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

Creating a Web Application to Enhance the Relationship between Individuals and Charitable Organizations

Improve User Engagement with Ongoing Guidance and a Customized Experience

Eugenia Saggioro - 50958

Work project carried out under the supervision of:

Hugo Menino Aguiar

17-01-2023

Abstract

Information asymmetries and a lack of a trustworthy environment between individuals and charities represent two of the major obstacles to philanthropy. Through in-depth primary analysis and research, we identified some valuable means to overcome these problems. This study proposes as a solution a customized interface for nonprofit organizations and potential donors to communicate. Thanks to this medium, individuals will have a deeper comprehension of the impact charities are having, hence strengthening their trust in them. We went through an ideation process and developed a minimum viable product, in the form of a web application, that ultimately contributes to the achievement of a more philanthropic society.

Keywords: Charity Sector, Nonprofit organizations; Reactive Web Application; Outsystems; Donations; Information; User Engagement.

Acknowledgments: To professor Aguiar for the insightful feedback throughout the making of this Work Project and for all the time dedicated.

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).

Table of Contents

1. Introduction

1.1 Motivation

As young adults, it is occasionally hard for us to figure out how to make a real impact in our society. Tragedies like the Coronavirus outbreak or the Ukrainian War led to a global shock never experienced in the last half a century. Even when it seemed like donating money was the easiest and most effective way to help, there was always the feeling that it was not the most impactful option. By exploring these contradictory feelings, we started to investigate potential reasons.

What do charities do with the funds they raise? How are small donations making a difference? What might reinforce individuals' confidence in charitable organizations?

Notwithstanding that charities recognize the potential of the Internet, the majority of them have been late adopters of new technologies compared to other types of businesses, primarily because nonprofit organizations might lack the time, budget, or technology-savvy resources to do so (Hackler and Saxton 2007, 8). This often leads to a lack of communication between potential donors and non-profit organizations, resulting in a network that doesn't exploit its full potential and "leaves significant impact on the table" (Mogus and Levihn-Coon, 2018).

In this Work Project, we propose a possible solution - in the form of a web application - that would be ideal to address the concerns listed above. Our main goal is to bring donors and charities closer. On one hand, we want donors to feel more engaged and aware of the impact of their contribution. On the other hand, we want to provide all the tools they need to make a well-informed choice, fostering organizations' transparency and trust.

1.2 Problem Statement

The global charity sector exhibits an imbalance between supply and demand (Pitt et al. 2021, 83). Even if there might be an endless demand for generosity in the world, it is challenging to have an overview of the big picture, meaning the offers available in the charity sector.

Charities play an essential role in society, particularly during times of crisis. Although they have a positive impact on millions of lives around the world, it is also true that most of them struggle to win over supporters' trust. One reason why people don't donate to charities has been amply established in the literature, despite the fact that no research study has been able to adequately address this question: a lack of trust and accountability (Strathmann 2018).

1.3 Goals

We can infer from the above mentioned problems that what is needed is a safe environment specifically designed for donors and organizations to interact.

The objective of this study is to develop a product that would serve as an intermediary between donors, looking to make the best decision, and nonprofits, looking to increase their donor base and draw attention to their work.

Ultimately, the most important goal is to increase awareness about urgent issues, break down social barriers, and contribute to a more solidaristic society.

1.4 Challenges

In order to achieve our goal and identify the means to do so, we had to face a number of challenges, including:

1. Which information can we provide to users, and thus potential donors, in order for them to better understand what is behind the work of a non-profit organization?
2. Is it possible to fairly compare the work of different charitable organizations?
3. How can we guide potential donors to periodically contribute to social causes?
4. Which features need to be introduced in our application to enhance the user experience?
5. What are the advantages, for an organization, to be part of this tool?

1.5 Research Methodology and Approach

The proposed study was developed as part of the "Open Theme" Work Project with the end goal of applying business and digital skills to solve a social challenge.

In the first phase, we researched and analyzed the main issues affecting the philanthropic sector, with a major focus on individual donors' perspectives. We carried out a primary analysis in the form of a survey and secondary research to dive deep into the industry and our product vision.

Once we identified the market gap and defined our product, we applied the Agile Development Methodology (Matharu et al., 2015) to iteratively test different features, collect feedback, and improve our product's complexity. This procedure was divided into three key phases:

1. We designed the **Product Roadmap**, a detailed list of the requirements needed to achieve our goal.
1. We formulated our **Product backlog,** in the form of user stories, and then we set the priority of the features our product should have.
2. We iteratively **developed** and **tested** different features on our web application, using Outsystems Low-Code Technology (*Section 4.2*).

The selection of a web application is a natural consequence of our primary objective, which is to develop a tool that is easily accessible from any browser and device without the need for installation.

1.6 Work Project Structure

This study has the following structure. Through the QR code below (*Figure 1*), the reader can access the main result of our work, hence our Reactive Web Application. For the reader to fully experience this Minimum Viable Product, we recommend access from a desktop device and two separate journeys: (1) as a donor user, and (2) as a charity user. Two fully set login credentials are shown in *Figure 1*. However, it is also possible to create a new account. In Chapter 2, we present the research and analysis carried out during these months. In this chapter we analyze the primary analysis conducted, the competitive landscape, and discuss the industry's external macroenvironment. In Chapter 3 we introduce the product concept (Begood) and the underlying business model. In Chapters 4 and 5, we describe in detail the Outsystems-built technical solution. Chapter 4 focuses on the technical translation of our product concept in the Outsystems environment. Chapter 5 is dedicated to describe Begood's User Interface and the procedures implemented. The final chapter is dedicated to the conclusions, future work, and limitations of our Work Project.

https://novasbetrial-tst.outsystemsenterprise.com/BeGood/Home

Donor Access:
Email: user_test@gmail.com
Password: usertest

Charity Access:
Email: wwf_org_test@gmail.com
Password: wwf

Figure 1: Begood QR code and login credentials

2. Research and Analysis

2.1 Introduction and Methodology

The primary objective of this chapter is to analyze the third sector macro-environment together with individuals' opinions and establish our product's position within the market. According to research conducted by Hatzijordanou, Terzidis, and Bohn, whenever a strategic business decision must be made, the analysis of internal and external factors becomes a crucial cornerstone because it reduces the amount of information asymmetry and the risks that result from making the wrong decisions (Prašnikar 2005 cited in Hatzijordanou, Bohn and Terzidis 2019, 418). In the first section of this chapter, we analyze the survey that we conducted at the outset of our research. In the second section, we use the PEST framework to evaluate the macroenvironmental factors that may have an impact on our product's industry (Aguilar 1967, Section 1). Finally, we examine the strengths and weaknesses of potential competitors.

2.2 Primary Data Analysis

At the outset of our project, we conducted a survey (*Appendix A*) to determine the primary barriers between individuals and charitable organizations. The objective of the survey was to get a general idea of how people feel about charitable giving and the nonprofit sector. The ultimate goal was to identify the factors that could motivate individuals to become more involved with charitable organizations.

2.2.1 Survey Design and Distribution

In the first part of the questionnaire, people are asked about their social and demographic backgrounds. This information is used to make sure that the sample is as diverse as possible.

This section is followed by multiple-choice, rank-order, and matrix table questions. Depending on whether respondents have ever made a donation, the survey takes one of two distinct routes. Hence, we separately investigated the reasons why people never donate, as well as the frequency and emotions associated with giving. After these questions, the two paths converge again in a section dedicated to the various means by which donors' trust, and thus the frequency of donations, may be enhanced.

Both qualitative and quantitative questions were used. The study was mostly distributed via social networks, including WhatsApp, Instagram, and Facebook.

2.2.2 Survey Analysis

The survey has been completed by 189 people. 53% of respondents are between 18 and 25 years old, and the rest of the sample is distributed between 26 and more than 45 years old. Regarding gender identity, we can state that the sample is equally distributed. Students and full-time workers make up the majority of our respondents, followed by retirees. Three out of four people (75%) identified Italy as their country of origin, followed by Germany, India, France, and a variety of other nations.

2.2.3 Findings and Results

Three out of four individuals (75%) have donated to a social cause at least once in their lifetime. One of the primary reasons why people have never donated is a lack of budget (44%), followed by a lack of trust in non-profit organizations (26%). Even among the group of donors, nearly half (43%) have doubts about the use of their contributions.

We discovered that consumers tend to place more trust in large charitable organizations, whereas internet-based crowdfunding activities tend to inspire the most skepticism.

According to the results of this survey, in order to donate more often, respondents would like to: (1) know how their money is spent (56%), (2) have an overview of specific data about the charity (30%), and (3) read reliable news and feedback about the charity's operations (23%).

Furthermore, 28% of our sample stated that having all these options on the same platform would increase their donation rate. These opinions are valid in every age group and for both donors and non-donors.

In accordance with our expectations, 84% of respondents desired to be aware of all donation opportunities prior to making a contribution, and 47% would donate to a trusted intermediary who would get in touch with the nonprofits currently funding critical causes..

According to our questionnaire, nonprofits should:

1. demonstrate how they spend the money raised (93%)
2. keep the donor updated on their campaigns (91%)
3. make the donor feel more involved (81%)
4. use other communications channels (76%)

Finally, we asked our sample to select three nonprofit organizations to which they would donate. Save The Children, WWF, Amnesty International, Emergency, Greenpeace, Medici Senza Frontiere, Unicef, and Action Aid were the most frequently mentioned organizations.

The findings of the analysis contributed to the development of the Minimum Viable Product (MVP) features described in the following chapters.

2.2.4 Survey Limitations

This survey is primarily limited by sociodemographic factors. The age distribution is not uniform, with Generation Z constituting the vast majority of individuals. Additionally, 75 percent of respondents hail from the same nation: Italy. Although the sample size is statistically significant, it is not completely representative of the population.

2.3 PEST Analysis

PEST Analysis is a management methodology that enables an organization to evaluate the external factors that have the greatest impact on its operations. Political, Economic, Social, and Technological factors, as described by the acronym, are central to this model (Aguilar 1967). Below, we will analyze each of these aspects.

2.3.1 Political Factors

Even if some nations have created charities-specific guidelines to address financial reporting, there is no global agreement on the subject (Breen et al. 2018).
In terms of common standards for charities, the majority of US nonprofits are registered under the IRS 501(c)3 list and must file Form 990 for tax exemptions. As a result, US charity groups can partially benefit from a shared regulatory framework, thus a common identity.

At the European level, common standards for charitable organizations remain absent. Recent statements from the European Founding Association support the proposal to establish a supranational legal form for the nonprofit sector in Europe (EFA 2022). This initiative has been undertaken in response to the Lagodinsky Report, which emphasized the need for charities to rely on a uniform legal basis, minimum standards, and legal form across all EU member states.

2.3.2 Economic Factors

An important economic factor affecting philanthropy is tax deductibility. According to the Internal Revenue Service (IRS), US taxpayers receive a tax deduction for contributions to charitable organizations (IRS 2022).

Numerous European nations also offer tax incentives to promote charitable donations. In this case, donors can typically deduct or exempt contributions from their personal taxable income. Tax benefits can have a big impact on charitable giving and the nation's overall philanthropic culture. Furthermore, it encourages citizens to give by sending a loud and clear message that the government values charities and nonprofit organizations (EFA 2018).

From an economic point of view, the relevance of charitable organizations and volunteer work is comparable to that of the public and private sectors. Indeed, charities provide essential services that positively impact the lives of individuals, such as the construction of hospitals and schools and the promotion of social causes. Charities collaborate with governments in many aspects, including the fight against poverty, the attempt to reduce the gap between rich and poor people and combating social diseases such as drug abuse.

2.3.3 Social Factors

According to the Global Philanthropy Environment analysis, people in Canada, the United States, and Northern Europe have a higher level of trust and awareness of charities' operations than those in Central Europe (IUPUI 2022). Indeed, according to the Charity Aid Foundation Global Index Giving Report 2022, Americans are the second most generous nation in the world, while the majority of European nations rank at the bottom. This may be due to the fact that the European third sector needs a distinct identity. The numerous self-organized, citizen-based initiatives that comprise the third sector are not sufficiently conscious of their shared characteristics, values, and what economists refer to as a common "objective function" or underlying goals (European Commission CORDIS 2017).

One of the main issues is that nonprofit organizations are currently struggling to persuade society that they effectively manage the donations they receive and are dedicated to achieving the objectives for which they were established. On the other hand, research on donors and charities showed that donors would like to give more selectively to causes and organizations that demonstrate they are maximizing impact. (Saeri et al. 2022, 1)

2.3.4 Technological Factors

In recent years, the philanthropic landscape has expanded to include a variety of new online giving options. Crowdfunding and online fundraising through social media demonstrate donors' willingness to give online (Osili et al. 2021, 4).

Research from Salesforce in 2021 highlights that 75% of nonprofits across the globe want to build great donor experiences (EFA 2021). Data drives engagement, and there is no exception for the philanthropic sector. Network effects in giving are now fundamental.

Despite this, charities and many smaller foundations are typically far behind the business sector in terms of technology adoption. The tremendous fragmentation of the charity sector, which is made up of both huge international charities and a very long tail of tiny businesses, makes this situation worse. Indeed small charities most of the time do not have enough budget of workforce available for digital technologies (Charities Aid Foundation, 2022). Precisely, the status of nonprofits in the philanthropy sector does not prioritize improved data management or investment in digital technologies.

2.4 Benchmarking

Other business models, represented primarily by US charity evaluators and online crowdfunding platforms, give people the opportunity to evaluate charities or projects and have an innovative and easy-to-use search engine. Due to their similarity with our product idea, these businesses and their platforms can be considered our main competitors and will be analyzed in the sections below. Furthermore, a lot of personal charities' websites can be considered competitors since, for obvious reasons, they have more data about themselves compared to third-party channels. In particular, we are referring to associations of nonprofit organizations with a common goal. Another example of a possible substitute is provided by private corporations and for-profit platforms like Paypal, which introduced the Paypal Giving Fund. Its "Give at Checkout" feature aims to facilitate charitable organizations' fundraising efforts by making it easy for customers to make a small donation during the checkout process (Paypal Editorial Staff, 2020).

2.4.1 Crowdfunding Platforms

Momentum around crowdfunding is increasing, offering individuals another way to express their generosity. For instance, successful crowdfunding platforms include GoFundMe, DonorsChoose, Kickstarter, Fundly, and many others.

GoFundMe allows campaign entities (individuals or charities) to ask for funds from crowdfunding supporters. The company operates nationwide and worldwide, with projects ranging in areas from disaster relief to travel or creative projects. GoFundMe campaigns are strictly donation-based. Furthermore, the platform is particularly targeted to individuals and local small businesses, not big charities. Revenue streams come from GoFundMe's Charity

Service which charges platform fees to campaign hosts, and transaction fees to crowdfunding supporters (2.9% + 30 cents) (GoFundMe, 2022).

Similar to GoFundMe, Kickstarter is a for profit crowdfunding marketplace that focuses on creative projects like art, music, film, etc.

Fundly is a fundraising platform for all individuals, non-profits, schools, political organizations, and corporations that want to raise money for a cause. Fees are determined by the scale of the fundraiser and the number of contributions.

DonorsChoose is a nonprofit crowdfunding website mainly focused on education and provides funding to teachers in US public schools only. Teachers post their project needs and requests, and anyone can donate any amount toward achieving the project's goal. 95% of the donation is allocated to the designated classroom project, keeping 1% for administrative costs and 4% for fundraising (Donors Choose 2020).

2.4.2 Charity Evaluators

As a result of donor mistrust, rating and comparing organizations for charities has emerged over time, particularly in the United States.

These nonprofit organizations which provide other nonprofits with information, evaluations, and ratings are commonly known as "Charity Watchdogs." Data from over 16,000 nonprofits highlights that ratings from charity evaluators bring in more donations than nonprofits that are not on these platforms (Yörük 2016).

