# **Appendices**

### Appendix A

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### A1. Contextmapping

- A1.1 Contextmapping Booklet
- A1.2 Contextmapping Interview Questions
- A1.3 Statement Cards of Interviews

### A2. Concepts

- A2.1 Subtle Advice Giver
- A2.2 Hackable Hood
- A2.3 Personalized Planner

### A3. Brainstorming Workshop Materials

- A3.1 Persona Cards
- A3.2 Manifestos
- A3.3 Service Design Map
- A3.4 Storyboard Templates
- A3.5 Procedure of Brainstorming Workshop

### A4. Brainstorming Workshop Results

- A4.1 Subtle Advice Giver
- A4.2 Hackable Hood
- A4.3 Comprehensive Planner

### Appendix B

### **B1. Feedback Report**

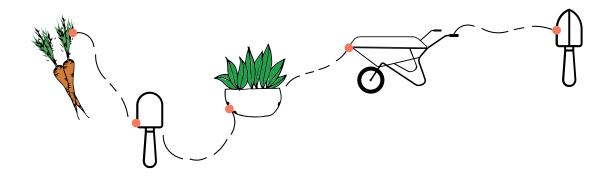
### **B2. DIY Exchange Hubs**

- **B2.1 Building Manual**
- B2.2 UI Screens of DIY Hubs

### **B3.** Testing: Oosterwold Ontkiemt

- **B3.1 Testing Procedure**
- **B3.2 Survey**
- **B3.3 Survey Results**
- **B3.4 Carpenter Communication Document**

# **Understanding Food Growing Practices**





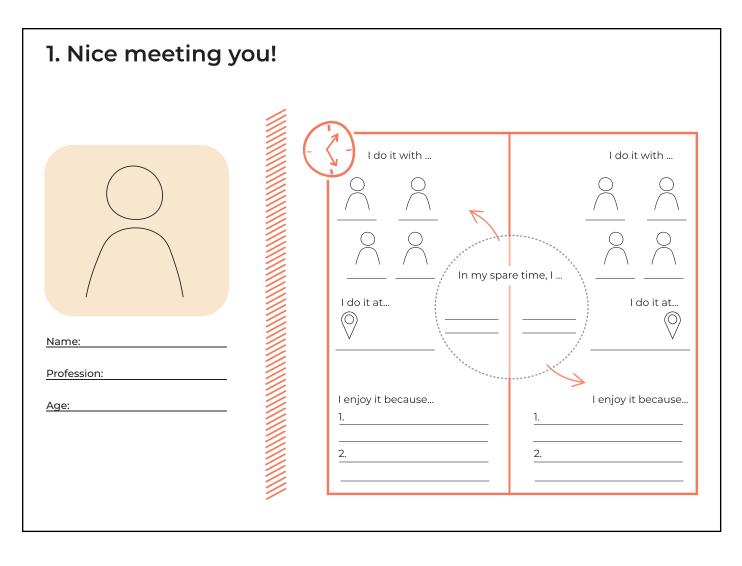


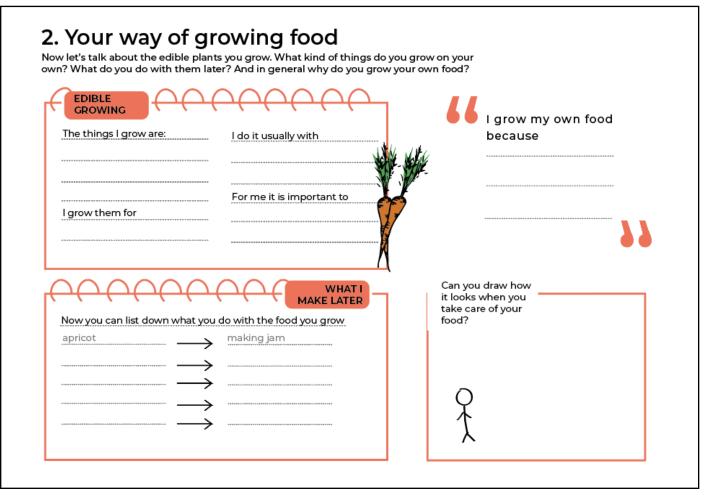


Hello! I am Yağmur. As you know, for my graduation project I am working for the individuals who grow their own food in Almere and you are one of them! Thank you for being part of my project!

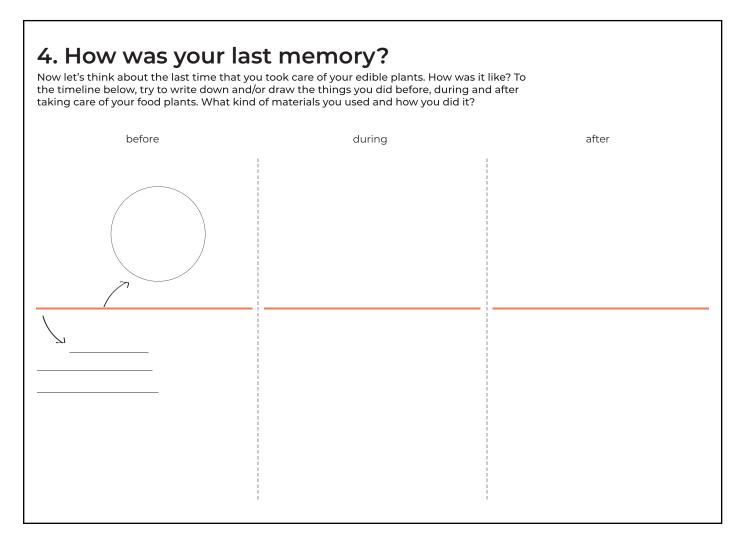
By preparing this booklet, I want to understand you and your way of food growing. For this, I prepared some questions. There is no right or wrong answers so please feel free to write and draw to your booklet.

