



InnoRenew CoE

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InnoRenew CoE Renewable Materials and Healthy Environments Research and Innovation Centre of Excellence

DRVO U GRADITELJSTVU
Opatija, February 8, 2022

Prof Andreja Kutnar, PhD



InnoRenew CoE

www.innorenew.eu

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Horizon 2020 Framework Programme of the European Union; H2020 WIDESPREAD-2-Teaming: #739574

Funding 46,6 mio EUR (32 mio EUR to new institute):

- 15 mio EUR from Horizon 2020
- 30 mio EUR complementary cohesion (MIZŠ)
- 1,5 mio EUR Municipality of Izola
- 100.000 EUR Founders



Main objective: Establish InnoRenew CoE – a not-for-profit private institute with an independent organisational, operational, and management structure



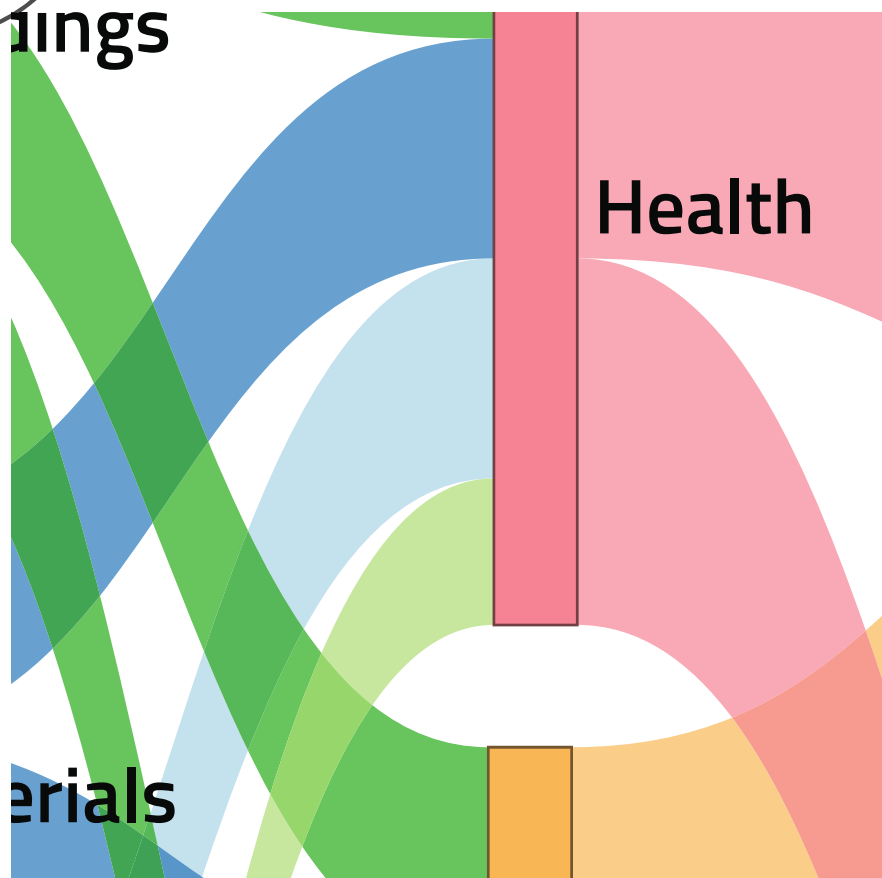


Our mission

To advance the state of the art and achieve scientific and innovation excellence through **interdisciplinary science**, especially in our two key research areas: wood modification and restorative environmental and ergonomic design (REED).

Our vision

To be both a **world leader** in the interdisciplinary science of the built environment and a model for international research excellence, industrial collaboration and public engagement.



**Restorative
Environmental and
Ergonomic Design
&
Modified Wood**



InnoRenew CoE

*not-for-profit private institute
with an independent
organisational, operational, and
management structure*

Human
Health



RM
Composites



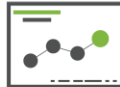
ICT for Wood
& Buildings



Wood
Modification



Data
Science



Sustainable
Building



70 Employees (58 FTE); 47 % women and 53 % men – average age: 39,4; 54 science, 5 technicians, 11 administration. (17 PhD students!)