Charity evaluators’ absence in Europe is mainly due to the legal environment and the lack of a common identity of the third sector. In the US, evaluators and charities evaluated are all registered in the 501(c)(3) cluster of IRS and have filled the Form 990 which is uniform and consistent among charities.

A recent discussion with the president and CEO of Charity Navigator highlighted the need for European countries to have this type of service. Indeed, small groups, at each member state level, are already thinking about feasible solutions. This, together with the PEST analysis, leads us to confirm that the next developments in the European legal framework will be a crucial point for all nonprofit sector's stakeholders. In the section that follows, we examine some of the major players in the so-called "Charity Watchdog" industry.

Charity Navigator assigns an organization a class (ranging from 0 to 4 stars) based on the weighted sum of its key domain scores (0-100). A company can provide information about four sections: (1) impact and outcomes, (2) accountability and finances, (3) leadership and adaptability, and (4) community and culture. Charity Navigator has recently acquired ImpactMatters to evaluate the impact metrics of small charities, and collaborates with GuideStar by Candid.org, an additional charity evaluator, to determine the Culture and Community score (Charity Navigators, 2022).

Charity Watch assigns each charity a letter grade ranging from A+ to F based on two criteria: program percentage and cost per $100 raised. The rigor of the Charity Watch rating is contingent upon the fact that the nonprofit organization conducts a manual internal analysis of financial statements, in particular of non-cash donations and reserves (Charity Watch, 2022).

Candid.org is the result of the merger of GuideStar and Foundation Center**.** Before this merger, GuideStar encouraged nonprofits to voluntarily disclose more about themselves for various levels of "seals of transparency", thus providing more visibility to more transparent organizations. Foundation Center, on the other hand, provided the foundations' network with on-site access to its tools, and proper training about how best a local nonprofit might use them.

This enabled the organization to provide a variety of resources to nonprofits and foundations alike. Once merged, Candid assigns Bronze, Silver, Gold, and Platinum "seals of transparency" to organizations based on the quantity of information they provide (Candid 2022).

Lastly, BBB Give.org employs a binary rating system (accredited or not) based on 20 standards comprising open-ended questions from various fields (BBB 2022).

2.4.3 Considerations

Crowdfunding platforms, by allowing individuals to ask for funds and being characterized by a for-profit business model, can be less trustworthy and ethically far from the scope of a nonprofit organization.

On the side of charity evaluators, ratings may place a greater emphasis on financial and accountability metrics than on transparency and impact results. What these evaluators lack are diverse data sources, such as the perspectives of beneficiaries and specialists (Gunther 2015). For instance, if a company has a disproportionately high proportion of program expenses (budget used to provide actual assistance), this may be indicative of either extreme inefficiency or corruption and unethical behavior. To highlight what is actually an organization's impact, a variety of data and even fewer aggregated ratings might be preferable. This could lead to citizens all making biased evaluations, which is the opposite effect of charity watchdogs' main goal.

3. Begood

3.1 Assumptions and Product Idea

Millennials and Gen-Z exhibit incredible generosity and an admirable desire to make a difference. In order to take advantage of it, nonprofit organizations must embrace a new breed of highly involved, impact-driven donors that prioritize meaningful connections and quantifiable results in their contributions (Forbes 2021). People are motivated to give more to organizations that closely align with their values and who make them aware of specific causes' needs. Furthermore, individual giving has switched to groups that can show impact and effectiveness, are proactive in communicating with the public, and customize donor involvement (Bilgin and Kethüda 2022, 4).

In an attempt to understand what drives donors' decisions when choosing an organization or campaign, we analyzed several factors. Among all the measures available, the most important element in the philanthropic sector remains impact. However, other relevant factors may include accountability details to transparency, program expenses, fundraising efficiency, and so on. People also use various sources of information before donating. Social media networks, newspapers, and personal social environments all influence contributors' perceptions of the organization.

After analyzing the market and considering the responses to our survey, we realized that what is actually missing in our society is a stronger relationship between individuals and organizations. In order to provide an efficient bridge between the donors and all kinds of charities, we propose a new channel, a non-profit web service that offers European charitable donors the means to decide in a conscious and informed way where to donate their savings or their time. Through this channel, donors can have a complete overview of the charities' commitment to social causes, be able to compare different programs, and consciously choose where and how to contribute. The business model is distinct from all those examined in the earlier sections.

3.2 Brand Identity

Once we understood the community's needs, we were able to define the product's primary attributes and strategy. In order to evoke the purpose of the entire project, we named our web application "Begood".

3.2.1 Vision

Begood's vision is to improve our society by increasing awareness about urgent issues, breaking down social barriers, and ultimately contributing to a more solidaristic society.

Through our web application, we want to make the donation process easier. Giving is crucial for the development of the environment around us. We foresee a society made out of people who do not see the world's issues as something remote, but rather as a concerning problem for us all. Helping others means improving everyone's life and contributing to a more caring, equitable, and inclusive society.

3.2.2 Mission

Begood's mission is to better connect individuals to non-profit organizations and vice-versa. People expect high moral standards, transparency, and regular updates on how their money is being spent.

This is exactly what we offer to our community. Through updated news and quantifiable metrics, we provide potential donors with the opportunity to access relevant information about nonprofit organizations.

In addition, by providing a free, accessible service to potential donors, we are assisting non-profit organizations in expanding their user base, highlighting their activities, and gaining more trust and support.

3.2.3 Brand Voice, Logo and Palette

The Begood logo (*Figure 2, left side*) depicts two hands joining to form a heart. Through this representation, we wished to convey a message of love, acceptance, and closeness to anyone in need.

The use of a soft orange color for our brand aims to convey a sense of friendliness, vivacity, vitality and to evoke a sense of warmth. Donating demonstrates generosity and concern for others, which is precisely the message we want to transmit. We aim to create a community that is accessible to everyone, where users can feel comfortable and welcome in a safe environment. As a result, our tone of voice will mostly consist of straightforward and friendly language, with the goal of building trust and openness.

Figure 2: Begood logo and palette

3.3 Business Model

Begood’s business model will be analyzed following the Business Model Canvas method. This assists us in describing the many operational components of our business, illustrating what our organization does, for whom, and with what resources. Each component will be analyzed in a separate subchapter.

3.3.1 Value proposition

We consolidate all of the user's research efforts across various sources and online platforms by offering all the resources they require on a single tool, allowing them to compare charitable projects and make informed decisions.

3.3.2 Customer Segments

Our targeted audience is separated into two distinct groups. On the one hand, there are contributors or potential ones, while on the other hand there are nonprofit organizations.

Potential donors represent the main customer for Begood. Frequently, the most important factor for them is making a tangible impact and being proud of every euro spent.

Small and local businesses will constitute the customer segment with the highest visibility requirements. They are primarily non-profit organizations that are willing to use technology but are limited by time and money. Without incurring any fees, their primary objective is to use all of their funds to pursue their mission and make a tangible contribution to each of the causes they support.

Large charities and organizations are also included in our target customer segments. Typically, they have a well-established brand identity, as well as an active social media presence and innovative websites. Even if all the useful information is available and well-explained on their website and all the other channels, they are aware that many potential new donors will follow the network around them rather than search and check their website.

3.3.3 Customer Relationships

The essential value at the basis of the relationship with our customers is trust. All the information shown in Begood comes from reliable sources, including NPOs' own channels and annual reports. This establishes a first line of transparency.

Indeed, due to the interdependence of the platform with detailed organization data, each nonprofit organization will have access to its account and profile. In this way, it will be able to create content and update personal information.

Our primary engagement with donors is to provide them with free access to the platform and, through account creation, a personalized customer journey.

3.3.4 Channels

Currently, our primary channel is Begood's web application, through which all of our key stakeholders can interact and generate targeted content. To attract users, additional partner channels, such as social media and marketing strategies, will be utilized. The application will be freely accessible on all devices via browser.

3.3.5 Revenue Streams

Begood is a nonprofit organization, where donations constitute a fundamental part of revenue streams. Individuals will be able to donate directly to Begood or devolve 2% of each contribution during the donation process in order to ensure that Begood has sufficient operating funds. Our service relies heavily on the support of corporations and individuals, who recognize we provide a much-needed service to the European Philanthropy sector. Begood does not follow a membership model, thus we do not accept funding from the charities that are featured on our platform, ensuring that our stance remains objective and that our role as independent informants remains impartial. As we expand our service to all European citizens, we will apply for European Union grants.

A portion of our funding costs will be administrative and operational, primarily pertaining to the optimization of our web application. However, we commit to minimize these costs and equally distribute any surplus revenue at the end of each period, based on the preferences of our users, if any exist.

3.3.6 Key Activities

Our primary focus is to improve and maintain our web application. This includes enhancing the user experience, application design, and data management continuously.

Significant effort will be devoted to generating demand and increasing the platform's traffic. Given that donations are managed via our platform, transaction management will be one of our responsibilities.

3.3.7 Key Resources

Our web application relies heavily on all kinds of up-to-date data. Our concept is made possible by articles from major newspapers, social media posts from nonprofit organizations, and customers' specific interests. The network of charities creating profiles and uploading content, in addition to donors interacting with the web application, will be essential to the platform's operation.

3.3.8 Key Partners

We will initially rely on internal resources and mentoring programs from other similar businesses. We will receive fundamental mentoring from Charity Navigator, a charity evaluator in the United States with whom we are already in contact. Charities and nonprofit foundations, in addition to being customers, will be essential partners in the establishment of the initial network.

3.3.9 Cost Structure

Here below we present some of the forecasted key costs for our organization:

- Research, improvement and support**:** the majority of our expenses will go to research on how to improve the sense of community and solidarity, but also to support smaller NPOs meeting current needs and transparency standards.
- General, operational and administrative: we're dedicated to running a lean organization, which is why we keep administration costs at the minimum. Based on competitors' strategy and our main costs, we forecast a maximum of 5% cost for administrative and operational expenses.
- Fundraising: An important percentage of the donations will be redirected to fundraising projects to reach our mission or will be donated to specific organizations/campaigns based on our community's will.

4. Reactive Web Application in Outsystems

4.1 Introduction

The research and analysis performed during these months informed the development of the features included in the minimum viable product (MVP). The solution created using the Outsystems Agile Platform is an early-stage product with the bare minimum functionality necessary for readers to validate the concept and experience the product.

This chapter focuses primarily on the technical solution that was developed. In the first section of this chapter (*Section 4.2*), an overview of the Outsystems environment is provided. In the second section, we describe how we translated Begood concepts into application modules; here, we summarize the actions that different end-user classes can take to interact with our web application. In the third section, we describe our web application's database following the entity-relationship data model (Chen 1976, 10-15).

4.2 Outsystems Environment

Outsystems is a low-code development environment that supports the entire application lifecycle and makes it possible to develop reactive web or mobile applications. Begood is a Reactive web application, whose main characteristic is a responsive interface that runs in the browser and can be accessed through all devices. Outsystems integrates different systems and extensions for the development of product architecture.

Outsystems provides a UI framework and a predefined theme for the development of our interface from a front-end perspective. Starting from OutSystems UI, we created a new style using the CSS editor and HTML extensibility that adheres to the Begood brand identity.

Furthermore, OutSystems allows for the integration of back-end extensibility. This enabled us to integrate SQL code or consume REST APIs with minimal hand-coding.

Service Studio is the environment in which all application components, such as the data model, user interface, application logic, business process flows, and integrations, are created. Powered by artificial intelligence, a comprehensive reference-checking, and self-healing engine simplifies the process of tracking changes.

4.3 User Roles and Journeys

Based on the user's profile, Begood web application offers different customer journeys. By creating an account (*Figure 3 and Figure 4*) and logging in, the role of the user changes from Anonymous to Registered. Customizable Begood features are restricted to registered users. In addition, depending on whether the user is an individual or an organization, there are two registration processes and different targeted features.

There are four different classes of users: (1) Anonymous, (2) Registered, (3) Organization Manager, and (4) Platform Manager. Depending on the role, the user journey is different.

An Anonymous user (i.e., not registered) can do the following:

- Discover more about Begood's goal and business model through the Home Page, and other pages such as the About Us, and the Frequently Asked Questions (*Section 5.1.1*);
- See details regarding the community activities and statistics such as the number of registered donors, organizations and programs available on the web application;
- Explore all the available Organizations and Campaigns and dive deep on detailed information such as the total amount donated through our platform or the number of donors for each organization and campaign. More details in *Section 5.1.3*;
- Explore News related to the philanthropic sector on the NewsPage (*Section 5.1.2*).

Once users are logged in (i.e., Registered), additional available features are:

- The opportunity to contribute to a specific program, organization, or Begood itself through the web application. If preferred, the user can also donate through the organization's official website. The registered user can access the Donate Page (*Section 5.2.3*) from (1) Organization Profile, (2) Campaign Page, (3) Home, and (4) Menu Header;
- Additional interaction with Begood through email notifications as soon as users (1) sign up, (2) reset the password, (3) make donations through Begood (*Section 5.2.4*);
- Possibility to follow an organization or like a campaign. This allows the organization to gain credibility and the potential donor to keep his or her preferred causes on the personal profile;
- Access to the Profile Page and (1) edit personal information, (2) see the list of donations made with a related link to download the Proof of Payment (*Section 5.2.1*);
- Access to the For You Page (*Section 5.2.2*) to (1) edit interests, (2) find the list of favorite organizations and campaigns, and (3) examine the recommended programs based on the user's interests and other users' activities.

In order to activate their profiles, Begood-registered non-profit organizations must receive approval via email from the Platform Managers. Once access is granted, the manager of the organization can:

- Edit the organization's information;
- Add, delete or edit campaigns and highlight urgent issues;
- Include data on transparency, such as accountability measures, certifications, and SDGs icons that best fit the organization's mission.

Lastly, the platform manager can also manage support requests, approve organization registrations, and manage data from their profile page (*Figure 5*).

4.4 Data Model

Begood's data model is based on 20 interrelated entities. An entity in a Database Management System is an object with attributes describing the entity and identifiers assigned to each instance. The principal entities in Begood's database are *User*, *UserDetails*, *Organization*, *Campaigns,* and *Donations* (*Figure 6*). Entities are associated with each other through identifiers. The number of associations defines the degree of the relationship. In order for the reader to understand the entity relationships, we created three main diagrams.

The first Entity Relationship Diagram (*Figure 7*) includes the attributes related to organizations and campaigns. Each organization is associated with a user through a one-to-one relationship. The User will have access to the Organization's Profile and will be able to edit it. The User entity is strictly linked to the *UserDetails* entity, which stores additional demographic attributes. Campaign attributes are linked to one organization (many-to-one relationship) through the Organization Identifier. Campaigns are assigned to a particular category and subcategory. On the other hand, categories and subcategory instances also identify the nonprofits' areas of action and the user interests. *AccountabilityData*, *Certifications,* and *SDGOrganization* store other attributes linked to the nonprofit through a one-to-one relationship.

The *User* Entity is associated with the *UserInterests* entity, which stores the categories and subcategories of interest (*Figure 8*). *LikeCampaign* and *FollowOrg* are linked to the *User* entity through a many-to-one relationship. These entities store campaign or organization preferences.

Lastly, the Donations Entity Diagram (*Figure 9*) shows how each donation is associated with a user, his or her payment details (*UserPaymentsDetail*) entity, and the beneficiaries of the donation (*Campaigns* or *Organization*).

