

# Research and Development Plan

In the year following our application, HopfON's development plan is structured around five critical milestones, each addressing distinct challenges and offering concrete solutions for our project's evolution.

The first milestone will be our Pilot Project in Mannheim scheduled for December 2023. The pilot will serve as a proving ground for our innovative construction material made from hop waste. Our aim is to verify both the aesthetic and functional aspects of our product in real-world conditions. Feedback will be obtained from both users and customers, via QR-code surveys and qualitative interviews, to refine our offering.

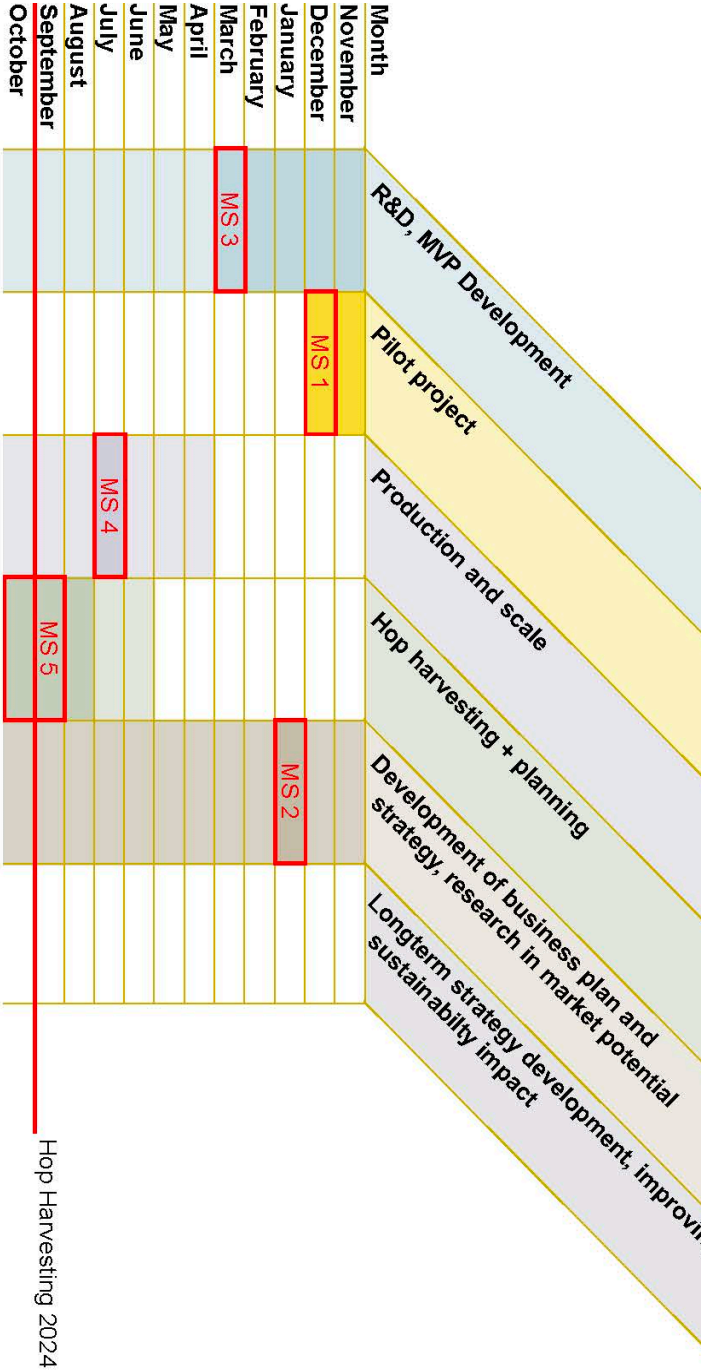
Next, in January 2024, we plan to formally establish HopfON as an incorporated company. This is pivotal for generating revenue and for aligning the project with broader sustainability and scalability objectives. This stage will involve the development of a detailed business plan, break-even calculations, and the formulation of our go-to-market strategy.

By March 2024, we aim to finalize our Minimum Viable Product (MVP), codenamed HopfONE. At this juncture, our focus will be on defining the design and settling on mechanical or chemical processes to deliver a high-performance, sustainable product. Iterative user feedback and product testing will guide us in this endeavor.

Simultaneously, we will roll out our Production Plan for 2024. This will detail the equipment needed for large-scale production and will outline how to utilize all allocated hop waste by year's end. The insights from HopfONE's production will inform these calculations, helping us to maximize efficiency.

Lastly, we'll prepare for Hop Harvesting 2024, in which our objective is to secure an adequate supply of hop waste for the next year's production cycle. Procurement strategies will be honed based on collected Letters of Intent and further pilot projects.

The outcomes of these milestones directly serve the objectives of creating a circular, sustainable, and inclusive product that can be scaled to different agricultural wastes, thereby making a local solution to a global problem. The benefits extend to both the construction and agriculture sectors, addressing the specific focus areas of the category we are applying for, from resource efficiency to social inclusion and sustainability.



## Milestone 1: Pilot project Mannheim | December 2023

**Coordinator:** Stechl | **Included in process:** Stechl, Rojas, Fleischer

**Problem:**

1. Product has not been tested in real conditions
2. Definition of production process

**Goals:**

1. Delivering an aesthetic, high performing and sustainable product to customer
2. Happy customer
3. Findings of how user react to product
4. Findings of how customer react to product

**Solution finding:**

1. Testing sound acoustic of room before implementation of our product vs. after implementing it
2. Asking for user feedback through a QR-code
3. Asking for customer feedback through qualitative interviews

## Milestone 2: Founding of the company HopfON | January 2024

**Coordinator:** Fleischer | **Included in process:** Fleischer

**Problem:**

1. Project is not an incorporated company yet
2. No revenues can be generated yet

**Goals:**

1. Incorporation of a scalable, sustainable company

**Solution finding:**

1. Development of a detailed business plan
2. Calculation of necessity to break even as soon as possible
3. Company strategy
4. Go-to-market strategy

## Milestone 3: MVP HopfONE | March 2024

**Coordinator:** Steiger | **Included in process:** Steiger, Stechl, Rojas

**Problem:**

1. Product design is not defined yet
2. Processes for final project are not defined yet

**Goals:**

1. Development of a suitable mechanical or chemical process for the creation of a high-performance and sustainable product

**Solution finding:**

1. Iterative development of product through user feedback
2. Iterative development of product through product testings

## Milestone 4: Production Plan 2024 | March 2024

**Coordinator:** Rojas | **Included in process:** Steiger, Stechl, Rojas, Fleischer

**Problem:**

1. What equipment is needed to produce the panels in a large scale?
2. How many square meters of panels can we produce with our allocated hops of 2023

**Goals:**

1. Designing a production plan that shows how to use all allocated hops of 2023 latest until the end of 2024

**Solution finding:**

1. Learning from the production of HopfONE how much material is needed for a panel
2. Calculation of maximum potential of production and minimum time frame to produce panels

## Milestone 5: Hop Harvesting 2024 | March 2024

**Coordinator:** Rojas | **Included in process:** Steiger, Stechl, Rojas, Fleischer

**Problem:**

1. How much hops should be saved this year to ensure enough raw material for the following year
2. How can we manage the logistics so that we act cost-efficient and sustainable

**Goals:**

1. Successful procurement of enough hop material in a cost efficient and sustainable way

**Solution finding:**

1. Collecting LOIs to calculate the need of hops
2. Planning of further pilot projects
3. Calculation of maximum potential of production for the end of 2024 and 2025
4. Talking to a lot of farmers and included stakeholders to guarantee an effective process