

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

**Work Package: WP T1**

**Activity: A.T1.2 Establishing transnational working groups to support CE with digitalisation processes**

**Deliverable:**

**D.T1.2.2 Meeting to set-up the transnational working group on optimal use models approach**

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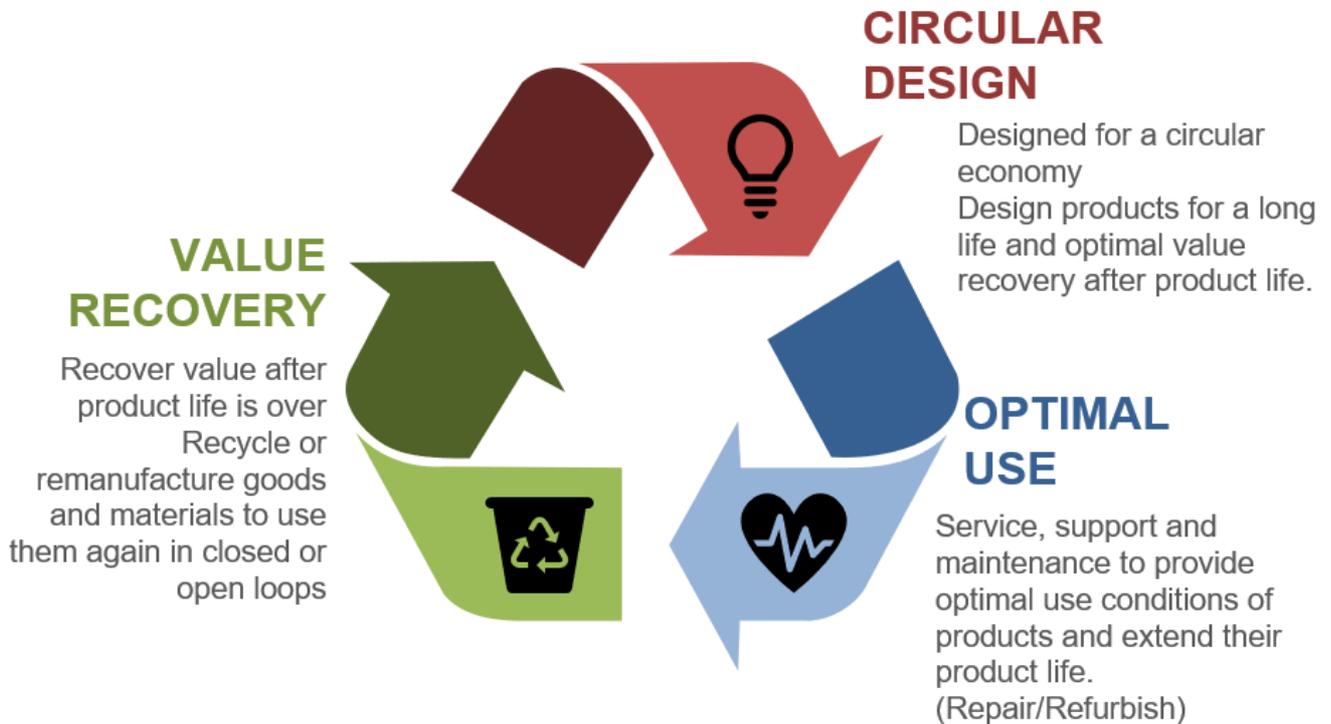
**July, 2020**

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## Introduction/Context

In the scope of the project Circular4.0 three transnational working groups have to be identified and established. The business models those groups will be divided in are as following:



### Transnational working group for circular design models

A new circular economy needs new designed focusing on such. Products and services need to be redesigned in order to fit and support a more circular economy. The focus of this TWG is the identification and development of circular design approaches. Products and services designed for a long life use and optimal value recovery after product life ends.

