GO VERTICAL BUSINESS PLAN
A VERTICAL GARDEN DEVELOPER COMPANY

PAULA RODRIGO RUIZ
JACOBO PEROPADRE LÓPEZ
SANTIAGO DÍAZ RAMÍREZ

Final Master Thesis – Master in International Business (MIB) 2019

Tutor
JORGE GONZÁLEZ

JUAN CARLOS I UNIVERSITY
EAE BUSINESS SCHOOL
MADRID, SPAIN
2019
ABSTRACT

This paper is oriented to highlight the role of vertical gardens to develop more productive enhancement and sustainable buildings. Following the actual and future tendencies of urban planning and construction techniques, big cities and their players, shall be committed to develop future buildings and infrastructure with a “greener” focus. By taking into account these factors and the environmental sensitivity, Go Vertical is born.

Hence, this paper contains the business plan for the set-up and initial phase of a disruptive start-up led by a group of highly qualified business experts fully committed on impacting positively the work environment by enhancing employee productivity and satisfaction at the workplace, which in turn foster the business and our clients performance.

One of the identified problems in the sector is that there are no relevant players in the indoor vertical garden sector, it is an atomized market formed predominantly by medium and small companies. The most important or biggest players are subsidiaries of construction companies or highly specialized companies that tend to charge high prices for their solutions and whose client target is big corporations. Another issue is that the indoor vertical garden solutions have not been incorporated fully in the interior design and landscaping sector in Spain.

The aim of this project is to offer standardized and affordable indoor vertical gardens for the headquarters of small and medium sized companies by implementing the latest market solutions. In order to achieve this it will be necessary to partner up with an existing company who wants to incorporate the indoor vertical garden into their business model. Go Vertical is designed to open a new path to existing companies and thus offer the possibility of making this project a reality from a business point of view. Thanks to this approach, Go Vertical will have expert companies in the gardening, landscaping or architectural sector and, through mutual agreements, they will provide the tools, skills and techniques needed for the proper implementation and functioning of the project from a technical and designing point of view.
KEY WORDS

- High Performance Buildings
- Sustainability
- Green Companies
- Green Walls
- Landscaping
- Building Contractors
- Interior Design
- Architecture
- Vertical Gardens
- Corporate Buildings
- Living Walls
INDEX

1. Introduction 7

2. Analytical Phase 9
   2.1. External analysis 9
      2.1.1. PESTLE 9
   2.1.2. Industry Analysis 16
      2.1.2.1. Industry attractiveness analysis 16
      2.1.2.2. Porter's five forces analysis 19
   2.1.3 Market analysis 21
      2.1.3.1. Market definition 21
      2.1.3.2. Market growth 22
      2.1.3.3. Market segmentation 25
      2.1.3.4. Suppliers 27
      2.1.3.5. Analysis of competitors 30
      2.1.3.6. Analysis of customers 33
      2.1.3.7. Market trends 35
   2.2 Internal Definition Analysis 36
      2.2.1. Problem 36
      2.2.2. Solution 37
      2.2.3. The Company: Go Vertical 38
   2.2.4. Value Chain analysis 40
   2.2.5. Business Model Canvas 41
   2.2.6 Competitive Advantage 41
   2.2.7. Mission and Vision 42

3. Diagnosis Phase 43
   3.1. SWOT 43

4. Strategic phase 44
   4.1. Strategy 44
      4.1.1. Strategic Objectives 44
   4.2. Marketing Plan 46
      4.2.1. Segmentation 46
      4.2.2. Commercial Objectives 47
         4.2.2.1 Sales Forecasting 47
      4.2.3. Image & Identity Objectives 48
      4.2.4. Marketing Strategy 49
4.2.4. Product
4.2.4.2. Price
4.2.4.3. Distribution
4.2.4.4. Promotion
4.2.5. Marketing Budget
4.2.6. Timing

4.3. Operations Plan
4.3.1. Description and analysis of processes
4.3.2. Assignment of resources to processes

4.4. Corporate Governance
4.4.1. Corporate Model. Legal Aspects
4.4.2. CSR Policies

4.5. Organization and HR Plan
4.5.1. Organizational Chart
4.5.2. Talent Policy
  4.5.2.1. Talent acquisition
  4.5.2.2. Compensation model
  4.5.2.3. Talent Retention Strategies
  4.5.2.4. Labour Costs

4.6. Financial plan
4.6.1. Seed Capital: Loans, Venture Capital Funds or Own Resources
4.6.2. Financial Statements
4.6.3. Financial Ratios
4.6.4. Break even point

4.7. Contingency Plan

5. Conclusion
5.1. Feasibility

6. Bibliography

7. Annexes
1. Introduction

Nowadays the trend is all about going green, considering the growing conscious of people to preserve natural resources. This is one of the main reasons why green buildings are important in metropolitan areas.

Moreover, the latest environmental European regulations were created in order to create more sustainable cities. Particularly, the City Mayor of Madrid enacted recently the “Madrid Central” regulation aiming, among others, to prevent the circulation of several types of vehicles in certain areas of the city. In the future such measures will have a positive impact in the reduction of CO2 levels in the city.

But, what exactly is a green building? The U.S. EPA states that a “Green building is the practice of creating structures and using processes that are environmentally responsible and resource-efficient throughout a building’s life-cycle from sitting to design, construction, operation, maintenance, renovation and deconstruction. This practice expands and complements the classical building design concerns of economy, utility, durability, and comfort. Green building is also known as a sustainable or high performance building.”

As stated above, green buildings are based in several initiatives, techniques and procedures. The green building initiatives are normally focused on sustainability issues, increased asset value and lower energy costs, but there is an even greater scope which is not mentioned, which is the added value that comes up from the benefit that people occupying the building receive, which in turn creates a further positive impact on a company's results. (Aksamija, A. 2013)

Our objective on this Final Master Thesis will be oriented to interior vertical gardens within such Green Buildings initiatives, as one of the main solutions to create healthier work environments for the employees, which as mentioned before, have proven benefits for both the employee and the employer. By means of the implementation of these type of gardens we consider that we can help our customers by increasing levels of labour productivity, lower absenteeism and lower turnover rates.
As a result of these initiatives, Go Vertical becomes extremely relevant not only to contribute in such process of creating more sustainable buildings and cities, but to also create real and measurable added value for our customers in the medium-run. On this paper we will develop in detail a new concept of turnkey management of vertical gardens projects to be rendered to existing landscaping, architecture or interior designing companies. Go Vertical offers an innovative and fresh business model that combines the technical knowledge owned by such companies and a high end management team to boost jointly these type of projects for their final customers. In addition, due to the startup nature of Go Vertical, a detailed analysis of Spain as a new market will be rendered in order to determine if the project is viable to begin in such country and, further on, the main city of scope will be chosen.
2. Analytical Phase

2.1. External analysis

On this initial phase a detailed Political and Legal, Economical, Social, Environmental and Technological (PESTLE) analysis of Spain and Madrid will be conducted in order to support the idea to initiate operations therein.

For this purpose, several external factors from the company itself must be assessed in terms of the country’s growth, inflation rates, population, political status and regulations, among others. These factors in conjunction will serve as the basis to determine if Spain and Madrid are the appropriate market places for the project.

2.1.1. PESTLE

Political Perspective

SPAIN

Spain is one of the 19 full democratic states in the world. It relies on a constitutional structure approved by 88% of the population by referendum in 1978. It is composed of 17 autonomous communities and 2 autonomous cities (Ceuta and Melilla).

With a constitutional monarchy, two relevant figures stand out as the head of the State and the Government: the King and the Prime Minister, appointed by the King and confirmed or dismissed by the legislative branch.

The bicameral parliament (Cortes Generales) is in charge of the legislative power and plays a very special role in Spain’s politics. It is composed by the Congress of Deputies and the Senate, which confirms or dismisses through a vote of no confidence the Prime Minister with a majority of affirmative votes. The Prime Minister and Congressmen are elected for a four-year period.

Finally, five main blocks of political parties are visible and active at the moment with a strong right, left or center view. Spain is part of the Eurozone since 1999.
In regards to law enforcement in the variety of autonomous communities and provinces, the following chart summarizes how legislative and the executive power combine altogether:

**Power is highly decentralised due to autonomous communities that have a high level of legislative, executive and fiscal autonomy.**

Spain counts on seventeen autonomous communities and two autonomous cities (Ceuta and Melilla), fifty provinces and 8.124 municipalities.

Each Autonomous Community has its own unicameral congress or legislative assembly, called differently depending on the region.

Different funding system: Basque Country, Navarra, Canary Islands – more autonomous and extensive.

Conflicts of competence between the Autonomous Communities, the provinces and the central government can be solved by the Constitutional Court.

Figure 1. In house elaboration. Source: Diverse, mainly Icex.

**MADRID**

It must be differentiated the Community of Madrid and the Madrid city. The first refers to one of the 17 autonomous communities and it comprises 20 municipalities including Madrid. On this analysis we will focus on the city of Madrid as the Capital City of Spain.

Madrid is governed by the City Mayor and the City Council. The City Council consists of 57 members, being presided by the Major. This body represents politically Madrid´s citizens within the local government and is in charge mainly of fiscal matters, the election and deposition of the Mayor, budgets and local regulations.

**Economic Perspective**

**SPAIN**
According to the World Bank, Spain is a mixed economy, the 14th largest worldwide and the 5th in the EU. Its economy relies mainly in large investments of local companies in energetic, telco, financial and automotive sectors, as well as a positive impact of the tourism and agricultural sectors.

The official currency of Spain is Euro since December, 1998, preceded by the Pesetas. Officially, in 2002, the exchange between Peseta and Euro was noticed in Spain’s economy at a 166,386 :1 rate.

According to the IMF, as of 2018, the GDP (PPP) was totaled in $1.864 trillion and Per Capita in $40,290. On the other hand, nominal GDP was set in a total of $1.506 trillion and $32,559 Per Capita.

Besides, as of December 2018, it reported an annual 1.2% inflation rate, a GDP growth rate of 0.6%, a GDP Annual growth rate of 2.3%, an interest rate of 0%, a current account to GDP relation of 0.9% and a government debt to GDP ratio of 97.1% and an unemployment rate of 14%.

**MADRID**

The community of Madrid is composed of 179 municipalities and leads the GDP per capita among Spain’s autonomous communities (34,916€) as of 2018 according to the INE. Its annual growth rate is between 3%-4% with a consistent evolution over the last decade.

The community of Madrid is responsible for the second major contribution to the total GDP of the country, after Cataluña. The GDP of Madrid is divided as follows: 76% services, 13% industry, 11% construction sector and a very small portion dedicated to agriculture.

In terms of annual growth, the construction sector leads the path over the other sectors. As of December, 2018, it was the sector with the largest expansion (6.8% compared to 2017), followed by services (growth of 3.8%), agriculture with 2% and 6% in industry.
The Community of Madrid is definitely ruled nowadays by the construction sector. This consistent expansion of the market is definitely a business opportunity for our company, as in many new buildings could be developed and installed vertical gardens. Just compared to 2007, the crisis year in the sector, prices and number of new projects have grown consistently.

Las but not least, a so-called bubble effect is under discussion and permanent review by the local authorities to avoid entering into crisis once again. According to the Ministry of Economy, Employment and Finance, no signals of crisis are present due to a much more solid evaluation of the projects and the bank loans offered to the consumers. In conclusion, because of its importance and the damage it could cause to our operation, it is an issue that we have to bear in mind in Go Vertical and monitor constantly.

Social Perspective

According to the INE, Spain’s social composition is marked by tendency of child birth reduction over the previous years. As a consequence, it has one of the lowest birth rates in the European Union: 1,34 children per woman. Furthermore, older population has increased over the last year and the life expectancy is located around 83 years. While the majority of households are unipersonal, immigration has increased remarkably during the last five years.

According to the City Hall, as of December, 2018 the foreign population represents 14,1%, 9% more in respect to 2017, focused mainly in the sectors of Puente de Vallecas (12,3%), San Blas (12,2%) and Villa de Vallecas (11,7%).

Figure 2. In house elaboration. Source: Diverse, mainly INE.
In terms of income, before the crisis a 2,4% increase was reported in households and a 2,6% increase in households’ expenditure. As of last year, most salaries have been maintained static with practically no increase for the majority of the population. The income distribution is uneven as more than 64% of people below 45 years have a salary below 1600€.

Technological Perspective

Spain has developed notoriously its R&D efforts, allocating 1,19% of its GDP to this matter taking into consideration the 2,03% average of the EU. In 2020, the country has a goal to reach a 2% of its GDP dedicated to R&D.

In terms of connectivity, the country relies on a solid telecommunications infrastructure: 98.4% of the Spanish companies have full internet connection. In terms of services rendered, a notorious tendency of e-commerce and virtual and augmented reality companies has become relevant.

These technologies represent a clear business opportunity for Go Vertical for us to explore and develop new marketing and sales channels. For instance, VR and AR technologies could be offered to our customers for them to design with us live their vertical gardens; a whole new feel and touch experience can be developed all over it to promote our company as a leader in the market in that sense.

Environmental Regulation Perspective

In regards to environmental issues, there has been a 3,5% increase in greenhouse gas emissions since 2014, households have reduced these emissions 5,8% since 2008. Following the OECD and EU standards, aiming the reduction of the carbon footprint in Europe, over the last five years Spain has enforced more than 20 regulations, many of them oriented to reduce dramatically CO2 levels and the expansion of alternative mobility mechanisms, such as electric vehicles.

Particularly, the European Council of the European Union has set forth a thorough plan to reduce considerably the greenhouse gases effect in 2030 at least by 40%.
Following the Paris Convention of 2015, its members are fully committed to promote specific actions oriented to such purpose. For 2020, the reduction objective was fixed on -20% contamination, bearing in mind that in 2015 the contamination levels were reduced already in 22% with respect to 1990.

Despite these “positive” numbers, the EU considered that more had to be done. In order to meet these standards, the EU has set forth many initiatives such as the Effort Sharing Regulation in which Spain plays a very important role and participates actively, lead by Madrid. Under this scheme, each EU member must comply with targets to reduce contamination, mainly in the industry and transport (excluding aviation) sectors.

Further on in 2018, the EU members adjusted the way to address this issue and laid down certain minimum contributions of each country to emissions reduction for 2021-2030 period, as well as the rules for determining the annual emissions and the evaluation of the overall progress in each year.

According to the European Parliament, the reduction target of Spain is 26%, followed by Ireland, Italy, Belgium and Austria (30%, 33%, 35% and 36%). The top five reduction countries are Luxemburg, Sweden, Denmark, Finland and Germany (40%, 39% and 38% levels). Taking into account the 40% goal, Spain is committed but could be even more.

Following this path, Madrid decided to lead the way as the Capital of Spain. Consequently, the Government Board of the City Council of Madrid ruled the Plan A (“Air Quality plan for the city of Madrid and Climate Change”) under the premise that if its inhabitants need cleaner air, there is just one shot to do it and no Plan B, C and so on could be enacted.

Madrid took very seriously the EU standards and is willing to contribute actively to reach the 40% reduction goal of other countries. Because Madrid holds the majority of Spain's population, this public initiative is considered as extremely positive.

The objectives of the Plan A “are to ensure health protection against the effects of atmospheric pollutants, to help in the fight against climate change by reducing greenhouse gas emissions (GHG), and to strengthen urban resilience to climate
effects.” Basically it seeks to develop a new model of low emission city based on principles of sustainability.

