



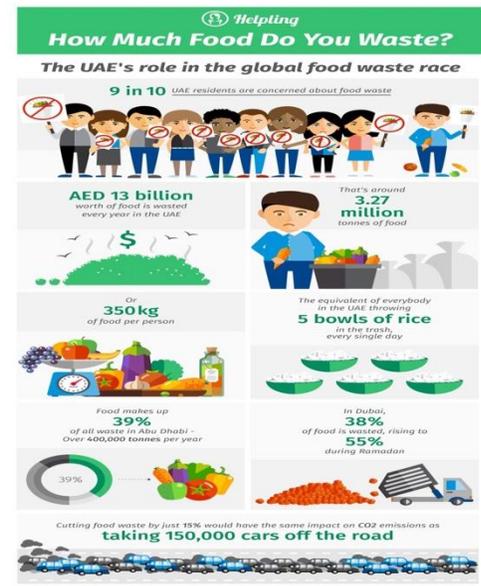
Swiss-Middle East Circular Economy for Youth Initiative

SMECEYI

Swiss Pavilion Expo 2020 Dubai

1. What is the purpose of your project?

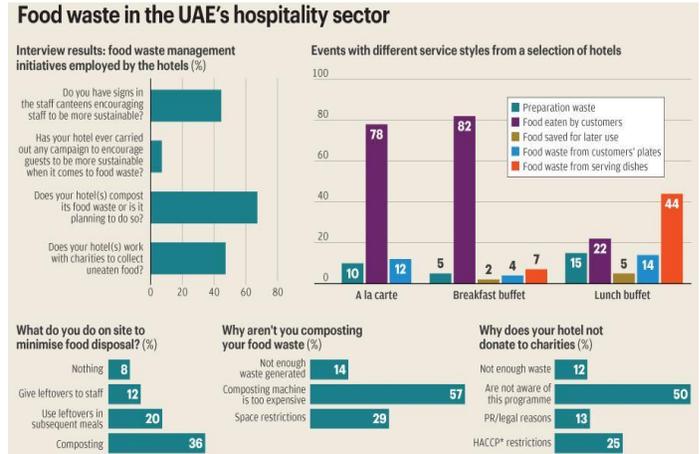
Food waste is on the rise with many throwing out food, even if it is not expired. It unfortunately starts to form heaps of waste that does nothing but harm the environment and in turn society. Therefore, the purpose of our project is to tackle the problem of food waste; specifically in hospitality sectors and domestic households, since it is one of the most effective ways to reduce costs and carbon emissions, and keep global warming in check. Food waste has been an ongoing issue here in the United Arab Emirates (UAE). In the UAE alone, the Ministry of Climate Change and Energy previously said food waste costs the country Dh13 billion annually. The global ambition to halve food waste by 2030 is a one of the key priorities of the UAE. The image on the left further shows the statistics of food waste in the UAE as compared to the world. According to Dubai Carbon, the UAE ranks among the top nations for per capita waste generation in the world. Around, 38% of the food made in the UAE is wasted where the waste generation per capita is around 2.7kg per day, more than double of that in Europe.



Other than that the project aims to solve two main problems which are: Environmental problems arising from food waste materials such as methane and other powerful greenhouse gases and reduction of food loss and waste for greater food security. The project also aims to implement innovative techniques to efficiently manage the growing problem of food waste. As well as providing for the underprivileged who will not have to suffer from hunger any longer.

2. Why have you chosen this goal?

This project was chosen because food waste is scene to be the highest among hospitality sectors and households. The hospitality sector is credited with over 32 percent of all food waste. This is followed closely by excess food cooked for celebrations, which accounts for 30%. The highest amount of food waste can be seen in restaurants, cafes and households. This is further explored in the image on the left. This was proven by the statistics which show why it is at such a large percentage.

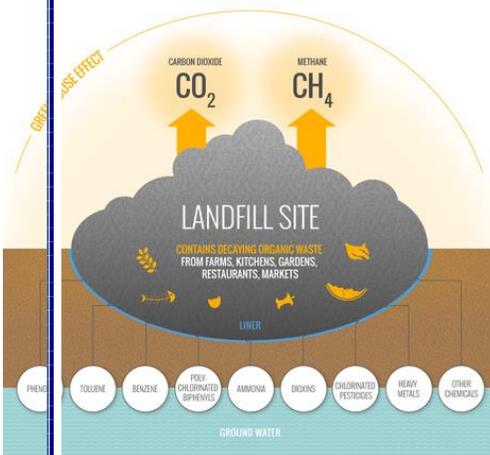


As a team, this goal was chosen because of several reasons. One of which is the strong need to prevent environmental harm as much as possible. This would be done by keeping food out of landfills and minimizing greenhouse gas emissions associated with waste collection, transportation and treatment. In addition, there are social benefits that arise from this goal which are helping to eliminate hunger in our communities and encouraging social inclusion by improving access to reduced price goods for lower income families. Additional social benefits include scalability, flexibility, and potential for high-speed exchange to make our digital sharing platform (application) well-suited for the exchange of perishable food items. Given that both surplus and unmet demand for edible food at the household level coexist in the same geographies, sharing platforms could help match unwanted food with secondary customers. Lastly,

we believe our project will have economic benefits such as lowering household food bills, reducing disposal costs for restaurants, processors and farmers, encouraging economic development through creating jobs, volunteer schemes and training opportunities, freeing up consumers' financial resources for potentially more economically productive endeavors and developing a sharing economy, implemented via our mobile app.

