



# GO

## THE CYLING ROUTE TRIP PLANNING APP

**Universitat de Barcelona**

**Master in Creation and Management of Innovative Technology-  
Based Companies**

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# I. INTRODUCTION

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The fitness industry has experienced significant growth in recent years. As research continues to grow, it is increasingly recognized that physical activity is essential for the well-being of individuals. Moreover, as a result of the COVID-19 pandemic, outdoor physical activities have become more prevalent than ever before, which has led to an increase in bicycle sales and cycling as a mode of transportation. For example, in the United Kingdom, bicycle sales increased by 63% (Reid, 2020), and cycling levels rose by as much as 300% on some days during the lockdown period (2019-2021) (Sutton, 2020).

Furthermore, in recent years there has been a noticeable trend towards promoting sustainable practices and eco-tourism. One form of eco-tourism that has gained significant attention worldwide is cycle tourism. Cycle tourism, also known as bicycle tourism, is any type of tourism that entails travelling by bicycle and encompasses many different forms such as long-distance cycling trips, guided tours, and self-guided rides. Expedite by the COVID-19 pandemic and consumer-driven ventures to explore nature, the demand for cycle tourism is growing across the globe (Grand View Review, 2022). In 2019, Europe had the largest share of the cycling tourism market, accounting for approximately 40% of the global market (Global View Research, 2022).

Long-distance cycling trips require complex preparations for a number of reasons. Firstly, it can be hard for cyclists, especially those who have taken up the sport recently, to know if a specific route will be optimal for their fitness and health level. At the same time, these kinds of trips require detailed planning about the routes and itineraries. Cyclists must have information on how long it will take to travel from point A to point B, how many kilometers per day they should cycle and where the necessary basic points of interest are located (i.e., restaurants, public restrooms, medical attention centers, etc.).

Although numerous fitness apps offer bicycle routes, none currently use actual health data to adapt routes based on the cyclist's physical abilities and, thus, fail to provide routes that match the individual's fitness level. Our phones gather a remarkable amount of health data, which is often tracked continuously, in some cases even 24/7. However, we believe that this data is not being used to its fullest potential. Based on all of the above-stated variables, we identified a significant gap in the market. The concept behind our application, which will be comprehensively detailed throughout this business proposal, emerged as a result.

## II. BUSINESS PRESENTATION

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### 2.1 Description of Business

*Cycle Quest* is an innovative mobile application that uses a smart algorithm to recommend personalized short and long-distance cycling routes worldwide, tailored specifically to each cyclist's unique health conditions and physical performance.

The algorithm integrates data from three fundamental sources of information to recommend the perfect route. On one hand, the app can connect with other health and fitness apps, providing a comprehensive "360 vision" of each cyclist's physical well-being. Some examples of such apps include Apple Health, Garmin Connect, Strava and Peloton. The more apps the cyclist uses, the better the algorithm becomes at providing accurate recommendations. On the other hand, the app allows users to choose their travel preferences, such as route type, trip duration, total distance, and location preferences. Finally, *Cycle Quest* will use geographic information systems (GIS), such as Google Maps and Maps.me, to collect, manage, and analyze geographic data and suggest routes. With this consolidated dataset, the *Cycle Quest* algorithm designs personalized routes for each cyclist and helps them plan their travel itineraries.

In addition, *Cycle Quest* provides a platform to connect cycle tourists around the world. This social network component allows users to actively engage with a community through the "CycleConnect" feature in the app. Within this community, cyclists can share their routes and experiences, add photos during their trip, share group events, or include other users in their activities and recommend their favorite places.

### 2.2 Problems

To gain a better understanding of the problems that cyclists face when they decide to make cycling trips, we conducted short interviews with individuals around the world that self-recognize as frequent cyclists (**Appendix 1**). Out of 46 interviews completed, **24 (52%) of participants stated that they have done a multi-day cycling trip before**, while **19 (41%) stated that they had not done a cycle trip before but would be interested in doing so**.

We followed up with these two groups of regular cyclists and identified three main problems and barriers that these individuals encounter at the time of planning a cycling trip:

1. **Lack of personalization:** suggested routes are not tailored to match cyclists' abilities and preferences.
2. **Lack of knowledge about routes:** uncertainty about the safety of the routes, the level of difficulty, missing out on scenic and interesting spots, etc.
3. **Lack of time to plan their cycling trips:** finding and booking accommodations, finding points of interest, knowing in which towns/cities stop.

With this in mind, *Cycle Quest* aims to solve all these issues and make cycling trips as enjoyable and accessible as possible.

## 2.3 Value Proposition

*Cycle Quest's* value proposition is to provide personalized cycling routes tailored to each cyclist's unique health conditions and physical performance. Through the use of our app's algorithm, we convert large amounts of data into practical observations, offering cyclists an enjoyable route that will match their performance level. Whether they are a casual rider or a highly trained athlete, *Cycle Quest* offers routes that provide confidence and peace of mind to their users, making cycling tourism accessible for everyone.

## 2.4 Mission, Vision, and Values

### 2.4.1 Mission

*Cycle Quest's* mission is to provide cycling and outdoor enthusiasts a **personalized** and **eco-friendly travel experience**. By leveraging our smart algorithm and accessible data, we aim to help our users discover new destinations using their bikes, promote improvements in their physical and mental well-being, and connect with like-minded individuals that share a passion for cycling.

### 2.4.2 Vision

*Cycle Quest's* vision is to **become the go-to platform for cycling and outdoor enthusiasts** globally. We want to inspire and motivate our users to travel and explore the world on their bikes, while fostering a sense of community and belonging.

## 2.4.3 Values

*Cycle Quest's* main values include:

- **Sustainability:** We encourage eco-friendly practices and support efforts to minimize the environmental impact of tourism travel.
- **Health and well-being:** We promote the physical and mental well-being of our users by taking into account their health conditions and physical capabilities.
- **Accessibility:** We aim to provide routes and itineraries that accommodate different skill levels, preferences, and geographic locations so that anyone and everyone can do a cycling trip if they wish to.

## 2.5 Objectives

### 2.5.1 Short-term objectives

*Cycle Quest's* main short-term objectives include:

1. Develop and refine Cycle Quest's algorithm
2. Expand integration with health and fitness apps
3. Establish partnerships with influencers and cycling associations.
4. Improve user interface and experience

### 2.5.2 Long-term objectives

As well, *Cycle Quest's* long-term objectives include:

1. Expand to international markets, starting with other countries in Europe and then North America.
2. Create and offer new and improved features.
3. Build a strong community of cycling and outdoor enthusiasts through the app's *CycleConnect* feature (described in more detail in section 5.1)
4. Collaborate with public and private organizations to promote sustainable tourism.
5. Sponsor cyclists in cycling events such as races.

These objectives are further explained in section 6.5.

## 2.6 Monetization

*Cycle Quest* will monetize its business through a combination of revenue streams. The primary revenue source will be the **pay-per-use and subscription-based models of the application**. Users will be able to access and download all the information from the recommended routes once they pay the fee.

The secondary revenue source will be **partnerships with cycling schools/clubs/academies** and other interested companies that align with our mission and values. We will offer discounted prices to these associations' members, with the aim of increasing our user base and app traffic.

The third revenue source will be **in-app advertising and sponsored content** from companies that offer services that are attractive to the cycling community. The ads will be native display ads to match the look and feel of the platform and they will appear on the CycleConnect feed. Given that this is an emerging company, this source of revenue will grow as our user base expands, so it is expected that income from this source will become significant after the first few years.

Finally, our fourth revenue source will be **commission from affiliate marketing**. Our long-term goal is to offer our users the possibility to book their hotels, restaurants, campsites, bike shop repairs, and more, directly through our app. In doing so, we plan to establish partnerships with these businesses to earn a commission from each user that books their reservation through *Cycle Quest*. This revenue stream is also expected to become relevant once *Cycle Quest* has gained a significant user base.

## 2.7 Lean Canvas

To clearly and concisely visualize the business model, in this section we will present a Lean Canvas for *Cycle Quest* (Figure 1).

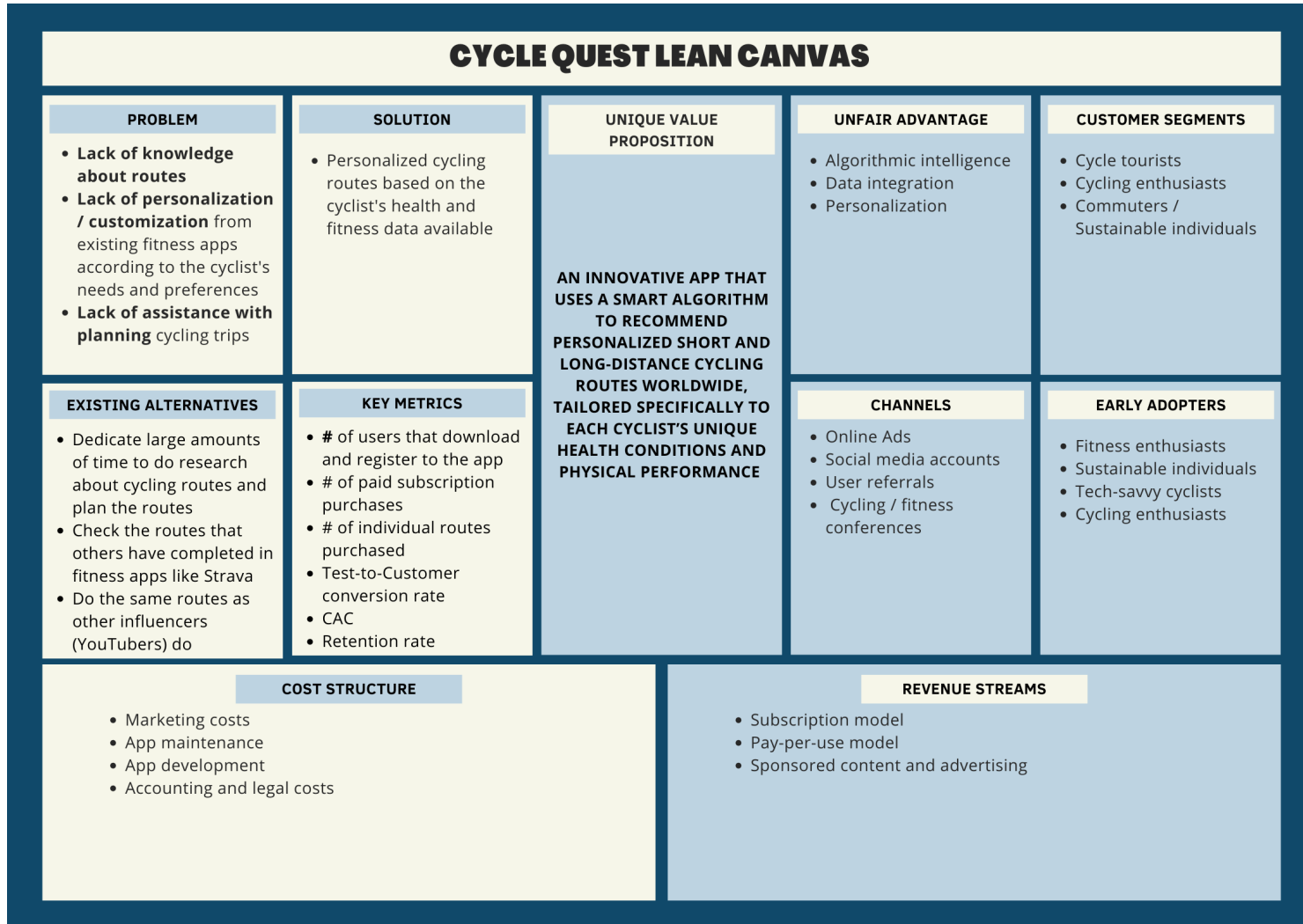


Figure 1: Lean Canvas for *Cycle Quest*. Own elaboration.



### III. MARKET RESEARCH

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## 3.1 Market Analysis: Sector of activity and trends in recent years

In order to better understand the market in which *Cycle Quest* will be competing, it is important to conduct a deeper investigation into both the **cycle tourism market** and **the fitness apps market**. Additionally, we must gather key insights regarding our target **customers**. This information will be analyzed both globally and in Spain specifically, as Spain is the country we selected to launch the *Cycle Quest* app in.

### 3.1.1 Cycle Tourism Market

#### *Cycle Tourism Market Globally*

The cycle tourism market is a global industry that has experienced an exponential growth in recent years. In 2022, the global cycle tourism market size was valued at **USD 116.73 billion** and is expected to **expand at a compound annual growth rate (CAGR) of 9.1% from 2023 to 2030** (Grand View Research, 2022).

According to a report created by Grand View Research in 2023, it is believed that the growth of the cycle tourism global market can be attributed to three main factors: the significant rise in the number of cyclists partaking in long-distance trips, the increase in government initiatives to develop domestic and international tourism across the economies and the increasing penetration of adventure camping and adventure sports among the millennials (Grand View Research, 2023).

#### *Cycle Tourism Market in Europe and Spain*

Taking a deeper dive into the cycling activity in Europe, it comes to no surprise that Europe is an attractive hub for cyclists. According to a study conducted by the European Parliament, it was estimated that **2.3 billion cycle tourism trips** take place in Europe every year, which amount to a value of **44 billion euros**. The same study found that **20.4 million cycling tourists stay one or more nights while on route** and that these “overnight” tourists spend around **9 billion euros annually** (Mundet, 2022). Additionally, cycling tourism has been associated with the creation of more than 500,000 jobs in the European Union (Lancaster, 2021).

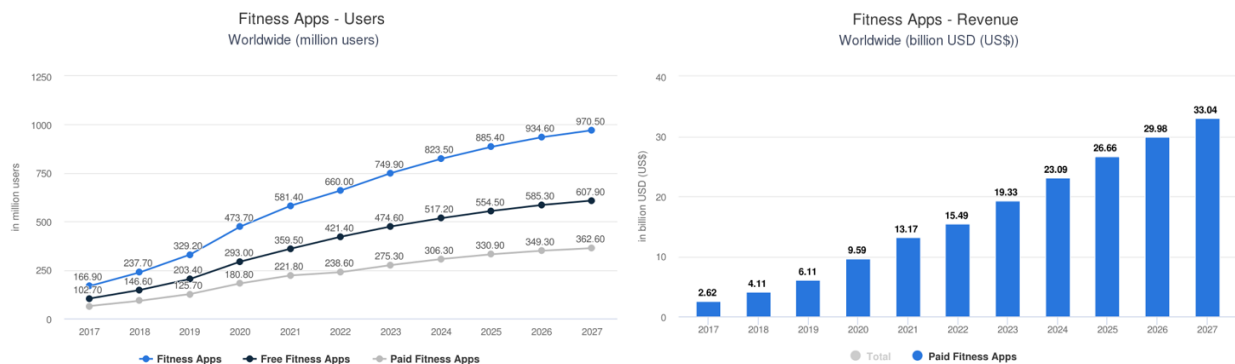
If we focus specifically on Spain, in 2022, a total of **71.6 million** international tourists visited Spain, spending **87,061 million euros**, up 86% and 95%, respectively, compared to 2019. The average stay of these travelers in our country was **7.5 days** in 2022 (INE, 2023). Furthermore, in 2019, the cycling tourism market in Spain was estimated to be worth **1.9 billion euros**, and, between 2015 and 2019, there was a 34% increase in the number of overnight stays related to cycle tourism, leading to a total of 13 million overnight stays. (Cox, 2023).

Furthermore, according to a STRAVA report, in 2022 Spain was the most chosen destination for sports tourism. More than **2.44 million tourists** traveled to Spain in 2022 to practice sports (STRAVA, 2022). That represents 3.5% of the total number of international tourists arriving in Spain (es.movilidad, 2023 & STRAVA, 2022). These statistics highlight Spain's strong appeal as a destination for both general and sports tourism, showcasing its robust tourism sector and potential for continued growth in the future.

### 3.1.2 Fitness Apps Market

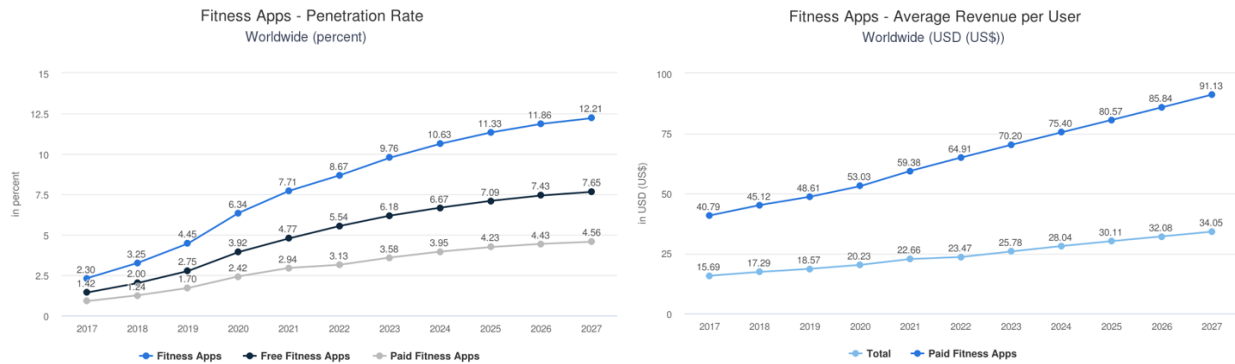
#### Fitness Apps Globally

Similar to the cycle tourism market, the fitness app market has also experienced significant growth, driven by rapid advances in technology, causing it to become a substantial industry in recent years. According to projections, it is expected that there will be **275.30 million fitness apps users** in 2023, generating revenues totaling **US\$19.33 billion** (Statista, 2022). This upward trend is expected to continue with a CAGR of 14.34% from 2023 to 2027, resulting in a projected market volume of approximately **US\$33.04 billion** by 2027 (**Figure 2**). These figures highlight the substantial size and potential of the fitness app market (Statista, 2022).



**Figure 2:** Digital Market Insights: Digital Fitness & Well-Being Apps. Revenue and number of users of fitness apps worldwide 2017-2027. Statista 2022.

Additionally, the user penetration rate is set to increase from 9.76% in 2023 to 12.21% by 2027, indicating a growing number of individuals downloading and using fitness apps. Furthermore, the average revenue per user is anticipated to reach **US\$25.78 for all fitness apps** (paid and unpaid versions) and **US\$70.20 for paid fitness apps**, further demonstrating the lucrative nature of this market (Figure 3). These statistics collectively illustrate the significant scale and promising opportunities within the fitness app industry (Statista, 2022).

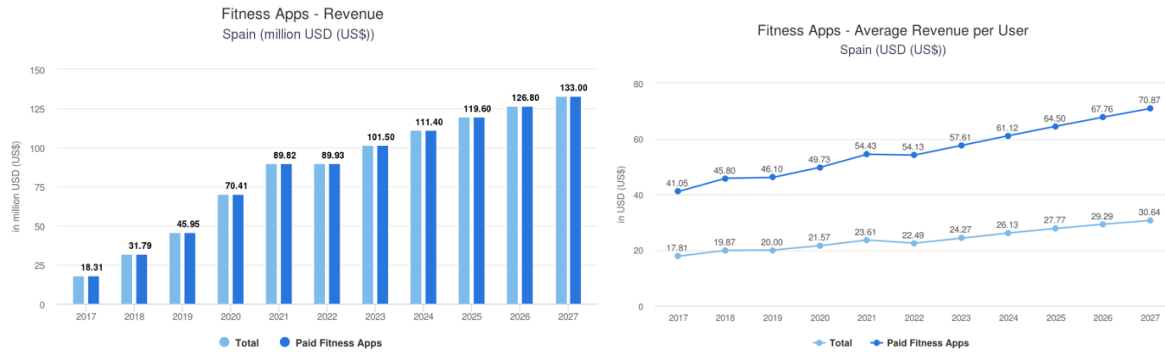


**Figure 3:** Digital Market Insights: Digital Fitness & Well-Being Apps. User penetration and average revenue per user of fitness apps worldwide 2017-2027. Statista 2022.

