# 'Understanding the communities that use Karrot'

A few words about Karrot

Karrot is a cooperatively managed and designed digital infrastructure that aims at supporting communities and initiatives to organise their activities or some of their activities at least in collaborative and participatory ways.

To this day, it has been mostly used by initiatives related to foodsaving and sharing active in different places in Europe. Throughout the years Karrot has been alive, various contributors have been supporting the project and the community in different ways. Nowadays, there is a group of people who comprise the so-called 'Karrot-team' who dedicate time and effort to keep Karrot going and support the infrastructure's development in ways that can better serve the needs of the communities that use it.

(We are the ones writing this text)

Karrot can be thought of as a 'working site', an ever-evolving project where new ideas are constantly shared, new features are implemented, some existing ones are tinkered. Karrot is open-source of course. But open goes beyond lines of codes that can be copied and forked. Open applies to decision making, designing-together, but also to sharing emotions and dreams while in an impromptu 'therapy' session, loitering while on a video call, collaboratively managing any sort of financial resources that the project receives etc.
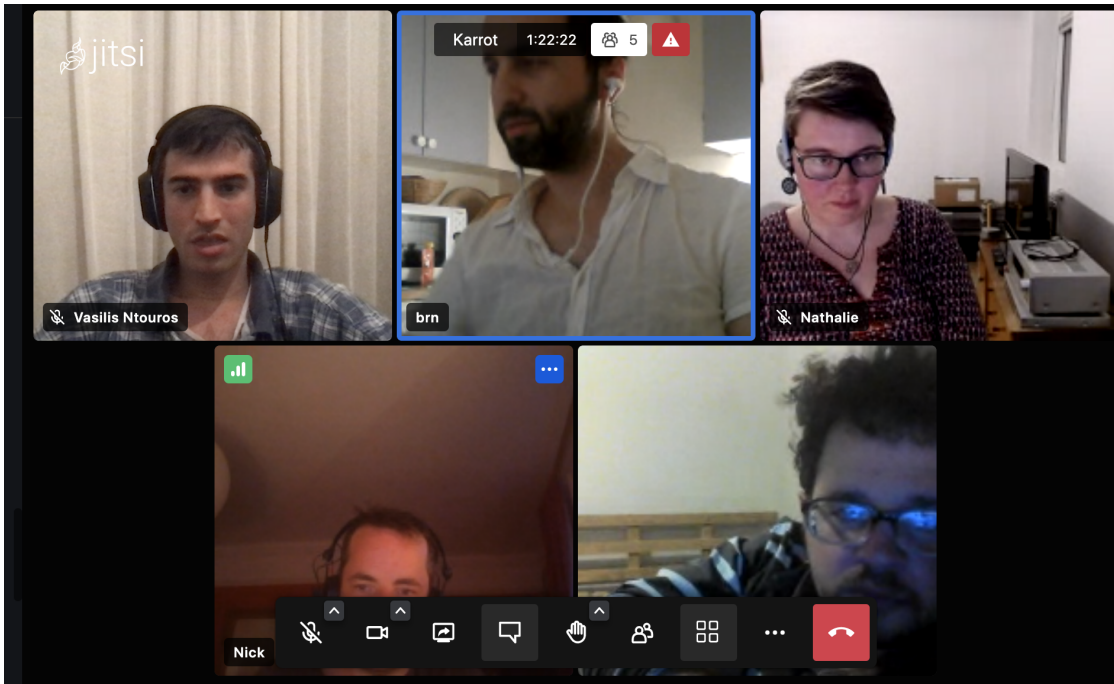
Nick, Nathalie, Vasilis, Dave, Bruno during the 'late night Tuesdays call': every Tuesday late afternoon we meet and usually sketch or make mockups for new features to come. Sometimes we just chill and end up contemplating about life while drinking beer.

nicksellen 🛡 Regular   12 Jan

Date: 2022-01-11 12:00 (UTC+1)
Facilitator: Nick
Participants: Nick, Bruno, Vasilis

1. Check in and Updates

- agree duration: 2h max / 1.5h pref
- checkin
- Add updates/celebrations here (if you have any)

2. Review last weeks Actions/Outcomes

- vasilis books a vacation (vasilis)
- thursday evening 20:30 central europe to do MoU co-working (all)

3. Discussion points

- nlnet MoU
  - final round to check our draft info
- karrot days
  - need to publish/promote/define this a bit more now!

Reviewing last week's actions. 'Vasilis books a vacation'. Vasils (me) expressed his (my) getting close to a burnout. Among the persons active in the 'Karrot-team' such occasions and feelings are equally important as Action/Outcomes like creating an issue on github, fixing a bug or applying for some funding
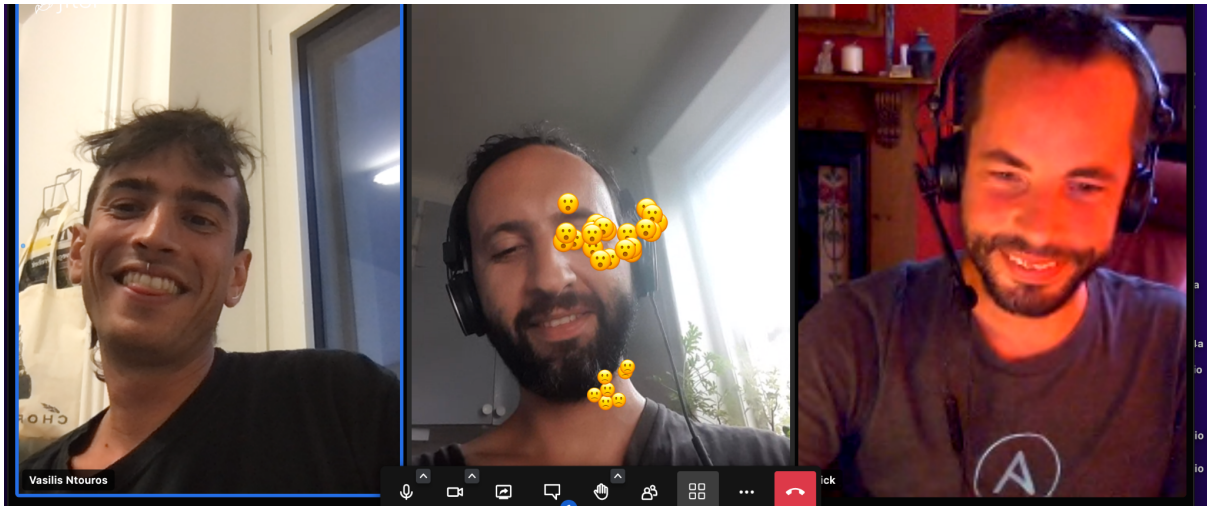
We recently got fascinated by the sound reactions on Jitsi which we have been using ever since. It would be nice if we could create our own library of sounds as well.
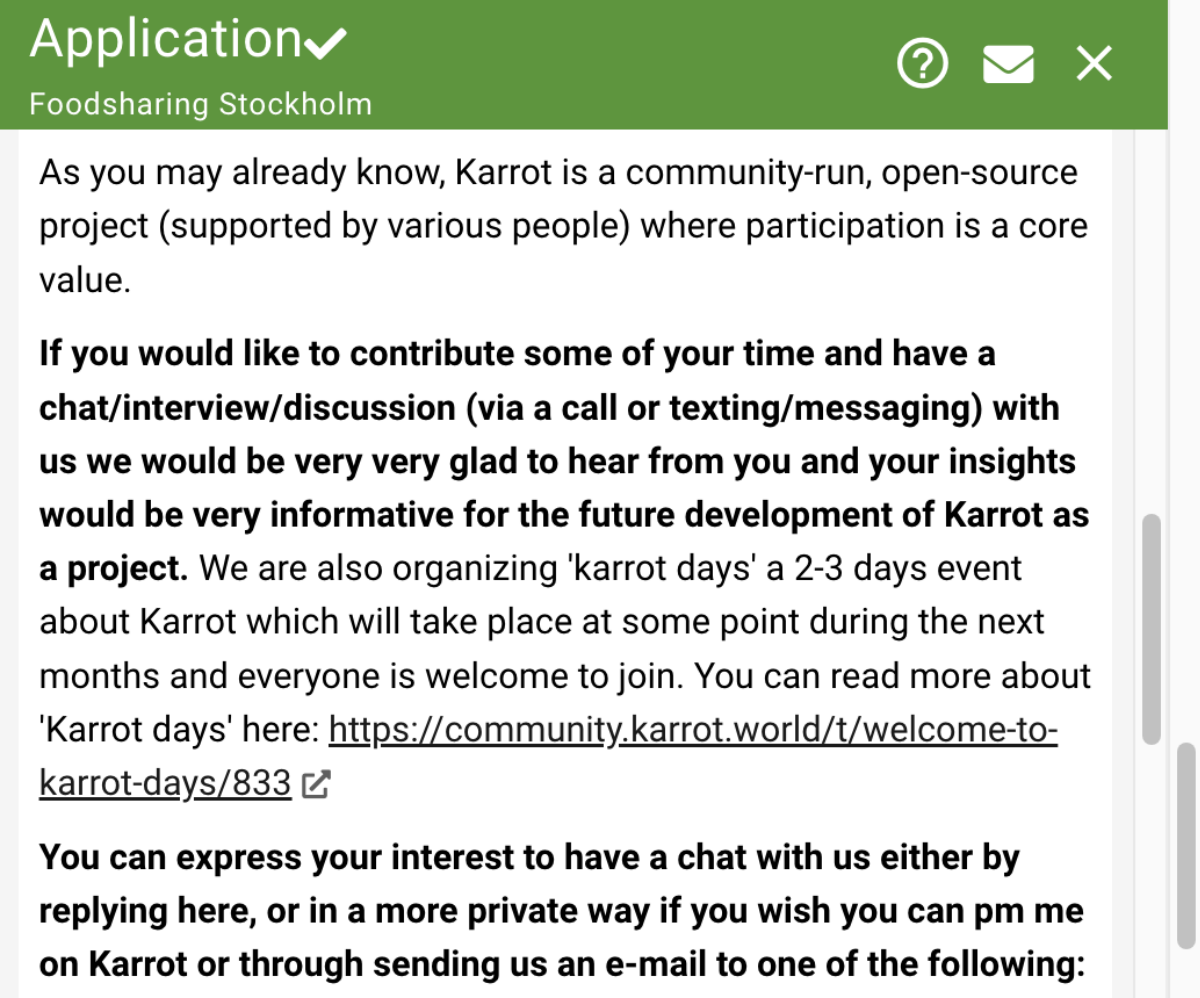
Introduction

