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1. Challenge

"Global hunger isn't about a lack of food. Right now, the world produces enough food to nourish every child, woman and man on the planet" (*World Food Programme*, 2020).

Food is being wasted all around the world, with almost 14 % of it being lost between the first stages of harvest and retail. An estimated 17 % of total global food production is being wasted, while 9.2 % of the world, or 719 million people live in extreme poverty (UN, 2023).

Our project is aimed at reducing food waste and redistributing food that would otherwise be wasted, to people in need. Foodlink highlights this critical challenge faced in Brussels regarding the surplus food generated at numerous lobbying events. Our challenge collaborator and teammate, Corinna Doll, was located in Brussels during her internship with the Bavarian representation and experienced a dramatic gap between surplus food and people in need of basic nutrition. She would take part in multiple events from political representations that are situated in the city and at the same time would witness the poverty and inequality that is still present in the center of Europe. This deep inequality motivated her to find a solution to the problem. The Euroteq Collider was a great opportunity to bring minds from different study fields together, to contribute to solving an issue that affects us all. Due to Corinna's experience, Brussels is the starting point of our project, with the hope to learn and grow in this city first.

Despite the city's political influence, it is disheartening to observe the significant levels of poverty, homelessness, and high food prices experienced by many individuals and families. 17.5 % of the population in the Brussels capital region were categorized as materially and socially deprived in 2022 according to the Belgian Statistical office (Statbel 2023a). Further, nearly 39% of the population are at risk of poverty or social exclusion. 30 % "live in a household with a total disposable income lower than the poverty line" (StatBel 2023b), while at the same time the total edible food wastage amounts to 1.3 billion tons per year. Corinna has experienced that leftover food is usually offered to the employees of the event host. However, throwing away leftover food happens regularly because not all of it was eaten either before the next event that required storage space in the fridges, or before the weekend.

While technological innovation has significantly improved our way of battling certain societal problems, it has not been as effectively used to foster communication and cooperation regarding food waste within urban environments. The lack of an efficient system for connecting food

donors and charities exacerbates the issue of food waste, leading to a significant amount of surplus food being wasted. Our project emphasizes the urgent need for a solution that optimizes the redistribution of surplus food, ensuring it reaches those in need.

1.1 The Divide: Surplus Food vs. Food Insecurity

Surplus food generated at lobbying events and other sources (catering, weddings etc) represents a considerable quantity of wasted resources. This surplus food can range from meals, beverages, and other edible items that have not been consumed during these events and which have a short life span. The scale of the surplus food problem in Brussels is visibly significant and presents an opportunity to address the pressing issue of food insecurity.

Despite the city's prominence, many individuals and families in Brussels experience high levels of poverty, homelessness, and food insecurity. The irony lies in the stark contrast between the abundance of wasted surplus food – payed by tax payers' money in case of representations being the event hosts – and the dire nutritional needs of those who struggle to access sufficient food resources.

1.2 The Challenge: Lack of an Efficient Redistribution System

The current system for redistributing surplus food faces logistical challenges, including transportation, storage, and distribution, which our app and volunteering network as well as communication features, presented in this report tackle. These difficulties often result in delays and prevent the left-over food from reaching those in need in a timely manner. Additionally, there is a lack of coordination and awareness among food donors, charities. Most of the time it is easier to discard the food, than to find a sustainable, helpful and fast alternative solution. This leads to a fragmented network and prevents the efficient matching of surplus food with organizations capable of redistributing it to individuals facing food insecurity.

The challenge of surplus food wastage in Brussels presents a significant societal issue, particularly in the face of widespread poverty, homelessness, and food insecurity that has been mentioned. By developing an efficient redistribution system through a centralized platform, we can bridge the divide between surplus food and those in need. Such a solution will not only address the immediate problem of food waste but also contribute to sustainable practices and a more equitable society. It is imperative that we act upon such a challenge promptly and collaboratively to ensure a better future for Brussels, where no one goes hungry while surplus food goes to waste.