If you have any further question, feel free to call me from 0645644980.

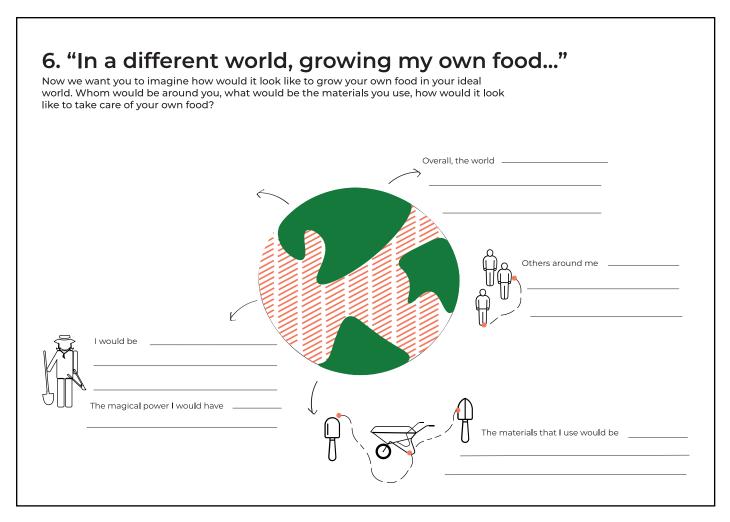




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5. Pains and gains of growing your own food  Based on your last memory that you just described, what are the pains and gains of growing your own food? In other words, what are the good and bad moments during this process for you?  Again, map them below by telling why as well.				
	before	during	after	
1. I like doing				
positive negative 1. I didn't enjoy				



7. Now your call  Based on the questions that you answer, are there any comments or remarks you want to make? This page for you to write down or draw!
Thank you!

### A1.2 Contextmapping Interview Questions

Thank you for filling out the booklet, before we start I can ask; how was it for you to fill it in? Did you like it or not, were there any points you had trouble filling in..

#### 1. Let's know you

All right. Now let's start with your first exercise. You listed here 2 activities, how often do you do these activities?

We also asked you to write down the reasons of why you enjoy them. Can you elaborate on these further? Why is it important for you to be with your family for example.

### 2. Your way of growing food

edible growing Now let's go to the other page. Here you listed the things you grow, is it the whole list?

You said that this is important for you. I would like to ask this a little further. Maybe in 4 steps. For you what is the most essential material/skil/person/emotion of growing food, the thing that should be there, otherwise you wouldn't grow? what i make later About the things you make later, can you explain further one of them in detail.

drawing self I see you holding a tree, how do you feel there?

#### 3. Your relationship with growing your own food

conversation Would you like to add anything to this?

**meaning card** I see here that you wrote down meaning here. Through doing what you think you express this meaning? I mean through what kind of behaviors, words, or approaches.

#### 4. Your last memory

timeline I see that here you start with this and this. Is this always how you start or does it change from time to time? Why is that?

Looking to this timeline, which part is your favorite part? Why is that?

#### 5. Pains and Gains of Growing your own food

**timeline** I see the negative moments here, why are they negative? How would you want them to be?

Would you like to change anything in this process and how? Why to you like this change to happen?

#### 6. In a different world, growing my own food

I would be why this kind of a magical power?
materials why this kind of materials?
others why? are there any specific way that you don't want people to be?
world how would you describe this world? why?

### **Thing-Centered Ethnography**

Let's locate these 3 cameras on 3 of your objects that you use while you take care of your food. They will just record while you do your activity.

Now I would like you to take care of your plants like you would do on a regular basis.

The reason that I do this kind of a study, is to see from the eyes of the objects. They may reveal unthought patterns or behaviors of the context/your practice.

### A1.3 Statement Cards of Interviews

colorbar After printing, please mark this field in your personal colour (for easy sorting) paraphrase They do gardening in an upscale way than a traditional approach quote We are more like we want everything to be stylish and perfect Space for notes during session colorbar After printing, please mark this field in your personal colour (for easy sorting) paraphrase Taking care of the vineyard takes a lot of time quote I don't have any spare time this was a little bit sad. Every free or spare time we put in the vineyards. Space for notes during session colorbar After printing, please mark this field in your personal colour (for easy sorting) paraphrase They take good care of their plants hoping that they will get back quote Make sure that every plants get its attention because what you give is we hope to take back. Space for notes during session

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paraphrase

# When the plants are young, they need more attention. Taking care of new plants take a lot of time and effort.

quote

We don't have a lot of spare time at the moment because the grapes are still very young so we have to actually give them a lot of energy

Space for notes during session

colorbar paraphrase After printing, please mark this field in your personal colour (for easy sorting)

They like to get sun for their plants.

quote

Last year was a really good year. There are a lot of sun especially for the Netherlands

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paraphrase

In order to get more alcohol in your wine, the grapes should have high percentage of "uxle" (sugar)

quote

That's the percentage of sugar that is inside the grapes, the more percentage of "uxle"; the more percentage of alcohol you can produce.

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paraphrase

### High sugar level on grapes makes them harvest. High sugar misleads towards harvesting.

quote

Some of the grapes they gave us more than 100 of uxley which is very high, so we decided to harvest our first grapes but it was actually a bit early.

Space for notes during session

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paraphrase

# 50-60kg of grapes are not enough for them to make wine. Collaboration between producers is possible.

quote

It was only 50-60kg, which makes it harder to produce wine and right now we blended it with another vineyard in Almere

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paraphrase

They may consider to sell it for fun, in small amounts as a "publicity" of Oosterwold's wine.

quote

We can actually sell it in the centre at the visit center where tourists visit that is nice to do but isn't like a business or something, just for fun

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paraphrase

	They don't grow their plants with chemical substances.
quote	It is important to grow without chemicals
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paraphrase	
	In the current situation of food industry, things are overproduced.
quote	All of our vegetables and the most of our food is actually overproduced.
Space for notes during session	
colorbar	After printing, please mark this field in your personal colour (for easy sorting)
paraphrase	The printing product mark and read in year personal colour (15. cday colours)
	They finished their garden in an organic way,
quote	We tried to do our whole garden just by nature
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paraphrase

### Since gardening is not where they earn money, they experiment with how they grow their plants

quote

Because it is not a real business for us, we can just do a little bit of experiments, and experimental stuff. We tried with horse poop and then try to put it on the ground just to see how the ground will react.

