Program Priority: SO1.1 - Improve the framework conditions for innovation in the Alpine Space

Work Package: WPT3 Fostering CE processes in Alpine Space with digitalisation processes

Output: O.T3.1 Local actions addressed to SMEs to foster CE with digitalisation processes

PP1 – Technology Park Ljubljana, Lead Partner (TPLJ – LP)

Author: Majda Potokar, PP 1 – Technology Park Ljubljana (TPLJ - LP)

Version: 1.0

Month, YEAR: June, 2022

Table of contents

Purpose of the document

The purpose of this document is to describe the achievement of the output O.T3.1, described as follows in the AF:

"Grouped according to 3 CE approaches and in line with 3 feasibility studies, 15 pilots in 13 areas addressed to SMEs to push CE processes, increase attitude to invest and move toward sustainable growth, waste reduction and optimal use of resources."

The following table shows the distribution of the 13 areas (according to the NUTS 2 region code of the respective partners) and the 15 partners in charge of performing one pilot each.

Areas	Pilots
1. SIO2 Zahodna Slovenija	1. TPLJ LP
	2. PP10 JSI
2. DE21 Oberbayern	3. PP2 TUAS Rosenheim
3. DE11 Stuttgart	4. PP3 bwcon
4. DE27 Schwaben	5. PP14 UCB
5. AT13, Wien	6. PP4 aws
6. AT32, Salzburg	7. PP5 ITG
7. AT31, Oberösterreich	8. PP6 Biz-Up
8. ITH3, Veneto	9. PP7 VI
	10. PP13 CCIAA Venezia Rovigo
9. FR42, Alsace	11. PP8 Grand E-nov
10. FR71, Rhône-Alpes	12. PP9 AURAE
11. FR82 Provence-Alpes-Côte d'Azur	13. PP15 RISINGSUD
12. ITC1, Piemonte	14. PP11 TOWL
13. ITC4, Lombardia	15. PP12 Confindustria Bergamo

The present document encompasses the following elements:

- Overall methodology applied by all partners in the consortium to achieve the implementation of their own local pilot action.
- Description of the local pilot action for the partner PP 1, TPLJ - LP
- Lessons learned by PP 1, TPLJ – LP
- Durability and follow-up

Methodology to achieve the output

The methodology used to achieve the output mirrors the activities planned in the AF:

Step 1:	**Planning digitalised CE processes in Alpine Space area addressed to SMEs**
	Development of feasibility plans to foster digitalised CE processes in SMEs from the Alpine Space, according the 3 approaches: CE design, CE optimal use and CE value recovery.
	Each feasibility plan includes plans for local actions defined by the relevant partners, according to the following distribution across the partnership:

CE design	CE optimal use	CE value recovery
LP TPLJ & PP10 JSI	LP TPLJ & PP10 JSI	PP2 TUAS Rosenheim
PP4 aws	PP3 bwcon	PP6 Biz-Up
PP5 ITG	PP7 VI	PP13 CCIAA Venezia
PP9 AURAE	PP8 Grand E-nov PP11	Rovigo
	TOWL	PP14 UCB

Interreg
Alpine Space
Circular4.0

		PP12 Confindustria Bergamo PP15 RISINGSUD			
	BWCON as a WP T3 leader prepared in a close collaboration with TPLJ a template for the feasibility plans, based on the methodology for the development of feasibility plans provided by TPLJ and confirmed by all PPs in May 2021.				
Step 2:	**Experimenting transnational actions to foster CE approaches through digitalisation** Implementation of the local actions by the respective partners as defined in the feasibility plans: maturity assessment check, identification of innovation needs, 1:1 assistance provided to SMEs. UCB provided to all partners a template for the drafting of implementation reports.				

PLANNING DIGITALISED CE PROCESSES IN ALPINE SPACE AREA ADDRESSED TO SMES - FEASIBILITY PLANS

The task A.T3.1 Planning digitalised CE processes in Alpine Space area addressed to SMEs was implemented under WP T3 - Fostering CE processes in Alpine Space with digitalisation processes. The main objective of WP T3 was to develop transnational and local actions to monitor the effectiveness of SMEs digitalisation to push them toward CE processes. The role of digitalisation as an 'enabler' for the CE is tested with the support of the CIRCULAR4.0 toolkit developed under T2. The testing method (T3.1) is based on a "cycle" moving from the transnational working groups and their specific approaches, through an Alpine "vision" of the actions to be implemented and developed with the feasibility studies and then their experimenting with local action to come back to the Alpine vision and produce the following CIRCULAR4.0 Action Plan (T4.1). The overall idea is that Circular Economy and digitalisation can benefit SMEs and Alpine well-being economy only if included in a transnational approach that will highlight connections, relationships, knowledge and opportunities for SMEs, Intermediaries, Policymakers, and the society as a whole.

The feasibility plans developed according to the 3 main approaches to CE define concrete paths to be undertaken to achieve the results, the resources and the organization required. Partners selected one priority CE approach looking at their economic and social environment and worked with the target groups "declining" the alpine roadmaps into local needs and expectations. Local Pilot actions consist of actions directly addressed to SMEs to check their maturity for CE processes, the innovation to be introduced in the processes, products and business models, the investment plan required and the way to implement it.

1. AS feasibility plan to foster CE design model with digitalisation processes (D.T3.1.1)

This feasibility plan focuses on how to foster CE design model with digitalisation processes. Each P from the group of CE design model developed its feasibility plan for setting-up local service providers addressed to SMEs to establish services to increase attractiveness by investors and propose new financial schemes by Public Actors, roadmaps to achieve these results. In the case of Slovenia two project partners collaborated – JSI & TPLJ.

The plan defines organization, actions, resources, and equipment needed to set-up Alpine regional centres able to promote digitalised CE activities addressed to SMEs on the design model and eco-innovation in general.

Local detailed plans by PPs for their pilots:
- LP TPLJ & PP10 JSI
- PP4 aws
- PP5 ITG
- PP9 AURAE
- PP12 Confindustria Bergamo
- PP15 RISINGSUD

are available in deliverable D.T3.1.1 in the annexes.

Interreg
Alpine Space
Circular4.0

2. AS feasibility plan to foster CE optimal use approach with digitalisation processes (D.T3.1.2)

This feasibility plan focuses on how to foster CE optimal use approach with digitalisation processes. Each PP from the group optimal use model developed its feasibility plan for setting-up local service providers addressed to SMEs to establish services to increase attractiveness by investors and propose new financial schemes by Public Actors, roadmaps to achieve these results. In the case of Slovenia two project partners collaborated – JSI & TPLJ.

The plan defines organization, actions, resources, and equipment needed to set-up Alpine regional centres able to promote digitalised CE activities addressed to SMEs on the design model and eco-innovation in general.

Local detailed plans by PPs for their pilots:

- LP TPLJ & PP10 JSI
- PP3 bwcon
- PP7 VI
- PP8 Grand E-nov
- PP11 TOWL

are available in deliverable D.T3.1.2 in the annexes.

3. AS feasibility plan to foster CE value recovery approach with digitalisation processes (D.T3.1.3)

This feasibility plan focuses on how to foster CE value recovery approach with digitalisation processes. Each PP from the group value recovery model developed its feasibility plan for setting-up local service providers addressed to SMEs to establish services to increase attractiveness by investors and propose new financial schemes by Public Actors, roadmaps to achieve these results. In the case of Veneto Region two project partners from Veneto collaborated – PP7 VI and PP13 CCIAA Venezia Rovigo.

The plan defines organization, actions, resources, and equipment to set-up Alpine regional centres to promote digitalised CE activities addressed to SMEs to develop value recovery processes, services, and products.

Local detailed plans by PPs for their pilots:

- PP2 TUAS Rosenheim
- PP6 Biz-Up
- PP7 VI & PP13 CCIAA Venezia Rovigo
- PP14 UCB

are available in deliverable D.T3.1.3 in the annexes.

EXPERIMENTING TRANSNATIONAL ACTIONS TO FOSTER CE APPROACHES THROUGH DIGITALISATION - IMPLEMENTATION REPORTS FOR THE LOCAL ACTIONS

IN coherence with the feasibility plans, 15 local actions were implemented by the project partners, according to a shared methodology. The following picture shows the common parts of all local actions as well as the flexibility available to the partners for the operational aspects of the implementations:

Common parts of all local actions	Flexibility
Information events **Calls for SMEs (transparent selection)**	Kick-off for selected companies or pre-call events Selection procedure / main criteria = transparency

Circular assessment Digital maturity assessment Access to self-learning materials	Different tools can be used, as long as they are part of the toolkit. Assessments can be performed online as self-assessment or in interviews.
Identification of innovation needs 1:1 assistance	Assistance provided either directly by the partners or in combination with external experts (most common case)
Development of recommendations focus 3 to 6 months (on the basis of the above)	Format of recommendations: business model canvas, transformation roadmap…

Description of the local pilot action implemented by PP 1 – TPLJ LP

According to the overall methodology defined for the pilot actions, the following activities were implemented by TPLJ:

1. Selection/identification of SMEs
2. Kick off meetings/workshops – CAT4.0 introduction for SME's
3. Circular maturity assessment and digital maturity assessment of SMEs CAT4.0 (1:1 expert consultation to SME's)
4. Identification of innovation needs and investment plan
5. identification of the funding instrument for SME to apply for funding the pilot action

ACTIVITY 1: SELECTION/IDENTIFICATION OF SMEs

1	Selection/identification of SMEs	Start date	11 2021
		End date	01 – 02 2022

TPLJ prepared (in a collaboration with JSI) and initiated an open invitation (announced on the TPLJ website and LinkedIn/Facebook posts) to select SMEs to participate in the so called Circularity Acceleration Training 4.0 (CAT4.0) training program in Slovenia. All SMEs in Slovenia were invited to participate at the CAT4.0 training (in case of big interest with the specific focus to sectors such as wood sector, manufacturing, plastics, food, and construction).

An open invitation and direct call for participation in the CAT4.0 program was performed also by JSI and SRIP FoF communication channels and through other sectoral organizations such as Association of Chemical Industries of Slovenia, Association of Factories of the future, SRIP Smart Cities, SRIP Circular Economy, SRIP Agriculture and food and other clusters (Slovenian Toolmaking Cluster, Competence Center for advanced control technologies) and KIC Climate Slovenia as well as through some of member organizations of the mentioned clusters (business incubators, accelerators, technology parks etc.).

Implementing the CAT4.0 modules addressed to SMEs supported by awareness rising campaign (using project partners communications channels) started.

Interreg
Alpine Space
Circular4.0

Registered companies (39 in total in Slovenia/47 participants) were distributed between the two Circular4.0 project partners (JSI and TPLJ) for individual consultations i.e., experts advisory testing. TPLJ took majority of the less digitally matured companies mostly coming from plastics/bioplastics, food, ICT, waste management and other sectors.

TPLJ matched and connected SMEs with three experts, which organised three joint kick-off meetings organised (each expert implemented its own joint kick- off meeting with the matched SMEs).

17 SMEs collaborated within CAT4.0 trainings with three TPLJ's experts. After the kick off meetings experts arranged individual meetings with them to scan their business areas to decide about the type of targeted tools needed to support the 1:1 consultations.

Four SMEs were from ICT, 3 SMEs form waste management, 3 from food sector, 2 from plastics/bioplastics, 1 textile sector, 1 mobility, 1 product design services, 1 retail, 1 legal service.

The SMEs selected were predominantly micro to small companies from 1-10 employees and 10-20 employees, some also from 51-250 employees, and one large company.

Result

Planned: Reach at least 17 interested SMEs to participate in the pilot action.

All together 17 companies registered for the CAT4.0 training (16 SMEs and 1 big company).

15 companies went through the whole CAT4.0 process (circularity assessment, digital assessment, 1:1 consultation, action plans/recommendations), while 2 companies went through 1:1 meetings.

ACTIVITY 2: KICK OFF MEETINGS/WORKSHOPS – CAT4.0 INTRODUCTION FOR SMES

2	Kick off meetings/ workshops – CAT4.0 introduction for SME's	Start date	7.3.2022
		End date	16.3.2022

Three joint kick-off meetings of the CAT4.0 pilot training course was delivered to SMEs registered by three experts separately for the pilot actions. Instructions on the course delivery and content were provided to the participants beforehand.

CAT4.0 introduction of pilots was given on 7.3.2022 online, on 8.3.2022 onsite in the premises of TPLJ, and on 16.3.2022 online.

The presentations were delivered to the SMEs by the contracted experts introducing key concepts of the Circular economy, Digital technologies in support of circular economy, the CAT4.0 learning platform with materials available to SME's the tools to be used with 1:1 consultations and general procedures for implementing the pilot actions.

Sub activity:
After kick-off meetings experts individually set an appointment date for 1:1 consultation to select the circular and digital maturity tools and for further assistance.

Results
All together 13 SMEs were present at the kick-off meetings. To missing 4 SMEs the joint the CAT4.0 methodology and approach was presented on their individual meetings with experts.

ACTIVITY 3: CIRCULAR MATURITY ASSESSMENT AND DIGITAL MATURITY ASSESSMENT OF SMES CAT4.0 (1:1 EXPERT CONSULTATION TO SME'S)

3	Circular maturity assessment and digital maturity assessment of SMEs CAT4.0 (1:1 expert consultation to SME's)	**Start date**	03 2022
		End date	06 2022
Within the CAT4.0 training external experts conducted an analysis of the circularity of the participating companies using the Circularity Assessment Score (CAS2.0) and DMA (i4Ready and Innocape). At personal meetings they discussed the results of the assessment of the company's circularity/digital maturity and identified circular/digital opportunities to increase the circularity and digital advancement in the organization or. to develop a new product, service, or circular business model where possible with investments into digital technologies. Based on the meetings, some participants also prepared a project plan in the form of Lean Business Model Canvas.			
Results			
15 companies obtained a documented report, a picture of DMA and CAS diagrams with the interpretation of the scoring results and DMA/CAS reports/responses summary. 15 CAS 2.0+ digital maturity assessments of SMEs were produced. 3 participating SMEs also prepared a pilot project plan in the form of Lean Business Model Canvas and 2 prepared pitching for potential investors.			

ACTIVITY 4: IDENTIFICATION OF INNOVATION NEEDS AND INVESTMENT PLAN

4	Identification of innovation needs and investment plan	**Start date**	03.2022
		End date	06 2022
Each of the 17 companies were invited to prepare a self-evaluation report and received results of its CE and digital maturity assessment result, a document established in collaboration with the SME (based on the 1:1 meetings) and encompassing at least one specific recommendation covering one or several of the following aspects of the transformation of the company towards higher circularity (= increase of maturity level) ▪ Technology adoption ▪ New or improved process ▪ New or improved or transformed business model ▪ New or improved products ▪ New or improved services			

And with the following characteristics:

- Digitally supported (as far as possible)
- With a time horizon from 6 months up to 1 year

Additionally, the participating companies were invited to self-study CAT2.0 on the online learning platform Talent LMS.

15 CAS 2.0 + digital maturity assessments of SMEs were produced fully.

Three participating SMEs also prepared a pilot project plan in the form of Lean Business Model Canvas and 2 produced pitching for potential investors.

ACTIVITY 5: IDENTIFICATION OF THE FUNDING INSTRUMENT FOR SME TO APPLY FOR FUNDING THE PILOT ACTION

5	Identification of the funding instrument for SME to apply for funding the pilot action	**Start date**	9.3.2022
		End date	5.8.2022

During the pilot action implementation, the national calls were announced and later published in August 2022 in support of Green/Circular transition and digitalisation (The instrument was called: Support for start-ups, micro, small and medium-sized companies in the strategic sustainable and circular transformation of business in the years 2022-2025 ERDF funding in Slovenia) published by the Ministry of Economy. This is a specific instrument to support transformation of SMEs to circular economy business.

Companies were proactively directed during the 1:1 consultations to seek investment funds for their pilot projects as well as to present their pilots to the venture capital organisations.

Results

3 companies produced lean canvas investment plan with the aim to participate at the public calls and/or seek other suitable investment funds.

Other 13 - 14 companies will consider pursuing investing into pilot projects using public funding instruments in support of circular and digital transformation.

Lessons learned and recommendations for the follow-up

• SMEs considered 1:1 assistance very useful, they liked the personal approach of the expert, the length of the training was appropriate, influencing the thinking and to the first steps in sustainability, presentation of good practices was useful, the linkage of circular economy and the digitalization, assistance on a real case in the company, identification of potentials of going circular and the generation of ideas, new experiences/new business models.

• Suggestions by SMEs to improve the CAT4.0: Video presentation of the CAT4.0 would be useful for companies. It should be highlighted even more to whom in the company the CAT4.0 training is aimed at. Prolonging the length of the training would it be useful, best practices to be included.

• All companies that answered the satisfaction questionnaire (18) and were involved in the CAT4.0 would recommend the training to other companies who are willing to transit to the circular economy through digitalization.

• It is essential that the top management/owners are involved in the process of the circular/digital transformation or at least that they support the process.

• Some participants were involved within the CAT4.0 that were interested in the topics to be able to communicate it with the top management/owners in a step-by-step process.

Considering that by the time of the meeting not all the local actions reports were available, the discussion based on the preliminary results available. Those results concern 212 enterprises supported, i.e., about 85% of the final number of enterprises supported reached by the end of June. The validity of the lessons learned was therefore not questioned by the members of the Evaluation Committee.

Following the presentation of the results from the local pilot actions:
- *SMEs supported and sectors,*
- *Evaluation results of the local pilot actions,*
- *Lessons learned and input from the Transnational Working Groups.,*

The lessons learned were discussed with the members of the Evaluation Committee.