The Plan not only focuses on the traditional scopes, but gives a further step in terms of sustainable mobility, urban regeneration, climate change adaptation, and awareness-raising and cooperation with other public authorities.

Under the Plan, the well-known regulation of Madrid Central was passed to control the use of petrol engine cars in the center of the city, granting limited access to a very few, promoting the use of hybrid or electric private cars or car sharing platforms.

Besides, new natural gas, hybrid or electric buses, a renovated metro infrastructure and electric bikes and scooters is intended to be optimized to the maximum in the following years to promote greener mobility.

Specifically, in terms of climate change adaptation, Plan A stated measure 29 moving forward to develop in Madrid a municipal strategy focusing in developing, building and incorporating nature-based elements in existing and new public infrastructure, as well as interventions as vertical gardens in buildings. As such, our projects become extremely relevant in terms of public recognition and as an essential part of the strategy to reduce climate change. The image below is an example of the initiatives proposed by the plan in such regard:

Figure 3. Source: Plan A document, Comunidad de Madrid
On the other hand, urban regeneration and climate change adaptation objectives are considered as great business opportunities for Go Vertical in the following 10-20 year period. As part of the renovation and new concept of urban planning, Madrid is intended to be an icon in compared to other cities such as Malmo or Copenhagen, in which green facades and gardens installed in buildings are not just for trendy purposes, but serve as an active element to generate low-carbon cities.

Considering the aspects analyzed previously, we conclude that Madrid counts on enough population, GDP, economic resources, infrastructure and construction expansion to begin and run Go Vertical’s operations in Madrid. Moreover, it is considered as a leader in the Country of eco-friendly active regulations pretending to reduce dramatically greenhouse gas effects and, most importantly, to re-shape and re-difene to city in terms or urban planning by means of strategies such as innovative landscaping and vertical gardens in private and public buildings. This later regulation will serve as a potential expansion platform for our company in the following years.

### 2.1.2. Industry Analysis

#### 2.1.2.1. Industry attractiveness analysis

In order to fully analyze the attractiveness of the industry, it is necessary to mention the two major elements that conform the Vertical Garden industry, which is on one hand the Real Estate sector and the gardening sector, which at the end come together in what is called the High Performance Building concept.

According to specialized real estate companies, Spain offers higher returns than other European countries in the real estate sector and offers very interesting opportunities to buy and rehabilitate buildings. The sector expects a 2019 of growths in real estate investment in all segments. There is an increasing interest of investors in new niches of profitability, and the vertical garden industry is one of them (Madrid: yields from 4% to 10% in offices). Madrid is a point of reference for domestic and foreign investors as it makes up a large part of all the sales transactions that take place in the Spanish tertiary sector. The economic recovery after the 2008 crisis has had a positive effect on the hiring of offices in 2017 and 2018, there has been an increase of 30% of the leased area in relation to 2016, surpassing the amount of 600,000 m2. Data shows
that the offices in Madrid capital offer a return for the investor of 4-6%, which rises to 6-10% in the suburbs. The profit is even higher when the investment is done in buildings to rehabilitate and sell, we would be talking about a return up to 30%. We can find two types of investors: the foreign investor, who wants short-term returns, and the national investor, who wants to invest their money with a safe investment and a long-term mentality. All look for prime areas regardless of the type of asset and the quality of the property prevails over the price. The vertical garden niche, emerges as a great way of providing further value to new or rehabilitated buildings.

In the gardening industry (€815 million worth industry), during the last decade there has been increasing interest in the sector due to the increase in household units with gardens and a major presence in the media, the internet, magazines and sector fairs. It is also true that during the last years the industry growth has stagnated (+1,8% growth from 2015 to 2016), but there is increasing optimism in the sector as the gardening culture is gaining importance in Spain. Even those households which do not have a garden are interested in the market trends in order to decorate their balconies or terraces, and all the small place inside the house.

There is a higher interest in new design concepts and sustainable gardening, and customer demand (households and companies) is shifting towards products or services of greater quality and therefore products of greater added value. The industry is now characterized by manufacturers launching innovative products and solutions which include the latest trends in the sector. On the other hand, companies in the sector are working harder in order to increase the awareness of this gardening culture by using different strategies, like communication strategies in order to make themselves and their sustainable and innovative solutions known in the sector.

There is also an increasing trend from companies investing in their buildings in order to modernize their facilities and make it more attractive to both customers and their own employees. This is what we can call “High Performance Buildings” (HPBs). Traditionally this concept referred to mostly energy savings and increased asset value as the two most appealing incentives, but nowadays, the concept embraces other important aspects that it will be explained in the annex section.

Many employers are starting to invest into these HPBs strategies and dumping the conventional retention and health programs, as HPBs prove to be more efficient when
it comes to create financial, social and environmental benefits (see annex). Therefore, indoor vertical gardens is one the HPBs strategies that employers can use in order to reach the aforementioned objectives of increasing employee wellness and productivity (Day, J. K., & Gunderson, D. E. 2015).

If we look at the graph below, we can see that they key design elements affecting occupants or employees are:

- Indoor air quality
- Thermal Comfort
- Noise & Acoustics
- Views and Biophilia

Indoor vertical gardens put a single solution into these four elements at the same time.

2.1.2.2. Porter's five forces analysis

**Competition in the industry**

When looking at the Vertical gardens industry in Spain, with a special focus on Madrid, we see that the industry is quite competitive because of a number of reasons which include the easily entry of mall gardening companies, the existence of specialized small and medium sized companies, and also differentiated business branches from big construction companies. Altogether, the market is a fractionated one, characterized by the lack of important players, as these companies tend to be relatively small and they all offer the same kind of products and services, so the capacity to differentiate amongst the competitors is difficult.

**Potential of new entrants into the industry**

The low barriers of entry make the market accessible to new competitors, as gardening companies could easily expand their business into this new trend very easily. In fact, many traditional gardening companies have been recently entering the market, and vertical gardening has become incorporated as part of their offered services along with the traditional ones that these kinds of companies have. These companies have the know-how, the distribution channels, the capital requirements. For these companies, the needed investment would also be lower as they have easy access to the needed technology. The potential and the increasing growth of this market makes it very attractive for future competitors to enter into it.

**Power of suppliers**

We can differentiate two parts when it comes to supplies. On one hand we have the basic materials (plants, soils, fertilisers...), on the other hand we would have the more specific materials like the vertical plantation systems. For the first type of basic materials, the bargaining power of suppliers can be considered relatively low. The inputs needed are offered by many different suppliers that spread through all the area of Madrid and the surrounding regions, with little differentiation between them, which makes it easy and cheap to change supplier in case there are low stocks or high lead times delivery. The low differentiation allows to find easily product substitutes in
the market. One of the issues we could expect is that the margin to negotiate the price is very limited, as even though there is a high number of suppliers, there is also a high number of buyers that buy these products, therefore, the willingness to reduce the price for these suppliers is limited. For the second type of needed materials, the situation changes, as the items needed are provided by a few specialised companies (see Suppliers section), and we assume their bargaining power would be high and our profit margins will be limited, but the aim will be to find a supplier with whom to reach a supply agreement for a high volume order or multiple ones for a long period of time.

**Power of buyers**

The less barriers of entry in the market will increase the number of competitors, therefore the easiest is for prices to decrease. Small sized companies would be negatively affected by this due to decreasing margins. Medium/big companies would not be as affected as the latter ones. In our project, our potential customers are medium sized companies who own their office facilities or rent it for a long-term period. Their bargaining power will depend on what the buyer is interested in. If the buyer wants a design or just an installation or maintenance of a vertical garden the negotiation process won’t be as hard as if the buyer wants a full design, installation and maintenance of a vertical garden, then their bargaining power would be high, especially against small companies, because even though the availability of information for the buyer is a bit limited and requires a lot of research, it would be easy for the buyer to find a cheap solution from one of the main market players. The cost of changing from one company to another would also be costless due to the increasingly competition. All of this could be mitigated by offering an exclusive and personalized service to the customer.

**Threat of substitute products**

In the vertical garden market, we can find at least four types of products and systems that offer the same result. The aim would be to offer all the mid to high-end quality solutions to our customers, always composed by natural plants. Choosing one or another will depend on what the customer is willing to spend and the solution and results they want to obtain (see vertical gardens systems descriptions).
Other factors to take into account to study the threat of substitute products and services are the following:

**Propensity of the buyer to replace compan**

This happens especially in the cheaper or mid to low cost vertical garden solutions, as these are the most offered products and the customer would have several companies available offering these products.

**Relative prices of substitute products**

Green rooftops or lounge areas in the office could be examples of substitute products whose price can be relatively lower than the installation of a high or mid quality indoor vertical garden.

**Perceived level of differentiation of product or service**

For the most complex systems and more differentiated services, it will be very difficult to find other alternatives. This could take place especially in the design phase that a company may offer. Therefore, it is important that the company offers products with a degree of palpable differentiation, as well as the most tailored services possible in order to avoid the threat of substitute products.

**2.1.3. Market analysis**

**2.1.3.1. Market definition**

A vertical garden or a green wall is a vertical installation covered with plants of various species that are cultivated in a special structure giving the appearance of a garden but vertically.

It is a technique used to grow plants on a vertically suspended panel by using layers of organic substrate, modules or hydroponics systems. The structures can either be freestanding or attached to a wall. They are a very good alternative to potted plants in
an office space, as they can last for decades and there is only one large panel to maintain.

There are different ways to name Vertical gardens: green buildings, green walls, living green walls, living walls, etc. No matter how they are called, it does not affect its size. Some of them can be as small as a phone or as massive as a skyscraper. Vertical gardens can be found in any kind of buildings outdoors and also indoors, such as hotels halls, corporate buildings, residential and private spaces, hospitality, retail, etc.

Vertical gardens are a form of urban agriculture or urban gardening. They are usually undertaken as an artistic work because of its beauty. They also can be used as a means of reusing water, at least utilitarian water. Plants can purify contaminated water by digesting dissolved nutrients. Vertical gardens are very useful for cities, especially in vertical areas. Also for arid areas, as the circulating water in the vertical wall is less evaporable than in horizontal gardens, so the buildings can be cooled through its walls. They are also useful for indoor spaces as they do not only have aesthetic features, but they help to improve and filter the air quality and regulate ambient temperature in a house or office.

**2.1.3.2. Market growth**

The vertical garden trend is now present in Europe, Asia and America. The revenue is expected to expand at a significant rate in the following 10 years according to the most recent market study. The two factors that explain this growth is the rise in construction businesses, projects, and activities in many countries across the world as well as rising popularity of living walls on buildings.

Vertical gardens also known as living facades, green walls, plant walls have been implemented in many projects around the globe over the past 15 years. The growth of the vertical garden construction market could also be attributed to the increase in the population and the rising demand for high quality food that does not use pesticides or herbicides. However, one of the main issues of this market is that the high initial investments needed serve as a major restraining factor.
Vertical garden’s evolution is grouped into the green building sector. In several occasions these installations are just one part of a larger scale projects, such as Leed, Breem or Verde certified buildings. According to the Green Building Council, as of 2019, 300 green certifications have been issued since 2007, 12 billion US Dollars worth of property has been transformed from regular to green or developed as new.

Vertical gardens have been implemented since early 80’s. United States was the first country that began using wire-rope net systems and modular trellis panel systems, both systems based on several wires interconnected to develop a rigid structure to fix the plants.

California is a relevant player in the vertical garden sector, being famous for the installation of a trellis panel system in 1993-1994 in the Universal City Walk. According to the Green Roofs Organization, Canada has installed numerous vertical gardens, such as the Canada Life Building in Toronto.

In Latin America a notorious interest on this type of gardens has been shown over the past years. Over the last ten years several relevant companies in the sector were founded in response to an exponential market growth.

In general terms Europe has experienced a constant evolution similar to its growth rate in general terms. After the Brexit discussion in the UK, the office space placement has slowed down as a natural response of many companies relocating in different countries.

Because there is no relevant and sufficient data specifically of the vertical garden building sector in Spain that allows us to identify trends in the latest periods, we will focus on the numbers of the building sector in general terms, which at last, impacts in a direct form our business due to its close relation. The rates and evolution of the building or construction sector is related to the development and installation of vertical gardens; if there is a positive evolution in new buildings or renovations of existing ones, consequently there will be an increase in potential new customers that request to install these type of projects.

For this purpose, we find our target in the new projects as they can be structured and built from scratch in an eco-friendly way. For instance, all those corporate buildings
that must comply with all the requirements of a Leed, Breem or Verde certification to be considered as green and sustainable real estate projects, are our natural and most wanted customers. In consequence, is crucial to identify the evolution of this market.

For 2018-2020 period, Madrid expects relevant, sustainable and green developments such as the Fifth Tower in the North of the city and the mega urban plan, Madrid Castellana Norte comprised of residential, corporate and commercial new buildings all gathered in one area to create a massive green area in the city. Many of the corporate buildings, aim to incorporate green natural interventions on its interior and exterior.

On this period, according to the City Hall of Madrid, it is expected a year-to-year 2.3% growth on the building sector, slightly below the 3% of 2017. Despite this decrease, the city is leaving behind the previous year’s crisis and, slowly but steadily the numbers reflect that even more companies are locating nowadays in the city (including their office spaces).

However, other entities such as the Itec (Instituto de Tecnología de la Construcción) and one of the most relevant sustainability publications of the sector (Ecoconstrucción) are more positive in terms of the market growth for 2019-2020.

These entities estimate at least a 4% increase in the building sector and even more for the next period. In general terms, even a 4.8% increase is expected for 2019 compared to 2018, adding up all subsectors of the industry such as public infrastructure, residential and corporate.

Besides the overall demand of non-residential or new corporate buildings by newly or existing companies moving to Madrid, has been a key element that has helped this subsector to recover from the crisis and increase steadily since 2013.

Particularly, key players such as the above-mentioned, forecast at least an annual 4% - 5% growth of the construction of corporate buildings for 2018-2020 in Madrid. Moreover, the city has shown signs of political and social stability, benefiting from massive moves of companies from other Spanish large cities. Last but not least, taking
into account that prices of rent per square meter of office spaces have increased as well, companies demand more eco-friendly and sustainable office spaces.

Bearing in mind these positive figures, we expect an overall increase for the next three years in our core sub-sector in order to fulfil the demands of these green corporate buildings that shall comply with the new environmental regulation of Madrid (Plan A) and the EU’s standards of climate change control mentioned previously on this document.

### 2.1.3.3. Market segmentation

The market of Vertical Gardens has been segmented mainly on two basic different types:

![Diagram of market segmentation of Vertical Gardens by type](image)

**Indoor vertical gardens**

The indoor vertical garden wall has gained popularity in the past years due to the change of consumer preferences. They are not only used to create beauty in an interior space, but they cool and help the natural airflow of the environment thanks to its air filtering qualities, and they can fill up any empty space of a wall, being a very efficient option to choose when it comes to decorate an indoor space. Within the indoor vertical gardens, there are many different types of natural plants, such as ficus, ferns,
repens, pilea, calathea, and some more making them the most popular plants used in green walls. (Davis, M. 2016)

Vertical gardens work like a natural clean air system and promote a better breathing atmosphere and a healthier environment overall. Plants also help to reduce noise pollution which creates a quieter work environment for building occupants, as many employees in office atmospheres are exposed to a lot of harmful air chemicals.

- Outdoor vertical gardens

Exterior vertical gardens are the most known green walls globally. Many buildings around the world have installed vertical gardens on their exteriors. Outdoor vertical gardens are mainly contain vines, moss, and other similar plants. They have the advantage of having natural direct sunlight that makes them thrive.

