

# CIRCULAR ECONOMY HUBS IMPLEMENTED D.T1.3.5

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CIRCULAR ECONOMY HUBS IMPLEMENTED:  
Dornbirn

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# **D.T1.3.5: CIRCULAR ECONOMY HUBS IMPLEMENTED: Dornbirn**

A.T1.3 Concept for the implementation of a circular economy hub/accelerator

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## **Document History**

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02.10.2020	v. 1.0	Document issued by PP9
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# 1. Introduction

After completing the deliverables related to

- the creation of the working groups (D.T1.1.5 and D.T1.2.5),
- the two strategy workshops (D.T1.2.11)
- the drafting of the joint circular economy strategy (D.T1.2.10)

And in compliance with the final objective of the project to favour the transition towards a more sustainable and innovative economy, the deliverable D.T1.3.5 stands as a necessary step for the creation of a HUB for the circular economy in the territory of Dornbirn.

In concrete terms this deliverable offers a first basis for the implementation of this facilitator office.

## 2. Hubconcept

### 2.1 Legal form

Circular economy strategy in Vorarlberg will be carried through the activities of a non-profit association responsible for realization of the hub's activities. The scope of the circular economy strategy in Vorarlberg focuses mainly on regional intelligent production systems, in particular to the field of advanced manufacturing and green innovation. The main vision of the hub is to support regional and national transition towards a more circular economy based on the application of a set of instruments, placing in focus waste management, energy consumption, mobility and other areas of circular economy application. The driver of transition has a foundation in the regional smart specialisation strategy implementation, providing a circular economy framework organized around advanced manufacturing potentials of the region. The hub will be linked to diverse expert centres, and will be organized both in physical and digital setting.

### 2.2 Structure

The structure of the hub will be adapted in line with economic growth of the region, as well as with the increased circularity of the region. There is a strong need for a platform in Austria that promotes and facilitates the collaboration among different regional actors and the transition towards more circular economy - one which will consider both environmental but also economic potentials of circularity.

Setting up a regional circular economy hub will aid in managing main challenges identified in the national context, such as:

- Increasing SMEs performance, which currently is below the EU average on waste minimization;
- Reaching circularity potentials, by providing a circular economy framework as in Austria the circular economy roadmap does not exist;



- Moving already existing circular economy initiatives from NGO sector to industry, and improving coordination in already existing drivers;
- Increasing awareness on circular economy opportunities not only on waste and environmental themes but also on the economic opportunities these provide.

The regional circular economy hub strategy will be implemented in line with one of the three smart specialization strategy focuses of the region - advanced manufacturing. With this in line, the scope of circular economy strategy in Vorarlberg will focus on regional intelligent production systems. Vorarlberg's intelligent production system aids the economic growth through manufacturing, ICT, Information system activities, professional, scientific and technical activities. Moreover, scientific domain that encompasses intelligent production in the context of smart specialization adapts solutions in the field of industrial production and technology (increasing economic efficiency and competitiveness), Improving industrial production and technology, and general advancement of knowledge. Finally, the hub's objectives focusing on intelligent production will support the application of key enabling technologies - such as advanced manufacturing systems, which is the particular focus of circular economy strategy application in the region.

The hub will manage and promote the circular economy open business model innovation for advanced manufacturing, highlighting circularity as a main driver of innovation growth in Vorarlberg. In this respect, the hub will ensure its sustainability through quadruple helix innovation nexus, and will provide space both for online and physical collaboration.

Based on collaboration activities between four foundation of helices - industries and SMEs, local and regional authorities, academia and students, and citizens, by utilizing both physical and online spaces, the hub's CE strategy will support development of novel business models that could also induce systemic change in long-term. The objectives of the circular economy strategy upon which the framework is founded are as follows:

- Reducing raw materials use and waste production;
- Citizen participation in product/service development;
- Fostering secondary raw material use;
- Stimulate sustainable urban innovation;
- Participatory labs: Conceptualizing circular economy by relevant actors;
- Studying EPR (Extended Producer Responsibility) in regional context;
- Sustainable circulation and ecologically efficient town structure;
- Increase inhabitant responsibility and awareness;
- Accumulating knowledge on how to enhance positive and alleviate negative impacts of circular transition.

## 2.3 How to finance the hub

The hub will be financed through national and regional contributions, and participation in national and international projects.



## 2.4 Services

Based on the application of the circular economy strategy, the hub will provide services that encompass the following activities:

- Measurement of new solutions for the circular economy in urban contexts combined with new stakeholder networks for innovative, green manufacturing settings.
- Promoting initiatives at policy and entrepreneurial level against the state-of-art, allowing them to be at the forefront of new findings and green solutions.
- Generating knowledge regarding current challenges and problems in connected green manufacturing.
- Setting up of the basis for territorial knowledge and its transferability to other European regions.
- Citizen support and promotion of the digital innovation community.
- Stimulating quadruple helix innovation collaboration.

The hub's activities are aligned with the smart specialization strategy in Vorarlberg, which sets up advanced manufacturing and intelligent production in the focus. Therefore, the activities provided by hub will ensure provision of wide range of opportunities to stimulate growth and face challenges that stand on the way of national and regional circularity. Hub will also ensure the quadruple helix innovation perspective to stimulating a circular economy in the region, which involves development of innovation communities. Based on this, hub's services will target both technology gap imposed to industrial sector as well as promote innovation exposure as one of the drivers of the innovation growth. Moreover, the circular economy hub in Vorarlberg will extend the field of its activities through already existing platforms and FHV's Digital Innovation hub.

In general, the focus of innovation performance of the hub will bring into attention opportunities that new high-tech materials carry, lowering production costs and shortening development cycles, while on the other hand, will promote greater product diversity, resource and environmentally friendly manufacturing processes, logistics and recycling issues and many more aspects which are in the focus of advanced manufacturing initiatives. Therefore, activities of the hub will aim to:

- Encourage the use of more efficient resources, and stimulate the use of more efficient production technologies to increase international competitiveness and to strengthen Vorarlberg's position as an industrial location.
- Manufacturing of high-tech products to underscore Vorarlberg position as an innovation center.
- Promote quadruple helix participatory innovation design
- Flexibilizing production to enhance Vorarlberg's production expertise.
- Focus on the efficiency and quality in manufacturing.
- Design of advanced materials, surfaces and coatings and nanotechnology.
- Reducing dependency on critical raw materials.
- Stimulate bio-based industry.



### 3.Short term perspective

In the short term, the formalization of the hub will be settled upon the formal agreement between relevant stakeholders, which will involve representative of all the actors of the quadruple helix innovation system in the region. These actors will in the subsequent steps shape the nucleus of the hub and its operational direction. Initial short-term perspective will be shaped in the course of twelve months, while in the following six months the hub will define its further growth. In the beginning, the coordination role of the hub will be taken by FH Vorarlberg, while in the long term this role will be accordingly transferred to the respective entity.

### 4.Mid-term perspective

In the mid-term perspective, the hub will further its activities in line with the circular economy open business model platform for advanced manufacturing. With this in line, FHV foresees further evolution of the hub through the participation in diverse regional and European projects.