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paraphrase

### They experiment with their plants to see if the outcomes would be better.

quote

Just to be curious and just to say if it's really gives us more grapes or another type of grape or taste is different or growing is better etc.

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To play with: Quantity, variety, taste quality, difficulty level

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# Experimentation may not always result in a good way. However, they still appreciate the outcome.

quote

Because of the good weather last year we thought well lets give it a try and then we see because it is only like 50-60 kgs just try and mix it with the other grapes and then see what comes out of it. It's a little bit of surprise; but well..

Space for notes during session

A balance between experimentation and know-how is needed.

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paraphrase

## A simple material can be used throughout the whole process.

quote

It would be scissors because we need that to make sure that you cut the end of the plant. Also to leave the plants out of its leaves because too many leaves just keeps the sun out of the grapes. It is the most important tool to use, very simple.

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# The most essential skill is patience with love and care, to grow food.

quote

I think you need a lot of patience and the best thing is just tender love and care.

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paraphrase

## They believe that when you take good care of plant, you will see good results.

quote

If you take care of your plants, then I am sure you're going to see it back; it pays back in the results.

Space for notes during session

Balance, tradeoff between human x plants

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paraphrase

## To grow food, enthusiasm and being interested come before knowledge.

quote

You have to be enthusiastic, you have to be urban greenery and not like you need to know a lot of stuff about it.

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### To grow food, a lot of perseverance is needed.

You do need to have a lot of perseverance.

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paraphrase

### They need help from people

quote

We actually need more hands to do it because we do it on our spare times and besides work; that is not enough time

Space for notes during session

Opportunity for collaboration

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paraphrase

# With an old tree, they can produce food faster. They make cake and ciders

	They make cake and ciders
quote	We bought the pear tree that is 40 years old, they produce pears so we can harvest them in October and then make cakes, cider
Space for notes during session	
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paraphrase	
	They need older trees to give food. That is why they bought one.
quote	We also have young pear trees and apple trees but they are too young to give fruit so that's why we brough the other one.
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paraphrase	
	They want to find new ways of how to lessen the sugar but keep the taste same.
quote	I did jams before but it is a lot of sugar so we have to sort it out how to make it with less sugar but tastes the same.
Space for notes during session	

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paraphrase

# They want to experiment with what nature provides them in their garden.

There are few people who do it biological way I know that they make all the preparations and so on But we like to do it ourselves just to see how it works, also experiment with flavors. Just take a look what nature gives you
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They think that food is overproduced and not tasteful anymore.
The whole world that we live in right now that everything is overproduced and not as tasteful as it was before.

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paraphrase

## They think that food growing without real sun is artificial.

quote

You can taste the difference between tomatoes grown in here and in Spain or Italy, here everything goes under the glass so it is artificial.

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Beliefs

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# They want to see what their lands can provide to them naturally.

quote

I want to see what the nature here in the Netherlands can give us and just try to see what kind of mixtures you can make and hopefully it will taste better than all the stuff that we buy from supermarkets.

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Low threshold of sufficiency.

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### They know that they cannot grow everything on their own.

quote

I also buy and I use because it is very convenient also you cannot grow everything on your own

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Through growing their food, they learn to appreciate food. They say that their effort has a taste.

quote

It is more about being into food. You can actually taste everything that you put in. It is better because actually then you are going to value your food more.

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paraphrase

session

# When you grow your own food, it increases your awareness towards environment and where your food comes from.

quote	All the hard work you put in, then you are going to be more aware. I think it's about awareness.
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paraphrase	
	Having your own garden requires more responsibilities than having growing inside of house with couple of pots. It is harder.
quote	This is something totally different than we used to normally do. We used to just put tiles and just a few plants and no pain.
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paraphrase	
	They want to do the good thing for the plant. They want to see good results of their efforts.
quote	We really hope that everything we do is a good thing for the plant but also for the efforts you put into it.
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paraphrase

# They may doubt after doing something whether they did good or not and this may create sadness/frustration..

quote

Also all the efforts you put into it. The first time we had to cut all the grapes after the winter; we were a little scared whether it was a good thing to do. I even cried. Should we'd done it differently or did we do a good thing?

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paraphrase

They see plants as their children. They want to take "good" and "correct" care of them.

quote

It is like having your 500 children and hoping that you're really going to take good care of them, do all the right stuff because otherwise well they will be dead.

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Importance of "taking care" → reframing care.

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paraphrase

Through learning the whole process before, they gained the experience. After having that knowledge, the rest is trial and error.

quote

We had 4 months of class where we worked in a vineyard. You can actually see whats needed to be done from putting the plant into the soil to the harvest and making your own wine. And the rest is trial x error.

Space for notes during session

Know first then trial x error.

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## There can be other factors which can harm your food, even if you do everything correct.

quote

You can only see if its' a wrong thing to do if the plant dies, or doesn't give grapes. Maybe there's a fly comes, or it can be some other factors we don't recognize or know..

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Predictions, knowing is good but leave room for improvisation.

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paraphrase

# In the relationship of human and nature, human can help nature to make it run smoothly according to its own balance.

quote

Nature lives on its own, sometimes just needs a little bit of help to get more sun or more water.

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Nature x human relationship

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paraphrase

### Growing your own food gives an understanding of balance in life.

quote

It is a balance in how you interpret life and your relationship with food. It is about how you take care and consume your stuff.

