Build-in-Wood | Innovative wood value chain for the construction of multi-storey wood buildings



Build-in-Wood strives to make wood a natural choice for the construction of multi-storey buildings. Early Adopter Cities take a leading role in the project, and their stories shall inspire cities around the world to rethink construction and social responsibility.

Objectives. To meet the global and European challenges of reducing the GHG emissions from the construction sector, *Build-in-Wood* will develop a sustainable and innovative wood value chain for the construction of multi-storey wood buildings. The ambition of the project is to make optimised and cost effective wood construction methods common practice in the European construction sector. The objectives include: 1) To make wood a natural choice of building material for the construction of multi-storey buildings, 2) To decrease GHG-emissions of the European building sector, 3) To establish an innovative and sustainable European value chain for multi-storey wood buildings, 4) To improve the connection between rural and urban areas and to contribute to sustainable urbanisation, 5) To increase productivity of the European building sector.

Build-in-Wood will address this challenge through innovative development of materials and components as well as structural systems and façade elements for multi-storey wood buildings fit for both new construction and retrofitting. Developments will be tested, piloted and fully documented for immediate market uptake. Active engagement of selected cities will strengthen the urban-rural connections. The project aims to lay the foundation for the solutions developed to be usable upon its completion for full scale construction projects.

What is an Early Adopter City?To understand and overcome individual barriers implementing *Build-in-Wood* solutions, seven very different European cities have been selected as Early Adopter Cities. They range from capital metropoles to mid-size and small mountain cities, making one thing clear: Any city can decide to build in wood and benefit from it. The Early Adopter Cities take a leading role in the project, receiving detailed context analyses, workshops and implementation support from the Consortium and Advisory Board. Their stories shall inspire cities around the world to rethink construction and social responsibility. They include: Brasov, Romania; Trento, Italy; Innsbruck, Austria; Copenhagen, Denmark; Trondheim, Norway; London, United Kingdom; Amsterdam, Netherlands.

Results, outcomes and impacts. 1) Optimised materials (resource-efficient, enhanced qualities), 2) Development of a structural, customisable building system platform as well as guidelines for incorporation of ICT tools in the design process, 3) Performance and environmental documentation of developed materials, systems and solutions (e.g. LCA, LCC, S-LCA), 4) Demonstration projects, 5) Stakeholder co-creation and scenario building workshops in selected European cities, 6) Training for entrepreneurs, SMEs and researchers, 7) An open source design guide (for private clients and local/ national authorities), 8) Overview and evaluation of relevant legislation, public regulations and standards, 9) Model for enhancement of rural-urban connection.

The project thus foster the following impacts: 1) Reduction of GHG emissions through increased use of the sustainable, resource- and energy-efficient material wood, 2) A rising demand for forest-based construction products will provide incentives for expanding and maintaining forests, 3) Creating economic opportunities and new ways of using wood and nature-based materials in construction sector, 4) Increase of innovation in the building industry (materials, building systems and processes), 5) Higher quality of buildings (including health and indoor climate, 6) Green and decent jobs in rural and urban areas through a sustainable wood value chain.

The *Build-in-Wood* consortium, coordinated by the Danish Technological Institute, consists of 21 partners from 11 different countries, covering the entire wood value chain from factory to final construction. This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no. 862820.

MAIS DETALHES

DESAFIO ABORDADO

6. Fomentar a bioeconomia baseada na floresta através do uso circular e de produtos de valor acrescentado

DOMíNIO

Industrias do sector florestal, bioeconomia circular

Industria da madeira para construção

Investigação e desenvilvimento

TIPO DE SOLUçãO

Redes, plataformas de teste, plataformas de desenvolvimento e investigação

PALAVRAS-CHAVE

wood construction; architecture; CLT

SOLUçãO DIGITAL

Não

INOVAçãO

Sim

PAíS DE ORIGEM

Alemanha

ESCALA DE APLICAçãO

Além fronteiras/ multilateral

ANO DE INíCIO E FIM

2019 - 2023

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REFERENCES AND RESOURCES

WEBSITE PRINCIPAL

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RECURSOS

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WEBSITE DO PROJETO

https://www.build-in-wood.eu/

REFERêNCIA AO PROJETO

Build-In-Wood, EC Horizon 2020, grant no. 862820, 2019-2023

LOGOTIPO DA BOA PRáTICA

LOGOTIPO DA ORGANIZAçãO PRINCIPAL

PROJETO NO âMBITO DO QUAL A FOLHA DE DIVULGAçãO FOI CRIADA

Rosewood 4.0

DATA DE ENTRADA

12 Ago 2021

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