Since September 2021 we, the so-called 'Karrot team' who have been working on this text, have been exploring ways to come closer to the iniatives that use Karrot. Our aim has been to build relationships with the *'experts from the ground'* while understanding the ecologies within which they are active. Since we have adopted a collaborative and participatory approach in managing and further developing Karrot it felt very natural and also 'urgent' to better connect with the people on the ground who have been using Karrot to support their daily activities, listen to their voices and learn from their experiences with the ultimate goal to foster 'designing with' rather than 'for' them.

In this process and as we acknowledge that Karrot is only one small piece of infrastructure (a small compartment of the broader socio-technical infrastructures that different groups use) our focus has been to get the bigger picture and get a more holistic understanding of the versatile ecologies within which groups live. Our aim has been to understand how communities use Karrot but also learn how they use other digital tools, what physical infrastructures they have access to, how they organise and take decisions, what their vision(s) have been, how they relate with other projects, initiatives, institutions etc.

In this document we present our *'findings'* and interpretations of. *'Findings'* derive from a series of engagements we had with various persons involved in different initiatives that use Karrot. During the last 7 months or so, we have been inviting people from groups to share with us their experiences and expertise, their histories, ideas, concerns etc. All active groups on Karrot have been invited to have a discussion with some of us. Since there was no direct way to approach the different

groups on Karrot we had to 'appropriate' the application process via which we shared our invitation that technically is visible to all members of a group.

A snippet of the invitation we shared with some groups (Foodsharing Stockholm in this case) by 'appropriating' the application process

For those discussions we have prepared an interview-guide with open ended questions which we used to facilitate the meetings. Until now we met online and hold discussions with people from 7 groups (table 1); all related to foodsaving and sharing. Since language can sometimes be a communication barrier we did also prepare an open questionnaire to share with people from groups not confident in English. We shared this questionnaire with two groups using Karrot. In July 2022 we also organised 'Karrot Days 2022' a two-day community gathering and thinking-together event. Alongside the discussions and questionnaires, Karrot days has been a unique opportunity to connect with groups active on Karrot. Some of our findings also derive from researching Karrot groups online; by browsing their social media pages, their Karrot group (we have been accepted as members in some of them), by exploring their website (if they have one), by reading and listening to interviews members have given to the press etc. Finally some of our findings come from asynchronous discussions that we had either on Karrot (in the 'Karrot team and

Feedback group and the Karrot days 2022 group), via e-mails, on Karrot's community forum and on Karrot's github page.

This document serves as a summary of what we have learned from the *'experts from the ground'*. Bringing together the findings which came out of the various engagements we described above we have created (we hope) a valuable resource to inform the development of new features on Karrot or the tinkering of existing ones. Since experiences and ideas from different groups are brought together in this 'report', this document can also serve as a first step towards intergroup learning.

As groups are not static but constantly evolving we recognize the need to continue checking-in with groups and thus the need to create more ways to support intertemporal interactions and the sharing of ideas, feedback, concerns etc. We also need to note at this point that the majority of the live discussions we had with members of different groups were held during covid which has disrupted the 'normal' ways of operating for the majority of the groups; the ways members meet, do pickups, run events etc.

Group/Initiative	How?
Solikyl Goteborg	Various synchronous and asynchronous discussions + Online live discussion with 1 member + Karrot days + researching the group's activities online
Food Saving Lund	Online group discussion with few members of the initiative + Karrot days + researching the group's activities online
Food saving Leuven	Online group discussion with few members of the initiative + researching the group's activities online
Robin Foods (Wien)	Various synchronous and asynchronous discussions + Karrot days + researching the group's activities online
Foodsharing Warszawa	Various synchronous and asynchronous discussions + Karrot days + researching the group's activities online
Arnhem Foodsharing	Online live discussion with 1 member + researching the group's activities online
FællesSkabet i København Free Fridge Copenhagen Foodsharing Copenhagen	Karrot days + researching the group's activities online
Foodsharing Luxemburg	Various synchronous and asynchronous discussions + Karrot days + researching the group's activities online
DLC Bocage vendeen	Questionnaire + researching the group's activities online

Table 1: The groups that use Karrot we have engaged with during the last months and the different type of engagements

In order to better organise our 'findings' and hopefully make it easier for readers to skim through, we created a series of themes which are informed by the data we have been collecting. (We tried to avoid cherry picking). We, by no means, claim any

neutrality on the information we present here. Our biases, aspirations, fears, anxieties, good and bad moments, laziness and stubbornness have influenced all stages of our attempt to *'Understand the communities that use Karrot'*. In the ways we approached the communities, the interview guide(s) we have prepared and the ways we engaged in the various discussions, the ways we designed Karrot days and our interpretations of the 'data' we have been collecting.

Also, we have to note that the people we have been engaged with did not ever claim to be representatives of the groups but only shared their own understandings, beliefs, ideas and experiences.

History and Vision(s): An introduction

Since our approach has not been to focus on one thing (which in our case would be Karrot) but learn how things relate to each other, how different compartments tie together or sometimes clash and compete, and form different constellations, learning about the past of the groups and their vision(s) has been very central but also an' ice-breaking' exercise.

The foodsaving and sharing movement in Germany has been an inspiration for a few groups that have been on Karrot. For Solikyl in Goteborg which stands for 'solidarity fridge', for the foodsharing initiative in Warsaw, for Arnhem foodsharing as well.

Solikyl started in 2016 among some friends who wanted to start their own fight against foodwaste. They started by dumpster diving and setting up a community fridge. At the beginning it has been a flat, non-hierarchical organisation and since they started facing some issues some rules have been introduced. Today, Solikyl is a registered organisation, the group has a legal status and consequently has a board of which presence and activities have created some levels of hierarchy in the decision making process. Having a legal status as we were told made the group eligible to accept funding but also made the group look more reliable especially when creating new collaborations with stores.

Today, *Solikyl* members focus more on distributing the food they collect as fast as possible instead of storing food in community fridges so as to prevent possible food spoilage. The group has been growing bigger in relation to co-operations with stores and the amounts of food saved but as one of the members of the group put it, the group might need to take a step back, look inwards and focus on the community's values, agreements and relations.

Beyond foodsaving, **Solikyl** members are engaged in raising awareness activities about foodwaste and have been (some of its members) interacting with the city's officials on issues related to foodwaste and climate change in general.

Foodsharing Warszawa was also created in 2016 and also started as a dumpster diving project. Two friends came together at the beginning and via FB invited other people to join the movement. Some 10 people were involved at the beginning who would meet in different houses to discuss the next moves for the project. Today, **Foodsharing Warszawa** is a big group in terms of members, collaborations with shops and distribution points. It is organised in committees and is operating in a non-hierarchical way. Similarly to **Soliky** it has been one the very first initiatives using Karrot and a few features have been initially designed in a close collaboration between **Foodsharing Warszawa** and the people designing Karrot. The group does not have any legal status at the moment but lately and due to various reasons the idea of setting up an NGO has been discussed. We were told that being an NGO would possibly improve handling with the administrative tasks the group has to deal with but would also possibly mean that other more strict rules related to picking up food have to be followed.

As the two members of the group we engaged with mentioned, today most of the energy goes in saving food which has turned up to be the main activity of **Foodsharing Warszawa** but noted that the vision is more than that: being 'pickup machines'. Energy should be put (that cannot be measured in kilos saved) on talking with the local authorities, lobbying against foodwaste on a higher level and creating a more resilient community.

