RENEWABLE
MATERIALS AND
HEALTHY
ENVIRONMENTS
RESEARCH AND
INNOVATION
CENTRE OF
EXCELLENCE
(InnoRenew CoE)

LL InnoRenew





Funded by the Horizon 2020 Framework Programme of the European Union; H2020 Widespread-1-2014 - Teaming

Foundation of Innovative Renewable Material Uses living laboratory (LL InnoRenew)

In August 2015, the consortium of InnoRenew CoE established *Innovative Renewable Material Uses living laboratory (LL InnoRenew)*. The laboratory is a public-private-people partnership combining InnoRenew CoE partners, LL InnoRenew stakeholders, and the broader interested public.

LL InnoRenew's intention for the first stage project preparation was to contribute to the highest possible optimisation and efficiency of the business plan of the future centre of excellence, and to prompt the ascension of Slovenia's scientific excellence within various scientific and professional fields and processes linked to sustainable development and renewable materials.

The overall ambition of LL InnoRenew during the first stage of the project was:

- to create an environment that would serve as grounds for discussions about the project, development, testing, and implementation of creative and innovative ideas
- to survey different initiatives and critical feedback
- to reciprocate information regarding members' areas of interest

During the second stage of the project, LL InnoRenew will intensify the already employed activities to serve for exploration, investigation, design, monitoring, verification and review of innovative ideas and solutions concerning renewable materials exploitation (including but not limited to publicly funded and/or direct industrial project preparation).



Structure of LL InnoRenew

LL InnoRenew main activities in the first stage of the project were:

- · operating the web forum
- organising workshops, meetings, round tables, seminars, conferences etc.

Members of LL InnoRenew

Members of living laboratory LL InnoRenew are all partners of the projects' consortium and are diverse entities including:

- national and international research and development (R&D) institutions
- associations
- small and medium-sized enterprises (SMEs)
- large companies, clusters, agencies, governmental authorities, municipalities and citizens.

From August 2015 until the end of the first phase of the project the consortium recruited 59 national and international stakeholders into the LL InnoRenew, who signed the *Declaration of Intent to Participate*. Stakeholders are diverse both in geographical location (Slovene, European, international) and in terms of the type of entity (SMEs, R&Ds, development agencies, associations, clusters etc.).

Austria - R&D

FH Salzburg, Study Programme ,Forest Products Technology and Timber Construction' Kompetenzzentrum Holz GmbH

Belgium – Associations

Forest-based Sector Technology Platform, FTP Sprl

InnovaWood

Slovenian Business and Research Association (SBRA)

Bosnia and Herzegovina - R&D

University of East Sarajevo

Bosnia and Herzegovina - SME

ŠGD HERCEGBOSANSKE ŠUME d.o.o. Kupres

Croatia - R&D

Faculty of Forestry

Hungary - SME

Pannon Pro Innovations Ltd.

Italy - R&D

National Research Council - Trees and Timber Institute (CNR-IVALSA)

Macedonia - R&D

Ss. Cyril and Methodius University in Skopje Faculty of Forestry

Montenegro - R&D

University of Monte Negro Biotechnology Faculty

Institute of Forestry of Montenegro

Netherlands - SME

FirmoLin

Foreco Dalfsen BV

New Zealand - R&D

New Zealand Forest Research Institute Limited trading as Scion

Russia - R&D

Volga State University of Technology

Serbia - R&D

Faculty of Forestry of the University of Belgrade

Serbia - SME

State Enterprise for Forest Management "Srbijašume" Belgrade

Slovenia - SMEs

Abelium Research & Development

aFRONT - zavod za prostorsko inovativnost

Alples d.d

Brest pohištvo d.o.o. Cerknica, podjetje za proizvodnjo in promet pohištva in opreme

CBD gradbeno in poslovno projektiranje

Dekleva Gregorič arhitekti, projecktiranje

Donar d.o.o.

INTECH-LES, razvojni center, d.o.o.

JELOVICA Hiše d.o.o

KonektOn

Marles Hiše Maribor d.o.o.

M SORA, trgovina in proizvodnja, d.d.

Maechtiq Vrhunc Arhitekti, d.o.o

PIA studio d.o.o.

Proform d.o.o.

Primus Designs d.o.o.

Psilos d.o.o.

Rex Kralj d.o.o.

Razvojni center koroškega gospodarstva – RACE KOGO d.o.o.

Riko Hiše d.o.o

S2P, znanost v pakso, d.o.o.

Silvaprodukt d.o.o

Snežnik d.d

Snopie d.o.o

Yaskawa Ristro d.o.o

Zeleno d.o.o.

Slovenia - R&D

Construction Cluster of Slovenia

Faculty of Design, University of Primorska

Geodetic Institute of Slovenia

Ministry of Education, Science and Sport

UIP University development center and university incubator of Primorska Ltd.

University of Ljubljana, Biotechnical Faculty, Department of Wood Science and Technology

University of Ljubljana, Institute of Structural Engineering, Earthquake Engineering and Con-

<u>struction IT (IKPIR); Faculty of Civil and Geodetic Engineering</u> Slovenia - Regional development agencies

RRA Zeleni kras d.o.o.

