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Start circles open call for SMEs participation



One of the main goals of Start circles project is to support small and medium enterprises (SME) from wood and polymer industries in [Interreg Slovenia-Austria programme area](#) with the knowledge and network of project partners. SMEs with specific issues,

research and development goals or ideas and need of partners will be linked with specific research organisations in Slovenia and Austria with an aim of common development of their idea towards innovation. Such collaboration and innovation is directly based on circular economy concepts. The ultimate goal of Start circles project is to support at least 6 SMEs with the development of innovative product/process/service based on circular economy concepts.

With an intention to select 18 Slovenian and Austrian SMEs we opened a call. Slovenian SMEs can apply for a participation at [this link](#), whereas Austrian SMEs can apply [here](#).

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START CIRCLES – First work package T1 successfully completed

In the context of the circular economy, the Start Circles project focuses on the areas of wood and polymers. Project partners did personal interviews with companies in these areas to obtain important information on how they cope with the transition from a linear to a circular economy. We performed an analysis comparing the data, obtained in the program area between Slovenia and Austria, as well as between the wood and polymer industries in both countries.

Companies need to make clear decisions about what this transition from a linear to a circular economy will look like. Although it may not be perfect, it is still possible to close some loops and find connections where they have not been available yet, so that certain material will remain in the loop for as long as possible. There was a great difference between both countries.

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Below some key findings:

- In the wood industry there is too much waste, which is still incinerated; only a small part is stored;
- In Slovenia are polymer residues (production residues) reused in a higher proportion than in Austria.
- In the wood industry in Slovenia 80-100% of products are designed to extend their life cycle (with repair); in Austria between 30 and 50 %.
- Up to 80% of the products or their components in the polymer industry in Austria are recovered or refurbished.
- Companies on both side attach great importance to reducing resource consumption.
- In some points companies on the Austrian side are stronger in the area of the circular economy.

There are some changes, that need to be done on the program area Slovenia-Austria, especially in the areas legislation, companies and customers, to make the transition from a linear to a circular economy much easier and faster. The Start Circles project aims to support companies in this direction. A comparison of the two countries also indicates that greater implementation of circular economy is not an unfavorable competition.

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"Circular economy" a main topic for SMEs at eNOVA 2019



Numerous directives on resource efficiency at both European and national level are creating new challenges for companies: They have to use recycled materials to a much greater extent than before or introduce innovations and new technologies to improve the efficiency of material use and recycling. In order to

illustrate this and find proposals for implementation, this year's eNOVA closely linked the topic of recycling management with regional economic development.

The fact that, especially with the resources wood and plastic, too much waste, packaging and unused products end up on the rubbish heaps, gave boost to the idea that circular economy as a principle for production and the value chain could develop in the near future. For participating companies at the eNOVA mostly sustainability topics were interesting, which means nothing other than to do business well, with a realistic balance between short-term profit making and securing future viability. It is important to continuously seek a balance between economic, ecological and social interests. Products and services should contribute to a sustainable development of society.

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Start Circles pilot project on biosolids reuse

LIMNOS company is a part of Start Circles with a pilot project aiming to discover possible reuse potential of mineralized sewage sludge. Dehydrated sewage sludge is currently one of the grave problems in Slovenia as most of the material were dehydrated and sent to incineration or deposition abroad. New EU guidelines are stimulating countries to treat or reuse their own waste, including sewage sludge. Its potential is particularly important due to its Phosphorus content.

There is a natural alternative to mechanical sludge treatment that offers biosolids generation and nutrient reuse. Sludge drying reed beds is a passive approach phytoremediation technology enabling dehydration, mineralization and stabilization of sludge from wastewater treatment plants. The technology enables long-term and sustainable storage of sludge with low operating and maintenance costs. Large volumes of material are not available yet, but we expect the organic and mineral component of it to be useful.

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The result of the treatment process is a compost-like material that could be reused. Current limiting factors in regulations on waste and reuse, lack of demonstration (material availability) and precise analysis (particularly for trace pollutants) prevent its usability. It is crucial to establish an optimal reuse potential in farming/landscaping or other sectors or products.

Start Circles network and member capacity is a best starting point to examine the biosolids available from demonstration sites and to discover its potential as biocomposite, landscaping material, green cover component, fertilizer etc.



Sludge drying reed bed scheme (left) and live (right) (source: Limnos)

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Holz- Clusterempfang 2019



On 28th November 2019, the annual Holz-Clusterempfang was held in Graz, Austria. Central topics of the event included the development of new concepts, products and innovations with the material wood and the challenges and opportunities for the Styrian timber industry.

Besides keynote speakers and a panel discussion, the event was accompanied by an exhibition of current research fields.

Therefore, a poster was presented by Univ.-Prof. Tobias Stern from the Institute of Systems Sciences, Innovation and Sustainability Research (Project partner KFU-SIS) of the University of Graz, highlighting current fields of research within the circular economy including the Start Circles project.

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Working group for the circular economy in the field of plastics

The European Plastics Strategy has set targets and new commitments for manufacturers and stakeholders in the plastics value chain for the circular economy. Achieving these goals requires intensive involvement of all stakeholders in the plastic value chain and strong support from ministries, research institutions and various other stakeholders. The Chamber of commerce and industry of Slovenia - Association of the Chemical Industries, where also operates the Plastics Section, has started a stakeholder group - the Platform for Plastics - to coordinate and accelerate the whole process.

The Working group for the circular economy in the field of plastics is composed of representatives of key stakeholders in the plastic value chain; manufacturers and suppliers of raw materials and plastic products, buyers of plastic products from various industries, municipalities, utility companies, scientific and research institutions and competent authorities. The group met twice in March and April, the first tasks were defined, the group will first begin to review plastic waste, followed by the analysis of plastic waste and suggestions on how to sort and reuse the material – closing the loop of material flows.

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START CIRCLES TRAIN THE TRAINER SESSIONS



Start circles partners gathered in St. Veit an der Glan in Austria on 15. 10. 2019, where Wood K plus hosted the 3rd Start circles partner meeting. First part of the meeting was dedicated to *train the trainer* sessions and presentation of useful tools and models for effective collaboration of SMEs and research organisations.

The meeting started with so-called “**innovation breakfast**” which is basically business breakfast dedicated to the specific topic related to innovation. This time, the topic presented by colleagues from GZS was the efficient collaboration between company and research organisation. Innovation breakfast was followed by very energetic and practical “**teardown workshop**”, where attendees literally tore down an old computer, sorted its specific elements and were finding ways for alternative components and solution for more useful solutions that would fit the circular economy concepts. After the end of teardown workshop, all partners were taught how to execute the “**company mission**” tour and “**closing the loop**” workshop.

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The Project Partners of START CIRCLES:

- LP: Gospodarska zbornica Slovenije
- PP02: Kompetenzzentrum Holz GmbH
- PP03: LIMNOS doo, Podjetje za aplikativno ekologijo
- PP04: asteenergy - Ingenieurbüro für erneuerbare Energie, Forst- und Holzwirtschaft
Christoph Aste Dipl.Ing, Msc.
- PP05: Fakulteta za tehnologijo polimerov
- PP06: Karl-Franzens-Universität Graz
- PP07: Forschung Burgenland GmbH