SMART POT

Plants should be able to take showers !!

BUSINESS INSIGHTS

Context

- Growing concern for the environment.
- More and more people feel the need to connect with nature in their daily lives.
- Challenges in managing green spaces in residential environments.

Problems

- Lack of continious attention:

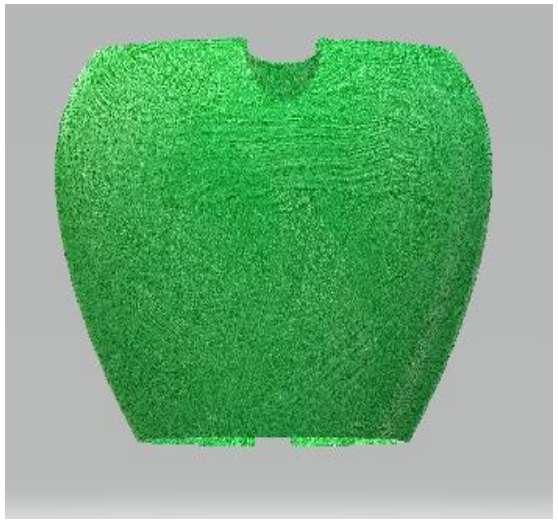
The prolonged absence of people at home prevents constant supervision of the plants needs, resulting in irregular and sometimes insufficient care.

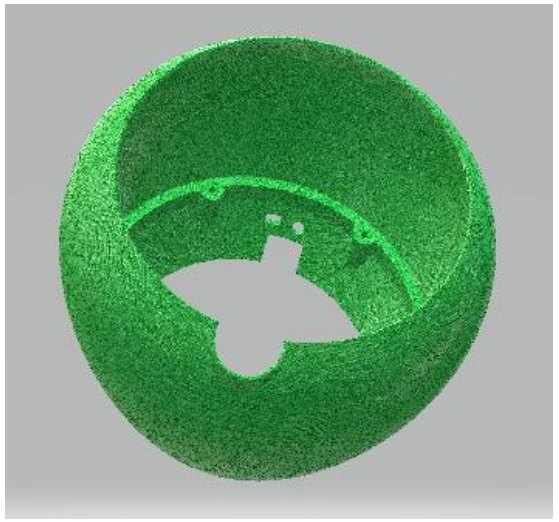
- Uncertainity in irrigation:

The lack of information on how much, when, and in what manner to water the plants contributes to inefficient care. This uncertainty can lead to excessive or insufficient watering, adversely affecting the health of the plants.

Solution

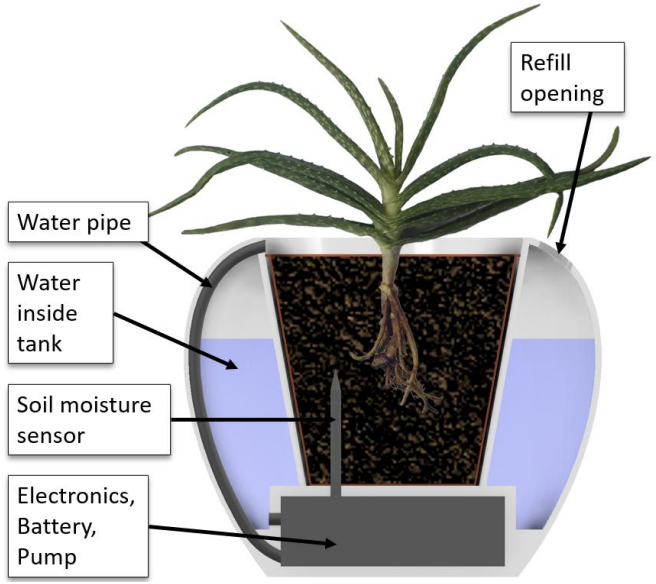
Value Proposition Smart-Pot 3.5





Characteristics

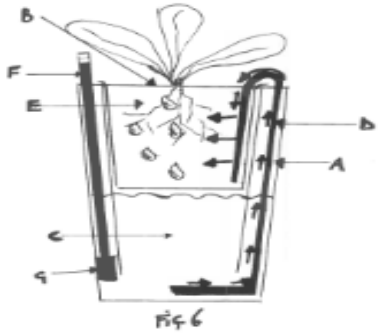
- Simple design with which it you cannot distinguish from a conventional flower-pot.
- 3D printed housing by using biodegradable plastic.
- Integrated water tank whith 5L capacity.
- Automatic irrigation.
- Soil moisture measurement.
- Arduino reprogrammable code to add new functionalities by the user.
- App for complete plant status monitoring.
- Push notifications in order to prevent malfunction.



