Press release

Return to work – New ‘fungi acoustic panel system’ offers high-quality sustainable design solution for workspaces

Berlin/Milan, 15 July 2021 – Arup and Italian biodesign firm, Mogu, have launched one of the world’s first mycelium acoustic panel systems, providing companies with a more sustainable option for reconfiguring their workspaces for the post-pandemic world. As businesses prepare for employees to return to in-person working, the FORESTA system can help create high quality, creative working spaces. With many firms adopting a hybrid approach to working, splitting time between home and the workplace, office spaces need to be reconfigured to match the move to activity-based work, creating zones suited for creative co-working.

Biomaterials, such as the FORESTA system designed by Arup and Mogu, can help businesses sustainably reconfigure their workspaces for these new ways of collaboration, improving the experience and the acoustic quality. The system is a carbon store as the mycelium locks in the carbon from the natural substrates during its growth cycle. It also has a far less energy-intensive manufacturing process than traditional materials. Almost 40% of carbon emissions are created by buildings and construction* and there is a focus on looking at how materials such as mycelium, timber and other natural products can be used to move away from traditional materials such as plastics, metal and concrete.

The industry also contributes to around 40% of the world’s total waste** and with many commercial buildings and hospitality premises being refitted approximately every five years, replacing the interiors is particularly wasteful. The panels are made almost entirely from natural materials and are fully biodegradable, while the

supportive timber framing can be reused, reducing the waste produced both by individual businesses and by the construction industry.

The FORESTA system has been designed to help businesses move to a circular economy, away from the "take-make-waste" system. The panels are made of acoustic modules consisting of the vegetative tissue of fungus cultivated using agricultural residues from the textile industry – supported by a framing of regional beech wood. These mushroom cultures combine and interlink with the natural fibres, and after a final heat treatment, create a new, durable bio-composite material with proven sound-absorbing properties. The final bio-composite material contains no spores, supporting healthy and safe environments. Businesses will be able to customise the panels by colour and texture, thanks to their modular design.

Jan Wurm, Arup Research & Innovation Europe Leader, said: "In the built environment, we need to be working with nature, not against it. The FORESTA system supports businesses to transition towards a circular economy and away from the "take-make-waste" way of operating. This system enables the sustainable reconfiguring of offices to become beautiful collaborative and performative workspaces. Crucially, it also helps show a way forward in the move towards using more sustainable materials in the construction industry, a sector which is a major contributor to global CO2 emissions, and which urgently needs to change."

Serena Camere, Head of Products at Mogu, remarks: "We are proud to present the FORESTA system, stemming from a long-term research collaboration with Arup. The product takes another step forward in our mission of bringing nature back into everyday living environments - combining the radically different aesthetics of Mogu acoustic panels with the warmth of a material, wood, that accompanies mankind from the start. It is a beautifully designed and rational system, which largely simplifies the installation of mycelium-based acoustic panels. Its modularity and design flexibility - with the extra added value of a variety of colours to choose from – make it an amazing product to support every interior design project, and particularly the design of future office spaces."

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Notes to editor:

References:

* Reference: UN Environment Programme Report

**Reference: World Business Council for Sustainable Development

Key features of the FORESTA system:

- Sound absorbing
- 100% biobased and biodegradable
- VOC free
- Modular & colourful design

About Arup:

Arup is the creative force at the heart of many of the world's most prominent projects in the built environment and across industry. Working in more than 140 countries, the firm's designers, engineers, architects, planners, consultants and technical specialists work with our clients on innovative projects of the highest quality and impact.

www.arup.com

About Mogu:

MOGU is an innovation-driven, environmentally conscious company, dedicated to developing and scaling-up a range of mycelium-based technologies for the production of naturally-grown biomaterials and products. MOGU's composite materials are obtained from organic fibres (by-products of agro-industrial value chains) bond together by selected fungal mycelium, a bio-polymer constituting the 'root-structure' of mushrooms. MOGU is currently developing mycelium-based technologies to create a family of sustainable and innovative products for interior design, following the principles of Circular Economy.

www.mogu.bio

Images

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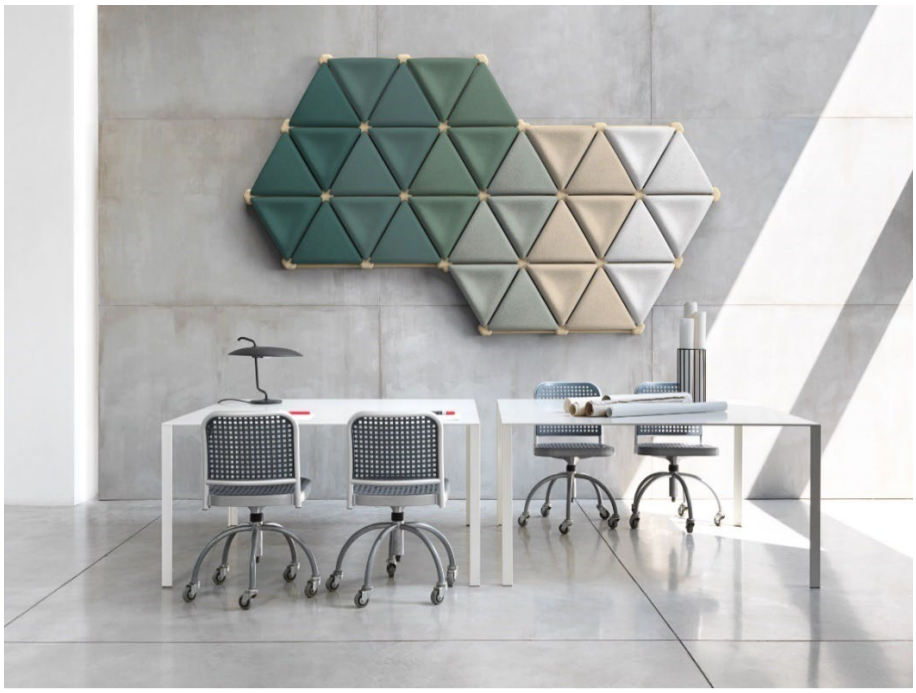

FORESTA brings a piece of nature into the office space. The mycelium-based acoustic panel system was developed according to the principles of the circular economy.

The modular FORESTA acoustic panel system combines high functionality with natural aesthetics.

FORESTA is available in a variety of natural colours, geometries and textures that make it easy to match any décor.

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