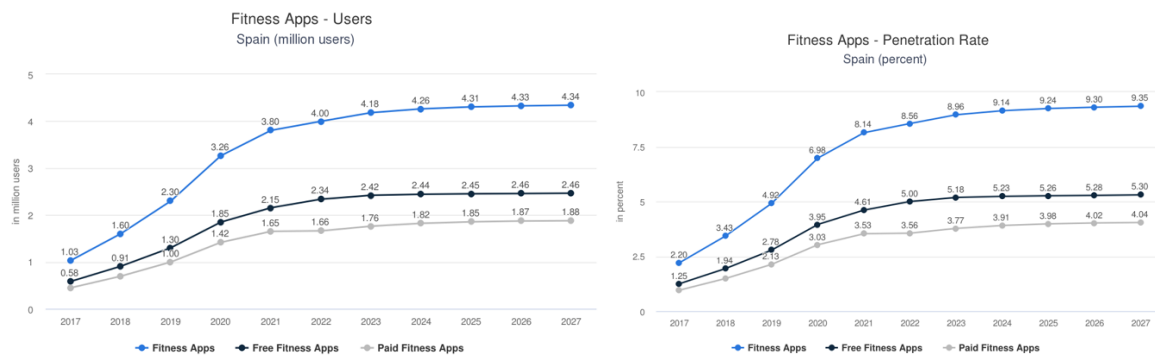
### Fitness Apps in Spain

In Spain, the fitness app market is demonstrating steady growth and presents favourable opportunities. Projections indicate that the revenue in the Spanish Fitness Apps market is set to reach **US\$101.50 million in 2023**. With an expected **CAGR of 6.99% from 2023 to 2027**, the market is projected to reach **US\$133.00 million by 2027** (Figure 4) (Statista, 2022).

Moreover, it is projected that the **number of users that pay for fitness apps in Spain** will increase from 1.66 million in 2022 to **1.76 million in 2023**, and the user penetration will **increase to 8.96% in 2023** (Figure 5) (Statista, 2022). Finally, the average revenue per user is estimated to be **US\$24.27 for all fitness apps** (paid and unpaid versions) and **US\$57.61 for paid fitness apps** in 2023, indicating a significant revenue potential per user (Figure 4) (Statista, 2022).



**Figure 4:** Digital Market Insights: Digital Fitness & Well-Being Apps. Revenue and average revenue per user of fitness apps in Spain 2017-2027. Statista 2022.



**Figure 5:** Number of fitness apps users and user penetration rate in Spain. 2017-2027. Statista 2022.

## 3.2 Customer Insights

### 3.2.1 Cyclists in Spain

If we look at the distribution of sports in Spain, a 2022 report surveying individuals that were 15 years of age and older found that cycling was the sport with the second highest participation rate (16.3%) (Gewiese, 2023). **(Figure 6)**. Furthermore, it has been found that **over 21 million people in own a bicycle** of some kind in Spain (Cox, 2023). According to the report of results published by the Ministerio de Transporte, Movilidad y Agenda Urbana in 2022, the number of people who cycle at least once a week has increased from 8.1 million to more than **11 million**, which translates to a 40% growth in users between 2019 and 2022 (Ministerio de Transporte, Movilidad y Agenda Urbana, 2022). The same report found that, in 2022, more than 2 million people in Spain depended on their bicycles as mode of transportation for their everyday activities, and more than 6 million people depended on it multiple times a week. If we consider these two groups, we find that there are more than **8 million people are regular bikers in Spain (Figure 7)**.

If we take a look at the demographics of these cyclists, we find that majority of cyclists have a high annual household income, suggesting a potentially affluent and economically stable segment (Gewiese, 2023). This suggests that majority of cyclists have disposable income for activities such as travel and tourism.

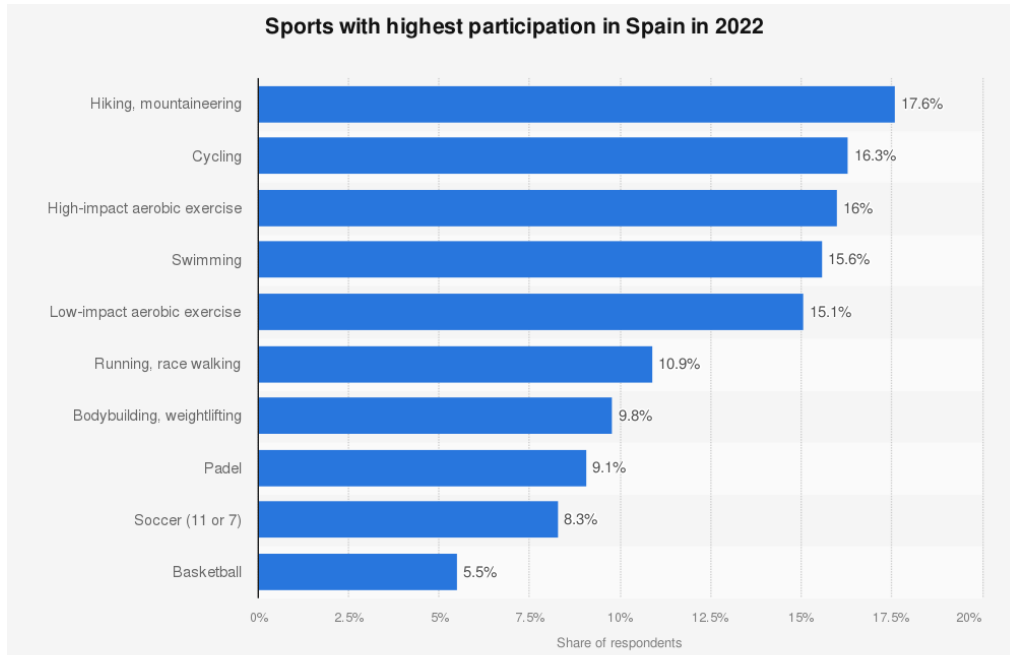
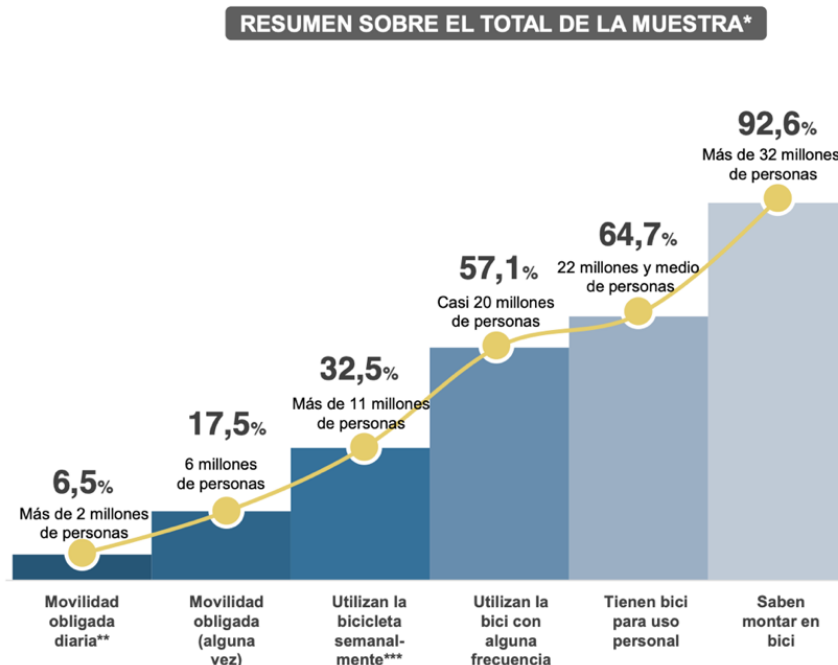


Figure 6: Sports with highest participation in Spain in 2022. Statista 2022.



\* Según datos del INE en España hay 34.800.838 personas de 14 a 70 años (datos a 1 enero de 2022).  
 \*\* Utilizan la bici diariamente para ir a trabajar o a estudiar.  
 \*\*\* Sin contar los que la usan sólo los fines de semana.

Figure 7: Number of cyclists in Spain as of January 1st 2022. Barómetro de la Bicicleta en España, Informe de resultados, Ministerio de Transporte, Movilidad y Agenda Urbana 2022.

### 3.2.2 Fitness Apps Users

#### *Fitness Devices and Trends*

Among fitness app users, it has been observed that **the smartphone (54%) is the most commonly used device for tracking progress**. This is followed by the **smartwatch (26%)** and **the tablet (7%)**. In 2022, there were **41.56 million smartphone users in Spain (Statista, 2023)**, and it is important to highlight that there is a **predominance of Android smartphone users (76.54%)** compared to **iOS users (22.98%)** (Global Stats, 2023). Of these smartphone users, **80% have between 1-3 health and fitness apps downloaded** on their phone. The most common activity for which these fitness apps are being used is **tracking progress (71%)**. Among the sixty best-known app titles, the most popular apps are **My Fitness Pal**, followed by **Fitbit** and **Samsung Health**.

#### *Subscriptions and free-trials*

According to a global survey of 10,000 respondents conducted by Kantar in 2022, out of the individuals that indicated they pay for health-related apps, **the most likely paid subscription to hold is a fitness and exercise app (57%)**. Moreover, globally, **33%** of the individuals surveyed responded that they **cannot live without at least one fitness app** (Kantar, 2022).

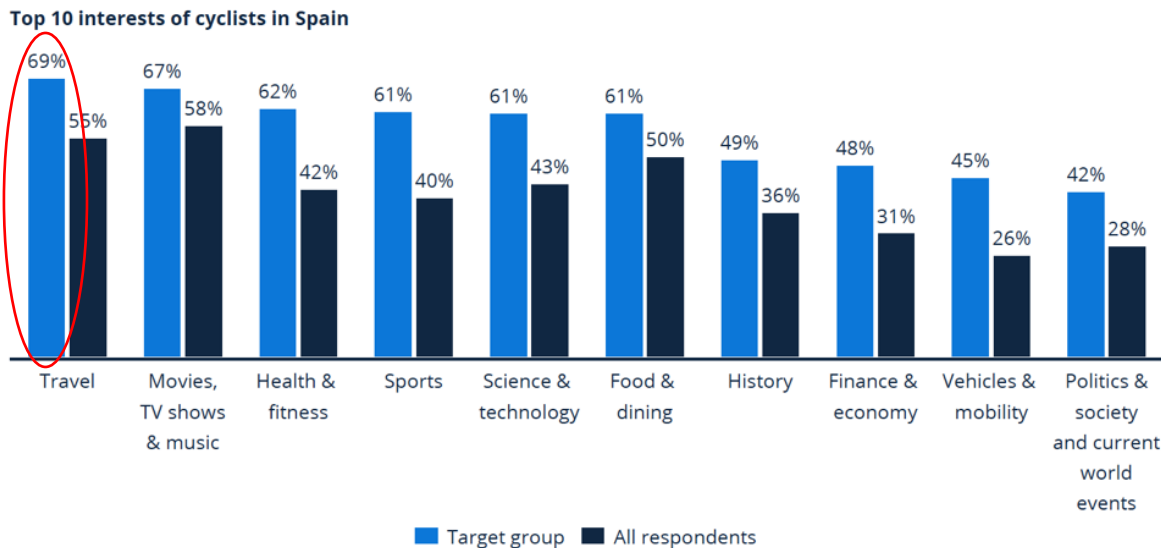
Another important aspect to analyze is the effect of free trials on fitness app users. A large-scale field experiment with 337,724 users of a major software as a service found that **7-day trials increased subscriptions by 5.59%, retention by 6.4% (2 years after) and revenue by 7.91%** (Yoganarasimhan H, 2022).

### 3.2.3 Consumer Attitudes

To understand and tailor our business to our target users, it is important to study the interesting trends and preferences that cyclists exhibit, which shape their behaviors and interests. A recent study found that **71% of cyclists express a desire to access their media across all their devices**, which highlights their tech-savvy and connected lifestyles (Gewiese, 2023). Moreover, **22% of cyclists fall into the category of innovators or early adopters**, showcasing their openness to embracing new products and technologies. Additionally, and not surprisingly, cyclists **display a heightened concern for environmental issues**, with a relatively high share acknowledging the need for environmental addressal (Gewiese, 2023).

When it comes to the top interests of cyclists in Spain, **69% of the surveyed individuals express a passion for traveling**, followed closely by **62% indicating a focus on health and fitness**, and

**61% showing interest in sports (Figure 8)** (Gewiese, 2023). Another study about road cyclists found that most road cyclists like to **practice alone**, while some enjoy **cycling in small groups**. Moreover, according to this study, to exercise and to enjoy nature are the two main motivations for road cycling (CBI, 2022). These attitudes are important to keep in mind to understand our target customers and provide solutions that are tailored towards their preferences.



**Figure 8:** Top 10 Interests of cyclists in Spain. Retrieved from Gewiese, J et al. 2023.

### Social Media Attitudes

In Spain, there are approximately 28.3 million social media users, which translates to roughly 80% of the population (IAB, 2021). The largest demographic of social media users in the country is 41-55 year olds, and the second largest is the 25-40 age range (IAB, 2021). With regards to Facebook specifically, it is estimated that 45.7% of users in Spain are aged 25-44 (Statista, 2022). This emphasizes the importance of having a strong presence on social media platforms, particularly among our target group which aligns exactly with these age groups. Additionally, it is worth noting that cycling tourists often use Instagram or Facebook to share pictures or videos of their trips with followers (CBI, 2022).

Another interesting attitude that cyclists exhibit is the way they find inspiration to pursue their cycling trips. Cyclists often take their inspiration from cycling travel blogs and YouTubers (CBI, 2022). These sources provide them with information about other travelers’ cycling experiences, recommendations on routes, facilities along the way, safety, and how to prepare for their cycling trips (CBI, 2022).

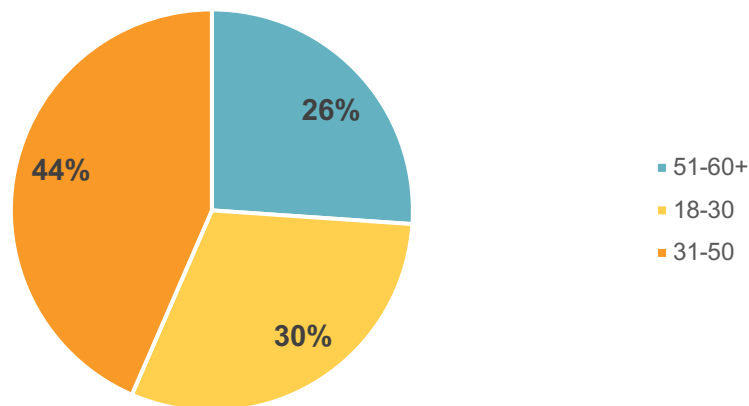
### 3.2.4 Age and Gender Insights

#### Age Insights Globally

One study has indicated that the **31 to 50 age group segments dominated the cycle tourism global market in 2022**. Furthermore, it also suggested that the **18 to 30 age group is expected to showcase strong growth** (Grand View Review, 2022).

In our April 2023 survey conducted for *Cycle Quest* market research purposes, we found similar results to the ones mentioned above. Out of 46 respondents, **20 (44%) were aged 31-50**, **14 (30%) were aged between 18-30** and **12 (26%) were aged 51 and older** (Figure 9).

**Percentage distribution of 'Age group'**



**Figure 9:** Age of interviewed individuals for market research purposes for *Cycle Quest*. Own elaboration.

#### Age Insights in Spain

Moreover, if we focus specifically in Spain, a consumer survey conducted by Statista with a sample size of 1,589 cyclists found that **33% of cyclists are between the ages of 40 and 49** (Figure 10) (Gewiese, 2023). Finally, the Barómetro de la Bicicleta en España found that **the average age of the respondents in Spain was of 40.7 years** (Figure 11).



Age of consumers in Spain

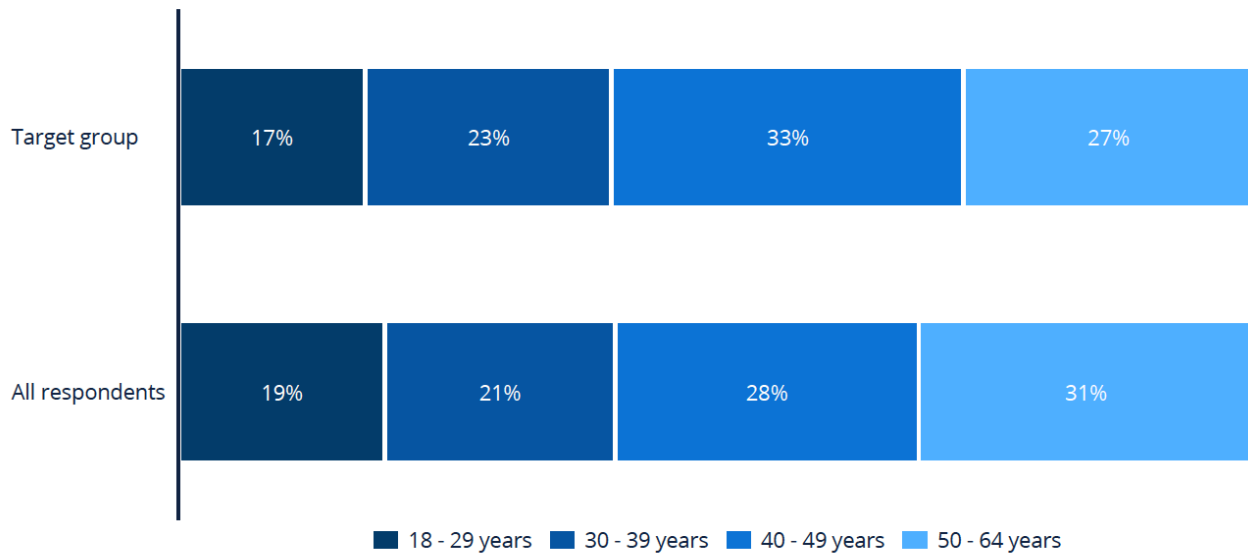
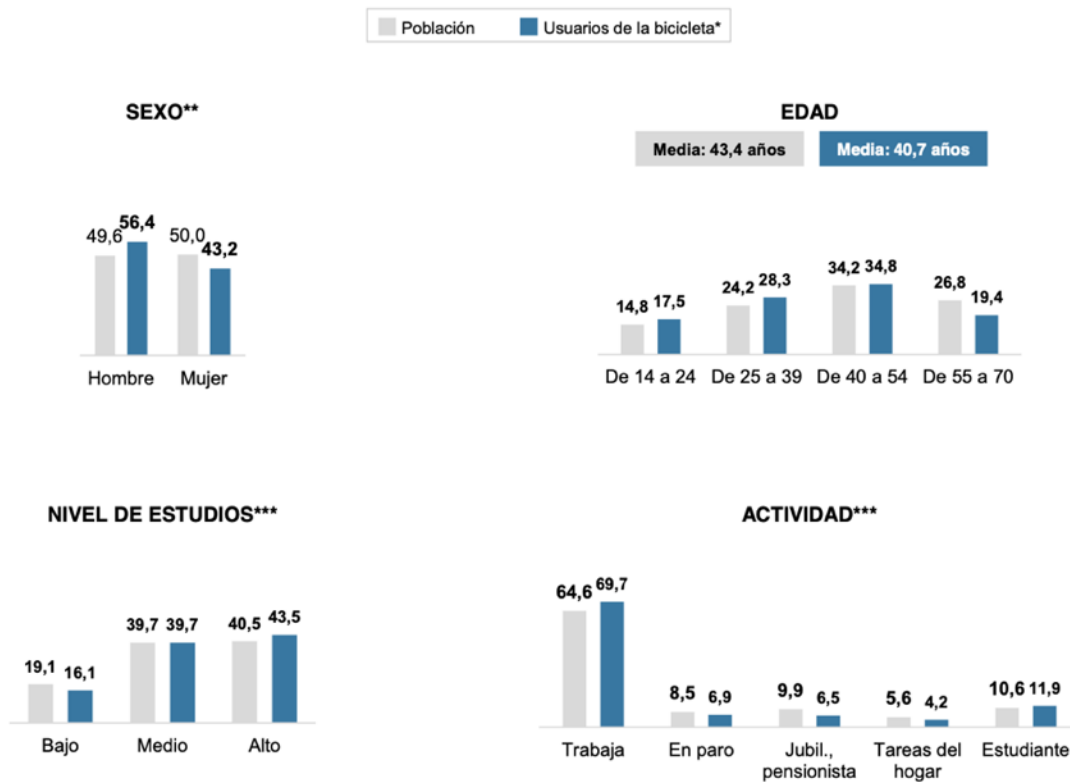


Figure 10: Age of cycling consumers in Spain. Statista 2022.