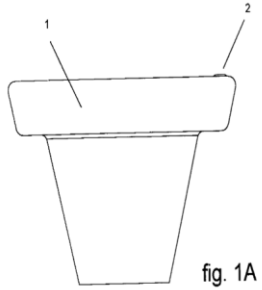
PRODUCTION

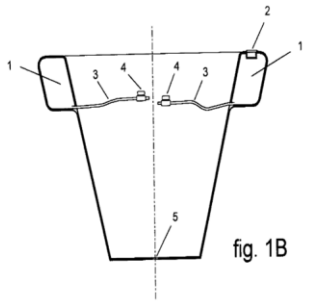
Legal and Compliance

- Register as a company to operate formally and comply with government regulations.
- Obtain licenses and permits to operate SmartPot's business and comply with industry-specific regulatory requirements.
- Tax registration to comply with local, state and federal tax obligations.
- Labor law compliance to protect employees' rights and avoid litigation.
- Create clear and solid contractual agreements to define responsibilities and mitigate legal risks.
- Buy Business insurance to protect against potential financial and legal risks.
- Implement patents in order to protect Intellectual property.

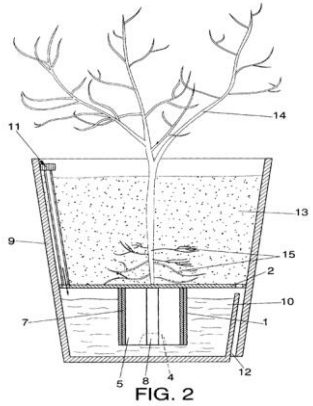


Patent 1



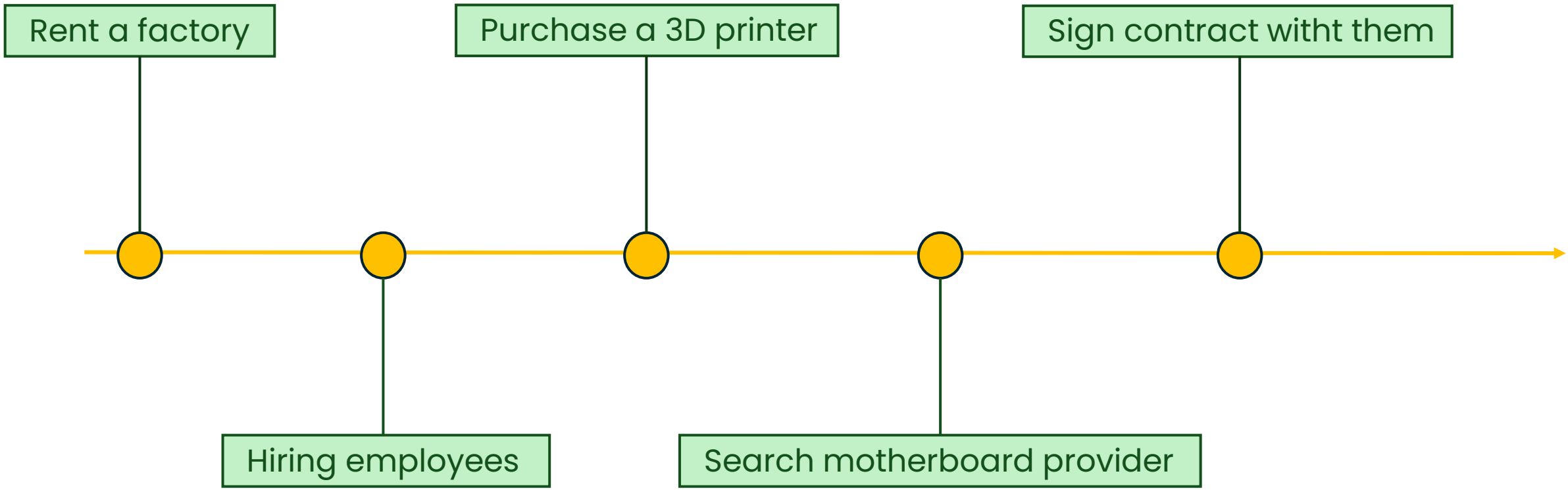


Patent 2



Patent 3

Production Plan



Production Processes

1. Assemble the Smart-pot model with the 3D Printer.
2. Receive the Smart-pot technology part sent by the supplier.
3. Merge both (1) and (2) and create the Smart-pot.
4. Quality control test.
5. Store Distribution.

