

A Work Project, presented as part of the requirements for the Award of a Master's degree in Management, from the Nova School of Business and Economics.

A consulting project, part of the Consulting Labs, for Câmara Municipal de Cascais, with the topic:

---

**IMPLEMENTATION OF A LOCAL DIGITAL CURRENCY IN CASCAIS,  
ENHANCING ECONOMIC, ENVIRONMENTAL, SOCIAL AND HUMAN  
SUSTAINABILITY: OPTIMIZING THE STRATEGY, BASED ON CASCAIS  
CITIZENS' NEEDS AND WANTS**

---

**Pedro Abrantes de Mello Vieira (31991)**

Work project carried out under the supervision of: Professor Constança Monteiro Casquinho

17-12-2021

A Work Project, presented as part of the requirements for the Award of a Master's degree in Management, from the Nova School of Business and Economics.

A consulting project, part of the Consulting Labs, for Câmara Municipal de Cascais, with the topic:

---

# **IMPLEMENTATION OF A LOCAL DIGITAL CURRENCY IN CASCAIS, ENHANCING ECONOMIC, ENVIRONMENTAL, SOCIAL AND HUMAN SUSTAINABILITY**

---

**Filipe Alexandre Lima Gonçalves (43918)**

*“Developing an MVP and Incentive Strategies for Partners and Users”*

**Madalena Maria Castelo Branco Silva Fernandes (32119)**

*“Implementing Promotion and Antifraud Strategies and Integrating City Points”*

**Margarida Morgado Damas (32160)**

*“Sustaining a Successful Pilot Performance”*

**Pedro Abrantes de Mello Vieira (31991)**

*“Optimizing the Strategy, based on Cascais Citizens' Needs and Wants”*

Work project carried out under the supervision of: Professor Constança Monteiro Casquinho

17-12-2021

## Disclaimer

"This Report was developed by a Team of Nova Masters students from the Nova School of Business and Economics (Nova SBE), in partnership with Câmara Municipal de Cascais, in the context of the Consulting Field Lab's Master Thesis project. This report is of confidential nature and is intended solely for the internal use of Câmara Municipal de Cascais and the Consulting Field Lab's students who were allocated to the prosecution of this project.

The report should not be provided to any other person or entity without the express consent of both Câmara Municipal de Cascais and the students. Disclosure, copy, distribution, analysis, or any other use of the information here contained is completely forbidden. If you received this report by mistake, please, delete it.

While every effort was made by the students to ensure accuracy and completeness, neither Nova SBE nor the report's authors are able to warrant the degree of accuracy or completeness of this report. This report was prepared on a best effort basis and is intended to be of assistance to management only and serve as a Master Thesis completion report. The reader should not rely solely on the report content, to make any business decisions, and the Consulting Team must not be held accountable for any consequences arising from its practical implementation."

## Abstract

### Group Work

The Consulting Project focuses on the “Implementation of a Local Digital Currency in Cascais, Enhancing Economic, Environmental, Social and Human Sustainability”. The work project includes model design, pilot establishment, partners and citizens value proposition, Town Hall processes and financial projections. To perform an in-depth analysis and provide valuable recommendations, external and internal analysis were conducted, as well as hypothesis testing (using co-creation meetings, surveys, personas design and data analysis). The outcome is a set of recommendations developed for partners, consumers, and for the Town Hall. Finally, to ensure the long-term success of the pilot, an action plan was defined.

### Individual part

This part of a Consulting Project focuses on “Optimizing the Strategy, based on Cascais Citizens’ Needs and Wants”. The work includes conclusions withdrawn from responses of Cascais Citizens on an on-line survey, segmentation of possible consumers and partners of the local currency and marketing segmentation hypothesis for Cascais Citizens, also based on the survey responses. So as to provide relevant and in-depth recommendations, internal analysis on Cascais was conducted as well as a survey to test previously made hypothesis. The result is a series of recommendations designed for partners and consumers for a more optimized and more accurate implementation of Cashcais.

**Keywords** | App, Cascais Town Hall, Circular Economy, Citizenship, Consulting, Digital Transformation, Economics, Environment, Health, Implementation, Local Currency, Minimum Viable Product, Network Effects, Pro-Environmental Rewards, Strategy, Sustainability

This work used infrastructure and resources funded by Fundação para a Ciência e a Tecnologia (UID/ECO/00124/2013, UID/ECO/00124/2019 and Social Sciences DataLab, Project 22209), POR Lisboa (LISBOA-01-0145-FEDER-007722 and Social Sciences DataLab, Project 22209) and POR Norte (Social Sciences DataLab, Project 22209).

## Acknowledgements

First and foremost, our team would like to express our gratitude and admiration towards Professor Constança Monteiro Casquinho, who relentlessly guided and supported us throughout our thesis project, supporting the team with priceless advice and endless inspirational positivity. We are forever grateful on the life learnings that have been taught to us, specially on co-creation and how to best serve the client. There is no doubt that the mentorship allowed us to grow as students, persons and professionals.

Likewise, we would like to thank our beloved and very welcoming client, Câmara Municipal de Cascais (CMC), for the opportunity to add value on such a disruptive and innovative project. A special word to Ms. Anceliana Ramos, with whom it was a pleasure to work with throughout the four months, being always available and very open to discuss our insights. Our appreciation also goes to all colleagues from Câmara Municipal de Cascais we had the honor to interact with, namely Ms. Carla Semedo, Mr. Carlos Carreiras, Ms. Inês Proença, Ms. Joana Godinho, Ms. Mafalda Silveira, Mr. Marco Espinheira, Ms. Matilde Cardoso, Ms. Rosário Daugbjerg, Ms. Teresa Varandas, Ms. Vera Brito who were available to share valuable insights with us, which enriched our deliverable. In this matter, we would also thank the Nova Medical School team that is working with Câmara Municipal de Cascais, in the persons of Mr. Ricardo Leitão and Mr. Ricardo Caldeira, who shared with us innovative research on how to reward health actions and their risks and limitations. To Cascais citizens, who proactively answered the survey and demonstrated interest on the project we show our appreciation.

Additionally, the team is remarkably thankful to Nova SBE Professors Irene Consiglio, João Silveira Lobo, Luís Catela Nunes and Pedro Gardete, for sharing their personal and academic knowledge, which made our inputs richer and solidified our recommendations to the client, while making our learning curves steeper.

We also thank the Jury President, and Discussant, for their presence in the thesis defense and the time to analyze our work project.

Finally, we are thankful to our families and friends who always supported and encouraged us.

## Glossary

**AML/CFT:** Anti-Money Laundering / Combating the Financing of Terrorism

**BdP:** Banco de Portugal

**BMC:** Business Model Canvas

**BSC:** Balanced Scorecard

**CC:** Cascais

**CI:** Confidence Interval

**CMC:** Câmara Municipal de Cascais

**CP:** City Points

**CRM:** Customer Relationship Management

**Economic Sustainability:** Sustainability of economic capital, that is, maintaining capital

**Environmental Sustainability:** Refers to the maintenance of natural capital and to the human impact

on natural systems.

**Human Sustainability:** Sustainability of human capital, constituted by health, education, skills, knowledge, leadership and access to services

**IRS:** Imposto sobre o Rendimento das Pessoas Singulares

**IT:** Information Technologies

**KPI:** Key Performance Indicators

**Leads:** people who are potentially interested in buying your products or services

**ME:** Margin of Error

**NMS:** Nova Medical School

**ROI:** Return on Investment

**SCQA:** Situation, Complication, Question and Answer

**SGDs:** Sustainable Development Goals

**SME:** Small and Medium Enterprise

**Social Sustainability:** Sustainability of social capital, constituted by investments and services that create the basic framework for society (shared values and equal rights)

**VS:** Versus

Note: due to the client preference in having the output in Portuguese, the native language of the City Hall workers, some details of the workproject are in Portuguese as they could not be translated and were the final product delivered to the client. The main language of the workproject is English (United States).

## **A diagnosis and a deep internal and external analysis enabled the development of a set of recommendations with the purpose of answering the main question surrounding this project**

### **Executive Summary**

- The project was a **consulting lab**, supervised by Professora Constança Monteiro Casquinho with the duration of 4 months. In deep collaboration with **Câmara Municipal de Cascais**, advances were made to answer the question **“Should CMC create a local digital currency, Cashcais, to promote economic, environmental, social and health sustainability?”**.
- The **goal of this project** is to advise and plan the implementation of this digital local currency with the aim of **stimulating not only the local economy**, but also promoting **environmental, social and human sustainability** in the Cascais municipality.
- Firstly, a situation analysis was made, and various frameworks were studied to understand the **current internal and external environment** surrounding CMC. Afterwards, an in-depth study of the project was made through **an issue tree analysis**. The **deductive reasoning** allowed to determine the internal drivers that led CMC to create Cashcais, and the **inductive reasoning** dictated the line of actions CMC should follow, with some of **the key hypothesis** deeply analyzed subsequently.
- In order to **formulate the strategy**, the opinion of Cascais citizens regarding this project was taken into account, through a **survey** launched all over CMC’s social accounts. The results obtained with this survey allowed **to gather contacts of citizens** who expressed their interest in the project. Furthermore, it also served as basis for a clearer **segmentation** of the people **for the pilot program**, along with a statistical approach to all variables that should be studied in order to maximize the project’s overall success.
- This analysis and diagnosis enabled the development of a **set of recommendations** which were divided into the different groups of stakeholders of this project: **partners, consumers and Town Hall**. The recommendations for the partners included an **onboarding process, sustainable certification** and **payment process**, whereas for the customers an **incentive system** and a **marketing strategy** was suggested. Finally, for the Town Hall, the recommendations covered the guidelines for the **integration of current programs, an antifraud strategy, the legal process and project monitoring**.

# AGENDA

## A. Project Methodology

1. Introductory Note
2. Previous Thesis Goals and Recommendations
3. Literature Review
4. Project Approach
  - a. Scope and Timeline
  - b. Research Methodology
  - c. SCQA and Issue Tree Overview

## B. Situation Analysis

1. External
  - a. Sector Overview
    - i. PESTLE
  - b. Local Currency Definition and Best Practices
  - c. Circular Economy Definition and Key Factors
2. Internal
  - a. Town Hall Overview
    - i. Initiatives Overview
    - ii. McKinsey 7-S Model
    - iii. SWOT

- iv. TOWS
- v. Customer Lifecycle
- vi. VRIO Framework
3. Cashcais Project
  1. Objectives
  2. Model Overview
    - i. Business Model Canvas
  3. Pilot Agile Methodology and Scale-up

## C. Project In-Depth Analysis

1. Deductive Reasoning
2. Inductive Reasoning
3. Hypothesis Analysis

## D. Strategy Formulation

1. Investigation Methods
2. Survey
3. Pilot Program Overview
  - a. Objectives, Tasks and Duration
  - b. Minimum Viable Product: Wireframe
  - c. Segmentation for the Pilot Program

## E. Recommendations

1. Overview
2. Partners
  - a. Onboarding Process
  - b. Sustainable Certification
  - c. Payment Process
3. Consumers
  - a. Incentive System
  - b. Marketing Strategy
4. Town Hall
  - a. Integration of Current Programs
  - b. Antifraud Strategy
  - c. Legal Process
  - d. Monitoring
    - i. Balanced Scorecard
5. Financial Projections
6. Idea Bank
7. Final recommendations

## F. Risks, Limitations & Further Research

## G. References

## H. Appendix

# The cooperation between CMC and Nova SBE benefits both parties, sharing a common goal to bring this project to life

## A.1. Project Methodology | Introductory Note

**OVERVIEW** | This master thesis is the result of a project from the **Consulting Labs** - team-based work projects that work on real-life projects from real-life clients who seek recommendations. In this case, it is a mutual beneficial **collaboration** between Nova SBE Master students, working as a consultants, and **Câmara Municipal de Cascais**, who is the client. On the one hand, the team can benefit from a **hands-on-approach in consulting**, being able to apply the concepts learned throughout the Master course. Furthermore, the team has the chance to **deepen its knowledge in such a nationally and internationally recognized municipality**, as well as the opportunity to **learn from highly qualified professionals**. On the other hand, CMC can have an **external unbiased analysis** on its innovative project and take advantage of the insights and problem-solving skills of young recent-graduates. Overall, promoting a fruitful and valuable relationship between both entities.

**OBJECTIVE** | The team was asked to design the **implementation plan** in order to **launch the pilot project of a local digital currency, Cashcais**, whose viability had been previously analyzed by two previous Nova SBE teams.

### Nova SBE Team



Filipe  
Gonçalves



Madalena  
Fernandes



Margarida  
Damas



Pedro  
Mello Vieira

**Advisor:** Professor Constança Monteiro Casquinho

### CMC Team

- Deputy to the Mayor's Office: Ms. Anceliana Ramos
- Advisor: Ms. Inês Proença
- Advisor: Ms. Mafalda Silveira

### CMC Board

- President of Town Hall: Mr. Carlos Carreiras
- Head of Future: Mr. Marco Espinheira
- Councillor: Ms. Carla Semedo
- Concillor: Ms. Joana Pinto Balsemão

## Previous projects identified the three main objectives and a set of recommendations guiding the development of the local currency, Cashcais

### A.2. Project Methodology | Previous Thesis Goals and Recommendations

#### Context

This implementation project follows two consulting field labs. The first team found a solution that spoke of two objectives: **to boost the local economy and increase municipal sustainability** (environmental and social). The second team added a third goal: **to reduce social asymmetries**.

It was concluded that the Cascais Town Hall **could achieve these objectives through its own local currency – CASHCAIS** – and it was decided that the local currency would be implemented at the end of 2021.

Cashcais is the **first digital currency of the municipality**. It is a 100% digital solution that works through a mobile application. The app will allow all its users (i) access the different ways to earn Cashcais, (ii) access the balance through a virtual wallet, (iii) access a market where they can find out about the partner companies.

Team  
Fall  
2020

#### Thesis Goal

Study the viability of Cashcais, for which the team conducted both internal and external analysis to understand local consumption

Team  
Spring  
2021

Implement a solution that can simultaneously stimulate local economy and encourage sustainability

#### Main recommendations

1. Replacement of the City Points program whose performance is low
  2. Include the solidarity card
  3. Constant advertising to drive the project
  4. Team dedicated to Cashcais project
1. Scale the model, involving more participants, focusing on:
    - a) Value proposition for both stakeholders (consumers and companies)
    - b) Tourism as a way to scale and promote the local currency
    - c) Technology to improve the experience
  2. Achieve financial sustainability

## A literature review was made based on experts' analysis and frameworks which provided reliable and well-founded sources to support the project methodology and final recommendations

### A.3. Project Methodology | Literature Review (I/II)

The Consulting Field Lab aims to represent a real-life consulting project. At the beginning of a project, as stated in the book “The Trusted Advisor” by Maister (2000), an advisor must strive to build and maintain a trustworthy relationship with the client. According to “The McKinsey Way” by Rasiel (1999) a consultant role should focus on problem-solving, and the solutions must be fact-based, rigidly structured and hypothesis-driven. To help define the solution, Minto (2008) outlines the importance of starting with the overriding question, then answering the question by elaborating why the solution is possible (Deductive Reasoning) and how can the organization apply the solution (Inductive Reasoning). Firstly, Cashcais was portrayed as a **Local Currency**. Vaga and Kovács-Szamosi (2020) define a local currency as a voucher in a local area that is introduced to support local enterprises and secure the citizens’ needs in the local area. After an internal analysis, a **Business Model Canvas** was designed, which according to Osterwalder and Pigneur (2010) describes the rationale of how an organization creates, delivers, and captures value. When conducting a pilot program, it is crucial to gather and apply feedback, so the pilot was designed to use an **Agile Methodology** developed by Sutherland et al. (2001) that allows iterative development, rapid and flexible response to change and promote communication between the development team and the client. To ensure the vision and future development of the application are aligned with the recommendations, as Ries suggested in “The Lean Startup” (2001), a **Minimum Viable Product** (MVP) was created with the use of wireframes, allowing to collect validated learning about customers. **Personas** were designed which allowed to identify and prove a shared basis for communication and design decision for relevant groups, as proposed by Kurosu (2015). In Cascais “Everything starts with people”, with this motto, a **Survey** was developed and conducted, which Scheuren (2004) defines a survey as a method of gathering information from a sample of individuals. After, a **Market Segmentation** was developed which according to Tynan and Drayton (1987) is a crucial marketing strategy, aims to identify and delineate market segments that would then become targets for the marketing plan, the segmentations allow a better fulfilment of users needs.

## **A literature review was made based on experts' analysis and frameworks which provided reliable and well-founded sources to support the project methodology and final recommendations**

### **A.3. Project Methodology | Literature Review (II/II)**

In regards to the external analysis, a **PESTLE framework** was examined, so to understand how macro-environmental factors have an impact on the Municipality. Francis Aguilar is an Harvard professor considered to be the inventor of PEST in 1967, when he aborded in his book “Scanning the Business Environment”, how Political, Economic, Social and Technological elements affect businesses. The model was later extended to include other factors such as Legality and the Environment, PESTLE. The analysis of these 6 factors helped understand the obstacles affecting CMC and how the Municipality should address them.

In terms of the internal environment, a **SWOT analysis**, credited to Albert Humphrey, was made so to complement the external analysis made before. It allows to define what are CMC strengths and weaknesses, as well as the possible external threats and opportunities that should be taken into account. This permits to use the Municipality’s strengths and weaknesses so to leverage from the opportunities and threats. Afterwards, a **TOWS analysis** was made to understand how the results of the SWOT analysis can help recognize what are the possible strategic options the Municipality can pursue so to improve its current position. **McKinsey 7-S framework** was designed by Peters, Philips and Waterman (1980), who were McKinsey consultants at the time. This framework allows to look into CMC’s organizational design key elements: systems, strategy, structure, shared values, skills, staff and style, so to understand how and if they will allow CMC to achieve its goals. Afterwards the **Customer Lifecycle Model** was analysed, since it showcases the process customers will go through since becoming aware of the app until possibly becoming a loyal user. It also allows to understand where in the cycle improvement from CMC is needed.

As an approach to the Marketing personas, the book “Crossing the Chasm”, written by Moore (1991), was studied. This book is closely connected to the **Technology Adoption Lifecycle Model**, which depicts that when a new technological product is introduced in the market, people can be grouped in 5 different groups depending on their attitude towards this. Since CMC is introducing a new digital platform and concept, this book helped us understand how people will react to it and how can we group them into similar segments.

## The focus of the pilot project is to verify the viability of the CASHCAIS scale-up, promoting social, environmental and economic sustainability

### A.4.a. Project Methodology | Project Approach – Scope and Timeline

Full timeline on [Appendix 2](#)

#### Project Scope

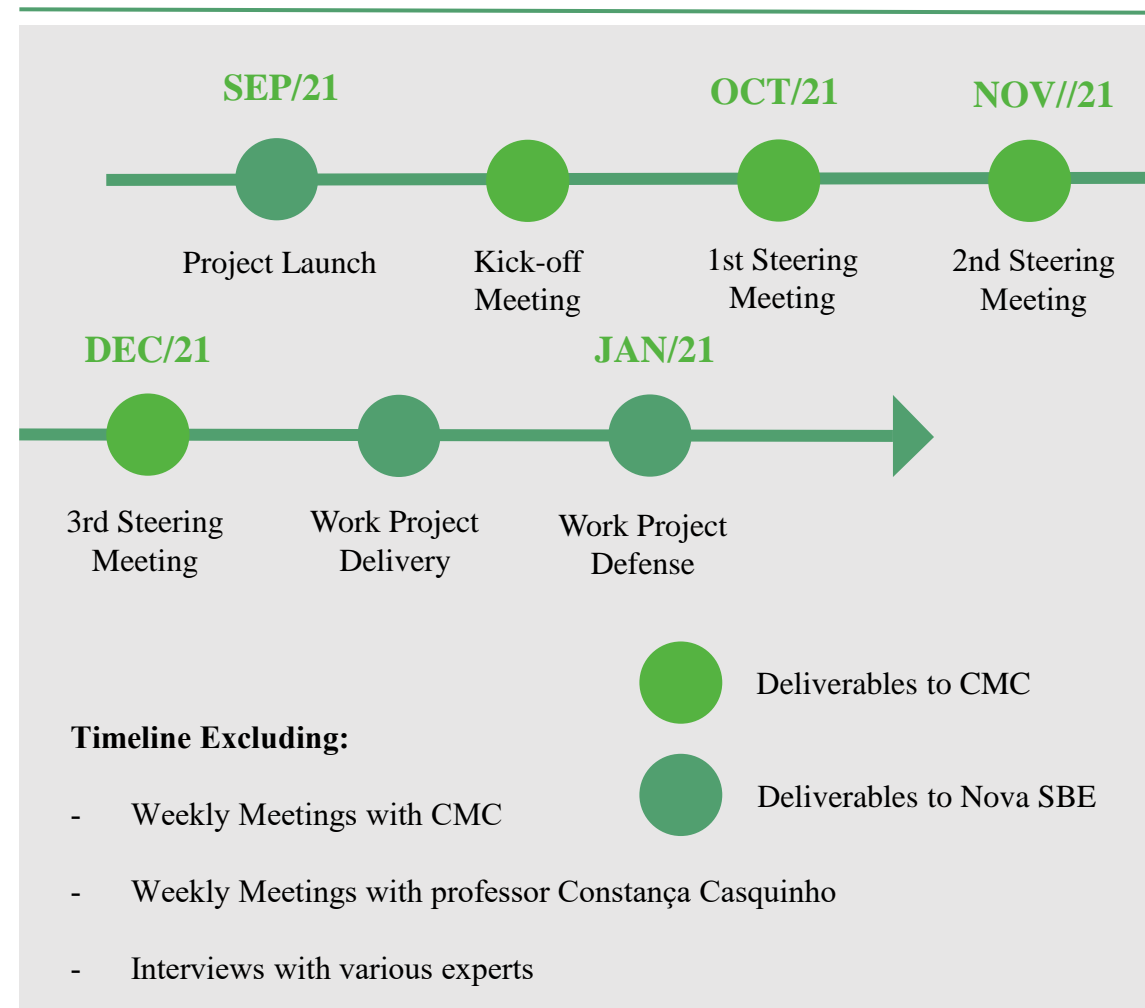
##### IN SCOPE

- Review past projects
- Identification and segmentation of consumers and partners
- Wireframe of the application
- Balanced Scorecard design
- Definition and design of the payment process
- Commercial strategy for partners
- Follow the creation of the sustainability certification
- Formulation of the reward system for sustainable actions
- Follow the creation of the digital application
- Guidelines for the communication plan
- Financial projections

##### OUT OF SCOPE

- Cashcais application programming
- Integration of the Cashcais application with the current Cascais Town Hall applications
- Content creation and publication (Marketing)

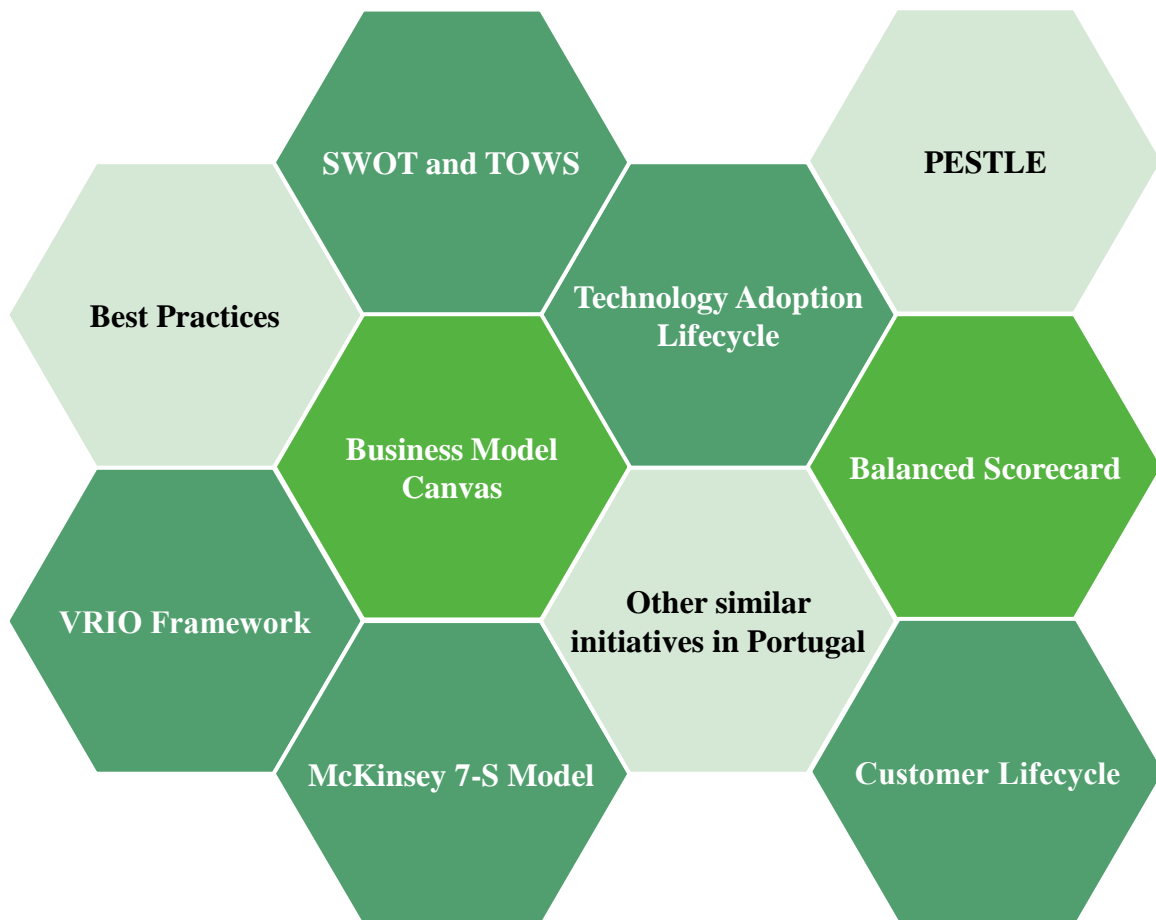
#### Timeline



## To ensure the quality of the recommendations, both quantitative and qualitative investigation methods were performed

### A.4.a. Project Methodology | Project Approach – Research Methodology

With the aim of analyzing the **internal** and **external** context of CMC, as well as to formulate and study hypotheses, the following academic frameworks were used:



Source: Team Analysis

To complement the analysis driven by the academic frameworks to gain further insights on the project, the following **qualitative and quantitative research methods** were also conducted:

#### Internal Sources



Internal Town Hall Data



Town Hall Specialists Interviews  
(7 Interviewees)

#### External Sources



Academic Experts Interviews  
(6 interviews)



Benchmark Analysis  
(6 foreign local currencies)  
(4 national local currencies)



Conducted Survey  
(1k Respondents)

## Taking into consideration the post-pandemic context and the pillars where CMC has been putting efforts, the Town Hall should create a local digital currency, leveraging 4 key areas

### A.4.a. Project Methodology | Project Approach – SCQA and Issue Tree Overview



#### Situation

CMC is a public entity that governs the municipality of Cascais. New trends and external factors are emerging, and CMC wishes to keep up, to be able to maintain its **innovative and supportive reputation**. Hence, CMC seeks recommendations to remain a successful Town Hall in future, surpassing its electors' expectations.



#### Complication

Cascais wishes to **increase its sustainability in environmental, social, economical and health terms**. With concern to the environment, Cascais has already launched an app, **City Points**, which potential and reach could be further expanded. Socially, the municipality registers some **social disparities** (for instance, 1 153 families in 2018 lived in precarious conditions). In the economical area, the Town Hall aims to **strengthening its business activity post-COVID**. Finally, the health of Cascais citizens can also be improved at a time when people are paying more attention to their well being. Furthermore, **Cascais has launched several apps and the functionalities could be available in fewer applications**.



#### Question

Should CMC create a local digital currency, Cashcais, to promote economic, environmental, social and health sustainability?

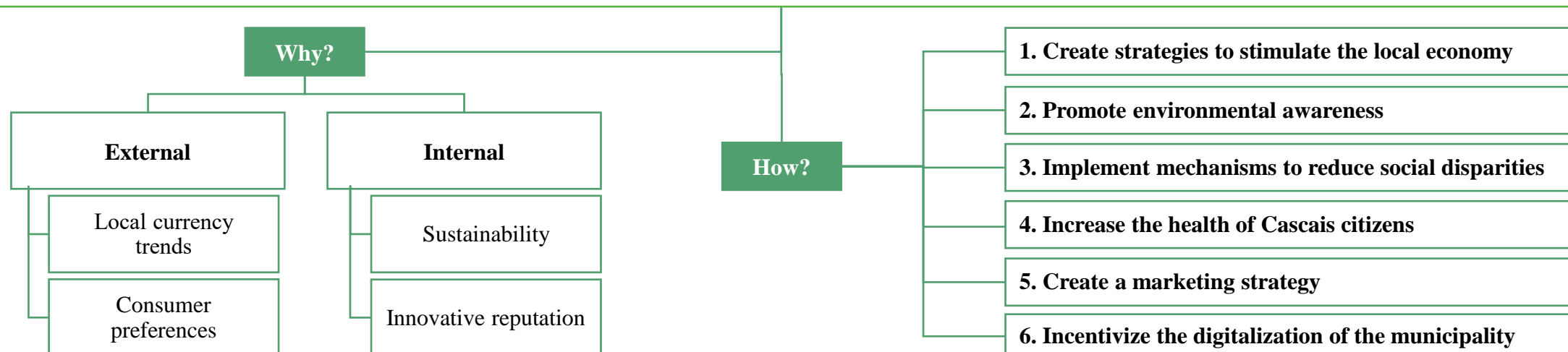


#### Answer

Yes



#### Reasoning



## Unlike private companies, the main goal of Town Halls is to maximize the quality of life of citizens and defend their interests, proactively working for a better society

### B.1.a. Situation Analysis | External – Sector Overview

Town Halls represent citizens and have the executive power in municipalities. Their main aim is to **define and execute policies that develop the municipality in different areas** (social, environmental, communications, cultural, scientific, education, sports, energy, defense, health, mobility, among others).

| Main differences             | Private companies                     | Town Halls  |
|------------------------------|---------------------------------------|---|
| <b>Main goal</b>             | Maximize profit and shareholder value | Maximize the quality of life of citizens and defend their interests |
| <b>Main source of income</b> | Sales                                 | Budget assigned by the Government                                   |

Taking into consideration the trends and benefits of local currencies, **several municipalities have launched their own**, in an attempt to boost the local economy or promote certain behaviors, namely in the environmental area.

Cascais will hopefully be the **fifth municipality to successfully implement a local digital currency, Cashcais**, impacting the social, economic, environment and health fields.

Cascais  
Cashcais



## The post-pandemic economic activity in Portugal is expected to grow, CMC should leverage on the increase of technological and environmental awareness to introduce Cashcais successfully

### B.1.a.i. Situation Analysis | External – Sector Overview: PESTLE

The **Portuguese political risk** is one of the **lowest**. In Cascais, the board team is the same for 10 years. **The transparency of municipal management** was promoted through several initiatives, which allow the development of more democratic and participated governance models.

The **social inequality in Portugal is higher than in most advanced countries**. While the average Gini Coefficient of Income Inequality is 30.3, Portugal scores 31.7. The poorest 20% of household earn only 7.8% of total income.

Any new local currency must go through its **legalization with Banco de Portugal**, so to be able to operate legal in the country in question.



Due to the pandemic, Portuguese economic activity decreased in 2020 and Cascais followed the same pattern. However, the **post-pandemic Portuguese economy is projected to grow** by 4.8% in 2021, 5.8% in 2022 and 2.8% in 2023.

The **internet penetration in Portugal stood at 84.2%** in January 2021. The number of mobile connections in Portugal in January 2021 was equivalent to **155.1%** of the total population.

Portugal was named one of the most **eco-friendly countries in the world (6<sup>th</sup> place)** and CMC already has an **environmentally conscious strategy** supported by Cascais Ambiente.

PESTLE is a strategic tool to analyze the external environment to check which factors might impact the success of Cashcais. The conditions on these 6 areas of the current Portuguese and Cascais' environment seem to favor the implementation of the Cashcais program as there is high political stability in Portugal and Cascais to implement this long-term project; a need to boost the economy; a concern to reduce social disparities; an increase in the technological market; already some legally approved local coins; and an alarm on climate changes.

## Local currencies have many benefits and there are already several examples of other currencies which serve as a benchmark for the development of this project

### B.1.b. Situation Analysis | External – Local Currency Definition and Best Practices

#### Local currency

##### Definition



Circulates at a **community level**, mostly local;



Serves as a **complementary** to the nations' **legal currency**;



Local currency **circulates faster** in the economy **leading to better local economic** activity.

##### Key Benefits

1. **Encouragement** to **shop locally**, i.e., at local businesses accepting this currency;
2. **Money** remains **inside** the **community**, instead of being transferred to big international companies;
3. **Increase local production and employment**;
4. **Decrease carbon footprint** by avoiding as much transportation;
5. **Generates a sense of community** among the municipality.



**Bristol Pay** is a payment system for online and offline transactions. It is a 'closed loop', meaning all users will have an account on the platform. It has a token system rewarding users for social and environmental actions.



Starting as a school project, **Chiemgauer**, is a local currency used in Bavaria Germany. It is equal to 1 euro and is only valid for three months after purchase to ensure people use it quickly instead of saving it.



**REC (Real Economy Currency)** is Barcelona's local currency. It allows transactions within the community between anyone who accepts its. This system is complementary to the euro.



**Vilawatts** is Viladecans (Spain) local currency. The objective is to reward citizens for their energy savings, which are then converted into this digital currency called Vilawatt. It is being used in around 400 businesses around the city.



**Calgary Dollar** can only be used within the city of Calgary, Canada, and is equal to one federal dollar. For each purchase there is a 10% cashback in Calgary Dollars.



**Brixton Pound** was created in response to a financial crisis. It encourages local trade, supports independent businesses and builds a human-scale circular economy.



**Moeda Mor** is a local currency, equivalent to the euro, circulating in Montemor-o-Novo, Portugal, with the goal to stimulate local economy.


## A circular economy brings economic, social and environmental benefits. Different cities already committed to become circular in the near future

### B.1.c. Situation Analysis | External – Circular Economy Definition and Key Factors


#### Context and Advantages

Circular economy gives a tool to **tackle climate change, grow prosperity, jobs, and resilience** while cutting greenhouse gas emissions, waste and pollution. It is based on **three principles**:


#### Eliminate waste and pollution

**Avoid creating waste** using materials that can be reused,  recycled, or composted. Using renewable energy to power the city and transportation making the City healthier and cleaner.

#### Circulate products and materials

 **Keep product in use** to avoid single use products: reuse, repair, and refurbish can help circulate products. Also, **promote sharing services** rather than own connecting people and communities.

#### Regenerate nature

 **Regenerate natural systems** so that valuable nutrients return to the soil and air and water quality improves in the city.

Building a **circular economy can bring economic, social and environmental benefits**. A successful circular strategy will improve air quality, urban health, and enhance social interactions, making the cities more attractive and livable.

|             | Amsterdam   | Glasgow  | London   | Peterborough  |
|-------------|---|--|--|---|
| Description | Amsterdam city government created the Sharing Economy Action Plan. It's designed to benefit the city, businesses and citizens showing the importance of sharing platforms | Partner with Zero Waste Scotland, Glasgow City Council set out circular economy vision to support economic development, resource recovery and reuse, and carbon reductions | Advisory services and investment guidance to SMEs to explore circular economy markets London wants to meet zero waste landfill by transforming waste challenges into opportunities | Committed to be a circular city by 2050. Brings together local partners to integrate circular values to drive economic growth, meet local needs, connect communities and reduce impact on environment |
| Outcomes    | Currently 150+ sharing economy platforms active in Amsterdam  | Built environment, food, textiles, plastics energy initiatives. Increased crowdsourcing ideas  | 700 hours of bespoke support to 112 SMEs including circular diagnostics  | 70 organizations have signed the Circular commitment; 315 registered users  |
| Progress    | Economic, environmental, social benefits and awareness  | Carbon and energy savings. Number of organizations engaged   | Increased SME profitability. Waste diverted from landfill  | Waste diverted from landfill. Avoidance of new purchases  |

## Cascais is recognized as a good place to live and CMC efforts have been recognized internally and externally by several awards

### B.2.a. Situation Analysis | Internal – Town Hall Overview



In Cascais, “everything starts in people”, demonstrating the customer-centric approach of this Town Hall. The strategic vision of Cascais Town Hall is to “position Cascais as the best place to live one day, one week or a lifetime”.



97,4 km<sup>2</sup>

Town Halls aggregate **several areas of action**, helping citizens achieve a good quality of life. For those living in Cascais, CMC has **been concentrating efforts and acting on the following fields:**



Business and Entrepreneurship



Governance



Education



Health



Environment



Social Cohesion



214 134 inhabitants  
(2021)



1 216€ average income  
(2019)



122,1 purchasing power  
per capita (2017)

As a new mandate begins, Viva Cascais defines as **pillars** the following **4 specific areas** of focus for the next 4 years:

The **Cashcais** app will serve as a means to reach the following goals

Accelerating the recuperation of the economy, employment, opportunities and income;

Promoting natality;

Fighting climate change;






Achieving cohesion, solidarity and sustainability (Estado Social Local) in the areas of health, habitation, education and mobility.

The municipality has had national and international **recognition by its initiatives:**

- The app *City Points* was awarded with the **World Summit Awards** by the United Nations;
- The program Accessible Masks won the national award given by the **Public Policies Institute** of ISCTE.




## The Cashcais program is a holistic app that will incorporate several already implemented initiatives from CMC

### B.2.a.i. Situation Analysis | Internal – Town Hall Overview: Initiatives Overview (I/II)

|   | Purpose  | Methodology  | Incorporation in Cashcais   |
|---|--|--|---|
|  <p>My Cascais</p>    | To make <b>registration</b> easy in all Cascais's initiatives  | It is an <b>authentication platform</b> designed to serve as a <b>login</b> for all CMC's initiatives. One log-in can be used in several services.   | Cashcais will incorporate MyCascais <b>login registration</b> .   |
|  <p>City Points</p>  | To <b>promote good practices</b> on several areas (environment, citizenship, social, mobility and sharing) | Registration on the app through MyCascais; Performing good practices that help increase Cascais well-being; <b>Collecting points</b> for the actions performed; <b>Exchanging points for vouchers</b> that can be exchanged for prizes; <b>Prizes</b> in accordance with CMC's goals and are financed by CMC; <b>Gamification</b> by awarding and ranking users. | Instead of giving points that can be exchanged into prizes, CMC will <b>award users in Cashcais</b> (the local currency). |
|                       | To <b>support financially</b> people affected by the pandemic, with euros to <b>buy food</b>               | Financially vulnerable people (1 <sup>st</sup> and 2 <sup>nd</sup> levels of "IRS") apply to <b>receive 75€ or 100€ in a budget to help them to buy groceries</b> at Continente, Lidl and Pingo Doce. People can apply in the Town Hall building.  | People will <b>receive less in euros</b> and <b>will receive the other part</b> (plus a <b>surplus</b> ) in Cashcais.     |
|                     | To <b>financially support</b> those in need  | Digital platform where people could make monetary donations and CMC would double the amount donated. Then, CMC would distribute the donations. <b>It ended in 2021.</b>  | People will have the possibility to <b>donate Cashcais</b> earned.  |
|  <p>Fix Cascais</p> | To <b>report abnormal situations</b> in Cascais' public places   | People can <b>improve Cascais public spaces</b> , by reporting bad traffic signalization, need for street cleaning, damaged items, among others, and be <b>awarded in City Points</b> .  | Incorporation of City Points and, consequently, of FixCascais.  |

# The Cashcais program is a holistic app that will incorporate several already implemented initiatives from CMC

## B.2.a.i. Situation Analysis | Internal – Town Hall Overview: Initiatives Overview (II/II)

|  | Purpose  | Methodology  | Incorporation in Cashcais  |
|--|--|--|--|
|  | To <b>allure people to buy local products</b> instead of in bigger institutions              | Platform in which businesses in Cascais can <b>advertise themselves</b> by announcing their <b>discounts and offerings</b> in order to attract more clients. Offers and discounts are <b>defined by the business' owners themselves</b> .  | Cashcais will allow businesses (with sustainability certification) to <b>advertise through the app</b> . |
|  | To offer an <b>integrated solution for mobility in Cascais</b>                               | Citizens, workers or students of the Cascais Municipality can register on MobiCascais, through MyCascais, in order to enjoy <b>free access to MobiCascais buses network</b> .<br>Also serves as parking app in Cascais and renting Cascais scooters' network.                    | Not integrated in Cashcais, but <b>CMC may opt to give Cashcais for the usage of MobiCascais</b> .       |
|  | <b>Physical alternative to the MobiCascais app</b> to use the free transportation in Cascais | It is a card that came as an alternative to MobiCascais for people to get access to free transportation in Cascais. Citizens, workers or students of the Cascais Municipality need to register on MyCascais, have a <b>passport photo and pay 7€ to get Viver Cascais card</b> . | The Viver Cascais card will serve as the <b>physical card for Cashcais</b> .                             |

### Other CMC's initiatives, which will not be integrated in Cashcais



Information about  
Cascais



Information for  
educational community



Statistical Information  
about Cascais



Online municipal  
services



Participative  
Community Initiatives



Supportive Initiative  
to Culture

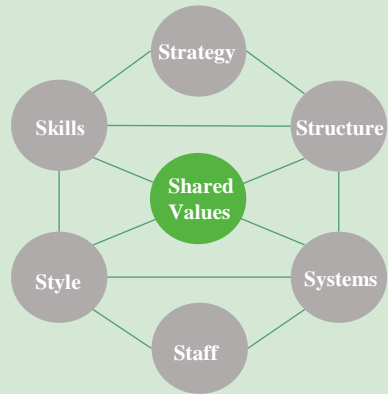


Non-profit association  
for businesses

## The McKinsey 7-S Model allows to understand how key elements of CMC are working together to achieve effectiveness

### B.2.a.ii. Situation Analysis | Internal – Town Hall Overview: McKinsey 7-S Model (I/II)

#### McKinsey 7-S Model



- The McKinsey 7-S Model is a strategic tool that examines the **organizational design of a business**;
- Examines how **seven fundamental elements of the company work together to achieve effectiveness**. The elements are: strategy, structure, systems, staff, style and skills and can be classified as either “Soft Ss” or “Hard Ss”;
- While “Soft Ss” are abstract, intangible and can be encountered in the organizational culture, “Hard Ss” are easily spotted and changed;
- Due to the interconnection between elements, a **domino effect exists** when modifying one component in order to maintain the balance;
- “**Shared Values**” are the **foundation of any business** and are crucial to the development of all other components.

#### Hard Elements

- **Strategy** is a well designed plan supported by the organization culture, to reach a sustainable competitive advantage. **CMC strategy** is to **elevate the municipality** of Cascais **through stimulating local economy**, as well as **encouraging social and environmental sustainability**.
- **Structure** is how a business is organized. **CMC** consists of a **president** and **councillors**, one of which is appointed vice-president. Its **election is made every four years** by the citizens registered in their area. The number of councillors can vary depending on the number of voters in the municipality. Currently, CMC has a President and ten councillors.
- **Systems** relate to the organizations’ decisions and procedures that make up the typical operations within the company. There some **systems** that characterize **CMC** daily operations, such as *acinGov*, *Portal Executivo* and an *Intranet*.

## The shared values of CMC are a steady foundation to the development of all others elements. The soft elements, staff, style and skills are aligned with CMC vision and mission

### B.2.a.ii. Situation Analysis | Internal – Town Hall Overview: McKinsey 7-S Model (II/II)

#### Soft Elements

- **Staff** refers to all human resources and talent management related to company decisions, such as training, recruiting, and rewards systems. Being a public entity, **CMC** uses **SIADAP 123**, which is an **integrated management and performance evaluation system** destined for employees in public companies.
- **Style** is the style of leadership employed. The way leaders and top management act establishes a code of conduct for the rest of the company. The Municipality of Cascais has a **democratic leadership style**, focusing on the **transparency between the Town Hall and the citizens**. This commitment to **transparency aims to increase citizens' confidence** in local political power, which, due to the particular closeness between institutions and citizens, is increasingly essential.
- **Skills** are the capabilities that allow employees to reach their goals. **Employees** at CMC are all **aligned** with the **Town Hall's mission and values**. Employees are given all the tools and support to allow them to reach their goals. **Constant communication and engagement** between departments are also a **critical success factor** for CMC and the development of its employees.
- **Shared Values** are the foundation of any business generally include the vision, the mission and values. The shared values are crucial to development of all other elements and allows for a maintenance of the organizational design. CMC has the mission to manage the territory of Cascais and the strategic vision to affirm Cascais as the best place to live at any point in time. The values are governance, social cohesion, economic development, and environmental sustainability.

## The SWOT analysis examines what CMC has as strengths and weaknesses, at an internal and external level, which helps having a holistic view when implementing projects

### B.2.a.iii. Situation Analysis | Internal – Town Hall Overview: SWOT

#### SWOT

This framework allows to understand a company's current competitive position and develop a strategic action plan, through an analysis of internal and external factors.

- **Powerful image** among citizens;
- **Innovative and technological reputation;**
- **Good financial results** throughout the years;
- **Know-how** and experience with previous apps (City Points);
- Well built **relationships with partners;**
- **Team aligned** with CMC's values and goals;
- **Great communication** between departments.

S  
Strengths

- **Huge dependence** on app developers and IT;
- **Perception and association** to an app (City Points) **without major adoption;**
- **Outdated Marketing;**
- **Scarce** and multitasking **human resources;**
- Slow processes;
- **Different structure** and goals every 4 years.

W  
Weaknesses

- **Trend of local digital currencies** arising all over the world;
- First polyvalent digital local currency to be used massively in Portugal;
- Further **improvement** its **image** as **innovative** and technological;
- **Facilitate** and **improve** the **life** of Cascais **citizens;**
- **Increase** of post-COVID **digitalization;**
- **More sustainability** and **health concerns** in society;
- Get **closer** to **local enterprises.**

O  
Opportunities

- Existence of a **national currency;**
- **Currency** being **launched by the public sector** and being subject to its challenges;
- **Need to correspond** to **promises** made both to consumers and partners.

T  
Threats

## A TOWS analysis allows for a mix of the previously seen external and internal factors leading to a better visualization of major possible solutions to the current situation

### B.2.a.iv. Situation Analysis | Internal – Town Hall Overview: TOWS

|                  |               | Internal Aspects  |   |  |
|------------------|---------------|---|---|--|
|                  |               | Strengths   | Weaknesses  |  |
| External Aspects | Opportunities | <ol style="list-style-type: none"> <li>1. Trend of local digital currencies arising globally</li> <li>2. First polyvalent digital local currency to be used massively in Portugal</li> <li>3. Improve image as innovative and technological</li> <li>4. Facilitate and improve the life of Cascais citizens</li> <li>5. Increase of post-COVID digitalization</li> <li>6. More sustainability and health concerns in society</li> <li>7. Get closer to local enterprises</li> </ol> | <ol style="list-style-type: none"> <li>1. Powerful image among citizens</li> <li>2. Innovative and technological reputation</li> <li>3. Good financial results throughout the years</li> <li>4. Know-how and experience with previous apps</li> <li>5. Well built relationships with partners</li> <li>6. Team aligned with CMC's values and goals</li> <li>7. Great communication between departments</li> </ol>   | <ol style="list-style-type: none"> <li>1. Huge dependence on app developers and IT</li> <li>2. Perception and association to an app (City Points) without major adoption</li> <li>3. Outdated Marketing</li> <li>4. Scarce and multitasking human resources;</li> <li>5. Slow processes</li> <li>6. Different structure and goals every 4 years</li> </ol>   |
|                  | Threats       | <ol style="list-style-type: none"> <li>1. Existence of a national currency</li> <li>2. Currency being launched by the public sector and being subject to its challenges</li> <li>3. Need to correspond to promises made both to consumers and partners</li> </ol>   | <p><b>(O1, O2, O5   S2, S3, S4) Optimize</b> the <b>app</b> based on the analytical tools and skills achieved</p> <p><b>(O1, O2, O4, O5, O6, O7   S1, S2, S3, S6) Leverage</b> on <b>CMC assets</b> and <b>skills</b> so the respond accordingly and swiftly to the post-COVID trends</p> <p><b>(T1, T2   S1, S2, S3) Take advantage</b> of its <b>assets</b>, such as its image reputation and good financial results successfully implement the project, <b>bearing</b> in mind the <b>potential threats</b> and a <b>plan</b> to address them</p> <p><b>(T3   S1, S5, S6, S7) Ensure</b> that the <b>right</b> and <b>reliable information</b> is <b>transmitted</b> to the public, avoiding overpromising and underdelivering</p> | <p><b>(O1, O2, O3, O5   W2, W3) Develop</b> and <b>design</b> a new <b>marketing strategy</b> to <b>increase brand awareness</b> and expose the right brand perception</p> <p><b>(O4, O5, O6, O7   W1, W2, W3, W4, W5) Consider outsourcing</b> some services in order to <b>guarantee efficiency</b> in current and new projects</p> <p><b>(T1   W2, W5, W6) Fear of not having enough uptake</b> on the local digital currency</p> <p><b>(T2, T3   W1, W4, W6) Incapacity to support the costs</b> involved</p> <p><b>(T3   W1, W2, W3, W5) Jeopardizing brand image</b></p> |

## The Customer Lifecycle Model allows to illustrate the journey a customer goes through from becoming aware of a product until eventually becoming loyal

### B.2.a.v. Situation Analysis | Internal – Town Hall Overview: Customer Lifecycle (I/II)

#### Customer Lifecycle Model

- Describes all the **process a customer goes through** since becoming aware of a product or service until having longtime loyalty towards the company;
- There are **five stages** to this process: **reach, acquisition, conversion, retention and loyalty**;
- This model gives the company a full depiction of the consumer's journey and **showcases where a change or improvement is in order**.

**Reach:** The prospect comes across the brand and becomes aware of its products and services. The goal in this stage is **to form a link between the brand and a need**, current or future;

**Acquisition:** **Attract the previously reached customers** and deepen the association between the brand and need;

**Conversion:** After a connection between the brand and the customer is formed, the **customer effectively buys the product** or service;

**Retention:** In this stage, it is important to **keep the customer**, thus the company should focus on **increasing customer satisfaction and value from its offerings**;

**Loyalty:** Finally, a customer becomes loyal if he/she is continuously happy and **repeatedly buys from the brand**. Loyal customers can **later become advocates** for the brand.



## During the customer journey, there are some strategic touchpoints CMC should take into consideration to help smooth the transition from an-only aware to a loyal user of the app

### B.2.a.v. Situation Analysis | Internal – Town Hall Overview: Customer Lifecycle (II/II)

#### REACH

During this phase, CMC should leverage **on social media marketing, SEO and advertisement** so to reach and get the attention of as many people as possible. This will eventually generate **word-of-mouth** around the app and benefits of using the digital local currency, Cashcais and **create interest and curiosity** in the mind of customers.

#### ACQUISITION

This stage starts when a customer enters the CMC website or social media accounts or if he/she calls looking for more information about the app or about Cashcais. It is important that CMC presents, on its websites or accounts, **all the right and helpful information**. If the customer happens to call, it is necessary that there is someone on the other side capable to answer all possible concerns and questions, but also inquire for and understand further information on customers needs.

#### CONVERSION

After gaining all the possible information and understanding what CMC is offering, the prospect likes and is interested in this offering, so joins the app and the Cashcais program. CMC must make clear that the customer did not just join an app but **entered a relationship with CMC**.

#### RETENTION

The stage of conversion does not guarantee that the prospect will continuously use the app. Thus, it is necessary that CMC **understands the level of satisfaction of its users and if there are any areas of improvement** to increase customer satisfaction and product value. It can be done by sending **surveys** or by measuring the **Customer Satisfaction Score**. As mentioned before, this allows to continuously make improvements and have a better customer service experience. Moreover, it is important that in this stage, CMC offers its customers exclusive advantages, such as discounts or referral benefits.

#### LOYALTY

This final stage, nurtured by all the others, is of great importance. Not all customers will become loyal, but the ones who will, act as a **brand advocate** and will **recommend** the app and Cashcais program to other people. This stage is very important for the long-term and guaranteed success of the app. This brand advocates should be closely followed and paid attention to.

## By analyzing Cashcais in the VRIO in a business competitive hypothetical scenario, CMC would have Unused Competitive Advantage, lacking organizational functions to have long-term success

### B.2.a.vi. Situation Analysis | Internal – Town Hall Overview: Resource-Based View Model

#### VRIO Framework

- VRIO framework is a strategic analysis tool that allows businesses to **uncover which sustainable competitive advantages they own** and, hence, protect them.
- When talking about sustained competitive advantages, it is meant **long-term**, not easy to duplicate competitive advantages and they are **crucial for a business long-term success**;
- In an hypothetical scenario where CMC strives for competitive advantage, Cashcais was analysed through VRIO framework, to evaluate whether this resource would have sustained competitive advantage and long-term success.

