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

PP6 – Biz-up

Author: Ashna Mudaffer, PP6 – Biz-up

Version: 1.0

Month, YEAR: July, 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. LP TPLJ
	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 PP6 Biz-Up
- Lessons learned by PP6 Biz-Up
- 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 PP4 aws PP5 ITG PP9 AURAE PP12 Confindustria Bergamo PP15 RISINGSUD	LP TPLJ & PP10 JSI PP3 bwcon PP7 VI PP8 Grand E-nov PP11 TOWL	PP2 TUAS Rosenheim PP6 Biz-Up PP13 CCIAA Venezia Rovigo PP14 UCB	

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.

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 PP6 – Biz-up

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

1. Selection/identification of SMEs
2. Circular CE capability/potentiality and Digital Maturity Assessment of SMEs
3. Identification of innovation needs and business plan

1	Selection/identification of SMEs	Start date	10.2021
		End date	05.2022
The selection and identification of companies (in priority SMEs) to take part in the pilot in Upper Austria took place by means of an open call published by Biz-up through its website and its newsletter. Partners in Biz-up´s network were activated through personal contacts to extend the reach of the call.			
Result Eight different companies have been assisted in the frame of the pilots. Three of those are categorized in the electronics sector with producing electronic devices, one is focusing on			

		Start date	03.2022

the mobility sector, one specialized in large engines, one company is a machine producer and three companies are part of the value recovery chain of plastics. Five are categorized as Enterprises and three as SMEs.

CIRCULAR CE CAPABILITY/POTENTIALITY AND DIGITAL MATURITY ASSESSMENT OF SMES

The second activity was dedicated to the assessment of the beneficiaries' situation. It was performed for all selected SMEs.

2	Circular CE capability/potentiality and Digital Maturity Assessment of SMEs	Start date	03.2022
		End date	05.2022

Each selected company went through a CE and digital maturity assessment.

The assessments were performed in the form of interviews in the framework of online meetings with a representative of each company. The CE maturity assessment and DMA were performed in one go in the same meeting (1 distinct meeting per company).

The assessments were performed by a projectmanager of Biz-up. The assessments and further inputs from the interviews provided the basis for additional 1:1 meetings, which took place a few days later in a similar manner.

The results of both meetings were combined in the elaboration of recommendations / suggestions for improvements.

The results were documented in a common template for all businesses.

Result

16 documented CE and digital maturity assessments

IDENTIFICATION OF INNOVATION NEEDS AND BUSINESS PLAN

The third activity was dedicated to the formulation of recommendations and suggestions for improvements in the form of an action plan (investment plan). It was performed for the 8 companies.

3	Identification of innovation needs and business plan	Start date	11.2021
		End date	01.2022 (1st bench)

The main benefit for the SMEs is to raise awareness of the opportunities of circular economy through information events at the beginning. With that we introduce the SMEs into the whole world of circular economy and with best practices we state how business have been introduced before and successfully implemented circular strategies already. Within the 1:1 consulting we provide explicit business model canvas and digital maturity assessments for the SMEs in order to state their current challenges but also possible opportunities. Within

the last workshop together with all participants we will use design thinking techniques to elaborate possible next steps and measures in order to become more circular and support the transition with means of digitalization.

Lessons learned and recommendations for the follow-up

The response of the companies was not very satisfying. Some companies did call for more information about the pilots but decided afterwards to not be part of it. Some agreed on participating and then cancelled afterwards due to too much work. We can only assume why companies were not ready to participate but we think that three major factors were the reason, why companies were not able to be motivated in participating in the pilots and to learn how to become more circular.

1. COVID-Crisis – many of our regional companies do still struggle with the issues of the entire crisis. Resources are expensive or hard to get, transportation is still considered as problematic and the extremely high infection rate from January until end of March caused many downtimes in production and offices. Employees were constantly on sick leave due to quarantine and therefore not reachable. Including our own organisation.

2. War in Ukraine – The war in Ukraine effected Austria immensely in terms of resources, energy and transportation. Companies were busy trying to find ways on how to keep their business going and therefore did not have much interest in exploiting new and challenging business models. The importance of the entire digitalization and circular economy topic got lost in the shadow of the crisis.

3. The little knowledge and education about Circular Economy – despite for the plastics industry, not many companies in the region have ever heard of Circular Economy. In our organisations as project partners we are extremely aware of the topic and due to the bubble, that we work in, we get the perception the entire world knows about circular economy. However, in reality many companies have never heard of the topic and do not show much interested to learn about it. Therefore, it was extremely hard to find organisations, that were ready to exploit the world of Circular economy and assess within their own organisation.

A learning out of this is, that the project activities originally planned should be able to be changed more flexible and crisis and unpredictable situations and actions should be considered and discussed in the entire project team. The activities should have been adapted more to the current situation especially in Austria.

Durability and follow-up

Biz-up with continue providing the tools developed within CIRCULAR4.0 for the companies in the network to give them a first insight of their digital and circular maturity levels. Furthermore, the results of the pilots can be used as a best-practice example for all upcoming activities in other organisations in concern of circular economy and digitalisation.

Interreg
Alpine Space
Circular4.0

Annex

- D.T3.1.3 - AS feasibility plan to foster CE value recovery approach with digitalisation processes
- D.T3.2.3 - Local actions to implement CE value recovery approaches with digitalisation processes - implementation report drafted by PP6 Biz-Up, including overview of assisted companies

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.T3.1.3 AS feasibility plan to foster CE value recovery approach with digitalisation processes

Author: TPLJ and inputs by PPs (CCIAA DL VERO/VENINN, TUAS, UCB, Biz-up)

Version: final

Month, YEAR: December 2021

Table of contents

Interreg
Alpine Space
Circular4.0

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 *D.T3.1.3 AS feasibility plan to foster CE value recovery 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.T3.1.3) is focusing on the development of AS feasibility plan to foster CE value recovery approach with digitalisation processes. BWCON collected inputs of each project partner from the value recovery model (in the case of Veneto Region of two project partners from Veneto collaborated – CCIAA DL VERO & Veneto Innovazione). Each PP from the group of value recovery model (CCCIAA DL VERO & Veneto Innovazione, TUAS, UCB, Biz-Up) 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 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 or pilots (for Veneto: CCIAA DL VERO & Veneto Innovazione, TUAS, UCB, Biz-Up) are available in the appendix.