### Members of the TWG (Partners)

- **AWS** - Austria Wirtschaftsservice Gesellschaft, Austria (Co.)
- **ITG** - Innovations- und Technologietransfer Salzburg, Austria
- **IJS** - Institut Jozef Stefan, Slovenia (Bojana)
- **CONFBG** - Confindustria Bergamo, Italy
- **AUREA** - Avergne-Rhone-Alpes Enterprises, France (LISA)
- **RISINGSUD** - Regional Development Agency for region Sud Provence-Alpes-Cote d'Azur, France

### Transnational working group for optimal use models

The focus of TWG optimal use is to provide and identify services and products that support optimal use conditions in order to extend product life as long as possible. Approaches like repair and refurbishment of products are being followed.

#### Members of TWG (Partners)

- **BWCON** GmbH, Germany
- **TPLJ** - Technological Park Ljubljana, Slovenia
- **TOWL** - Fondazione Torino Wireless, Italy
- **VI** - Veneto Innovazione, Italy (Ivan)
- **Grand E-nov**, France

### Transnational working group for value recovery models

The focus of this TWG is the recovery of value after product life has ended. Recycling or remanufacturing approaches of goods and materials are supporting to create open and closed loops.

#### Members of the TWG (Partners)

- **UCB** - Trägerverein Umwelttechnologie-Cluster Bayern, Germany (Co.)
- **TUAS** - Technische Hochschule Rosenheim, Germany (Johannes)
- **BIZ-UP** - Business Upper Austria
- **CCIAA DL** - Chamber of Commerce of Venice, Italy

## D.T1.2.1 – Transnational Working Group for Optimal Use Models

### Summary of TWG meetings for Optimal Use Models

Online Meeting April 1<sup>st</sup> 2020

#### **Brief Overview and Introduction**

**Objective** of the transnational working groups explained.

- Content monitoring of the work packages of the project
- State-of-the-art report
- Identification of training needs for economic promoters in the Alpine region
- Development of tools to support SMEs in the implementation of CE practices by means of digital processes o feasibility study for the establishment of regional service centers in the Alpine region
- Evaluation and induction of the results of the pilot in the developed tools Feasibility study
- Support in the development of the action plan
- Involvement of experts & stakeholders to ensure a comprehensive exchange of knowledge (across regions and sectors)
- Input explicitly on one of the three approaches of the circular economy: circular design, optimized product use (optimal use) and recovery of recyclable materials at the end of the product life, with this group focusing on Optimal Use Models- Optimized Product Use.

#### **Framework Conditions**

- A total of five meetings planned
- 1st meeting: Expected at the beginning of June 2020 in Lyon (two-day event: full-day workshop & optional excursion; expected arrival on the previous day necessary)
- 2nd meeting: Expected September 2020
- 3rd meeting: Expected January 2021
- 4th meeting: Expected September/October 2021
- 5th meeting: Expected early 2022 (no later than March 2022 possible)

**Tasks for working group** on "Optimal Use" briefly explained through **Roadmap** and a discussion with participants with focus on input from the experts present.

- Durable plastics that extend life
- Sharing platform
- Digital tools- online services. IOT
- New and better Waste Management (Gabrielle Expert on Waste)
- Optimize Digital Transformation
- Cradle to Cradle Approach
- Design of Circular Products (Circular Innovation Lab)
- With Optimal Use it is important to focus on the service provider.
- Need to address cross service providers that implement a part of the cycle- digital business models

## Important **Input** from **TPLJ**

It would be very important for each working group to first align on the narrative and the common understanding of the key terms, particularly:

- The understanding of circularity
- The from circularity to the circular economy (the latter being stakeholder-related and community-related)
- The understanding of the typology of circular business models: what, why.

There are **three TOPICS** to follow in order to arrive at this first threshold.

### **TOPIC 1**

- a) Collect a narrow set of frontrunners (firms advancing in the circular transformation)
- b) Identify, discuss, and discuss good practices of circular front-runners
- c) Try to extract from these good practices what their business models are (to which group they belong) and, whether a business model practiced by one firm is elementary (generic) or composite. Most companies practice composite business models.
- d) What drives it and what makes it possible - what factors are it from the internal and external environment? I.e.: Industry 4.0 factors come in here.
- e) We then introduce to each other these findings between the groups and unify each other on the understanding.