Foodsharing Luxembourg (FSL) started in 2018 and acquired a legal status (association) from the very beginning. However the first collaborations with shops were only established by August 2019. Having an association meant for the group that is easier to get some donations and hold a bank account. In addition, being an association works as a protective layer in case someone (e.g. a supermarket or someone who received food) turns against one or some members of the group. The general vision of the initiative is that all edible food is consumed. Respect, reliability and responsibility are the core values the members agree on respecting when joining the community. The group is organised in a sociocatic way, in circles that comprise different committees. Thus decision making processes are following the sociocratic rationale based on consent. One of the circles is the board of the associations which is a legal requirement to have. The person we talked to from **Foodsharing Luxembourg (FSL)** commented that the idea is that in the future there should be no need for such a group to exist since foodwaste will no longer be an issue. Of course this might take years so until then as the FSL member suggested, similarly to what we heard from the Warsaw group, energy must be also put beyond direct foodsaving; in political work, in Luxemburg and on an EU level in general. Political work that brings up the issue of waste and pushes towards new pieces of legislation

that can contribute towards a more sustainable energy and food management. Members of **FSL** have been in touch with the local municipality and have engaged in raising awareness/educational activities, for example by visiting and running workshops in schools.

Arnhem Foodsharing is the smallest group in terms of members we have reached out to, which did suffer a lot during covid and is slowly coming back. For the time being they are more or less 7-8 members that comprise the core of the group. The group came together to form a counter-culture initiative after realising how much food ends up wasted in a system, as described by one of the members we chatted with, where the rationale of 'always available and fresh on shelves' leads to excessive waste of food and energy. They plan on slowly opening the group and letting others in but for now creating some cohesion and establishing some agreements/rules is the priority. For now, the existing members of the group have agreed on trying to consume with respect the food saved so as to prevent 'household-level' waste by educating their senses and using their creativity in doing so, and have also agreed that each one takes on responsibility when consuming food that has been saved. The group has not a legal status at the moment and has one collaboration with one shop.

Food has been one reason that connects the members of this group so far but building a regenerative community is one of the visions of the group. Some members of the group are also involved in other projects (e.g. extinction rebelion, a community centre) and had also shared saved food in events/festivals run by other groups active in the city.

Food saving Lund was created by a few students some 6 years ago. They have a few collaborations with stores from where members pickup food otherwise to be binned. The general aim of the group is to prevent food waste while also building a community. As one member put it the idea is not to get/save as much food as possible but also meet nice people and nurture a generative sharing culture. Accountability, fair-share, community building are some of the values that characterise the initiative.

Beyond direct foodsaving, the group is involved in other activities. When we met for example they referred to a lecture on sustainable food production that they have been organising and hosting on campus, a clothes and food swap they have been planning on doing, an crowdfunding event 'Stand with Ukraine' they will be joining where they will make and sell sandwiches using food resources saved by stores. Raising awareness and sharing knowledge on foodwaste prevention is also a part of the group's vision. As a group they belong to a bigger 'umbrella organisation' which gives them access to funding and legal protection without having to deal with the bureaucracy that would possibly come if they were totally independent. Being a part of an 'umbrella organisation' also gives them access to a bigger network of initiatives

with which they can collaborate. Also to physical spaces managed by other initiatives connected with the same umbrella organisation.

As they told us they have recently been approached to share their advice and experience by someone trying to build an app of a *'can you still eat your food'* style that would support people in preventing food waste on a household level.

The members of the group we chatted with despite referring to the 'green' bubble that they are living in, appeared positive and optimistic for the future since more awareness around the issue is built.

Food saving Leuven is a foodsaving and sharing group mainly composed of students. As a group they do not have a legal status yet but they use a document which is not binding however when establishing new collaborations with stores. It was born after a film night where a documentary on food waste was shown. The film and the discussion afterwards have been the impetus for creating a group against food waste, food that oftentimes is imported by places that suffer from food insecurity as one of the group's members mentioned.

Being a group mainly membered by students that go and come or only stay for short periods makes it hard to sustain a critical mass. As we were told, the initiative has been quite popular among students in Leuven who attend a Masters programme on Sustainability.

To get the chance to meet and chat with some of the initiative's members, we joined one of their monthly meetings where members of a subcommittee were discussing ways to establish new collaborations with stores. They already have 5-6 collaborations and a few hubs where food savers can drop-off excess saved food. Hubs are located in outsides spaces (protected by the rain) and they also run a few indoors hubs (e.g. in the university hub). First step after joining the community is being able to do pickups and drop off food in hubs. The ideal second step is to participate more actively in the community and take more responsibilities to support the bigger plans and visions of the project. As they told us, community vibes should be revived somehow since during and after corona less activities that bring together members in person (e.g. potluck dinners) have been organised. We should have more drinks/beers together as one person in our meeting mentioned.

Robin Foods is a group active in Vienna and one of the oldest groups on Karrot. Similarly to the Foodsaving Warsaw and the initiative in Luxembourg, Robin Foods has been a group quite close to Karrot and in constant communication with the people sustaining and developing Karrot; sharing ideas, experiences from the ground, joining Karrot meetings and events. As an initiative is affiliated with another group also using Karrot called ***Gärten für Alle!*** which is used by people to organise community gardening activities. Robin Foods members practice dumpster diving and foodsaving from stores and have in general a more holistic approach on food.

Foraging and collecting fruit from trees found in the urban areas are part of their activities. Cargo bikes are an important part of the group's infrastructure since they are used to transfer food in different places (distribution points) or as kitchens on wheels which are used to cook saved food in demonstrations or other events.

In Copenhagen there are two foodsaving and sharing projects that are also using Karrot. *Fællesskabet KBH- Free fridge in Copenhagen* and *Foodsharing Copenhagen*

The main infrastructure/place of interaction in *Fællesskabet KBH* is a community fridge that was set up in 2020. As a project it has been inspired by a dumpster diving cafe in Aarhus (DK) and also started as a dumpster diving project which had to evolve due to legal reasons. Today the people running the project have access to other food resources before they end up in bins. Food comes from 8-9 donors and the fridge is supported by 20 or so volunteers. Sharing is unconditional; everyone has access to the fridge. We were told that recently new laws have been enforced that might end up 'killing' the project. For example there is a possibility that to be legit there should always be someone present and responsible in the space where the fridge is located when it is used by the general public.

Foodsharing Copenhagen is an older project that started in 2016 by a group of anarchists activists interested in exploring unconditional ways of sharing resources. We were told that the majority of the persons involved in the group's very first steps are not part of the project anymore and that the group has gone through various transitions through the years and that a lot of people stopped contributing during the pandemic, something that has affected the project sustainability. At its peak, it would offer food otherwise wasted to some 300 people per day.

Both projects are registered organisations, meaning they have legal status. *Foodsharing Copenhagen* has a board while *Fællesskabet KBH- Free fridge in Copenhagen* not and is mainly supported by 4-5 core volunteers.

Onboarding

Onboarding refers to the processes of 'recruiting'/letting in new members. All the groups we engaged with are related in one way or another to food but differ in their visions, structures and decision making process and the processes in place for newcomers to join in. The groups we engaged with use various forms of physical and digital infrastructures to support new members joining their initiative.

Solikyl has today some 130 members on Karrot. For *Solikyl* Karrot is the main digital infrastructure used to organise the community.

As in all groups it is hard to define the exact number of active members (people doing pickups, drop-offs, joining activities), since in groups there are people that might join in a few pickups from a store per month and others that will also engage in more activities (e.g. organising a workshop, joining board's meetings)

One of the members of **Solikyl** we talked with learned about the initiative by an article published in a local newspaper. In the beginning and for some time he was only involved with the group through a collaboration he managed to establish with one restaurant closeby the area he would live at the time. He would pick up the food from there, keep some for himself and then drive to a distribution point where he could leave the rest for others to pick. He gradually met more and more people from the community by visiting a physical space **Solikyl** members used to meet. He has also been part of the board, today he is the accountant and the responsible person for cooperating with one of the stores and recently took up the role of the mediator; one of the persons that deal with conflicts that might arise. When he joined some 5 years ago there was no 'fixed' onboarding process. Someone could gradually become more active in the community by spending more time with other members, connecting with them and joining meetings/activities/events.

Today, people find about **Solikyl** in various ways. WOM plays an imporant role but people also learn about the initiative for example through FB, through the community's website or through other forms of WOMouse. For becoming a member of the community one has to create an account on Karrot and apply to join the **Solikyl** group. When applying a newcomer is prompted to answer some questions (see image below). After one is accepted in the group they can start by joining a series of trial/introductory pickups. Having to go through a series (usually 3) introductory pickups before becoming a 'fully-fledged' member is a process that a lot of foodsharing groups have been adopting. The idea behind, is that a newcomer joins a few different pickups accompanied by more experienced members which share some advice and/or present in action the existing rules related to picking up and/or dropping off food. Since on Karrot there is not yet (soon to be released though ;D) such a feature that can be used for trial/introductory pickups groups are using different tools to coordinate. The person from **Arnhem Foodsharing** we met with also shared the idea of being able to use Karrot to coordinate trial pickups, a process that they have not adopted as a group so far but have been thinking of trying out in the future.

ENGLISH

Hi! Please introduce yourself and answer the following questions:

1 - There's no requirement in Solikyl about how much you should be involved. But if you know that already, please let us know how much you'd like to be involved.

2 - How would you like to contribute to Solikyl 🗗? What kind of knowledge/skills do you have or what would you like to learn?

3 - Have you read our guidelines 🗗 to become a food saver and do you agree with them?