References

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- Statbel 2023b: Statbel: Risk of poverty or social exclusion. 16 February 2023. <u>https://statbel.fgov.be/en/themes/households/poverty-and-living-conditions/risk-poverty-or-social-exclusion</u>

2. Mission

We have been working on a volunteer concept and a mobile application that connects donating institutions, charities, and volunteers in an efficient and user-friendly way. The platform should provide real-time information on available food donations, facilitate communication between all parties involved, and allow for quick organization and transport of the donations. We help to connect food donors, charities and volunteers for the transportation of donated food so that surplus food is not wasted but is distributed to people in need. This way we reduce food waste and support charities in their important community service in Brussels. After successful implementation in Brussels, it can be rolled out in any metropolitan EU city where events take place and charities operate with food distribution.

3. Methodology: Design Thinking

For developing our solution, we used a design thinking approach. It helped us to structure our thoughts and come up with an innovative solution shown in the first prototype of the app.

Design thinking is a problem-solving approach that focuses on understanding users' needs and creating innovative solutions. While there are different variations of the design thinking process, it typically consists of five main steps:

3.1 Empathize

This initial step involves gaining a deep understanding of the users and their needs. It involves conducting research, interviews, observations, and other methods to empathize with the users' perspectives. The goal is to develop a sense of empathy and uncover insights into the challenges they face.

In this step we divided the tasks between all team members and recorded everything in the documentation tool "notion". For instance, Corinna and Simoni were responsible for recruiting the interview partners and conducting them. Sudip and Sajil took on the research tasks on the topic of food waste and food donation, policies and legal requirements. Ehab was working on the prototype and Rhaksmey prepared the structure of the pitch presentation.

3.2 Define

In this step, the information gathered during the empathy phase is analyzed to define the core problem or challenge that needs to be addressed. It involves synthesizing the data and identifying the key pain points and opportunities for improvement. The problem statement is framed to provide a clear focus for the design process.

As our weekly meeting progressed, we were able to define specific pain points that we want to tackle. With the gathered research on statistics of food waste and rising poverty in Brussels and the results from the qualitative expert interviews, we were able to state our problem definition, vision and mission.

3.2 Ideate

Once the problem is defined, the ideation phase begins. This step encourages brainstorming and generating a wide range of creative ideas. Quantity and diversity of ideas are encouraged, without judgment or evaluation at this stage. Various ideation techniques such as brainstorming, mind mapping, or sketching are used to generate innovative solutions.

This step mainly took place during the working weekend at Burg Schwaneck as we were able to have intense working sessions as a team and in person. We used a whiteboard, post-its, pens and stickers to vote for or express our ideas. The ideation phase was very vivid and exciting working together and being creative. We made use of mind maps and brainstorming techniques for the pitch presentation as well as sketching our prototype.

3.3 Prototype

The prototype phase involves transforming the selected ideas from the ideation phase into tangible representations. These can be low-fidelity or high-fidelity prototypes, depending on the complexity of the solution. Prototypes can be in the form of physical objects, sketches, wireframes, or even interactive digital models. The goal is to create something that can be tested and evaluated.

The prototyping attempts from the working weekend were continued afterwards. We finally agreed on using the tool Figma. Ehab taught himself how to prototype through various online sources. He always updated us on the status, so we could give feedback and iterate.

3.4 Test

In the final step, the prototypes are tested and evaluated with the target users. This involves gathering feedback and insights to assess the effectiveness of the solutions. Testing helps in refining and iterating on the design, based on user feedback and real-world observations. This step often involves multiple iterations and refinements until a satisfactory solution is achieved.

We had the chance to show our first prototypes to two interview partners – to one potential food donor and to one potential food receiving organization - and get their opinions. We did not reach a phase that allowed us to put the app and the volunteers concept to a practical test. Our idea is to test the prototype in two ways. First, we could continue to present the revised prototype to potential food donors and receiving organizations and ask for their feedback. Second, we could create a quantitative survey with screenshots of our solution to ask for feedback from one of our target groups – the students. After collecting and analyzing the feedback, we would have the next iteration.

It's important to note that design thinking is an iterative process, and the steps may not always follow a linear order. We often went back and forth between the steps as they learn more and gain new insights throughout the process. The focus is on collaboration, creativity, and user-centricity to develop innovative and effective solutions.