Outcome of the discussion:

- *The overall performance of the local pilot actions was acknowledged positively.*
- *In addition to the overall positive feedback to the local pilot actions, suggestions for improvement of the design and implementation of similar actions aiming for improving the combined circular and digital maturity of SMEs through adequate assistance were discussed.*
-
  The following recommendations were discussed:

  Lessons learned for the design of the pilot actions:
  - *It was generally difficult to involve SMEs with a low maturity level*
    A more differentiated strategy to reach companies according to their maturity level might have helped.
  - *More generally, the overall support offer could be better differentiated according to the maturity level of the businesses.*
  - *The focus on SMEs might have been too strict. Large SMEs which control, or influence value chains could have been involved to reach also their SME suppliers.*
  - *The initial KPIs might have been too ambitious in terms of investment leveraging, according to the limited financial and time resources for the pilots.*
  -

Interreg
Alpine Space
Circular4.0

Lessons learned for the implementation of the pilot actions:

- o *Combining digital and circular expertise in the assistance process was not always easy with on expert. Mixed teams would have helped working on both aspects more systematically*
- o *Some local actions started late and were too short to reap all possible fruits. In general, the 1:1 assistance and consulting cycle was too short to reach the best possible results.*
- o *The implementation of a full Plan-Do-Check-Act interaction cycle with companies is recommended.*
- o *More peer learning and interaction among the different regional experts and sharing of experience among trainers could have helped to increase the impact of the pilot actions.*
- o *Giving the possibility to companies to meet might have generated more innovative ideas.*
- o *The online training offer could have been designed in a more flexible way to make it even easier to access for companies.*

The following key learnings were agreed upon:

1. *Awareness of Circular Economy is key.*
2. *Creating a network/community of experts and business support providers promoting the improvement of circular economy by use of digital tools is essential. The community generated in the project is a valuable asset to be maintained.*
3. *Action plans and recommendations need to be connected closely with funding opportunities for SMEs in order to accelerate the design of innovative activities and investment decisions.*
4. *The higher the circular maturity, the higher the need for digitalization.*

Durability and follow-up

TPLJ is the financer and thus the carrier of the https://circular40.eu/ domain, while JSI/TPLJ will continue with the provision of the maintenance of the training platform https://circular40.eu/ (Circular4.0 community platform, O.T4.2) after the end of the project for minimum 3 years, with open access to all Alpine actors interested. The training materials for CAT2.0 training course from the https://circular40.talentlms.com/index is to be transferred onto IJS server for further use and potential upgrade in the future.

The Circular4.0 community platform will support the assistance provided by intermediary organization, service providers and other public actors to SMEs to strengthen the implementation of sustainable and innovative products and services, to develop new business models based on recycling and reuse. The toolkit will be maintained by TPLJ and JSI after the end of the project for minimum 3 years, with open access to all Alpine actors interested.

The toolkit will be transferred both to other organization and intermediaries located in the project areas and to new organization located in other Alpine Areas. Others EU macro-strategies are reached already within the project implementation (for example the presentation of the Circular4.0 results within EUSAIR workshop in September 2022 and their collaboration at the Circular4.0 final conference). Option of transferring the kit to other similar regions are also in consideration.

The CAT4.0 training methodology including the usage of the digital maturity assessment tools and CAS 2.0 tool will continue to be promoted for use for intermediary organisations and SMEs in Slovenia as well as within the Circular4.0 community particularly to SMEs. A regular CAT4.0 trainings will continue to be implemented to enhance further support of the transition of SMEs to the circular economy through digitalisation.

Success cases identified within the piloting phase will be further used to push CE processes with the support of digitalisation, to increase the attitude of SMEs, investors, and public actors to move toward sustainable growth and innovate business models. These results will be used to increase knowledge, investments, and production according to the principle of CE and strengthening digitalisation processes with the aim to achieve long lasting effects.

Interreg
Alpine Space
Circular4.0

The results of the developed toolkit, pilot action results and SMEs maturity assessment check will provide a longevity of the project results that can be transferred and used in the project afterlife for a longer period.

Success cases will be promoted through brochure, an exhibition tour and through the Circular4.0 community that is going to be set up within the EUSALP.

Annex

- D.T3.1.2 - AS feasibility plan to foster CE optimal use approach with digitalisation processes drafted by TPLJ
- D.T3.2.2 - Local actions to implement CE Optimal Use approaches with digitalisation processes drafted by TPLJ, including overview of businesses supported

Program Priority: SO1.1 - Improve the framework conditions for innovation in the Alpine Space

Work Package: WP T3 - Fostering CE processes in Alpine Space with digitalisation processes

Activity: A.T3.1 Planning digitalised CE processes in Alpine Space area addressed to SMEs

Deliverable: D.T3.1.2 AS feasibility plan to foster CE optimal use approach with digitalisation processes

Author: TPLJ

Version: final

Month, YEAR: December 2021

Table of contents

I.   Introduction

The task A.T3.1 Planning digitalised CE processes in Alpine Space area addressed to SMEs is implemented under WP T3 - Fostering CE processes in Alpine Space with digitalisation processes. This deliverable relates particularly to the development of the deliverable D.T3.1.2 AS feasibility plan to foster CE optimal use approach with digitalisation processes.

The main objective of WP T3 is to develop transnational and local actions to monitor the effectiveness of SMEs digitalisation to push them toward CE processes. The role of digitalisation as an 'enabler' for the CE is tested with the support of the CIRCULAR4.0 toolkit developed under T2. The testing method (T3.1) is based on a "cycle" moving from the transnational working groups and their specific approaches, through an Alpine "vision" of the actions to be implemented and developed with the feasibility studies and then their experimenting with local action to come back to the Alpine vision and produce the following CIRCULAR4.0 Action Plan (T4.1). The overall idea is that Circular Economy and digitalisation can benefit SMEs and Alpine well-being economy only if included in a transnational approach that will highlight connections, relationships, knowledge and opportunities for SMEs, Intermediaries, Policymakers, and the society as a whole. The feasibilities studies developed according to the 3 main approaches to CE will define concrete paths to be undertaken to achieve the results, the resources and the organization required (T3.2). Partners selected one priority CE approach looking at their economic and social environment and will work with the target groups "declining" the alpine roadmaps into local needs and expectations. Local Pilot actions (T3.3) will consist of actions directly addressed to SMEs to check their maturity for CE processes, the innovation to be introduced in the processes, products and business models, the investment plan required and the way to implement it. Finally, 280 SMEs will be assisted to implement CE processes and some of them, identified as success cases will be included in one exhibition tour, being CE with a social impact too. Pilots will be evaluated by a Scientific committee that will support the analysis of the performance according to KPIs (T2.5). The outputs will be the ground for the development of the CIRCULAR4.0 Action Plan (T4.1).

The task A.T3.1 Planning digitalised CE processes in Alpine Space area addressed to SMEs provides the AS users with proposals and plans to increase attitude by SMEs to eco-innovation, to innovate business models and products for re-use & recycling starting from traditional business and production processes. BWCON as a WP T3 leader prepared in a close collaboration with TPLJ a template for A.T3.1 based on the methodology for the development of feasibility plans provided by TPLJ and confirmed by all PPs in May 2021.

This deliverable (D.T3.1.2) is focusing on the development of AS feasibility plan to foster CE optimal use approach with digitalisation processes. BWCON collected inputs of each project partner from the optimal use model (in the case of Slovenia two project partners collaborated –TPLJ & JSI). Each PP from the group optimal use model (TPLJ & JSI, TOWL, VENINN, BWCON, GRAND E-NOV) developed its feasibility plan for setting-up local service providers addressed to SMEs to establish services to increase attractiveness by investors and propose new financial schemes by Public Actors, roadmaps to achieve these results. The plan defines organization, actions, resources, and equipment needed to set-up Alpine regional centres able to promote digitalised CE activities addressed to SMEs on the design model and eco-innovation in general. Local detailed plans by PPs for pilots (Slovenia: TPLJ & JSI, TOWL, VENINN, BWCON, GRAND E-NOV) are available in the appendix.

Appendix (Inputs by PPs: Local detailed feasibility plans by PPs for the implementation of pilots – TPLJ/JSI, TOWL, VENINN, BWCON, GRAND E-NOV)

Interreg
Alpine Space
Circular4.0

Project Acronym: Circular 4.0

Project title: **Digital technologies as enabler to foster the transition to the circular economy by the SME in the Alpine Space area**

A.T3.1

Planning digitalised CE processes in Alpine Space area addressed to SMEs

Template for description (plan) of Local pilot actions (for use in D.T3.1.1/2/3)

WP n°: T.3.	Fostering CE processes in Alpine Space with digitalisation processes
Task n°: T.3.1	Planning digitalised CE processes in Alpine Space area addressed to SMEs
Author(s):	Lara Trikha, Luc Schmerber, bwcon Dr. Eva Schichl, UCB
Contributors:	Roberto Sandrini, TPLJ

Type:	**T -Template/R – Report, JSI & TPLJ**
Dissemination level:	**CO = confidential**
Revision:	**DRAFT 02**
Due Date:	**26.11.2021, v1**
Date of submission:	**2.12.2021 (v3)**

Overview of the local pilot action - Slovenia (TPLJ & JSI)

This is the place where to describe in 2-3 pages the pilot action in its entirety, without entering into deep operational details related to its implementation. It is a summary-like or elevator pitch like approach.

The description should encompass at least the following elements:

- **Local context and CE approach**
  Sectors, geographical area, type of businesses targeted, etc.

In Slovenia pilot actions will address the sectors in accordance with the selected sectors of interest as mapped out in D.T1.4.2. Report on the industrial sectors selected by each area and justification of those selected:
:
Wood processing industry,
**Plastics**,
Construction,
Manufacturing,
Food

These selected sectors of interest are in accordance with the National Circular Economy Roadmap and other national strategic development plans:

	TPLJ+IJS	RISINGSUD	GRAND E-NOV	AURE	TWL	VINN+CCIAAVE	UCP	TUAS	BIZ-UP	AWS
	SI	R-Sud	Grand Est	Rhone-Al	Piemonte	Veneto	Swabia	Up-Bayern	Ober-Oster	Vienna
Wood processing industry					Forest based value chains			Furniture		
Plastics					Packaging platics					
Construction							Construction and Building			Construc
Manufacturing industry										
Food										
Bioeconomy										
Textile										
Electronics and Electrical engineering										
TOTAL	5	1	3	3	6	1	2	1	1	1

These are also sectors included in Slovenia's regional specialization strategy supported by cluster organizations.

Circular economy approach we plan to undertake for pilots is the circular design model (approach) and optimal use model (approach) as defined in the scope of the Circular 4.0 project. If applicable for Slovenian SMEs also value recovery model (approach) will be used.

In addition, digital data-based models and systems changes will be adopted where applicable (example in advanced manufacturing) for coordinating business chains transformation and digitalization as enabler of circular transformation will be strongly emphasized along the value chain transformation. CAT4.0 transformation course of the Circular 4.0 project will be used as a base for pilot actions.

Interreg
Alpine Space
Circular4.0

Source: Figure adapted from World Economic Forum (2019) and Accenture (2018).

Source: https://www.boardofinnovation.com/blog/circular-business-model-examples/
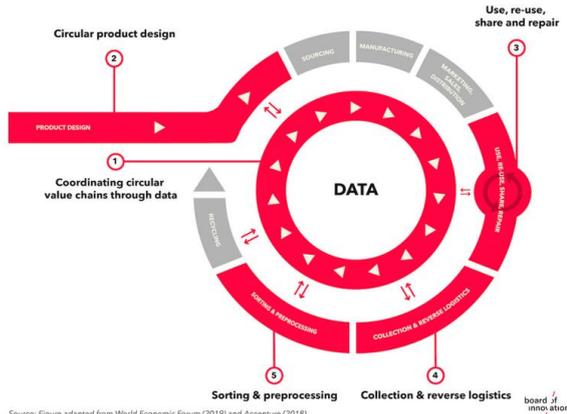
Underlying principles of pilots used in Slovenia are explained in the
Module 1 (Part 2) of the CAT4.0 training course Enabling the potential for circular transformation –
tech readiness–digitalization and I4.0 (available over https://circular40.eu/).
The process encompasses systemic changes as well as transformation across the value chain of the
product, production, and business functions.
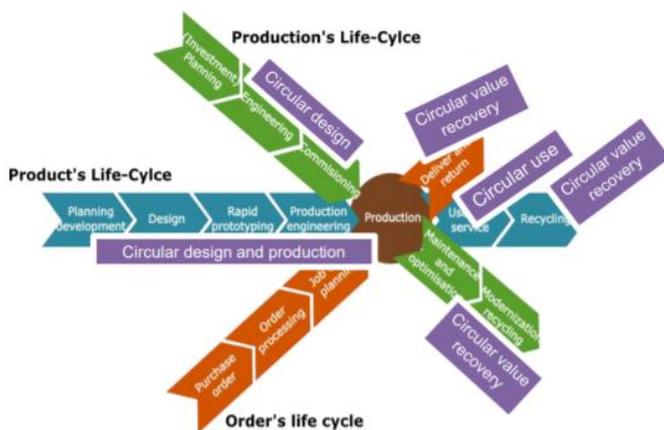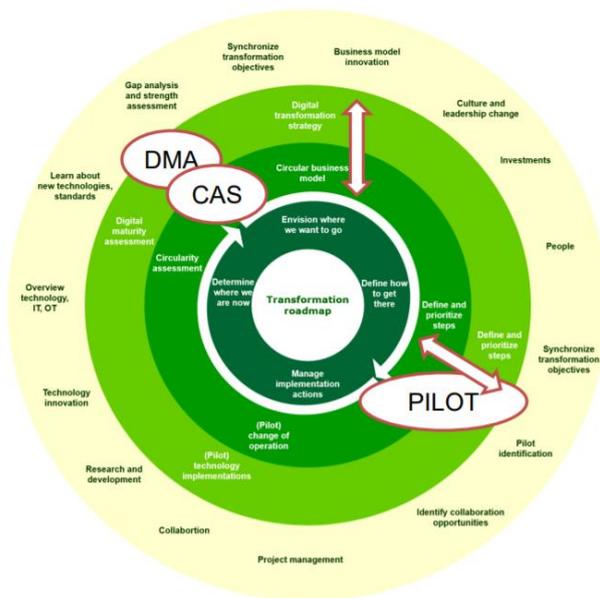
Improving production and process by means of digitalization will be examined such as the concepts of Zero-defect manufacturing through analytics, signal processing, AI, sensoring. Industrial symbiosis & industrial urban symbiosis for improving collaboration utilizing technology and IoT & Industrial cloud platforms for connecting, storing, monitoring, analysing and improving production processes.

(Ref.: www.symbiosis.dk/en; • https://qu4lity-project.eu/wpcontent/uploads/2020/05/PRJ.pdf; https://www.ellenmacarthurfoundation.org/casestudies/effective)

- **Methodology**
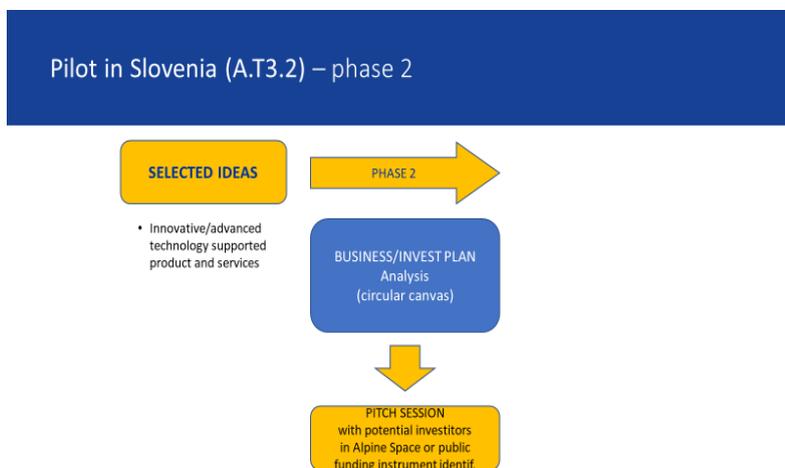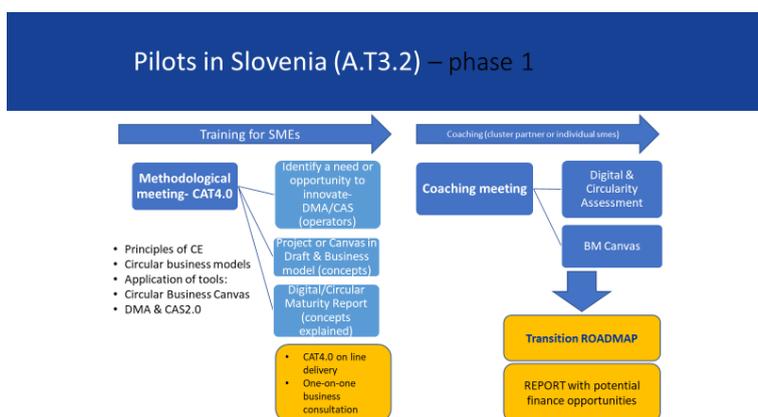
AWARNESS RISING FOR SMEs& CHECK FOR LINEAR RISKS & CIRCULAR OPPORTUNITIES will be also included in the CAT4.0 approach.

