

# Excellence in sustainable building research. The case of the InnoRenew Centre of Excellence

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University of Primorska - Koper, Slovenia, [upr.si](http://upr.si)



# What is InnoRenew?

## The **InnoRenew CoE**:

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- Independent, not-for-profit
- Research institute
- Ongoing
- Founded Feb. 2017 by

## The **InnoRenew Project**:

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- H2020 Teaming Project
- 5-year duration
- EU & National funding
- 9 Slovenian partners
- 1 German partner
- April 2017 – April 2023
- Coordinated by University of Primorska

# The InnoRenew Project

## H2020 Funding

- Widespread-Teaming (15 million, 10 projects, 2 stage)
  - Support "low-performing" states
  - Decrease RDI, economic, H2020 participation disparities
  - Team with advanced partner (Fraunhofer WKI)
  - 2-stage process – planning vs. implementation

## National funding (30 million, 1 project)

- Alignment with Slovenia's smart specialisation strategy
- Only for infrastructure (new building, equipment)



# The InnoRenew Project

University of Primorska (coordinator),

Fraunhofer WKI (advanced partner),

ZVKDS, ZAG, UM, ICP, NIJZ, RRALUR, Zavod e-Oblak,

& **the InnoRenew CoE**



# The InnoRenew CoE

New research institute founded by:



ZAVOD ZA  
GRADBENIŠTVO  
SLOVENIJE

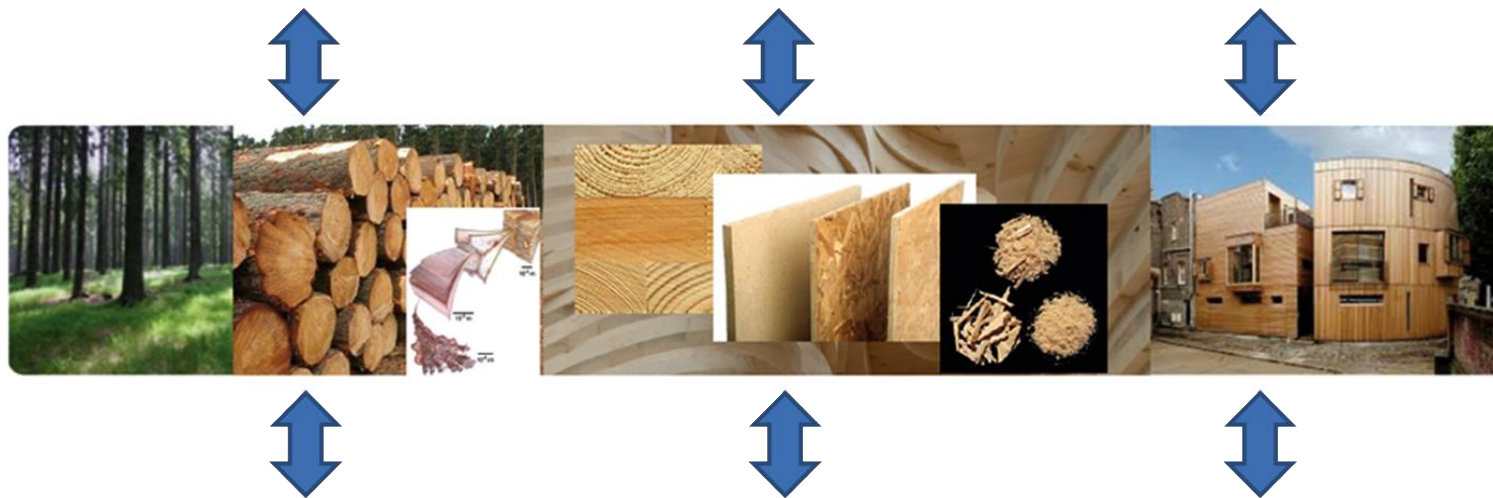
SLOVENIAN  
NATIONAL BUILDING  
AND CIVIL ENGINEERING  
INSTITUTE

Zavod za varstvo  
kulturne dediščine Slovenije  
*Institute for the Protection of  
Cultural Heritage of Slovenia*