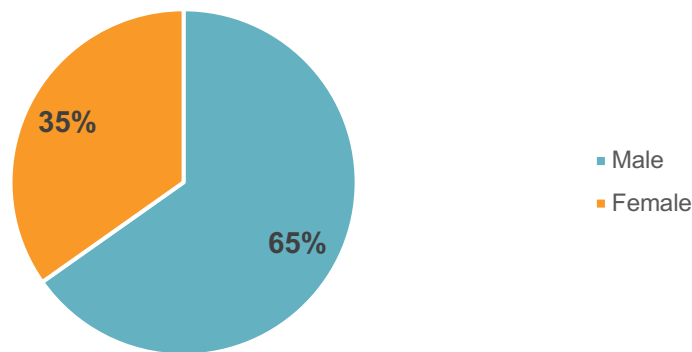
\* Se entiende por usuarios de la bicicleta aquellos que dicen utilizar la bicicleta con alguna frecuencia: cada día o casi, al menos una vez a la semana, sólo los fines de semana, alguna vez al mes o con menor frecuencia. Se han considerado no usuarios de la bicicleta los que afirman no ir nunca o casi nunca en bici y los que no saben ir en bici.  
 \*\* Un 0,4% de las personas entrevistadas se han definido como no binarios. \*\*\*Un 0,6% no contesta su nivel de estudios y un 0,8% no contesta su actividad.

Figure 11: Demographic information of cycle riders in Spain. Barómetro de la Bicicleta en España, Informe de resultados, Ministerio de Transporte, Movilidad y Agenda Urbana (2022).

### Gender Insights globally and in Spain

According to the previously mentioned report conducted by the Ministerio de Transporte, Movilidad y Agenda Urbana, **the profile of cyclists is quite heterogeneous, although it is slightly more male dominated (56,4% compared to 43,2%) (Figure 11)**. Similarly, a 2023 Global Customer survey conducted by Statista found that the Spanish cycling community is comprised of predominantly male individuals, with **62% being male** (Gewiese, 2023). Our own research yielded comparable results, with **65% of respondents being males and 35% females (Figure 12)**.

#### Percentage distribution of Gender



**Figure 12:** Gender of interviewed individuals for market research purposes for *Cycle Quest*.  
Own elaboration.

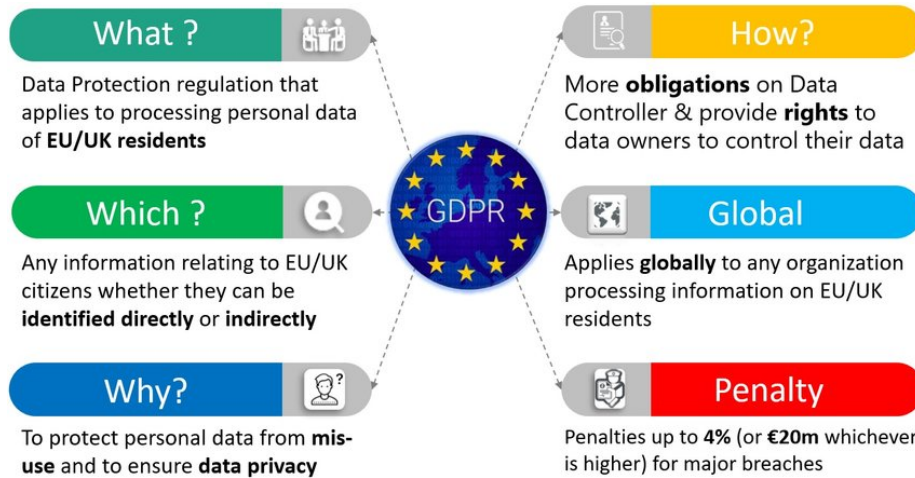
## 3.3 Laws and Regulations

There are a few laws and regulations that fitness apps must meet in order to be legally allowed on the market. In Europe, the most important regulations that must be followed include the **General Data Protection Regulation (GDPR)**, the **ePrivacy Directive** or **EU Cookie Directive**, and **Consumer Protection Laws**. In this section we will provide a brief description of each and outline how they affect *Cycle Quest*.

### 3.3.1 General Data Protection Regulation (GDPR)

The GDPR aims to protect personal data, in accordance with the statement that "personal data can only be gathered legally, under strict conditions, for a legitimate purpose". Thus, the GDPR provides a legal data protection framework throughout the EU/UK member states (Truong N. et al., 2020). As of May 25, 2018, all organizations are required to be compliant.

The GDPR defines individuals’ fundamental rights in the digital age, the obligations of those processing data, methods for ensuring compliance, and sanctions for those in breach of the rules (Council of the European Union, 2022). **Figure 13** summarizes the GDPR legislation.



**Figure 13:** Summary of GDPR legislation. Truong N. et al., 2020.

### 3.3.2 ePrivacy Directive or EU Cookie Directive

The ePrivacy Directive, commonly called the EU Cookie Law, is a legal document established by the European Union that regulates the use of cookies and other tracking technologies on websites. Its primary objective is to safeguard the privacy rights of individuals by granting them the option to accept or decline requests from companies seeking consent to gather, store, and utilize personal information of website users. The Cookie Consent Law requires that organizations obtain the explicit consent from users before enabling the activation of on their websites (Cookie Script, 2022).

### 3.3.3 Consumer Protection Laws

Consumer protection rules from the European Union ensure that when an individual purchases goods and services in the EU, they will have clear information on the product or service, its price, shipping and delivery costs (Your Europe, 2023).

All three of the laws outlined above apply to *Cycle Quest* and, with the help of a legal advisor, *Cycle Quest* will ensure compliance with these regulations, as well as create a Terms and Conditions document that outlines all information required to protect its users.

### 3.4 Target Market Size

To determine a realistic market size, we have decided to use the TAM SAM SOM estimation tool (Figure 14). The **Total Addressable Market (TAM)** represents “the total possible market for a company’s product or service”. The **Serviceable Available Market (SAM)** represents “the proportion of the market you are potentially able to capture with your current product/service, business model, and sales and distribution channels”. Finally, the **Serviceable Obtainable Market (SOM)** represents “the specific segment of the market niche (SAM) that you are realistically able to target given several limitations that start-ups face” (Alberdi, 2022).

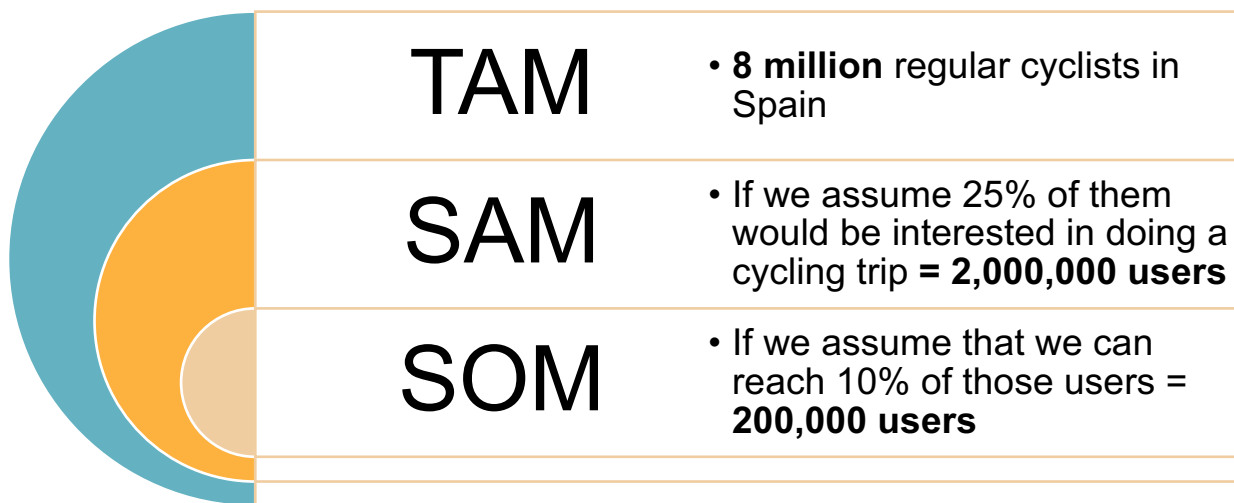


Figure 14: TAM, SAM, SOM estimation for *Cycle Quest*. Own Elaboration

By following this methodology and considering the information provided in the Market Research section regarding the average revenue for fitness apps in Spain (which is US\$24.27 as described in section 3.1.2), we estimate that *Cycle Quest*'s TAM would be equal to **US\$194.16 million**, the SAM would be equal to **US\$48.54 million**, and the SOM would be equal to **US\$4.85 million**.



# IV. COMPETITIVE ANALYSIS

## 4.1 Main Competitors

Now that we have analyzed the market and its trends, we will move on to analyzing *Cycle Quest's* main competitors. There are three key groups of players operating in the cycle tourism market that must be taken into account when completing this analysis (**Table 1**). These are:

1. General fitness apps
2. Cycling route tracking apps
3. Cycle tourism companies

**Table 1:** Analysis of competitors. Own elaboration.

Category	Business	Year & Country funded	Description of business	No. of registered users*	Pricing	Features
General fitness apps		2009 USA	A fitness tracking app that allows users to track and analyze their activities such as running, cycling, and swimming.	95 million	<b>Strava Summit:</b> 7.99€ /month or 49.99€/year	<ul style="list-style-type: none"> <li>• Record and share activities</li> <li>• Set goals</li> <li>• Participate in challenges</li> <li>• Analyze and compare performance metrics</li> <li>• Connect with friends</li> <li>• Join clubs</li> <li>• Personalized coaching</li> <li>• Training plans</li> <li>• Customized leaderboards</li> </ul>
		2010 Germany	A route planning and navigation app for outdoor activities such as hiking, cycling, and mountain biking.	More than 30 million	<b>Komoot Premium:</b> 4.99 €/month	<ul style="list-style-type: none"> <li>• Discover and plan sport-specific outdoor routes</li> <li>• Offline maps</li> <li>• Personalized turn-by-turn voice navigation</li> <li>• Record and share activities</li> <li>• Explore nearby routes and POIs</li> <li>• Adaptive route planning</li> <li>• Weather Forecast</li> </ul>

Category	Business	Year & Country funded	Description of business	No. of registered users*	Pricing	Features
Cycling route apps		2006 Spain	A cycling route planning and navigation app.	More than 12 million	<b>Wikiloc Premium:</b> 9.99€ / year or 4.99€ / 3 months	<ul style="list-style-type: none"> <li>Discover and explore outdoor trails and routes worldwide</li> <li>Record and share activities</li> <li>Offline Maps</li> <li>Navigate your own and other user's trails</li> <li>Explore points of interest</li> <li>Weather Forecast</li> <li>Live tracking</li> </ul>
		2007 USA	A fitness tracking and route planning app specifically for cycling.	More than 2 million	<b>Basic:</b> US\$7.99 /month or US\$59.99 / year  <b>Premium:</b> US\$9.99 /month or US\$79.99 / year	<ul style="list-style-type: none"> <li>Plan and record rides</li> <li>Analyze and compare performance metrics</li> <li>Find and follow routes</li> <li>Share and join clubs</li> <li>Connect with friends</li> <li>Export data to other apps</li> <li>Turn-by-turn voice navigation</li> <li>advanced route planning tools</li> <li>access to detailed cycling maps</li> <li>Live Tracking</li> <li>Leaderboards</li> </ul>
		2007 USA	A fitness tracking and route planning app specifically for cycling.	More than 20 million	<b>MVP:</b> USD\$ 5.99 / month or USD\$ 29.99 / year	<ul style="list-style-type: none"> <li>Track and log rides</li> <li>Analyze and compare performance metrics</li> <li>Find and follow routes</li> <li>Set goals</li> <li>Join challenges</li> <li>Connect with friends</li> <li>Personalized coaching</li> <li>Training plans</li> <li>Real-time audio coaching</li> <li>Live tracking</li> </ul>

Category	Business	Year & Country funded	Description of business	No. of registered users*	Pricing	Features
Cycling route apps	<b>bikemap</b>	2013 Austria	A community-driven platform for cycling routes and trails.	More than 2 million	<b>Bikemap Premium:</b> 9€ / month or 39€ / year or 99€/ 3-years	<ul style="list-style-type: none"> <li>Discover and explore bike routes worldwide</li> <li>Plan and record rides</li> <li>Share and download routes</li> <li>Analyze and compare performance metrics</li> <li>Turn-by-turn voice navigation</li> <li>Offline maps</li> <li>Route planning tools</li> <li>Weather updates</li> </ul>
Cycle Tourism company	<b>SPICEROADS CYCLING</b>	1995 Thailand	<p>Premier cycling touring operator.</p> <p>They offer various trip styles, including road cycling, mountain biking, family-friendly tours, and e-bike adventures.</p>	N/A	<p><b>Single-day tours:</b> \$50-\$150 USD per person</p> <p><b>Short tours (few days to a week):</b> \$500 - \$2000 USD per person</p> <p><b>Longer Tours:</b> Two weeks or more US\$2,000-5,000 per person</p>	<ul style="list-style-type: none"> <li>Accommodations</li> <li>Meals</li> <li>Cycling equipment</li> <li>Experienced guides</li> <li>Route planning and logistics</li> <li>Sightseeing and activities</li> </ul>

\*Data as of 2023.

## 4.2 Positioning Map

In **Figure 15**, we propose our positioning in comparison with the aforementioned competitors. In this positioning map, we take into account two driving forces that influence consumers' choices when choosing a fitness app: the number of features and the price. When evaluating the number of features and the price point, *Cycle Quest* falls within the middle range in contrast with our competitors. Therefore, we identify Ride with GPS and Komoot as our two main competitors.



**Figure 15:** Positioning map. Own elaboration.



## 4.3 SWOT analysis

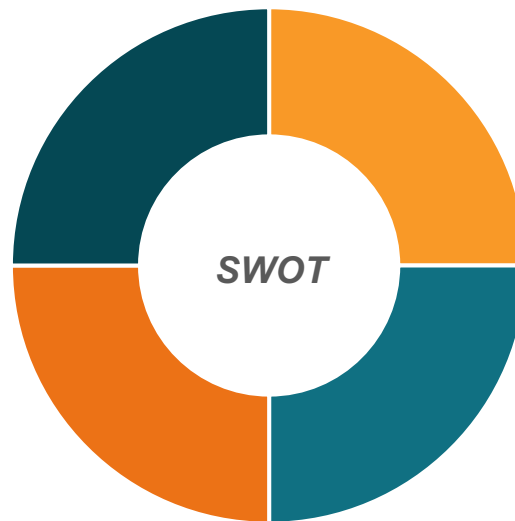
We have performed a SWOT analysis to provide a comprehensive framework for evaluating the internal and external factors that impact our business (**Figure 16**).

### STRENGTHS

- Integrates data from multiple sources, including other health and fitness apps
- Offers personalized cycling routes tailored to each cyclist's unique health conditions giving it a distinct competitive advantage
- Provides a social networking component targeting the cycling community

### OPPORTUNITIES

- Growing trend towards cycling tourism and eco-friendly travel
- Growing trend towards the use of fitness apps
- Partnerships with other health and fitness apps
- Partnerships with hotel and restaurant chains
- Expansion of unique features
- Expansion into new markets (i.e., other outdoor sports)



### WEAKNESSES

- Relies on the users having other fitness apps to recommended adequate routes
- It is only intended for cyclists which limits its potential user base

### THREATS

- Well-known / established apps could “copy” the idea and offer it to their large user base
- Users might not be willing to change their usual app or download a new one
- Hard to keep up with rapid technological advancements

**Figure 16:** Cycle Quest SWOT analysis. Own elaboration.

## V. MARKETING AND SALES PLAN

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### 5.1 Product

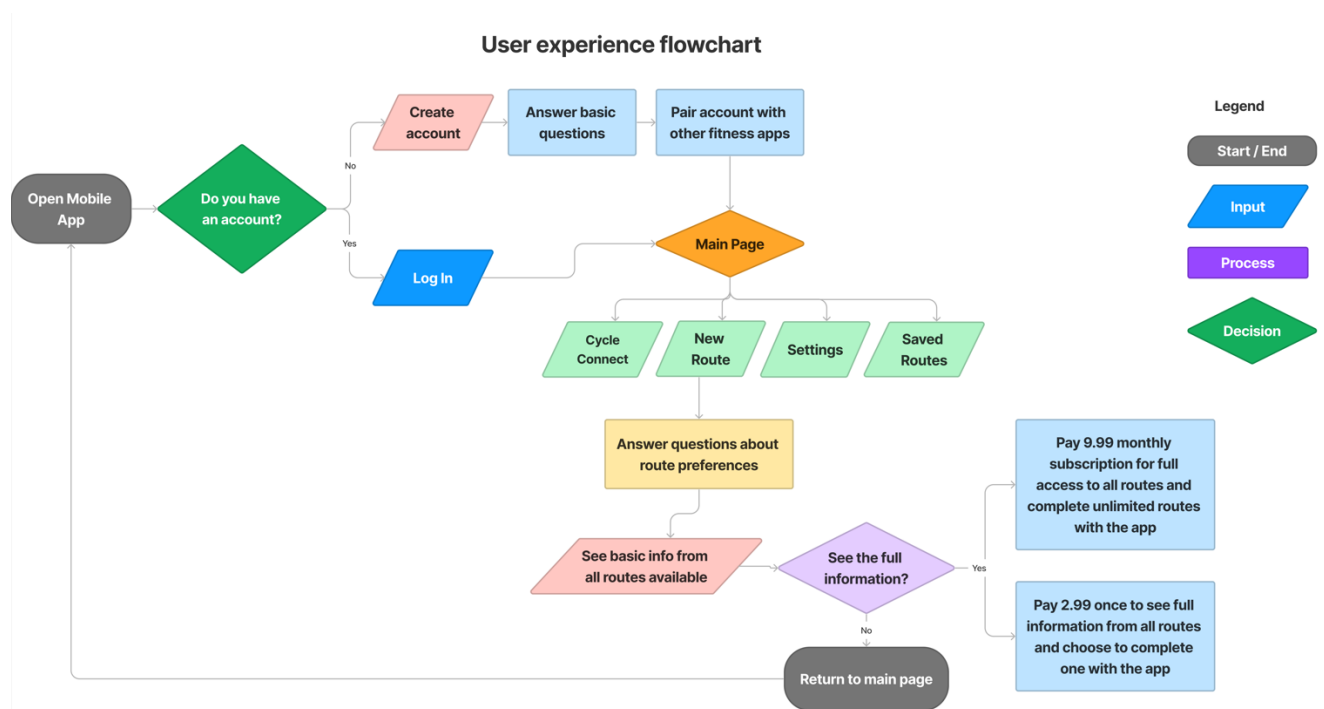
The *Cycle Quest* app will be initially available for download on the Android store. Upon downloading the app, users will have to create an account. During the account creation process, the app will request the users' full name, email address, age, and gender, and will also require them to answer a few questions about their lifestyle and preferences. Next, they will be asked to pair *Cycle Quest* with the fitness apps they currently use on a regular basis. Once this is completed, users will have access to the main page of the app. The users will always have the possibility to change or adapt their preferences as they wish and pair their accounts with new fitness apps they acquire over time.