International employees (19 countries): 31% (22) from EU, 52% (36) from SLO, 17% (12) global

Annual revenue: target 4 mio EUR (Fraunhofer model: 1/3 – 1/3 - 1/3)

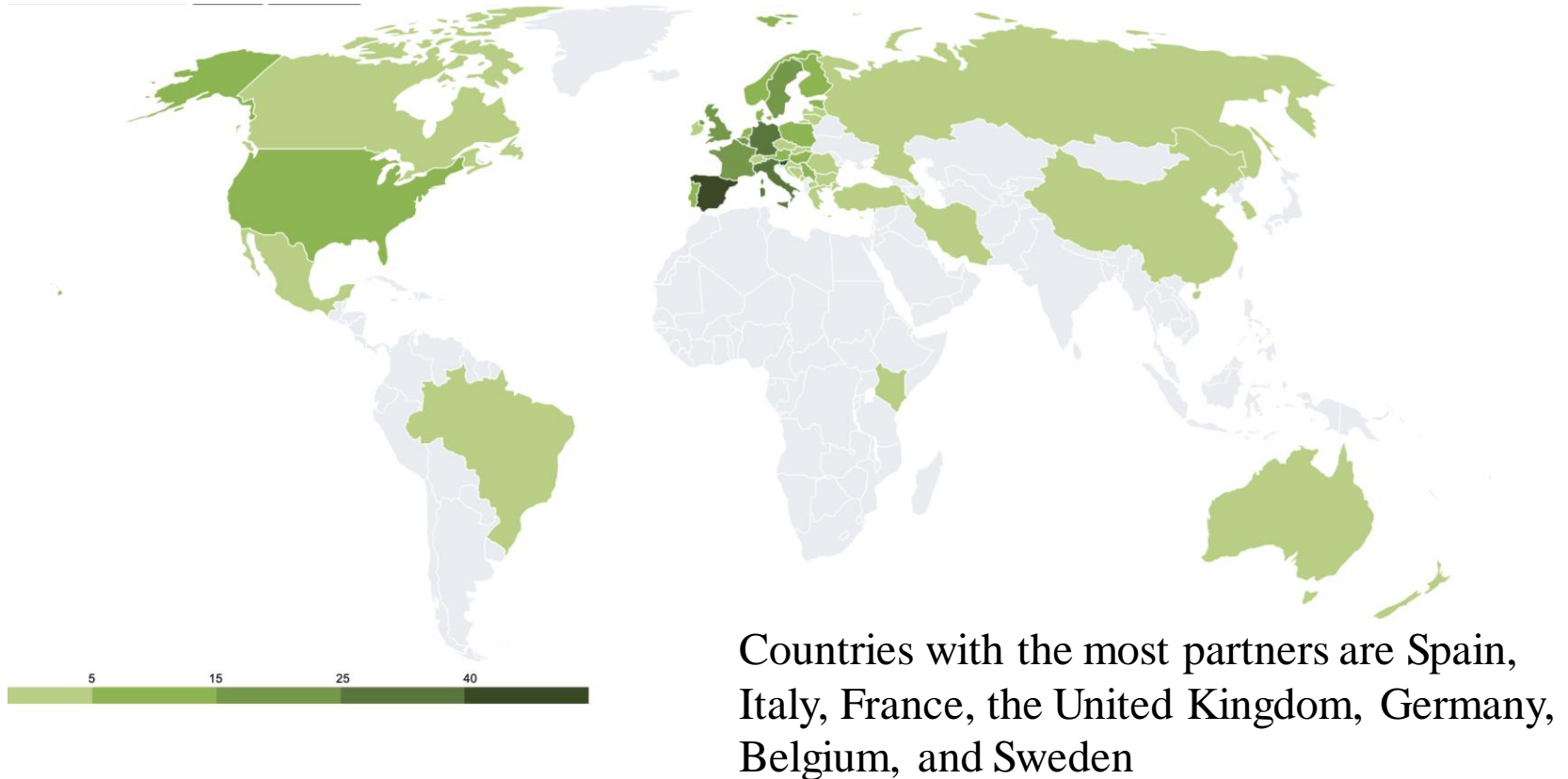
InnoRenew CoE has worked on **52** national and international projects, including **9 Horizon 2020** projects in the last 4 years

From 2017 over **380 original and review scientific** papers, **3** scientific monographies, **>450** conference contributions

Building modern research fields with concepts of **sustainability** and **sensible use** of natural resources, especially *wood in the built environment*



InnoRenew CoE partners (405 international and 69 national)





Living Lab

116 private and public institutions (57 SMEs, 50 educational or research institutes, five regional development agencies, and four individuals) from **29** countries as associate members



The two silver members:

- Feniks Zakład Produkcji Mebli Sp.zo.o. and
- Mardom Pro from Poland.