Tools to be used:

Digital maturity assessment tools:

http://dma.innocape.eu/en/test/registration

Designed for all kinds of companies to assess the digital maturity and to give a foundation for internal discussions on strategic priorities in digitalization opportunities and challenges. It is useful for the assessment of results to initiate dialogue with the regional Digital innovation hub to gain further support in digitalization process within the company:

- Improving processes through digitization and automation
- Experimenting at low costs to reveal efficiency gains, new customer touch points or new products
- Collecting and analysing data to generate insights for strategic decision making
- Establishing relationships with external partners to pool complementary resources

Other tools for SMEs & business or CE model specific tool (to be selected by experts from the tools approved in the scope of the Circular4.0 project and introduced through the training actions in T.2.) including tools assessed in the scope of **D.T2.3.1 Setting up the toolkit to support digitalisation processes to foster the CE in the Alpine space**. Such as:

https://digital-transformation-tool.eu/project/

and some selected tools from a repository of identified tools "fit-for-purpose" (depending on level of maturity of SME, size and SME pilot project needs)

http://e2-owncloud.ijs.si/owncloud/index.php/s/rc17RxI7bd7Kw8d

Companies will be cross-examined also about the application of advanced technologies such as robotics, control technologies (industrial control systems), artificial intelligence, big data use, block-chain, XP, virtual reality or augmented reality use.

Circularity assessment scoring tool:

CAS2.0 tool (developed in the scope of Circular4.0 project):

https://circular40.eu/cas2-0/

- **Expected results**
  This section shall explain the benefit / added value expected for the SMEs.

  SME's will identify the pilot project (business transformation project and/or investment project) they will start the CE transformation journey, get acquainted with the CE principles. They will also elaborate a business plan (business canvas) and/or investment plan (investment project) and present it in front of funders i.e., proactively seek financial instrument for implementing the transformation project.

Planned activities

Planned activities in Slovenia (JSI & TPLJ) are:

1. **Recruit expert assessors for 1:1 consultations & delivery of DMA/CAS**
   TPLJ: Preparation of the open call for experts, selection & contracting phase

   Selected experts prepare CAT4.0 for specific sectors to support 1:1 assessment within the process of DMA/Circular Maturity Assessment, business canvas preparation, investment plan preparation, potentially for pitching)
   Deadline: 10.12.2021 (draft), 15.12.2021 (final)

2. **Selection/identification of SMEs**

   Selecting SMEs to participate in the training program & directly addressing sector specific industrial clusters (clusters for wood, manufacturing, plastics, food) (open call and/or direct call for participation in the CAT4.0 program through sectoral clusters organized through regional specialization or located under the umbrella of Chamber of Economy).

   TPLJ/JSI - expression of interest to be publicly published on TPLJ and JSI web page, & involvement of Operators (Association of plastic industry of Slovenia, Regional development agencies/centers etc.)
   Deadline: 10.12.2021 (draft), 15.12.2021 (final)
   Clear message for SMEs!
   Deliverables: CAS2.0, DMA, Canvas, Fin. Investment plan, possible investors pitching events (Slo & It – venture capital investors)
   Preparation of direct invitations for companies: (approx. to be selected 10), list of companies from business data bases (BIZi/AJPEs, among 500 companies, selection by sectors, by turnover, profit & value added), principle of selection: First come, first selected, Deminimis rule (to be received by FLC)

3. **Thematic workshops/seminars**
   Implementing the CAT4.0 modules addressed to SMEs supported by awareness rising campaign (using project partners communications channels – JSI & TPLJ).

   Thematic workshops per sectors: 15.2.2022 – 15.3.2022

4. **Circular CE capability/potentiality and Digital Maturity Assessment of SMEs**

   Tools mainly used will be:

   - **INNOCAPE tool**
     http://dma.innocape.eu/en/test/registration

Designed for all kinds of companies to assess the digital maturity and to give a foundation for internal discussions on strategic priorities in digitalization opportunities and challenges. It is useful for the assessment of results to initiate dialogue with the regional Digital innovation hub to gain further support in digitalization process within the company:
- Improving processes through digitization and automation
- Experimenting at low costs to reveal efficiency gains, new customer touch points or new products
- Collecting and analyzing data to generate insights for strategic decision making
- Establishing relationships with external partners to pool complementary resources

Interreg
Alpine Space
Circular4.0

Some other SME/sector specific tool from a repository of identified tools might be deployed as well that is "fit-for-purpose" (depending on level of maturity of SME, size and SME pilot project needs) http://e2-owncloud.ijs.si/owncloud/index.php/s/rc17RxI7bd7Kw8d

Other tools for less digitally advanced SMEs & business or CE model specific tool (to be selected by experts from the tools approved in the scope of the Circular4.0 project and introduced through the training actions in T.2.) including tools assessed in the scope of D.**T.2.3.1 Setting up the toolkit to support digitalization processes to foster the CE in the Alpine space**. Such as: https://digital-transformation-tool.eu/project/

5. **Identification of innovation needs and investment plan**

As discussed during the partner meeting on 02.11.2021, each company supported should receive a document established based on the assessment and in collaboration with the SME (at least one bilateral meeting between the SME and an expert/consultant during the process) and encompassing at least one recommendation covering any of the following aspects of the transformation of the company towards higher circularity (= increase of maturity level)
- Technology adoption
- New or improved process
- New or improved or transformed business model
- New or improved products
- New or improved services
- Digitally supported (as far as possible)
- With a time, horizon from 6 months up to 1 year

Business canvas and a roadmap for the implementation of the SME pilot action covering at least one of the transformation areas listed above will be produced by the experts and a pitching presentation prepared to advance SMEs with their transitioning intentions. Experts will assist SME's 1:1 on that.

6. **Pitching the pilot in front of finance organizations and/or identification of the funding instrument for SME to apply for funding the pilot action.**

Identifying financial organizations and their instruments in support of CE.
Organizing a "pitching" event with financial institutions and/or

Pitching event (SLO-IT): April 2022 (to be decided)

For the description of each activity (or sub-activity if relevant), we suggest using the following table:

Title		Start date	MM.YYYY
		End date	MM.YYYY
Description			
Describe here the activity			

Interreg
Alpine Space
Circular4.0

Add sub-activities if necessary			
Results Note: the results (or deliverables) will need to be documented and reported upon in Activity T3.2 in the report for each local pilot action. They should therefore be formulated in a way that enables monitoring and documentation of the implementation.			
1	Example: 3 online workshops …	**Date**	
2	Example: 1 call for applications	**Date**	
3	Example: 25 CE + digital maturity assessments of SMEs	**Date**	
n		**Date**	

Indicators (KPIs) and monitoring

This section shall describe what are the measurable objectives (qualitative and quantitative indicators) of the pilot action and how the progress will be monitored. The selection/definition of indicators shall refer to deliverable *D.T2.5.1 Evaluation methodology* and *D.T2.4.2 KPIs definition to assess the contribution of digitalisation on CE approaches* (templates available on Teams – see also next page).

A basic indicator for all pilot actions is the number of SMEs targeted (35 in Slovenia - 17 (JSI) within Circular Design Model and 18 (TPLJ) within Optimal Use Model).

Measurable objectives:

Minimally 17 + 18 PPs (JSI & TPLJ) SMEs going through CAT4.0. All together 35.

- Technology adoption
- 1 new or improved process in SME
- 1 New or improved or transformed business model identified
- 1 New or improved products foreseen within 6 months to a year from finalizing CAT4.0
- 1 New or improved services/business process
- 1 Digitally supported action identified with at least one advanced digital technology

Interreg
Alpine Space
Circular4.0

Project Acronym: Circular 4.0

Project title: **Digital technologies as enabler to foster the transition to the circular economy by the SME in the Alpine Space area**

A.T3.1

Planning digitalised CE processes in Alpine Space area addressed to SMEs

Template for description (plan) of Local pilot actions (for use in D.T3.1.1/2/3)

WP n°: T.3.	Fostering CE processes in Alpine Space with digitalisation processes
Task n°: T.3.1	Planning digitalised CE processes in Alpine Space area addressed to SMEs
Author(s):	Lara Trikha, Luc Schmerber, bwcon Dr. Eva Schichl, UCB
Contributors:	Roberto Sandrini, TPLJ

Type:	**T -Template/R – Report, TOWL**
Dissemination level:	**CO = confidential**
Revision:	**DRAFT 02**
Due Date:	**December 2021**
Date of submission:	**06/12/2021**

Overview of the local pilot action – Piedmont (Fondazione Torino Wireless - TOWL)

- **Local context and CE approach**

  Local actions will be promoted through the Unioncamere and chamber of commerce channels that arrives potentially to companies on all the regional territory and also through the Cluster of SMEs that are also at regional level.

  The main sectors selected during the previous WP in the project are in order of priority (related with the economic relevance and specializations of the territory plus the circular potential): Manufacturing Industry, Food sector and Textile sector. Specific actions with regional clusters in these areas will be done. We also nominated the Construction sector as another potential sector because is a priority of other partners in the project, without forgetting other priority sectors for the topic in Europe with high environmental impact (WEEE, mobility).

  It is important to notice as a context that companies in Italy (and in Piedmont also) there are a high number of small companies and micro companies that are difficult to involve in activities, because non so structured, or mature enough or with the potential to invest even the time for the pilot in a very difficult moment by the pandemic crisis. Medium companies and medium-big companies are more mature so a limited in time and reduced effort available in our pilot can probably reduce our ability to attract them. So, we need to be flexible, offering a shorter path for less mature companies and more intensive effort for more mature companies. We still cannot predict specific profile of companies that can be interested in our path to the circularity, for sure will be a mix of companies for different sectors and dimensions.

  The C.E. approach originally foreseen focus in our territory for our pilot were Optimal Use and Value recovery as a second priority. But during the discussions with the other partners of the project that share their experiences with SMEs, it was explained that we cannot use only one approach excluding the others because companies in every sector can be different priorities and maturity level, so it is impossible to decide or exclude companies interested on other models. For that reason, we trained ourselves to support all the 3 approaches with our e-learning platform Circular4.0. In our first session with companies, it will be discovered that many of them are interested in "Circular Design Model". We will verify with companies if this is the model with higher potential for them.

- **Methodology**

  In this part we will provide an overview of the methodology that will be used to select and assist SMEs in their circular transformation (common to all pilots).

  Involvement phases: with a call for action, we will offer the possibility to all companies in the territory to be supported during the path for the circularity of circular4.0 (pilot). If a higher number of the target number of companies will be presented, we will choose the companies with the higher circular potential evaluated with our CAS2.0 tool. If a lower number of companies participate to the pilot, we will propose again the call-in other period, or using other channels or unpackaging the Pilot separating the training phase (offered as a shorter workshop for SMEs) and then involving them to the 1:1 coaching assistance.

- **Specific tools from the Toolkit Circular4.0**

We will test and use the original approach of the project, the tool developed by the project (CAS2.0 – Circularity Assessment Score) that is also in Italian and helps to assess SMEs on the potential of the circular model and the commitment. During the Circularity Assessment Score session, the maturity of the circular BM of the PMI can be inferred. Our interpretation of the level of maturity of the companies that we can reach is shown in the following figure:

For Digital Maturity Assessment we decide to use SELFI4.0 (or the evolved version ZOOM4.0), the tool of the Chamber of Commerce of Italy because it is commonly used, is in Italian and can be done in a shorter time (120 questions).

The Circular4.0 Path:
The path is shown in the following figure:
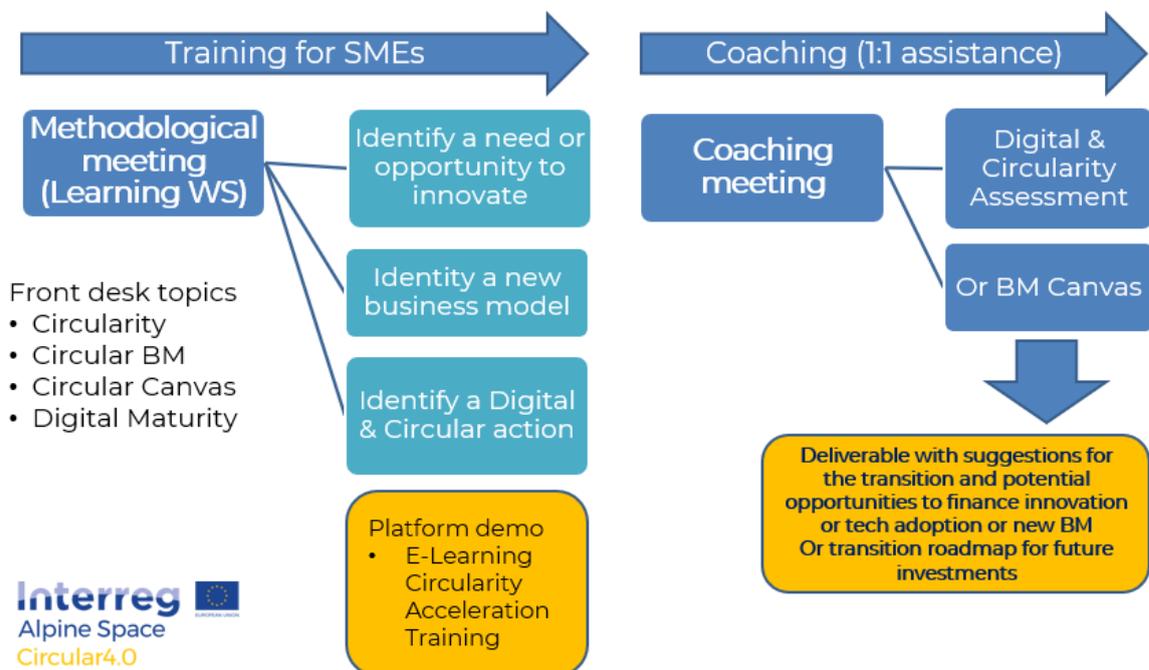
The path includes:

A training meeting on the opportunities of the circular and digital transition. You will learn the fundamental concepts from an expert operator on the topic: the principles of the Circular Economy, the main generic circular business models, and the useful tools to build such models, as well as the methods and recommendations to implement more circular and sustainable processes, products or services.

A coaching meeting with one or more experts to evaluate the potential of the circular model that the company wishes to implement, and the opportunities related to the double transition. The company will receive the result of the analysis and its Roadmap for double transformation, which consists of a final report with the concrete actions identified, the priorities, the next steps and the financing opportunities for the identified improvement / innovation / technological adoption.

In-depth analysis of the business model: overall analysis of the company's business plan (circular canvas) for the proposals of the most innovative products and services (if available at this level of maturity).

The initiative will be open to any SME that need to identify or has identified a need or an initial idea of raw material reduction, waste recovery, better use of the products or services provided to make their company more sustainable or to improve their efficiency in processes, productive or service and consumption.

- **Expected results**
  This section shall explain the benefit / added value expected for the SMEs.
  Aligned with the minimum requirements indicated during the WPT3 meeting (02-11-2021) we will provide at least one recommendation covering any of the different aspects of the transformation of the company towards higher circularity: technology adoption/innovation, new process, new business model.
  We as a partner belong to the CE Optimal Use approaches with digitalization process (5 partner, 90 SMEs, so 18 SMEs for partner).

Planned activities

In this session, the activities planned for the roll-out of the approach described above shall be detailed. In order to have a significant degree of comparison among the different local pilot actions, we suggest using a set of common activities (= same title or heading, not the same methods). Those activities are the ones listed in the AF

Title	1. Selection/identification of SMEs - workshops	Start date	09.2021
		End date	04.2022

Description

A local call for action will be promoted through intermediaries and regional Cluster of SMEs. If the call for action is not enough, workshops and individual invitations to 1:1 assessment service will be done.

Results

Note:

1	1 Call for action published and promoted	Date	
2	Number of intermediaries that collaborate promoting the pilot	Date	
3	Number of participants interested to the path	Date	
n		Date	

Title	2.Thematic workshops/seminars	Start date	12.2021
		End date	05.2022

Description

Single workshop events to motivate companies to start the path. If the number of companies interested on the call for actions and in the first workshop guarantee the target number of companies, the workshop will not be repeated. If the number of companies is higher that the target number, all companies can participate to the workshop and only the ones with the higher circular potential from the CAS assessment will receive the 1:1 support.

Results

1	Number of online workshops	Date	
2	Number of online participants (SMEs in Piedmont) to the workshops.	Date	
3	Number of online participants (others) to the workshops	Date	
4	Number of subscriptions in the TalentLMS platform	Date	

Title	3.Circular CE capability/potentiality and Digital Maturity Assessment of SMEs	Start date	12.2021
		End date	06.2022

Description

CAS2.0 assessment will be done online individually or in groups of companies of the same sector and/or interested in the same generic circular business model. It can be done in a single session or in multiple session, being flexible with the availability of the SMEs.

DMA (SELFI4.0 or ZOOM4.0) will be done individually.

Results

1	Number of SMEs with CE assessment done and reports	Date	
2	Number of companies with DMA report	Date	
3	Number of companies with Canvas elaborated	Date	
n		Date	

Title	4.Identification of innovation needs and investment plan	Start date	12.2021
		End date	07.2022

Description

During the different assessments (DMA or CAS2.0) at least one recommendation covering any of the aspects of the transformation of the company towards higher circularity will be provided through a deliverable document. The document (final deliverable) can include potential finance opportunities if active and identified during the period of the assessment.

Experts will be invited to participate to the sessions but will no leader or organize the activities. They can contribute with suggestions for SMEs and if they belong to intermediary institutions can test the methodology of the project participating to the sessions. Additional sessions can be co-organized with intermediaries to enhance the impact of the project in the territory.