Production Infrastructure

Factory space : Adequate space for manufacturing, assembly, quality control, and storage.

Storage and Warehousing: Dedicated areas for storing raw materials, components, work-in-progress, and finished products.

Office space: Administrative offices for management, production planning, and support staff, Meeting rooms and IT infrastructure.

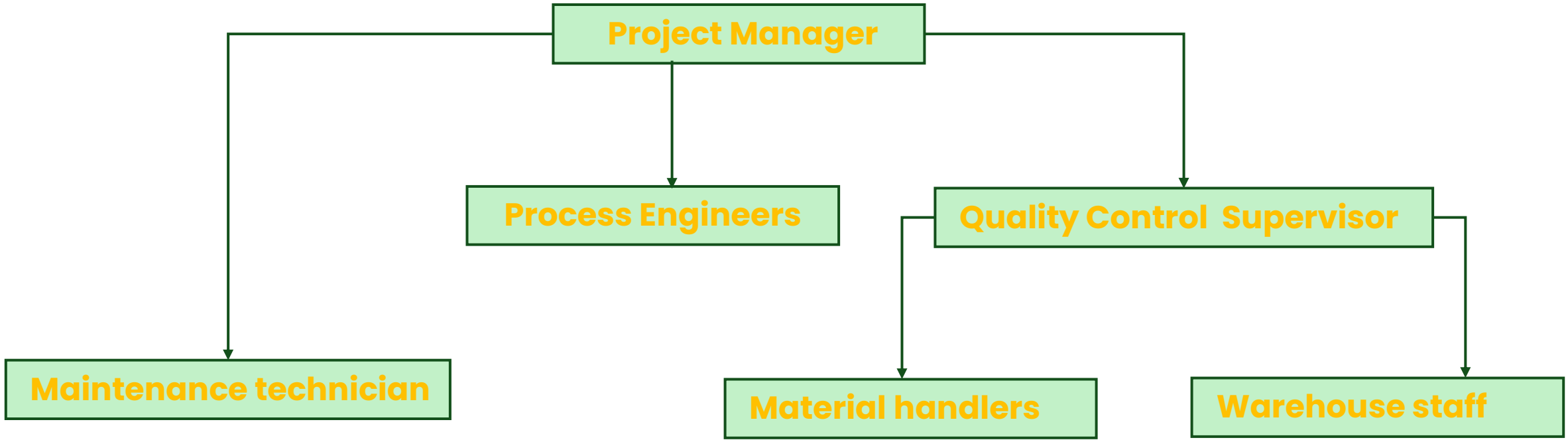
Utility services: Access to electricity, water supply, and ventilation systems.

Workstations: Organized layout for efficient workflow and production process equipped with necessary tools, equipment, and utilities.

Materials

- Resin for the 3D printer.
- Glue to join the two parts together.
- Boxes, labels, padding, etc needed to package the finished products for delivery.

Production Department Hierarchy



Production Department

Project Manager: The leader behind SmartPot, ensuring that every step is completed accurately and efficiently to achieve our goals.

Process Engineers: In charge of designing and optimising manufacturing processes to improve efficiency and product quality.