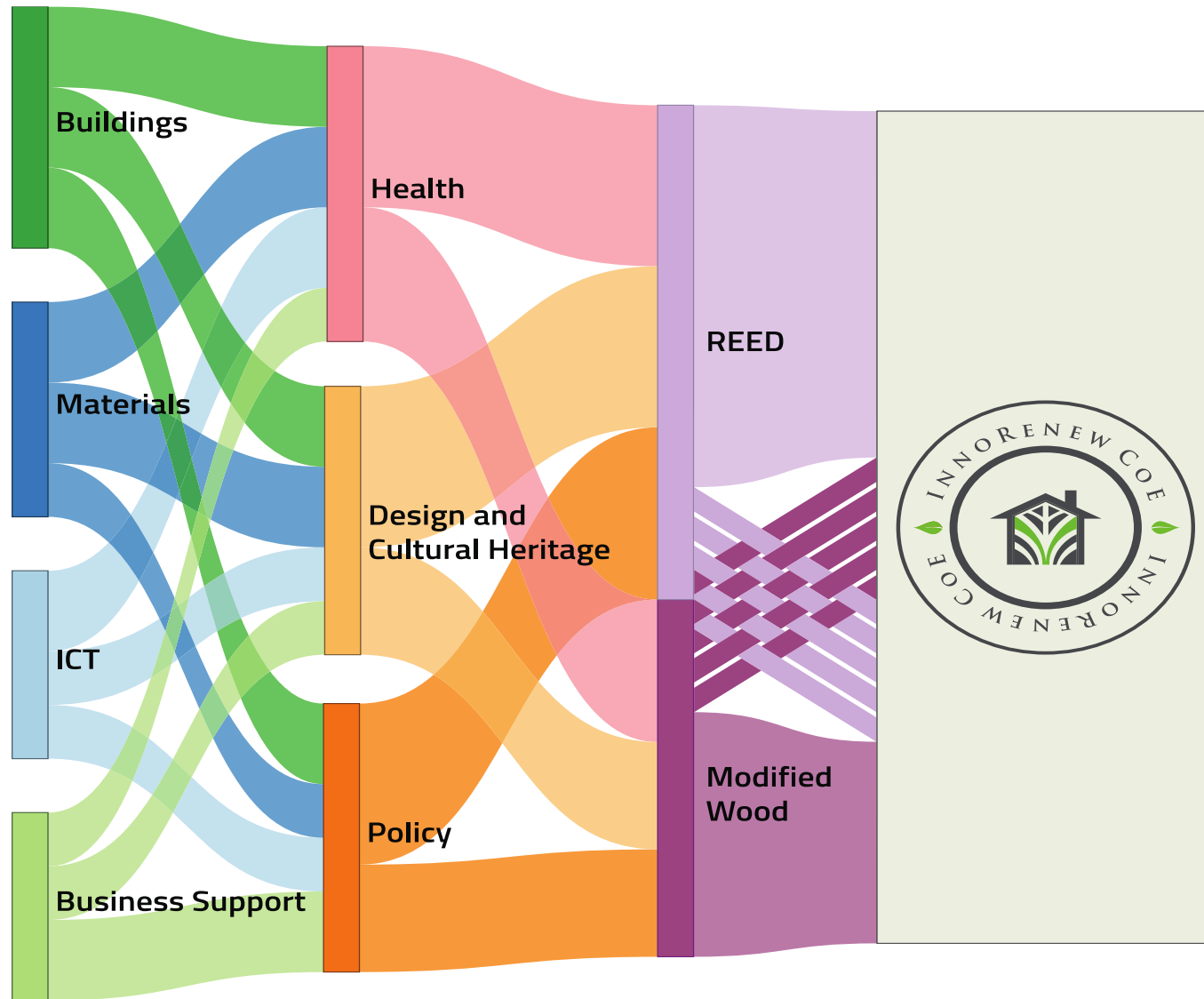


# Our purpose

- The InnoRenew CoE will bridge the gap between the industrial sector and RDI to **strengthen competitiveness** and **restore performance** in the sector.



