



GREENOMED NEWSLETTER

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Moving towards the GREENOMED LIVING LABs: Region of Central Macedonia

Living Lab is a trending topic all over Europe. The concept is generally defined as an **open innovation** environment in **real-life settings** in which **user driven innovation** is the **co-creation** process for new services, products, and societal infrastructures. In GREENOMED, Living Labs are existing research, technology facilities and laboratories such as those at universities, research centres, etc. They are a meeting point for different stakeholders and intend to create a culture of open facilities and pilot plants among the regional stakeholders. Thus, a living lab can be a mid-term result of a pilot plant and a trigger for future pilot plants. It could be evolved further to a pilot plant or remains a living lab.

In the frame of GREENOMED activities, each Region is required to identify the so-called Living Labs facilities in terms of green manufacturing. The most proper candidate will be selected to be assigned as **GREENOMED living lab** to connect to the network of living labs of the project. Accordingly, in Region of Central Macedonia, the GREENOMED partner i-BEC (Interbalkan Environmental Center) has conducted the activity and a potential GREENOMED Living Lab has been identified, and it will be further developed, exploiting existing infrastructure of i-BEC and some selected laboratories of the Department of Agriculture and Chemistry of the Aristotle University of Thessaloniki. This GREENOMED Living Lab will be newly hosted in the premises of i-BEC, facilitating collaboration among qualified scientific and research staff, as well as deploying state-of-the-art equipment and tools to undertake experiments and pilot testing. The main role of the Living Lab is to promote the principles of circular bio-economy in the sectors of agro-food and agro-energy. In particular, the GREENOMED Living Lab will constitute the

meeting place of many actors to collaborate in creating, prototyping and validating services and technologies towards the exploitation of waste in the **agro-food sector** into energy and/or food and feed ingredients. The Living Lab is already widening its outreach to the regional industries, as well as the institutional and academic actors. The role of the GREENOMED Living Lab will also be pivotal to reach the core objective of the project supporting and sustaining the development of ideas for future pilot plant as well as developing a regional network and community around the topic of **circular bio-economy** in the sectors of agro-food and agro-energy.



GREEN MANUFACTURING IN SLOVENIA

As pollution levels continue to escalate and population gets more aware of reasons, importance of Green Manufacturing becomes more relevant, especially when considering recent technological progress making green manufacturing more attainable and affordable. Green manufacturing is closely tied to lean manufacturing practices for example reducing waste or using renewable energy sources and recycled materials. For example, Container d.o.o. pays a lot of attention to recycling, so 95% of material used is recyclable and can be re-used and with input optimization (IT) they tremendously reduced metal waste and use of



PROJECT PROGRESS

anti-corrosive means which are lower CO2 footprint resulting in significantly reduced manufacturing costs.



KIMI d.o.o. cleaning service provider decided to collect, clean and re-use or re-cycle their containers of cleaning fluids and so became typical circular economy representative; in 2017 their environmental impact was lower for 18.762 kg of CO2 and saved for 17.500 kg of oil and a lot of precious water need for packaging. On the other hand development of IT solutions enables also small manufacturers to access modern technical solutions for affordable prices: Strip's d.o.o. is one of many Slovene providers of tailor-made solutions for all industries (system integrator of electronics, sensors, LED technology, smart metering and connectivity). Bottom line, Slovenia has the legislation in that area and high quality solution providers (coming from SMEs and RTOs). However, what is missing for more success stories in uptake of these green technologies is the **linking of all actors** and **awareness of customers**. GREENOMED and Vanguard, together with regional actors and national level policy support are step towards more awareness of cooperation potentials. Slovenia has entered the Vanguard initiative in 2017, thus the regional working groups and activities are only starting to form. The Strategic research and innovation partnerships mostly linked to green manufacturing and pilot plants are: **SRIP Circular economy, SRIP materials as products, SRIP factories of the future and SRIP food**.