After registering on the app, users will be able to click on the "New Route" tab. Here, a screen will pop up asking specific questions regarding their travel preferences for each route search, such as desired trip distance, number of days, type of bike they will use (i.e., mountain bike vs. e-bike), preferred accommodation type, and more. The algorithm will then generate route recommendations based on their health data received from other apps and their personal preferences indicated through these answers. The routes that will appear on this page will only display basic information, such as their distance, required number of days, and geographical location, but the users won't have access to the map and full details of the routes yet. To obtain the complete route information, users have two options: they can either make a one-time payment of 2,99€ for access to view all the routes and complete ONE of those routes per payment, or they can subscribe for 7,99€ per month to enjoy access to an unlimited number of routes each month. To better understand the app's functionality, refer to **Flowchart 1 and Figure 17** which provide a clear visual representation.

Once the cyclist selects their desired route, they will have access to all the detailed information from that route and will be able to download it directly to their mobile device. The downloaded route also includes the points of interest along the way. With this offline functionality, cyclists can conveniently track their progress and receive step-by-step voice navigation without the need for an internet connection. This feature is essential while doing trips of this nature since internet access may be limited or expensive. This also helps in preserving the phone's battery life. Once the cyclist finishes the route, the application synchronizes the updated data, further enriching the capabilities of its artificial intelligence.

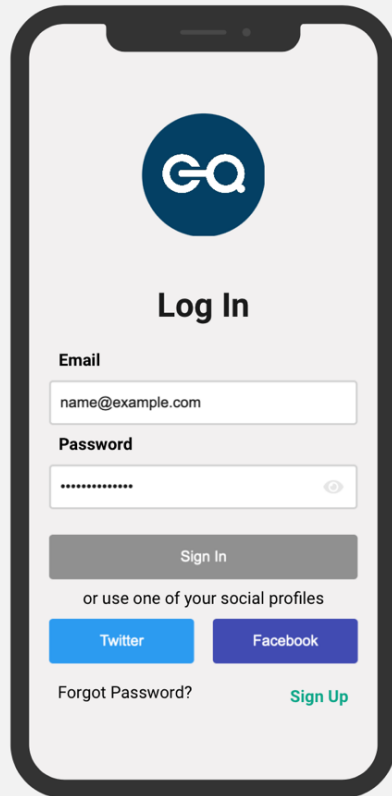
The algorithm structures the itineraries based on essential factors such as optimal daily distance, rest intervals, nutrition, hydration, and the availability of necessary supplies like lodging, healthcare assistance, and mechanical support for bikes. Moreover, e-bike charging station points will be conveniently included for those who chose to travel with their e-bikes. These comprehensive itineraries ensure a well-structured and seamless cycling experience.

Additionally, the *Cycle Quest* app incorporates a social network component, known as “**CycleConnect**”, allowing users to actively engage with one another. Within this community, cyclists can share their routes and experiences, add photos during their trip, share group events, or include other users in their activities and recommend their favorite places.

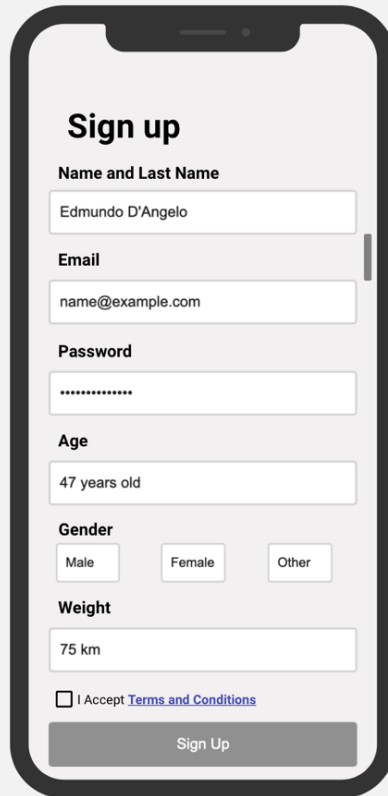


**Flowchart 1:** User route through the *Cycle Quest* app. Own elaboration.

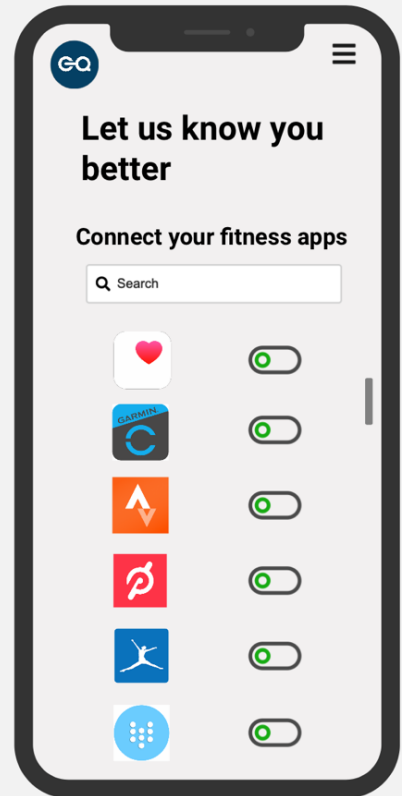
Log In



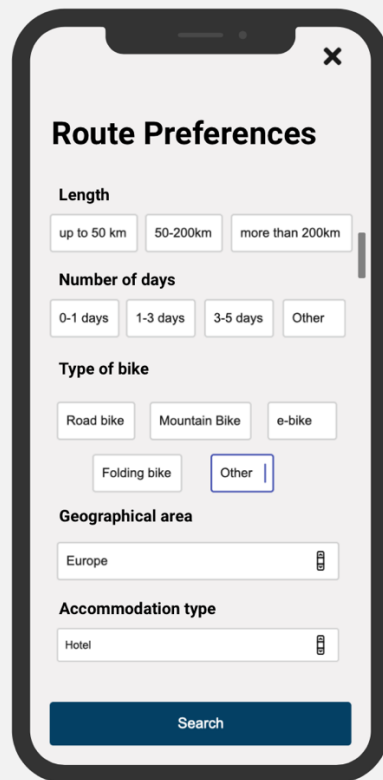
Sign up



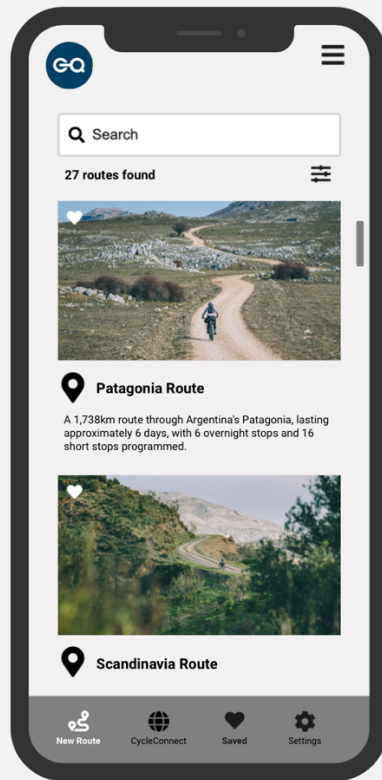
Pair



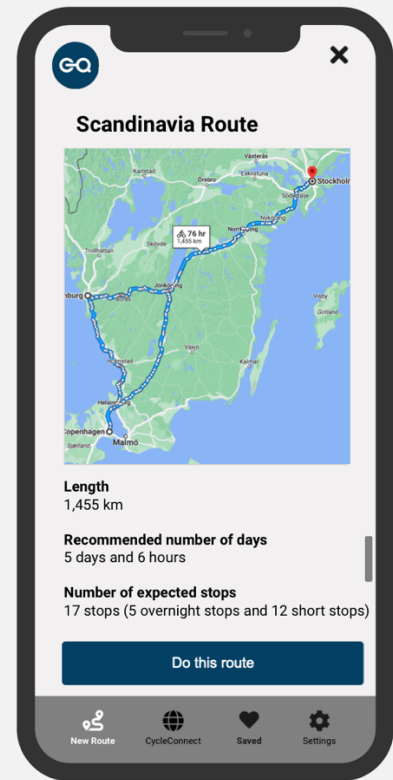
Route Preferences



New Route



Route Information



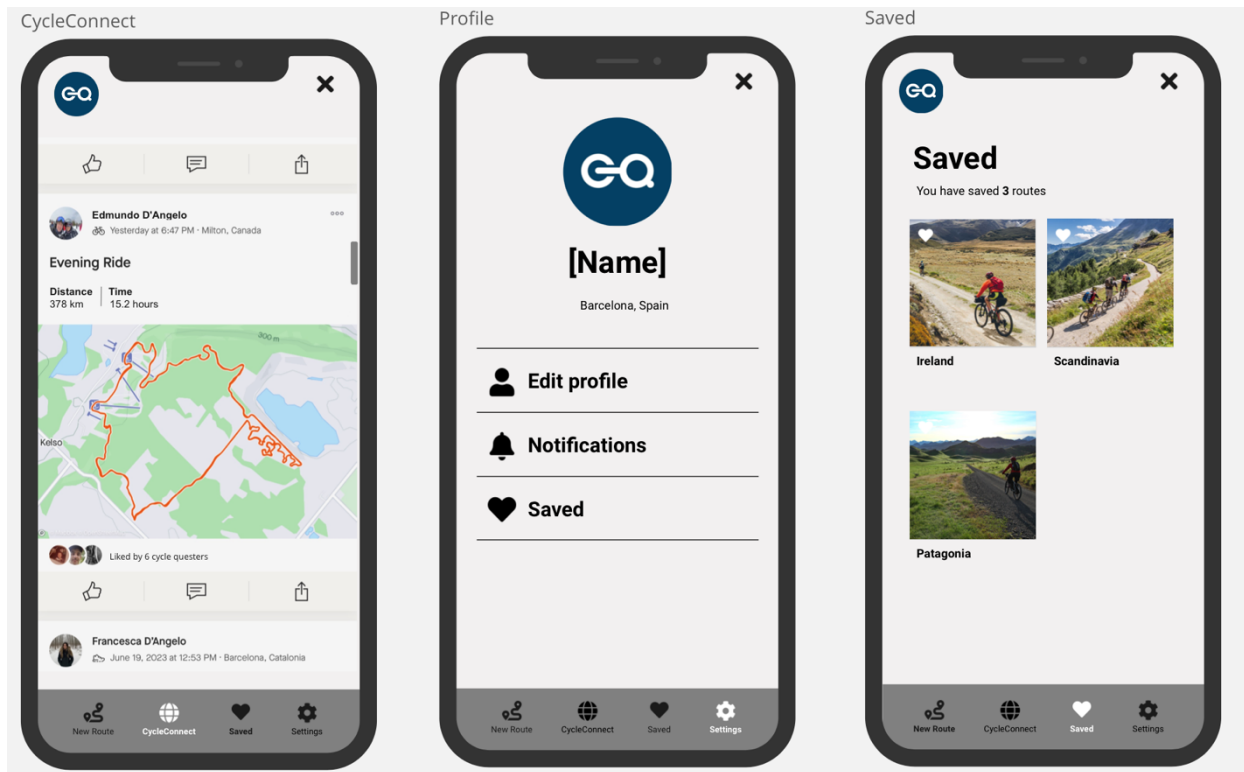


Figure 17: Demonstration of *Cycle Quest* app screen mock-ups. Own elaboration

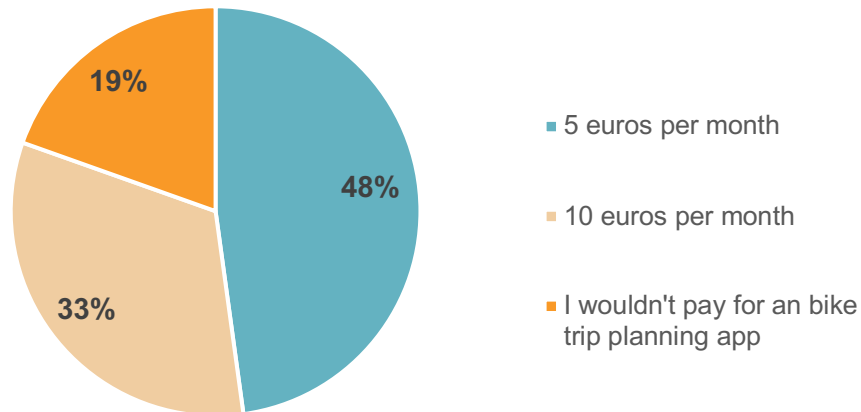
## 5.2 Pricing Strategy

Pricing strategies are crucial as they directly impact a company's revenue, profitability, and ability to attract and retain customers. By understanding the dynamics of pricing and its strategic implications, we aim to create a competitive advantage compared to other fitness apps.

To determine the optimal pricing strategy for *Cycle Quest*, we took into account two determining factors: the **pricing of our competition** and the amount our **target customers would be willing to pay**.

When we assessed the main competitors in section 4.1 and 4.2, we can see their pricing ranges from 4.99 – 9.99€ per month. If we want cyclists to choose *Cycle Quest* over competitors, our prices must fall within or below this range. Moreover, when we interviewed our sample population, the majority of respondents (48%) indicated that they would be willing to pay a maximum 5€ per month, while 33% indicated they would pay maximum 10€ per month (**Figure 18**).

Percentage distribution of 'What is the maximum that would you pay for this app?'



**Figure 18:** Market research made for *Cycle Quest*. Own elaboration.

Taking these three factors into consideration, *Cycle Quest* will use a mix of **pay-per-use** and **subscription business model**. When the user downloads the app, they will receive a 7-day free trial to get a chance to have the full experience of the app and appreciate the variety of features that it offers. As outlined in section 3.3.2, this free trial will help to increase subscriptions and retention rates. Once the trial ends, the user will initially have two payment options to choose from:

- **Option 1:** Pay-per-use → Pay 2,99€ per route or
- **Option 2:** Subscription → Pay 7,99€ per month for access to unlimited routes.

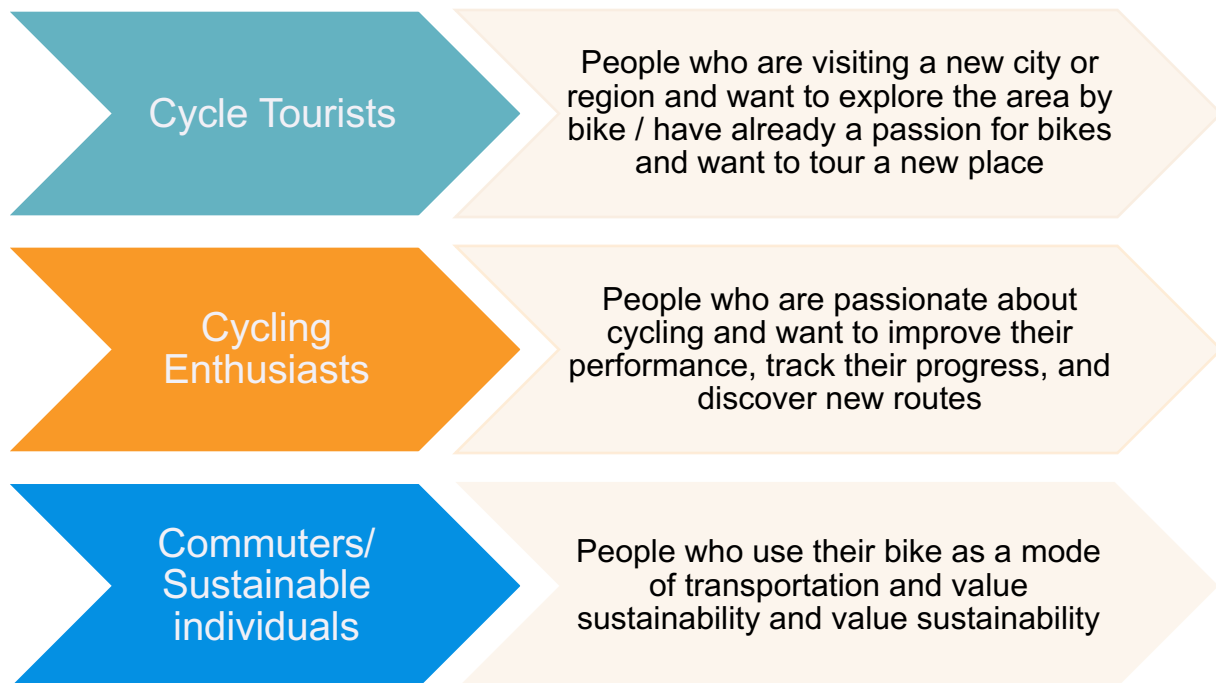
The mix of business models offers users flexibility based on their intended frequency of usage. Given this pricing strategy, if the user estimates they will complete more than 2 routes per month, it will be more advantageous for them to purchase the one-month subscription as they will have access to unlimited routes. This subscription will be automatically renewed every month from the day of purchase and can be cancelled at any point in time.

## 5.3 Profile of Target Customers

Given the results of the market research presented in section 3.3, our target customers are men and women aged between 30 to 55 years old that would fit into one or more of the following categories:

- is passionate about cycling
- enjoys travelling
- is a fitness or health-conscious individual
- is interested in cycle tourism
- values/prefers sustainable practices like eco-tourism
- is looking for a new hobby

Based on the information gathered through our primary and secondary market research, we obtained the following market segments:



## 5.4 Buyer Persona



- **Name:** Santino
  - **Age:** 47 years old
  - **Gender:** Male
  - **Family:** Married and has two older children (22 and 24 years old)
- 
- **Habits:**
    - Used to ride his bike to commute to work but since the pandemic has been working from home.
    - Enjoys riding his bike before or after work and during the weekends.
  - **Interests:**
    - Likes to travel but to be active while travelling.
    - Passionate about environmental sustainability.
    - Follows influencers and Youtubers that talk about bikes and go on bike trips.
  - **Frustrations/Pain points:**
    - Wants to do a bike trip, but the planning and research involves too much time.
    - Is afraid he will not enjoy his trip due to the route being too hard / not appropriate for his level.
    - Is afraid to be alone on bike trips but doesn't have any family members or friends that would want to do a multi-day bike trip with him.

## 5.5 Marketing Objectives and Strategies

### 5.5.1 Marketing Objectives

The main objectives of this marketing plan during the first two years will be:

- ✓ to establish brand awareness
- ✓ to promote and increase brand visibility
- ✓ to generate leads
- ✓ to attract our target customers



### 5.5.2 Marketing Strategies

Given that *Cycle Quest* is a mobile application, we consider digital marketing strategies to be the most suitable for promoting our brand. Therefore, we will deploy a combination of Inbound and Outbound marketing strategies to reach our target audience. In this section we will describe each of these tactics, followed by a summary of our overall strategy, objectives, frequencies and costs (**Table 2**).