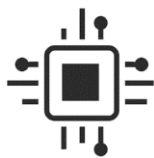
Ten members have gold status: nine InnoRenew project partners and the Municipality of Izola. **On January 1, 2021, Gdańsk University of Technology (Poland) joined as a gold member.**



Key to success

Interdisciplinarity

Bundling modern research fields with concepts of sustainability and sensible use of natural resources. In this case, *wood*.





Infrastructure – demonstration of InnoRenew CoE’s knowledge

Largest wooden building in Slovenia - a **unique facility for research and innovation** in the field of renewable materials and healthy living environments:

- Human Health Laboratory
- Composites Laboratory
- Physical Testing Laboratory
- Characterization Laboratory
- Microscopy Laboratory
- Acoustic Properties Laboratory
- High-powered Computing Laboratory
- Workshop and Machine Shop

Interior - **Restorative Environmental and Ergonomic Design**

InnoRenew CoE is a New European Bauhaus partner.



Services of InnoRenew CoE

Industrial research (e.g. MetaDense wood)

Training (e.g. competence center of wood industry)

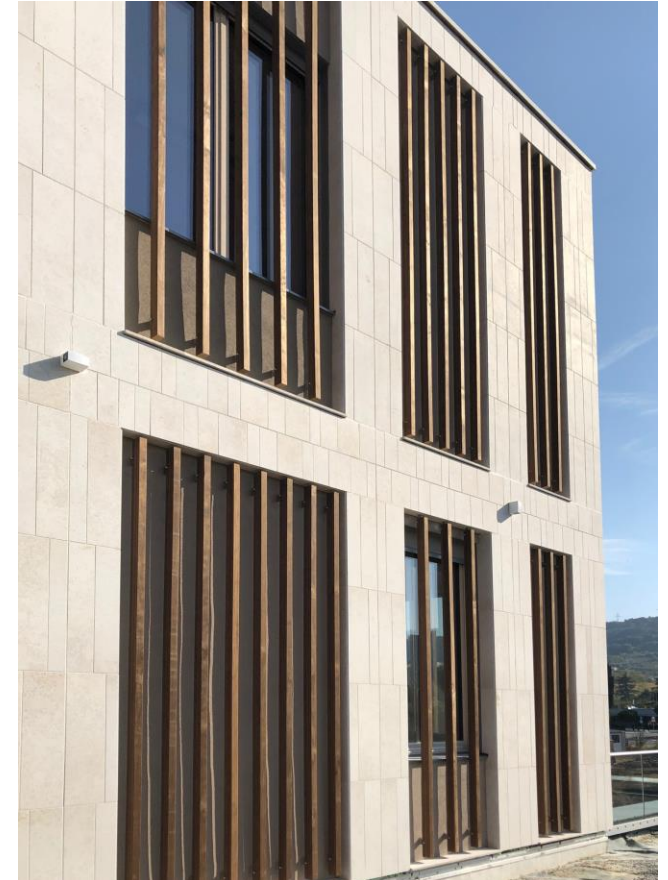
Consulting services (e.g. Horizon project proposal preparation; designing wooden buildings)

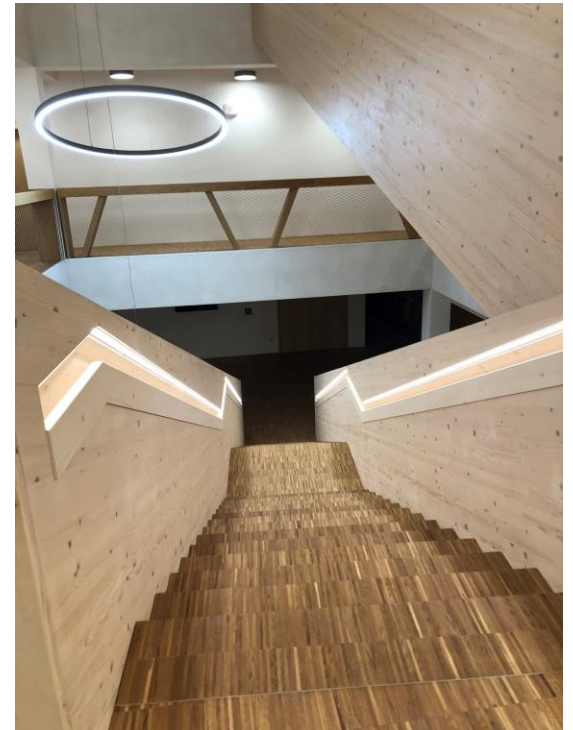
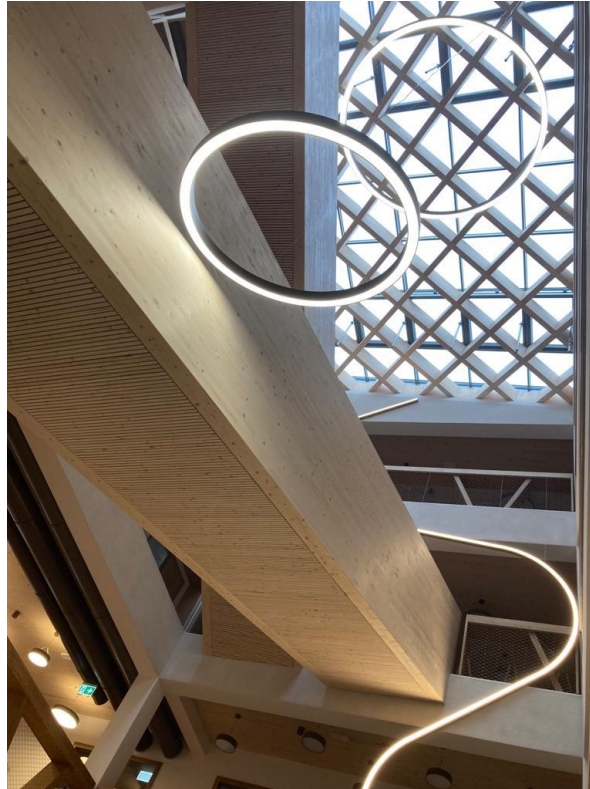
Characterisations of built environment (e.g. room acoustics)