Outdoor green walls also give buildings great protection and insulation from temperature fluctuations, heavy rain and UV radiation.

Having this clear, we shall refer specifically to the different types of systems that could be used in a project, and that must be described before analyzing the competition:

**Vegetable facades:** Built with pots anchored to floors or resting on the ground, they are based on the plantation of climbing plants that cover the wall developing on lattice systems or tensed cables (mainly design for exterior projects)

**Living Walls:** Vertical planting systems in which the plants are developed and which have three differentiated types of support and characteristics:

- Filter-based systems: They are not usually marketed in modular form, although some American and Spanish companies already manufactures them (PLANTS ON WALLS, NEDLAW LIVING WALLS in USA, and VERDTICAL or TERAPIA URBANA in Spain). These are based on the system patented by the French botanist Patrick Blanc, whose patent is available for the public and that many companies have imitate it globally, without any clear technical or commercial differentiation, this solution has its competitive advantage in
terms of their cheap materials and their relatively low installation costs, but in most cases, they require irrigation systems in order to preserve it.

- Vertically disposed plant pots with organic substrate: they are usually sold as modules conformed by plant pots made of fibers, plastic or gabions of steel mesh in which an organic substrate is placed retained by a geotextile. The aesthetic wealth is not as high as in the previous case, and tend to have high installation costs, because they require pre-vegetating plant material or vertical planting and filling with substrate, but they do not require automatic irrigation systems and the maintenance it needs tends to be less frequent. For large facades they are not so functional and they are starting to commercialize mainly for the household market; it can be found on large surfaces dedicated to DIY.

- Modular hydroponic systems: Based mainly on rock wool as a substrate growth, this is the more costly solution available in the market. All the specialized companies offer their own different construction systems to contain large plates of approximately 100 x 60 cm (length x height) of rock wool that is usually pre-vegetated in advance. The issue is that the size of the substrate makes it impossible to carry out replacement work in situ by individual and it requires disassembly and replacement by new plates. Nor does it allow a plantation directly in vertical position of developed plants, although some companies offer their own solutions to these problems. Due to this characteristics, this type of garden is the most expensive solution in the market

2.1.3.4. Suppliers

Three main types of suppliers are considered as strategic for our success:

- Plants, soil, fertilizers and pesticides
- Tools, pots, metal or plastic structures for garden anchoring
- Specialized modules and panels
- Irrigation systems and lighting
- Designing and financial Software and AR/VR gadgets for commercial purposes (investment into these softwares will be made once the business is settled, so initially we could rely on our possible partners in order to apply these tools into our projects).

At this early stage we have identified the following suppliers for seeds, plants, soil, fertilizers and pesticides:

- Fleurop Interflora España SA
- El Ejidillo Viveros Integrales SL
- Fitoflor SL
- Urban Flower SL

The first two are the biggest suppliers of seeds, plants and compost in the region (their turnover is €17.6 and €9 millions respectively). We have also found other smaller suppliers whose catalogue includes exotic and special plants and seeds, and we could make use of these suppliers for all those projects that require an exclusive treatment. Many other possible suppliers are located in the surrounding of the Madrid region (Ciudad Real and Guadalajara), we would study the possibility of signing an agreement with one of these suppliers depending on the price and volume of the orders. The initial plan would be to buy the seeds, the plants and the fertilizers from the first two mentioned companies.

For the irrigation systems, it is worth to mention Azud, Riversa, Viagua SL, Verderiego and Rainbird, specialized in the design and distribution of irrigation systems for gardens. Some of these companies also sell machinery and tools. These suppliers we have mentioned are generally wholesalers whose services are directed towards other companies, so there is a big margin to be made once the items are sold to the final customer.

For this first part we have analyzed some of the main competitors in the sector. The offer for these materials is quite ample and the differentiating factor amongst them is small, therefore substituting from one supplier to another one should not be an issue.

Regarding the remaining materials that will form the structure of the vertical garden (tools, pots, metal or plastic structures for garden anchoring), we can differentiate two
types of suppliers according to their specialization and the type of provided solution (the high quality and the medium quality solution). The pots and the different plastic structures need for the medium quality vertical gardens are offered by a wide range of companies, we have identified that many of these manufacturers are Chinese export companies like Xiamen Greenfield Co (www.greenfield.cc), Ltd and Thaizou Sol Plastics Co, Ltd (http://www.f-gardening.com/) who distribute to all Europe, by purchasing the products from them directly, it will increase our profit margins due to the cost reduction. The issue with these items is that they have longer lead times as the average delivery time would be 21 days. The advantages from this range of products, Go Vertical could gain attractive profit margins.

For the high-quality solutions that Go Vertical will offer, the items needed for the installation of these gardens are very specific and hard to find in the market, therefore we would need to obtain these items from specialized companies, that at the same time, could act as direct competitors (the items needed are the anchored modular structure, the substrate panel layers and in some specific case the irrigation systems as well). We have identified five companies from which we could obtain all the materials:

- Paisajismo Urbano (Barcelona)
- Vertitical (Barcelona)
- Terapia Urbana (Sevilla)
- Digebis (Barcelona)
- Serastone (Almeria)

The first three companies are specialized in the Vertical Garden sector (Paisajismo Urbano and Vertitical), they not only design and install VGs, but they both manufacture and distribute their own patented solutions as well. We want to rely on these three companies due to their know-how, their experience and their innovative capabilities. The margin that Go Vertical could obtain from these items would be limited as we already mentioned on the Internal Analysis section.
2.1.3.5. Analysis of competitors

The gardening and landscaping sector is very competitive and there are plenty of products and services available in the market thanks to the dynamism that characterizes the industry. The market is mainly composed of small and medium companies that go from three to 100 employees. Some of these companies act as an important distribution channel of products, tools and services through the realization of landscaping and gardening services. These services go from simple garden maintenance to designing, construction, and reforms of gardens.

Due to the high competitiveness and the atomization of the sector, it is difficult to find the main players that stand out in the market when it comes to income or turnover results, however, small and medium sized companies make up almost 30% of the market total benefits (it is estimated that the turnover they generate is €330 millions). These companies are also able to operate with higher profit margins, they are also capable of offering more differentiating services thanks to the customized customer experience and the exclusive design options they provide.

It is common to see some of these companies to offer all of the mentioned services into one integral service that is customized and adapted to their clients needs and requests. The type of customers that seek this type of solutions are private customers like individual households, big residential neighbour communities, private companies (from Hotels and restaurants to corporate buildings) and public administrations.

In Madrid we have identified six main competitors, we have focused our analysis only on those companies that incorporate or specifically offer Vertical Garden solutions. Some of the analyzed competitors are specialized companies which provide services for the design and installation of vertical gardens, on the other hand, we can find gardening companies who have incorporated the vertical garden design and installation as part of their services.

The differentiation on the services provided is very small, as all of them provide the same service (outdoor/indoor design and installation, and some of them also maintenance). The difference comes in the size of the company and the extra services they provide, as we can find some of the companies selling materials, who act as distributors as well, and even offering vertical gardening courses, workshops, advisory
sessions and showrooms. Below we have introduced a table where we summarise the analysis:

<table>
<thead>
<tr>
<th>Company</th>
<th>Key Products and Services</th>
<th>Price (€/m²)</th>
<th>Type of company</th>
<th>Web Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paisajismo Urbano</td>
<td>-Outdoor/Indoor design and implementation Distributes materials for installation - VG Courses</td>
<td>350-1500</td>
<td>Franchise/ Specialized</td>
<td><a href="http://www.paisajismourbano.com/">http://www.paisajismourbano.com/</a></td>
</tr>
<tr>
<td>Grupo Isla Verde</td>
<td>-Outdoor/Indoor design and implementation</td>
<td>250-950</td>
<td>Gardening company</td>
<td><a href="http://grupoisla">http://grupoisla</a> verde.com/</td>
</tr>
<tr>
<td>Mi Jardin Vertical</td>
<td>-Outdoor/Indoor design and implementation</td>
<td>100-450</td>
<td>Specialized company</td>
<td><a href="https://mijardinvertical.es">https://mijardinvertical.es</a></td>
</tr>
<tr>
<td>Innovajardin</td>
<td>-Outdoor/Indoor design and implementation and maintenance</td>
<td>400-1250</td>
<td>Gardening company</td>
<td><a href="http://www.innovajardin.com/">http://www.innovajardin.com/</a></td>
</tr>
<tr>
<td>Greenworks</td>
<td>-Outdoor/Indoor design and implementation -Supplies materials for installation</td>
<td>250-800</td>
<td>Specialized company</td>
<td><a href="http://greenworks.com.es/">http://greenworks.com.es/</a></td>
</tr>
<tr>
<td>Sempergreen</td>
<td>-Outdoor/Indoor design and implementation</td>
<td>200-1450</td>
<td>Specialized</td>
<td><a href="https://www.se">https://www.se</a></td>
</tr>
<tr>
<td>Company</td>
<td>Target customers</td>
<td>Differentiator</td>
<td>Key features</td>
<td></td>
</tr>
<tr>
<td>-------------------------</td>
<td>--------------------------------------</td>
<td>-----------------------------------------</td>
<td>---------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Paisajismo Urbano</td>
<td>Mainly big corporations</td>
<td>International presence, courses</td>
<td>Specialized Franchise and distributor</td>
<td></td>
</tr>
<tr>
<td>Grupo Isla Verde</td>
<td>Households, restaurants and companies</td>
<td>Provides all gardening services</td>
<td>Provides all gardening services</td>
<td></td>
</tr>
<tr>
<td>Mi Jardin Vertical</td>
<td>Households, restaurants and companies</td>
<td>Specialized in VG</td>
<td>Specialized in VG</td>
<td></td>
</tr>
<tr>
<td>Innova jardín</td>
<td>Households and restaurants</td>
<td>Low cost solutions</td>
<td>Provides all gardening services</td>
<td></td>
</tr>
<tr>
<td>Greenworks</td>
<td>Households</td>
<td>Specialized on interior decoration</td>
<td>Workshops and showrooms, physical shop</td>
<td></td>
</tr>
<tr>
<td>Sempergreen</td>
<td>All</td>
<td>International presence, developed website</td>
<td>Distributor, specialized in VG</td>
<td></td>
</tr>
<tr>
<td>Company</td>
<td>Web features</td>
<td>Customer experience</td>
<td>Social media approach</td>
<td></td>
</tr>
<tr>
<td>---------------------</td>
<td>-------------------------------------</td>
<td>------------------------------</td>
<td>---------------------------</td>
<td></td>
</tr>
<tr>
<td>Paisajismo Urbano</td>
<td>Online shop, videos, news, live chat</td>
<td>Budget info, finished projects</td>
<td>Presence in all social networks</td>
<td></td>
</tr>
<tr>
<td>Grupo Isla Verde</td>
<td>Contact info, portfolio</td>
<td>Finished projects displayed</td>
<td>Presence in FB and IG</td>
<td></td>
</tr>
<tr>
<td>Mi Jardin Vertical</td>
<td>Online shop.</td>
<td>Budget info, finished projects</td>
<td>Presence in all social networks</td>
<td></td>
</tr>
<tr>
<td>Innova jardin</td>
<td>Portfolio</td>
<td>Budget info.</td>
<td>Presence in FB.</td>
<td></td>
</tr>
<tr>
<td>Greenworks</td>
<td>Online shop, portfolio, contact</td>
<td>Physical shop in the centre of the city</td>
<td>Presence in IG.</td>
<td></td>
</tr>
<tr>
<td>Sempergreen</td>
<td>Online advice, downloads, portfolio</td>
<td>Online advice, advanced budget info</td>
<td>Presence in all social networks</td>
<td></td>
</tr>
</tbody>
</table>

Figure 6. In house development. Analysis of main competitors.

2.1.3.6. Analysis of customers

The vertical garden industry is very wide in terms of potential customer’s segmentation, as it encompasses diverse groups. In order to classify the type of clients that exist, we have divided them into two different groups, public and private.
Private sector:

Corporate Buildings: Corporate buildings can have the function of being the 'showcase' of a company, so that through its style and form, anyone will be able to feel the philosophy, culture, identity and image of the enterprise. It is the visible part of the company, as well as a reflection of what is behind the functions of each corporation. This type of client is very important for a vertical gardens firm since, normally, the corporate companies have a medium/high purchasing power and many of them have programs of Corporate Social Responsibility regarding the environment and health of the employees.

Residential / particular customers: This is the most common customer in the vertical garden industry. As we have seen in the previous chapter, most of our clients work with particular customers, which mostly involves punctual work. It can be a good starting point because the segment is very wide and it can have less interference by external factors than other potential customers, as the decisions usually depend on the owner of the property.

Retail and hospitality sector: It is more and more common to find green garden works in the commercial sector, and it is because these two sectors are normally moved a lot by fashionable trends. It is a more complicated sector than, for example, particular customers, because there are multiple intermediaries in the contracting processes.
However, once a company achieve to enter this market, the type of client that exists is very powerful and usually with a high purchasing power. We can see examples such as the fashion sector, especially luxury fashion, or big supermarkets, when we talk about retail, or the hotels sector and/or restaurants when we talk about hospitality.

**Public sector:**

The public sector depends mainly on the government. Therefore, it works differently depending on the location where you intend to implement a vertical garden.

Within this sector, there are different segments, such as public tenders, which can make to enter the vertical garden sector much easier for new companies, in the case of start-ups.

Included in the public sector, we can also find another type of client such as public buildings. These could be libraries, state buildings, museums, etc., and even public infrastructure such as streets and roads or public services such as transport, which, for example, could include train stations such as Renfe or Metro.

**2.1.3.7. Market Trends**

Gardening services have been usually linked to public services like public spaces garden maintenance, and to private households with high incomes. But the high interest in new urban designs has brought attention to this sector, especially, thanks to the increasing environmental and ecological concerns from the population, governments, and the companies. This growing environmental concern has provoked a new interest and relevance of greener spaces, therefore innovative and eco-friendly gardening services are emerging in the landscaping and gardening industry.

The environmental awareness, the lack of green spaces on the cities, and the increasing interest in interior designs are some of the factors that explain the growth of the vertical garden sector. It is possible to identify two new growing trends in the market: the first is related to interior design, and the second one to urban gardening. Vertical gardens are part and fit inside both of these trends, and they represent a fast-growing market, because they are becoming an integral part of the modern
architecture. They have emerged as a solution to this new need of bringing back green spaces to the cities. They are becoming more popular on interior and exterior spaces, in fact, it is becoming more regular to see them in shopping malls, airports, stations, restaurants, hotels and retail stores, as their visual impact makes it easy to attract customers. They act as big pieces of art decorating the buildings and as green lungs that bring back nature to our urban areas.

There are many solutions available on the market, from artificial plants that do not require maintenance, simple plant pockets attached to the wall, to entire living walls with their own irrigation systems. They can be the size of a picture hanging from the wall, with simple designs, or entire walls with an ample variety of plants. The exterior ones tend to be more bigger and more expensive than the interior ones, as they require higher technical knowledge and intense maintenance.

As we have already mentioned, there is an increasing growth from corporations who look at these types of solutions as long-term investment and are therefore interested in installing vertical gardens into their headquarters or offices due to the mentioned benefits it would generate to its employees and the companies performance.