Regional Development Centre Koper

Sweden - R&D

Luleå University of Technology Wood Science and Engineering

UK - SME

JCH Industrial Ecology Limited

USA - R&D

Society of Wood Science and Technology

Wood-Based Composites Center, Oregon State University





























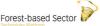






CNR-IVALSA



















































































LL InnoRenew activities

Three LL InnoRenew Workshops

Three workshops were completed between October and December 2015. All three workshops were designed as a direct exchange of ideas and collaboration between InnoRenew CoE partners and stakeholders joined in the LL InnoRenew. The workshops were organized by InnoRenew CoE partners with intention to expand the findings of focus groups and the survey which were performed in work package (WP) 2, and to aid the preparation of the business plan of envisaged CoE.

1st LL InnoRenew Workshop: InnoRenew CoE Services

(23rd October 2015, FAMNIT UP, Koper)

Objectives:

The first workshop, *InnoRenew CoE Services*, was outlined for evaluation of "value proposition" of InnoRenew CoE, focusing on most important topics from the WP2 survey.

Workshop topics:

- Presentation of InnoRenew CoE project
- InnoRenew CoE and the use of social media
- Restorative Environmental and Ergonomic Design (REED) paradigm
- Overview of the market analysis and key findings of WP2
- The model of Wood-Based Composites Center (USA) as an example of good practice

Topics presenters and discussions leaders:

Assoc. Prof. Dr. Andreja Kutnar (UP), Amy Simmons (UP), Michael Burnard (UP), Assist. Prof. Dr. Matthew Schwarzkopf (UP), Dr. Črtomir Tavzes (ZVKDS/IPCHS and UP)

Workshop outcome:

- Thought exchange about the opportunities for research development, and innovation funding available to R&Ds and SMEs
- H2020 SME calls were identified as an excellent opportunity for SMEs in Slovenia
- Best practices to transfer information from experts to the sector were identified
- Education and training should be an important service offered by the CoE



Participants of the 1st LL InooRenew workshop

2nd LL InnoRenew Workshop: Impact and communication

(20th November 2015, CCIS, Ljubljana)

Objectives:

The aim of the second workshop, *Impact and communication*, was to explore the content of communications to the public and industry, above all what kind of data stakeholders want to receive and in what format the stakeholders want to receive the information on RDI.

Workshop topics:

- Summary of Analysis of the content of Slovenian forest-based industry companies internet sites
- Knowledge gaps within in the sector based on survey responses
- Social media use in business communications and InnoRenew CoE's social media presence
- Goals of Public Communication including challenges and best practices in communication
- Goals of communication to the industry including industry training, public outreach, and scientific and industrial development

<u>Topics presenters and discussions leaders:</u>

Assoc. Prof. Dr. Andreja Kutnar (UP), Michael Burnard (UP), Amy Simmons (UP), Dr. Aidan Cerar (RRA LUR)

Workshop outcome:

Topics presented on the websites of Slovenian forest-based industry companies	
Most commonly	Least Commonly
Added value of wood (emotions, health, labels)	Forest and global warming (carbon absorption, storage)
Building with wood (performance, image, substitution)	Efficient use of wood
Forest and the economy	Wood based innovations
Forest conservation	

Most commons survey responses to <i>Knowledge gaps</i>	
Wood based innovations	
Efficient use of wood	
Building with wood	

Important communication channels for survey respondents	
All countries	Slovenia
Newspapers	Television
Colleagues	Company websites
Friends	Social media and salesmen

- InnoRenew is employing the following social media practices:
 - o Presentation of quality information over quantity of posts
 - o Personal stories that will contribute to the more positive response the importance within the necessity of
 - o Maintaining a consistent online personality
 - o A balance between serious and light-hearted posts
- Participants agreed that it is important to have a clear strategy and plan for communication to provide a greater effect and ROI in media campaigns.
- The LL stakeholders identified fairs as their main communication channel, while joint presentations remain a challenge for them
- A coordinated approach with an underlying message, such as healthy living environment, could be the key to success.



Participants listening to a presentation at the 2nd LL InnoRenew workshop

3rd LL InnoRenew Workshop: Understanding Innovation

(15th December 2015, CCIS, Ljubljana)

Objectives:

The third LL InnoRenew workshop was a communication methods workshop and dedicated to innovation in industry. Its goal was to explore what manufacturers are producing, what users need, what are the innovation needs, and how to assess the value of innovations.

Workshop topics:

- Group activities to design and build structures using creativity, innovation, communication, and teamwork
- Presentation of *Innovation in the Forest Industry*
- Group cohesion exercise between researchers and industry members who discussed "What are the research needs of their industry?"
- Lecture about *Creating and Implementing an Innovative Culture* in an industrial organization
- Group exercise dedicated to *Identifying opportunities for collaboration* in the Slovenian innovation system

Workshop coordinator and lecturer:

Prof. Dr. Eric Hansen, a global expert in forest sector business and innovation, and a specialist and Professor of Forest Products Marketing (Department of Wood Science and Engineering, College of Forestry, Oregon State University, Corvallis, Oregon, USA)

Workshop outcome:

- Identified aspects of teamwork that affected success and innovation during group activities
- Industry and research members identified common themes and concerns regarding collaboration
- Inferred design rules decreased innovation and creativity during group exercises resulting in unnecessary, time consuming, and unsuccessful designs
- Cooperation and open communication between industry and researchers was important to successful designs
- Opportunities for collaboration between industry and research sectors were identified.



Group creativity and building activities at the 2nd LL InnoRenew workshop

Examples of successful LL InnoRenew additional actions

- Joint proposals submitted to
 - o Social Challenges
 - o Excellent Science
 - o Industrial Leadership pillars of the Horizon 2020 EU financing of research, development, and innovation support
- Networking among stakeholders
- Implementing small, seed projects
- Communication of the sector success stories to policy makers, and interested audience throughout Europe



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