### **TOPIC 2**

In the age of coronavirus, it would be helpful to identify which factors act as accelerators and which as inhibitors of the transition to circular business models.

### **TOPIC 3**

Understand the difference between **two fundamental terms**:

- **CIRCULARITY POTENTIAL** of a business model (a business concept that enables narrowing, closing and slowing the loops)
- **ORGANISATIONAL AND MANAGEMENT COMPETENCES**, that contribute to the exploitation of this potential

Online Meeting May 27<sup>th</sup> 2020

### **Presentation on CIRCULAR4.0**

The underlying approach (optimal use), the roadmap and next tasks of the working group (D.T1.3.1 Optimal Use models and digital technologies in AS: mapping and analysis) Important Upcoming Milestones and Goals & Roadmap

- Next **TWG Meeting June 16th** STATE OF THE ART REPORT - Mapping of opinion leaders, senior entrepreneurs, markets of reference, SMEs, large enterprises, R&D institutions, etc.

- **Summer/Fall 2020 USER TRAINING NEEDS & STUDY VISITS** Each working group will contribute to the identification process of user training needs and will also each organize a 2-day study visit to meet SMEs, Public Actors and service providers and learn from best practices how digitalization is supporting CE practices
- **Fall/Winter 2020-21 CONTRIBUTE TO TOOLSET.** Each working group will discuss the proposal of tool-set and contribute to its finalization with the identification of specific tools according to optimal use business models.
- **Winter/Spring 2020-21 A FEASIBILITY PLAN - TWG** creates an AS feasibility plan to foster Optimal Use business models with digitalization processes (defines organization, actions, resources and equipment to set up Alpine regional centers to promote digitalized CE activities addressed to SMEs to develop optimal use processes and services.
- **Spring/Summer 2021 LOCAL PILOT ACTIONS** Local pilot actions to implement CE Optimal Use approaches with digitalization processes. SMEs maturity assessment check, identification of the innovation needs, investment plans and 1:1 assistance provided to at least 90 SMEs. Possible demonstration on the site (VR/AR)
- **EVALUATION REPORT & ACTION PLAN** Draft pilot evaluation report as a result of local actions to test the toolkit and feasibility plans. TWG meeting to summarize results, align pilot with feasibility study and identify changes to contribute to the elaboration of the action plan

### **Discussion on the industry sectors to focus on in the project**

**In advance:** Each member of the working group was asked to prepare 2-3 suggestions of industry sectors including a short justification according to the method suggested in the draft report (D.T1.4.2) circulated with the agenda

Project Partners: specific economic characteristics of project AREAs for your suggestion

**GOAL:** 3-4 Industry Sectors

### **Discussion with Input from Partners and Experts about Important Industry Sectors relevant for the project and their areas,**

Relevance for the region is important, only a partial overlapping- additional considerations to consider for the final selection. 3 to 4 sectors are really challenging.

- What are the best practices of the front runners- impact of the value chains for the value
- When we do the selection, we need to consider the value chain impact.
- Sub-sectors
- What classification can be used? (Suggestion- more flexibility regarding this)
- What are the subsectors and for example/ where does it fall within mobility and

### **Sectors to discuss**

- 1) **Construction** (moves 20 % of materials in the Economy and is relevant for Digitalization)
- 2) **Manufacturing** (Wood based value chains. A shared natural resource in AS which is hard to categorize and construction is part of the value chain. Subsector in wood industry, in Slovenia this is very important)
- 3) **Plastics/Packaging** (light metal producers)
- 4) **Mobility** could be good as a wide sector (tourism, construction...circular use models has a strong product to service systems within Mobility, also construction. For example railways, but also tourism which has front runners that intersect with other industry)

- 5) **Water Management** – availability of water management in the next 20-30 years.
- 6) **Waste Management/Recycling**
- 7) **Food Sector** (also connected to tourism)

Might be good to consider staying with 5 Sectors in order not to leave out front runners and the aspect of value chains.