Architectural design (e.g. Elementary school outdoor classroom; cultural heritage renovation)

Forensic examinations (e.g. Failures of wood structures or elements)

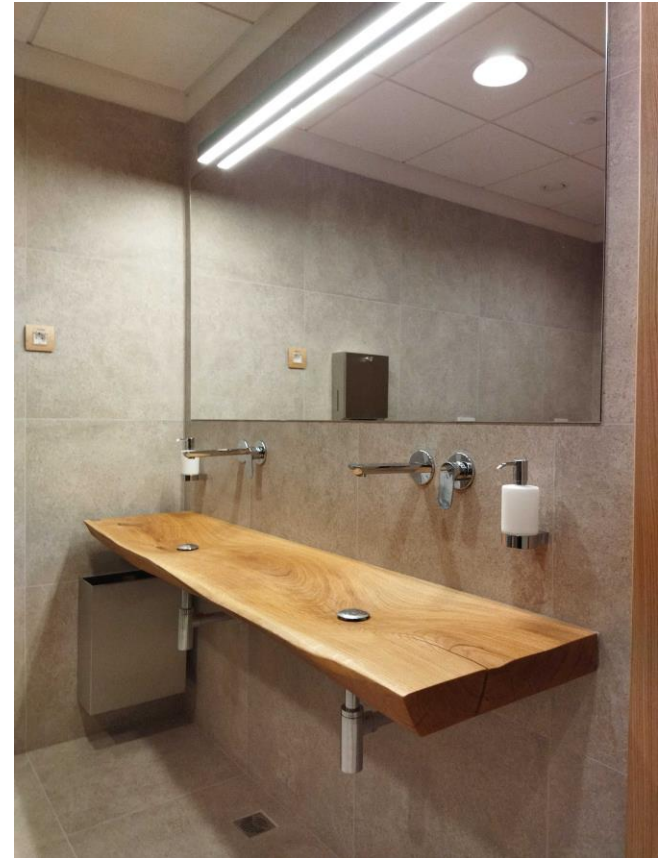








Kopalnice





InnoRenew CoE's building under construction

Flyover the new building:

https://youtu.be/VBUY_GCrnHM

The [#InnoRenew](#) CoE building integrates [#MoistureGuard](#) sensors to monitor the condition of the CLT panels.