Results

1	Number of final deliverables with suggestions for SMEs (target 18+ SMEs)	Date	
n		Date	

Indicators (KPIs) and monitoring

This section shall describe what are the measurable objectives (qualitative and quantitative indicators) of the pilot action and how the progress will be monitored. The selection/definition of indicators shall refer to deliverable *D.T2.5.1 Evaluation methodology* and *D.T2.4.2 KPIs definition to assess the contribution of digitalisation on CE approaches* (templates available on Teams – see also next page).

A basic indicator for all pilot actions is the number of SMEs targeted (~20 on average).

The used tools and considering a time horizon from 6 months up to 1 year will not produce a higher circularity (= increase of maturity level).

CAS Tool is a strategic tool and is not designed to measure, rather to assess. So, the increase in maturity and commitment can probably be an opinion of the operator comparing the initial state and the final state of the companies after the support or a comparison between scenarios considered at the beginning and at the end of the assessment. The score of the assessment potential is a general objective not a measure.

During the time of the project, we will not be able to also measure an increase in digital maturity because most of the suggestions for digitalization's will probably not be implemented in 6-1 year, only in a few cases. A change of business model requires long periods. Some improvements suggestions could be implemented faster, but it is not guaranteed, to have a plan for it, so the increase of commitment can be better as a reference for the increase of maturity in the short time we have to interact with companies.

So, our metrics will be:

Digital Technology Readiness level assessment (initial level and plan for the SMEs)

CE Commitment level assessment (from CAS2.0)

Satisfaction level on tools and trainings provided

Maturity improvement that can be described as qualitative concepts (not a level, it can be measure in 2-5 years after the assessment, out of the scope of the project)

See also the KPI table on the last page of this report.

Project Acronym: Circular 4.0

Project title: **Digital technologies as enabler to foster the transition to the circular economy bythe SME in the Alpine Space area**

A.T3.1

Planning digitalised CE processes in Alpine Space area addressed to SMEs

Template for description (plan) of Local pilot actions (for use in D.T3.1.1/2/3)

WP n°: T.3.	Fostering CE processes in Alpine Space with digitalisation processes
Task n°: T.3.1	Planning digitalised CE processes in Alpine Space area addressed to SMEs
Author(s):	Valeria Bazzan, Ivan Boesso
Contributors:	Francesca Maccatrozzo
Type:	**T -Template/ R- Report, CCIAA DL VERO & Veneto Innovazione**
Dissemination level:	**CO = confidential**
Revision:	**DRAFT 02**
Due Date/Submission:	**December 2021**

1. Overview of the local pilot action – Veneto Region (CCIAA VE RO andVENETO INNOVAZIONE)

The local pilot action in Veneto will be carried out in coordination and collaboration between Chamber of Commerce of Venice Rovigo and Veneto Innovazione.

The industrial sectors involved will mainly be constructions and buildings, which are very important in the area, have a very strong environmental impact but at the same time are usually not very involved or advanced in terms of circularity and/or digitalization.

Additional sectors, such as textile, nautical, manufacturing and tourism will also be taken into consideration since they are often strictly connected with our main targeted sector and are very relevant to the local economy.

The selection and involvement of enterprises will be carried out together by the two partners, while the following activities will respectively focus mainly on the following approaches (as foreseen in the ApplicationForm):

1) Value recovery for CCIAA VE RO (D.T3.2.3)
2) Optimal Use for Veneto Innovazione (D.T3.2.2)

Assistance to the SMEs shall be opened to include both approaches, and even Circular design models, ifnecessary.

- ## Methodology

The combined effort of the two partners will hopefully be particularly effective with regard to the selectionand engagement of the SMEs and the content/professional competence required.

CCIAA VE RO and Veneto Innovazione will jointly organize the promotional activities and the workshops topresent the pilot actions path to local entrepreneurs and promote opportunities offered on the matters ofcircularity ad digitalization at local and at national level.

The local workshops will particularly focus on awareness and financial instruments offered to the SMEs toimplement digitalization and transition to circularity.

The workshop will take place online within the first week of February and will consist in:

- Aperitivo for circularity

Originally planned as a presence event, a happening with SMEs involved in circularity processes and/orinterested in starting and promoting more eco sustainable productions and approaches. Also, intermediaries involved in circularity will be targeted, in order to promote the exchange of ideas and spread knowledge, mainly among SMEs on the opportunities offered by CE approach (along with digitalization).

SMEs will be invited to apply for the public call that Chamber of Commerce and Veneto Innovazione willlaunch in January and intermediaries will be invited to give their support to disseminate the potential opportunity of the call among their stakeholders.

The call will give the opportunity to a maximum of 50 SMEs (selected according to the order of subscriptionto the call) to join the pilot action and be assisted by experts.

The experts, in strict coordination respectively with Chamber of Commerce and Veneto Innovazione, will carry out a digitalization assessment using Selfi 4.0 tool and a circularity capability by using CAS2.0 Tool of the selected SMEs. Both tools are included in the CIRCULAR4.0 Toolkit

According to the combined results of the assessments carried out a customized plan of action will be elaborated and proposed to the SMEs. In this plan experts will suggest instruments and changes that could be adopted to improve the circularity and digitalization of the SMEs, also with regard of financial opportunities available to sustain the necessary activities.

The original plan of action was as follows:

First phase foresaw an informative meeting with SMEs, followed by personalized coaching, digital and circularity assessment, the drawing of a roadmap to improve on circular processes and digitalization, and finally some practical suggestions enlightening the financial sources to use to achieve the goals indicated in the roadmap.
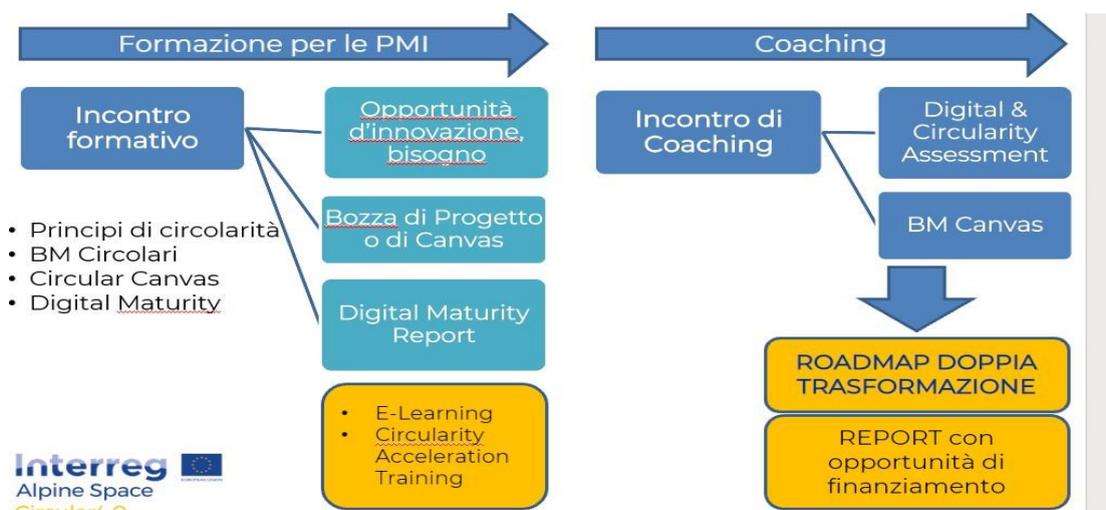
The expected Plan for January/March 2022
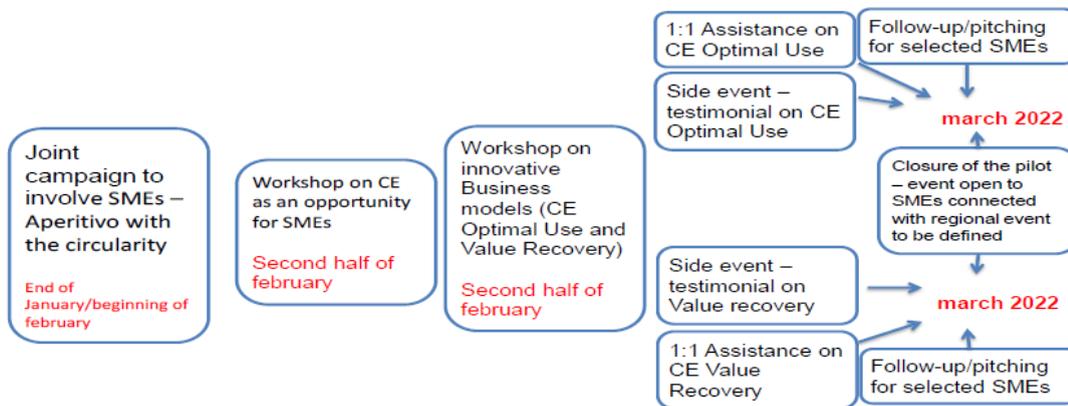
- **Expected results**

According to the Application form:
a) 1 local event "Aperitivo" to launch the Call
b) 2 local workshops/awareness action will be addressed to SMEs
c) 40 SMEs (Minimum 23+15 SMEs) 1:1 assisted:
   - Digital maturity assessment
   - CE capability
   - "Customized plan"

2. Planned activities

1. Selection/identification of SMEs

Targeting of enterprises, which will mainly be constructions and buildings and additional sectors, such astextile, nautical, manufacturing and tourism to be involved in the promotional events.

Invitation to Workshops will be carried out by email, websites, social media channels and the cooperationof intermediaries. (End of January/beginning of February).

A public call will be launched for SMEs to apply to the assisted procedure of assessment and elaboration ofa roadmap to improve circularity and digitalization.

2. Thematic workshops/seminars

Aperitivo with SMEs and two thematic workshops will take place online to promote the participation to thecall and to involve SMEs and intermediaries in the activities (end of January/beginning of February).

3. Circular CE capability/potentiality and Digital Maturity Assessment of SMEs

SMEs applying for the assisted procedure will be guided by experts through digitalization and circularity capability assessment using respectively SELFI 4.0 and CAS 2.0.

4. Identification of innovation needs and investment plan

After the assessment SMEs representatives will receive from the experts a proposal of roadmap to improve their skills and solve potential weaknesses. Also, information on potential financial instruments to fulfil the actions required will be offered (march).

For the description of each activity (or sub-activity if relevant), we suggest using the following table:

Title	Identification of the SMEs and preparatory activities	Start date	12.2021
		End date	01.2022
Description			
Veneto Innovazione and CCIAA VERO both will launch a public tender to hire experts to support the pilot implementation. The procurement procedure will last several weeks and will be completed hopefully by January 2022			
In the meantime, the following preparatory activities will be carried out:			
a) Scouting and analysis of the entrepreneurial environment			
b) Analysis of the tools (SELFI4.0 and CAS2.0) to be adopted and their adaptation for the local use			
c) Organization and launch of the communication campaign			
Add sub-activities if necessary **No sub-activities are planned**			
Results			
		Date	

Title	Involvement of the SMEs	Start date	12.2021
		End date	03.2022
Description			
Veneto Innovazione and CCIAA VERO organize a communication campaign to invite SMEs to participate to the Pilot. An open call will be published on their website. This way, the SMEs will be selected, and the state-aids rules will be respected.			
Add sub-activities if necessary, no sub-activities are planned			
Results:			
1	List of SMEs interested in participating in the CCIAAVERO pilot	**Date**	31/03/2022
2	List of SMES interested in participating to the VENINN pilot	**Date**	31/03/2022

Title	Kick-off pilots event	Start date	01.2022
		End date	02.2022

Description

Veneto Innovazione and CCIAA VERO will organize one event to start the pilot action. Minimum 30 SMEs will participate.

Add sub-activities if necessary

No sub-activities are planned		
Results:		
1	One online kick-off event in form of aperitif jointly organized	**Date**	15/02/2022

Title	Raising knowledge by SMEs for CE-innovation oriented processes	Start date	02.2022
		End date	02.2022

Description

Veneto Innovazione and CCIAA VERO will organize 2 online thematic seminars addressed to SMEs on the following topics:

a) Thematic seminar on CE as an opportunity for SMEs
b) Thematic seminar on CE business models connected with CE Value Recovery and CE optimal use.

Add sub-activities if necessary
Sub-act1: thematic seminar on Value recovery organized by CCIAAVERO
Sub-act2: thematic seminar on Optimal use organized by VENINN

Results:			
1	One kick-off event in form of aperitif jointly organized	**Date**	15/02/2022

Title	Assisting SMEs for sustainability transaction plans	Start date	02.2022
		End date	03.2022

Description

Veneto Innovazione and CCIAA VERO, with the support of external experts, will organize 1:1 assistance to SMEs consisting with the following steps:

a) Digital maturity level assessment with SELFIE tool
b) CE capability assessment with CAS2.0 tool

Elaboration of a report as result from the 1:1 assistance provided

Add sub-activities if necessary
Sub-act1: 1:1 assistance provided by CCIAAVERO for (estimated) 23 SMEs
Sub-act2: 1:1 assistance provided by VENINN for (estimated) 15 SMEs

Results:			
1	38 (estimated) digital maturity checks implemented	**Date**	31/03/2022
2	38 (estimated) CE capability assessment checks implemented		31/03/2022
3	38 (estimated) report as results from the 1:1 assistance provided		31/03/2022

Indicators (KPIs) and monitoring

The objective of the pilot action is to assist at least 40 SMEs in the assessment and elaboration of the roadmap.

Project Acronym: Circular 4.0

Project title: **Digital technologies as enabler to foster the transition to the circular economy by the SME in the Alpine Space area**

A.T3.1

Planning digitalised CE processes in Alpine Space area addressed to SMEs

Template for description (plan) of Local pilot actions (for use in D.T3.1.1/2/3)

WP n°: T.3.	Fostering CE processes in Alpine Space with digitalisation processes
Task n°: T.3.1	Planning digitalised CE processes in Alpine Space area addressed to SMEs
Author(s):	Lara Trikha, Luc Schmerber, bwcon Dr. Eva Schichl, UCB
Contributors:	Roberto Sandrini, TPLJ

Type:	**T -Template/ R- Report, BWCON**
Dissemination level:	**CO = confidential**
Revision:	**DRAFT 02**
Due Date:	**26.11.2021**
Date of submission:	**22.12.2021**

Interreg
Alpine Space
Circular4.0

Overview of the local pilot action – Baden-Württemberg (BWCON)

Local context and CE approach

The pilot addresses proprietarily on manufacturing SMEs in Baden-Wurttemberg focussing on the optimal use or resources (Germany). However, all other companies are invited to express their interest as, according to the experience made in previous project activities, the separation between circular design, optimal use and value recovery models is not clear to businesses and not always adapted to their practice. It is also not realistic to foresee the outcomes of the 1:1 assessment in terms of circular models. Due to the estimated rather low level of awareness of most SMEs, all CE approaches need to be considered.

Planned activities

According to the overall methodology defined for the pilot actions, the following activities are planned for the local pilot action in Baden-Wurttemberg, piloted by BWCON.

1	Selection/identification of SMEs	Start date	10.2021
		End date	11.2021
The selection and identification of companies (in priority SMEs) to take part in the pilot in Bade-Wurttemberg shall place by means of an open call published by BWCON through its website and its newsletter. Partners in BWCON's network (business development organisations, digital hubs) were activated through personal contacts to extend the reach of the call. Companies headquartered or with a branch in Baden-Wurttemberg are selected on the basis of the "first come, first served" principle.		
	Result Reach at least 16 interested SMEs to participate in the pilot action.		
1	Collecting at least 16 interested SMEs to participate in the pilot action and make appointments to perform the initial assessment in online or onsite meetings.	**Date**	11.2021

2	Circular CE capability/potentiality and Digital Maturity Assessment of SMEs	Start date	11.2021
		End date	12.2021
Each selected company will go through a CE maturity assessment using the CAS questionnaire (also accessible online in German). The assessment provides the basis for the 1:1 assistance and will be performed by students at the University of Applied Sciences Pforzheim, under the supervision of Prof. Dr Bernhard Kölmel. The assessments will be performed in the framework of a 1:1 online or onsite meeting with a representative of each company.		

The results will be documented in a common template for all businesses.			
Result Documented CE and digital maturity assessments			
1	Documented CE maturity and digital maturity assessments according to a generic template for at least 16 eligible SMEs	**Date**	31.12.2021

3	**Identification of innovation needs and investment plan**	**Start date**	12.2021
		End date	01.2022

Each company supported will receive, in addition to the results of its CE and digital maturity assessment result, a document established in collaboration with the SME (on the basis of the 1:1 meeting) and encompassing at least one specific recommendation covering any of the following aspects of the transformation of the company towards higher circularity (= increase of maturity level)
        - Technology adoption
        - New or improved process
        - New or improved or transformed business model
        - New or improved products
        - New or improved services
        - Digitally supported (as far as possible)
        - With a time horizon from 6 months up to 1 year
Additionally, the participating companies are invited to self-study CAT2.0 on the online learning platform Talent LMS.			

Result Companies assessed receive an individual evaluation with at least one individual recommendation.			
1	At least 16 evaluation reports with innovation needs and investment plans handed out	**Date**	31.01.2022

4	**Follow up on innovation needs and investment plan**	**Start date**	03.2022
		End date	04.2022
Each supported company will be asked to answer a follow-up questionnaire about 3 months after the initial meeting and the delivery of the results of the assessments and specific recommendations. The aim of the follow-up will be to measure satisfaction with the support delivered and identify improvements in CE maturity as a result of the pilot action.			

