New composite material promises to displace imports from outside Europe

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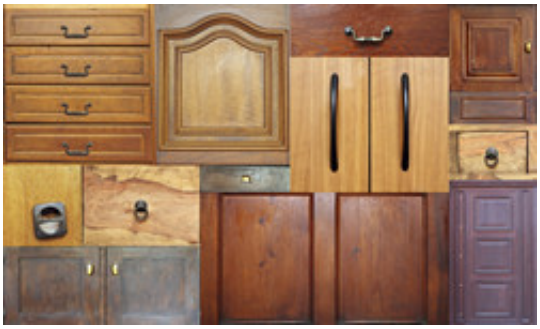

High-end furniture at low cost might soon become reality thanks to a new composite material developed under the LIMOWOOD project.

Most people have been faced with this dilemma at least once in their life: can I afford the luxury furniture for my new bathroom or kitchen, or should I be coming to terms with it and get the cheapest option at the expense of lifespan? The choice, which is already brain teasing at a personal level, is equally important for the future of the European economy. When choosing between high-end and low-end products, we are often deciding whether or not to support European manufacturers.

Aiming to fill this quality gap while providing the EU industry with the means to fight back against cheaper offerings, the EU-funded LIMOWOOD (Advanced wood plastic composite material for the

production of bath furniture resistant to moisture and free of coatings) project is stirring up the hornet's nest with a brand new composite material made of wood and plastics. The product, which has a large spectrum of applications in sectors ranging from furniture to the automotive industry, aims to provide an affordable solution to displace imports from outside Europe.

The new material displays higher mechanical resistance, increased resistance to moisture, full recyclability, zero VOC emissions and aesthetics as good as that of HPL for a production cost close to that of low-end MDF. Thanks to an EU patent, the team expects the product to generate some EUR 120 million of savings for the European industry while creating new jobs.

Oscar Valdemoros, coordinator of the LIMOWOOD project, discusses the consortium's achievements, the strengths of the new material and its future commercialisation.

Are you happy with your achievements under this project?

We actually achieved more than what we expected initially. We were only aiming to create a board made by extrusion, but we also managed to create the board by hot pressing, which extends the field of applications. We also reached our objectives in terms of price and quality.

So how does Limowood compare to other materials?

What we wanted was to compete with both low-end and high-end materials. Our material is very comparable to HPL in terms of high-end properties, with a price that is more similar to low-end MDF. Also, you can apply any finish on top, from natural wood to decorative films, so

it's a perfect substitution for what is currently available on the market. Before, there were other composites, but you could only use them for niche applications like fences, not for kitchens or bathrooms. We managed to fill this gap.

Does Limowood require much investment in tools and machinery?

This is the beauty of Limowood. Once you have the board, you don't need to invest in anything else. Limowood can be manufactured by both extrusion and hot pressing, using existing machinery, with the only limitation being related to panel size when it comes to extrusion.

Have some companies contacted you already?

Yes, we have had contacts with big manufacturers, even within the automotive industry, from Europe and overseas. Our dissemination activities, which include attendance at international fairs, have been very successful so far.

When do you hope to see your material being commercialised?

The prototypes are ready, we have invested in the manufacturing, so now we are very close to it. However, bringing such a product to market takes time and we have to sign agreements with various suppliers. I don't know if Limowood will be commercialised this year, but surely as soon as possible. We have a meeting next week with the partners and all these things will be discussed then.

What's your strategy to attract as many industries as

possible?

The first thing is to get certification for the different applications, and maybe adapt the formulation to the needs and requirements of markets such as the automotive and construction markets.

How does the material perform in terms of sustainability?

One of the objectives of the project was to use recycled materials as much as possible, with no VOC emissions, in order to comply with European legislation. Now 90 % of the materials used in the production of Limowood come from sustainable sources: the wood is from sustainable forests and we use recycled plastics.

One of your ambitions is to help displace imports. How so?

Limowood is very competitive with regards to price, while offering the same quality and behaviour of premium but usually expensive materials.

Will this technology be patented?

Yes, we are taking the necessary steps right now.

With the project now being completed, do you have any follow-up plans?

The follow-up plan is to start commercialising it as soon as possible. We may have to try taking things a bit further under Horizon 2020, but this hasn't been decided yet. We have been in touch with big European

companies which could handle the manufacturing so maybe we won't need EU funding anymore.

More information: For further information, please visit LIMOWOOD: www.limowoodcomposites.com/

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