#### I. Social media strategy

Having a high level of activity on our social media platforms will be key to promoting *Cycle Quest*. **Instagram** is the most used social media platform in Spain, followed by **Facebook** (AIMC, 2022). Moreover, Facebook has the particular advantage of its “Groups” feature, which enables people around the globe that share the same interests to connect on one main page. Doing a quick search on Facebook with the key words “bicycle”, “cyclists”, “bicycle travelers”, “bikepackers”, etc. we see a large number of active groups with a high number of members and high number of posts per day. Thus, we will primarily focus on these two key social media platforms.

**Objectives:** to create brand awareness, promote brand visibility and create a community

#### Marketing Activities:

1. **Creation of eye-catching Instagram and Facebook accounts (Figure 19).** To be done three months prior to the launch of the MVP.
2. **Share posts** two to three times a week. The content of the posts will vary among the following topics:
  - ✓ Product showcasing
  - ✓ Tips about bike-packing
  - ✓ Influencer collaborations
  - ✓ Reposting content generated by users
  - ✓ Partnerships and collaborations with brands
3. **Join cyclists Facebook groups** with a high number of members and posts per day and **create publications that promote our app.** These publications will be done once per week in different groups each week.
4. **Post Instagram Stories** daily containing pictures and ads created by the brand and/or reposting users’ stories as well as stories from relevant brands and topics.

5. **Live broadcasts on Instagram** will be encouraged from users doing cycling trips using *Cycle Quest* to show their routes and experiences. The frequency of these broadcasts will increase as we gain more users, but initially we will aim to have one per month.
6. **Instagram Reels** will be created to capture the viewers that prefer short-form entertaining videos. Reels will be posted once or twice per month.
7. We believe that actively engaging with the audience and creating a sense of community is key to promote our business, since one of the main ways we expect to gain our audience is through recommendations from other users. Therefore, **direct messages, comments** and **mentions** on both Instagram and Facebook will be answered as frequently as possible.

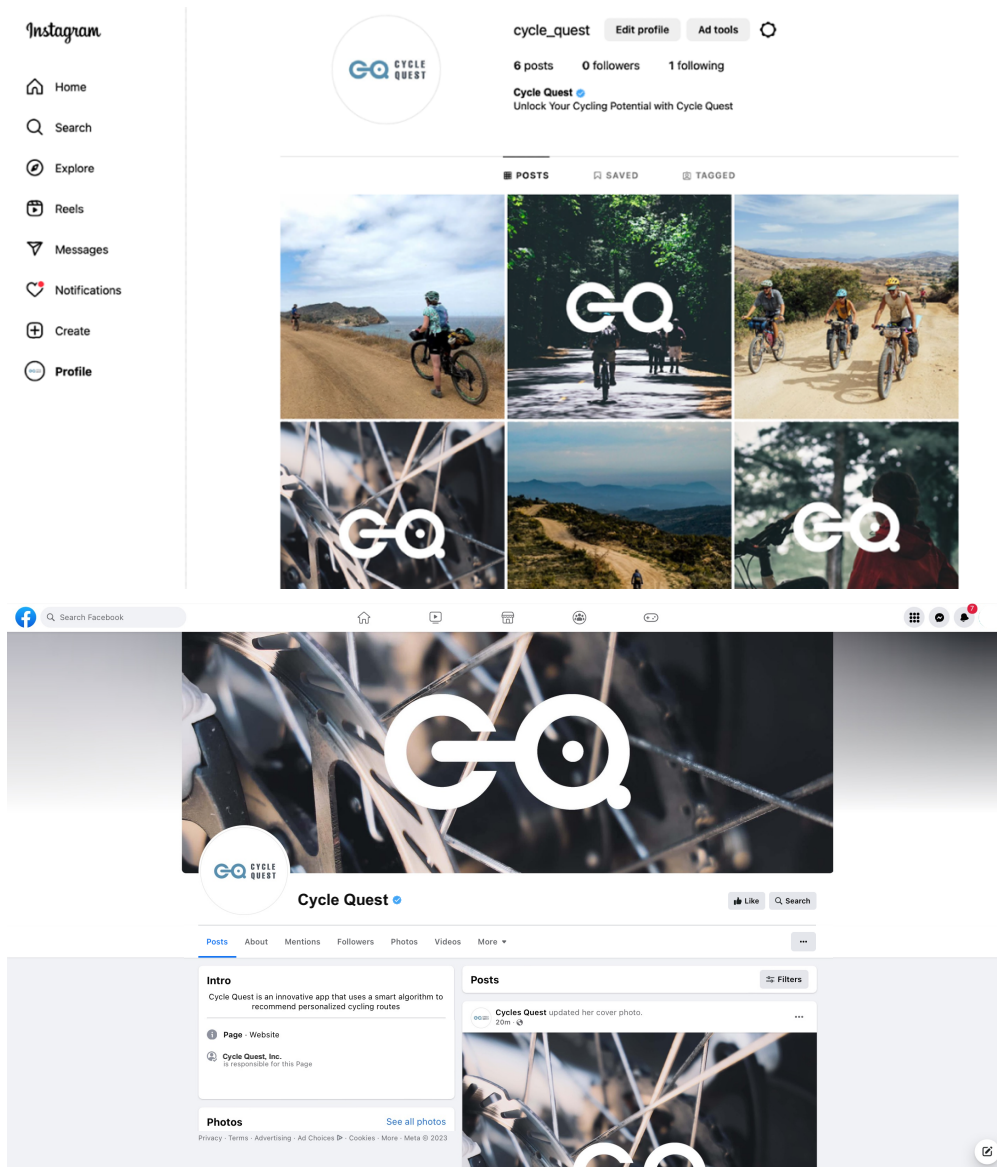


Figure 19: Cycle Quest Instagram and Facebook pages. Own elaboration.

## **II. Meta Ads (Instagram and Facebook)**

Through the use of ads, we expect to reach our target audiences based on their interests and searching patterns. The ads will showcase how the app works and its ability to cater to individual preferences and needs.

**Objectives:** to generate leads and attract our target customers

### **Marketing Activities:**

1. **Set up and create Meta ads (Instagram and Facebook).** For these ads,
  - i. The marketing objective will be set to lead generation and traffic
  - ii. The target audience will match our target customers previously described
  - iii. The placement will be Instagram and Facebook feeds
  - iv. The format will be as a single image
  - v. The estimated budget will be 150€ per month for the first six months and it will be increased to 200€ per month after the sixth month.
  
2. Perform a **weekly monitoring of the ads performance and adjust the settings of our ads accordingly.**

## **III. Collaborations with influencers and cyclist associations**

As previously mentioned, cyclists often rely on cycling travel blogs and YouTubers to gain inspiration and recommendations for routes. Collaborating with influencers that align with our brand's mission and values, and that are actively followed by the cycling community are crucial to gaining visibility amongst our target audience. The ideal influencer to collaborate with would be someone that has a strong following and an engaged audience, with many views, likes, and comments on their content.

**Objectives:** to attract our target customers and to establish brand awareness

### **Marketing Activities:**

1. **Reach out to and collaborate with cyclist influencers.** The frequency of these collaborations will be ideally once every three months. Our budget will be 1,000€ per collaboration, which will equal to 4,000€ a year. We have identified a wide range of influencers on YouTube that create content about cycle tourism, some examples include:

- ✓ **Bike Touring Pro:** 94.8K subscribers on YouTube
- ✓ **Path Less Pedaled:** 158K subscribers on YouTube
- ✓ **Ryan Van Duzer:** 176K subscribers on YouTube
- ✓ **Nomad’s Trails:** 108K subscribers on YouTube

2. **Reach out to and establish partnerships with blogs** (such as Bikepacking.com) **and cyclist associations** (such as Adventure Cycling Association) that are **specifically dedicated to bikepacking and cycling enthusiasts**. We will offer discounted rates for their viewers and followers via discount codes. We will reach out to new blogs and associations that align with our target customers once per month.

**Table 2:** Summary of marketing strategies, objectives, activities, frequency, and cost. Own elaboration.

Type of strategy	Objective	Action	Frequency	Cost
<b>Social media strategy</b>	To create brand awareness, promote brand visibility and create a community	Create Instagram and Facebook accounts	While the app is being developed (pre-beta launch)	Free
		Create and share posts on Instagram and Facebook	Two-three times a week (on alternate days for Facebook and Instagram)	Free
		Create and post stories	Daily	Free
		Create and post Reels	Twice per month	Free
		Encourage livestreams from users	Once or twice per month	Free
		Engage with audience by answering direct messages, comments and mentions	Daily	Free
<b>Social media ads strategy</b>	To generate leads and attract our target customers	Set up and create Meta ads (Instagram and Facebook)	Monthly	150€ / month for the first six months and 200€ / month afterwards
		Monitor performance of ads and adjust settings	Weekly	Free
<b>Collaboration / Partnership strategies</b>	To attract our target customers and to establish brand awareness	Reach out and collaborate with cyclist influencers.	Once every three months	1,000€
		Create partnerships with blogs and cyclist associations that are specifically dedicated to bikepacking and cycling enthusiasts	Once per month	Free

Initially, a marketing agency such as RSB Agency or Factoria Creativa will be hired, given that they will have more experience and resources to advertise *Cycle Quest* to our target customers. In the beginning of the third quarter, a marketing specialist will be hired to work alongside the marketing agency and our sales and customer service team to deploy marketing and communications strategies that are tailored to our customers.

## 5.6 Branding

### 5.6.1 Naming

The **naming** of *Cycle Quest* was carefully chosen to capture the attention of cyclists, which are our target customers. When individuals see our ads or social media pages, see the app itself on the Android store or hear someone talk about it, we want them to immediately feel drawn to it and curious about it given their already existing interest in cycling and cycling-related topics.

### 5.6.2 Logo

The **logo** must quickly show that the app is intended for cyclists. Thus, we chose bicycle tires to be at the center of the logo, and the tires contain the outline of the two main letters of the brand (**Figure 20**).

The colour and style of our logo and app are two very important factors used to catch our users' attention and to create brand recognition. Research indicates that people make a subconscious judgment about a product within 90 seconds of initial viewing and that between 62% and 90% of that assessment is based on color alone (Morton, 2019). Therefore, picking out the right colour and style for our logo and app is crucial. For our logo we have chosen the colors blue, turquoise, black, and white (**Figure 21**). Following the Color Psychology Chart, **turquoise** portrays inspiration, **blue** portrays trust and dependability, **white** portrays clarity and simplicity and black portrays security (Lischer, 2023). Furthermore, these colours must be vibrant to catch the user's attention at first sight.



Figure 20: Cycle Quest logo design. Own elaboration.



Figure 21: Cycle Quest Brand colours. Own elaboration

# VI. OPERATIONS AND EXPANSION PLAN

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## 6.1 Development of the App

The expected time frame for the development of the MVP version of the *Cycle Quest* app is as follows:

- **Planning and UX/UI Design:** 1 month
- **Backend Development:** 2.5 months
- **Mobile App Development:** 2.5 months
- **Testing and Quality Assurance:** 1 month
- **Deployment and Launch:** 2 weeks

Most of these steps in the development of the app will overlap one with the other, summing up to six months (from beginning of January to end of June) to complete the MVP version of the *Cycle Quest* app. The following features will constitute the MVP version:

- User registration and login
- Integration with health and fitness apps
- Route recommendation algorithm
- Route customization
- User profile and settings
- Geographic information systems (GIS) integration
- Route details and navigation
- Basic social network platform
- Basic user interface and user experience
- User feedback

A beta version of the app will be released in May of the same year and will be provided for free to a small sample population containing individuals from diverse backgrounds to test. Feedback will be collected, and adjustments will be made accordingly.

## 6.2 Roadmap

To better understand the time frames and the execution of each task, a detailed roadmap of the operations, product development, marketing and sales plans for *Cycle Quest* can be seen in **Figure 22**.

Cycle Quest Roadmap

TASK	Q4			Q1			Q2			Q3			Q4		
	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
<b>MILESTONES</b>								Beta Launch		MVP LAUNCH					
<b>Operations</b>															
Interview development team															
Monitor general KPIs															
Business Angel Fundraising															
<b>Product</b>															
App Development															
Test and Adjust															
Feedback															
Quality Assurance and Bug Fixing															
App Maintenance															
System Improvements															
<b>Marketing and Sales</b>															
Create Instagram and Facebook Accounts															
Set up SM Ads															
Hire Marketing Agency															
Preparation of SM strategies															
Develop and post content in SM accounts															
Monitor SM Ads															
Monitor Marketing Related KPIs															
Influencer campaign															
Define cycling associations to target															
Hire Sales Representative															
Analyze sales trends															

Figure 22: Cycle Quest Roadmap. Own elaboration.

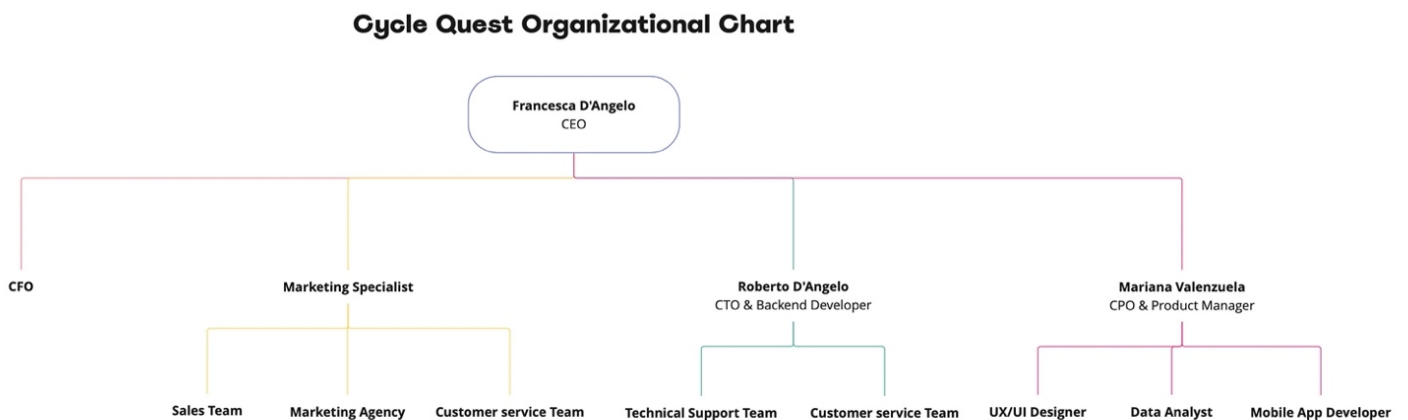


## 6.3 Organizational Structure

Francesca D’Angelo will act as a CEO, Roberto D’Angelo will act as CTO and back-end developer and Mariana Valenzuela will act as CPO and product manager. The initial development of the *Cycle Quest* app will require the involvement of a team of multidisciplinary professionals, which includes a UX/UI Designer, a Back-end Developer, a Mobile App Developer or API Integrator and a Data Scientist/Algorithm Developer. These professionals will be hired within the first month, and will work side-by-side to ensure a proper development of the app. Some of them will be involved in the project from the onset, while others will be integrated as the development of the app progresses. A freelance legal advisor and accountant will be hired in the second month of development.

Three months after the app is launched, we will expand the team by acquiring a technical support representative, a sales representative and a customer service representative.

Finally, as the app starts gaining more visibility and acquiring more users, we plan to welcome to the team a Chief Financial Officer (CFO) to take care of all the finance-related tasks, a marketing specialist to overlook the marketing, sales and customer service teams, a project manager to help with expansion projects (section 6.5), and we will expand the sales and customer service team. To better understand the management structure, we have elaborated an organizational chart as seen below (Figure 23).



**Figure 23:** *Cycle Quest*’s Organizational Chart. Own elaboration.

## 6.4 Qualifications and Roles of Key Team Members

### CEO/Co-founder:

**Francesca D'Angelo** will be the CEO of *Cycle Quest* and will be in charge of most of the general operation tasks. Francesca holds a Bachelor of Science degree with a specialization in Kinesiology and a Master's degree in Creation and Management of Technology-Based Companies.

#### Main responsibilities:

- Develop and implement overall business strategy
- Build and lead all teams within the organization
- Complete various administrative tasks
- Search for and acquire external funding

### CTO/Co-founder and Back-End Developer:

**Roberto D'Angelo** will act as the back-end developer for the app and manager of the technical support team. During the first three months after the MVP launch, prior to a technical support and customer service teams being hired, he will also be responsible providing technical support to the organization. Roberto holds a Bachelor of Computer Science and Engineering degree and has completed multiple backend courses. He has over 15 years of experience as a back-end developer and has worked on several fitness app projects.

#### Main responsibilities:

- Back-end development of the app
- Providing technical support
- Leading the technical support team

### CPO/Co-founder:

**Mariana Valenzuela** will be responsible for the product vision and will oversee the development and direction of the product. She will work closely with the CTO, and the sales and marketing team. Mariana holds a Business degree and a Master's degree in Creation and Management of Technology-Based Companies. She has more than 10 years of experience working as a UX/UI lead in a Startup company and has co-founded +Mujeres en UX LATAM, which is a community of Latin American women that are interested in UX.

Main responsibilities:

- Overlook the development and direction of the product
- Leading the development team and making sure the deadlines are met
- Quality assurance

## 6.5 Expansion Plan

The *Cycle Quest* app will be initially launched in Spain, with plans of **expanding to other European countries** such as Germany, France, and Italy, where there is a significant number of cyclists and individuals who enjoy cycle tourism. Subsequently, our focus will **shift towards North America**, followed by **South America**.

To address the user preferences in our launching country, the *Cycle Quest* app will be made available for download exclusively on the Android store. This decision considers the predominance of Android users in Spain and allows us to manage initial costs effectively. Nonetheless, the goal is to **extend our reach to the Apple App Store market** within the first year to ensure access to a wider range of users.

As *Cycle Quest* gains awareness, we plan to **create additional features** to enhance the app and retain our clients. For example, we plan on offering a **meet-up feature** in which individuals that are travelling alone can connect with other solo *bikepackers* in the area in order to meet up during their trips. Moreover, we would like to offer **partnerships with hotels and restaurants**, so that our clients are able to manage all their bookings via our app. Ideally, with a high frequency of usage, these partners would begin to offer special discounts and rates to our users.

## 6.6 Measurement of Success: KPIs

In order to measure the performance of *Cycle Quest*, we have created a table (**Table 3**), which summarizes the Key Performance Indicators (KPIs) that we will take into consideration, how we will calculate them, and the frequency with which we will calculate them.

**Table 3:** Key Performance Indicators, calculations, and frequency of measurement for *Cycle Quest*. Own elaboration.

Category	KPI	Calculation	Frequency
General KPIs	Number of downloads	-	Weekly
	User growth rate	$\frac{((\text{Present User Amount} - \text{Past User Amount}) / (\text{Past User Amount}))}{x 100}$	Once a month
	Retention rate	$\frac{((\text{Number of customers at the end of the period} - \text{number of new customers acquired during this period}) / (\text{number of customers at the start of the period}))}{x 100}$	Once every quarter
App engagement KPIs	Daily Active Users (DAU)	Number of active users each day	Once a month
	Churn Rate	$\frac{((\text{customers who left}) / (\text{customers at the beginning of the month} + \text{new customers acquired during that month}))}{x 100}$	Once a month
Revenue-focused KPIs	Customer acquisition cost (CAC)	Total cost / Number of acquisitions	Every time we do a campaign with an influencer / blog (4 times per year)
	Average Revenue per user (ARPU)	Lifetime revenue / # of users	Once a year (at the end of the year)
	Number of monthly route purchases	-	Once a month
	Number of monthly subscription package	-	Once a month
	Test-to-customer conversion rate	$\frac{(\text{Number of users that purchase a paid route or subscription} / \text{Number of people that accessed the free trial version})}{x 100}$	Once a month

## VII. ECONOMIC AND FINANCIAL FORECAST

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In this section we will present the economic and financial forecast for *Cycle Quest* for the first year of operations. To see the projections for Years 2 and 3 please refer to **Appendix 2**.