4 - Where in Gothenburg would you like to do pickups?

5 - Please let us know if you've met and talked already to a volunteer or if you've been to one of our fridges/sharing places.

Now you just need to be patient and wait! 🙂 Sometimes it takes time for us to answer, since we're doing all of this on a voluntary basis. Please, leave your phone number if you feel like it so it's easier for us to contact you when doing the introduction pickups.

In **FSL** before one goes in an introductory pickup has to sign up through the group's website by filling in a membership form. In this form one has to put the essentials (name, surname, email etc) consent on the group's agreement and also answer to one 'quiz' question that can be answered correctly after reading the group's agreement (e.g. One question to check that you have looked into the group agreement: Above which body temperature in °C are you not allowed to handle food?). After signing up, the person interested in joining should come to one of the group's so-called 'information meetings' within six months after applying. Then the person is invited to join Mattermost via which can participate in a series of introductory pickups. Organising introductory pick-ups includes a lot of manual work. Already members of the group, when signing up for a pickup on Karrot if there are empty slots, can then announce that on the Mattermost chat where non-full members have access to. Through Mattermost non-full members can express their interest to join a trial pickup. The experienced member that gives an introductory pickup has then to use the feedback on Karrot and write there the name of the person(s) that joined as newcomers and mention for each person how many trial-pickups they have joined so far. In **FSL** there is one person at the moment going through all this manual

work of reading feedback, storing information in an excel sheet and counting trail pickups before someone is officially accepted as a member. Then they are official members of the group, they can create an account on Karrot and sign up for activities on their own.

Members of *FSL* also have a *FSL* card which they need to carry with them and show to the stores (in some cases). One of the group's members, Daniel, the IT person of the group, used Karrots API to create a [programme](#) that gets a person's digital ID on Karrot and puts them in a digital mockup for FSL members card that can be also printed. In the case of *FSL* the ID is used to create some 'professionalism' as we were told but also prevent non-members using *FSL* name to pickup food from stores, something that has happened in the past. In that way, and by scanning a QR code found on the members *FSL* card shops can actually check if someone is a member of *FSL* or pretends to be.

FSL runs two groups on Karrot. One called Foodsaving by Foodsharing Luxembourg where only members that have been through the trial-pickups can join and also another group called Foodsharing Points by Foodsharing Luxembourg which all members can join including those not yet pickers who however want to get involved in the management of the foodsharing points/hubs that *FSL* is managing.

There have been long discussions and more than a few design sessions around creating a series of features on Karrot that can support groups run such trial pickups with less manual work needed outside Karrot. *FSL* put the first seed back in November of 2020 on a [forum post](#) on Karrot's community forum and its first iteration will be very soon available for groups to try it out!

In the case of *Food saving Lund*, people interested in joining the group have to participate in one of the introductory meetings. We joined one of those meetings some months go (online). A 25-30 mins introduction was given by one of the group's board members who went through the essentials about the project. The participants were asked to give a short presentation of themselves (say hi and who they are and why there are interested to join) and also write their full name on the chat. They were also prompted to have their cameras on during the call. The host then would make a list of the names which would then share with another person (also member of the group's board) responsible for the onboarding of new members. This other person, having the list of the names would then accept in the Lund's Karrot group,the still interested ones to join. The participants in the meeting were also suggested to upload a photo of themselves on Karrot and use their full name. In *Food saving Lund* every person cannot join more than two pickups per month, except of course if slots are empty until the very last moment or in some periods of the year that some members of the group are away (e.g. Christmas, Summer). If someone signs up more than 2 times during a month then the person responsible for Karrot under the 'Food Saving Admin' Karrot account contacts the person asking to remove their

interest for a pickup. As they told us they didn't have a 'Karrot Admin' account from the very beginning but some issues led them to proceed in this way. Having a 'Karrot Admin' felt for the group as a necessary option especially during and after Covid which affected in person meetings and the chance to build trust. For some time and for the same reason, not being able to meet in person, the group also decided to not to accept new members.

Explaining to us the onboarding process we were also told that there have been occasions in the past that one person would attempt to have more than one account so as to be able to do more pickups. In this respect they have decided to make the process of becoming a member more strict and transparent. Becoming a member of the board and contributing to other tasks is always an option for new members **Food saving Lund** and they could do so by reaching out to some of the existing ones and joining their weekly meetings.

Joining **Food saving Leuven** is simpler. Since Leuven is a small student town, most of its members are students who learn about the project either on FB or through WOM. A link to the initiative's Karrot group is once in a while posted on the group's FB page inviting people to get more active. Once someone has an account on Karrot they can start signing up for pickups. One member of the group came across Karrot in 2018 and they soon decided to stop using Google Sheets anymore which was the main, 'chaotic' as they told us way of keeping track of cooperations with stores and who does what. Some members of the group have also made a short guide that is available on its FB group with instructions on how to use Karrot in the context of **Food saving Leuven.**

In **Robin Foods** newcomers are invited to join the group's telegram group where all important actions are advertised and also create an account on Karrot so as to be able to sign up for activities. People joining the **FællesSkabet i København -Free Fridge Copenhagen** are also invited to make an account on Karrot and participate in the food pickups, cleaning up the fridges etc. For joining **Foodsharing Copenhagen** the process is a bit different. One has to go through the group's webpage, answer a few questions on a quiz after watching a video about the initiative and the issue of foodwaste, then fill in a form with the essentials (name, email, phone number etc). After that, a confirmation email is sent to the person applying and a link to the initiative's Karrot group shows up. **Foodsharing Copenhagen** runs two groups on Karrot as well. One for organising general pickups and one dedicated to collecting bread.

Decision making processes & community organising

Decision making is always a very important part of creating a community and further evolving as a group. There are different ways and processes in place for decision

making among the groups we engaged with. The size of a group, its legal status, the infrastructures at use (physical and digital) are few factors that affect the ways decisions are made. Decision making spans all sorts of aspects of community organising. From establishing a new cooperation with a store, accepting funds, running an event, being able to make edits on a digital tool (e.g. Karrot), deciding if a member has to leave the group etc.

For example, **Solikyl** started as a non-hierarchical small group and as we were told since it started growing bigger and acquired a legal status that comes with having a board some levels of hierarchy have emerged. In **Solikyl** the board however does not meet behind closed doors but as we were told it's open to all members willing to participate. In **Solikyl**, in a recent event the board decided to 'kick out' someone from the group, a decision that was not respected by the person asked to do so which led to a series of intense conflicts and also triggered discussions around the idea of having 'super-admins' on Karrot to manage with such extreme situations. In that case a 'super-admin' would have the option to kick out directly a member without having to open up an 'issue' via which one's membership could be reviewed by all members of the group.

If someone is kicked out of a Karrot group, this does not mean that this person is directly kicked out of the initiative but that loses access to the information available and can no longer sign up for activities. The need to have some sort of a process that members can loose access to this information came from **Foodsharing Warszawa.** In **Foodsharing Warszawa** they managed to 'kick-out' a person before the feature was built by faking the process. They announced to this person that they will be blocked from **Foodsharing Warszawa** FB group and so they did. But they couldn't do that on Karrot where all the crucial information have been but as we were told by blocking this person on FB they might have thought that they are also blocked from Karrot which was not not technically possible at that time.

Karrot as a tool itself is designed in ways that can possibly prevent hierarchical forms of decision making. There are no 'super-admins' who can delete comments or kick someone out one member by pressing a 'delete user' button. On Karrot ,all members of a group after getting some 'trust karrots' have equal rights on using the tool. However, Karrot is not the main or only decision making/community organising infrastructure groups are using. It has its very own specific features that do affect some of the processes but it's only a part of a broader ecology where other community organising processes are at place.

Committees assigned with different roles are usually found in the groups we met with. In **Food saving Leuven** there are 4 subcommittees. One is responsible for contacting supermarkets and establishing new collaborations, one is responsible for the distribution hubs, another one is focused on community building and organsing events for its members and one is responsible for the group's presence on social

media and raising awareness. Committees are 'undermanned' at the moment but are always open for new members to join. For that reason, meetings are occasionally organised open to all members to join and learn about the different committees' activities and needs. In *Food saving Lund*, it is individuals instead of committees who are responsible for different tasks and are called managers. For example there is a social media and communication manager, a person responsible for taking notes and creating the agendas for the group's meetings, an event manager, a pickup coordinator, a Karrot manager, an accountant and finance manager. In **Foodsharing Warszawa** there are 3 types of members: spot keepers who are responsible for a pickup point, rescuers who are responsible for picking up food and delivering the food saved, trainees who have to go through 3 trial pickups before becoming rescuers. There is also one group working on the general coordination of the project, another one responsible for recruiting new members, collecting applications and guiding newcomers plus one more group that take care of social media, messages and emails.

Despite the fact that Karrot does not support the concept of 'super admins' we learned that in **Food saving Lund** there is a responsible person (the Karrot manager) who handles an account under the name 'Food Saving admin' that has enough 'trust karrots' to do edits on the Karrot group (e.g. accept new members, create and edit places, activities etc). One reason for that approach is to avoid the possibility people accidentally mess up with the group but also prevent as they told us a possible 'coup' which is technically possible to happen on Karrot. Both **Solikyl** and **Foodsharing Warszawa** have been relatively close to be 'hijacked' as they told us which have led some members to store all resources on Karrot in a backup place in case there was a need to create a new group from scratch.