4. Statistics and Policies

In 2020, every EU citizen generated 12 kg of food waste by going to restaurants or using other food services (Eurostat Food Waste and Food Waste Prevention - Estimates). Similarly, the food

waste in Belgium was 8 kg per capita for restaurants and food services. (Eurostat Data Browser). In total, that made 88 333 tons of food waste in Belgium in the year 2020 (Eurostat Data Browser 2023) including both edible and inedible food (Eurostat Metadata, section 3.3).

"Redistribution of surplus food for human consumption, in particular through food donation, where safe to do so, ensures the highest value use of edible food resources while preventing food waste, and also has an important social dimension." (European Commission European Commission 2023)

References:

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4.2 Population in Need

17.5 % of the population in the Brussels capital region were categorized as materially and socially deprived in 2022 according to the Belgian Statistical office (Statbel 2023a). Further, nearly 39 % of the population are at risk of poverty or social exclusion. 30 % "live in a household with a total disposable income lower than the poverty line" (StatBel 2023b).

References:

- Statbel 2023a: Statbel: Material and social deprivation. 2 February 2023. https://statbel.fgov.be/en/themes/households/poverty-and-living-conditions/material-and-social-deprivation#news; 22 April 2023.
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4.3 Homelessness and Inadequate Housing

According to a report of the statistical institute of the Brussels capital region (ibsa 2022), 48 000 residents of the Brussels capital region received income for social integration or social financial assistance, basically welfare, from the Public Centers for Social Action (CPAS) in 2021 (p. 44). While the total population of the capital region makes up for 10 % of Belgium, the number of welfare recipients makes up for 29 % of the country's number of recipients. 6 % of the Brussels population of age 18 to 64 receives the aid (p. 44). In 2021, a quarter of the population in Brussels depended on an income below the risk-of-poverty threshold (p. 67). As of January 1, 2022, nearly 50 000 households were on a waiting list for public housing (p. 52).

Bruss'Help, a center for the support and coordination of the sector helping the homeless in the Brussels capital region conducts the collection of precarious housing including homelessness every year. In their report on 2020 data, Bruss'help (2021) found more than 5000 persons being either homeless (50 %) or unadequately housed (50 %). The good news is that a database lists 280 organizations that help homeless people and provide social food services in the Brussels capital region (Bruxelles Social 2023).

References:

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- Bruxelles Social 2023: Aide aux sans-abri and Aide alimentaire. https://social.brussels/; 22 April 2023.

The EU Platform on Food Losses and Food Waste (2019, pp. 18-19) mentioned that heterogeneity, fragmentation and prevalence of small and medium enterprises in the sector of hospitality and food services create challenges for actions against food waste. Among the recommendations were also made on food donation (pp. 22-23). The main points were:

1)   Promote the uptake of the EU guidelines on food donation and, where needed, adopt national guidelines and/or legislation to further facilitate food donation

2)   Promote the use of surplus food for food donation both in quantity and quality

3)   Innovate and modernise food donation including the facilitation of stable partnerships between different actors participating in food donation.

References:
- EU Platform on Food Losses and Food Waste: Recommendations for Action in Food Waste Prevention. 12 December 2019. https://food.ec.europa.eu/system/files/2021-05/fs_eu-actions_action_platform_key-rcmnd_en.pdf; accessed on 22 April 2023.

5. Legal requirements faced with food donation in Brussels

Belgium does not have a national waste prevention program. Instead, there are separate programs for each of the country's regions: Brussels, Flanders, and Wallonia. 'The Belgian Law of 21 December 2013 on the reduction of food waste' aims to prevent and reduce food waste by promoting sustainable management of food resources and encouraging the donation of surplus food to food banks and charities. It requires food businesses to take measures to prevent food waste at every stage of the food chain, including production, processing, distribution, and consumption. Food businesses are required to keep records of their food waste and report it annually to the authorities. They are also required to ensure the safety and quality of food intended for human consumption, including food that is redistributed or recovered.

