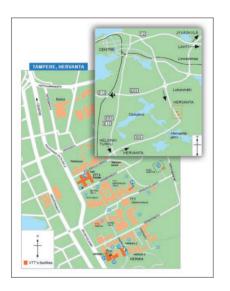
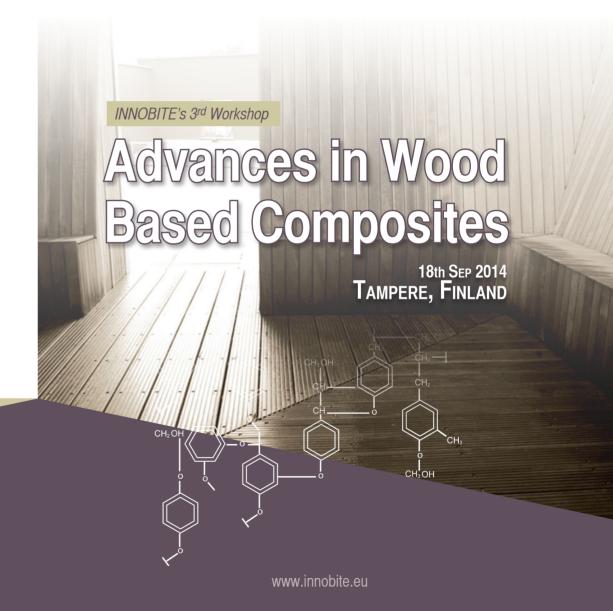


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technological development and demonstration under
grant agreement No 308.465







#### INNOBITE's 3rd WORKSHOP LOCATION

Tekniikankatu 1, (Hervanta)

Tampere, Finland

#### **GENERAL INFORMATION**

Costs The event is sponsored by VTT and is

Contact heidi.peltola@vtt.fi

# **INNOBITE**'s 3<sup>rd</sup> Workshop

The INNOBITE project's "Advances in wood based composites" Workshop disseminates the potential of wood based thermoplastic biocomposites in the construction sector, focusing on existing and emerging materials, markets and exploitation possibilities. The whole INNOBTE project (www.innobite.eu) is framed under the European initiative to build up sustainable production and consumption patterns where the efficiency of natural resources is taken to its maximum.

## Waste valorisation and INNOBITE

Current unused by-products and wastes from various bio-based sources amount to a total of 2.8 bn tons/year in the EU. With the aim of better **valorisation of urban and agricultural residues**, the INNO-BITE project is currently developing a **new generation of bio-based materials and composites**, allowing for the production of better-performing components for applications in the construction sector.

One of the main objects of the INNOBITE project is "to develop and integrate a biorefinery process that is an environmentally acceptable method for the effective extraction of the inorganic fraction of wheat straw". In addition to the inorganic fraction (mainly silica), the biorefinery process will also provide cellulose and lignin. At the same time, the INNOBITE project is "developing a method for the production of microfibrillated cellulose (MFC) out of recycled paper that balances, from the ecologic point of view, the environmental impact of the recycling stage and the energy required for MFC production". The obtained fractions can be used to produce lignin based thermosetting resin, lignin-based thermoplastic resin, silica, MFC and cellulose biocomposites, which in turn can be used in the production of decking or fencing profiles and indoor panels.

### Wood based composites and INNOBITE

Objectives of the INNOBITE project include the development of biocomposites based on thermoplastic lignin resin incorporated with silica, MFC or cellulose fibres, all derived from urban and agricultural residues. The project will result in >95 wt% bio-based origin and/or biodegradable decking or fencing profiles with required technical specifications and improved material properties. Thus, the INNOBITE project gives a boost for wood based composite products towardssustainability, reducedenergy costandwastegeneration, and new market possibilities. The Workshop will address market possibilities, sustainability aspects as well as the latest scientific developments of wood based composites.

Workshop Organizer: Heidi Peltola, VTT

Place & Date: VTT, Tekniikankatu 1, Tampere / 18th September 2014

Contact: heidi.peltola@vtt.fi / taina.toivonen@vtt.fi

Registration: www.lyyti.in/INNOBITE



















# Advances in Wood Based Composites 18th SEP Programme

9:30-10:00 Registration and Welcome

MORNING SE	SSION MATERIALS AND POSSIBILITIES	
10:00-10:25	Introduction INNOBITE project and the 3 <sup>rd</sup> Workshop	Alvaro Tejado (TECNALIA)
10:25-10:50	Natural fibre composites Introduction and the TUT perspective	Jyrki Vuorinen (TUT)
10:50-11:15	Wood fibre composite research Case studies from EC funded projects	Heidi Peltola (VTT)
11:15-11:40	Lignin-based thermoplastic materials Applications and new developments	Michael Schweizer (TECNARO)
11:40-12:00	Open discussion on the previous topics	
12:00-13:00	Lunch	

AFTERNOON S	SESSION PRODUCTS AND EXPLOITATION	V
13:00-13:25	Product carbon footprint and biocomposites  Towards greener products	Juhani Salovaara (SDKY)
13:25-13:50	WPC world market and exploitation possibil Past and future	ities Kirsi Immonen (VTT)
13:50-14:15	Multilayer extrusion Advantages and cost reduction	Markku Vilkki (Conenor)
14:15-14:40	Towards 100% bio-based buildings Biocomposites in construction	Jokin Hidalgo (TECNALIA)
14:40-14:50	Open discussion on the previous topics	
14:50-15:00	Closing of the Workshop	Alvaro Tejado (TECNALIA)



INVITED speaker (Gratefully Acknowledged)