

Business Plan: The creation of a sustainable sport centre

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1. Executive summary

1.1. Business overview

The aim of this project is to elaborate a Business Plan of an eco-friendly gymnasium analysing the viability of this project from a theoretical point of view.

The idea of EcoGym emerges from the observation that in conventional sport centres a large amount of energy is generated but wasted in the majority of the cases. This paper wants to suggest a solution to this inefficiency, thus different methods to capture and exploit this energy will be installed.

1.2. Service description

EcoGym main activity is to offer facilities for the practise of different sport activities to its clients. The gymnasium will be equipped with different rooms specialized in different practises such as body building and group activities of different intensities. There will also be the possibility of contracting a personal trainer for the clients aiming to have a specialized training. Clients are the core of the project, without them the project has no sense, for this reason, EcoGym goes beyond energy efficiency by promoting a healthy and compassionate life-style.

1.3. Target market

The target customers are adults of between 25 and 45 years old since this age range comprises the majority of gym goers. No gender discrimination will be done, while by purchasing power the target is medium and high class people. EcoGym wants to attract people who want to be healthy and in good shape and who, at the same time, are concerned about the environment.

1.4. Differences with competitors

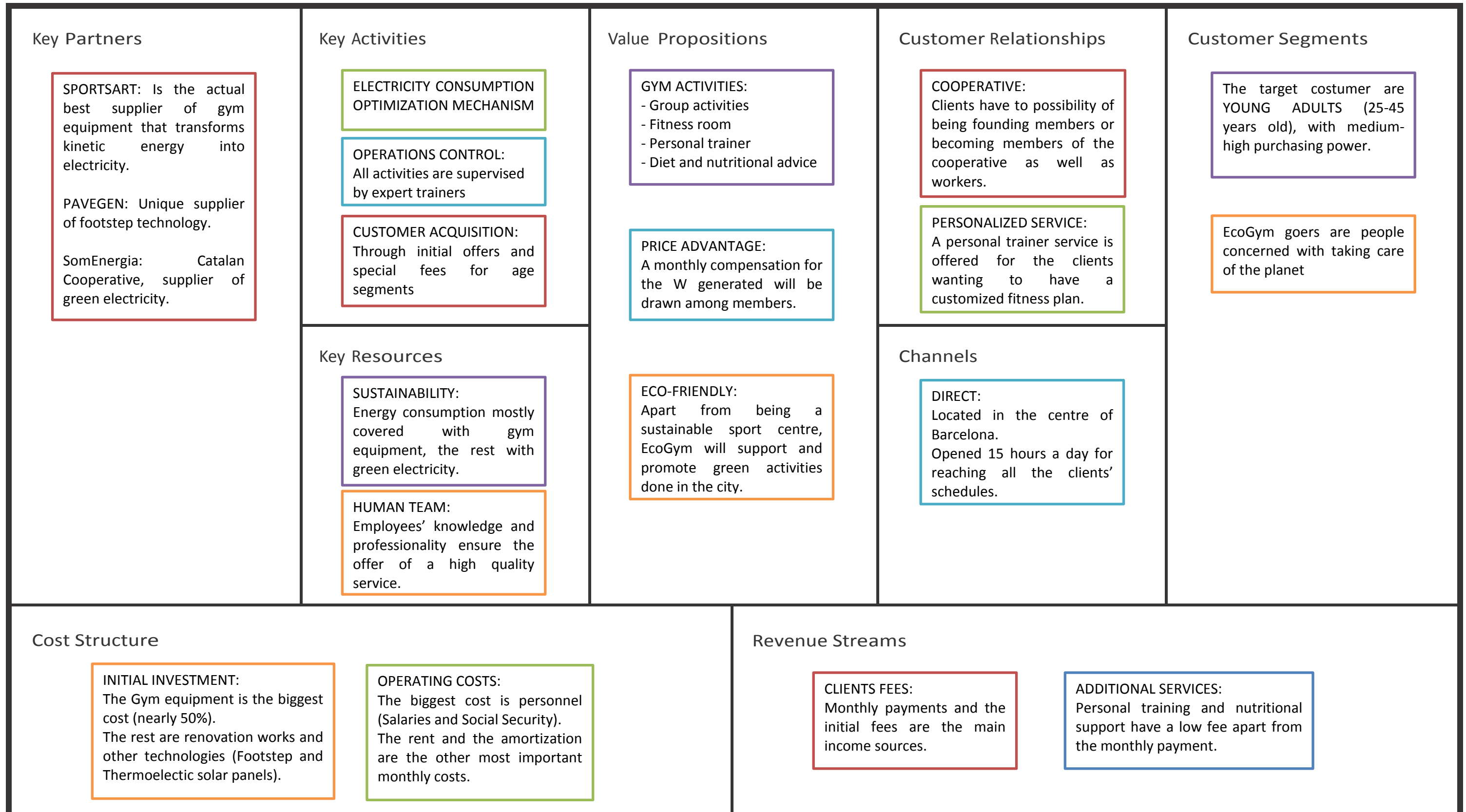
The main distinction with the competitors is the generation of energy through the gym equipment. Indeed, all the facility will be as much efficient as possible, so there will not only be a saving in the monthly electricity bill but a contribution to save the planet.

Therefore, EcoGym is differentiated for being a green alternative to regular gymnasiums.

1.5. Financial Outlook

EcoGym needs an initial investment of 460.700€ which will be financed with a loan and with capital. The company is expected to have profits from year 3 on, even if the first year the losses are quite high, EcoGym generates high amounts of cash which ensures the stability of the company and its repayment capacity.

EcoGym Canvas Model



2. The Company

2.1. Business description

Ecogym is an ecological gymnasium that will produce the majority of energy it consumes, reducing drastically the energy bill at the end of the month. This idea comes from the observation that kinetic energy produced in a gymnasium is normally wasted and this should be changed. In a moment where climate change is a reality and everyone is suffering its consequences, it is the moment to do something to fight against this warming trend.

Ecogym believes that every small step counts regarding climate change, therefore the gym will not only produce part of the energy it consumes but the entire premise will be sustainable.

The gymnasium will have:

- Gym equipment with energy converter system and energy harvesting technology
- A system for recycling sanitary water
- Recycled furniture and administration stuff from eco-friendly origin
- Water fountains (to reduce the use of plastic bottles)
- Acclimatization system aimed to optimize energy consumption

Since the gym machines and the energy harvesting systems will not be enough to produce the total electricity consumed, EcoGym will contract a green energy supplier to ensure that all energy consumed is 100% renewable.

The gym will be run by professional trainers that will help members on their fitness journey, personalized trainings will be offered as well as nutritional advice.

Additionally, EcoGym wants to promote an eco-friendly life style, not only when doing sport but in the daily-life activities, therefore will promote activities related to green projects.

The mission, vision and goals of the company are:

Mission: *“Transform the experience of going to the gym into a contribution to reduce global warming by making members the key part of the project success”.*

Ecogym believes that members are the most important factor for the business since without clients, no production is generated. Moreover, clients will be compensated for the W they produce giving extra motivation to the members. Ecogym members will feel part of a bigger project than just going to another conventional gymnasium.

Vision: *“To develop a new gym concept feasible everywhere in order to reduce greenhouse emissions while promoting a healthy lifestyle”.*

Ecogym wants its business model to be applied to conventional gyms currently running. The technology is there and little infrastructure adaptation is needed so switching has never been easier.

Goals: To be as much self-sufficient as possible, to be energy efficient and to generate a benefit for the whole society by promoting an eco-friendly life-style.

2.2. Legal structure

Ecogym wants to promote an alternative way of seeing a business. For this reason it will be structured as a Cooperative where the trainers can be clients, clients can be owners and owners can be clients too. The reason for this is that Ecogym believe that under this organization structure, members will feel more involved in the project, thus will contribute more actively to its development and success.

3. General analysis

The aim of this section is to analyse the framework in which the company will be established by doing a PESTEL (Political, Economic, Social, Technological, Environmental and Legal) analysis, followed by a SWOT analysis. Due to shortage of space, only the most relevant figures having an impact on the project will be mentioned.

3.1. Political

The Kingdom of Spain is a Constitutional monarchy; the legislative power is bicameral (General Courts and Senate). The executive power is currently held by the Popular Party, (right wing).

Spain is organized as a State of autonomies, where each Autonomous Community has a regional Parliament. Some competences are managed at regional level while others are shared with the Central government.

Catalonia is an Autonomous Community inside Spain. The legislative power is held by the Catalan Parliament and the Executive power (Generalitat de Catalunya), is governed by a coalition of pro-independent Catalan parties.

There is currently instability regarding the possibility of Catalonia becoming an independent state from Spain. Nevertheless, this conflict should not have an impact on a new business set-up in Barcelona since it is a local gymnasium not a multinational company.

3.2. Economic

The main macroeconomic indicators are being analysed in this section, doing a top-down analysis for each, starting from the Eurozone and going down to Barcelona, where is expected to be located this project. The main macroeconomic indicators are:

	Eurozone	Spain	Catalonia	Barcelona
Annual percentage change of GDP	2017: +1.9% 2018: +1.7%	2017: +3.1% 2018: +2.4%	2017: +2.9% 2018: +2.3%	-
GDP per Capita (2016)	33.235,78 m€/capita	26.727,56 m€/capita	28.997,41 m€/capita	47.618,45 m€/capita
GDP (2016)	10.102,63 billion €	1.047,25 billions €	223.629 million €	76.606 million €
Unemployment rate (latest data 2017)	10%	18.9%	15.7%	12%
Youth Unemployment rate (latest data 2017)	18%	41.7%	32%	26.4%
Debt/GDP	83.5%	99.4%	35.5%	-

Table 1: Macroeconomic figures- data from Statistics sources: Eurostat, Stata, INE, Idescat, Ajuntament de Barcelona

- **GDP:** Positive projections for the next year even if the expected annual percentage change is smaller than in 2017 in all the regions. The GDP data shows that Barcelona is a good location for the business since its **GDP per capita** is even higher than in the Eurozone, meaning that the Barcelona economy has recovered from the crisis and started its expand.
- **Unemployment rate:** Barcelona does provide hopeful numbers, being lower than in Catalonia and close to the Eurozone ones. Regarding **youth unemployment** the capital is doing better than in the rest of the country.
- **Debt:** Barcelona has reduced its debt during last years. Also Catalonia's debt is much lower than the Spanish one.