Result			
Companies assessed receive an individual evaluation with at least one individual recommendation.			
1	At least 16 evaluation reports with innovation needs and investment plans handed out	**Date**	31.01.2022

Indicators (KPIs) and monitoring

Progress of KPIs will be monitored during the 1:1 assistance as well as after individual company's pilot actions by a standardized questionnaire, asking for their self-assessed increase in Commitment level to CE implementation, Digital technologies awareness, Specific pilot project identified and their overall level of satisfaction with pilot activities.

KPI	number of SMEs assisted	Identification of circular opportunities	Commitment level to CE implementation	Level of satisfaction
Goal	At least 16	100% of assisted companies identified a potential circular opportunity for their business	On average Increase in level of commitment, ideally in connection with a digital solution	Level of satisfaction of at least 8 (out of 10)
Evaluation method	1:1 assistance received	Documented results of assessment and recommendations	questionnaire	questionnaire

Project Acronym: Circular 4.0

Project title: **Digital technologies as enabler to foster the transition to the circular economy by the SME in the Alpine Space area**

A.T3.1

Planning digitalised CE processes in the Alpine Space area addressed to SMEs

Template for description (plan) of Local pilot actions (for use in D.T3.1.1/2/3)

WP n°: T.3.	Fostering CE processes in Alpine Space with digitalisation processes
Task n°: T.3.1	Planning digitalised CE processes in Alpine Space area addressed to SMEs
Author(s):	Lara Trikha, Luc Schmerber, bwcon Dr. Eva Schichl, UCB
Contributors:	Roberto Sandrini, TPLJ

Type:	**T -Template/ R- Report, Grand E nov**
Dissemination level:	**CO = confidential**
Revision:	**DRAFT 02**
Due Date:	**November 2021**
Date of submission:	**December 2021**

Overview of the local pilot action – Grand Est Region (Grand E Nov)

Industry is living through a pivotal moment in its history with digital and ecological transformations that will profoundly change the way we produce. In this context, more and more industries have begun their transition. Well upstream of recycling, their approach consists of pivoting towards 6 circular economic models, from the sustainability of resources to the extension of the use of products and their regeneration. The benefits are numerous and meet economic, environmental and social objectives.

Digital tools and practices can facilitate and accelerate the transition to more sustainable production and organisation models and longer product life cycles.

They can be applied in various economic sectors. However, the relevance and maturity of the available digital technologies, the possible synergies and their environmental impact remain little known and underused.

The CIRCULAR 4.0 programme, based on tools and methodologies observed on the scale of the Alpine region, aims to facilitate this transition for industrial SMEs, to define, strengthen or implement their Industry of the Future and Circular approach.

The support in Grand Est region includes 4 collective workshops and 3 days of individual support by an expert financed by the INTERREG Alpine Arc programme.

- **Local context and CE approach**

The regional innovation agency Grand E Nov has launched a call for expressions of interest (AMI) in order to experiment and support digital innovation for the Circular Industry. To complete the regional service offer, we focused on the pillars of the circular economy related to optimal use and value recovery.

Targets:
Manager/executive of an industrial SME or serve the industry in the Grand Est
    Reaching the limits of their business model and see the Circular Economy as an opportunity
    Want to stand out from the competition as an Industry of the Future and Circular
    Having an industrial and circular project that requires digital technology
    Want to build, validate their business model and roadmap
Companies from the textile, bioeconomy, plastics, wood and manufacturing sectors that have been prioritised and targeted by the regional strategies.

- **Methodology**

The Circular 4.0 programme consists of collective workshops, 2 days of training and 3 days of individual coaching by an expert financed by the INTERREG Alpine Arc programme. Applicant companies can be supported from September 2021 to March 2022. Registration has been opened publicly to allow any company to benefit from the programme. A communication campaign on various social networks and during various physical or digital events sought to reach the maximum number of companies.

To apply, SMEs have to complete the form by following this link:
https://forms.office.com/Pages/ResponsePage.aspx?id=5UQqvyTdf0WEAFuarHI2qvQwtN1zlotNm-
wWYQaTIHxUOVlNRlcySFdVOTlOUlZPSEtNSVU0SEFNMS4u
For further information, they can contact b.lallemand@grandenov.plus
Deadline for support indicated: March 2022 inclusive

Faire naître un projet d'Economie Circulaire

Concevoir un modèle économique durable

Identifier les technologies numériques adéquates

Être accompagné dans la mise en œuvre

Découvrir / S'inspirer   Impulser   S'engager

Préparer la transformation

Identifier les opportunités et ressources nécessaires

Etudier la faisabilité, le financement et la feuille de route

Action collective Webinaire 1h

Formation collective 2j

Action collective 0,5j

Conseil individuel 3j

Tools used

Interreg
Alpine Space
Circular4.0

PARCOURS INDUSTRIE CIRCULAIRE
Bilan & feuille de route

ENTREPRISE : ENVIE Alsace

ACTIVITE : collecte / réparation / revente de matériel électroménager ou paramédical

CONTACT (Nom & fonction) :

Date du bilan : 7/12/2021

FEUILLE DE ROUTE ECONOMIE CIRCULAIRE

Contexte
Cette association née à Strasbourg en 1984 a construit son activité sur l'axe de la réinsertion professionnelle et de l'économie circulaire. Les produits qu'elle met en vente à des prix réduits sont destinés à venir en aide à un public précaire. Le succès de son modèle a généré 45 entités ENVIE dans toute la France.
Le site de Strasbourg réinsère 110 personnes par an grâce à un programme de formation interne et la mise en pratique professionnelle au travers de différents services.
- Envie Autonomie : service de collecte / réparation / vente et location de matériel paramédical (fauteuils roulants), www.envieautonomie.org/67
- Recyclage : revente de matières issues du démantèlement d'appareils non réparables
    o collecte 1/3 du flux Bas-Rhin : déchetteries, dépôts, collecte à domicile
    o tri
- ERG : Electroménager Réparé Garanti (strasbourg.envie.org) :
    o réparation, nettoyage, peinture
    o location / vente magasin et vente en ligne électro-ménager
    o dépannage chez les particuliers
    o projet Pièces de Rechange (PR) : démantèlement, stockage PR, vente en ligne de pièces usagées

MATURITE sur les piliers de l'économie circulaire

Leviers pour aller vers l'économie circulaire

Figure 1: Circular and digital maturity assessment derived from DMA tool
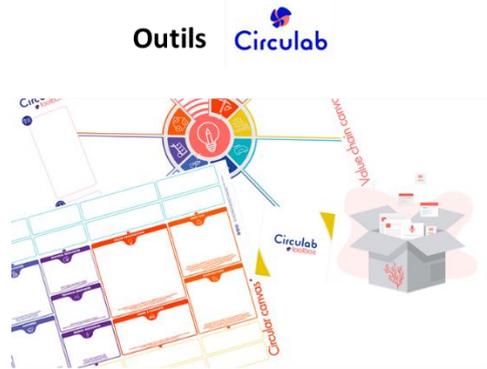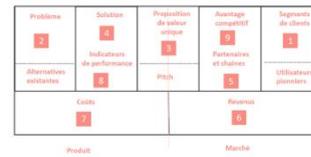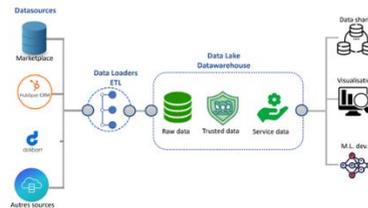
Figure 2: Circulab toolbox and specific tools used to support digital transitions

Modalities of the support programme

Depending on SME's maturity, we adapted the objectives of the support:

Figure 3: The 3 stages of maturity encountered

Stage 1 support
- Discover the principles of the circular economy; Webinars and discussions will help you understand the challenges and opportunities of the circular economy in your sector.
- Prepare your transformation; A collective workshop will allow you to discover a transformation process and its tools.
- Design a new sustainable business model: During a 2-day training session, reassess your company's needs, ambition, value proposition, products and services.

Stage 2 and 3 support
- Leveraging digital technologies to activate circular strategies: Various webinars will help you discover new possibilities and how to implement them.
- Establishing a digital roadmap and implementing it: 4 days of individual advice to study the feasibility, viability and financing of your digital innovation project and then facilitate the development of the solution.

- **Expected results**

Depending on their maturity and the support provided, companies will have benefited from:
- Discovering the key concepts of the circular economy and handling a methodology.
- Discovering the cases of companies that have implemented it and designing a first draft for the case of their company.
- Diagnosis of the business model hypothesis, identification of appropriate solutions and digital experts
- Construction of a roadmap to implement the solution and achieve the desired objectives.
- Implementation of the digital solution and evaluation of the effectiveness.

Planned activities

7. Selection/identification of SMEs

To identify companies to support through the Circular 4.0 programme, we have implemented different approaches:
- Getting companies interested in their own transition through awareness-raising workshops showing them examples from their own or other sectors, by presenting methods for building an ambition and roadmap
- Recruiting companies through other local intermediaries capable of detecting targets for the programme and having synergistic missions with our own.
- Directly approaching companies previously referenced according to their sector of activity and indices obtained by various media.

8. Thematic workshops/seminars
This activity regroups the CAT2.0 or other training modules selected by the partners and addressed to SMEs.

Various thematic sessions were organised dealing with circular industry equipped with digital technology or with exemplary circular transformations observed in specific sectors.
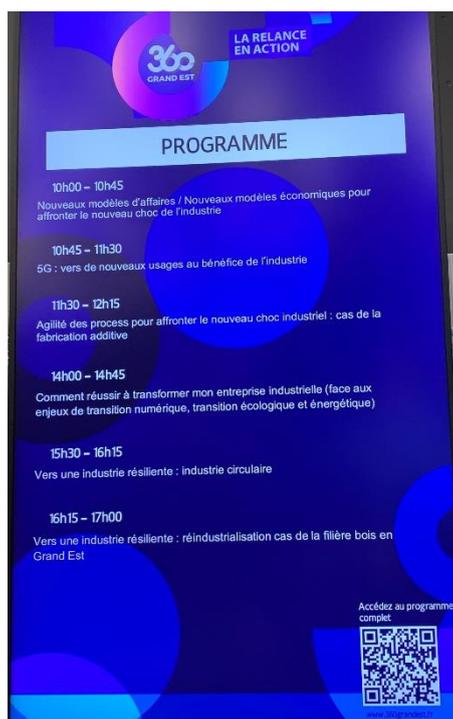
Figure 4: Track Circular 4.0 (7th of Dec 2021)

Visits to transfer centres were also organised to show the field of possibilities.

Mulhouse, le 6 octobre 2021

Le Pôle Textile Alsace en collaboration avec l'Agence d'Innovation et de Prospection Internationale Grand E-Nov+ est heureux de vous inviter à participer à une nouvelle rencontre du **Club Innovation Textile Alsace – CITA** pour 2021.

Le Pôle Textile Alsace veut poursuivre les échanges inter–entreprises et ainsi faciliter les synergies potentielles au sein des membres du Pôle Textile Alsace. Une des réponses est la poursuite de ce Club qui se retrouve 4 fois par an, chez un partenaire du réseau. Il sera accueilli pour cette nouvelle édition de l'année 2021 par l'Institut Carnot MICA et l'IS2M (Institut de Science des Matériaux de Mulhouse).

Réservez dans vos agendas la matinée du mercredi 8 décembre 2021 ! Nous serons accueillis par *Lionel LIMOUSY, Directeur de l'Institut Carnot MICA* pour démarrer le programme suivant :

UNE OFFRE MULTI-SECTEURS
POUR VOS PROJETS D'INNOVATION, RECHERCHE ET DÉVELOPPEMENT

AUTOMOBILE, SPATIAL ET AÉRONAUTIQUE
Allégement, durabilité, performance, confort, environnements extrêmes

MODE ET LUXE
Ennoblissement, anti-contrefaçon, personnalisation, matériaux intelligents et connectés, micro et nano-fabrication

ÉNERGIE
Production, stockage, récuperation, chaleur fatale, biomasse, Power to X, énergie verte

ENVIRONNEMENT
Éco-conception, développement durable, chimie verte, matériaux biosourcés, valorisation ressources, dépollution

SPORT ET BIEN-ÊTRE
Allégement, performance, aérodynamisme, durabilité, capteurs, matériaux actifs, textiles

INDUSTRIE DU FUTUR
Réalité virtuelle, fabrication additive, instrumentation, contrôle non-destructif en ligne

BÂTIMENT ÉCONOME ET DURABLE
Matériaux intelligents, qualité de l'air, optique, performance énergétique

SANTÉ ET COSMÉTIQUE
Anti-bactérien, traitement de surfaces, théranostique, DMI, relargage contrôlé, biocompatibilité, performance, durabilité

Finally, the presentation of circular transition management methods was carried out.
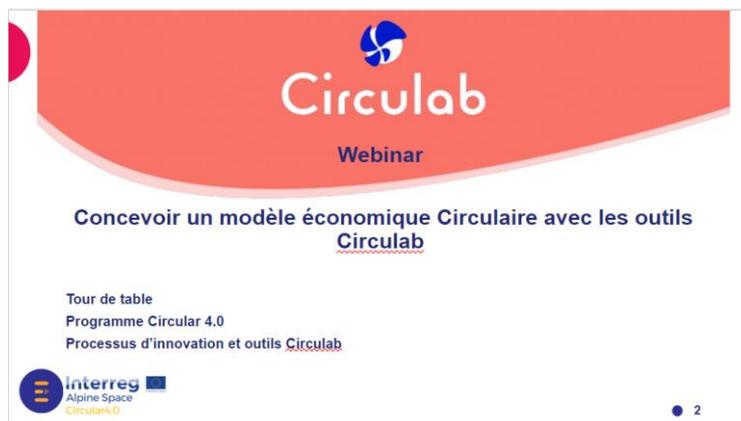
9. Circular CE capability/potentiality and Digital Maturity Assessment of SMEs

At the start of each support, a digital maturity audit was carried out. The self-assessments were always confirmed by an initial interview with the company so as not to miss out on elements that could later have an impact on the action plan developed with the company. The diagnostic tool is derived from the DMA tool built for the 4.0 programme. It has been translated into French and modified to take into account certain national specificities.
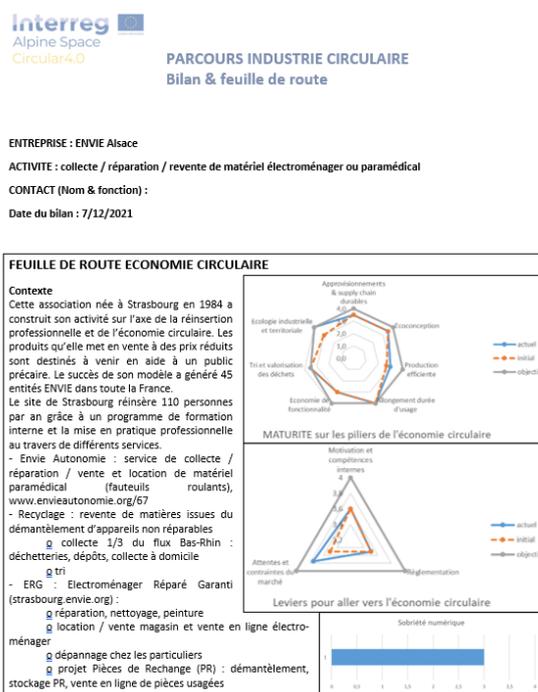
Figure 5: Example of assessment

The tool was also used to set maturation targets and allow for follow-up at the end of the programme. Thus three curves are presented in the reports submitted to the company.

The audit ends with the formalisation of the issues and needs identified and thus prepares the construction of an action plan.

PARCOURS INDUSTRIE CIRCULAIRE
Bilan & feuille de route

Enjeux et besoins
Pour faire face à la croissance des volumes et du public en réinsertion (+20% d'ici 2023) et la mise en place du nouveau service de PR, l'entreprise déménage dans de nouveaux locaux à Geispolsheim.
Equipée de différents logiciels métiers, l'activité souffre d'un manque d'efficacité (ressaisies et manques d'informations) et les outils sont mal adaptés à des travailleurs fragiles de faible maturité numérique.
La société a notamment besoin d'outils efficaces pour :
- piloter le parcours des travailleurs en réinsertion
- assurer la traçabilité des appareils et pièces depuis la collecte (lieu, heure, localisation, organisme), le tri et jusqu'à la vente
- assurer le suivi des collectes et livraisons (géolocalisation et temps)
- optimiser les tournées
- gestion des locations
- suivi et historique du parc d'appareil pour le SAV avec 8000 interventions par an
- structuration de la démarche RSE
- suivi d'indicateurs spécifiques à l'activité Social, Performance Opérationnelle et Economie Circulaire
- vente en ligne

Le Client sollicite GRAND E-NOV pour l'accompagner dans le design de ces innovations organisationnelles et de process, et dans l'étude de la mise en œuvre des briques technologiques nécessaires.

Maturité construction du modèle circulaire :
Business modèle en place avec plusieurs marchés et intégration de l'ESS.
Pas d'action / développement.

Apport des outils numériques :
Définition et implantation de nouveaux outils numériques pour améliorer les performances des équipes et des différentes activités.

Figure 6: Example of an audit conclusions

10. Identification of innovation needs and investment plan

Title	Support to new / improved or transformed business model and technology adoption	**Start date**	04.2021
		End date	03.2022

Description

Supported by the Interreg Circular 4.0 project, Grand E-nov support manufacturers in their transformation towards the Circular Economy by considering innovative business models and relying on digital technologies. In this sense, the regional agency is organising several round tables to

- Bring out new circular and digital transition projects.
- Discover inspiring initiatives to facilitate Technology adoption

Add sub-activities if necessary

Support emergence of new business models

The raw materials extracted from our soils are running out and some of them will no longer be available within 10 years. Faced with this major challenge, the Circular Economy proposes other ways of designing products, reducing and recovering waste to make new raw materials while reducing the carbon impact. Digital technologies play a central role in the design of products, the optimisation of processes and the construction of collaborative supply chains. Grand E nov organised some workshops to help SME's discover new business models and methodologies to develop those.