6.1 Donation and Redistribution of food

Operators in the food chain may only source from other operators known to the FASFC (Federal Agency for the Safety of the Food Chain). This means that only foodstuffs from operators registered, authorized, or approved by the FASFC may be collected and distributed. Foodstuffs that are still fit for human consumption may be redistributed or donated. As soon as foodstuffs are considered harmful, they are no longer suitable for donation. Prepackaged foodstuffs with an expiration date (DDM or DLC) can be donated. The Use By Date (DLC) and the Minimum Durability Date (DDM) are intended to inform the consumer of the time until which foodstuffs retain their microbiological, physical, nutritious quality, etc.

Also, Dishes and prepared products from the hotel and catering sector or community kitchens can be donated. The prepared dishes and products can be donated by the catering sector or community kitchens to frontline or support organizations (beneficiaries) who will offer them quickly (possibly after reheating) for consumption on the spot (e.g. social restaurant, winter reception center, or night shelter for the homeless)

Every consumer has the right to receive correct information about the food they eat. The absence of certain indications in the labeling, such as information on allergens, can constitute a real danger for sensitive persons. For prepackaged foodstuffs which require labeling, The legislation prescribes that pre-packaged foodstuffs intended for the consumer in the state in which they are sold must be provided with certain compulsory information. These indications may appear on the package or on a label affixed to it and must be clearly visible and The mandatory information must be at least in the languages of the language region, where the product is redistributed to the consumer. It is also possible that pre-packaged foodstuffs are given to supporting organizations without the required labeling. In this case, the operator responsible for providing the information on the food (e.g. the producer or importer) will have to transmit all the necessary information to the supporting organization.

Food traceability is the ability to follow the movement of a food product and its ingredients through all steps in the supply chain, both backward and forward. Traceability involves documenting and linking the production, processing, and distribution chain of food products and ingredients. It is essential to be able to take rapid and effective action in the event of a food safety risk. In order to encourage donations, the legislation provides for a more flexible form of traceability to be applied in the case of donations without derogating from food safety requirements. In the case of deliveries to front-line and support organizations, the list of the establishment units of the front-line and support organizations to which deliveries are made is

sufficient to record the outgoing products. In the case of frontline and support organizations, the list of establishment units from which the products originate is sufficient as a record of incoming products. In the event of a product withdrawal or recall, donors must also inform all frontline and support organizations on their list. The frontline and supporting organizations will in turn be required to notify the provided frontline organizations and consumers in the event of a recall.

6. Qualitative Interviews

Several qualitative interviews were conducted to empathize with the most relevant actors in a food donation system. Interview partners worked for:

- Bavarian Representation with the European Union (based in Brussels, hosts several hundred catered events per year, potential food donor)
- Boroume (Greek food donation organization, volunteer based, collecting surplus food for example from events and markets)
- Foodcaring (volunteer based organization in Munich, collects surplus food from supermarkets selling organic food, cooperate with charities and operate distribution stations, about 170 volunteers)
- Red Cross Belgium (charity with location in Brussels, take care of homeless and operate food aid services)
- Sant' Egidio Brussels (volunteer based organization, offered services include a social restaurant in Brussels that serves between 120 and 160 persons per week; and a group of young people visits homeless persons out in the streets regularly and brings them food at their own costs)

The interviews offered valuable insights and important information. Major takeaways were:

- We need to pay much attention to legal requirements particularly with regards to hygiene and labeling of allergens and ingredients.
- Organizations do not want or do not have the capacity to drive around surplus food.
- Some charities need to plan the required food and are not happy being called by organizations which want to get rid of left over food. Other charities could make use of spontaneous food donations but need to be connected with donors.

- Brussels is an app-affectionate city. An app would be perfect to connect donors and charities.

- Food is a way to bring people together and friendship is the best source to help people.

- Personal contact is the basis for a well-working organization and network.

- Prepared food is very attractive for sharing and donation.

The interview partners provided us with more contacts and recommendations. Two interviews were taking place when the prototype was already created. Their impression was positive.

