment (geography, legal framework, knowledge of current process) is needed before an educational curriculum is prepared.

*“Adapt the educational offer to the target group and country “*

*“Adaptation of the methods for each culture and country is crucial”*

Values and perspectives. Circular Economy is not only an economical model, but a mindset, based on values and societal trends. Therefore, not only the practicalities of CE need to be addressed in the educational process, but also ethical and behavioural aspects - the traditional concepts of value in society might be questioned in order to start a constructive discussion and critical thinking.

*“Teach kids the importance of value rather than money.”*

Needs assessment and system thinking. To deliver an optimal learning experience, educational practices need to be adapted not only to local specifics, but the knowledge levels and needs of the group. Furthermore, as CE is a very broad concept, even theme specific educational activities should be

explained through the prism of system thinking.

*“Assess the knowledge level of the group before designing a learning experience”*

*“Even when talking about specific aspects, keep referring to the system”*

## 5. Conclusion

CE and VET. To transmit the CE principles in work of future VET professionals, it is very important to integrate it into VET curriculums. However, it would be much more effective, if the principles are taught from early school years and beyond.

VET sector has a wide outreach to learners in different stages in their life, and, from that perspective, has an advantage over strictly academic studies. It also includes a lot of practical methods, which have been pointed out during the project partners, as favourable for teaching CE. It is also important to integrate Circular Economy principles across all topics, and the VET sector is highly diverse, therefore could be fruitfully exploited to introduce and develop this new field.



## Quality assurance and monitoring

Rochele Melo

During the entire execution of the CircleVET project, it was monitored the internal management quality of its activities, to guarantee the better use of time and the quality of actions and outputs. The goal was to have a progressive improvement in the meetings and the results to be delivered.

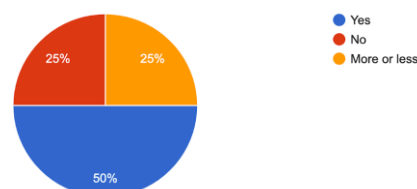
By the end, the participants were satisfied with the results, with a mark of 62,5% of satisfied or very satisfied. Concerns related with clarity of goals, communication and equal participation were topics brought during the surveys, and the most needed improvement was more integration among participants.

### Methodologies applied for the quality assessment

To receive structured and direct feedback from the participants a series of surveys were conducted throughout the project. These surveys were sent at the end of some meetings, randomly, later analysed and the

results served as inputs for the design of the

1. Did the CircleVET project meet your expectations?  
8 responses



next meetings.

The initial idea was to have a series of videos from the participants sharing their experiences and suggestions for improvement. However, as the project was caught by a pandemic some adaptation had to be made, and only the surveys were kept. Fortunately, 2 videos were recorded and are edited to be shared as part of the evaluation.

### Results: Meeting and Labs surveys

	Did the meeting meet your expectations?	How satisfied are you with the results of the meeting? From 1 to 5	In which aspects should the meeting improve if any?	Comments
Survey 1 (17 answers)  Carried out on 1st July 2020.	Yes: 65% No: - More or less: 35%	1: 6% 2: 6% 3: 23,5% 4: 41% 5: 23,5%	Better activities: 17,6% More time for the activities: 29% Better results: 17,6% Better communication: 29% More integration among participants: 41%	Participants shared their need for more clarity about the objectives and final purpose of the project. Also, lack of interaction with partners was a concern. Nevertheless, for some of them the meeting was well planned and executed.

Survey 2 (10 answers)  Carried out on 16th July 2020.	Yes: 80% No: - More or less: 20%	1: 2: 3: 10% 4: 40% 5: 50%	Better activities: 20% More time for the activities: 20% Better results: 20% Better communication: 40% More integration among participants: 40% - More interactive activities: 20%	Participants congratulate the organizers of this lab for the good job they have done. It was insightful and very interactive.
Survey 3 (13 answers)	Yes: 62% No: 7% More or less: 31%	1: 2: 3: 15% 4: 54% 5: 31%	Better activities: 46% More time for the activities: 8% Better results: 8% Better communication: 8% More integration among participants: 54%	Another online meeting were a complain among the participants. Also, despite the fact the knowledge shared during the training was good, the organization of this lab was somehow flawed according to the participants. They also requested that presentations and other materials should be shared in English.

## Final survey

This last survey was answered by one representative of each organization. From its results, it's clear that there is room for some improvement in this sort of project. However, many participants acknowledged the challenges faces due the pandemic and their impact in the coordination of the project.

From the sentences below, participants were asked to say how much they agree with them. Being 1 "totally disagree and 5 "totally agree

	1	2	3	4	5
The organization and coordination of the meetings were flawlessly executed.	0.0%	12.5%	25.0%	37.5%	25.0%
The activities executed during the meetings were relevant.	0.0%	0.0%	50.0%	0.0%	50.0%
The content brought during the meetings was captivating.	0.0%	0.0%	37.5%	25.0%	37.5%
The online tools used during online meetings were adequate for their purpose.	0.0%	0.0%	12.5%	50.0%	37.5%
There was equal participation among the partners.	12.5%	37.5%	0.0%	12.5%	37.5%
The results obtained from the collaborative work of the partners (e-book mainly) are aligned with what was expected.	0.0%	12.5%	12.5%	25.0%	50.0%

## Closing words

### Radovan Grollmus

International partnership of the project **CircleVET – Exploring the Educational Potential for Circular Economy (KA202-B4B3FEC6-EN/ Erasmus+)** delivers this E-BOOK as its contribution to provide VET teachers by “real life & practice tool”. After months of cooperation we are sure that words like “*exploring, systemic approach, initial and contiguous*” fits on approaching the subject of circular economy as very appropriate.

The profound desk top search onto the circular economy and particularly VET (as designed in CircleVET ‘implementing strategy’) shows that amount of CE/VET information is continuously growing. Let us have a look. Google search offers you within 0,66 sec. more than 8 million web-link paths to approach VET & circular economy... For sure, talking in respect of circular VET methodology at the project’ mission like:” *initial and contiguous*” was/is correct.

Even “worse first glance” will initiated teacher experience as talking about circular economy as the subject of education. Google search is (nowadays) offering within 0,34sec. astonishing “some” 181 million web paths “how to get on track” ... For sure - talking about the subject of circularity as like:” *exploring, systemic approach*” was/is correct, once again.

The subject of circular economy did not come to the world out of blue. As being revealed in 2010 from Ellen MacArthur Foundation like the prophecy as “*the coherent framework on rethink the future*” dozens predecessors – science/knowledge focal points for global change – made their sound all around the globe, before. (Blue Economy, Biomimicry, Biosphere Rules, Cradle to Cradle® design, Industrial Ecology, Open Economy, Progressive Capitalism, Performance Economics, Regenerative Design, Natural Capitalism, 2,000-Watt Society, etc.). The general attention of EÚ and later national

policymakers has circularity gained soon after passing (COM/2015/0614 final) the *Closing the loop - An EU action plan for the Circular Economy* on December 2<sup>nd</sup>, 2015. The appearance of this European legislative tool was Just-In-Time synchronized to global COP 21 (December 12<sup>th</sup>, 2015) UNFCCC assembly which delivered the subject for exercising circular economy EU tool – nothing else than the Paris (climate) Agreement.

We may express hypothesis that the linear economy grew up historically as mankind wrote its history. This economy is/was methodologically well framed since Adam Smith’ work *The Wealth of Nations* (1776) occurs and was recognized as the “Bible of classical economy”, globally.

If the hypothesis is correct then ongoing cutting global “traffic” lines, and closing the micro/macro economy loops, and doing this under direct threat of global environmental collapse (within COP21 timesheet & roadmap and its milestones 2030/2050) - then circularity has to be Subject of thousands “googled” faces (as any other profound change as).

It is certainly not possible - and even more, not correct approach definitely - to well arm the VET teacher by hang on them heavy, hard-data information about the whole paradigmatic, holistic topic as circular economy, certainly is. On the contrary of previous linear economy’ methodological approach with its hierarchical layering of knowledge, the concept of circularity demands from VET teacher (as learner at the beginning) profound change of mindset. The change as mentioned above - “*...initial and contiguous...systemic approach...*” from the change of **BAU/Business as Usual** (hard-data encaged syllabus) and prefer coping and multiplying **BATs/Best Available Techniques** from anywhere where it worked.



Funded by the  
Erasmus+ Programme  
of the European Union

Light up your creativity and learn by doing – the new world is out of boxes in our heads. It sounds unbelievable but **The Waste of Today Really Is the Wealth of Future.** The CircleVET project team understands this E-BOOK as one step towards new quality of universe. May be the step is small one for global circularity but a huge leap for CircleVET' project team.

And finally – what is going on out of your classroom is not exercise.

**There Is No Planet B!**





# Summaries



# Einführung und Projektübersicht

## Was war das Projekt Circle Vet?

Circular Economy (CE) – Kreislaufwirtschaft: Uns allen, gemeinsam und individuell, ist sie wichtig, doch irgendwie haben wir bisher noch kein gemeinsames Terrain gefunden. Dies ist eines der wichtigsten Erkenntnisse, die wir während des CircleVET-Projekts gewonnen haben.

Während Länder wie Finnland bei der Integration der Kreislaufwirtschaft in der beruflichen Bildung einen Vorsprung haben, holen Länder wie Deutschland auf und andere Länder, wie die Türkei sind noch etwas im Rückstand. Überall in Europa tauchen jedoch neue Ideen auf, wie die CE in die berufliche Bildung integriert werden kann. Die Umsetzung in die Praxis ist ein europäisches Thema, und darauf hat sich CircleVET konzentriert.

Das CircleVET-Projekt begann am 1. Oktober 2018 und endete am 30. September 2020. Es wurde durch das Programm Erasmus+ Vocational KA2 finanziert. Zwei Jahre lang tauschten sich sieben Partner aus sechs Ländern über unterschiedlichste Lehrmethoden für zirkuläre Wirtschaftskompetenzen in der Berufsbildung aus.

Die Partnerorganisationen durchliefen verschiedene Prozesse, lernten viel voneinander und verbesserten das Wissen und die Fähigkeiten ihrer Mitarbeiter.