Support technology adoption

Extending the life span of products, pooling the use of products, aggregating pools of recycled materials, adjusting production to demand, optimising logistics circuits or eco-design using dedicated software: some levers that reduce the impact on the environment. Digital tools and practices facilitate and accelerate the transition to more sustainable production and organisation models. Grand E Nov organised some workshop to help SMEs discover those new technologies.

Results			
1	3 online / physical workshops	**Date**	2021-2022
2	30 participating SME's	**Date**	2021-2022

Title	Training to generate new / improved or transformed business model	**Start date**	MM.YYYY
		End date	MM.YYYY

Description

Training cession organised for specific target group:

- Manager/executive of an industrial SME or supplier to the industry in the Grand Est
- SME that reaches the limits of your business model and consider the Circular Economy as an opportunity
- SME that wants to stand out from the competition as a Circular Industry
- SME that has a circular economy project that needs to be formalised with experts
- SME that wants to build, validate its business model and roadmap

Sub-activities

Through 2 days of support provided by the Circular 4.0 programme, we propose to start from their problems, to inspire them with the best initiatives to generate new hypotheses of circular business models models.

1 day to use the Circulab tools with the presence of an expert to come up with a first hypothesis of a circular economic model and a set of points to check with potential partners to make this model real.

Personal work on the part of the companies for one month to validate or resolve the questions

Meeting of the companies through two thematic half-days to develop the roadmap and implement the economic model (necessary resources, financing tools, etc.)

Results			
1	6 New circular business models generated / validated	**Date**	Jan 2022
2	2 days of collective support	**Date**	Jan 2022

Title	Digital assessment and Roadmap	Start date	Mar 2021
		End date	Mar 2022

Description

Industrial SME's who wish to be accompanied to :

At the strategic level
- Enlighten the Director on the possibilities of digital technologies.
- Challenge the business issues that arise in all transparency/benevolence in order to formalise the product/process/service/marketing innovation axes according to a dynamic framework that will make it possible to drive/prioritise the opportunities that will be proposed.
 At the operational level

- Prioritise/sequence innovation projects, in the medium/short/long term, on the basis of a strategy/innovation axes and according to the company's capacities (skills, equipment, software, IP, etc.).

- Co-construct a business transformation roadmap to make innovative use of the data/assets held and create new economic value by responding to new analytical needs and new uses. This includes technical, HR and overall business organisation aspects.

- Structure the innovation projects selected in the short term as well as the internal innovation process (innovation process where the roles of the different stakeholders are clearly defined).

Objectives:
- Establish an inventory of the company's digital and circular maturity.
- Identify the areas of uncertainty, the hypotheses to be verified, the key points to be consolidated.
- Help you structure your project in terms of activities, distribution of roles, planning of resources, deadlines, identification of risks.

Precision concerning the one-to-one support: Formalisation of your digital and circular innovation strategy

- Assistance in formalising and compiling the elements of analysis of the external environment, the value chain, competitive positioning, evolution of needs and user/customer paths and definition of opportunities

- Framing of the company's digital ambition: Clarification of the technological possibilities and processes capable of responding to these opportunities through interviews with various experts in the candidate technologies, the targeted sectors or with experience close to the targeted services

- Identification of the resulting challenges and strategic objectives

Results

1	15 CE+digital maturity assessments of SMEs (Feedback from individual interviews)	**Date**	Mar 2021

Indicators (KPIs) and monitoring

This section shall describe what are the measurable objectives (qualitative and quantitative indicators) of the pilot action and how the progress will be monitored. The selection/definition of indicators shall refer to deliverable *D.T2.5.1 Evaluation methodology* and *D.T2.4.2 KPIs definition to assess the contribution of digitalisation on CE approaches* (templates available on Teams – see also next page).

A basic indicator for all pilot actions is the number of SMEs targeted (~20 on average).

	CE Strategy/Business model		Commitment level Investments		Digital technologies awareness		Commitment level Investments		Other relevant item linked to the pilot action considered		Trainee level of satisfaction	Maturity improvement		Impact on CE related to the pilot action	
											Company dashboard				
							Full project partner dashboard								
Goals	CE Readiness level assessment		Trainee motivation toward CE implementation		Digital Technology Readiness level assessment		Financial effort foreseen during the pilot action		CE Commitment level assessment		Satisfaction level on tools and trainings provided	Project maturity phase to be reached *		Circular metrics to be improved *	
Phase	Initial State	Outputs	Initial State	Outputs	Initial State	Outputs	Initial State	Outputs	Initial State	Outputs	Quality of trainers and tool, relevance, applicability …	Initial level	Level reached	Initial measure	Results achieved **
Means indicator *															
Comments **	Describe the inputs needed	Describe what has been done	Describe the inputs needed	Describe what has been done	SELFIE ZOOM Maturity level	Describe what SME plan to do	Describe the inputs needed	Describe what has been done	CAS 2.0 comittment level	Describe what SME plan to do		Describe the Improvement		Describe the Improvement	

Table of contents

1. Introduction

The purpose of the pilot actions in Slovenia in the scope of the Circular 4.0 project was to train all together of 35 SMEs (Jozef Stefan Institute (JSI) – 17 SMEs and Technology Park Ljubljana (TPLJ) – 18) to test the Circularity Acceleration Training 4.0 (CAT4.0) model – pilot training that was developed within Circular4.0 project (Work Package T2 – WP T2).

The CAT4.0 – pilot training aimed to identify the pilots of the circular and digital transformation related to the technology adoption, new or improved process, new or improved or transformed business model, new or improved products, new or improved services, digitally supported (as far as possible) with a time horizon from 6 months up to 1 year.

According to the Application Form TPLJ is involved in the D.T3.2.2 Local actions to implement CE Optimal Use approaches with digitalisation processes and JSI in the D.T3.2.1 Local actions to implement CE Design Model approaches with digitalisation processes however the joint open invitation that was prepared by TPLJ (in collaboration with JSI) was aimed to invite all Slovenian SMEs to participate at the (CAT4.0) – pilot training regardless the type of the circular model and the sector. SMEs from all sectors were therefore invited to the CAT4.0. In the case of too much interest by SMEs for the CAT4.0 training an open invitation would prefer the selection of SMEs that were coming from sectors identified in previous actions in the Circuar4.0 project D.T1.4.2 Report on the industrial sectors selected by each area. For Slovenia this means sectors of manufacturing, food and agriculture, wood processing, construction as are also defined in the Slovenia's roadmap to circular economy and other national strategic development plans

Many operators (intermediaries and service providers) such as organisations assisting companies (industrial clusters at Chamber of Economy, Strategic research, and Innovation Partnerships – SRIP Factories of the Future, SRIP Circular Economy, SRIP Smart Cities, SRIP Agriculture and Food, Cluster of toolmakers, EIT Climate KIC etc.) were asked to promote the joint open invitation to attract as many SMEs as possible to apply for the training to reach the goal of 35 SMEs.

The training was held in the light of the European Green Agreement with the aim of creating a starting point for a circular strategy/action plan, achieving greater added value, productivity, increasing positive impacts on the environment, people, and communities and with the additional goal of offering starting points for companies for recovery and resilience and other appropriate financial instruments.

With the help of selected experts on circular and digital transformation (TPLJ involved three experts), SMEs assessed their level of their circular and digital maturity, identified needs for innovation and technologies for circular transformation, developed new circular and digital business models, prepared a plan for the transition to a circular economy and a financial investment plan, to potentially obtain financing from banks or to present the circular transformation model and investment needs to potential public or private investors. Within the training process, each company, in addition to the customized group training at the kick off CAT4.0 also received 1:1 advice from a selected and matched expert.

The present deliverable displays for the local pilot action in <u>Slovenia</u> the:

- activities delivered,
- results achieved,
- lessons learned to foster CE approaches through digitalization.

2. Local pilot actions in Slovenia (TPLJ) - Overview

At first it was planned that in Slovenia pilot actions will address the sectors in accordance with the selected sectors of interest mapped out in the *D.T1.4.2 Report on the industrial sectors selected by each area* and justification of those selected such as wood processing industry, plastics, construction, manufacturing, and food as these selected sectors of interest are in accordance with the National Circular Economy Roadmap and other national strategic development plans. These are also sectors included in Slovenia's regional specialization strategy supported by cluster organizations.

While drafting and preparing the call of invitation for SMEs it was decided to invite to the CAT4.0 training all SMEs in Slovenia not to exclude any interested SME to join the transformation to the circular economy through digitalisation. In case the interest would exceed the training capacities the selection process would take place upon the selected sectors.

It was also planned to undertake for pilots the circular design model (approach) and optimal use model (approach) as defined in the scope of the Circular 4.0 project. If applicable for Slovenian SMEs also value recovery model (approach) will be used.

As all three circular economy models are very interconnected within the identification process the attention was more paid to the practical needs of SMEs rather than pushing them to follow specific circular economy model.

The CAT4.0 transformation training method of the Circular 4.0 project was planned to be used as a base for pilot actions as explained in the Module 1 (Part 2) of the CAT4.0 training course enabling the potential for circular transformation/tech readiness/digitalization and I4.0 (available over https://circular40.eu/). Awareness rising for SMEs & Check for linear risks & circular economy opportunities were also planned to be included in the CAT4.0 approach.
Improving production and process by means of digitalization was planned to be examined such as the concepts of Zero-defect manufacturing through analytics, signal processing, AI, sensoring. Industrial symbiosis & industrial urban symbiosis for improving collaboration utilizing technology and IoT & Industrial cloud platforms for connecting, storing, monitoring, analysing, and improving production processes.

The planned methodology to be used in Slovenia was as follows:
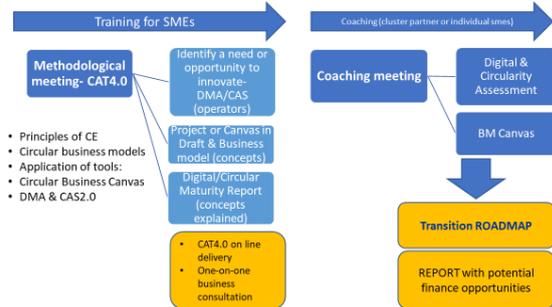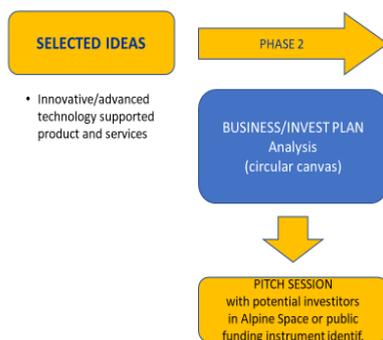
Digital and the digital and the circular maturity tools that were planned to be used were:

http://dma.innocape.eu/en/test/registration

Designed for all kinds of companies to assess the digital maturity and to give a foundation for internal discussions on strategic priorities in digitalization opportunities and challenges. It is useful for the assessment of results to initiate dialogue with the regional Digital innovation hub to gain further support in digitalization process within the company:

- Improving processes through digitization and automation
- Experimenting at low costs to reveal efficiency gains, new customer touch points or new products
- Collecting and analyzing data to generate insights for strategic decision making
- Establishing relationships with external partners to pool complementary resources

Other tools for SMEs & business or CE model specific tool (to be selected by experts from the tools approved in the scope of the Circular4.0 project and introduced through the training actions in T2) including tools assessed in the scope of **D.T2.3.1 Setting up the toolkit to support digitalisation processes to foster the CE in the Alpine space** https://digital-transformation-tool.eu/project/and some selected tools from a repository of identified tools "fit-for-purpose" (depending on level of maturity of SME, size and SME pilot project needs) http://e2-owncloud.ijs.si/owncloud/index.php/s/rc17RxI7bd7Kw8d

It was planned to cross-examine SMEs also about the application of advanced technologies such as robotics, control technologies (industrial control systems),

artificial intelligence, big data use, block-chain, XP, virtual reality, or augmented reality use.

Circularity assessment scoring tool - CAS2.0 tool (developed in the scope of Circular4.0 project): https://circular40.eu/cas2-0/

Expected results (the benefit/added value expected for the SMEs)
It was planned that SMEs identify the pilot project (business transformation project and/or investment project) to start the CE transformation journey, get acquainted with the CE principles. It was also planned to elaborate a business plan (business canvas) and/or investment plan (investment project) and present it in front of funders i.e., proactively seek financial instrument for implementing the transformation project.

3. Identification and involvement of the SMEs for the Pilot Action

An open invitation was issued by the project partners Technology Park Ljubljana (TPLJ) and Jozef Stefan Institute (JSI), as well as through our affiliated partners i.e., operators (Chamber of Economy, various industrial clusters, incubators, Climate KIC etc.) as described within the chapter 1 and 2.

4. Implementation report

Title	The implementation of the Circularity Acceleration Training 4.0 (CAT4.0) in SMEs in Slovenia for the identification of Pilots in SMEs to transit in the circular economy through digitalisation	Start date	10/11 2021
		End date	03 2022

Description

1. Recruitment of expert in circular economy & digitalization for the implementation of CAT4.0 in SMEs

TPLJ prepared and initiated an open call (announced on the TPLJ website) for experts in circular economy & digitalization to receive offers to implement CAT4.0 in SMEs. Three experts were selected by TPLJ and contracted to perform digital maturity assessment, circular maturity assessment, and to provide 1:1 training for SMEs based on predefined templates and the CAT4.0 methodology presented to the experts beforehand, using all the materials available on the Circular4.0 learning platform Talents LMS (https://circular40.eu/about/) to help SMEs prepare their circular & digital assessments and the transformation plan or business canvas.

2. Selection/identification of SMEs

TPLJ prepared (in a collaboration with JSI) and initiated an open invitation (announced on the TPLJ website and LinkedIn/Facebook posts) to select SMEs to participate in the CAT4.0 training program in Slovenia. All SMEs in Slovenia were

Interreg
Alpine Space
Circular4.0

invited to participate at the CAT4.0 training (in case of big interest with the specific focus to sectors such as wood sector, manufacturing, plastics, food, and construction). An open invitation and direct call for participation in the CAT4.0 program was performed also by JSI's and SRIP FoF communication channels and through other sectoral organizations such as Association of Chemical Industries of Slovenia, Association of Factories of the future, SRIP Smart Cities, SRIP Circular Economy, SRIP Agriculture and food and other clusters (Slovenian Toolmaking Cluster, Competence Center for advanced control technologies) and KIC Climate Slovenia as well as through some of member organizations of the mentioned clusters (business incubators, accelerators, technology parks etc.).

Implementing the CAT2.0 modules addressed to SMEs supported by awareness rising campaign (using project partners communications channels) started. Registered companies were invited to the joint kick-off meetings organised by three experts and coordinated by TPLJ (each expert implemented its own joint kick- off meeting with the matched SMEs).

3. Implementation of CAT4.0 trainings in SMEs to identify circular economy & digital Pilots

Three selected experts in circular economy and digitalisation implemented all together 17 trainings including circular and digital maturity assessment and 1:1 meetings to prepare the circular & digital transition plan or business canvas.

Tools mainly used within CAT4.0 trainings:

- http://dma.innocape.eu/en/test/registration
- I4ready: https://i4ready.co.uk/
- Circularity Assessment Score (CAS2.0) https://circular40.eu/cas2-0/

- When?
From January 2022 until 30.6.2022 (2 pilots were implemented exceptionally by 11.7.2022). Preparations started already in Oct/Nov 2022).

- By Whom?
By TPLJ and three selected experts with expertise in circular economy & digitalization.