In **Arnhem Foodsharing** members have recently been working on establishing a series of roles so as to have a better distribution of responsibilities. Integrators, responsible for shops, education managers, outreach and social media are a few roles the group is planning on implementing.

In **FSL** decision making is based on consent following the principles of Sociocracy. The group is organised in regional circles and each circle has its own representative and well-being manager. Representatives meet in one of the circles where the future and overall vision(s) of the project is discussed (board circle). Well-being managers try to prevent conflicts or when they arise hold the role of a mediator. Talking about the conflict resolution process on Karrot (the feature via which one can open an issue against another person in the group) the person from **FSL** we talked with said that it has been used 2-3 times to kick out people that have been accidentally accepted in the group before successfully going through their 3 trial pickups. Officially the group is not supporting the use of conflict resolution on Karrot (soon to be named 'review membership' process on Karrot) since as we were told they have

other processes in place that are built on the idea of NVC, involve mediation and more in person meetings.

Along similar lines, members of **Soliky** which have used the feature on Karrot are now working on establishing a group of mediators. In a recent example, one of the persons we talked with from **Solikyl** took the role of the mediator. The idea is that the conflicting parties talk to each other via email with the presence of the mediator and only if the mediation is not successful an issue is created on Karrot. In **Foodsharing Warszawa** accordingly, there is a group of mediators to whom through an online form or via email, all sorts of 'complaints' about another member can be shared. In this way someone can express a complaint with some privacy without having to go on Karrot and open an issue themselves. This can create a safer space for some members who for various reasons would hesitate opening up an issue under their name. In **Foodsharing Warszawa**, after one person receives 3 'complaints' so to call them, or finally a 'red card' to use the language of the group, then one of the mediators opens up an issue on Karrot where all members are invited to discuss and vote about someone's membership.

Talking about hierarchy and conflicts, as we were told by some groups, there have been members arguing that there should be some people or a group of them deciding instead of the whole community. Groups like **Food saving Leuven** have never used the conflict resolution process on Karrot so far which is also the case in **Foodsharing Stockholm**. Both groups had to deal with unpleasant moments that involved members of their communities but either the conflicting parties worked it out among themselves or an issue was left hanging until it gradually faded away.

While referring to decision making processes, roles, hierarchies and community building processes with the groups we have engaged with, we also touched upon the 'Karrot trust system' as we call it in order to understand how different groups use it (if so) and what does it mean for members to have Karrots. On Karrot, people can give 'Karrots' to other members and when someone gets a number of Karrots becomes automatically an editor. If a group has 2 members only, having one 1 karrot gives someone the right to be and editor. If the group has 4 members then 2 karrots are needed and if the group has 6 or more then 3 karrots are the threshold of becoming an editor. In **Food saving Leuven**, people do give Karrots to each other as one member said, possibly after doing a pickup together or meeting up in real life during an event, however they appeared a bit sceptical since Karrots can also make someone an editor. Which can be potentially problematic in their case since in their initiative there is a committee responsible for establishing new collaborations with stores that is responsible with this task.

As described above, in the case of **Food saving Lund** this system is used in a way that creates some sort of hierarchy. In **Arnhem Foodsharing**, a pretty small group, most of its members have already enough trust Karrots so they hold editor rights.

One of the persons from **Solikyl** described the Karrot system as an equivalent to FB likes implying (if we got that somehow right) Karrots in this group are not considered/thought of (by him at least) as a metric which adds any extra value to a person beyond them being able to be editors.

In **Foodsharing Warszawa** one of the biggest on Karrot in terms of active members we were told that it's easy for someone to get quite fast those 3 karrots that will give them editor rights. That is important on a group like **Foodsharing Warszawa** that tries to be as non-hierarchical as possible. On the other hand, as one of the members of the group told us since the majority of its members have editors rights, everyone can create new collaborations with stores and put them on Karrot which in the case of **Foodsharing Warszawa** enhances the tension between dealing with food waste by becoming 'pick up' machines vs also dedicating energy in other ways to tackle the issue (e.g. working with the local state to create new policies, raising awareness etc). In addition to that they referred to the feedback feature on Karrot in which if an activity is a pickup event one can add the kilos of food they saved. This metric becomes a part of someone's Karrot ID (how many kilos they saved since joined Karrot). Taking about this metric, one of **Foodsharing Warszawa** members referred to an occasion when one person who have saved a lot of kilos has been accused of misbehaving to other members of the group but being a good saver was used by some as an argument in favour of him staying in the group.

Using Karrot alongside other digital tools

As mentioned in the very beginning of this text, Karrot is only one compartment of the physical and digital infrastructures that groups are using to organise and support their activities. Since our approach in understanding the groups we engaged with has been to look into the ecologies within which they operate we have tried to learn what other tools/infrastructures groups are using alongside Karrot.

Most of the groups have been operating before Karrot's release or have been using other digital tools until they came across Karrot. In **Foodsharing Warszawa**, they would use google sheets to organise pickups before Karrot which was the case in **Food Saving Leuven** as well. Some of their groups have their own website (i.e. Solikyl, Copenhagen foodsaving, Copenhagen Fridge, FSL) where one can find information and be guided to join the group. The majority of the groups are also present in mainstream social media (e.g. FB, Instagram) tools that they use for various reasons. In **Solikyl**, FB is rarely used today but has been used for announcing to FB members of the group that there are large amounts of food saved available to be picked up. In a similar way FB is used by **Arhem Foodsharing** when they have to deal with a lot of food saved. In **Arhem Foodsharing** alongside Karrot that is to this moment used only for pickups, its members use Telegram for communicating among each other. As we were told since coordination of pickups

takes place on Karrot their chat on Telegram remains more targeted and 'clelan' as it is not cluttered with information related to pickups like who goes where, who joins where and what time.

In *FSL* FB and instagram are used as a way to raise awareness around foodwaste and also due to the event feature they support (FB). Thus events, info sessions, distribution days etc are announced on the group's FB page. Likewise, they use instagram to announce activities, share statistics (kilos) of food saved, share recipes and photos of food cooked from foodwaste. In *FSL* they use socials since not everyone on socials is also on Karrot. On Karrot the most active members have an account while on social media a broader audience is following the group's activities.

In *Food Saving Leuven* Karrot is used for pickups and FB for the drop-offs. This means that when someone goes for a pickup they have tp sign up through Karrot. After the food is picked the person that did the pickup has to do a FB post where posts a photo and maybe a text of the food they left in one of the distribution points for further collection. On FB there is a much wider audience following the group.

On Karrot there is no private group chat feature. 'Private' chat is only possible among the people that have signed up for the same activity. Since there is no such feature, to create a chat room and add people in it, committees active in *Food Saving Leuven* group use other tools. For example, the committee we met up with, working on establishing new collaborations with stores, use whatsapp. On Karrot there is another feature called Offers which as we saw has not been in use or has been very sparsely used by one group (*Solikyl*). Via this feature members of a Karrot group can announce giveaways by uploading photos and describe what they are offering for other members of the group to use. Talking about this feature and its potential to be used instead of FB (which is used instead by a few groups to announce where saved food can be collected by) members of the groups commented that it cannot be used at the moment since a lot of people interested in collecting already saved food are not on Karrot and possibly are not interested in having an extra account, receive more notifications etc.

On FB *Food Saving Leuven* has around 1200 members while on Karrot around 100. Of course those numbers only indicate the current membership in a superficial way and are not comparable especially since on FB there might be a lot of inactive members especially in a city like Leuven where there are a lot of students that only stay for short periods of time. On Karrot it is also not possible to argue that all 100 members are active but on Karrot after not logging in for some time (6 months?) users receive a series of reminders via email suggesting that if they stay inactive their membership (not Karrot account) will be deactivated.

On *Food Saving Leuven* Karrot group all distribution hubs are listed as places and are put there only as information available to members doing distributions but there

are no activities created on top. Also, the committee we met with, put on Karrot as places all stores/shops they had reached out to set up a collaboration. They create a place for each of those stores as an archive and always provide details explaining why the store managers didn't agree on cooperating. In that way they can always look back and save time and effort. Speaking of cooperations with stores, we learned that in *Food Saving Leuven* members of the committee responsible for establishing cooperations visit the shops once in a while and ask feedback from the stores about their cooperation with the food group's food savers.

In *Food saving Lund*, members run two FB groups. In one of them, posts are made only by the board members which are posts related to foodwaste as an issue (raise awareness), advertising events etc. On the other FB groups all members can make posts. In the latter, members make posts of available saved food to be collected or posts via which members announce available food to be shared with others that have it in their houses. This FB group is also used to announce last-minute cancellations by members that are not able to go in a pickup they have registered through Karrot. FB is also used by other groups for such 'emergency' posts. We were told that Karrot is not or cannot be used in such cases, as through FB members can reach a bigger audience and in a faster way. In *Food saving Lund* they also use instagram where they post photos from saved food, recipes and events run by the initiative. They have an account on Linkedin as wel. For coordinating events organised by the community they sometimes use google forms which are shared in a FB event and 'volunteers' can express their interest in participating.