3.3. Social

Since the gymnasium will be in Barcelona, only the population there is being analysed.

Barcelona has 1.6 million of citizens; where each gender has the same weight (50%). By ages, 30% of the population has between 25 and 44 years old while young adults (from 16 to 24 years) represent only the 8% of the population.

Barcelona is divided into districts; the ones with more inhabitants are Eixample, Sant Martí (+230.000 each) and Sants-Montjuïc (+184.000).

The purchasing power of these three districts is high in Eixample, medium-high in Sant Martí and medium-poor in Sants-Montjuïc (data from Ajuntament de Barcelona website).

According to the Spanish Cardiology Society more than 60% of the Spanish citizens suffer from overweight and obesity. Specifically, 39.9% of Spanish adults are overweighed and 21.6% has obesity. In Catalonia the numbers are 39.8% of adults are overweighed and 15.5% are obese.

By gender, in Catalonia there are more overweight men than women and obesity affects more or less both sexes equally. Overweight and obesity increases with the age, in Catalonia half of

the population of more than 18 years has overweight, this is the market segment that EcoGym aims to target in order to promote a healthier lifestyle.

3.4. Technological

This section wants to give an overview of the Spanish renewable sector. Spain is a high dependent country in terms of energy, it only produces the 27% of all the energy it consumes, which represents a cost of 26.000 million of €. Besides, the majority of the primary energy comes from non-renewable sources¹ (42% petrol, 20 % gas, and 12% carbon). The rest comes from nuclear energy (12%) and renewable sources (14%), far away from the objective of 20% by 2020 imposed by the EU. With this 14% (primary energy) and 33.167MW installed (2016), the renewable energies covered the 37% of the energy generation (19% with wind power, 11% with hydro, 3% with PV, other 4%).

Since 2012, with the new regulation on the energy sector, the Spanish investment in renewable energies is stucked, therefore the installed capacity is nearly the same as in 2012, 50.000MW of installed capacity. Of this MW, 23.000 are Onshore Wind 17.000 are Hydro, an alarming point is that only 5.000 are Photovoltaic energy, which is really low taking into account that Spain is the country of the sun in Europe.

An important fact to take into account is that construction prices of renewable energy have decreased a lot during the last years. Talking about world trends², since 2009 the prices of photovoltaic energy have fallen by 80% while for wind turbines the reduction is of 35%. This is due to economies of scale and technology improvements. Moreover, it is expected that by 2025, the prices of PV panels drop by a further 59% and those of onshore wind by 29%.

Apart from important renewable sources (solar, wind, hydro and geothermic) there are other energies which are being developed like the energy harvesting. The main idea is to capture the energy from human power through different devices, for example with body accessories. Other sources are the footsteps energy and the old but not much exploited pedal power.

3.5. Environmental

There is a global consensus on the fact that global warming is happening and will destroy our planet unless we decarbonize our societies. 195 participants of the United Nations Framework Convention on Climate Change (UNFCCC) participants in the conference of Paris (December 2015) signed the Paris Agreement and 168 ratified it. This agreement does not impose a concrete policy for each country but a joint objective to mitigate global warming.

¹ Data from 2015, source: APPA

² Data from 2015, source: IRENE (International Renewable Energy Agency)

The European Union has a strong commitment to reduce global warming such as the 20-20-20 objective which stands for a reduction of 20% (or 30%) of the CO₂ emissions by 2020 and guarantee that 20% of the energy consumed comes from green sources. To achieve this, the European Union has a set of projects and each member state has agreed on different policies regarding country-specific resources to reach the target.

What is clear is that the three pillars of the fight against global warming are Decarbonisation, Decentralization and Digitalization. Decentralisation is understood as the empowering of consumers, by facilitating the self-production of energy, for instance with PV panels or micro-windfarms. Digitalization is the use of technology to optimize the consumption of energy.

3.6. Legal

Europe has strong regulation on environment preservation while promoting eco-friendly activities in order to reach the objectives defined. Decentralization of energy production is one of the main drivers, thus enhancing self-consumption is crucial.

Spanish self-consumption of energy is regulated by the Power Sector Law (LSE, 24/2013 and Real Decret 900/2015). This law defines two consumption types, the only self-consumption and the self-consumption and selling. This laws only regulate the self-consumption of energy created through renewable energies, nevertheless there is a legal gap regarding human force generating energy. Regarding the regulation on self-consumption the following fees apply:

- Fixed charges: PV systems up to 100kW with neither consumption meter nor battery system are exempt of fixed charges. The rest of the installations are subject to fixed charges depending on their capacity.
- Variable charges (Solar tax): up to 10kW are exempt, then prices vary depending on the installed capacity and generation. Batteries are subject to variable taxes depending on the installed capacity.

These tariffs on energy production are a threat for self-production, EcoGym analyses later on the alternatives it has and the best choice given this legal framework.

4. Market analysis

4.1. Market research

The Sports industry in Catalonia represents more than 2% of the GDP, and by 2015 there were more than 4.000 companies dedicated to this industry.

In Catalonia 45.6% of the population of more than 16 years-old does some kind of sport (data form 2014), the main characteristics are:

- By **gender**: there are 66% of women that don't do any sport activity, for men this number is 50%. Moreover, 17% of women and 3% of men go to the gym for maintenance activities, while for high intensity ones the percentages are 14% and 10% respectively.
- By **age**, the population between 18 and 44 years old are the more active ones (45% does some kind of sport).
- By **economic level**, the high, middle-high and middle class population are the ones that do more sport while poor people are less active in terms of practising sport.
- By type of **sport activity and socioeconomic class**, the High class prefers hiking, running and swimming and around the 12% goes to the gym for high intensity activities. The medium-high class mainly swims and runs, also 11% go to the gym for maintenance activities and 15.6% goes there for high intensity activities. Low income classes prefer maintenance activities in the gym rather than high-intensity ones.

Therefore, it can be said that more women than men of middle-high class go to the gym, and the main preference is high-intensity activities.

These results are validated by a survey done by myself on gym preferences³ answered by 62 women and 22 men. Of them 35% of women and 55% of men do not go to the gym. Even if they do not go to the gym, the preferences are group activities of high intensity (38%) followed by using cardio equipment (30%). Moreover, 50% of the surveyed people prefer to train on their own while 44% prefer to have a personalised plan although paying more for a personal trainer has low support (35%).

4.2. Target Customers

For deciding the targeted consumers, demography, physiographic preferences, geographic location and behavioural preferences are taken into account.

- **Demography**: no gender discrimination is done, even if different sport activities are preferred by each gender. By age, the most common gym-goers are between 25 and 45 years-old, they will be the target customers.
- **Geographic location**: the target is Barcelona's inhabitants mainly but also people who works or studies close to the gymnasium location.
- **Physiographic**: no specific social class is targeted; still medium-high class is the best target since the product uniqueness allows for high prices. Nevertheless, offers will be made to specific age groups like students who usually have a tighter budget.

³ See annex 1 for the survey questions, answers and participation

- **Behaviour:** In order to cover the wide personal schedules of the clients, the gymnasium will open its doors from 7 am to 11 pm, with different group activities during the whole day.

Therefore, the target customer is a young adult (men or woman), with quite high purchasing power, with an interest for preserving the environment while being healthy and sporty.

4.3. Barriers to entry

There are mainly three important barriers of entry that can make it difficult to set up the business.

- **High degree of competition in the market:** This factor is explained in detail in the section 5.1 (Competitive analysis), but in Barcelona there are more than 150 spaces dedicated to health and fitness. Luckily, not all these business offer the same services, there are gymnasiums for specific sports, activities and target customers. Therefore, once more filters are applied such as location; the amount of direct competitors is drastically reduced.
- **High initial cost:** for a medium-size gym (between 300 and 500 square meters) the initial investment is between 400.000 and 500.000€ for a normal gymnasium. Given that all the installation and adaptation of the local will be done following rigorous eco-friendly standards and innovative systems will be set-up such as energy harvesting technology, the estimated initial investment may increase. (Details in the financial section)
- **The Spanish regulation on energy production:** Especially the legal tax imposed on self-consumption of PV energy produced. Every owner of a photovoltaic installation has to pay a toll for each kWh consumed, being a double charge on production since a fixed fee is paid for being connected to the grid. Besides there are a lot of bureaucracy issues (it takes around 9 months and it is really expensive) and there is no retribution on the production surplus given back to the grid.

5. Sector analysis

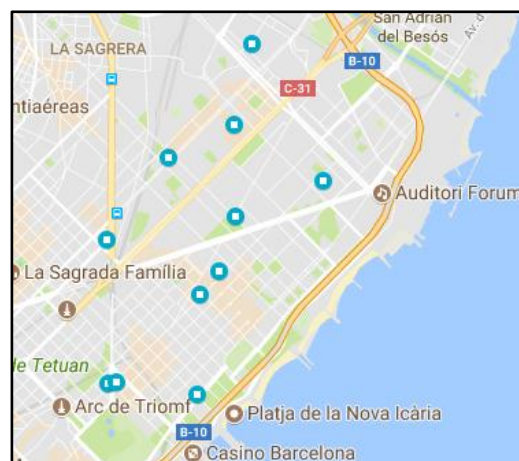
5.1. Direct competitors analysis:

There are more than 150 sports centres in the city of Barcelona, distributed along all the districts but not all of them offer the same services Ecogym is proposing. The analysis of the competition is mainly focused on the districts with more population and with enough purchasing power (Sant Martí and Eixample) as described in Section 3.3. Social.

In Eixample, there are around 40 sport centres of different styles, but Ecogym would eventually compete directly with 20 of them. In this district gymnasiums are mainly large (+900m²) and the majority offer similar services, thus there is high rivalry.

There are about 22 gymnasiums in Sant Martí district, of these, 11 could be competitors of Ecogym for being focused on fitness only, not on other styles such as martial arts or specific sports.