Appendix (inputs by PPs: Local detailed feasibility plans by PPs for the implementation of pilots –Veneto: CCIAA DL VERO/VENINN, TUAS, UCB, Biz-up)

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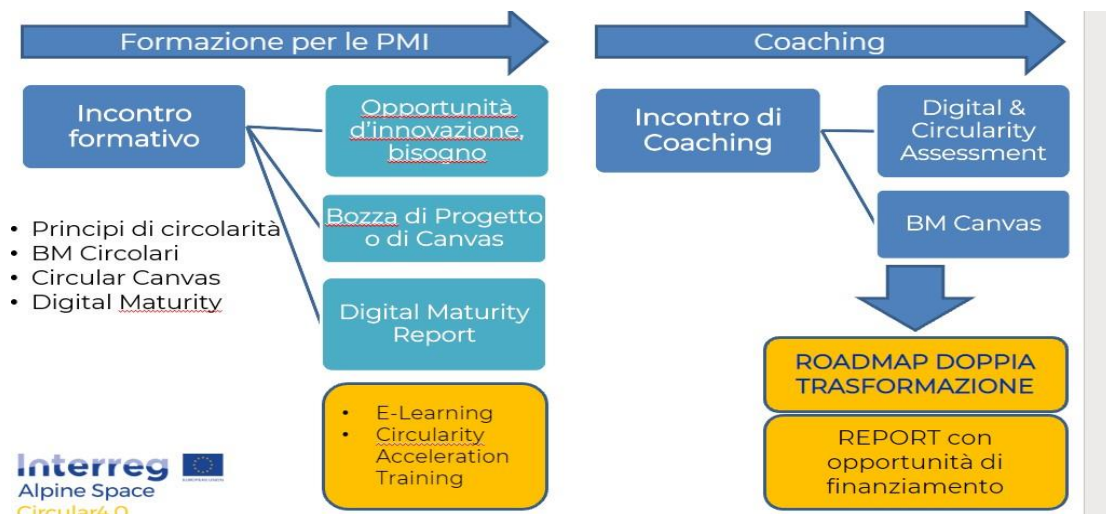
The call will give the opportunity to a maximum of 50 SMEs (selected according to the order of subscriptionto the call) to join the pilot action and be assisted by experts.

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 ofthe selected SMEs. Both tools are included in the CIRCULAR4.0 Toolkit
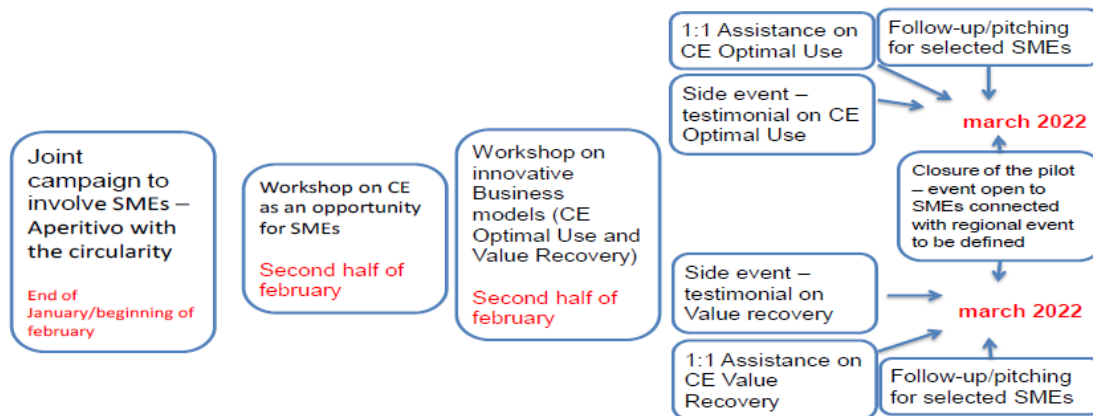
According to the combined results of the assessments carried out a customized plan of action will be elaborated and proposed to the SMEs. In this plan experts will suggest instruments and changes that couldbe adopted to improve the circularity and digitalization of the SMEs, also with regard of financial 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 inthe 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 as textile, 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 cooperation of 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 of a 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 the call 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, TUAS Rosenheim**
Dissemination level:	**CO = confidential**
Revision:	**DRAFT 02**
Due Date:	**November 2021**
Date of submission:	**December 2021**

Overview of the local pilot action – Germany (TUAS Rosenheim)

This is the place where to describe in 2-3 pages the pilot action in its entirety, without entering 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.
  Any other information on the context, as relevant.

  Sectors:
  - *Timber Industry*
  - *Plastic Industry*
  - *Dairy Industry*

  geographical area:

  - *Berchtesgadener Land - BGL (Southern Bavaria)*

  type of businesses targeted:

  - *Furniture Industry*

  Please mention which is the CE approach originally foreseen for your pilot (among those listed in the project: design, optimal use, value recovery) and add the justification – if relevant - to include one or more CE additional approaches.