During June and July 2018, project activities were undertaken by partners especially in terms of implementation and testing of GREENOMED methodology, identification of Living Labs in each region and dissemination of project. . In particular:

- Bilateral meetings with interested stakeholder were organized in **Croatia** in order to identifying **key topics** and actors of the future **working groups** as well as asses the potentiality of candidate of **Living Lab**.
- Activities related to creation of regional **living labs** progressed through bilateral meeting organised by **CNR** and **AFIL** with each partner (Region).
- **CNR, AFIL, ACMM, CIE, PTP and TPLJ** participated to the **Vanguard Mid-term event** in Milan on 28th and 29th of June 2018. Seizing the occasion, a GREENOMED internal meeting and a private visit to the CNR Pilot Plant were organized on 28th of June 2018.
- **7 dissemination activities** were carried out by all the partners with the objective to enlarge GREENOMED community, engaging several stakeholders in the testing activities including companies, universities, and research centres..
- Detailed planning of activities for the next upcoming periods was done by all partners.
- The **6th communication meeting** was held reviewing the performance of 3rd period and planning for the 4th reporting period.
- CNR continued **communication at programme level** by attending the advocacy bootcamp organised jointly by Programme MED and Interreg Sudoe.



WHAT'S HAPPENED IN GREENOMED? (June 2018 – July 2018)

GREENOMED CROATIAN CORE GROUP MEETING IN VARAŽDIN

The first core group meeting with the interested stakeholders took place at the company Work-Ing Ltd. in **Varaždin** on the **19th June 2018**. The purpose of the meeting was to discuss about energy efficiency and renewable energy sources (RES) in food production as a possible concept developed under the testing activities in GREENOMED project.



Presentation of the GREENOMED project and its methodology and Living Labs together within the Vanguard Initiative was held by Ms. Renata Papec, CCE CC Varaždin. Meanwhile, the importance of engagement of the Croatian entrepreneurs among the innovation chains that exist throughout the European Union was emphasized. During the meeting, the possibility to recongnise the actual research laboratory on energy efficiency of renewable energy sources - RES in food production as the GRENOMED Living Lab in Croatia was investigated.

The laboratory contains smart solar station with a water supply pump needed for watering, developed by the company Work-Ing Ltd. Varaždin. Energy produced by solar plant exceeds the needs of energy for irrigation and ecological cultivation and cooling. In addition it contributes to healthy climate and healthy food production. Constant climate changes require

production of food under controlled and protected conditions.

Moreover, during the meeting, discussions were taken place to find out synergies between old projects with new ones in the field of circular economy. Main policies, and actions which could be applicable in the field of circular economy were discussed among the participants.

VANGUARD ESM Mid Term event in Milan

“De and Remanufacturing”, “Smart and Adaptive” and “Digital and Virtual” demo-cases from ESM Vanguard pilot met on the **29th of June in Milan** to present their progresses and the next steps envisioned for the remaining semester of 2018. The event was organised in collaboration with GREENOMED and two other INTERREG projects (3DCentral, SMART-SPACE). More than 60 people from 14 EU Regions attended the events which had the specific objectives of:

- Increase awareness about the partnership in view of extension to new Regions, informing them about rules and mechanism to be integrated
- Obtain feedback and revise existing use-cases.
- Identify potential future use-cases.
- Promote match-making between Lombardy Region stakeholders and the participating regional representatives

In the morning session, Prof. Marcello Colledani, coordinator of “De- and Remanufacturing” demo-case, introduced the status of the partnership with the support of other regional representatives from Tampere, Norte, South Netherlands and East Netherlands.

GREENOMED was presented during the meeting by Dr. Giacomo Copani from CNR depicting the activities done to design a network of pilot plant for green manufacturing in MED regions highlighting the synergies with some Vanguard pilot plants such as “De-and



Remanufacturing”. Moreover, other EU projects (FiberEUse – CarE-Service – SCREEN), developed within the De-and Remanufacturing partnership, were presented with the intent of demonstrating the impacts and results generated by the community in these years while working on the improvement of their concept and business model.

To further support the discussion with concrete application, three local companies (Rivierasca, Italtel and Radici Group) actively participating in AFIL Working Group presented their approach toward Circular Economy.

The event was opened by Valentina Pinna, Lombardy Region delegate in Brussels, involved in the Vanguard Intive activities, who reported important news discussed during the Vanguard High-level Directors' meeting.



From GREENOMED, apart from CNR and AFIL that were co-organisers of the event, other partners including ACMM, PTP, TPLJ, Plastipolis and CIE participated the event too. Since these partners are the body of partners who test the GREENOMED methodology, participation to the event was a very good opportunity to get informed about the status and progress of ESM Vanguard pilots and to get familiar with best practices of running regional working groups. Moreover on the afternoon of **June 28th**, participants and GREENOMED partners had a visit of STIIMA-CNR “De-manufacturing” pilot plant integrating different stages of De-manufacturing processes in three major “processing cells” of disassembly, remanufacturing and recycling.