Most of the people from groups we chatted with referred to other projects within their locales who are active in foodwaste management but also to 'sharing economy' tools like Olio or toogoodtogo that stores and people are using more and more lately. In most places there are NGOs also collecting and redistributing food or organisations connected to the church. Those are not seen as competitive towards the groups we chatted to but also part of the broader movement despite their top down charity model and usual strategy to give food to those 'in need'. The persons who referred to platforms like togoodtogo also see such tools as part of the solution, a better way to deal with foodwaste, but some have commented that since they are becoming more and more popular it seems that is harder to make new collaborations with stores in some cases or that since on toogoodtogo food must be in 'good condition' they have noticed that the quality of the food they are getting is maybe worsening.

Ideas to 'improve' Karrot

In this last theme we present a series of ideas shared (either directly or indirectly) for improving Karrot by the members of the group's we engaged with. Since groups operate in different ways and have established their own different cultures some could work for few groups and for others not. However, in order to avoid cherry picking we are trying here to bring them all together.

Starting from the conflict resolution process that is supported on Karrot, people from **Solikyl** and **Foodsharing Warszawa** have expressed their views to simplify the voting mechanism that has created confusion to some members of their groups. Members from both groups also shared the idea of being able to use Karrot to impose 'softer' sanctions to members and not only being able to decide if one member stays in the group or not. A 'softer' form of sanction could be that someone cannot sign up for example to pickups for some weeks.

Drawing on recent cases where a possibility of 'hijacking' the group by copying or deleting information, **Foodsharing Warszawa** members we chatted with also expressed the idea that a person loses access to all information on Karrot during the week their membership is being reviewed and can only participate in the discussion.

Foodsharing Warszawa members referred to people's personal data that can be found on Karrot (e.g. name, address, phone number, when and where someone is doing a pickup or joining another activity) and expressed their concern in case those can be used in harmful or intrusive ways (e.g. in a possible case of stalking). On the other hand, a person from **FSL** suggested that Karrot could support more data entries per member and be possible on Karrot to create a richer application form like the one they use now for newcomers to apply that is available on the group's website.

Another idea shared from various groups, especially those that have already established some levels of mediation to cope with conflicts, was to be able to create a type of mediators groups on Karrot which hold the responsibility to intervene in the case of a conflict and be the ones to open up an issue. In this way, persons that want to report an incident will not be obliged to do it under their name on Karrot which in some cases (e.g. sexist behaviours) is not the easiest thing to do. This is already how mediation works in **Foodsharing Warszawa** that includes the use of other digital tools outside Karrot.

Talking about trust and conflicts and the 'Karrot system' in place, one member of **FSL** said that it would be nice to have a feature via which people are prompted to 'renew their trust' for other members after some time. They used as a metaphor the example of friendship and referred to friendship not as something static but as something that evolves through time and needs to be reevaluated. Taking about giving trust Karrots or evoking trust on Karrot (removing a Karrot you gave to someone else) one person from **Solikyl** shared an idea where if some members of a group give 'negative' Karrots to a person then automatically an issue is opened and this person's membership has to be reviewed by the community.

All groups already having a system of trial pickups and those interested in adopting one suggested that a feature on Karrot that can support that would eliminate a lot of

manual work that members have to do now outside Karrot. Karrot will soon have such a feature ready to be tested by the groups.

Talking about statistics and their value on Karrot, one member of **Foodsharing Warszawa** drawing on some cases in their group expressed their concern about being able only to measure and value pickups as in kilos. As she told us there are other tasks that members undertake which are also quite valuable but remain unweighted and possibly invisible. For example writing a report to the local authorities or meeting with politicians to raise awareness about foodwaste and push towards changing existing legislation. After sharing this concern with people active in other groups, we encounter similar approaches: that there is a lot of work that is not valued or included in any sort of statistics. Someone from a group (we don't remember who though) suggested that at least for the statistics on kilos saved there could be a modification on Karrot so kilos saved are added in a total sum representing the community as whole and not individuals.

As the member of **Foodsharing Warszawa** argued, having other ways to also value other non-numerically measured contributions on the one hand would make visible other forms of work and care that remain invisible and could also work as a motivation for people to take on other roles which are equally important to be a foodsaver. Members of **Food saving Lund** while similarly talking about the need to 'lure' people take more responsibilities suggested that Karrot could support different roles. This is well aligned with a feature that we have been discussing for some time now 'trust for role' as we call it via which groups can create different roles which members can take on and be vouched for.

Foodsharing Warszawa also expressed the need to have simple features on Karrot to create a poll and referred to one occasion when they 'hacked' the conflict resolution process and created a fake account which would be the proposal. If someone would vote for this person to leave the group this would mean they are against the shared proposal and vice versa. They decided to use Karrot for that reason and not some other platform since they found that on Karrot each person gets one vote, something that can be hacked in other tools (e.g. Doodle) where one person can vote more than once after doing some small workarounds.

Talking about agreements/proposals, a person involved in **Solikyl** referred to the ever-evolving nature of those and pondered if there could be a way on Karrot that such updates are shared with the rest of the community in a meaningful and engaging way. This suggestion is well-aligned with what we were told by **Food saving Leuven,** members of which group suggested having the option to create banners or pinned posts that can stay on top of the wall to share important information.

Talking about the feedback future members of **Food saving Lund** shared the idea that Karrot groups are able to tailor feedback forms. For example in their case they always ask people to use feedback and also send through social media photos of the food they have saved. To this day however, we were told that rarely savers do so. They suggested that if they could tailor the feedback form and put there a nice message explaining why they need the photos (for raising awareness) and how they are going to use them (on social media) some savers could be more responsive.

As we mentioned in the very beginning, our engagements have not been fixed, one size fits all. We have been quite flexible and open to listening to what groups would like to share with us. And since we always have been thinking of how we can create the circumstances for more intergroup interactions (one way of 'breaking the silo; as we call it), during our engagements we would always share stories we learned from this X group with other groups. And we would always bring up intergroup connecting in our discussion. In the past year we tried to run what we called a 'Karrot cafe' which we only managed to run twice. The aim of the 'Karrot cafe' would be to meet once per month online and bring together people from existing groups and people interested in setting up new groups to exchange experiences, best practices, advice etc. Most of the groups we chatted with had a positive attitude towards the idea of creating spaces (synchronous or async) for intergroup interactions noting however that since groups are only supported by volunteers such engagements might be seen as extra 'labour' that volunteers have to do thus such factors should be taken into account when designing such spaces of intergroup learning.

Explaining to us the onboarding process we were also told that there have been occasions in the past that one person would attempt to have more than one account so as to be able to do more pickups. In this respect they have decided to make the process of becoming a member more strict and transparent. Becoming a member of the board and contributing to other tasks is always an option for new members ***Food saving Lund*** and they could do so by reaching out to some of the existing ones and joining their weekly meetings.

Joining ***Food saving Leuven*** is simpler. Since Leuven is a small student town, most of its members are students who learn about the project either on FB or through WOM. A link to the initiative's Karrot group is once in a while posted on the group's FB page inviting people to get more active. Once someone has an account on Karrot they can start signing up for pickups. One member of the group came across Karrot in 2018 and they soon decided to stop using Google Sheets anymore which was the main, 'chaotic' as they told us way of keeping track of cooperations with stores and who does what. Some members of the group have also made a short guide that is available on its FB group with instructions on how to use Karrot in the context of ***Food saving Leuven.***

In ***Robin Foods*** newcomers are invited to join the group's telegram group where all important actions are advertised and also create an account on Karrot so as to be able to sign up for activities. People joining the ***FællesSkabet i København -Free Fridge Copenhagen*** are also invited to make an account on Karrot and participate in the food pickups, cleaning up the fridges etc. For joining ***Foodsharing Copenhagen*** the process is a bit different. One has to go through the group's webpage, answer a few questions on a quiz after watching a video about the initiative and the issue of foodwaste, then fill in a form with the essentials (name, email, phone number etc). After that, a confirmation email is sent to the person applying and a link to the initiative's Karrot group shows up. ***Foodsharing Copenhagen*** runs two groups on Karrot as well. One for organising general pickups and one dedicated to collecting bread

Decision making processes & community organising

Decision making is always a very important part of creating a community and further evolving as a group. There are different ways and processes in place for decision making among the groups we engaged with. The size of a group, its legal status, the

infrastructures at use (physical and digital) are few factors that affect the ways decisions are made. Decision making spans all sorts of aspects of community organising. From establishing a new cooperation with a store, accepting funds, running an event, being able to make edits on a digital tool (e.g. Karrot), deciding if a member has to leave the group etc.

For example, ***Solikyl*** started as a non-hierarchical small group and as we were told since it started growing bigger and acquired a legal status that comes with having a board some levels of hierarchy have emerged. In ***Solikyl*** the board however does not meet behind closed doors but as we were told it's open to all members willing to participate. In ***Solikyl***, in a recent event the board decided to 'kick out' someone from the group, a decision that was not respected by the person asked to do so which led to a series of intense conflicts and also triggered discussions around the idea of having 'super-admins' on Karrot to manage with such extreme situations. In that case a 'super-admin' would have the option to kick out directly a member without having to open up an 'issue' via which one's membership could be reviewed by all members of the group.

