TeamWork GreenThumbs

What problem are you trying to solve?

Most Swedish households have access to some sort of recycling program. Practices and community norms around recycling, however, vary considerably from place to place. This contributes to dramatically different local recycling levels, variation of carbon footprints between neighbourhoods, and reduced sustainability for cities.

How do you plan to solve the problem?

An app platform to encourage sorting of trash for recycling by community challenges, milestones, and other feedback such as rewards sponsored by private companies. Active engagement with the app will increase participation in local recycling of household trash, thus moving toward Sustainable Development Goals #11, #12, and #14.

How do you plan to make this solution a reality?
Do you have an action plan?

The technology of making an app exists, so in order to make this solution a reality, this Hackathon group will have to recruit, hire, or somehow collaborate with app developers. The specifics of the games and competitions in the app are to be developed and can be inspired by existing gamifying. The design of the app will be easy and engaging for all ages. This multi-generational appeal will encourage family members within one household to discuss and actively participate in recycling, and it will provide a discussion topic for demographically differing neighbours. Games, learning games, social media rewards, and will be updated and changed regularly in order to maintain enthusiasm.

Trash-sorting facilities exist in many apartment buildings, and this is where we will first market the app because the physical infrastructure exists.

A measure of recycling activity must be determined. The app will enable users to record standard measures of recycled and non-recycled trash. The app will feature a milk carton button, for example, for each approximately 1L carton and cardboard discarded, a 500mL glass bottle, a metal can, and an icon representing 50g of newspaper. Where applicable, users can register 500g of food waste, and a bag representing 1L of other trash that can not be recycled. To ensure that users do not abuse the system, regular checks with trash stastistics from municipalities should be a part of maintining the app.

Why is your solution innovative?

During the course of this Hackathon, we have discovered a website from a company in Canada that sells recycling-encouraging services to governments and private waste management companies. These services include providing end-users with updated trash collection schedules and information about what trash to sort and where.

The Green Thumbs app will include similar educational features about what types of trash are sorted, plus provide end-users with information about sustainability. Our solution will create a neighborhood challenges and fun competitions that encourages individuals to recycle and to actively engage each other in using their existing trash-sorting facilities. We have noticed that most Swedish households have access to some sort of recycling program. However, practices and community norms around recycling vary considerably from place to place, contributing to dramatically different local recycling levels. Therefore, by adding a neighborhood competition, we will use the peer-pressure driven competitive nature of the Nordic people to allow end-users to motivate each other via social media rewards. Housing companies may be willing to reward their tenants for greater compliance with recycling protocols in ways that allow people to identify positively with the neighborhood where they live.

How scalable is your solution?

Team discussions during the Hackathon revealed that we have seen varying levels of compliance with recycling protocols in Nordic cities. In some places, the sorting facilities are limited only to one material such as cardboard. In other areas, no sorting facilities exist. Where sorting rooms do exist, some neighborhoods are diligent with sorting, while residents in other neighborhoods do not choose to use the existing trash-sorting bins. The Green Thumbs app can be purchased and used by all Nordic citizens. Where recycling opportunities increase for new residencies, the app will gain users.

How does your solution make an impact?

The Green Thumbs app will be sold to anyone who pays for the collection of sorted trash. For the context of this Hackathon, we focus the discussion primarily on apartment building owners or building owners with multiple tenants who use a common trash-sorting facility. We sell the app to the housing companies who pay for trash collection because their investment is most severely wasted when individual tenants do not choose to sort their trash. Instead of accepting trash collection as a flat fee, we want to increase the compliance of end-users and link a sustainability value to trash collection. Another way to monetize this solution is by encouraging people to download the app and this can be done in partnership with condominium (bostadsförening) and then creating an opportunity for companies to commercialize products and services that aims to reduce carbon footprint.

Companies who buy the app register a profile with the materials that can be sorted. They distribute the app to their tenants who create individual, end-user profiles. In neighborhoods where tenants are active and compliant with trash-sorting, the impact of the app for the housing company will be minimal. The company may choose to report recycling statistics on its website and in printed literature. The impact for the end-users, however, can still be great because end users can display their milestones on social media. This can create a positive sense of belonging to a local community, and perhaps friends who see these app milestones will want to engage in recycling and contribute to positive, sustainable development in their neighborhoods and cities.

In neighborhoods where tenants do not choose to use existing trash-sorting facilities, introducing active participation with the app will give the housing company a greater return on the investment of their trash collection. They can choose to share the statistics in their advertising and newsletters to current tenants. The positive benefits to the end-users will be the same as the recycling-compliant neighborhood. More people belonging to trash-sorting neighborhoods will create positive connections locally as well as to different regions of the city. People who lived in one area of the city will identify with residents of a different area as more people act collectively to create sustainability in their city.

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Tenants who do not want to use the app are offered an alternative from the housing company, perhaps paying a monthly fee. Tenants who use the app can compete in local challenges on a physical scoreboard in their home, view their recycling trends in the app, and display their progress on social media. The app will connect users to data and SDG statistics, showing the individual user how their consumption habits and recycling actions influence city and national sustainability ambitions.

Housing companies who purchase the app can receive a collective, monthly summary of the trash sorting that end-users recorded. The data will be given as a group summary for each sorted material. The trash-sorting of individual end-users will not be available. Knowing the group trends, the housing company can, if necessary, adjust the trash collection services. If people are more compliant and active in sorting their household trash, perhaps the size of the bins used for collecting non-recycled trash can be reduced. Being able to measure sustainability milestones provides apartment rental companies with a topic for websites, newsletters, and customer appreciation announcements.

Is your solution built on prototype or is it a conceptual solution?

Conceptual

Link to your pitch video (on Youtube, Google Drive or Vimeo)

https://drive.google.com/file/d/1cKuTbOWbStf6Vf_JqN4XzA6PokR7xwPk/view?usp=sharing