Alle Projektteilnehmer sind sich der Notwendigkeit bewusster geworden, Fertigkeiten im Bereich der Kreislaufwirtschaft in ihrer Arbeit einzusetzen. Sie sind bereit, ihr neu erworbenes Wissen zu teilen, zu lehren und andere zu ermutigen, den laufenden Übergang zur Kreislaufwirtschaft und ihr Potenzial zu verstehen. Die Moderatoren haben neue Instrumente erhalten, um die

Kreislaufwirtschaft in der Berufsbildung zu fördern und zu lehren.

## Worum geht es in dem E-Book?

Dieses E-Book wurde als Ergebnis des CircleVET-Projekts in Form eines umfassenden Kompendiums praktischen Methoden erstellt, die in Europa bestehen. Als Methodenhandbuch bietet es leicht anwendbare Werkzeuge und innovative Methoden, Lernende zu motivieren, sich weiter zu engagieren und ihre Fähigkeiten für den laufenden Übergang von der linearen zur zirkulären Wirtschaft auf den neuesten Stand zu bringen. Wir möchten, dass die Leserinnen und Leser neue Fähigkeiten erlernen, ihr Bewusstsein für neue Transformationsprozesse in der Wirtschaft stärken und sich ihrer Rolle in diesem Prozess bewusst werden.

## Wie und warum haben wir die vorgestellten Praktiken ausgewählt?

Frans van Houten, Firmenchef von Royal Phillips und Leiter der Plattform zur Beschleunigung der Kreislaufwirtschaft (Platform for Accelerating the Circular Economy – PACE), brachte es auf den Punkt: „Wie alle großen Übergänge in der Geschichte der Menschheit wird der Übergang von einer linearen zu einer zirkulären Wirtschaft ein turbulenter sein. Es wird Helden und Pioniere, Neinsager und Hindernisse, Momente des Sieges und des Zweifels geben. Wenn wir jedoch durchhalten, werden wir unsere Wirtschaft wieder auf einen Pfad des Wachstums und der Nachhaltigkeit zurückbringen“.

Mit diesen Worten im Hinterkopf entwickelten wir in CircleVET ein Bewertungssystem für Praktiken, das auf vier Prinzipien basiert:

- interdisziplinäre Ansätze;

- Relevanz und Anwendbarkeit im wirklichen Leben;
- kritisches Nachdenken (Umdenken) über den aktuellen Stand;
- Flexibilität und Vielseitigkeit.

Nachdem wir intelligente Praktiken im Unterrichten und Anwenden von Prinzipien der Kreislaufwirtschaft identifiziert und bewertet hatten, kamen wir zu dem Schluss, dass unsere Hauptaufgabe darin bestehen sollte, Methoden zu bestimmen, die eine Einführung in und einen allgemeinen Überblick über die Möglichkeiten bieten, die Grundlagen der Kreislaufwirtschaft zu vermitteln. Unsere Bedarfsermittlung hat in der Tat gezeigt, dass nur Finnland einen fortgeschrittenen Lehrplan für den Unterricht in Kreislaufwirtschaft in der Berufsbildung eingeführt hat. In allen anderen Ländern wird das Fach entweder im Rahmen des Themenkomplexes Nachhaltigkeit unterrichtet oder existiert überhaupt nicht.

Gleichzeitig haben unsere Besuche bei verschiedenen Organisationen und Unternehmen gezeigt, dass es in allen Partnerländern bewährte Verfahren gibt, die jedoch häufig noch nicht als „Kreislaufwirtschaft“ bekannt oder gekennzeichnet sind.

Bei mehreren transnationalen Treffen haben wir mehr als 70 gute Praktiken vorgestellt, nicht nur aus Finnland, Deutschland, Italien, der Slowakei, Spanien oder der Türkei, sondern auch aus Belgien, Frankreich und den Niederlanden.

Während des zweiten Treffens in Madrid haben wir ein Bewertungsraster erstellt — ein Instrument, das bei der Auswahl der smartesten Praktiken sehr hilfreich war. Diejenigen, die in diesem Buch versammelt sind, waren unserer Meinung nach die interessantesten, repräsentativsten, nützlichsten und übertragbarsten. Sie können das Raster auch im E-Book finden; es wird Ihnen nicht nur helfen, die Bewertungskriterien zu verstehen, sondern auch Ihre eigenen Ansätze zu testen, um Bereiche der Exzellenz oder Raum für Verbesserungen zu entdecken.

## Wie wurden die ausgewählten Praktiken getestet?

Alle gesammelten Praktiken, Methoden und Erfahrungen wurden in drei thematischen Schulungslaboren getestet und überprüft: eines über allgemeine Kreislaufmethoden, eines über die, die derzeit in Mode sind, und ein drittes über diejenigen, bei denen Recycling im Vordergrund steht.

Die Gestaltung der Labore erfolgte auf der Grundlage von David Kolbs Theorie des erfahrungsorientierten Lernens, das sich durch einen vierstufigen Zyklus auszeichnet: konkrete Erfahrung, reflektierende Beobachtung der neuen Erfahrung, abstrakte Reflexion und aktives Experimentieren.

Die drei Labore bestanden aus praktischen Aktivitäten, bei denen eine diverse Gruppe von Teilnehmerinnen und Teilnehmern ihre Erfahrungen austauschte und mögliche Lösungen mit dem Ziel eines gemeinsamen Entdeckens, d. h. der Erforschung in einer kollaborativen Umgebung, untersuchte. Die gleichzeitig stattfindenden Labore erleichterten und ermöglichten auch prospektives Denken, wobei die gegenwärtigen Bestrebungen, Auseinandersetzungen und Erfahrungen der Teilnehmerinnen und Teilnehmer als Ausgangspunkt für einen Blick in die Zukunft herangezogen wurden. Diese Art der Zusammenarbeit führte zu Diskussionen und lieferte wertvolle Einblicke in alle Aspekte eines bestimmten Themas, das untersucht und (neu) gestaltet wurde. Die Teilnehmerinnen und Teilnehmer wurden tief in einen Peer-Learning-Prozess eingebunden, der die Entwicklung maßgeschneiderter Lösungen für ihre Alltagswelt ermöglichte.

## Nicht offline, sondern online...

Ursprünglich hatten wir geplant, uns physisch für diese Labore zu treffen, aber der Ausbruch der Covid-19-Pandemie und die Einschränkungen für Reisen und Treffen während des letzten Teils des Projekts machten dies unmöglich. Dank der deutschen



Nationalagentur konnten wir die Labore online organisieren. Die Neugestaltung der Schulungen stellte eine große Herausforderung dar, führte jedoch auch zu innovativen Praktiken durch den Einsatz verschiedener Online- und Kommunikationstools wie Zoom, Jitsi, Google Meet für Online-Meetings sowie Miro und Mural für die visuelle Online-Zusammenarbeit, eine Premiere für mehrere der Partnerorganisationen. Besonderes Augenmerk wurde auf die Methoden gelegt, die für Online-Unterricht und -Treffen am besten geeignet sind, aber dennoch im Hinblick auf die tatsächlichen Herausforderungen getestet werden können, denen sich die Partner gegenübersehen. Als Ergebnis haben wir wertvolle Prototypen geschaffen, die jetzt vom Konsortium verwendet werden.

## Richtlinienempfehlungen

Die ausführliche Diskussion der ausgewählten Praktiken hat es uns ermöglicht, Empfehlungen zu erarbeiten, wo und wie sie angewendet werden sollten. Basierend auf den Lehren, die wir beim Testen dieser Methoden in unseren Laboren gezogen haben, haben wir uns entschlossen, die Empfehlungen hauptsächlich an Praktiker und Entscheidungsträger zu richten.

Was haben wir sonst noch erreicht und was wollen wir im Rahmen des CircleVET-Projekts und dieses E-Books erreichen?

Auf lokaler Ebene hat unser Projekt zu einem zunehmenden Bewusstsein für die Bedeutung der Kreislaufwirtschaft und für das Potenzial der Nutzung lokaler Disseminationsnetzwerke geführt, insbesondere im Bereich der Mode und des Recyclings.

Mit dieser Veröffentlichung, der Präsentation smarterer Praktiken und ihrer Empfehlungen, möchten wir einen Beitrag zu europäischen Diskursen über Lehr- und Lernfähigkeiten leisten, die für eine künftige Kreislaufwirtschaft erforderlich sind. Alle Projektergebnisse sollen dazu beitragen, Lehrpläne für Schulen und Anbieter von Erwachsenen-, Jugend- und Berufsbildung zu entwickeln, indem Möglichkeiten zur Förderung von Weiterbildungen, Mobilisierung und größerer sozialer Innovation in diesem Bereich aufgezeigt werden.

Letztlich wollen wir dazu beitragen, neue, innovative Mittel zu finden, um eine Wegwerfkultur hinter uns zu lassen, wie es von der Europäischen Kommission skizziert wurde, und einen Beitrag zum Aktionsplan der Europäischen Union zur Kreislaufwirtschaft zu leisten.

# Johdanto ja hankkeen tiivistelmä suomeksi

## Mikä oli CircleVET -hanke?

Kiertotalous – Olemme kaikki samassa veneessä, mutta samalla olemme kaukana toisistamme. Tällä tavoin voisi tiivistää CircleVET-hankkeen yhden pääopin.

Samalla kun esimerkiksi Suomessa on jo tuotu kiertotaloutta osaksi ammatillista koulutusta, Saksassa aihe on vasta aluillaan ja vaikkapa Turkki tulee vielä hieman perässä. Tästä huolimatta kaikkialla Euroopassa uusia ideoita syntyy, kuinka voimme yhdistää kiertotalouden osaksi ammatillista koulutusta. CircleVET-hanke on keskittynyt tuomaan ideoita käytäntöön ja levittää hyviä käytänteitä. CircleVET-hanke toteutettiin aikavälillä 1.10.2018-30.9.2020. Hanketta rahoitti Erasmus+ Ammatillinen KA2 -ohjelma. Kahden vuoden ajan seitsemän hankekumppania kuudesta maasta esitteli, testasi ja arvioi useita opetusmenetelmiä kiertotalouden taitojen tuomiseen ammatilliseen koulutukseen. Kumppanimaat olivat Suomi, Saksa, Italia, Slovakia, Espanja ja Turkki.