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Human x world relationship

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paraphrase

# Nature provides variety of possibilities. Organic food growing can contribute to change the existing food chain

	existing food chain
quote	It means being aware of the possibilities of nature. I feel that I can contribute to the new biological possibilities within the food chain.
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colorbar	After printing, please mark this field in your personal colour (for easy sorting)
paraphrase	The printing please many and new myself personal colour (for easy sorting)
	Before they start dealing with their garden, things seem stressful to them
quote	Before you start, it seems hectic, stressful and even problematic
Space for notes during session	
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paraphrase	They perceive food growing as a process and tradeoff. They put more effort at the beginning, which will decrease as time passes and results will increase.
quote	Now we try to do all the things right so it's going to be easier in 4-5 years; that means we need to put extra effort in the first years so later on it will give us more time. It is like a tradeoff.
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paraphrase

## They perceive food growing as a process of learning.

quote

You will get to know all the things you have to do, you will find more ways to certain things. You will make things easier because you will see if that didn't work, you can do the other way.

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Difficulty level, pace of activities

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### Doing gardening makes them feel calmer and relaxed.

quote

While you're gardening it is more peaceful, calmer and relaxed. If you are outside working it is really fun to do.

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paraphrase

# When they start taking care of their plants, they stop complaining and just enjoy outside.

quote

Looking outside 500 squaremeters , how am I going to do that by myself? Actually when I am doing it, I'm like "oh that's so nice, you can hear birds, sun is outside". Actually you forget all the work and just start doing it.

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### They feel proud when they completed the day.

quote

When you finish it, you feel relaxed and proud to make such a switch in life so it is more like satisfied

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paraphrase

# Stepping outside to garden is like entering into a new world with slower pace and they like it.

quote

Because our lives inside is very hectice and can be stressful, looking outside is just making you more stressed. When you are outside it is like you enter into a new world that is still your but you can switch to a different pace. It is nature, clean air, wind, sun that slows down the pace.

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# In some of the seasons the work load intensifies, which makes growers fed up.

quote

You will have certain moments when you just fed up with growing your own stuff and because that's a lot of efforts and hard work especially during specific season depending on what you grow.

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paraphrase

# Dealing with garden slows down the fast day flow and brings relaxation.

quote

The first moment that I stepped out of the house into green is my favorite part, because that is the moment that I can switch into a relaxed flow, which is better.

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paraphrase

# They like the whole journey as it is. Taking care of the plants by their hands, diy makes it challenging which is good.

quote

I would change nothing, I think the most beautiful part of the whole urban greenery is you do it by yourself. You feel your hands working with it and doing everything yourself makes it more challenging which I like.

Space for notes during session

Current food chain  $\rightarrow$  easy but bad Diy with your hands  $\rightarrow$  hard but good

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paraphrase

They think that the more effort you put in food growing, the more you will appreciate the results. Things can be hard, dirty and slow, you have to accept and appreciate it.

quote

I think it is the problem that we have at the moment is that everything has to be easy and quick and clean; but actually it is not like that. More effort you put growing your own food and actually making something else; the more you are going to like the end result and appreciate more.

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paraphrase	
	They grow their own food based on permaculture
quote	What we are doing here is a little bit of a mixture; you'll have a large variety of vegetables and fruits; around 1500metersquares will be like that.
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paraphrase	
	He likes to grow somehow already-there plants.
quote	I am not the type who would do it from scratch, I prefer to have ready-made small plants and then put them on the ground.
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paraphrase	
•	He prefers simple way of food growing, there shouldn't be too much effort.

quote

It shouldn't be too complicated so I just buy 10 or 20 different vegetables and I just put them in permaculture and then they grow

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paraphrase

session

They care about the source of the ready-made plant; it should be biological. quote We buy ready made plants but it has to be biological and from a reliable source. Space for notes during session colorbar After printing, please mark this field in your personal colour (for easy sorting) paraphrase He values the course of his food, he eats biological and in general self-sufficiency. quote It is important to be self-sufficient and to eat biological and also to know where the food you eat comes from. Space for notes during session colorbar After printing, please mark this field in your personal colour (for easy sorting) paraphrase Hofwebwinkel is a cooperation that sells products of organic farmers and they buy from there for 12 years. We buy most of our products from Hofwebwinkel, it is a biological quote regional cooperation of organic farmers here in the polder. Since 2007 or something we buy most of our stuff from them. Space for notes during

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paraphrase

## They have been eating organic and not processed food for more than 10 years.

quote

So for us biological food and knowing that its local and proper food; not processed etc is already from a long time.

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paraphrase	

For him, the urge to move to self-sufficiency started with the financial crises. He thinks that the whole system in society is corrupt.

quote

I try to be self-sufficient; and it goes back to the bank crisis where we realized that the whole system in society is pretty much corrupt and destroying the world.

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paraphrase

He've heard of Oosterwold from the local newspapers; and he thought it can be the place to shift totally self-sustainable

quote

I don't really recall but it must have been from the local newspapers and I thought; oh that can be a chance to build a self-sustainable house.

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paraphrase

	He likes the tastes of the food the grow far better than anything			
quote	I grow my own food because it tastes better. Have you ever tasted a tomato that you grow yourself?			
Space for notes during session				
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paraphrase				
	To him, growing his own food gives him independency from the big retailers.			
quote	It also gives a feeling of independence. Independence from the big retailers.			
Space for notes during session				
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paraphrase				
	They still buy organic groceries from the market when they need; their idea is to change small malfunctionings for the better.			
quote	We are not going to live on an island, we still buy groceries weekly but we buy from here or from the market. I am not a fundamentalist in that respect but it is slowly looking for where we can change for the better			
Space for notes during session				

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paraphrase	
	He expects from his plants to grow healthy
quote	What I would say to my plant "Ok, we gave you a very nice place here now grow and make sure you do it properly and to stay healthy"
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paraphrase	
	Growing his own food brings autonomy to him.
quote	I feel autonomous, because it is a great deal I feel happy when I grow my own food and trees.
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# For him to connect with his plant, he has to see it growing.

quote

I don't connect with lettuce but I can connect with an acid tree or with pear tree, because they are there for long time and you see them grow.