# Research areas



# Research areas

## Two main research themes

- Wood modification
- Restorative environmental & ergonomic design (REED)

## Research groups

- Wood modification
- Human health
- ICT
- Sustainable Building
- RM Composites

# Wood modification

Environmental impacts of modification processes need to be balanced against benefits such as: service life extension, functionalisation, reduced maintenance, suitability for upcycling, reuse, material cascading, and final disposal with recovery of the intrinsic solar energy stored in the material



# REED

REED is a sustainable building paradigm that **creates positive impacts** for building users, the environment, and society.

Focus on **restorative processes.**



# Current research projects

Fire effluents

Ergonomic furniture

Open innovation

Phase change materials

NCC Foams

CLT Connectors

Formaldehyde free MDF

Extended BIMS

Storage materials



# Other research and facilities

- Wood science, broadly
- Business support
- Cultural heritage
- Design (building, community)
- Policy
- Other interesting topics!

New buildings in progress...

7 labs. 45+ researchers



# Research excellence

- Quality
- Relevance (industry, EU, national)
- Close relationship with industry
- Close relationship with public
- Integrated digital
- Train industry in business and innovation management

Open

Innovation  
Science  
To the world



# Research excellence

## Global Experts

Dr. Eric Hansen, USA  
Dr. Holger Miltz, Germany  
Dr. Callum Hill, UK  
Dr. Diego De Leo, IT/AUS  
  
+ 1 more (ICT)

## Council of Experts

Dr. Petr Hajek, Czech Republic  
Mr. Duncan Mayes, Finland  
Dr. Mariapaola Riggio, USA  
Dr. Peter Niemz, Switzerland  
Dr. Ritva Toivonen, Finland



# International & interdisciplinary team

Poland, USA, Belgium, Germany, Greece, UK, and Slovenia

Wood science, civil engineering, chemistry, mathematics, microbiology, economics, etc.

# Our team so far...



**We are hiring!** [innorenw.eu/jobs](https://innorenw.eu/jobs) | [coe@innorenw.eu](mailto:coe@innorenw.eu)

# Living Lab InnoRenew

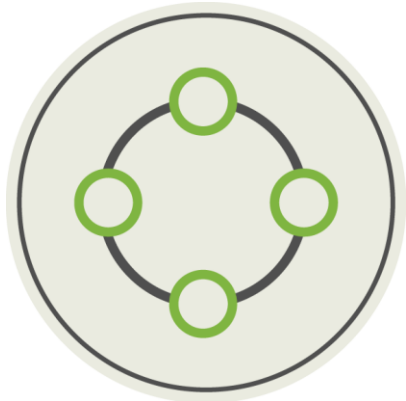
Structured engagement with other researchers, industry, policy makers, and the public