The main competitors in this area are listed below (in blue in the map) and the main features are described in the following table:



- **Anytime fitness** (2 centres)
- **CEM Centres** (7 centres)
- **Simply Gym**
- **Paleo training Barcelona**

Competitors description	Ecogym	Anytime Fitness	CEM centres	SimplyGym	Paleo training
Products:					
• Fitness room	Yes	Yes	Yes	Yes	Yes ⁴
• Swimming pool	No	No	Yes	No	No
• Spinning room	Yes	Yes	Yes	Yes	No
• Group activities room	Yes	Yes	Yes	Yes	Yes
• Team sports	No	No	Yes	Yes	No
• Other (crossfit...)	No	No	Yes	No	No
Additional services:					
• Personal trainer	Yes	Yes	Yes	Yes	Yes
• Diet	Yes	Yes	Yes	Yes	Yes
• Reception	Yes	Not always	Yes	Yes	Yes
• Specific life-style promotion activities	Yes (eco-friendly)	No	No	No	Yes (Paleo)
• Physiotherapy	No (at the beginning)	No	Yes	No	Yes
• Changing room and bathroom facilities	Yes	Yes	Yes	Yes	Yes
Membership fee	40€	30€	40€ - 60€	50€	40€
Monthly payment (€/month)	Adults 45€ Students: 35€	From 39.9€	Adults 50€	From 21.9€	70€ or 90€
Open time	Week: 7am - 11pm Weekend: 8 am - 8 pm	24h, 365 days a year	Week: 7am - 11pm Weekend: 8 am - 8 pm	6am - 11pm 7 days per week	Week: 8am - 10pm Saturday: 9am - 2pm

⁴ The Paleotraining has a room full of diferent elements to reproduce the moviments of a Paleo-man and includes group training.

Size	Medium-size (around 500 m ²)	Medium-size (around 500 m ²)	Large (+900 m ²)	Extra-Large (+2000 m ²)	Medium-Size (around 500 m ²)
Offers to target customers	Student fees	No	Offers for, students, families...	Special terms for students, families, couples...	Discounts for students, emergency & security corps.
Positioning	Eco-friendly Alternative	Low-cost	High-quality	Low-cost and high quality	High-quality Alternative
Company Reputation	The value added is the generation of energy.	3.600 gyms in 25 different countries	Supported by local team sports federation and the town hall	Six successful centres in France (Toulouse), first in Barcelona since	Since 2014 Capacity for 300 people. Current members positive reviews
Sales Method	Promotions in specific seasons (pre-summer, new year etc..) Students offers	Promotions in specific seasons (pre-summer, new year etc..)	Family packs, price depending on activities joined	Promotions in specific seasons (Back to school, new year etc..)	Free trial week, discounts on term or annually payment.
Advertising	Webpage, social media, box-mail, word-of-mouth	Webpage, same gym, box-mail, word-of-mouth, social media	Webpage, same gym, word-of-mouth, social media	Webpage, same gym, word-of-mouth, social media	Webpage, paleo-friendly webpages and social-media,

Table 2: Comparison of the main competitors. Information from the competitors websites

Regarding the main competitors, the CEM centres are the most different ones, are bigger and offer more services to the clients (team sports, swimming pool etc.), also are more expensive than the rest, positioning themselves as exclusive centres even if special prices are offered to the different customer segments.

Anytime fitness uniqueness is that it is open 24 hours per day the 365 days of the year but the service is low quality and few activities are offered. Besides it is quite expensive even if there are offers for specific segments.

SimplyGym has the largest premises, which allow them to offer low prices due to high capacity of clients, still low customer centricity is offered.

For being a different gym and promoting a specific life-style, the Paleo Gym is the one that is closer to EcoGym. Even if in Paleo training the trainings are restrictive to a number of times per week, it shows that for being an alternative to conventional gyms, the prices asked can be higher.

Still EcoGym has no competition from an operating point of view; there is no other gymnasium that generates energy in this country. Still the quantity of sports facilities in Barcelona can

make it difficult for EcoGym to enter this market therefore, an intensive marketing campaign is needed.

5.2. Suppliers

Having good quality suppliers ensures a high-quality service even though at the beginning the investment required is huge. Ecogym values quality over quantity, for this reason the suppliers chosen are the best in the market due to the uniqueness of the technologies purchased. The suppliers list for this project is the following:

- **SportsArt Inc.:** Is the gym equipment supplier. Is the best company in this field since it has a whole line of products with ECO.POWR™ technology which transforms the kinetic energy into electricity, besides these machines just need to be plugged in.
- **Pavegen Systems:** This Company is the pioneer in energy harvesting from footsteps. The technology is panels installed on the floor which capture the energy of each step and transforms it into electricity. Similarly to the gym equipment, just needs to be plugged.
- **Som Energia Coop.:** Is a Catalan Cooperative that produces 100% green energy. It will be the EcoGym supplier of electricity to avoid shortages of electricity.
- **Cleaning service:** it will be outsourced to a company which uses only ecological products which do not harm the environment.
- **Maintenace service:** the same as the cleaning service, it will be outsourced to an eco-friendly company.
- **Furniture, decoration and administration stuff:** From companies that use recycled elements and have the green certificate.

5.3. SWOT analysis

This analysis is aimed to detect which are the main factors that influence the project, from an internal point of view (strengths and weaknesses) and the external forces (Opportunities of the business and threats).

Strengths	<ul style="list-style-type: none"> •Eco-friendly •Members are the drivers •Self-produced energy , reduces the bill •Cooperative project promotes intrinsic motivation
Weaknesses	<ul style="list-style-type: none"> •Energy production depends on intermitent sources •Lack of experience in the sector
Opportunities	<ul style="list-style-type: none"> •Increasing demand for health and fitness services •Increasing demand for ecological projects •Reduction in prices of renewable energies
Threats	<ul style="list-style-type: none"> •High degree of competiton •Unfriendly regulation on self-consumption of energy •Huge initial investment

Once observed the main points of influence, the CAME analysis that stands for Maintain the strengths, Correct the weaknesses, Explore or Exploit the opportunities and finally Adapt to the threats. The following matrix summarizes the strategies Ecogym should apply in response to each scenario.

Correct	<ul style="list-style-type: none"> •To have a supplier of green energy to avoid running out of energy. •Take advantage of the increasing demand to convince investors to get a loan •Get training on fitness lifestyle and gym management
Adapt	<ul style="list-style-type: none"> •Get a good location to face competitors •Put a PV installation of 10 kW to avoid the "solar tax" even if this means having to buy some energy from the grid (from green sources)
Maintain	<ul style="list-style-type: none"> •Start the business as soon as possible, to take the first mover advantage . For the moment there is no similar project to this one in Catalonia
Exploit	<ul style="list-style-type: none"> •Promote the eco-friendly activity to distinguish from competitors and try to attrack people who is not a gym-goer but cares about the environment.

6. Marketing Plan

6.1. Key Success Factors

6.1.1. Positioning and differentiation

EcoGym wants to be perceived as an alternative to conventional gymnasiums by promoting a sustainable life-style for this reason, the positioning strategy is differentiation. The company wants to exploit a niche market characterized by the increasing concern about global warming combined with the raising trend of gym-goers and fitness life-style supporters.

Consequently, has no specific direct competitor in terms of using the energy produced by the clients in the analysed market (Barcelona). However, the differentiation strategy from conventional gymnasiums is starting to become popular, as we have seen with the Paleo Training analysed in section 5.1.

6.1.2. Strategy and competitive advantage

EcoGym strategy is characterized for having the certificate of green company. However this project goes beyond using only green energy, it mainly produces the electricity consumed itself. This uniqueness factor compared with the existing gymnasiums generates a competitive advantage that makes EcoGym be perceived as a responsible organization. Also clients see this singularity as a high quality service which allows for higher prices.

6.2. Marketing Strategy

6.2.1. Service strategy

As stated previously, the aim of the project is to introduce an alternative to common gymnasiums by taking advantage of the green certificate. For this reason EcoGym will be as much sustainable as possible, not only with the latest energy efficient systems but all the facility will be eco-friendly. The aim is to make of EcoGym a successful alternative to conventional gymnasiums by promoting its green label.

Taking into account the target customer (a young adult, men or woman, with medium-high purchasing power, with an interest for preserving the environment while being healthy and sporty), the service offered is going to be of high quality without losing the focus on sustainability.

6.2.2. Pricing strategy

As stated previously, EcoGym target customer is medium-high class, also taking into account the results of the market research, 40% of the surveyed people would pay more for being part of a green company, and 38% would consider it if the difference is reasonable. Also 84% would

feel more motivated if compensated for the Vats generated. This compensation is preferred to be in form of a discount in the month bill by 65% while 30% would prefer discounts in sports shops. Besides, special prices for some segments of the population are offered.

The pricing strategy is the following:

- **Yearly fee:** Customers need to pay an initial fee which will be used to cover the initial investment and fixed costs. The fee is of 40€, in line with the prices of the principal competitors analysed in section 5.1.
- **Monthly fee:** Regular clients pay 45€ per month, in line with the competitors prices. Also, as seen with the survey, potential clients do not mind to pay a bit more for a green company. Students only pay 35€ per month. Regarding the **compensation**, the initial idea was to follow the survey results and discount 1€/KW generated. This will not be possible the first 3 years due to lack of resources. Instead a monthly discount of 15€ will be drawn among members who have generated more than 1KW that month.
- **One day pass:** The price for entering the gymnasium for just one day will be of 5€.
- **Personal trainer:** 25€ (additionally) will be charge to the clients aiming to have a personal trainer.

The aim is to reach 2000 clients in 5 years, for this reason there will be special offers in different moments of the year:

- **Launching offer:** the initial fee will be of 20€ during a month after the opening of the gymnasium
- **January, May and September:** This months will also have an entry fee of 20€ for being the moment where people usually join gymnasiums. January for the New Year's Resolution, May for the "bikini season" and September when scholar year starts.