#### Value

Will CMC offer a service that adds value to its citizens? - **YES**

- For Citizens and Businesses;
- Economic, Environmental, Social and Healthy impact;
- Integration of several services already provided by CMC.

#### Organization

Does CMC have the required organization and people? - **NOT YET**

- CMC has a great team of people;
- CMC's mentality is future-oriented;
- Due to high volume of services / innovations, CMC seems to have growth pain problems.

#### Rare

Is Cashcais something rare in Portugal? - **YES**

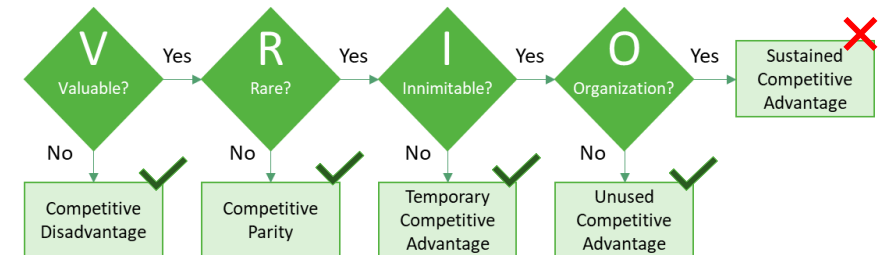
There are some local coins in Portugal, but none is:

- As aggregated as this one;
- Tries to boost municipality economy;
- Has value proposition to businesses.

#### Inimitable

Is Cashcais something easily inimitable? - **NO, BUT...**

**Why not?** Requires huge financial resources; huge monitorization; expertise is not readily available, and CMC already has some similar services. **But** there are already some local currencies in place.



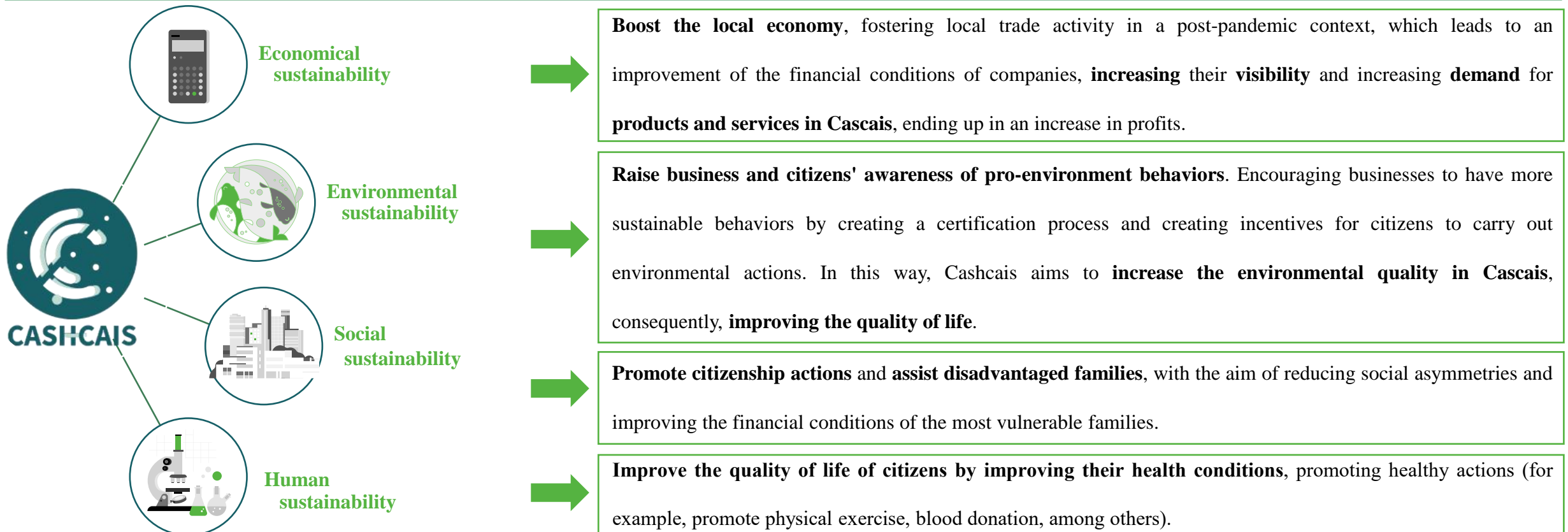
CMC is lacking the organizational functions required for the issuance of a local currency, thus having an **Unused Competitive Advantage**. However, there is still opportunity to use this advantage and implement Cashcais.

**Cashcais vision is to be a currency for everything and for everyone. The goals are to foster economical, environmental, social, and human sustainability**

### B.3.a. Situation Analysis | Cashcais Project – Objectives

**Cashcais strategic vision is to be a **currency for everything and for everyone**, establishing a circular economy in the municipality**

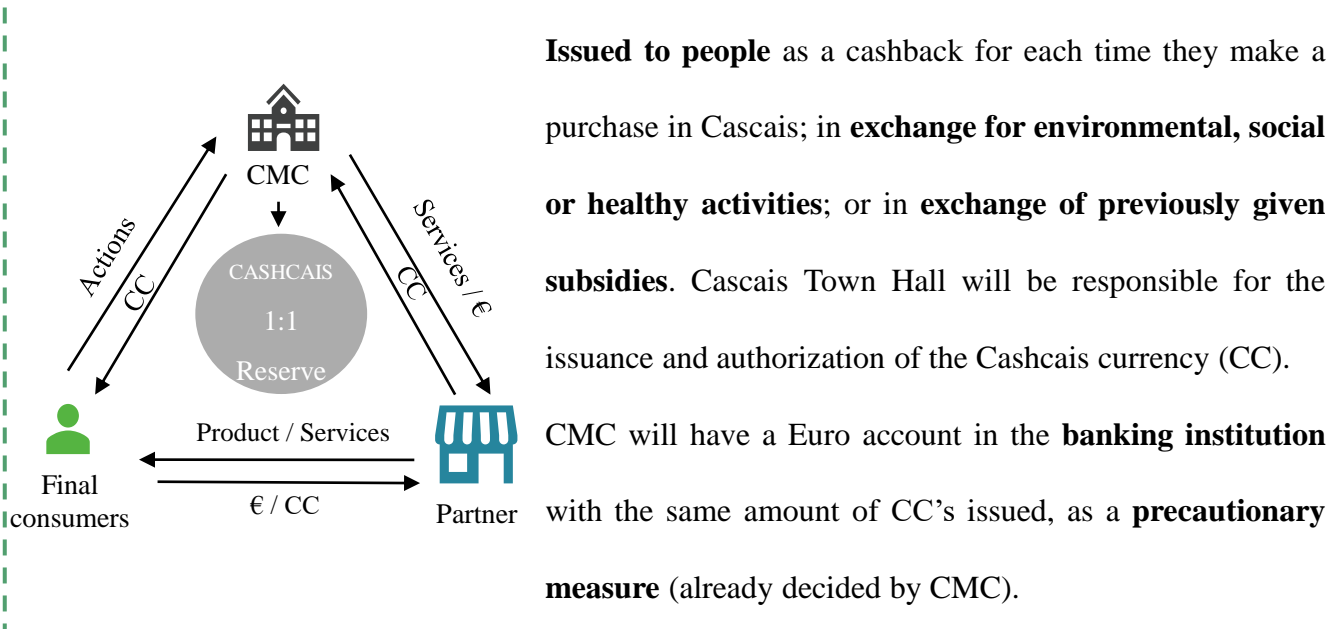
On the one hand, it aims to **offer companies a communication space** and foster intra-county business. On the other hand, **providing citizens better financial conditions**, equal opportunities, encouraging more conscious consumption and promoting healthy habits



## Cashcais will be given to people in form of cashback, as a reward for the performance of sustainable actions and as part of a social program

### B.3.b. Situation Analysis | Cashcais Project – Model Overview

#### Cashcais Is The New Future Local Currency Of The Cascais Municipality

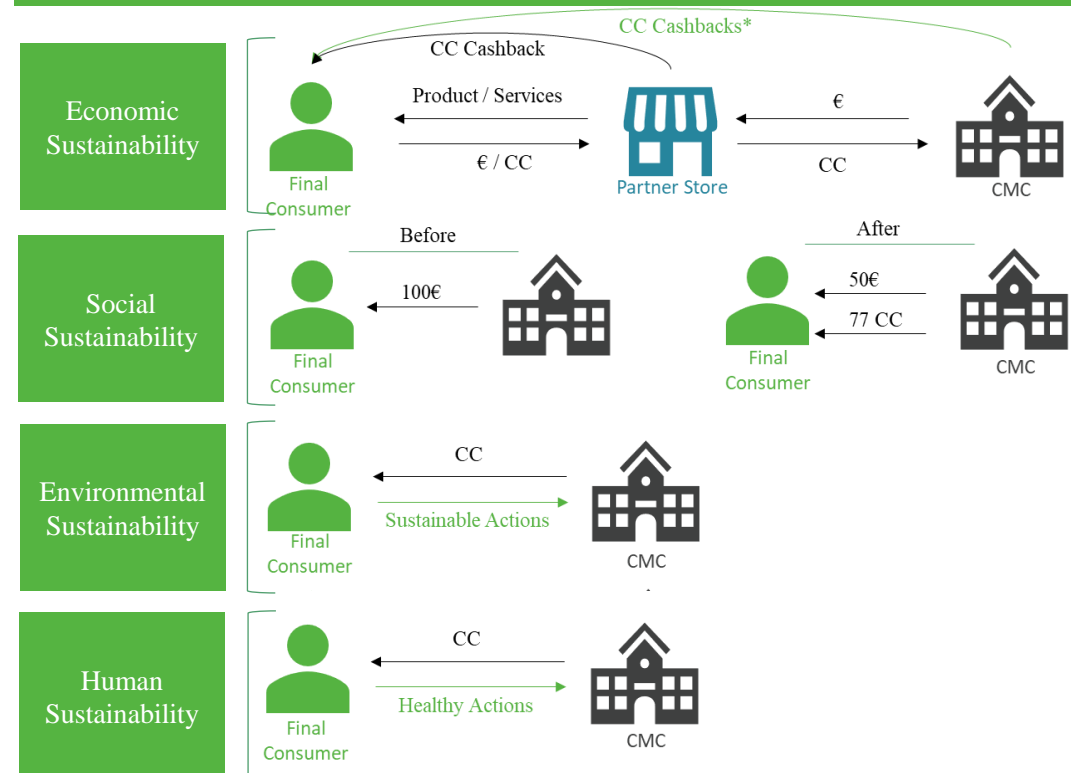


#### Why a 1:1 exchange rate?

The value of CC is not supposed to vary, but to remain constant over time (in what regards people perception). For the sake of **simplicity**, Cashcais digital coin will have a 1:1 exchange rate with the Euro. Hence, the **value of Cashcais will be based on the value of the Euro**.

Full list of actions on [Appendix 6](#)

#### Cashcais Model Per Objective



#### What are Sustainable actions?

Sustainable actions are actions that **increase the well-being of Cascais' citizens**, hence increasing the overall wellbeing of the Town Hall.

**The BMC defines how Cashcais creates, delivers, and captures value for the citizens and partners shops. The output of the different block are key tools for Cashcais long-term success**

### B.3.b.i. Situation Analysis | Cashcais Project – Model Overview: Business Model Canvas

#### Key partners

- Software development company;
- Bank responsible for holding Cashcais reserve;
- Payment solution developer.

#### Key activities

- Provide channel of communication to local partners;
- Promote sustainable and social actions in Cascais municipality.

#### Key resources

- Customer service staff;
- Marketing staff;
- Financial staff;
- Sales staff.

#### Key values

- Positive external communication;
- Environmental responsible;
- Social responsible;
- Promoting local consumption;
- Fostering business activity and relationship among Cascais businesses;
- Increasing visibility of small enterprises.

#### Key customers relationships

- Customer service;
- Data treatment;
- Feedback incorporation.

#### Key channels

- Mobile app;
- Social media;
- Newsletter;
- World of mouth;
- Local newspaper.

#### Key customers

- Citizens:
  - Cascalenses;
  - Workers in Cascais;
  - Students in Cascais;
  - Foreign Tourists;
  - Other Portuguese;
- Partners shops:
  - Restaurants;
  - Supermarkets;
  - Bakery and pastry shops;
  - Grocery stores.

#### Cost structure

- **One Time:** Software development; City Points integration; Legal services; Project launch event;
- **Monthly:** Human resources; Environmental action rewards; Sustainable Certification rewards; “Cartão Mais Solidário”; Application maintenance; Marketing; Account Management; CRM.

#### Revenue streams

- National and International funding.

## An agile methodology should be adopted by CMC when running the pilot and when scaling-up for the implementation of Cashcais

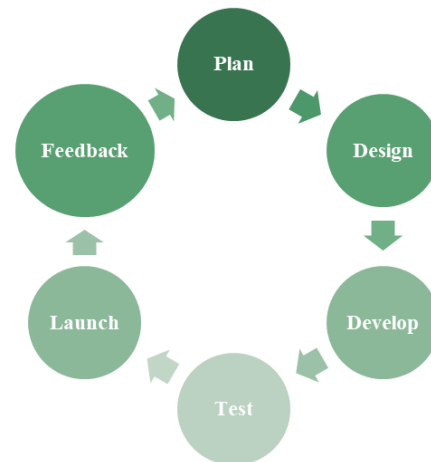
### B.3.c. Situation Analysis | Cashcais Project – Pilot Agile Methodology and Scale-up

#### Pilot Program – A closed circuit

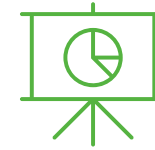
The **objective** of this experience is to **test several initial hypothesis, in a closed circuit** (no more than 5 000 people – decision of CMC), in order to posteriorly implement, in an effective way, the local digital currency in the Cascais municipality. The hypothesis to be tested are related with the **target consumer and partners segments**, as well as the **best marketing approach** (aiming to design reach and retention strategies) and best **applications/functionality** of the app.

#### An Agile Methodology for the Pilot

Using an **Agile Methodology**, CMC should, in a **continuous** manner, **evaluate the data received** from the pilot and take the best **measures to be implemented**, which will be confirmed by the data. **CMC should have a list of KPIs** (see [Monitorization plan](#)) in order to better **analyze** and take conclusions from the **data received** on the pilot.



#### Scale-up Implementation



After verifying the **pilot results**, the **objective** is to make the necessary **changes** to the initial **project** to **obtain** the **best results** in the **scale-up implementation** and for this implementation of the Cashcais program to run as effective and smoothly as possible for all the Cascais citizens.

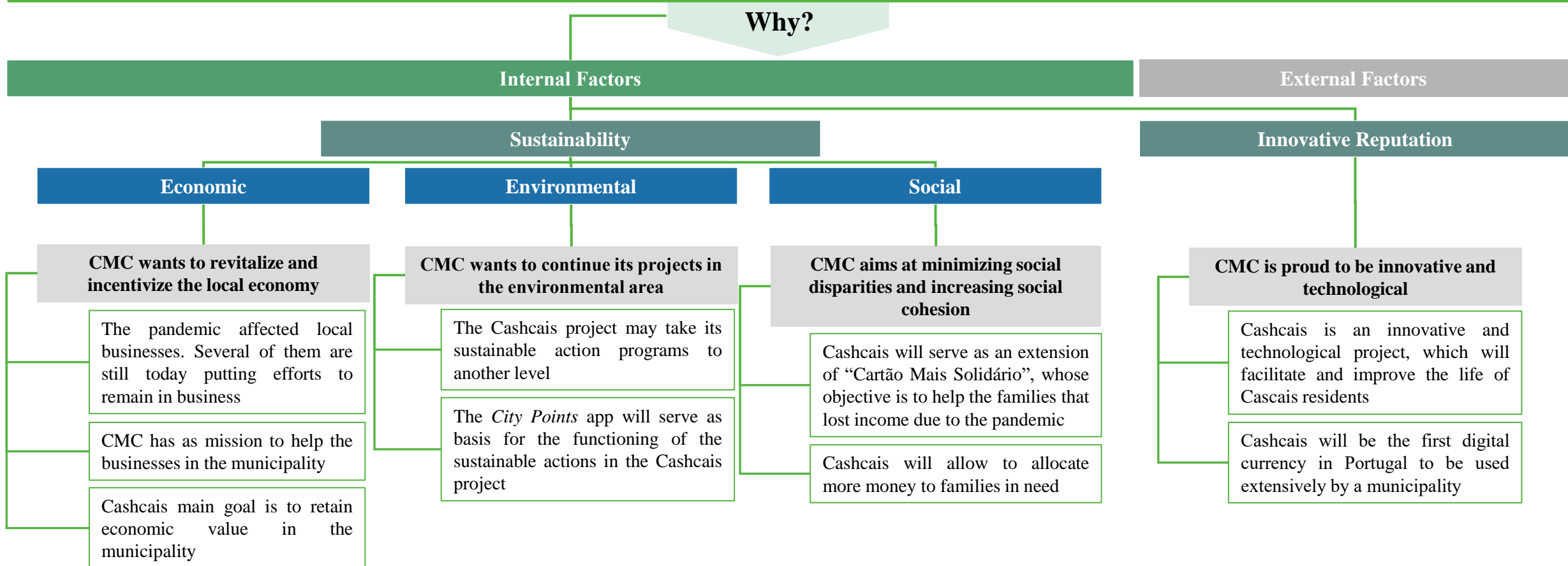


Again, an **agile methodology** will be the best one once the scale-up implementation has occurred, as the expertise and knowledge regarding economic, social, environmental and health-related local digital currencies are very few.

## The internal drivers that led CMC to create Cashcais are its innovative reputation as well as the desire to promote economic, environmental, social and human sustainability

### C.1. Project In-Depth Analysis | Deductive Reasoning (I/II)

Should CMC create a local digital currency, Cashcais, to promote economic, environmental, social and health sustainability?



# New consumer trends and other local currencies are boosting, from an external perspective, the creation of a local digital currency in Cascais

## C.1. Project In-Depth Analysis | Deductive Reasoning (II/II)

Should CMC create a local digital currency, Cashcais, to promote economic, environmental, social and health sustainability?

Why?

Internal Factors

External Factors

Trends

Local and Digital Currency

Consumers

National

International

Municipal

Non-Municipal

There are several international local digital currencies

Consumers are getting more technological

Consumers are starving for the modern and and technological

Consumers are getting more price sensitive

Studies indicate the veracity of the statement, specially for younger generations

Consumers are more concerned about social and environmental sustainability

Consumers prefer ethical and/or sustainable products

Some Town Halls have ben using local currency, either to dynamize the local economy or increase the number of social actions

Moeda-Mor is a local currency from Montemor-o-Novo to dynamize the local economy

Moeda Maior is from Campo Maior and residents can exchange social actions by “Majores”, with which they can buy food at a local communitarian grocery

Some sports institutions have used the ‘Fan Token’, as a way to increase the associates and supporters’ interest for their clubs

Estrela da Amadora has partnered with BetsPlayer, such that associates benefit with the club’s sales

Sporting CP has created a “fan token” in partnership with Bitci, which can be exchanged by unique experiences

With a great focus on the economy, there is Brixton Pound (created to deal with the 2008 crisis), REC from Barcelona and Calgary Dollar (which is in place since 1996 and offers a 10% *cashback* on each purchase made with Calgary Dollar)

Focusing on social impact, there is Bristol Pay, which donates funds for projects with environmental and social impact, and Chiemgauer, with the aim of regional development, promoting NGOs and increasing sustainability

## In order to be able to create local digital currency, Cashcais, CMC should follow six line of actions: business activity, environmental awareness, social disparities, healthy lifestyle, marketing and digitalization

### C.2. Project In-Depth Analysis | Inductive Reasoning

Detailed Reasoning on [Appendix 3](#)

Should CMC create a local digital currency, Cashcais, to promote economic, environmental, social and health sustainability? Yes

#### How?

| 1. Create strategies to increase business activity in Cascais   | 2. Promote environmental awareness   | 3. Implement mechanisms to reduce social disparities  | 4. Encourage a healthy lifestyle among citizens  | 5. Create a marketing strategy  | 6. Incentivize the digitalization of the municipality  |
|---|--|---|--|---|--|
| <p>To increase business activity in Cascais, should CMC:</p> <ul style="list-style-type: none"> <li>• Encourage businesses to offer <b>cashback in Cashcais</b> to consumers?</li> <li>• Cover <b>different consumer groups</b>?</li> <li>• Impose <b>restrictions</b> for consumers on the purchases of certain products in Cashcais?</li> <li>• Encourage local <b>suppliers</b> to offer cashback in Cashcais to partners?</li> <li>• Include only local companies?</li> <li>• Allow <b>municipal taxes</b> to be paid in Cashcais?</li> </ul> | <p>To promote environmental awareness, should CMC:</p> <ul style="list-style-type: none"> <li>• Raise consumer and partners <b>awareness</b>?</li> <li>• Incorporate <b>City Points</b>?</li> <li>• Offer <b>additional</b> cashback or prizes as a reward?</li> <li>• Create a <b>table of classifications</b> of sustainability actions?</li> <li>• Increase the cashback that <b>sustainable partners</b> offer?</li> <li>• Create or use an <b>external sustainability</b> certification?</li> </ul> | <p>To reduce social disparities, should CMC:</p> <ul style="list-style-type: none"> <li>• Give a <b>bonus</b> to the beneficiaries of the “Cartão Mais Solidário” in Cashcais?</li> <li>• Segment Cashcais users according to their <b>social class</b>?</li> </ul> | <p>To encourage a healthy lifestyle, should CMC:</p> <ul style="list-style-type: none"> <li>• Raise consumers <b>awareness</b> of health and well-being issues?</li> <li>• Include the <b>health factor</b> in the application?</li> <li>• Define any <b>limits</b> regarding the health component?</li> </ul> | <p>To create marketing strategy, should CMC:</p> <ul style="list-style-type: none"> <li>• Create a <b>referral program</b> for partners and consumers?</li> <li>• Use both <b>digital and traditional</b> strategies?</li> <li>• Create <b>physical card</b>? How to send?</li> <li>• Download app on the app store, google store and website?</li> <li>• Have different consumer and partners segments and a <b>target strategy</b> for each group?</li> <li>• Use <b>sales promotions</b> to reach consumers and partners?</li> </ul> | <p>To digitalize the municipality, should CMC:</p> <ul style="list-style-type: none"> <li>• Migrate the <b>City Points</b> application?</li> <li>• <b>Digitalize</b> “Cartão Mais Solidário”?</li> <li>• Set-up <b>anti-fraud mechanisms</b>?</li> </ul> |

## To boost commerce in Cascais, consumers should receive cashback, should be segmented and should not be able to buy all products with Cashcais. Furthermore, partners should receive cashback, and should belong to Cascais

### C.3. Project In-Depth Analysis | Hypothesis Analysis (I/XII)

\*"To be studied" hypothesis are the new hypothesis in the Cashcais project or new approaches to a topic

| Issue  | Sub-Issue  | Hypothesis   | Status                      | Analysis |
|--|--|--|-----------------------------|----------|
| Should CMC create strategies to encourage commerce in Cascais? | Should Cascais encourage businesses to offer cashback in Cashcais to consumers?                | A1<br>It is necessary to offer a value proposition in order to attract consumers to the Cashcais network. Thus, besides a local currency promoting proximity consumption, the benefit of belonging to this network will be the cashback received for each purchase made at partners. | Approved by CMC             | BA CC    |
|  | Should CMC cover different consumer groups?  | A2<br>To promote local commerce, consumers must be segmented into groups, to create differentiated strategies adapted to the profile of each consumer group.   | Default design of the model | SY PD    |
|  | Should CMC impose restrictions for consumers on the purchases of certain products in Cashcais? | A3<br>The aim of the local currency is not to encourage the consumption of products that are harmful to consumers' health and services that encourage addictions or illegal practices.   | Approved by CMC             | BA CC    |
|  | Should CMC encourage local suppliers to offer cashback in Cashcais to partners?                | A4<br>It is necessary to offer a value proposition in order to retain value in Cascais and encourage local commerce. However, apart from the hotel sector, few companies have local suppliers which will lead to few local B2B transactions.   | To be studied*              | BA       |
|  | Should CMC include local companies?  | A5<br>Only local companies and suppliers should have the opportunity to join the Cashcais network in order to encourage local purchases, both B2B and B2C. By buying locally, Cascais' economy will be stimulated, leading to its growth.  | Default design of the model | SY       |
|  | Should CMC allow municipal taxes to be paid in Cashcais?                                       | A6<br>The advantage of being able to pay the municipal taxes in Cashcais is that partners can use their Cashcais as well as enjoy a discount when making this transaction in Cashcais.   | Depending on pandemic       | CC       |

## To promote environmental awareness, the municipality should raise awareness among its citizens and incorporate the City Points App. CMC should offer cashback and additional rewards to exemplary consumers

### C.3. Project In-Depth Analysis | Hypothesis Analysis (II/XII)

\*\*“To be studied” hypothesis are the new hypothesis in the Cashcais project or new approaches to a topic

| Issue                                       | Sub-Issue   | Hypothesis   | Status                      | Analysis |
|---|---|--|-----------------------------|----------|
| Should CMC promote environmental awareness? | Should CMC raise consumers awareness of environmental issues?     | B1<br>By raising consumer awareness of environmental issues, consumers will buy in a more sustainable way, so-called conscious consumerism. This happens when purchases are driven by a commitment to make decisions that have a positive social, economic and environmental impact. This awareness can also lead to an increase in sustainable actions. | Default design of the model | CC SY    |
|   | Should CMC incorporate City Points?                               | B2<br>By incorporating the City Points application, CMC will be creating a platform that allows consumers to be more informed and enjoy benefits for being active citizens and participating in sustainable actions. It is important to study which actions should be rewarded.  | Approved by CMC             | CC DA    |
|   | Should CMC offer additional prizes as a reward?                   | B3<br>By offering additional prizes only to a limited number of exemplary citizenship and sustainability consumers, CMC will be promoting and rewarding above-average levels of community outreach, leading citizens to be more participative. The prizes can include offering additional cashback to this target group.                                 | To be studied*              | BA SY    |
|   | Should CMC use a gamification strategy?                           | B4<br>By using a gamification strategy, CMC promotes healthy competition among consumers to be the most active in the community.   | Approved by CMC             | BA SY    |
|   | Should CMC raise partners awareness of environmental issues?      | B5<br>By raising partners' awareness of environmental issues and challenging them to achieve the sustainable certification, CMC will be promoting greater environmental awareness in the municipality.   | Approved by CMC             | SY       |
|   | Should CMC increase the cashback that sustainable partners offer? | B6<br>By increasing the cashback of partners with the sustainable certification, CMC will be encouraging more responsible and sustainable consumption, thus promoting environmental and social awareness in the municipality.  | Default design of the model | CC SY    |

## To promote environmental awareness, the municipality should create its own certification. To reduce social asymmetries in Cascais, “Cartão Mais Solidário” beneficiaries should receive a bonus in Cashcais

### C.3. Project In-Depth Analysis | Hypothesis Analysis (III/XII)

| Issue   | Sub-Issue  | Hypothesis   | Status          | Analysis |
|---|--|--|-----------------|----------|
| Should CMC promote environmental awareness?                 | Should CMC create a sustainability certification?  | B7<br>By creating its own sustainability certification for partners, CMC can incorporate the reality of different businesses and the municipality into the process of certifying them. It is important to create a process with transparent metrics that validates the positive impact of the company and study the feasibility for CMC to audit all partners. | Approved by CMC | BA CC SY |
|   | Should CMC use an external sustainability certification?                                 | B8<br>By using an external sustainability certification, CMC would simplify the whole certification process. However, CMC aims to help small businesses to be sustainable and conscious. By using an external certification, the outreach to these businesses would be less.   | Not validated   | DA CC    |
| Should CMC implement measures to reduce social asymmetries? | Should CMC give a bonus to the beneficiaries of the “Cartão Mais Solidário” in Cashcais? | C1<br>With this bonus, card beneficiaries can benefit from more disposable income. In this way, the bonus may increase the quality of life of these beneficiaries.   | Approved by CMC | DA CC    |
|   | Should CMC segment Cashcais users according to their social class?                       | C2<br>Cashcais will be able to help its citizens who receive social support, by increasing their disposable income. The purpose of a local currency differs from a traditional currency since it aims at circulation and exchange, rather than accumulation. The cashback attribution according to social class will have clauses to be detailed later.        | Not validated   | DA       |

## To properly promote the project, both consumers and partners will have to be segmented into different groups that will have their own marketing strategy tailored to the group

### C.3. Project In-Depth Analysis | Hypothesis Analysis (IV/XII)

| Issue                                   | Sub-Issue   | Hypothesis   | Status                      | Analysis |
|---|---|--|-----------------------------|----------|
| Should CMC create marketing strategies? | Should CMC segment consumers by different groups?                                 | D1<br>Using a statistical test, the different consumer groups should be established, which can be differentiated by age, location, occupation, income, gender, or even by "Cartão Mais Solidário" users and former City Points app users, or even a mix of these.  | Default design of the model | DA       |
|   | Should CMC segment partners by different groups?                                  | D2<br>Using a statistical test, the different groups of partners should be established, differentiated by their industry, sector, degree of sustainability, company size or financial liquidity.   | Default design of the model | DA       |
|   | Should CMC adapt a target strategy for each group of both consumers and partners? | D3<br>After segmentation of the different consumer and partner groups, promotion strategies should be tailored to each group. The three main marketing strategies are Digital Marketing, Traditional Marketing and Promotional Marketing.  | Default design of the model | SY       |
|   | Should CMC promote the app in order to increase the number of users?              | D4<br>The promotion strategy should involve both City Marketing, which is based on promoting the municipality of Cascais. Additionally, digital advertising will be an important promotion strategy to reach more people, especially those who are more digitally connected and who will be the people most likely to join the app and take advantage of its features. | Default design of the model | SY       |
|   | Should CMC use sales promotions to reach consumers and partners?                  | D5<br>CMC should use a sales promotion strategy that encourages consumers to buy with Cashcais. For example, CMC should develop a voucher system, which can only be used in the municipality of Cascais and will be present in the app or card and have a time limit for use, which will encourage citizens to buy locally.  | Default design of the model | BA       |
|   | Should CMC create campaigns to support partners?                                  | D6<br>Supporting and promoting companies of specific economic activities on specific days/weeks can create a positive impact on citizens' mind. On those days/weeks, those specific partners will offer more discounts (supported by CMC), which will attract more consumers.  | Default design of the model | BA SY    |

**To properly promote the project, CMC should create a referral program, and a physical card. The application should be available in both App Store and Google Store.**

### C.3. Project In-Depth Analysis | Hypothesis Analysis (V/XII)

\*\*"To be studied" hypothesis are the new hypothesis in the Cashcais project or new approaches to a topic

| Issue                                   | Sub-Issue  | Hypothesis   | Status                      | Analysis       |
|---|--|--|-----------------------------|----------------|
| Should CMC create marketing strategies? | Should CMC create a referral program for partners and consumers?             | D7<br>For new users of the app, a reference code will be given to the consumer, such as "invite a friend and win X Cashcais". This will lead to an increase of users of the application and, consequently, to an increase of purchases in Cashcais.                          | To be studied*              | BA             |
|   | Should CMC use both Digital Marketing and more traditional strategy?         | D8<br>To be able to reach a wider audience, with people of all ages and backgrounds, extensive promotion should be done using both traditional and new media, such as social media.  | Default design of the model | BA             |
|   | Should CMC create a physical card?   | D9<br>A physical card will allow CMC to reach a wider audience, mainly less tech savvy consumers such as the elderly, but also consumers who do not have access to a smartphone, or access to mobile data. However, a physical card will also entail more operational costs. | To be studied*              | BA CC<br>SY DA |
|   | Should CMC have the application present in the App store and Google store?   | D10<br>It is important to be able to find the application on all types of smartphones, from all brands and software providers, whether iOS or Android. Therefore, the app should be present in all online shops.   | Default design of the model | SY             |
|   | Should CMC allow the application to be downloaded directly from the website? | D11<br>To make the process more user-friendly, and not confuse the user, the application will only be found in online shops, so that with just one click it can be downloaded.   | Not validated               | BA             |
|   | Should CMC send the physical card to users' home and allow pick-up at CMC?   | D12<br>An application process for the physical card will be available by filling in a form. The card can then be picked up at CMC or sent home, depending on the consumer's preference.  | Default design of the model | SY             |

## CMC should migrate and digitise existing programs as well as create anti-fraud mechanisms to promote the success of the municipality's digitization

### C.3. Project In-Depth Analysis | Hypothesis Analysis (VI/XII)

\*\*"To be studied" hypothesis are the new hypothesis in the Cashcais project or new approaches to a topic

| Issue  | Sub-Issue   | Hypothesis  | Status                      | Analysis |
|--|---|---|-----------------------------|----------|
| Should the CMC encourage digitization in the municipality? | Should CMC migrate the City Points application?                       | E1<br>When migrating the existing City Points application in addition to the active users, CMC should leverage the current knowledge of the application and also migrate functionalities and actions that have been successful. The current active users of the application will also be important to help create the network effect.                                 | Approved by CMC             | DA       |
|  | Should CMC digitalize "Cartão Mais Solidário"?                        | E2<br>By digitizing the "Cartão Mais Solidário" program, CMC will be able to strengthen the social support of the local community. These users are also important to help create the network effect.  | Approved by CMC             | DA SY    |
|  | Should CMC set up anti-fraud mechanisms?                              | E3<br>An anti-fraud system makes it possible to guarantee the security of all operations as well as considerably reducing the risk of major financial losses.   | Default design of the model | BA       |
| Should CMC promote health and well-being awareness?        | Should CMC raise consumers awareness of health and well-being issues? | F1<br>Studies indicate that people are increasingly more concerned about their health and fitness. Thus, following this trend and the pandemic health side effects, CMC should invest in promoting a healthier lifestyle for its citizens.  | To be studied*              | DA       |
|  | Should CMC include the health factor in the application?              | F2<br>Including this component in the application of Cashcais would go in line with CMC vision. It would be able to improve the quality of life of citizens by improving the health of citizens, reducing health spending, leading to an overall higher happiness rate. However, it should be carefully thought to benefit the community and not only the individual. | To be studied*              | BA       |
|  | Should there be any limits regarding the health component?            | F3<br>Some matters should be carefully reviewed by CMC. It is risky to give cashback or some sort of reward to actions such as blood donations.   | To be studied*              | DA       |

## The Cashcais program should include B2B relations which will foster the local economy and develop the municipality while facilitating and reducing cost

### C.3. Project In-Depth Analysis | Hypothesis Analysis (VII/XII): A4 – “Should CMC encourage local suppliers to offer cashback in Cashcais to partners?”

#### Importance of the B2B relationship

B2B's more **sustainable relationships** are not restricted only to the buying and selling procedure. They are also based on the **mutual contribution** to the **development** of both parties, minimizing risks and leveraging on efficiency.



**Incorporating the suppliers** into the **Cashcais program** will allow this type of relationship.

#### Benefits of incorporating suppliers into the program



##### Process facilitation for B2B companies

Suppliers and buyers meet in the same application, facilitating the entire procedure through an **increase in efficiency and simplicity of the relationship.**



##### Cost reduction

Of course, buying locally implies **less necessary transportation and storage expenses**, as suppliers and producers will be closer.



##### Higher billing for businesses

The **cashback** companies will receive when buying from suppliers belonging to the Cashcais program will not only encourage companies to join and use the program but will **increase profit for them.**



##### Fostering the local economy and developing the municipality

Buying from local suppliers (rather than international suppliers) allows for **higher billing and this increased profit margin strengthens the local economy.** Collaboration between companies is fundamental for the development of the municipality.

#### Action Plan

- **Contact suppliers** and introduce the Cashcais program and its benefits.
- **Integration of suppliers** in the application.

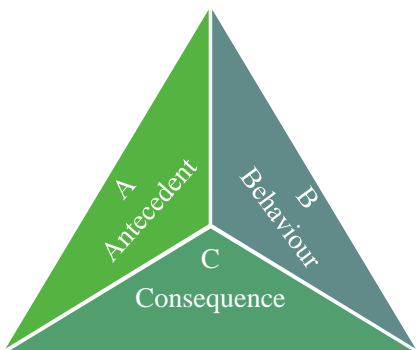
Therefore, CMC should include suppliers in the application, fostering B2B development

## The Board shall offer additional cashback and additional prizes to a limited number of exemplary users as a reward for environmental actions

### C.3. Project In-Depth Analysis | Hypothesis Analysis (VIII/XII): B3 – “Should CMC promote environmental awareness by offerings prizes as a reward?”

#### Model ABC

There is a model, the ABC model, consequence of the antecedent behavior, which serves as a **theoretical basis to improve the behavior.**



#### 1 Announce positive consequences

**People persist in maintaining old patterns** of behavior, **despite awareness of the negative consequences** for the environment and knowing viable alternatives to their current behavior.

#### 2 Introduce positive or negative consequences for environmental behaviors

**Additional rewards are particularly effective** in situations where **people are aware that their actions are harmful** to the environment, have the ability to change their behavior, but lack enough motivation to change.

**The introduction of monetary rewards can change behavior for the better.** On the other hand, **it can suppress the influence of personal norms or moral obligations.** Therefore, they have to be understood as a form of support and managed as extrinsic motivations.

#### Reward users



##### General users

**General users should be given a positive consequence** in order to change their current behavior and **encourage more sustainable practices.**



##### Exemplary Users

**Exemplary users (top 10%) who take more action should be awarded** to continue and **trigger exemplary behaviors of peers.**

#### Action Plan

- Analyze when it is appropriate to apply additional consequences
- Determine the amount of the reward per share
- Set % of users who are entitled to and prizes

**Therefore, CMC should create an initiative to offer cashback and additional prizes as a reward for environmental actions**

## Gamify environmental actions can be beneficial to increase the level of sustainability of the municipality, contributing to greater environmental awareness among consumers

### C.3. Project In-Depth Analysis | Hypothesis Analysis (IX/XII): B4 – “Should CMC promote environmental awareness using a gamification strategy?”

#### Role in awareness raising

Environmental action campaigns, which use **gamification**, have been **successful** in **exciting** consumers about environmental practices.

#### Advantages



Reach wider audiences



Increase competition



Create network effects



Reward behavior

#### Case studies



**Initiative launched in 10 UK cities**, with the aim of **promoting walking, running and cycling** from home to school or just leisure. Users register on the platform and **simply pass the "Beat the Street" card** in the locations to earn points.

The app has more than 100,000 users. There is a leaderboard and **prizes for the groups of users who most often pass the card.**



Thesis project “The effect of gamification on environmental knowledge and behaviors”

By conducting two experiments, it was concluded that:

1. There was a **10% increase in test result** when **learning used gamification**;
2. There was a **41% increase in recycling** when **gamification was introduced.**

#### Action Plan

Design a gamification program for the Cashcais application:

- Dynamic profile
- Leaderboard (Initiative 7)
- Invite friend
- Badge system

**Therefore, CMC should use a gamification strategy to increase the number of environmental actions**

**A referral program can be crucial in achieving a critical mass point, since the project depends on network effects, and can help spread the word among the community**

### C.3. Project In-Depth Analysis | Hypothesis Analysis (X/XII): D7 - "Should CMC create a referral program as part of Casheais marketing strategy?"

#### Advantages of referral programs

Marketeers say...

- **88%**: they use **referral marketing**. "It adds a growth channel";
- **60%**: "referral programs **generated** a high volume of **leads**";
- **78%** (B2B marketeers): "it generates leads of good or excellent **quality**";
- **54%**: "referral marketing has a **lower cost-per lead**, maximizing ROI".

#### Case studies



**Dropbox** is a well-known online storage company. Its referral campaign entailed **offering a free 500MB of space to both the advocate and the referred consumer** – "For every friend who joins and installs Dropbox on their computer, we'll give you both 500MB of bonus space (up to a limit of 16GB)".



This campaign resulted in a **boost of total signups by 60%**, as Dropbox effectively took advantage of the overall consumer need of more space storage.



**Uber** has one of the most recognized referral programs, which has been essential to its business model, as it **heavily relies on network effects**. Its **referral program is for both for riders and drivers** and its success lies on 1) easy access to the program on the app, 2) mobile-friendly features, 3) unique referral codes for each user, 4) several sharing options of the codes and 5) dual-sided incentives (for both the advocate and the referred new user on the platform). This program has been one of the **factors behind the huge worldwide success** of the company.

#### Action Plan

- Design a referral program
- Define which are the rewards for bringing a new user for the app

**Therefore, CMC should have a referral program to guarantee a critical mass of consumers and partners, crucial for network effects**

## Some citizens would like to access Cashcais functionalities through a physical card, which creates an emotional connection to the service

### C.3. Project In-Depth Analysis | Hypothesis Analysis (XI/XII): D9 - "Should CMC create a physical card as part of Cashcais marketing strategy?"

#### Advantages of physical cards

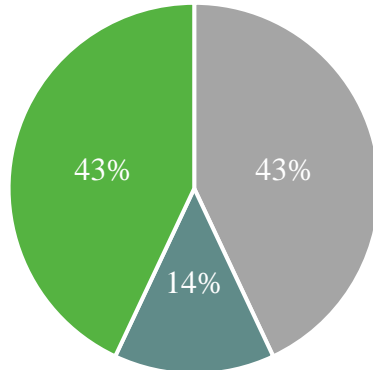
- No need for internet;
- **Tangible** symbol of trust;
- **Accessible to everyone** (especially elderly and people with no access to a smartphone or internet).

#### Disadvantages of physical cards

- **Not as easy to track** consumer activity as when using the app;
- Too many cards in the wallet.

#### Majority of respondents want to use the card

“Would you rather use a physical card instead of the app? (With access to the same functionalities)”



- No, I would rather use the mobile app
- Yes, I would rather use a physical card
- I would like to use both

#### Case studies



**In the study** “Tangible objects create an emotional connection to a service” (2020), it is revealed that touching a **physical product metaphorically** translates into perceived mental connection towards the service. This consequently leads to a **stronger psychological connection**, eventually leading to an **increase behavioral indentation** towards that service. It is also revealed that this only happens when this object is of high aesthetic appeal.



**In another study**, after undergoing in-depth interviews with mobile app users, Hyeuk (2016) came to the conclusion that the **Starbucks card** was **attractive to users** because “the design of Starbucks” cards always made them want to **have and use them**.

#### Action Plan

- Design the physical card with an aesthetic appeal
- Link the physical card with the app

Therefore, CMC should provide a physical card, to build emotional connection with potential and existing customers, reaching wider audience.

## Studies indicate people are increasingly concerned about their health. Therefore, CMC should add a health strand to the Cashcais by offering incentives to users to perform healthy activities

### C.3. Project In-Depth Analysis | Hypothesis Analysis (XII/XII): F1, F2, F3 - "Should the CMC promote human sustainability?"

#### The health of citizens is in line with the objectives of the CMC



Health is one of the seven main pillars presented in the Viva Cascais strategy program for 2021-2025.

Offer of **incentives** (in Cashcais) to perform healthy activities



Increase in the number of **participants** in physical activities and awareness



Improve the **quality of life** of citizens:

1. Improving the health of citizens
2. Less health spending
3. Higher happiness rate



#### People are increasingly concerned about their health and healthy choices

##### Self-care

- Concern for health and well-being in a holistic and preventive way



Studies indicate that people are **increasingly concerned** about their **health** and **fitness**.

#### There are similar programs with the same purpose, which can be incorporated



Healthy Challenges

Health Academy x CMC



+Saúde Todos os Dias

Academia da

Saúde x CMC



Vitality

Multicare

#### Action Plan

- Review the different hypotheses on this topic
- Collaborate with the NMS team
- Define the activities to be inserted into the program
- Design the gamification process of the activities

Therefore, CMC should add a health component to Cashcais planning

## To ensure the quality of the recommendations, both quantitative and qualitative investigation methods were performed

### D.1. Strategy Formulation | Investigation Methods

| Co-creation meetings <span>CC</span>   | Meetings with Experts (6 meetings)   | Survey (1 011 Answers) <span>SY</span>   | Personas Design (6 Personas) <span>PD</span>   | Data and Benchmark Analysis <span>DA</span> <span>BA</span>   |
|--|--|--|--|---|
| <ul style="list-style-type: none"> <li>Weekly meetings with Deputy to the Mayor's Office, Ms. Anceliana Ramos to co-create project recommendations;</li> <li>Three meetings with Ms. Rosário Daugbjerg to retrieve detailed and extensive information about the City Points application, lessons learned and suggestions to integrate the app;</li> <li>Meeting with Ms. Vera Brito to gather information about CMC data procedures;</li> <li>Meeting with Ms. Inês Proença to co-create the certification process;</li> <li>Meeting with Ms. Mafalda Silveira to guarantee social inclusion;</li> <li>Meeting with Ms. Teresa Varandas and Ms. Joana Godinho from financial department to analyze financial projections;</li> <li>Meeting with Unicre, Cashcais development partner, to discuss and co-create wireframe and payment process.</li> </ul> | <p>Meetings with experts in <b>balanced scorecard</b> (Prof. João Silveira Lobo), <b>marketing</b> (Prof. Pedro Gardete), <b>statistics</b> (Prof. Luís Catela Nunes) and <b>behavioral science</b> (Prof. Irene Consiglio), <b>philosophy of money</b> (Mr. Eduardo Ferracioli), <b>rewarding healthy behavior</b> (Mr. Ricardo Leitão and Mr. Ricardo Caldeira).</p> | <p><b>Survey developed</b> in Qualtrics to check Cascais' citizens' perception regarding the possibility of introducing a new local currency; <b>to measure Cascais' citizens acceptability and motives</b> towards the different functions of the currency; <b>to test hypothesis</b> / beliefs about Cashcais; to have a better and <b>more accurate Marketing segmentation</b>; and to have already a bank of contact information of <b>candidates for the pilot</b>.</p> | <p><b>6 personas</b> were designed based on <b>common characteristics, the propensity to use and adhere to a new technological product</b> and the <b>main motives to join Cashcais</b> out of Economic, Social, Environmental and Human. Some of the characteristics that were taken into account were age, salary, technological level, free time and if they already used digital payments.</p> | <p><b>Consulting books</b> best practices study; <b>Detailed analysis of Câmara Municipal de Cascais</b>; Best practices and benchmark <b>analysis of European local currencies</b>; <b>Banco de Portugal</b> and Diário da República <b>legislation</b> on how to <b>register a virtual asset</b> in Portugal; <b>Bcorp benchmark</b> analysis on sustainability practices, measurement, and certification process; <b>Ellen MacArthur Foundation research</b> and case studies from cities on European circular economy; Further research on <b>papers, newspapers, consulting firms' studies</b> and <b>specialized companies</b>.</p> |

## A survey with 887 valid answers and a 3.76% margin of error for a confidence level of 95% was performed to evaluate Cascais citizens perception on the new digital local currency

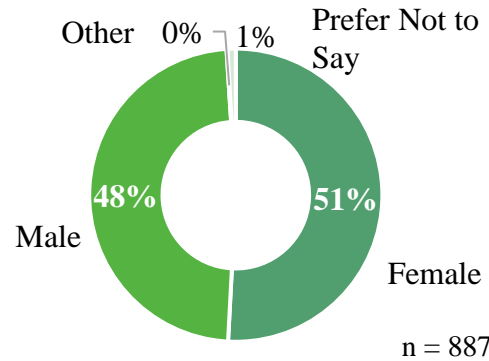
### D.2. Strategy Formulation | Survey (I/II)

1 011 answers

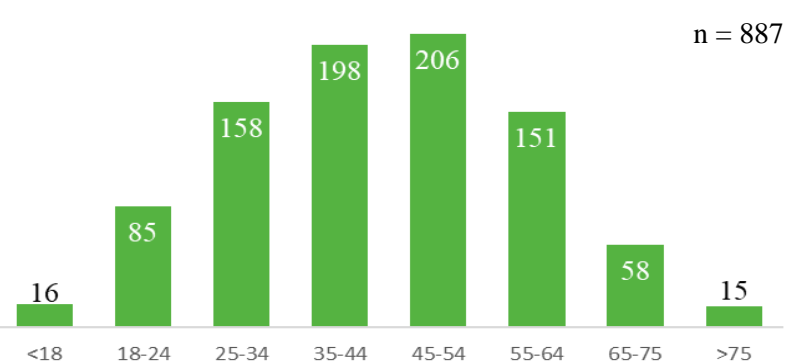
929 agreed to share data

887 finished the survey

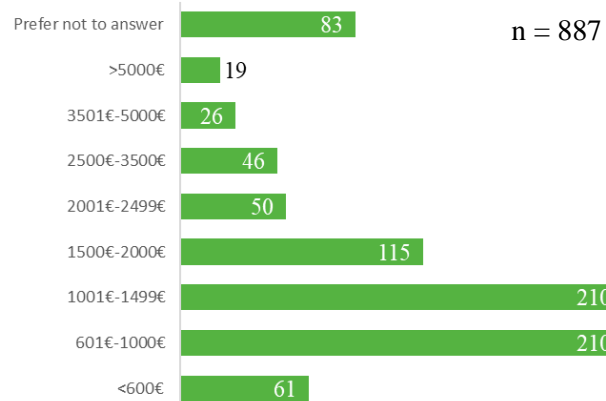
#### Gender



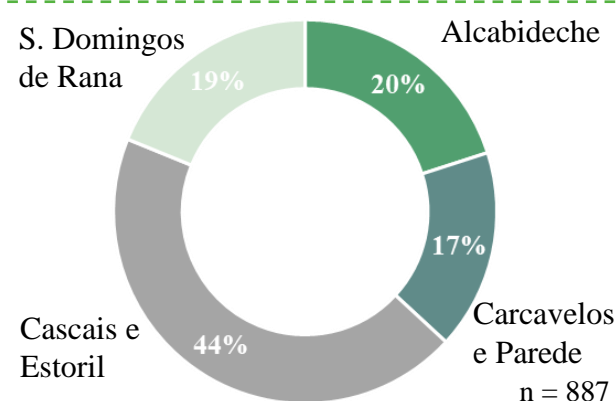
#### Ages



#### Gender



#### Parishes



Complete Survey Results and Questions on [Appendix 4](#)

#### Survey general information

- This survey was performed online through **Qualtrics Platform**. A larger audience was reached because CMC published it on their social media platforms. All the answers were collected online.
- The survey was online on **13/11/2021** and was ended on **23/11/2021**.
- Out of the **1 011 survey answers** received, only **887 were considered acceptable** to interpret results: answers of people who did not consent their answers to be shared with CMC and who did not finish the survey were not accepted.
- For general conclusions, the survey has **3.76% Margin of Error (CI=95%)**

#### Limitations

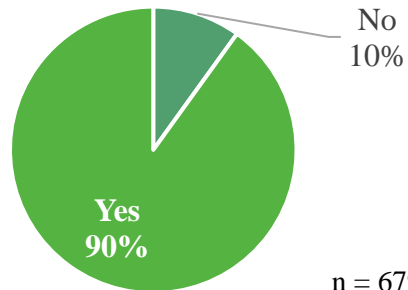
Due to high ME's, there are some conclusions that cannot be taken from our survey results.

## Interest in the program seems very high according to survey results, although people seem concerned with where they can use the local coin

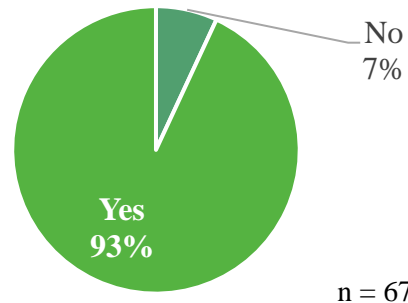
### D.2. Strategy Formulation | Survey (II/II)

Complete Survey Results and Questions on [Appendix 4](#)

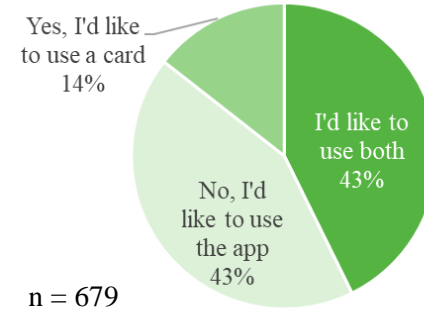
1. Would you like to take advantage of Cashcais?



