#### Newsletter n. 5



### http://www.woodrub.com/

## **NEWSLETTER INDEX**



**LIFE 09+ENV/ES7454** 



**Key Data:** 

#### • Project:

WoodRuB: utilization of recovered wood and rubber for alternative composite Products

- Funding program: LIFE 09+ENV/ES/454
- Project budget:
   1.838.968 €
- $\bullet$  EC financial contribution: 918.192  $\varepsilon$
- Duration: 36 months (2010-2013)
- Participants:9 partners, 5 countries

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### **CONTACT INFO:**

woodrub@aidima.es Francesco.balducci@cosmob.it

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### INTRODUCTION





March 31st 2014 is the official end date of WoodRub: after three and a half years of fruitful collaboration among all partners involved, in fact, the project comes to the conclusion fully achieving the initially fixed aim, thus finding new solutions by recycling wood and rubber scraps. In this sense, several prototypes have been manufactured in a definitive way; then, according to the positive results obtained after many laboratory tests carried out by accredited facilities, it is possible to ensure their suitability for the market.

Moreover, considering the results obtained during the project, two international events were organized in order to put in evidence all the positive outocmes of WoodRub, whose description is reported in following paragraphs.

# FINAL IMPLEMENTATION OF WOODRUB PROTOTYPES 1) WOODRUB ACOUFRAME: Acoustic barrier on highways



The main function of this prototype is to absorb the road traffic noise: more in detail, Acouframe is an acoustic barrier to be positioned as separator between the highways and the closest residential areas with the aim of the reduction of the overall loudness.

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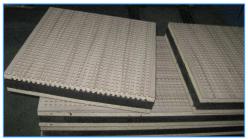


Generally, the barriers can reflect or absorb the sound: in this case, after several trials, the second option has seemed the most feasible and the prototype is then composed by one internal and absorptive rubber layer, as well as two external wood panels, one of which providing holes for the sound absorption.

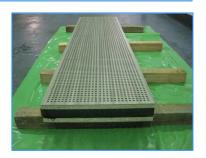
# 2) WOODRUB ACOUSAND: Acoustic panel for indoor and outdoor environment



Acousand is another application aimed at the sound absorption, with particular regard to the indoor environment (auditoriums, public places, etc.); it's important to say that it can be used even outdoor as temporary acoustic barrier, especially in proximity of working areas. According to the final destination (indoor or outdoor), the aesthetical properties, depending on the lamination of the wood panels, can vary. Under a functional point of view, the structure is approximately the same as Acouframe, with two wood layers including another one made with particles of tyre.







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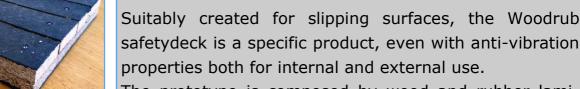


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# 3) WOODRUB SAFETYDECK: Anti-slip floors





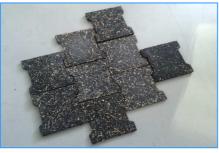


The prototype is composed by wood and rubber laminate boards: these latter face outward from the deck and they can be smooth or texturized to enhance traction. The base of the platform can also be layered with recycled rubber mat, which acts as an insulator from cold, warm or wet surfaces.

## 4) WOORDRUB PATHWAYS: External floorings



Pathways are useful elements for parks and garden with the main function of avoiding walks on grass or mood. More in detail, this particular type of external flooring can be suitable for barn stalls, corridors, wash bays, saddling areas, breeding sheds, paddock areas, horse paths, winners' circles, parade areas and service roads; many advantages are associated to this product: tiles for pathways, in fact, can be used several times and they represent a smooth and at the same time nonslippery surface.



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# 5) WOODRUB PLAYMAT: Playground





Woodrub playground, with its mixture of wood and rubber materials, represents a more economical playing surface for parks or school; under an aesthetical point of view it is very similar to conventional poured rubber surfaces, but its convenience is due to the presence of wood particles, generally cheaper than rubber. It's important to say that, even the composition may differs from common products already available on market, their functionality, in terms of prevention of injuries from falls, is guaranteed.

# 6) WOODRUB RURBAN: Benches, bins and flower pots



Another positive example of combined use of wood and rubber scraps is the realization of urban furniture: bins, flower pots and semi-sitting benches are three applicative solution for the employment of the above mentioned materials, whose particles, of several dimension, have been properly mixed in a special composite. Beyond the mechanical tests for the respect of safety requirements, this kind of products was subjected to other many trials in order to evaluate the resistance to atmospheric agents.

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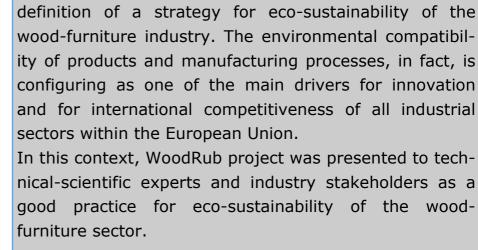
Thanks to the activity carried out during the project lifetime, it is now possible to realize internal partition walls with bricks obtained by mixing in a proper manner and within a gypsum matrix, textile fibers and particles of recycled wood and rubber, that represent the reinforcement component. The main advantage of this prototype, is the possibility to design bricks of different shapes and dimension mainly because of the useful presence of reinforcing material.

On November 7<sup>th</sup> 2013, In Pesaro, a symposium was or-

ganized in order to disseminate among operators all the results about the international initiatives aiming at the

# PROMOTIONAL EVENT: Zero Emission Furniture 3.0







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In conjunction with the trade fair held in Valencia last February, a conference was organized by the consortium to highlight the results of the project among all stakeholders, essentially representatives of the woodfurniture sector.

The fair in fact, one of the most important in Europe, brought together hundreds of people dealing with furniture; thus, the promotion of WoodRub has been an opportunity to discuss about critical aspects of the products during their whole life cycle, from the design to production, also considering their using time and their disposal.

The above mentioned sector, in fact, is particularly sensitive to this issue: its outputs have a significant influence over the citizens' lives, both at home and in the workplace, with a very important impact on the environmental quality.







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