6.2.3. Communication strategy

The target market has around 230.000 inhabitants, statistics show that only 45.6% do some kind of sport. Specifically only around 30% of the population goes to the gym which leaves EcoGym with 31.464 potential customers. Taking into account the high degree of competition that is there in the market (11 similar sports centres) each competitor has around 3.000 clients. EcoGym will try to reach 2.000 clients in 5 years which represents around the 6% of the market. The company will take advantage of its differentiation component to promote itself.

The marketing campaign is the key to attract new customers therefore taking into account the preferences of the target clients will ensure the success of the campaign. Young adults are

really into social media for this reason e-marketing will be the main driver for reaching the target customers.

The marketing campaign will be planned by the marketing and communication department who will also be in charge of keeping the clients informed of any changes, other activities or other events that may occur.

The channels used will be different depending on the purpose of the campaign:

- **Launching campaign:** The aim is to capture new clients when the company opens, therefore. The tools used will be:
 - Social networks: The target customer is young adults who are really into social media communication channels. EcoGym will be present in the social networks like Facebook, Twitter and Instagram, but also search engine communication will be used (i.e. appear in the first position when searching in Google)
 - Business website: Detailed information about the company, the operation, prices, activities and the team will appear in the website.
 - Direct marketing: Pamphlets will be distributed through post-mailing in the district of Sant Martí, where the gymnasium will be located.
 - Radio and newspaper: A short spot in the local and national radio as well as in the newspaper will allow to reach the adults that are not into social media and prefer the conventional communication channels

The launching campaign will have a budget of 20.000€ and will last 6 months, starting 3 months before the opening of the store.

- **To reach new customers (when the launching campaign is over):** Given that the target customer is young adults, and that they are really into social networks, E-marketing will be the main communication channel to attract them as previously mentioned. Also one of the oldest communication channel will be used, the word-of-mouth. If the first joiners are happy with the service, the propaganda that they can make to family, friends and acquaintances is the most effective campaign for attracting new clients.
- **To keep clients:** EcoGym wants its clients to feel part of the project, therefore keeping them updated with the latest news of activities and changes is crucial. Also clients will be informed of their monthly production as well as the winner of the monthly discount. The main communication channel with clients will be through e-mail. Also announcements in the gymnasium will keep clients aware of the main activities or possible modifications in the established schedule.

6.3. Forecasting and sales outlook

This section presents the sales forecast for the first 5 years after the opening of EcoGym. As previously mentioned, in 5 years the company should have around 2.000 clients. The members' distribution is the following:

	Year 1	Year 2	Year 3	Year 4	Year 5
Regular members	240	585	780	1040	1300
New members for special fees	360	315	420	560	700
Total members	600	900	1200	1600	2000
Students	240	360	480	640	800

Table 3: Number of members. Own elaboration

New members for special fees are the clients that join the club when there is a promotion on the yearly fee. The first year this members represent 60% of the total members since the majority will join during the launching campaign. For the following years this percentage is reduced to 35% since the offer is only available during three months per year.

Moreover, of the total members, 40% are estimated to be students, since, as seen in the market research, the majority of gym goers have between 16 and 30 years old.

In addition, clients who desire it can have a personal trainer for 25€ more per month. It is estimated that only 5% of the clients will contract this service.

Taking into account the members' distribution and the prices explained previously, the expected monthly revenue for each year is:

	Year 1	Year 2	Year 3	Year 4	Year 5
Yearly revenue:	321.000 €	471.600 €	628.800 €	838.400 €	1.048.000 €
Monthly revenue:	26.750 €	39.300 €	52.400 €	69.867 €	87.333 €

Table 4: Income from sales. Own elaboration

The monthly revenue is an average, the exact amount will depend on if more or less new clients joint the club, for example January, May and September are expected to have higher revenue due to the special fee to attract new members.

7. Operation plan

7.1. Location

Finding the perfect location is never easy, a lot of variables affect the final decision such as the quality of the neighbourhood, communication infrastructures, price of the rent, population structure, the competitors etc.

After having analysed the social patterns (section 2.3), the sector tendencies (section 5.1) and consequently having narrowed the competition analysis into two districts (Eixample and Sant

Martí), the chosen district is Sant Martí due to lower rents (average of 4.500€/month vs 5.500€/month) and more variety of facilities than in Eixample, which indeed has more competition than the chosen district.

The building needed is a facility of around 500m² preferably floor level with the following spaces⁵:

- Fitness room
- Group activities room
- Smaller group activities room
- 2 Changing rooms with showers and toilettes
- Reception
- Administration office

Further information regarding the distribution of the space can be found in the following section.

7.2. Production

First of all, EcoGym has 3 electricity alternatives:

1. **100% self-sufficient installation:** The facility is not connected to the local grid, thus needs to generate all the electricity consumed through human kinetic energy and renewable sources with the help of batteries to store the extra energy produced. This alternative is risky because both sources of energy are intermittent and shortages may occur even if there are batteries. The positive sight is that no regulation is in force for autonomous facilities
2. **Nearly 100% autonomous installation:** The sport centre is powered with the same sources as in point 1, but is connected to the grid, through certified green suppliers, to prevent possible shortages. The problem is the regulation on self-consumption of energy from renewable sources explained in section 3.6.
The solar tax and the tax on batteries make the installation of photovoltaic panels inefficient, thus this option becomes unattractive.
3. **Human force energy generation:** This option benefits from the fact that there is a legal loophole in human energy generation. For this reason the company buys the electricity to a certified green supplier and uses human force to reduce the electricity bill as much as possible.

EcoGym will apply the third alternative due to legal constraints on the installation of PV panels.

⁵ Annex 13.3 contains a floor plan of the building

Having decided this, the facility of the gymnasium will be around 500 m² which will be distributed in the following way:

- Fitness room (around 170 m²): With equipment capable of self-producing energy (elliptical cycle, recumbent cycles and upright cycles) and the other conventional gym machines for bodybuilding, space for weight training and room for stretch or other floor exercises. The machine quantity will be:
 - **ECO-POWR Technology machines**: 5 Treadmills, 3 elliptical cycles, 2 recumbent cycles and 2 upright cycles.
 - **Body building machines**: 1 Functional training (total body training), 2 Core body training, 1 Rowing machine and 10 Upper and lower body building machines.
 - **Other equipment**: Dumbbell, kettlebell and barbell sets with the appropriate racks, pull-up bars, heavy bag, globes, headgear and shin guards, benches, steps, mats, stability balls, medicine balls, jump rope, ropes, resistance bands.
- Group activities room (around 60 m²): This room will be for the high intensive activities (body pump, Zumba, steps, indoor cycling...). The floor will have the Pavegen technology which captures the energy of the footsteps, apart from 20 indoor cycles.
- Small group activities room (30 m²): Space dedicated to low intensive activities such as Yoga, Pilates, Stretching etc.. No special technology will be installed.

The ECO-POWR gym machines are the core of this business. They just need to be plugged in so the machine can return the extra W generated to the installation. Moreover, they incorporate a LED screen where, apart from choosing the desired program, time, difficulty and the heart bit, the user can see the W he/she is producing during the session. The machines have a system allowing for the identification of the member, thus the generation is traced and the client can be compensated accordingly.

The generation capacity of the fitness room is calculated with the following assumptions:

	Year 1	Year 2	Year 3	Year 4	Year 5
Clients	600	900	1200	1600	2000
Clients using the cardio equipment (30%)	180	270	360	480	600
Ciclo indoor (participants/class)	8	10	14	16	18
Energy harvesting ⁶ (participants/class)	7	8	10	12	15

Table 5: Gym goers preferences

⁶ For calculating the W/person, the W generated after each activity will be divided among the assistants

The building will have a maximum capacity of 3.000 clients per month given the following assumptions:

- 3.000 clients per 24 days a month gives 125 clients per day, the gym is opened 11 hours per day which gives 11 clients per hour. Obviously there will be hours with more inflow, but at the same time there can be 100 people in the facility.
- The average member uses the cardio equipment during 30 minutes 3 times a week (survey results), gives 6 hours per month.
- There are 6 hours of indoor cycling per week (24 h/month)
- During group activities the average participant makes a step every 5 seconds → 720 steps per hour. Assuming 3 group activities per day (6 days/week and 4 weeks/month) → 51.840 steps per month per person
- The cardio equipment produces an average of 160W/h, the indoor cycling 200W/h and the energy harvesting 3W/footstep.

Therefore, the average production per month each year will be:

	Year 1	Year 2	Year 3	Year 4	Year 5
Clients using the cardio equipment (30%)	173 KW/m	259 KW/m	346 KW/m	461 KW/m	576 KW/m
Ciclo indoor (participants/class)	12 KW/m	48 KW/m	67 KW/m	77 KW/m	86 KW/m
Energy harvesting (participants/class)	1.089 KW/m	1.244 KW/m	1.555 KW/m	1.866 KW/m	2.333 KW/m
Total production (KW/month)	1.273 KW/m	1.551KW/m	1.968 KW/m	2.404 KW/m	2.995 KW/m

Table 6: Estimated electricity generation

7.3. Investment and launching costs

The table below summarizes the initial investment costs as well as its depreciation:

	Gym equipment	Pavegen Technology	Renovation works	Thermo solar power	Electronics (computer, laptops...)	Budget for unforeseen situations	Total cost
Initial investment	265.700€	20.000€	150.000€	5.000€	20.000€	50.000€	510.700€
Depreciation (years)	10 years	25 years	20 years	30 years	6 years	-	
Depreciation	26.570€	2.000€	7.500€	167€	3.333,33€		34.403,33€

Table 7: Initial investment and depreciation

- **Gym equipment:** The machines represent the biggest part of the investment. Cardio is prioritized for the gym characteristics. The gym equipment costs are summarized in the table below. The total amount is: $190.700 + 75.000 = \underline{265.700€}$.