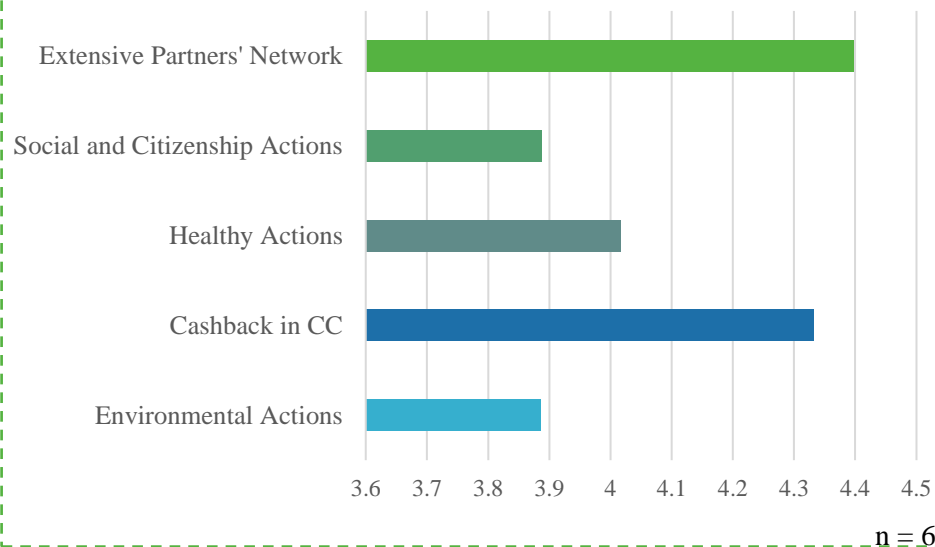
2. Would you be interested in using the App?



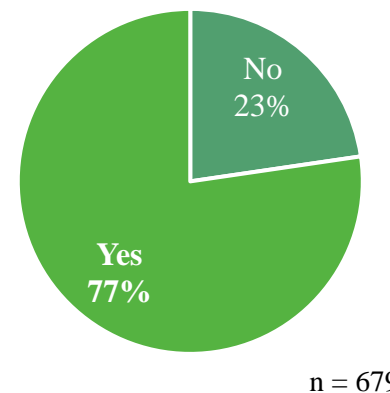
3. Would you rather have a physical card instead of the app?



4. Order (from 0 to 5) the importance of the following aspects:



5. Once Cashcais is implemented, would you want be contacted to participate in the program? (if so, indicate your contact info)



#### Data Info

All this data has a margin of Error of 3.76% (CI=95%).


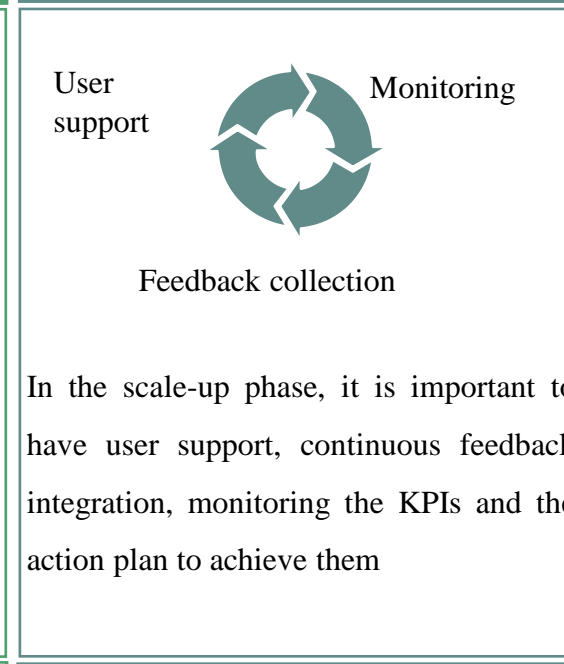
This analysis was only made to people who live in Cascais, making it a total of 679 number of Cascais citizens.

#### Conclusions and Recommendations

1. People seem **very interested in the Cashcais program**;
2. People seem **very interested in using the Cashcais app**;
3. A **physical card is required**, as the majority of the people (57%) would like to use the card for this program. CMC could use its **VivaCascais** for this purpose, as it already integrates the registration on MyCascais, and a **large number of people hold that card**.
4. CMC should put all the efforts in trying to attract a **big and a diversified number of partners to Cashcais**, as that was the main concerned to people. Also, the **cashback progress** should be running smoothly as people seem also excited for it.
5. CMC could **use the contact information acquired with this survey** as these people are not only motivated, but already made a small **commitment to participate**. The contact should refer that the contact is made "**following the interest showed in the survey**".

## The pilot's calendar is set in 3 phases: Pre, During and After. Each phase has key activities and a planned duration and the whole process is planned to follow an agile methodology

### D.3.a. Strategy Formulation | Pilot Program Overview – Objectives, Task and Duration

| Pilot      | Pre  |   | During   | After (Scale-up phase)  |
|------------|--|---|--|---|
| Activities | 1 <b>Definition of the pilot's objectives</b>  | 8 <b>Development of the pilot communication plan</b>                              |  <p>User support</p> <p>Monitoring</p> <p>Feedback collection</p> <ul style="list-style-type: none"> <li>Learn and improve with pilot results</li> <li>Prepare the application for all citizens and partners</li> <li>Financial projections for the scale-up</li> <li>Creating a marketing plan for the scale-up</li> </ul> |  <p>User support</p> <p>Monitoring</p> <p>Feedback collection</p> <p>In the scale-up phase, it is important to have user support, continuous feedback integration, monitoring the KPIs and the action plan to achieve them</p> |
|            | 2 <b>MVP</b><br>- Requirements gathering<br>- Definition of requirements<br>- Wireframe design | 9 <b>Integration of other CMC programs</b>  |  |   |
|            | 3 <b>Identification and segmentation of consumers and partners</b>                             | 10 <b>Definition of anti-fraud policies and processes</b>                         |  |   |
|            | 4 <b>Guidelines for the onboarding process</b>   | 11 <b>Legal process guidelines</b>  |  |   |
|            | 5 <b>Construction of the partner certification process</b>                                     | 12 <b>Monitoring</b><br>- BSC Design<br>- Definition of variables to be monitored |  |   |
|            | 6 <b>Definition of the payment process</b>   | 13 <b>Financial projection</b><br>- pilot<br>- scale-up                           |  |   |
|            | 7 <b>Formulating the reward system on sustainable actions</b>                                  | 14 <b>Contact partners and citizens</b>   |  |   |
|            |  |   |  |   |

The use of an agile process allows CMC to adapt the application based on feedback from the final consumer and partners. Thus, in an agile pilot, the two most important practices that should be taken into account are rapid iteration and experimentation (such that obtaining and incorporating feedback from consumers is as fast as possible) as well as constant learning (allowing CMC to improve the app, its processes and methods). Technically, in the mobile application pilot, it is important to perform several tests, such as A/B testing, functional testing, usability testing, server test, performance and load testing, and compatibility testing.

**CMC objective with the pilot is to answer many questions in several areas, so that the final implementation has taken into consideration the learnings from the pilot and running as smoothly as possible**

### D.3.c. Strategy Formulation | Pilot Program Overview – Segmentation for the Pilot Program (I/IV)

[Complete list of Questions Appendix 5](#)

|  |  |  |  |   |  |   |
|--|--|--|--|---|--|---|
| <p>The Pilot should serve as an experience to test different variables</p> | <p><b>Final Consumers</b></p> <ul style="list-style-type: none"> <li>• City Points</li> <li>• <i>Cartão + Solidário</i></li> <li>• <i>Parishes</i></li> </ul>  | <ul style="list-style-type: none"> <li>• Gender</li> <li>• Social Classes</li> <li>• Ages</li> <li>• Tourists</li> </ul> | <ul style="list-style-type: none"> <li>• Other Town Halls</li> </ul> | <p><b>Partners</b></p> <ul style="list-style-type: none"> <li>• Different Sectors and Industries</li> <li>• Different Dimensions</li> </ul> | <ul style="list-style-type: none"> <li>• Levels of Sustainability</li> <li>• Parishes</li> </ul> | <p><b>Marketing</b></p> <ul style="list-style-type: none"> <li>• Means</li> <li>• Message</li> <li>• Initiatives</li> </ul> |
|  | <p>The number of participants in the pilot will depend on the variables to be studied, as well as on the margin of errors and confidence intervals pretended, taking into account CMC resources.</p> |  |  |   |  |   |

#### The pilot should study consumer and partners behaviors in different areas

|   |  |   |  |
|---|--|---|--|
| <p><b>Final Consumers</b></p> <ol style="list-style-type: none"> <li>1. Satisfaction</li> <li>2. Retention</li> <li>3. Usage Time and Patterns</li> </ol> | <ol style="list-style-type: none"> <li>4. Participation in sustainable actions</li> <li>5. Cashback</li> <li>6. Usage of Cashcais</li> </ol> | <p><b>Partners</b></p> <ol style="list-style-type: none"> <li>1. Satisfaction</li> <li>2. Volume of Sales</li> <li>3. Sustainability</li> </ol> | <ol style="list-style-type: none"> <li>4. Cashback</li> <li>5. Cashcais Cashout</li> </ol> |
|---|--|---|--|

How should it be measured?

**Satisfaction** can be measured using KPIs;

For app-specific areas (retention, usage time and patterns and participation in sustainable actions):

1. **KPIs should be made** (e.g: time spent in the app for each log-in; increase in number of actions performed);
2. Data should be gathered **through the app**;
3. If possible, a **control group** should be used.



**A survey should be made to assess the economic impact of Cashcais:**

1. Perform the survey **before, during and after** the pilot;
2. The survey should contain **continuous and discrete** questions to have a figure answer (“I sold x€ during Cashcais”) and comparative ones (“I sold more / less x€”);
3. The survey should be performed to **Partners**, not consumers, as they will be more aware of the economic impact of the program. Hence, the **answer will be more accurate**;
4. There should be a **control group**: companies with the same characteristics as the ones addressed, but that do not participate in the program.

## CMC should first segment its citizens and try to reach them in a way that they can reach conclusions once the pilot ends

### D.3.c. Strategy Formulation | Pilot Program Overview – Segmentation for the Pilot Program (II/IV)

Estimate of the number of people in different age groups required to have different margins of errors

The sample size required by different margin of errors is **not directly proportional** with the population size, meaning the greater the population, the less incremental size of sample required to meet the required margin of error. First, the variable which was most segmented was looked into - “Age” has 7 groups. The **sum of all the samples of each age group will generate the sample for the Cascais population** – in this case, for a **ME of 5% and CI of 95%**, Cascais needs at least **2656 citizens** for its pilot to be statistically significant in each age group.

|          |     | Age        |            |            |            |            |            |            | Total       |
|----------|-----|------------|------------|------------|------------|------------|------------|------------|-------------|
|          |     | 0-14       | 15-24      | 25-34      | 35-44      | 45-54      | 55-64      | 65+        |             |
| Year     |     | 2011       | 2011       | 2011       | 2011       | 2011       | 2011       | 2011       | 2011        |
| Count    |     | 32655      | 22528      | 22860      | 29553      | 21482      | 12352      | 6453       | 147883      |
| CI = 95% | 0%  | 32655      | 21727      | 27813      | 32748      | 28740      | 26082      | 36714      | 206479      |
|          | 3%  | 1034       | 1019       | 1020       | 103        | 1029       | 1026       | 1037       | 6268        |
|          | 5%  | <b>380</b> | <b>378</b> | <b>378</b> | <b>380</b> | <b>380</b> | <b>379</b> | <b>381</b> | <b>2656</b> |
|          | 10% | 96         | 96         | 96         | 96         | 96         | 96         | 96         | 672         |

Estimate of the number of people in all the other variables required to have different Margin of errors

For all the other variables, the **same methodology applies**. As these variables are less segmented (City Points has no sub-segments, there are 4 parishes and 2 genders), the sum of each group in each variable will be less than of the “Age” variable. Hence, when looking for people to join the pilot program, Cascais Town Hall **should first try to fill the different “Age” groups**.

|          |     | CP         | Cartão Mais Solidário | Parishes     |             |                    | Gender          |            |            |
|----------|-----|------------|-----------------------|--------------|-------------|--------------------|-----------------|------------|------------|
|          |     |            |                       | Alcabi-deche | S. Domingos | Carca-velos Parede | Cascais Estoril | Male       | Female     |
| Year     |     | 2021       | 2021                  | 2011         | 2011        | 2011               | 2011            | 2021       | 2021       |
| Count    |     | 8374       | 900                   | 42448        | 59427       | 46692              | 63671           | 99682      | 114452     |
| CI = 95% | 0%  | 8374       | 900                   | 42448        | 59427       | 46692              | 63671           | 99682      | 114452     |
|          | 3%  | 947        | 489                   | 1041         | 1049        | 1044               | 1050            | 1052       | 1052       |
|          | 5%  | <b>368</b> | <b>270</b>            | <b>381</b>   | <b>382</b>  | <b>382</b>         | <b>382</b>      | <b>383</b> | <b>383</b> |
|          | 10% | 95         | 87                    | 96           | 96          | 96                 | 96              | 96         | 96         |

#### Segmentation Process

Reach out to most people as possible



Segment the people that have been reached



Verify which segments lack the required number of people for the sample



Reach out to people from the variables that are missing

## CMC should look into non-Cascalenses people that will enter the pilot, to evaluate if the inclusion of non-Cascalenses is in line with CMC's objectives

### D.3.c. Strategy Formulation | Pilot Program Overview – Segmentation for the Pilot Program (III/IV)

People who do not live in Cascais, but have a significant economical importance in Cascais

**CMC wants non-Cascais citizens to be included.** Hence, the pilot should study these people's behavior to check if the inclusion of these citizens is advantageous.

|             | Nearby Town Halls (Oeiras and Sintra)   | Tourists   | Workers and Students   |        |        |  |         |         |         |            |    |         |         |    |       |       |    |            |            |     |    |    |   |  |       |          |  |         |         |             |    |         |    |       |    |            |     |    |   |
|-------------|---|--|--|--------|--------|--|---------|---------|---------|------------|----|---------|---------|----|-------|-------|----|------------|------------|-----|----|----|---|--|-------|----------|--|---------|---------|-------------|----|---------|----|-------|----|------------|-----|----|---|
| Reasoning   | The Pilot should only <b>incorporate nearby Town Halls</b> , as they would represent the majority of interest outsider of Cascais.  | <b>Tourism is a major economic activity</b> in Cascais. If tourists increase their spending due to Cashcais, they should be thought of for the implementation. | Cascais has a <b>significant number of people who work and who study</b> (Superior education) - some of which <b>do not live</b> in Cascais Town Hall. |        |        |  |         |         |         |            |    |         |         |    |       |       |    |            |            |     |    |    |   |  |       |          |  |         |         |             |    |         |    |       |    |            |     |    |   |
| Hypothesis  | Oeiras and Sintra's citizens move their consumption from their Town Halls and <b>consume more often in Cascais</b> , due to the incentives such as cashback..   | Tourists will be interested in Cashcais and will <b>consume more once they are in Cascais</b> . Cashcais will increase the attractiveness of the Town Hall.    | Workers or students <b>spend more money and consume more often in Cascais</b> due to the program.  |        |        |  |         |         |         |            |    |         |         |    |       |       |    |            |            |     |    |    |   |  |       |          |  |         |         |             |    |         |    |       |    |            |     |    |   |
| Sample Size | <table border="1"> <thead> <tr> <th></th> <th>Total</th> <th>Oeiras</th> <th>Sintra</th> </tr> </thead> <tbody> <tr> <td></td> <td>172 120</td> <td>172 120</td> <td>377 835</td> </tr> <tr> <td rowspan="4">IC<br/>=95%</td> <td>0%</td> <td>172 120</td> <td>377 835</td> </tr> <tr> <td>3%</td> <td>1 061</td> <td>1 065</td> </tr> <tr> <td>5%</td> <td><b>384</b></td> <td><b>384</b></td> </tr> <tr> <td>10%</td> <td>96</td> <td>97</td> </tr> </tbody> </table> |  | Total  | Oeiras | Sintra |  | 172 120 | 172 120 | 377 835 | IC<br>=95% | 0% | 172 120 | 377 835 | 3% | 1 061 | 1 065 | 5% | <b>384</b> | <b>384</b> | 10% | 96 | 97 | <table border="1"> <thead> <tr> <th></th> <th>Total</th> <th>Tourists</th> </tr> </thead> <tbody> <tr> <td></td> <td>481 447</td> <td>481 447</td> </tr> <tr> <td rowspan="4">CI =<br/>95%</td> <td>0%</td> <td>481 447</td> </tr> <tr> <td>3%</td> <td>1 065</td> </tr> <tr> <td>5%</td> <td><b>384</b></td> </tr> <tr> <td>10%</td> <td>97</td> </tr> </tbody> </table> |  | Total | Tourists |  | 481 447 | 481 447 | CI =<br>95% | 0% | 481 447 | 3% | 1 065 | 5% | <b>384</b> | 10% | 97 | As it is difficult to determine the exact number of workers and students' non-resident in Cascais, it is advised to assume <b>384</b> people for the samples. |
|             | Total   | Oeiras   | Sintra   |        |        |  |         |         |         |            |    |         |         |    |       |       |    |            |            |     |    |    |   |  |       |          |  |         |         |             |    |         |    |       |    |            |     |    |   |
|             | 172 120   | 172 120  | 377 835  |        |        |  |         |         |         |            |    |         |         |    |       |       |    |            |            |     |    |    |   |  |       |          |  |         |         |             |    |         |    |       |    |            |     |    |   |
| IC<br>=95%  | 0%  | 172 120  | 377 835  |        |        |  |         |         |         |            |    |         |         |    |       |       |    |            |            |     |    |    |   |  |       |          |  |         |         |             |    |         |    |       |    |            |     |    |   |
|             | 3%  | 1 061  | 1 065  |        |        |  |         |         |         |            |    |         |         |    |       |       |    |            |            |     |    |    |   |  |       |          |  |         |         |             |    |         |    |       |    |            |     |    |   |
|             | 5%  | <b>384</b>   | <b>384</b>   |        |        |  |         |         |         |            |    |         |         |    |       |       |    |            |            |     |    |    |   |  |       |          |  |         |         |             |    |         |    |       |    |            |     |    |   |
|             | 10%   | 96   | 97   |        |        |  |         |         |         |            |    |         |         |    |       |       |    |            |            |     |    |    |   |  |       |          |  |         |         |             |    |         |    |       |    |            |     |    |   |
|             | Total   | Tourists   |  |        |        |  |         |         |         |            |    |         |         |    |       |       |    |            |            |     |    |    |   |  |       |          |  |         |         |             |    |         |    |       |    |            |     |    |   |
|             | 481 447   | 481 447  |  |        |        |  |         |         |         |            |    |         |         |    |       |       |    |            |            |     |    |    |   |  |       |          |  |         |         |             |    |         |    |       |    |            |     |    |   |
| CI =<br>95% | 0%  | 481 447  |  |        |        |  |         |         |         |            |    |         |         |    |       |       |    |            |            |     |    |    |   |  |       |          |  |         |         |             |    |         |    |       |    |            |     |    |   |
|             | 3%  | 1 065  |  |        |        |  |         |         |         |            |    |         |         |    |       |       |    |            |            |     |    |    |   |  |       |          |  |         |         |             |    |         |    |       |    |            |     |    |   |
|             | 5%  | <b>384</b>   |  |        |        |  |         |         |         |            |    |         |         |    |       |       |    |            |            |     |    |    |   |  |       |          |  |         |         |             |    |         |    |       |    |            |     |    |   |
|             | 10%   | 97   |  |        |        |  |         |         |         |            |    |         |         |    |       |       |    |            |            |     |    |    |   |  |       |          |  |         |         |             |    |         |    |       |    |            |     |    |   |
| Limitations | <b>People with the same characteristics' behavior</b> (age, gender, among others,...), either in Cascais, Oeiras or Sintra <b>might be similar</b> and do not need to be studied.   | <b>Different tourists</b> (from different countries, different ages, different times of the year,...) <b>have different consumption patterns</b> .             | It might <b>not be easy to target / reach these people</b> .   |        |        |  |         |         |         |            |    |         |         |    |       |       |    |            |            |     |    |    |   |  |       |          |  |         |         |             |    |         |    |       |    |            |     |    |   |

## Partner's segmentation will follow the same methodology as the one of consumers, although there are limitations on the partners that can be included due to CMC's objectives for the project

### D.3.c. Strategy Formulation | Pilot Program Overview – Segmentation for the Pilot Program (IV/IV)

Complete list of Partners [Appendix 5](#)

| Partners Included   |                           | Partners Not-Included   |                     |
|---|---------------------------|---|---------------------|
| Bakeries  | Hospitality               | Anything that is not aligned with CMC's core values and objectives: |                     |
| Groceries   | Health                    | Gambling  | Alcoholic Beverages |
| Restaurants   | Culture and Entertainment | Smoking Products  |                     |
| Supermarkets*   |                           |   |                     |
| CMC decision  |                           |   |                     |
| <p>CMC already has public transportations of their own and they are free.</p> <p> Although this “partner” is aligned with CMC's objectives, <b>including public transportation in Cashcais might be an unnecessary financial burden.</b></p> <p>*Although supermarkets do not enter CMC's objective of improving local economy, CMC has decided that <b>supermarkets will enter the program but will not offer cashback.</b> They will only be available to spend Cashcais, because <i>Cartão Mais Solidário</i> is supposed to help those in need to buy groceries. If they are not included, people will lose this right.</p> |                           |   |                     |

#### Estimate of partner's sample size

Following the same reasoning as in the consumer's segmentation, **first the variable which was most segmented was looked into** (“Parishes” in the partner's case).

The sum of all the samples of each parish will give the sample of Partners in Cascais – in this case, for a ME of 5% and CI of 95%, Cascais need at least **1097 partners** for its pilot to be statistically significant in each age group.

|                      | Total | Margin of Error |      |             |     |
|----------------------|-------|-----------------|------|-------------|-----|
|                      |       | 0%              | 3%   | 5%          | 10% |
| Alcabideche          | 652   | 652             | 405  | <b>242</b>  | 84  |
| São Domingos de Rana | 767   | 767             | 447  | <b>257</b>  | 86  |
| Carcavelos e Parede  | 980   | 980             | 512  | <b>277</b>  | 88  |
| Cascais e Estoril    | 1926  | 1926            | 687  | <b>321</b>  | 92  |
| Total                | 4325  | 4325            | 2051 | <b>1097</b> | 350 |

|  | Total | Margin of Error |       |              |     |
|--|-------|-----------------|-------|--------------|-----|
|  |       | 0%              | 3%    | 5%           | 10% |
| <b>Retail commerce</b>                                       | 2 011 | 2 011           | 689   | 323          | 92  |
| <b>Hospitality, Restaurants and similars</b>                 | 1 166 | 1 166           | 558   | 290          | 89  |
| <b>Health activities and social support</b>                  | 841   | 841             | 471   | 264          | 87  |
| <b>Artistic, shows, sportive and recreational activities</b> | 307   | 307             | 239   | 171          | 74  |
| <b>Total</b>   | 4 325 | 4 325           | 1 957 | <b>1 048</b> | 342 |

The sum of all the samples of each sector is lower than the one of the parishes. CMC should consider including different companies from different sectors.

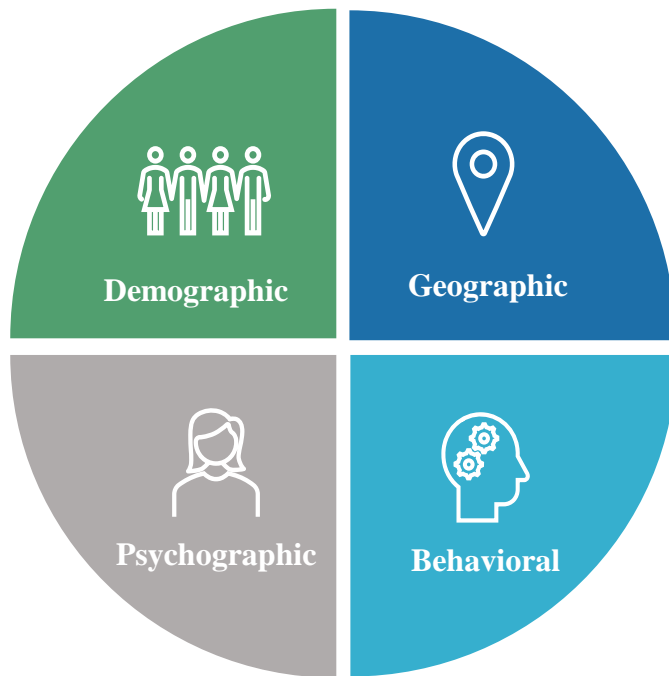
## There are 4 different types of market segmentation that can be used, alone or simultaneously, to segment consumers and partners

### E.3.b. Recommendations | Consumers – Marketing Strategy (I/IX)



**Objective:** Reach **as many people** as possible, and at the same time **smooth the adaptation** and/or the perception of each consumer regarding the application and the local digital currency, Cashcais, consequently, **reinforcing the innovative and technological image of Cascais**.

### Different Types of Segmentation:



#### Demographic

##### Consumers:

- Gender
- Age
- Social Classes
- Level of Education

##### Partners:

- Industry
- Sector
- Dimension

#### Geographic

##### Consumers and Partners:

- City
- Municipality
- Portuguese vs Non-Portuguese

#### Psychographic

##### Consumers:

- Lifestyle
- Values
- Opinions

##### Partners:

- Values
- Level of Sustainability

#### Behavioral

##### Consumers and Partners:

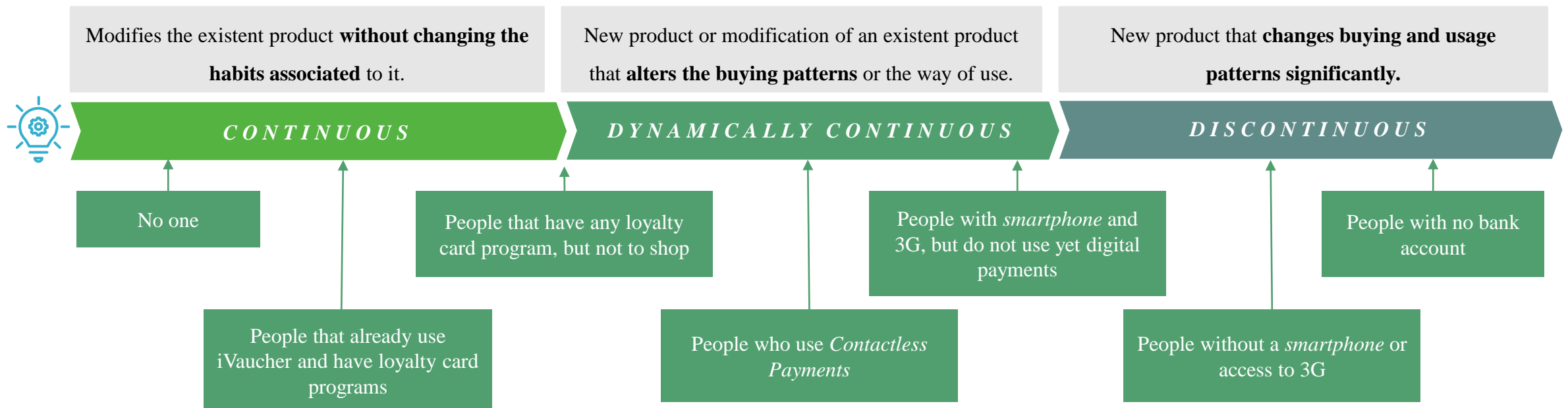
- Frequency of use
- Readiness to join
- Benefits sought
- Loyalty degree

The goal is to **combine the four types of different segmentations**, so to be able to define clearer and distinct groups and later targeting them in a more personalized way. However, **the approaches at the bottom will require more resources from CMC.**

## When introducing a new product, there are three types of innovations that depend on how much this new product changes consumers' buying patterns

### E.3.b. Recommendations | Consumers – Marketing Strategy (II/IX)

There are **three different types of innovation** that depend on the **extent in which this new disruption changes consumers' existing habits**. The same innovation will have different effects on different people or groups of people.



#### Rationale



This scheme shows **how different people will interpret / adapt to this innovation**. People that are already accustomed to a loyalty card program (usually available in stores) will not need much adaption when compared with those people who do not even have a smartphone. Also, no one will view Cashcais as a 100% continuous innovation because some sort of adaptation or nuances exists to everyone (the concept of a local currency; a new app that needs to be installed with new features).

## The assumptions made on the marketing plan were verified through the responses on the survey performed to Cascais citizens

### E.3.b. Recommendations | Consumers – Marketing Strategy (VI/IX)

Survey questions were made to check assumptions made on marketing hypothesis

#### The Technology Adoption Lifecycle was not confirmed by our Survey

| Persona               | Phrase   | Count | Percentage | Model Values |
|-----------------------|--|-------|------------|--------------|
| <b>Innovators</b>     | "In general, I experiment / buy right away new products and technologies as soon as they're available"   | 102   | 13.5%      | 2.5%         |
| <b>Early Adopters</b> | "I wish to experiment new products and technologies, but I am more selective and careful"                | 327   | 43.4%      | 13.5%        |
| <b>Early Majority</b> | "I prefer to wait for feedback from close people before buying something new"                            | 121   | 16.0%      | 35%          |
| <b>Late Majority</b>  | "I only buy technology products once their value is demonstrated, and no risks are associated with them" | 136   | 18.0%      | 35%          |
| <b>Laggards</b>       | "I prefer to use new products, which I am already familiar with"   | 68    | 9.0%       | 16%          |
| <b>Grand Total</b>    |  | 754   | 100%       | 100%         |

The percentage of the population that represented each persona withdrawn from the results of the survey were **not close to the ones given by the model**. Nevertheless, the model will continue to be used, namely the values, as they are most likely more adequate to the ones received on the survey. Possible explanations for the survey result to be inaccurate might be explained by **incorrect formulation of the options** – the sentences might not directly link to the personas; and overconfidence on the responses of the people.

#### People's motivations to use Cashcais were confirmed by the survey

The results were in line with our hypothesis about the main motivations to use Cashcais:

1. Younger generations care more about environmental activities;
2. Younger workers (24-35 y.o.) care more about the cashback;
3. Middle generations care more about the cashback;
4. Older generations are more attracted to the healthy perspective;
5. Lower social classes care more about social actions;
6. Upper social classes view the healthy perspective as the second most attractive perspective.

#### No distinction between male and female population and amongst parishes

In general, there were no significant differences that suggest that women and men should have different communication methods. The same holds true for the different parishes.

#### CMC should try to reach out and include as many partners as possible

When communicating, CMC should make its citizens aware that a wide range of partners is included in this program.

## G. References

- “#Eucompronocomérciocal.” DNA Cascais, October 27, 2020. <https://www.dnacascais.pt/2020/09/18/eucompronocomerciocal/>.
- Agrawal, Nitin. 2020. “9 Viral Referral Programs That Helped in Exponential Growth.” LinkedIn. Accessed October 24, 2021. <https://www.linkedin.com/pulse/9-viral-referral-programs-helped-exponential-growth-nitin-agrawal/>.
- Amaresan, Swetha. 2021. “Everything You Need to Know about Customer Lifecycle Management.” HubSpot Blog. Accessed October 9, 2021. <https://blog.hubspot.com/service/customer-lifecycle-management>.
- Ambiente Magazine. “Projeto IREC Recolhe Mais De 400 Mil Embalagens Em Seis Meses.” Accessed November 28, 2021. <https://www.ambientemagazine.com/projeto-irec-recolhe-mais-de-400-mil-embalagens-em-seis-meses/>.
- Argemí, Anna. 2020. “La Moneda Navarra Que Incentiva La Recogida Selectiva De Residuos.” El País. Accessed November 12, 2021. [https://elpais.com/elpais/2020/02/24/alterconsumismo/1582535553\\_797301.html](https://elpais.com/elpais/2020/02/24/alterconsumismo/1582535553_797301.html).
- Assembleia de República. “Página Oficial Da Assembleia Da República.” Accessed December 15, 2021. <https://www.parlamento.pt/ActividadeParlamentar/Paginas/DetalleIniciativa.aspx?BID=42600>.
- AYTM. “Online Market Research: Aytm Market Research.” Accessed December 3, 2021. .

## G. References

- Beat the Street. “Join the Fun and Play.” Beat the Street. Accessed September 30, 2021. <https://www.beatthestreet.me/>.
- “Behavioral Segmentation: Definition, Examples, and Benefits.” CleverTap. Accessed November 28, 2021. <https://clevertap.com/blog/behavioral-segmentation/>.
- *Berkshire Hathaway Home Services | Portugal Properties*. "Portugal Named One Of The Most Eco-Friendly Countries In The World". Accessed December 6, 2021. <https://www.portugalproperty.com/news-blog/portugal-named-one-of-the-most-eco-friendly-countries-in-the-world>.
- Bernecker, Andreas, Julia Klier, Sebastian Stern, and Lea Thiel. 2021. “Sustaining High Performance beyond Public-Sector Pilot Projects.” McKinsey & Company. Accessed December 2, 2021. <https://www.mckinsey.com/industries/public-and-social-sector/our-insights/sustaining-high-performance-beyond-public-sector-pilot-projects>.
- “Bristol Pay.” Bristol Pay. Accessed November 3, 2021. <https://www.bristolpay.org.uk/#welcome-to-bristol-pay>.
- Buznea, Crista. “Gamification: The Key to Sustainability Engagement?” Ecologi. Accessed September 30, 2021. <https://ecologi.com/articles/blog/gamification-the-key-to-sustainability-engagement-and-behaviour-change>.

## G. References

- *Câmara Municipal de Cascais*. 2020. “APP Citypoints Cascais E Mobicascais Recebem Prémios IDC | Câmara Municipal De Cascais”. Accessed September 15, 2021. <https://www.cascais.pt/noticia/app-citypoints-cascais-e-mobicascais-recebem-premios-idc>.
- *Câmara Municipal de Cascais*. “Cascais Com Orçamento Reforçado Para 2020”. Accessed September 25, 2021. <https://www.cascais.pt/noticia/cascais-com-orcamento-reforcado-para-2020>.
- Câmara Municipal de Cascais. 2021. “Há Um Novo Jogo Para Cuidar Da Sua Saúde: ‘Desafios Saudáveis.’” Accessed October 12, 2021. <https://www.cascais.pt/noticia/ha-um-novo-jogo-para-cuidar-da-sua-saude-desafios-saudaveis#:~:text=Sobre%20o%20Jogo%20Desafios%20Saud%C3%A1veis,saud%C3%A1veis%20junto%20dos%20seus%20colaboradores>.
- Câmara Municipal de Cascais. “IREC - INOVAR a Reciclagem.” Sistema de Incentivo à Devolução de Embalagens de Bebidas em Cascais. Accessed November 28, 2021. [https://ambiente.cascais.pt/sites/default/files/anexos/irec\\_-\\_resultados\\_abril\\_2021\\_r.pdf](https://ambiente.cascais.pt/sites/default/files/anexos/irec_-_resultados_abril_2021_r.pdf).
- *Câmara Municipal de Cascais*. 2020. “Políticas Públicas: Cascais Vence Prémio Nacional Com Programa Máscaras Acessíveis | Câmara Municipal De Cascais”. Accessed September 15, 2021. <https://www.cascais.pt/noticia/politicas-publicas-cascais-vence-premio-nacional-com-programa-mascaras-acessiveis>.
- Câmara Municipal de Cascais. “O Que Somos e o Que Queremos Ser”. Accessed September 25, 2021. <https://www.cascais.pt/area/cascais-o-que-somos-e-o-que-queremos-ser>.
- Capucho, Joana. 2016. “Do Lixo Ao Santo António. O Que Valem As Moedas Locais”. *Diário De Notícias*. Accessed September 15, 2021. <https://www.dn.pt/sociedade/do-lixo-ao-santo-antonio---o-que-valem-as-moedas-locais-5546670.html>.
- “Cartão Mais Solidário: Apoio Alimentar a Famílias (1.º E 2.º Escalão IRS).” Cartão Mais Solidário: apoio alimentar a famílias (1.º e 2.º escalão IRS) | Câmara Municipal de Cascais. Accessed December 2, 2021. <https://www.cascais.pt/cartao-mais-solidario-apoio-alimentar-familias-1o-e-2o-escalao-irs>.

## G. References

- “Cartão Viver Cascais: O Seu Título Para Transporte Rodoviário Gratuito.” Cartão Viver Cascais | O seu título para transporte rodoviário gratuito | Câmara Municipal de Cascais. Accessed December 2, 2021. <https://www.cascais.pt/noticia/cartao-viver-cascais-o-seu-titulo-para-transporte-rodoviario-gratuito>.
- “City Points Cascais.” CITY POINTS CASCAIS | Câmara Municipal de Cascais. Accessed December 2, 2021. <https://www.cascais.pt/citypoints>.
- “Comparative advantages of local currency against regular money.” Accessed October 4, 2021. [https://www.researchgate.net/figure/The-average-level-of-application-of-green-public-procurement-for-2018-in-SR\\_fig1\\_341251963](https://www.researchgate.net/figure/The-average-level-of-application-of-green-public-procurement-for-2018-in-SR_fig1_341251963).
- “Country Risk - Portugal.” Credendo. Accessed November 14, 2021. <https://credendo.com/en/country-risk/portugal>.
- Creative Group. 2021. “5 Arguments for Non-Cash Rewards over Monetary Incentives.” Accessed October 21, 2021. <https://www.creativegroupinc.com/2018/06/25/5-arguments-for-non-cash-rewards-over-cash/>.
- Darrell K. Rigby Jeff Sutherland Hirotaka Takeuchi, Bradley Staats and David M. Upton, and Steven Spear H. Kent Bowen. “Embracing Agile.” Harvard Business Review, August 27, 2021.
- *Deloitte*. “Circular Economy And Producing Locally”. *Deloitte*. Accessed September 20, 2021. <https://www2.deloitte.com/global/en/pages/public-sector/articles/urban-future-with-a-purpose/circular-economy-and-producing-locally.html>.

## G. References

- Deloitte Portugal. 2021. “Government Trends 2021: Deloitte Portugal: Public Sector”. Accessed September 30, 2021 <https://www2.deloitte.com/pt/pt/pages/public-sector/articles/government-trends-2021.html>.
- Deloitte Switzerland. “Shifting Sands: How Consumer Behaviour Is Embracing Sustainability,” July 16, 2020. <https://www2.deloitte.com/ch/en/pages/consumer-business/articles/shifting-sands-sustainable-consumer.html>.
- Direção-Geral Consumidor. “Vai Ser Criado Um Sistema De Incentivo Para a Devolução e Depósito De Embalagens De Bebidas.” Accessed November 27, 2021. <https://www.consumidor.gov.pt/comunicacao/noticias/vai-ser-criado-um-sistema-de-incentivo-para-a-devolucao-e-deposito-de-embalagens-de-bebidas.aspx>.
- Drumpt, Thomas van. 2013. “The Effects of Gamification on Environmental Knowledge and Behaviors.” Accessed September 30, 2021. <http://www.diva-portal.org/smash/search.jsf>.
- Efti, Steli. 2019. “Why Referrals Are the Most Valuable Form of Marketing (and How to Get More).” Forbes. Accessed October 4, 2021-[valuable-form-of-marketing-and-how-to-get-more](#)
- *Ellen MacArthur Foundation*. "Circular Economy Introduction". Accessed September 20, 2021. <https://ellenmacarthurfoundation.org/topics/circular-economy-introduction/overview>.
- *Ellen MacArthur Foundation*. "Circular Economy SME Business Support Programme: London". Accessed September 20, 2021. <https://ellenmacarthurfoundation.org/circular-examples/advance-london-circular-economy-sme-business-support-programme-london>.
- *Ellen MacArthur Foundation*. "Kick-Starting Circular Cities And Regions In Scotland: Glasgow". Accessed September 20, 2021. <https://ellenmacarthurfoundation.org/circular-examples/the-business-community-kick-starting-circular-cities-and-regions-in-scotland>.

## G. References

- *Ellen MacArthur Foundation*. "Measurement Framework For Cities & Local Businesses: Peterborough". Accessed September 20, 2021. <https://ellenmacarthurfoundation.org/circular-examples/developing-a-measurement-framework-for-the-city-and-local-businesses>.
- *Ellen MacArthur Foundation*. "Shaping A Sharing Economy: Amsterdam". Accessed September 20, 2021. <https://ellenmacarthurfoundation.org/circular-examples/shaping-a-sharing-economy-amsterdam>.
- "Fix Cascais." Fix Cascais | Câmara Municipal de Cascais. Accessed December 2, 2021. <https://www.cascais.pt/fixcascais>.
- Gale, Andrew. 2014. "5 Powerful Reasons You Need a Referral Program." Social Media Today. Accessed October 13, 2021.
- Goggin, Michael. "Explaining the VRIO Framework (with a Real-Life Example)." ClearPoint Strategy, September 27, 2021. <https://www.clearpointstrategy.com/vrio-framework/>.
- Gomes, João. 2017. "Moedas Municipais. Sim, Existem. E Já Houve Muitas Em Portugal". *Observador*. Accessed September 15, 2021. <https://observador.pt/2017/09/23/moedas-municipais-sim-existem-e-ja-houve-muitas-em-portugal/>.

## G. References

- Gonçalves, André. 2021. “Local Currencies Are One of the Latest Sustainability Trends. How Can They Make a Difference?” YouMatter. Accessed September 30, 2021. <https://youmatter.world/en/what-are-local-currencies-examples/>.
- Goodland, Robert. "Sustainability: Human, Social, Economic And Environmental". Accessed December 1, 2021. <http://www2.econ.iastate.edu/classes/tsc220/hallam/TypesOfSustainability.pdf>.
- Harvard Business Review. 2021. “How to Scale a Successful Pilot Project”. Accessed September 26, 2021. <https://hbr.org/2021/01/how-to-scale-a-successful-pilot-project>.
- Hurd, Aaron. 2021. “Cash Back vs. Flexible Rewards Points: How to Decide What's Right for You.” Forbes. Accessed November 10, 2021. <https://www.forbes.com/advisor/credit-cards/cash-back-vs-flexible-rewards-points-how-to-decide-whats-right-for-you/>.
- IMVF. 2021. “Saúde Para Todos: Rumo à Sustentabilidade: Projetos Saúde.” Accessed October 17, 2021. <https://www.imvf.org/project/saude-para-todos-rumo-a-sustentabilidade/>.
- INE. “O Que Se Considera Uma PME?” Accessed November 25, 2021. [https://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine\\_faqs&FAQSfaq\\_boui=64092016&FAQSmodo=1&xlang=pt](https://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_faqs&FAQSfaq_boui=64092016&FAQSmodo=1&xlang=pt).
- Kemp, Simon. “Digital in Portugal: All the Statistics You Need in 2021.” *DataReportal*. Accessed September 16, 2021. <https://datareportal.com/reports/digital-2021-portugal>.

## G. References

- Kemp, Simon. “Digital in Portugal: All the Statistics You Need in 2021.” *DataReportal*. Accessed September 16, 2021. <https://datareportal.com/reports/digital-2021-portugal>.
- Kumar, Gaurav, and Pradeep Kumar Bhatia. “Impact of Agile Methodology on Software Development Process.” Accessed October 3, 2021. [https://www.researchgate.net/profile/Gaurav-Kumar-175/publication/255707851\\_Impact\\_of\\_Agile\\_Methodology\\_on\\_Software\\_Development\\_Process/links/00b49520489442e12d000000/Impact-of-Agile-Methodology-on-Software-Development-Process.pdf](https://www.researchgate.net/profile/Gaurav-Kumar-175/publication/255707851_Impact_of_Agile_Methodology_on_Software_Development_Process/links/00b49520489442e12d000000/Impact-of-Agile-Methodology-on-Software-Development-Process.pdf).
- Kurosu, Masaaki. 2015. *Human-Computer Interaction: Design and Evaluation*. Springer.
- Jornal de Notícias. 2021. “Estrela Da Amadora É o Primeiro Clube Português a Lançar Uma Criptomoeda”. Accessed September 30, 2021. <https://www.jn.pt/desporto/estrela-da-amadora-e-o-primeiro-clube-portugues-a-lancar-uma-criptomoeda-13995354.html>.
- La Moneda Irati. 2021. Accessed November 9, 2021. <https://www.udalbiltza.eus/es/hartueman/la-moneda-irati>.
- Li, Chia-Ying. 2017. “Consumer Behavior in Switching between Membership Cards and Mobile Applications: The Case of Starbucks.” Pergamon. Accessed October 6, 2021.
- Livingston, Mercey. 2020. “How Exercise Can Make You Happier -- Even If You Hate It.” CNET. Accessed October 8, 2021. <https://www.cnet.com/health/fitness/ways-exercise-makes-you-happier/>.

## G. References

- Maister, David, Green, Charles, and Robert Galford. 2000. *The Trusted Advisor*. New York: The Free Press.
- McKinsey & Company. 2008. “Enduring Ideas: The 7-S Framework”. Accessed September 26, 2021. <https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/enduring-ideas-the-7-s-framework>.
- McKinsey & Company. “Tech-Driven Consumer Appetite for Digital Is Reshaping Retail's next Normal.” Accessed September 30, 2021. <https://www.mckinsey.com/business-functions/marketing-and-sales/solutions/periscope/news/press-releases/tech-driven-consumer-appetite-for-digital-is-reshaping-retails-next-normal>.
- Minto, Barbara. 2008. *The Pyramid Principle: Logic in Writing and Thinking*. Pearson Education Limited.
- “Mobicascais.” Accessed December 2, 2021. <https://mobi.cascais.pt/>.
- Moeda MOR. “A Moeda Local De Montemor-o-Novo.” Accessed September 30, 2021. .
- Morgan, Kate. 2021. “3 Self-Care Trends That Are Changing How People Look after Their Health.” Johnson & Johnson. Accessed October 10, 2021. <https://www.jnj.com/health-and-wellness/self-care-trends-that-could-change-your-approach-to-health>.
- Mosley, Megan. 2020. “The Uber Referral Program - Why Is It So Successful?” Referral Rock Blog. Accessed October 25, 2021. <https://referralrock.com/blog/uber-referral-program/>.
- Multicare. “Aceite o Desafio De Ter Uma Vida Mais Saudável.” Accessed October 14, 2021. <https://www.multicare.pt/PT/particulares/vitality/multicarevitality/Paginas/comofunciona.aspx>.

## G. References

- Multicare. “Aceite o Desafio De Ter Uma Vida Mais Saudável.” Accessed October 14, 2021. <https://www.multicare.pt/PT/particulares/vitality/multicarevitality/Paginas/comofunciona.aspx>.
- *Município De Lisboa*. Accessed September 15, 2021. <https://www.lisboa.pt/municipio/camara-municipal>.
- MyCascais. Accessed December 2, 2021. <https://my.cascais.pt/HomePage/Index/#/Welcome/>.
- NACS. “Gen Z, Millennials Shoppers Are Sensitive to Prices,” February 28, 2019.
- Osterwalder, Alexander, and Yves Pigneur. 2010. *Business Model Generation: a Handbook for Visionaries, Game Changers, and Challengers*. John Wiley and Sons.
- p2comportamento. “Adesão a Inovação”. Accessed October 15, 2021. <https://p2comportamento.wordpress.com/2013/06/20/adesao-a-inovacao/>.
- Partners, University Lab. “4 Key Types of Market Segmentation: Everything You Need to Know.” Home - University Lab Partners. Accessed November 28, 2021. <https://www.universitylabpartners.org/blog/key-types-market-segmentation-everything-you-need-to-know>.
- Patel, Rushabh. “6 Mobile App Onboarding Practices to Follow in 2020.” HubSpot Blog. Accessed, November 15, 2021. <https://blog.hubspot.com/service/mobile-app-onboarding>.
- Quality Incentive Company. 2018. “Cash vs. Non-Cash Incentives and Rewards - Which Motivates Better?” Accessed November 6, 2021. <https://qualityincentivecompany.com/qic-at-a-glance/recognition-incentive-resources/articles-white-papers/cash-vs-rewards/>.
- Rádio e Televisão de Portugal. 2012 “Campo Maior Lança Projeto Solidário”. Accessed September 30, 2021. [https://www.rtp.pt/noticias/pais/campo-maior-lanca-projeto-solidario\\_v571060](https://www.rtp.pt/noticias/pais/campo-maior-lanca-projeto-solidario_v571060).

## G. References

- Rasiel, Ethan. 1998. *The McKinsey Way: Using the Techniques of the World's Top Strategic Consultants to Help You and Your Business*. McGraw-Hill.
- Retail Insight Network. 2021. “Health and Wellness Is the Consumer Trend to Tackle and AI Can Help.” GlobalData Thematic Research. Accessed October 30, 2021. <https://www.retail-insight-network.com/comment/health-wellness-ai/>.
- Ries, Eric. 2011. *The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses*. Currency.
- *Salesforce*. "Lead Generation: A Guide To Getting Started". Accessed December 10, 2021. <https://www.salesforce.com/products/guide/lead-gen/>.
- Sporting CP. “Bitci é o Novo Main Sponsor Do Sporting CP,” September 11, 2021. <https://www.sporting.pt/pt/noticias/clube/noticias/2021-09-11/bitci-e-o-novo-main-sponsor-do-sporting-cp>.

## G. References

- Szaky, Tom. 2017. “The Positive Impact of Environmental ‘Gamification.’” Accessed September 30, 2021. [https://www.huffpost.com/entry/the-positive-impact-of-en\\_b\\_11386874](https://www.huffpost.com/entry/the-positive-impact-of-en_b_11386874).
- TSF Rádio Notícias. 2021. “Portugal Desperdiça 4 Milhões De Embalagens De Bebidas Todos Os Dias”. Accessed November 27, 2021. .
- Tynan, Caroline, and Jennifer Drayton. "Marketing Segmentation." Journal of Marketing Management. Accessed November 28, 2021. [https://d1wqtxts1xzle7.cloudfront.net/39711570/JMM\\_Market\\_Segmentation\\_ACT\\_\\_\\_JLD\\_1987-with-cover-page-v2.pdf?Expires=1639604678&Signature=fb13GHMV7XnwF8HdZIHyoHj6wC8v94HOUVmg6P1c0iTs02DuiMAiuMw3Qvqt7pWbjbi3zrRTkuq7zh9eEtD-hf-AMFHzpYDMWxEADq4RRT7tMjWe~dyRCfSPokpR7Xgv6Y8XUp7WDiMI3MH2II4BKA17owtR4t7wO4j4~-e9-EluDm0bRuGoNfsPm4Cj6zJSWXCz4c~4K0ele0e-0X5pZfq3SZNrNdQP38-XKb~p41om4i~ntiVBzagK0no~eQToeJPjIkWuBGA7AkSmDRbKGICfy1jLS0EOXvVfF0i8JY4-LTbYmYuWjAUPNdMfHmJ~PFxTejC-892sJevkReGsGA\\_\\_&Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA](https://d1wqtxts1xzle7.cloudfront.net/39711570/JMM_Market_Segmentation_ACT___JLD_1987-with-cover-page-v2.pdf?Expires=1639604678&Signature=fb13GHMV7XnwF8HdZIHyoHj6wC8v94HOUVmg6P1c0iTs02DuiMAiuMw3Qvqt7pWbjbi3zrRTkuq7zh9eEtD-hf-AMFHzpYDMWxEADq4RRT7tMjWe~dyRCfSPokpR7Xgv6Y8XUp7WDiMI3MH2II4BKA17owtR4t7wO4j4~-e9-EluDm0bRuGoNfsPm4Cj6zJSWXCz4c~4K0ele0e-0X5pZfq3SZNrNdQP38-XKb~p41om4i~ntiVBzagK0no~eQToeJPjIkWuBGA7AkSmDRbKGICfy1jLS0EOXvVfF0i8JY4-LTbYmYuWjAUPNdMfHmJ~PFxTejC-892sJevkReGsGA__&Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA)
- “What Is a Survey” Accessed November 28, 2021. <http://www.rickweil.com/s2211/whatisasurvey.pdf>.

## G. References

- “#Eucompronocomérciocal.” DNA Cascais, October 27, 2020. <https://www.dnacascais.pt/2020/09/18/eucompronocomerciocal/>.
- Agrawal, Nitin. 2020. “9 Viral Referral Programs That Helped in Exponential Growth.” LinkedIn. Accessed October 24, 2021. <https://www.linkedin.com/pulse/9-viral-referral-programs-helped-exponential-growth-nitin-agrawal/>.
- Amaresan, Swetha. 2021. “Everything You Need to Know about Customer Lifecycle Management.” HubSpot Blog. Accessed October 9, 2021. <https://blog.hubspot.com/service/customer-lifecycle-management>.
- Ambiente Magazine. “Projeto IREC Recolhe Mais De 400 Mil Embalagens Em Seis Meses.” Accessed November 28, 2021. <https://www.ambientemagazine.com/projeto-irec-recolhe-mais-de-400-mil-embalagens-em-seis-meses/>.
- Argemí, Anna. 2020. “La Moneda Navarra Que Incentiva La Recogida Selectiva De Residuos.” El País. Accessed November 12, 2021. [https://elpais.com/elpais/2020/02/24/alterconsumismo/1582535553\\_797301.html](https://elpais.com/elpais/2020/02/24/alterconsumismo/1582535553_797301.html).
- Assembleia de República. “Página Oficial Da Assembleia Da República.” Accessed December 15, 2021. <https://www.parlamento.pt/ActividadeParlamentar/Paginas/DetalleIniciativa.aspx?BID=42600>.
- AYTM. “Online Market Research: Aytm Market Research.” Accessed December 3, 2021. .