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paraphrase

He values the whole ecosystem. He believes he contributes to the ecosystem with planting trees, veggies since they become house for other species as well.

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It's also important that you have to understand it's the whole

quote	ecosystem that does it. We have a frog now, it makes us happy, the first bird passing and sitting on a branch of our tree, makes us happy.
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paraphrase	
	He wants the taking care process to be simple and not too complex.
quote	It is also important that the tree shouldn't require a lot, it should be fairly simple and we don't have to do that much to make it grow and if it gives fruit then it's nice, if not then no.
Space for notes during session	
colorbar	After printing, please mark this field in your personal colour (for easy sorting)
paraphrase	
	For him, the most important tool is knowledge in the garden.
quote	The most important tool Knowledge, the know-how of how to do stuff.
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paraphrase

They are dependent to their neighbors and oth food growers when it comes to know-how about plants			
We are at the moment constantly dependent on others to tell us what to do, where and how to plant (talking to Vivien) you have your advice from the grower for example which trees should we plant, are they good in the soil etc.			
After printing, please mark this field in your personal colour (for easy sorting)			
Arter printing, please mark this field in your personal colour (for easy sorting)			
For him, the most important skill is patience.			
The most important skill you need to have is patience I think.			
After printing places were this field in your property calcum (for any conting)			
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He want his garden to be grown up already.			
This is all from scratch, all new But I am 54 and I don't have 20 years, I mean I have 20 years but I wanted this garden to be big already and grown up already			

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session

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paraphrase

# They exchange knowledge through a whatsapp group. They also have books from the library about permaculture.

	about permaculture.			
quote	We have different networks of permaculture. We have a whatsapp group, we exchange questions, knowledge, there are some people pretty experienced already. We also have books from the library			
Space for notes during session				
colorbar	After printing, please mark this field in your personal colour (for easy sorting)			
paraphrase				
	Oogsterwold is a Facebook group that shares and cooperates with each other, also through workshops.			
quote	The website of Oogsterwold, is for sharing and cooperating with each other through workshops.			
Space for notes during session				
colorbar	After printing, please mark this field in your personal colour (for easy sorting)			
paraphrase	After printing, please mark this field in your personal colour (for easy sorting)			
paraprilade	Oogsterwold is a Facebook group that shares and cooperates with each other, also through workshops.			
quote	The website of Oogsterwold, is for sharing and cooperating with each other through workshops.			
Space for notes during				

After printing, please mark this field in your personal colour (for easy sorting)

paraphrase

# To get more knowledge, he wants to attend to a 4-5 evenings of workshops.

quote

I want to do a course like 4-5 evenings; if there's this kind of 5 days or so course then I would like to join, I will follow that.

Space for		
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during		
session		

colorbar

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paraphrase

For him, the most important emotions are perseverance and inside motivation. Especially because you see results slower at the beginning.

quote

Perseverance you need. Also inside motivation, especially in the beginning because it is still a lot of work and the results are slower than normal. You would get instant gratification, but here you need to wait for 5 years.

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paraphrase

## For him, to think through all the details about food growing is complicated.

quote

It is complicated, what do you put on the ground and where; what should be the distance in between the plants, how long does it take in which season, then I thought it is complicated.

Space for notes during session

Types of plant supplements, Interaction between plants (distance, substance transfer), seasonal changes

After printing, please mark this field in your personal colour (for easy sorting)

paraphrase

notes during session

He thinks he should know more about know-how about gardening quote Humankind has been doing this for over 10000 years and here I come and I know nothing; but there are a lot of things you should know Space for notes during session colorbar After printing, please mark this field in your personal colour (for easy sorting) paraphrase For people who are not familiar with growing food, seeing an actual veggie grow can be fascinating. quote (talking about a computer geek).. he was flabbergasted, he took out a carrot from under the ground and he was like woohoo it actually grows. Space for notes during session colorbar After printing, please mark this field in your personal colour (for easy sorting) paraphrase Food growing brings him great satisfaction and happiness. quote Overall it brings great satisfaction and happiness. Space for

After printing, please mark this field in your personal colour (for easy sorting)

paraphrase

# His favorite parts are the physical preparations for the plants and harvesting parts.

quote

My favorite part is harvesting part, I also like the preparation part for the first tomatoes. I was looking forward to build a small wall, and I am still looking forward to finish it so we can start putting our plants.

Space for notes during session

colorbar

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paraphrase

# He doesn't want to think about planning, thinking and scheduling because he believes it is complicated .

quote

I don't like planning, thinking, having to schedule what needs to go where and when because it is complicated. For the preperations for example I don't need thinking, it is just building, take the soil put it there and voila!

Space for notes during session

colorbar

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paraphrase

## He doesn't like the need to be a lot of things thought through the process

quote

Before planting the first thing, seeds or small plants; okay which ones are we going to grow; which combines well, which doesn't; are we doing it too early; is April too soon etc.. I don't like this kind of thinking process in relation to food growing.