	Indoor Cycle	Elliptical Cycle	Recumbent cycles	Upright cycles	Treadmill
Units	20 units	3 units	2 units	2 units	5 units
Price	4.800€	8.500€	4.800€	4.800€	10.000€
Total Cost	96.000€	25.500€	9.600€	9.600€	50.000€

Table 8: Gym equipment

- **Pavegen Technology:** 20.000€ (Budget made by the company for EcoGym needs)
- **Renovation works:** 150.000€. Includes the renovation of the entire local and make each space ready for the use (changing rooms, toilettes, different rooms...)
- **Thermoelectric solar power:** 5.000€. Needed to heat the water. Under the Barcelona regulation, sports centres have to install this technology to reduce the energy consumption. In addition a system to save water will be installed; the water from the sink will be used for the WC, saving around 8l of sanitary water each time someone uses the toilette.
- **Electronics:** 20.000€. Computers, laptops, sound system, printer, screens,...
- **Budget for unforeseen situations:** 50.000€. This amount is for covering additional expenses that may occur.

7.4. Operating costs

The monthly costs of the company will be the following:

	Year 1	Year 2	Year 3	Year 4	Year 5
Salaries	25.917€	26.331 €	28.293 €	28.332 €	28.351 €
Social Security	7.775€	7.899 €	8.488 €	8.499 €	8.505 €
Electricity	50€	45 €	40 €	35 €	30 €
Water	300€	430 €	570 €	750 €	900 €
Professional services	2.250€	2.286 €	2.324 €	2.365 €	2.409 €
Internet and phone	100€	102 €	103 €	105 €	107 €
Rent	4.500€	4.572 €	4.647 €	4.731 €	4.819 €
Publicity	20.100€	102 €	103 €	105 €	107 €
Compensation	15€	30 €	45 €	2.404 €	2.995 €
Insurance	300€	305 €	310 €	315 €	321 €
Other costs	500€	508 €	516 €	526 €	535 €
Depreciation	3.506€	3.350 €	3.406 €	3.467 €	3.531 €
TOTAL	45.220€	45.800 €	48.605 €	51.284 €	52.211 €

Table 9: Estimated monthly costs

- **Salaries and Social Security:** Explained in detail in section 8.3
- **Internet and phone:** 100 €/month
- **Rent:** Average price of the district 4.500 €/month
- **Depreciation:** 3506 €/month, explained in section 7.3
- **Other costs:** Budget for expenses such as stationary items (500 €/month)

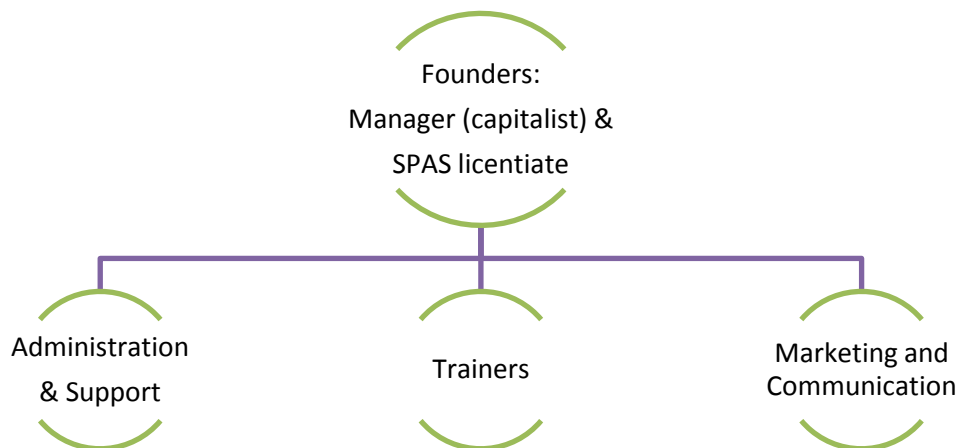
- **Electricity**⁷: Contracted to SomEnergia, they have different tariffs for companies depending on the consumption. EcoGym would enter in the tariff of up to 15kW where the average price of electricity is of 0.125€/MWh plus the additional expenses.
The energy consumption of the gymnasium for the first year is of 1.232KW in summer and 2.057KW in winter. According to production estimations in section 7.2 the company will only have to buy 784MWh in winter (Around 100€) thus the average is of 50€/month for the first year. This bill will be reduced the following years since more clients are expected to join the club even if the electricity consumption may increase.
- **Water**: The average water consumption estimated for a gymnasium is 30l per member, and around 50% of clients have shower in the gymnasium. Assuming 70% of the clients use the restroom, this is 10l per person. Clients go on average 3 times per week to the gym (12 times per month). The water consumption at the end of the month is 148.32 m³, paid at 1.8147€/m³ plus the tariffs, the monthly bill will be of around 300€ (first year, in year five it can be of 900€/month)
- **Professional (outsourced) services**:
 - **Maintenance**: The service will be per hours needed, the estimated average hours are 3h/day, 26 days per month gives 78 h/month. The hours are paid at 12€ giving a monthly cost of around 1.000 €/month.
 - **Cleaning service**: The cleaning service will operate 4h/day, 26 days/month giving 104h/month. The hours are paid at the same price as the maintenance, 12€/h, therefore the monthly cost will be around: 1250 €/month
- **Publicity**: The launching budget is of 20.000€, then the monthly expense will be of 100€/month.
- **Insurance**: Covering the civil responsibility and robberies 300€/month
- **Compensation**: Due to budget constraints the criteria will be:
 - First 3 years: A monthly discount of 15€ will be drawn among the members who produce more than 1KW per month. Second year 2 clients/ month and third year 3 clients per month.
 - From 4th year onwards: the company is expected to have positive result, therefore a compensation of 1€/MW produced will be given to each client.
- **Expenses increase by the CPI the following years**. The projections of the Central Bank of Spain for the period 2018 -2022 are an increase of 1.3%, 1.6%, 1.65%, 1.79% and 1.86%, respectively.

⁷ The energy consumption of EcoGym is detailed in Annex 2

8. Organization and HR Plan

8.1. Organizational structure and Management team

EcoGym will be constituted as a Cooperative, so at the beginning it needs at least two partners. One will be the Manager of the business who is the one putting the money and the one who manages it. The other partner must be a Scientific in Physical Activity and Sports who will advise the manager regarding the specific issues as well as be the main trainer. He or she will contribute fewer in monetary terms. The organization will be:



According to this scheme and following EcoGym philosophy, the trainers, clients and other workers will have the possibility of being partners of the cooperative so as to contribute to improve the project and expand the business.

8.2. Job descriptions

EcoGym will need the following profiles to cover the expectations of all the clients:

- **2 receptionists** (one for mornings and one for afternoons)
- **6 fitness instructors:** They will be specialized in different modalities (yoga, pilates, body-building, indoor cycling, body-pump, steps...) and in nutrition and health. There will be a Head of trainers who coordinates and organizes the activities and the instructors. The instructors must have a degree in Sports or a vocational training in Sports as well as in nutrition and health. As the clients, they will receive a compensation for the energy produced.
- **1 manager** (graduated in business management), **1 accountant** (Graduated in accounting) and **2 marketing and communication experts** (Graduated in Marketing and Public Relations).

As previously stated, the cleaning service will be outsourced to a company with green certificate as well as the maintenance service.

8.3. HR policies: selection, management and compensation

The idea is that the founders (the manager and the head of the trainers) are the ones in charge of the selection process.

The management will be in the hands of both co-founders but each one specializing in his field, decentralizing the decision making when needed.

The salaries are based on current market wages, nevertheless given that EcoGym is a start-up, high wages cannot be set. The company aims to increase salaries in the future when higher revenue is obtained. The wages will be:

- Manager: 40.000€
- Head of trainers: 32.000€
- Trainers: 23.000€
- Accountant and Marketing and Communication: 28.000€
- Receptionists: 20.000€

The wages and salaries by month for the first five years are:

	Year 1	Year 2	Year 3	Year 4	Year 5
Manager	3.333 €	3.386 €	3.442 €	3.504 €	3.569 €
Head of trainers	2.667 €	2.710 €	2.754 €	2.804 €	2.856 €
Trainers (5)	9.585 €	9.738 €	11.877 €	12.089 €	12.314 €
Accountant	2.333 €	2.370 €	2.409 €	2.453 €	2.498 €
Marketing & Communication (2)	4.666 €	4.741 €	4.819 €	4.905 €	4.996 €
Receptionist (2)	3.333 €	3.387 €	3.443 €	3.504 €	3.569 €
TOTAL	25.917 €	26.331 €	28.745 €	29.260 €	29.804 €

Table 10: Wages and salaries

The social security paid is 30% of the wages, the distribution is as follow:

	Year 1	Year 2	Year 3	Year 4	Year 5
Manager	1.000 €	1.016 €	1.033 €	1.051 €	1.071 €
Head of trainers	800 €	813 €	826 €	841 €	857 €
Trainers (5)	2.875 €	2.921 €	3.563 €	3.627 €	3.694 €
Accountant	700 €	711 €	723 €	736 €	750 €
Marketing & Communication (2)	1.400 €	1.422 €	1.446 €	1.472 €	1.499 €
Receptionist (2)	1.000 €	1.016 €	1.033 €	1.051 €	1.071 €
TOTAL	7.775 €	7.899 €	8.624 €	8.778 €	8.941 €

Table 11: Social Security

In year 3 the company will hire another trainer in order to ensure the offer of a high-quality service and to cover the demand for personal trainings.

9. Financial plan

9.1. Financial hypotheses

These hypotheses apply for all the financial statements that are exposed in this section

- TAE: The ICO (Official Credit Institution) establishes the maximum TAE for Entrepreneurs and Enterprises loans. EcoGym will ask for a loan of 500.000€ at 15 years which have a fixed interest rate of 6.024%. In order to show credibility of the project, the manager home will be offered as collateral of this loan.
- Taxes: Under Spanish law for cooperatives, the corporate tax is of 20%.