Hankekumppanit kävivät läpi useita oppimisprosesseja, jossa opittiin toisilta ja edistettiin kiertotaloustietämystä ja -taitoja kumppaniorganisaatioissa.

Kaikille hankkeeseen osallistuneet tulivat tietoisemmiksi kiertotalouden tarpeellisuudesta omassa työssään. Hankekumppanit ovat jakaneet oppimaansa sekä opettaneet ja kannustaneet toisiaan ymmärtämään tämänhetkistä murrosta ja siirtymää kohti kiertotalouden mukaista maailmaa. Osallistujat saivat paljon uusia työkaluja, joilla tuoda kiertotaloutta osaksi ammatillista opetusta.

## Mistä tämä e-kirja kertoo?

Tämä e-kirja toteutettiin osana CircleVET-hanketta. Teos on läpileikkaus käytännön

menetelmiin, jotka ovat käytössä eri puolilla Eurooppaa. Tämä kiertotalouden opetusmenetelmien käsikirja sisältää helposti sovellettavissa olevia työkaluja ja innovatiivisia menetelmiä opetukseen. Menetelmät kannustavat oppijoita päivittämään osaamistaan ja osallistumaan meneillään olevaan murrokseen lineaarisesta talousmallista kiertotalouden mukaiseen talousmalliin. Toivomme lukijan oppivan uusia taitoja, vahvistavan tietoisuuttaan tämänhetkisestä taloudellisesta muutosprosessista ja löytämään oman roolinsa prosessissa.

## Miten valitsimme kirjan menetelmät?

Philipsin toimitusjohtaja ja globaalin kiertotalousverkosto PACE:n puheenjohtaja Frans van Houten sanoi: ”Kuten kaikki suuret muutokset ihmisen historiassa, siirtyminen lineaarisesta taloudesta kiertotalouteen tulee olemaan myrskyisä. Tulemme näkemään sankareita ja edelläkävijöitä, vastustajia ja esteitä, voiton hetkiä ja epäilyksen hetkiä. Kuitenkin, jos pysymme sinnikkäinä, saamme taloutemme takaisin kasvun ja kestävyuden tielle”.

Nämä sanat mielessä CircleVET-hankkeessa kehitettiin hyvien käytänteiden arviointitaulukko, joka nojautui neljään periaatteeseen:

- Poikkitieteelliset lähestymistavat
- Käytännön merkitys ja toteutettavuus
- Kriittinen ajattelu
- Joustavuus ja monipuolisuus

Kiertotalousopetuksen hyvien käytänteiden kartoituksen jälkeen hankkeessa tunnistettiin suuri tarve menetelmien kehittämiseen. Menetelmät toimivat kuitenkin hyvänä johdantona ja yleiskatsauksena kiertotalouden opetusmahdollisuuksiin.

Tarvekartoitus nosti esille, miten erilaisilla tasoilla eri maissa ollaan kiertotalouden tuomisessa osaksi ammatillista koulutusta.

Osallistuvista maista ainoastaan Suomessa on määrätietoinen suunnitelma kiertotalouden tuomiseen osaksi kaikkea ammatillista koulutusta. Muissa maissa tällaista suunnitelmaa ei ole ollenkaan tai kiertotalous mainitaan ainoastaan osana muuta kestävyyskasvatusta.

Hankkeen aikana pääsimme tutustumaan eri maiden kiertotaloutta jo toteuttaviin organisaatioihin ja yrityksiin. Johtopäätöksenä voimme todeta, että kaikissa maissa löytyy hyviä käytänteitä ja esimerkkejä, mutta kaikkia käytänteitä ei välttämättä edes tunnusteta vielä kiertotaloudeksi.

Hankkeessa toteutettiin useita kansainvälisiä tapaamisia, joissa esiteltiin yli 70 hyvää käytäntöä, ei pelkästään hankekumppanimaista vaan myös Belgiasta, Ranskasta ja Alankomaista.

Toisessa kansainvälisessä tapaamisessa Madridissa kehitimme arviointitaulukon – työkalun, jonka avulla valitsimme mukana olleista käytänteistä parhaiten sopivat. Tähän e-kirjaan valitut menetelmät olivat hankekumppaneiden mielestä kaikkein mielenkiintoisimmat, edustavimmat, hyödyllisimmät ja opetukseen soveltuvimmat. Arviointitaulukko on liitetty osaksi tätä e-kirjaa. Toivomme, että taulukko auttaa lukijaa ymmärtämään valintakriteerimme, mutta myös arvioimaan omia tai vastaan tulevia menetelmiä.

## Miten olemme testanneet valikoituja menetelmiä?

Useat tähän e-kirjaan valitut käytänteet ja menetelmät testattiin kolmessa temaattisessa koulutuslaboratoriossa.

Ensimmäisessä koulutuslabissa testattiin yleisiä kiertotalouden koulutusmenetelmiä. Toisessa koulutuslabissa testattiin tekstiilituotantoon liittyviä kiertotalousmenetelmiä. Kolmannessa koulutuslabissa keskityttiin kierrätykseen osana kiertotaloutta.

Koulutuslaboratorioiden malli perustui Kolbin kokemuksellisen oppimisen malliin, jossa oppiminen nähdään nelivaiheisena, toistuvana syklinä: omakohtainen kokemus, pohdiskeleva havainnointi, abstraktin käsitteellistäminen ja aktiivinen kokeileva toiminta.

Koulutuslaboratoriot toteutettiin yhteiskehittelyllä ja niihin kuului paljon käytännön työskentelyä, jossa osallistujat jakoivat kokemuksiaan ja tutkivat mahdollisia ratkaisuja. Osallistujia kannustettiin tutustumaan eri aiheisiin vahvasti yhteistyöhön perustuvassa prosessissa, jonka tavoitteena oli löytää ratkaisuja yhdessä. Yhteiskehittely antoi myös tilaa pohdiskelevammalle tekemiselle. Pohdinnat tämänhetkisistä tahtotiloista, esteistä ja kokemuksista tarjosivat hyvän ponnahduslaidan tulevaisuuden tarkasteluun. Tämänkaltaisen yhteistyö herätti paljon keskustelua ja loi arvokkaita oivalluksia tarkasteltaviin aiheisiin. Työtä tehtiin vertaisoppimisen menetelmillä ja hankekumppanit pääsivät vahvasti osallistumaan räätälöitävien ratkaisujen kehittämiseen.

## Käytännön työtä verkossa

Tässä e-kirjassa esiteltyjä menetelmiä oli tarkoitus testata kasvatusten kansainvälisissä tapaamisissa. Hankkeen loppupuolella maailmanlaajuinen covid-19 -pandemian takia matkustaminen ei ollut mahdollista ja kasvatusten tapaamiset jouduttiin perumaan. Koko maailma – CircleVET-hanke mukaan lukien – siirtyi verkkoon. Hanketta valvovan German National Agency salli koulutuslaboratorioiden siirtämisen verkkoon. Tämä siirtymä toi hankkeeseen yhden suurimmista haasteistaan, mutta myös hienon mahdollisuuden tehdä juuri hankkeen tavoitteen mukaista työtä: ajattelemaalla uudelleen tavanomaisia tekemisen malleja.

Koulutuslaboratorioihin valikoitui menetelmiä, jotka olivat kaikkein sopivimpia verkkototeutuksena. Menetelmien yhteydessä käytettiin paljon erilaisia yhteiskehittämisen sovelluksia (Zoom, Jitsi, Google Meets, Miro,

Mural jne.). Suuri osa hankekumppaneista käytti näitä työkaluja ensimmäistä kertaa.

Vaikka kaikkia tämän e-kirjan menetelmiä ei hankkeen puitteissa päästy testaamaan, monia menetelmiä on testattu paikallisesti ja todettu ne toimiviksi arjen kiertotaloushaasteissa.

## Suositus menettelytavaksi

Tässä e-kirjassa esittelemme parhaita kiertotalouden opetuksen käytänteitä ja annamme suosituksia niiden käyttöön. Perustuen hankkeessa saatuun tietoon olemme keskittyneet antamaan suosituksia sekä menetelmien käyttäjille että päättäjille.

## Mitä muuta olemme saavuttaneet tai haluamme vielä saavuttaa CircleVET-hankkeella tai tällä e-kirjalla?

Paikallisella tasolla hanke on nostanut tietoisuutta kiertotaloudesta ja sen tarjoamista mahdollisuuksista löytää ja hyödyntää paikallisia raaka-ainesyklejä, erityisesti tekstiiliteollisuudessa.

Tämän e-kirjan tavoitteena on osallistua ja edistää kiertotalouskeskustelua Euroopassa ja nostaa esiin koulutuksen ja osaamisen tarpeen kiertotalouden mukaisessa tulevaisuudessa. Tämän hankkeen tulokset voivat auttaa erilaisia toimijoita kehittämään kiertotalouden opetusta peruskouluissa ja toisen asteen oppilaitoksissa. Ne viitoittavat myös tietä jatkuvan oppimiseen ja sosiaalisiin innovaatioihin.

Haluamme myötävaikuttaa uusien, innovatiivisten tapojen löytämiseen ja löytymiseen, jotta pääsemme siirtymään ”ota-käytä-heitä pois” -kulttuurista kohti kestäväää maailmaa. Lisäksi haluamme olla mukana tuomassa oman panoksemme Euroopan komission hyväksymään Euroopan Unionin Kiertotalouden toimintasuunnitelmaan.



# Introduzione e progetto estivo

## Cosa è stato il progetto Circle Vet?

Economia circolare - Siamo tutti in questo insieme, ma in qualche modo siamo tutti così distanti. Questo è uno degli insegnamenti principali che abbiamo avuto durante il progetto CircleVET.

Mentre paesi come la Finlandia sono avanti nell'integrazione dell'economia circolare nell'istruzione professionale, paesi come la Germania stanno recuperando terreno e altri paesi come la Turchia sono ancora un po' indietro. Tuttavia, in tutta Europa, emergono nuove idee su come integrare l'economia circolare nell'istruzione professionale. L'implementazione delle pratiche è un argomento europeo, e questo è ciò su cui CircleVET si è concentrato.

Il progetto Circle Vet è iniziato il 1° ottobre 2018 e si è concluso il 30 settembre 2020. È stato finanziato dal programma Erasmus + KA2 VET. Per due anni 7 partner di 6 paesi hanno scambiato, valutato e testato diversi metodi educativi per le competenze dell'economia circolare nell'IFP.