### 2.2 Internal Definition Analysis

#### 2.2.1. Problem

Nowadays, there are a large number of companies worldwide in the vertical gardens sector that focus mainly on offering exterior green walls or maintenance services exclusively, such as construction subsidiaries or big gardening companies, whose target customers are large companies. Another issue is that the most relevant specialized companies offering this services charge high amounts for their natural vertical garden services and their main target is big corporations headquarters, therefore our aim is to offer to small to medium sized companies these solutions at an affordable and standardized price.

Another issue we have identified is that fewer interior designing companies rely on garden design, especially interior design, as is the case with landscape companies and associations, or interior/exterior architecture firms, where they do decoration designs
but usually do not specialise in vertical gardens and, if they do, they tend to be more focused on the type of green exterior walls.

The idea of the company is to combine these activities, being able to complement the lack of resources and knowledge that some of these existing companies have until now, reaching a common objective where the profit margins are high, besides having less competition with respect to the companies dedicated mainly to the design of vertical gardens outdoors and maintenance services.

### 2.2.2. Solution

After identifying the current situation of the vertical gardens sector, it is necessary to add what our purpose is and how we intend to differentiate ourselves from the rest. For this, we have developed a detailed value proposition that specifies which key factors make us unique in this sector:

We stand out in the market for promoting more productive and healthier work environments by bonding nature with conventional working spaces, in order to create groundbreaking atmospheres which foster employee productivity and satisfaction.

We offer:

- Added value for those companies willing to expand their businesses within the vertical gardens area with us.
- Wide range of natural indoor vertical gardens alternatives that could possibly cover all the different customer needs.
- Beautification of the buildings and indoor workplace areas of our clients.
- Increase the labour productivity and employee satisfaction of all our customers.
- Provide a CSR identity and reputation to our clients.

The strategy is to look for permanent collaboration with all the market players (suppliers, distributors, clients...) in order to make sure that the materials purchased from suppliers are obtained at the best possible quality, price and on the agreed terms.
The collaboration with other sectors is of vital importance as well in order to create synergies and being more competitive in the market.

As Go Vertical is intended to be offered as a spin-off or a Joint Venture with a specialized architecture, designing or landscaping existing firm, such partners are expected to rely on a solid base of well-known and experienced suppliers for the first type. It is desirable that those providers are Spanish companies, and if possible, in the Madrid Community to lower transport and logistics costs and improve delivery timetables.

As a disruptive startup, Go Vertical relies on a collaborative philosophy. Hence, we will summon innovative startups or large companies, that have transformed old-style tools and materials into high-tech and innovative products, to participate in our projects and in become visible or more relevant in the market; in other words, a win-win model. As well, all those companies offering state of the art AR and VR technologies, that could be applied to our marketing and sales strategies, are welcomed.

2.2.3 The Company: Go Vertical

Go Vertical was born from the idea of creating a unique company that focuses on the implementation, creation and/or remodeling of indoor vertical gardens for corporate companies in the metropolitan area of Madrid, so that we can add value to our customers building infrastructure and corporate image. Most importantly, Go Vertical would be helping the occupants of the building by creating a unique environment that aims to foster employee productivity and satisfaction at the workplace. In the medium and the long run, our objective is that the implementation of these solutions will translate into greater economic performance for the company who hire our services. Our project is not simply created on the basis of founding a company by itself, but rather consists of creating a spin-off that offers a new line of business to existing landscaping, gardening or architectural companies, focused on generating value for this type of enterprises. In this way, a company as mentioned above could hire our services if they were interested in our project.
Our line of business would be focused on a joint development with the existing company taking into account the following factors:

- To develop a personalized project in common between our company and the interested company.
- Create added value to the existing company individually and uniquely through different strategies and actions executed jointly.
- To agree benefits for the company as well as costs of production and development of the project.
- To take into consideration the increase in income that our project can bring to existing companies when carrying out our strategies.

Go Vertical is designed to open a new path to existing companies and thus offer the possibility of making this project a reality from a business point of view. Thanks to this approach, Go Vertical will have expert companies in the gardening, landscaping or architectural sector and, through mutual agreements, they will provide the tools, skills and techniques needed for the proper implementation and functioning of the project from a technical and designing point of view.

Thus, the services that Go Vertical provides are the following:

- Personalized advice for companies interested in having a vertical garden in their building.
- Development, installation and maintenance of natural indoor vertical gardens for corporate buildings.
- Maintenance of indoor vertical gardens for all the plantations created and installed by us.
- Consultancy technical assistance in vertical gardens.
- Personalized and tailored customer service and support.

Go Vertical is formed, so far, by 3 people, who besides acting as partners, will also be in charge of the general management of the company, the economic, financial and legal responsibility, as well as of the marketing and sales strategies that will be carried out for the good functioning of the company. Another gardener, agriculture engineer or architect with technical background will be hired as an associate under the direct
personnel staff. We can see in more detail our Go Vertical organization chart in the section of Human Resources that we develop below.

### 2.2.4. Value Chain analysis

![Value Chain Analysis Diagram](image)

Figure 8: Own source. Value chain analysis.
2.2.5. Business Model Canvas

<table>
<thead>
<tr>
<th>KEY PARTNERS</th>
<th>KEY ACTIVITIES</th>
<th>VALUE PROPOSITION</th>
<th>CUSTOMER RELATIONSHIPS</th>
<th>CUSTOMER SEGMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Join ventures with strategic partners</td>
<td>Account Managers</td>
<td>We stand out in the market for promoting sustainability of large cities, bonding nature with conventional working spaces to create groundbreaking atmospheres</td>
<td>Social media communications</td>
<td>Large corporations within the metropolitan area of Madrid with a 200-499 headcount</td>
</tr>
<tr>
<td>Strategic alliances with architect firms</td>
<td>CRM</td>
<td></td>
<td>High standard and personalized customer service</td>
<td></td>
</tr>
<tr>
<td>Supply agreements with material suppliers</td>
<td>Asana process flow CEO</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cooperation agreements with recognized entities</td>
<td>Design and production</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Manufacture suppliers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Technological equipment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>High qualified human capital</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>R&amp;D</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

KEY RESOURCES
- Design and production
- Manufacture suppliers
- Technological equipment
- High qualified human capital
- R&D

COST STRUCTURE
- Direct personnel, outsourcing talent & accountant, suppliers, manufacturing and distribution costs, designing tools and software licenses, leasing/renting of machinery and tools, occupational Risk Prevention Program

REVENUE STREAMS
- General advice and designing plans
- Building, construction and implementation of vertical gardens
- Maintenance on a regular basis

Figure 9: Own source. Canvas Model.

2.2.6. Competitive Advantage

After analyzing our competitors, from Go Vertical we can define four clear competitive advantages:

**Segmentation and specialisation**

We have seen that most of our competitors work in the two main market segments, both outdoors and indoors. While one of them, Greenworks, specialises in interior projects, we see that their potential customers are households. That is why one of our main competitive advantages is to be one of the companies specialized only in the implementation of indoor vertical gardens, so that we intend to position ourselves as the company of reference in interior design within this industry.
Clienteling

As we have defined in the chapter of The Company, one of the main differentiating points that will distinguish Go Vertical from other enterprises is the dedication and excellent customer service that we offer. Clienteling is a sales technique used to build long-term relationships with customers and thus increase their loyalty to our company and, therefore, their consumption. This will be achieved by analyzing their behavior, preferences and purchases, so that we can stand out from our competitors thanks to the quality and care of our excellent customer service.

Innovation and personalization

We know that the vertical garden market is growing and that is why we want to be always up to date with what is going on around us. Go Vertical is going to be a company in constant evolution and always adapting to the needs of the market. Our main idea is to stand out in this sector among consumers through our innovative services, which will always be available to the customer, so that they are able to adapt them to their preferences and customize them with their own ideas.

Partnership

Thanks to the work structure through which Go Vertical is formed, we will be able to work in collaboration with another company within the landscaping or architecture sector. This is a crucial differentiating point from our competitors. Through this system, we will be able to add value both to our company and to the firm with which we have common projects, strengthening our alliances and increasing notoriety of our company within the vertical gardens industry.

2.2.7. Mission and Vision

- Mission
To develop innovative, unique and tailored indoor vertical gardens within corporate buildings, to promote and enhance sustainable work environments and help to enhance and foster employee productivity and satisfaction within the workplace.

The mission of our company is to advise, design, develop, install and maintain indoor vertical gardens in existing buildings or new buildings belonging to corporate companies, with the aim of improving the welfare of their employees and meet their needs through nature. In this way not only will they come into contact with the environment when they finish working or in their break time, but they will also be able to feel and enjoy the harmony of nature during their working day.

In addition, our mission is also to contribute to the improvement and care of the environment within metropolitan areas. Also, we have the mission of creating unique relationships with our customers through a personalized and individual treatment to each of them.

- **Vision**

Our vision is very simple and clear: To become the leader company of the indoor vertical garden industry for corporate buildings.

3. **DIAGNOSIS PHASE**

3.1. **SWOT**
4. Strategic Phase

4.1. Strategy

4.1.1. Strategic Objectives

We have seen that Go vertical operates in the market by developing innovative indoor vertical gardens within corporate buildings in the metropolitan area of Madrid.

Our vision is to become the leader company of the indoor vertical gardens industry in Madrid. We aim to stand out in the market for bonding nature with conventional
working spaces by adding value to landscaping/architect firms willing to create a project with us.

From Go Vertical we have a very clear objective that we have seen throughout this document: to get companies to choose us as the company through which they are going to achieve a change, both in the atmosphere and working environment, as in the productivity and satisfaction of their employees. Here we find a good business opportunity to enhance the profitability of our customers’ employees with the implementation of vertical gardens. We want to be pioneers as a company that focuses on improving the offices of corporate buildings with the help of nature. The way we want to achieve this is by positioning our company as a key partner of a successful architecture or landscaping firm.

To achieve this, sustainable growth must be generated in all branches of our business. This will be our main goal and, in order to get it, the first step is to create value for those firms willing to work with us, which become the common financial core of all our business strategies.
In order to accomplish our strategy, the following long-term objectives must be follow:

- Achieving brand awareness by, at least, the 6 direct competitors of Madrid Vertical Garden professionals that we analysed above, within the first running 3 years.

- Achieve, at least, 90% of target sales in a maximum period of 5 years and a minimum annual increase of 20% on sales from the first year of operations onwards. The objective is to increase sales by an average of 30% per year.

In order to meet these general and long term objectives, we will focus on a specific, short-term action plan:

- Develop a network of, at least, 3 collaborator interior-designing companies within the landscaping or architecture industry in the metropolitan area of Madrid in the first 6 operative months.
4.2. Marketing Plan

4.2.1. Segmentation

As we have explained in different chapters of this document, our final clients are small to medium sized corporate buildings. If we divide our target into the four groups included in the marketing segmentation strategy (demographic, geographic, behavioral and psychographic), we obtain the following results:

<table>
<thead>
<tr>
<th>CORPORATE BUILDINGS</th>
<th>DEMOGRAPHIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOGRAPHIC</td>
<td>Small/Medium size corporate buildings with an estimate of:</td>
</tr>
<tr>
<td>Corporate buildings located in Madrid, specifically within its Metropolitan Area. It is the most populated area in Spain and the third most populated in the European Union.</td>
<td>Number of employees: between 10 – 200</td>
</tr>
<tr>
<td></td>
<td>Total average of m2: up to 250 m2/per floor.</td>
</tr>
<tr>
<td></td>
<td>Average income: minimum 4M€/annually.</td>
</tr>
<tr>
<td></td>
<td>Average refurbishment budget: 60.000€/annually.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BEHAVIOURAL</th>
<th>PSYCHOGRAPHIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eco-friendly company. Awareness of the environment issues globally. Promote recycling among their employees. Improvement of the productivity of the employees through environmental solutions. Taking into consideration the quality of working conditions offered to their employees when doing business within their company.</td>
<td>Corporate Social Responsibility: A corporate building with a strong social commitment of the company or looking to have a CSR program.</td>
</tr>
<tr>
<td></td>
<td>Companies with the aim of increasing employee satisfaction within the offices, as well as increasing productivity.</td>
</tr>
</tbody>
</table>

Figure 11. Own source. Customer segmentation.

Thus, our marketing segmentation are medium size corporate buildings based in the metropolitan area of Madrid, seeking to make a change within its company, productivity of the employees and workplace environment while improving the beautification, harmony and decoration of its offices.
After analysing all the possible targets that this industry has, the segmentation we mentioned above is the one that we considered the most accurate to what we are looking for and the target that we consider have the buying power and a legitimate need of our product and services.

With this marketing segmentation we aim to help our business predict where our products and services are most wanted, allowing for better niche marketing, customer experiences and loyalty. An update of our segmentation strategy is to be done every year in order to follow the changes of our target. It is in our brand’s interest to refresh the strategy and analyse the market to be able to take into consideration all the possible potential customers.

Customers can be obtained directly by searching for it at trade fairs, conferences, professional associations, professional directories, etc., or indirectly, by possible people who contact us through the website, brochures, mailing, social media, etc.

4.2.2. Commercial Objectives

4.2.2.1 Sales Forecasting
ASSUMPTIONS

<table>
<thead>
<tr>
<th>Share Capital of own funding</th>
<th>150,000 €</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UNITS OF SALES (m²) LOW COST OPTION</strong></td>
<td></td>
</tr>
<tr>
<td>Y1</td>
<td>Y2</td>
</tr>
<tr>
<td>140</td>
<td>189</td>
</tr>
<tr>
<td><strong>UNITS OF SALES (m²) FULL COST OPTION</strong></td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>54</td>
</tr>
<tr>
<td><strong>TOTAL UNITS SOLD</strong></td>
<td></td>
</tr>
<tr>
<td>180</td>
<td>243</td>
</tr>
<tr>
<td><strong>SALES INCREASE (%)</strong></td>
<td>0%</td>
</tr>
<tr>
<td><strong>PRICE OF SALES / m² LOW COST OPTION</strong></td>
<td></td>
</tr>
<tr>
<td>500 €</td>
<td>508 €</td>
</tr>
<tr>
<td><strong>PRICE OF SALES / m² FULL COST OPTION</strong></td>
<td></td>
</tr>
<tr>
<td>1,000 €</td>
<td>1,015 €</td>
</tr>
<tr>
<td><strong>PRICE OF MAINTENANCE PER M² FOR BOTH SOLUTIONS</strong></td>
<td></td>
</tr>
<tr>
<td>- €</td>
<td>183 €</td>
</tr>
<tr>
<td><strong>SALES LOW COST OPTION</strong></td>
<td></td>
</tr>
<tr>
<td>70,000 €</td>
<td>95,918 €</td>
</tr>
<tr>
<td><strong>SALES HIGH COST OPTION</strong></td>
<td></td>
</tr>
<tr>
<td>40,000 €</td>
<td>54,810 €</td>
</tr>
<tr>
<td><strong>MAINTENANCE SALES</strong></td>
<td></td>
</tr>
<tr>
<td>- €</td>
<td>44,396 €</td>
</tr>
<tr>
<td><strong>TOTAL SALES</strong></td>
<td>110,000 €</td>
</tr>
<tr>
<td><strong>COSGS LOW COST OPTION</strong></td>
<td></td>
</tr>
<tr>
<td>25,200 €</td>
<td>34,530 €</td>
</tr>
<tr>
<td><strong>COSGS FULL COST OPTION</strong></td>
<td></td>
</tr>
<tr>
<td>22,440 €</td>
<td>30,748 €</td>
</tr>
<tr>
<td><strong>OPERATIONAL COSTS OF CONTRACTORS</strong></td>
<td></td>
</tr>
<tr>
<td>4,860 €</td>
<td>6,659 €</td>
</tr>
<tr>
<td><strong>TOTAL COSTS</strong></td>
<td>32,500 €</td>
</tr>
</tbody>
</table>

Figure 12. Own source. Sales Forecast of Go Vertical.