## G. References

- Beat the Street. “Join the Fun and Play.” Beat the Street. Accessed September 30, 2021. <https://www.beatthestreet.me/>.
- “Behavioral Segmentation: Definition, Examples, and Benefits.” CleverTap. Accessed November 28, 2021. <https://clevertap.com/blog/behavioral-segmentation/>.
- *Berkshire Hathaway Home Services | Portugal Properties*. "Portugal Named One Of The Most Eco-Friendly Countries In The World". Accessed December 6, 2021. <https://www.portugalproperty.com/news-blog/portugal-named-one-of-the-most-eco-friendly-countries-in-the-world>.
- Bernecker, Andreas, Julia Klier, Sebastian Stern, and Lea Thiel. 2021. “Sustaining High Performance beyond Public-Sector Pilot Projects.” McKinsey & Company. Accessed December 2, 2021. <https://www.mckinsey.com/industries/public-and-social-sector/our-insights/sustaining-high-performance-beyond-public-sector-pilot-projects>.
- “Bristol Pay.” Bristol Pay. Accessed November 3, 2021. <https://www.bristolpay.org.uk/#welcome-to-bristol-pay>.
- Buznea, Crista. “Gamification: The Key to Sustainability Engagement?” Ecologi. Accessed September 30, 2021. <https://ecologi.com/articles/blog/gamification-the-key-to-sustainability-engagement-and-behaviour-change>.

## G. References

- *Câmara Municipal de Cascais*. 2020. “APP Citypoints Cascais E Mobicascais Recebem Prémios IDC | Câmara Municipal De Cascais”. Accessed September 15, 2021. <https://www.cascais.pt/noticia/app-citypoints-cascais-e-mobicascais-recebem-premios-idc>.
- *Câmara Municipal de Cascais*. “Cascais Com Orçamento Reforçado Para 2020”. Accessed September 25, 2021. <https://www.cascais.pt/noticia/cascais-com-orcamento-reforcado-para-2020>.
- Câmara Municipal de Cascais. 2021. “Há Um Novo Jogo Para Cuidar Da Sua Saúde: ‘Desafios Saudáveis.’” Accessed October 12, 2021. <https://www.cascais.pt/noticia/ha-um-novo-jogo-para-cuidar-da-sua-saude-desafios-saudaveis#:~:text=Sobre%20o%20Jogo%20Desafios%20Saud%C3%A1veis,saud%C3%A1veis%20junto%20dos%20seus%20colaboradores>.
- Câmara Municipal de Cascais. “IREC - INOVAR a Reciclagem.” Sistema de Incentivo à Devolução de Embalagens de Bebidas em Cascais. Accessed November 28, 2021. [https://ambiente.cascais.pt/sites/default/files/anexos/irec\\_-\\_resultados\\_abril\\_2021\\_r.pdf](https://ambiente.cascais.pt/sites/default/files/anexos/irec_-_resultados_abril_2021_r.pdf).
- *Câmara Municipal de Cascais*. 2020. “Políticas Públicas: Cascais Vence Prémio Nacional Com Programa Máscaras Acessíveis | Câmara Municipal De Cascais”. Accessed September 15, 2021. <https://www.cascais.pt/noticia/politicas-publicas-cascais-vence-premio-nacional-com-programa-mascaras-acessiveis>.
- Câmara Municipal de Cascais. “O Que Somos e o Que Queremos Ser”. Accessed September 25, 2021. <https://www.cascais.pt/area/cascais-o-que-somos-e-o-que-queremos-ser>.
- Capucho, Joana. 2016. “Do Lixo Ao Santo António. O Que Valem As Moedas Locais”. *Diário De Notícias*. Accessed September 15, 2021. <https://www.dn.pt/sociedade/do-lixo-ao-santo-antonio---o-que-valem-as-moedas-locais-5546670.html>.
- “Cartão Mais Solidário: Apoio Alimentar a Famílias (1.º E 2.º Escalão IRS).” Cartão Mais Solidário: apoio alimentar a famílias (1.º e 2.º escalão IRS) | Câmara Municipal de Cascais. Accessed December 2, 2021. <https://www.cascais.pt/cartao-mais-solidario-apoio-alimentar-familias-1o-e-2o-escalao-irs>.

## G. References

- “Cartão Viver Cascais: O Seu Título Para Transporte Rodoviário Gratuito.” Cartão Viver Cascais | O seu título para transporte rodoviário gratuito | Câmara Municipal de Cascais. Accessed December 2, 2021. <https://www.cascais.pt/noticia/cartao-viver-cascais-o-seu-titulo-para-transporte-rodoviario-gratuito>.
- “City Points Cascais.” CITY POINTS CASCAIS | Câmara Municipal de Cascais. Accessed December 2, 2021. <https://www.cascais.pt/citypoints>.
- “Comparative advantages of local currency against regular money.” Accessed October 4, 2021. [https://www.researchgate.net/figure/The-average-level-of-application-of-green-public-procurement-for-2018-in-SR\\_fig1\\_341251963](https://www.researchgate.net/figure/The-average-level-of-application-of-green-public-procurement-for-2018-in-SR_fig1_341251963).
- “Country Risk - Portugal.” Credendo. Accessed November 14, 2021. <https://credendo.com/en/country-risk/portugal>.
- Creative Group. 2021. “5 Arguments for Non-Cash Rewards over Monetary Incentives.” Accessed October 21, 2021. <https://www.creativegroupinc.com/2018/06/25/5-arguments-for-non-cash-rewards-over-cash/>.
- Darrell K. Rigby Jeff Sutherland Hirotaka Takeuchi, Bradley Staats and David M. Upton, and Steven Spear H. Kent Bowen. “Embracing Agile.” Harvard Business Review, August 27, 2021.
- *Deloitte*. “Circular Economy And Producing Locally”. *Deloitte*. Accessed September 20, 2021. <https://www2.deloitte.com/global/en/pages/public-sector/articles/urban-future-with-a-purpose/circular-economy-and-producing-locally.html>.

## G. References

- Deloitte Portugal. 2021. “Government Trends 2021: Deloitte Portugal: Public Sector”. Accessed September 30, 2021 <https://www2.deloitte.com/pt/pt/pages/public-sector/articles/government-trends-2021.html>.
- Deloitte Switzerland. “Shifting Sands: How Consumer Behaviour Is Embracing Sustainability,” July 16, 2020. <https://www2.deloitte.com/ch/en/pages/consumer-business/articles/shifting-sands-sustainable-consumer.html>.
- Direção-Geral Consumidor. “Vai Ser Criado Um Sistema De Incentivo Para a Devolução e Depósito De Embalagens De Bebidas.” Accessed November 27, 2021. <https://www.consumidor.gov.pt/comunicacao/noticias/vai-ser-criado-um-sistema-de-incentivo-para-a-devolucao-e-deposito-de-embalagens-de-bebidas.aspx>.
- Drumpt, Thomas van. 2013. “The Effects of Gamification on Environmental Knowledge and Behaviors.” Accessed September 30, 2021. <http://www.diva-portal.org/smash/search.jsf>.
- Efti, Steli. 2019. “Why Referrals Are the Most Valuable Form of Marketing (and How to Get More).” Forbes. Accessed October 4, 2021-[valuable-form-of-marketing-and-how-to-get-more](https://www.forbes.com/2019/10/04/valuable-form-of-marketing-and-how-to-get-more/)
- *Ellen MacArthur Foundation*. "Circular Economy Introduction". Accessed September 20, 2021. <https://ellenmacarthurfoundation.org/topics/circular-economy-introduction/overview>.
- *Ellen MacArthur Foundation*. "Circular Economy SME Business Support Programme: London". Accessed September 20, 2021. <https://ellenmacarthurfoundation.org/circular-examples/advance-london-circular-economy-sme-business-support-programme-london>.
- *Ellen MacArthur Foundation*. "Kick-Starting Circular Cities And Regions In Scotland: Glasgow". Accessed September 20, 2021. <https://ellenmacarthurfoundation.org/circular-examples/the-business-community-kick-starting-circular-cities-and-regions-in-scotland>.

## G. References

- *Ellen MacArthur Foundation*. "Measurement Framework For Cities & Local Businesses: Peterborough". Accessed September 20, 2021. <https://ellenmacarthurfoundation.org/circular-examples/developing-a-measurement-framework-for-the-city-and-local-businesses>.
- *Ellen MacArthur Foundation*. "Shaping A Sharing Economy: Amsterdam". Accessed September 20, 2021. <https://ellenmacarthurfoundation.org/circular-examples/shaping-a-sharing-economy-amsterdam>.
- "Fix Cascais." Fix Cascais | Câmara Municipal de Cascais. Accessed December 2, 2021. <https://www.cascais.pt/fixcascais>.
- Gale, Andrew. 2014. "5 Powerful Reasons You Need a Referral Program." Social Media Today. Accessed October 13, 2021.
- Goggin, Michael. "Explaining the VRIO Framework (with a Real-Life Example)." ClearPoint Strategy, September 27, 2021. <https://www.clearpointstrategy.com/vrio-framework/>.
- Gomes, João. 2017. "Moedas Municipais. Sim, Existem. E Já Houve Muitas Em Portugal". *Observador*. Accessed September 15, 2021. <https://observador.pt/2017/09/23/moedas-municipais-sim-existem-e-ja-houve-muitas-em-portugal/>.

## G. References

- Gonçalves, André. 2021. “Local Currencies Are One of the Latest Sustainability Trends. How Can They Make a Difference?” YouMatter. Accessed September 30, 2021. <https://youmatter.world/en/what-are-local-currencies-examples/>.
- Goodland, Robert. "Sustainability: Human, Social, Economic And Environmental". Accessed December 1, 2021. <http://www2.econ.iastate.edu/classes/tsc220/hallam/TypesOfSustainability.pdf>.
- Harvard Business Review. 2021. “How to Scale a Successful Pilot Project”. Accessed September 26, 2021. <https://hbr.org/2021/01/how-to-scale-a-successful-pilot-project>.
- Hurd, Aaron. 2021. “Cash Back vs. Flexible Rewards Points: How to Decide What's Right for You.” Forbes. Accessed November 10, 2021. <https://www.forbes.com/advisor/credit-cards/cash-back-vs-flexible-rewards-points-how-to-decide-whats-right-for-you/>.
- IMVF. 2021. “Saúde Para Todos: Rumo à Sustentabilidade: Projetos Saúde.” Accessed October 17, 2021. <https://www.imvf.org/project/saude-para-todos-rumo-a-sustentabilidade/>.
- INE. “O Que Se Considera Uma PME?” Accessed November 25, 2021. [https://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine\\_faqs&FAQSfaq\\_boui=64092016&FAQSmodo=1&xlang=pt](https://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_faqs&FAQSfaq_boui=64092016&FAQSmodo=1&xlang=pt).
- Kemp, Simon. “Digital in Portugal: All the Statistics You Need in 2021.” *DataReportal*. Accessed September 16, 2021. <https://datareportal.com/reports/digital-2021-portugal>.

## G. References

- Kemp, Simon. “Digital in Portugal: All the Statistics You Need in 2021.” *DataReportal*. Accessed September 16, 2021. <https://datareportal.com/reports/digital-2021-portugal>.
- Kumar, Gaurav, and Pradeep Kumar Bhatia. “Impact of Agile Methodology on Software Development Process.” Accessed October 3, 2021. [https://www.researchgate.net/profile/Gaurav-Kumar-175/publication/255707851\\_Impact\\_of\\_Agile\\_Methodology\\_on\\_Software\\_Development\\_Process/links/00b49520489442e12d000000/Impact-of-Agile-Methodology-on-Software-Development-Process.pdf](https://www.researchgate.net/profile/Gaurav-Kumar-175/publication/255707851_Impact_of_Agile_Methodology_on_Software_Development_Process/links/00b49520489442e12d000000/Impact-of-Agile-Methodology-on-Software-Development-Process.pdf).
- Kurosu, Masaaki. 2015. *Human-Computer Interaction: Design and Evaluation*. Springer.
- Jornal de Notícias. 2021. “Estrela Da Amadora É o Primeiro Clube Português a Lançar Uma Criptomoeda”. Accessed September 30, 2021. <https://www.jn.pt/desporto/estrela-da-amadora-e-o-primeiro-clube-portugues-a-lancar-uma-criptomoeda-13995354.html>.
- La Moneda Irati. 2021. Accessed November 9, 2021. <https://www.udalbiltza.eus/es/hartueman/la-moneda-irati>.
- Li, Chia-Ying. 2017. “Consumer Behavior in Switching between Membership Cards and Mobile Applications: The Case of Starbucks.” Pergamon. Accessed October 6, 2021.
- Livingston, Mercey. 2020. “How Exercise Can Make You Happier -- Even If You Hate It.” CNET. Accessed October 8, 2021. <https://www.cnet.com/health/fitness/ways-exercise-makes-you-happier/>.

## G. References

- Maister, David, Green, Charles, and Robert Galford. 2000. *The Trusted Advisor*. New York: The Free Press.
- McKinsey & Company. 2008. “Enduring Ideas: The 7-S Framework”. Accessed September 26, 2021. <https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/enduring-ideas-the-7-s-framework>.
- McKinsey & Company. “Tech-Driven Consumer Appetite for Digital Is Reshaping Retail's next Normal.” Accessed September 30, 2021. <https://www.mckinsey.com/business-functions/marketing-and-sales/solutions/periscope/news/press-releases/tech-driven-consumer-appetite-for-digital-is-reshaping-retails-next-normal>.
- Minto, Barbara. 2008. *The Pyramid Principle: Logic in Writing and Thinking*. Pearson Education Limited.
- “Mobicascais.” Accessed December 2, 2021. <https://mobi.cascais.pt/>.
- Moeda MOR. “A Moeda Local De Montemor-o-Novo.” Accessed September 30, 2021. .
- Morgan, Kate. 2021. “3 Self-Care Trends That Are Changing How People Look after Their Health.” Johnson & Johnson. Accessed October 10, 2021. <https://www.jnj.com/health-and-wellness/self-care-trends-that-could-change-your-approach-to-health>.
- Mosley, Megan. 2020. “The Uber Referral Program - Why Is It So Successful?” Referral Rock Blog. Accessed October 25, 2021. <https://referralrock.com/blog/uber-referral-program/>.
- Multicare. “Aceite o Desafio De Ter Uma Vida Mais Saudável.” Accessed October 14, 2021. <https://www.multicare.pt/PT/particulares/vitality/multicarevitality/Paginas/comofunciona.aspx>.

## G. References

- Multicare. “Aceite o Desafio De Ter Uma Vida Mais Saudável.” Accessed October 14, 2021. <https://www.multicare.pt/PT/particulares/vitality/multicarevitality/Paginas/comofunciona.aspx>.
- *Município De Lisboa*. Accessed September 15, 2021. <https://www.lisboa.pt/municipio/camara-municipal>.
- MyCascais. Accessed December 2, 2021. <https://my.cascais.pt/HomePage/Index/#/Welcome/>.
- NACS. “Gen Z, Millennials Shoppers Are Sensitive to Prices,” February 28, 2019.
- Osterwalder, Alexander, and Yves Pigneur. 2010. *Business Model Generation: a Handbook for Visionaries, Game Changers, and Challengers*. John Wiley and Sons.
- p2comportamento. “Adesão a Inovação”. Accessed October 15, 2021. <https://p2comportamento.wordpress.com/2013/06/20/adesao-a-inovacao/>.
- Partners, University Lab. “4 Key Types of Market Segmentation: Everything You Need to Know.” Home - University Lab Partners. Accessed November 28, 2021. <https://www.universitylabpartners.org/blog/key-types-market-segmentation-everything-you-need-to-know>.
- Patel, Rushabh. “6 Mobile App Onboarding Practices to Follow in 2020.” HubSpot Blog. Accessed, November 15, 2021. <https://blog.hubspot.com/service/mobile-app-onboarding>.
- Quality Incentive Company. 2018. “Cash vs. Non-Cash Incentives and Rewards - Which Motivates Better?” Accessed November 6, 2021. <https://qualityincentivecompany.com/qic-at-a-glance/recognition-incentive-resources/articles-white-papers/cash-vs-rewards/>.
- Rádio e Televisão de Portugal. 2012 “Campo Maior Lança Projeto Solidário”. Accessed September 30, 2021. [https://www.rtp.pt/noticias/pais/campo-maior-lanca-projeto-solidario\\_v571060](https://www.rtp.pt/noticias/pais/campo-maior-lanca-projeto-solidario_v571060).

## G. References

- Rasiel, Ethan. 1998. *The McKinsey Way: Using the Techniques of the World's Top Strategic Consultants to Help You and Your Business*. McGraw-Hill.
- Retail Insight Network. 2021. “Health and Wellness Is the Consumer Trend to Tackle and AI Can Help.” GlobalData Thematic Research. Accessed October 30, 2021. <https://www.retail-insight-network.com/comment/health-wellness-ai/>.
- Ries, Eric. 2011. *The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses*. Currency.
- *Salesforce*. "Lead Generation: A Guide To Getting Started". Accessed December 10, 2021. <https://www.salesforce.com/products/guide/lead-gen/>.
- Sporting CP. “Bitci é o Novo Main Sponsor Do Sporting CP,” September 11, 2021. <https://www.sporting.pt/pt/noticias/clube/noticias/2021-09-11/bitci-e-o-novo-main-sponsor-do-sporting-cp>.

## G. References

- Szaky, Tom. 2017. “The Positive Impact of Environmental ‘Gamification.’” Accessed September 30, 2021. [https://www.huffpost.com/entry/the-positive-impact-of-en\\_b\\_11386874](https://www.huffpost.com/entry/the-positive-impact-of-en_b_11386874).
- TSF Rádio Notícias. 2021. “Portugal Desperdiça 4 Milhões De Embalagens De Bebidas Todos Os Dias”. Accessed November 27, 2021. .
- Tynan, Caroline, and Jennifer Drayton. "Marketing Segmentation." Journal of Marketing Management. Accessed November 28, 2021. [https://d1wqtxts1xzle7.cloudfront.net/39711570/JMM\\_Market\\_Segmentation\\_ACT\\_\\_\\_JLD\\_1987-with-cover-page-v2.pdf?Expires=1639604678&Signature=fb13GHMV7XnwF8HdZIHyoHj6wC8v94HOUVmg6P1c0iTs02DuiMAiuMw3Qvqt7pWbjbi3zrRTkuq7zh9eEtD-hf-AMFHzpYDMWxEADq4RRT7tMjWe~dyRCfSPokpR7Xgv6Y8XUp7WDiMI3MH2II4BKA17owtR4t7wO4j4~-e9-EluDm0bRuGoNfsPm4Cj6zJSWXCz4c~4K0ele0e-0X5pZfq3SZNrNdQP38-XKb~p41om4i~ntiVBzagK0no~eQToeJPjIkWuBGA7AkSmDRbKGICfy1jLS0EOXvVfF0i8JY4-LTbYmYuWjAUPNdMfHmJ~PFxTejC-892sJevkReGsGA\\_\\_&Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA](https://d1wqtxts1xzle7.cloudfront.net/39711570/JMM_Market_Segmentation_ACT___JLD_1987-with-cover-page-v2.pdf?Expires=1639604678&Signature=fb13GHMV7XnwF8HdZIHyoHj6wC8v94HOUVmg6P1c0iTs02DuiMAiuMw3Qvqt7pWbjbi3zrRTkuq7zh9eEtD-hf-AMFHzpYDMWxEADq4RRT7tMjWe~dyRCfSPokpR7Xgv6Y8XUp7WDiMI3MH2II4BKA17owtR4t7wO4j4~-e9-EluDm0bRuGoNfsPm4Cj6zJSWXCz4c~4K0ele0e-0X5pZfq3SZNrNdQP38-XKb~p41om4i~ntiVBzagK0no~eQToeJPjIkWuBGA7AkSmDRbKGICfy1jLS0EOXvVfF0i8JY4-LTbYmYuWjAUPNdMfHmJ~PFxTejC-892sJevkReGsGA__&Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA)
- “What Is a Survey” Accessed November 28, 2021. <http://www.rickweil.com/s2211/whatisasurvey.pdf>.

## G. References

- AYTM. “Online Market Research: AytM Market Research.” Accessed December 3, 2021. <https://aytm.com/pages/mes>.
- Banco de Portugal. “Consulta Pública Do Banco De Portugal N.º 5/2020 – Projeto REGULAMENTAR Relativo AO Registo De Entidades Que Exercem Atividades Com Ativos Virtuais”. Consulta pública do Banco de Portugal. Accessed December 3, 2021. <https://www.bportugal.pt/comunicado/consulta-publica-do-banco-de-portugal-no-52020-projeto-regulamentar-relativo-ao-registo>.
- *Cascais Data*. "Economia | Cascais Data". Accessed September 16, 2021. <https://data.cascais.pt/pt-pt/economia>.
- Charter Global. “6 Creative Ideas to Test Your Mobile Apps before You Launch It!” Software Development & IT Staffing Company. Accessed by October 21, 2021. <https://www.charterglobal.com/6-creative-ways-to-test-mobile-apps-before-launch/>.
- De Smet, Aaron. 2018. “Get Agile Faster through Pilot Programs.” Accessed October 22, 2021. <https://www.mckinsey.com/business-functions/people-and-organizatice/our-insights/the-organization-blog/get-agile-faster-through-pilot-programs>.
- “Everyday Maths 2.” OpenLearn. Accessed November 27, 2021. <https://www.open.edu/openlearn/ocw/mod/oucontent/view.php?id=85587&ion=1>.
- Moore, Geoffrey A. 1991. *Crossing the Chasm: Marketing and Selling High-Tech Products to Mainstream Customers*. HarperBusiness.
- p2comportamento. “Adesão a Inovação”. Accessed October 15, 2021. <https://p2comportamento.wordpress.com/2013/06/20/adesao-a-inovacao/>.
- *Pordata*. 2021. “Conheça o Seu Município”. Accessed September 25, 2021. <https://www.pordata.pt/Municipios>.
- *Pordata*. “População.” Accessed November 27, 2021. <https://www.pordata.pt/Subtema/Municipios/Censos+da+Popula%c3%a7%c3%a3o-204>.

## G. References

- “Sample Size: Stratified Random Samples.” Sample Size: Stratified Sample. Accessed November 27, 2021. <https://stattrek.com/sample-size/stratified-sample.aspx>.
- Sean P. Kane, PharmD. Post-hoc power calculator. Accessed November 27, 2021. <https://clincalc.com/stats/Power.aspx>.

## Appendix Agenda

1. [Appendix 1: Team Members](#)
2. [Appendix 2: Project Timeline](#)
3. [Appendix 3: Inductive reasoning](#)
4. [Appendix 4: Survey](#)
  - I. [Questions](#)
  - II. [Results](#)
5. [Appendix 5: Pilot Segmentation](#)
6. [Appendix 6: Actions to be included on the app](#)
7. [Appendix 7: Onboarding process](#)
8. [Appendix 8: Sustainable certification](#)
9. [Appendix 9: Marketing](#)
10. [Appendix 10: Balanced Scorecard](#)
  - I. [KPIs](#)
  - II. [Initiatives](#)
11. [Appendix 11: SDGs in-depth](#)
12. [Appendix 12: Financial projections](#)
13. [Appendix 13: Recognition](#)



We are a motivated and hardworking team ready to implement such an innovative and original project

## Appendix 1: Team Members



Fire



President  
and  
Teamworker

**FILIPE  
GONÇALVES**



### EDUCATION

- BSc in Computer Science and Business Management at Iscte - IUL
- MSc in Management at Nova SBE, with specialization in Strategy and International Business

### PROFILE

- Internship in strategic consulting in the digital area
- Internship in project management and low-code development



Water



Teamworker

**MADALENA  
FERNANDES**



### EDUCATION

- BSc in Management at Nova SBE
- Exchange semester at the Universidad de Navarra
- MSc in Management at Nova SBE, with specialization in Marketing

### PROFILE

- International and national volunteering
- Experience in Marketing, NGOs, and customer service



Water



Teamworker

**MARGARIDA  
DAMAS**



### EDUCATION

- BSc in Management at Nova SBE
- Exchange semester at ZSEM, Croatia
- MSc in Management at Nova SBE, with specialization in Strategy and International Business

### PROFILE

- Projects in the consulting area
- Marketing and international expansion experience
- Experience in the Town Hall of Abrantes



Air



Intellect  
ual

**PEDRO MELLO  
VIEIRA**



### EDUCATION

- BSc in Management at Nova SBE
- Exchange semester at the University of Victoria in British Columbia, Canada
- MSc in Management at Nova SBE, with specialization in Strategy and International Business

### PROFILE

- Internship in a consulting company in the area of enterprise applications

## Personality

### Appendix 1: Team Members



#### Filipe Gonçalves



Fire



President and  
Teamworker

#### Tetramap Element

The fire element is always looking at the positive side of life, they love to explore possibilities and inspire others to see bright futures. Fire Elements are colorful, love variety, and have a great sense of fun! Fire element is full of ideas and inspire and excite us to create bright futures together.

Source: Belbin, Tetramap

#### Belbin Team Role

The President's role in a team is to clarify objectives and define the business agenda by establishing priorities. It is mostly a coordination job and leverage the data to allow a better decision-making. The Team Worker role is to promote unity and harmony within a group, being always ready to help colleagues.

This group work gave me the opportunity to develop my leaderships skill by working as team manager and manage the relation with our stakeholders, namely the client, and the software company provider.

My goal was to learn as much as possible to be able, as a team, to deliver real impact for the client.

#### Key Takeaways

The Consulting Lab was an incredible opportunity to co-create a project that will benefit more than 200.000 citizens in the municipality of Cascais. Topics such as sustainability, recycling and circular economy are some of my major interests and could learn more about them in this project. Working with a Town Hall was very rewarding, not only because of the intrinsic characteristics but also because of their vision, in Cascais “Everything starts with people”, that motto drove my ambition to build a project with real benefits.

# Personality

## Appendix 1: Team Members



### MADALENA FERNANDES



Water



Teamworker

### Tetramap Element

Water Elements are important in maintaining teams together and keeping the harmony and flow within. They are caring and loyal and feel deeply for others. They are very inclusive and show great effort and patience.

### Belbin Team Role

Team Workers are co-operative, diplomatic and perceptive. They are the group members who provide support and make sure that everyone is working together effectively. Usually play a role of negotiators by listening and averting friction. Team Workers are extremely flexible and versatile, and as such are highly comfortable with working with diverse people and groups. Always ready to help its colleagues and promote harmony and unity. This group work allowed to further develop my teamworking skills, as well as many other skills by being forced to work in such an intense and demanding environment.

### Key Takeaways

It was a great privilege to be part of the consulting lab and to be able to work with such an innovative and dynamic Town Hall as CMC. This project was quite a challenge, as it was highly demanding and required full time and dedication. However, it was a very rewarding project to be a part of and I was able to learn in depth about several exciting topics, such as sustainability and local digital currencies, which allowed me to increase my knowledge and my interest in such areas.

## Personality

### Appendix 1: Team Members



#### MARGARIDA DAMAS



Water



Teamworker

#### Tetramap Element

The water element is considered calm, consistent, deep, but under pressure can be hesitant. They are governed by feelings and think in a collaborative way, being people-oriented. In a team, they bring harmony, inclusivity, patience and loyalty, while being very practical.

Source: Belbin, Tetramap

#### Belbin Team Role

The Teamworker is the most enthusiastic member of the team, always ready to help colleagues, usually knowing their needs, expectations and worries. The Teamworker seeks to promote a good work environment, encouraging others to express themselves freely and being very supportive on others' relevant ideas.

This group work was important for me grow as a team member and to work on my developing opportunities. I always remained positive, enthusiastic and supportive, proactively seeking to deliver relevant recommendations for CMC to reach its goals.

#### Key Takeaways

It was an honour to be able to be part of the Consulting Labs and be able to learn so much in a short amount of time. I was able to have a taste of a consultant's work life and was exposed to the importance of co-creation with the client. At the same time, I was able to learn more about the public sector and explore in-depth digital currencies. All in all, it was a very rewarding project, which brought valuable key learnings for life and where my focus was to deliver the maximum value to our client and, consequently, Cascais citizens.

## Personality

### Appendix 1: Team Members



**PEDRO MELLO  
VIEIRA**



Air



Intellectual

#### Tetramap Element

The air element is a clear element on the team: the one that brings logic and is critical (even with himself). He tries to rationalize all the ideas / methodologies used in the group work and is always seeking for potential problems for nothing in the work delivered to be left unexplained. Everything needs to have a logic.

Source: Belbin, Tetramap

#### Belbin Team Role

The intellectual is an idea-generator person, who feeds the group new and innovative solutions to the problems the face faces. Usually, the Intellectual seeks the root of the problems / questions in order to propose new procedures and objectives.

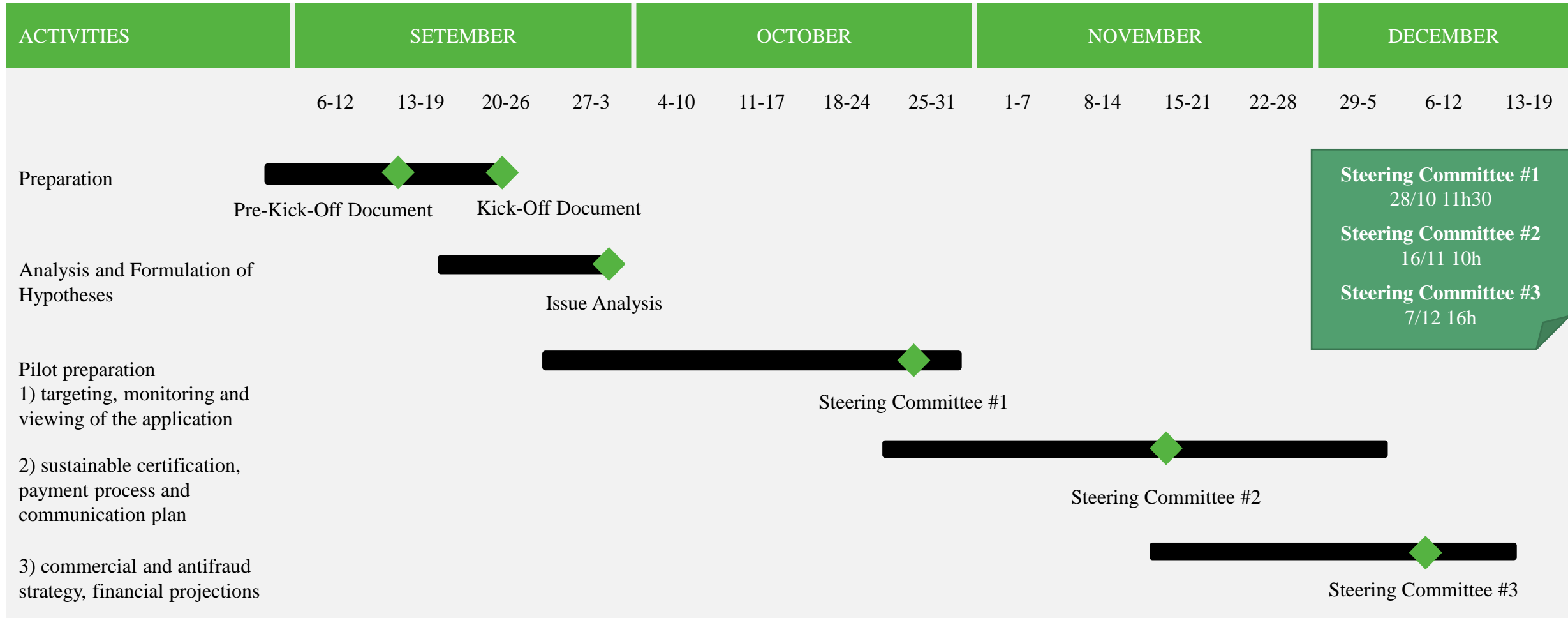
My group work allowed me to develop my creative and imaginative role by trying to figure out new ideas and solutions in a topic that is not my area of expertise – local coin and technology sector, while also trying to be able to meet all the proposed deadlines by the team.

#### Key Takeaways

The Consulting Lab was the cherry in the top of the cake of my Nova experience. It allowed me to explore my 4.5-year learnings at Nova by putting them to practice. However, it was a highly challenging experience, as we needed to cope / negotiate the client's expectations, as well as trying to incorporate economic and business theory to a real-life situation. It is also really rewarding seeing that our recommendations will someday gain life and that Cashcais, a project I'm honored to call "our own" will help more than 200.000 people in Cascais.

**With the duration of nearly 4 months, the project was divided in 4 phases, an initial kick-off meeting and 3 steering committee where there was continuous communication between the team and CMC**

## Appendix 2: Project Timeline



Process



Milestone

## In order to be able to implement the local currency and meet its objectives, value retention strategies must be created within the municipality of Cascais

### Appendix 3: Inductive Reasoning

Should CMC create a local digital currency, Cashcais, to promote economic, environmental, social and health sustainability?

How?

1. Create strategies to increase business activity in Cascais

2. Promote environmental awareness

3. Implement mechanisms to reduce social disparities

4. Encourage a healthy lifestyle among citizens

5. Create a marketing strategy

6. Incentivize the digitalization of the municipality

1.1. Consumer

1.1.1. Cashback

Cascais companies that participate in the project will offer different *cashback* for each purchase

How?

Purchases in Euros

Purchases in Cashcais

Purchases in Euros+Cashcais

Where?

Small local stores

Supermarkets

Different sectors

Others

1.1.2. Coverage

The Cashcais program will cover different groups of consumers

Área Metropolitana de Lisboa residents

Cascais residents

Cascais workers and students

Others

Other Portuguese

Foreign tourists

1.1.3. Limitations

CMC should impose product limits

Alcoholic drinks

Cigarettes

Gambling

Evening entertainment

## In order to be able to implement the local currency and meet its objectives, value retention strategies must be created within the municipality of Cascais

### Appendix 3: Inductive Reasoning

Should CMC create a local digital currency, Cashcais, to promote economic, environmental, social and health sustainability?

How?

1. Create strategies to increase business activity in Cascais

2. Promote environmental awareness

3. Implement mechanisms to reduce social disparities

4. Encourage a healthy lifestyle among citizens

5. Create a marketing strategy

6. Incentivize the digitalization of the municipality

#### 1.2. Partner companies

##### 1.2.1. Cashback

The Cascais companies that participate in the project will receive cashback in Cashcais when buying from local suppliers

How?

Purchases in Euros

Purchases in Cashcais

Purchases in Euros+Cashcais

Where?

Cascais-based suppliers

##### 1.2.2. Coverage

In order to boost the local economy, businesses in the project need to be local

Cascais Companies

Cascais-based suppliers

##### 1.2.3. Municipal Taxes

User companies of the application will be able to pay the municipal fees in Cashcais

CMC Investment

# Environmental awareness of consumers is indispensable in the creation of local digital currency, promoting environmental sustainability

## Appendix 3: Inductive Reasoning

Should CMC create a local digital currency, Cashcais, to promote economic, environmental, social and health sustainability?

How?

1. Create strategies to increase business activity in Cascais

2. Promote environmental awareness

3. Implement mechanisms to reduce social disparities

4. Encourage a healthy lifestyle among citizens

5. Create a marketing strategy

6. Incentivize the digitalization of the municipality

2.1 Consumer

2.1.1. Awareness

2.1.2. Incorporation of the *City Points* app

2.1.2. Reward citizenship

The Town Hall should raise awareness for environmental issues

Which sustainable actions should be awarded?

Recycling urban waste

Commuting on public transports

Volunteering actions

Blood donation

Ride-sharing services

Animal adoption

Others

2.1.2.1. Rewards

2.1.2.2. Leaderboard

2.1.2.1.1. Cashback

2.1.2.1.2. Awards

CMC will offer additional cashback to consumers

CMC will offer different awards to consumers

Define the additional cashback percentage

Define awards in exchange for accumulated points

Define which consumers can take advantage of this reward

The app will have a leaderboard table ranking the more selfless citizens

CMC will be promoting and rewarding above-average levels of community outreach

Additional prizes will be offered to only to a limited number of exemplary citizenship and sustainability consumers

# The environmental awareness of partner companies is indispensable in the creation of the local digital currency, promoting environmental sustainability

## Appendix 3: Inductive Reasoning

Should CMC create a local digital currency, Cashcais, to promote economic, environmental, social and health sustainability?

How?

1. Create strategies to increase business activity in Cascais

2. Promote environmental awareness

3. Implement mechanisms to reduce social disparities

4. Encourage a healthy lifestyle among citizens

5. Create a marketing strategy

6. Incentivize the digitalization of the municipality

### 2.2 Partner companies

#### 2.2.1. Awareness

The CMC should raise awareness among companies for environmental issues

#### 2.2.2. Cashback

The CMC should increase the cashback offered by sustainable partners

Múltiplos diferentes de *cashback*

Segmented by type of business/sector/industry

Segmented by different levels of certification

#### 2.2.3. Sustainable certification

##### 2.2.3.1. CMC

CMC should create a sustainable certification

Create survey

Create certification process

Define different levels

Create auditing process

##### 2.2.3.2. External

CMC should use an external sustainable certification

Choice of partner

# The creation of a local currency will reduce the verified social asymmetries, by supporting citizens who are most in need

## Appendix 3: Inductive Reasoning

Should CMC create a local digital currency, Cashcais, to promote economic, environmental, social and health sustainability?

### How?

1. Create strategies to increase business activity in Cascais

2. Promote environmental awareness

3. Implement mechanisms to reduce social disparities

4. Encourage a healthy lifestyle among citizens

5. Create a marketing strategy

6. Incentivize the digitalization of the municipality

#### 3.1. “Cartão Mais Solidário”

##### 3.1.1. Bonification

The beneficiaries of this program will receive a bonification in Cashcais

Investment from CMC

Increase in disposable income

Propensity to save and spend on products and services that are not commodities (e.g. in culture)

#### 3.2. Fair Cashback

The Cashcais app users should receive more or less cashback, according to the social status

Consumer

With social support

Without social support

Discount given by the partner company

Increase in quality of life

# The health issues awareness and reward of specific health related actions promotes healthy lifestyle in Cascais citizens

## Appendix 3: Inductive Reasoning

Should CMC create a local digital currency, Cashcais, to promote economic, environmental, social and health sustainability?

How?

1. Create strategies to increase business activity in Cascais

2. Promote environmental awareness

3. Implement mechanisms to reduce social disparities

4. Encourage a healthy lifestyle among citizens

5. Create a marketing strategy

6. Incentivize the digitalization of the municipality

4.1. Awareness

The Town Hall should raise awareness for health issues

4.1. Reward

Cashback

Awards

CMC may offer additional cashback to consumers

CMC will offer different awards to consumers

Define the additional cashback percentage

Define awards in exchange for specific health actions

Define which health related actions can take advantage of this reward

Define which consumers can take advantage of this reward

## CMC should create a strategy tailored to different types of consumers covering digital, traditional and promotional channels

### Appendix 3: Inductive Reasoning

Should CMC create a local digital currency, Cashcais, to promote economic, environmental, social and health sustainability?

How?

1. Create strategies to increase business activity in Cascais

2. Promote environmental awareness

3. Implement mechanisms to reduce social disparities

4. Encourage a healthy lifestyle among citizens

5. Create a marketing strategy

6. Incentivize the digitalization of the municipality

#### 5.1. People

##### 5.1.1 Consumer

##### 5.1.2 Partner Companies

There should be an adapted and targeted strategy for each group, within consumers and partners

Age

Location

Occupation

Income

Gender

Participation in Cascais initiatives (Cartão Mais Solidário or City Points)

Industry

Sector

Level of Sustainability

Dimension

Financial Liquidity

#### 5.2. Promotion

##### 5.2.1 Consumer

##### 5.2.2 Partner Companies

The promotion will be based on the economic, social and environmental benefits that the local digital currency, Cashcais, brings to the municipality

**Digital:** Social Networks, marketing automation platforms (Email marketing, SEO, CRO)

**Traditional:** TV, magazines, newspapers, outdoors

**Promocional:** Discounts, promotions, vouchers

## Product features and positioning must be adapted to the characteristics of different consumers and partners

### Appendix 3: Inductive Reasoning

Should CMC create a local digital currency, Cashcais, to promote economic, environmental, social and health sustainability?

How?

1. Create strategies to increase business activity in Cascais

2. Promote environmental awareness

3. Implement mechanisms to reduce social disparities

4. Encourage a healthy lifestyle among citizens

5. Create a marketing strategy

6. Incentivize the digitalization of the municipality

#### 5.3. Product

##### 5.3.1 Consumer

##### 5.3.2 Partner

The application should be user friendly, but complete in terms of content and services

Application and/or physical card

Balance Query

List of Sustainable Actions

List of Partners

Account Information

Balance Query

Manage company information

List of Partners

“Cash-out” form

#### 5.4. Place

##### 5.4.1 Consumer

##### 5.4.2 Partner

Cashcais consumers will be able to purchase the product through a physical card or the application

Local Digital Currency- Cashcais

**Physical Card:** In cascais town hall

**Application:** In the App store/Google store

## In the digitization of the municipality, the City Council should integrate the City Points, digitize the More Solidarity card and design anti-fraud mechanisms

### Appendix 3: Inductive Reasoning

Should CMC create a local digital currency, Cashcais, to promote economic, environmental, social and health sustainability?

How?

1. Create strategies to increase business activity in Cascais

2. Promote environmental awareness

3. Implement mechanisms to reduce social disparities

4. Encourage a healthy lifestyle among citizens

5. Create a marketing strategy

6. Incentivize the digitalization of the municipality

#### 6.1. Program Integration

##### 6.1.1. City Points

It is necessary to migrate the City Points app

Integrating current users

Integrating current functionalities

Creating the transition process

Creating the conversion system from city points to Cashcais

Creating F.A.Q. section

Designing interactive *mock-ups*

Designing user stories for each functionality

#### 6.2. Program Digitalization

##### 6.2.1. “Cartão Mais Solidário”

The benefits of “Cartão Mais Solidário” will be integrated in the new app

Integrating beneficiaries

Creating the transition process

Creating F.A.Q. sections

Designing interactive *mock-ups*

Designing user stories for each functionality

#### 6.3. Antifraud mechanisms

Antifraud mechanisms should be designed to protect CMC

Designing mechanisms for the different ways to receive Cashcais

Creating an auditing process

Defining exceptions and limits for each of the functionalities

## A survey was conducted to confirm the various assumptions made during the prior analysis and segmentation process

### Appendix 4: Survey Questions

-  **Introduction**
-  **Demographics**
-  **General Shopping Aspects**
-  **Environmental Sustainability**
-  **CashCais**
-  **Contacts**



Este questionário foi desenvolvido no âmbito do projeto final de mestrado de Gestão da Nova School of Business and Economics.

O objetivo deste questionário, em colaboração com a Câmara Municipal de Cascais, é avaliar o interesse geral relativamente a uma moeda local digital a ser implementada no Concelho. A sua opinião ajudará a desenhar e comunicar a moeda local aquando a sua implementação, sendo assim muito valorizada a sua resposta.

O questionário tem uma duração de aproximadamente 10 minutos.

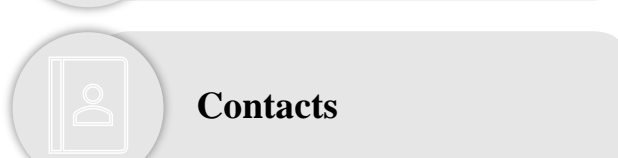
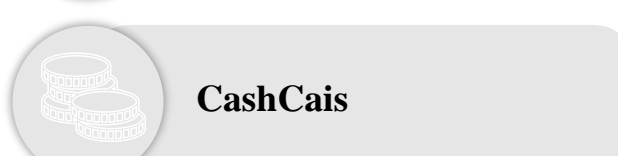
Os resultados do questionário são anónimos e os dados não serão partilhados com outra instituição que não a Câmara Municipal de Cascais. Poderá desistir a qualquer momento.

Se tiver alguma questão, poderá entrar em contacto com a equipa: Filipe Gonçalves (43918@novasbe.pt); Madalena Fernandes (32119@novasbe.pt); Margarida Damas (32160@novasbe.pt); Pedro Vieira (31991@novasbe.pt).

Muito obrigado pela sua colaboração e disponibilidade!

## A survey was conducted to confirm the various assumptions made during the prior analysis and the segmentation process

### Appendix 4: Survey Questions



Clique em "Concordo em partilhar as minhas respostas e que as mesmas sejam analisadas pela Câmara Municipal de Cascais" se entende o intuito do questionário e consente que as respostas sejam analisadas pela Câmara Municipal de Cascais.

Se não desejar participar no questionário, clique em "Não concordo em partilhar as minhas respostas com a Câmara de Cascais" e termine a sua participação no questionário.

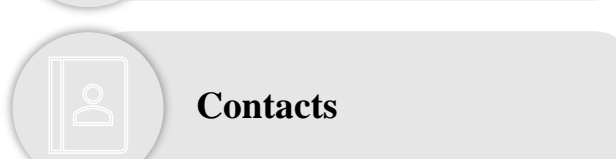
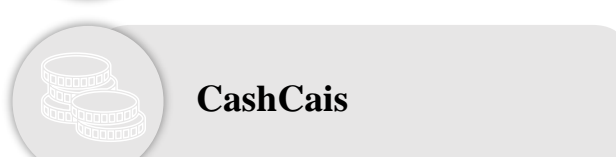
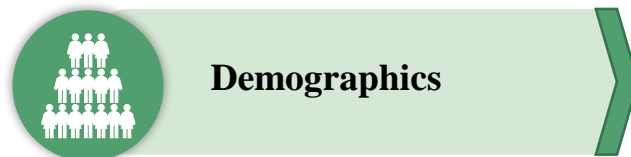
Concordo em partilhar as minhas respostas e que as mesmas sejam analisadas pela Câmara Municipal de Cascais

Não concordo em partilhar as minhas respostas com a Câmara de Cascais



## A survey was conducted to confirm the various assumptions made during the prior analysis and the segmentation process

### Appendix 4: Survey Questions



Idade

<18

18-24

25-34

35-44

45-54

55-64

65-75

>75

Sexo

Masculino

Feminino

Outro

Prefiro não dizer

Qual dos seguintes descreve o seu estado profissional?

Empregado/a

Desempregado/a

Estudante

Trabalhador/a-Estudante

Reformado/a

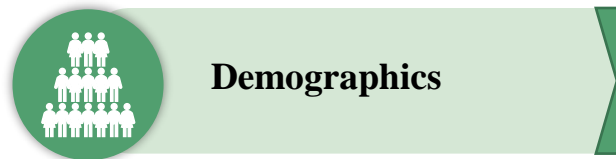
Outro

## A survey was conducted to confirm the various assumptions made during the prior analysis and the segmentation process

### Appendix 4: Survey Questions



**Introduction**



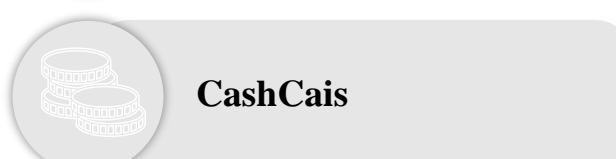
**Demographics**



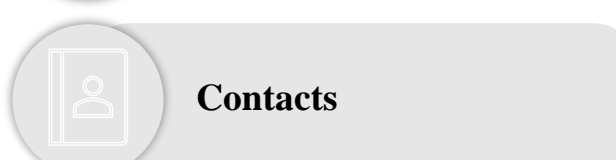
**General Shopping Aspects**



**Environmental Sustainability**



**CashCais**



**Contacts**

Qual é o seu nível de rendimento mensal líquido? (Individual)

<600€

Entre 601€ e 1000€

Entre 1001€ e 1499€

Entre 1500€ e 2000€

Entre 2001€ e 2499€

Entre 2500€ e 3500€

Entre 3501€ e 5000€

Mais de 5000€

Prefiro não responder

Selecione as opções com as quais se identifica relativamente ao concelho de Cascais:

Tenho residência em Cascais

Trabalho em Cascais

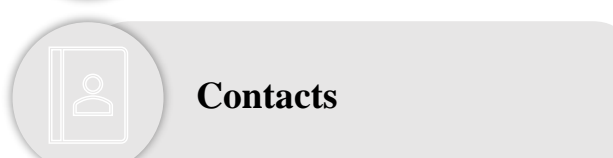
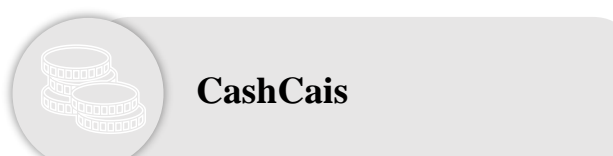
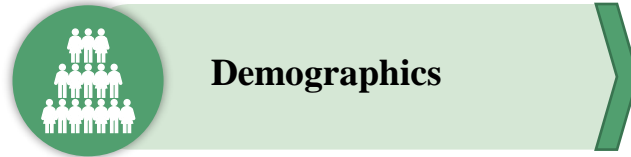
Estudo em Cascais

Frequento Cascais

Nenhuma das anteriores

## A survey was conducted to confirm the various assumptions made during the prior analysis and the segmentation process

### Appendix 4: Survey Questions



Selecione as opções com as quais se identifica relativamente ao concelho de Cascais:

Tenho residência em Cascais

Trabalho em Cascais

Estudo em Cascais

Frequento Cascais

Nenhuma das anteriores

A que Freguesia pertence?

Cascais e Estoril

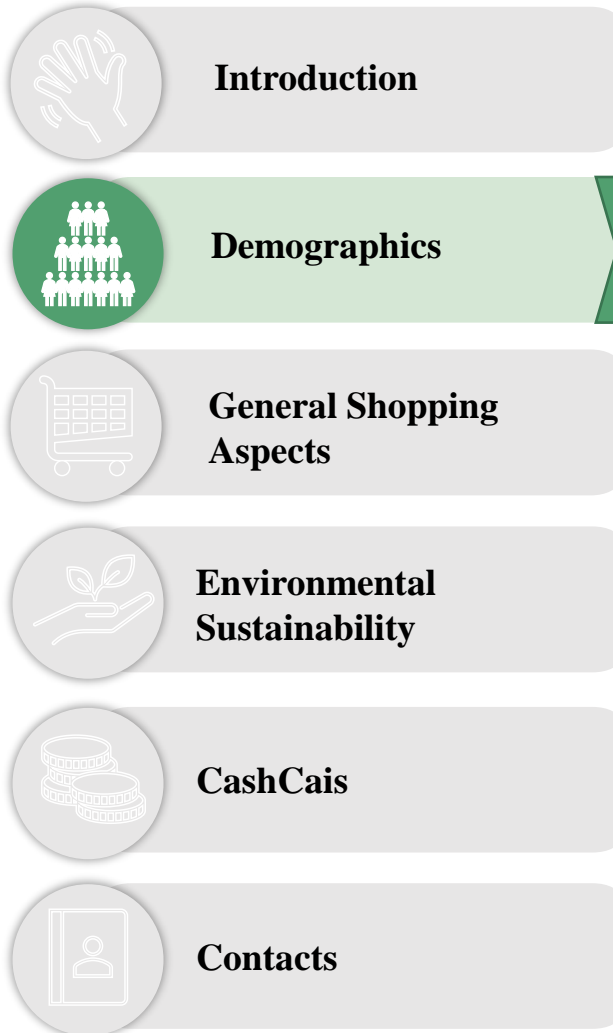
Carcavelos e Parede

Alcabideche

São Domingos de Rana

## A survey was conducted to confirm the various assumptions made during the prior analysis and the segmentation process

### Appendix 4: Survey Questions



Selecione as opções com as quais se identifica relativamente ao concelho de Cascais:

Tenho residência em Cascais

Trabalho em Cascais

Estudo em Cascais

Frequento Cascais

Nenhuma das anteriores

Em que concelho vive atualmente?

Oeiras

Sintra

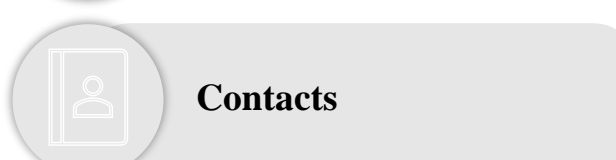
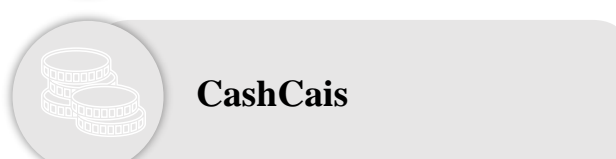
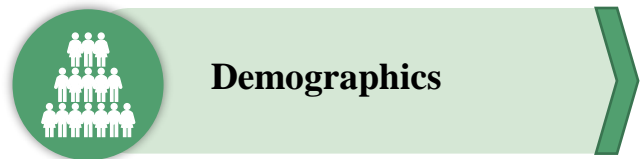
Lisboa

Amadora

Nenhum dos anteriores

## A survey was conducted to confirm the various assumptions made during the prior analysis and the segmentation process

### Appendix 4: Survey Questions



Com qual das seguintes frases se identifica mais em relação à adoção de novas tecnologias?

"Por norma, experimento / compro logo novos produtos e tecnologias assim que estão disponíveis"

"Tenho vontade de experimentar novos produtos e tecnologias, mas sou mais seletivo e cuidadoso!"

"Prefiro esperar por feedback dos mais próximos antes de comprar algo tecnológico"

"Só compro produtos tecnológicos quando já demonstrou o seu valor e não existem riscos associados"

"Prefiro usar produtos com os quais já estou familiarizado"

## A survey was conducted to confirm the various assumptions made during the prior analysis and the segmentation process

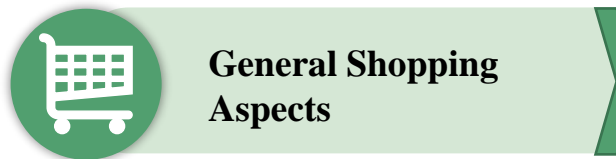
### Appendix 4: Survey Questions



**Introduction**



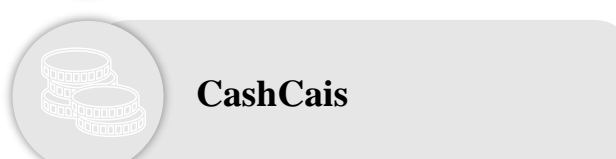
**Demographics**



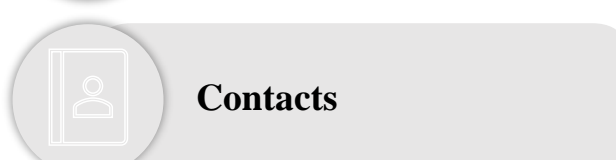
**General Shopping Aspects**



**Environmental Sustainability**



**CashCais**



**Contacts**

Com que frequência pratica as seguintes ações sustentáveis:

|   | Nunca                 | 1 vez por ano         | 3-6 vezes por ano     | 1 vez por mês         | 1 vez por semana      | +1 vez por semana     | Nunca                 | Muito Importante      |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Reciclagem  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |                       |                       |
| Doações (Eg. Roupa, Livros, Comida, Ração animal) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Voluntariado social (Eg. Apoio a idosos)          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |                       |
| Voluntariado ambiental (Eg. Recolha lixo)         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Utilização de transportes públicos                | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Compra de produtos biológicos                     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

sustentabilidade

## A survey was conducted to confirm the various assumptions made during the prior analysis and the segmentation process

### Appendix 4: Survey Questions



**Introduction**



**Demographics**



**General Shopping Aspects**



**Environmental Sustainability**



**CashCais**



**Contacts**

Com que frequência pratica as seguintes ações sustentáveis:

|  | Nunca                 | 1 vez por ano         | 3-6 vezes por ano     | 1 vez por mês         | 1 vez por semana      | +1 vez por semana     |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Reciclagem   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Doações (Eg. Roupas, Livros, Comida, Ração animal) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Voluntariado social (Eg. Apoio a idosos)           | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Voluntariado ambiental (Eg. Recolha lixo)          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Utilização de transportes públicos                 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Compra de produtos biológicos                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Conhece a aplicação CityPoints?

Sim

Não

## A survey was conducted to confirm the various assumptions made during the prior analysis and the segmentation process

### Appendix 4: Survey Questions



Conhece a aplicação CityPoints?

Sim

Não

É utilizador da aplicação CityPoints?

Sim

Não

Com que frequência utiliza a aplicação CityPoints?

Mais de 1 vez por semana

Aproximadamente 1 vez por semana

Aproximadamente 1 vez por mês

Mais de 1 vez por mês

Qual a sua maior motivação para utilizar o CityPoints?

Ambiental

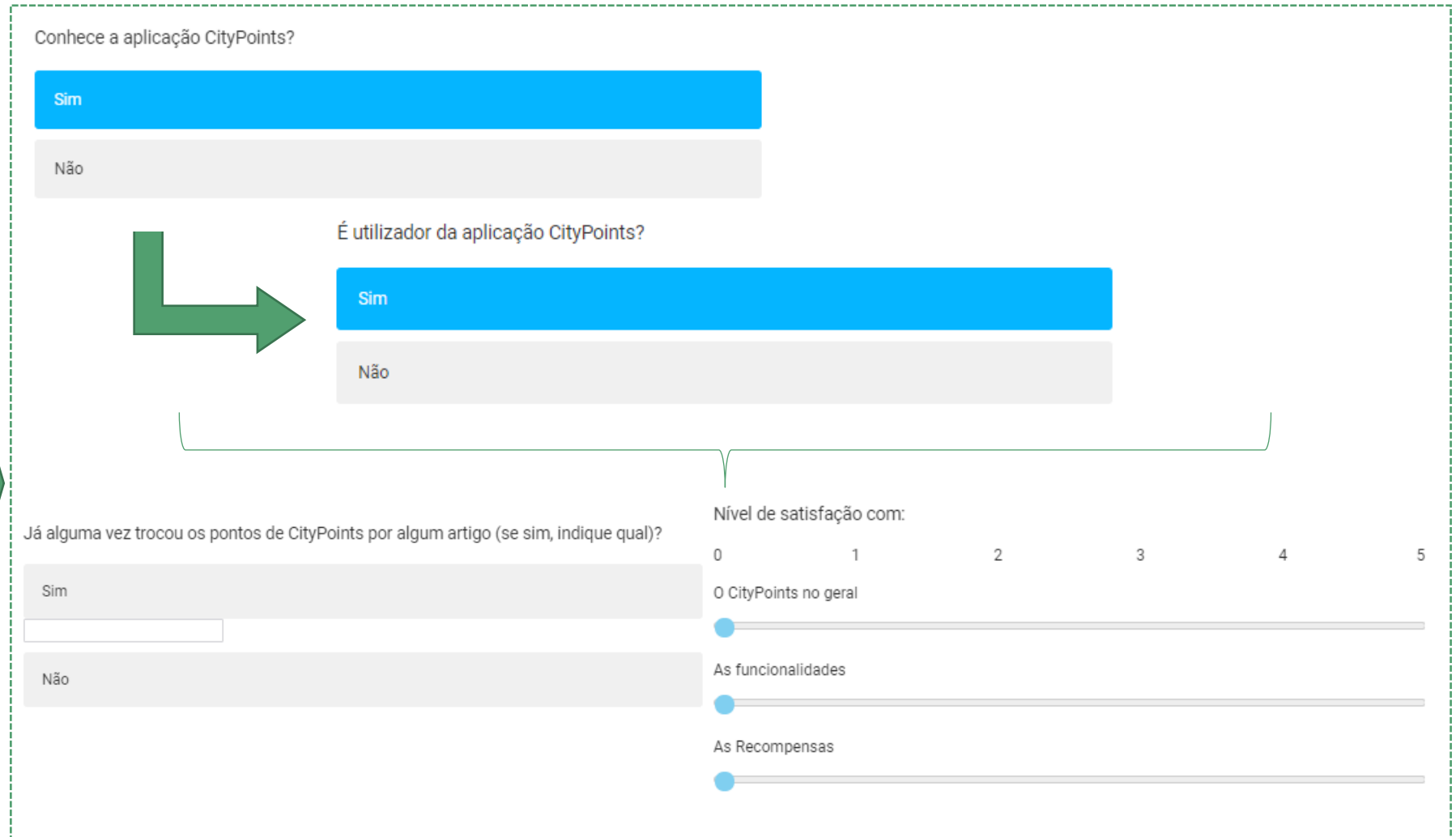
Recompensas

Melhoramento do Município

Outra

## A survey was conducted to confirm the various assumptions made during the prior analysis and the segmentation process

### Appendix 4: Survey Questions



## A survey was conducted to confirm the various assumptions made during the prior analysis and the segmentation process

### Appendix 4: Survey Questions



Conhece a aplicação CityPoints?

Sim

Não

É utilizador da aplicação CityPoints?

Sim

Não

Porque não utiliza a aplicação CityPoints?

Não tenho interesse

Não sinto que a recompensa seja suficientemente grande






Não tenho tempo

Não ouvi falar de CityPoints

Outro (por favor exemplifique)

## A survey was conducted to confirm the various assumptions made during the prior analysis and the segmentation process

### Appendix 4: Survey Questions

-  Introduction
-  Demographics
-  General Shopping Aspects
-  Environmental Sustainability
-  **CashCais**
-  Contacts



A Cashcais é a nova moeda local digital que funcionará através de uma aplicação móvel, e terá três vertentes / objetivos principais:

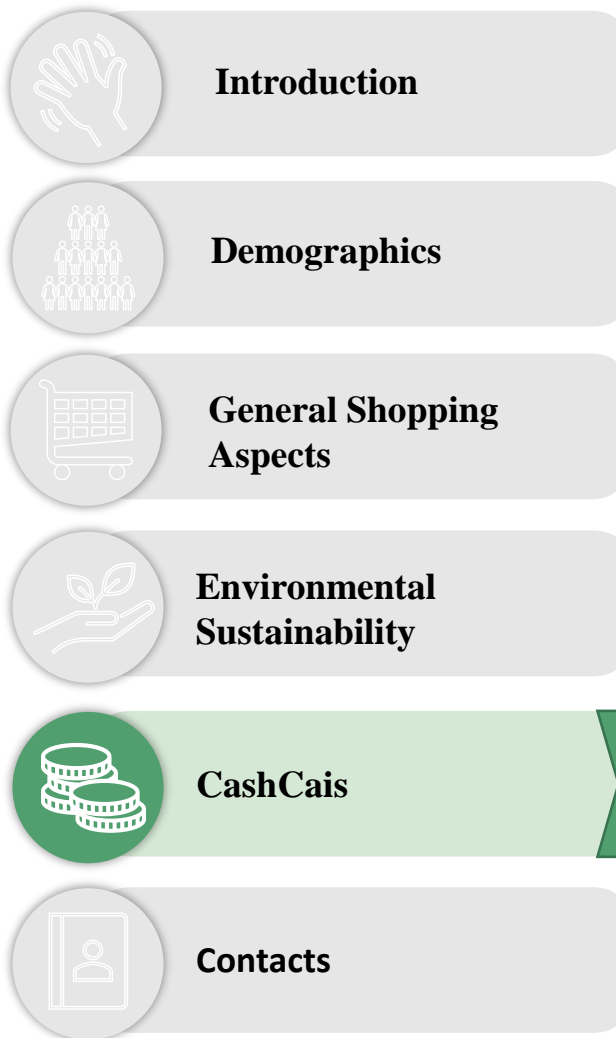
1. Económica: De forma a dinamizar a economia local em Cascais, vai ser oferecido um cashback (devolução de uma percentagem) nas compras em Cashcais.
2. Ambiental e Social: De forma a diminuir a pegada ecológica e as disparidades sociais em Cascais, ações de carácter ambiental, social e de cidadania, serão recompensadas num valor atribuído em Cashcais, pela Câmara Municipal de Cascais.
3. Saúde: De forma a melhorar a qualidade de vida dos munícipes, estes serão incentivados, através de recompensas em Cashcais, a realizar ações que promovem a sua própria saúde.

Em suma, ao fazer compras e ações na rede de parceiros disponíveis na aplicação, acumula Cashcais que posteriormente poderá gastar no concelho nos parceiros aderentes.

A visão estratégica da Cashcais é ser uma moeda para tudo e para todos, estabelecendo uma economia circular no concelho.

## A survey was conducted to confirm the various assumptions made during the prior analysis and the segmentation process

### Appendix 4: Survey Questions



Após esta breve explicação, gostaria de usufruir dos benefícios da moeda local?

Sim

Não

Estaria interessado/a em utilizar a aplicação mobile? (Não existem custos associados)

Sim, gostaria de instalar a aplicação

Não

Preferia utilizar um cartão físico em vez da aplicação? (Com acesso às mesmas funcionalidades)

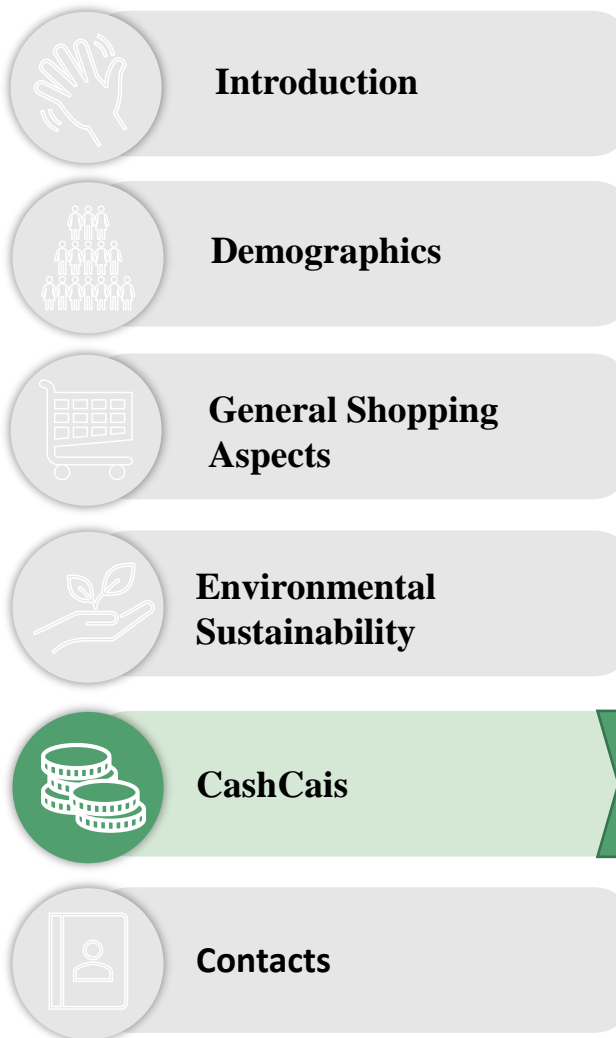
Sim, preferia utilizar o cartão físico

Não, preferia utilizar a aplicação mobile

Gostaria de utilizar ambos

## A survey was conducted to confirm the various assumptions made during the prior analysis and the segmentation process

### Appendix 4: Survey Questions



Após esta breve explicação, gostaria de usufruir dos benefícios da moeda local?

Sim

Não

Selecione qual o grau de relevância, das seguintes componentes da moeda local Cashcais?

Nada relevante 0 1 2 3 4 5 Muito relevante

Receber Cashcais por fazer ações ambientalmente sustentáveis



Receber Cashcais como forma de desconto nas compras em Cascais



Receber Cashcais por praticar um estilo de vida mais saudável



Receber Cashcais por fazer ações de carácter social e de cidadania

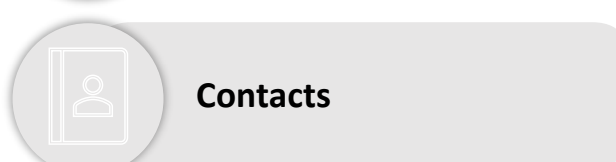
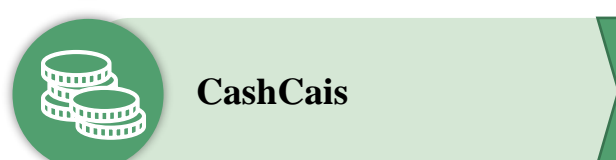


Rede de parceiros extensa



## A survey was conducted to confirm the various assumptions made during the prior analysis and the segmentation process

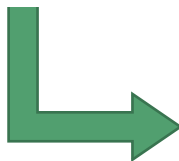
### Appendix 4: Survey Questions



Após esta breve explicação, gostaria de usufruir dos benefícios da moeda local?

Sim

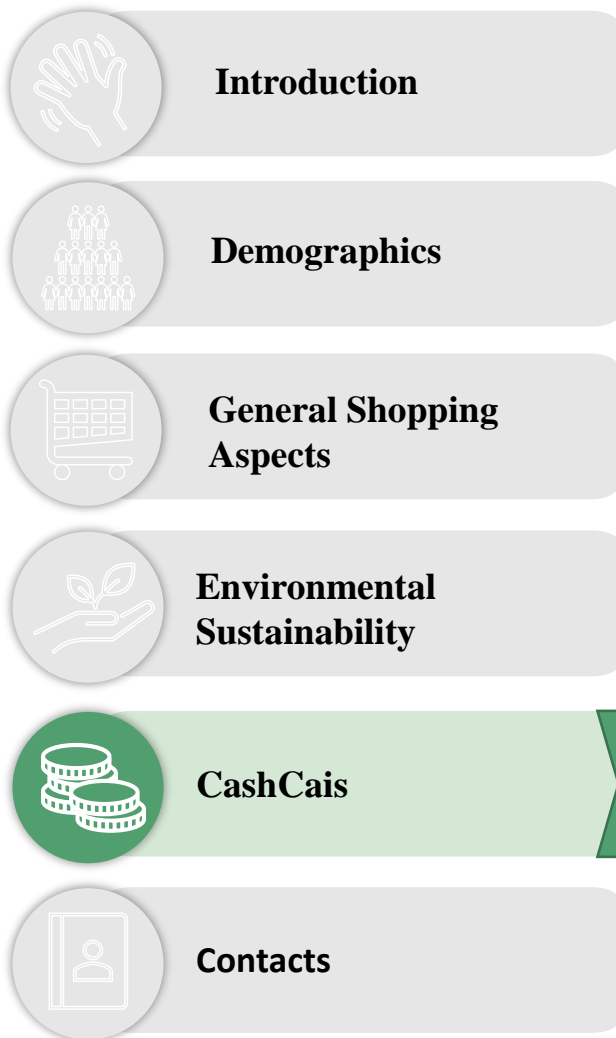
Não



Tem alguma sugestão adicional? (Opcional)

## A survey was conducted to confirm the various assumptions made during the prior analysis and the segmentation process

### Appendix 4: Survey Questions



## A survey was conducted to confirm the various assumptions made during the prior analysis and the segmentation process

### Appendix 4: Survey Questions



Deseja ser contactado para fazer parte do programa Cashcais, assim que este for implementado?

Sim

Não

Deixe aqui o seu contacto para que seja contactado assim que a Cashcais for implementada (este contacto não será associado às respostas que preencheu neste questionário)



A Câmara Municipal de Cascais agradece pela sua participação no questionário.

Até breve!

Cascais, onde tudo começa nas pessoas!

## Margin of Error will give us indications if conclusions withdrawn from the Survey can be taken into account (statistically speaking) or not

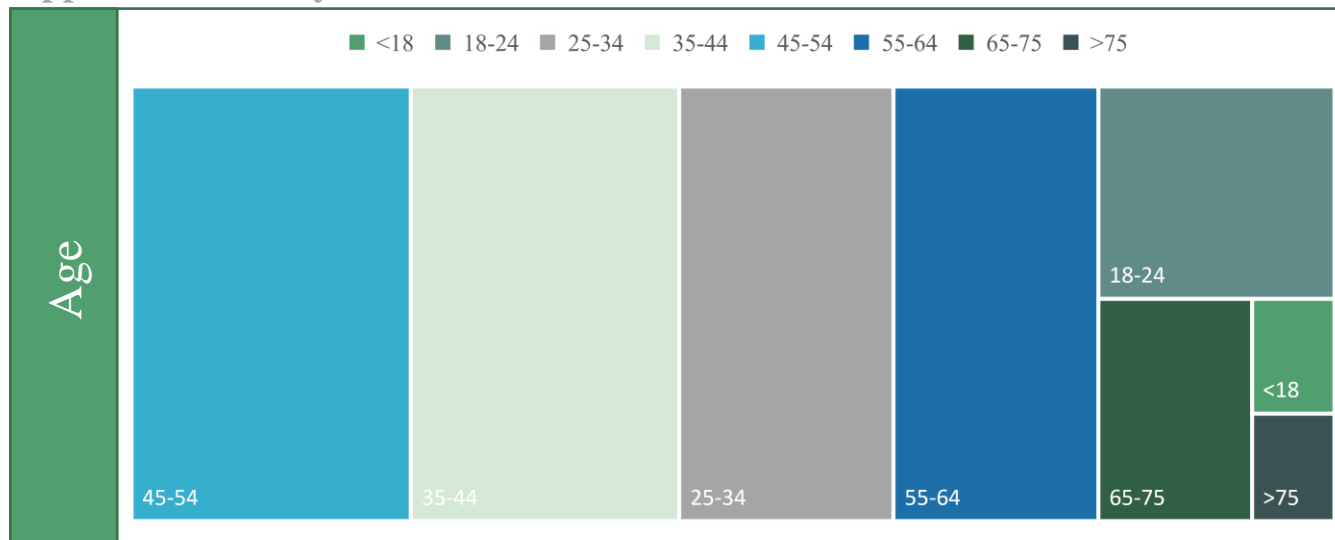
### Appendix 4: Survey Results

For a Confidence Interval of 95%, what are the margin of errors of each variable?

|                     | Population | Sample | Margin Error  |  |
|---------------------|------------|--------|---------------|--|
| Cascalenses         | 214134     | 679    | <b>3.76%</b>  | This is a great margin of error if we want to take general conclusions of the overall results  |
| Men                 | 99682      | 427    | <b>4.74%</b>  | These are good margins of errors to take conclusions from both Men and Women. This means that sentences like “70% Women / Man would like to receive Cashcais” are statistically significant.   |
| Women               | 114452     | 451    | <b>4.61%</b>  |  |
| <18                 | 32655      | 16     | <b>24.50%</b> | We will not be able to deduce any conclusion for people of ages below 18 and above 75. It is also not recommended to take absolute conclusions of ages “18-24” and “65-75”, as their margins of error is still quite enough. The middle ages between 25 to 64 have better margins of error, for which conclusions taken for these ages have some statistical significance. |
| 18-24               | 10946      | 85     | <b>10.59%</b> |  |
| 25-34               | 27813      | 158    | <b>7.78%</b>  |  |
| 35-44               | 32748      | 198    | <b>6.95%</b>  |  |
| 45-54               | 28740      | 206    | <b>6.81%</b>  |  |
| 55-64               | 26082      | 151    | <b>7.96%</b>  |  |
| 65-75               | 19969      | 58     | <b>12.85%</b> |  |
| >75                 | 16745      | 15     | <b>25.30%</b> |  |
| Alcabideche         | 44102      | 151    | <b>7.97%</b>  | All parishes have significant margins of errors, meaning conclusions taken from these results will be significant for each parish. Cascais e Estoril is the parish with the best margin of error.  |
| Carcavelos e Parede | 46535      | 127    | <b>8.69%</b>  |  |
| Cascais e Estoril   | 64310      | 334    | <b>5.35%</b>  |  |
| S. Domingos de Rana | 59187      | 142    | <b>8.22%</b>  |  |

## Demographical Data

### Appendix 4: Survey Results

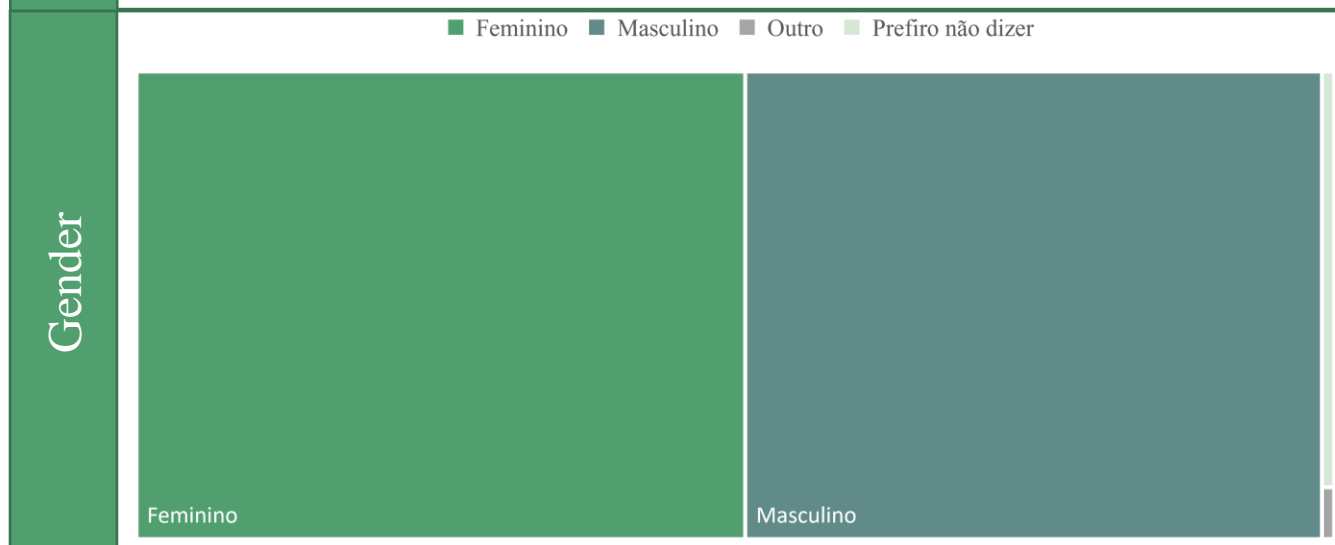


#### Graphic:

This map presents the number of people within each age segment that answered the survey.

#### Analysis:

We reached out to few people below age 18 and above age 75.



#### Graphic:

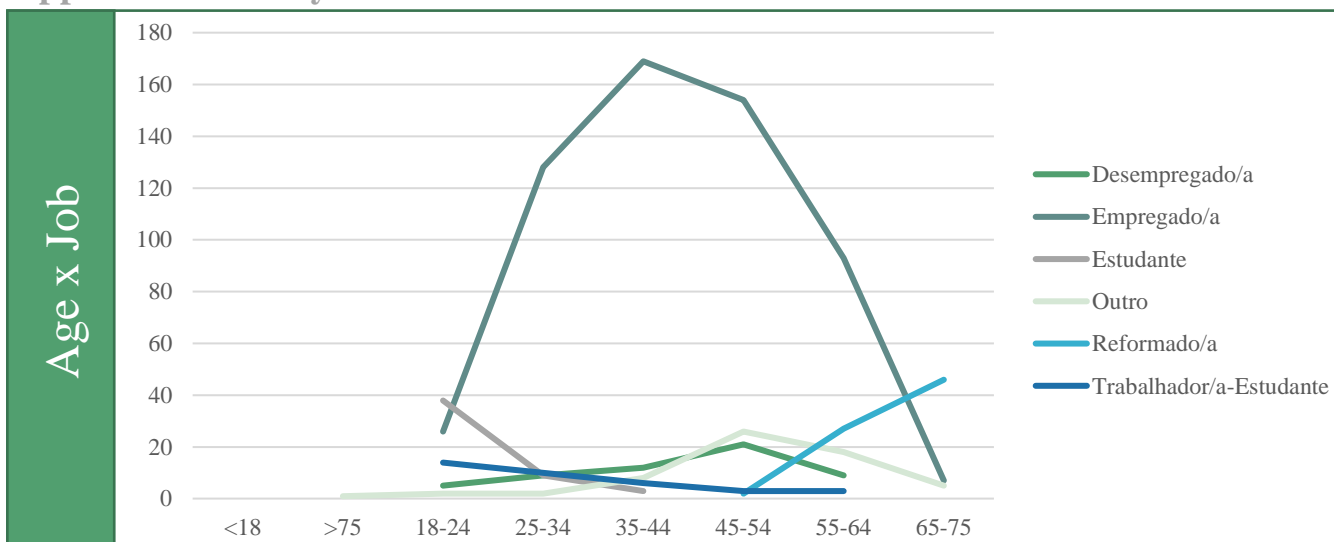
This map presents the number of people of each gender that answered the survey.

#### Analysis:

We reached out to a similar number of men and women.

## Crossing Demographic Data

### Appendix 4: Survey Results

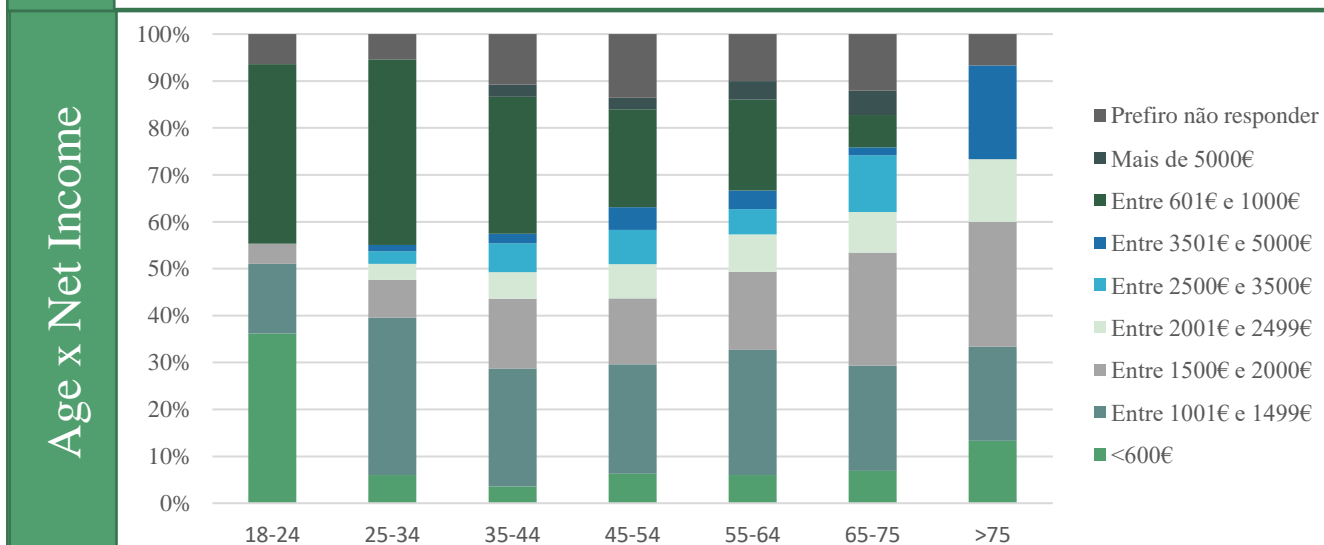


#### Graphic:

This graphic is a cross of the variable “Age” and “Job”. The intent of the graphic is to check if the results are in accordance with common sense.

#### Analysis:

There seems to be agreement between the results and common sense: students have a higher percentage when the age is lower, and retirement increases with age.



#### Graphic:

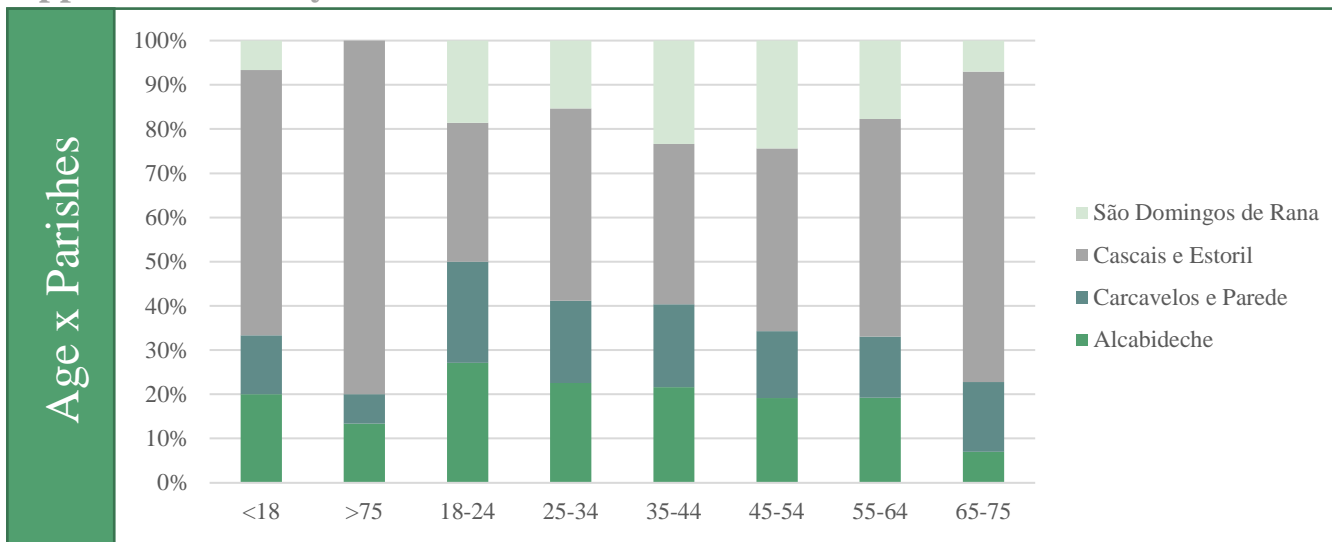
This graphic is a cross of the variable “Age” and “Social Class”, represented by the net income. The intent of the graphic is to check if the results are in accordance with common sense.

#### Analysis:

There seems to be agreement between the results and common sense: younger ages receive less, and older people receive more of net income.

## Crossing Demographic Data

### Appendix 4: Survey Results

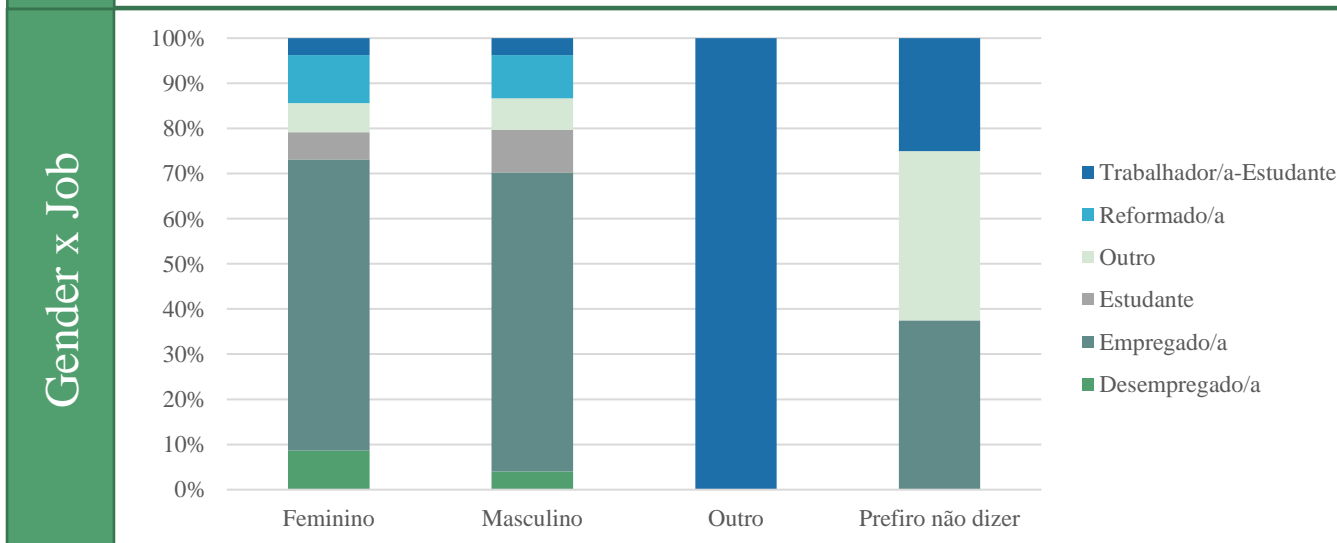


**Graphic:**

This graphic is a cross of the variable “Age” and “Parishes”. The intent of the graphic is to check if the results are in accordance with common sense.

**Analysis:**

Nothing to declare.



**Graphic:**

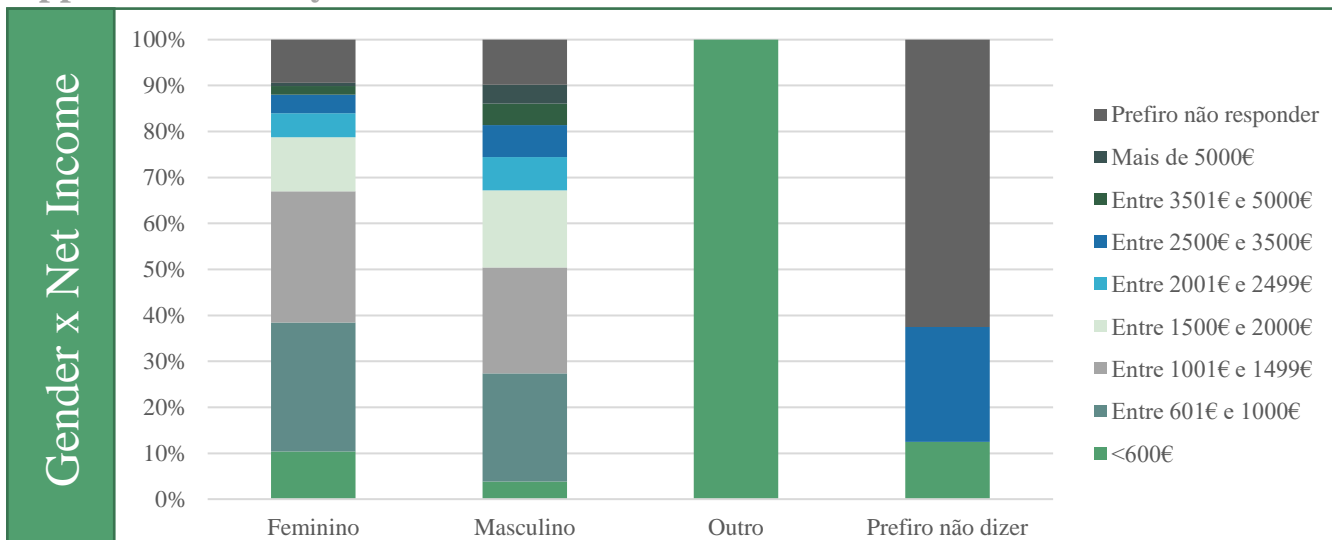
This graphic is a cross of the variable “Gender” and “Job”. The intent of the graphic is to check if the results are in accordance with common sense.

**Analysis:**

There is no substantial different between men and women when it comes to which job they perform.

## Crossing Demographic Data

### Appendix 4: Survey Results

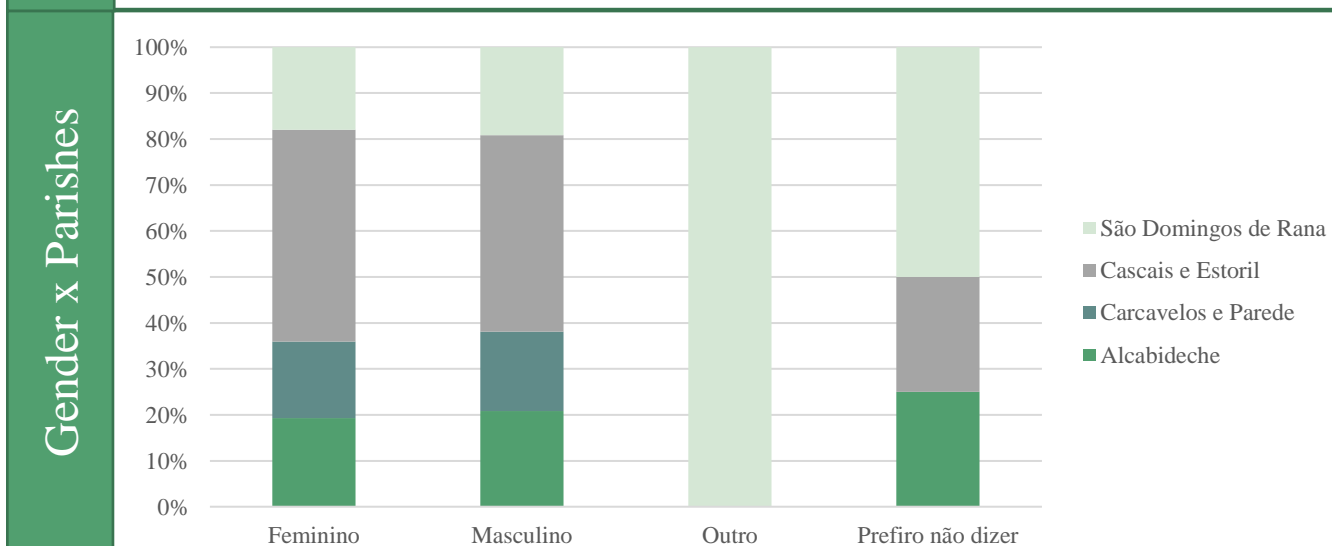


#### Graphic:

This graphic is a cross of the variable “Gender” and “Social Class”, represented by Net Income. The intent of the graphic is to check if the results are in accordance with common sense.

#### Analysis:

Men appear to receive, on average, a little more than women .



#### Graphic:

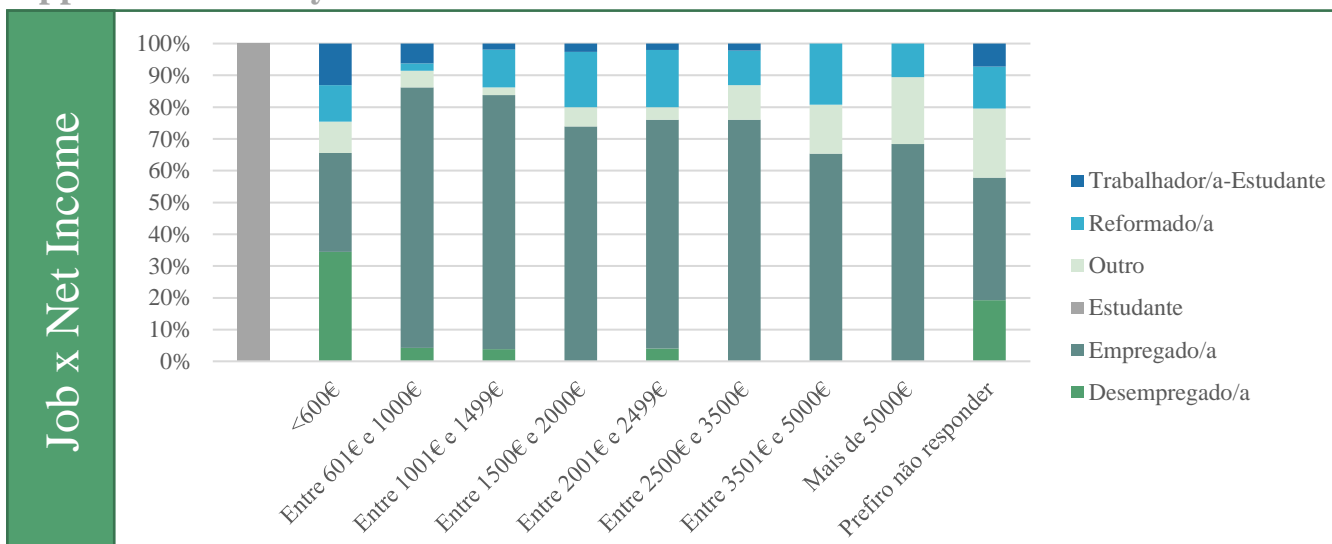
This graphic is a cross of the variable “Gender” and “Parishes”. The intent of the graphic is to check if the results are in accordance with common sense.

#### Analysis:

Men and women were well distributed across parishes in our sample.

## Crossing Demographic Data

### Appendix 4: Survey Results

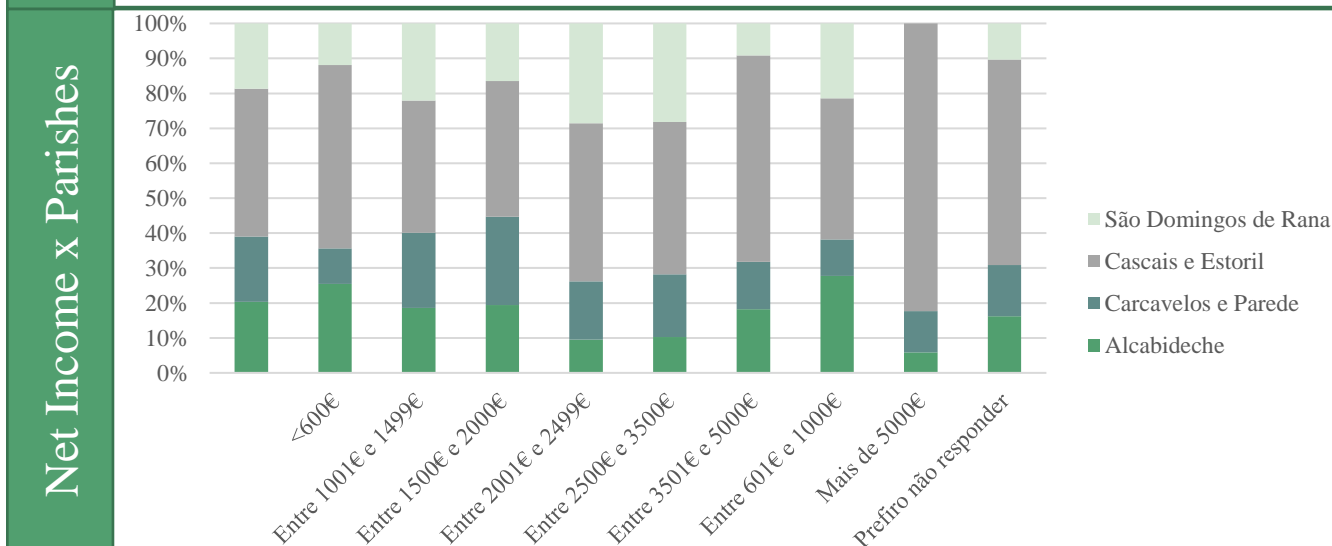


#### Graphic:

This graphic is a cross of the variable “Job” and “Social Class”, represented by Net Income. The intent of the graphic is to check if the results are in accordance with common sense.

#### Analysis:

It makes sense that Unemployed people are more represented with lower net income. “Others” are mainly referred to self-employed people. It also makes sense for the proportion of “Others” to increase with the increase in the level of net income. Retired people depend on the income received during their working-ages, meaning they should be and are spread out across different ages



#### Graphic:

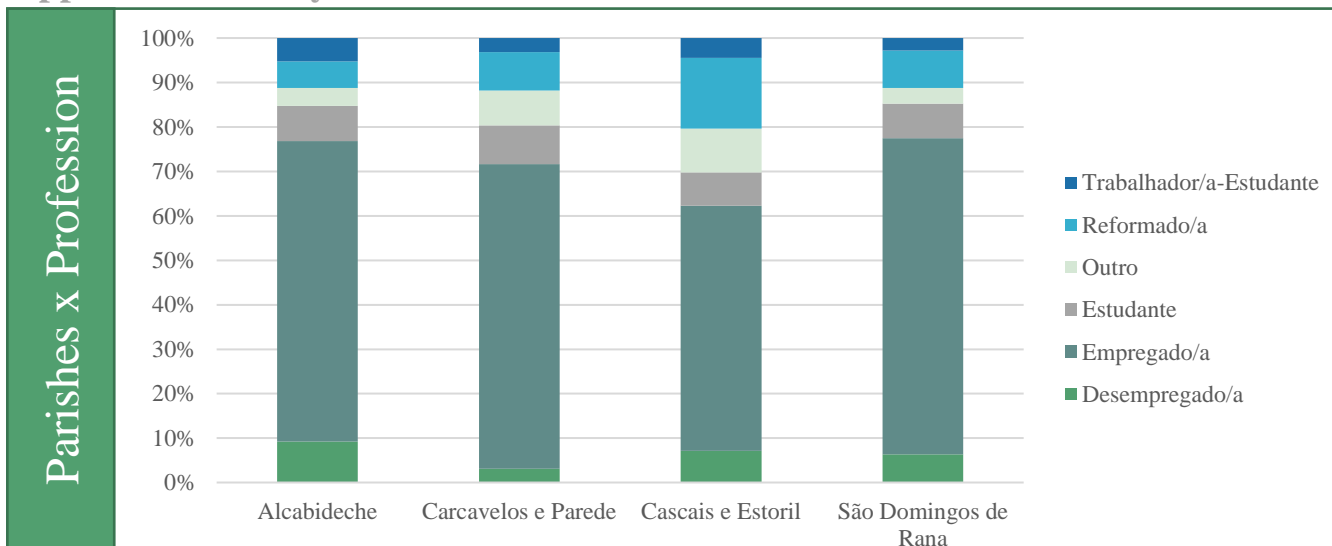
This graphic is a cross of the variable “Social Class”, represented by Net Income and “Parishes”. The intent of the graphic is to check if the results are in accordance with common sense.

#### Analysis:

Different social classes have more or less the same proportion in the different parishes.

## Crossing Demographic Data

### Appendix 4: Survey Results



#### Graphic:

This graphic is a cross of the variable “Parishes” and “Job”. The intent of the graphic is to check if the results are in accordance with common sense.

#### Analysis:

Different employments have more or less the same proportions in Alcabideche, Carcavelos e Parede and São Domingos de Rana parishes. Cascais e Estoril have more people retired.

## Technology Adoption

### Appendix 4: Survey Results

| Persona               | Phrase  | Count | Percent age | Model Values |
|-----------------------|---|-------|-------------|--------------|
| <b>Innovators</b>     | "In general, I experiment / buy right away new products and technologies as soon as they're available"  | 102   | 13.5%       | 2.5%         |
| <b>Early Adopters</b> | "I wish to experiment new products and technologies, but I am more selective and careful"               | 327   | 43.4%       | 13.5%        |
| <b>Early Majority</b> | "I prefer to wait for feedback from close people before buying something new"                           | 121   | 16.0%       | 35%          |
| <b>Late Majority</b>  | "I only buy technology products once their value is demonstrated and no risks are associated with them" | 136   | 18.0%       | 35%          |
| <b>Laggards</b>       | "I prefer to use new products, which I am already familiar with"  | 68    | 9.0%        | 16%          |
| <b>Grand Total</b>    |   | 754   | 100%        | 100%         |

#### Graphic:

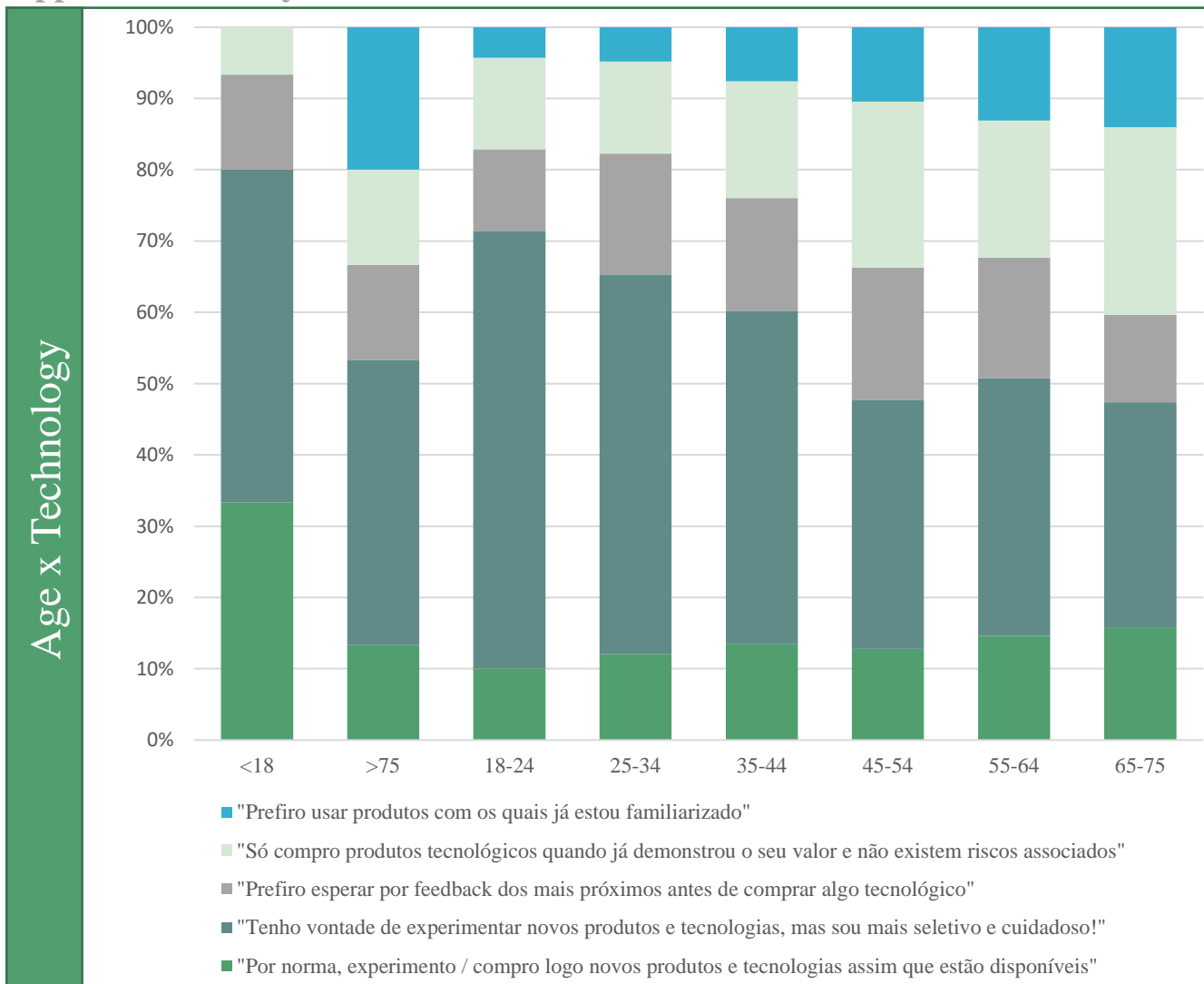
This table gives us a comparison on the percentage of people gathered in the survey through the lenses of Technology Adoption Lifecycle.