9.2. Income statement

	31/12/Y1	31/12/Y2	31/12/Y3	31/12/Y4	31/12/Y5
OPERATING INCOME	321.000 €	486.000 €	648.000 €	864.000 €	1.080.000 €
Sales	312.000 €	472.500 €	630.000 €	840.000 €	1.050.000 €
Services revenues	9.000 €	13.500 €	18.000 €	24.000 €	30.000 €
OPERATING EXPENSES	-561.250 €	-550.887 €	-591.904 €	-632.056 €	-651.200 €
External services	-117.380 €	-100.548 €	-103.907 €	-136.032 €	-146.687 €
Rents	-54.000 €	-54.864 €	-55.769 €	-56.768 €	-57.823 €
Professional services	-27.000 €	-27.432 €	-27.885 €	-28.384 €	-28.912 €
Publicity	-21.200 €	-1.219 €	-1.239 €	-1.262 €	-1.285 €
Electricity	-600 €	-540 €	-480 €	-420 €	-360 €
Water	-3.600 €	-5.160 €	-6.840 €	-9.000 €	-10.800 €
Phone & internet	-1.200 €	-1.219 €	-1.239 €	-1.262 €	-1.285 €
Other costs	-6.000 €	-6.096 €	-6.197 €	-6.308 €	-6.425 €
Insurance	-3.600 €	-3.658 €	-3.718 €	-3.785 €	-3.855 €
Clients compensation	-180 €	-360 €	-540 €	-28.846 €	-35.942 €
Personnel expensenes	-404.300 €	-410.769 €	-448.426 €	-456.453 €	-464.943 €
Wages & salaries	-311.000 €	-315.976 €	-344.943 €	-351.118 €	-357.648 €
Social Security	-93.300 €	-94.793 €	-103.483 €	-105.335 €	-107.295 €
Depreciation	-39.570 €	-39.570 €	-39.570 €	-39.570 €	-39.570 €
EBIT	-240.250 €	-64.887 €	56.096 €	231.944 €	428.800 €
Financial revenues					
Financial expenses	-17.713 €	-16.927 €	-16.092 €	-15.206 €	-14.264 €
EBT	-257.963 €	-81.814 €	40.004 €	216.738 €	414.536 €
Corporate tax 20%	0 €	0 €	-8.001 €	-43.348 €	-82.907 €
NET RESULT	-257.963 €	-81.814 €	32.004 €	173.391 €	331.628 €

The Income Statement for the first five years shows a negative result for the first 2 years. The first year is the worst because it is assumed that 60% of the new clients join when there are promotions, which decrease the revenues. The biggest expenses are personnel expenses followed by the rent. These expenses cannot be cut, since the rent is external and the wages are already low, but given it is a start-up, at the beginning wages cannot be increased.

From year 3 onwards the company will report the first positive results mainly driven by the increase in the number of members even if more workers are hired.

9.3. Balance sheet

	31/12/Y1	31/12/Y2	31/12/Y3	31/12/Y4	31/12/Y5
ASSETS					
A) FIXED ASSETS	421.129,67 €	381.559,34 €	341.989,01 €	302.418,68 €	262.848,35 €
I. Intangible assets	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €
Goodwill					
II. Tangible assets	421.129,67 €	381.559,34 €	341.989,01 €	302.418,68 €	262.848,35 €
Plant and machinery	170.000,00 €	170.000,00 €	170.000,00 €	170.000,00 €	170.000,00 €
Equipment	290.700,00 €	290.700,00 €	290.700,00 €	290.700,00 €	290.700,00 €
Depreciation	-39.570,33 €	-79.140,66 €	-118.710,99 €	-158.281,32 €	-197.851,65 €
III. Investments	0,00 €	0,00 €	0,00 €	0,00 €	0,00 €
B) CURRENT ASSETS	79.733,00 €	15.031,20 €	62.726,12 €	250.333,12 €	594.608,89 €
I. Stocks					
II. Debtors					
IV. Cash and cash equivalents	79.733,00 €	15.031,20 €	62.726,12 €	250.333,12 €	594.608,89 €
Bank account	79.733,00 €	15.031,20 €	62.726,12 €	250.333,12 €	594.608,89 €
TOTAL ASSETS (A+B)	500.862,67 €	396.590,54 €	404.715,13 €	552.751,80 €	857.457,24 €

EQUITY AND LIABILITIES					
A) EQUITY	22.036,67 €	-59.777,46 €	-27.773,87 €	145.616,80 €	477.245,24 €
I. Capital	280.000,00 €	280.000,00 €	280.000,00 €	280.000,00 €	280.000,00 €
II. Reserves				16.001,80 €	102.697,13 €
III. Results of past exercises		-257.963,33 €	-339.777,46 €	-323.775,66 €	-237.080,33 €
VI. Profit (loss) account	-257.963,33 €	-81.814,13 €	32.003,59 €	173.390,67 €	331.628,43 €
B) LONG-TERM LIABILITIES	456.368,00 €	432.489,00 €	407.135,00 €	380.212,00 €	351.623,00 €
I. Long term provisions					
II. Long term loans	456.368,00 €	432.489,00 €	407.135,00 €	380.212,00 €	351.623,00 €
C) CURRENT LIABILITIES	22.458,00 €	23.879,00 €	25.354,00 €	26.923,00 €	28.589,00 €
I. Short-term loans	22.458,00 €	23.879,00 €	25.354,00 €	26.923,00 €	28.589,00 €
II. Trade creditors					
TOTAL EQUITY & LIABILITIES (A+B+C)	500.862,67 €	396.590,54 €	404.715,13 €	552.751,80 €	857.457,24 €

The Balance Sheet shows how the company has financed its initial investment. It can be seen that the loan is mostly used to finance the initial investment while the capital's aim is to compensate the initial years losses.

The loan will be asked to TriodosBank, an ethic bank who only finances environmental friendly, social and cultural projects. Regarding the capital, the Manager will invest 250.000€ (89,28%) and the rest is invested by the SPAS licentiate (30.000€).

The working capital is positive in all years in exception of year 2, this is not a problem given the payment strategy that is explained in the following section. Additionally, with the amount of cash generated from year 4 on, EcoGym will finance eco-friendly projects in Barcelona.

The reserves for cooperatives are by law 50% of the positive Net Result, therefore from Y3 on.

9.4. Financial feasibility

9.4.1. Cash flow

	31/01/Y1	31/02/Y1	31/03/Y1	31/04/Y1	31/05/Y1	31/06/Y1	31/07/Y1	31/08/Y1	31/09/Y1	31/10/Y1	31/11/Y1	31/12/Y1
a) CF FROM OPERATING ACT.	12.768 €	-35.382 €	-41.802 €	-70.692 €	-61.062 €	-70.692 €	-67.358 €	-67.358 €	-57.728 €	-67.358 €	-67.358 €	-67.358 €
EBT	46.386 €	-1.764 €	-8.184 €	-37.074 €	-27.444 €	-37.074 €	-33.740 €	-33.740 €	-24.110 €	-33.740 €	-33.740 €	-33.740 €
Depreciation and amortisation	3.298 €	3.298 €	3.298 €	3.298 €	3.298 €	3.298 €	3.298 €	3.298 €	3.298 €	3.298 €	3.298 €	3.298 €
Increase/Decrease in debtors												
Increase/Decrease in creditors	-38.392 €	-38.392 €	-38.392 €	-38.392 €	-38.392 €	-38.392 €	-38.392 €	-38.392 €	-38.392 €	-38.392 €	-38.392 €	-38.392 €
Cash generated from operations												
Interest paid	1.476 €	1.476 €	1.476 €	1.476 €	1.476 €	1.476 €	1.476 €	1.476 €	1.476 €	1.476 €	1.476 €	1.476 €
b) CF FROM INVESTING ACT.	0 €	0 €	0 €	0 €	0 €	0 €	0 €	0 €	0 €	0 €	0 €	0 €
Purchase of fixed assets												
Sale of fixed assets												
c) CF FROM FINANCING ACT.	776.759 €	-3.241 €	-3.241 €	-3.241 €	-3.241 €	-3.241 €	-3.241 €	-3.241 €	-3.241 €	-3.241 €	-3.241 €	-3.241 €
Increase in Capital	280.000 €											
Loan	500.000 €											
Repayment of LT borrowings	-1.765 €	-1.765 €	-1.765 €	-1.765 €	-1.765 €	-1.765 €	-1.765 €	-1.765 €	-1.765 €	-1.765 €	-1.765 €	-1.765 €
Interest paid	-1.476 €	-1.476 €	-1.476 €	-1.476 €	-1.476 €	-1.476 €	-1.476 €	-1.476 €	-1.476 €	-1.476 €	-1.476 €	-1.476 €
Corporate tax	0 €	0 €	0 €	0 €	0 €	0 €	0 €	0 €	0 €	0 €	0 €	0 €
d) NET INC./DEC. IN CASH	789.528 €	-38.622 €	-45.042 €	-73.932 €	-64.302 €	-73.932 €	-70.599 €	-70.599 €	-60.969 €	-70.599 €	-70.599 €	-70.599 €
Cash beginning of the period	0 €	789.528 €	750.906 €	705.863 €	631.931 €	567.629 €	493.697 €	423.098 €	352.499 €	291.530 €	220.931 €	150.332 €
CASH END OF THE PERIOD	789.528 €	750.906 €	705.863 €	631.931 €	567.629 €	493.697 €	423.098 €	352.499 €	291.530 €	220.931 €	150.332 €	79.733 €

The cash flow statement gives an overview of the cash payments made through the year. The company generates a lot of cash due to the monthly payments of the clients which enables the company to pay the monthly expenses. Clients are charged the first of each month and suppliers are paid on the 30th.

The cash flow for the first year shows the payment of the initial investment (decrease in creditors) which is completely repaid at the end of the year by paying the same amount on a monthly base. In the first month of operation, it can be seen the increase in Capital and the Loan, also the EBT is the highest because it is expected that 30% of the first year clients will join the club since the beginning. The second and third month will capture respectively 15% of the clients and the fifth and the ninth, where special fees will be offered due to season increase in demand will capture 7% of the new clients. The rest of the months will capture only 4% of new clients.

The cash flow for the first five years is shown below. It can be said that the excess of cash in the first year serves to ensure that the following year there is enough cash to cover all the expenses that have to be paid. The company will invest the extra cash from year 4 in more gym equipment depending on the preferences of the customers as well as on sustainable projects. Additionally, the company will evaluate expanding the business to other districts in Barcelona or to another city within Catalonia from year five.