7. Stakeholder Analysis

In order to understand the interest, influence, and importance of various stakeholders we did a stakeholder analysis. From expert interviews and brainstorming, we listed different stakeholders and categorized them according to their importance. The stakeholders were categorized in four groups: Key Players, Supporters, Neutral Parties, and Opponents

High Influence High Interest: Welfare Organisation Donor Organisation Students Media	High Influence, low Interest: Government Food Transport Companies Investors
Low influence, High Interest Environmentalist	Low influence, Low interest Local communities

High Influence High Interest (Key Players): Since our project is a donation based project. Welfare organizations and donor organizations play the main role. We are planning to use students to transport food, so students play a crucial role in our project.

High Influence, low Interest: Food based projects should be able to handle different legal issues. Government and law may create different issues regarding the project. Our project is a donation based project so it will be difficult to get investors.

Low influence, High Interest: Environmentalists, who are more interested in our project, have low influence.

Low influence, Low interest: Local Communities expressed limited interest in the project.

8. Financing

Our project is donation-based. Financing donation-based projects are challenging as they rely on the generosity of individuals and organizations. Here are some of the methods we used for financing our project.

- Crowdfunding: Food Link not only helps to reduce food waste but also helps to decrease environmental problems. Local people know the importance of FoodLink, so crowdfunding will be effective for our project. Creating a crowdfunding campaign on platforms like Kickstarter or GoFundMe will help us to raise funds for our app.
- Government Funding: Various government funds and programs are applicable for projects focused on managing food waste. Some are European Union (EU) Funding, National grants and programs, Circular Economy and Sustainability Funds, etc.
- In-app Advertising: Earning money from advertising in an app can be a viable monetization strategy. Also, we can earn money from advertising in our backpacks and dress of volunteers.

9. Volunteer concept: Volunteers as the mobile link between donors and charities

In interviews, experts both from charities and donors put forward that they do not have the capacity to realize the transportation of food donations. Therefore, we added volunteers to our food donation system. We developed a concept with volunteers as key actors to make the system work. Another revelation from our interviews made us aware that boxes used for packing the food have to be cleaned, collected and distributed to event hosts. Therefore, foodlink not only needs volunteers who transport food from donors to receivers but also volunteers who do the return trips for boxes and delivery backpacks.

The only requirement that a volunteer needs is the ability to transport the food or only the transportation equipment (boxes and backpacks) from the donors to the charities via public transportation or bicycles.

The question is how to attract and motivate people in Brussels to volunteer. It is the path to specific target groups. In our view, a target group is an accessible group of individuals that share similar characteristics that fit our requirements and are likely to have an interest in participation. Accessibility of target groups and recruitment of volunteers can be realized through central contact persons who inform the target group about the foodlink donation system and motivate them to participate.

We chose young people as the main target group because the greatest part of this group usually is not yet entangled in responsibilities like having a full-time job and managing a household with children. Those responsibilities leave little or no time for voluntary work. Another advantage is that students aged up to 24 only pay 12 € per year for public transportation in Brussels (STIB-MIVB Student Fares).

9.1 Higher education

Students, particularly **international students,** make a unique source for voluntary work. Nine universities and several other schools of higher education are located in Brussels and educate about 122 000 students (Institut bruxellois de statistique et d'analyse). Students in general represent a free resource that will always be renewed. When students start a study program, it often means a completely new life with a new city, new friends, and some will also want to try new spare time activities for example voluntary work. Motives for voluntary work include for example joy in helping, curiosity, learning something new, and proving social engagement in their CV. Students who stay in Brussels after their studies might continue their voluntary work. International students are completely new to the city by definition so that they do not come with set spare time activities and are even more interested in exploring their new environment and making friends. However, this type of student is more likely to leave the city after a few months.

The target group can be accessed through their educational environment. Student organizations are a good contact point for advertising the project among all students. International students in particular can be informed about the voluntary work through the international student office of each university (International Student Offices Examples).

The transportation equipment such as vests and backpacks require a central storage place where students have access to pick up the equipment at the day of their shift and bring it back the next day. Winning a university, school, or student organization for cooperation with foodlink can provide the perfect central storage location for the transportation equipment.

9.2 Internships

Another resource can come from the **interns of the donors**. Internships in Brussels, particularly with representations and associations, are very attractive for students of social sciences such as political science because policy making on EU level takes place in Brussels primarily. The interns go to events, particularly if the event is held by their internship host. These interns have a time advantage as they are already at the pickup location. If donors and their interns can be motivated to engage in the transportation of the left over food, transportation equipment can be stored at their place.

