



Welcome to the Neverwaste™ world

Frequently Asked Questions

- How is it possible to make a high-quality panel from waste cardboard?
- How will Neverwaste™ make a difference and who benefits from it?
- Where will all the waste cardboard feedstock come from?
- What products can be made from Neverwaste™?
- What happens to the products at end of use?
- How green is the production process?
- How much Neverwaste™ will be manufactured?
- Who are the founders and investors in Neverwaste™?

About Neverwaste™

The world's first high performance mass production panel board made entirely from waste.

- Neverwaste™ is the first product from Unwasted Limited, a fast-growing company focused on technology-led solutions that re-think how we use waste to contribute to addressing our climate emergency.
- The company has closed a further multi-million-pound funding round as part of its global commercialisation programme, to enable the business to scale rapidly around the world, starting with a full-scale plant in Denmark, the first of a multi-factory global network. This builds on existing investment by the founders, UK private investors, and the UK Government Future Fund.
- A pilot manufacturing plant in Deeside, North Wales (UK) has been constructed to produce Neverwaste™ in order to validate the technology and the market – for multi-purpose use across leading manufacturers of furniture, flooring, doors, kitchens, and interior construction products.

For further information contact:

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Frequently Asked Questions

1 - How is it possible to make a high-quality panel from cardboard waste?

- Our global mission is to produce a healthy alternative to wood-based panels which can be re-made indefinitely without harm to the environment – and in the process reduce waste and the needless felling of virgin timber.
- Neverwaste™ is a patented material made entirely from vast quantities of waste cardboard and packaging that would otherwise be burned or landfilled.
- Through our patented process, unrefined fibres are bonded by high-strength refined and modified fibril bundles through a mechanical manipulation using specialist refiners, after contaminants are removed from the feedstock of post-consumer and post-industrial waste. The unique fibre mix is fed in layers on to a continuous forming table before entering a continuous pressing and drying cycle. The finishing step cuts and prepares boards for our customers who manufacture and sell their products to their customers with the assurance that Neverwaste™ can be returned to our factory at end of life for re-manufacture.
- By refining and modifying the fibres of manmade cardboard derived from virgin and recycled timber, we are focusing on the importance of cellulose fibre in the materials we use, and its inherent re-usability. We do not use glues, resins or toxic chemicals in the production of a premium-specification material, ensuring we are guided by sustainability goals and green credentials at every step of our process.

2 - What products can be made from Neverwaste™?

- As a sustainable and high-performing panel board with a flat and smooth surface, Neverwaste™ is also highly versatile. It can be used in offices, shops, exhibition halls, homes and other interior spaces.
- It is particularly well suited to flooring, joinery, furniture, kitchens, exhibitions and retail fit-out, as well as pre-fabricated pods and rooms.
- These boards can be machined using all standard methods and are heat and water resistant.
- Unlike other construction boards, they also have the critical advantage of being able to be remade into new material at end of life instead of being burned or landfilled.

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3 - How will Neverwaste™ make a difference and who benefits from it?

- Neverwaste™ is a high-performance panel board designed for the new sustainable world we need to build, helping to slow climate change by preventing the destruction of millions of trees to make products with short lifespans.
- It borrows from nature's deep design model: working on behalf of future generations by creating regenerative ecosystems where nothing is wasted. Neverwaste™ transforms waste cardboard and packaging into high value products in a pure circular economy process.
- Large scale manufacturing sites provide customers with a real alternative to conventional panel boards made from highly extractive and toxic materials. The product addresses the high carbon footprint of design and construction of the built environment as well as a solution to the growing generation of waste on the planet. It is a product that plays an enabling role in the creation of a sustainably built environment.
- One Neverwaste™ plant converts 140,000 tonnes of waste cardboard into 160,000 m3 of panel boards every year, saving approximately 170,000 trees and 150 tonnes of CO². In addition, by locating our factories in green energy parks, local communities will be able to responsibly process their packaging waste, benefit from investment in renewable energy sources and job creation in the circular economy.
- Everyone deserves the right to prosper on our planet, to breathe clean air and enjoy beautiful new things. We are all consumers, and can also all act in a restorative way. As a company, Unwasted is at the forefront of enabling this shift.