	31/12/Y1	31/12/Y2	31/12/Y3	31/12/Y4	31/12/Y5
a) CASH FLOW FROM OPERATING ACTIVITIES	-661.380 €	-25.317 €	95.667 €	271.515 €	468.370 €
EBT	-257.963 €	-81.814 €	40.004 €	216.738 €	414.536 €
Depreciation and amortisation	39.570 €	39.570 €	39.570 €	39.570 €	39.570 €
Increase/Decrease in debtors					
Increase/Decrease in creditors	-460.700 €				
Cash generated from operations					
Interest paid	17.713 €	16.927 €	16.092 €	15.206 €	14.264 €
b) CASH FLOW FROM INVESTING ACTIVITIES	0 €	0 €	0 €	0 €	0 €
Purchase of fixed assets					
Sale of fixed assets					
c) CASH FLOW FROM FINANCING ACTIVITIES	741.113 €	-39.385 €	-47.972 €	-83.908 €	-124.094 €
Increase in Capital	280.000 €				
Loan	500.000 €				
Repayment of long-term borrowings	-21.174 €	-22.458 €	-23.879 €	-25.354 €	-26.923 €
Interest paid	-17.713 €	-16.927 €	-16.092 €	-15.206 €	-14.264 €
Corporate tax	0 €	0 €	-8.001 €	-43.348 €	-82.907 €
d) NET INCREASE/DECREASE IN CASH	79.733 €	-64.702 €	47.695 €	187.607 €	344.276 €
Cash at the beginning of the period	0 €	79.733 €	15.031 €	62.726 €	250.333 €
CASH AT THE END OF THE PERIOD	79.733 €	15.031 €	62.726 €	250.333 €	594.609 €

9.4.2. Ratios

The **main ratios** that evaluate the feasibility of the project are divided into economic and financial ratios and are the following:

ECONOMIC	31/12/Y1	31/12/Y2	31/12/Y3	31/12/Y4	31/12/Y5
Margin over sales	-0,75	-0,13	0,09	0,27	0,40
Break-even point	1.049	1.020	1.096	1.170	1.206

From an economic point of view, it can be said that the first two years are bad due to the negative EBIT obtained. The margin over sales reflects this, but also it reports positive numbers for the following three periods. This is linked with the Break-even point, which is calculated dividing the monthly costs of each year by the average clients' payment (44€). Taking into account the expected number of clients per year, the company will report profits since year 3.

FINANCIAL	31/12/Y1	31/12/Y2	31/12/Y3	31/12/Y4	31/12/Y5
Liquidity ratios					
Working capital	3,55	0,63	2,47	9,30	20,80
Leverage ratios					
Leverage (Debt/Debt+Equity)	0,96	1,15	1,07	0,74	0,44
Guarantee (Assets/ Debt)	1,05	0,87	0,94	1,36	2,26
Financial autonomy (Equity/debt)	0,05	-0,13	-0,06	0,36	1,26
Profitability ratios					
ROA	-0,48	-0,16	0,14	0,42	0,50
ROE	-11,71	1,37	-1,15	1,19	0,69

From the financial point of view, there are three main blocks of ratios:

- **Liquidity:** For EcoGym, since no stock is hold neither clients payments, all the liquidity existing is in cash. For this reason only the working capital ratio is calculated since it is the same as the quick ratio or the acid test. From this ratio it can be said that in year two there could be repayment problems, however, taking into account that the pending current liabilities is the loan, it is accounted in current liabilities because it will be repaid during the next year. Moreover, all the yearly expenses are paid too, which leads to the low cash amount.
- **Leverage:** These ratios determine the solvency of the project as they compare the owned resources with the debt hold.
 - Leverage ratio: Compares the debt with total assets. The first three years are the most risky, since debt is higher than the total of asset. This is due to accumulated losses of previous years, and it is normal in the first years of a start-up. The most risky year is the second, due to low levels of cash and the huge losses of the first year.

- Guarantee: is the opposite of the leverage ratio as it compares the total amount of assets with the debt. This ratio should always be bigger than one and as large as possible, as stated before, years 2 and 3 are risky but normal for the first years, after these years, the ratio shows good values.
- Financial autonomy: Here the comparison is between equity and debt. Again the second and third years are dangerous due to the risk of bankruptcy caused by negative equity (accumulated losses).
- **Profitability**: This two ratios determine the feasibility of the business plan by comparing the result with the assets and shareholder's funds
 - Return on Assets: This ratio shows the profitability of the assets compared with the EBIT. As this result is negative for the first two years, the ROA is too. From this year on, investment in assets is profitable.
 - Return on Equity: this ratio compares the Net result with the Equity invested. As stated until now, the first years are bad regarding the return on shareholder's funds due to the accumulated losses. Nevertheless from year 4 the Equity returns are high. As a remark, year two is positive because both, Net Result and Equity are negative, thus the return of 1.37 euros per euro invested should not be seen as a positive return, indeed it is a loss.

All in all, it can be said that from the year three onwards, the company improves its situation and reports standard ratio values, also in terms of indebtedness, which is the most risky factor apart from the losses reported the first years.

9.5. Risks and contingencies

The higher risk of this type of business is the break-down of the machines, which are the key instrument to ensure the normal functioning of the service. The equipment from SportsArt has a guarantee of 5 years and the Pavegen technology of 10 years in case of break-down not intended.

There is an extra 50.000€ not reflected in the financial statements which will be invested by the Manager in case there are unexpected expenses during the initial investment or in case there is the need to invest in equipment before year 3 when resources to invest are limited.

Another risk the company is exposed is to robberies, for protecting against this EcoGym has contacted a civil insurance which also covers fires and damages in the building by external forces.

10. Launching plan

The activities needed to carry out before the opening and its estimated time of realization are described in the table below, with the aim of giving an overview of steps that should be done from now on.

ACTIVITY	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Month 13	Month 14	Month 15
Market research	█														
Business Plan elaboration by founders	█	█	█												
Register the company				█											
Ask for the loan to the bank				█											
Look for a facility in Sant Martí district					█	█									
Agreements with suppliers of gym equipment					█	█									
Look for a company to do the renovation works						█	█								
Evaluate plan and budget of renovation works						█	█								
Get the construction permit							█								
Renovation works, cleaning and decoration								█	█	█	█	█	█	█	█
Hire Marketing and Communication experts											█	█	█	█	█
Marketing campaign													█	█	█
Hire Accountant, Trainers and Receptionists														█	█
BIG OPENING															█

The accomplishment of these activities will be followed-up with daily and/or weekly meetings of the founders where they will discuss the tasks that have been done as well as the ones pending.

The manager will be more in charge of the financial activities, hiring, permits and certificates while the SPAS graduate tasks will be mainly to contact with the suppliers, plan the renovation of the facilities according to the equipment and the gym necessities and participate in the recruitment process of the trainers.

11. Conclusions

This section wants to summarize and highlight the main conclusions derived from this project. Apart from conclusions on the business plan itself, references to problems faced and possible obstacles that this project could face are mentioned here.

First of all, the business plan conclusions are that:

- EcoGym main strength is the fact that generates the majority of the electricity it consumes. This is not only a matter of money saving but a project that goes beyond by contributing to the reduction of global warming.
- The value added that EcoGym possesses allows it to position as an alternative to regular gymnasiums. The aim is to make clients feel involved as they are a keystone of this innovative project.
- From a marketing point of view, this uniqueness is a lure for new clients and also it helps to maintain them. As corroborated by the survey, people would change to a sustainable gymnasium and indeed would not mind paying more for going to a gymnasium of with these characteristics.
- From the financial perspective, this project is profitable from the third year onwards. The negative values reported the first two years are normal for a start-up, and given the huge initial investment, the losses are justified.

Additionally, the sales forecast shows a tripling in the number of members in just 5 years (from 600 to 2.000). This may seem a lot but the gym capacity is of 3.000 clients and by 5 years this capacity would not be reached yet, leaving room for growth.

The main barriers that EcoGym may have to face are:

- The huge initial investment, for making real this business plan there is the need of a bank loan, since more than 700.000€ are needed to start running the business and cover the initial investment and first years losses.
- EcoGym first years will be taught in economic terms, since the break-even point is reached in the third year, therefore, and specially in year 2, liquidity problems may be faced.

To sum up, this project is ambitious since it introduces a different but more efficient way of running a sport facility. Indeed, it reinforces the idea that an eco-friendly business model is feasible and not only this, the fact that it is a green project makes it more attractive for clients, creditors and all parties that can have some relation with EcoGym.

All in all, it is a project that will benefit society not only for spreading a healthier life-style model but also for contributing to the reduction of the global warming.

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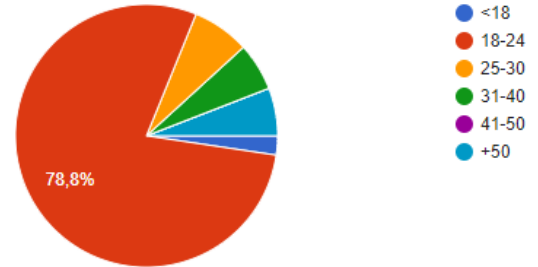
1. Appendix

1.1. Survey

The questions and results of the survey where the followings:

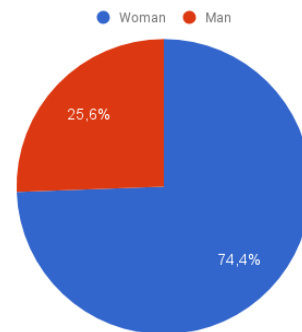
1. Age:

- <18
- 18-24
- 25-30
- 31-40
- 41-50
- +50



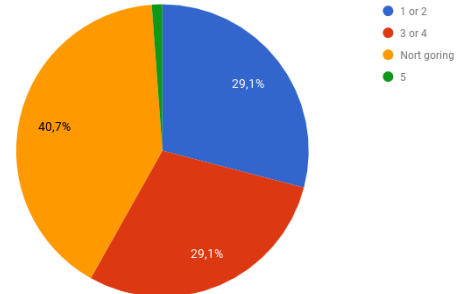
2. Gender

- Women
- Men



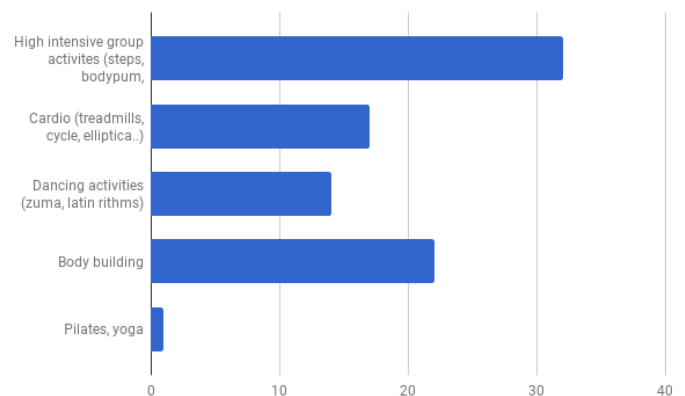
3. How many times per week do you go to the gym?