#### Analysis:

The percentage of the population that represented each persona withdrawn from the results of the survey were not close to the ones given by the model. Nevertheless, we will continue to use the model values as they are most likely more adequate to the ones received on the survey. Possible explanations for the survey result to be inaccurate might be explained by incorrect formulation of the options – the sentences might not directly link to the personas; and overconfidence on the responses of the people.

# Technology Adoption

## Appendix 4: Survey Results



### Graphic:

This graphic shows us the level of Technology of different ages in proportion. The intent of the graphic is to check if the results are in accordance with common sense and if our marketing analysis is correct.

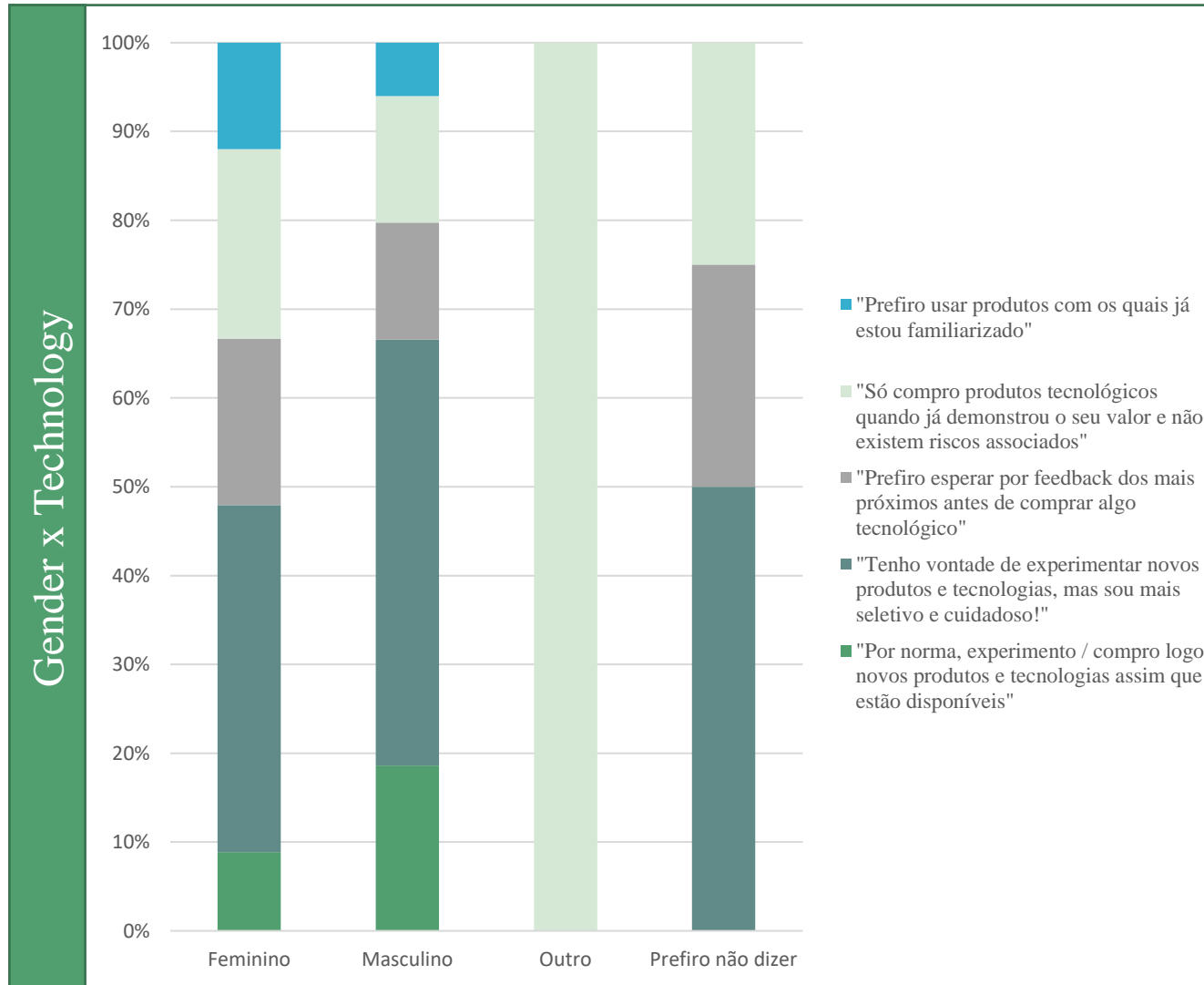
### Analysis:

The results make sense with what was expected. The stronger greens "I want to experiment new products and technologies, but I am more selective and careful" and "In general, I experiment / buy new products and technologies as soon as they are available" have a higher proportion in younger ages, whereas the blue "I prefer to use products I am already familiar with" increases its proportion as the age increases.

This means that younger generations are more technological than older ones.

# Technology Adoption

## Appendix 4: Survey Results



### Graphic:

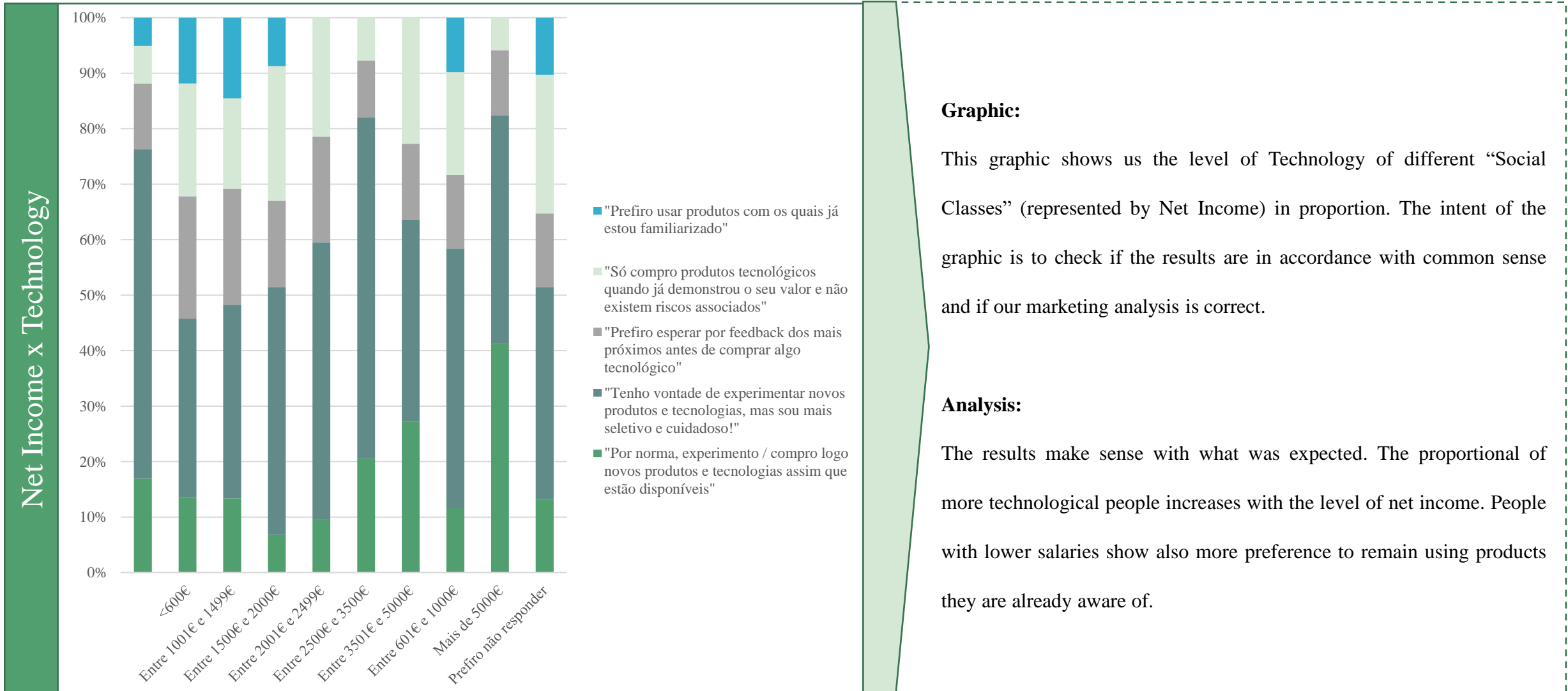
This graphic shows us the level of Technology of different genders in proportion. The intent of the graphic is to check if the results are in accordance with common sense and if our marketing analysis is correct.

### Analysis:

The results show us that man are more technological than women. Not only they show more preference for technology, but they also show less preference to stay in technology status quo.

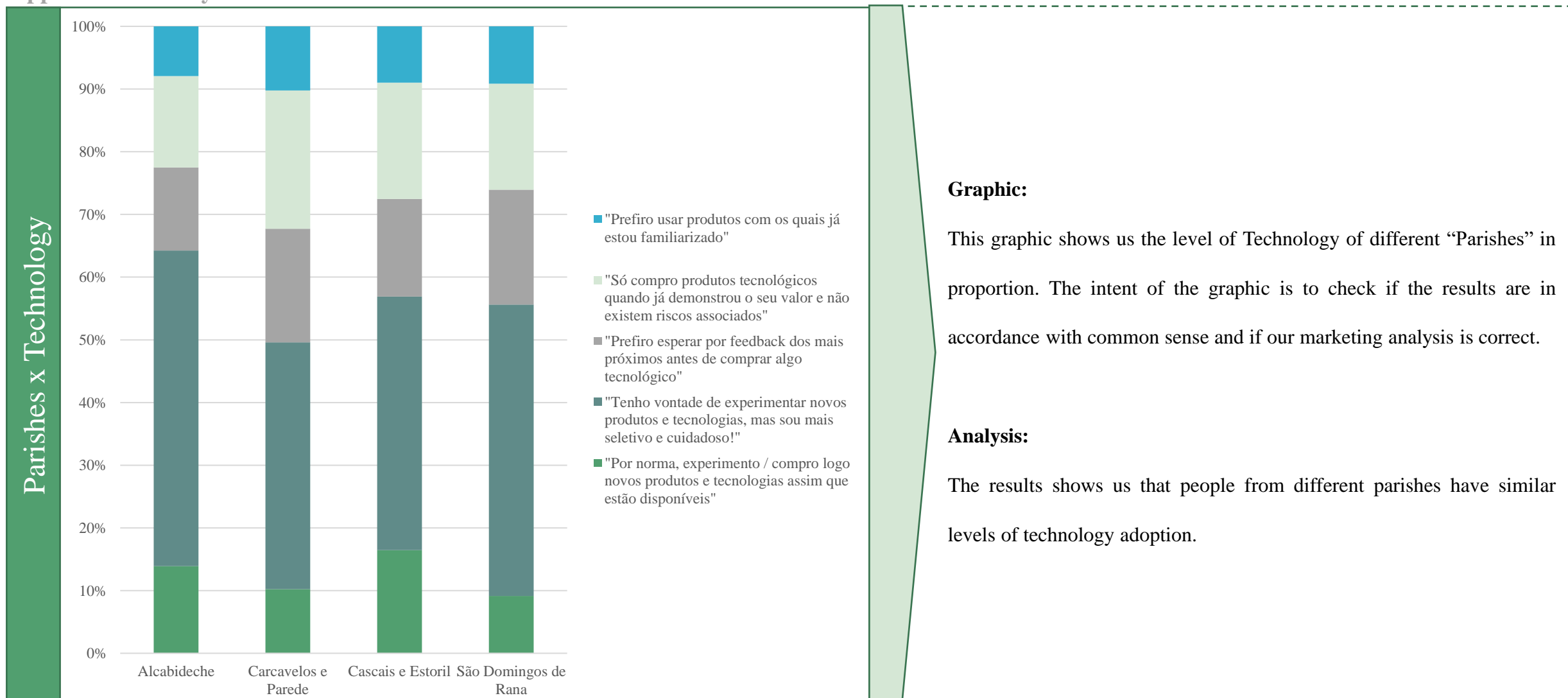
# Technology Adoption

## Appendix 4: Survey Results



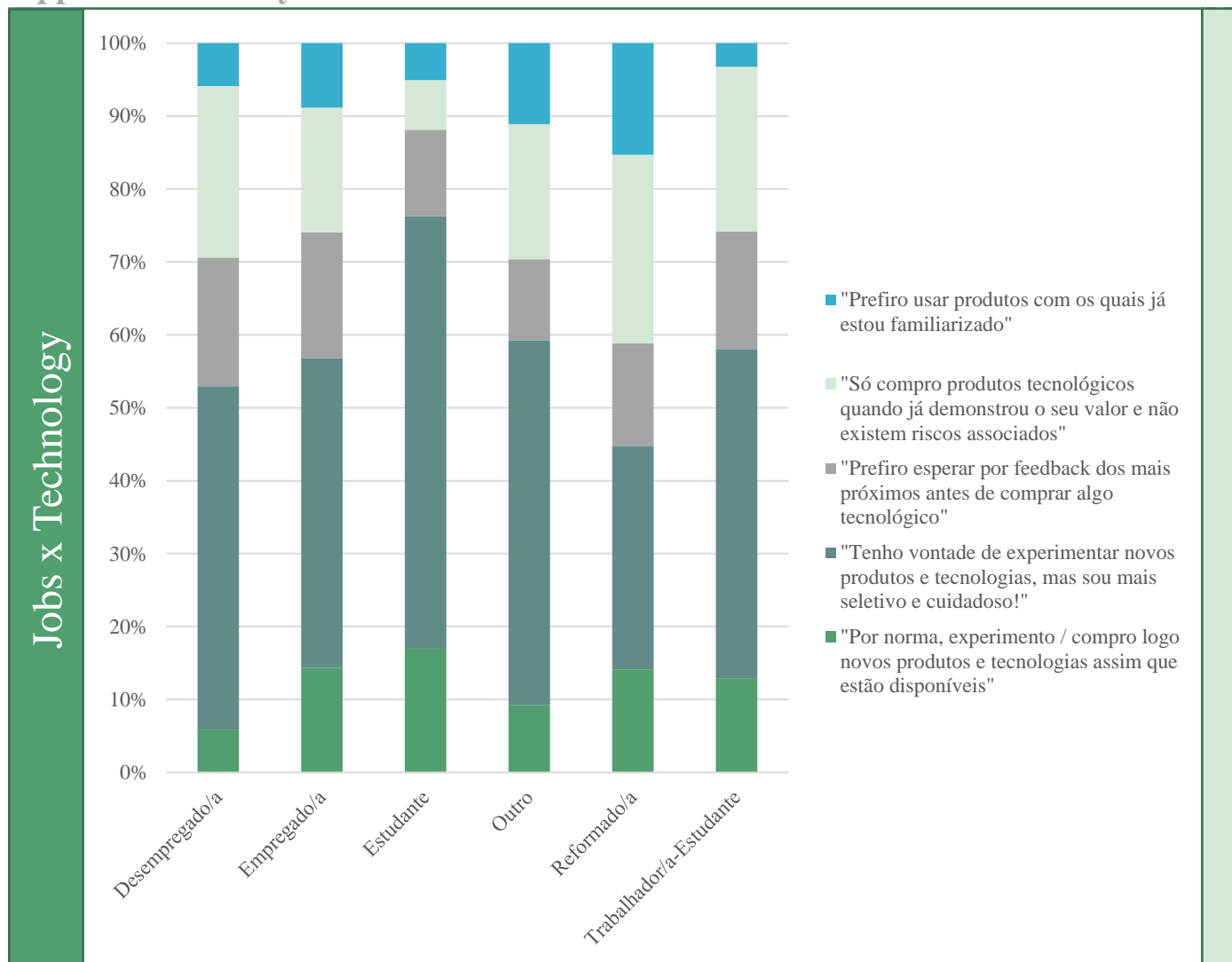
## Technology Adoption

### Appendix 4: Survey Results



## Technology Adoption Lifecycle Results

### Appendix 4: Survey Results



#### Graphic:

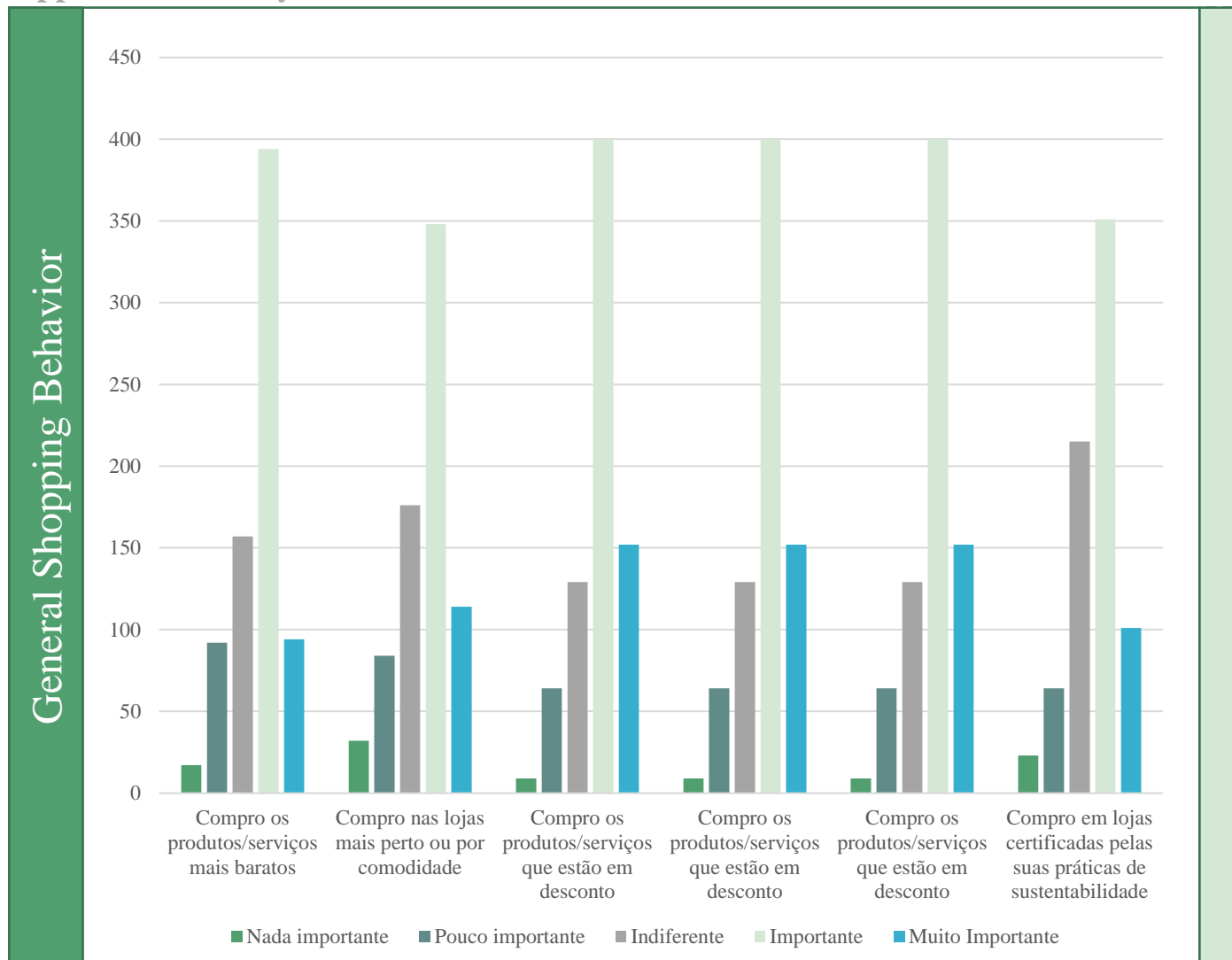
This graphic shows us the level of Technology of different “Jobs” in proportion. The intent of the graphic is to check if the results are in accordance with common sense and if our marketing analysis is correct.

#### Analysis:

As the results are correlated with age, it makes for students to have higher levels of Technology Adoption. All the other occupations show about the same proportion of different levels of technology adoption.

## General Shopping Behavior Results

### Appendix 4: Survey Results



#### Graphic:

This graphic shows us different responses of people in regards to the questions of General Shopping Behavior. The intent of these graphics is to see the motivations of Cascalenses in terms of shopping.

#### Analysis:

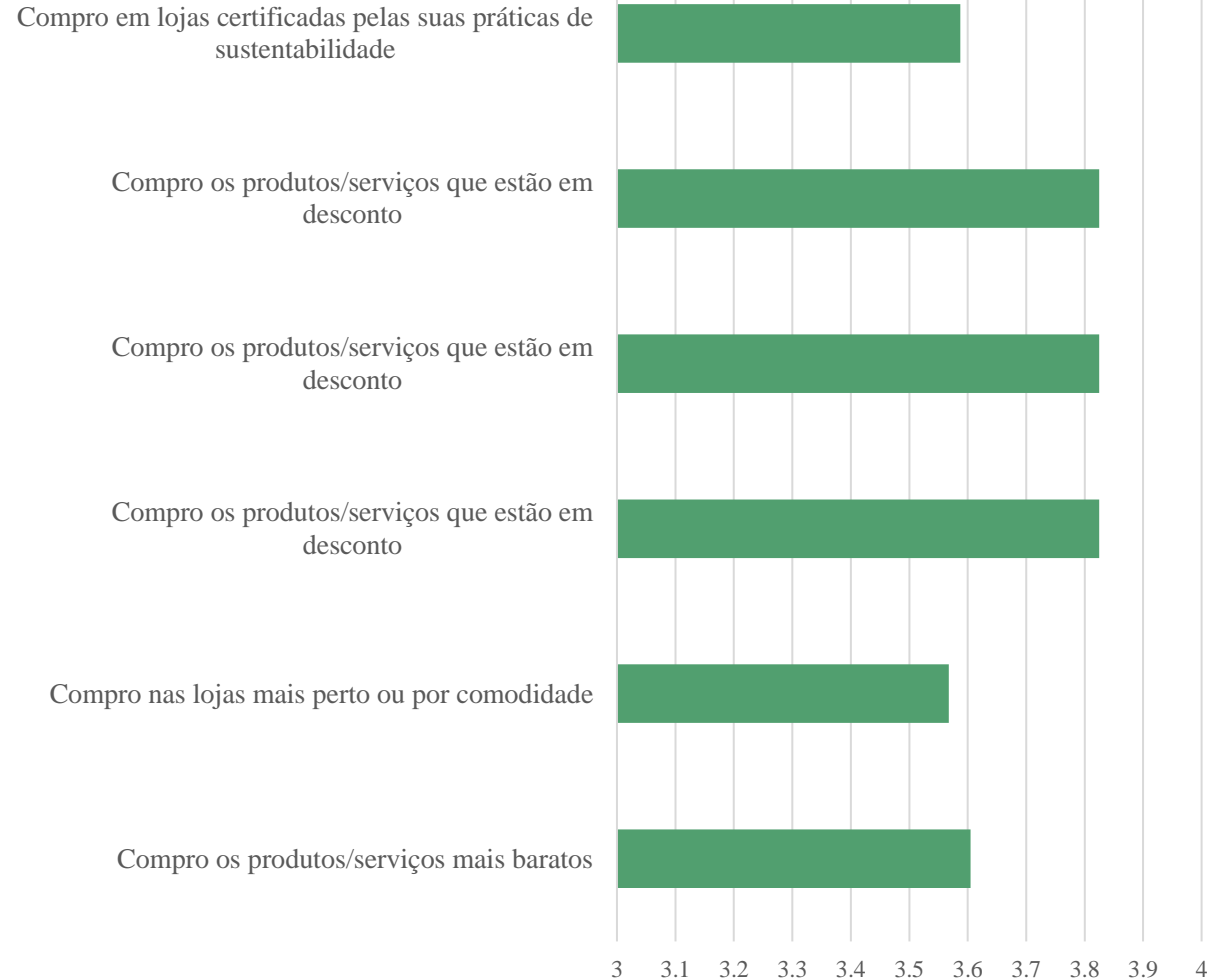
Having products on sale / discount seems to be the most valued criteria for people to choose one specific store over another.

People seem to find the least relevance if a store has actions or is in accordance with sustainability standards.

## General Shopping Behavior

### Appendix 4: Survey Results

#### General Shopping Behavior - Average



#### Graphic:

This graphic shows us the average of the different responses of people in regards to the questions of General Shopping Behavior. The intent of these graphics is to see the motivations of Cascalenses in terms of shopping.

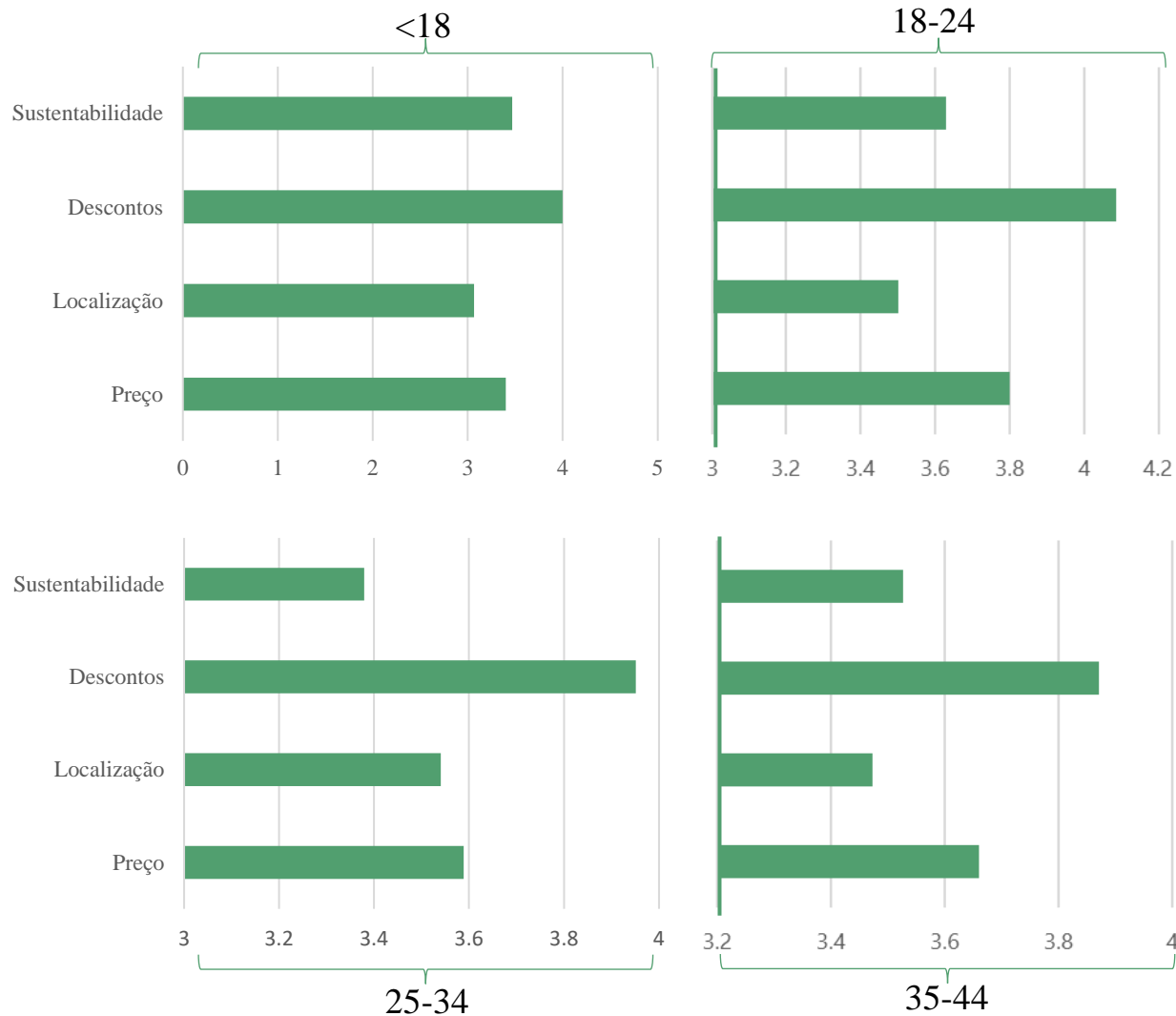
#### Analysis:

People value more discounts / sales and having cheap products than the location of the store and the sustainability level of the store.

## General Shopping Behavior

### Appendix 4: Survey Results

#### Age x General Shopping Behavior



#### Graphic (1/2):

This graphic shows us the average of the different responses of people in regards to the questions of General Shopping Behavior, by different “Ages”. The intent of these graphics is to see the motivations of Cascalenses in terms of shopping. Continue on the next slide.

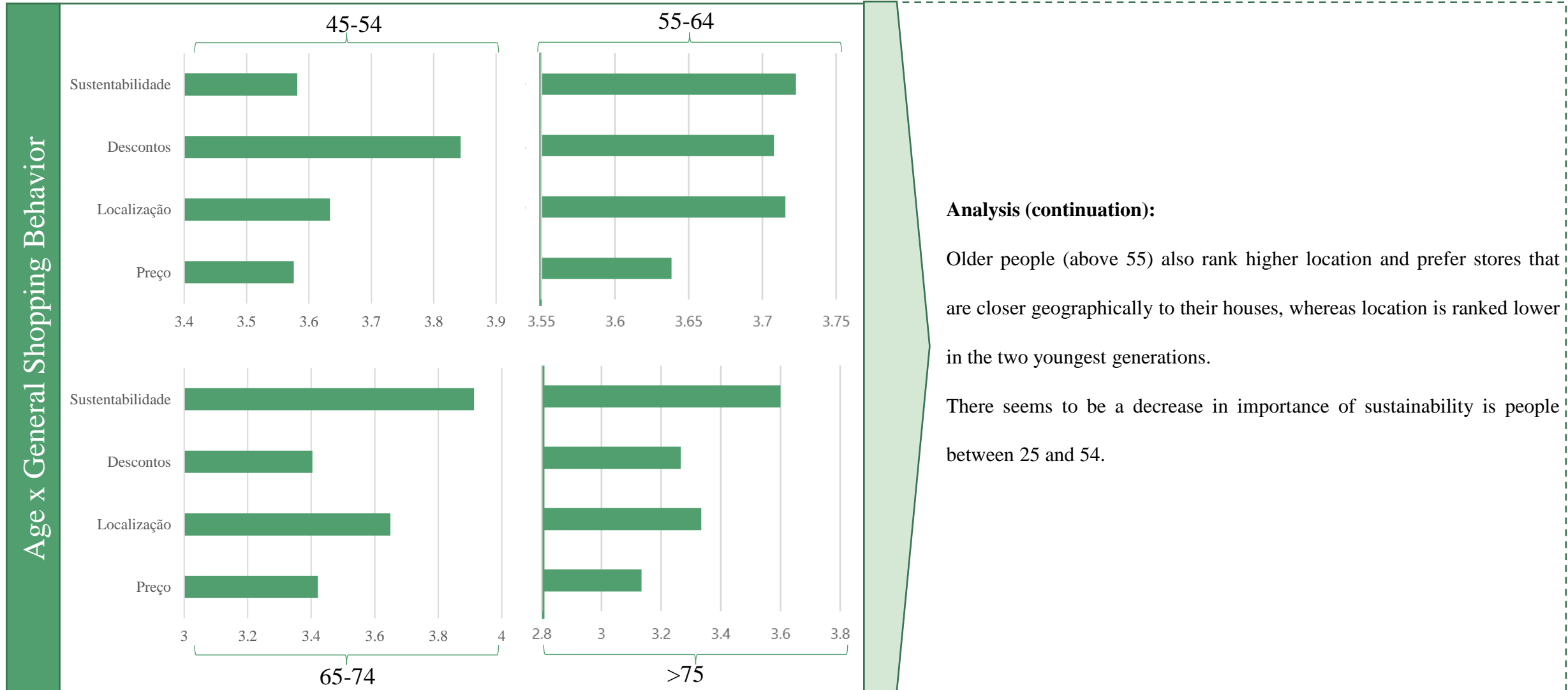
#### Analysis:

The analysis should be made intra-age, meaning making comparative conclusions on the different Aspects within each age category. No comparison of each variable between age categories should be made as we do not know if a 4 has the same value for different people.

All generations prefer Discounts to any other variable, with exception to people above 55 years old. For these people, sustainability is what matters the most.

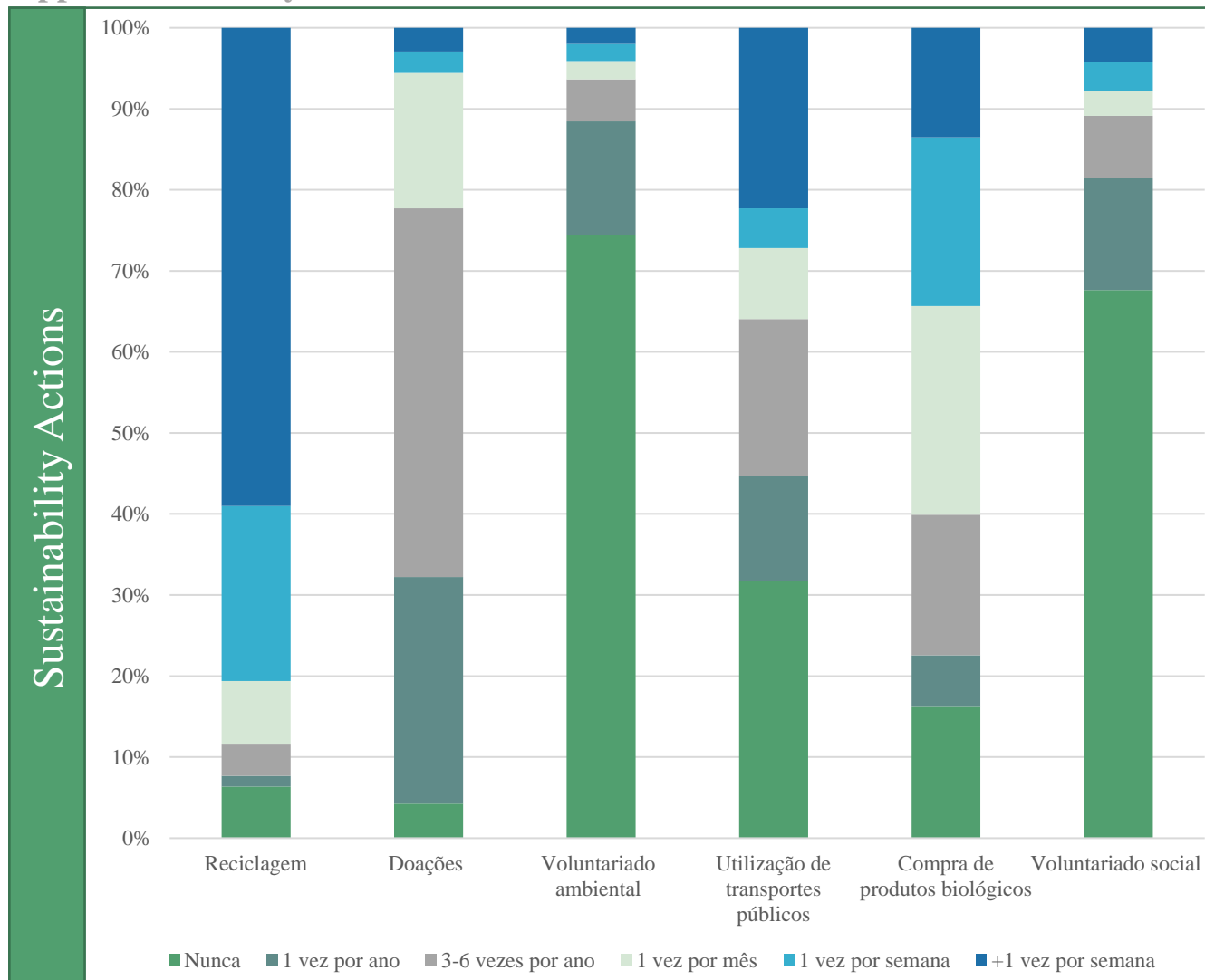
## General Shopping Behavior

### Appendix 4: Survey Results



## Sustainable Actions

### Appendix 4: Survey Results



#### Graphic:

This graphic shows us the how often people in Cascais perform sustainable actions. The intent of these graphics is to see the motivations of Cascalenses in terms of shopping.

#### Analysis:

Recycling is the most and more often performed sustainable activity.

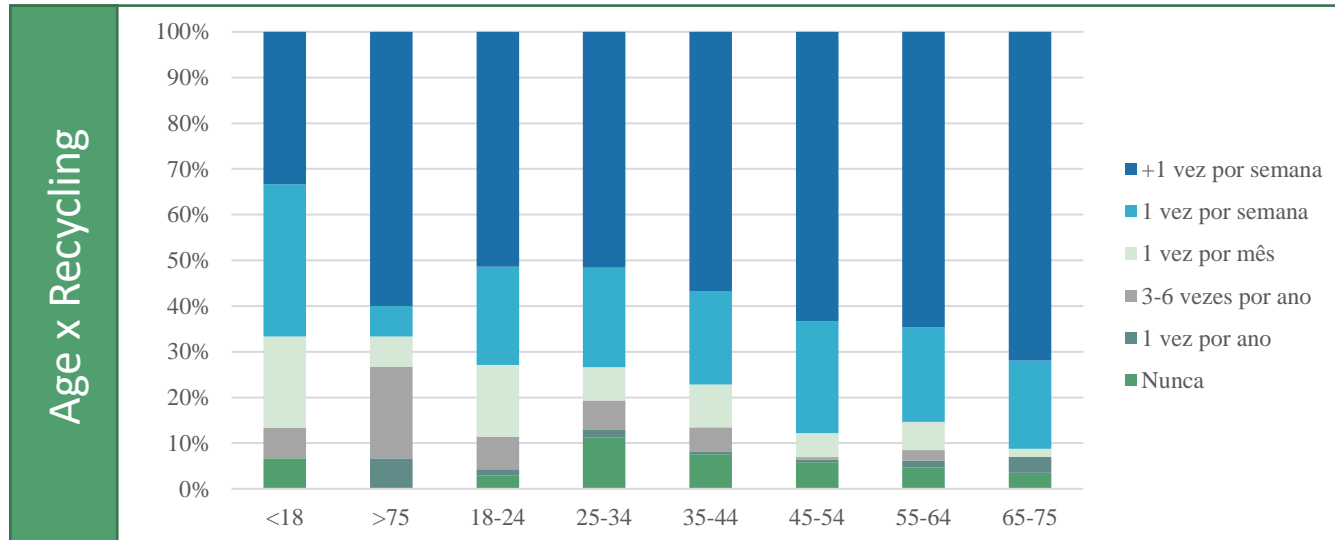
A donation is made by almost everyone at least once a year.

Volunteering (either environmental and social) are least performed sustainable actions. Cascais will try increase the perception of people in

Voluntary actions

## Sustainable Actions by Age

### Appendix 4: Survey Results

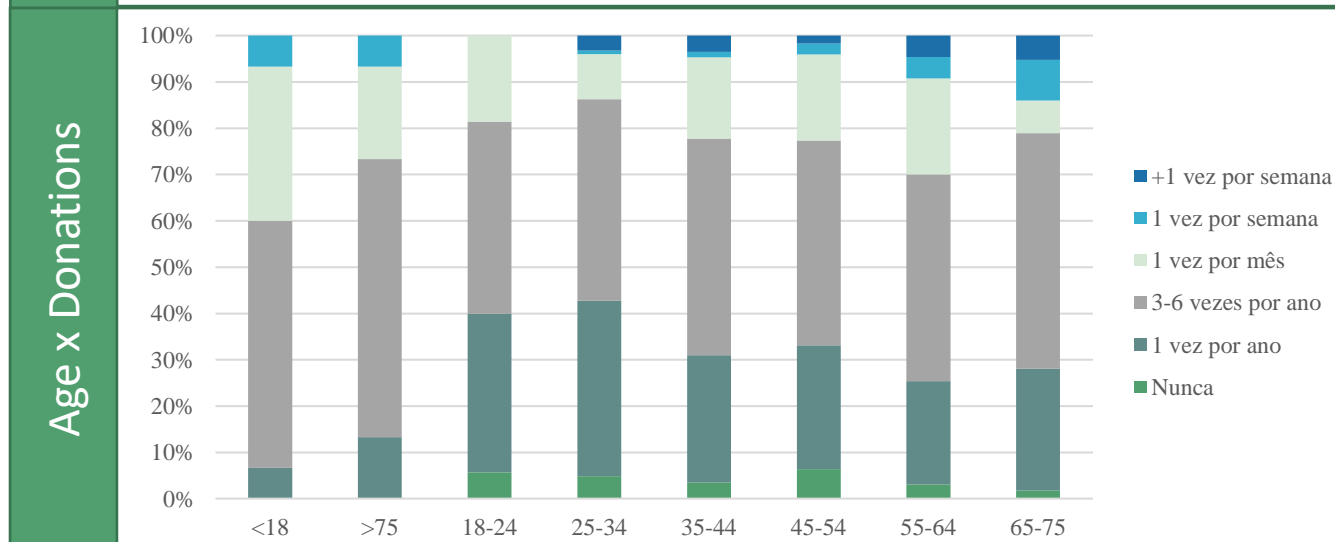


#### Graphic:

This graphic shows how often different ages people perform Recycling.

#### Analysis:

Younger generations seem to be the ones who do the less recycling (or at least, less often).



#### Graphic:

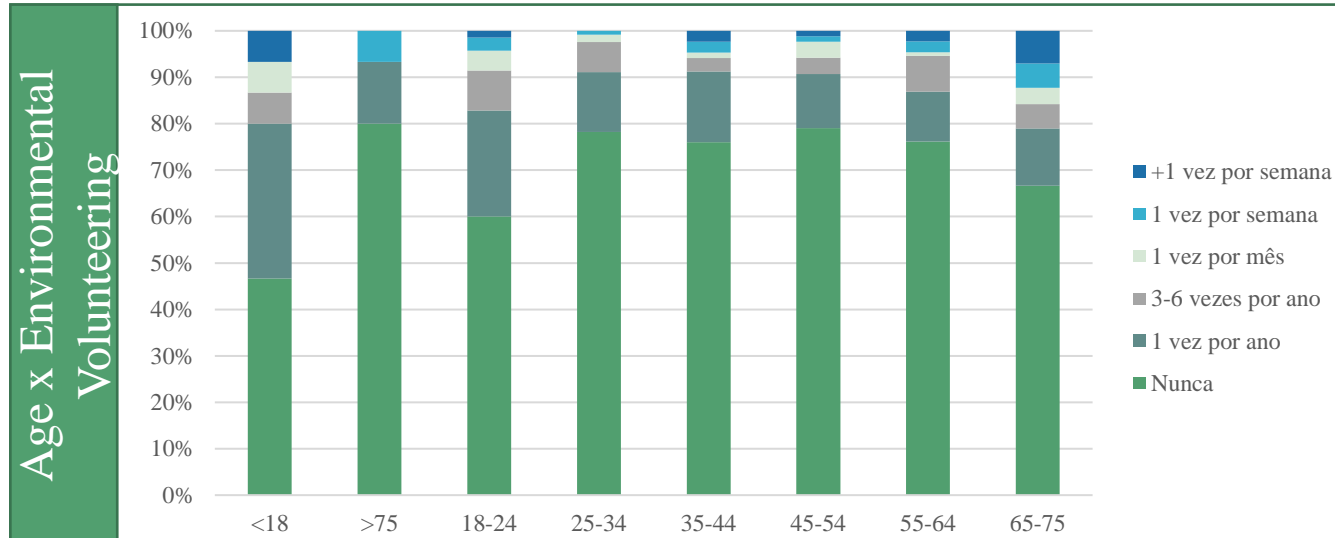
This graphic shows how often different ages people perform Donations.

#### Analysis:

Older generations have more proportion on “+1 a week” or “1 a week” than other generations, and younger ones (until 34) have more “Never” or “1 a year”.

## Sustainable Actions by Age

### Appendix 4: Survey Results

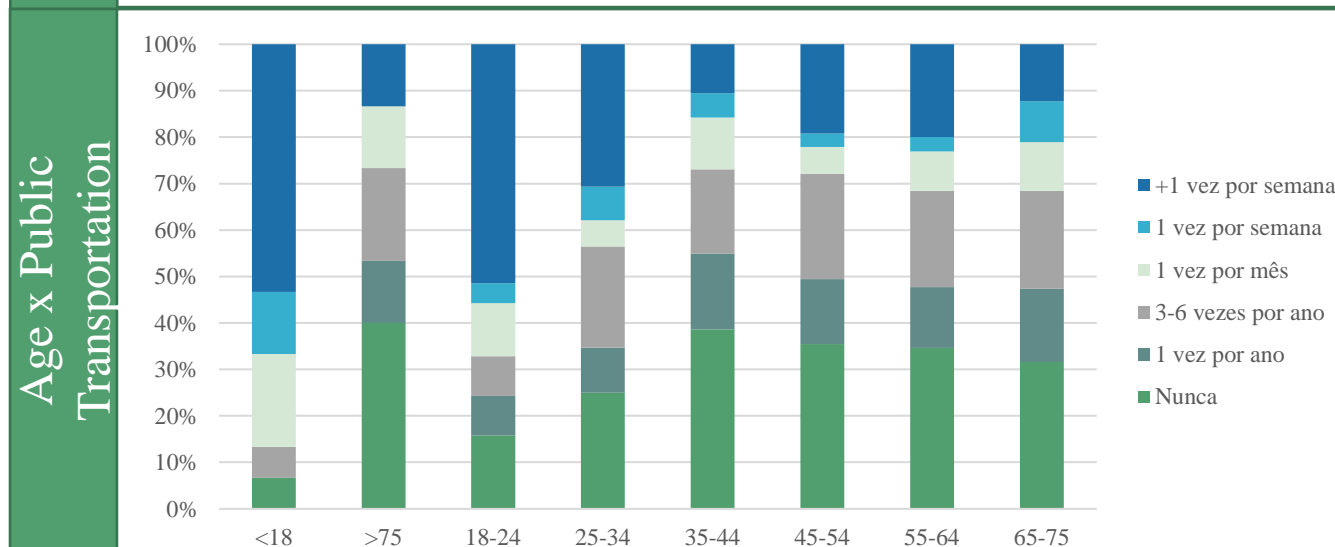


#### Graphic:

This graphic shows how often different ages people perform Environmental Volunteering.

#### Analysis:

Younger generations seem to have a less proportion of “Never”. Older people (with retiring ages) also have higher proportions of “+1 / 1 a week”



#### Graphic:

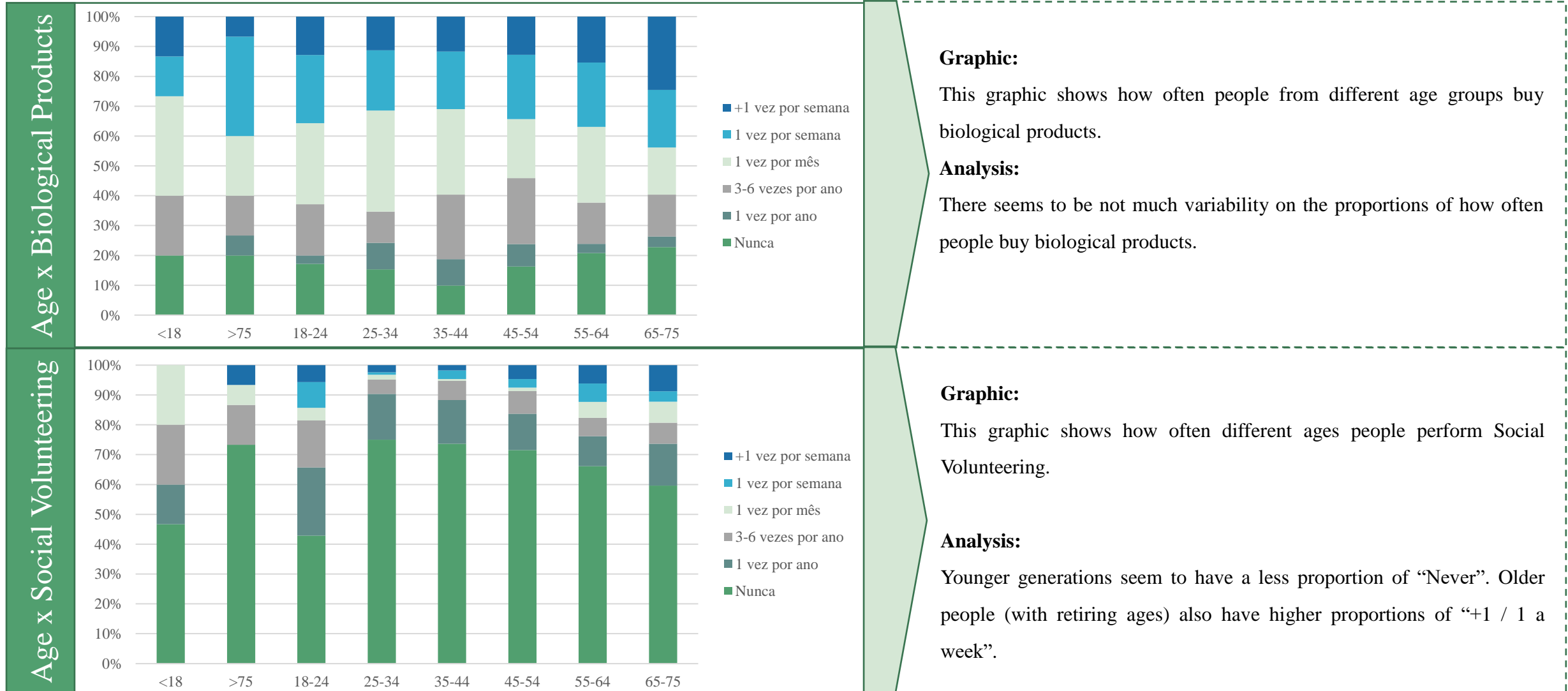
This graphic shows how often different ages people use Public Transportation.

#### Analysis:

As expected, younger generations use public transportation much more often than other ones.