Quality Control Supervisor: Our Quality Control Supervisor ensures that every SmartPot meets our quality standards, ensuring customer satisfaction with every delivery.

Material handlers: They take care of the printing part of the model as well as integrating the technological part with it.

Warehouse staff: The team in charge of maintaining the flow of materials for SmartPot production as well as the distribution of the products.

Maintenance technician: Expert in keeping SmartPot manufacturing facilities in perfect working order.

Agreement with supplier

Distributors based in Madrid selling wholesale technology gear using good brands and having a wide range of products.

- They ship everywhere
- More than 15 years of experience
- Very professional profile

Contract Conditions

Product Specifications: They should provide a system in which Arduino ESP32, sensors and actuators have to interact in and provide all the functions required with the best quality.

Pricing and Payment Terms: We accorded 22 euros per piece that could be 20 if the order is at least of 100 pieces.

Delivery Schedule: It cannot take more than 1 month, if they are overdue they will discount 25% of the price per week of delay.

Liability and Indemnity: If there is some product that is defective money will be refunded.

Intellectual Property Rights: Contract include confidentiality clauses to safeguard sensitive information and trade secret.

EXPENSES

	january	february	march	april	may	june	july	august	september	october	novemeber	december	FIRST YEAR
Utilities	630	642	660	510	521	580	670	450	601	509	584	340	212194
Factory renting	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	SECOND YEAR
Labor costs	14000	14000	14000	14000	14000	14000	20.000	14000	14000	14000	14000	10000	468050
Equipment and Machinery	1200	150	90	118	151	163	174	121	190	120	125	75	THIRD YEAR
Supplier	5500	6500	7000	8000	8200	9000	11000	12500	13000	13100	13200	13400	748350
Packaging and Shipping	100	120	150	170	190	200	250	300	350	360	380	400	
Marketing and Promotion	500	510	550	600	610	670	700	720	750	760	770	800	

Fixed Variable Opex Capex

MARKET (I)

Customer Profile characteristics

- Age: Mainly 25-45 years old, interested in technology and concerned about the environment.
- Gender: No restriction; both men and women interested in gardening and technology.
- Location: Mainly urban and suburban areas where space for gardening may be limited.
- Income: Middle to high income, with the ability to invest in products that promote sustainability and wellbeing.
- Lifestyle and Values: Concerned with sustainability, personal wellbeing and connection to nature. Interested in technological solutions that facilitate gardening and promote a healthy lifestyle.
- Buying Behaviour: Willing to pay for quality products that enable them to grow plants efficiently and sustainably. Regular purchasers of gardening-related products.

Customer potential

- Market Research: Preliminary studies indicate a growing interest in smart and sustainable gardening solutions.
- Competitive Analysis: Market observation reveals a latent demand for products that facilitate gardening in urban and suburban spaces.
- Market Trends: Current trends show an increase in the adoption of home technologies that promote sustainability and personal wellbeing.
- Demographics and Consumer Data: Demographic and consumer segmentation suggests that a significant number of people in the target age range have an interest in gardening and technology.

Based on these analyses, it is estimated that there is considerable customer potential for Smart-Pot, with a large target market and a growing demand for solutions that combine technology and sustainability in the field of urban and home gardening.

Competence Analisys

	SMARTPOT	PLANTSIO	LETPOT
Automatic irrigation	✓	✓	✓
Push notifications	✓	✓	✓
App for control	✓	✓	✓
Soil moisture measurement	✓	✓	✗
Simple and elegant design	✓	✗	✓
Integrated water tank of 5L	✓	✗	✗

Hit Rate

- Citizens aged 25-65 in Spain = 56%.
- Of that group, 75% have tech gadgets and at least one pot, which converts to 42% of the population.
- However, people who has middle to high income represents the half of it, which makes the hit rate 21% of the population, about 10 million possible users.
- In addition, if the product is successful, it would be easier and easier for people of a different age or economic range to start buying the product.

MARKET (II)

Price calculation

- Selling Price = Production Cost per Unit / (1 - Profit Margin).
- Selling Price = 50 euros per unit / (1- 0.5) = 100 euros.