- Not going
- 1 or 2
- 3 or 4
- Every day



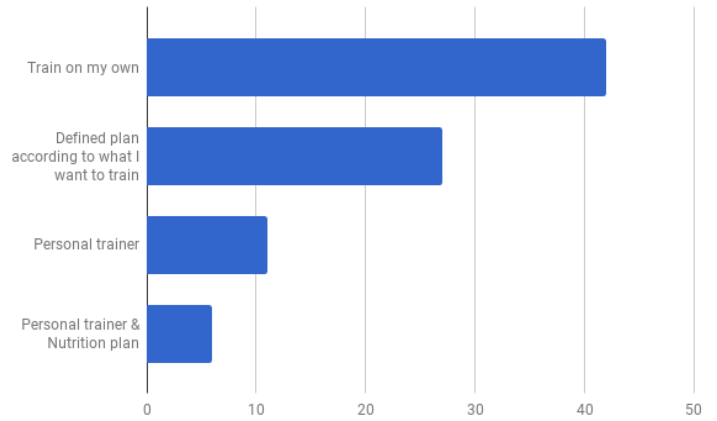
4. Which type of training do you prefer?

- Bodybuilding
- High intensive group activities (steps, body pump, spinning...)
- Dancing activities (zuma, latin rithms)
- Cardio: Cycling, Running in the treadmill, elliptical...
- Other



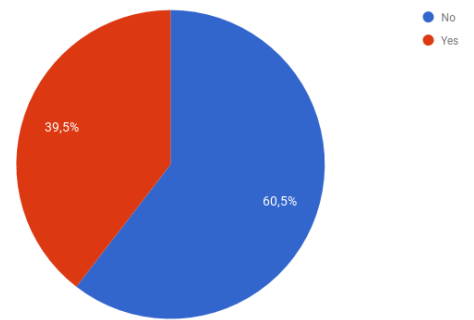
5. How do you prefer to train?

- On my own
- To have a personal plan according to what I want to train more
- Personal trainer
- Nutricional plan



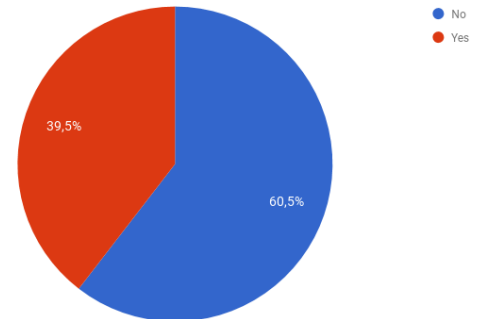
6. Would you pay more for a personal trainer?

- Yes
- No



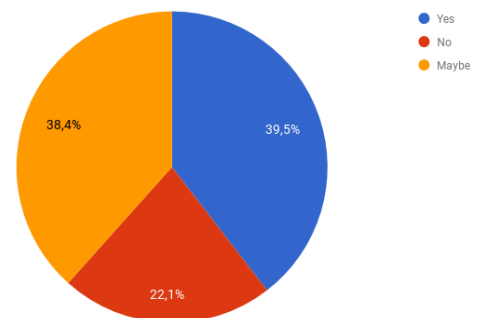
7. Would you switch to a green gymnasium?

- Yes
- No
- Maybe



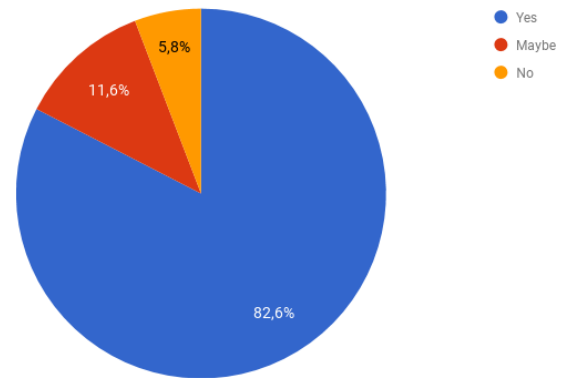
8. Would you pay more for obtaining a 100% green service?

- Yes
- No
- Maybe



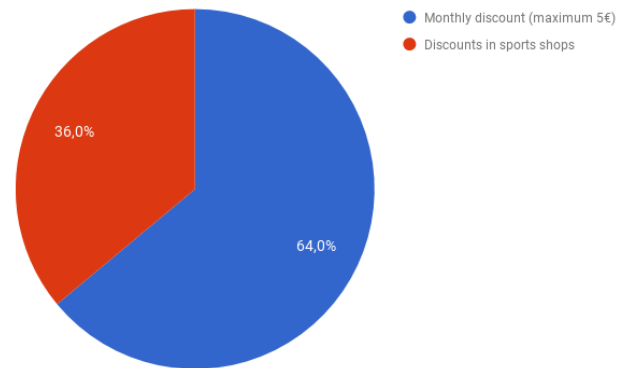
9. If you get a compensation for the W you generate, would you feel more motivated?

- Yes
- No
- Maybe



10. Which kind of compensation do you prefer?

- Discount in the monthly bill (up to 5€)
- Discounts in sports shops.
- Other



1.2. Consumption Calculations

The electricity consumption of the installation will be:

	Units	Hours/day	Hours/month (24 days/m)	Average consumption	KWh/month	Monthly cost (0,125€/MWh)
Lighting	84 LED	8.6 h/day ⁸	17.337,60	0,018KW/h	312,08 KW/h	39,01 €
Screens	4 of 40 inches	2 →11h 2→ 4h	720	0,15 KW/h	108,00 KW/h	13,50 €
Computers	2	8	384	0,27 KW/h	103,68 KW/h	12,96 €
Laptops	4	4	384	0,04 KW/h	15,36 KW/h	1,92 €
Router	1+1 signal repeater	11	528	0,012 KW/h	6,34 KW/h	0,79 €
Loudspeakers	7	4→11h 3→4h	1344	0,025 KW/h	33,60 KW/h	4,20 €
Sound system	1	11h	264	0,045 KW/h	11,88 KW/h	1,49 €
Air conditioning	4	8h	768	0,8KW/h	614,40 KW/h	76,80 €
Heating	10	8h	1920	0,75 KW/h	1.440 KW/h	180,00 €
Other lighting and electronic devices		11h	264	0,1 KW/h	26,40 KW/h	3,30 €
Total Summer					1.231,73 KW/h	153,97 €
Total Winter					2.057,33 KW/h	257,17 €

- Lighting:** LED bulbs will be used in all the facility. It is recommended to have 300lx/m².
 $300\text{lx} \times 500\text{m}^2 = 150000\text{lx}$. Using Downlight LED bulbs of 1800lx (18W) → 84 LED bulbs
 for the whole facility. $84 \text{ bulbs} \times 0.018\text{KW} = 1.5 \text{ KW}$.
 $8.6 \text{ h/day open} \times 26 \text{ days} = 286 \text{ h/ month} \rightarrow 1.5 \text{ KW} \times 286 \text{ h} = 432.4 \text{ KWh}$
Monthly cost: $432.4 \times 0.119\text{€/KWh} = 51.46\text{€/month}$
- Screens:** 4 screens of LCD of 40 inches, consume around 150Wh.
 $2 \text{ screens run for } 11\text{h/day} \times 26 \text{ days/month} = 572\text{h}$. 2 screens run
 $4\text{h/day} \times 26\text{days/month} = 208\text{h}$. $780\text{h/month} \times 0.15\text{KWh} = 117\text{KWh}$
Monthly cost: $117 \times 0.119\text{€/KWh} = 13.9\text{€/month}$
- Computers:** 2 computers run for 8h/day*26 days/month= 416h/month. Average
 consumption of 0.27KWh= 112.32KWh/ month
Monthly cost: $112.32 \times 0.119\text{€/KWh} = 13.36\text{€/month}$
- Laptops:** 4 laptops run for 4h/day*26 days/month= 416h/month. Average
 consumption of 0.04KWh= 16.64KWh/ month

⁸ Not all room will be working all day. It is an average taking into consideration the group activities done

Monthly cost: $16.64 * 0.119\text{€}/\text{KWh} = 1.98\text{€}/\text{month}$

- **Router (WIFI):** 1 router + 1 signal repeater run for 11h/day*26 days/month=572h/month. Average consumption of 0.012KWh =6.8KWh/month

- Monthly cost: $6.8 * 0.119\text{€}/\text{KWh} = 0.82\text{€}/\text{month}$

- **Loudspeakers:** 7 in total. 4 run for 11 h/day and 3 run 4h/day →1456h/month.

Average consumption of 0.025KWh →36.4 KWh/month

Monthly cost: $34.6 * 0.119\text{€}/\text{KWh} = 4.33\text{€}/\text{month}$

- **Sound system:** 1 for 11 h/day →286h/month. Average consumption of 0.045KWh =12.87 KWh/month

Monthly cost: $12.87 * 0.119\text{€}/\text{KWh} = 1.53\text{€}/\text{month}$

- **Air Conditioning** (only used during summer): 4 running for 5 h/day =520h/month

Average consumption of 0.8KWh → 416KW/month

Monthly cost: $416 * 0.119\text{€}/\text{KWh} = 49.5\text{€}/\text{month}$

- **Heating** (only used during winter): 10 running for 5 h/day =1130h/month

Average consumption of 0.75KWh → 975KW/month

Monthly cost: $975 * 0.119\text{€}/\text{KWh} = 116\text{€}/\text{month}$

1.3. Installation plan:

