

CASE STUDY

Treemania



"We use the 'Internet of Trees' to help tree owners and municipalities improve the symbiosis between soil life and trees"

Didy Arnold, Co-founder of Treemania



PROFILE SNAPSHOT

Website	www.treemania.com
Social channels	in treemania
Contact us through Alliance	Didy Arnold (info@treemania.com)
Country	The Netherlands
Main sector	Private
Uforest thematic discipline	Information and communication technologies
Stage of development	Implementation

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



By using technology, Internet of Things, And soil life measurements in a laboratory.

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



By using recyclable PVC housing and rechargeable and replaceable batteries for soil sensors, and by improving local soils instead of replacing them with new soil.

15 LIFE ON LAND



By promoting soil quality for the sustainable management of urban forests and agricultural lands.



START-UP

Treemania is a private company founded in 2018 that develops smart monitoring tools for trees, combining soil-life and soil-quality measuring sensors with laboratory analysis to improve soil quality and reduce the distance between people and nature.

TREEMANIA'S GOALS:

This project sets annual goals related to:

- Improve growing conditions for urban trees by upgrading soils and using smart technologies to offer ecological, economic and social benefits.
- Develop efficient, sustainable and cheaper methods for the cultivation, planting and care of trees and shrubs in urban areas.



INITIATIVE MODEL

MAIN ACTIVITIES:

What does Treemania do?

- It develops lab tests to analyse soil life and soil quality (ex.: moisture, nutrient stalk), together with an assessment of trees' features (species, age, size) and the space they have available with regard to urban planning.
- Improve growing conditions for urban trees by upgrading soils and using smart technologies to offer ecological, economic and social benefits.
- It offers consultation services related to soil improvement.



BENEFICIARIES:

Who benefits from Treemania's activities?

1. **Greenskeepers, tree workers and farmers** that take care of trees and other plants.
2. **Public tree-owners**, such as municipalities and other public bodies.
3. **Private tree-owners**, such as estate and large garden owners.
4. **Green contractors and agriculture advisors** that offer council about soil care.

PROMOTION:

What is Treemania's promotion strategy?

Treemania is growing organically and starting to build a network of municipalities, green contractors and agricultural cultivation advisors.

GOVERNANCE:

How does Treemania implement its activities?

- **The decision board** is made up by the four founding members. Each of them is a specialist in one of the following areas:
 - Trees, soils and nature management.
 - Sensors, Internet of Things and artificial intelligence.
 - Soil science and microbiology.
 - Soil, cultivation and innovation projects.
- **Strategic partnerships** which increase brand traction, help expand the customer base, provide access to additional resources, and stimulate revenue growth.
- **Product research and development** of soil-life and moisture sensors, and lab analysis methods for soil-life and soil quality.
- **Support teams**: advise and research, scientific advisory, technical assistance and lab tests for soil life and soil quality.

FINANCES:

What are Treemania's main resources?

- **Commercial projects** to sell sensors that are already in the market and to perform lab analysis are the main sources of funding.
- **Public funding** from a European-funding programme, InterReg, that covers a small portion of development costs.
- **Founders' own resources** (25% equity).



UNIQUENESS

What makes Treemania a one-of-a-kind project?

- The **use of soil life knowledge** allows Treemania to focus on the symbiosis between trees and microorganisms that help them get their nutrients and water from the soil.
- The **multidisciplinary approach** that combines biology and ecology with sensor technique, artificial intelligence and data analysis works for sustainable urban trees and forests management.
- **An innovation management** that encourages and implements innovation procedures.



EXPECTATION

By **2025**, Treemania aims at openly digitalising knowledge about soil quality and how to improve it, so that lab analysis recipients can fully understand the results.

What does Treemania need to be successful?

- Establish a network of advisors and green contractors that can spread soil quality knowledge.
- Build brand awareness.
- Expand and organise the team to help the company grow.

What are today's main challenges?

- Explain how to improve tree growing conditions, which is a complex matter, to tree owners and workers.
- Integrate four different backgrounds, histories and opinions into a single vision and strategy.



Promoted by:



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