Their interest in participation is similar to students. Most interns are doing the internship as a part of their study program. They start a new adventure in Brussels. They want to explore the city and make friends. Timewise, they do spend the whole day at their internship host so that they are less flexible. In contrast to students, they experience by themselves how much food is provided for free (from tax payers' pockets) and how much is left over after an event. Their personal experience can make a strong trigger for a desire to participate in food donation. They are already at the source of potential food donation. Event hosts who would like to donate food can profit from encouraging their interns to participate in foodlink: Interns can reduce their employees' extra effort in food donation. Interns can take the task of event registration in the app, announcement of left over food, organization of the food packing, and functioning as the contact person. These arguments can also be used by interns to convince their internship host to donate food from events. Interns who participate in the transportation of surplus food, can start from the donor right away. Optimally, the event host provides storage space for the transportation equipment.

9.3 Religious communities

Churches and other places of worship often engage in charity and can be expected to support a food donation system like foodlink by advertising in their community. An interesting example is one our our interview partners, Sant' Egidio, which is an organization that runs a Christian parish, is volunteer-based and operates the social restaurant "Kamiano" which primarily offers food and other help to people in need. Cooperation with such existing organizations can provide foodlink with storage space for the delivery backpacks.

9.4 Incentives:

Volunteers may not expect to receive something in return for their voluntary work. However, pointing out the rewards for their commitment can make a difference when potential volunteers decide about their spare time activities. Non-material rewards from the voluntary work are:

- get to know influential organizations in the field of policy making,
- get to know diverse and inspiring charity organizations,
- make new friends and contacts,
- get to know the city, improve orientation,
- good physical exercise in the case of cycling
- improvement of CV in the field of social engagement

Additionally, we would like to offer every volunteer the opportunity to keep up to three plates from the surplus food. This offer is particularly interesting for students and interns who usually are short on financial resources while food prices in Brussels are high and the food offered at events usually is good.

9.5 How volunteers help with the foodlink donation system:

First of all, volunteers need to download the app foodlink and sign in, register their availability and make binding commitments to specific orders. They get equipped with isolated backpacks like the ones food delivery services use (see picture). They need to show up within a specific time slot at the event location, put the food into the backpacks and transport the food to the charity that has registered for the leftovers of one specific event. The transportation will be done by at least two volunteers. This offers several advantages: First of all, safety is improved for pick-up tasks in the late evenings. Secondly, one backpack will usually not be enough for transportation of leftover food. Thirdly, the voluntary work becomes a social activity.
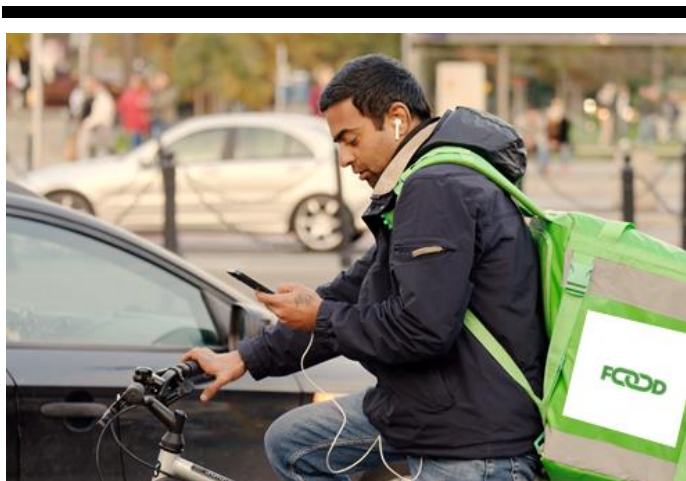

Figure from pixabay.com and edited by Corinna Doll.

In addition to pre-arranged schedules of shifts, volunteers find a list of announced potential shifts in the app so that they can sign up for additional shifts.

By making volunteers register for specific time windows and single events, we make sure that volunteers are not bombarded with notifications which do not match their availabilities. At the same time, we build up as much plannability and binding confirmation as possible.