  - *Furniture Industry*
  - ➔ *Cooperation with the Business Service Berchtesgadener Land (BGL) has resulted in other companies and sectors.*

- **Methodology**

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

  Please specify which tools will be used (among those listed in the toolkit – D.T2.3.3) and the justification for their selection.
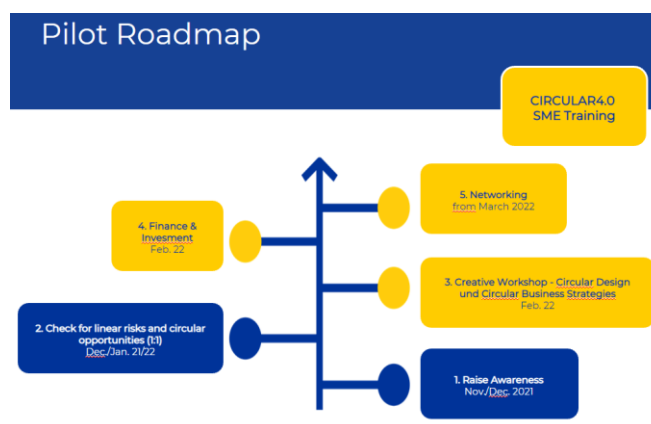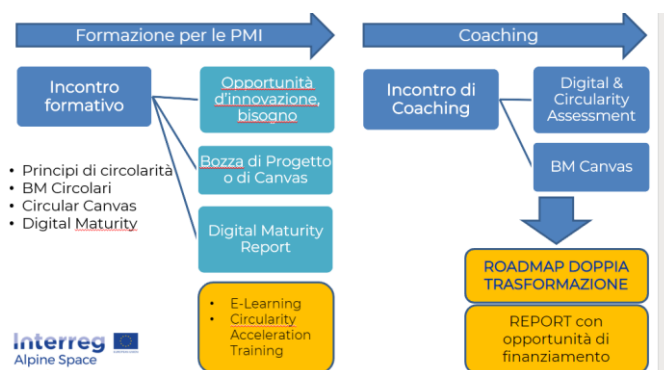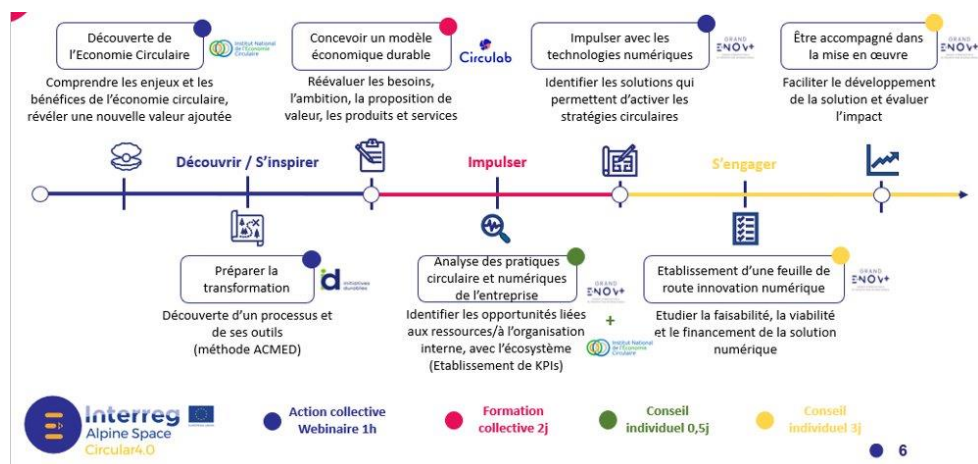
  The use of graphic elements is recommended.

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- *TUAS methodolgy*

T3.2	
Duration	Okctober 2021 – Feburary 2022
How	1. Raise Awareness for CE 2. Understanding the Business Case of CE **Module 1 & 2** Online event (12 – 15 companies) 10.November 2021 3. Circular business strategies: sector specific training **Module 3** 1:1 consulting December 2021 4. Finance & investment 5. Networking **Module 4 & 5** Individual for each company January / February 2022
Which tools	• Katch-e • Canva Business Model • Talent LMS
Collaboration	Together with Wirtschaftsförderung Berchtesgadener Land, Mrs Dr. Susanne Steinhauer

Which tools will be used:

- *Katch-e: optimal use of training methods and knowledge platform; for free*

- *Canva Business Model: simplest business model but with great result*

- *Talent LMS: CE Community, provide materials*

Examples:

- **Expected results**
  This section shall explain the benefit / added value expected for the SMEs.
  - *analyse the needs of the companies (where are you now, what do you need to implement the CE)*
  - *provide an expert who can support*
  - *contacts and documents for financing*
  - *community building and knowledge sharing with other companies*

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

1. **Selection/identification of SMEs**
   This activity regroups the actions undertaken by each partner to approach and select SMEs involved in the pilot action.

   SMEs were selected by the BGL business development agency. BGL already had a pool of companies interested in CE, or active in CE. These approx. 40 companies were contacted and invited to participate in the first kick-off event.

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

   - *Anticipated Katch-e and Canva Businessmodel*

   Kick-off on November 10 were general presentations on CE
   - Presentation of the project
   - Presentation of the EU action plan on the circular economy
       Basics of the circular economy & and how digitalization can support the transformation
   - Case study on CE - Kiefel company

3. **Circular CE capability/potentiality and Digital Maturity Assessment of SMEs**
   This activity regroups the actions delivered to evaluate the CE and digital maturity of the SMEs. In this activity, the tools used should be specified.
   - *Questionnaire (before/after with rating system)*

   (Questionnaire is currently under construction)

4. **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 on the basis of 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

   Consequently, this activity should describe the process for the draft of those recommendations, like for instance involvement of experts and setup of a roadmap (example for AURA-E).

Each of the above activity can be split into several steps (sub-activities) as relevant for each pilot action. But we recommend keeping it simple.

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

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

- *In progress (registrations for 1:1 consultation will run until 15 th December 2021)*
- *I use the suggested table*

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).