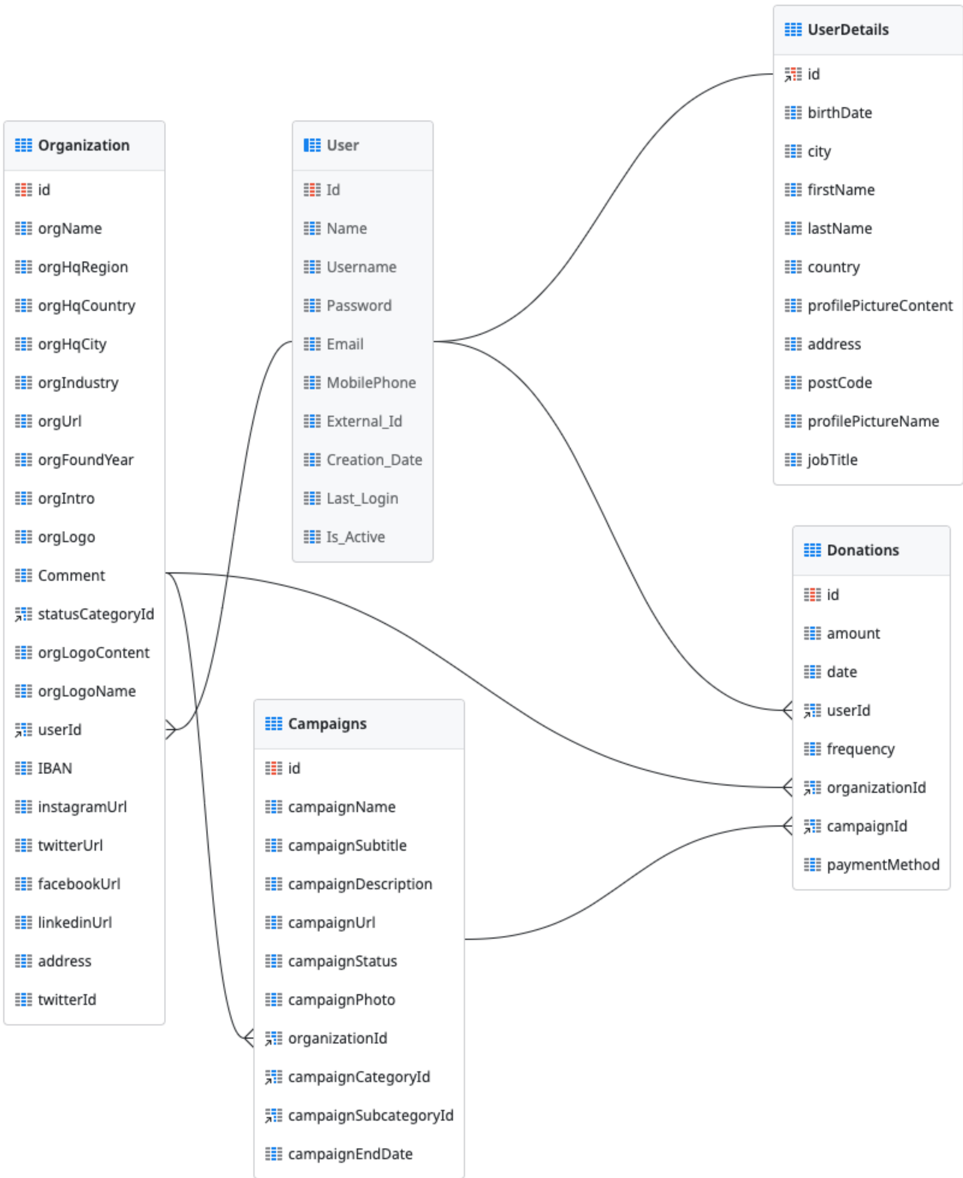


Figure 6: Main Begood Entity-Relationship Diagram

5. User Interface and Logic Flows

This chapter focuses on the User Interface and the detailed description of some technical processes implemented within our Minimum Viable Product. This section focuses on the user experience and on the engagement of potential donors.

5.2 Improve User Engagement with Ongoing Guidance and a Customized Experience

Our analysis and research revealed that customer engagement represents a key point for the achievement of our goal. Therefore, we have developed various features that will guide and personalize the experience of each user throughout their journey on Begood.

5.2.1 My Profile Page

After logging in, users can easily access their profile by clicking on their name on the right side of the toolbar or on the My Profile link present in the side menu. Depending on User Role, clicking the My Profile page will result in one of three outcomes. *Figure 10* depicts the action flow underlying this logic.

In this section, we analyze the donor's experience and, thus, his or her personal profile (*Figure 11*). The user can update personal information and upload a profile picture on this page. Donation history is the primary purpose of the My Profile screen. Immediate to the personal information is a list of the user's donations, with the option to download each donation's Proof of Payment in pdf format.

Future work will include the creation of a “Savings Basket”, where the user can have the opportunity to deposit money. Ideally, to make this feature efficient and usable, the saving basket should be linked to a third-party payment account. In this way, it would be easier for the donor to retain savings.

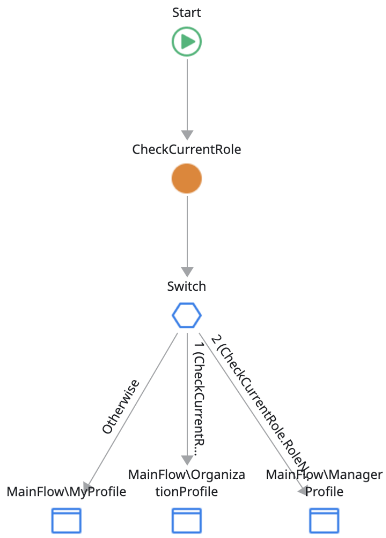


Figure 10: Visualization of the action flow on Outsystems which directs users to different screen based on the role.

5.2.2 For You Page

To make our customers feel more connected and inclined to donate, we have created a way for them to express their preferences and be steered toward individualized options. To facilitate this, we designed the "For You" screen *(Figure 12*).

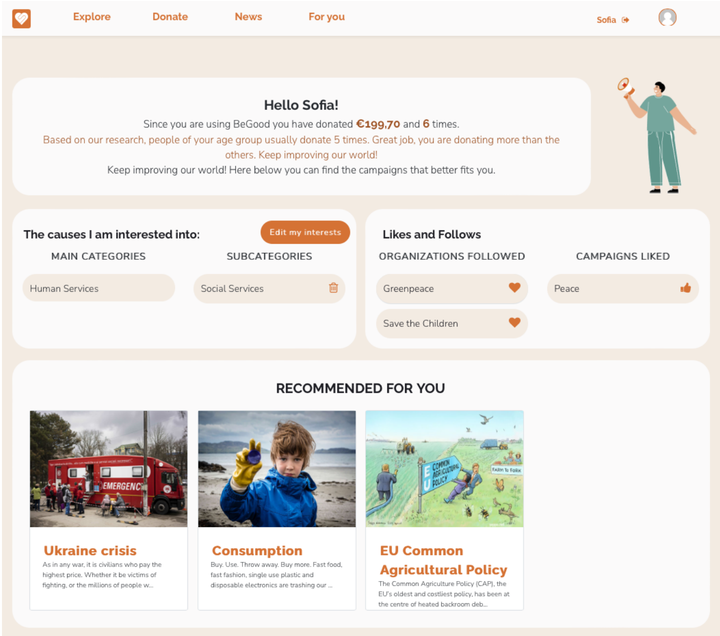


Figure 12: Comprehensive visualization of the For You page, access from browser with donor account

This page contains a variety of sections designed to assist the users in locating the campaign that best aligns with their preferences and beliefs.

User Donation Statistics

A personalized message appears in the upper part of the page (*Figure 13*). Based on the results of our survey, user activity is compared to the average number of annual donations made by his or her age group. By doing so, we hope to encourage the user to donate more or, if the user's donations are above average, to commend and thank him for his generosity. In a real-world scenario, these statistics will be based on a larger sample size and will incorporate Begood's user statistics.

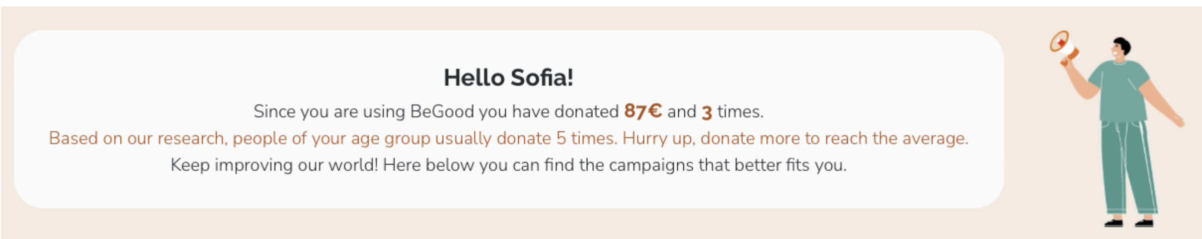


Figure 13: Visualization of the upper part of the For You page.

User Interests, Like and Follow

In order to gain a deeper understanding of our users' preferences, in this page we allow them to specify their interests. Registered users can choose from a list of categories and subcategories, which are linked to the campaigns' causes. The recommender system will make use of this data to match users with campaigns that are most appropriate for them.

The ability to follow an organization and like a particular campaign is an additional crucial aspect of user engagement. By clicking the heart icon in the Organization's Profile or the thumbs up icon in the Campaign Details screen, users have the opportunity to express their preferences for specific campaigns or organizations. As shown in *Figure 14*, personal interests, followers, and likes are then listed in the For You Page.

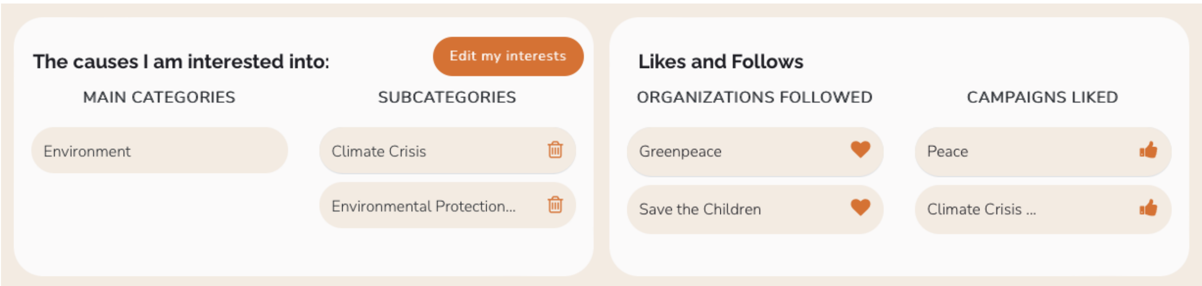


Figure 14: Visualization on a section in the For You page that shows user interests, organization followed and campaigns liked.

Recommended For You

The primary objective of the For You Page is to provide users with a personalized experience, thereby enabling them to support the causes that best align with their interests. The recommender system implemented is based on two major resources. The algorithm examines not only the user's preferences, but also the surrounding network of donors. This is helpful for identifying comparable activities and informing consumers about campaigns funded by individuals with similar interests.

Recommender systems are important tools because they:

- Assist users in locating the ideal product for them
- Determine which products hold the most value for users.
- Provide customized information.
- Assist websites in increasing user engagement.

There are a variety of criteria that can be used to develop recommender systems. The one we have used is a user-based collaborative filtering system (*Figure 15*) since it selects information based on donations made from other users. It is based on the idea that donors who give to comparable campaigns are more inclined to make the same choices later on.

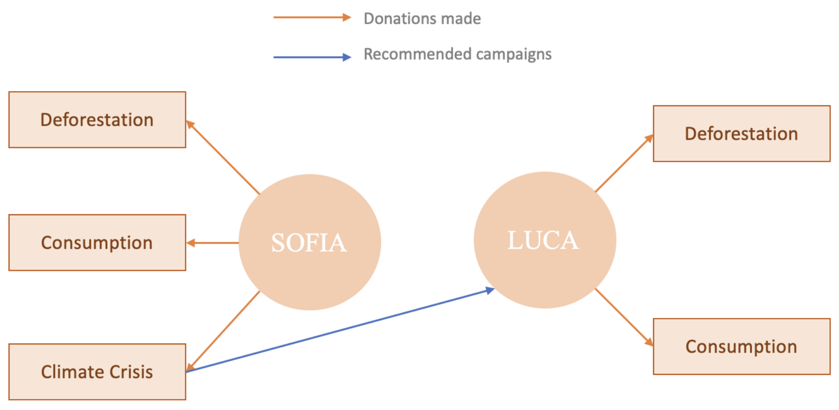


Figure 15: Example of the collaborative filtering system implemented in Begood.

For instance, following the scenario in *Figure 15*, if Luca and Sofia have already donated to two identical projects, it is likely that they share similar interests. Luca will therefore be recommended for the campaign to which Sofia has contributed, the Climate Crisis one.

SQL Implementation

To develop the recommender system, we have integrated OutSystems with Structured Query Language (SQL), a standard database language utilized to create, maintain, and retrieve data from a relational database. The SQL element allows you to execute, test, and evaluate SQL queries within your OutSystems application. In *Figure 16* the code we implemented to create our recommender system is depicted.

```
SELECT [campaignId]
FROM {Donations}
WHERE [userId] IN (SELECT DISTINCT Dona.[userId]
FROM {Donations} Don
RIGHT JOIN {Donations} Dona
ON Don.[campaignId]=Dona.[campaignId]
WHERE Don.[userId] = @CurrentUser
AND Dona.[userId] != @CurrentUser)
GROUP BY [campaignId]
HAVING COUNT(DISTINCT {Donations}.[userId]) >= 2
UNION
SELECT {Campaigns}.[id]
FROM {Campaigns} INNER JOIN {UserInterests}
    ON {Campaigns}.[campaignCategoryId] = {UserInterests}.[categoryId]
    WHERE {UserInterests}.[userId] = @CurrentUser
GROUP BY {Campaigns}.[id]
EXCEPT (SELECT {Donations}.[campaignId]
                           FROM {Donations}
                           WHERE {Donations}.[userId] = @CurrentUser)
```

Figure 16: Visualization of the Structured Query Language code implemented in Begood

The actual function of this code is:

1. Select the User Identifiers of the Users who have contributed to at least one campaign to which the logged-in user has contributed;
2. Select the campaigns to which at least two of these selected Users have donated. The number of unique users will increase as the Begood community expands;
3. Select the Campaigns that match their category with the current User's interests.
4. Merge the results of point 2 and point 3, excluding the campaigns to which the Current User has already donated.

The final output (*Figure 17*) is a list including campaigns to which users, who share at least one donation with the logged-in user, have donated, as well as campaigns that the logged-in user may like based on his or her interests.

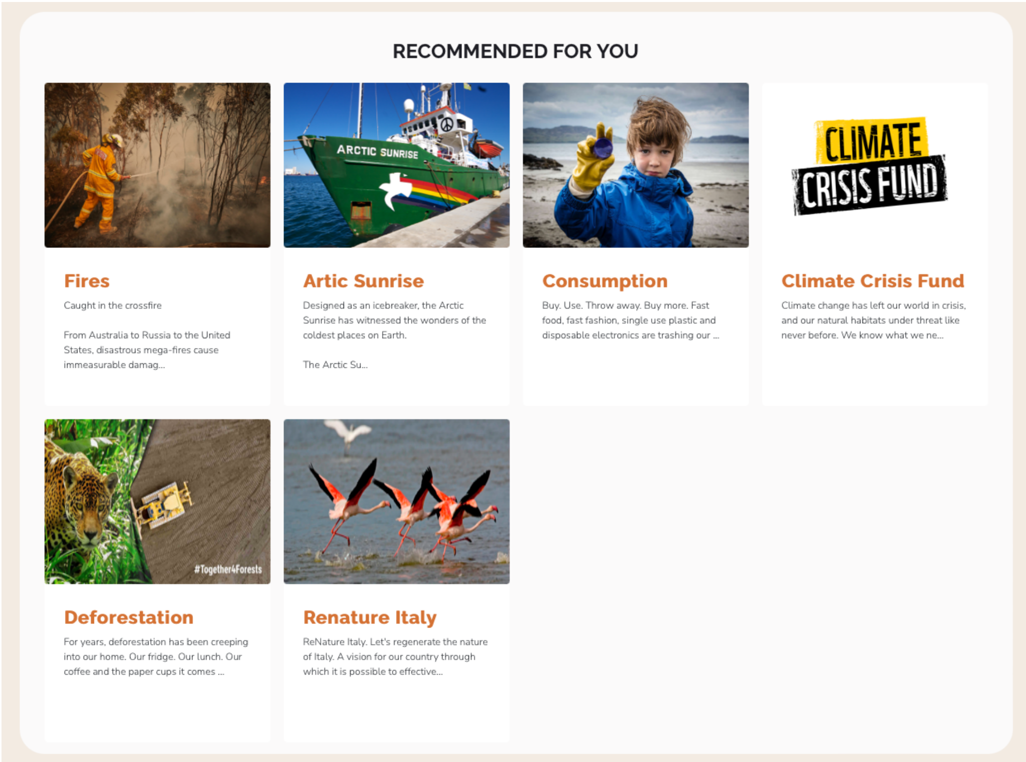


Figure 17: Visualization of the campaigns recommended to logged-in users in the For You page

5.2.3 Donation Page

The elements listed in the paragraphs above are all helpful in encouraging users to donate. As a result, there are several calls to actions, throughout the online application, that redirect users to the Donation Page.

The donation procedure is structured in five consecutive steps that gently assist the donor from the choice of the non-profit organization or campaign through the payment:

1. The first step (*Figure 18*) requires users to select an Organization to which they wish to donate, while the choice of the campaign is optional. If the user navigates to the

Donation Page from the Organization's Profile or the Campaign Detail Page, the corresponding organization and campaign will be pre-selected.

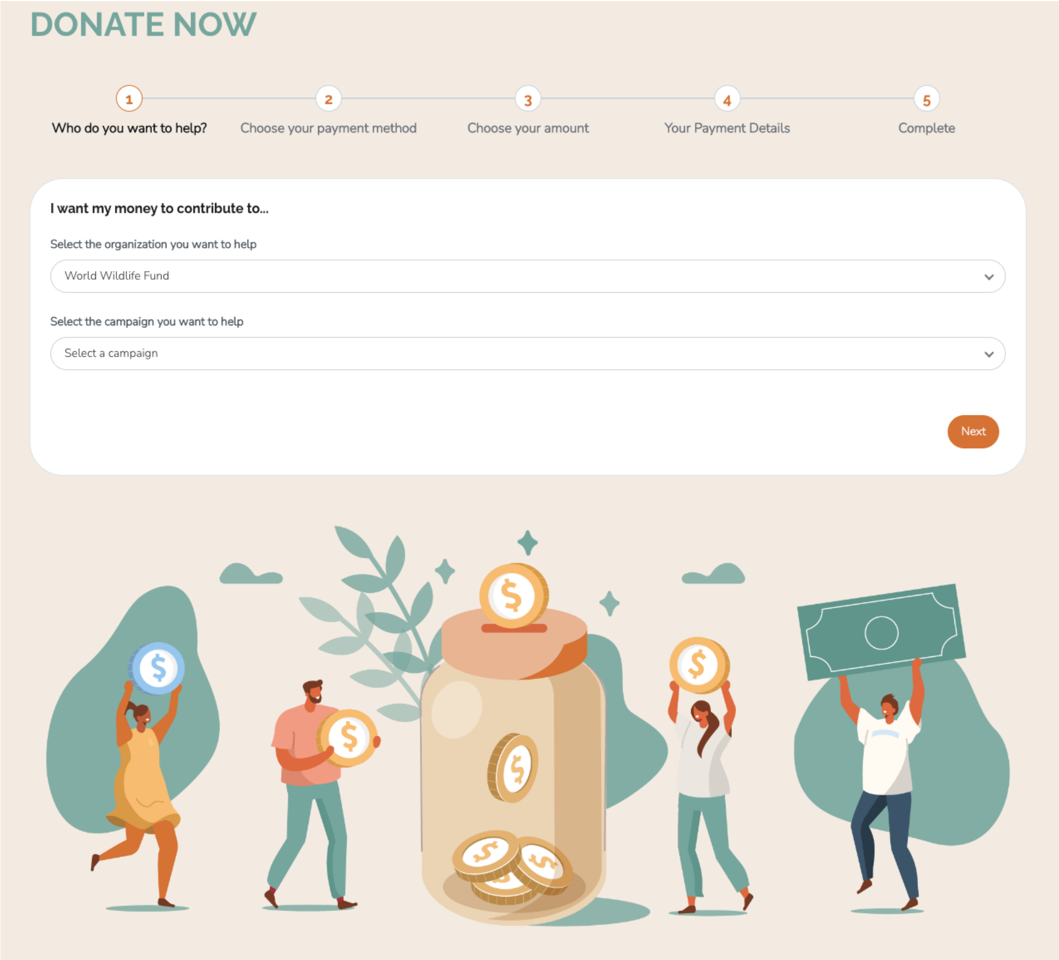


Figure 18: Visualization of the Donation Page and in particular the first step of the donation process in Begood

2. In the second step (*Figure 19*) the user must select the payment method. The choice consists in donating directly through our platform or being redirected to the Organization's website. If the Organization's website payment method is selected, the donation transaction will proceed there.
3. In the third step (*Figure 20*), the user must specify the amount and frequency of payments (one time, monthly or annual).
4. The fourth step (*Figure 21*) asks for Payment Data in order to finalize the donation.

5. In the last step (*Figure 22*) the donation process is completed and an email containing the Proof of Payment will be sent to the user's email address.

The details and performance of the donation procedure are crucial for establishing the user's trust in the application and providing him with a distinct user experience. Considering the objective of our program and its non-profit business model, allowing the user to donate from the chosen organization's website is consistent with the message we wish to convey: bringing people closer to the charity world.

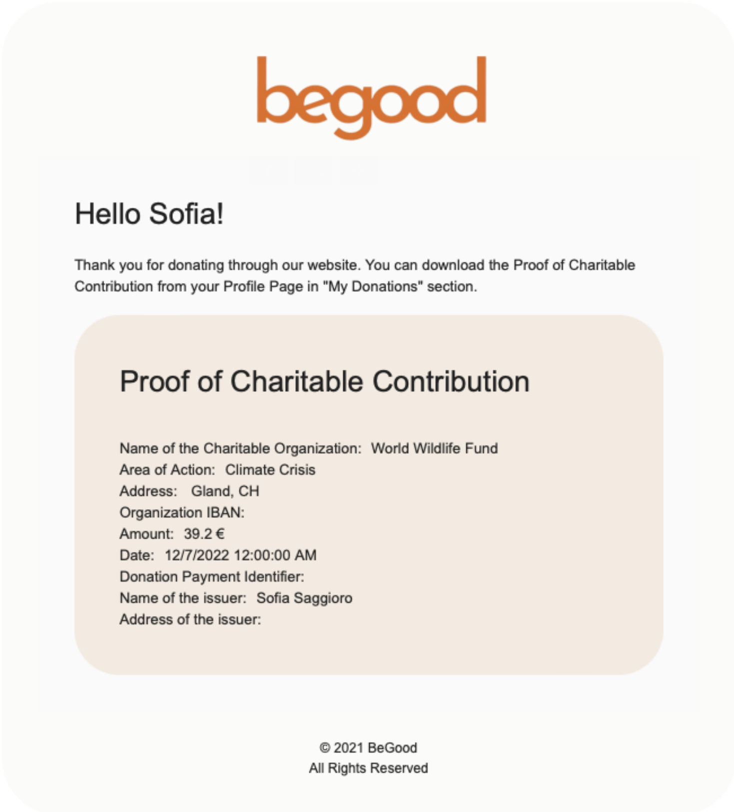
The donation process needs to be optimized in order for the donor to trust our website. This will be done through the integration of third-party payment services such as Paypal or Stripe.

5.2.4 Email support

Receiving an email confirmation (*Figure 23)* upon completion of the donation process enhances the credibility of the application among users. Given that contributions to nonprofit organizations are tax-deductible in most of the European countries, this feature enables donors to easily download payment documentation from their email account.

The User will also receive an email when signing up on Begood platform confirming the creation of the account. When needed, the user can receive email support to reset the password. The addition of email functionality strengthens the engagement with our customers.

Future work relating to email alerts will include updates on the evolution of particular campaigns. Specifically, we aim to keep the donor informed about the status of their donations.


begood

Hello Sofia!

Thank you for donating through our website. You can download the Proof of Charitable Contribution from your Profile Page in "My Donations" section.

Proof of Charitable Contribution

Name of the Charitable Organization: World Wildlife Fund
Area of Action: Climate Crisis
Address: Gland, CH
Organization IBAN:
Amount: 39.2 €
Date: 12/7/2022 12:00:00 AM
Donation Payment Identifier:
Name of the issuer: Sofia Saggioro
Address of the issuer:

© 2021 BeGood
All Rights Reserved

Figure 23: Visualization of the email confirmation upon completion of the donation process

5.2.5 Support

Additionally, we have established a support system for those who need to contact us for issues. The support form (*Figure 24*) is accessible by registered and anonymous users, as well as by non-profit organizations. Through the Manager Profile account, the support requests can be checked, and addressed via email.

6. Conclusions

6.1 Conclusions

Oftentimes, it is challenging for nonprofit organizations to gain the trust of individuals and demonstrate their true impact on our society. Due to the great distance between potential donors and charities, network potential is frequently lost. Efforts are clearly needed to fill this gap. Despite the fact that nonprofit organizations view such goals as secondary in comparison to their primary mission, they highlight the need for a more transparent charity sector.

Begood intends to strengthen the network by serving as a bridge between individuals and nonprofit organizations. Our motivation resided in answering three main questions:

- What do charities do with the funds they raise?
- How are small donations making a difference?
- What might reinforce donors’ confidence in charitable organizations?

By means of this web application, we propose a method for enhancing the relationship between the two sides of the network.

From the charities' side, we provide a way to be more transparent and gain the donors’ trust. By managing their own profiles, nonprofit organizations have the opportunity to highlight the impact they are generating and increase donor confidence through data and a better understanding of their activities;

From the individual side, we provide a way to feel more informed and engaged in the philanthropic sector. By having access to a tool that provides reliable information, the donor gains an understanding of what the charity's sector has to offer. Begood eases donors’ communication with multiple organizations from a central location, engages the user with customized contents, and keeps them fully informed of what's happening in the nonprofit industry as a whole and with regard to a specific organization.

Throughout the development of the web application, we iteratively tested the features implemented to examine usability or design issues and to expose our general idea to hypothetical users. Although the sample used for the supervised user testing was small at this stage of the project, the feedback collected reinforced our product’s idea.

Begood aspires to be a trustworthy environment where transparency and impact are the founding pillars and main drivers. Through this reactive web application, we are reducing the barriers that prevent people from donating, thereby achieving our objectives. Begood will, from a higher point of view, increase awareness of social causes and make it easier to take an active part in the change.

6.2 Limitations

The fragmented regulatory landscape for nonprofits in Europe is the primary limitation of our project. Currently, it is difficult to standardize detailed procedures and requirements that are applicable to all European member states and all stakeholders. This restriction may lead to the existence of inconsistent data that cannot be fairly compared across nonprofit organizations. As stated in *Section 2.3.1,* this limitation will be mitigated by future regulation developments at the european level (EFA 2022)

The decision to give our project a European scope can be viewed as presumptuous and entails more limitations, but from the outset, our goal was to create an inclusive and comprehensive environment, and we had no intention of limiting it to an individual member state. However, this expanded scope necessitates additional resources and cooperation from individuals across Europe, a step we will take in the coming months.

This study focuses on the perspective of donors and an analysis of their needs. Assessing potential obstacles requires additional analysis from the perspective of nonprofit organizations. This restriction is primarily a result of time constraints. Nonetheless, future work will mitigate this limitation and concentrate more on charitable organizations, with the ultimate objective of launching the Begood network.

6.3 Future Developments

This Work Project's output represents the initial phase of a larger scope that must be addressed in greater depth. Future work will involve additional research and design processes, including:

- Extensive primary research over charities perspective and feedback;
- Comprehensive analysis of the legal environment in Europe at national and international level, and of forthcoming political developments;
- Translation of our web application to other european languages in order to allow everyone to understand our scope;
- Establishment of additional design procedures to aid in the implementation of advanced features;
- A detailed formulation of a marketing strategy that is useful for lead generation;

In order for Begood to become a reality, we will continue our mentoring program with relevant US-based players who have already established a business of a similar nature, and start building solid relationships with European stakeholders.

References

Aguilar, Francis Joseph. 1967. *Scanning the Business Environment*. 1st ed. Macmillan; Collier-Macmillan.

Breen, Oonagh B., Carolyn J. Cordery, Louise Crawford, and Gareth G., Morgan. 2018. "Should Npos Follow International Standards for Financial Reporting? A Multinational Study of Views." *Voluntas: International Journal of Voluntary and Nonprofit Organizations* 29: 1330–1346. https://doi.org/10.1007/s11266-018-0040-9

BBB. 2022. "BBB Standards for Charity Accountability." Give.org,. Accessed December 1, 2022. https://www.give.org/charity-landing-page/bbb-standards-for-charity-accountability .

Bilgin, Yusuf, and Önder Kethüda. 2022. "Charity Social Media Marketing and Its Influence on Charity Brand Image." *International Journal of Voluntary and Nonprofit Organizations* 33(1):1091-1102. Accessed December 10, 2022. https://link.springer.com/article/10.1007/s11266-021-00426-7

Candid Blog. 2022. "A Look at Organizations That Have Earned Seals of Transparency." Candid Blog. Accessed December 9, 2021. https://blog.candid.org/post/a-look-at-organizations-that-have-earned-guidestar-seals-of-transparency/ .

Charities Aid Foundation 2022. *Charity Landscape 2022*." England: CAF. https://www.cafonline.org/docs/default-source/about-us-research/charity_landscape_report_2022.pdf .

Charity Navigator. 2022. "How We Rate Charities." Charity Navigator. Accessed October 20, 2022. https://www.charitynavigator.org/about-us/our-methodology/ratings/ .

Charity Watch. 2022. "Charity Rating Process." CharityWatch. Accessed October 20, 2022. https://www.charitywatch.org/our-charity-rating-process .

Chen, Pin-Shan Chen. 1976. *The Entity Relationship Model — Toward a Unified View of Data*. Broy, M., Denert, E. edition. Berlin: Springer https://doi.org/10.1007/978-3-642-48354

Donors Choose. 2020. "Trust & Transparency." DonorsChoose. Accessed November 2, 2022. https://www.donorschoose.org/about/finance.html.

EFA. 2022. "MEP Lagodinsky Joins EFA Webinar on Proposed Statute for European Cross-Border Associations & Nonprofits."Accessed November 9, 2022. European Fundraising Association. https://efa-net.eu/news/mep-lagodinsky-joins-efa-webinar -on-proposed-statute-for-european-cross-border-associations-nonprofits .

EFA. 2021. *Tracking the Impact of COVID-19 on Nonprofits in Europe*. European Fundraising Association and Salesforce.org. https://efa-net.eu/wp-content/uploads/2021/12/Nonprofit_Pulse_Report_2021_Summary.pdf .

EFA 2018. *Tax Incentives for Charitable Giving in Europe 2018*. Amsterdam: EFA European Fundraising Association. https://efa-net.eu/wp-content/uploads/2018/12/EFA-Tax-Survey-Report-Dec-2018.pdf .

European Commission CORDIS. 2017. "*Third Sector impact: The Contribution of the Third Sector to Europe's Socio-Economic.*" Norway: Institute for Social Research. https://cordis.europa.eu/docs/results/613/613034/final1-tsi-613034-final-report-vs-finale.pdf

Forbes Council Post. 2021. "The Future of Giving: Trends Shaping next-Gen Philanthropy." https://www.forbes.com/sites/forbesnonprofitcouncil/2021/12/27/the-future-of-giving-trends-shaping-next-gen-philanthropy/?sh=459d2bb21b88 .

GoFundMe. 2022. "GoFundMe Fees: Information and Answers to Top Questions." GoFundMe. Accessed November 6, 2022. https://www.gofundme.com/c/blog/gofundme-fees.

Gunther, Marc. 2015. "Why Charity Navigator Needs an Upgrade." Nonprofit Chronicles. Accessed November 20, 2022. https://nonprofitchronicles.com/2015/04/05/why-charity-navigator-needs-an-upgrade/ .

Hackler, Darrene, and Gregory D. Saxton. 2007. "The Strategic Use of Information Technology by Nonprofit Organizations: Increasing Capacity and Untapped Potential." *Public Administration Review* 67(3): 474-487. https://onlinelibrary.wiley.com/doi/10.1111/j.1540-6210.2007.00730.x

Hatzijordanou, Nadja, Nicolai Bohn, and Orestis Terzidis. 2019. "A Systematic Literature Review on Competitor Analysis: Status Quo and Start-up Specifics". *Management Review Quarterly* 69: 415–458. https://link.springer.com/article/10.1007/s11301-019-00158-5.

IRS. 2022. "Charitable Contribution Deductions." IRS. Accessed December 9, 2022. https://www.irs.gov/charities-non-profits/charitable-organizations/charitable-contribution-deductions.

IUPUI. 2022. *The Global Philanthropy Environment Index 2022*. IU Lilly Family School of Philanthropy. https://scholarworks.iupui.edu/handle/1805/28098.

Yörük, Barış. 2016. "Charity Ratings." *Journal of Economics & Management Strategy* 25(1): 195-219. http://dx.doi.org/10.1111/jems.12139

Matharu, Gurpreet, Anju Mishra, Harmeet Singh, and Priyanka Upadhyay. 2015. “Empirical Study of Agile Software Development Methodologies.” *ACM SIGSOFT Software* 40(1): 1-6 https://dl.acm.org/doi/10.1145/2693208.2693233.

Mogus, Jason, and Austen Levihn-Coon. 2018. “What Makes Nonprofit Digital Teams Successful Today?” Stanford Social Innovation Review. https://doi.org/10.48558/BHKG-AG97.

Osili, Una, Jonathan Bergdoll, Andrea Pactor, Jacqueline Ackerman, and Peter Houston. 2021. “IUPUI ScholarWorks Repository.” *IUPUI*. Indiana University Lilly Family School of Philanthropy. April. https://scholarworks.iupui.edu/bitstream/handle/1805/25515/crowdfunding210331-1.pdf.

Paypal Editorial Staff. 2022. “Give at Checkout Enables PayPal Users to Purchase with Purpose.” Paypal. Accessed October 20, 2022. https://www.paypal.com/us/brc/article/st-jude-paypal-nonprofit-case-study.

Pitt, Andrew, Amy Thompson, and Karen Kardos. 2021. “Philanthropy and the Global Economy: Opportunities in a World of Transition.” Citi Global Perspectives & Solutions (November 2021): 1-104. https://www.privatebank.citibank.com/newcpb-media/media/documents/insights/Philanthropy-and-global-economy.pdf .

Saeri, Alexander K., Peter Slattery, Joannie Lee, Thomas Houlden, Neil Farr, Romy L. Gelber, Jake Stone, et al. 2022. “What Works to Increase Charitable Donations? A Meta-Review with Meta-Meta-Analysis”. *Voluntas: International Journal of Voluntary and Nonprofit Organizations* (2022):1-17. https://doi.org/10.1007/s11266-022-00499-y .

Strathmann, Sara. 2018. "An Analysis of Rating Systems Used by Watchdog Organizations for Nonprofit Charities in the Health and Human Services Sector". Senior Theses, University of South Carolina - Columbia. https://scholarcommons.sc.edu/senior_theses/262

Glossary

Charity Sector: usually referred to as Third Sector. For the sake of clarity, here we refer to the charity sector or industry as to include not only nonprofit institutions, but also charities, social enterprises, civil society and volunteering elements.

Low-code Technology: low-code application development is a method that significantly reduces the amount of time needed to build and develop an application. With this method, coding transitions from textual to visual.

Minimum Viable Product (MVP): basic, early stage product that can be improved and adapted in the future, but experienced and validated in the present.

Nonprofit organization or Charities: non-business entity, organization established to serve the greater good of society rather than to make a profit. The term "nonprofit organization" in this work project refers to charitable nonprofit organizations whose main goals are philanthropic and social well-being. Nonprofit organizations can be diverse in their missions and in the communities they serve.

User Interface (UI): the area, here referred mainly as display screens and their visualization, where interactions between machines and people take place.

Figures

Figure 3

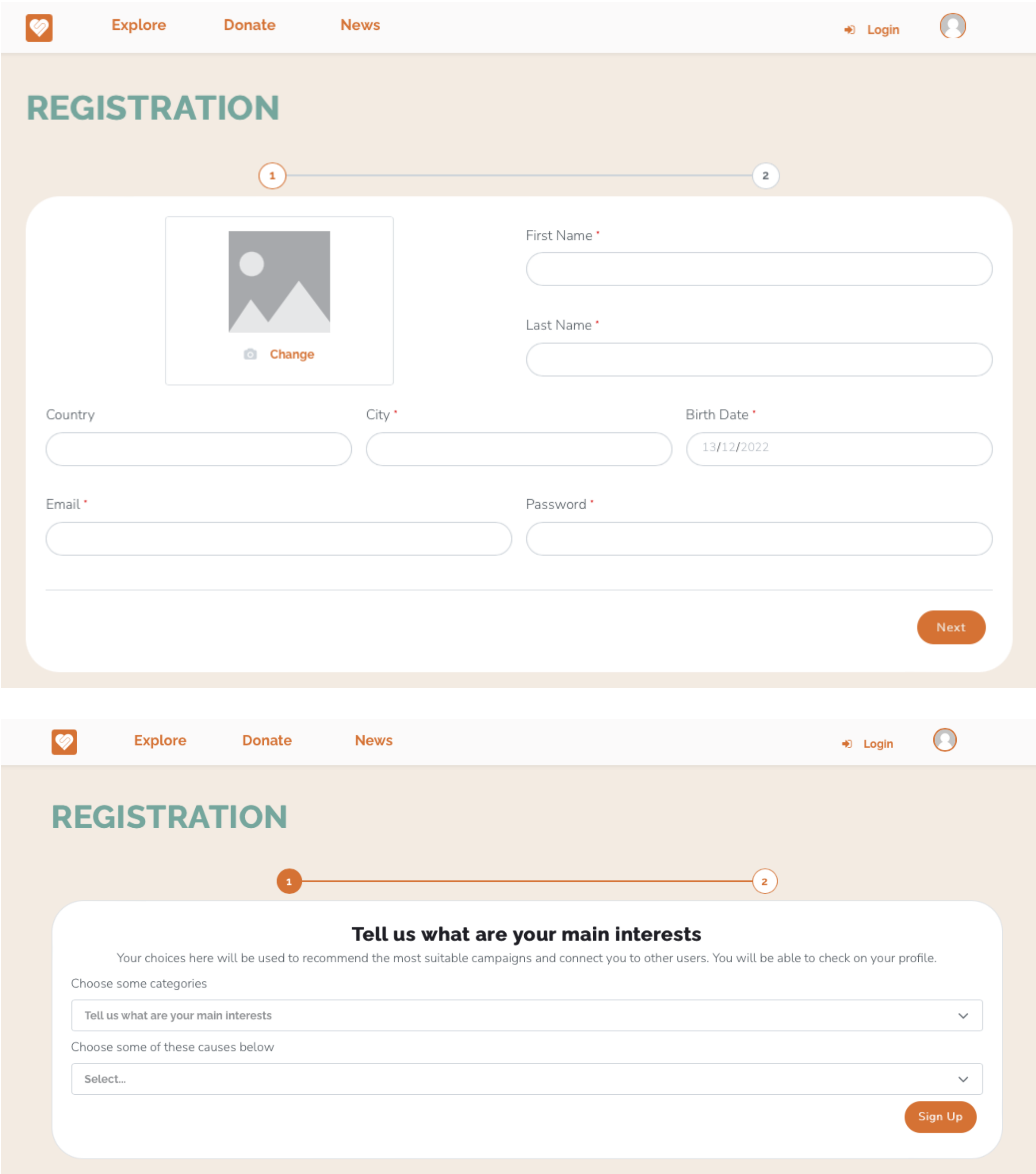


Figure 3: Sign In procedure for donors.

Figure 4

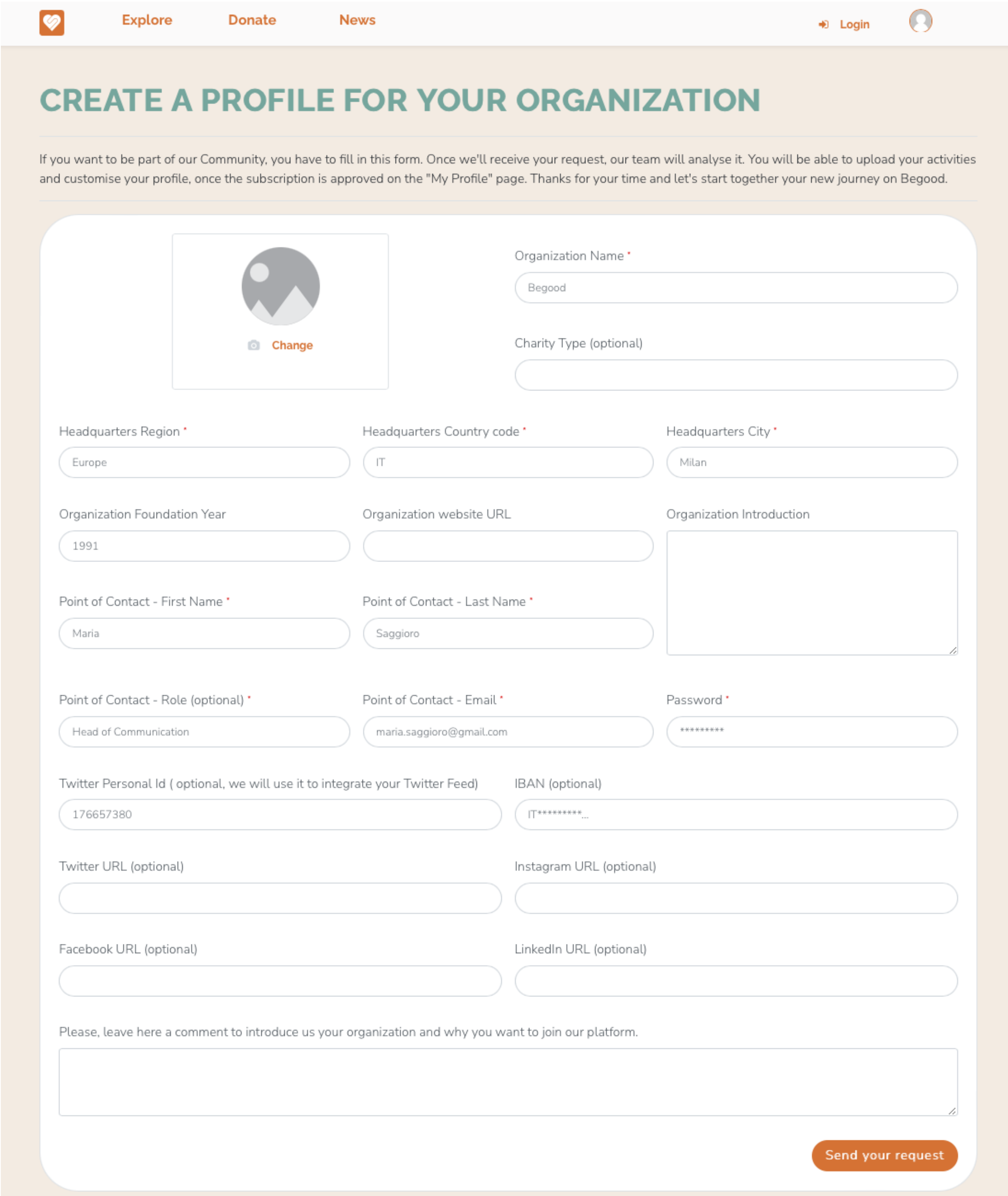
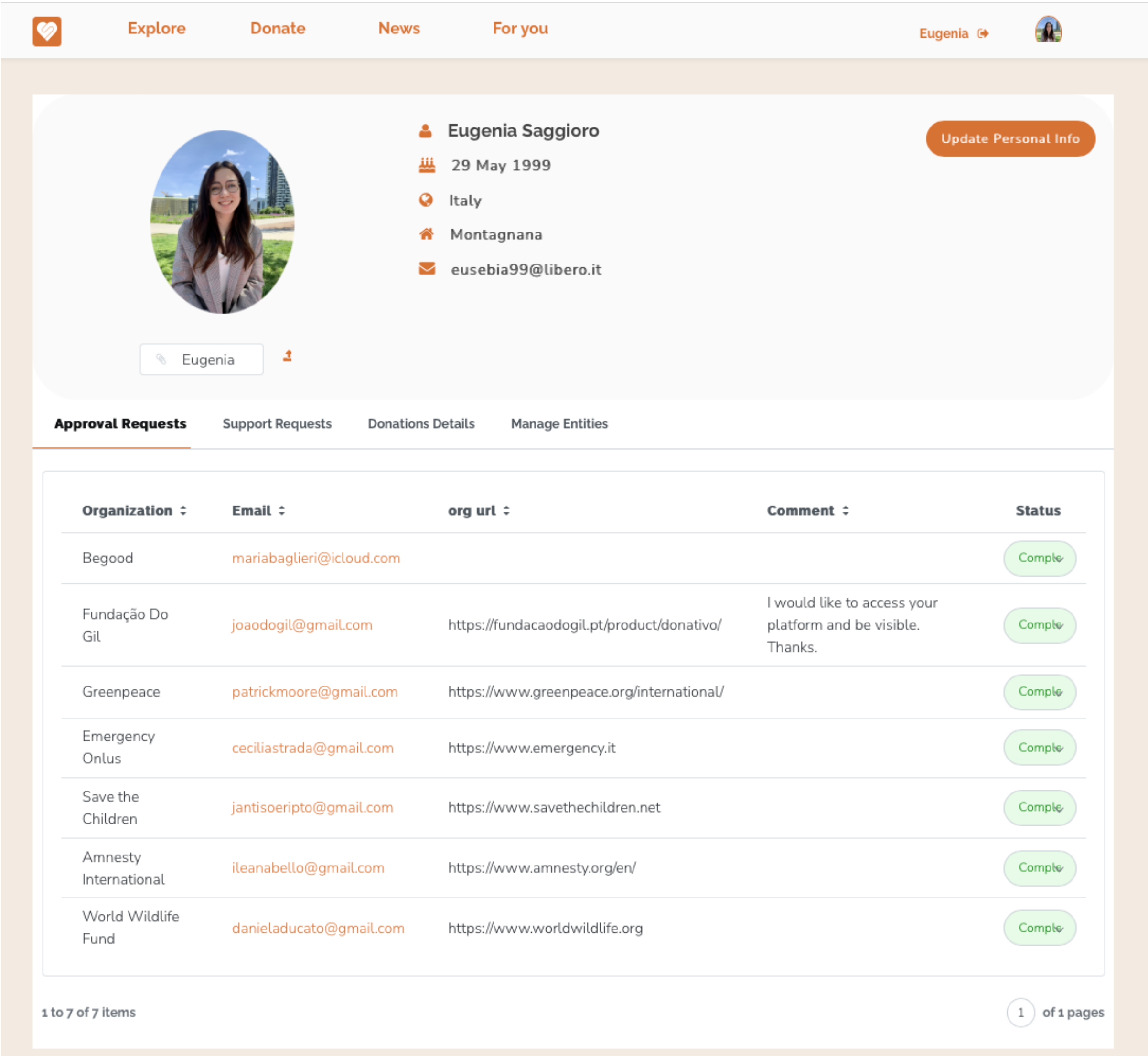


Figure 4: Sign Up procedure for Nonprofit organizations.

Figure 5



Organization	Email	org url	Comment	Status
Begood	mariabaglieri@icloud.com			Comple
Fundação Do Gil	joaodogil@gmail.com	https://fundacaodogil.pt/product/donativo/	I would like to access your platform and be visible. Thanks.	Comple
Greenpeace	patrickmoore@gmail.com	https://www.greenpeace.org/international/		Comple
Emergency Onlus	ceciliastrada@gmail.com	https://www.emergency.it		Comple
Save the Children	jantisoeripto@gmail.com	https://www.savethechildren.net		Comple
Amnesty International	ileanabello@gmail.com	https://www.amnesty.org/en/		Comple
World Wildlife Fund	danieladucato@gmail.com	https://www.worldwildlife.org		Comple

Figure 5: Platform Manager Profile Page.

Figure 7

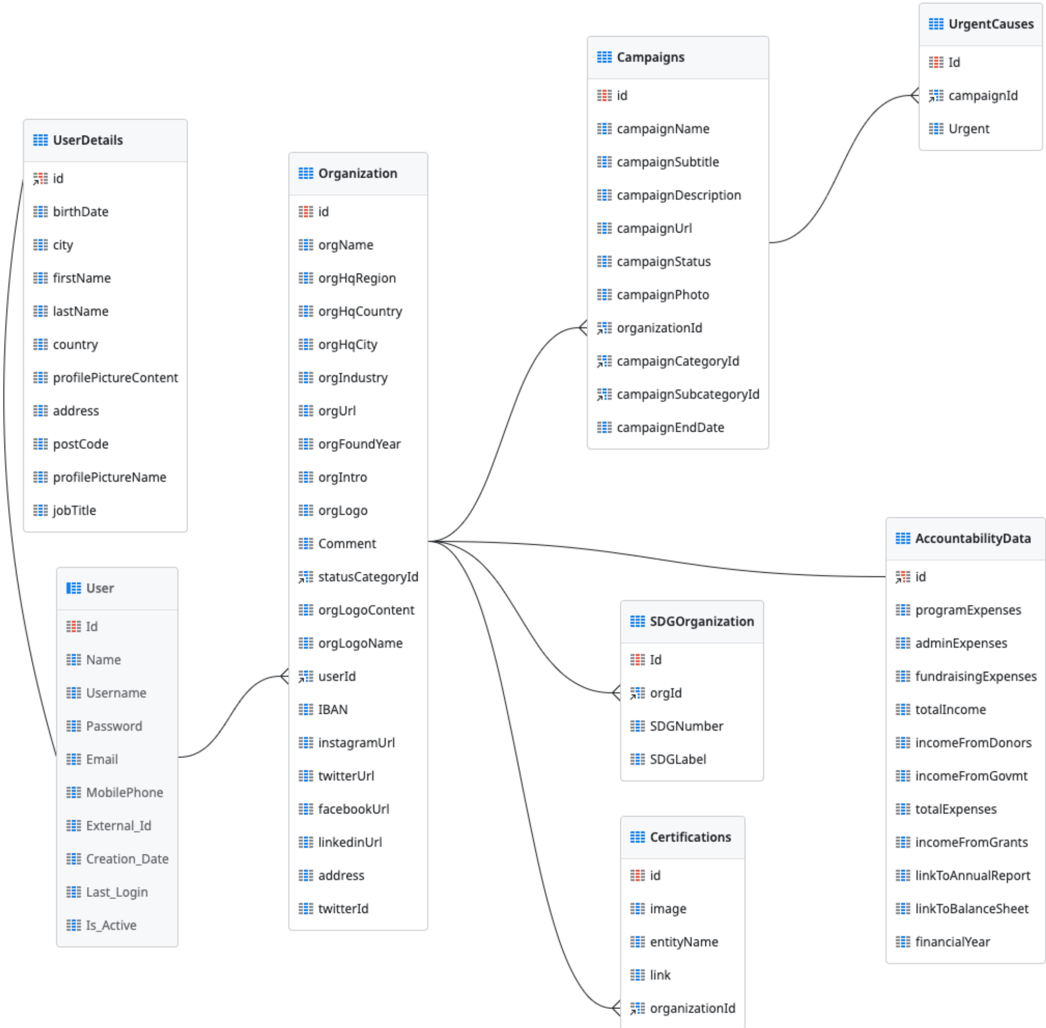


Figure 7: Entity Relationship Diagram of Organization and Campaigns attributes.

Figure 8

Figure 8: Entity Diagram representing User Attributes.

Figure 9

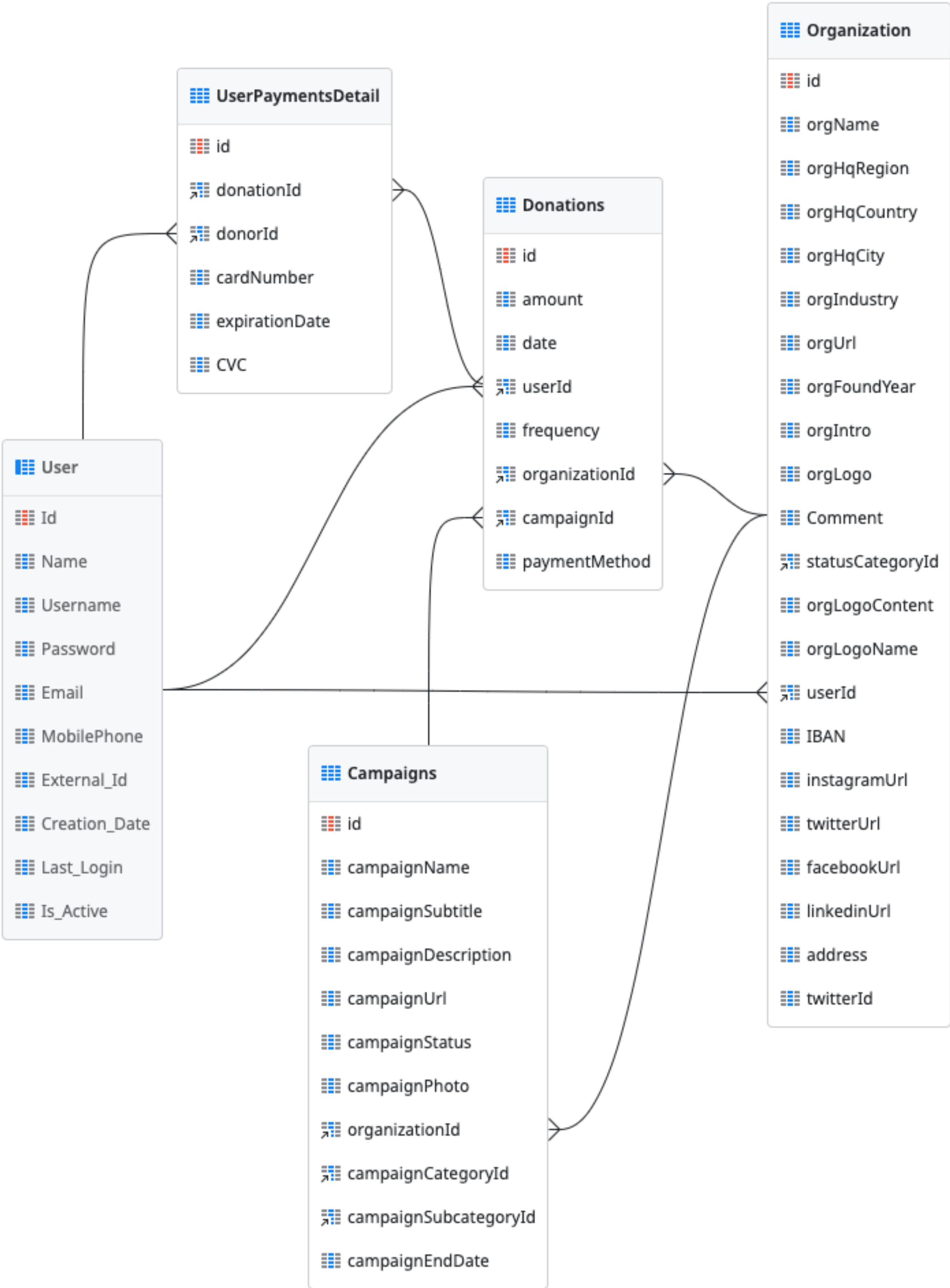


Figure 9: Entity Diagram with Donations related attributes.

Figure 11

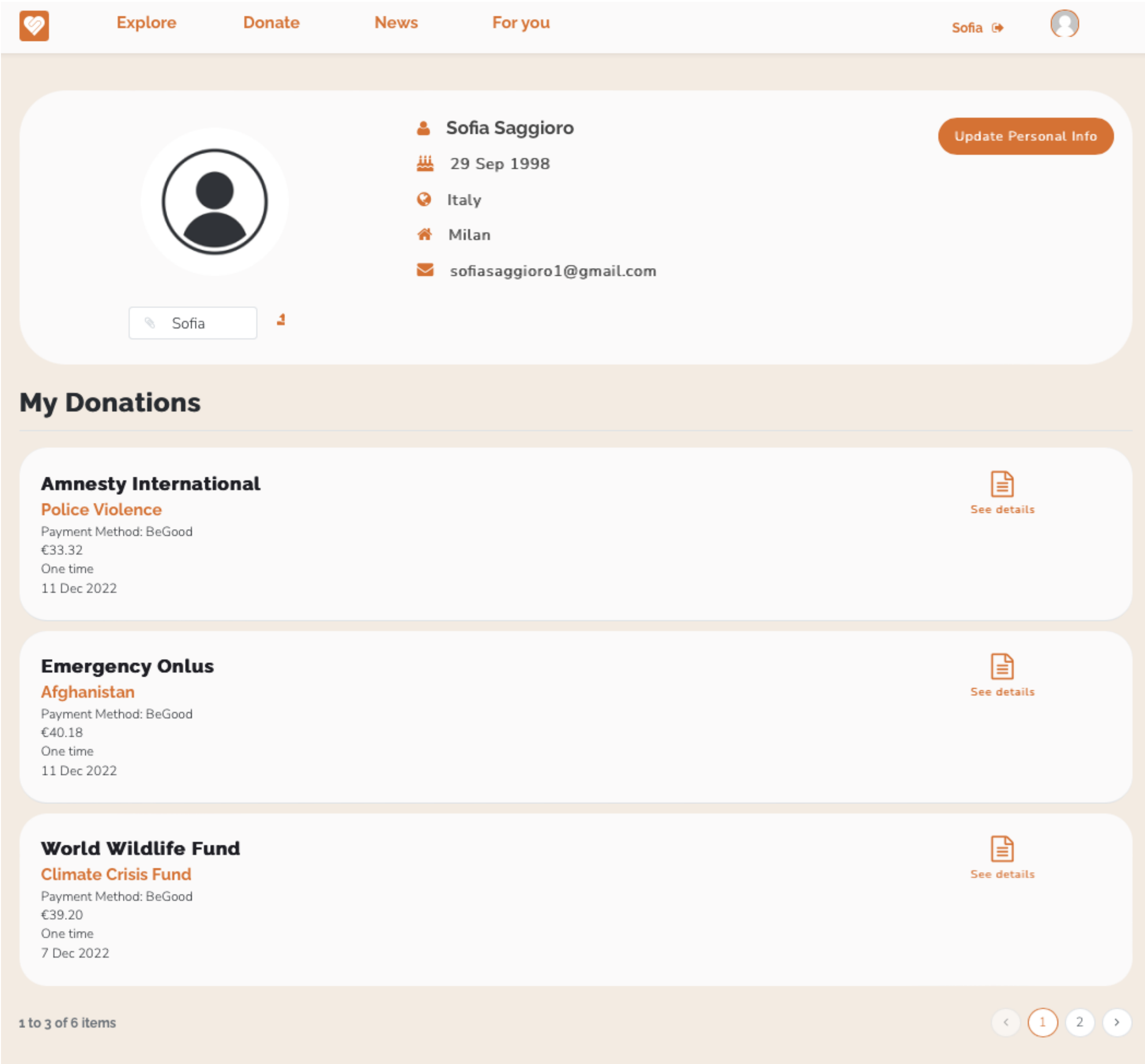


Figure 11: My Profile Page as an individual user.

Figure 19

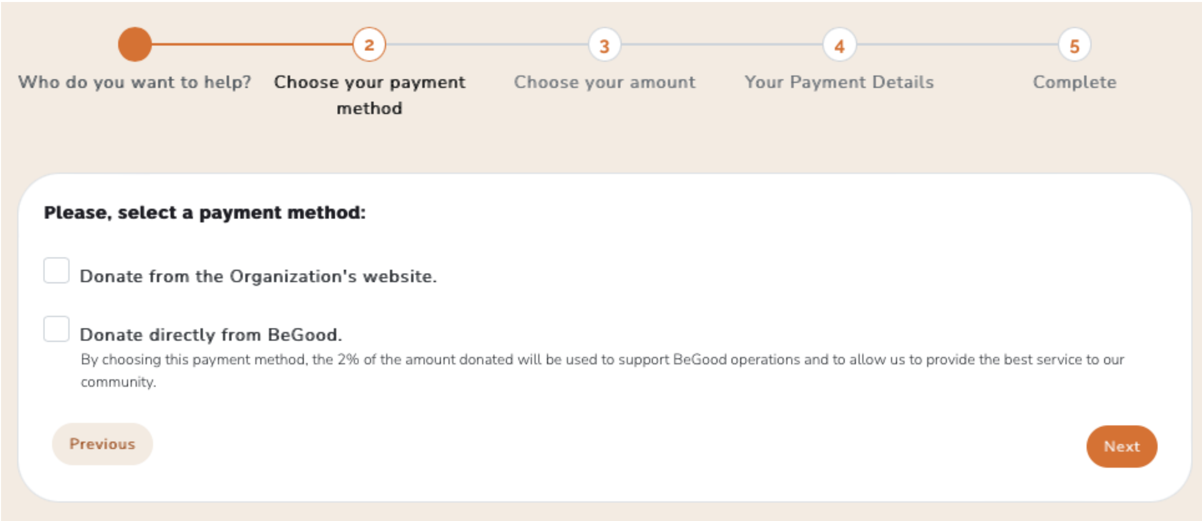


Figure 19: Visualization of the second step of Begood donation process

Figure 20

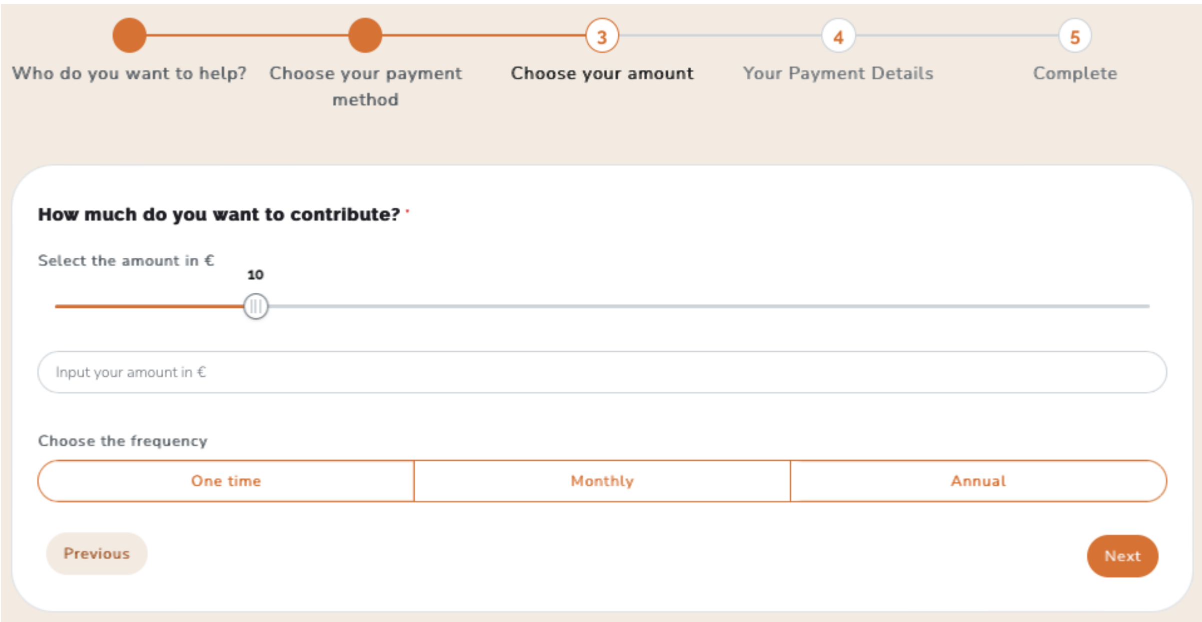


Figure 20: Visualization of the third step of the Begood donation process.

Figure 21

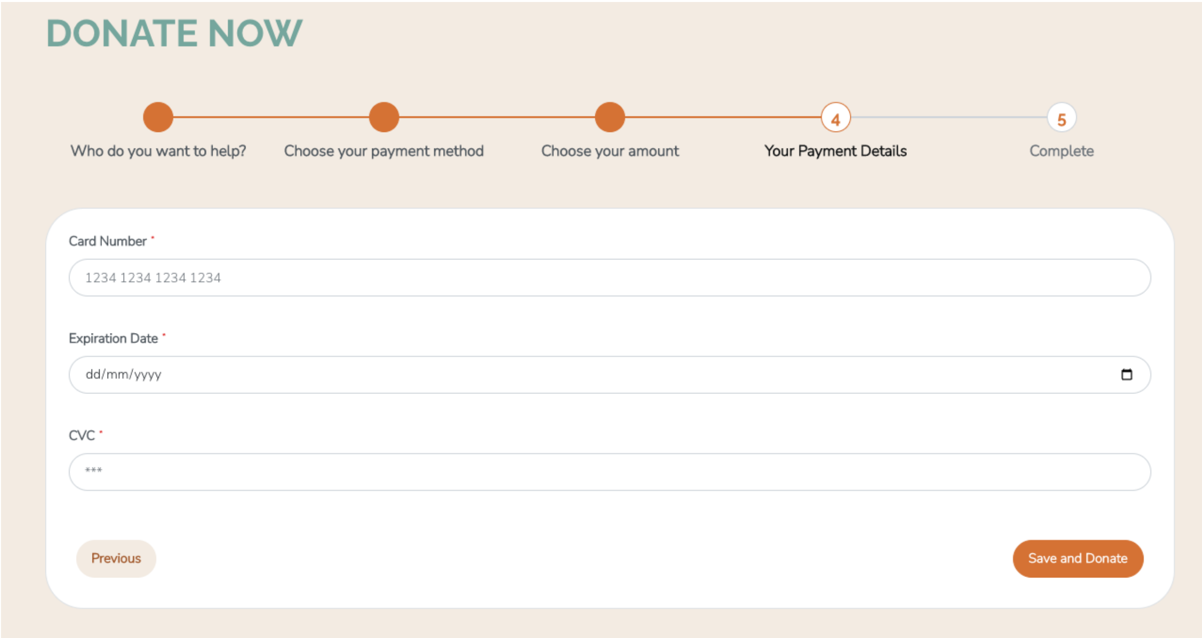


Figure 21: Visualization of the fourth step of the donation process in Begood

Figure 22

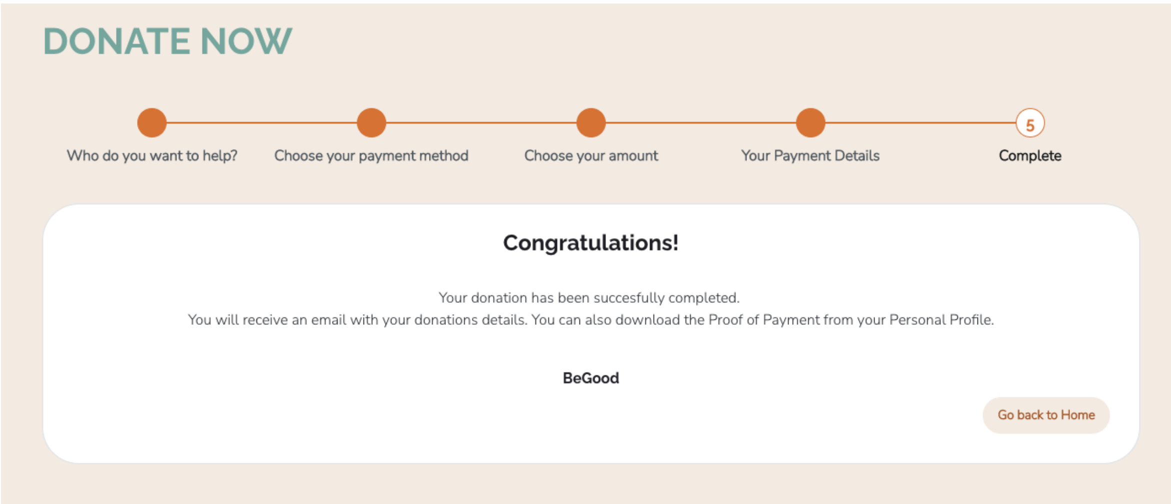


Figure 22: Visualization of the fifth step of the donation process on Begood

Figure 24

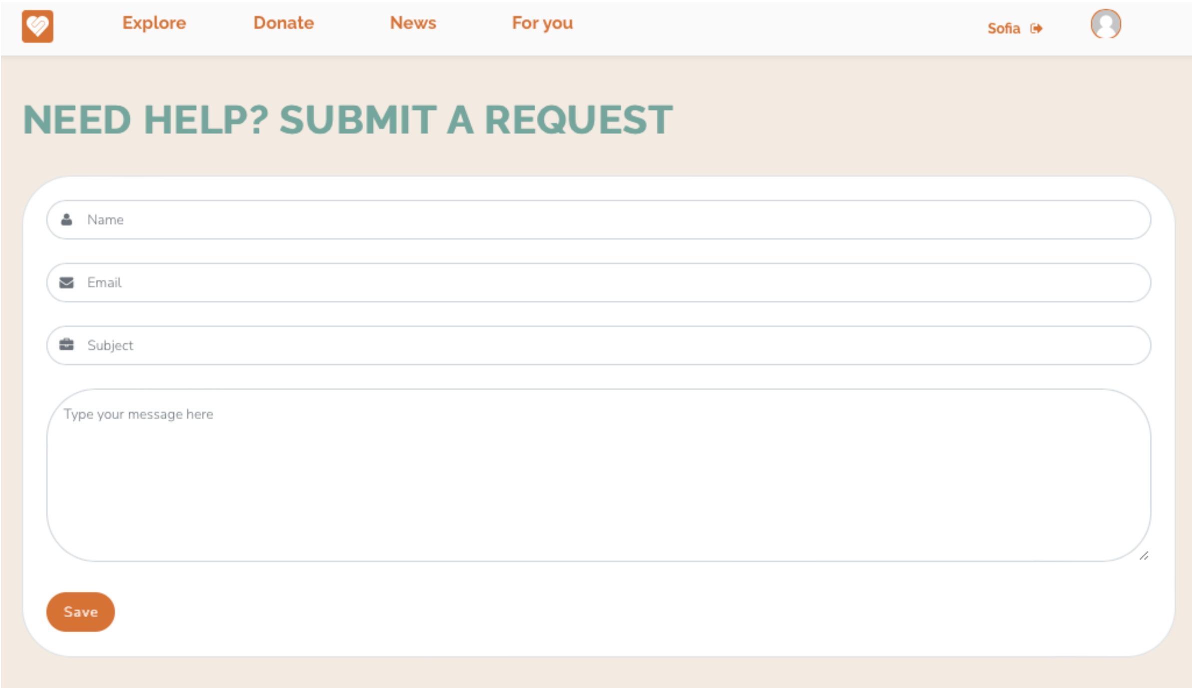
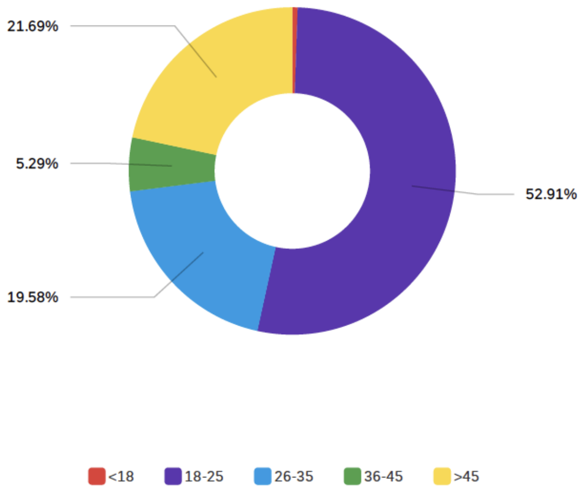


Figure 24: Visualization of the Support request on the Support Us page in Begood

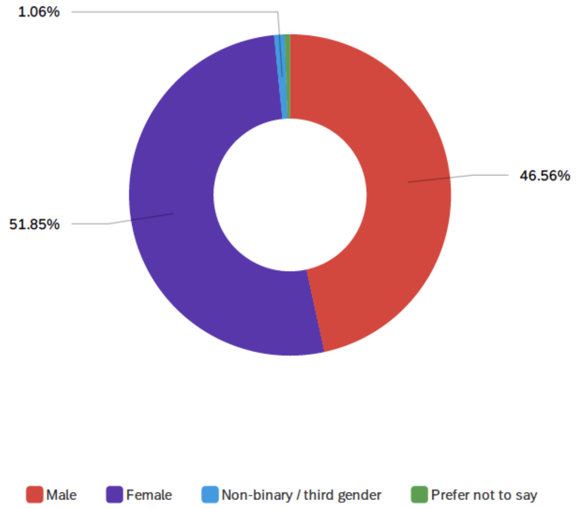
Appendix A - Survey Report

Q1 - How old are you?



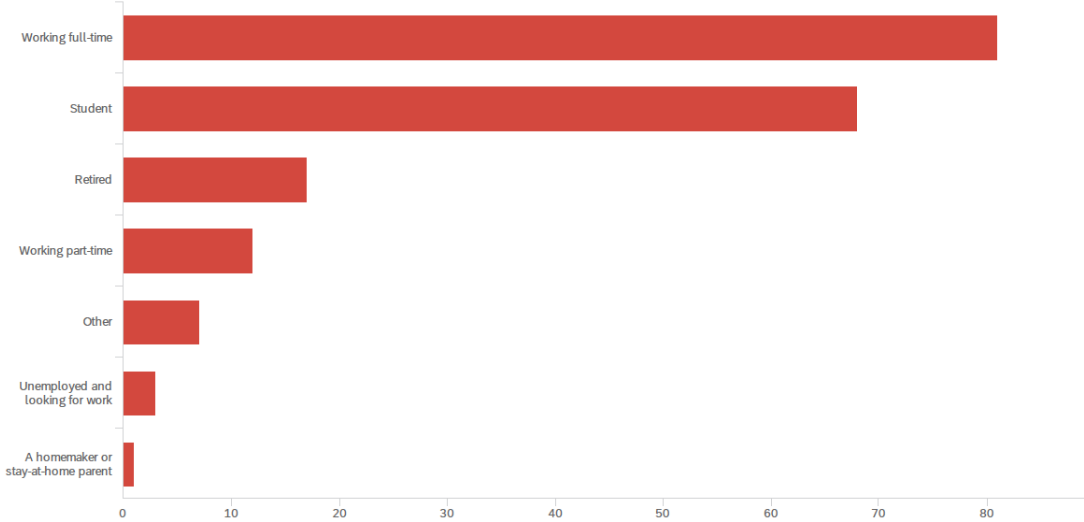
#	Field		Choice Count
1	<18	0.53%	1
2	18-25	52.91%	100
3	26-35	19.58%	37
4	36-45	5.29%	10
5	>45	21.69%	41
			189

Q2 - Gender Identity



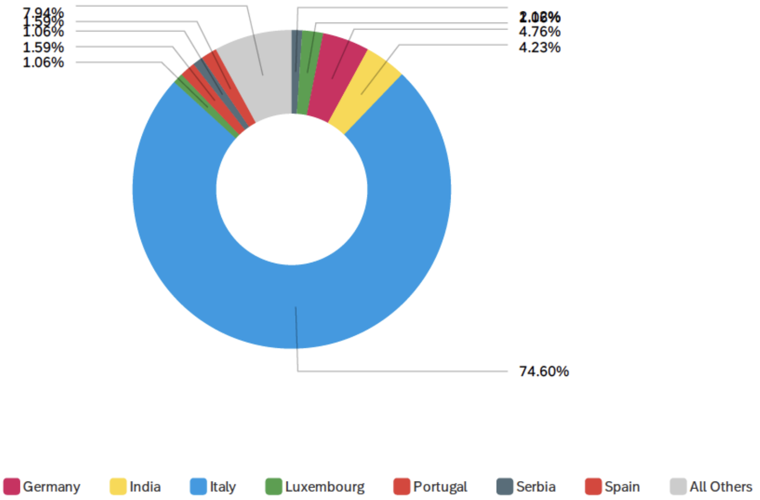
#	Field	Choice Count	
1	Male	46.56%	88
2	Female	51.85%	98
3	Non-binary / third gender	1.06%	2
4	Prefer not to say	0.53%	1
			189

Q3 - What best describes your employment status over the last three months?