The same system will work well in cities with similar conditions (universities, catered events, charities, public transportation or cycling appropriate infrastructure).

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10.   App description

We wanted to create a platform which connects the donors and the charity organizations. That is where we came up with the idea of an app. an app is super user-friendly to use and easy to connect with the charities.

Foodlink gives you the opportunity to choose an option when we open the app which describes your role in the app. From here the user gets to a different screen/interface where they can fulfill their roles (screen 1).

On screen 2, the donor can register the event and add it to the calendar of the app. When the event is over as a next step the donor can add the details about the leftover food on screen 3 and send a notification regarding all this to the charities.

As you can see in screen 4, the charities receive a notification from the organization which allows them to see the quantity and the type of the leftover food from screen 3 and they can sign up for it. On screen 5, the volunteers can either login or can register for themselves and based on their availability they can register for a particular task as you can see in screen 6.
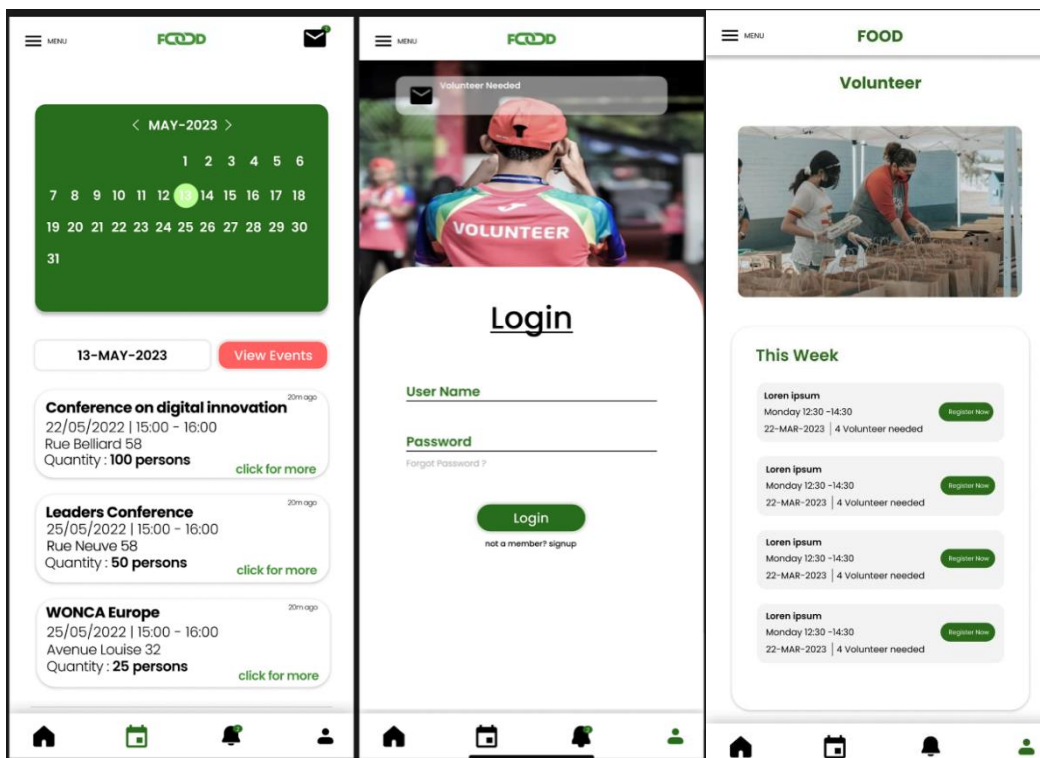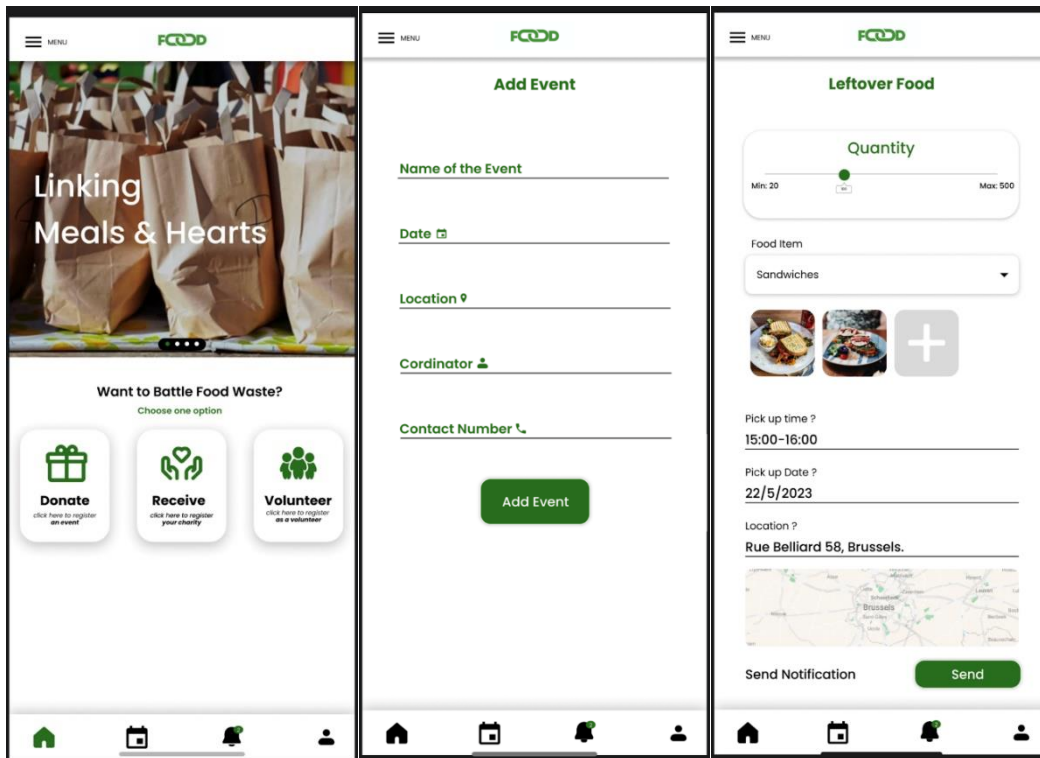
11.   An outlook (vision) for the future