- How many SMEs were involved/did benefit?
All together 17 companies (16 SMEs and 1 big company)

Results

|	Please list below the results achieved, including the items available for documentation of the results (those items shall be put in the annexes to the deliverable).		
1	Example: 1 call for applications • Copy of publication (website, newsletter, …) **Call for applications for SMEs, TPLJ's website, January 2022** 	Dat e	20.01.202 2

Interreg
Alpine Space
Circular4.0
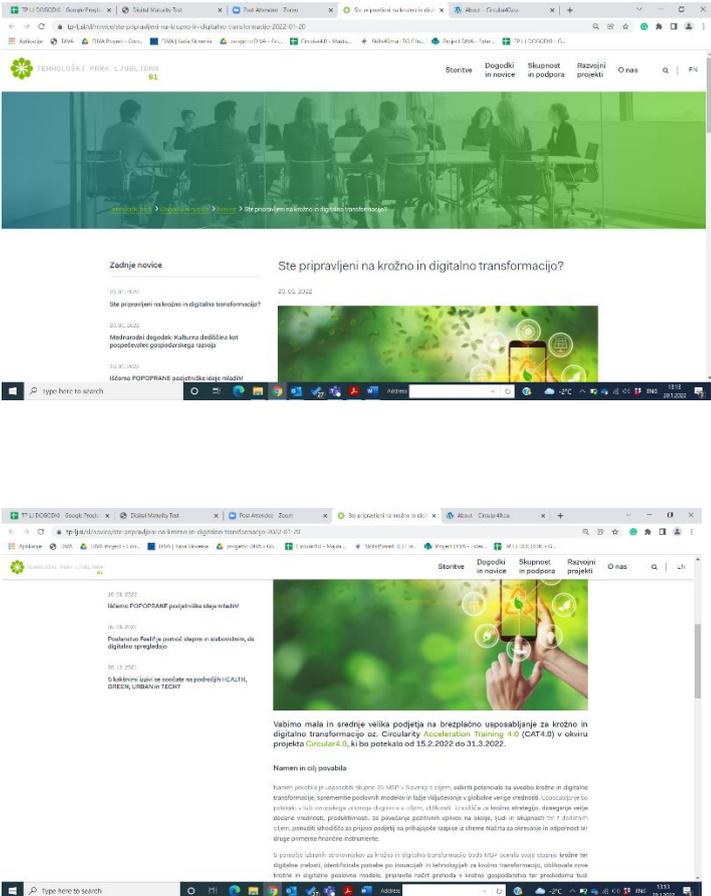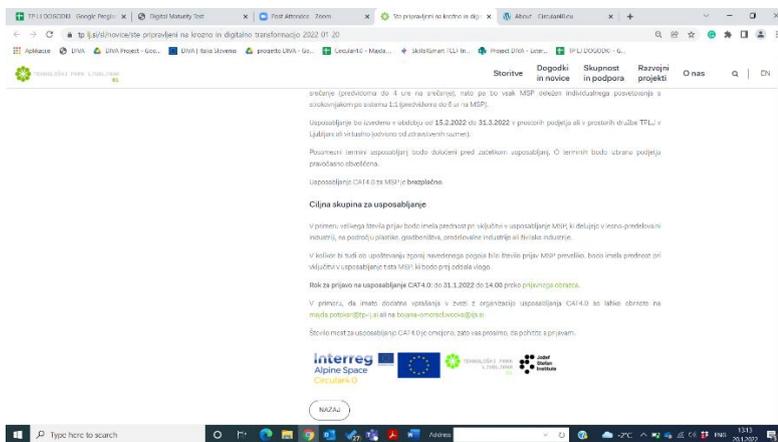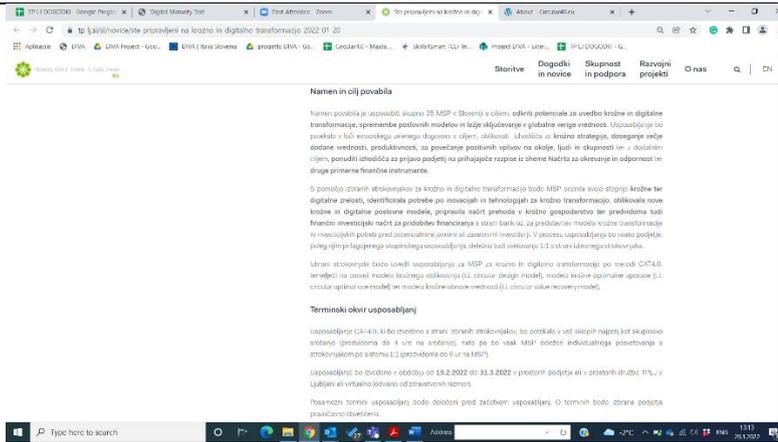
Call for applications for SMEs, TPLJ's newsletter, January 2022
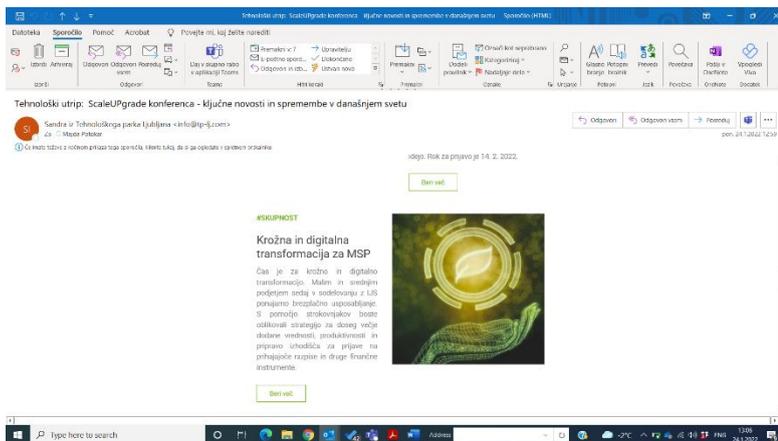
Promotion on the LinkedIn:
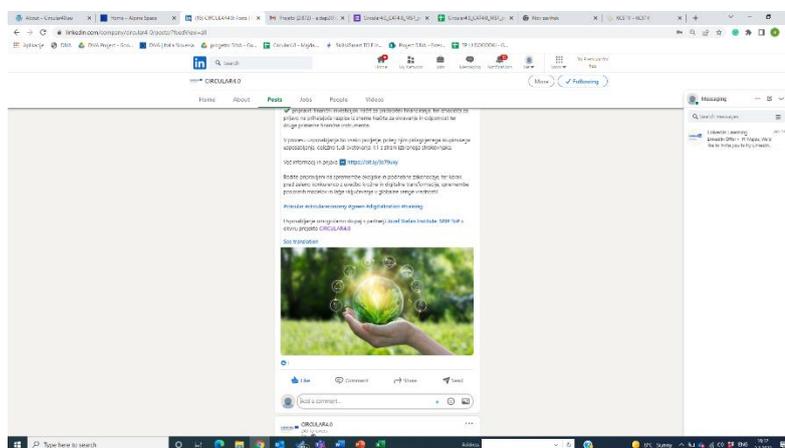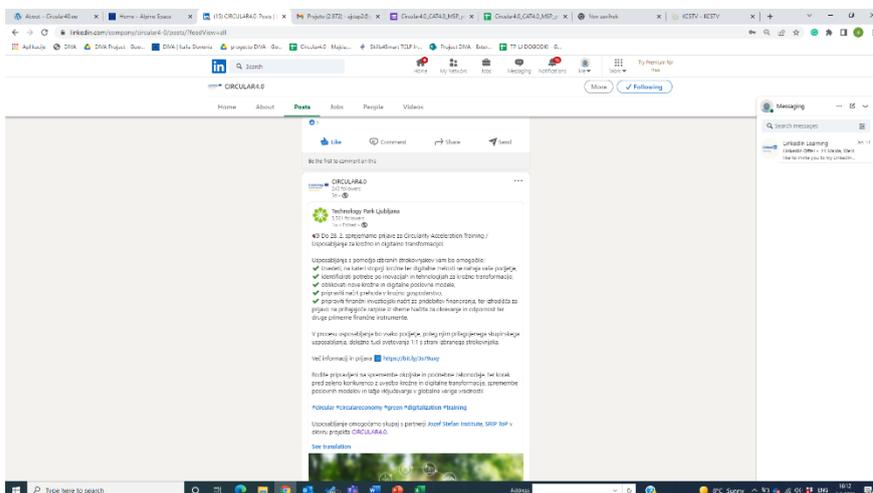
Promotion on the Facebook:
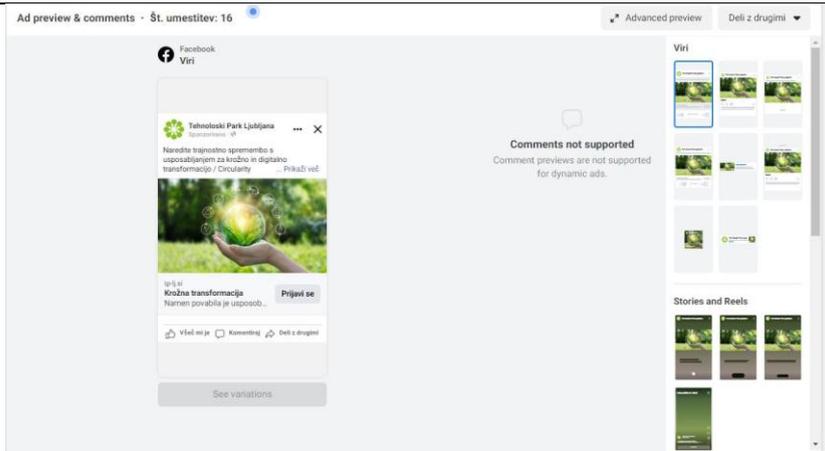
Call for the selection on experts, TPLJ web site, January 2022

| 2	Three CAT4.0 kick – offs were performed for the selected SMEs by three selected circular economy & digitalisation experts (7.3.2022 online, 8.3.2022 at TPLJ in Ljubljana, 16.3.2022 online):	Date	7.3.2022
	CAT4.0 Kick-off 1: the joint initial training of SMEs		7.3.2022
	The first selected expert implemented the CAT4.0 kick-off on 7.3.2022 online. TPLJ presented the Circular4.0 project and the aim of CAT4.0 trainings for the identification of Pilots of circular/digital transformation. Then the first expert introduced the CAT4.0 programme in detail and presented		

the basics of circular economy with some best cases examples in circular economy and digitalisation (awareness raising). Three companies participated (two more additional companies joined the training in a later stage).
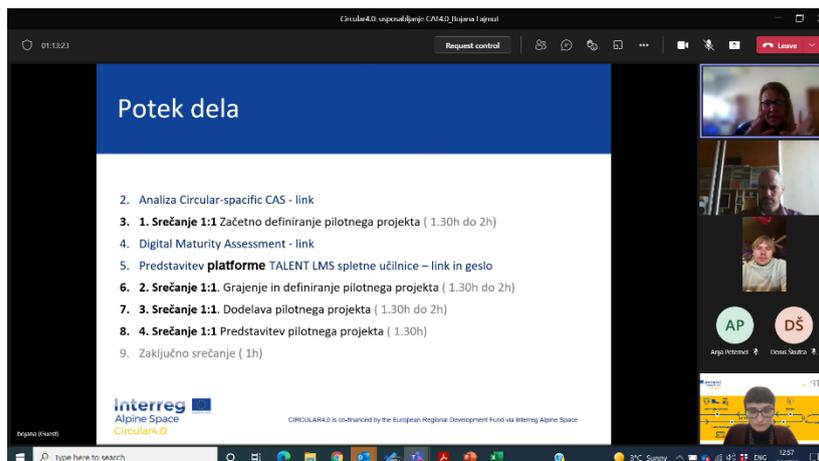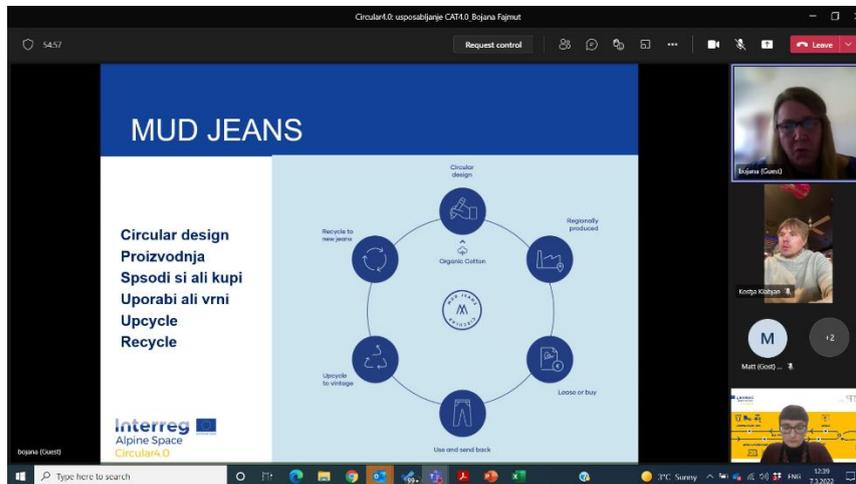
After the kick off meeting experts used CAS2.0 tool for the identification of the circular maturity assessment in the SMEs as well as the selected DMA tool for the identification of the digital maturity. SMEs went through 1:1 meetings with the external expert to identify potential technology adoption, new or improved process, new or improved or transformed business model, new or improved products, new or improved services, digitally supported (as far as possible) all with a time horizon from 6 months up to 1 year. 2 companies (water recycling/microplastics and bioplastics) presented their success case at the regional Info Day (D.C.3.1) on 16.6.2022 at TPLJ.

|	CAT4.0 Kick-off 2: the joint initial training of SMEs		8.3.2022
	The second selected expert implemented the CAT4.0 kick-off on 8.3.2022 at TPLJ premises (Ljubljana). TPLJ presented the Circular4.0 project and the aim of CAT4.0 trainings. Then the first expert introduced the CAT4.0 programme in detail and presented the basics of circular economy with some best cases examples in circular economy and digitalisation. Seven companies participated and actively collaborated in the training.		
	After the kick off meeting (similar as with the first expert).		
	1 company (ICT/smart village) presented their success case at the regional Info Day (D.C.3.1) on 16.6.2022 at TPLJ in Ljubljana.		
	CAT4.0 Kick off 3: the joint initial training of SMEs		16.3.2022
	The third selected expert implemented the CAT4.0 kick-off on 16.3.2022 online. TPLJ presented the Circular4.0 project and the aim of CAT4.0 trainings. Then the first expert introduced the CAT4.0 programme in detail and presented the basics of circular economy with some best cases examples in circular economy and digitalisation. Three companies participated (two more additional companies joined the training in the later stage).		

Interreg
Alpine Space
Circular4.0

	After the kick off meeting (similar as with the first expert). 1 company (smart textile) presented their success case at the regional Info Day (D.C.3.1) on 16.6.2022 at TPLJ in Ljubljana.		
3	**List of SMEs assisted by the first expert (7) from sectors such as:** • ICT, Real Estate • IOT • Legal services • Mobility • Product design • Retail • ICT, smart village	Date	

LOCAL PILOT ACTION - TPLJ
Overview of companies assisted in Slovenia

N°	Company name	Company Address/ Region	Sector of reference	SME	CE maturity assessment	CE maturity assessment tool	Digital maturity assessment	DM assessment tool	1:1 meeting	Action Plan	Follow up (optional)	Activity 1 (optional)	Activity 2 (optional)	Activity… (optional)
1	TPLJ01	Ljubljana, Slovenia	ICT, Real Estate	Yes	14.3.2022	CAS2.0	14.3.2022	Innocape	14.3.2022 22.3.2022 28.3.2022 29.3.2022	30.3.2022	Delivering project pitch on SDBP event 30.3.2022. Continuing collaboration.	Investor pitch was developed		
2	TPLJ02	Trzin, Slovenia	IOT	Yes	17.3.2022	CAS2.0	17.3.2022	Innocape	17.3.2022 24.3.2022 29.3.2022 5.4.2022	5.4.2022		New circular business model was developed	Action plan and list of elements of the business model that need further validation was developed	
3	TPLJ03	Ljubljana, Slovenia	Legal	Yes	15.3.2022	CAS2.0	28.3.2022	Innocape	15.3.2022 28.3.2022 30.3.2022 4.4.2022	30.3.2022	Connecting the company with stakeholders relevant to their pilot project.	Delivered a presentation on sustainability for the company team as a part of the last meeting	Action plan developed to make the office more circular.	
4	TPLJ04	Ljubljana, Slovenia	Mobility	Yes	11.3.2022	CAS2.0	20.4.2022	Innocape	14.3.2022 25.3.2022 31.3.2022 4.4.2022	14.3.2022	Connecting the company with stakeholders relevant to their pilot project. Possibly continuing collaboration.	Value proposition and project pitch was developed, applying to Climate KIC	Sustainability communication was developed	
5	TPLJ05	Trzin, Slovenia	Product design	Yes	23.3.2022	CAS2.0	15.4.2022	Innocape	23.3.2022 8.4.2022 15.4.2022	15.4.2022				
6	TPLJ06	Ljubljana, Slovenia	Retail	No - large company	11.4.2022	CAS2.0	19.4.2022	Innocape	28.3.2022 11.4.2022 12.4.2022	12.4.2022		Pilot project developed to test zero-	Value proposition for all	

1

									19.4.2022			waste model on one product line	stakeholders developed pitch to upper management	
7	TPLJ07	Velenje, Slovenia	ICT, smart home	Yes	/	/	/	/	24.3.2022	/				

List of SMEs assisted by the second expert (5) from sectors such as:

- Bioplastics
- Microplastics and wastewater management
- Food sector
- Recycled mix plastic pallets
- Waste management

8	TPLJ08	Mislinja, Slovenia	Biopastic	Yes	16.03.2022	CAS4.0	26.04.2022	Innocape	11.03.2022 16.03.2022 31.03.2022 08.04.2022 20.04.2022 22.04.2022 01.06.2022	29.04.2022				
9	TPLJ09	Koper, Slovenia	Microplastics and wastewater management	Yes	18.03.2022	CAS4.0	04.04.2022	Innocape	07.03.2022 17.03.2022 30.03.2022 04.04.2022 30.05.2022	29.04.2022				
10	TPLJ10	Ljubljana, Slovenia	food sector	Yes	28.03.2022	CAS4.0	10.04.2022	innocape	15.03.2022 30.03.2022 13.04.2022 19.04.2022	29.04.2022				
11	TPLJ11	Ljubljana, Slovenia	Recycled mix plastic pallets	Yes	20.03.2022	CAS4.0	25.03.2022	Innocape	07.03.2022 10.03.2022 24.03.2022 24.03.2022 15.04.2022	29.04.2022				
12	TPLJ12	Ljubljana, Slovenia	Waste management	Yes	/	/	/	/	07.03.2022 05.04.2022	/				

	List of SMEs assisted by the third expert (5) from sectors such as:		Date	

List of SMEs assisted by the third expert (5) from sectors such as:

- Consulting
- Textile manufacturing
- Food industry
- Water clearing/ Engineering
- Food/Engineering

13	TPLJ13	Ljubljana, Slovenia	Consulting	Yes	28.03.2022	CAS	28.03.2022	i4Ready	16.03.2022 24.03.2022 21.04.2022	25.04.2022		
14	TPLJ14	Metlika, Slovenia	Textile manufacutring	Yes	22.03.2022	CAS	22.03.2022	i4Ready	16.03.2022 23.03.2022 11.04.2022 15.04.2022		04.05.2022 (Business canvas)	Assistance for the public call
15	TPLJ15	Kamnik, Slovenia	Food industry	Yes	21.03.2022	CAS	28.03.2022	i4Ready	16.03.2022 04.04.2022 14.04.2022	/		
16	TPLJ16	Ljubljana, Slovenia	Agriculture Engineering	Yes	07.07.2022	CAS	07.07.2022	i4Ready	15.05.2022 24.05.2022			
17	TPLJ17	Rogaška Slatina, Slovenia	Engineering Food processing	Yes	01.07.2022	CAS	04.07.2022	i4Ready	27.06.2022 04.07.2022			

n		Date	

Deviations – corrective measures (as occurring)

2 pilots were implemented exceptionally by 11.7.2022 (and not by 30.6.2022) due to time constraints.