### 7.1 Source of Financing

To cover all the associated costs of developing and maintaining the app during the first year, the three co-founders will contribute with 40,000€ each, summing up to a total of 120,000€.

In the second year, the founders will seek financing from Business Angels of approximately **200,000€**, which will be destined towards improving the app and expanding the team.

### 7.2 Operational and Personnel Expenses

In this section we outline the projected operational and personnel expenses that we will have during the first year, as seen in **Tables 4** and **5** below. We can see that the projected expenses are mainly in research and development (R&D) and personnel salaries. The projected expenses for Years 2 and 3 can be found in the **Appendix 2**.

A co-working office space will be rented monthly. Co-working spaces in Barcelona (such as [Aticco Workspaces](#) and [Talent Garden](#)) cost on average 200€ - 250€ per person per month. Thus, the cost of the coworking space increases as we hire more employees. The same happens with the Microsoft Office 365 licenses. The AWS cloud service cost will increase as the amount of data storage demand increases. Marketing agency and advertisement costs are detailed in section 5.5.2.

As mentioned in section 6, the CTO will be in charge of doing the back-end development of the *Cycle Quest* app. We will hire a UX/UI designer, a Mobile App Developer or API integrator and a data scientist to work together to develop the app. Furthermore, a freelance legal advisor and accountant will be hired in February of Year 1 to make sure the *Cycle Quest* app meets all required laws and regulations. Finally, in the beginning of the fourth quarter we will hire a customer service representative and a sales representative to provide support with new users.

**Table 4: Operational expenses during year 1. Own elaboration.**

Operational expenses	Year 1												Total Year 1
	Q1			Q2			Q3			Q4			
	January	February	March	April	May	June	July	August	September	October	November	December	
<b>Marketing &amp; Sales</b>													
Mareketing Agency	€0.0	€0.0	€0.0	€0.0	€1,500.0	€1,500.0	€1,500.0	€1,500.0	€1,500.0	€1,500.0	€1,500.0	€1,500.0	€12,000.0
Advertisement	€0.0	€0.0	€0.0	€0.0	€0.0	€0.0	€150.0	€150.0	€150.0	€1,150.0	€150.0	€150.0	€1,900.0
<b>Total Marketing &amp; Sales</b>	<b>€0.0</b>	<b>€0.0</b>	<b>€0.0</b>	<b>€0.0</b>	<b>€1,500.0</b>	<b>€1,500.0</b>	<b>€1,650.0</b>	<b>€1,650.0</b>	<b>€1,650.0</b>	<b>€2,650.0</b>	<b>€1,650.0</b>	<b>€1,650.0</b>	<b>€13,900.0</b>
<b>General and Admin expenses</b>													
Cloud service (AWS)	€0.0	€15.00	€15.00	€15.00	€15.00	€15.00	€30.00	€30.00	€30.00	€30.00	€30.00	€30.00	€255.0
Co-working Office	€0.0	€0.0	€0.0	€1,500.0	€1,500.0	€1,500.0	€1,500.0	€1,500.0	€1,500.0	€2,250.0	€2,250.0	€2,250.0	€15,750.0
Microsoft Office 365 License	€33.6	€33.6	€33.6	€33.6	€33.6	€33.6	€33.6	€33.6	€33.6	€50.4	€50.4	€50.4	€453.6
<b>Total General and Admin expenses</b>	<b>€33.6</b>	<b>€48.6</b>	<b>€48.6</b>	<b>€1,548.6</b>	<b>€1,548.6</b>	<b>€1,548.6</b>	<b>€1,563.6</b>	<b>€1,563.6</b>	<b>€1,563.6</b>	<b>€2,330.4</b>	<b>€2,330.4</b>	<b>€2,330.4</b>	<b>€16,458.6</b>
<b>Total Operational Expenses</b>	<b>€33.6</b>	<b>€48.6</b>	<b>€48.6</b>	<b>€1,548.6</b>	<b>€3,048.6</b>	<b>€3,048.6</b>	<b>€3,213.6</b>	<b>€3,213.6</b>	<b>€3,213.6</b>	<b>€4,980.4</b>	<b>€3,980.4</b>	<b>€3,980.4</b>	<b>€30,358.6</b>

**Table 5: Personnel expenses during year 1. Own elaboration.**

Personnel expenses	Year 1												Total Year 1
	Q1			Q2			Q3			Q4			
	January	February	March	April	May	June	July	August	September	October	November	December	
<b>Operating Personnel</b>													
UX/UI Designer	€0.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€17,600.00
Back End Developer	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00
Mobile App Developers or API Integrator	€0.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€17,600.00
Data Scientist/Algorithm Developer	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€19,200.00
Technical Support Team	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€1,500.00	€1,500.00	€1,500.00	€4,500.00
<b>Subtotal</b>	<b>€1,600.00</b>	<b>€4,800.00</b>	<b>€4,800.00</b>	<b>€4,800.00</b>	<b>€4,800.00</b>	<b>€4,800.00</b>	<b>€4,800.00</b>	<b>€4,800.00</b>	<b>€4,800.00</b>	<b>€6,300.00</b>	<b>€6,300.00</b>	<b>€6,300.00</b>	<b>€58,900.00</b>
<b>Administrative personnel</b>													
CEO (& co-founder)	€0.00	€0.00	€0.00	€0.00	€0.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€10,500.00
CTO (& co-founder)	€0.00	€0.00	€0.00	€0.00	€0.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€10,500.00
CFO	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00
CPO (& co-founder)	€0.00	€0.00	€0.00	€0.00	€0.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€10,500.00
Freelance legal advisor and accountant	€0.00	€1,000.00	€1,000.00	€1,000.00	€1,000.00	€1,000.00	€1,000.00	€1,000.00	€1,000.00	€1,000.00	€1,000.00	€1,000.00	€11,000.00
Project Manager	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00
<b>Subtotal</b>	<b>€0.00</b>	<b>€1,000.00</b>	<b>€1,000.00</b>	<b>€1,000.00</b>	<b>€1,000.00</b>	<b>€5,500.00</b>	<b>€5,500.00</b>	<b>€5,500.00</b>	<b>€5,500.00</b>	<b>€5,500.00</b>	<b>€5,500.00</b>	<b>€5,500.00</b>	<b>€42,500.00</b>
<b>Marketing &amp; Sales personnel</b>													
Customer Service	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€1,500.00	€1,500.00	€1,500.00	€4,500.00
Sales Manager	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€1,500.00	€1,500.00	€1,500.00	€4,500.00
Marketing Specialist	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00
<b>Subtotal</b>	<b>€0.00</b>	<b>€0.00</b>	<b>€0.00</b>	<b>€0.00</b>	<b>€0.00</b>	<b>€0.00</b>	<b>€0.00</b>	<b>€0.00</b>	<b>€0.00</b>	<b>€3,000.00</b>	<b>€3,000.00</b>	<b>€3,000.00</b>	<b>€9,000.00</b>
<b>Total personnel expenses</b>	<b>€1,600.00</b>	<b>€5,800.00</b>	<b>€5,800.00</b>	<b>€5,800.00</b>	<b>€5,800.00</b>	<b>€10,300.00</b>	<b>€10,300.00</b>	<b>€10,300.00</b>	<b>€10,300.00</b>	<b>€14,800.00</b>	<b>€14,800.00</b>	<b>€14,800.00</b>	<b>€110,400.00</b>

## 7.3 Expected Revenue

According to our target market size estimations calculated in section 3.4, if we assume that in the first year, we can reach 10% of our desired market (200,000 users), we expect to have approximately 20,000 users within the first year. Therefore, we can estimate the following revenue for the first three years:

**Table 6:** Cycle Quest projected number of users and revenue for the first three years. Own elaboration.

	Year 1	Year 2	Year 3
<b>Total number of users</b>	1,849*	19,364	28,334
<b>Pay-per-use package**</b>	12,260.94 €	272,863.17 €	615,902.37 €
<b>Subscription package***</b>	14,041.79 €	312,495.47 €	705,359.76 €
<b>Total Revenue</b>	26,302.73 €	585,358.64 €	1,321,262.13 €

\*Number estimated considering that the app will be launched in July of the first year.

\*\*Assuming 70% adoption rate.

\*\*\*Assuming 30% adoption rate.

The numbers of users for each year were calculated assuming a retention rate of 90%, meaning we expect to lose 10% of the users gained each month. For more detailed calculations of each month, please refer to **Appendix 2**.

## 7.4 Income Statement

Taking into account the projected sales and expenses, in this section we can observe the expected income statement for the first three years. Net profit in the first year will be negative as startup costs are high and sales are expected to be low considering it will be a new app and will be launched six months into the year. However, we expect to have a positive net profit starting in Year 2, which is projected to remain positive throughout the years to follow.

**Table 7:** Cycle Quest projected income statement for the first three years.

Income statement	Year 1	Year 2	Year 3
<b>Revenue</b>			
Sales	€ 26,302.73	€ 585,358.64	€ 1,321,262.13
Cost of goods sold			
<b>Gross profit</b>	<b>€ 26,302.73</b>	<b>€ 585,358.64</b>	<b>€ 1,321,262.13</b>
<b>Operational Expenses &amp; Depreciation</b>			
General and administrative expenses	€ 30,358.60	€ 63,473.20	€ 74,675.20
Personnel expenses	€ 110,400.00	€ 255,300.00	€ 382,800.00
Depreciation	€ 800.00	€ 1,200.00	€ 1,480.00
<b>Total Operational Expenses</b>	<b>€ 141,558.60</b>	<b>€ 319,973.20</b>	<b>€ 458,955.20</b>
<b>Operating Profit</b>	<b>€ -115,255.87</b>	<b>€ 265,385.44</b>	<b>€ 862,306.93</b>
Financial expenses			
<b>Profit before taxes</b>	<b>€ -115,255.87</b>	<b>€ 265,385.44</b>	<b>€ 862,306.93</b>
Income taxes (30%)		€ 79,615.63	€ 258,692.08
<b>Net Profit</b>	<b>€ -115,255.87</b>	<b>€ 185,769.81</b>	<b>€ 603,614.85</b>

## 7.5 Treasury Forecast

**Table 8** shows the treasury forecast for Cycle Quest's first three years. As we can see, in the first year we expect the numbers to be quite low given the aforementioned factors. However, it is expected that they will increase steadily throughout the following years.

**Table 8:** Cycle Quest projected treasury for the first three years.

	Year 1	Year 2	Year 3
<b>1) Initial Balance</b>	<b>€ 120,000.00</b>	<b>€ 1,544.13</b>	<b>€ 266,129.56</b>
Sales Revenue	€ 26,302.73	€ 585,358.64	€ 1,321,262.13
Relevant VAT	€ 5,523.57	€ 122,925.31	€ 277,465.05
<b>2) Total Revenue</b>	<b>€ 31,826.30</b>	<b>€ 708,283.95</b>	<b>€ 1,598,727.18</b>
General and Administrative Expenses	€ 30,358.60	€ 63,473.20	€ 74,675.20
Personnel Expenses	€ 110,400.00	€ 255,300.00	€ 382,800.00
Investments	€ 4,000.00	€ 2,000.00	€ 1,400.00
Operational VAT Paid	€ 7,215.31	€ 13,749.37	€ 15,975.79
VAT liquidation	€ (1,691.73)	€ 109,175.94	€ 261,489.26
<b>3) Total Expenses</b>	<b>€ 150,282.17</b>	<b>€ 443,698.51</b>	<b>€ 736,340.25</b>
<b>Final Balance (1+2-3)</b>	<b>€ 1,544.13</b>	<b>€ 266,129.56</b>	<b>€ 1,128,516.49</b>



## 7.6 Balance

**Table 9** shows *Cycle Quest's* projected balance sheet, which highlights key financial indicators and provides insights into the overall financial standing of *Cycle Quest*.

**Table 9:** *Cycle Quest* projected balance sheet.

ASSETS	31st DECEMBER, Y1	31st DECEMBER, Y2	31st DECEMBER, Y3	LIABILITIES	31st DECEMBER, Y1	31st DECEMBER, Y2	31st DECEMBER, Y3
<b>Current assets</b>				<b>Equity</b>			
Cash	€ 1,544.13	€ 266,129.56	€ 1,128,516.49	Raised capital	€ 120,000.00	€ 120,000.00	€ 120,000.00
Accounts receivable (clients)				Reserves			
Inventory				Profit and losses	€ -115,255.87	€ 70,513.93	€ 674,128.78
<b>Total current assets</b>	<b>€ 1,544.13</b>	<b>€ 266,129.56</b>	<b>€ 1,128,516.49</b>	<b>Total</b>	<b>€ 4,744.13</b>	<b>€ 190,513.93</b>	<b>€ 794,128.78</b>
<b>Fixed assets</b>				<b>Short-term liabilities</b>			
Equipment (laptops) (less accumulated depreciation)	€ 2,880.00	€ 3,760.00	€ 3,760.00	Corporate taxes		€ 79,615.63	€ 338,307.71
Intangible assets (software) (less accumulated depreciation)	€ 320.00	€ 240.00	€ 160.00	Accounts Payable (suppliers)			
<b>Total fixed assets</b>	<b>€ 3,200.00</b>	<b>€ 4,000.00</b>	<b>€ 3,920.00</b>	Short-term debit with banks VAT	€ -	€ -	€ -
				<b>Total</b>	<b>€ -</b>	<b>€ 79,615.63</b>	<b>€ 338,307.71</b>
				<b>Long-term liabilities</b>			
				Long-term debt with banks			
				<b>Total</b>			
<b>TOTAL:</b>	<b>€ 4,744.13</b>	<b>€ 270,129.56</b>	<b>€ 1,132,436.49</b>	<b>TOTAL:</b>	<b>€ 4,744.13</b>	<b>€ 270,129.56</b>	<b>€ 1,132,436.49</b>
Check	€ 0.00	€ -	€ -				

## CONCLUSION

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*Cycle Quest* is an innovative mobile application that uses a smart algorithm to recommend personalized short and long-distance cycling routes worldwide, tailored specifically to each cyclist's unique health conditions and physical performance. By leveraging diverse data sources, including health and fitness apps, travel preferences, and geographic information systems, our algorithm seamlessly designs routes that match the individual's fitness level, providing an optimal travel experience.

Although it is anticipated that net profit in the first year will be negative given the high development costs, we expect to have a positive net profit at the end of the second year, which is projected to remain positive throughout the years to follow. By the end of the third year, *Cycle Quest* is estimated to generate a net profit of 603,614.85 €.

In conclusion, *Cycle Quest* is strategically positioned to take advantage of the current trends and demands in the fitness and cycle tourism industries. With the help of our highly experienced team, and through the implementation of the different strategies presented throughout this business plan, we aim to become the go-to platform for cycling and outdoor enthusiasts.

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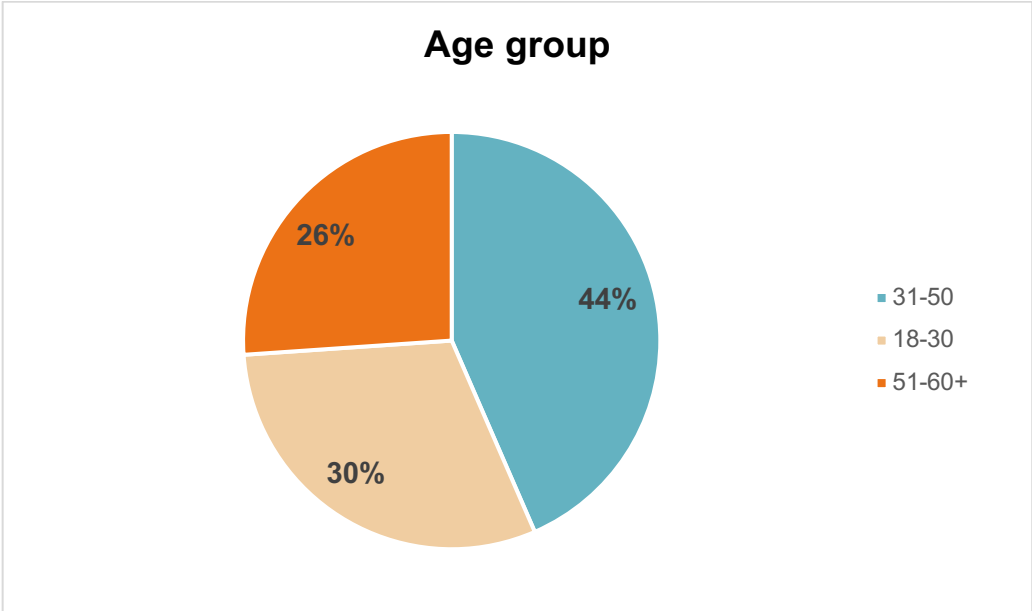
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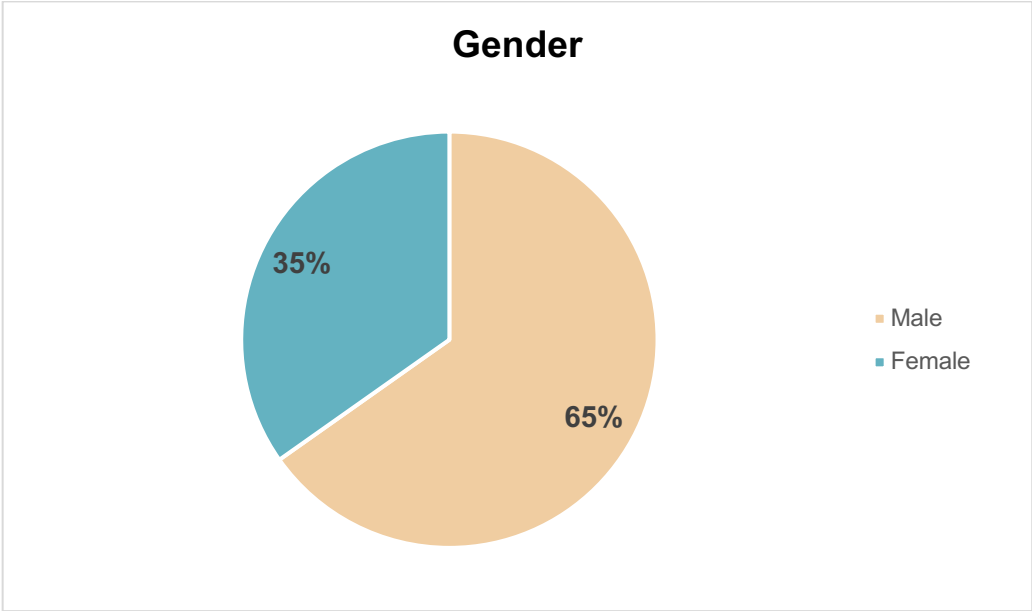
# APPENDIX

## Appendix I. Interview data (n= 46)

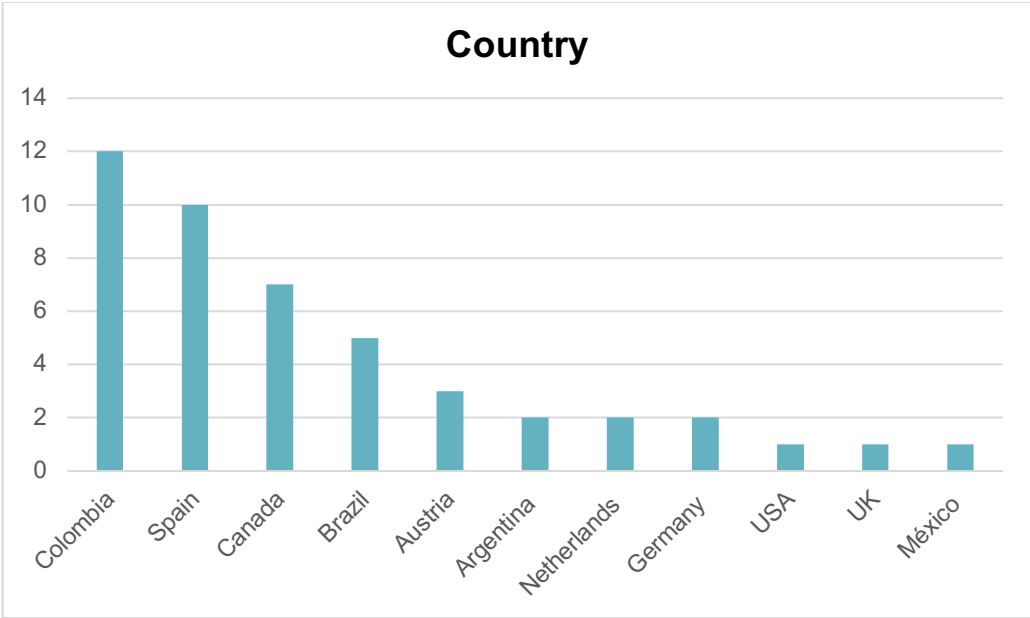
What age group do you belong to?