La partnership ha attraversato diversi processi, ha imparato molto gli uni dagli altri ed ha migliorato le conoscenze e le competenze del proprio personale.

Tutti i partecipanti al progetto sono diventati più consapevoli della necessità di avere competenze di economia circolare nel proprio lavoro. Sono stati pronti a condividere le loro nuove conoscenze acquisite, a insegnare e incoraggiare gli altri a comprendere la transizione in corso verso l'economia circolare e il suo potenziale. I facilitatori hanno acquisito nuovi strumenti per formare e insegnare l'economia circolare nell'IFP.

## Di cosa parla l'e-book?

Questo e-book è stato creato come parte e risultato del progetto Circle VET sotto forma di

un compendio completo di metodi pratici a livello europeo. Questo manuale di metodo fornisce strumenti di facile applicazione e metodi innovativi, che motivano gli studenti a rimanere coinvolti e ad aggiornare le proprie competenze per la transizione in corso da un'economia lineare a un'economia circolare. Vogliamo che il lettore apprenda nuove abilità, rafforzi la sua consapevolezza dei nuovi processi di trasformazione nell'economia e che ciò lo renda consapevole del proprio ruolo in questo processo.

## Come e perché abbiamo scelto le pratiche?

Frans van Houten, CEO di Royal Phillips e leader della Platform for Accelerating the Circular Economy (PACE), ha dichiarato: "Come tutte le principali transizioni nella storia umana, il passaggio da un'economia lineare a un'economia circolare sarà tumultuoso. Conterrà eroi e pionieri, oppositori e ostacoli e momenti di vittoria e dubbio. Se perseveriamo, tuttavia, metteremo la nostra economia su un percorso di crescita e sostenibilità".

Tenendo a mente le sue parole, CircleVET ha sviluppato una griglia di valutazione per le pratiche basata su quattro principi:

- Approcci interdisciplinari
- Rilevanza e applicabilità nella vita reale
- Pensiero critico (ripensamento) dello stato attuale
- Flessibilità e versatilità

Dopo una ricerca sull'identificazione delle pratiche smart nell'insegnamento e nell'applicazione dei principi dell'economia circolare, abbiamo scoperto che c'era una grande necessità di iniziare il nostro lavoro nel progetto all'interno di metodi, che fornissero un'introduzione e una panoramica generale alle possibilità di insegnamento dell'economia circolare.

La valutazione dei bisogni ha mostrato un diverso livello di coinvolgimento al tema dell'EC nell'istruzione e formazione professionale in diversi paesi. Abbiamo scoperto che solo la Finlandia ha un programma di apprendimento avanzato sull'EC in IFP. In tutti gli altri paesi questo tipo di programma non esiste o fa parte dell'educazione alla sostenibilità in generale.

Abbiamo visitato diverse organizzazioni e aziende e abbiamo concluso che in tutti i paesi partner esistono buone prassi, anche se non sono ancora identificate ed etichettate come "Circolari".

Durante diversi incontri transnazionali abbiamo presentato più di 70 pratiche smart, non solo da Finlandia, Germania, Italia, Slovacchia, Spagna, Turchia ma anche da Belgio, Francia e Paesi Bassi.

Durante il secondo Meeting a Madrid abbiamo stabilito una griglia di valutazione, uno strumento molto utile durante il processo di scelta tra le pratiche più smart. Quelle raccolte in questo libro sono state a nostro avviso le più interessanti, rappresentative, utili e trasferibili. Puoi trovare la griglia anche nell'e-book, può aiutarti non solo a comprendere i criteri di valutazione, ma a testare i tuoi approcci per scoprire aree di eccellenza o miglioramento.

## Come abbiamo testato le prassi scelte?

Le pratiche, i metodi e le esperienze raccolte sono state testate e riviste in tre laboratori di formazione tematici:

Il laboratorio 1 riguardava la verifica dei metodi circolari generali; Il Lab 2 riguardava i test di metodi circolari nella moda e il Lab 3 riguardava i test sui metodi circolari nel riciclaggio.

La progettazione dei laboratori di formazione si è basata sulla teoria dell'apprendimento esperienziale di Kolb, rappresentata da un ciclo in quattro fasi: esperienza concreta,

osservazione riflessiva della nuova esperienza, riflessione astratta e sperimentazione attiva.

Nel nostro caso la co-creazione di 3 laboratori ha comportato attività pratiche in cui un gruppo eterogeneo di pari ha espresso esperienze ed esplorato potenziali soluzioni. Un processo integrato era la co-scoperta, coinvolgendo i partecipanti nell'esplorazione di un argomento in un contesto collaborativo. La co-creazione di laboratori ha anche facilitato e abilitato la speculazione. Questo è stato un modo per utilizzare i desideri, le lotte e le esperienze attuali dei partecipanti come punto di partenza per guardare al futuro. Collaborare in questo modo ha provocato discussioni e creato preziose intuizioni su tutti gli aspetti di un argomento oggetto di indagine e (ri) progettazione. I partecipanti sono stati profondamente coinvolti e, soprattutto in un contesto di apprendimento tra pari, hanno creato soluzioni su misura per il loro mondo quotidiano.

## Non offline ma online....

Abbiamo programmato di incontrarci e testare durante gli incontri fisici, ma poiché l'ultima parte del progetto ha dovuto affrontare il primo blocco durante la pandemia COVID19, non abbiamo potuto incontrarci di persona. Grazie all'Agenzia Nazionale Tedesca abbiamo organizzato i laboratori in un modulo online, rendendo la riprogettazione di quei corsi di formazione la sfida più grande ma anche l'elemento innovativo del progetto. Ci siamo concentrati su quei metodi che sono i più adatti da insegnare e provare durante gli incontri online. Per utilizzarli abbiamo creato un pool di diversi strumenti online e di comunicazione (come zoom, jitsi, google meets, miro, mural ecc.). Alcune delle organizzazioni dei partner hanno utilizzato questi strumenti per la prima volta.

Tuttavia, le pratiche erano state testate su sfide della vita reale, uscendo dalla partnership, producendo prototipi di valore, che ora sono utilizzati dal consorzio.

## Raccomandazione politica ...

Abbiamo discusso le prassi e creato raccomandazioni su dove e come usarle. Sulla base dell'esperienza nel progetto e delle lezioni apprese testando i metodi scelti nei laboratori, abbiamo focalizzato le raccomandazioni su professionisti e decisori.

## Cos'altro abbiamo raggiunto e vogliamo ottenere nell'ambito del progetto Circle Vet e di questo e-book?

A livello locale il nostro progetto ha portato ad un aumento della consapevolezza sull'economia circolare e sulle potenzialità di

utilizzo dei circuiti locali, soprattutto nei settori moda e riciclo.

Attraverso questa pubblicazione, con le raccomandazioni e le pratiche smart vogliamo contribuire ai discorsi europei sulle abilità di insegnamento e apprendimento necessarie per il futuro dell'economia circolare. Tutti i risultati del progetto possono aiutare a progettare un curriculum negli istituti di istruzione scolastica, per adulti, giovani e professionale e fornire un percorso per l'istruzione superiore, la mobilitazione e una maggiore innovazione sociale.

Alla fine, vogliamo contribuire alla ricerca di mezzi nuovi e innovativi per abbandonare una cultura del "prendi-fai-smaltisci", come delineato dalla Commissione europea e contribuire al piano d'azione per l'economia circolare dell'Unione europea.

# Wprowadzenie i podsumowanie projektu

## Circle Vet – co to za projekt?

Circular Economy (CE)/ Gospodarka zamkniętego obiegu – zależy nam na tym wszystkim razem i każdemu z osobna, ale do tej pory nie mieliśmy wspólnej strategii. To jedna z głównych lekcji, której nauczyliśmy się podczas projektu CircleVET.

Podczas gdy kraje takie jak Finlandia przodują w integracji CE w edukacji zawodowej, kraje takie jak Niemcy nadrabiają zaległości, a inne kraje jak Turcja są jeszcze trochę w tyle. Jednak w całej Europie pojawiają się nowe pomysły na to, jak włączyć CE do kształcenia zawodowego. Wdrażanie praktyk jest tematem europejskim i na tym właśnie koncentrował się CircleVET.

Projekt Circle Vet rozpoczął się 1 października 2018 roku i zakończył 30 września 2020 roku. Był on finansowany w ramach programu Erasmus+ Vocational KA2. Przez dwa lata 7 partnerów z 6 krajów wymieniło, oceniło i przetestowało kilka metod edukacyjnych w zakresie umiejętności z zakresu CE w kształceniu i szkoleniu zawodowym.

Partnerzy podczas projektu przeszli przez różne procesy, wiele się od siebie nauczyli i poprawili wiedzę i umiejętności swoich pracowników.

Wszyscy uczestnicy projektu stali się bardziej świadomi konieczności posiadania umiejętności związanych z CE w swojej pracy. Byli gotowi dzielić się zdobytą wiedzą, uczyć i zachęcać innych do zrozumienia trwającego zmiany z gospodarki linearnej na gospodarkę zamkniętego obiegu i jej potencjału. Facylitatorzy zdobyli nowe narzędzia do szkolenia i nauczania CE w ramach kształcenia i szkolenia zawodowego.

## O czym jest ten e-book?

Ten e-book został stworzony jako część i rezultat projektu Circle VET w formie

kompleksowego kompendium praktycznych metod stosowanych w Europie. Ten podręcznik metodyczny dostarcza łatwych do zastosowania innowacyjnych narzędzi i metod, które motywują uczących się do pozostania zaangażowanymi i aktualizowania swoich umiejętności podczas przejścia od gospodarki liniowej do gospodarki zamkniętego obiegu. Chcemy, aby czytelnik nauczył się nowych umiejętności, wzmocnił swoją świadomość nowych procesów transformacyjnych w gospodarce i uświadomił sobie swoją rolę w tym procesie.

