

## **INVITATION WORKSHOP**

## Incseb project www.incseb.eu

The Incseb project has successfully developed five innovative ultra-low carbon building steel envelope systems thanks to the innovative use of wood fibre, a renewable and bio-sourced insulation material, while achieving a high level of thermal performance and ensuring compliance with other requirements such as mechanical, fire and acoustic.

#### Why participate in the Incseb project workshop?

- To discover a new family of steel envelope systems with wood fibre insulation
- To benefit from the results of a 3-year European research project that develops five innovative low-carbon solutions for steel envelopes with wood fibre insulation:
  - cladding sandwich panels with two steel facings and a wood fibre insulation core
  - pitch roofing sandwich panels with two steel facings and a wood fibre insulation core
  - · double skin cladding system with a wood fibre insulation material
  - facade cladding system made in cassette with a wood fibre insulation
  - flat roofing sandwich panel with two steel facings and a wood fibre core completed by a mineral wool insulation and a waterproof membrane
- To get test results and full system performances

# PRACTICAL INFORMATIONS

# WHO SHOULD ATTEND?

This workshop will be of interest to steel envelope manufacturers, installers, design offices, architects, project owners, students in metallic construction, international codification experts, researchers.

#### PARTICIPATION IS FREE BUT REGISTRATION IS MANDATORY

As the number of participants is limited, places will be allowed according to the registration date

# DOCUMENTS AND WORKSHOP DELIVERABLES

Power point presentation materials and all the technical documents will be made available to attendees.

**REGISTER HERE** 



The InCSEB project has received financial support from the European Community's Research Fund for Coal and Steel (RFCS) under grant agreement N° 101033984