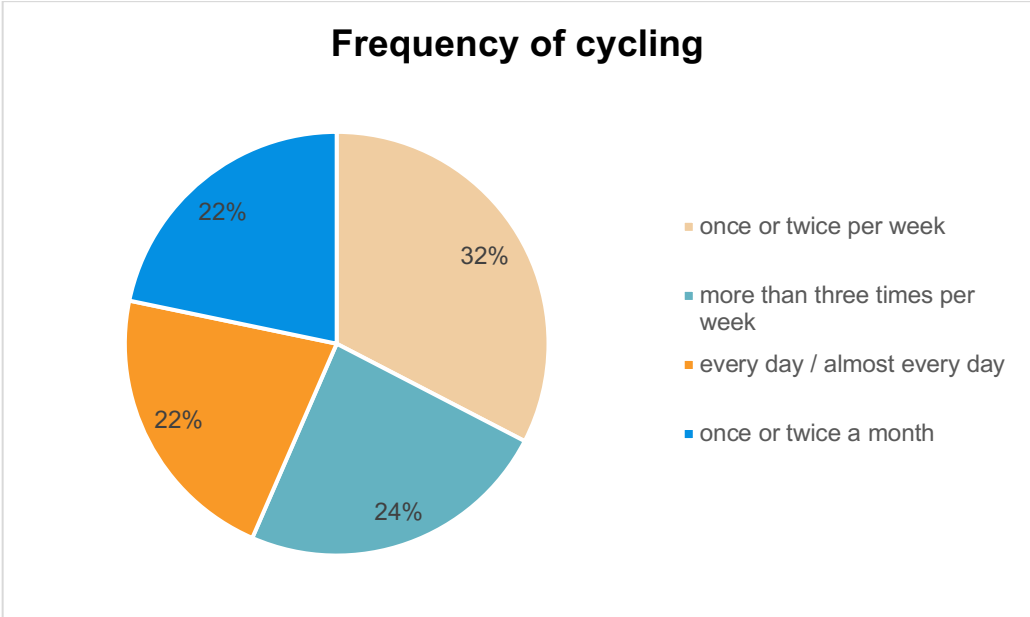
What's your gender?



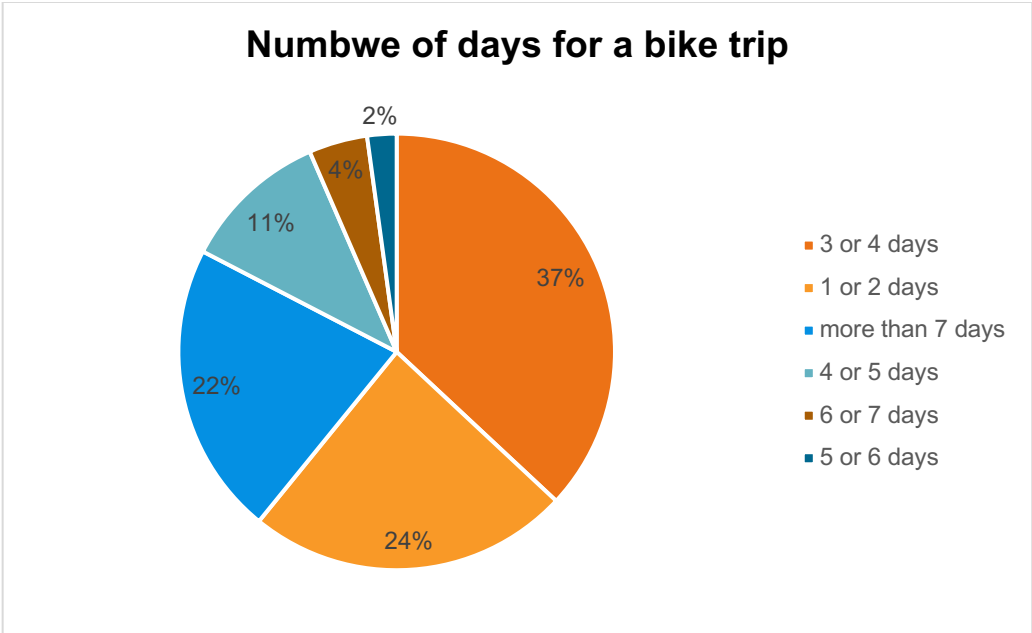
What country are you from?



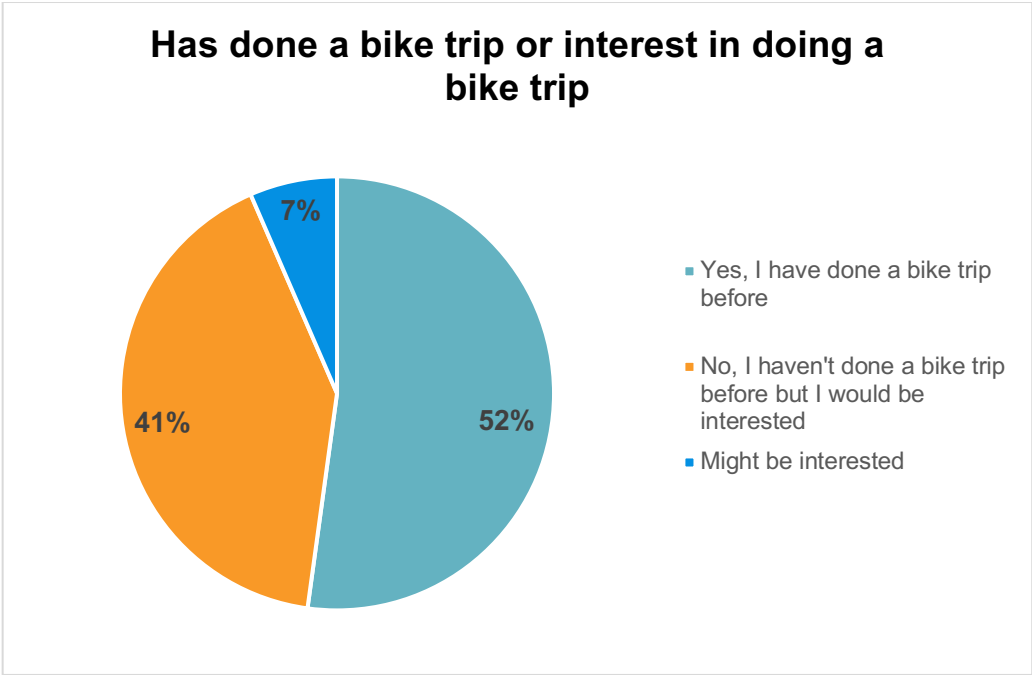
How often do you bike?



How many days would you be willing to do a bike trip for?

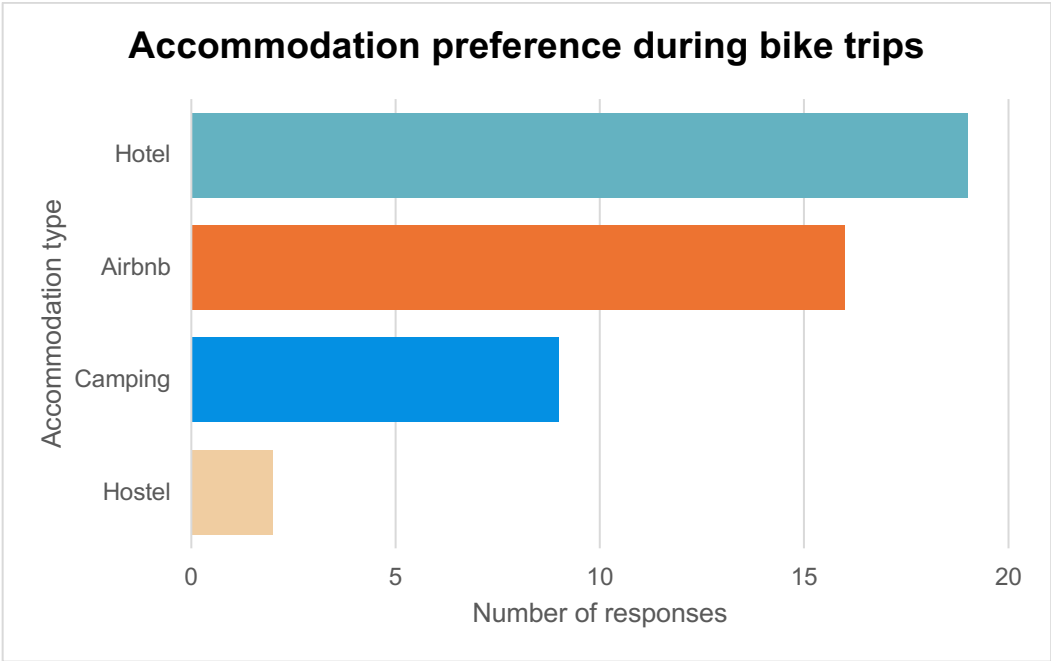


Have you done a bike trip or are interested in doing a bike trip?

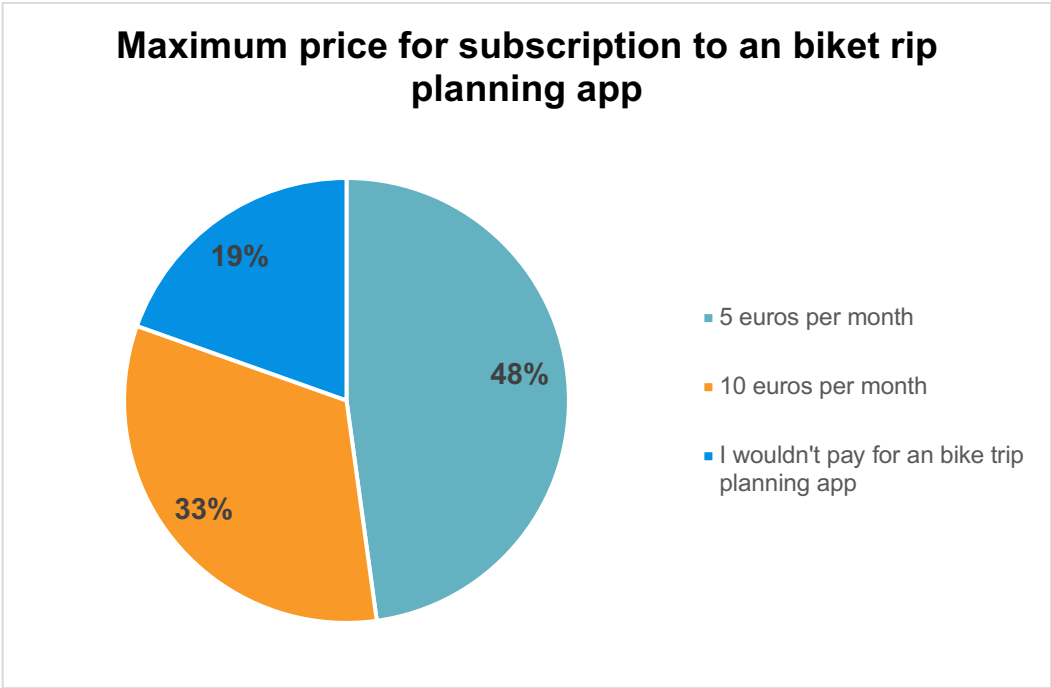




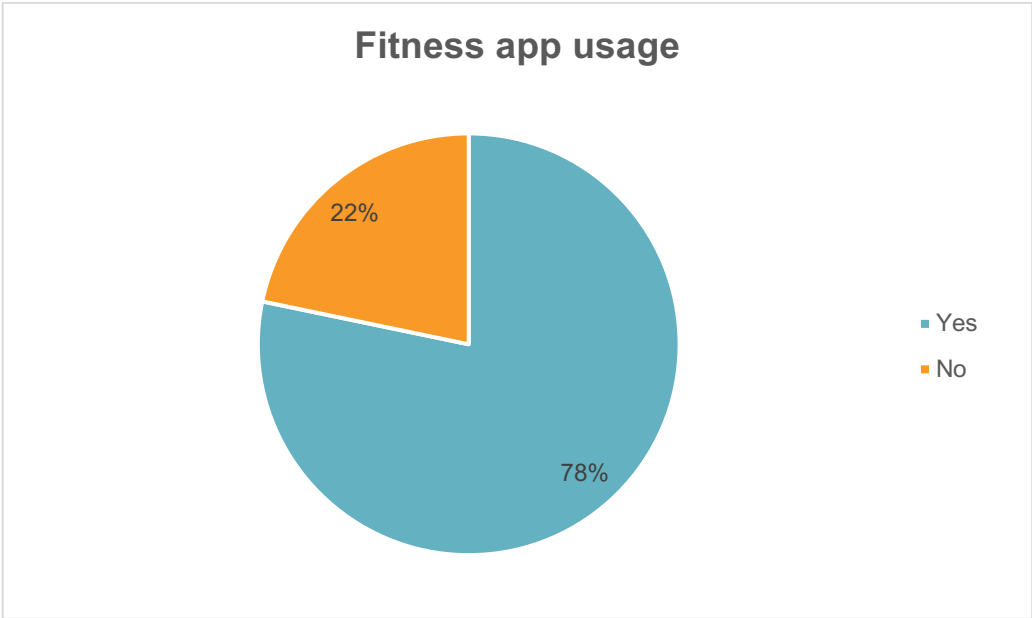
If you did a multiple-day bike trip what would be your accommodation preference?



What is the maximum that you would pay for an app that provides personalized bike routes based on your health and fitness data?



Do you currently use a fitness app?



## Appendix 2. Complete Economical Financial Plan.

### 1. Sales projections

Sales projections								YEAR 1						
	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	TOTAL Y1							
<b>New users</b>	150	300	300	500	600	400								
<b>Retention of users (90%)</b>		135	392	622	1,010	1,449								
<b>Total # of users</b>		435	692	1,122	1,610	1,849	1,849							
<b>Revenue (7.99 pack)</b>	€ 359.55	€ 1,042.70	€ 1,657.53	€ 2,690.27	€ 3,859.45	€ 4,432.30	€ 14,041.79							
<b>Revenue (2.99 pack)</b>	€ 313.95	€ 910.46	€ 1,447.31	€ 2,349.08	€ 3,369.97	€ 3,870.17	€ 12,260.94							
<b>Total Revenue</b>	€ 673.50	€ 1,953.15	€ 3,104.84	€ 5,039.35	€ 7,229.42	€ 8,302.47	€ 26,302.73							

Sales projections														YEAR 2											
	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	TOTAL Y2												
<b>New users</b>	700	900	1,300	2,500	2,500	2,500	3,500	3,200	2,500	3,500	3,200	2,500													
<b>Retention of users (90%)</b>	1,664	2,128	2,725	3,622	5,510	7,209	8,738	11,014	12,793	13,764	15,537	16,864													
<b>Total # of users</b>	2,364	3,028	4,025	6,122	8,010	9,709	12,238	14,214	15,293	17,264	18,737	19,364	19,364												
<b>Revenue (7.99 pack)</b>	€ 5,666.97	€ 7,257.57	€ 9,647.92	€ 14,675.62	€ 19,200.56	€ 23,273.01	€ 29,335.21	€ 34,072.08	€ 36,657.38	€ 41,381.14	€ 44,913.42	€ 46,414.58	€ 312,495.47												
<b>Revenue (2.99 pack)</b>	€ 4,948.26	€ 6,337.13	€ 8,424.32	€ 12,814.39	€ 16,765.45	€ 20,321.40	€ 25,614.76	€ 29,750.89	€ 32,008.30	€ 36,132.97	€ 39,217.27	€ 40,528.04	€ 272,863.17												
<b>Total Revenue</b>	€ 10,615.23	€ 13,594.70	€ 18,072.23	€ 27,490.01	€ 35,966.01	€ 43,594.41	€ 54,949.97	€ 63,822.97	€ 68,665.67	€ 77,514.11	€ 84,130.70	€ 86,942.63	€ 585,358.64												

Sales projections														YEAR 3											
	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	TOTAL Y3												
<b>New users</b>	3,000	2,000	2,000	3,500	3,000	3,500	4,000	3,500	3,500	4,000	3,000	2,500													
<b>Retention of users (90%)</b>	17,427	18,385	18,346	18,311	19,630	20,367	21,481	22,933	23,789	24,560	25,704	25,834													
<b>Total # of users</b>	20,427	20,385	20,346	21,811	22,630	23,867	25,481	26,433	27,289	28,560	28,704	28,334	28,334												
<b>Revenue (7.99 pack)</b>	€ 48,964.12	€ 48,861.71	€ 48,769.54	€ 52,282.09	€ 54,244.88	€ 57,209.89	€ 61,076.90	€ 63,358.71	€ 65,412.34	€ 68,459.11	€ 68,804.20	€ 67,916.28	€ 705,359.76												
<b>Revenue (2.99 pack)</b>	€ 42,754.24	€ 42,664.82	€ 42,584.33	€ 45,651.40	€ 47,365.26	€ 49,954.23	€ 53,330.81	€ 55,323.23	€ 57,116.41	€ 59,776.77	€ 60,078.09	€ 59,302.78	€ 615,902.37												
<b>Total Revenue</b>	€ 91,718.36	€ 91,526.53	€ 91,353.87	€ 97,933.49	€ 101,610.14	€ 107,164.12	€ 114,407.71	€ 118,681.94	€ 122,528.75	€ 128,235.87	€ 128,882.28	€ 127,219.06	€ 1,321,262.13												