4.2.3. Image & Identity Objectives

To reach our final goal of being a recognized indoor vertical garden company and being able to add value to landscaping and architectural firms, as we have mentioned in our strategy, our main marketing objective has to be about our brand and how we
are seen by others. The image and mission of our company needs to be a must in order to have a well known brand identity.

The main differentiating feature of a company apart from the mission and in terms of image, is the logo. Through the logo, the client is able to immediately recognize the company without even reading the name, therefore, the logo is the first image that forms the identity of a company and serves as a guide for the consumer.

In Go Vertical we want the customer to capture the identity and culture of our company through the eyes, so our logo will be as follows:

![Logo of Go Vertical](image)

**Figure 13. Own source. Logot of Go Vertical.**

Color: Dark green icon and gray characters.
Shape: Icon of buildings simulating a metropolitan area with the title of the company and the slogan on the right side of the logo.
Meaning: The green colour of the buildings represents the essence of our company, which are the vertical gardens. It is our corporate brand and the central axis of the logo. The buildings represent our target, which are the corporate buildings. The typography chosen is simple and clear, making the logo more elegant. Added to this, we have the colour chosen, gray, proper of a B2B company like ours. The slogan, same as our brand name, is straightforward and specifies the main function of our company: go green, reinforced, as we have seen before, by the colour of the buildings.

### 4.2.4. Marketing Strategy
#### 4.2.4.1. Product

In Go Vertical we not only offer a physical product, but we also have the differentiating point of offering a service, both design and maintenance of our vertical gardens. So
before we explain what our product is, we must focus our product to the public as characterized by:

- **As a tangible and basic product**: these are the physical parts by which the product is composed, the Go Vertical solutions, adapted to any surface of a corporate building located in the metropolitan area of Madrid.

- **As an intangible and valuable product**, covering the market needs by offering a high standard customer service amongst our personalized advising services. It also has additional characteristics, such as the innovation that entails in the cities, adding value to the final consumer.

Focusing on the physical product itself, we will offer two products. We can differentiate between these two types, whose main difference is the quality and technical features:

- **Standard Indoor Vertical garden modules-panel structure**

  Vertical garden system using plastic or fiber made modular system anchored to a support structure. This solution can be planted first and delivered to the customer for on-site installation, they do not require an automatic irrigation system. Lighting is not needed neither as this solution can use plants that do not need direct light.

  Materials needed:
  - Structure (modules and anchoring structure)
  - Substrate
  - Plants

- **High-Quality Indoor Garden with filter-based panels**

  Vertical garden system that uses filter bases panels or substrate layers anchored to a support structure. It usually requires automated irrigation
system, proper illumination, plant substrate, and more regular maintenance (cleaning and control).

Materials needed:
- Structure (isolating and support layers + anchoring structure)
- Substrate
- Plants
- Irrigation system
- Lighting

As we have mentioned in previous sections, even though that we offer two differentiated and standardized products with its standardized price, each vertical garden will adapt to what the customer needs, so each garden will be unique and its design, creation and installation will be different in each project. Due to this reason the final cost and price will also may be subject to change.

4.2.4.2. Price

The prices are adapted to the requirements of each of our customers and their needs. Nevertheless, we will work with a standardized fixed price:

**High-Quality Indoor Garden with filter-based panels** 1000€/m²
**Standard Indoor Vertical garden modules-panel structure** 500€/m²

The way we have developed an estimated price is as follows:
### COSTS OF GOODS SOLD STANDARD OPTION

<table>
<thead>
<tr>
<th><strong>PRICE x m²</strong></th>
<th><strong>€</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Structure</strong></td>
<td>100</td>
</tr>
<tr>
<td><strong>Compost and Plants</strong></td>
<td>25</td>
</tr>
<tr>
<td><strong>Installation (assuming 1 hr per m²)</strong></td>
<td>12</td>
</tr>
<tr>
<td><strong>Distribution and Logistics</strong></td>
<td>28</td>
</tr>
<tr>
<td><strong>Design and implementation</strong></td>
<td>15</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>180</strong></td>
</tr>
</tbody>
</table>

### COSTS OF GOODS SOLD FULL COST OPTION

<table>
<thead>
<tr>
<th><strong>PRICE x m²</strong></th>
<th><strong>€</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Structure</strong></td>
<td>200</td>
</tr>
<tr>
<td><strong>Compost and Plants</strong></td>
<td>50</td>
</tr>
<tr>
<td><strong>Irrigation</strong></td>
<td>170</td>
</tr>
<tr>
<td><strong>Installation (assuming 1 hr per m²)</strong></td>
<td>6</td>
</tr>
<tr>
<td><strong>Distribution and Logistics</strong></td>
<td>65</td>
</tr>
<tr>
<td><strong>Lighting</strong></td>
<td>55</td>
</tr>
<tr>
<td><strong>Design and implementation</strong></td>
<td>15</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>561</strong></td>
</tr>
</tbody>
</table>

Figure 14 & 15. Own source. Price and costs of goods sold of Go Vertical
The price is the amount of money that customers are already willing to pay in order to acquire vertical gardening solutions similar to what we offer in Go Vertical. The market price of this type of solutions has been obtained directly through the price of our competitors and indirectly through articles and technical-commercial material online that we found specializing in this sector. These sources agreed on an installation price of a high to medium quality vertical garden between 900€ and 1,250 €/m², depending on the type of garden and the total area of installation. Prices can go up considerably depending on the type of system, the types of plants, lighting needs and so on. Regarding the standard vertical garden that Go vertical offers, we have estimated an installation price of 500€/m².

Based on the above calculations, we estimate a maximum execution cost for the installation of high quality vertical gardens of around 64% of the final price (1000€/m²), and a maximum execution cost of 46% for the standard vertical garden. Within those costs attributable to the execution of a hypothetical project we include: structure, compost, irrigation, installation, distribution and material, which represents an estimated total cost of 561€/m² for the high-end solution. By deducting the total costs, we end up with an estimated profit of 439€/m², out of those 1000€/m². For the standard solution the total estimated cost is 180€/m², and the estimated profit is 320€/m².

![Operational Cost of Contractors per m²](operational-cost.png)

**Figure 16.** Own source. Costs of goods of Contractors of Go Vertical
Given the situation that the demand increases considerably, we expect our costs to be lower and therefore our profit margins higher, which will translate into higher profits; when increasing the rotation, although this will not imply a decrease of the price for following a strategy of differentiation by innovation in the long term. The elasticity of this type of products and services is very small, this is why a small price increase is unlikely to end up in the loss of a large amount of sales.

4.2.4.3. Distribution

Landscaping and gardening companies tend to have a single distribution centre. They act as large supplier centres, they also deliver their products so it is not necessary that the customer is present in the centre. Internet distribution channels are less developed than in order industries but it is growing slowly, and nowadays there are many suppliers in the sector that have incorporated online shops on their websites where you can buy all the necessary products (plants, fertilizers, seeds...). Small and medium sized companies tend to establish their own commercial network.

Specialized suppliers in the vertical garden sector, usually have developed online distribution channels where you can purchase their solutions, and they also have a main distribution centre in the city where they operate, so there is always the possibility of purchasing these solutions directly from this centres.

Regarding the distribution of our product, we need to divide it in two different areas:

In terms of our physical product:

Direct distribution channel from Go Vertical to the final customer. As we saw in the price breakdown, the distribution will be a cost for our company included in the final price that the customer will be paying (around a 6,5% of the final price per square meter).

Depending on the size of the project, the cost of distribution, as it will always be included in the price, could be scalable if the client acquires a large vertical garden installation project. In this way, the total price to be paid by the client could be modified in a personalized way and analyzing the situation individually.
Hoewer, direct distribution is not the only channel to be used in the landscaping and gardening industry. Analysing the way that our competitors work nowadays, the distribution channels in this market tend to focus on a single center whose way of supplying the product could be called 'one stock system'. These centers are large suppliers, such as nurseries (Viveros), that have all the products that we need in order to meet the demand needs of the industry. They also work as a key point of sell for both private and public sector. Here we will be able to find all our material, from seeds and plants to fertilisers, ornamental plants or other herbaceous materials.

In terms of service:

Regarding the service that we provide to the customer, creation, implementation and advising, we did not plan a specific distribution system, as it can be very versatile.

In this case, Go Vertical will use as a distribution channel both our own local as key meeting point to offer an excellent customer service, as well as traveling to our customers' offices or intermediate locations.

In addition, the Internet will be one of the main tools when distributing our service, as it facilitates contact between companies by not having to travel and it gives both parties more flexibility. That is why, in terms of services offered, Go Vertical does not plan to have a fixed distribution plan, but rather remain flexible and available to offer a service whose main premises are quality, proximity and excellent customer care.

4.2.4.4. Promotion

We are going to develop the following communication tactics:

- Corporate Book

The design of the corporate book by a specialist company that allows a customization of the project Go Vertical. It must be simple, easily identifiable and aesthetically pleasing.
This Portfolio will allow us to communicate our brand through different ways:

First of all, it will allow us to make the website, brochures, business cards, folders, merchandising, presentations, etc; with a unified and professional corporate philosophy.

Secondly, we will be able to create informative communication, meaning the contact with all potential customers by the Sales Responsible of Go Vertical. This area is the most effective and weighty direct promotional action of all marketing. It is the direct work of the Sales Responsible who, with the direct communication to the final consumer, will be the reinforcement and the best possible publicity. In order to do that, we must have a corporate book to be able to identify our brand and catch the eye of our potential partners and customers.

This is the draft of our portfolio cover page:

![Portfolio Cover Page](image)

Figure 17. Own development. Source: Wix

And this would be the promotional bag we will be giving to the customers in our meeting with the portfolio inside (included in the corporate book budget):
Creating an online platform will be key for our company, as it will be one of the main communication points with the customers. We can divide our website strategy in two different types:

**SEM campaign**

As it is well known, to get to know our company, we need to promote our website. That is why we are planning on creating a SEM campaign with Google Ads for the first year. This action is meant to increase the traffic of our website, as well as the impressions and so the clicks per users. Our idea is to be able to achieve an estimate of 15000 / 20000 impressions per month, converting into 500 / 800 clicks per month. This campaign will be paid and included in our marketing budget.

Here we can see some examples of a Go Vertical Google Ad placed online:
Regarding our website, we will also create two different newsletter campaign. A ‘beginner’ and first campaign for those customers that have made any activity on the website but we actually have not been in touch with them. By activity we understand any interaction / click on the website. We will plan an email so that they can get to know us better, capture their attention and encourage them to regain access to our website, social networks, or directly contact us.

And a second campaign to those customers that already got in touch with us, so that they do not feel forgotten at any time. We will create an estimated schedule to plan emails with the aim of building customer loyalty, without saturating users. This action will have a minimum periodicity of two months, and will be analyzed at the end of the first year so that we can adapt the campaign to customer requests.

Both campaigns will be analysed using our digital data measurement tools.
See a draft of how our website might look both in a laptop and smartphone:

![Website Draft](image)

Figure 20: Own development. Draft of our website. Source: Wix.

- **Social Media**

Presence in all social networks (necessary nowadays), emphasizing those that may be most useful for our type of business: Linkedin and Instagram. The first one will be used to attract the attention of other companies and gain notoriety. In this way we can use this platform to begin to make a dent in one of our objectives: to penetrate the market of Vertical Garden and that our competitors get to know us. In addition, thanks to this social media we will be able to keep abreast of what is happening in the market, we will have the opportunity to know events, conferences, meetings and activities of all kinds related to our market. In the same manner, other users will be able to be up to date on all our activities as well. Linkedin also offers marketing solutions in order to create B2B leads which could be very useful in order to attract clients.

Our Instagram account, on the other hand, will aim to enhance the beautification, modernity, freshness and natural part that Go Vertical solutions offers. According to
the philosophy and utility of the app, our main objective is to show to the public the beauty of vertical gardens and how they can adapt to any space, especially in work environments. So, our main activity in this app will be to post pictures of our own work and also some inspirational photographs that convey what Go Vertical is and what it can do to make some spaces a better place. In addition, we will be placing Instagram stories ads in order to catch people’s attention and gain notoriety among the social media users.

Apart from increasing the traffic thanks to Google Ads, and social networks, all our platforms online have the function of providing information and data of the users who enter them. That information will be processed through our Google Analytics account, which it will be used in order to analyse the traffic, the conversion rate, the revenue (if applicable) and customers information (location, time spent online, roadmaps, etc.). We will plan weekly and monthly reports to help us improve our productivity by using our digital tools.

- **Press Releases**

Getting publicity through the media is complicated if you do not have a certain public notoriety yet or if you are not what it is called “news”. That is why this will be the communication tactic where we are going to focus the least. Even so, we will write several press releases for specific situations in which we believe that the media may be interested in our project. In the same way, we will contact the press also in those occasions in which Go Vertical has presence in some public acts like exhibitions, congresses, events, activities, meetings, etc. This action has a cost of 0€.

- **PR Events**

In the initial phase of Go Vertical, we will attend the following fairs and congresses in Spain related to the architecture, landscaping and gardening sector:

- **Architect @ Work - IFEMA Madrid**, 20 and 30 of May
- **Congreso Paisajismo URJC Madrid**, 21 and 23 of June
- **Iberflora - Feria Valencia** 1st - 3rd of October
4.2.5. Marketing Budget

![ANNUAL BUDGET OF MARKETING]

<table>
<thead>
<tr>
<th>ACTIONS</th>
<th>COSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CORPORATE BOOK</td>
<td>2.350 €</td>
</tr>
<tr>
<td>WEBSITE DOMAIN</td>
<td>75 €</td>
</tr>
<tr>
<td>SEM</td>
<td>3.540 €</td>
</tr>
<tr>
<td>SOCIAL MEDIA</td>
<td>2.450 €</td>
</tr>
<tr>
<td>EVENTS</td>
<td>9.000 €</td>
</tr>
<tr>
<td><strong>Total Cost</strong></td>
<td><strong>17.415 €</strong></td>
</tr>
</tbody>
</table>

Figure 21. Own source. Annual Budget of Marketing and Advertising.

**Marketing costs breakdown:**

**Corporate book:** Hiring a Freelance Graphic designer will cost us 150€ / day. Taking into account that it will take an estimate of 15 days to create the portfolio, we calculate an average of 2.250 / 2.350€ only for the first year. We will need to recalculate the cost of the corporate book every year, in order to adapt it to the culture and needs of our company and the trends of the market.

**Website Domain:** We will design and create our own website, so we will only need to pay for the domain, which is 75€. After the first year, depending on our budget we will consider to redesign our website with an external agency in order to meet the needs of the market, increase the traffic and boost our conversion rate (these last two will be developed among the results of Google Analytics).

**SEM:** We want to increase the traffic of our website. First, we plan a ratio of 25 km distance from our office in Madrid. The size of potential audience within
this ratio is 22,686,691 people per month, according to Google Ads. This estimated number indicates how many people search Google in the location we have selected, but the audience size does not affect our costs. We plan to get an estimated return of 13,181 / 21,995 impressions per month and 528 / 881 clicks per month. This estimate is based on companies with a similar publicity profile and announcement configuration, as our business has.

Thus, to place this campaign on Google Ads will cost us an estimate of 9,70€ per day / 295€ per month. The total average per year will be 3,540€.