Conversion Rate (2%)

- 0,02 x 10 million possible users = 0,2 million users = 200.000 users

Sales, Incomes

Marketing plan

Month	Activity	Estimated Expense (€)
January	Creative content development	2000
February	Launch campaign on social media	1500
March	Google Ads advertising	3000
April	Participation in gardening fair	2500
May	Content marketing (blog, video)	2000
June	Public relations (press release distribution)	1000
July	Email marketing campaign	1500
August	Social media advertising	2000
September	Influencer marketing campaign	2500
October	SEO optimization	1000
November	Holiday season promotion	3000
December	Year-end sale event	2500

Distribution

- Create an Online Store
  Develop an e-commerce platform where customers can buy SmartPot directly from the web.

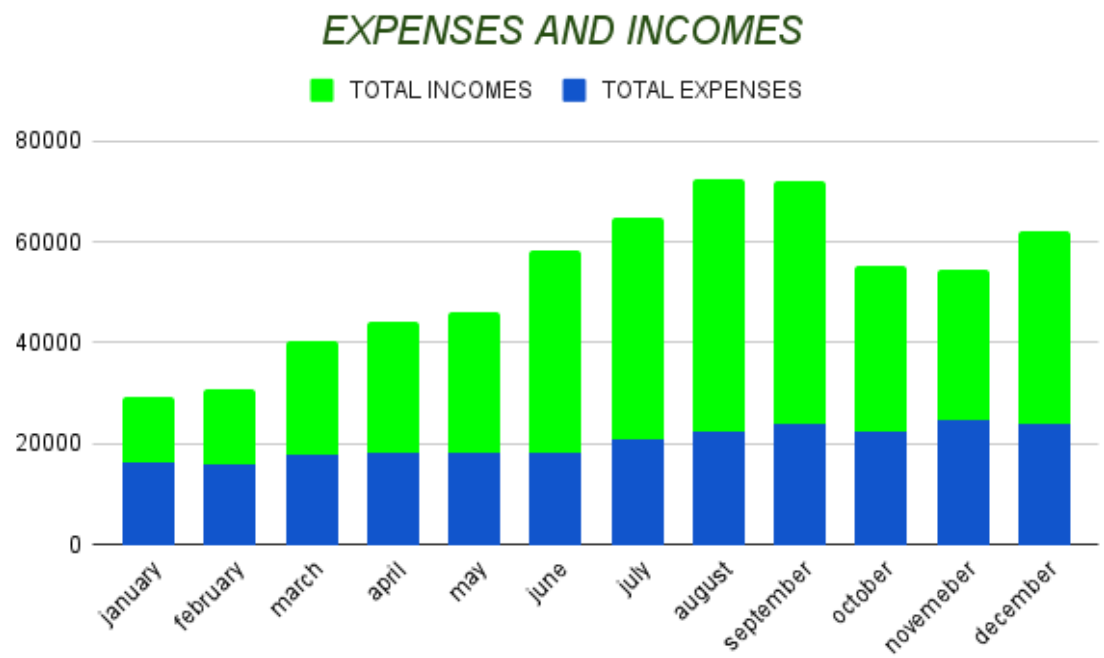
- Estimated costs:
  Website development: 2000 €.