Space for notes during session

Which thing to plant, combination of the plants, best date to plant, best date to harvest

After printing, please mark this field in your personal colour (for easy sorting)

paraphrase

# Gardening requires active doing with a plan even though he doesn't like the latter, he know he has to do it.

quote	This is something that we should be doing actively in here. I want to just do it but you still need to have a plan. I could have put tomatoes on the ground but then people would be like, it is too early you shoud have done it on the 3 <sup>rd</sup> week of April
Space for notes during session	
colorbar	After printing, please mark this field in your personal colour (for easy sorting)
paraphrase	Arter printing, please mark this field in your personal colour (for easy sorting)
paraprirase	
	Sometimes he forgets the things he learnt from his neighbors.
quote	We ask people when we need information but then I forget and I have to ask again, I hope Vivian remembers.
Space for notes during session	
colorbar	After printing, please mark this field in your personal colour (for easy sorting)
paraphrase	
	He thinks when you have a good system in permaculture, you can actually get max. harvest with min. work
quote	The good thing about permaculture is that if you have a good system you will have the maximum harvest and minimum work.

Space for
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during
session

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paraphrase

#### He prefers permaculture over nicely lined garden.

quote

Having a nicely lined garden, that is not what I want. It is a lot of work, requires more time; it is more like you go against nature and you can never win from there. In permaculture it is more proper ecosystem you go with the nature.

Space for notes during session

Reasons for that are (1) efficiency: time, and effort; also (2) sustainability: aligned with the balance of the nature.

colorbar

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paraphrase

# He doesn't like to not understanding why things do and don't happen

quote

I don't like when there are things don't work and I don't understand why. We have a few tomato plants and at certain point we found black dots on it and we couldn't understand why.

Space for notes during session

Unexpected things: disease, dead of plants

colorbar

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paraphrase

## He imagines a simple solution for the things he cannot understand in his plants.

quote

It has to be simple, and we came to the idea where you have a small garden like this and you ask the screen "ok screen tell me what should I do with my tomato plants" and it says "they need a little bit of water". Then I know what to do

Space for	
notes	
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paraphrase

## He wants to know the best moments to act for his plants

quote

That's another thing; you have lettuce and it grows but when is the best time to harvest? There is an optimum, after that it flowers and its gone.

Space for notes during session

Know-how: timing of plants (when to put to the ground, when to harvest?)

colorbar

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paraphrase

# He feels proud after he is done with the garden for the day

quote

Pride comes later, it is about feeling good about the hard work. The feeling that you've done something nice and useful

Space for notes during session

Post feelings

colorbar

After printing, please mark this field in your personal colour (for easy sorting)

paraphrase

# He imagines to be fully self-sustainable, through exchanging products they grow & make with neighbors

quote

In my ideal world, we will be self-sufficient through the garden making. We would have enough money to sustain ourselves, no one goes to work and here we grow our stuff

Space	tor
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sess	ion

After printing, please mark this field in your personal colour (for easy sorting)

paraphrase

# Copper material is very good for the soil; feeds the soil and also prevents from worms

	the soil and also prevents from worms
quote	It is the best because it traces the grounds very fine copper particles, that copper tools leave to the soil. When you also put copper circular shapes it is both against the warms but also good for the soil
Space for notes during session	Material knowledge
colorbar	After printing, please mark this field in your personal colour (for easy sorting)
paraphrase	
	He has good contact with his neighbors to exchange knowledge.
quote	With my neighbors we have good contact. When I have a question, I ask him, when he needs something he comes as well
Space for notes during session	
colorbar	After printing, please mark this field in your personal colour (for easy sorting)
paraphrase	The product (in easy conting)

## He imagines that the overall food production chain will become self-sustained.

quote

My dream is that overall the world would become totally self-sustained food production instead of our current sick system.

notes during session	Space for
during	notes
session	during
	session

After printing, please mark this field in your personal colour (for easy sorting)

paraphrase

# He thinks if food is grown locally, it should be consumed locally. Otherwise, it contributes to the sick system.

quote	We grow very good onions which we export to South Africa and we import onions from New Zealand. That doesn't make sense, that's what I meant by the sick system. I think it's totally OK to import bananas if you don't grow them. But this kind of exploiting the soil to its max, leaving it for death that's the sick system.
Space for notes during session	
colorbar	After printing, please mark this field in your personal colour (for easy sorting)
paraphrase	
	Growing food brings happiness to him
quote	It brings happiness, well the older I get the happier it makes me feel.
Space for notes during session	
colorbar	After printing, please mark this field in your personal colour (for easy sorting)
paraphrase	pa.g, peace
	He wants to grow a mixed garden, which doesn't require too much effort
quote	We want to make a mix of a beautiful garden and basically choosing as many different plants to grow fruits, and berries We are going to make a little bit of potatoes but not too much because it is all hard work again every year.
Space for notes during	

After printing, please mark this field in your personal colour (for easy sorting)

paraphrase

	He believes in permaculture and that nature always gives something
quote	Nature can be there and gives something, it is similar to the permaculture approach that we have.
Space for notes during session	
colorbar	After printing, please mark this field in your personal colour (for easy sorting)
paraphrase	
	He gave away all the extra food that was left from the previous farmer
quote	Because the farmer was making them; they harvested it but still there are a lot; I took it everywhere to friends, to my neighbors, giving away to the people
Space for notes during session	
colorbar	After printing, please mark this field in your personal colour (for easy sorting)
paraphrase	The printing please many and my sair personal colour (for easy sorting)
	He is against fertilizers
quote	I don't believe in the whole methodology of fertilizers. I think it's a big misconception to fertilize anything.
Space for notes during session	

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paraphrase

	He believes he only needs healthy soil with a layer of humus, composed of compost
quote	What we need is a healthy soil and a humus layer which is basically the compost
Space for notes during session	
colorbar	After printing, please mark this field in your personal colour (for easy sorting)
paraphrase	
	He sees a parallel between his lifestyle and food growing
quote	Well obviously the more you grow, the more busy you get with the garden. With food growing it's also a choice being outside or inside. It is similar to my life that I don't go that much inside.
Space for notes during session	
colorbar	After printing, please mark this field in your personal colour (for easy sorting)
paraphrase	
	He thinks that permaculture enables him to get the joy of outside by not spending too much effort
quote	If you have a permaculture approach then you can have the joy of garden but you don't have to spend too much time working outside.
Space for notes during session	

After printing, please mark this field in your personal colour (for easy sorting)

paraphrase

# He doesn't expect to eat all from his garden. He believes that with taking care regularly but small each time; you can actually eat a lot from what nature brings you.

quote

I also don't make myself any illusion that it will make me eat all year but if you spend everyday sometime in your garden, you can actually eat a lot from what nature brings you.