To be able to see the results of our website, we will create an account on Google Analytics. For the first year, due to our limited budget, we will be using Google Analytics Standard, which is free of any costs. After the first year, depending on our results in terms of traffic and interaction of the users compared to conversion rate, we will also consider to change our account to Google Analytics Premium (called Analytics 360) if needed.

Social Media: Free user account on Linkedin, Twitter and Facebook. Also, free account on Instagram with paid advertising. On Instagram, advertising costs 20€ per day. If we calculate this amount taking into account the timing when we will call to action, the total amount of advertising on Instagram is 6 months. That makes an estimate expenditure of 2,450€ annually.

Events: We will participate in 3 events the first year. The stand in each event costs 145€ / m2. If we use an average of 10 m2, it will make an estimate cost of 1,450€ per stand. Taking into account the traveling, preparation and material expenses that an event could have, we calculate an estimate cost of 3,000€ per event.

4.2.6. Timing
4.3. Operations Plan

4.3.1. Description and analysis of processes

In the operations plan we find detailed explanation of the services Go Vertical provides. We will start with a simplified diagram of the business process, and we will continue with the customer path or process to follow. The diagram below shows a simplified outline of our company's business process:

![Diagram of Go Vertical's business process](image)

Figure 22: Own source. Business Process of Go Vertical.
Figure 23 shows the customer journey, which would work as follows:

1) Customer requests our service through our website, our office or via telephone. Our team inspects the office and the space where the project will be implemented (photographs and measures will be taken in place) and then interviews the customer so that we analyze their needs and requirements (the purpose of the project, the location...).

2) After the measures and the ideas from our customer are taken, our team would put it all together, taking into account the project’s placement, the materials to be used, the irrigation system, the lighting needs and so on. It will also be necessary to determine the time frames of implementation of the project and the time availability when our team will be able to operate in order to plan and adjust the resources to fulfill the deadlines.
3) Once we have put together an initial approach to the project, the company will assess the viability with the customer and provide our own advice and approach according to what the customer has required. The idea is to show the customer all the possible solutions available and offer a customized design and unique tailored experience. After the project is defined, our design team will elaborate and send to the customer a 3D model of the project using the most modern AR and VR tools and we will proceed to send the final budget proposal covering all the materials, the installation hours and the corresponding deadlines. After this phase we would modify or correct (if needed) according to what our customer wants.

4) When the design and the budget proposal are validated and approved, the company would begin the creation of the vertical garden. It will be our specialized technical gardener the one in charge to plant the plants into the modules. In this point, we will charge the customer a first down payment of between a 35% to 45%.

5) After the plants are placed into the modules, these modules will be transported to our customers' offices along with the remaining structures and materials.

6) The installation of the modules and the structure will be done in the office by either 1 or 2 workers (it will depend on the project size).

7) When the installation is finished, we invoice the customer the rest of the project. Maintenance will be provided for free during the first year, after that, we will offer our maintenance service for a fixed fee of 15€/month per square meter.

4.3.2. Assignation of resources to processes

Go Vertical will initially invest part of the capital on marketing and advertising, and also on all the materials needed to start the daily activities of the company. Part of these materials will be office materials, vertical gardening tools and machinery and of course, the structures, modules, plants and goods needed for the installation of our vertical garden solutions.

Regarding the personnel, the first two years of activity the salary will be adjusted to the company's initial turnover, so at the beginning they will be lower, but as the
company starts to increase the turnover, the plan is to increase the salaries accordingly.

4.4. Corporate Governance

Despite being Go Vertical a startup with a small team at the initial phase, we strongly believe that the company should be organized and planned since the beginning of operations as a large company in terms of corporate structure. Hence, the company will be ready and extremely well organized whenever an expansion plan, a merger or an acquisition will be carried out.

The basics of the company and the way every employee and contractor relates and how things are done is crucial for potential investors and is part of the positive social impact we want to generate in society and our stakeholders.

4.4.1. Corporate Model. Legal Aspects

Go Vertical will be incorporated in Madrid, Spain as a limited liability company (“SL”) composed of three partners, each of them holding equal percentage of common shares in the company (33.33% each).

Above all, the relation among them and specific rules related to new future partners, specific role of each in the daily basis of the company, duties and obligations, and in general, the way they should act on behalf of the company, will be regulated in a Shareholder’s Agreement. This Agreement should be negotiated and signed before incorporating the company, and kept on the main office of Go Vertical for transparency purposes. The Agreement shall cover every single detail regarding their exit of the company via assignment or sale of their participation.

In terms of legal or management entities, the company will count on a General Manager and two C-level executives, which will be supervised by a General Council that should meet at least every two months with supervision and guidance functions for the management.
To avoid having a very heavy and rigid corporate structure, this committee will not be equivalent to a Board of Directors. On the contrary, it will serve as mentoring team of three skilled professionals that guide the path and the evolution of the company. It will be comprised of three members, each designated for a year period and pro-bono. It should count on one candidate per shareholder and trying to attempt designating an expert in agronomy or related sciences, a marketing expert and a finance expert.

In regards to the legal framework, because one of the shareholders is a business lawyer, he will provide legal advice to the company, free of charge, at least during the first year of operations. All the necessary agreements and legal documents required to run the business will be provided, reviewed and negotiated by such partner.

During the first year of operations, he will support the General Management to develop a Compliance Policy applicable to every single employee and collaborator. This manual will consider and include to our daily operation, the best practices in the industry in terms of:

- Prevention of money laundering activities
- Anti-corruption standards
- Compliance of labour duties, specifically in terms of a balanced and appropriate work environment.
- Gender equality principles and non-discrimination.

This Policy - Compliance manual should be reviewed at least annually.

Finally, the company should fully comply with the accounting standards applicable in Spain and make public its tax declarations whenever it is required in case of presenting to public tenders.

4.4.2. CSR Policies

Corporate social responsibility is fundamental for our business, not only as showing off or as trendy strategy. Go Vertical is structured all over sustainability and generating a positive impact on the environment through our vertical gardens.
We must be consequent to our principles and set up a scheme in which every single activity performed by our team is consequent with our mission, vision and principles. In general terms, during the first year of operations, the general management will work and develop a CSR Policy that reunites all the processes and activities aiming to produce a positive impact on society and stakeholders.

Our Policy should be based on:

- Stakeholders management
- Transparency
- Investment activities
- Procurement standards
- Relation with suppliers

**4.5 Organization and HR Plan**

Go Vertical is based on a plain and non-hierarchical structure. On the contrary, we define our company as a multi project entity in which each employee or outsourced personnel works in a correlated way.

Moving on to the future of Human Resources, we consider each employee as a fundamental part of our company and every person and opinion really counts. Each one of our employees, including the partners are in charge of certain duties and all those resulting from the daily basis, supporting each other in terms of their expertise.

Every six months, each member, including the members of the Expert Division shall be in charge of a challenging, strategic and high-responsibility project.

**4.5.1 Organizational Chart**

Go Vertical will rely on two different types of staff: permanent and direct and outsourced services providers on the other hand. Because our company is a startup we will group the relevant and key activities on the three partners and rely upon on a
technical expert in order to complete a robust team focused on strategy/management applied to the vertical garden business.

As stated before, our company is based on a collaborative structure and flat structure in which hierarchies do not exist and each member of the team is in charge and responsible for certain activities but eventually, from time to time, will have to lead relevant projects. Even the General Manager will have to co-lead with our indirect staff different types of projects and execute certain activities under its supervision.

Thus, we will develop a project based company instead of a role based structure. Besides, depending on the number of projects and specific needs for each client, we will hire the required contractors to meet the demand and technical issues. This variable structure allows us to improve our profit by means of an efficient cost policy. If the sales objectives are fulfilled after the second year our plan would be to hire an extra gardener apprentice to assist our technical gardener, and if sales objectives are met after the 4th year, we would study the viability of incorporating an interior designer to be part of the team.

- **Permanent and direct staff:**

Our General Manager will lead the company. The person in that position will be in charge mainly of: i). Design the strategy of the company and its execution using in the most efficient way the staff; ii). Approve and supervise the sales forecast and annual budget prepared by the Financial Manager; iii): Request for loans and any other
financing sources; iv). Be the main legal representative of the company; v). Hire and dismiss personnel.

The Sales and Operations Manager will be responsible of implementing the most adequate sales strategy and review it with the General and Financial Managers, supervising the execution and timeline of each project, and coordinate the procurement of materials and the request of the contractors required for each project. Along with our expert associate, such Manager will supervise on site each project and deal with our clients up to the end.

On the other hand, payroll and administrative issues will be carried out by the Finance and Accounting Manager. Besides, this Manager will be responsible for preparing the annual forecast of sales, costs structure, financial statements, reports for stakeholders, financing search and the monthly and year accounting of the company. This person will authorize and make all types of payments.

Finally, our technical expert, preferably an agricultural engineer or architect, of junior mid level, will play a very important role in our company being the person in charge of supervising on/off-site each project from an expert criteria. The permanent supervision of each project and maintenance of our installed projects will be performed by this person as well. Depending on future needs, level of expertise and the volume of projects that require maintenance, more experts will be hired.

- **Services providers and contractors (outsourced)**

In pursuit of a cost efficient structure reducing at the maximum social security and related salaries costs, the required technical personnel for onsite installation and setup of the gardens will be carried out by external outsourced contractors.

Depending on the number of projects, Go Vertical will enter into special price and service level agreements in order to get more convenient economic conditions.
4.5.2 Talent Policy

The following Values represent our Talent Policy:

Our talent principles are based all over transparency in every single task performed on a daily basis. This will allow each member of the team to clearly understand the message we are giving them with our work and what we really feel by doing it.

We show what we are, from our company to our customers, and among all employees. Being honest is an essential part of communication and the key to having a successful cooperation between our departments.

In Go Vertical we desire that our staff is fully committed with the environment. By little actions, we will make us and our employees feel responsible with the environment and make a difference. The earth changes so we do, replacing old solutions with new and better ideas is what we believe on.
Finally, the entire company will be built all over adaptability. This core value will allow us to last and evolve swiftly depending on the market and our customer's needs.

### 4.5.2.1. Talent acquisition

Our core values will be a solid argument to attract in the future the most skillful required talent. Besides, we will offer several cool features that create in a whole a fun and great place to work.

Our offices will be designed under an open space concept which facilitates teamwork, a lounge area at the disposal of all of our staff and visitors, and of course, several vertical gardens installed in relaxing and thinking spaces to create a home-feel at work.

We will implement a live challenge alongside relevant business schools in town in which the candidates compete fairly among them to join our company. For instance, a location such as the Caixa Forum or the Retiro park will be the perfect location to perform these types of activities. The purpose is to engage out-of-the box thinkers that really appreciate nature, open spaces and are fully committed in reducing the corporation’s carbon footprint throughout innovative vertical garden projects.

### 4.5.2.2. Compensation model

Go Vertical values outstanding skills. For such purpose, the compensation model is based on a benchmark of the industry, considering variables such as living costs in Madrid, years of experience and proven goals in prior companies. Competitive salaries will be offered to our staff.

As a final strategy to engage the most talented and committed staff, we guarantee total exposure and recognition for each relevant goal met. After the third year of operations a variable compensation scheme is planned to be implemented for all the staff that joins the company during such initial phase, not taking into account the partners, as a special recognition and retribution for their effort.
For the future sales team, a variable performance-related compensation will be defined. Going even further the usual bonuses depending on goal achievements, we will provide leisure experiences instead, such as plane tickets or electric bikes.

Finally, as our model is inclusive and participation of our members is extremely important, we will consult every year with our employees the type of bonus (cash or other types highlighted previously) and the final amount or items will be discussed between each employee and its team leader.

### 4.5.2.3. Talent Retention Strategies

As special benefits for our early stage staff, special discounts in spas and yoga centers and eco-friendly outdoors activities such as nordic walking sessions in the suburbs of Madrid will be offered sponsored by relevant wellness centers. Besides, Go Vertical will offer:

- Supplementary compensation: restaurant tickets, Gympass, free coffee, baskets of fruit.
- Schedule flexibility.
- Paid extra holidays when overperformance is achieved.
- Birthdays off.
- Free car, bikes and scooters charging points.

On the other hand a solid career plan will be designed for every single employee from day one including:

- Training and education at work.
- Monthly evaluation and feedback from managers and employees (bilateral).
- Diversity of roles and work across teams.
4.5.2.4. Labour Costs

Below it is shown the salary structure for the first five years:

<table>
<thead>
<tr>
<th></th>
<th>15.333,33 €</th>
<th>15.633,33 €</th>
<th>20.000,00 €</th>
<th>24.000,00 €</th>
<th>25.500,00 €</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manager</td>
<td>15.333,33 €</td>
<td>15.633,33 €</td>
<td>20.000,00 €</td>
<td>24.000,00 €</td>
<td>25.500,00 €</td>
</tr>
<tr>
<td>Sales</td>
<td>15.333,33 €</td>
<td>15.633,33 €</td>
<td>20.000,00 €</td>
<td>24.000,00 €</td>
<td>25.500,00 €</td>
</tr>
<tr>
<td>Tech Gardener</td>
<td>14.000,00 €</td>
<td>14.000,00 €</td>
<td>15.000,00 €</td>
<td>18.000,00 €</td>
<td>18.500,00 €</td>
</tr>
<tr>
<td>Finance</td>
<td>15.333,33 €</td>
<td>15.633,33 €</td>
<td>20.000,00 €</td>
<td>24.000,00 €</td>
<td>25.500,00 €</td>
</tr>
<tr>
<td>Gard apprentice</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>11.000,00 €</td>
<td>11.500,00 €</td>
</tr>
<tr>
<td>TOTAL</td>
<td>60.000,00 €</td>
<td>60.900,00 €</td>
<td>75.000,00 €</td>
<td>90.000,00 €</td>
<td>95.000,00 €</td>
</tr>
</tbody>
</table>

Figure 27. Labour Costs. Own source.

Considering that the majority of the staff is comprised of Go Vertical’s partners, they are fully committed to the expansion of the company and are willing to earn less than the average salary for their level of expertise. Hence, during the first two years of operations there will only be a salary rise corresponding to the inflation rate as of the previous year (estimated in 1.5% based on the last 5-year tendency).

On the third year of operations, the company will begin to compensate its losses of the precedent years and, consequently, a moderate increase will be applied to the salaries of the direct personnel. On the fourth year, considering the financial model and expected sales, the net income of the company will be almost doubled compared to the previous year which will allow to adjust compensation to market conditions.

4.6. Financial plan

In this chapter the financial model created in house by the partners of Go Vertical will be explained in detail. This plan is based on a closed-cost structure and an aggressive sales and marketing strategy. As the reader will notice further on, we have allocated a significant amount of money for marketing and advertising. With the objective of entering very quickly into the market and differentiating from our competitors, this strategy is one of our main pillars.
Besides, our model is designed in a way that the Management has to administer in the most efficient way the revenues and above all, the expenses in order to obtain profits between the second and third year of operations.

4.6.1. Seed Capital: Loans, Venture Capital Funds or Own Resources

During the structuring phase, several funding options were analyzed in terms of introducing the adequate cash as seed capital to initiate operations.

Due to the fact that in Spain, the interest rates are very stable and in accepted levels, bank loans were the first option to consider. However, there is always the credit risk and the future volatility of interest rates in Europe as a result of actual issues such as the Brexit and the possible default of certain EU members. As a consequence this option was discarded.