## Demographic cross

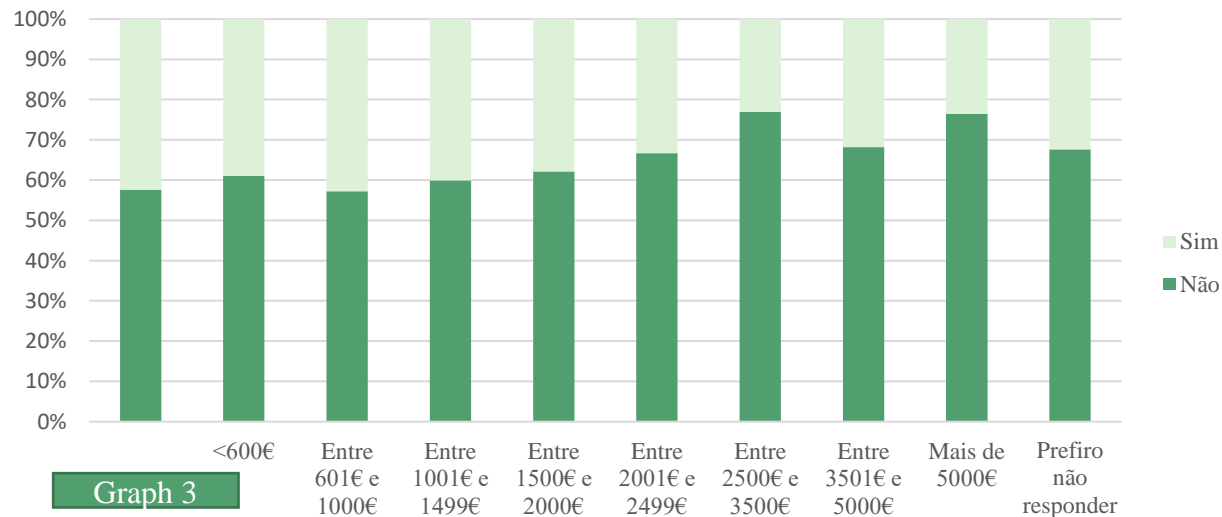
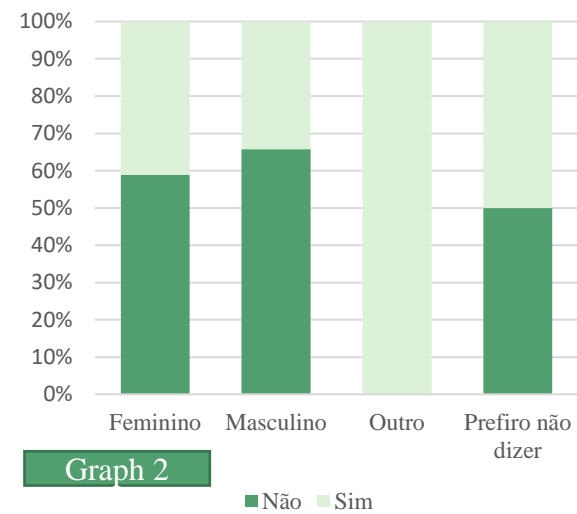
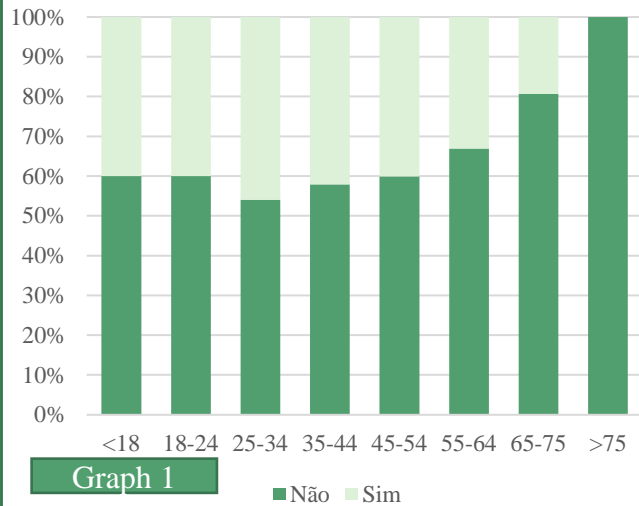
### Appendix 4: Survey Results



## Awareness of City Points

### Appendix 4: Survey Results

Do you know City Points?



#### Graphic:

Graphic 1, 2 and 3 shows the proportion of people that know or not the City Points application by “Age”, “Gender” and “Social Class” (represented by Net income), respectively. The intent of these graphics is to see the perception of people about City Points so that it can better be integrated in Cashcais.

#### Analysis:

People from different ages have more or less the same awareness in regards to City Points. (older generations – not statistically significant – are less aware than the other generations).

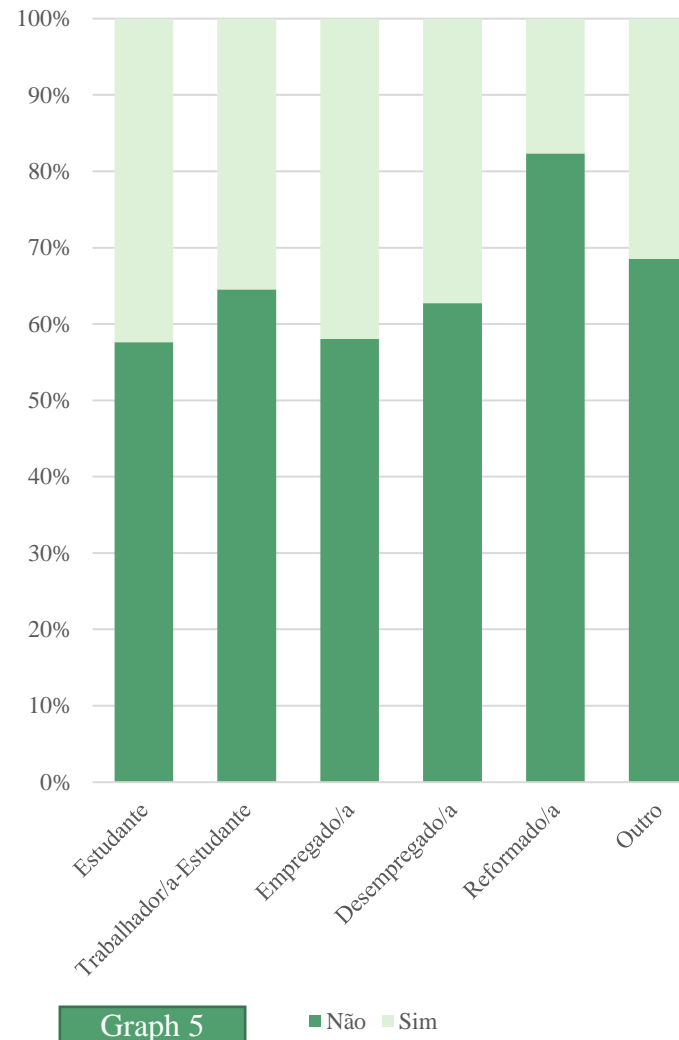
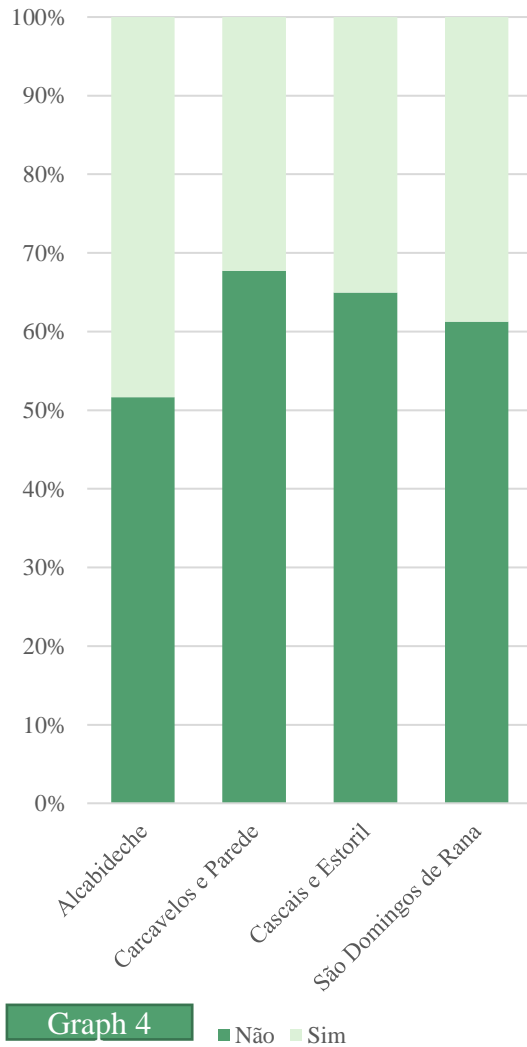
Men seem a bit less aware of City Points than women.

Higher net income people are less aware of City Points. Although “Prefer not to say” could even the results.

## Awareness of City Points

### Appendix 4: Survey Results

Do you Know City Points?



#### Graphic:

Graphic 4 and 5 and shows the proportion of people that know or not the City Points application by “Parishes” and “Occupation” respectively. The intent of these graphics is to see the perception of people about City Points so that it can better be integrated in Cashcais.

#### Analysis:

People of Alcabideche is above the other parishes in the awareness of City Points.

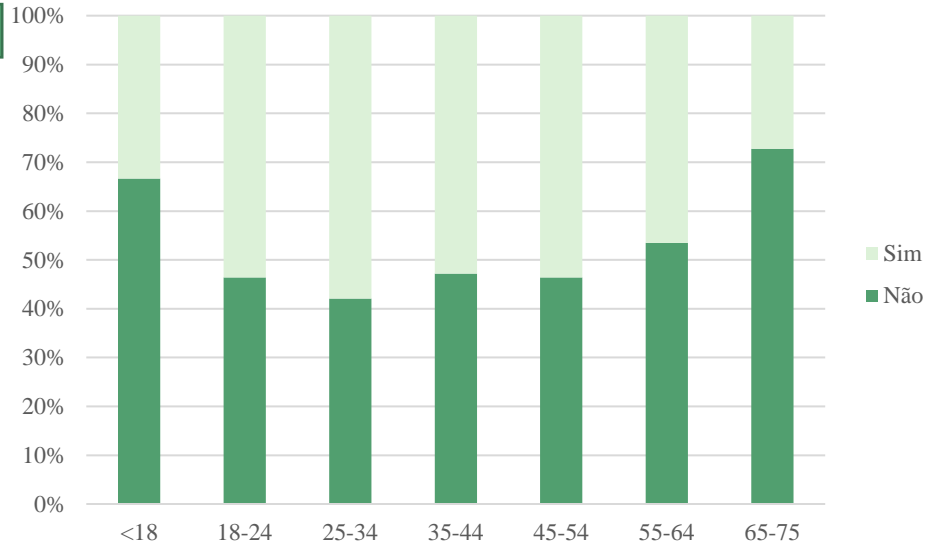
Retired people seem to be the highlight of the second graphic, also correlated with the “Age” variable – see [graph 1 on previous slide](#).

## Do you use the App City Points?

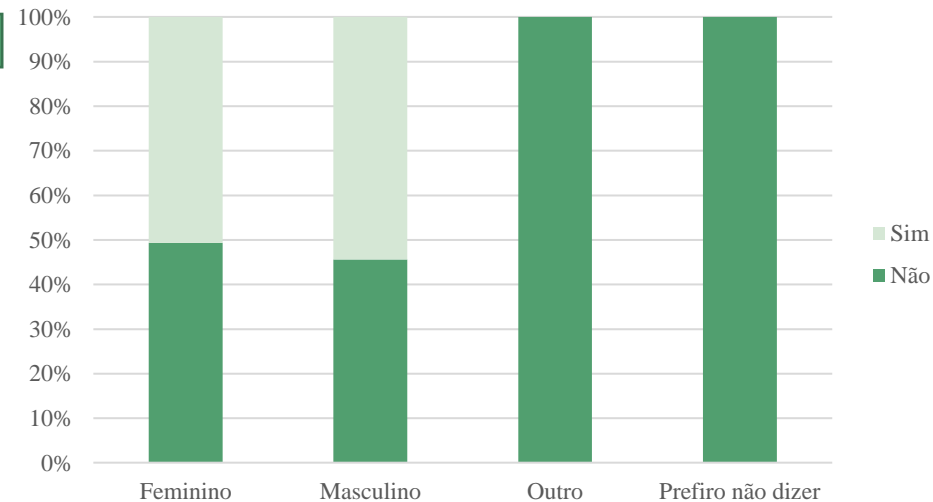
### Appendix 4: Survey Results

Do you use City Points?

Graph 1



Graph 2



#### Graphic:

Graphic 1 and 2 and shows the proportion of people that use or not the City Points application by “Age” and “Gender” respectively. The intent of these graphics is to see the perception of people about City Points so that it can better be integrated in Cashcais. People who responded “No” to the question “Do you know City Points?” where not considered here.

#### Analysis:

The majority of middle generations use City Points. Nothing can be inferred on the extremes generations.

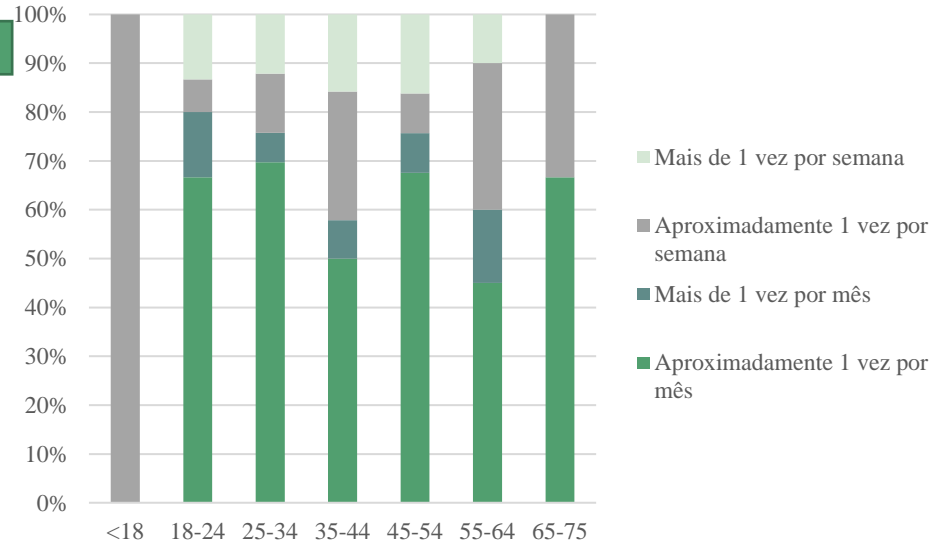
No significant difference on between men and women.

## City Points

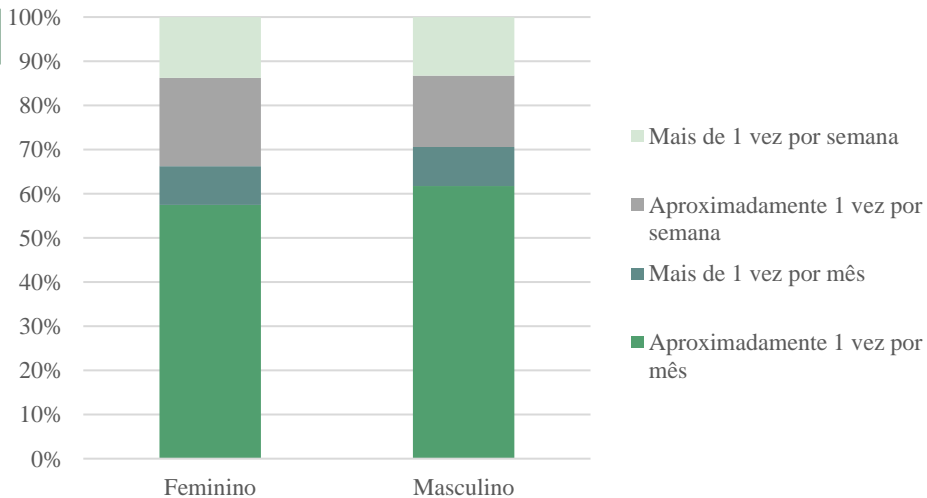
### Appendix 4: Survey Results

How often do you use City Points?

Graph 1



Graph 2



#### Graphic:

Graphic 1 and 2 and shows the proportion of how often people use the City Points application by “Age” and “Gender” respectively. The intent of these graphics is to see the perception of people about City Points so that it can better be integrated in Cashcais. People who responded “No” to the question “Do you use City Points?” were not considered here.

#### Analysis:

There is not much significant difference on how often different generations use City Points.

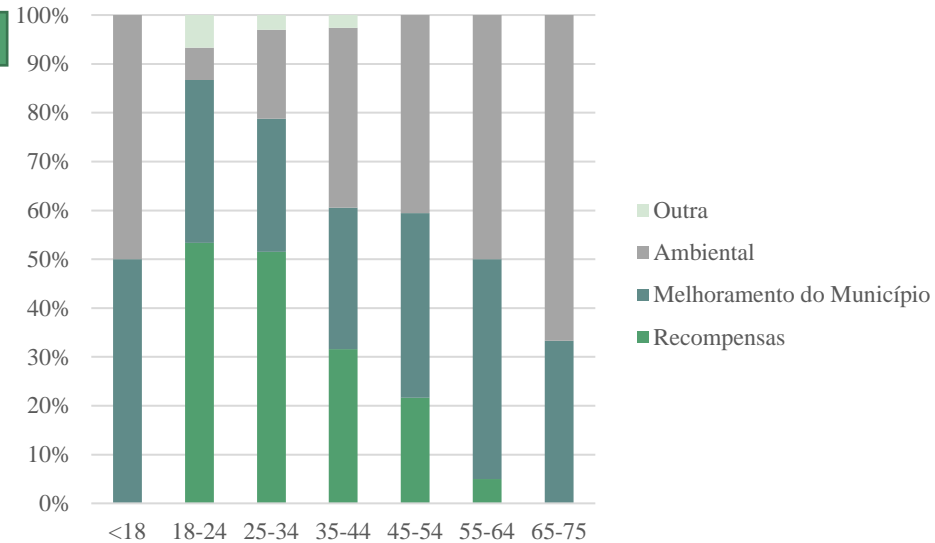
No significant difference on between men and women.

## Motivations to use City Points

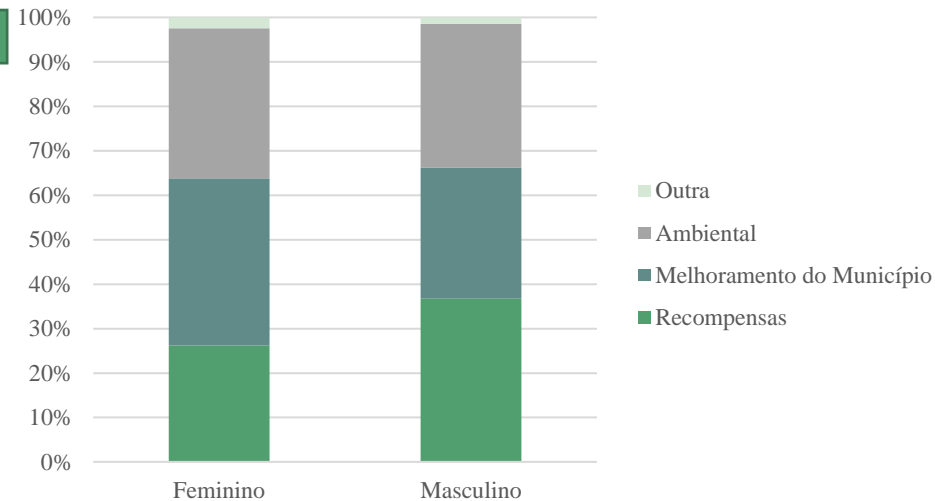
### Appendix 4: Survey Results

What are your motivations to use City Points?

Graph 1



Graph 2



#### Graphic:

Graphic 1 and 2 and shows the proportion of the different motivations to use the City Points application by “Age” and “Gender” respectively. The intent of these graphics is to see the perception of people about City Points so that it can better be integrated in Cashcais. People who responded “No” to the question “Do you use City Points?” where not considered here.

#### Analysis:

Younger generations seem to care more with the Rewards than older ones.

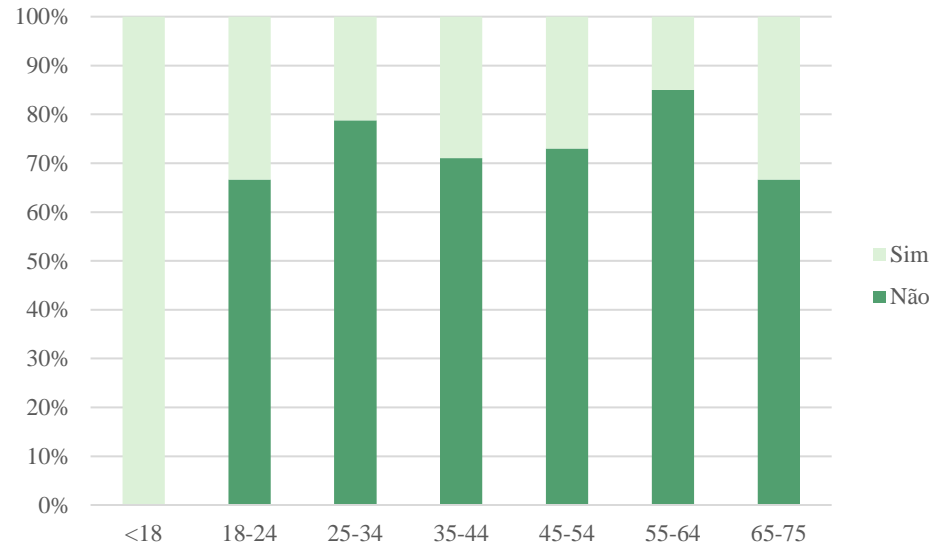
No significant difference on between men and women.

## Exchanging Points in City Points

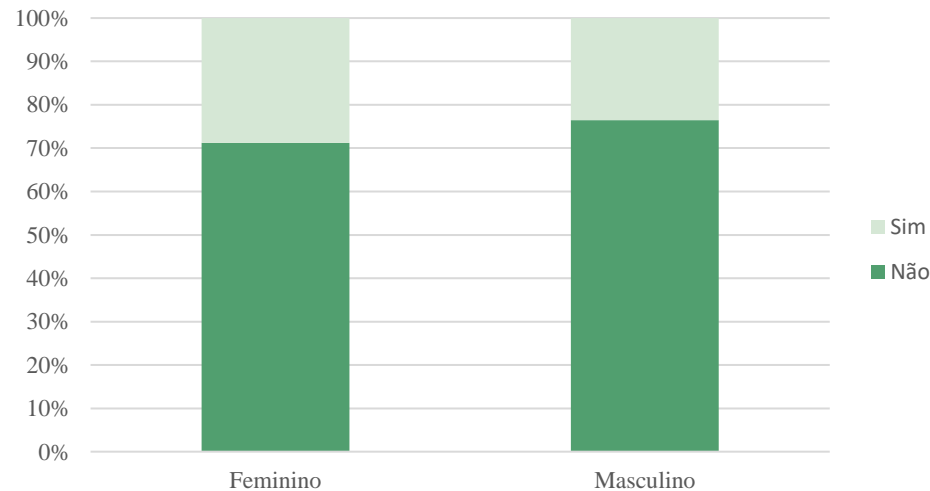
### Appendix 4: Survey Results

Have you exchanged Points for rewards?

Graph 1



Graph 2



#### Graphic:

Graphic 1 and 2 and shows the proportion of the different motivations to use the City Points application by “Age” and “Gender” respectively. The intent of these graphics is to see the perception of people about City Points so that it can better be integrated in Cashcais. People who responded “No” to the question “Do you use City Points?” where not considered here.

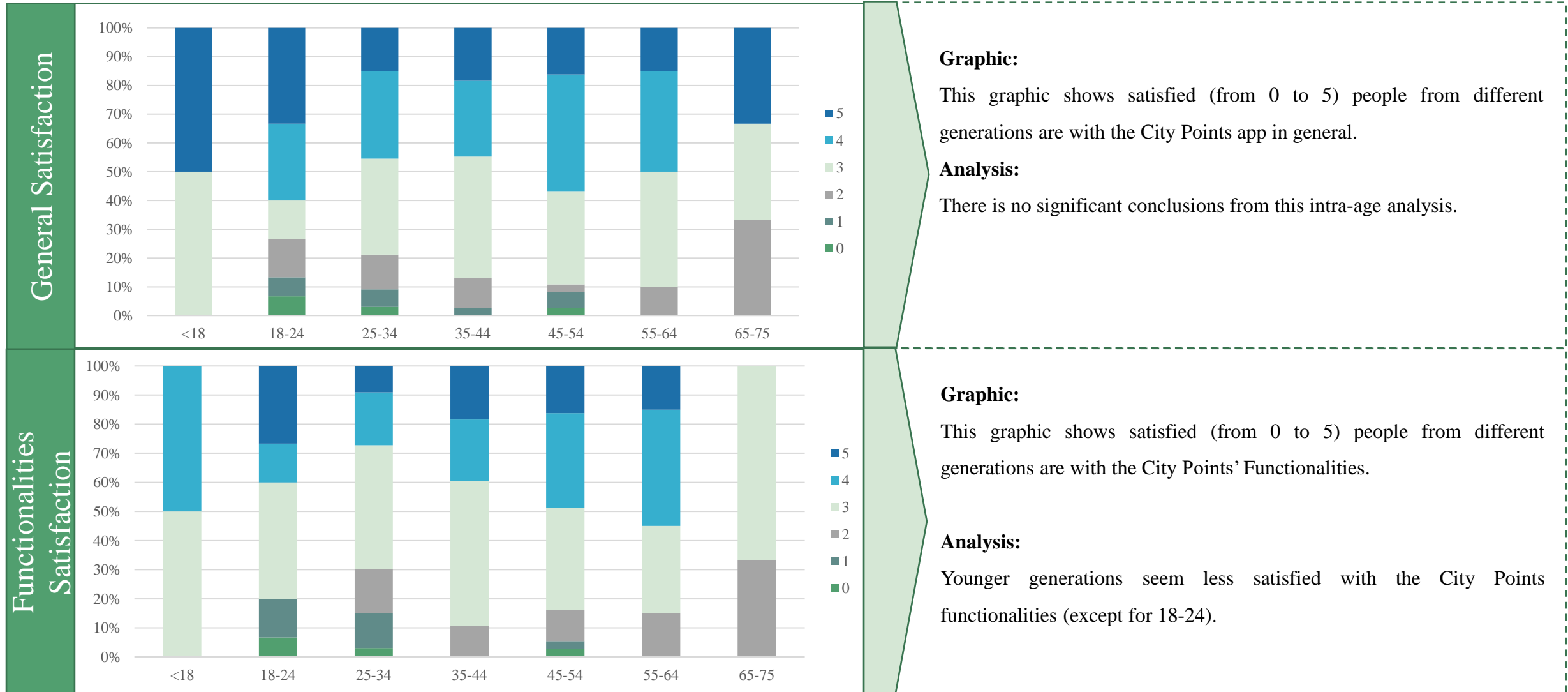
#### Analysis:

Younger generations seem to care more with the Rewards than older ones.

No significant difference on between men and women.

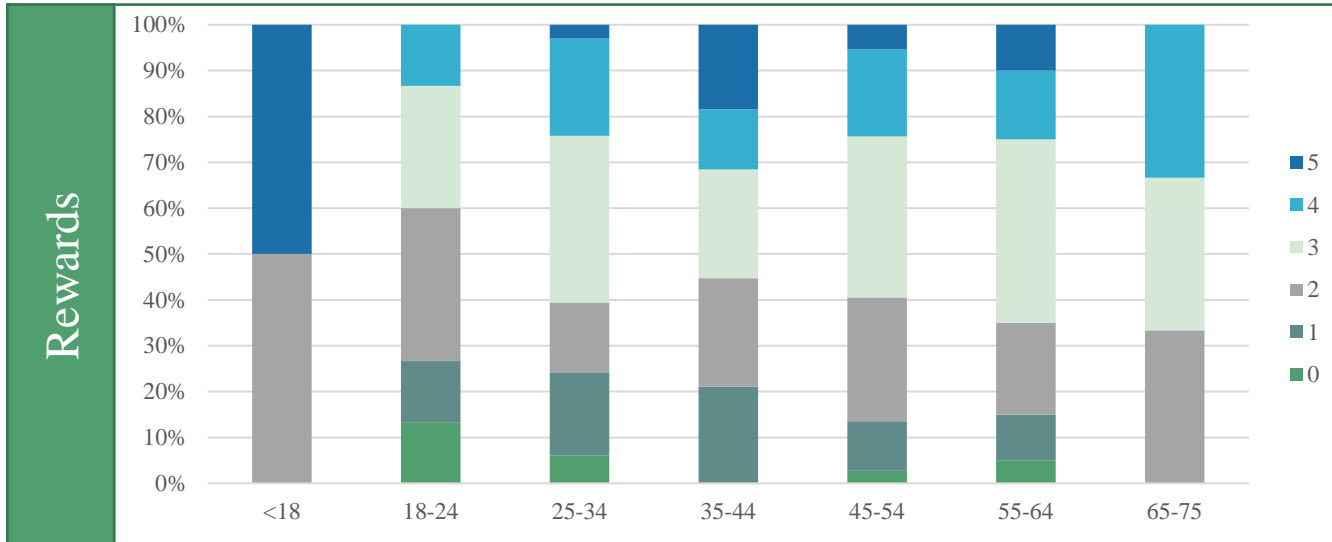
## Satisfaction with City Points

### Appendix 4: Survey Results



## City Points

### Appendix 4: Survey Results

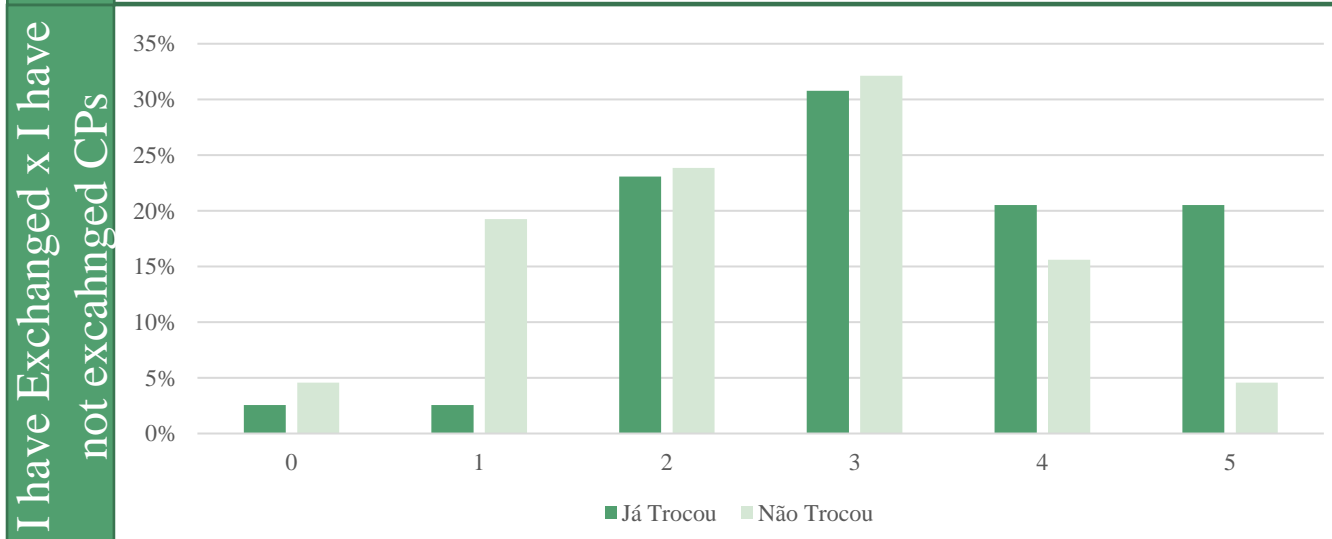


#### Graphic:

This graphic shows satisfied (from 0 to 5) people from different generations are with the City Points' Rewards.

#### Analysis:

Younger generations seem less satisfied, but they also gave more importance to rewards.



#### Graphic:

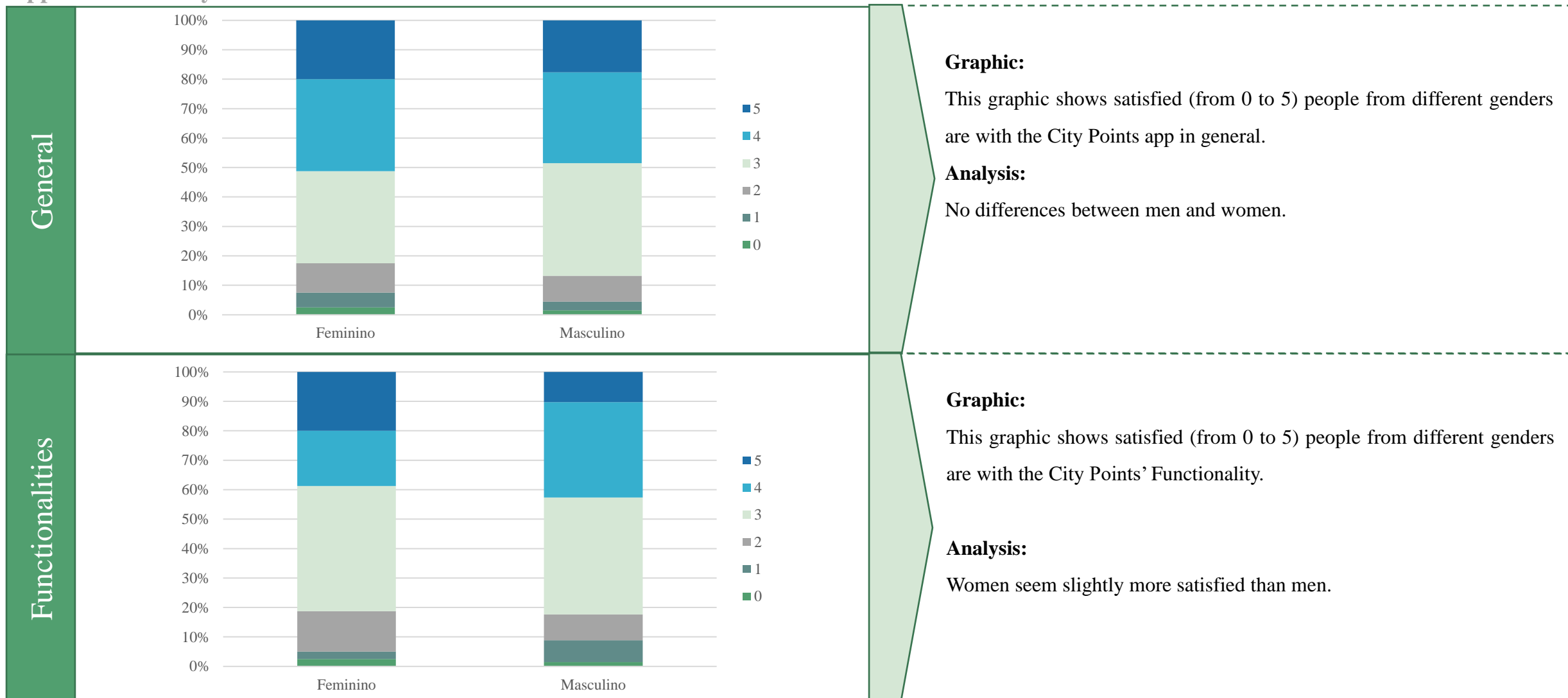
This graphic shows satisfied (from 0 to 5) with City Points' Rewards people who have and who have not exchanged CPs are. .

#### Analysis:

People who never exchanged CPs seem much less satisfied with the rewards than people who already acquired a reward.

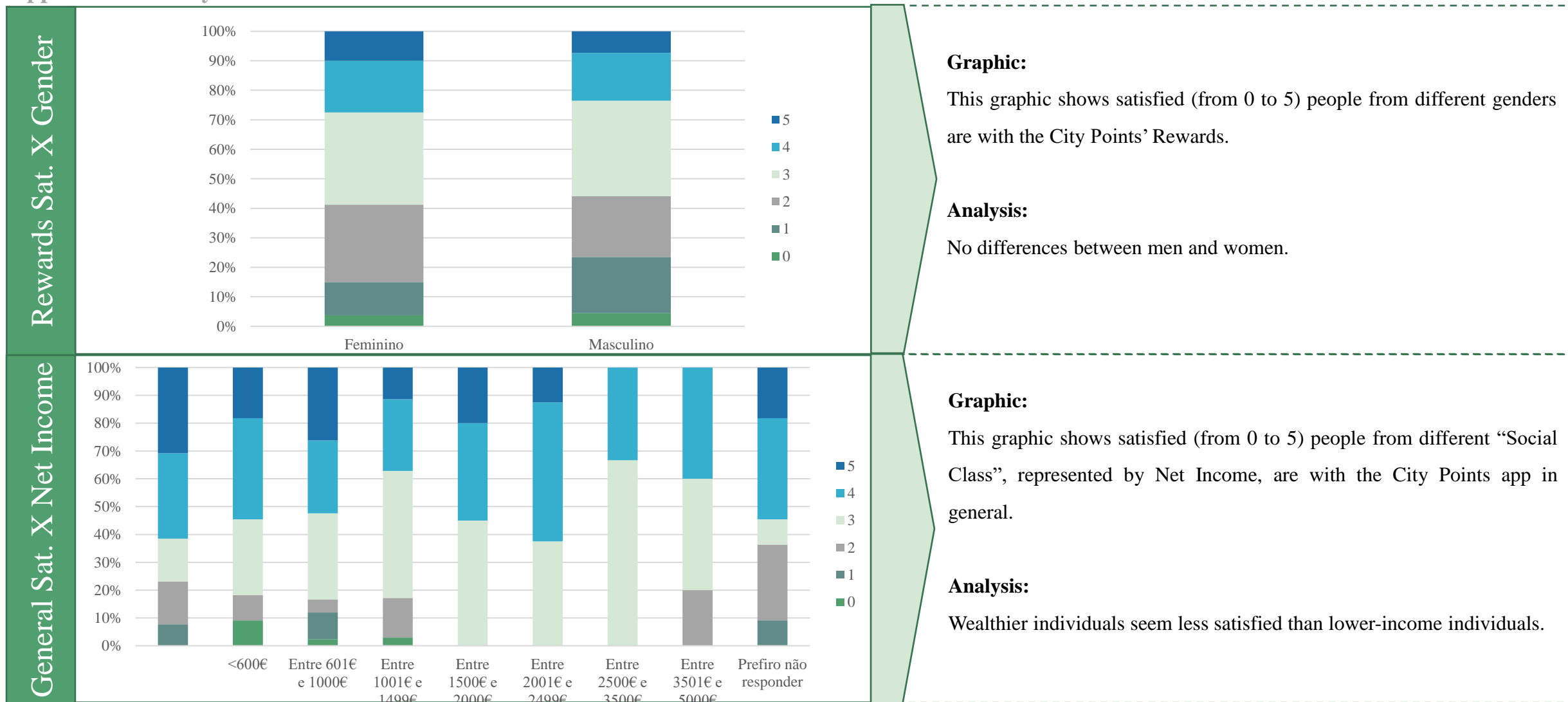
## Satisfaction With City Points

### Appendix 4: Survey Results



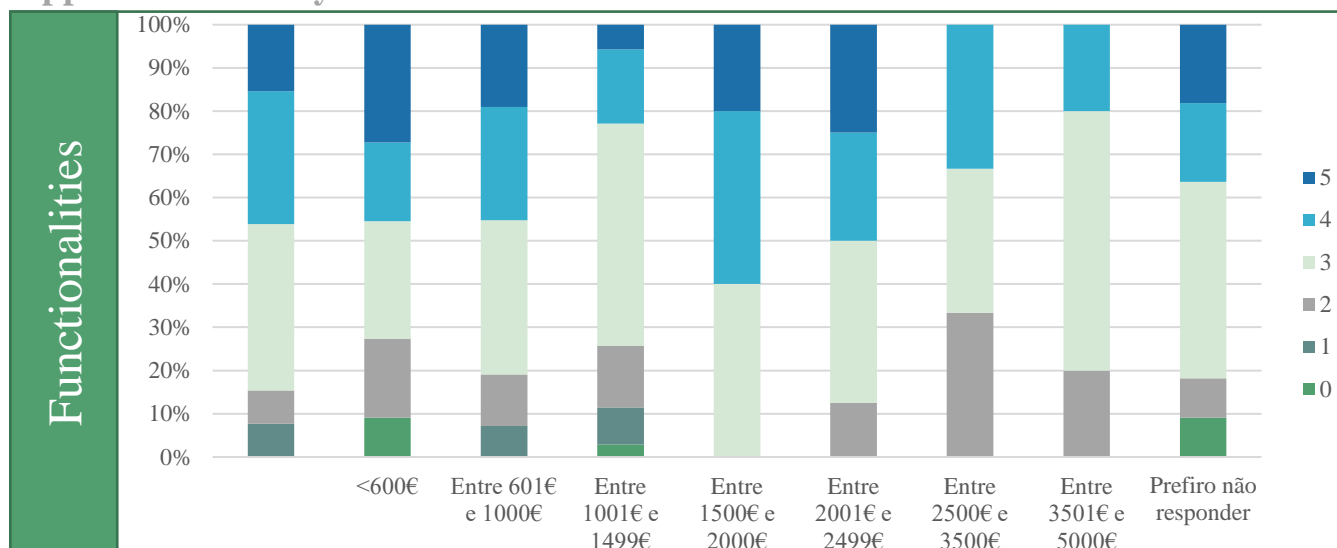
## Satisfaction With City Points

### Appendix 4: Survey Results



## Satisfaction With City Points

### Appendix 4: Survey Results

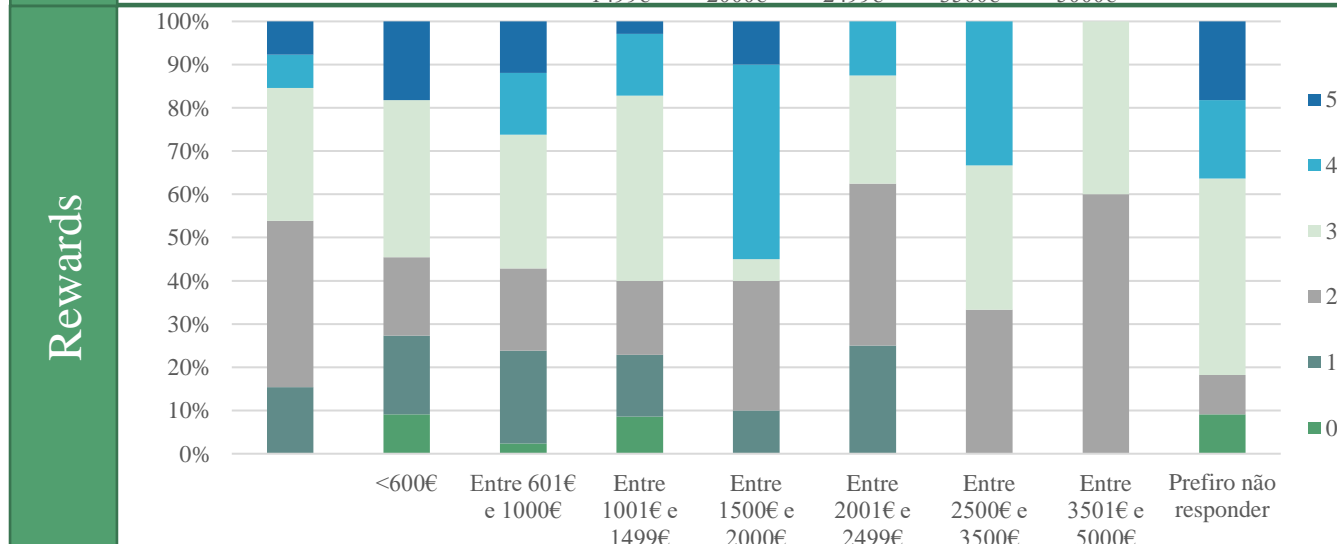


#### Graphic:

This graphic shows satisfied (from 0 to 5) people from different “Social Class”, represented by Net Income, are with the City Points’ Functionalities

#### Analysis:

Wealthier individuals seem less satisfied than lower-income individuals.



#### Graphic:

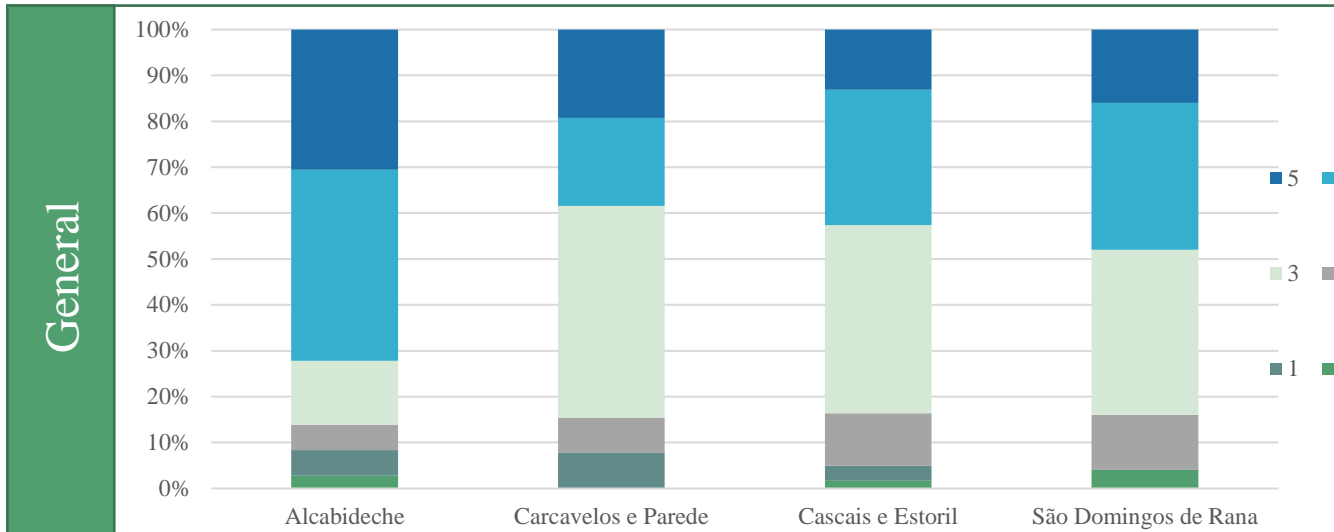
This graphic shows satisfied (from 0 to 5) people from different “Social Class”, represented by Net Income, are with the City Points’ Rewards.

#### Analysis:

Wealthier individuals seem less satisfied than lower-income individuals.

## City Points Satisfaction

### Appendix 4: Survey Results

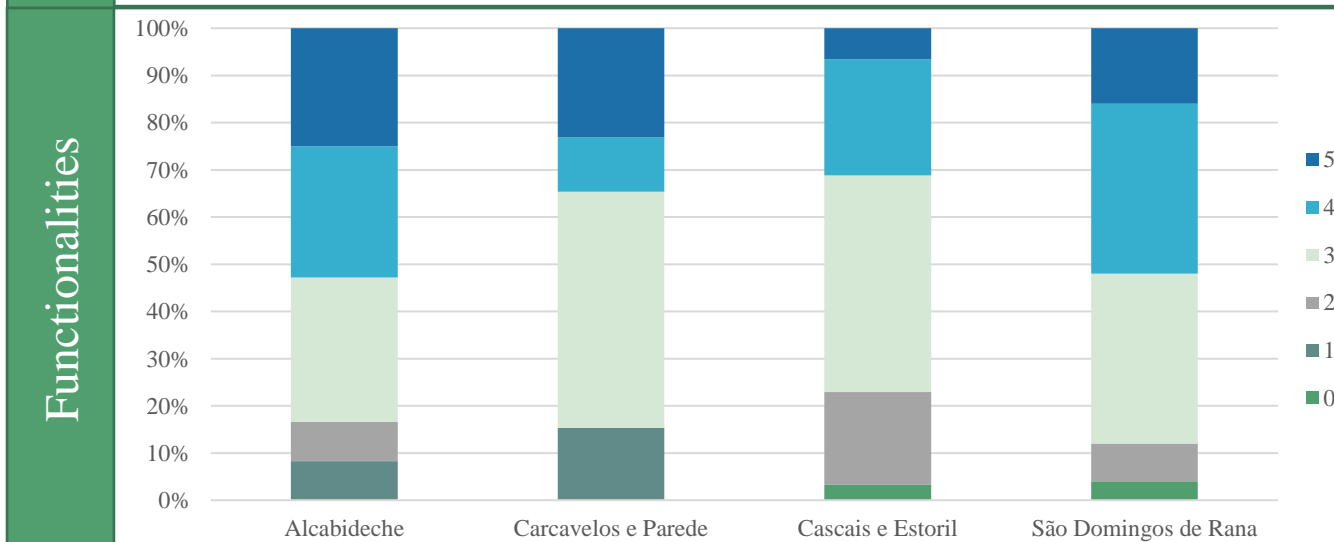


**Graphic:**

This graphic shows satisfied (from 0 to 5) people from different “Parishes” are with the City Points app in general.

**Analysis:**

Alcabideche’s citizens are much more satisfied than the other parishes, which have the more or less the same level of satisfaction among themselves.



**Graphic:**

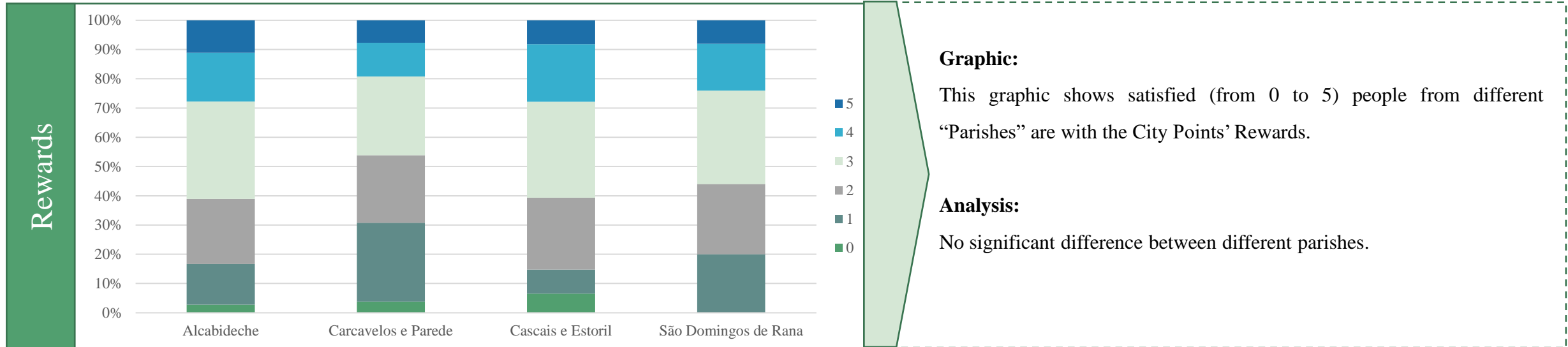
This graphic shows satisfied (from 0 to 5) people from different “Parishes” City Points’ Functionalities.

**Analysis:**

Alcabideche and S. Domingos de Rana’s citizens seem more satisfied with CityPoint’s functionalities than the other 2 parishes.

## City Points' Satisfaction

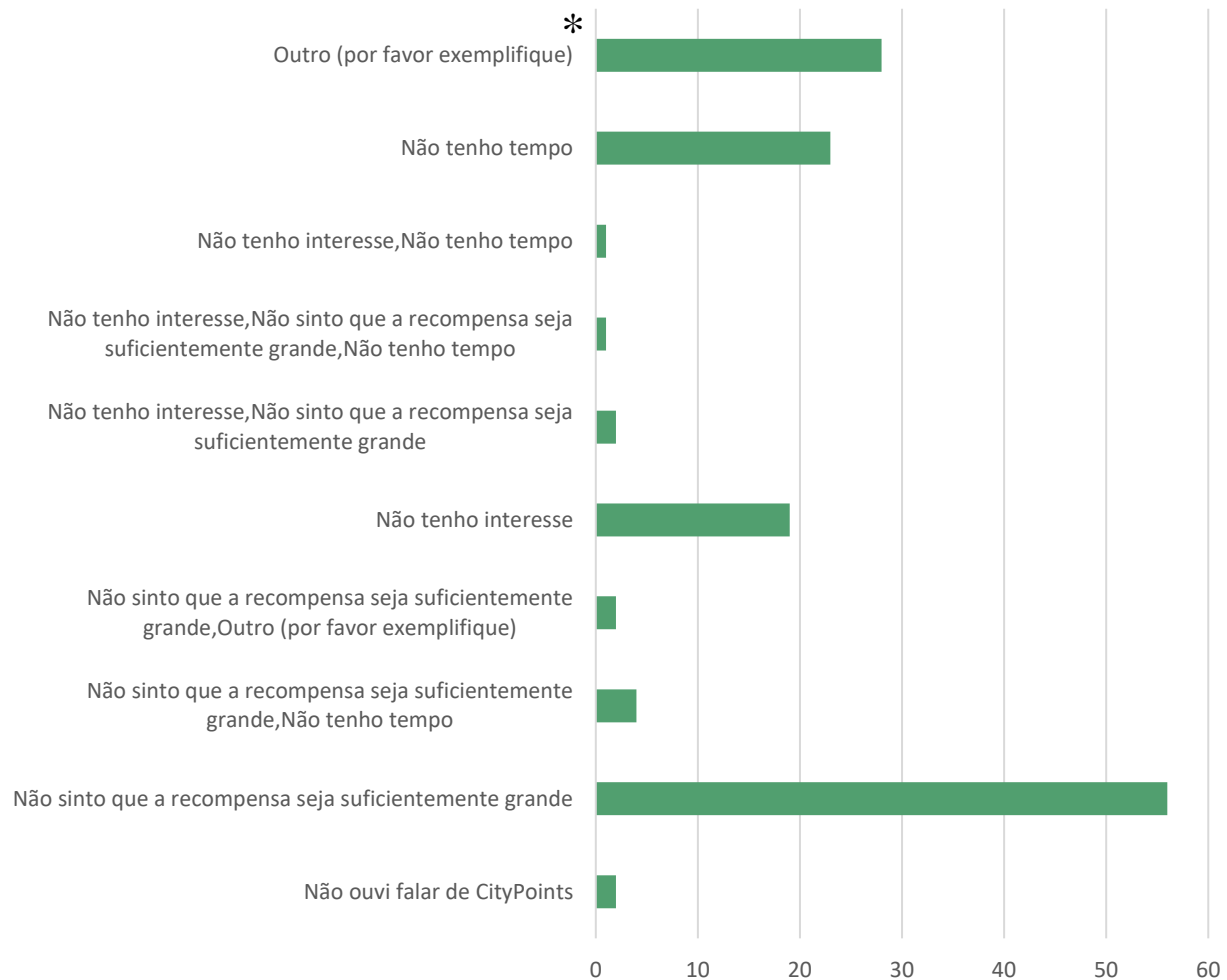
### Appendix 4: Survey Results



## City Points non-users

### Appendix 4: Survey Results

Why don't you use City Points?