- *Questionnaire before / after Questionnaire (is asked before the 1:1 consultation and after)*
- *The questionnaire contains a point system e.g. "How much do you already integrate CE in your company?" (Rating system: 1 low 10 high)*
- *After the two surveys (before/after), the successes or failures can be visually presented in a diagram*

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, UCB**
Dissemination level:	**CO = confidential**
Revision:	**DRAFT 02**
Due Date:	**26.11.2021**
Date of submission:	**22.12.2021**

Overview of the local pilot action - Bavaria/Swabia (Umweltcluster Bayern)

Local context and CE approach

The pilot focuses manufacturing SMEs in Bavaria including especially manufacturer in environmental technologies due to the membership structure of UCB. This is a focus, not a limitation. All other companies are invited to express their interest. The selection was made based on the analysis in WPT1 but also on the characteristics of existing and developed tools. The tool "Check for linear risks and circular opportunities" that will mostly be used is targeted towards manufacturing companies.

The CE approach originally foreseen for UCB is value recovery. The selection was made based on our membership structure, including many waste-management and recycling companies. We do not see any added value in the focus on an approach. The idea of the circular economy is to turn away from linear and silo thinking. We also do not want to impose a specific approach on companies on the first hand. They should be free to decide which approach they deem the most important in their individual situation. Due to the low level of maturity of the topic with most Bavarian SMEs we need companies to start off from the basics and therefore a holistic approach to understanding CE is necessary, including all CE approaches.

Methodology

SMEs based in Bavaria, preferably from the manufacturing sector, are invited to apply. The pilot is aimed at managing directors and executives of SMEs. The limited number of participants (22 as per AF) is admitted by the principle "first come, first served", documented via an online application form.

1. **Initial needs assessment**
   Applicants are contacted and invited to a 30 mins online initial conversation, understanding their individual needs and expectations.

2. **Kick off workshop: Raise awareness**
   Next step is an online kick off event and workshop to raise awareness on Circular Economy and digitalization as an enabler, to which all participants who have applied until the day before are invited. We decided to do two rounds of application phases and kick off workshops in order to reach the relevant number of SMEs.

3. **Phase of self -learning & 1:1 assistance (check for linear risks and circular opportunities)**
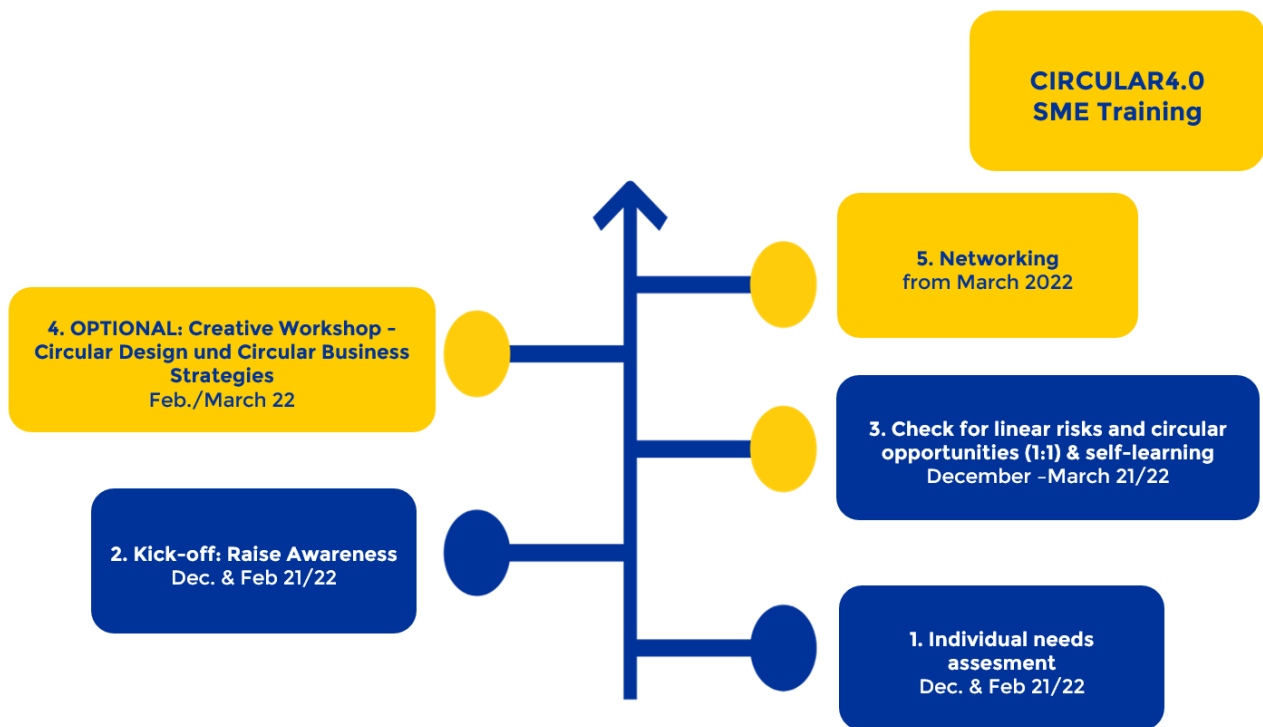   As a follow up of the kick- off workshop, appointments for 1:1 assistance are organized with each participating company and our external experts Dr. Sonja Eser as well as/or Andreas Jenne. Additionally, SMEs are invited to self-study CAT2.0 on the online learning platform Talent LMS. The 1:1 assistance appointment can be held online or in person at the individual company. The tool "Check for linear risks and circular opportunities" will identify circularity as well as digital maturity and potential during the 1:1 assistance. This tool is selected due to its low-level entry barrier and no need for specific company data. It best suits the needs of SMEs in Bavaria who are at an early stage of adopting Circular Economy principles. In case the tool does not fit the individual company's needs, another tool from the CIRCULAR4.0 toolbox will be chosen.