Another option was to build a deck for possible investors and pitch the company to raise seed capital. However, considering the early stage and level of risk, no Venture Capital fund will enter without asking for at least 40% or even 51% of shares. Taking into account that, at the moment, Go Vertical has three partners at equal share each, the cost in terms of equity will be extremely high and delusion will occur eventually.

At last, the partners decided to allocate the necessary funds from their own patrimony, considering that is a company with a notorious potential and its business model will be intended to revolution the industry as the way it is actually known.

4.6.2. Financial Statements

For analysis purposes of these sheets, Go Vertical financial statements considers a thirty-day collection period to clients and payment to providers. The following assumptions were set forth:
## ASSUMPTIONS

<table>
<thead>
<tr>
<th>Share Capital of own funding</th>
<th>150.000 €</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Y1</th>
<th>Y2</th>
<th>Y3</th>
<th>Y4</th>
<th>Y5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UNITS OF SALES (m²) LOW COST OPTION</strong></td>
<td>140</td>
<td>189</td>
<td>240</td>
<td>320</td>
<td>410</td>
</tr>
<tr>
<td><strong>UNITS OF SALES (m²) FULL COST OPTION</strong></td>
<td>40</td>
<td>54</td>
<td>90</td>
<td>140</td>
<td>200</td>
</tr>
<tr>
<td><strong>TOTAL UNITS SOLD</strong></td>
<td>180</td>
<td>243</td>
<td>330</td>
<td>460</td>
<td>610</td>
</tr>
<tr>
<td><strong>SALES INCREASE (%)</strong></td>
<td>0%</td>
<td>35%</td>
<td>36%</td>
<td>39%</td>
<td>33%</td>
</tr>
<tr>
<td><strong>PRICE OF SALES / m² LOW COST OPTION</strong></td>
<td>500 €</td>
<td>508 €</td>
<td>515 €</td>
<td>523 €</td>
<td>531 €</td>
</tr>
<tr>
<td><strong>PRICE OF SALES / m² FULL COST OPTION</strong></td>
<td>1,000 €</td>
<td>1,015 €</td>
<td>1,030 €</td>
<td>1,046 €</td>
<td>1,061 €</td>
</tr>
<tr>
<td><strong>PRICE OF MAINTENANCE PER M² FOR BOTH SOLUTIONS</strong></td>
<td>- €</td>
<td>183 €</td>
<td>185 €</td>
<td>188 €</td>
<td>191 €</td>
</tr>
<tr>
<td><strong>SALES LOW COST OPTION</strong></td>
<td>70,000 €</td>
<td>95,918 €</td>
<td>123,627 €</td>
<td>167,309 €</td>
<td>217,580 €</td>
</tr>
<tr>
<td><strong>SALES HIGH COST OPTION</strong></td>
<td>40,000 €</td>
<td>54,810 €</td>
<td>92,720 €</td>
<td>146,395 €</td>
<td>212,273 €</td>
</tr>
<tr>
<td><strong>MAINTENANCE SALES</strong></td>
<td>- €</td>
<td>44,396 €</td>
<td>61,195 €</td>
<td>86,582 €</td>
<td>116,538 €</td>
</tr>
<tr>
<td><strong>TOTAL SALES</strong></td>
<td><strong>110,000 €</strong></td>
<td><strong>195,124 €</strong></td>
<td><strong>277,843 €</strong></td>
<td><strong>400,286 €</strong></td>
<td><strong>546,390 €</strong></td>
</tr>
<tr>
<td><strong>COGS LOW COST OPTION</strong></td>
<td>25,200 €</td>
<td>34,530 €</td>
<td>44,506 €</td>
<td>60,231 €</td>
<td>78,329 €</td>
</tr>
<tr>
<td><strong>COGS FULL COST OPTION</strong></td>
<td>22,440 €</td>
<td>30,748 €</td>
<td>52,016 €</td>
<td>82,128 €</td>
<td>119,085 €</td>
</tr>
<tr>
<td><strong>OPERATIONAL COSTS OF CONTRACTORS</strong></td>
<td>4,860 €</td>
<td>6,689 €</td>
<td>9,179 €</td>
<td>12,987 €</td>
<td>17,481 €</td>
</tr>
<tr>
<td><strong>TOTAL COSTS</strong></td>
<td><strong>52,500 €</strong></td>
<td><strong>71,938 €</strong></td>
<td><strong>105,701 €</strong></td>
<td><strong>155,346 €</strong></td>
<td><strong>214,894 €</strong></td>
</tr>
<tr>
<td><strong>TAXES</strong></td>
<td>0%</td>
<td>15%</td>
<td>25%</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td><strong>DIVIDENDS RATE</strong></td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td><strong>COGS / SALES LOW COST OPTION</strong></td>
<td>36%</td>
<td>36%</td>
<td>36%</td>
<td>36%</td>
<td>36%</td>
</tr>
<tr>
<td><strong>COGS / SALES FULL COST OPTION</strong></td>
<td>56%</td>
<td>56%</td>
<td>56%</td>
<td>56%</td>
<td>56%</td>
</tr>
<tr>
<td><strong>MARGIN LOW COST OPTION</strong></td>
<td>64%</td>
<td>64%</td>
<td>64%</td>
<td>64%</td>
<td>64%</td>
</tr>
<tr>
<td><strong>MARGIN FULL COST OPTION</strong></td>
<td>44%</td>
<td>44%</td>
<td>44%</td>
<td>44%</td>
<td>44%</td>
</tr>
</tbody>
</table>

Figure 28. Complete assumptions. Own source.
As stated before, Go Vertical will offer two different types of products, and consequently they will have two different cost structures that impact directly the income statement as cost of goods sold and the profit as well:

<table>
<thead>
<tr>
<th>COSTS OF GOODS SOLD FULL COST OPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRICE x m²</td>
</tr>
<tr>
<td>Structure</td>
</tr>
<tr>
<td>Compost and Plants</td>
</tr>
<tr>
<td>Irrigation</td>
</tr>
<tr>
<td>Installation (assuming 1 hr per m²)</td>
</tr>
<tr>
<td>Distribution and Logistics</td>
</tr>
<tr>
<td>Lighting</td>
</tr>
<tr>
<td>Design and implementation</td>
</tr>
<tr>
<td>TOTAL</td>
</tr>
</tbody>
</table>

Figure 29 & 30. Own source. Costs of goods sold of Go Vertical
Besides, as part of the cost structure, the following costs of contractors shall be taken into account:

<table>
<thead>
<tr>
<th>OPERATIONAL COST OF CONTRACTORS X M²</th>
<th>PER PJCT</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Designer**</td>
<td>€150</td>
<td>€2.700</td>
<td>€3.700</td>
<td>€5.100</td>
<td>€7.215</td>
<td>€9.711</td>
</tr>
<tr>
<td>Building contractors for installation*</td>
<td>€120</td>
<td>€2.060</td>
<td>€2.960</td>
<td>€3.080</td>
<td>€5.772</td>
<td>€7.769</td>
</tr>
<tr>
<td>Total</td>
<td>€270</td>
<td>€4.860</td>
<td>€6.659</td>
<td>€6.282</td>
<td>€4.987</td>
<td>€7.481</td>
</tr>
</tbody>
</table>

* 2 contractors per project. 12€ per hour // 5 hours installation time per project

** Fixed rate per project

Figure 31. Own source. Costs of Contractors of Go Vertical
## Income Statement

<table>
<thead>
<tr>
<th>INCOME STATEMENT</th>
<th>Y1</th>
<th>Y2</th>
<th>Y3</th>
<th>Y4</th>
<th>Y5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>REVENUES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales LC</td>
<td>70,000 €</td>
<td>95,918 €</td>
<td>123,627 €</td>
<td>167,309 €</td>
<td>217,580 €</td>
</tr>
<tr>
<td>Sales FC</td>
<td>40,000 €</td>
<td>54,810 €</td>
<td>92,720 €</td>
<td>146,395 €</td>
<td>212,273 €</td>
</tr>
<tr>
<td>Maintenance</td>
<td>- €</td>
<td>44,396 €</td>
<td>61,195 €</td>
<td>86,582 €</td>
<td>116,538 €</td>
</tr>
<tr>
<td><strong>TOTAL REVENUE</strong></td>
<td>110,000 €</td>
<td>195,124 €</td>
<td>277,543 €</td>
<td>400,286 €</td>
<td>546,390 €</td>
</tr>
<tr>
<td><strong>COSTS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COGS (LC)</td>
<td>25,200 €</td>
<td>34,530 €</td>
<td>44,506 €</td>
<td>60,231 €</td>
<td>78,329 €</td>
</tr>
<tr>
<td>COGS (FC)</td>
<td>22,440 €</td>
<td>30,748 €</td>
<td>52,016 €</td>
<td>82,128 €</td>
<td>119,085 €</td>
</tr>
<tr>
<td>Operational Costs of Contractors</td>
<td>4,860 €</td>
<td>6,659 €</td>
<td>9,179 €</td>
<td>12,987 €</td>
<td>17,481 €</td>
</tr>
<tr>
<td><strong>TOTAL COSTS</strong></td>
<td>52,500 €</td>
<td>71,938 €</td>
<td>105,701 €</td>
<td>155,346 €</td>
<td>214,894 €</td>
</tr>
<tr>
<td><strong>GROSS PROFIT</strong></td>
<td>57,500 €</td>
<td>123,185 €</td>
<td>171,842 €</td>
<td>244,940 €</td>
<td>331,496 €</td>
</tr>
<tr>
<td><strong>Expenses</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salaries</td>
<td>60,000 €</td>
<td>60,900 €</td>
<td>75,000 €</td>
<td>90,000 €</td>
<td>95,000 €</td>
</tr>
<tr>
<td>Marketing and Advertising</td>
<td>17,415 €</td>
<td>17,676 €</td>
<td>17,941 €</td>
<td>18,210 €</td>
<td>18,484 €</td>
</tr>
<tr>
<td>Utilities</td>
<td>1,000 €</td>
<td>1,120 €</td>
<td>1,137 €</td>
<td>1,154 €</td>
<td>1,171 €</td>
</tr>
<tr>
<td>Rental</td>
<td>3,600 €</td>
<td>3,654 €</td>
<td>3,709 €</td>
<td>3,764 €</td>
<td>3,821 €</td>
</tr>
<tr>
<td>Transport</td>
<td>970 €</td>
<td>985 €</td>
<td>999 €</td>
<td>1,014 €</td>
<td>1,030 €</td>
</tr>
<tr>
<td>Incorporation and Legal Expenses</td>
<td>3,000 €</td>
<td>- €</td>
<td>- €</td>
<td>2,000 €</td>
<td>- €</td>
</tr>
<tr>
<td>Office supplies</td>
<td>500 €</td>
<td>560 €</td>
<td>627 €</td>
<td>702 €</td>
<td>787 €</td>
</tr>
<tr>
<td><strong>Total Expenses</strong></td>
<td>86,485 €</td>
<td>84,895 €</td>
<td>99,413 €</td>
<td>116,846 €</td>
<td>120,292 €</td>
</tr>
<tr>
<td><strong>EBITDA</strong></td>
<td>- €</td>
<td>28,985 €</td>
<td>38,291 €</td>
<td>72,428 €</td>
<td>128,094 €</td>
</tr>
<tr>
<td>Amortizations and Depreciations</td>
<td>4,063 €</td>
<td>4,531 €</td>
<td>5,345 €</td>
<td>5,345 €</td>
<td>5,345 €</td>
</tr>
<tr>
<td><strong>EBIT</strong></td>
<td>- €</td>
<td>33,048 €</td>
<td>33,760 €</td>
<td>67,084 €</td>
<td>122,750 €</td>
</tr>
<tr>
<td>Interests</td>
<td>- €</td>
<td>- €</td>
<td>- €</td>
<td>- €</td>
<td>- €</td>
</tr>
<tr>
<td><strong>EBT</strong></td>
<td>- €</td>
<td>33,048 €</td>
<td>33,760 €</td>
<td>67,084 €</td>
<td>122,750 €</td>
</tr>
<tr>
<td>Corporate Tax</td>
<td>- €</td>
<td>5,064 €</td>
<td>16,771 €</td>
<td>30,687 €</td>
<td>51,465 €</td>
</tr>
<tr>
<td><strong>NET INCOME</strong></td>
<td>- €</td>
<td>38,604 €</td>
<td>50,531 €</td>
<td>93,767 €</td>
<td>154,394 €</td>
</tr>
</tbody>
</table>

Figure 32. Income Statement. Own source.
### Balance Sheet

<table>
<thead>
<tr>
<th>ASSETS</th>
<th>Y1</th>
<th>Y2</th>
<th>Y3</th>
<th>Y4</th>
<th>Y5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current Assets</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash and Cash Equivalents</td>
<td>100.699 €</td>
<td>138.986 €</td>
<td>210.342 €</td>
<td>313.165 €</td>
<td>493.882 €</td>
</tr>
<tr>
<td>Other current assets</td>
<td>- €</td>
<td>- €</td>
<td>- €</td>
<td>- €</td>
<td>- €</td>
</tr>
<tr>
<td><strong>Total Current Assets</strong></td>
<td>100.699 €</td>
<td>138.986 €</td>
<td>210.342 €</td>
<td>313.165 €</td>
<td>493.882 €</td>
</tr>
<tr>
<td><strong>Non Current Assets</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Non Current Assets</strong></td>
<td>24.379 €</td>
<td>30.885 €</td>
<td>45.610 €</td>
<td>45.610 €</td>
<td>45.610 €</td>
</tr>
<tr>
<td><strong>TOTAL ASSETS</strong></td>
<td>125.078 €</td>
<td>169.871 €</td>
<td>255.952 €</td>
<td>358.775 €</td>
<td>539.562 €</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EQUITY + LIABILITIES</th>
<th>Y1</th>
<th>Y2</th>
<th>Y3</th>
<th>Y4</th>
<th>Y5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LIABILITIES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current Liabilities</td>
<td>- €</td>
<td>- €</td>
<td>- €</td>
<td>- €</td>
<td>- €</td>
</tr>
<tr>
<td>Current Tax Liabilities</td>
<td>- €</td>
<td>- €</td>
<td>- €</td>
<td>- €</td>
<td>- €</td>
</tr>
<tr>
<td><strong>Total Current Liabilities</strong></td>
<td>- €</td>
<td>- €</td>
<td>- €</td>
<td>- €</td>
<td>- €</td>
</tr>
<tr>
<td>Non Current Liabilities</td>
<td>- €</td>
<td>- €</td>
<td>- €</td>
<td>- €</td>
<td>- €</td>
</tr>
<tr>
<td>Deferred Taxes</td>
<td>- €</td>
<td>- €</td>
<td>- €</td>
<td>- €</td>
<td>- €</td>
</tr>
<tr>
<td>Other non-current liabilities</td>
<td>- €</td>
<td>- €</td>
<td>- €</td>
<td>- €</td>
<td>- €</td>
</tr>
<tr>
<td><strong>Total Non Current Liabilities</strong></td>
<td>- €</td>
<td>- €</td>
<td>- €</td>
<td>- €</td>
<td>- €</td>
</tr>
<tr>
<td><strong>TOTAL LIABILITIES</strong></td>
<td>- €</td>
<td>- €</td>
<td>- €</td>
<td>- €</td>
<td>- €</td>
</tr>
<tr>
<td><strong>EQUITY</strong></td>
<td>150.000 €</td>
<td>150.000 €</td>
<td>150.000 €</td>
<td>150.000 €</td>
<td>150.000 €</td>
</tr>
<tr>
<td><strong>TOTAL EQUITY</strong></td>
<td>118.952 €</td>
<td>148.644 €</td>
<td>185.960 €</td>
<td>223.212 €</td>
<td>442.415 €</td>
</tr>
<tr>
<td><strong>TOTAL LIABILITIES + EQUITY</strong></td>
<td>118.952 €</td>
<td>148.644 €</td>
<td>185.960 €</td>
<td>223.212 €</td>
<td>442.415 €</td>
</tr>
</tbody>
</table>