If someone is kicked out of a Karrot group, this does not mean that this person is directly kicked out of the initiative but that loses access to the information available and can no longer sign up for activities. The need to have some sort of a process that members can loose access to this information came from ***Foodsharing Warszawa***. In ***Foodsharing Warszawa*** they managed to 'kick-out' a person before the feature was built by faking the process. They announced to this person that they will be blocked from ***Foodsharing Warszawa*** FB group and so they did. But they couldn't do that on Karrot where all the crucial information have been but as we were told by blocking this person on FB they might have thought that they are also blocked from Karrot which was not not technically possible at that time.

Karrot as a tool itself is designed in ways that can possibly prevent hierarchical forms of decision making. There are no 'super-admins' who can delete comments or kick someone out one member by pressing a 'delete user' button. On Karrot ,all members of a group after getting some 'trust karrots' have equal rights on using the tool. However, Karrot is not the main or only decision making/community organising infrastructure groups are using. It has its very own specific features that do affect some of the processes but it's only a part of a broader ecology where other community organising processes are at place.

Committees assigned with different roles are usually found in the groups we met with. In ***Food saving Leuven*** there are 4 subcommittees. One is responsible for contacting supermarkets and establishing new collaborations, one is responsible for the distribution hubs, another one is focused on community building and organising events for its members and one is responsible for the group's presence on social media and raising awareness. Committees are 'undermanned' at the moment but are

always open for new members to join. For that reason, meetings are occasionally organised open to all members to join and learn about the different committees' activities and needs. In Food saving Lund, it is individuals instead of committees who are responsible for different tasks and are called managers. For example there is a social media and communication manager, a person responsible for taking notes and creating the agendas for the group's meetings, an event manager, a pickup coordinator, a Karrot manager, an accountant and finance manager. In ***Foodsharing Warszawa*** there are 3 types of members: spot keepers who are responsible for a pickup point, rescuers who are responsible for picking up food and delivering the food saved, trainees who have to go through 3 trial pickups before becoming rescuers. There is also one group working on the general coordination of the project, another one responsible for recruiting new members, collecting applications and guiding newcomers plus one more group that take care of social media, messages and emails.

Despite the fact that Karrot does not support the concept of 'super admins' we learned that in ***Food saving Lund*** there is a responsible person (the Karrot manager) who handles an account under the name 'Food Saving admin' that has enough 'trust karrots' to do edits on the Karrot group (e.g. accept new members, create and edit places, activities etc). One reason for that approach is to avoid the possibility people accidentally mess up with the group but also prevent as they told us a possible 'coup' which is technically possible to happen on Karrot. Both ***Solikyl*** and ***Foodsharing Warszawa*** have been relatively close to be 'hijacked' as they told us which have led some members to store all resources on Karrot in a backup place in case there was a need to create a new group from scratch.

In ***Arnhem Foodsharing*** members have recently been working on establishing a series of roles so as to have a better distribution of responsibilities. Integrators, responsible for shops, education managers, outreach and social media are a few roles the group is planning on implementing.

In ***FSL*** decision making is based on consent following the principles of sociocracy. The group is organised in regional circles and each circle has its own representative and well-being manager. Representatives meet in one of the circles where the future and overall vision(s) of the project is discussed (board circle). Well-being managers try to prevent conflicts or when they arise hold the role of a mediator. Talking about the conflict resolution process on Karrot (the feature via which one can open an issue against another person in the group) the person from ***FSL*** we talked with said that it has been used 2-3 times to kick out people that have been accidentally accepted in the group before successfully going through their 3 trial pickups. Officially the group is not supporting the use of conflict resolution on Karrot (soon to be named 'review membership' process on Karrot) since as we were

told they have other processes in place that are built on the idea of NVC, involve mediation and more in person meetings.

Along similar lines, members of ***Soliky*** which have used the feature on Karrot are now working on establishing a group of mediators. In a recent example, one of the persons we talked with from ***Solikyl*** took the role of the mediator. The idea is that the conflicting parties talk to each other via email with the presence of the mediator and only if the mediation is not successful an issue is created on Karrot. In ***Foodsharing Warszawa*** accordingly, there is a group of mediators to whom through an online form or via email, all sorts of 'complaints' about another member can be shared. In this way someone can express a complaint with some privacy without having to go on Karrot and open an issue themselves. This can create a safer space for some members who for various reasons would hesitate opening up an issue under their name. In ***Foodsharing Warszawa***, after one person receives 3 'complaints' so to call them, or finally a 'red card' to use the language of the group, then one of the mediators opens up an issue on Karrot where all members are invited to discuss and vote about someone's membership.

Talking about hierarchy and conflicts, as we were told by some groups, there have been members arguing that there should be some people or a group of them deciding instead of the whole community. Groups like ***Food saving Leuven*** have never used the conflict resolution process on Karrot so far which is also the case in ***Foodsharing Stockholm***. Both groups had to deal with unpleasant moments that involved members of their communities but either the conflicting parties worked it out among themselves or an issue was left hanging until it gradually faded away.

While referring to decision making processes, roles, hierarchies and community building processes with the groups we have engaged with, we also touched upon the 'Karrot trust system' as we call it in order to understand how different groups use it (if so) and what does it mean for members to have Karrots. On Karrot, people can give 'Karrots' to other members and when someone gets a number of Karrots becomes automatically an editor. If a group has 2 members only, having one 1 karrot gives someone the right to be and editor. If the group has 4 members then 2 karrots are needed and if the group has 6 or more then 3 karrots are the threshold of becoming an editor. In ***Food saving Leuven***, people do give Karrots to each other as one member said, possibly after doing a pickup together or meeting up in real life during an event, however they appeared a bit sceptical since Karrots can also make someone an editor. Which can be potentially problematic in their case since in their initiative there is a committee responsible for establishing new collaborations with stores that is responsible with this task.

As described above, in the case of ***Food saving Lund*** this system is used in a way that creates some sort of hierarchy. In ***Arnhem Foodsharing***, a pretty small

group, most of its members have already enough trust Karrots so they hold editor rights. One of the persons from ***Solikyl*** described the Karrot system as an equivalent to FB likes implying (if we got that somehow right) Karrots in this group are not considered/thought of (by him at least) as a metric which adds any extra value to a person beyond them being able to be editors.

In ***Foodsharing Warszawa*** one of the biggest on Karrot in terms of active members we were told that it's easy for someone to get quite fast those 3 karrots that will give them editor rights. That is important on a group like ***Foodsharing Warszawa*** that tries to be as non-hierarchical as possible. On the other hand, as one of the members of the group told us since the majority of its members have editors rights, everyone can create new collaborations with stores and put them on Karrot which in the case of ***Foodsharing Warszawa*** enhances the tension between dealing with food waste by becoming 'pick up' machines vs also dedicating energy in other ways to tackle the issue (e.g. working with the local state to create new policies, raising awareness etc). In addition to that they referred to the feedback feature on Karrot in which if an activity is a pickup event one can add the kilos of food they saved. This metric becomes a part of someone's Karrot ID (how many kilos they saved since joined Karrot). Taking about this metric, one of ***Foodsharing Warszawa*** members referred to an occasion when one person who have saved a lot of kilos has been accused of misbehaving to other members of the group but being a good saver was used by some as an argument in favour of him staying in the group.

Using Karrot alongside other digital tools

As mentioned in the very beginning of this text, Karrot is only one compartment of the physical and digital infrastructures that groups are using to organise and support their activities. Since our approach in understanding the groups we engaged with has been to look into the ecologies within which they operate we have tried to learn what other tools/infrastructures groups are using alongside Karrot.

Most of the groups have been operating before Karrot's release or have been using other digital tools until they came across Karrot. In ***Foodsharing Warszawa***, they would use google sheets to organise pickups before Karrot which was the case in Food Saving Leuven as well. Some of their groups have their own website (i.e. ***Solikyl, Copenhagen foodsaving, Copenhagen Fridge, FSL***) where one can find information and be guided to join the group. The majority of the groups are also present in mainstream social media (e.g. FB, Instagram) tools that they use for various reasons. In ***Solikyl***, FB is rarely used today but has been used for announcing to FB members of the group that there are large amounts of food saved available to be picked up. In a similar way FB is used by ***Arhem Foodsharing***

when they have to deal with a lot of food saved. In ***Arhem Foodsharing*** alongside Karrot that is to this moment used only for pickups, its members use Telegram for communicating among each other. As we were told since coordination of pickups takes place on Karrot their chat on Telegram remains more targeted and 'clean' as it is not cluttered with information related to pickups like who goes where, who joins where and what time.

In ***FSL*** FB and instagram are used as a way to raise awareness around foodwaste and also due to the event feature they support (FB). Thus events, info sessions, distribution days etc are announced on the group's FB page. Likewise, they use instagram to announce activities, share statistics (kilos) of food saved, share recipes and photos of food cooked from foodwaste. In FSL they use socials since not everyone on socials is also on Karrot. On Karrot the most active members have an account while on social media a broader audience is following the group's activities.

In ***Food Saving Leuven*** Karrot is used for pickups and FB for the drop-offs. This means that when someone goes for a pickup they have tp sign up through Karrot. After the food is picked the person that did the pickup has to do a FB post where posts a photo and maybe a text of the food they left in one of the distribution points for further collection. On FB there is a much wider audience following the group.