3. How is your project aligned with the circular economy and sustainability?

This project helps to build a circular economy model for sustainability, Because the circular economy focuses on improving resource efficiency and reducing or disposing of waste to the maximum extent, by relying on reuse, sharing, repair, regeneration, re-manufacturing and recycling, and our project depends on this basis. Also, our project, which is an application that helps reduce food waste, will have several sources, and will participate with several companies that help reduce food waste in terms of managing food production that exceeds demand. This



will be done by recycling food waste, and properly packaging food that helps in sustainability such as restaurants where excess food will be recycled back and given back to other people to be consumed and to not be thrown away so that will create a circular economy. One other thing is that in regard to domestic food waste, that too will be reduced as food will be collected for redistribution among the underprivileged such as workers, labourers, orphanages, old age homes, social welfare centres and shelters, poor or people in need, so that the food can still be consumed instead of leaving it to get spoiled and then throwing it away

4. How is it designed to empower youth?

An important aspect of creating a sustainable world is empowering the youth to take initiative and face challenges. Through our application we aim to achieve that by creating a space where young adults can be involved in the process of building a sustainable food industry. Young people with certain qualifications will partake in the development of the app as well as some aspects of managing the underlying technology. With the rise of technology, the demand for digitally skilled employees is increasing, therefore it is vital that adolescents gain knowledge of this dominating field. Several job positions and internships will be filled by young adults where they will play a crucial part in the decision-making process as well as implementing additional strategies and ideas. Positions like digital designers, software engineers, AI majors and more will open doors for the talented unemployed youth where they will get the opportunity to be part of the change. The project will also need a marketing, logistics and photography team to ensure a successful launch. Not only is youth involvement going to be directly through employment but also through a feature on the app called 'The Innovation Corner'. In this section anyone can place suggestions or ideas that will help improve the functionality of the application and the project as a whole. They can also post their own solutions for food waste that can help society. One other way the project will empower youth is through hosting webinars or workshops with the hope of raising awareness of food security issue among youths to create positive social impact both locally and internationally, and gear towards a sustainable community with the notion "Changing our behavior and habits can help reduce food loss and waste". In a long-term perspective, the project will invest in the solutions that are deemed as realistic and applicable and more advancements would be given such as training courses for stimulating youth entrepreneurship in order to solve unemployment.

5. How do you intend to implement it, what is needed? (next steps, time frame, resources)?

Implementation

Our application has some special features which includes maps of the cities in UAE, coupons, a food blog and need access for camera to figure out the quality of food or expire date with the desire to fulfil the customer needs and reduce food waste. And we also use eco-friendly packaging which helps us for marketing and sponsoring purposes.

Implementing our application requires some critical and regular steps in any business startup. Commencing by providing some defined measurable outcomes like number of active users, food waste avoided, hours saved, contracts and feedbacks. Our project deliverables are divided and briefly organized on our given time frame till the start of project exhibitions on October 2021. We will use software development life cycle (SDLC) integrating with agile methodology to build our application on the given times set with six different and chained stages.

Time Frame

Stage one: Project Brief and Project Summit (6th and 8th April, 2021)

In this stage we will come up with our ideas and project brief, which later proceeds by meeting with the organizers and public to present our ideas and come with innovative and edge cutting application which assesses valuable solutions to food waste.

Stage two: Researching and Business Analysis with the developers (10th May, 2021)

This stage consists of 4-5 weeks of profound and vigorous planning, researching, contracting with the right special developers to be part of the change for future generations. We will provide Project metrics and KPIs, request for proposal (RFP), contract agreement, budget range, and approximate delivery of the application with our candidate developers. And doing researches on the market, to create common understanding with our developers and our users.

Stage Three: Design sprints (9th July, 2021)

This stage is an agile type of development where we came up with designs weekly (sprint) with our developers and end users. Different features and designs will be created in this stage progression. It will include 8-10 weeks of time which shows us that design phase has huge impact on our success and user pull.

Stage Four: Development and prototype stage (10th September, 2021)

Prototyping is our key in the development stage with integration of end users to lower changes and bugs in the final build. This development stage consists of 8-10 weeks of programming and creating the application with hybrid type to let users have both online and offline access and notifications.

Stage Five: Deployment and Testing (1st October, 2021)

In this stage we have two phases where testing will be done for the 1st week and deployment of the app to the public in the last two weeks of the time frame. We will follow the guidelines and timing in App store and Google play store to ensure everyone can have access of the application.

Stage Six: Post Implementation improvements and testing (Continuous)

We will be in usual contact with our developers and end users for improvements, ideas and feedbacks. We will also provide monthly update and testing with our running cost.

Budget and Resources

Creating an application is complex process and contains multi features, the startup cost will start from \$50,000- up to \$100,000 approximately depending on our developers either they are individuals or some agencies. The process of application development timeline likewise diverges and required almost 4 to 6 months to convert into operating form but due to the nature of complexity, it can also take more than 8 months and it is considered as a continuous process so it needs huge finance. There is a thumb rule that the 20% of initial cost must be reserved and considered as the running cost to maintain the software. As our initial cost is \$50,000-\$100,000 so \$10,000-\$20,000 can be spending as running cost, or additional cost for any overlooked or unexpected expenses. Most of our budget expenses are in employee expenses, technological expenses, equipment and supplies, advertising and promotion, and research expenses.

Coming to funding its usually hard to find a sponsor for startups, however our project is developing under the umbrella and guidance of the Swiss-Middle East Circular Economy for Youth Initiative (SMECEYI) program along with other strategic partners for creating different sources of financing. And at last it is our solemnly aim to tackle food waste from big markets using youth and technology. We have future plans to eradicate food waste on the other two sides of the supply chain with producers and consumers.