#	Field		Choice Count
2	Working part-time	6.35%	12
1	Working full-time	42.86%	81
3	Unemployed and looking for work	1.59%	3
5	Student	35.98%	68
6	Retired	8.99%	17
7	Other	3.70%	7
4	A homemaker or stay-at-home parent	0.53%	1
			189

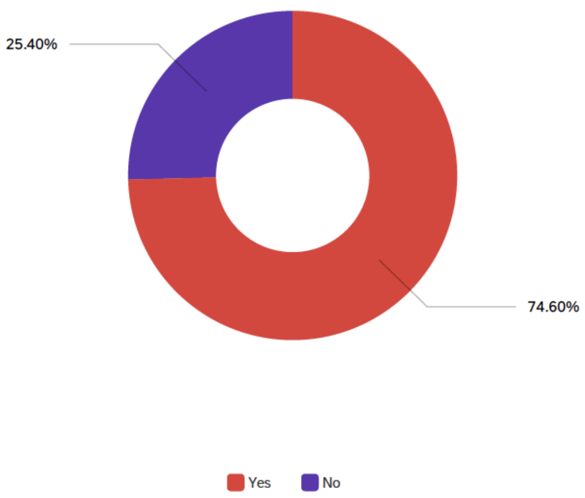
Q4 - List of Countries



#	Field	Choice Count	
84	Italy	74.60%	141
65	Germany	4.76%	9
78	India	4.23%	8
61	France	2.12%	4
138	Portugal	1.59%	3
163	Spain	1.59%	3
31	Canada	1.06%	2
101	Luxembourg	1.06%	2
153	Serbia	1.06%	2
10	Austria	0.53%	1
37	Colombia	0.53%	1
45	Czech Republic	0.53%	1
53	Egypt	0.53%	1
94	Latvia	0.53%	1
104	Malaysia	0.53%	1

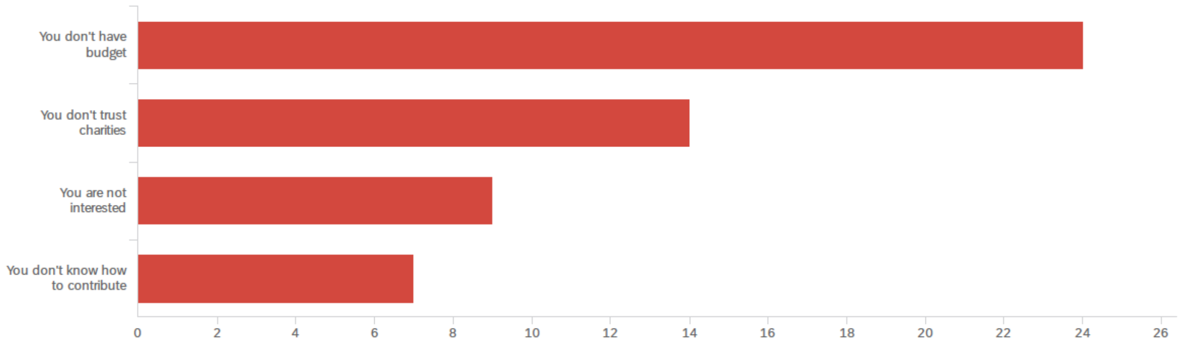
143	Russian Federation	0.53%	1
157	Slovakia	0.53%	1
168	Sweden	0.53%	1
169	Switzerland	0.53%	1
178	Tunisia	0.53%	1
183	Ukraine	0.53%	1
185	United Kingdom of Great Britain and Northern Ireland	0.53%	1
187	United States of America	0.53%	1
			189

Q5 - Have you ever contributed to a social cause through donations?



#	Field		Choice Count
1	Yes	74.60%	141
2	No	25.40%	48
			189

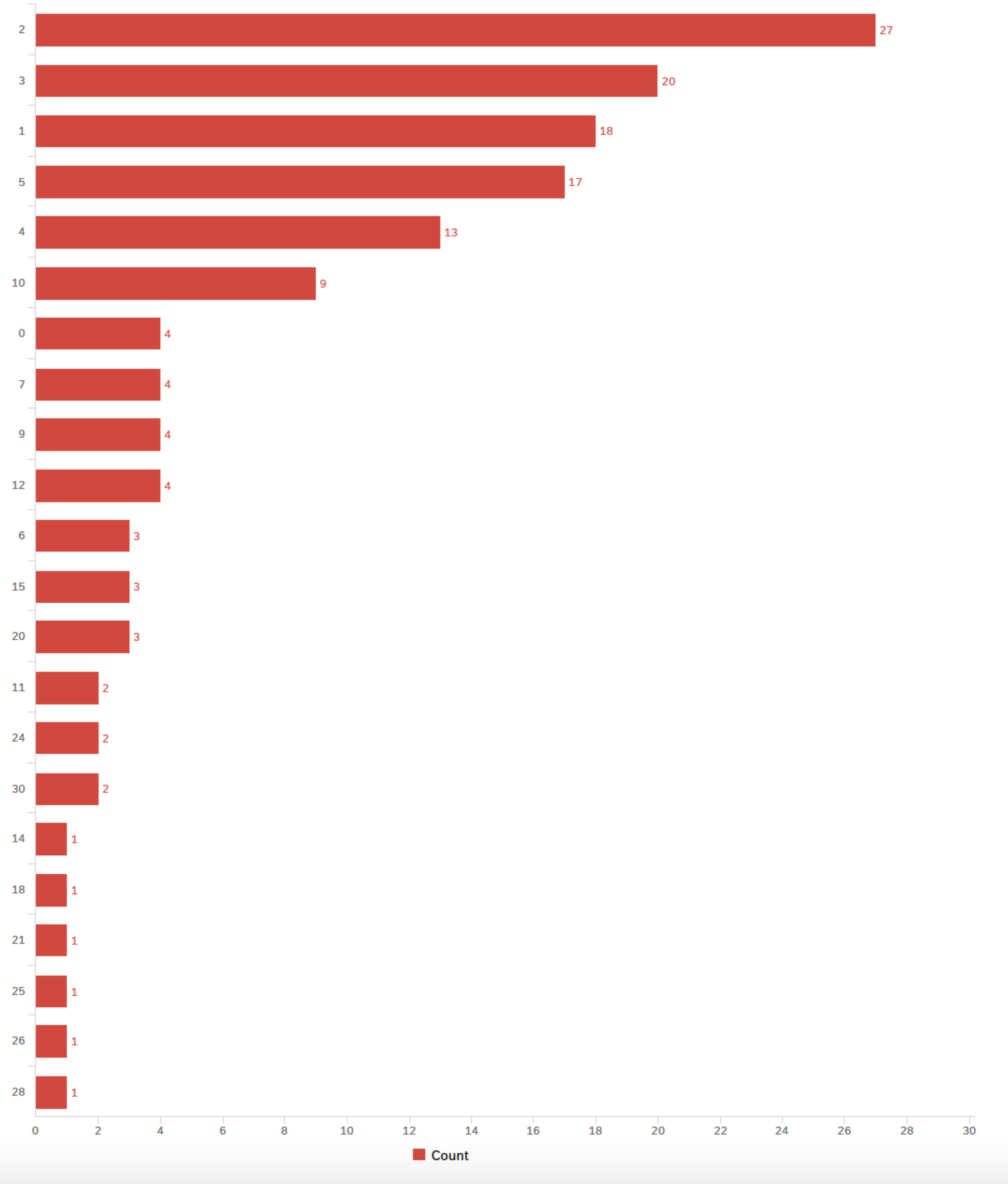
Q6 - You have never donated because:



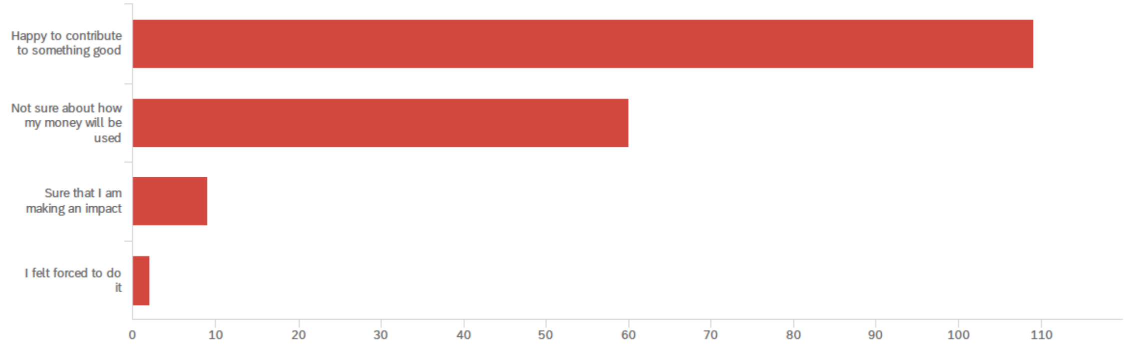
#	Field		Choice Count
4	You don't have budget	44.44%	24
1	You don't trust charities	25.93%	14
3	You are not interested	16.67%	9
2	You don't know how to contribute	12.96%	7
			54

Q7 - How often do you donate in a year (on average)? Number of donations

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
6	Retired	2.00	30.00	11.65	9.54	91.05	17
1	Working full-time	0.00	25.00	6.38	5.90	34.77	64
5	Student	1.00	30.00	4.57	5.60	31.34	44
7	Other	2.00	5.00	3.71	1.28	1.63	7
4	A homemaker or stay-at-home parent	3.00	3.00	3.00	0.00	0.00	1
3	Unemployed and looking for work	3.00	3.00	3.00	0.00	0.00	1
2	Working part-time	0.00	5.00	2.43	1.40	1.96	7



Q8 - How do you feel when you donate?



#	Field	Choice Count	
1	Happy to contribute to something good	77.30%	109
2	Not sure about how my money will be used	42.55%	60
3	Sure that I am making an impact	6.38%	9
4	I felt forced to do it	1.42%	2
			141

Q9 - How much would you trust these organizations/activities? Order your choices. First one is the organization you trust the most

#	Field	1		2		3		4		Total
1	Big Charity (e.g. Greenpeace, Amnesty International, Save The Children)	43.85%	82	18.18%	34	23.53%	44	14.44%	27	187
2	Local small charity	25.67%	48	32.09%	60	31.02%	58	11.23%	21	187
3	Online crowdfunding (e.g. Gofundme)	2.67%	5	15.51%	29	25.67%	48	56.15%	105	187
4	Volunteering event	27.27%	51	34.22%	64	19.79%	37	18.18%	34	187

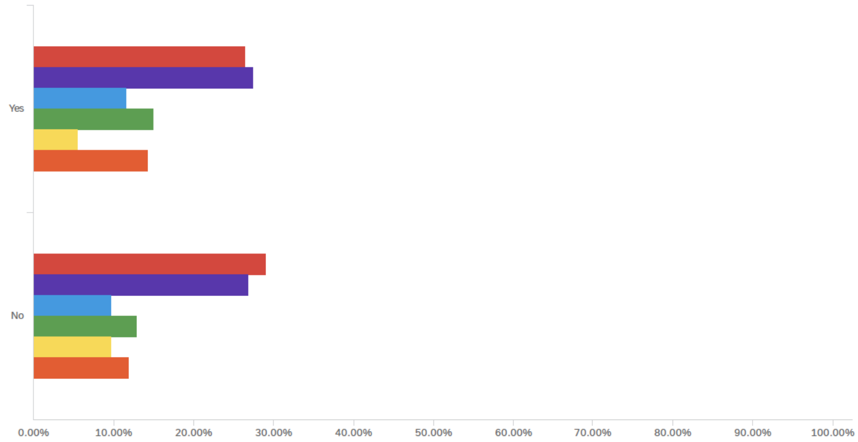
Showing rows 1 - 4 of 4

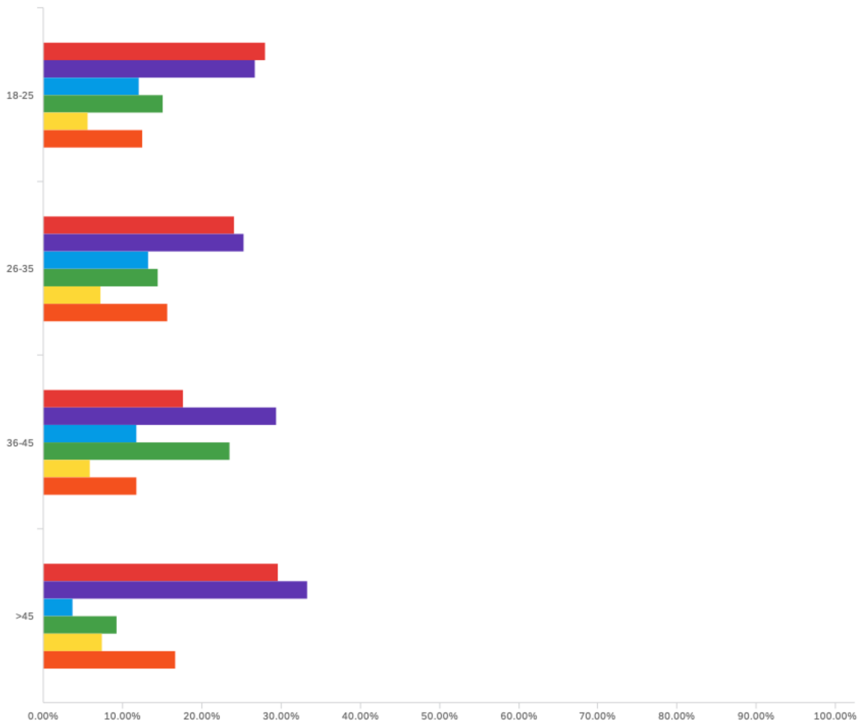
#	Field	Mean
1	Big Charity (e.g. Greenpeace, Amnesty International, Save The Children)	2.09
2	Local small charity	2.28
3	Online crowdfunding (e.g. Gofundme)	3.35
4	Volunteering event	2.30

Q10 - Which of these options would help you donate more?

#	Field		Choice Count
2	To know more about how my money are used (e.g. update about my donations/campaigns I contributed to)	56.08%	106
1	To have more money	55.56%	105
4	To have an easy overview of specific data of the charity (e.g. financial reports)	29.63%	56
6	To have all the above information and more on the same platform	28.04%	53
3	To read news or feedback about charities' operations	22.75%	43
5	To talk to some friends or people I know	13.23%	25
			189

Showing rows 1 - 7 of 7





Q11 - Would you be willing to...

#	Field	Definitely not		Probably not		Might or might not		Probably yes		Definitely yes		Total
1	Donate to a trusted intermediary that will reach out to organizations that are contributing to the most urgent social causes	6.88%	13	18.52%	35	28.04%	53	39.68%	75	6.88%	13	189
2	Have an overview about all the available options and then decide who to donate to	2.12%	4	2.65%	5	11.11%	21	59.79%	113	24.34%	46	189
3	Donate directly through the organization's profile to a specific campaign you care about	1.59%	3	5.82%	11	13.76%	26	56.08%	106	22.75%	43	189
4	Not to donate	37.04%	70	31.75%	60	24.87%	47	4.23%	8	2.12%	4	189
5	Give my money to someone I know	3.70%	7	17.46%	33	16.93%	32	46.03%	87	15.87%	30	189
6	Volunteering	1.59%	3	5.29%	10	14.29%	27	49.21%	93	29.63%	56	189

Showing rows 1 - 6 of 6

#	Field	Mean	Bottom 2 Box	Top 2 Box
1	Donate to a trusted intermediary that will reach out to organizations that are contributing to the most urgent social causes	3.21	25.40%	46.56%
2	Have an overview about all the available options and then decide who to donate to	4.02	4.76%	84.13%
3	Donate directly through the organization's profile to a specific campaign you care about	3.93	7.41%	78.84%
4	Not to donate	2.03	68.78%	6.35%
5	Give my money to someone I know	3.53	21.16%	61.90%
6	Volunteering	4.00	6.88%	78.84%

Q12 - Tell us three names of charities you donated/would donate to:

Q13 - Nonprofit organizations or charities should...

#	Field	Strongly disagree		Somewhat disagree		Neither agree nor disagree		Somewhat agree		Strongly agree		Total
1	Demonstrate more how they spend the money raised	1.06%	2	1.06%	2	4.76%	9	30.69%	58	62.43%	118	189
2	Use other communication channels	1.06%	2	2.12%	4	21.16%	40	51.32%	97	24.34%	46	189
3	Keep the donor updated on their campaigns	1.59%	3	1.59%	3	5.82%	11	39.68%	75	51.32%	97	189
4	Make the donor feel more involved	1.06%	2	3.17%	6	14.81%	28	41.27%	78	39.68%	75	189

Showing rows 1 - 4 of 4

#	Field	Mean	Bottom 2 Box	Top 2 Box
1	Demonstrate more how they spend the money raised	4.52	2.12%	93.12%
2	Use other communication channels	3.96	3.17%	75.66%
3	Keep the donor updated on their campaigns	4.38	3.17%	91.01%
4	Make the donor feel more involved	4.15	4.23%	80.95%