\* Ver próximo slide

#### Graphic:

The graphic represents the main reasons for why people do not use City Points.

#### Analysis:

Rewards seems to be the main bottleneck for people not to use City Points.

Time and Interest follow rewards for the next reasons.

## Why don't you use City Points

### Appendix 4: Survey Results

#### Why don't you use City Points

- “Utilização de dados móveis para aceder”
- “Pouca informação em como aplicar os City points”
- “Ainda não me disponibilizei para a explorar”
- “Ainda não me debrucei bem sobre o assunto e ainda não me informei bem como utilizar”
- “Não uso telefone inteligente”
- “Não tive oportunidade”
- “Porque esqueço de levar embalagens para dentro do pingo doce onde está a máquina”
- “Não é compatível com o meu telemóvel”
- “Esquecimento”
- “Telemóvel sem capacidade para instalar apps”
- “Nunca experimentei”
- “Ainda não me lembrei”
- “Nem me lembro que existe...”
- “Esquecimento”
- “Só fiz o download da App muito recentemente”
- “Tentei inscrever sem sucesso”
- “Talvez não esteja familiarizada com todas as vantagens”
- “Não funciona corretamente”
- “Pouco informado a cerca da mesma”
- “Porque ainda não fiz registo. Na realidade já faço separação do lixo e coloco no separador junto de casa não me faz sentido ter que levar lixo para um estabelecimento comercial para colocá-lo.”
- “Porque estou afastada de Cascais temporariamente”
- “Vi o sistema, mas ainda não tive tempo de perceber como é que funciona”
- “Esqueço de usar”
- “Falta de contexto”
- “Não tive oportunidade”
- “Não consegui arranjar o tempo para me registar”
- “Devido ser com aplicação em telemóvel, sendo que o meu telemóvel não tem capacidade para tantas aplicações”
- “Já fazia triagem e separação dos resíduos”
- “Desconforto em utilizar aplicação que monitorize e privilegie/segmente a população.”
- “Recompensas disponíveis não eram do meu interesse”
- “Dificuldade técnica”
- “A aplicação é direcionada ao concelho de Cascais onde apenas estudo”

#### List:

List of detailed reasons people who are aware of the existence of the City Points app and who do not use the City Points app have not to use the app.

## Cashcais Interests

### Appendix 4: Survey Results

General Interest

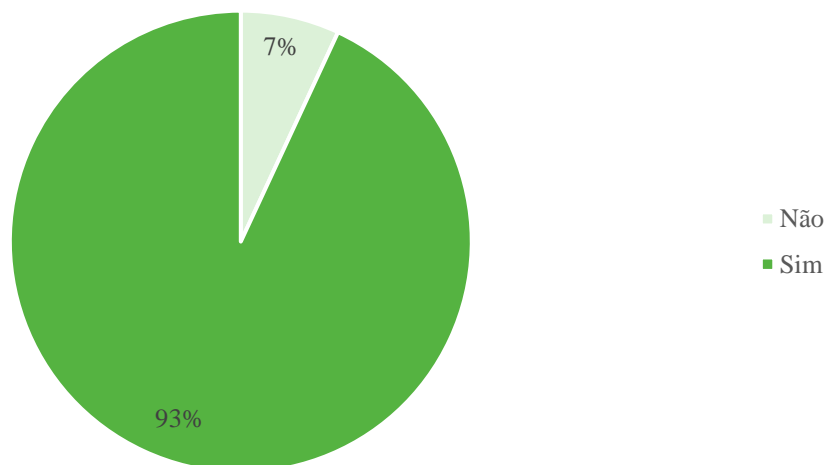
**Graphic:**

This graphic shows the percentage of people who claimed to be interested or not in taking advantage of the Cashcais project once it is implemented. The intent of the graphic is to check general interest and perception on Cashcais.

**Analysis:**

People seem very interested in using the Cashcais local coin benefits.

App Interest

**Graphic:**

This graphic shows the percentage of people who claimed to be interested or not in using the Cashcais app. The intent of the graphic is to check general interest and perception on Cashcais and its features.

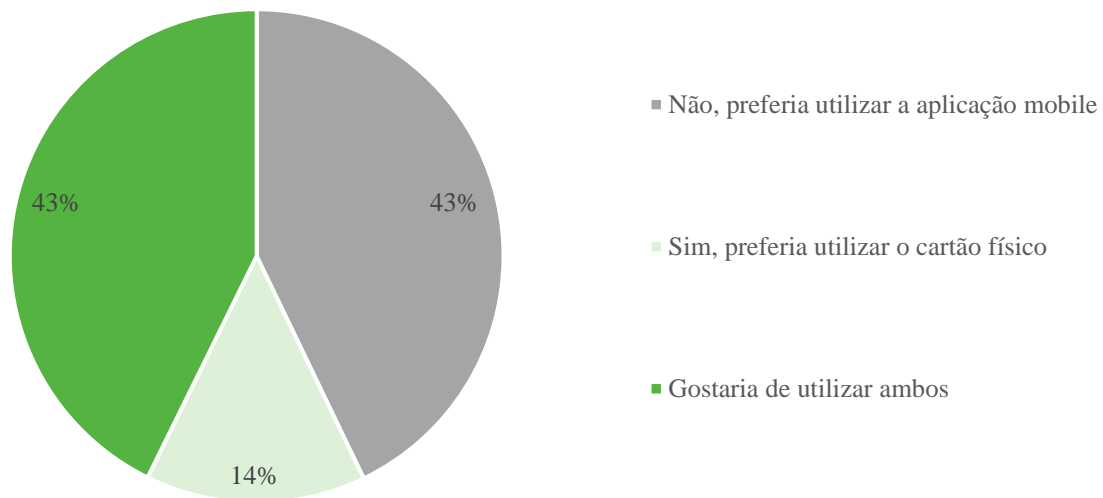
**Analysis:**

People seem very interested in using the Cashcais app.

## Cashcais

### Appendix 4: Survey Results

#### Physical Card Interest



#### Graphic:

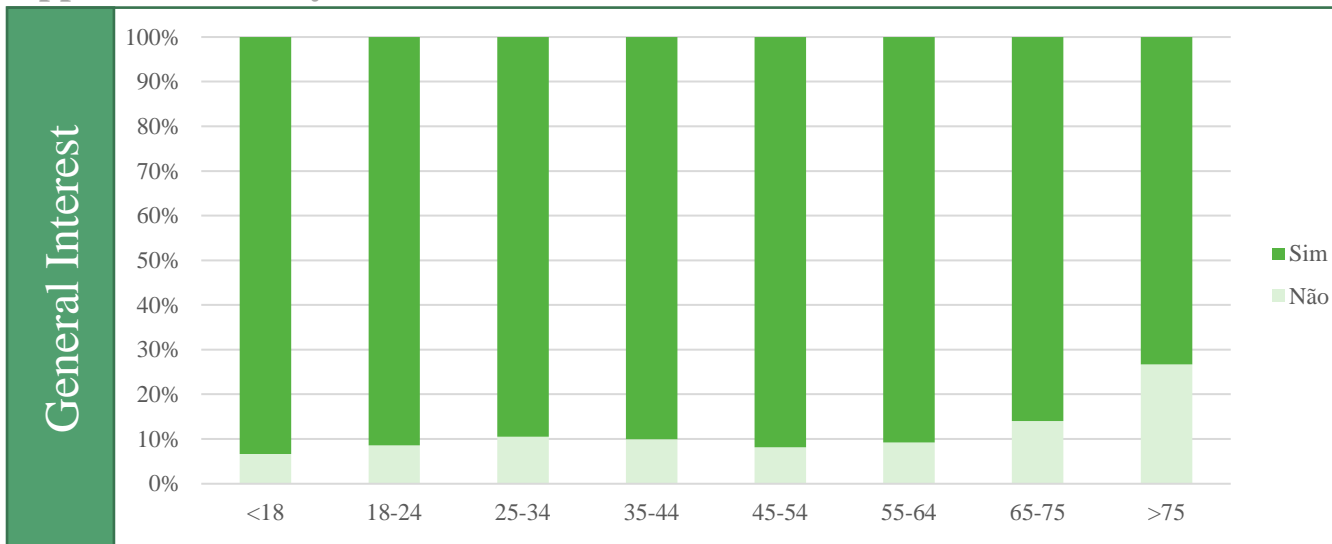
This graphic shows the percentage of people who claimed to be interested or not in having a physical card instead of just an app to use Cashcais. The intent of the graphic is to check general interest and perception on Cashcais.

#### Analysis:

The majority seems to find it relevant to have a physical card. 43% would prefer a physical card to an app

# Cashcais

## Appendix 4: Survey Results

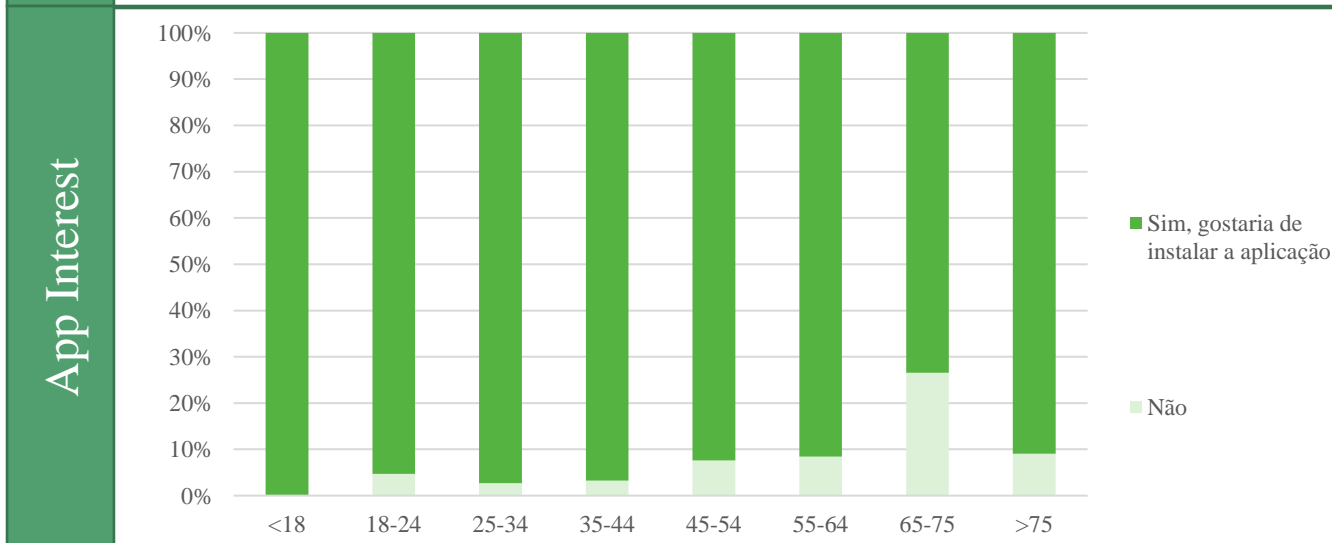


### Graphic:

This graphic shows the percentage of people who claimed to be interested or not in taking advantage of the Cashcais project once it is implemented, by “Age”. The intent of the graphic is to check general interest and perception on Cashcais.

### Analysis:

There seems to be a general interest in Cashcais equal in all generations.



### Graphic:

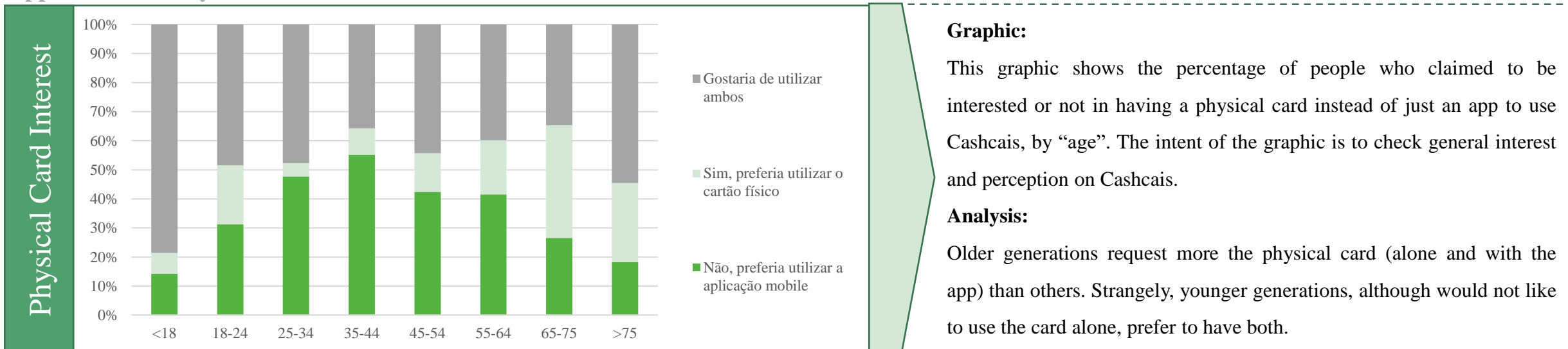
This graphic shows the percentage of people who claimed to be interested or not in using the Cashcais app, by “Ages”. The intent of the graphic is to check general interest and perception on Cashcais and its features.

### Analysis:

There seems to be a general interest in Cashcais’ app equal in all generations.

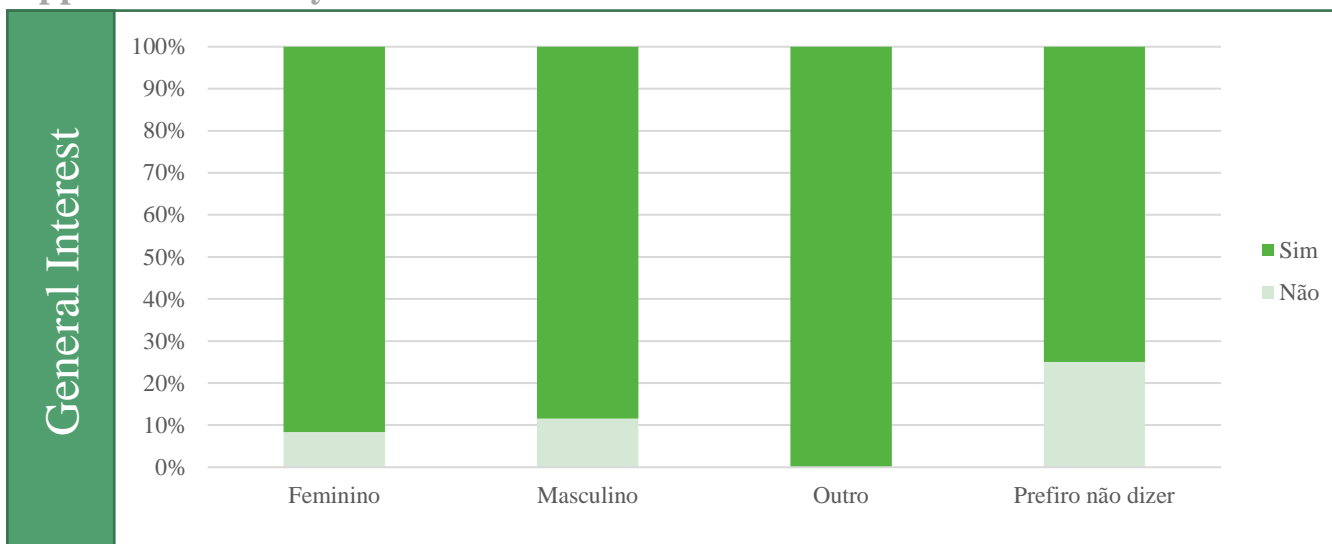
## Cashcais - Idade

### Appendix 4: Survey Results



## Cashcais – Género

### Appendix 4: Survey Results

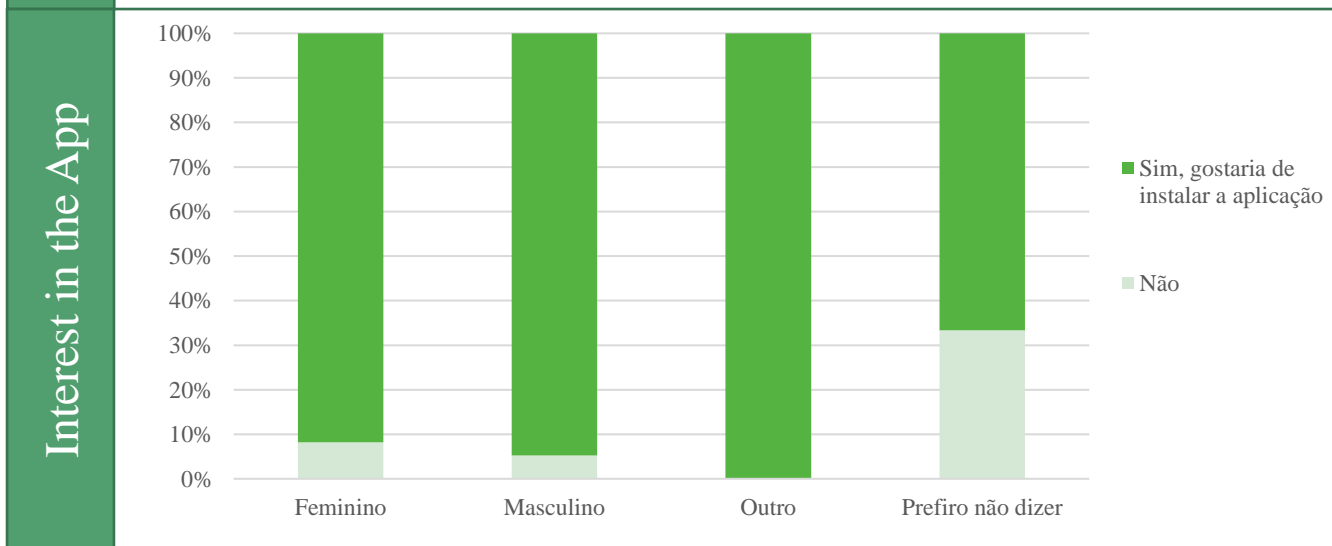


**Graphic:**

This graphic shows the percentage of people who claimed to be interested or not in taking advantage of the Cashcais project once it is implemented, by “Gender”. The intent of the graphic is to check general interest and perception on Cashcais.

**Analysis:**

There seems to be a general interest in Cashcais equal in different genders.



**Graphic:**

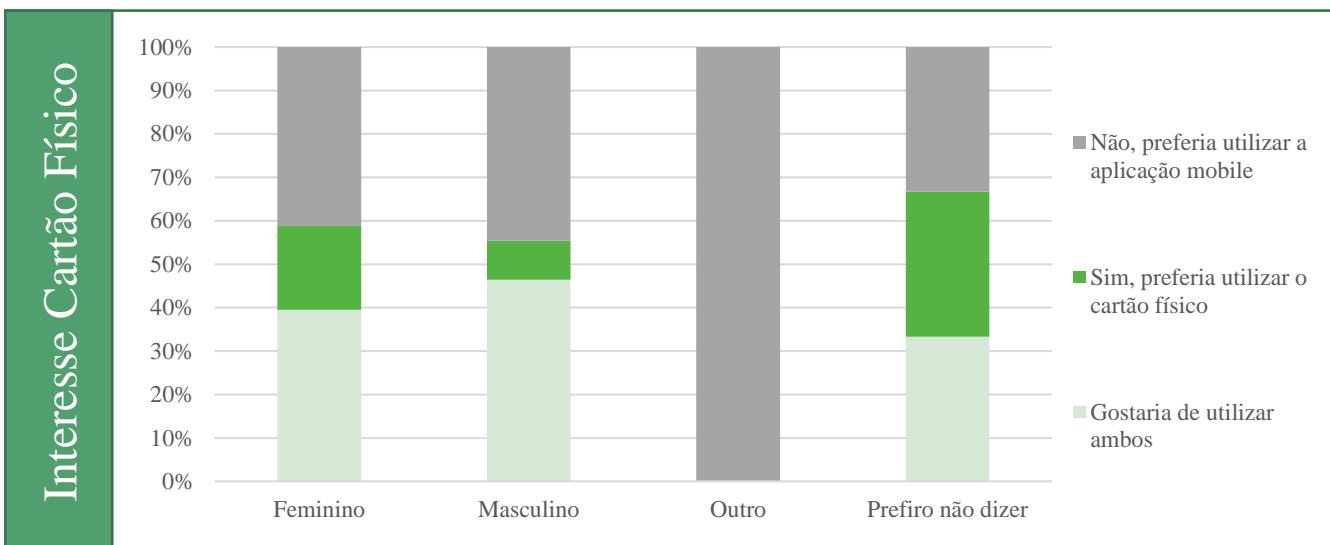
This graphic shows the percentage of people who claimed to be interested or not in using the Cashcais app, by “Gender”. The intent of the graphic is to check general interest and perception on Cashcais and its features.

**Analysis:**

There seems to be a general interest in Cashcais’ app equal in different genders

## Cashcais - Género

### Appendix 4: Survey Results



#### Graphic:

This graphic shows the percentage of people who claimed to be interested or not in having a physical card instead of just an app to use Cashcais, by “gender”. The intent of the graphic is to check general interest and perception on Cashcais.

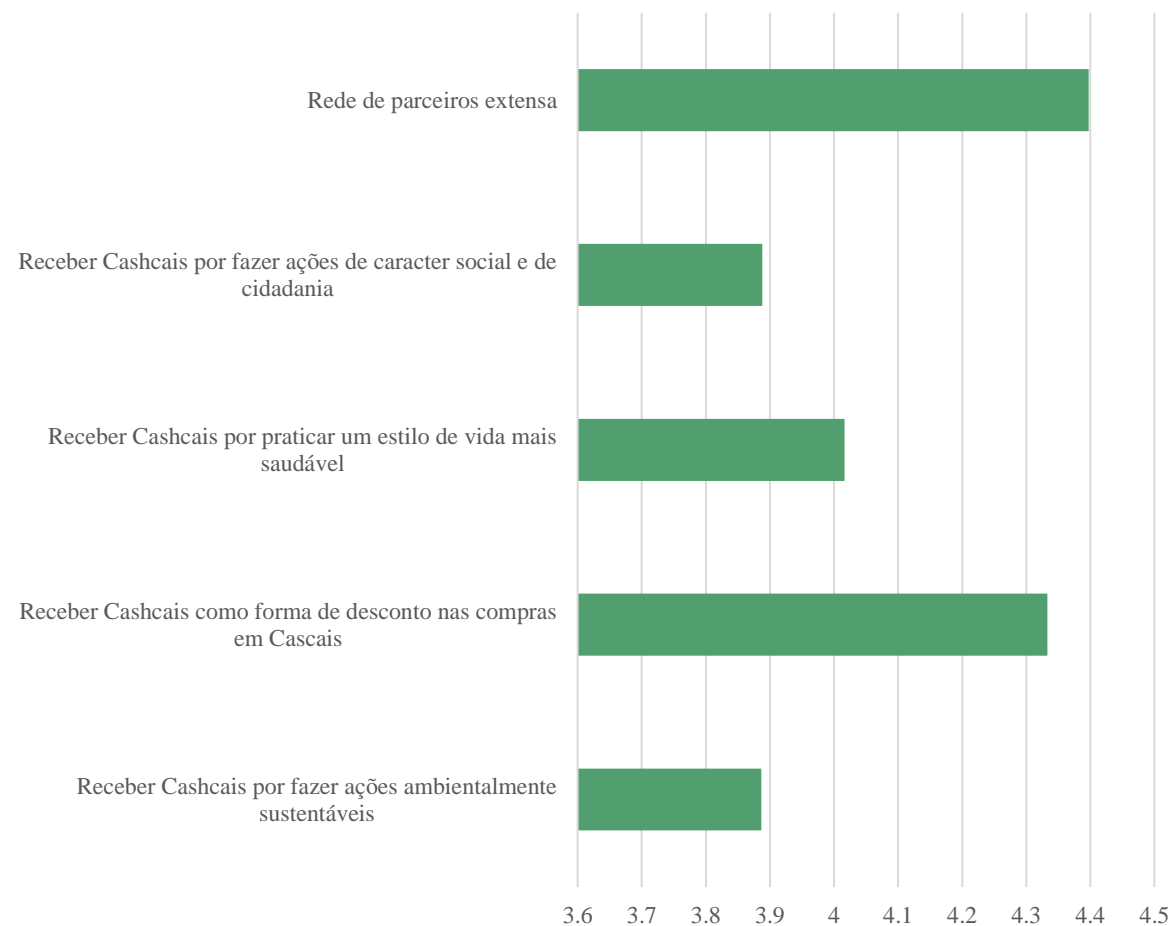
#### Analysis:

Men have a slight higher preference for the usage of a card than women.

# Cashcais

## Appendix 4: Survey Results

### Possible Motivations – General



#### Graphic:

This graphic shows what could be the possible motivations to use the Cashcais app. People vote from 0 to 5 in all these categories. The graphic shows the average of the votings in each category

#### Analysis:

Cascais' citizens seem to be highly concerned with the amount of partners the project will be able to attract.

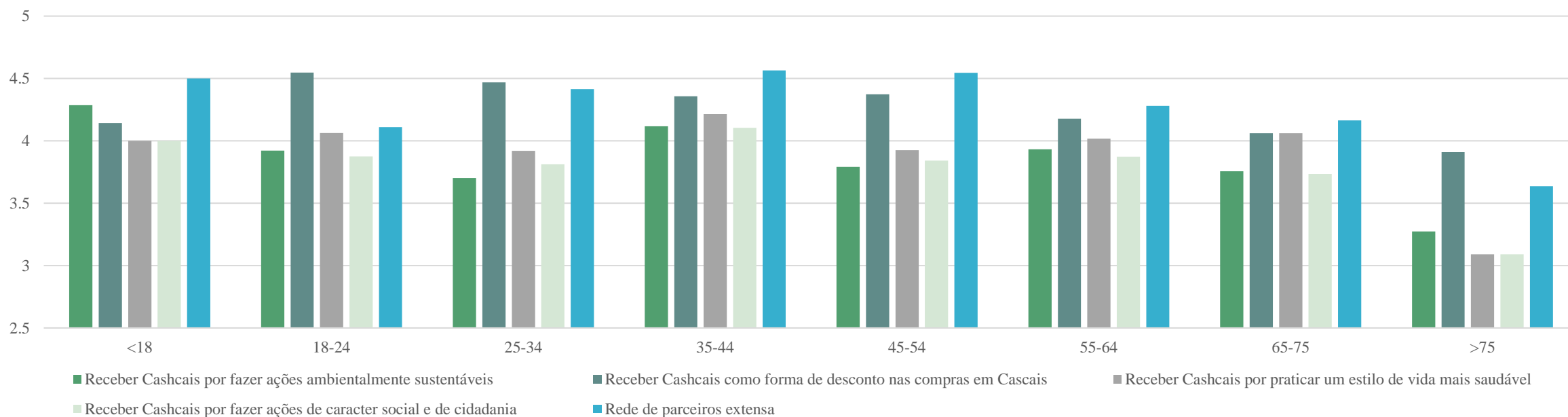
Receiving a cashback (economical perspective of the project) is the main motivation of the people in general.

Out of the actions and the other perspectives, people seemed more attracted to the Healthy / Human perspective.

# Cashcais

## Appendix 4: Survey Results

Possible Motivations – Generations / Ages



### Graphic:

This graphic shows what could be the possible motivations to use the Cashcais app, by “Age”. People vote from 0 to 5 in all these categories. The graphic shows the average of the votings in each category.

### Analysis:

All generations (except 25-34) seem to rank an extensive Network of partners as the main concern.

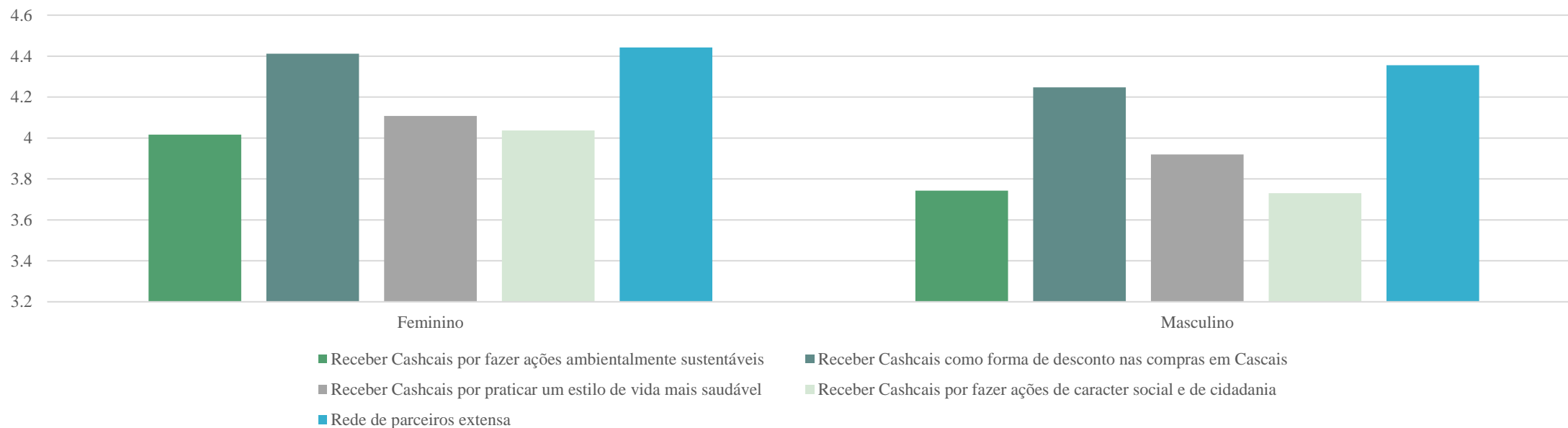
The relative interest in the cashback decreases in older generations.

People seem to always value healthier actions slightly more when compared to environmental and social ones across all generations (except <18). Older generations view it almost as relevant as the cashback.

# Cashcais

## Appendix 4: Survey Results

### Possíveis Motivações - Género



### Graphic:

This graphic shows what could be the possible motivations to use the Cashcais app, by “Gender”. People vote from 0 to 5 in all these categories. The graphic shows the average of the votings in each category.

### Analysis:

Men seem to give a more relative value to Receiving a Cashback to the other 3 perspectives of the project than women.

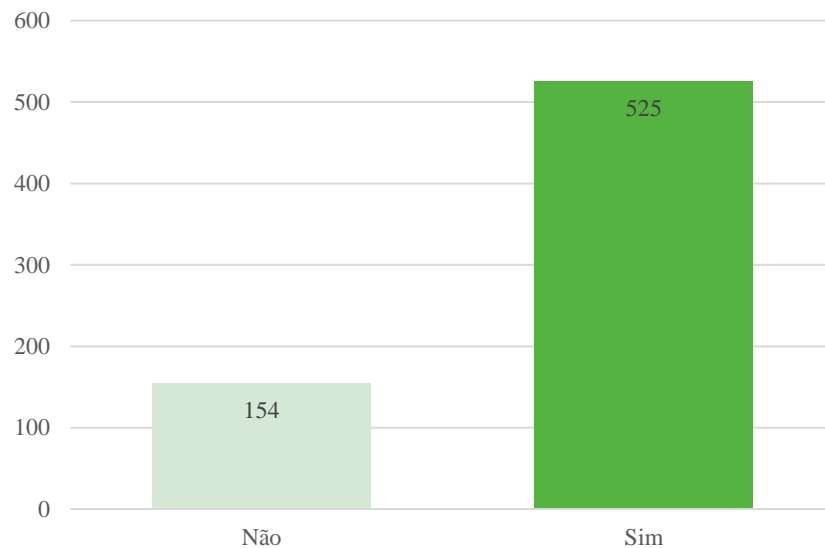
The ranking order of possible motivations is the same for both genders.

## Cashcais – Would you like to be contacted?

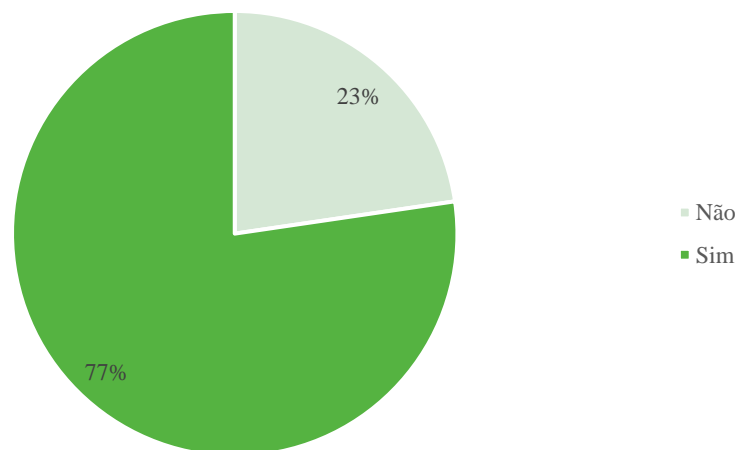
### Appendix 4: Survey Results

Pretende ser contactado – Geral

Graph 1



Graph 2



#### Graphic:

Graphic 1 and 2 shows number of people and the percentage of people, respectively, who answered “Yes” or “No” to the question “ Would you like to be contacted by CMC once the project starts?”

#### Analysis:

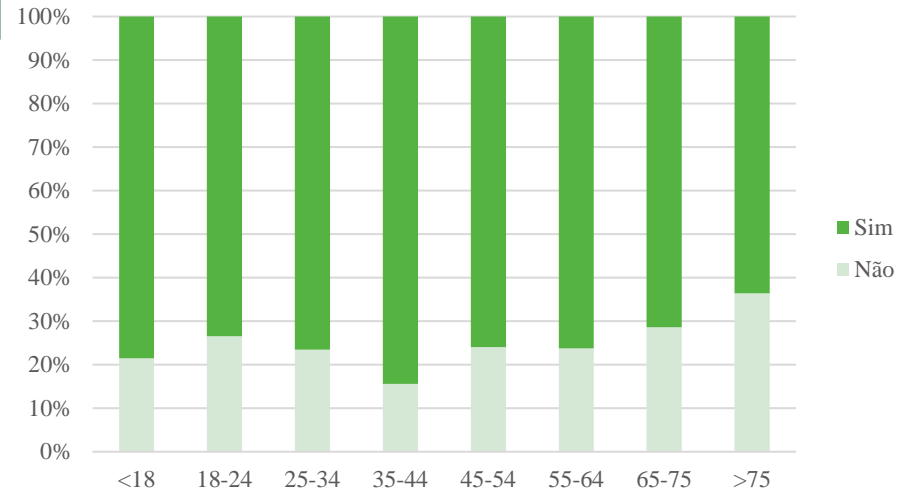
This gives us a more accurate representation of the interest of people as they already had given a promise and made a action (small action of giving out some contact information details) to be a participant in the project.

## Cashcais – Would you like to be contacted?

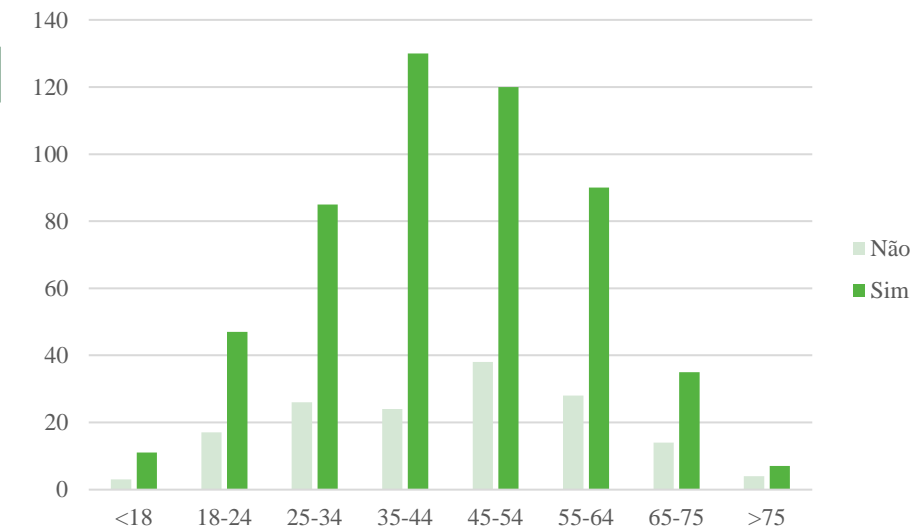
### Appendix 4: Survey Results

Would you like to be contacted? - Age

Graph 1



Graph 2



#### Graphic:

Graphic 1 and 2 shows percentage of people and the number of people, respectively, by “Age” who answered “Yes” or “No” to the question “Would you like to be contacted by CMC once the project starts?”

#### Analysis:

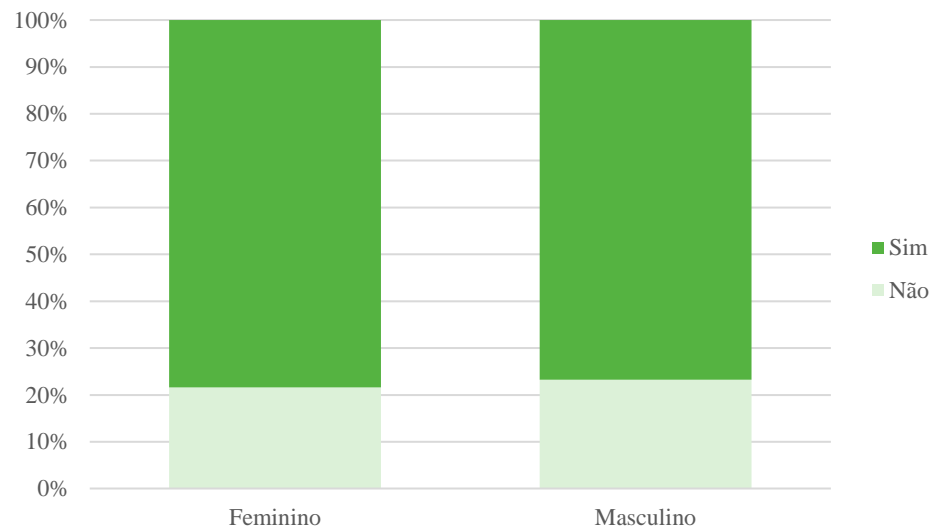
Proportionally speaking, there is no significant variation on the wish to be contacted across different generations.

## Cashcais – Would you like to be contacted?

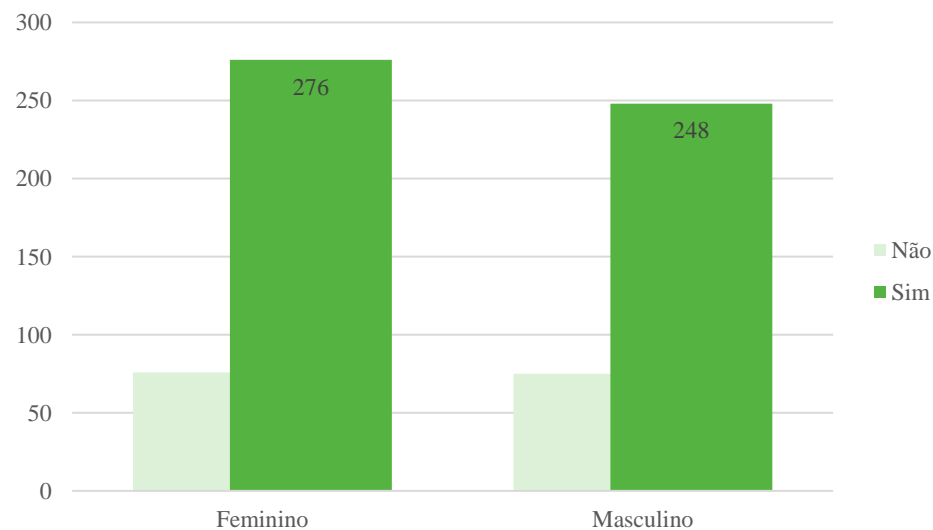
### Appendix 4: Survey Results

Would you like to be contacted? - Gender

Graph 1



Graph 2



#### Graphic:

Graphic 1 and 2 shows percentage of people and the number of people, respectively, by “Gender” who answered “Yes” or “No” to the question “Would you like to be contacted by CMC once the project starts?”

#### Analysis:

Proportionally speaking, there is no significant variation on the wish to be contacted across different generations.

## Further Comments on Cashcais

### Appendix 4: Survey Results

#### Further comments

- Ter mais benefícios como utilizar a moeda em experiências, lazer, nas bicas (se funcionassem em pleno), etc
- A moeda local não tem qualquer interesse a não ser que fosse com um valor menor que o euro e houvesse poupança nos produtos locais e serviços. Se nao for para baixar custos e poupar não tem qualquer valor
- Não conheço para comparar
- Mais impacto/diferenciação quando comparada com de benefícios em pontos
- - descrição vaga; - benefícios incertos; - falta de garantia monetária
- Nenhum, eu acredito que , apesar de ter boas intenções, Cashcais não iria ajudar pessoas e a economia local. Existem exemplos (que infelizmente não consigo lembrar especificamente) onde a criação de uma moeda "local" não ajuda pessoas e até as limita, e que esta limitação impede que estas subam financeiramente. Para mais o fato de moedas digitais/cryptomoedas utilizam grandes quantidades de energia e de recursos. Recursos,tempo e dinheiro que poderiam ser usados para outros projetos que teriam maior impato social.
- Não uso telemovel inteligente
- MAIOR DEMOCRATIZAÇÃO E EDUCAÇÃO QUANTO ÀS MOEDAS DIGITAIS
- Nao ser só local
- Deixarem de vez o projecto que tem para a Quinta dos Ingleses
- Retorno monetário em dinheiro real
- Penso que não tem lógica este processo. Se querem devolver algo aos cidadãos que baixem os impostos
- Mais esclarecimentos
- A pegada ecológica associada a este tipo de projetos é insustentável do ponto de vista ambiental, pelo que não entendo esta opção de um município que combate as alterações climáticas.
- Nenhum, acho que uma aplicação/moeda deste género tem muitas desvantagens, incluindo mas não só a população mais idosa não conseguirá utilizar bem a aplicação/moeda e por exemplo já na recolha de garrafas e plásticos em troca de pontos no city points, uma pessoa não pode colocar as garrafas por colocar e não obter nada em troca
- Uso de outra moeda não me parece necessária
- Nao faz sentido. Muito restrito. Cascais 'e muito pequeno. Pode dar origem a fraudes etc
- Nao vejo qualquer benefício nesse projeto
- Não creio que teria interesse numa moeda digital local. A sua utilização circunscrita a um concelho é limitadora. Será o equivalente a ter um saldo num cartão de transportes que não poderei usar em outro lado, ficando eventualmente lá preso
- O único item que cumpro é o da reciclagem de embalagens de bebidas e não existe em nenhum ponto na zona onde habito. Se houver um ponto de recolha em S. Pedro o meu interesse seria positivo.
- A pertinência
- Nenhuns acho desnecessario
- O "feedback" caso seja posto em prática.
- Nenhuns, os benefícios se que falam são unicamente para ludibriar as pessoas a adeirem a uma prática que a longo prazo trará mais malefícios que benefícios
- É a fantochada dizer que é bpm para o boente dada a poluição amboental dos servidores e outras infraestruturas.

#### List:

This list represents further comments people made about the Cashcais program.

## Further Comments on Cashcais

### Appendix 4: Survey Results

#### Further Comments

- Nenhum. Acho que não é necessária a criação de mais uma moeda de troca. Se querem facilitar o processo façam-no em Euros.
- Exclui os analfabetos digitais normalmente os mais idosos
- Estou satisfeito com o cash e os meios de pagamento existentes
- nenhuns, há outras prioridades no concelho e mais importantes do que uma moeda digital
- Morar em Cascais
- Localização
- Nenhum. As questões alegadamente endereçadas por este tipo de acao podeiam concerteza ser resolvidas de forma mais eficiente e directa.
- Teria de ser efectivamente vantajoso economicamente
- nao se pode chamar a este projecto, um projecto de moeda digital, mas sim um projecto de acumulação de pontos numa caderneta que depois dão origem a descontos nos parceiros envolventes. Chamar isto de moeda é realmente confuso e enganador, já que uma pessoa nunca tem a opção de fazer "out" e receber com isso dinheiro real. Adicionalmente, se não existir apoio de todos os intervenientes, nomeadamente os comerciantes, o projecto não é bem sucedido. É preciso valor de rede. Quanto mais melhor e mais robusto o projecto.
- Mais informações
- Não vejo que este tipo de projeto tenha interesse para a população.
- As moedas baseadas em blockchain são ineficientes e vivem da especulação... não vejo como poderiam torná-la apelativa.
- Não vejo mais valia na existência de uma “moeda” local
- Uma parte do dinheiro revertesse para os mais pobres
- Nenhum
- É como carregar um telemóvel ou um cartão fnac... Nada de inovador... Dará jeito a quem compra habitualmente em Cascais mas não acredito que aumente significativamente o número de clientes nas lojas locais. É a minha opinião, provem-me que estou errado :)
- Esperar o desenvolvimento e resultados.
- Este projecto não tem interesse é uma réplica do que muitos bancos já fazem. Uns chamam-lhe pontos, outros moeda virtual. Ideias do Carteiras, sem maneiras e cheio de Peneiras.
- Vários
- Liguem os pontos ao NIF e esqueçam a App. A App é uma desvantagem para o projecto, e não uma vantagem. Limita o acesso ao projecto. Os que mais precisam são precisamente os que não se habituam às novas tecnologias ou a elas não têm acesso.
- Manter os benefícios sem existir sobre a forma de dinheiro electrónico diferente do euro
- Mais informação
- Pagar menos impostos municipais
- Penso que é recolha de informação das pessoas para ser usado numa forma pouco clara.
- Gostaria de conhecer evidências do efeito prático do mesmo
- Exllicar Ligação a euro
- saber o que é na prática

#### List:

This list represents further comments people made about the Cashcais program.

## Further Comments on Cashcais

### Appendix 4: Survey Results

#### Further Comments

- Mais familiaridade com moeda digital
- Pontozinhos para os cidadãos bem comportados? Que comédia
- Entender melhor as vantagens do projeto
- Ser mais global, não ser só para Cascais
- BITCOIN
- Remover a Saúde e os incentivos à Saúde do próprio. Retirar a falsa ideia segundo a qual uma moeda digital diminui desigualdades sociais
- ver a seriedade do projecto
- nenhuns
- nenhuns.
- Nos moldes atuais dificilmente utilizaria uma aplicação com estas características
- utilização segura e vantajosa
- É só mais uma coisa para aumentar a disparidade económica. Se gastar mais, recebo mais continua sempre a haver disparidade.
- Já existe o Euro
- Darem mais detalhes concretos para perceber que vantagens teria de facto na prática
- Eliminar possibilidade de se fazer discriminação baseada em comportamentos.
- mais informação
- há COISAS MAIS IMPORTANTES E URGENTES A FAZER EM CASCAIS
- Moeda física

#### List:

This list represents further comments people made about the Cashcais program.

**The final objective of the pilot program is to have a number of questions answered in relation to the final consumers**

## Appendix 5: Pilot Segmentation

### App use

What type of consumer visits the app most often?  
 What is the usage pattern of the application for each consumer?  
 What features are offered in the application that are most commonly used and by what type of consumer?  
 What is the average time spent on the application?

### Satisfaction

Which type of consumer is most satisfied with the application?  
 What type of consumer shows the greatest discontent with the application? And why is that?

### Retention

What is the impact of promotion initiatives for consumers to use the app?  
 Which retention strategies work best?

### Participation in activities

What are the characteristics of the consumer who participates more in sustainable/health activities promoted in the application?  
 What are the most sustainable/health activities performed by each type of consumer?  
 What incentives are needed for greater participation in the sponsored actions in the application?

### Cashback

Which consumers receive the most cashback for shopping in Cascais?  
 In which stores do consumers shop the most to receive cashback?  
 What percentage of cashback most satisfies each type of consumer?

### Cashcais

What is the average Cashcais received by consumers (by type of consumer)?

## The pilot programme aims, after its termination, to leave the following questions answered in relation to potential partners

### Appendix 5: Pilot Segmentation

#### Volume of Purchases

- Which companies (sector, parish, size) had a higher increase in sales due to the program?
- Which companies (sector, parish, size) had a greater increase in profits due to the program?
- Which companies (sector, parish, size) were the most purchases made in Cashcais?

#### Sustainability

- What is the difference in the number of companies that complied with sustainability rules before and after the pilot?
- Which companies (sector, parish, size) have increased their levels of sustainability?

#### Satisfaction

- Which companies (sector, parish, size) are most satisfied with the program?
- What are the main complaints of companies?

#### Cashback

- Which companies (sector, parish, size) offer higher cashback levels?
- What cashback are different companies (sector, parish, size) willing to offer?
- What should be the value of sustainable cashback for each type of company (sector, parish, size)?
- With sustainable cashback, will companies increase the cashback offered?
- What is the estimated value that CMC will have to offer in sustainable cashback once the implementation is made?

#### Cash-out de CashCais

- What is the average period that companies ask to exchange CCs for Euros?
- Which companies (sector, parish, size) ask more often to exchange CCs for Euros?
- What is the average amount of CCs that different companies (sector, parish, size) ask to exchange CCs for Euros?
- How fast is CMC in the process of exchanging CCs for Euros?

## If B2B trade is included in the pilot, more sectors should be considered in order to have a representative coverage of Cascais types of businesses

### Appendix 5: Pilot Segmentation

#### Potential partners in Cascais<sup>1</sup>

| Sector of activity  | Number of Companies | B2C | B2B |
|---|---------------------|-----|-----|
| Agriculture, animal production, hunting, forest and fishing | 107                 | No  | Yes |
| Construction  | 827                 | No  | Yes |
| Wholesale and retail  | 2 011               | Yes | Yes |
| Accommodation, catering and similar                         | 1 166               | Yes | Yes |
| Information and communication activity                      | 516                 | No  | Yes |
| Real estate activities                                      | 1 399               | No  | No  |
| Consulting, scientific, technical and similar activities    | 1 598               | No  | No  |
| Administrative and support services activities              | 517                 | No  | Yes |
| Education   | 188                 | No  | No  |
| Human health activities and social support                  | 841                 | Yes | Yes |
| Artistic, show, sports and recreational activities          | 307                 | Yes | Yes |
| Other service activities                                    | 330                 | No  | Yes |
| Extractive industries                                       | 3                   | No  | Yes |
| Manufacturing   | 394                 | No  | Yes |
| Electricity, gas, steam, hot and cold water and cold air    | 10                  | No  | No  |
| Water capture, treatment and distribution                   | 14                  | No  | No  |
| Transport and storage                                       | 394                 | No  | Yes |

## Cashcais has already captured mediatic attention before its implementation, revealing its innovative and curious character

### Appendix 13| Recognition

Overall, the Cashcais project has had mediatic attention and our team's work has been recognized in the launch of this innovative local currency in Portugal.

The team is actively looking forward to see the results of the pilot experiment implemented soon, hoping its efforts have delivered the maximum value to contribute for the project's mass success.

#### Vem aí a Cashcais: moeda local digital de Cascais

17-11-2021



Cascais vai ter uma moeda local digital.

Chama-se Cashcais é uma moeda local digital e vai ser posta em circulação no concelho através de uma aplicação móvel.

Na fase final de implementação, a Cashcais nasceu no âmbito de um projeto académico em parceria com a Universidade Nova SBE.

Neste momento decorre um questionário muito importante para a concretização deste projeto. **Participe aqui.**



Fotografia: Ana Luzia

### Vem aí a Cashcais: uma moeda digital para promover a economia local

Criada em parceria com a Universidade Nova SBE, a moeda deverá ser posta em circulação através de uma aplicação móvel.