

## Project: Fraxinea

### 2. Value proposition of the business idea

In Fraxinea we create truly sustainable leather like materials grown from the root structure of forest fungi. We offer scalable, 100% biodegradable, plant based and ethical materials with the properties of leather.

### 3. Problem statement

The way traditional- and petroleum based leather is being produced is not only unethical because of the working conditions, animal welfare issues and the industries carbon footprint, but because of how the material is being processed with harsh chemicals. These problems are often pushed to companies and regions outside of the EU.

### 5. Competitor Analysis

Our key competitors are other companies producing plant based leather alternatives and mushroom based leather, for example Desserto, Bolt Threads, Ecovative and Mycoworks. What differentiates our product from plant based leather alternatives is the unique quality, grain and handfeel of our material. Our key advantage when it comes to other companies working with mycelium leather would be that we grow our material in rolls with our unique automated system, making it available by the meter.

### 7. Industry:

Alternative materials

### 9. Target market

Companies who would like to replace their supply chains of plastic and animal based leather. The reason behind choosing our material can be thinking ahead of possible European Union regulations or wanting to reach new customer segments.

### 10. Milestones

- we have a small scale production line, where we can grow 60 sheets of mushroom material in 2 months to the same quality and size
- we collaborated with H.ELIX a Hungarian accessory brand and created the first mushroom leather bag prototypes (the collaboration is ongoing)
- we got into the MOME Incubation Program, where we made meaningful connections and gained knowledge

### 12. Biggest challenges

- We are missing some expertise from our team (chemist, marketing, automation expert)
- Because of the lack of revenue, we can only focus on Fraxinea in our free time (having jobs and school), which makes the process slower than optimal
- We see from other companies that there is an ongoing struggle with optimizing the production of mushroom grown leather to lower the costs (we are trying to tap into this with our automated system).

### 4. Solution overview

We want to prove that materials derived from nature through an ethical and truly sustainable process can only add value to our customers and the larger community. So we decided to start a flagship material production that represents better practice within the alternative leather industry. Our material is entirely made of plant fibers and mushroom tissue, which makes its production completely safe and environmentally friendly. Our fully automated material production facilities could create green jobs for local communities, the plant fibers that we use as substrate can also be produced locally with carbon negative farming.

### 6. Business model

Our business model is a B2B model, where we reach out to companies who are working with leather in their production. We are planning to work with the following business segments, based on our research on which segments are using the most leather in their production: fashion accessories, automotive and furniture design.

### 8. Team description

**Gergely Kiss:** Material specialist, who has worked at a leading mycelium material company Biohm Ltd. Has been working on mushroom based leather for about 5 years.

**Emese Takács:** Textile designer who has experience with plant dyes and using living organisms to create unique materials. Field of study: Textile art and design.

### 11. Next steps

- Gain the first set of research data about material qualities, possibly improve the material with treatment
- Create a prototype machine to demonstrate a future automated production
- Create our first website to make it easier to connect with the potential partners

### 13. Contact information:

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