## 2. Operational Expenses

Operational expenses	Year 1												Total Year 1
	Q1			Q2			Q3			Q4			
	January	February	March	April	May	June	July	August	September	October	November	December	
<b>Marketing &amp; Sales</b>													
Marketing Agency	€0.0	€0.0	€0.0	€0.0	€1,500.0	€1,500.0	€1,500.0	€1,500.0	€1,500.0	€1,500.0	€1,500.0	€1,500.0	€12,000.0
Advertisement	€0.0	€0.0	€0.0	€0.0	€0.0	€0.0	€150.0	€150.0	€150.0	€1,150.0	€150.0	€150.0	€1,900.0
<b>Total Marketing &amp; Sales</b>	<b>€0.0</b>	<b>€0.0</b>	<b>€0.0</b>	<b>€0.0</b>	<b>€1,500.0</b>	<b>€1,500.0</b>	<b>€1,650.0</b>	<b>€1,650.0</b>	<b>€1,650.0</b>	<b>€2,650.0</b>	<b>€1,650.0</b>	<b>€1,650.0</b>	<b>€13,900.0</b>
<b>General and Admin expenses</b>													
Cloud service (AWS)	€0.0	€15.00	€15.00	€15.00	€15.00	€15.00	€30.00	€30.00	€30.00	€30.00	€30.00	€30.00	€255.0
Co-working Office	€0.0	€0.0	€0.0	€1,500.0	€1,500.0	€1,500.0	€1,500.0	€1,500.0	€1,500.0	€2,250.0	€2,250.0	€2,250.0	€15,750.0
Microsoft Office 365 License	€33.6	€33.6	€33.6	€33.6	€33.6	€33.6	€33.6	€33.6	€33.6	€50.4	€50.4	€50.4	€453.6
<b>Total General and Admin expenses</b>	<b>€33.6</b>	<b>€48.6</b>	<b>€48.6</b>	<b>€1,548.6</b>	<b>€1,548.6</b>	<b>€1,548.6</b>	<b>€1,563.6</b>	<b>€1,563.6</b>	<b>€1,563.6</b>	<b>€2,330.4</b>	<b>€2,330.4</b>	<b>€2,330.4</b>	<b>€16,458.6</b>
<b>Total Operational Expenses</b>	<b>€33.6</b>	<b>€48.6</b>	<b>€48.6</b>	<b>€1,548.6</b>	<b>€3,048.6</b>	<b>€3,048.6</b>	<b>€3,213.6</b>	<b>€3,213.6</b>	<b>€3,213.6</b>	<b>€4,980.4</b>	<b>€3,980.4</b>	<b>€3,980.4</b>	<b>€30,358.6</b>

Operational expenses	Year 2												Total Year 2
	Q1			Q2			Q3			Q4			
	January	February	March	April	May	June	July	August	September	October	November	December	
<b>Marketing &amp; Sales</b>													
Marketing Agency	€1,500.0	€1,500.0	€1,500.0	€1,500.0	€1,500.0	€1,500.0	€1,500.0	€1,500.0	€1,500.0	€1,500.0	€1,500.0	€1,500.0	€18,000.0
Advertisement	€1,200.0	€200.0	€200.0	€1,200.0	€200.0	€200.0	€1,200.0	€200.0	€200.0	€1,200.0	€200.0	€200.0	€6,400.0
<b>Total Marketing &amp; Sales</b>	<b>€2,700.0</b>	<b>€1,700.0</b>	<b>€1,700.0</b>	<b>€2,700.0</b>	<b>€1,700.0</b>	<b>€1,700.0</b>	<b>€2,700.0</b>	<b>€1,700.0</b>	<b>€1,700.0</b>	<b>€2,700.0</b>	<b>€1,700.0</b>	<b>€1,700.0</b>	<b>€24,400.0</b>
<b>General and Admin expenses</b>													
Cloud service (AWS)	€50.00	€50.00	€50.00	€50.00	€50.00	€50.00	€75.00	€75.00	€75.00	€75.00	€75.00	€75.00	€750.0
Co-working Office	€2,500.0	€2,500.0	€2,500.0	€2,500.0	€2,500.0	€2,500.0	€3,750.0	€3,750.0	€3,750.0	€3,750.0	€3,750.0	€3,750.0	€37,500.0
Microsoft Office 365 License	€50.4	€50.4	€50.4	€56.0	€56.0	€56.0	€84.0	€84.0	€84.0	€84.0	€84.0	€84.0	€823.2
<b>Total General and Admin expenses</b>	<b>€2,600.4</b>	<b>€2,600.4</b>	<b>€2,600.4</b>	<b>€2,606.0</b>	<b>€2,606.0</b>	<b>€2,606.0</b>	<b>€3,909.0</b>	<b>€3,909.0</b>	<b>€3,909.0</b>	<b>€3,909.0</b>	<b>€3,909.0</b>	<b>€3,909.0</b>	<b>€39,073.2</b>
<b>Total Operational Expenses</b>	<b>€5,300.4</b>	<b>€4,300.4</b>	<b>€4,300.4</b>	<b>€5,306.0</b>	<b>€4,306.0</b>	<b>€4,306.0</b>	<b>€6,609.0</b>	<b>€5,609.0</b>	<b>€5,609.0</b>	<b>€6,609.0</b>	<b>€5,609.0</b>	<b>€5,609.0</b>	<b>€63,473.2</b>

Operational expenses	Year 3												Total Year 3
	Q1			Q2			Q3			Q4			
	January	February	March	April	May	June	July	August	September	October	November	December	
<b>Marketing &amp; Sales</b>													
Marekting Agency	€1,500.0	€1,500.0	€1,500.0	€1,500.0	€1,500.0	€1,500.0	€1,500.0	€1,500.0	€1,500.0	€1,500.0	€1,500.0	€1,500.0	€18,000.0
Advertisement	€1,200.0	€200.0	€200.0	€1,200.0	€200.0	€200.0	€1,200.0	€200.0	€200.0	€1,200.0	€200.0	€200.0	€6,400.0
<b>Total Marketing &amp; Sales</b>	<b>€2,700.0</b>	<b>€1,700.0</b>	<b>€1,700.0</b>	<b>€2,700.0</b>	<b>€1,700.0</b>	<b>€1,700.0</b>	<b>€2,700.0</b>	<b>€1,700.0</b>	<b>€1,700.0</b>	<b>€2,700.0</b>	<b>€1,700.0</b>	<b>€1,700.0</b>	<b>€24,400.0</b>
<b>General and Admin expenses</b>													
Cloud service (AWS)	€100.00	€100.00	€100.00	€100.00	€100.00	€100.00	€100.00	€100.00	€100.00	€100.00	€100.00	€100.00	€1,200.00
Co-working Office	€4,000.0	€4,000.0	€4,000.0	€4,000.0	€4,000.0	€4,000.0	€4,000.0	€4,000.0	€4,000.0	€4,000.0	€4,000.0	€4,000.0	€48,000.0
Microsoft Office 365 License	€89.6	€89.6	€89.6	€89.6	€89.6	€89.6	€89.6	€89.6	€89.6	€89.6	€89.6	€89.6	€1,075.2
<b>Total General and Admin expenses</b>	<b>€4,189.6</b>	<b>€4,189.6</b>	<b>€4,189.6</b>	<b>€4,189.6</b>	<b>€4,189.6</b>	<b>€4,189.6</b>	<b>€4,189.6</b>	<b>€4,189.6</b>	<b>€4,189.6</b>	<b>€4,189.6</b>	<b>€4,189.6</b>	<b>€4,189.6</b>	<b>€50,275.2</b>
<b>Total Operational Expenses</b>	<b>€6,889.6</b>	<b>€5,889.6</b>	<b>€5,889.6</b>	<b>€6,889.6</b>	<b>€5,889.6</b>	<b>€5,889.6</b>	<b>€6,889.6</b>	<b>€5,889.6</b>	<b>€5,889.6</b>	<b>€6,889.6</b>	<b>€5,889.6</b>	<b>€5,889.6</b>	<b>€74,675.2</b>

### 3. Personnel Expenses

Personnel expenses	Year 1												Total Year 1
	Q1			Q2			Q3			Q4			
	January	February	March	April	May	June	July	August	September	October	November	December	
<b>Operating Personnel</b>													
UX/UI Designer	€0.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€17,600.00
Back End Developer	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00
Mobile App Developers or API Integrator	€0.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€17,600.00
Data Scientist/Algorithm Developer	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€19,200.00
Technical Support Team	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€1,500.00	€1,500.00	€1,500.00	€4,500.00
<b>Subtotal</b>	<b>€1,600.00</b>	<b>€4,800.00</b>	<b>€4,800.00</b>	<b>€4,800.00</b>	<b>€4,800.00</b>	<b>€4,800.00</b>	<b>€4,800.00</b>	<b>€4,800.00</b>	<b>€4,800.00</b>	<b>€6,300.00</b>	<b>€6,300.00</b>	<b>€6,300.00</b>	<b>€58,900.00</b>
<b>Administrative personnel</b>													
CEO (& co-founder)	€0.00	€0.00	€0.00	€0.00	€0.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€10,500.00
CTO (& co-founder)	€0.00	€0.00	€0.00	€0.00	€0.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€10,500.00
CFO	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00
CPO (& co-founder)	€0.00	€0.00	€0.00	€0.00	€0.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€10,500.00
Freelance legal advisor and accountant	€0.00	€1,000.00	€1,000.00	€1,000.00	€1,000.00	€1,000.00	€1,000.00	€1,000.00	€1,000.00	€1,000.00	€1,000.00	€1,000.00	€11,000.00
Project Manager	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00
<b>Subtotal</b>	<b>€0.00</b>	<b>€1,000.00</b>	<b>€1,000.00</b>	<b>€1,000.00</b>	<b>€1,000.00</b>	<b>€5,500.00</b>	<b>€5,500.00</b>	<b>€5,500.00</b>	<b>€5,500.00</b>	<b>€5,500.00</b>	<b>€5,500.00</b>	<b>€5,500.00</b>	<b>€42,500.00</b>
<b>Marketing &amp; Sales personnel</b>													
Customer Service	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€1,500.00	€1,500.00	€1,500.00	€4,500.00
Sales Manager	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€1,500.00	€1,500.00	€1,500.00	€4,500.00
Marketing Specialist	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00
<b>Subtotal</b>	<b>€0.00</b>	<b>€0.00</b>	<b>€0.00</b>	<b>€0.00</b>	<b>€0.00</b>	<b>€0.00</b>	<b>€0.00</b>	<b>€0.00</b>	<b>€0.00</b>	<b>€3,000.00</b>	<b>€3,000.00</b>	<b>€3,000.00</b>	<b>€9,000.00</b>
<b>Total personnel expenses</b>	<b>€1,600.00</b>	<b>€5,800.00</b>	<b>€5,800.00</b>	<b>€5,800.00</b>	<b>€5,800.00</b>	<b>€10,300.00</b>	<b>€10,300.00</b>	<b>€10,300.00</b>	<b>€10,300.00</b>	<b>€14,800.00</b>	<b>€14,800.00</b>	<b>€14,800.00</b>	<b>€110,400.00</b>

Personnel expenses	Year 2												Total Year 2
	Q1			Q2			Q3			Q4			
	January	February	March	April	May	June	July	August	September	October	November	December	
<b>Operating Personnel</b>													
UX/UI Designer	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€19,200.00
Back End Developer	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€9,600.00
Mobile App Developers or API Integrator	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€19,200.00
Data Scientist/Algorithm Developer	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€19,200.00
Technical Support Team	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€18,000.00
<b>Subtotal</b>	<b>€6,300.00</b>	<b>€6,300.00</b>	<b>€6,300.00</b>	<b>€6,300.00</b>	<b>€6,300.00</b>	<b>€6,300.00</b>	<b>€7,900.00</b>	<b>€7,900.00</b>	<b>€7,900.00</b>	<b>€7,900.00</b>	<b>€7,900.00</b>	<b>€7,900.00</b>	<b>€85,200.00</b>
<b>Administrative personnel</b>													
CEO (& co-founder)	€2,000.00	€2,000.00	€2,000.00	€2,000.00	€2,000.00	€2,000.00	€2,500.00	€2,500.00	€2,500.00	€2,500.00	€2,500.00	€2,500.00	€27,000.00
CTO (& co-founder)	€2,000.00	€2,000.00	€2,000.00	€2,000.00	€2,000.00	€2,000.00	€2,500.00	€2,500.00	€2,500.00	€2,500.00	€2,500.00	€2,500.00	€27,000.00
CFO	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00
CPO (& co-founder)	€2,000.00	€2,000.00	€2,000.00	€2,000.00	€2,000.00	€2,000.00	€2,500.00	€2,500.00	€2,500.00	€2,500.00	€2,500.00	€2,500.00	€27,000.00
Freelance legal advisor and accountant	€1,000.00	€1,000.00	€1,000.00	€1,000.00	€1,000.00	€1,000.00	€1,000.00	€1,000.00	€1,000.00	€1,000.00	€1,000.00	€1,000.00	€12,000.00
Project Manager	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€1,600.00	€9,600.00
<b>Subtotal</b>	<b>€7,000.00</b>	<b>€7,000.00</b>	<b>€7,000.00</b>	<b>€7,000.00</b>	<b>€7,000.00</b>	<b>€7,000.00</b>	<b>€10,100.00</b>	<b>€10,100.00</b>	<b>€10,100.00</b>	<b>€10,100.00</b>	<b>€10,100.00</b>	<b>€10,100.00</b>	<b>€102,600.00</b>
<b>Marketing &amp; Sales personnel</b>													
Customer Service	€1,500.00	€1,500.00	€1,500.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€31,500.00
Sales Manager	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€27,000.00
Marketing Specialist	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€9,000.00
<b>Subtotal</b>	<b>€3,000.00</b>	<b>€3,000.00</b>	<b>€3,000.00</b>	<b>€4,500.00</b>	<b>€4,500.00</b>	<b>€4,500.00</b>	<b>€7,500.00</b>	<b>€7,500.00</b>	<b>€7,500.00</b>	<b>€7,500.00</b>	<b>€7,500.00</b>	<b>€7,500.00</b>	<b>€67,500.00</b>
<b>Total personnel expenses</b>	<b>€16,300.00</b>	<b>€16,300.00</b>	<b>€16,300.00</b>	<b>€17,800.00</b>	<b>€17,800.00</b>	<b>€17,800.00</b>	<b>€25,500.00</b>	<b>€25,500.00</b>	<b>€25,500.00</b>	<b>€25,500.00</b>	<b>€25,500.00</b>	<b>€25,500.00</b>	<b>€255,300.00</b>
Personnel expenses	Year 3												Total Year 3
	Q1			Q2			Q3			Q4			
	January	February	March	April	May	June	July	August	September	October	November	December	
<b>Operating Personnel</b>													
UX/UI Designer	€1,800.00	€1,800.00	€1,800.00	€1,800.00	€1,800.00	€1,800.00	€1,800.00	€1,800.00	€1,800.00	€1,800.00	€1,800.00	€1,800.00	€21,600.00
Back End Developer	€1,800.00	€1,800.00	€1,800.00	€1,800.00	€1,800.00	€1,800.00	€1,800.00	€1,800.00	€1,800.00	€1,800.00	€1,800.00	€1,800.00	€21,600.00
Mobile App Developers or API Integrator	€1,800.00	€1,800.00	€1,800.00	€1,800.00	€1,800.00	€1,800.00	€1,800.00	€1,800.00	€1,800.00	€1,800.00	€1,800.00	€1,800.00	€21,600.00
Data Scientist/Algorithm Developer	€1,800.00	€1,800.00	€1,800.00	€1,800.00	€1,800.00	€1,800.00	€1,800.00	€1,800.00	€1,800.00	€1,800.00	€1,800.00	€1,800.00	€21,600.00
Technical Support Team	€1,700.00	€1,700.00	€1,700.00	€1,700.00	€1,700.00	€1,700.00	€1,700.00	€1,700.00	€1,700.00	€1,700.00	€1,700.00	€1,700.00	€20,400.00
<b>Subtotal</b>	<b>€8,900.00</b>	<b>€8,900.00</b>	<b>€8,900.00</b>	<b>€8,900.00</b>	<b>€8,900.00</b>	<b>€8,900.00</b>	<b>€8,900.00</b>	<b>€8,900.00</b>	<b>€8,900.00</b>	<b>€8,900.00</b>	<b>€8,900.00</b>	<b>€8,900.00</b>	<b>€106,800.00</b>
<b>Administrative personnel</b>													
CEO (& co-founder)	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€36,000.00
CTO (& co-founder)	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€36,000.00
CFO	€2,500.00	€2,500.00	€2,500.00	€2,500.00	€2,500.00	€2,500.00	€2,500.00	€2,500.00	€2,500.00	€2,500.00	€2,500.00	€2,500.00	€30,000.00
CPO (& co-founder)	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€36,000.00
Freelance legal advisor and accountant	€2,000.00	€2,000.00	€2,000.00	€2,000.00	€2,000.00	€2,000.00	€2,000.00	€2,000.00	€2,000.00	€2,000.00	€2,000.00	€2,000.00	€24,000.00
Project Manager	€2,000.00	€2,000.00	€2,000.00	€2,000.00	€2,000.00	€2,000.00	€2,000.00	€2,000.00	€2,000.00	€2,000.00	€2,000.00	€2,000.00	€24,000.00
<b>Subtotal</b>	<b>€15,500.00</b>	<b>€15,500.00</b>	<b>€15,500.00</b>	<b>€15,500.00</b>	<b>€15,500.00</b>	<b>€15,500.00</b>	<b>€15,500.00</b>	<b>€15,500.00</b>	<b>€15,500.00</b>	<b>€15,500.00</b>	<b>€15,500.00</b>	<b>€15,500.00</b>	<b>€186,000.00</b>
<b>Marketing &amp; Sales personnel</b>													
Customer Service	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€36,000.00
Sales Manager	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€3,000.00	€36,000.00
Marketing Specialist	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€1,500.00	€18,000.00
<b>Subtotal</b>	<b>€7,500.00</b>	<b>€7,500.00</b>	<b>€7,500.00</b>	<b>€7,500.00</b>	<b>€7,500.00</b>	<b>€7,500.00</b>	<b>€7,500.00</b>	<b>€7,500.00</b>	<b>€7,500.00</b>	<b>€7,500.00</b>	<b>€7,500.00</b>	<b>€7,500.00</b>	<b>€90,000.00</b>
<b>Total personnel expenses</b>	<b>€31,900.00</b>	<b>€31,900.00</b>	<b>€31,900.00</b>	<b>€31,900.00</b>	<b>€31,900.00</b>	<b>€31,900.00</b>	<b>€31,900.00</b>	<b>€31,900.00</b>	<b>€31,900.00</b>	<b>€31,900.00</b>	<b>€31,900.00</b>	<b>€31,900.00</b>	<b>€382,800.00</b>

#### 4. Fixed assets

YEAR 1					
Date of purchase	Fixed Assets	Value (without IVA)	IVA (21%)	% Depreciation	Annual amortization installment
2023-06-15	Laptops	€ 3,600.00	€ 756.00	€ 0.20	€ 720.00
2023-06-15	Programming and computer applications	€ 400.00	€ 84.00	€ 0.20	€ 80.00
<b>Paid in cash at the time of purchase</b>		<b>Total</b>	<b>€ 4,000.00</b>	<b>€ 840.00</b>	<b>€ 800.00</b>
YEAR 2					
Date of purchase	Fixed Assets	Value (without IVA)	IVA	% Depreciation	Annual amortization installment
2024-06-15	Laptops	€ 2,000.00	€ 420.00	€ 0.20	€ 400.00
2024-06-15	Software	€ 400.00	€ 84.00	€ 0.20	
<b>Paid in cash at the time of purchase</b>		<b>Total</b>			
YEAR 3					
Date of purchase	Fixed Assets	Value (without IVA)	IVA	% Depreciation	Annual amortization installment
2025-06-15	Laptops	€ 1,000.00	€ 210.00	€ 0.20	€ 200.00
2025-06-15	Software	€ 400.00	€ 84.00	€ 0.20	€ 80.00
<b>Paid in cash at the time of purchase</b>		<b>Total</b>	<b>€ 1,400.00</b>	<b>€ 294.00</b>	<b>€ 280.00</b>