- **Food production and transformation of agricultural** – Front runners- companies that are producing sensors that monitor if the food is still good to eat to provide the real Use by Link. Sensors are built into the packaging- linked to packaging and the Residues of food and agri which can be used to create bio plastics and bio fuel- limit the waste with the sensor and on the other hand using the waste to extract value for new materials- added value compounds which can be added to food to make it more functional (example food for children, celiac, elderly etc.)
- **Manufacturing**- companies providing service that have to be modified-and savings from repairing the goods- which extends the life  
Automotive and industry of Manufacturing in Piedmont. Half is associated to metals and SMEs- often the product is offered to a bigger enterprise vs. end consumer. Is the SME on final market for the consumer?
- **Food Production and Tourism** – Quality products with industrial tourism- for example in Milan where we tried to map real tourism to visit SMEs as a best practice, (Mobility, hotels )
- **Raw Materials and Waste of Food**- some research products are about how to move waste from the food industry and move them to other sectors- Tourists to visit the SMEs also for Building Materials (synergies with Construction)- has been made from waste from Food Industry
- **Political Situation**- new tax on Single Use and packaging- some legal obligations that increase pressure regarding Environmental- single use plastic/ use of various materials for packaging to move away from single use plastics.
  - **Front Runners**- New plastic materials, food that gives bread waste to make beer, regenerate electric products examples, but here mostly automotive, electronics, food, chemistry, Textile industry Is also important for Piedmont Area.
- **Smart Specialization Strategy**- areas that have been defined that are connected (Smart Agri Food, bi-products, innovative products that build a connection between Manufacturing and producers for other industries.
- **Smart Manufacturing Sector**- (Energy can be a sub topic here)-
- A region focused on Circular Economy who are connecting activities with Chemical waste and construction sector, plastic and re-use of waste from sector.
- Connection between mobility and circularity would be interesting to discuss with more detail
- Example: Best Practice with Covid-and plastics

**Waste Management but less Digitalization Circular 2020**

- **Waste in Construction** and Demolition (35% of waste in Europe and linked to many other sectors such as energy efficiency-) Historic buildings that are not the most energy efficient.)  
EU CE action plan we can save 80% of emissions wit CE plan in construction
- Plastic and Covid-19 and the REPURCUSSIONS of Covid and single use plastic because it's safe for consumers so this impact afterwards will be good to look at-

- Plastic strongly linked with packaging
- **Food Industry and Food Waste** (Fertilizer- and Energy Sector- production of BioGas, What company is he working with?) Circularity of this process is a good example
- **Electronics and ICT** (front runners such as FairPhones) however this is really difficult to find true Circular Solutions
- It is important to look at it from the Work Stream- OPTIMAL USE-(so I did not think of the end consumer)
- **ELECTRIC DEVICES**- could be interesting- more like vacuum cleaner etc.- here is better for optimal use by repair, delivery, share, re-use. Which is better than looking at electronics (which has the technical aspects)
- **CONSTRUCTION** is also very important- but with Optimal Use- it's better to look at how buildings can be designed for a flexible use- for example how flexible can a building be used, vs demolition
- **Textiles**- here it would be better to focus on Outdoor clothes or something.
- **PLASTICS**-food industry connection, re-usable packaging for food.
- **Automotive in BW** is important but here it's really hard to find an SME front runner-economic view its important but from CE Small business area it's really hard-
- **WATER MANAGEMENT**- this could be a very interesting area- municipalities how waste water is used- (a lot of energy) Optimal use- correlation to BUILDINGS- ideas about how to re-use water- but maybe new ideas
- **WATER** is also important for Agriculture
- Example- **Electronic /Automotive Industry- ICT** and CE. A company that produces plastics in Automatic, they are implementing a SOFTWARE to make efficient use of the plastic and to make less waste and more efficient productive
  - This is a good example how many companies are already using their resources well and actually using CE methods without really using sustainability terms. These are good examples for other companies and how we can help with the business modelling aspect of CE.
- How to prepare electronic devices- there is a website that is a good best practice