4. ***Optional: Creative workshop with teams of each company - Circular Design und Circular Business Strategies***
   Depending on budget availability and individual company's needs and maturity we plan to offer selected companies the possibility for a Circular Design und Circular Business Strategies workshop with several employees/executives and even partners along the supply chain.

5. Kick off regular SME Networking
   At the end of the pilot phase, we want to initiate a network meeting with all assisted SMEs, discussing lessons learned, next individual steps planned and a platform for networking with peers.

Expected results

There are at least three very clear benefits for participating SMEs:

1. individual circular opportunity and risk analysis including circular & digital maturity assessment with concrete recommendations for action
2. access to Talent LMS learning platform with numerous examples of best practice
3. exchange with CE experts and other participants

We expect an increase in CE awareness and an increase in understanding of CE as an innovation opportunity. Additionally, SMEs can expect an understanding of individual linear risks and circular opportunities as well as a specific recommendation for next action (identifying low hanging fruits or gaps in their overall CE strategy, depending on the CE or digital maturity of the SME). Additionally, we expect to create a group of peer companies, willing to take action transforming their business model, business processes or their product towards circularity.

Planned activities

1	**Selection/identification of SMEs**	**Start date**	11.2021
		End date	03.2022

SMEs based in Bavaria, preferably from the manufacturing sector, are invited to apply. The pilot is announced on UCB as well as our observer's website. Communication is supported by several partnering business support organizations (e.g., Bavarian Chambers of industry and commerce, local business support organization, Bayern Innovativ, Cluster of Manufacturing & Automation etc). Companies headquartered or with a branch in Bavaria are admitted by the principle "first come, first served", documented via an online application form. In an initial conversation, individual needs and expectations are assessed and a recommendation to participate is made in collaboration with the expert who decides about the applicability of the available tools for the individual company.

Result

Reach 22 interested companies to participate in the pilot action. Meeting each company individually for an initial introduction and needs assessment.

1	Introducing the pilot actions to SMEs at a webinar on Circular Economy, hosted by Umweltcluster Bayern and all Bavarian Chambers of Commerce and Industry	**Date**	9.11.2021
	Introducing the pilot actions to SMEs at a webinar on Circular Economy, hosted by Umweltcluster Bayern and all Bavarian Chambers of Commerce and Industry	**Date**	7.12.2021
2	Meeting 22 companies: Getting to know and needs assessment	**Date**	11.2021 - 03.2022

2	**Thematic workshops/seminars**	**Start date**	12.2021
		End date	03.2022

The online kickoff event and workshop is used to raise awareness on Circular Economy and digitalization as an enabler. All companies who have applied until the day before are invited. We decided to do two rounds of application phases and kick off workshops in order to reach the relevant number of SMEs. Kick off no.1 takes place on December 9th 2021. Kick off no.2 is scheduled for February 3rd 2022 (duration of 3 hours). Three experts are addressing CE and digitalization from different angles. 1) Why CE? 2) How does CE work and how can digitalization support it? 3) Which digital technologies enable which CE processes/business model incl. specific examples. In the workshop part, experts use **trend cards from CIRCit Norden** to activate a discussion between participating companies, reflecting the relevance of CE and digital technologies for their own companies.

Additionally, SMEs are invited to self-study CAT2.0 on the online learning platform Talent LMS.

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	Result		
	22 companies attend the seminars and take-home new insights on Circular Economy and the meaning for their own business. Their awareness on the opportunities within circular business models increases and they are aware of the regulative EU instruments EU Green Deal and Circular Economy Action Plan.		
1	1st Kick-off: Online event by experts for participants - Awareness Raising	**Date**	9.12.2021
2	2nd Kick-off: Online event by experts for participants - Awareness Raising	**Date**	3.02.2022
3	Closing/networking workshop	**Date**	End of March 2022

3	**Circular CE capability/potentiality and Digital Maturity Assessment of SMEs**	**Start date**	01.2022
		End date	03.2022
As a follow up of the kick- off workshop, appointments for 1:1 assistance are organized with each participating company and our external experts Dr. Sonja Eser as well as/or Andreas Jenne. The 1:1 assistance appointment can be held online or in person at the individual company. The tool **"Check for linear risks and circular opportunities"** will identify circularity as well as digital maturity and potential during the 1:1 assistance. This tool is selected due to its low-level entry barrier and no need for specific company data. It best suits the needs of SMEs in Bavaria who are at an early stage of adopting Circular Economy principles. In case the tool does not fit the individual company's needs, another tool from the CIRCULAR4.0 toolbox will be chosen.			
Result			
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	1st Kick-off: Online event by experts for participants - Awareness Raising	**Date**	9.12.2021
2	2nd Kick-off: Online event by experts for participants - Awareness Raising	**Date**	3.02.2022
3	Closing/networking workshop	**Date**	End of March 2022
4	**Identification of innovation needs and investment plan**	**Start date**	01.2022
		End date	03.2022

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Each company supported receives a document established on the basis of 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

After the 1:1 assistance to the company during which the expert assessed the maturity as well as linear risks and circular opportunities for the company, the expert drafts at least one specific recommendation for a next step/specific pilot project and identifies potential partners/support organization for the realization of these steps/projects.