On Karrot there is no private group chat feature. 'Private' chat is only possible among the people that have signed up for the same activity. Since there is no such feature, to create a chat room and add people in it, committees active in ***Food Saving Leuven*** group use other tools. For example, the committee we met up with, working on establishing new collaborations with stores, use whatsapp. On Karrot there is another feature called Offers which as we saw has not been in use or has been very sparsely used by one group (***Solikyl***). Via this feature members of a Karrot group can announce giveaways by uploading photos and describe what they are offering for other members of the group to use. Talking about this feature and its potential to be used instead of FB (which is used instead by a few groups to announce where saved food can be collected by) members of the groups commented that it cannot be used at the moment since a lot of people interested in collecting already saved food are not on Karrot and possibly are not interested in having an extra account, receive more notifications etc.

On FB ***Food Saving Leuven*** has around 1200 members while on Karrot around 100. Of course those numbers only indicate the current membership in a superficial way and are not comparable especially since on FB there might be a lot of inactive members especially in a city like Leuven where there are a lot of students that only stay for short periods of time. On Karrot it is also not possible to argue that all 100 members are active but on Karrot after not logging in for some time (6 months?)

users receive a series of reminders via email suggesting that if they stay inactive their membership (not Karrot account) will be deactivated.

On ***Food Saving Leuven*** Karrot group all distribution hubs are listed as places and are put there only as information available to members doing distributions but there are no activities created on top. Also, the committee we met with, put on Karrot as places all stores/shops they had reached out to set up a collaboration. They create a place for each of those stores as an archive and always provide details explaining why the store managers didn't agree on cooperating. In that way they can always look back and save time and effort. Speaking of cooperations with stores, we learned that in Food Saving Leuven members of the committee responsible for establishing cooperations visit the shops once in a while and ask feedback from the stores about their cooperation with the food group's food savers.

In ***Food saving Lund***, members run two FB groups. In one of them, posts are made only by the board members which are posts related to foodwaste as an issue (raise awareness), advertising events etc. On the other FB groups all members can make posts. In the latter, members make posts of available saved food to be collected or posts via which members announce available food to be shared with others that have it in their houses. This FB group is also used to announce last-minute cancellations by members that are not able to go in a pickup they have registered through Karrot. FB is also used by other groups for such 'emergency' posts. We were told that Karrot is not or cannot be used in such cases, as through FB members can reach a bigger audience and in a faster way. In ***Food saving Lund*** they also use instagram where they post photos from saved food, recipes and events run by the initiative. They have an account on Linkedin as well. For coordinating events organised by the community they sometimes use google forms which are shared in a FB event and 'volunteers' can express their interest in participating.

Most of the people from groups we chatted with referred to other projects within their locales who are active in foodwaste management but also to 'sharing economy' tools like Olio or toogoodtogo that stores and people are using more and more lately. In most places there are NGOs also collecting and redistributing food or organisations connected to the church. Those are not seen as competitive towards the groups we chatted to but also part of the broader movement despite their top down charity model and usual strategy to give food to those 'in need'. The persons who referred to platforms like togoodtogo also see such tools as part of the solution, a better way to deal with foodwaste, but some have commented that since they are becoming more and more popular it seems that is harder to make new collaborations with stores in some cases or that since on toogoodtogo food must be in 'good condition' they have noticed that the quality of the food they are getting is maybe worsening.

Ideas to 'improve' Karrot

In this last theme we present a series of ideas shared (either directly or indirectly) for improving Karrot by the members of the group's we engaged with. Since groups operate in different ways and have established their own different cultures some could work for few groups and for others not. However, in order to avoid cherry picking we are trying here to bring them all together.

Starting from the conflict resolution process that is supported on Karrot, people from ***Solikyl*** and ***Foodsharing Warszawa*** have expressed their views to simplify the voting mechanism that has created confusion to some members of their groups. Members from both groups also shared the idea of being able to use Karrot to impose 'softer' sanctions to members and not only being able to decide if one member stays in the group or not. A 'softer' form of sanction could be that someone cannot sign up for example to pickups for some weeks.

Drawing on recent cases where a possibility of 'hijacking' the group by copying or deleting information, ***Foodsharing Warszawa*** members we chatted with also expressed the idea that a person loses access to all information on Karrot during the week their membership is being reviewed and can only participate in the discussion.

Foodsharing Warszawa members referred to people's personal data that can be found on Karrot (e.g. name, address, phone number, when and where someone is doing a pickup or joining another activity) and expressed their concern in case those can be used in harmful or intrusive ways (e.g. in a possible case of stalking). On the other hand, a person from ***FSL*** suggested that Karrot could support more data entries per member and be possible on Karrot to create a richer application form like the one they use now for newcomers to apply that is available on the group's website.

Another idea shared from various groups, especially those that have already established some levels of mediation to cope with conflicts, was to be able to create a type of mediators groups on Karrot which hold the responsibility to intervene in the case of a conflict and be the ones to open up an issue. In this way, persons that want to report an incident will not be obliged to do it under their name on Karrot which in some cases (e.g. sexist behaviours) is not the easiest thing to do. This is already how mediation works in ***Foodsharing Warszawa*** that includes the use of other digital tools outside Karrot.

Talking about trust and conflicts and the 'Karrot system' in place, one member of ***FSL*** said that it would be nice to have a feature via which people are prompted to 'renew their trust' for other members after some time. They used as a metaphor the example of friendship and referred to friendship not as something static but as something that evolves through time and needs to be reevaluated. Taking about giving trust Karrots or evoking trust on Karrot (removing a Karrot you gave to

someone else) one person from ***Solikyl*** shared an idea where if some members of a group give 'negative' Karrots to a person then automatically an issue is opened and this person's membership has to be reviewed by the community.

All groups already having a system of trial pickups and those interested in adopting one suggested that a feature on Karrot that can support that would eliminate a lot of manual work that members have to do now outside Karrot. Karrot will soon have such a feature ready to be tested by the groups.

Talking about statistics and their value on Karrot, one member of ***Foodsharing Warszawa*** drawing on some cases in their group expressed their concern about being able only to measure and value pickups as in kilos. As she told us there are other tasks that members undertake which are also quite valuable but remain unweighted and possibly invisible. For example writing a report to the local authorities or meeting with politicians to raise awareness about foodwaste and push towards changing existing legislation. After sharing this concern with people active in other groups, we encounter similar approaches: that there is a lot of work that is not valued or included in any sort of statistics. Someone from a group (we don't remember who though) suggested that at least for the statistics on kilos saved there could be a modification on Karrot so kilos saved are added in a total sum representing the community as whole and not individuals.

As the member of ***Foodsharing Warszawa*** argued, having other ways to also value other non-numerically measured contributions on the one hand would make visible other forms of work and care that remain invisible and could also work as a motivation for people to take on other roles which are equally important to be a foodsaver. Members of Food saving Lund while similarly talking about the need to 'lure' people take more responsibilities suggested that Karrot could support different roles. This is well aligned with a feature that we have been discussing for some time now 'trust for role' as we call it via which groups can create different roles which members can take on and be vouched for.

Foodsharing Warszawa also expressed the need to have simple features on Karrot to create a poll and referred to one occasion when they 'hacked' the conflict resolution process and created a fake account which would be the proposal. If someone would vote for this person to leave the group this would mean they are against the shared proposal and vice versa. They decided to use Karrot for that reason and not some other platform since they found that on Karrot each person gets one vote, something that can be hacked in other tools (e.g. Doodle) where one person can vote more than once after doing some small workarounds.

Talking about agreements/proposals, a person involved in Solikyl referred to the ever-evolving nature of those and pondered if there could be a way on Karrot that such updates are shared with the rest of the community in a meaningful and

engaging way. This suggestion is well-aligned with what we were told by Food saving Leuven, members of which group suggested having the option to create banners or pinned posts that can stay on top of the wall to share important information.

Talking about the feedback future members of Food saving Lund shared the idea that Karrot groups are able to tailor feedback forms. For example in their case they always ask people to use feedback and also send through social media photos of the food they have saved. To this day however, we were told that rarely savers do so. They suggested that if they could tailor the feedback form and put there a nice message explaining why they need the photos (for raising awareness) and how they are going to use them (on social media) some savers could be more responsive.

As we mentioned in the very beginning, our engagements have not been fixed, one size fits all. We have been quite flexible and open to listening to what groups would like to share with us. And since we always have been thinking of how we can create the circumstances for more intergroup interactions (one way of 'breaking the silo; as we call it), during our engagements we would always share stories we learned from this X group with other groups. And we would always bring up intergroup connecting in our discussion. In the past year we tried to run what we called a 'Karrot cafe' which we only managed to run twice. The aim of the 'Karrot cafe' would be to meet once per month online and bring together people from existing groups and people interested in setting up new groups to exchange experiences, best practices, advice etc. Most of the groups we chatted with had a positive attitude towards the idea of creating spaces (synchronous or async) for intergroup interactions noting however that since groups are only supported by volunteers such engagements might be seen as extra 'labour' that volunteers have to do thus such factors should be taken into account when designing such spaces of intergroup learning.