Following various discussions with companies, public authorities and experts in the circular economy, partners Grand Enov plan to focus their actions on the following sectors:

The **construction sector** because it is the largest producer of waste, which could be easily reused or recycled in a majority of cases. In the region, we have various players who offer digital solutions in response to this problem and the public authorities have made it a priority. Inter-company data sharing will be the key; the difficulty will lie in the digital maturity of the building industry, which is low.

The **textile sector** because it is under pressure from consumers and public authorities to restructure. The traceability of manufacturing operations will enable this industry to show its real impact on the environment and to stand out from textile manufacturers outside Europe. This traceability should also enable them to ensure a better quality of the products manufacture (blockchain etc. in this)

- Manufacturers are already engaged in a process of industry of the future and therefore digitally mature.

The agri-food and the bio-economy sector that are being driven to look for solutions to make the supply chain more resilient, transparent, and green. Agri and Food can be linked to Textile for

materials. The packaging also raises questions. Perhaps digital printing could help to consume fewer resources. The reuse that can be made of the waste from these industries to make biofuel or other products. Digital technologies can improve yields by optimizing material flows to these processing industries or their industrial processes.

We've talked about the sectors, but we haven't talked about the digital technologies you want to put in place to deal with the problems. And the barriers to their adoption are to be taken into account to prioritize actions.

Fill out EXCEL FILE- DO IT: WE NEED TO MAKE SURE THAT EVERYONE CAN FILL THIS OUT. KNOWLEDGE ABOUT DIGITAL TOOLS IN THEIR AREA.

- For food - linked to food waste minimization: censoring; for (metal) goods manufacturing: additive manufacturing, automation of repairs; for water: digitalization of water - smart metering, network monitoring for leaks etc.
- PACKING – Reduce the WEIGHT of the packaging due to the cost of transportation- LINKED to Mobility.
- Agri-food- DIGITAL TOOLS- due to Covid-19 thanks to digitalization they were able to stay afloat- RESILIENCE in the CRISIS.

It may also be interesting to study best practices provided by sectors that have experience in both individual and collective extended producer responsibility systems (e.g. SMEs consortia for example)

- Expert has been working with Environmental Industry and APR (??) and looking at the Sector
- President of Waste Consortium in Italy
- Model from Consortium (We have ONE Consortium)-
- Batteries and now as consortium
- Oils, Mineral and Vegetable.
- And Mineral Water

These experiences can be synthesized as well, we are trying to create new legal infrastructure for this, by July 5th for new Legal Obligations.

### **Next steps for the next meeting on June 16th**

Due to the overlapping of sectors and the need for greater flexibility within the project, and considering the needs of your individual areas, the TWG Coordinators have discussed that it is important to clarify the following:

We will be choosing a sector for our Optimal Use transnational working group next week, however it is important to note that you will have several sectors to work with because there will be 3 main sectors that you will be working with (can include subsections).

1. Sector for your region (differs per region and gives you flexibility to cover what is important to you, here there is flexibility for overlap, food/Agri Industry textiles, Water Management, etc.)
2. Sector for working group (SUGGESTION for OPTIMAL USE Group: CONSTRUCTION
  - Everyone mentioned construction (highlighted in the minutes)
  - Subsection/overlaps include: water management- waste management- -energy efficiency- Manufacturing, Wood....etc.)