Result			
Companies assessed receive an individual evaluation with at least one individual recommendation.			
1	1:1 assistance of 22 companies	**Date**	01.2022-03.2022
2	22 evaluation reports with innovation needs and investment plans handed out	**Date**	03.2022

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 linear risks	Identification of circular opportunities	Commitment level to CE implementation	Digital technologies awareness	Level of satisfaction
Goal	22	100% of assisted companies identified a potential circular opportunity for their business	100% of assisted companies identified a potential circular opportunity for their business	On average Increase in level of commitment	On average Increase in level of digital technology awareness	Level of satisfaction of at least 8 (out of 10)
Evaluation method	1:1 assistance received	Result of check for linear risks and circular opportunities	Result of check for linear risks and circular opportunities	questionnaire	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 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, Biz-Up**
Dissemination level:	**CO = confidential**
Revision:	**DRAFT 02**
Due Date:	**November 2021**
Date of submission:	**December 2021**

Overview of the local pilot action – UPPER AUSTRIA (Biz up)

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**

  We are going to give extra points to the SMEs which are focusing on the textile and electronics sector. However, since we have to work with 20 SMEs, we will leave it sector open, which means that even SMEs that do not work in those specific sectors can be part of the pilot if there is space for them.

  The CE approach we are focusing on is value recovery, however we will also include the circular design approach slightly within the pilot, as it is essential for an optimal value recovery. Often the argument comes up that a proper value recovery is only possible when the product itself had a circular design in the first place.

- **Methodology**

  3 Modules shall serve the proper training for our SMEs. The modules are structured as following:

  MODULE 1 - Raise Awareness for CE supported by digitalization (community building)

  Format:
  Networking event/(online) workshop
  2 – 3 h
  Topics:
  Presentation of the Circular 4.0 project
  Presentation of EU Circular Economy Action Plan
  Basics of the circular economy and how digitalization can support transformation (with focus on the respective sectors)
  Q&A + discussion
  Forecast: what does Circular4.0 offer the participating companies?
  Tools:
  Regional best practice cases

  MODULE 2 - Understanding the Business Case of CE and Finance & Investment

  Format:
  - (Online) coaching for one company - 1:1 assistance
  - 2-4 hours
  - Handout and possibly reference to external experts (establish contact)
  - Consultation

  Topics:
  - Entry point: linear risks and circular opportunities of sectors - as a check
  - Knowledge transfer of added value of the circular economy for company
  - Opportunities at point of intersection of CE and digital technologies for various circular economy business models
  - Specific funding options (Finance)
  - Typical challenges with circular business models, product service systems and pre-

financing (e.g. via expert lecture) (Finance)
- Presentation of the EU taxonomy and its implications for SMEs (Finance)

Tools:
- Check for linear risks and circular opportunities (based on the example of the CAS) + digi check (evaluation of contexts)
- Katch-e CE Strategist (https://www.katche.eu)

- MOVECO Qualification tools (http://www.interreg-danube.eu/news-and-events/programme-news-and-events/2577)
- SMEs will receive:
- an evaluation of the check for linear risks and circular opportunities (based on the example of the CAS) and digital maturity check (+ evaluation of contexts)
- Circular business model canvas

Tools (Finance)

- Regional guidelines such as the Funding Guide for Environmental Protection and Energy from the Bavarian State Office for Environment: https://www.umweltpakt.bayern.de/werkzeuge/foerderfibel/ (overview of all funding opportunities & financial instruments related to sustainability / circular economy)
- Booklet with collected funding opportunities from Circular4.0 with reference to digitization (compilation from Output D.T2.4.1 & D.T2.4.3)
- MOVECO Toolbox: Financing Instruments - http://www.interreg-danube.eu/news-and-events/programme-news-and-events/2568 (List of Funding instruments for the circular economy, Interregional match-making tool, Concept for Investor Day, Public-private partnership investment opportunities in the circular economy)
- Individual consultation on request

MODULE 3 – Circular business strategies in specific sectors (sector specific training)

Format:
- Workshop for one sector, several companies
- The entire value chain is invited (if possible, cover the entire value chain of specific sector)
- Creative session

Topics:
- Focus: understanding of possible new circular business models and how digital technologies can support them

Tools:
- Creative tools (CE idea creation game: https://www.katche.eu/knowledge-platform/tools-and-training-materials/katch_e-tools/katch_up-board-game/m) to stimulate the users to generate value ideas from a business challenge, applying circular design and circular business strategies. The tools should act as a guide to get an idea about an innovative product-service or to solve a real business problem and generate opportunities
- Outsourcing to external experts

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

The main benefit for the SMEs is to raise awareness of the opportunities of circular economy through information events at the beginning. With that we introduce the SMEs into the whole world of circular economy and with best practices we state how business have been introduced before and successfully implemented circular strategies already. Within the 1:1 consulting we provide explicit business model canvas and digital maturity assessments for the SMEs in order to state their current challenges but also possible opportunities. Within the last workshop together with all participants we will use design thinking techniques to elaborate possible next steps and measures in order to become more circular and support the transition with means of digitalization.

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

5. **Selection/identification of SMEs**
   We send out a call for interest to attract SMEs that want to apply for the Circular4.0 pilot. Together with that the interested companies get application templates from us in order to give all the relevant information so that we can guarantee a transparent selection process. Afterwards we let them sign a letter of commitment so that they will be part of the whole pilot.

6. **Thematic workshops/seminars**
   See the Modules 1-3

7. **Circular CE capability/potentiality and Digital Maturity Assessment of SMEs**
   See Modules 1-3

8. **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)
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   Consequently, this activity should describe the process for the draft of those recommendations, like for instance involvement of experts and setup of a roadmap (example for AURA-E).

Each of the above activity can be split into several steps (sub-activities) as relevant for each pilot action. But we recommend keeping it simple.

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

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		End date	MM.YYYY

Description

Describe here the activity

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 (~20 on average).