## Jak i dlaczego wybraliśmy te metody – najlepsze praktyki?

Frans van Houten, dyrektor generalny Royal Phillips i lider Platformy Przyspieszania Gospodarki Okręgowej (Platform for Accelerating the Circular Economy - PACE) powiedział: *"Jak wszystkie wielkie zmiany w historii ludzkości, przejście od gospodarki liniowej do zamkniętego obiegu będzie burzliwe. Pojawią się w niej bohaterowie i pionierzy, przeciwnicy i przeszkody, a także momenty zwycięstwa i zwątpienia. Jeśli jednak będziemy wytrwali, przywrócimy naszą gospodarkę na ścieżkę wzrostu i zrównoważonego rozwoju"*.

Pamiętając o jego słowach, CircleVET opracowało siatkę oceny praktyk opartych na czterech zasadach:

- podejściu interdyscyplinarnym
- adekwatności w prawdziwym życiu i możliwości zastosowania
- myśleniu krytycznym (przemyśleniu) obecnego stanu
- elastyczności i wszechstronności

Po identyfikacji i ocenie dobrych praktyk w nauczaniu i stosowaniu zasad gospodarki CE stwierdziliśmy, że naszym najważniejszym zadaniem jest znalezienie metod, które pozwalają na orientację i ogólny przegląd możliwości nauczania gospodarki zamkniętego obiegu.



Ocena potrzeb wykazała inny poziom zaangażowania w tematykę kształcenia i szkolenia zawodowego w różnych krajach. Stwierdziliśmy, że tylko Finlandia posiada zaawansowany program nauczania w zakresie CE w kształceniu i szkoleniu zawodowym. We wszystkich innych krajach tego typu program nie istnieje lub jest częścią edukacji o zrównoważonym rozwoju w ogóle.

Odwiedziliśmy różne organizacje i przedsiębiorstwa i doszliśmy do wniosku, że we wszystkich krajach partnerskich istnieją dobre praktyki, nawet jeśli nie są one jeszcze zidentyfikowane i oznaczone jako praktyki CE.

Podczas kilku międzynarodowych spotkań zaprezentowaliśmy ponad 70 dobrych praktyk, nie tylko z Finlandii, Niemiec, Włoch, Słowacji, Hiszpanii, Turcji, ale także z Belgii, Francji i Holandii.

Podczas 2. spotkania w Madrycie stworzyliśmy kwestionariusz oceny - narzędzie, które było bardzo pomocne w procesie wyboru spośród praktyk tych najlepszych. Te, które zostały zebrane w tej książce, były naszym zdaniem najciekawsze, najbardziej reprezentatywne, użyteczne i możliwe do zastosowania w naszych organizacjach. Ten kwestionariusz można znaleźć również w e-booku, może ona pomóc nie tylko w zrozumieniu kryteriów oceny, ale również w przetestowaniu własnego podejścia do odkrywania obszarów do doskonalenia.

## W jaki sposób przetestowaliśmy wybrane praktyki?

Zebrane praktyki, metody i doświadczenia zostały przetestowane i zweryfikowane w trzech tematycznych laboratoriach szkoleniowych - treningach:

Laboratorium 1 dotyczyło testowania ogólnych metod CE, laboratorium 2 - testowania metod CE w modzie, a laboratorium 3 - testowania metod CE w recyklingu.

Przy projektowaniu laboratoriów opieraliśmy się na doświadczalnej teorii uczenia się Kolba, reprezentowanej przez czteroetapowy cykl: konkretne doświadczenie, refleksyjna obserwacja nowego doświadczenia, abstrakcyjna refleksja i aktywne eksperymentowanie.

W naszym przypadku współtworzenie 3 laboratoriów obejmowało praktyczne działania, w których zróżnicowana grupa uczestników dzieliła się swoim doświadczeniem i badała potencjalne rozwiązania. Wbudowanym procesem była wspólna eksploracja, angażująca uczestników do zgłębiania tematu. Współtworzenie laboratoriów ułatwiło również i umożliwiło myślenie perspektywiczne. Był to sposób na wykorzystanie obecnych potrzeb, zmagających i doświadczeń uczestników jako punktu wyjścia do spojrzenia w przyszłość. Ten sposób współpracy spowodował dyskusję i stworzył cenne spostrzeżenia dotyczące wszystkich aspektów badanego i (re)projektowanego tematu. Uczestnicy zaangażowali się głęboko, a szczególnie w środowisko peer-learningowe, stworzyli rozwiązania dostosowane do ich codziennego świata.

## Nie w trybie offline, ale online....

Początkowo planowaliśmy spotkać się i przetestować go podczas fizycznych spotkań, ale ponieważ ostatnia część projektu stanęła w obliczu pierwszego lockdownu podczas pandemii COVID19 wiosną 2020, nie mogliśmy spotkać się osobiście. Dzięki otwartemu podejściu Niemieckiej Agencji Narodowej NABB zorganizowaliśmy laboratoria w formie online. Przy czym przekształcenie tych szkoleń w formę online było największym wyzwaniem, ale i innowacyjnym elementem projektu. Skoncentrowaliśmy się na tych metodach, które są najbardziej odpowiednie do nauczania i wypróbowania podczas spotkań online. Do ich wykorzystania stworzyliśmy pulę różnych narzędzi internetowych i komunikacyjnych (takich jak zoom, jitsi, google meets, miro, mural itp.). Niektóre z

organizacji partnerskich używały takich narzędzi po raz pierwszy.

Wciąż jednak praktyki te były testowane na rzeczywistych wyzwaniach, wywodzących się od partnerów, tworząc wartościowe prototypy, które są obecnie wykorzystywane przez konsorcjum.

### Rekomendacja dla polityki...

Omówiliśmy praktyki i stworzyliśmy zalecenia dotyczące tego, gdzie i jak je stosować. Bazując na doświadczeniach zdobytych w projekcie i wnioskach wyciągniętych z testowania wybranych metod w laboratoriach, skoncentrowaliśmy się na stworzeniu praktycznych rekomendacji dla osób decydujących o kierunkach rozwoju dzisiejszej Europy.

### Co jeszcze osiągnęliśmy i chcemy osiągnąć w ramach projektu Circle Vet i tego e-booka?

Na poziomie lokalnym nasz projekt przyczynił się do wzrostu świadomości na temat gospodarki zamkniętego obiegu i potencjału wykorzystania lokalnych obiegów dystrybucji, szczególnie w sektorach mody i recyklingu.

Poprzez tę publikację, wraz z rekomendacjami i najlepszymi praktykami chcemy przyspieszyć zmiany i wnieść wkład do europejskich dyskursów na temat nauczania umiejętności niezbędnych dla przyszłości CE. Wszystkie wyniki projektu mają pomóc w opracowaniu programu nauczania w szkołach, dorosłych, młodzieży i instytucjach kształcenia zawodowego oraz zapewnić ścieżkę do dalszej edukacji, mobilizacji i większej innowacyjności społecznej.

Ostatecznym celem jest przyczynienie się do znalezienia nowych, innowacyjnych środków umożliwiających odejście od kultury "wyprodukować by wyrzucić" i przyczynić się do realizacji planu działania Unii Europejskiej w zakresie gospodarki zamkniętego obiegu (Circular Economy Action Plan).

## Uvod a predstavenie projektu

### Čo bol projekt Circle Vet?

Obehové hospodárstvo - Sme v tom všetci spolu, ale akosi sme všetci tak ďaleko od seba. Toto je jedno z hlavných poznatkov, ktoré sme riešili počas projektu CircleVET.

atiaľ čo krajiny ako Fínsko napredujú v integrácii obehového hospodárstva do odborného vzdelávania, krajiny ako Nemecko ich dobiehajú a ďalšie krajiny ako Turecko zaostávajú. V celej Európe sa však objavujú nové nápady, ako integrovať obehové hospodárstvo do odborného vzdelávania. Implementácia postupov je európskou témou a na to sa CircleVET sústredil.

Projekt CircleVET sa začal 1. októbra 2018 a skončil 30. septembra 2020. Bol založený programom Erasmus + Vocational KA2. Počas dvoch rokov si 7 partnerov zo 6 krajín vymenilo, vyhodnotilo a otestovalo niekoľko vzdelávacích metód pre zručnosti v obehovom hospodárstve v odbornom vzdelávaní a príprave.

Partnerstvo prešlo rôznymi procesmi, navzájom sa veľa naučilo a zlepšilo vedomosti a zručnosti jednotlivých zamestnancov.

Všetci účastníci projektu si viac uvedomovali potrebu zručností obehového hospodárstva pri svojej práci. Boli pripravení zdieľať svoje nové získané vedomosti, učiť a povzbudzovať ostatných k porozumeniu prebiehajúceho prechodu na obehové hospodárstvo a jeho potenciálu. Lektori získali nové nástroje na školenie a výučbu obehovej ekonomiky v odbornom vzdelávaní a príprave.

### O čom je elektronická kniha?

Táto elektronická kniha bola vytvorená ako súčasť a výsledok projektu CircleVET vo forme komplexného kompendia praktických metód na európskej úrovni. Táto príručka metód

poskytuje ľahko použiteľné nástroje a inovatívne metódy, ktoré motivujú študentov, aby zostali zapojení a aktualizovali svoje zručnosti pre pokračujúci prechod z lineárneho na obehové hospodárstvo. Chceme, aby sa čitateľ naučil nové zručnosti, posilnil svoje povedomie o nových transformačných procesoch v ekonomike a uvedomil si svoju úlohu v tomto procese.

### Ako a prečo sme si vybrali postupy?

Frans van Houten, generálny riaditeľ spoločnosti Royal Phillips a vedúci Platformy pre urýchlenie obehového hospodárstva (PACE), uviedol: „Rovnako ako všetky významné prechody v histórii ľudstva, aj prechod od lineárnej k obehovej ekonomike bude búrlivý. Predstavia sa na ňom hrdinovia a priekopníci, zlomyseľníci a prekážky a chvíle víťazstva a pochybností. Ak však vytrváme, vrátíme našu ekonomiku na cestu rastu a udržateľnosti. Berúc do úvahy jeho slová, CircleVET vyvinul hodnotiacu tabuľku pre postupy založené na štyroch princípoch:

- Interdisciplinárne prístupy
- Relevantnosť a použiteľnosť v reálnom živote
- Kritické premýšľanie (prehodnotenie) o súčasnom stave
- Flexibilita a všestrannosť

Po desktopovom výskume zameranom na identifikáciu inteligentných postupov pri výučbe a uplatňovaní princípov obehového hospodárstva sme zistili, že je potrebné zahájiť našu prácu v rámci projektu v rámci metód, ktoré poskytujú úvod a všeobecný prehľad možností výučby obehového hospodárstva.