Space for notes during session

colorbar

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paraphrase

### He thinks permaculture approach prevents diseases.

quote

(talking about his parents).. one thing they don't do right which is better with permaculture is through a lot of diversity in one spot, you can prevent a lot of diseases by having diverse group of plants.

Space for notes during session

Benefits of permaculture

colorbar

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paraphrase

# He believes we need to listen the nature and figure out what the plants like&dislike. Then we can adjust accordingly.

quote

I think this whole monoculture idea is not good. If we go with nature and see some parts don't work very well, then you can change the constellation of plants a little bit and then in the end you can have a beautiful garden which doesn't need a lot of help

Space for notes during session

Benefits of permaculture

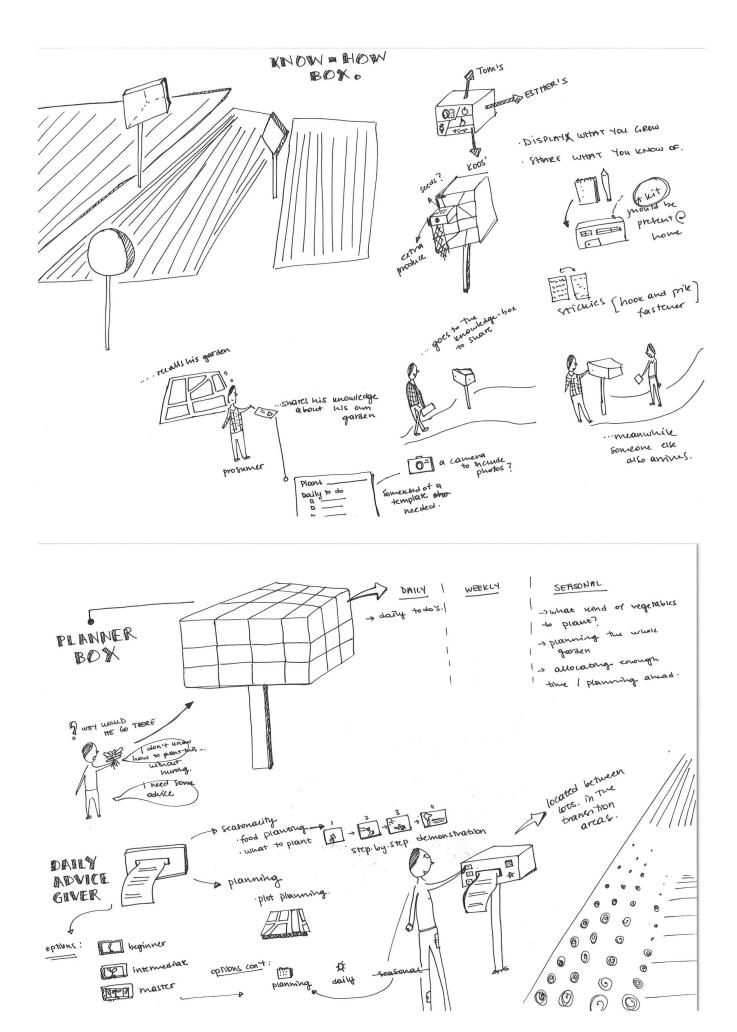
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paraphrase

Space for notes during session

	He is willing to exchange information about food growing
quote	There are many things that I don't know so I am always happy with people having ideas exchanging them especially with the experienced ones with permaculture.
Space for notes during session	
colorbar	After printing, please mark this field in your personal colour (for easy sorting)
paraphrase	
	He gained experience / knowledge by staying in a biological farm in Kenya; which he appreciates.
quote	I've had the pleasure of doing 3 months of research in Kenya in 2 smal scale farmers who were farming in a biological way. So I've learnt another way on how to do gardening different way than Dutch gardens.
Space for notes during session	
colorbar	After printing, please mark this field in your personal colour (for easy sorting)
paraphrase	The printing, please thank this held in your personal colour (for easy sorting)
	He doesn't have knowledge about the plants too much and he wants to gain that.
quote	I don't know many plants by name, I don't know about their chemical routes, you know, what they need, what they get from the other ones, interactions between plants

#### A2.1 Subtle Advice Giver





A prosumer shares her knowledge regarding compost making...



Another prosumer chooses the advice type she wants to have that day...



..there it is!



..tries the practical knowledge on her garden.



...shares it with her neighbors that she comet across...



the reads it...