	Company dashboard										

	Full project partner dashboard										
	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
Goals	CE Readiness level assessment		Trainee motivation toward CE implementation		Digital Technology Readiness level assessment		Financial effort foreseen during the pilot action		……..		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	Describe the inputs needed	Describe what has been done	Describe the inputs needed	Describe what has been done	Describe the inputs needed	Describe what has been done		Describe the Improvement	Describe the Improvement

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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

Activity: A.T3.2 Experimenting transnational actions to foster CE approaches through digitalisation

Deliverable: D.T3.2.3 Local actions to implement CE Value recovery approaches with digitalisation processes

Reporting on local pilot actions – Biz-up

Author: Ashna Mudaffer, PP6 – Biz-up

Version: FINAL

Month, YEAR: June, 2022

Table of contents

1. Introduction

The purpose of the project and goal of the pilots was the awareness creation and innovation creation of circular economy topics in combination with digitalization. Within the frame of the pilots the aim was to find SMEs and other organisations, that can be lessened and taught into the transition to a more circular and sustainable business. Especially in Upper Austria we do have a big urgency for these topics and the political regulations are somehow faster in implementing then the companies could follow. Therefore, many companies feel the urge to change their current business models into more circular and sustainable ones and fail because of the lack of guidance. Therefore, within CIRCULAR4.0 we focused on finding these companies that are ready to change and guide and assist them in the first steps towards a more sustainable, digital and circular business model. To do so, we have provided circular assessment tools and digital maturity tools for the companies to self-assess themselves and find out their current state of the art and performance in both regards. Afterwards we provided a 1:1 assistance to find and develop solutions and innovations that could support the companies in their process of becoming more digital and circular.

The local actions have been taken place online, due to the COVID-19 restriction. Originally it was planned to create higher value with physical meetings and get togethers, especially for the 1:1 assistance, however, from autumn on a national lockdown was restricted again and hence we had to change our plans into online formats. Therefore, the assistance was held either on the phone or with MS Teams.

The present deliverable displays for the local pilot action in _(Upper Austria)_:

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

Eight different companies have been assisted in the frame of the pilots. Three of those are categorized in the electronics sector with producing electronic devices, one is focusing on the mobility sector, one specialized in large engines, one company is a machine producer and three companies are part of the value recovery chain of plastics. All companies have participated in the self-assessment process and filled out the CAS and digital transformation tool (quick check). Following scores were reached:

Company Branch	CAS Score Circular BM Potential	CAS Score commitment to CE transf.	Total CAS Score	Digital transformation Score (Strategy)	Digital transformation Score (Technology)
Large Engines	33.3	24.3	57.6	100%	80%
Plastic packaging	14.6	11.4	26	40%	30%
Plastic recycling	16.7	37.1	53.8	40%	60%
Plastic Recycling	43.8	35.7	79.5	70%	60%

Mobility	16.7	20	36.7	100%	100%
Electronics	10.4	42.9	53.3	80%	80%
Electronics	20.8	18.6	39.4	100%	70%
Machine producer	27.1	21.4	48.5	70%	90%

In the 1:1 assistance possible innovation and strategies were discussed with the participating companies in order to define how the next steps towards a more circular future can look like. For this also financial information was provided to summarize possible funding and investment possibilities for companies.

For this currently a national call opened to finance and fund projects for a circular economy called "FTI Initiative Kreislaufwirtschaft" Therefore during the 1:1 assistance the call was explained and presented as a possible opportunity to collect funds and support R&D activities towards a circular economy.

One of the biggest learnings from the pilots was the current state of companies in regards of circularity. Most of the companies had very advanced positions in terms of digitalization, however the concept of circular economy was mostly very new and rare within the companies. The need was urgent due to the restrictions and laws coming from the government, however companies did not have a plan nor strategy how to tackle the regulations and find themselves in a new

circular world. Furthermore, it has to be stated out that many companies became specialists in optimisation – optimising their products, processes and services is not a challenge at all. However, rethinking and inventing new possible business models, products, processes and services turned out to be an immense challenge for almost all companies. The willingness for huge change is quite minimal and the trust in how bendable technology is as well. This led to many challenges within the 1:1 assistance or to convince companies to be part of the pilots in the first place.

2. Local pilot actions in Upper Austria (Biz-up) - Overview

Local context and CE approach
We will leave it sector open, which means that even SMEs that do not work in those specific sectors selected in the beginning of the project can be part of the pilot if there is space for them. The CE approach we are focusing on is value recovery, however we will also include the circular design approach slightly within the pilot, as it is essential for an optimal value recovery. Often the argument comes up that a proper value recovery is only possible when the product itself had a circular design in the first place.

Methodology

3 Modules shall serve the proper training for our SMEs. The modules are structured as following:

MODULE 1 - Raise Awareness for CE supported by digitalization (community building)

MODULE 2 - Understanding the Business Case of CE and Finance & Investment

MODULE 3 – Circular business strategies in specific sectors (sector specific training)

Expected results
The main benefit for the SMEs is to raise awareness of the opportunities of circular economy through information events at the beginning. With that we introduce the SMEs into the whole world of circular economy and with best practices we state how business have been introduced before and successfully implemented circular strategies already. Within the 1:1 consulting we provide explicit business model canvas and digital maturity assessments for the SMEs in order to state their current challenges but also possible opportunities. Within the last workshop together with all participants we will use design thinking techniques to elaborate possible next steps and measures in order to become more circular and support the transition with means of digitalization.

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

We have invited companies to participate with our newsletter and on our website. We did not offer consultancy, nor provided an event, therefore the de minimis rules did not apply for us. The 1:1 assistance was kept low with only a phone call or a MS Teams meeting.

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Wie fit ist Ihr Unternehmen in der Kreislaufwirtschaft und in der Digitalisierung?