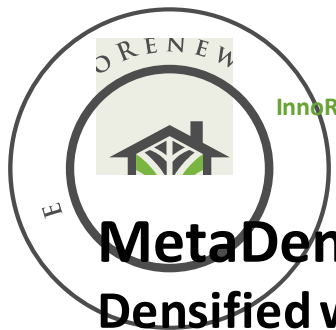


InnoRenew CoE

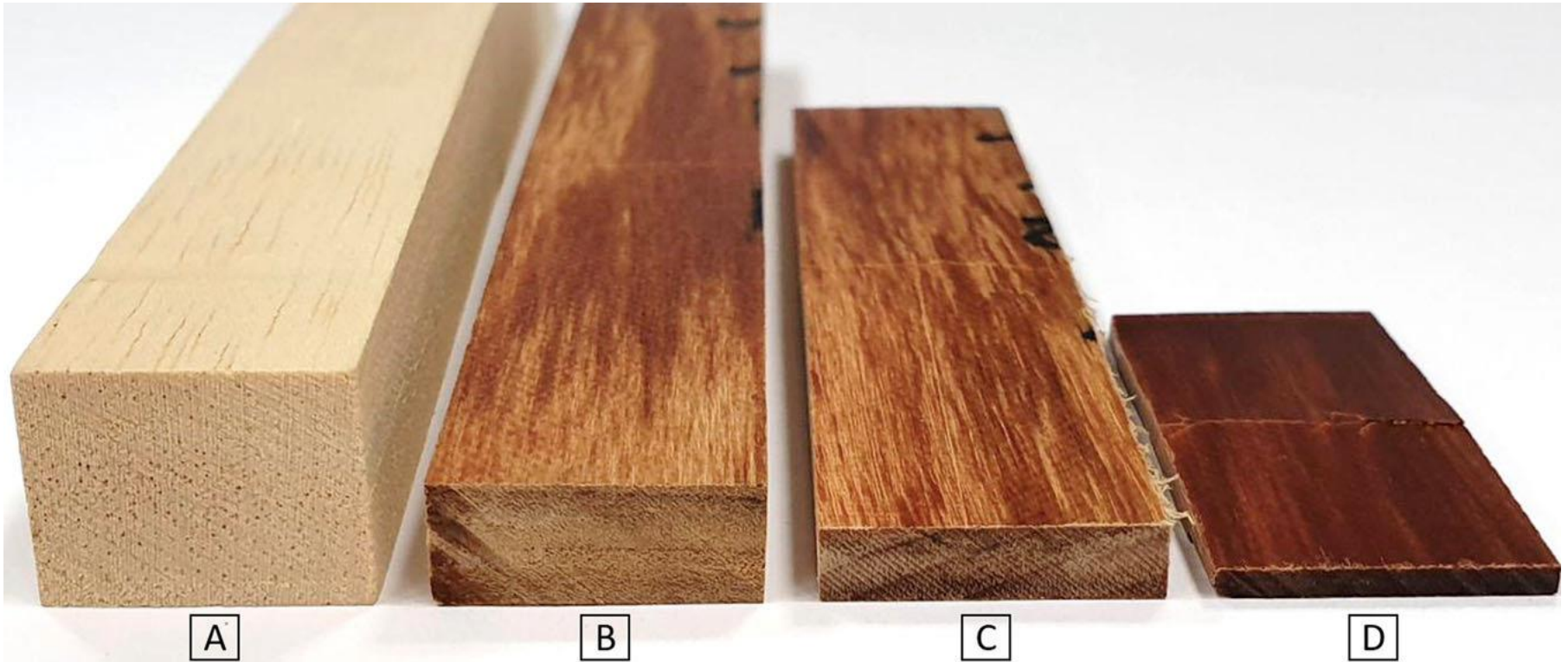
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Radiator grille from MetaDense in InnoRenew CoE building





MetaDense (European Patent EP19204677.9.) (joint venture of InnoRenew CoE & MetaDynea)
Densified wood impregnated with phenol resin for reduced set-recovery



Poplar specimens: (A) un-densified 15 mm thickness, (B) densified to 7 mm, (C) densified to 5 mm, and (D) densified to 2 mm.



InnoRenew CoE partner of the New European Bauhaus



New European Bauhaus
beautiful | sustainable | together



Key to success of InnoRenew CoE

- Autonomy
- Actions towards sustainability
- Human resources (Excellent staff bring excellent results)
- High internationality in staff
- High engagement in international associations
- Trust
- Involvement of management of advanced partner and coordinator



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Key to success – educational programs for digital society

Involve the society – be close to society

Study programs fit to digital society:

Sustainable Built Environments

MSc at UP from 2016/2017

Renewable Materials for Healthy Built Environments

PhD at UP from 2020/2021

Data Science

MSc at UP from 2019/2020





InnoRenew CoE is hosting Woodrise 2022

WOODRISE 2022
TECHNICAL CONFERENCES AND TOURS



6-7
September 2022

Congress Center
Bernardin Portorož,
Slovenia

<https://woodrise2022.eu/>





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REPUBLIC OF SLOVENIA
MINISTRY OF EDUCATION,
SCIENCE AND SPORT



Občina · Comune di
IZOLA · ISOLA



EUROPEAN UNION
EUROPEAN REGIONAL
DEVELOPMENT FUND



Thank you

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