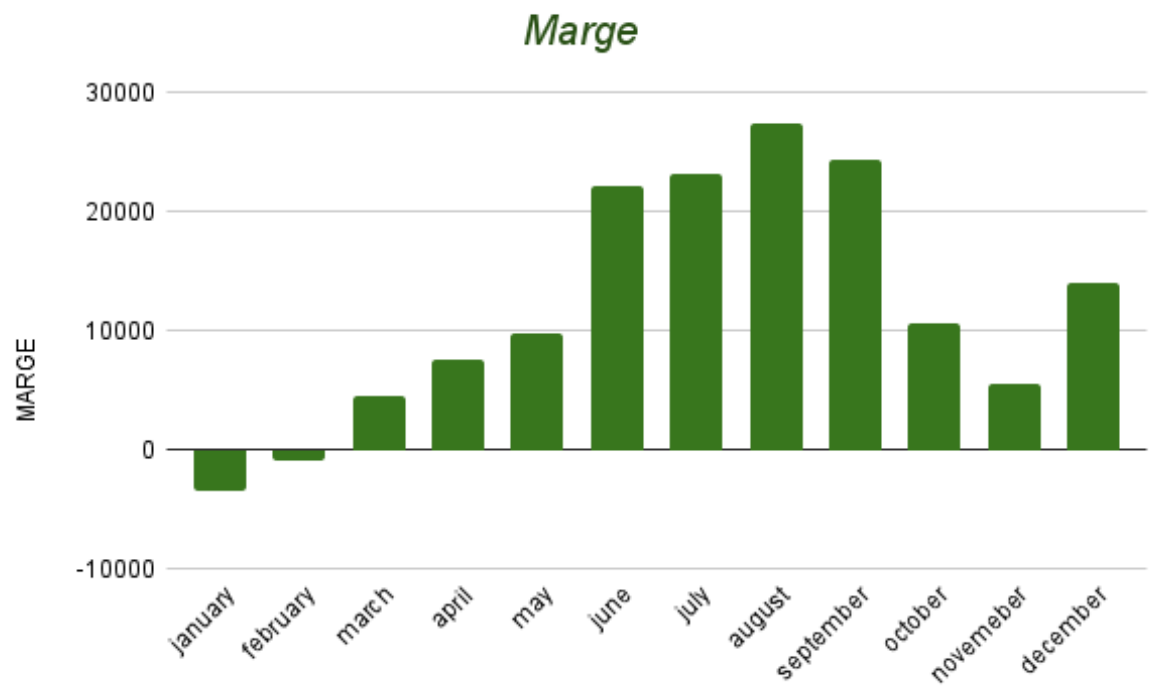
  Monthly maintenance costs (hosting, domain, security): €100/month

Other expenses

EXPENSES	Description	Price
Training	Workshops and courses for employees	2000
Financial	Bank fees, interest	500
Management	Consultancy fees, consultancy	3000

FINANCE


EXPENSES AND INCOMES
TOTAL INCOMES
TOTAL EXPENSES
80000
60000
40000
20000
0
january
february
march
april
may
june
july
august
september
october
nomemeber
december


Marge
MARGE
30000
20000
10000
0
-10000
january
february
march
april
may
june
july
august
september
october
novemeber
december

Funding

- Amount Needed: €242,850 (Total first year expenditure)
- Timing of Need: Funding would be required at the beginning of the first year to cover planned expenses.
- As the funds will be used for recurrent operating expenses such as salaries, rent, marketing and other operating costs, funding will be sought for OPEX.
- Revolving Line of Credit: A revolving line of credit will be requested to cover first year operating expenses. This line of credit will provide flexibility in accessing funds and will allow only the amount needed to be drawn down at any given time. In addition, it will have a variable interest rate based on the market.
- Based on the cash forecast per month, it is estimated that the loan will be paid off after 2 years.

Analisys

KPI	What and Why	Metric Description	Current Value	Target Value	Check Frequency
Revenue Growth Rate	Measures the percentage increase in revenue over a specific period, indicating company growth.	Percentage increase in revenue compared to the previous period.	10%	15%	Monthly/Quarterly
Customer Acquisition Cost (CAC)	Measures the average cost incurred to acquire a new customer, ensuring it aligns with budgets.	Total sales and marketing expenses divided by the number of new customers.	$100	$80	Monthly
Customer Lifetime Value (CLV)	Represents total revenue generated from a customer over their relationship with the company.	Average revenue per customer over their entire relationship with the company.	$500	$600	Quarterly/Annually
Inventory Turnover Ratio	Measures the efficiency of inventory management by assessing how quickly inventory is sold.	Cost of goods sold divided by average inventory value.	5	6	Quarterly
Employee Satisfaction Rate	Measures the level of satisfaction and engagement among employees, impacting productivity.	Percentage of employees satisfied or engaged with their work environment.	75%	80%	Bi-annually/Annually