GREENOMED at the joint Advocacy Bootcamp of Interreg MED and Interreg Sudoe

On **June 28th and 29th**, the Interreg MED programme and the Interreg Sudoe jointly held a boot camp training **in Faro**, on promotion and lobbying, to support approved projects in their marketing and capitalisation actions. As the project coordinator and communication leader of the GREENOMED project, CNR attended the advocacy bootcamp.

During these two days, participants could benefit from practical training in terms of strategy, political influence, storytelling and digital communication.

During the first day, examples of good project practices were presented by some projects from Interreg MED and Interreg Sudoe. Moreover, two workshop were held. In the first workshop, participants could get interesting and useful tips on how to create their projects' narrative, through a video, and how to make an emotional storytelling for a project. During the second workshop, participants could get insights about the effective use of social media to do a digital advocacy.

During the second day, speakers raised points on the role of projects to make policy changes and how to influence policy makers through an effective communication of projects' results.

The bootcamp ended by an exercise review done in groups, where each group had to come out with a strategy, tool and effective message to influence policy makers about the potential of its project to be supported.





Eco-Plasturgy S3 Congress

On the **5th of July**, PLASTIPOLIS organized the first European Sustainable Plastics Congress (S3 event) on sustainable plastics as a strategic sector for a plastics industry competitiveness cluster. The event took place at the Regional Council of Auvergne-Rhône-Alpes and gathered 65 people representing different companies such as Plastic Omnium, Fiat, Benvic and Lyon university. Different presentations on plastics recycling and upcycling, ecodesign and new sustainable products development were held during the event.

GREENOMED project was presented by the CNR during the S3 event in the frame of green manufacturing which includes sustainable plastics processing and development. With other European projects, GREENOMED introduced the Vanguard Initiative which fosters European regions to specialize in some topics. PLASTIPOLIS activities in the frame of GREENOMED project were introduced to public and private regional stakeholders as a relevant objective to green manufacturing development.



GREENOMED Workshop in Ljubljana

On **18th of July 2018**, GREENOMED project partners, Technology park Ljubljana (TPLJ) and Pomurje Technology Park PTP, together with PTP organized a GREENOMED Workshop at Jožef Stefan Institute **in Ljubljana**, Slovenia which was attended by CNR too.

The morning session was devoted to present the Vanguard initiative on opportunities for

industry players within the GREENOMED project by CNR. In the afternoon, two workshops were held in parallel: the first one was the presentation of ideas for pilot use in the food industry SRIP Food, while the second one was aimed to identify the possibilities of cooperation and various production opportunities within De- and Re-manufacturing. With the help of experts from CNR the event was aimed to promote investment in smart



specialisation and to establish efficient and sustainable manufacturing.



WHAT'S NEXT? (June 2018 – July 2018)

AFIL Speaker Corner at innovA



Brixia Forum in **Brescia** will host innovA, from **20th to 22nd September 2018**, the innovation convention dedicated to the steel and metal sectors. It is an opportunity to meet companies and selected start-ups, designers of innovative projects related to the world of steel, potentially able to revolutionize the way to produce it, distribute it and use it. Digitization, industry 4.0, additive manufacturing and 3D metal printing, online platforms for sales and distribution, training, finance, new materials and sustainability are among the themes that shape the contents of innovA.

In this context, AFIL will have a dedicated "Speaker Corner" on the 20th September to present the topics developed in its working group on De-and Remanufacturing with a particular reference to the application in steel sectors and its value chains. GREENOMED project will be mentioned as one of the activities that the cluster is carrying out to support the development of the working group network at regional and interregional level.

6th International Smart Plastic Congress



On the **27th and 28th September 2018**, PLASTIPOLIS organise the 6th international

smart plastics congress in **Lyon**, with a focus on plastronics products. This event will gather national and international experts and will take place at the same time as MICRONORA trade fair, which is also an international event regarding microtechnology. The Smart Plastics Congress 2018 is composed the 1st day by a round table (markets orientated) and the following day by 10 conferences (technology orientated).

GREENOMED project will be presented at the end of the second day through the example of a pilot plant in Catalonia. EURECAT will explain how and why they decided to create a hub of Advanced Manufacturing and the future of Regional Cooperation. The case of Functional Plastics Pilot in Catalonia will be introduced. All Smart Plastics Congress attendees will hear about the GREENOMED project by a real example of a green manufacturing pilot plant.



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