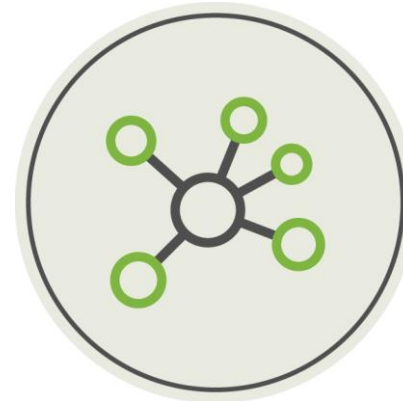
Idea generation  
& validation



Training &  
workshops

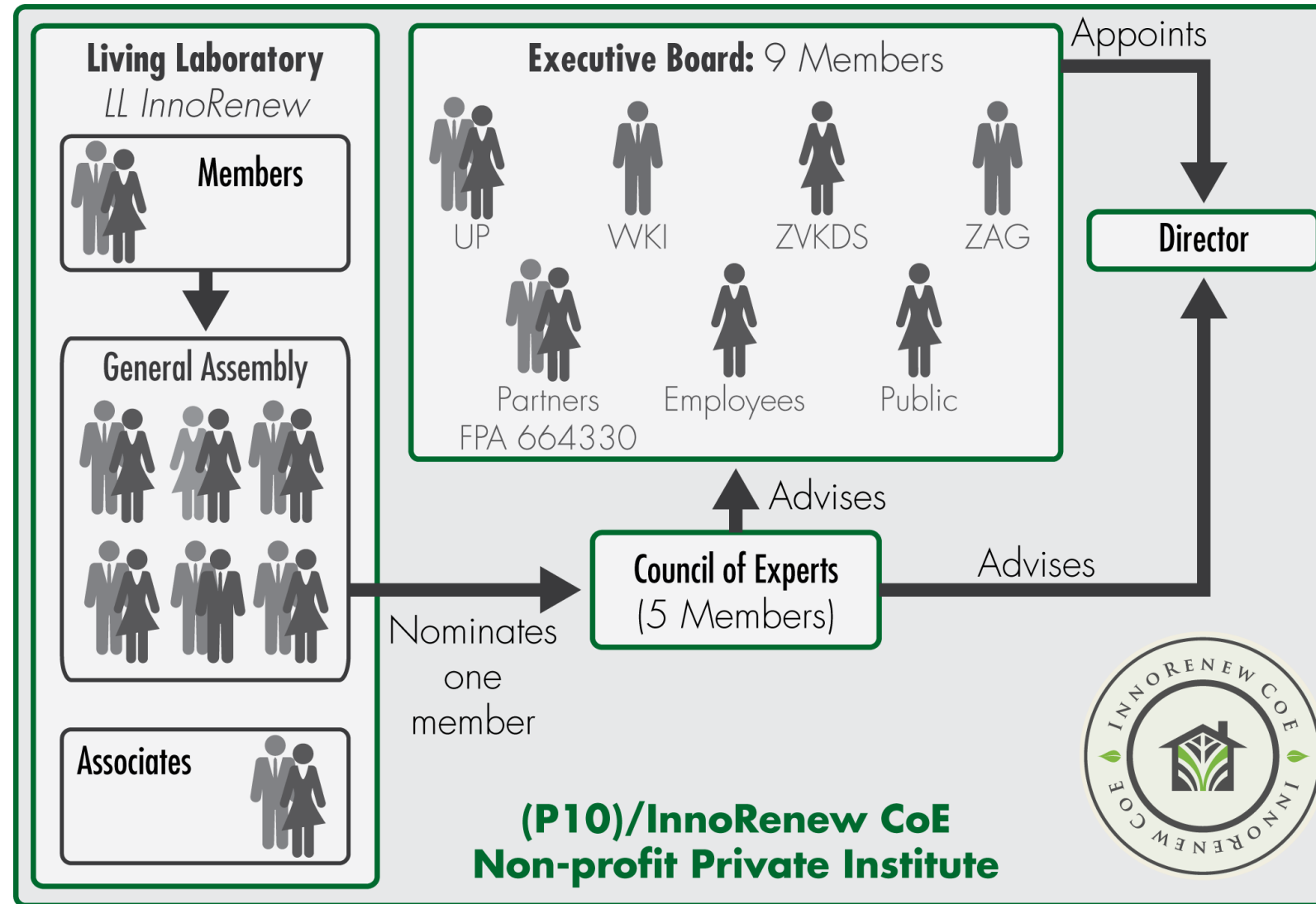


Collaboration &  
new value chains



International  
networking

# Living Lab InnoRenew



# Living Lab InnoRenew

70 members from 22 countries | <http://innorenew.eu/living-lab/>

## Living Lab Members

### By country

Austria

Belgium

Bosnia and Herzegovina

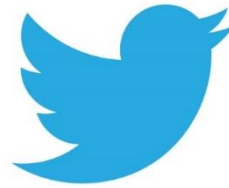
China

Croatia

			
 Regionalni razvojni center Koper Centro regionale di sviluppo Capodistria			
		 REPUBLIC OF SLOVENIA	

# Dissemination

- Communication with partners, stakeholders, public
- Promotion of science and business success



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

Open Innovation. Open Science. Open to the World.