---

Figure 33. Balance Sheet. Own source.
- **Cash Flow**

<table>
<thead>
<tr>
<th>CASH FLOW</th>
<th>Y1</th>
<th>Y2</th>
<th>Y3</th>
<th>Y4</th>
<th>Y5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INOUTFLOWS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales</td>
<td>110,000 €</td>
<td>195,124 €</td>
<td>277,543 €</td>
<td>400,286 €</td>
<td>546,390 €</td>
</tr>
<tr>
<td>VAT</td>
<td>23,100 €</td>
<td>40,976 €</td>
<td>58,284 €</td>
<td>84,060 €</td>
<td>114,742 €</td>
</tr>
<tr>
<td>Loans</td>
<td>- C</td>
<td>- C</td>
<td>- C</td>
<td>- C</td>
<td>- C</td>
</tr>
<tr>
<td>Share Capital</td>
<td>150,000 €</td>
<td>- C</td>
<td>- C</td>
<td>- C</td>
<td>- C</td>
</tr>
<tr>
<td>Total Inflows</td>
<td>283,100 €</td>
<td>236,100 €</td>
<td>335,827 €</td>
<td>484,346 €</td>
<td>661,132 €</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OUTFLOWS</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries</td>
<td>60,000 €</td>
<td>60,900 €</td>
<td>75,000 €</td>
<td>90,000 €</td>
</tr>
<tr>
<td>COGS</td>
<td>52,500 €</td>
<td>71,938 €</td>
<td>105,701 €</td>
<td>155,346 €</td>
</tr>
<tr>
<td>Operational Costs of Contractors</td>
<td>4,860 €</td>
<td>6,659 €</td>
<td>9,179 €</td>
<td>12,987 €</td>
</tr>
<tr>
<td>Marketing and Advertising Transport</td>
<td>17,415 €</td>
<td>17,676 €</td>
<td>17,941 €</td>
<td>18,210 €</td>
</tr>
<tr>
<td>Rental</td>
<td>970 €</td>
<td>985 €</td>
<td>999 €</td>
<td>1,014 €</td>
</tr>
<tr>
<td>Utilities</td>
<td>3,600 €</td>
<td>3,654 €</td>
<td>3,709 €</td>
<td>3,764 €</td>
</tr>
<tr>
<td>Office supplies</td>
<td>1,000 €</td>
<td>1,120 €</td>
<td>1,137 €</td>
<td>1,154 €</td>
</tr>
<tr>
<td>Incorporation and Legal Expenses Property, Plant and Equipment</td>
<td>500 €</td>
<td>560 €</td>
<td>627 €</td>
<td>702 €</td>
</tr>
<tr>
<td>Total Outflows</td>
<td>164,161 €</td>
<td>165,496 €</td>
<td>218,302 €</td>
<td>283,679 €</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INFLOWS - OUTFLOWS</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Taxes</td>
<td>18,240 €</td>
<td>34,316 €</td>
<td>54,169 €</td>
<td>87,844 €</td>
</tr>
<tr>
<td>Cash from last year</td>
<td>- C</td>
<td>100,699 €</td>
<td>136,986 €</td>
<td>200,342 €</td>
</tr>
<tr>
<td>Cumulative Cash</td>
<td>100,699 €</td>
<td>136,986 €</td>
<td>200,342 €</td>
<td>313,163 €</td>
</tr>
</tbody>
</table>

Figure 34. Cash Flow. Own source.

### 4.6.3. Financial Ratios

- **Return Ratios**

<table>
<thead>
<tr>
<th>RATIOS OF RETURN</th>
<th>Y1</th>
<th>Y2</th>
<th>Y3</th>
<th>Y4</th>
<th>Y5</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROS (activity)</td>
<td>-30,04%</td>
<td>17,30%</td>
<td>24,17%</td>
<td>30,67%</td>
<td>37,68%</td>
</tr>
<tr>
<td>ROS (business)</td>
<td>-30,04%</td>
<td>14,71%</td>
<td>18,13%</td>
<td>23,00%</td>
<td>28,26%</td>
</tr>
<tr>
<td>ROA</td>
<td>-28,26%</td>
<td>22,40%</td>
<td>31,53%</td>
<td>38,33%</td>
<td>41,68%</td>
</tr>
<tr>
<td>ROI</td>
<td>-28,26%</td>
<td>19,04%</td>
<td>23,65%</td>
<td>28,75%</td>
<td>31,26%</td>
</tr>
<tr>
<td>ROE</td>
<td>-28,26%</td>
<td>19,70%</td>
<td>25,67%</td>
<td>31,96%</td>
<td>34,90%</td>
</tr>
</tbody>
</table>
Figure 35. Return Ratios. Own source.

![RATIOS OF RETURN](image)

Figure 36. Return Ratios Graph. Own source.

- **Solvency Ratios**

<table>
<thead>
<tr>
<th>SOLVENCY RATIOS</th>
<th>Y1</th>
<th>Y2</th>
<th>Y3</th>
<th>Y4</th>
<th>Y5</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOLVENCY</td>
<td>5410,21%</td>
<td>2389,15%</td>
<td>1859,27%</td>
<td>1919,29%</td>
<td>1919,29%</td>
</tr>
<tr>
<td>CASH RATIO</td>
<td>5410,21%</td>
<td>2389,15%</td>
<td>1859,27%</td>
<td>1919,29%</td>
<td>1919,29%</td>
</tr>
<tr>
<td>WORKING CAPITAL</td>
<td>100,00%</td>
<td>98,15%</td>
<td>95,81%</td>
<td>94,62%</td>
<td>94,79%</td>
</tr>
<tr>
<td>OVER CURRENT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ASSETS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 37. Solvency Ratios. Own source.

![SOLVENCY RATIOS](image)
Based on the charts and graphs presented above, we will address the overall performance of Go Vertical beginning with solvency, moving to debt levels to conclude that the company creates value and is profitable in terms of initial investment and its return.

Considering the three Solvency Ratios analyzed (solvency, cash ratio and working capital versus current assets), we conclude that if the financial plan stated above is followed and executed, Go Vertical will not suffer from insolvency issues.
In general terms these ratios review the relation between current assets and current liabilities and determine if in the short run, the company will be able to convert its current assets to cope with its short term liabilities and, consequently, to pay its short-term debts. Taking into account the extremely positive levels of solvency for the 5-year period (average of 2000%), we conclude that the company has a positive working capital to operate. Besides, considering this positive working capital (current assets - current liabilities) analyzed over the total current assets, the company shows a very positive ratio of minimum 94%, which ensures a positive and steady working capital.

Moving on, it is fundamental to review the level of debt of the company, that in the medium or long-run could eventually destroy value for the shareholders if it is too high. Having said already that solvency is sufficient and current assets cope with the company’s current liabilities, leverage, equity and distance to insolvency were chosen for this purpose.

Leverage ratio determines the relation between external financing resources and the total financial means of the company. As stated previously on this chapter, for financial health purposes of the company, the partners decided not to request external financing (bank loans, bonds, crowdfunding or venture capital funds) in order to keep under control the debt with cost. In general terms, leverage should not exceed 70%. Go Vertical is always under an average 10% of leverage, which implies that if needed in the future, the company could easily get external financing. In addition, and more important, this extremely positive 10% means that the company has a net worth of approximately 90%.

Moving on, the equity ratio or quality of debt reflects clearly that the lack of debt with cost impacts positively the value for shareholders and ensures its financial continuity giving the possibility to re-invest the annual profit internally or externally instead of assuming high cost of debt to operate.

Finally, distance to insolvency ratio reflects the guarantee offered by the company to third parties to pay its obligations. Considering that without exception, this indicator should be over 100%, otherwise indicating missing net worth and near bankruptcy, Go Vertical is extremely distant to insolvency with a 1550% ratio.
Finally, in terms of sales, the ROS (Return on Sales) ratio could be understood as the net profit margin of the company, reflecting the profitability from each euro of revenues coming from the vertical gardens sales and maintenance. For this paper, we have calculated the ROS at the company level and the business - activity level. As shown in the graphs, the main goal was to increase from year to year the profit margin. Beginning with a negative 30% during the first year, a solid increase tendency is expected during the following years reaching levels of a very positive 30-40%. This positive ROS will allow the company to meet and cover structural future financing needs, corporate tax, financial expenses and a minimum dividend payment policy.

Regarding the assets, the ROA (Return on Assets or Assets Turnover) ratio reflects how effectively the company uses the investment made on assets in relation to the volume of sales. In general terms, the ROA should increase consistently every period. Go Vertical reflects an efficient use turnover of its assets to produce more sales, particularly computing systems used to design and prepare each project. Complemented by the ROI (Return on Income) calculated, that shows as well a consistent increase year to year, we conclude that Go Vertical uses in a very efficient way its assets in order to reach more sales and produce more profit.

Finally, in terms of equity, the ROE (Return on Equity) ratio determines the relation between the profit of the year and the net asset value. Since the second year of operations, the ROE of Go vertical is positive and increasing, which shows that the net income generated is creating value and more equity.

However, it should be noted that compared to the ROA the ROE is lower, which means that if no other extra net income is generated, the shareholders could be negatively leveraged. At the end, the management shall monitor constantly the asset ´s return and the net income for the following years, as well as the interest rate if debt with cost is acquired, in order to create leverage for the shareholders and improve the results of Go Vertical.
4.6.4. Break Even Point

We expect to double our profits and surpass the break-even point (€157,358) on the second year of activity obtaining a total revenue of €195,124 and a gross profit of €123,185.

From this period on, the finance model will create value for the shareholders and build more net profit, resulting in more equity, assuming that no further significant debt with cost will be acquired.

4.7. Contingency Plan

Despite being a small size startup, our company will rely on a business continuity plan oriented to set forth certain parameters to be followed by our staff in case of partial or total interruption of operations.

Our main asset that serves as basis to run the business are the custom-made designs, blueprints and technical memories of every single project we develop for our clients. Hence, such documents shall be kept at all times synchronized in a cloud server instead of computers, avoiding the risk of an information loss. Such server is recommended to be external and located in a different country part of the EU for safety and compliance of the regulations of personal data.

In case of any exceptional circumstances, a massive backup or download of information can only be performed by the server operator if two of the three partners request it. Besides, if for any reason our office is not available, our staff is capable of connecting remotely from their computers and work in real time interconnected among them.

On the other hand, if for any operative or financial reason our business model and strategy fail and our performance, solvency and debt indicators surpass the accepted levels, we will be capable of re-stating swiftly our strategy.
In that sense, Go Vertical will move from a service & product model to a service model in which project management services for the installation of gardens -interior, exterior, vertical and regular- will be offered to a wider target of customers: residential, public sector (including local and national public offices), hotels and restaurants.

In case of any major change, this business plan shall be adjusted in terms of re-defining our target customers, buyer personas, competitor analysis, marketing strategy and financial model in terms of costs, expenses and income. Particularly an interesting scope will be to participate in public tenders to renovate public infrastructure as part of the urban renovation plans of Madrid and other Spanish cities urban plans.

5. Conclusion

5.1. Feasibility

As we have been able to see throughout this document, Go Vertical is a project that follows the actual and future trends of construction techniques in big cities. After analysing the market, the industry, our competitors and potential customers, we found a business opportunity: to enhance the profitability of the employees at the workplace by the implementation of our vertical garden solutions.

As we have seen, one of the identified problems in the sector were that there are no relevant players specialized in the indoor vertical garden sector. In addition, the indoor vertical garden solutions have not been incorporated fully in the interior design and landscaping sector in Spain.

The aim of our project was, from the beginning, to offer an excellent service of indoor vertical gardens for the headquarters of small and medium sized companies by implementing the latest market solutions. Go Vertical was born to open a new business model to existing companies and thus offer the possibility of making this project. That is why we wanted to enter this market focusing only in the indoor segmentation and, to do so, we planned on having the following long term goals:
• To create value both for ourselves and, especially, for the collaborator companies willing to work with us.

• To achieve brand awareness by, at least, the 6 direct competitors of Madrid Vertical Garden professionals that we analysed above, within the first running 3 years.

• To be able to get, at least, 90% of target sales in a maximum period of 5 years and a minimum annual increase of 20% on sales from the first year of operations onwards. The objective is to increase sales by an average of 30% per year.

The resulting business model comes after a detailed analysis of the sector, by looking at all the market players, analyzing their services, methods and prices. Initially €150,000 will be used as initial capital. This capital will come from the three partners that conform the initial company structure. As it is explained in our Financial Chapter, we expect to double our profits and surpass the break-even point on the second year of activity.
6. Bibliography

Academic resources and reports:

Online resources:

4. ARCHITECT@WORK. (6th may 2019). Retrieved from http://madrid.architectatwork.es/home/


22. Instituto Nacional de Estadística INE. (13th june 2019). Instituto Nacional de Estadística INE. Retrieved from Demografía y población:


29. WIX. (13th may 2019). WIX. Retrieved from https://es.wix.com
7. Annexes

HPB benefits

People tend to spend at the office or in their workplace 40 hours per week which is around 2080 hours per year. This is a big amount of time, therefore, it can be considered as necessary to have a workplace that manages to increase the happiness, the health and the productivity of their employees. Employers have also realized this reality, and people have become one of the main assets where employers place their investments.

There is an increasing evidence showing the importance of HPB design strategies for the employees. The evidence tells that a building/office should be built around its people and that design for the employee should be taken into account as an important aspect when investing into building infrastructures. The increase in productivity, lower absenteeism and turnover rates, are just one of the main effects of putting HPB investing strategies, and these effects can be measured and quantified.

Buildings and real estate can be considered as the most important asset worldwide, they account for almost 3 times the world’s GDP, and they also make up almost 40% of the total energy consumption in the EU and the USA.

If we add these financial and environmental figures to the fact that humans spend 90% of their time inside a building, then, we can easily assume that investments in High Performance Buildings can have a big impact on global economics, environment and health. If we keep looking at the numbers, we get that 70% of what drives human health is: human environment and behavior. If we take this into account, we can see that only 9% of health expenditure is aimed at improving human environment. To tackle this problem, companies have two choices:

- Put money on health and wellness programs which do not prove to be effective and experience low participation rates (it is estimated that companies spend €700 per worker every year on these programs)
- Or invest into HPB strategies that foster a healthy environment and increase the employee well-being.

Product and installation characteristics

- **Standard Indoor Vertical garden modules-panel structure**

  Materials needed:
  - Structure (plastic/fiber modules + anchoring structure)

  Plastic modules attached on structure

  Fiber modules

Figure 42. Source: Verdtical.
Examples:

Figure 43. Installation Structure. Source: Verdtical.
• High-Quality Indoor Garden with filter-based panels

Materials needed:
- Structure (isolating and support layers + anchoring structure)

Figure 44. Components. Source: Verdtical.
Figure 45. Components. Source: College of Architecture and Urban Planning, University of Washington. Taken from The New York Times.
Examples:

Figures 46 & 47. Examples of projects. Source: Paisajismo Urbano.