Posúdenie potreby ukázalo inú úroveň zapojenia sa do témy obehového hospodárstva v odbornom vzdelávaní v rôznych krajinách. Zistili sme, že iba Fínsko má pokročilý vzdelávací program pre obehové hospodárstvo v odbornom vzdelávaní. Vo

všetkých ostatných krajinách tento druh programu neexistuje alebo je súčasťou vzdelávania o udržateľnosti všeobecne.

Navštívili sme rôzne organizácie a podniky a dospeli sme k záveru, že vo všetkých partnerských krajinách existujú osvedčené postupy, aj keď ešte nie sú identifikované a označené ako „Circular“.

Počas niekoľkých nadnárodných stretnutí sme predstavili viac ako 70 inteligentných postupov, a to nielen z Fínska, Nemecka, Talianska, Slovenska, Španielska, Turecka, ale aj z Belgicka, Francúzska a Holandska.

Počas 2. stretnutia v Madride sme vytvorili hodnotiacu tabuľku - nástroj, ktorý bol veľmi nápomocný pri výbere tých najchytrejších postupov. Tie, ktoré sú zhromaždené v tejto knihe, boli podľa nášho názoru najzaujímavejšie, najreprezentatívnejšie, užitočné a prenosné. Mriežku nájdete aj v elektronickej knihe. Pomôže vám nielen porozumieť hodnotiacim kritériám, ale aj vyskúšať vaše vlastné prístupy k objavovaniu oblastí excelentnosti alebo zlepšenia.

### Ako sme vyskúšali vybrané postupy?

Zhromaždené postupy, metódy a skúsenosti boli testované a preskúmané v troch tematických výcvikových laboratóriách:

V laboratóriu 1 sa testovali všeobecné cirkulárne metódy, v laboratóriu 2 sa testovali cirkulárne metódy v móde a v laboratóriu 3 sa testovali cirkulárne metódy v recyklácii.

Dizajn výcvikových laboratórií bol založený na Kolbovej teórii zážitkového učenia, ktorú predstavuje štvorstupňový cyklus: konkrétna skúsenosť, reflexívne pozorovanie novej skúsenosti, abstraktná reflexia a aktívne experimentovanie.

V našom prípade spoluvytváranie 3 laboratórií zahŕňalo praktické aktivity, v ktorých rôznorodá skupina rovesníkov vyjadrila svoje skúsenosti a preskúmala potenciálne riešenia. Vloženým procesom bolo spoločné

objavovanie, ktoré zahŕňalo účastníkov, aby preskúmali tému v prostredí spolupráce. Spoločná tvorba laboratórií tiež uľahčila a umožnila špekulácie. Toto bol spôsob, ako využiť súčasné túžby, boje a skúsenosti účastníkov ako východisko pri pohľade do budúcnosti. Spolupráca týmto spôsobom vyvolala diskusiu a priniesla cenné poznatky o všetkých aspektoch skúmanej a (znovu) navrhovanej témy. Účastníci sa hlboko zapojili, najmä v prostredí partnerského učenia, vytvorili riešenia šité na mieru ich každodennému svetu.

### Nie offline, ale online....

Mali sme v pláne sa s tým stretnúť a otestovať to počas fyzických stretnutí, ale keďže posledná časť projektu čelila prvému uzamknutiu počas pandémie COVID19, nemohli sme sa osobne stretnúť. Vďaka Nemeckej národnej agentúre sme laboratóriá zorganizovali online formou - takže zmena dizajnu týchto školení bola najväčšou výzvou, ale aj inovatívnym prvkom projektu. Zamerali sme sa na tie metódy, ktoré sú najvhodnejšie na výučbu a skúšanie počas online stretnutí. Pre ich použitie sme vytvorili súbor rôznych online a komunikačných nástrojov (napríklad zoom, jitsi, google meets, miro, mural atď.). Niektoré z partnerských organizácií používali tieto nástroje po prvýkrát.

Postupy boli aj naďalej testované na skutočných výzvach, vychádzajú z partnerstva a priniesli hodnotné prototypy, ktoré konzorcium teraz používa.

### Politické odporúčanie...

Diskutovali sme o postupoch a vytvorili sme odporúčania, kde a ako ich používať. Na základe skúseností z projektu a poznatkov získaných pri testovaní vybraných metód v laboratóriách sme odporúčania zamerali na odborníkov z praxe a osoby zodpovedné za rozhodovanie.





Funded by the  
Erasmus+ Programme  
of the European Union

## Čo ďalšie sme dosiahli a chceme dosiahnuť v rámci projektu CircleVET a tejto elektronickej knihy?

Na miestnej úrovni náš projekt viedol k zvýšeniu povedomia o obehovom hospodárstve a potenciálu využívania uzavretých kruhov, najmä v odvetviach móda a recyklácia.

Prostredníctvom tejto publikácie chceme prostredníctvom odporúčaní a inteligentných postupov prispieť k európskym diskurzom o zručnostiach v oblasti výučby a učenia

potrebných pre budúcnosť obehového hospodárstva. Všetky výsledky projektu môžu pomôcť navrhnuť učebné osnovy pre poskytovateľov školského, dospelého, mládežníckeho a odborného vzdelávania a poskytnúť cestu k ďalšiemu vzdelávaniu, mobilizácii a väčšej sociálnej inovácii.

Na záver chceme prispieť k hľadaniu nových, inovatívnych prostriedkov na odklon od kultúry „urobte a zlikvidujte“, ako to načrtla Európska komisia, a prispejte k Akčnému plánu pre obehové hospodárstvo Európskej únie.

# Introducción y resumen del proyecto

## ¿Qué fue el proyecto CircleVET?

Economía circular (EC): estamos todos juntos en esto, pero de alguna manera seguimos muy separados. Este fue uno de los principales aprendizajes que tuvimos durante el proyecto CircleVET.

Si bien países como Finlandia están por delante en la integración de la economía circular en la educación profesional, países como Alemania se están poniendo al día y otros países como Turquía todavía están un poco por detrás. Sin embargo, en toda Europa surgen nuevas ideas sobre cómo integrar la economía circular en la educación profesional. La implementación de prácticas es un tema europeo y esto es en lo que se concentró CircleVET.

El proyecto CircleVET comenzó el 1 de octubre de 2018 y finalizó el 30 de septiembre de 2020. Fue financiado por el programa Erasmus+ Vocational KA2. Durante dos años, 7 socios de 6 países intercambiaron, evaluaron y probaron varios métodos educativos para enseñar las habilidades de economía circular en la Formación Educacional Profesional (FEP o VET en las iniciales en inglés).

El consorcio pasó por diferentes procesos, si aprendió mucho unos de los otros y mejoró el conocimiento y las habilidades todos los individuos.

Todos los participantes del proyecto se volvieron más conscientes de la necesidad de tener habilidades en el tema economía circular en su trabajo. Se sienten preparados para compartir sus nuevos conocimientos adquiridos, para enseñar y animar a otros a comprender la transición en curso hacia una economía circular y su potencial. Los facilitadores obtuvieron nuevas herramientas para capacitar y enseñar economía circular en FEP.

## ¿De qué trata el libro electrónico?

Este libro electrónico fue creado como parte y resultado del proyecto CircleVET en forma de un compendio completo de métodos prácticos a nivel europeo. Este manual de métodos proporciona herramientas de fácil aplicación y métodos innovadores que motivan a los alumnos a participar y actualizar sus habilidades para la transición en curso de una economía lineal a una circular. Queremos que el lector aprenda nuevas habilidades, fortalezca su conciencia de los nuevos procesos de transformación en la economía y lo haga consciente de su papel en este proceso.

## ¿Cómo y por qué hemos elegido las prácticas?

Frans van Houten, CEO de Royal Phillips y líder de la Plataforma para Acelerar la Economía Circular (PACE) dijo: "Como todas las transiciones importantes en la historia de la humanidad, el cambio de una economía lineal a una circular será tumultuoso. Contará con héroes y pioneros, detractores y obstáculos, y momentos de victoria y duda. Sin embargo, si perseveramos, volveremos a poner nuestra economía en una senda de crecimiento y sostenibilidad".

Teniendo en cuenta sus palabras, CircleVET desarrolló un marco de evaluación para las prácticas basada en cuatro principios:

- Enfoques interdisciplinarios
- Relevancia y aplicabilidad en la vida real
- Pensamiento crítico (repensar) del estado actual
- Flexibilidad y versatilidad

Después de una investigación documental para la identificación de prácticas inteligentes en la enseñanza y la aplicación de los principios de la economía circular, hemos descubierto que existe una gran necesidad de

comenzar nuestro trabajo en el proyecto dentro de los métodos, que brinden una introducción y una descripción general de las posibilidades de enseñanza de la economía circular.

La evaluación de necesidades mostró un nivel de implicación diferente al tema de la EC en la educación FEP en diferentes países. Hemos descubierto que solo Finlandia tiene un programa de aprendizaje avanzado sobre EC en FEP. En todos los demás países, este tipo de programa no existe o es parte de la educación sobre la sostenibilidad en general.

Hemos visitado diferentes organizaciones y empresas y hemos llegado a la conclusión de que en todos los países socios existen buenas prácticas, incluso si aún no están identificadas y etiquetadas como “circulares”.

Durante varias reuniones transnacionales, hemos presentado más de 70 prácticas inteligentes, no solo de Finlandia, Alemania, Italia, Eslovaquia, España, Turquía, sino también de Bélgica, Francia y los Países Bajos.

Durante el segundo encuentro en Madrid establecimos una tabla de evaluación, herramienta que fue muy útil durante el proceso de elección entre las prácticas más inteligentes. Los que se recogen en este libro, fueron en nuestra opinión los más interesantes, representativos, útiles y transferibles. También si puede encontrar el marco en el libro electrónico, que puede ayudarlo no solo a comprender los criterios de evaluación, sino también a probar sus propios enfoques para descubrir áreas de excelencia o mejora.

### ¿Cómo hemos probado las prácticas elegidas?

Las prácticas, métodos y experiencias recopilados se probaron y revisaron en tres laboratorios de capacitación temáticos: el primer laboratorio trataba de probar métodos circulares generales, el segundo laboratorio trataba de probar métodos circulares de

moda y el tercer laboratorio trataba de probar métodos circulares en el reciclaje.

