



**AUTONOMOUS**

A G R O M A C H I N E S

**Autonomous and intelligent machines for precision agriculture.**

## The problem

Planting nursery seedlings (trees, etc.) is slow and expensive. Precarious mechanization and processes need to be passed on by people, both for planting and for subsequent management (irrigation, fertilization, inventory, health analysis, etc.).

There are no quality controls or precision in planting.

Some sectors of agriculture do not have mechanized solutions and still use very rudimentary machines, or worse, manual planting solutions.

## The solution

Intelligent and autonomous machines for planting nursery seedlings (trees, MPB sugar cane, orange, coffee, açai, avocado etc.), optical irrigation, point-to-point fertilization, pest control, planting or forest inventory, planting health or forest.

Georeferenced planting processes with quality control using A.I.

Fast and 100% mechanized systems.

## Autonomous Agro Machines

Autonomous and intelligent machines for agriculture in general for large and small producers.

Focus on building machines for:

- Planting nursery seedlings (forests and other crops);
- Intelligent optical irrigation;
- Intelligent point-to-point fertilization;
- Combat pests using A.I.;
- Forest or planting inventory;
- Analysis of the health of the forest or plantation.

## The origins of the project

Autonomous Agro Machines emerged as a response to the need of partners Marcello and Eduardo Guimarães, for the mechanization of the planting of African mahogany of the company that are partners and founders Mahogany Roraima. Over the past 6 years, 9 different prototypes have been built or designed until the ongoing construction of the current model patented by both.

Now, in partnership with Incomagri, an agricultural machinery company with 30 years in the market, we are building the latest model that will be tested together with Suzano S/A, the world's largest pulp producer, under real operating conditions in the year 2023.

# Forest.Bot Steps



2019



2020



2021



2022



## Project Status

We are completing the design adjustments in Solid Edge, updating the patent, designing the new Forest.Bot machine elements, quoting and purchasing the new machine elements, which should be delivered by February 2023. The driving base will be OverLander from Incomagri.

Beginning of planting beak assembly: February/2023.

Completion of assembly: July/2023.

Start of tests on the operating machine: August/2023.

## Patent authors **Forest.Bot** (Patente Pending).



Marcello Guimarães, 56 years old, 38 years of experience as a systems programmer, in 1986 he developed his first intelligent system, created Kit 5 (best-selling software in the history of computing in Brazil), wrote 11 books on Kit 5 (all best seller), created Forest.Bot, founder of Mahagonny Roraima, iPlantForest, Alquimist, AutoAgroMachines and BCYou.



Eduardo Guimarães, 55 years old, created Kit 5 Mobile (first system generator for mobile phones in the world), creator of the systems factory via internet, creator of Bcyou (first live video transmission system from mobile phones to the internet), co-founder of Mahagonny Roraima, iPlantForest, Alquimist, AutoAgroMachines. Co-creator of Forest.Bot's intelligent systems.



# Consolidated market

The consolidated market for forestry, reforestation and agriculture is:

The TAM market (Total Addressable Market) for our planting machines for forestry, reforestation and nursery seedling planting (agriculture) is BRL 715 billion.

The SAM market (Serviceable Addressable Market) for these machines is R\$ 206 billion.

The SOM market (Serviceable Obtainable Market) is R\$ 19 billion reais.

We used as a parameter for the calculations of the SOM market (from 1.8% to 2.8% of the world market), a portion of the total planted area in the world, both for forestry and an approximate estimate of what reforestation may become global and area of nursery seedling agriculture (MPB sugar cane, açaí, cocoa, orange, coffee etc.).

# Business model

We will initially sell Forest.Bot (silviculture) and then start selling reforestation machines and then machines for planting nursery seedlings. We did not carry out the study for the sale of optical irrigation machines, autonomous fertilization, pest control, forest inventory and planting health.

Machine sales and 10-year billing for the 3 segments (values in BRL):

	0 a 5 anos	6 a 10	Totais
<b>Total Maquinas</b>	1.794	5.928	7.722
<b>Total Receitas</b>	R\$ 4.538.820.000,00	R\$ 14.997.840.000,00	R\$ 19.536.660.000,00
<b>Custo Produção Maquinas</b>	R\$ 2.063.100.000,00	R\$ 6.817.200.000,00	R\$ 8.880.300.000,00
<b>Total Geral Despesas</b>	R\$ 2.620.375.510,00	R\$ 8.888.973.990,00	R\$ 11.509.349.500,00

<b>Total Receita Silvicultura</b>	<b>R\$ 4.488.220.000,00</b>
<b>Total Receita Reflorestamento</b>	<b>R\$ 13.667.060.000,00</b>
<b>Total Receita Outras Culturas</b>	<b>R\$ 1.381.380.000,00</b>
<b>Total</b>	<b>R\$ 19.536.660.000,00</b>

## Go to Market

The AutoAgroMachines project office is installed in the region of Itapira/SP at the Incomagri Factory (partner and partner in the project).

The industry is being installed in the expansions of the Incomagri manufacturing area.

We will fundamentally use social networks and the internet as a sales channel, since our company is a company characterized as Green Tech, and therefore our public, governmental or private, recognizes the modern character of this project and easily accepts our presence in the virtual world .

Our plan to reach sales targets in 5 and 10 years is to carry out marketing, advertising and journalism actions exclusively through digital channels, with campaigns in favor of reforestation, and publicizing the success of the machines with large corporate clients.

# Venture Capital

For the complete structuring of the project, with new machinery, raw materials, personnel, general costs, marketing, sales, after-sales, research and development, we needed to raise approximately R\$ 150 million in the market.

The contribution guarantees the structuring of the project and its complete execution.

Bearing in mind that the estimated NPV is BRL 2.7 billion reais, we can negotiate a stake of up to 10% in the company's share capital with a contribution of BRL 150 million.

# Thank you

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