



**Venture - MarinaTex**

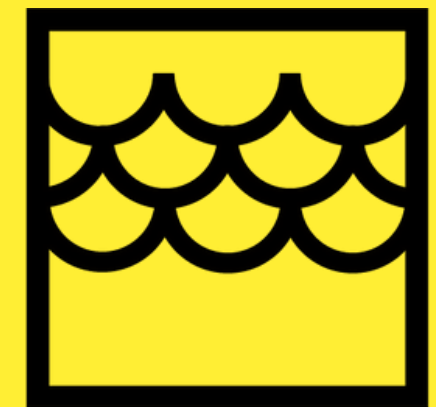
**Institution -** University of Sussex

**Social science discipline -** Product Design

**Sector -** Environment

**Route-to-market -** Start-up

**A planet-friendly  
alternative to plastic  
film packaging**



**MARINATEX**

# Lucy Hughes

**Role -** Founder

**Degree -** Product Design BSc, Engineering, Informatics and Design School, The University of Sussex, 2019

Studying Product Design, Lucy developed an interest in utilising waste products and looking to nature for inspiration.

**Website -** [www.marinatex.co.uk](http://www.marinatex.co.uk)

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**A start-up that is using fish waste products to develop a single use plastic, helping society change its behaviours**



By 2050 it is anticipated that there will be more plastic in the ocean than fish by weight. A product's life cycle ends when the packaging materials are disposed of. Most products have been designed with the aim of high function and form. However, the product's footprint has often been an afterthought. Pollution is a social issue caused by human behaviour and has a negative impact on the environment and society, including damage to the environment and an increase in disease and long-term ill health in society.







MarinaTex is an early stage start-up developing a new compostable material using fish waste and marine algae. The 100% organic material is designed to provide a planet conscious alternative to single use packaging film and has potential for use in a wide range of packaging including bioplastic bags and sandwich packaging. Whilst MarinaTex feels a lot like plastic, it is stronger and more sustainable, making it an attractive home compostable alternative.

Studying Product Design at the University of Sussex, founder and British designer Lucy Hughes developed an interest in utilising waste products and looked to nature for inspiration. As part of her final year project, she wanted to create a product which would have a positive impact on the planet, reduce the current waste problem and inspire people to be more socially responsible with regards to their consumer behaviour, including making them think about the products they use, and their impact on the environment. Discovering that 50 million tonnes of fish waste is created annually by the global fishing industry and that the strength of fish waste can be used as a potential plastic alternative, sparked Lucy's idea for MarinaTex. The product will also give retailers the opportunity to change their existing manufacturing behaviours around plastic and play an important part in the circular economy, thinking about a longer-term future proof economic model, rather than a short-term low-cost win. The circular economy model is instilled with social science concepts, which has the potential for significant social impact, bridging the gap between consumer behaviours, business and the planet.

**At the heart of the start-up is Lucy's Product Design studies, where the programme's aims are to develop a new generation of multidisciplinary makers and creative practitioners, who create products which will deliver positive social impact, solve real-world challenges and creatively shift society towards a more sustainable future. MarinaTex is committed to material innovation and selection by incorporating sustainable, circular economy values into design, by designing out waste as much as possible in a product. Highlighting the importance of waste in the brief of the product will have a positive impact on social behaviour and the environment.**

# THE I M P A C T

Lucy won the 2019 James Dyson Award, which is open to student inventors with the ability and ambition to solve the problems of tomorrow. Lucy beat designers from 27 other countries to take the international prize, winning £30,000 towards the development of the start-up and the product, including the designing and testing of the material.



MarinaTex featured in a World Economic Forum video, with over 9.2million views, raising awareness on a global level.



There is high demand for the sustainable products with several conversations with retailers interested in trialling the products. The fashion industry creates 180 billion poly bags a year – replacing just 3% with MarinaTex products will have a phenomenal impact on the environment.



The start-up is inspiring students to do more sustainable design on their course, demonstrating that you don't need to be a scientist to design sustainable products.



MarinaTex was selected as one of the 2020 Beazley Designs of the Year and is currently on exhibition in the London Design Museum.



The product won a D&AD Wooden Pencil for Future Impact in 2020. These awards celebrate creative and craft excellence in design and advertising.

# The start-up journey

Previously, Lucy had no experience of starting a business and credits the mentorship support received via the Enterprise Team at the University of Sussex's Innovation Centre that helped her to progress her business idea into a reality. They also provided a student placement opportunity, helping with the administration and research aspects needed to grow the start-up, and has been critical resource in the early stages.

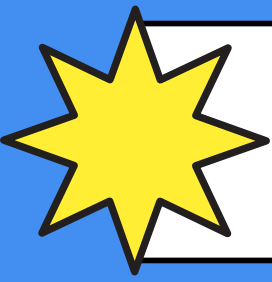
She received a lot of support from Start-up Sussex, run by the University of Sussex and participated in their Start-up competition which involved pitching her business idea. Following success in the first round she developed her business plan and was able to test how robust the venture idea was plus gain insight on her target market. In the second round she was equipped with financial, legal and marketing advice to start making the business idea into a reality and prove its traction which has helped drive the business forward. She was awarded the Social Impact Prize, winning £10,000 in support to bring the business idea into life – a prize awarded to the business plans which are focussed on making a positive change in society.

## Her advice :-

- ◆ Speak to University Entrepreneurship and Careers teams for advice.
- ◆ Entrepreneurship can be a lonely journey - network and meet others in similar stages to you in the start-up journey as it can be a comfort to speak to likeminded people who are going through the same experience as you.
- ◆ If you are passionate about your values/beliefs then go for it now, as many don't get the chance to do this following graduation.

“ A promising material exploration that provides an answer to a major concern of both consumers and industry. ”

John Lewis Partnership



## **What's next for MarinaTex?**

The start-up is currently in the middle phase of their R&D process (the replication phase) and moving to optimization soon, where the material will progress to the production stage.

A pilot will run in parallel to this phase and there are a wide number of customers who have expressed interest in participation. Lucy is currently exploring funding streams to be able to afford the pilot. Awarded R&D funds from the Catapult scheme and aforementioned James Dyson Awards, and government funded labs have enabled the R&D thus far, but the next goal is to attract less dilated funding.

Finally, Lucy is in the process of applying for the patent of which the University of Sussex will fund 50% of costs, through the University's Enterprise Development Fund, which supports new academic commercial activity.