El diseño de los laboratorios de capacitación se basó en la teoría del aprendizaje experiencial de Kolb, representada por un ciclo de cuatro etapas: experiencia concreta, observación reflexiva de la nueva experiencia, reflexión abstracta y experimentación activa.

En nuestro caso, la co-creación de 3 laboratorios involucró actividades prácticas en las que un grupo variado de pares expresó experiencias y exploró posibles soluciones. Un proceso integrado fue el descubrimiento conjunto, que involucró a los participantes a explorar un tema en un entorno colaborativo.

La co-creación de laboratorios también facilitó y permitió la especulación. Esta fue una manera de utilizar los deseos, los retos y las experiencias actuales de los participantes como punto de partida para mirar hacia el futuro. La colaboración de esta manera provocó discusiones y creó valiosos conocimientos sobre todos los aspectos de un tema que se investiga y (re) diseña. Los participantes se involucraron profundamente y especialmente en un entorno de aprendizaje entre pares, crearon soluciones personalizadas para su mundo cotidiano.

### No presencial, sino en línea

Hemos planeado reunirnos y probar las prácticas durante las reuniones y laboratorios presenciales, pero como la última parte del proyecto ha sido afectada por el primer bloqueo de desplazamiento durante la pandemia de COVID19, no pudimos reunirnos en persona. Gracias a la Agencia Nacional Alemana, organizamos los laboratorios de forma online, haciendo que el rediseño de esas piezas de formación fuera el mayor desafío, pero también un elemento innovador del proyecto. Nos concentramos en aquellos métodos que son los más adecuados para enseñar y probar durante las reuniones en línea. Para usarlos, hemos creado un conjunto de diferentes herramientas en línea y de comunicación (como Zoom, Jitsi, Google



Funded by the  
Erasmus+ Programme  
of the European Union

Meet, Miro, Mural, etc.). Algunas de las organizaciones de los socios han estado utilizando estas herramientas por primera vez.

Aún así, las prácticas se probaron en desafíos de la vida real, surgiendo de la asociación, produciendo valiosos prototipos, que ahora son utilizados por el consorcio.

### Recomendación de política

Hemos discutido las prácticas y creado recomendaciones sobre dónde y cómo usarlas. Basándonos en la experiencia del proyecto y las lecciones aprendidas al probar los métodos elegidos en los laboratorios, hemos enfocado las recomendaciones en los profesionales y los tomadores de decisiones.

### ¿Qué más hemos alcanzado y queremos lograr dentro del proyecto CircleVET y este libro electrónico?

A nivel local, nuestro proyecto se ha traducido en un aumento de la conciencia sobre la economía circular y el potencial del uso de bucles locales, especialmente en los sectores de moda y reciclaje.

A través de esta publicación, con las recomendaciones y las prácticas inteligentes, queremos contribuir a los discursos europeos sobre las habilidades de enseñanza y aprendizaje necesarias para el futuro de la economía circular. Todos los resultados del proyecto pueden ayudar a diseñar un plan de estudios en las escuelas, los adultos, los jóvenes y los proveedores de educación vocacional y proporcionar un camino hacia una mayor educación, movilización y una mayor innovación social.

Al final, queremos contribuir a encontrar medios innovadores para alejarnos de la cultura de 'tomar-hacer-desechar', como lo describe la Comisión Europea y contribuir al Plan de Acción de Economía Circular de la Unión Europea.



# Giriş ve Circle Vet Proje Özeti

## Circle Vet Projesi neydi?

Döngüsel Ekonomi - Hepimiz bu işte birlikteyiz, ama bir şekilde hepimiz birbirimizden çok uzaktayız. Bu, CircleVET projesi sırasında edindiğimiz en temel bilgilerden biridir.

Finlandiya gibi ülkeler döngüsel ekonomiyi mesleki eğitime entegre etme konusunda önde olurken, Almanya gibi ülkeler yetişiyor ve Türkiye gibi diğer ülkeler hala biraz geride kalıyor. Bununla birlikte, tüm Avrupa'da döngüsel ekonominin mesleki eğitime nasıl entegre edileceğine dair yeni fikirler ortaya çıkmaktadır. İyi uygulamaların, uygulanması bir Avrupa konusudur ve CircleVET'in odaklandığı konu budur.

Circle Vet Projesi 1 Ekim 2018'de başladı ve 30 Eylül 2020'de sona erdi. Erasmus + Mesleki KA2 Programı tarafından kuruldu. İki yıl boyunca 6 ülkeden 7 ortak, mesleki eğitimde döngüsel ekonomi becerileri için çeşitli eğitim yöntemlerini değiş tokuş etti, değerlendirdi ve test etti.

Ortaklar farklı süreçlerden geçti, birbirinden çok şey öğrendi ve personelinin bilgi ve becerilerini geliştirdi. Projenin tüm katılımcıları çalışmalarında döngüsel ekonomi becerilerinin gerekliliği konusunda daha bilinçli hale geldi. Yeni edindikleri bilgileri paylaşmaya, başkalarına döngüsel ekonomiye ve onun potansiyeline doğru devam eden geçişi anlamaları için öğretmeye ve teşvik etmeye hazırlar. Kolaylaştırıcılar, mesleki eğitimde döngüsel ekonomiyi eğitmek ve öğretmek için yeni araçlar kazandılar.

## E-kitap ne hakkında?

Bu e-kitap, Circle VET projesinin bir parçası ve sonucu olarak, Avrupa düzeyinde uygulamalı yöntemlerin kapsamlı bir özeti şeklinde oluşturulmuştur. Bu el kitabı, öğrencileri doğrusal ekonomiden döngüsel

ekonomiye devam eden geçiş için süreçte dahil olmaya ve becerilerini güncellemeye motive eden kolay uygulanabilir araçlar ve yenilikçi yöntemler sağlamaktadır. Okuyucunun yeni beceriler öğrenmesini, ekonomideki yeni dönüşüm süreçlerine ilişkin farkındalığını güçlendirmesini ve bu süreçteki rolünün farkına varmasını istiyoruz.

## Uygulamaları nasıl ve neden seçtik?

Royal Phillips CEO'su ve Döngüsel Ekonomiyi Hızlandırma Platformunun (PACE) lideri Frans van Houten şunları söyledi: "İnsanlık tarihindeki tüm büyük geçişler gibi, doğrusaldan döngüsel ekonomiye geçiş de çalkantılı olacak. Kahramanlar ve öncüler, muhalifler ve engeller ile zafer ve şüphe dolu anlar içerecek. Ancak sebat edersek, ekonomimizi yeniden büyüme ve sürdürülebilirlik yoluna sokacağız."

CircleVET bu sözleri akılda tutarak, dört ilkeye dayalı uygulamalar için bir değerlendirme tablosu geliştirdi:

- Disiplinlerarası yaklaşımlar
- Gerçek yaşam ile alaka düzeyi ve uygulanabilirlik
- Mevcut durumu eleştirel düşünme (yeniden düşünme)
- Esneklik ve çok yönlülük

Döngüsel ekonomi ilkelerini öğretmede ve uygulamada akıllı uygulamaları belirleme üzerine bir masaüstü araştırmasından sonra, projedeki çalışmalarımıza, döngüsel ekonomi öğretim olanaklarına bir giriş ve genel bir bakış sağlayan yöntemler dahilinde de başlamak büyük ihtiyaç olduğunu gördük. İhtiyaç değerlendirmesi, farklı ülkelerde mesleki eğitime döngüsel ekonomi konusuna farklı düzeyde katılım gösterdi. Sadece Finlandiya'nın Mesleki Eğitim ve Öğretimde döngüsel ekonomi konusunda ileri bir öğrenme programı olduğunu bulduk. Diğer tüm ülkelerde bu tür bir program mevcut

değil veya genel olarak sürdürülebilirlik eğitiminin bir parçasıdır.

Farklı kuruluşları ve işletmeleri ziyaret ettik ve tüm ortak ülkelerde, henüz tanımlanmamış ve “Genelge” olarak etiketlenmemiş olsalar bile iyi uygulamaların mevcut olduğu sonucuna vardık.

Birkaç ulusötesi toplantı sırasında sadece Finlandiya, Almanya, İtalya, Slovakya, İspanya, Türkiye'den değil, Belçika, Fransa ve Hollanda'dan da 70'ten fazla akıllı uygulama sunduk.

Madrid'deki 2. Toplantı sırasında bir değerlendirme tablosu oluşturduk. Bu uygulamalar arasında en yararlıları seçme sürecinde çok yardımcı olan bir araç. Bu kitapta toplananlar bize göre en ilginç, faydalı ve aktarılabilir olanlardı. Tabloyu e-kitapta da bulabilirsiniz, sadece değerlendirme kriterlerini anlamanıza yardımcı olmakla kalmaz, aynı zamanda mükemmellik veya iyileştirme alanlarını keşfetmek için kendi yaklaşımlarınızı test edin.

### Seçilen uygulamaları nasıl test ettik?

Toplanan uygulamalar, yöntemler ve deneyimler üç tematik eğitim laboratuvarında test edildi ve gözden geçirildi:

Lab 1 genel döngüsel yöntemleri test etmekle ilgiliydi, Lab 2 modada döngüsel yöntemleri test etmekle ilgiliydi ve Lab 3 geri dönüşümde döngüsel yöntemleri test etmekle ilgiliydi.

Eğitim laboratuvarlarının tasarımı, Kolb'un dört aşamalı bir döngü ile temsil edilen deneyimsel öğrenme teorisine dayanıyordu: somut deneyim, yeni deneyimin yansıtıcı gözlemi, soyut yansıma ve aktif deney.

Bizim durumumuzda, 3 laboratuvarın birlikte oluşturulması, çeşitli akranların deneyimlerini ifade ettiği ve olası çözümleri araştırdığı uygulamalı faaliyetleri içeriyordu. Katıştırılmış bir süreç, katılımcıların işbirlikçi bir ortamda bir konuyu keşfetmelerini içeren ortak keşifti. Laboratuvarların birlikte oluşturulması da spekülasyonu kolaylaştırdı ve mümkün kıldı.