In the 2nd quarter of 2023, extensive market analysis and research was conducted by Sajil to gain valuable insights into the target market and its needs. Corinna and Simoni also conducted

user interviews to gather qualitative feedback and better understanding of user preferences. Prototyping was done by Ehab to visualize the concept and to see its feasibility. Finally, a product pitch was created by Rhaksmey to present the proposed solution.

The 3rd quarter of 2023 will mark the beginning of the product development phase. At the same time, a volunteer network will be created, which creates a community that connects people who are ready to volunteer with relevant opportunities. In addition, efforts will be made to establish cooperation and partnerships with institutions or companies that fit the purpose of the project. We implemented an aggressive marketing strategy to increase awareness and attract potential users and partners.

In the 4th quarter of 2023, a mobile application will be launched that serves as the main platform for users to connect and link the leftover food. Feedback from key users will be actively collected and analyzed to provide valuable information for further improvements. We will perform product adaptation and maintenance to improve user experience and resolve identified issues. We will also expand our partnership and volunteer network to develop cooperation and increase the opportunity for volunteering.

The first quarter of 2024 will be dominated by the concept of developing the app for a wide roll-out in Europe. Based on the successes and lessons learned from the early stages & and key user feedback, a strategy will be developed to take the product to the wider market. New features will be developed and existing features can be modified based on user feedback and changing requirements.

The 1st quarter of 2024 extends the project to other European cities, expanding its reach and impact. Using the lessons learned from the previous steps, the project aimed to replicate the success in the new location and foster a culture of volunteerism and community involvement on a wider scale.

The project involves student volunteers working on an app that supports the creation of a donation network. It takes a programming team to create the app and introduce it to the app and play stores. A student with a business background can also manage marketing, partner recruitment, and volunteer network setup. The objective is to develop a business model that can be used in other EU cities with public transportation or cycling infrastructure.

Declaration of Authorship

We hereby declare that the report submitted is our own unaided work. All direct or indirect

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