4. Implementation report

1:1 Assistance	Start date	03.2022
	End date	04.2022

Description

Describe here the activity **as it was implemented:**

- What has been done – CAS and digital maturity assessment, brainstorming and creative thinking for developing ideas and innovations to improve the circular performance, recommendations for financing and fund possibilities
- When – 28.03; 31.03; 01.04; 05.04; 06.04; 13.04
- By Whom – Biz Up
- How many SMEs were involved/did benefit? 8

Add sub-activities if necessary

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).		
8 1:1 Assistance including the circular assessment and digital maturity assessment. After the assessment's recommendations for improvement and financial recommendations have been given. Documentation (whatever relevant and needed): • Confidential	Date	• 28.03; 31.03; 01.04; 05.04; 06.04; 13.04
8 CE+digital maturity assessments of SMEs Documentation: • List of SMEs having performed an assessment • Overview of the results	Date	• 28.03; 31.03; 01.04; 05.04; 06.04; 13.04
Deviations – corrective measures (as occurring) Please describe and explain below the deviations compare to the initial plan: - Delays – a huge delay took place in the pilots because of the COVID lockdown that began in September 2021 in Austria, the waves of infections cause cautiousness within the companies and therefore the participation rate was although we switched to online quite low - Significant changes in the activities (activities cancelled, new ones) – the workshops were cancelled due to the Covid wave of infections that was ongoing until end of March. Planning physical but also online events was almost impossible, since almost every 3rd person in Austria was infected by Covid at some point. Therefore, many companies cancelled meetings and agreements. - Explain corrective measures taken (if any) The pilots got much more simplified then initially planned within this project. The entire assistance was switched to phone calls or MS Teams calls in order to be able to reach companies. The pilot got reduced to the Assessments and the 1:1 assistance.		

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

A huge delay took place in the pilots because of the COVID lockdown that began in September 2021 in Austria, the waves of infections cause cautiousness within the companies and therefore

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the participation rate was although we switched to online quite low. The workshops were cancelled due to the Covid wave of infections that was ongoing until end of March. Planning physical but also online events was almost impossible, since almost every 3rd person in Austria was infected by Covid at some point. Therefore, many companies cancelled meetings and agreements.

The pilots got much more simplified then initially planned within this project. The entire assistance was switched to phone calls or MS Teams calls in order to be able to reach companies. The pilot got reduced to the Assessments and the 1:1 assistance.

6. Communication activities implemented to support the pilot action

The invitations were spread in the Cleantech-Cluster networks in order to generate public appearance and motivate companies to participate. Therefore, the cluster homepage was used, which is visible for the public with about 30 clicks a day, the newsletter that is sent out to all our partners, reaching about 200 companies and organisations and posted on our social media channel that includes 948 Followers.

Many companies reached out to the public invitation and contacted the responsible project manager for closer information and application requirements. Furthermore, the project and pilots was promoted in other cluster´s events and activities to increase the attention and reach a higher number of participants.

7. Summary of the achievements - lessons learnt

Achievements

- Milestone(s) achievement analysis:
  - Quantitative (KPIs) – 8 out of 20
  - Qualitative: less than planned, as planned, better than planned – less then planned

Lessons learnt

The response of the companies was not very satisfying. Some companies did call for more information about the pilots but decided afterwards to not be part of it. Some agreed on participating and then cancelled afterwards due to too much work. We can only assume why companies were not ready to participate but we think that three major factors were the reason, why companies were not able to be motivated in participating in the pilots and to learn how to become more circular.

1. COVID-Crisis – many of our regional companies do still struggle with the issues of the entire crisis. Resources are expensive or hard to get, transportation is still considered as problematic and the extremely high infection rate from January until end of March caused many

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downtimes in production and offices. Employees were constantly on sick leave due to quarantine and therefore not reachable. Including our own organisation.

2. War in Ukraine – The war in Ukraine effected Austria immensely in terms of resources, energy and transportation. Companies were busy trying to find ways on how to keep their business going and therefore did not have much interest in exploiting new and challenging business models. The importance of the entire digitalization and circular economy topic got lost in the shadow of the crisis.

3. The little knowledge and education about Circular Economy – despite for the plastics industry, not many companies in the region have ever heard of Circular Economy. In our organisations as project partners we are extremely aware of the topic and due to the bubble, that we work in, we get the perception the entire world knows about circular economy. However, in reality many companies have never heard of the topic and do not show much interested to learn about it. Therefore, it was extremely hard to find organisations, that were ready to exploit the world of Circular economy and assess within their own organisation.

A learning out of this is, that the project activities originally planned should be able to be changed more flexible and crisis and unpredictable situations and actions should be considered and discussed in the entire project team. The activities should have been adapted more to the current situation especially in Austria

8. Annex

Communication

Overview of companies assisted

ID° (partner acronym +no.)	Company type	Company Region	Sector of reference	CE maturity assessment	CE maturity assessment tool	Digital maturity assessment	DM assessment tool	1:1 meeting	Action Plan
Bizup01	Enterpirse	Salzburg	Electronics	31.03.2022	CAS4.0	31.03.2022	Digital transformation tool quick check	31.03.2022	
Bizup02	Enterprise	Upper Austria	Packaging/Plastics	01.04.2022	CAS4.0	01.04.2022	Digital transformation tool quick check	01.04.2022	
Bizup03	SME	Leoben	Plastic recycling	05.04.2022	CAS4.0	05.04.2022	Digital transformation tool quick check	05.04.2022	
Bizup04	SME	Upper Austria	Plastic Recycling	05.04.2022	CAS4.0	05.04.2022	Digital transformation tool quick check	05.04.2022	
Bizup05	Enterprise	Upper Austria	Mobility	31.03.2022	CAS4.0	31.03.2022	Digital transformation tool quick check	31.03.2022	
Bizup06	SME	Upper Austria	Electronics/IT	05.04.2022	CAS4.0	06.04.2022	Digital transformation tool quick check	06.04.2022	
Bizup07	Enterprise	Wuppertal	Electronics	06.04.2022	CAS4.0	06.04.2022	Digital transformation tool quick check	13.04.2022	
Bizup08	Enterprise	Upper Austria	Machinery	29.03.2022	CAS4.0	29.03.2022	Digital transformation tool quick check	29.03.2022	