Bu, katılımcıların mevcut arzularını, mücadelelerini ve deneyimlerini geleceğe bakmak için bir atlama noktası olarak kullanmanın bir yoluydu. Bu şekilde işbirliği yapmak, tartışmayı tetikledi ve araştırılan ve (yeniden) tasarlanan bir konunun tüm yönlerine ilişkin değerli öngörüler yarattı. Katılımcılar derinden dahil oldular ve özellikle bir akran öğrenme ortamında, günlük dünyaları için özel çözümler yaratıldılar.

### Çevrimdışı değil, çevrimiçi....

Fiziksel toplantılar sırasında tanışmayı ve test etmeyi planladık, ancak projenin son kısmı COVID19 salgını sırasında bir kilitlenme ile karşı karşıya olduğumuz için yüz yüze görüşemedik. Alman Ulusal Ajansı sayesinde laboratuvarları çevrimiçi olarak düzenledik - bu eğitimlerin yeniden tasarlanmasını projenin en büyük zorluğu ama aynı zamanda yenilikçi unsuru haline getirdik. Çevrimiçi toplantılarda öğretmek ve denemek için en uygun yöntemlere odaklandık. Bunları kullanmak için, farklı çevrimiçi ve iletişim araçlarından (yakınlaştırma, jitsi, google meet, miro, mural vb.) Oluşan bir havuz oluşturduk. Ortakların bazı kuruluşları bu tür araçları ilk kez kullanıyor.

Yine de uygulamalar, ortaklıktan çıkan ve şu anda konsorsiyum tarafından kullanılan değerli prototipler üreten gerçek yaşam zorlukları üzerinde test edildi.

### Politika önerisi

Uygulamaları tartıştık ve nerede ve nasıl kullanılacağına dair öneriler oluşturduk. Projedeki deneyime ve seçilen yöntemlerin laboratuvarlarda test edilmesiyle öğrenilen derslere dayanarak, tavsiyeleri uygulayıcılara ve karar vericilere odakladık.

### Circle Vet projesi ve bu e-kitap içinde başka nelere ulaştık ve ulaşmak istiyoruz?

Yerel düzeyde projemiz, döngüsel ekonomi ve özellikle moda ve geri dönüşüm



Funded by the  
Erasmus+ Programme  
of the European Union

sektörlerinde yerel döngüleri kullanma potansiyeli konusunda farkındalığın artmasıyla sonuçlandı.

Bu yayın aracılığıyla, öneriler ve akıllı uygulamalarla, döngüsel ekonominin geleceği için gereken öğretme ve öğrenme becerileri konusundaki Avrupa söylemlerine katkıda bulunmak istiyoruz. Projenin tüm sonuçları, okul, yetişkin, gençlik ve mesleki eğitim sağlayıcılarında bir müfredat tasarlamaya yardımcı olabilir ve daha ileri eğitim, seferberlik ve daha büyük sosyal inovasyon için bir yol sağlayabilir.

Sonunda, Avrupa Komisyonu tarafından ana hatlarıyla belirtildiği gibi, bir 'al-elden çıkar' kültüründen uzaklaşmak için yeni, yenilikçi yollar bulmaya katkıda bulunmak ve Avrupa Birliği'nin Döngüsel Ekonomi Eylem Planına katkıda bulunmak istiyoruz.



# Partners





## Partners of the Circle Vet project



Circular Berlin is a non-profit association, accelerating Berlin's transition towards a circular city, envisioning it as a resilient, citizen-oriented region. Circular Berlin runs knowledge-building projects on the circular economy, galvanizes the community and educates students and professionals on the topic.

You can find more information about us on [www.circular.berlin](http://www.circular.berlin)

### COMPARATIVE RESEARCH NETWORK:

The Comparative Research Network was founded in 2007 and worked since then in the field of non-formal adult, youth and VET education and research. The CRN Network activities are divided in three vertical fields: research, education, and publication. The research department aims to bring social sciences closer to society. Research fields are among others: European Borders, Civic Participation, Urban Issues, Peacebuilding and intercultural dialogue, diversity, and citizens science. The training department is working on non-formal education in cross-sectoral approaches. Among other CRN is specialised in civic education and participation, cultural heritage, digital and media skills,

storytelling, intercultural skills, green education, game-based learning, and creative social entrepreneurship. The Education department is implementing

training activities, train-the-trainer courses. It is developing methodological toolkits, training plans and concrete tools such as online games, apps, and handbooks. The three columns are connected with three horizontal initiatives – the CRN Participatory Lab, combining research, education and publication of civic education and the CRN Peacebuilding Programme, which is performing research and training on civic dialogue, conflict management and peacebuilding in the Euromed, Eastern European and the Balkans and the European Circular Economy Education Initiative.

The publication service of CRN is dedicated to publishing OER, free-licence training materials, handbooks, and support research publication. Due to CRN being organised as a transnational network, it has an international scope. It employs 4 permanent and around 10 freelance staff, and has a network of more than 120 members, located in almost every European country.

As a NGO CRN is non-profit oriented and performs crucial part of its work on a voluntary basis. Major target groups of the CRN are beside trainer, marginalized groups, such as migrants, people in conflict areas, seniors and unemployed. We work towards helping citizens in diverse neighbourhoods to participate, fight social exclusion create an ecological sustainable society and generally support the idea of a social cohesive Europe. For more information please visit: [www.crnonline.de](http://www.crnonline.de)



Future Fashion Forward e.V. (FFF) promotes education about the textile and fashion industry. It places particular emphasis on



sustainability, environment, social standards and social justice.

The long-term vision for FFF is the establishment of a platform that informs the population about the grievances in the garment industry and thus contributes to a positive change, both in the producing countries and in Germany.



GoDesk is a coworking and innovation space placed in Potenza. GoDesk is a shared workspace designed to inspire, to cut down fixed costs of companies and professionals, to promote exchanges among co-workers, clients, to improve their skills and knowledge in a way to simulate innovation.

Designed to run ideas into affordable and sustainable manner, GoDesk is also very active as business accelerator as it offers a unique ecosystem to resources, inspiration, and collaboration opportunities. The mentorship programmes or some of services for start-ups, freelancers and small enterprises delivered are based on the educational strategy of WBL (Work Based Learning), such as involving learners working for an employer, job shadowing, sharing entrepreneurial experience, apprenticeship, internship and others as such.

In collaboration with local public organization, GoDesk is developing also incubator programme providing start-ups with workspace and business development services – including accounting, branding, and intellectual property training – In a rent-based model offered to young ventures in a custom package.

Most part of the incubation program uses the approach Worked based Learning giving to the new start-up different opportunity to



Funded by the  
Erasmus+ Programme  
of the European Union

improve his or her skills and experiences through Apprenticeship, Internship, Mentorship, Job Shadowing or Business visit and many more.



The Chamber of Izmir Dry Goods and Haberdashery is a non-profit, semi-official public organization with a legal entity. There are 1300 registered small and medium sized enterprises (SME) in-house. We have nearly 1500 members.

Our Educational Centre entered service in 1993. Within the establishment we have initial vocational education courses for the graduates of vocational training centres and universities and the employees of the firms in the sector. We have experience in a EU Projects regarding adult education, “active aging”, solidarity through generations” and we will come with our knowledge from entrepreneurship field to fulfil the relation between education and labour market.



National Recycling Agency of Slovakia, (NARA-SK) is an association of waste producers, design offices and developers of technical solutions, universities, scientific and research institutes and experts in waste and water management, municipalities (town and villages), civil associations and organisations dealing with circular economy in order to cooperate and promote each other.



NARA-SK develops its activities with advisory, educational, promotional, publishing, information, and mediation activities, especially for its members and partners. An important part is education and educations of public administration and population in the field of circulatory/ waste management applications, technical solutions for biodiversity rehabilitation, adaptation measures to migrate the consequences of climate change, low carbon economy and the application of products and technical solutions for construction using recycled materials and recycled materials.



SomosMás is a global social innovation enterprise harnessing collective intelligence to transform challenges into sustainable actions. With our work, we seek to contribute to a society that trusts as responsible for its well-being and adjusts its institutions and organizations with this perspective.

We design and co-create comprehensive “ad hoc” solutions using innovative methodologies and technologies that harness the maximum of everyone’s imagination, creativity, wisdom, and resourcefulness to tackle daily or strategic problems. We believe every organization has the solutions in its inside but needs to harness the power of the collective



Funded by the  
Erasmus+ Programme  
of the European Union

intelligence of its members to identify them and ensure its relevance and sustainability. Because there are challenges that can only be addressed collectively.



SYKLI Environmental School of Finland is a specialized vocational institute. SKYL specializes in capacity building among professionals to promote sustainability. SKYLI offers in-service-training nationwide for adults representing a wide range of branches and professions, including early childhood education, schools’ teachers, and vocational teachers. Furthermore,

SKYLI is active in a few domestic and international development projects. SKYLI employs 30 full-time experts and trainers. Each year about 3000 students participate in different types of trainings. SKYLI offers preparatory training for competence-based staff training, teacher in-service-training, consulting, and other expert services. In the educational field, SKYLI provides in-service-training to professionals in both informal and formal education, including early childhood education, schoolteachers, and vocational teachers. The trainings vary from one-day workshop to further vocational qualification in environmental education.

SKYLI uses versatile pedagogic approaches, including participatory and playful learning and co-creations methods.

This compendium was produced as part of the Circle VET project. It has taken the form of a comprehensive compendium of hands-on methods used across Europe.

This manual provides easy-to-apply innovative tools and methods designed to motivate learners to stay involved and update their skills for the ongoing transition from a linear to a circular economy. We want readers to learn new skills, making them more aware of the ongoing transformational processes in the economy and play a role in them.

CircleVET has developed an assessment grid for practices based on the following four principles:

- interdisciplinary approaches;
- real-life relevance and applicability;
- critical Thinking (rethinking) of the current status;
- flexibility and versatility.

After identifying and evaluating smart practices in teaching and applying circular economy principles, we came to the conclusion that our foremost task should be to focus on determining methods that provide an introduction into and a general overview of the possibilities to teach the basics of circular economy.

**ISBN 978-3-94683-2126 (ebook)**  
**978-3-946832-164 (Print)**



Co-funded by the  
Erasmus+ Programme  
of the European Union