## **PROGRAMME**

13.45-14.00	Registration
14.00-14.05	INTRODUCTION AND OVERVIEW OF THE INCSEB PROJECT  L'Enveloppe Métallique du Bâtiment
14.05-14.25	DESCRIPTION OF THE 5 INNOVATIVE STEEL ENVELOPE SYSTEMS WITH WOOD FIBRE INSULATION  Two prefabricated systems: cladding and pitch roofing sandwich panels with two steel facings and a wood fibre insulation core  Monopanel
	Three site-assembled systems using wood fibre insulation: double skin steel system and facade cladding system with cassettes and flat roof sandwich panel Joris Ide
	PERFORMANCE OF THE 5 INNOVATIVE STEEL ENVELOPE SYSTEMS
14.25-15.15	Static and dynamic mechanical performances Technical University of Darmstadt and Tecnalia
14.25-15.15	Building physic performances: thermal, air, water and vapour permeability, acoustic performances and fire performance Tecnalia and University of Coimbra
15.15-15.45	DURABILITY OF THE 5 SYSTEMS: LESSONS LEARNED FROM OBSERVING (OVER A PERIOD OF 2 YEARS) THE REAL BEHAVIOUR OF THE SYSTEMS INCORPORATED IN 2 DEMONSTRATORS AND CONSISTENCY WITH LABORATORY RESULTS
	University of Coimbra and Technical University of Darmstadt
15.45-16.00	Questions & Answers session
16.00 -16.30	© COFFEE BREAK
16.00 -16.30	COFFEE BREAK  LIFE CYCLE ASSESSMENT (LCA) FOR THE 5 INNOVATIVE STEEL ENVELOPE SYSTEMS L'Enveloppe Métallique du Bâtiment
	► LIFE CYCLE ASSESSMENT (LCA) FOR THE 5 INNOVATIVE STEEL ENVELOPE SYSTEMS
16.30-16.45	<ul> <li>▶ LIFE CYCLE ASSESSMENT (LCA) FOR THE 5 INNOVATIVE STEEL ENVELOPE SYSTEMS         L'Enveloppe Métallique du Bâtiment</li> <li>▶ DETERMINATION OF THE CARBON FOOTPRINT (GWP) BENEFITS OBTAINED AT A         BUILDING LEVEL</li> </ul>
16.30-16.45	<ul> <li>▶ LIFE CYCLE ASSESSMENT (LCA) FOR THE 5 INNOVATIVE STEEL ENVELOPE SYSTEMS L'Enveloppe Métallique du Bâtiment</li> <li>▶ DETERMINATION OF THE CARBON FOOTPRINT (GWP) BENEFITS OBTAINED AT A BUILDING LEVEL University of Coimbra</li> <li>▶ ECONOMIC ASSESSMENT FOR THE 5 INNOVATIVE STEEL ENVELOPE SYSTEMS L'Enveloppe Métallique du Bâtiment</li> <li>▶ TOOLS, GUIDES AND DATA FOR DESIGNING AND IMPLEMENTING THE 5 SYSTEMS § Design guides, installation guides and BIM objects for cladding and pitch roofing sandwich panels Monopanel</li> <li>Design guides, installation guides and BIM objects for double skin steel system, facade</li> </ul>
16.30-16.45 16.45-17.00 17.00-17.10	<ul> <li>▶ LIFE CYCLE ASSESSMENT (LCA) FOR THE 5 INNOVATIVE STEEL ENVELOPE SYSTEMS L'Enveloppe Métallique du Bâtiment</li> <li>▶ DETERMINATION OF THE CARBON FOOTPRINT (GWP) BENEFITS OBTAINED AT A BUILDING LEVEL University of Coimbra</li> <li>▶ ECONOMIC ASSESSMENT FOR THE 5 INNOVATIVE STEEL ENVELOPE SYSTEMS L'Enveloppe Métallique du Bâtiment</li> <li>▶ TOOLS, GUIDES AND DATA FOR DESIGNING AND IMPLEMENTING THE 5 SYSTEMS § Design guides, installation guides and BIM objects for cladding and pitch roofing sandwich panels Monopanel Design guides, installation guides and BIM objects for double skin steel system, facade cladding system with cassettes and flat roof sandwich panels Joris Ide</li> </ul>
16.30-16.45 16.45-17.00 17.00-17.10	<ul> <li>▶ LIFE CYCLE ASSESSMENT (LCA) FOR THE 5 INNOVATIVE STEEL ENVELOPE SYSTEMS L'Enveloppe Métallique du Bâtiment</li> <li>▶ DETERMINATION OF THE CARBON FOOTPRINT (GWP) BENEFITS OBTAINED AT A BUILDING LEVEL University of Coimbra</li> <li>▶ ECONOMIC ASSESSMENT FOR THE 5 INNOVATIVE STEEL ENVELOPE SYSTEMS L'Enveloppe Métallique du Bâtiment</li> <li>▶ TOOLS, GUIDES AND DATA FOR DESIGNING AND IMPLEMENTING THE 5 SYSTEMS § Design guides, installation guides and BIM objects for cladding and pitch roofing sandwich panels Monopanel Design guides, installation guides and BIM objects for double skin steel system, facade cladding system with cassettes and flat roof sandwich panels</li> </ul>
16.30-16.45 16.45-17.00 17.00-17.10	<ul> <li>▶ LIFE CYCLE ASSESSMENT (LCA) FOR THE 5 INNOVATIVE STEEL ENVELOPE SYSTEMS L'Enveloppe Métallique du Bâtiment</li> <li>▶ DETERMINATION OF THE CARBON FOOTPRINT (GWP) BENEFITS OBTAINED AT A BUILDING LEVEL University of Coimbra</li> <li>▶ ECONOMIC ASSESSMENT FOR THE 5 INNOVATIVE STEEL ENVELOPE SYSTEMS L'Enveloppe Métallique du Bâtiment</li> <li>▶ TOOLS, GUIDES AND DATA FOR DESIGNING AND IMPLEMENTING THE 5 SYSTEMS § Design guides, installation guides and BIM objects for cladding and pitch roofing sandwich panels Monopanel Design guides, installation guides and BIM objects for double skin steel system, facade cladding system with cassettes and flat roof sandwich panels Joris Ide</li> </ul>