17 companies were reached (target 18) – if it would be possible TPLJ could reach additional 1 pilot to fully reach the planned KPI (18).

TPLJ searched for pilots to be implemented within each Circular economy model not only on the Optimal use model (D.T3.2.2) as defined in the Application Form but also on the Circular design model (D.T3.2.1) and Value recovery model (D.T3.2.3) due to interconnectedness of all models and to reach as many SMEs as possible. Before the start of CAT4.0 the applied SMEs also didn't know what type of pilot they would identify for further development and implementation.

SMEs from all sectors were invited to join the CAT4.0 to identify pilots of circular & digital transformation and not only SMEs from the selected sectors as identified within WP T1 (sectors identified in the Slovenian strategic documents).

5. Deviations from the pilot action plan (D.T3.1)

The pilots were implemented as planned with some time lag (achieved in June 2022/ planned March 2022). KPI for TPLJ: 17 companies (16 SMEs and 1 big company) were reached (planned 18 SMEs). SMEs from all sectors were invited to join the CAT4.0 to identify pilots of circular & digital transformation and not only SMEs from the selected sectors as identified within WP T1 (sectors identified in the Slovenian strategic documents).

6. Communication activities implemented to support the pilot action

SRIP KROŽNO GOSPODARSTVO

SRIP - Krožno-gospodarstvo · Člani · Novice · Dogodki · Kontakt · Portal za člane

Ste pripravljeni na krožno in digitalno transformacijo?

Vabimo mala in srednje velika podjetja na brezplačno usposabljanje za krožno in digitalno transformacijo oz. Circularity Acceleration Training 4.0 (CAT4.0) v okviru projekta Circular4.0, ki bo potekalo od 15.2.2022 do 31.3.2022.

Namen in cilj povabila

Namen povabila je usposobiti skupno 35 MSP v Sloveniji s ciljem, **odkriti potenciale za uvedbo krožne in digitalne transformacije, spremembe poslovnih modelov in lažje vključevanje v globalne verige vrednosti.** Usposabljanje bo potekalo v luči evropskega zelenega dogovora s ciljem, oblikovati izhodišča za **krožno strategijo, doseganje večje dodane vrednosti, produktivnosti, za povečanje pozitivnih vplivov na okolje, ljudi in skupnosti** ter z dodatnim ciljem, **pomaditi izhodišča za prijavo podjetij na prihajajoče razpise iz sheme Načrta za okrevanje in odpornost** ter druge primerne finančne instrumente.

S pomočjo izbranih strokovnjakov za krožno in digitalno transformacijo bodo MSP ocenila svojo stopnjo **krožne ter digitalne zrelosti, identificirala potrebe po inovacijah in tehnologijah za krožno transformacijo, oblikovala nove krožne in digitalne poslovne modele, pripravile načrt prehoda v krožno gospodarstvo ter predvidoma tudi finančni investicijski načrt za pridobitev financiranja** s strani bank oz. za predstavitev modela krožne transformacije in investicijskih potreb pred potencialnimi javnimi ali zasebnimi investitorji. V procesu usposabljanja bo vsako podjetje, poleg njim prilagojenega skupinskega usposabljanja, deležno tudi svetovanja 1:1 s strani izbranega strokovnjaka.

Izbrani strokovnjaki bodo izvedli usposabljanja za MSP za krožno in digitalno transformacijo po metodi CAT4.0, temelječi na osnovi modela krožnega oblikovanja (t.i. circular design model), modela krožne optimalne uporabe (t.i. circular optimal use model) ter modela krožne obnove vrednosti (t.i. circular value recovery model).

Terminski okvir usposabljanja

Usposabljanje CAT4.0, ki bo izvedeno s strani izbranih strokovnjakov, bo potekalo v več sklopih najprej kot skupinsko srečanje (predvidoma do 4 ure na srečanje), nato pa bo vsak MSP deležen individualnega posvetovanja s strokovnjakom po sistemu 1:1 (predvidoma do 6 ur na MSP).

Usposabljanje bo izvedeno predvidoma v obdobju od **15.2.2022** do **31.3.2022** v prostorih podjetja ali v prostorih družbe TPLJ v Ljubljani ali virtualno (odvisno od zdravstvenih razmer).

Posamezni termini usposabljanj bodo določeni pred začetkom usposabljanj. O terminih bodo izbrana podjetja pravočasno obveščena.

Usposabljanje CAT4.0 za MSP je **brezplačno.**

Ciljna skupina za usposabljanje

Ciljna skupina so MSP. V primeru velikega števila prijav bodo imela prednost pri vključitvi v usposabljanje MSP, ki delujejo v kovino-predelovalni industriji, na področju plastike, gradbeništva, predelovalne industrije ali živilske industrije.

V kolikor bi tudi ob upoštevanju zgoraj navedenega pogoja bilo število prijav MSP preveliko, bodo imela prednost pri vključitve v usposabljanje tista MSP, ki bodo prej oddala vlogo.

Rok za prijavo na usposabljanje CAT4.0: do petka 11.2.2022 preko prijavnega obrazca.

V primeru, da imate dodatna vprašanja v zvezi z organizacijo usposabljanja CAT4.0 se lahko obrnete na mojca.poisdam@tp-lj.si ali na bojana-oman@ceram.le@tp.si

Število mest za usposabljanje CAT4.0 je omejeno, zato vas prosimo, da pohitite s prijavami.

Interreg — Alpine Space — Circular4.0

20.01.2022

7. Summary of the achievements - lessons learnt

Achievements

Milestone(s) achievement analysis:
- Quantitative (KPIs): 17 SMEs were trained through the pilot actions, 15 CAS2.0/15 DMA reports were produced (10 Innocape and 5 i4Ready) and 3 business model canvasses, 2 went through awareness raising and 1:1 assistance.
- Qualitative: nearly as planned

Lessons learnt

- SMEs considered 1:1 assistance very useful, they liked the personal approach of the expert, the length of the training was appropriate, influencing the thinking and to the first steps in sustainability, presentation of good practices was useful, the linkage of circular economy and the digitalization, assistance in a real case in the company, identification of potentials of going circular and the generation of ideas, new experiences/new business models.

- Suggestions by SMEs to improve the CAT4.0: Video presentation of the CAT4.0 would be useful for companies. It should be highlighted even more to whom in the company the CAT4.0 training is aimed at. Prolonging the length of the training would it be useful, better practices to be included.

- All companies that answered the satisfaction questionnaire (18) and were involved in the CAT4.0 would recommend the training to other companies who are willing to transit to the circular economy through digitalization.

- It is essential that the top management/owners are involved in the process of the circular/digital transformation or at least that they support the process.

- Some participants were involved within the CAT4.0 that were interested in the topics to be able to communicate it with the top management/owners in a step-by-step process.

8. Annexes

Annex 1: Open call/selection of SMEs: see point 6 and below

POVABILO za MALA IN SREDNJE VELIKA PODJETJA

na brezplačno usposabljanje za krožno in digitalno transformacijo oz.
Circularity Acceleration Training 4.0 (CAT4.0) v okviru projekta Circular4.0
(Interreg Območje Alp)

Predmet povabila

Tehnološki park Ljubljana d.o.o. (TPLJ) in Institut Jožef Stefan (IJS) vabita mala in srednje velika podjetja (MSP)[1] na usposabljanje za krožno in digitalno transformacijo MSP (D.T3.2.2/1/3) po metodi *Circularity Acceleration Training 4.0 (CAT4.0)*, ki je bila razvita v okviru projekta Circular4.0 (Interreg Območje Alp) in je dostopna na: https://circular40.eu/about/.

Namen in cilj povabila

Namen povabila je usposobiti skupno 35 MSP v Sloveniji s ciljem, odkriti potenciale za uvedbo krožne in digitalne transformacije, spremembe poslovnih modelov in lažje vključevanje v globalne verige vrednosti. Usposabljanje bo potekalo v luči evropskega zelenega dogovora s ciljem, oblikovati izhodišča za krožno strategijo, doseganje večje dodane vrednosti, produktivnosti, za povečanje pozitivnih vplivov na okolje, ljudi in skupnosti ter z dodatnim ciljem, ponuditi izhodišča za prijavo podjetij na prihajajoče razpise iz sheme Načrta za okrevanje in odpornost ter druge primerne finančne instrumente.

S pomočjo izbranih strokovnjakov za krožno in digitalno transformacijo bodo MSP ocenila svojo stopnjo krožne ter digitalne zrelosti, identificirala potrebe po inovacijah in tehnologijah za krožno transformacijo, oblikovala nove krožne in digitalne poslovne modele, pripravila načrt prehoda v krožno gospodarstvo ter predvidoma tudi finančni investicijski načrt za pridobitev financiranja s strani bank oz. za predstavitev modela krožne transformacije in investicijskih potreb pred potencialnimi javnimi ali zasebnimi investitorji. V procesu usposabljanja bo vsako podjetje, poleg njim prilagojenega skupinskega usposabljanja, deležno tudi svetovanja 1:1 s strani izbranega strokovnjaka.

Izbrani strokovnjaki bodo izvedli usposabljanja za MSP za krožno in digitalno transformacijo po metodi CAT4.0, temelječi na osnovi modela krožnega oblikovanja (t.i. circular design model), modela krožne optimalne uporabe (t.i. circular optimal use model) ter modela krožne obnove vrednosti (t.i. circular value recovery model).

---

[1] *Za namen tega povabila se mala in srednje velika podjetja (MSP) opredelijo v skladu s Priporočilom Komisije 2003/361/EC z dne 6. maj 2003 (https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32003H0361), po katerem kategorijo mikro, majhnih in srednje velikih podjetij (MSP) sestavljajo podjetja, ki imajo manj kakor 250 zaposlenih ter letni promet, ki ne presega 50 milijonov EUR in/ali letno bilančno vsoto, ki ne presega 43 milijonov EUR.*

1

Terminski okvir usposabljanja

Usposabljanje CAT4.0, ki bo izvedeno s strani izbranih strokovnjakov, bo potekalo v več sklopih najprej kot skupinsko srečanje (predvidoma do 4 ure na srečanje), nato pa bo vsak MSP deležen individualnega posvetovanja s strokovnjakom po sistemu 1:1 (predvidoma do 6 ur na MSP).

Usposabljanje bo izvedeno predvidoma v obdobju od **15.2.2022** do **31.3.2022** v prostorih podjetja ali v prostorih družbe TPLJ v Ljubljani ali virtualno (odvisno od zdravstvenih razmer).

Posamezni termini usposabljanj bodo določeni pred začetkom usposabljanj. O terminih bodo izbrana podjetja pravočasno obveščena.

Usposabljanje CAT4.0 za MSP je brezplačno.

Ciljna skupina za usposabljanje

Ciljna skupina za usposabljanje so MSP. V primeru velikega števila prijav bodo imela prednost pri vključitvi v usposabljanje MSP, ki delujejo v lesno-predelovalni industriji, na področju plastike, gradbeništva, predelovalne industrije ali živilske industrije.

V kolikor bi tudi ob upoštevanju zgoraj navedenega pogoja bilo število prijav MSP preveliko, bodo imela prednost pri vključitvi v usposabljanje tista MSP, ki bodo prej oddala vlogo.

Rok za prijavo na usposabljanje CAT4.0 za MSP: do petka, **11.2.2022** preko prijavnega obrazca >>

V primeru, da imate dodatna vprašanja v zvezi z organizacijo usposabljanja CAT4.0 se lahko obrnete na majda.potokar@tp-lj.si ali na bojana-omersel.weeks@ijs.si

Število mest za usposabljanje CAT4.0 je omejeno, zato vas prosimo, da pohitite s prijavami.

Najlepše se vam zahvaljujemo.

Vljudno vabljeni!

Projekt Circular4.0 sofinancira Evropski sklad za regionalni razvoj (ESRR) preko programa Interreg Območje Alp.

Annex 2: Overview of companies assisted

N°	Company name	Company Address/ Region	Sector of reference	SME	CE maturity assessment	CE maturity assessment tool	Digital maturity assessment	DM assessment tool	1:1 meeting	Action Plan	Follow up (optional)	Activity 1 (optional)	Activity 2 (optional)
1	TPLJ01	Ljubljana, Slovenia	ICT, Real Estate	Yes	14.3.2022	CAS2.0	14.3.2022	Innocape	14.3.2022 22.3.2022 28.3.2022 29.3.2022	30.3.2022	Delivering project pitch on SDBP event 30.3.2022. Continuing collaboration.	Investor pitch was developed	
2	TPLJ02	Trzin, Slovenia	IOT	Yes	17.3.2022	CAS2.0	17.3.2022	Innocape	17.3.2022 24.3.2022 29.3.2022 5.4.2022	5.4.2022		New circular business model was developed	Action plan and list of elements of the business model that need further validation was developed
3	TPLJ03	Ljubljana, Slovenia	Legal	Yes	15.3.2022	CAS2.0	28.3.2022	Innocape	15.3.2022 28.3.2022 30.3.2022 4.4.2022	30.3.2022	Connecting the company with stakeholders relevant to their pilot project.	Delivered a presentation on sustainability for the company team as a part of the last meeting	Action plan developed to make the office more circular.

4	TPLJ04	Ljubljana, Slovenia	Mobility	Yes	11.3.2022	CAS2.0	20.4.2022	Innocape	14.3.2022 25.3.2022 31.3.2022 4.4.2022	14.3.2022	Connecting the company with stakeholders relevant to their pilot project. Possibly continuing collaboration.	Value proposition and project pitch was developed, applying to Climate KIC	Sustainability communication was developed
5	TPLJ05	Trzin, Slovenia	Product design	Yes	23.3.2022	CAS2.0	15.4.2022	Innocape	23.3.2022 8.4.2022 15.4.2022	15.4.2022			
6	TPLJ06	Ljubljana, Slovenia	Retail	No - large company	11.4.2022	CAS2.0	19.4.2022	Innocape	28.3.2022 11.4.2022 12.4.2022 19.4.2022	12.4.2022		Pilot project developed to test zero-waste model on one product line	Value proposition for all stakeholders developed pitch to upper management
7	TPLJ07	Velenje, Slovenia	ICT, smart home	Yes	/	/	/	/	24.3.2022	/			
8	TPLJ08	Mislinja, Slovenia	Biopastic	Yes	16.03.2022	CAS2.0	26.04.2022	Innocape	11.03.2022 16.03.2022 31.03.2022 08.04.2022	29.04.2022			

									20.04.2022				
									22.04.2022				
									01.06.2022				
9	TPLJ09	Koper, Slovenia	Microplastics and wastewater management	Yes	18.03.2022	CAS2.0	04.04.2022	Innocape	07.03.2022	29.04.2022			
									17.03.2022				
									30.03.2022				
									04.04.2022				
									30.05.2022				
10	TPLJ10	Ljubljana, Slovenia	food sector	Yes	28.03.2022	CAS2.0	10.04.2022	Innocape	15.03.2022	29.04.2022			
									30.03.2022				
									13.04.2022				
									19.04.2022				
11	TPLJ11	Ljubljana, Slovenia	Recycled mix plastic pallets	Yes	20.03.2022	CAS2.0	25.03.2022	Innocape	07.03.2022	29.04.2022			
									10.03.2022				
									24.03.2022				
									24.03.2022				

12	TPLJ12	Ljubljana, Slovenia	Waste management	Yes	/	/	/	/	07.03.2022 05.04.2022	/			
13	TPLJ13	Ljubljana, Slovenia	Consulting	Yes	28.03.2022	CAS 2.0	28.03.2022	i4Ready	16.03.2022 24.03.2022 21.04.2022	25.04.2022			
14	TPLJ14	Metlika, Slovenia	Textile manufacutring	Yes	22.03.2022	CAS 2.0	22.03.2022	i4Ready	16.03.2022 23.03.2022 11.04.2022 15.04.2022	04.05.2022	04.05.2022 (Business canvas)	Assistance for the public call	
15	TPLJ15	Kamnik, Slovenia	Food industry	Yes	21.03.2022	CAS 2.0	28.03.2022	i4Ready	16.03.2022 04.04.2022 14.04.2022	15.04.2022			
16	TPLJ16	Ljubljana, Slovenia	Agriculture Engineering	Yes	07.07.2022	CAS 2.0	07.07.2022	i4Ready	15.05.2022 24.05.2022	07.07.2022			
17	TPLJ17	Rogaška Slatina, Slovenia	Engineering Food processing	Yes	01.07.2022	CAS 2.0	04.07.2022	i4Ready	27.06.2022 04.07.2022	04.07.2022			

Above row (partial, top of page): 15.04.2022