4 - How green is the production process?

- Our factories use 100% renewable energy and we only consider locations that can provide this resource.
- Our first full-scale factory will be based at the Greenlab site in Skive, Denmark. This renewable energy zone provides us with wholly renewable energy from solar, wind and green hydrogen and providing ample power, steam and water for our manufacturing process. In addition the water required by our process is on a closed loop system.
- Unwasted engineers and process chemists are also designing feedstock equipment capable of binding other waste fibre sources in a similar toxin-free process thereby providing flexibility,



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5 - Where will all the waste cardboard feedstock come from?

- Today's average household throws away 13,000 separate pieces of cardboard every year. Cardboard and paper make up 41% of the solid waste stream worldwide. By making this our feedstock, we are addressing a significant environmental challenge.
- Bales of waste cardboard, and potentially other waste packaging materials, are sourced primarily from the communities that are local to our factories. This ensures we encourage circularity and sustainable practices where we are based. The decision to locate a future factory in a specific location will be informed by partners and available data on access to feedstock and renewable energy locally.
- By partnering with waste producers and manufacturers directly, we minimise the carbon footprint of feedstock transport.

6 - What happens to the products at end of use?

- Neverwaste™ is made from waste but will never become waste again. At the end of their current use, items made from Neverwaste™ are returned to our factory, re-pulped and re-manufactured into new boards. With cellulose at the heart of the material, and no additional products involved in turning the pulped fibres into boards, end of use products become new feedstock, manufactured into new boards over and over again.
- A global network of factories will enable our customers in many locations to benefit from our take-back guarantee. We provide them with a solution to reduce their waste and demonstrate responsible action at the end of a product's use.
- Every Neverwaste™ factory is a micro-world of regeneration and restoration, inspired by the fact that just about everything human beings will ever need can be beautifully made from the raw materials already in circulation on our planet.

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7- How much Neverwaste™ will be manufactured?

- The first full-scale factory at the Greenlab site in Denmark will produce 160,000 cubic metres of high-performance panel boards for the furniture and construction industries. This volume is largely committed to initial customers who are waiting for our product to be available.
- This first factory is the start of a global network. Our goal is to provide our product at scale, close to where it is needed, and our processes are designed to enable this. Future locations currently in planning include Norway, France, Poland, the UK, Australia and the US.
- Manufacturing volume growth is also supported by our take-back and remake guarantee, ensuring that we have increased access to feedstock from these sources, in addition to our main feedstock of consumer and commercial waste packaging.

8 - Who are the founders and investors in Neverwaste™ ?

- Neverwaste™ is owned by Unwasted Limited, a company founded by Rod and Mary Fountain in 2018, together with industry supporters, early adopters and first investors. Their mission has not changed: to reduce the environmental impact of waste by transforming it into high performance materials with an endless life-cycle.
- The founding and management team leading Unwasted combines entrepreneurial leadership, market-leading technical knowledge of the relevant production processes, major large scale industrial operations management, expertise in renewable energy sources, and executive level international sales experience.
- Investment to date comes from the founders, seed investors and the UK Government Future Fund, as well as a consortium of Danish industrialists. The latter has consolidated a partnership that will see the first full-scale plant located at the Greenlab site in Denmark. It also reinforces the senior management team with further entrepreneurial and green transition leadership, and deepens the company's connections and access to the first full-scale manufacturing location.
- This multi-disciplinary background, together with an ability to mobilise global collaborative networks at speed, has taken the concept behind Unwasted to the current production launch and scale-up strategy. In addition to seed finance and private equity, the company plans to raise further equity and debt in 2022.