### 3. Sector for all Groups, Circular 4.0- for Synergies: (SUGGESTION: PLASTICS)

#### Feedback & Open Questions

- Questions/Comments about Microsoft Teams, Group Communications and Expectations
- Contact Info of All TWG (Uploaded onto Microsoft Teams)

### Online Meeting June 16<sup>th</sup> 2020

#### Summary of results and discussion

##### Focus on Sector: CONSTRUCTION

- Synergies with other sectors and currently important on EU level
- Product as a service can be possible as well as various other Optimal Use Models
- Some open questions regarding T.1.3 and T2 which will likely be clarified as soon as the information will be distributed
- Highlighted discussion to remain flexible regarding the sectors and caution from some experts regarding determining the sector due to the interconnected nature of value chains and other concerns- such as potentially leaving out too many companies

Designing state of the art looking at the specific approach, existing opinion leaders, potential mentors, SMEs, Large enterprises, etc. (D.T1.3.1) – First Session

As a result of the Mapping we will find other potential users who will be more available to receive our support- this activity will help.

First discussion concerning the training needs of the target users addressed by the training activities (T2.1)

TEMPLATE TO COLLECT INPUT will be circulated

- TWG will need to contribute with Training Needs

TPLJ – SHARE SOME OPEN QUESTIONS- TRAINING MATERIALS- Partners will be sending this by next week.

#### Next steps

- Fill out Digital Tools Template
- Information from Bojana to come soon regarding Trainings

#### Feedback & Open Questions

- Questions/Comments about Microsoft Teams, Group Communications and Expectations
- Contact Info of All TWG (Uploaded onto Microsoft Teams)

# APPENDIX

Presentation TWG Optimal Use Online Meeting June 16<sup>th</sup> 2020



## Circular 4.0

Transnational Working Group: Optimal Use Models



Presentation TWG Optimal Use Online Meeting May 27<sup>th</sup> 2020



## Circular 4.0

Transnational Working Group: Optimal Use Models



## Partners, Experts & Observers

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After studying technically-oriented business administration at the University of Stuttgart, she worked for IBM Germany in various positions for more than 20 years. She gained experience in various management tasks, both nationally and internationally, in line and project organizations and as a change management consultant. She has been working as a freelance consultant with a focus on sustainability and transformation since 2012 ([https://beratung-jaeger.de/index.php?article\\_id=6](https://beratung-jaeger.de/index.php?article_id=6))

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Jurij Giacomelli (born in 1970) is the founder of Giacomelli Media Management and Consulting Ltd. (Gm), a management consultancy specialised in corporate strategy, business model transformations and strategic communications, with a particular weight on sustainable business models, circular economy, innovation ecosystems, media industry and design management. Gm ([www.giacomellimedia.com](http://www.giacomellimedia.com)) also acts as a co-investor and developer of innovative startups. as a business partner of Meta Group Jurij acts as the investment manager of Meta Ingenium, a venture capital fund in Slovenia.

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Laurence VIALE is a teacher-researcher in Purchasing Management. After a professional experience of more than 20 years in different industries at national and international level, she joined EM Strasbourg and manages the Master 2 " MAE cadre " - Business Administration as well as the Procurement and Supply Chain Management specialization of the Grande Ecole Program.

**Yasmine Slaoui**, STRASBOURG EUROMETROPOLE (policy maker),  
yasmine.slaoui@strasbourg.eu Expertise: Circular Economy Officer - Economic Development and Attractiveness Dpt

A graduate of a Business School with a specialization in Sustainable Development, she has acquired skills in project management and sustainable communication. She has been able to work as a mission or project manager for sustainable development and corporate social responsibility in various sectors (mass retail - Carrefour / Cosmetics - L'Oréal / Food industry - Pomona and Heineken). She is now working at the Eurometropolis of Strasbourg on the development of the Circular Economy Plan.

### **Observers**

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### **Experts**

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Experienced Project Manager with a demonstrated history of working in innovation in cleantech (water and waste). Reviewer for the European Innovation Council (Horizon2020 SME Instrument and Fast Track for Innovation). Skilled in Environmental Awareness, Environmental Policy, and Waste Management. Master degree in Materials Engineering from Politecnico di Milano currently studying for an Industrial Doctoral Degree in Innovation for the Circular Economy

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