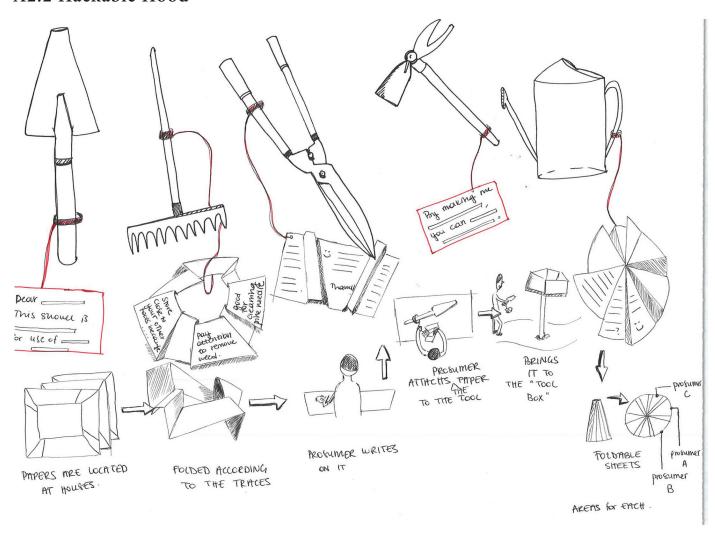


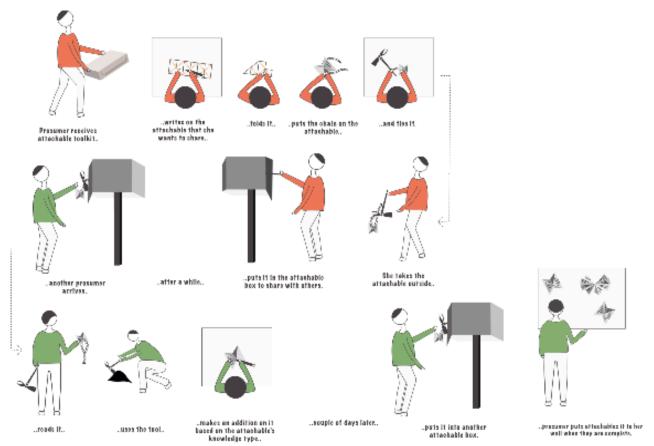


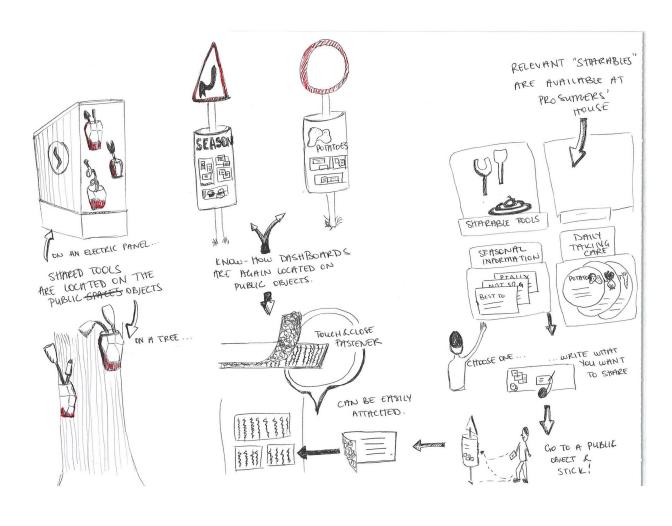


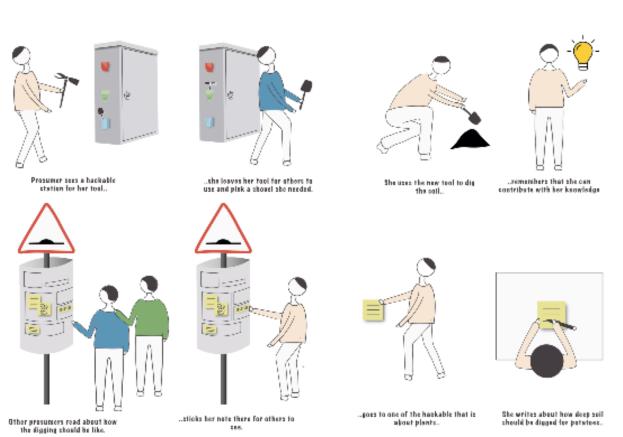


#### A2.2 Hackable Hood





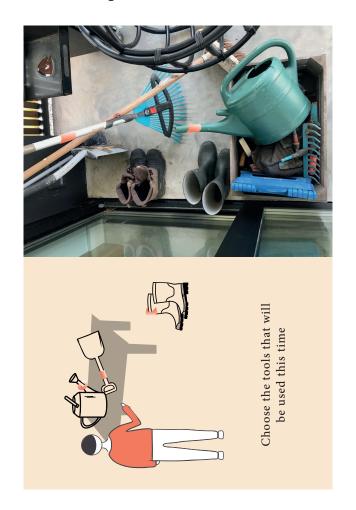






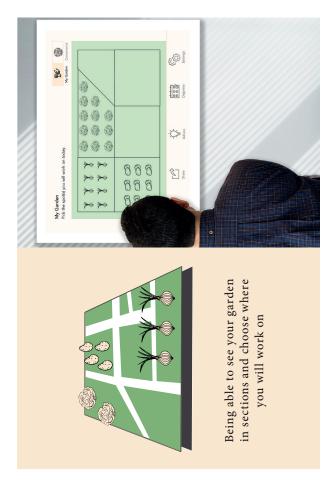


#### A2.3 Comprehensive Planner









#### A3.1 Persona Cards





#### Personal

Name: Bob, the saver
Profession: Retired carpenter

#### Gardening

Edible plants: 5 fruit trees Time spent: During weekends, as much as he wants Experience level: Knowledge from childhood Motivation: Looks good from outside



#### Personal

Name: Dora, the earth lover Profession: Retired teacher

#### Gardening

Edible plants: 12 fruit trees, 13 different herbs, 8 types of root vegetables, 6 types of grains
Time spent: Everyday 2-3 hours
Experience level: Expert
Motivation: Loves being in the nature and growing food



#### Personal

Name: JK, the self-sufficient Profession: Manager Age: 47

#### Gardening

Edible plants: 5 root vegetables (still in the planning phase)
Time spent: Everyday 2-3 hours
Experience level: Beginner
Motivation: Lives self-sufficient and has plant based diet



#### Personal

Name: Luke, the money maker Profession: Finance specialist

Cardening
Edible plants: 2 fruit trees, 2 herbs
Time spent: During weekends, as
much as he wants
Experience level: Knowledge by Experience level: Knowledge by listening neighbors Motivation: Everyone else is doing



#### Personal

Name: Annuk, the mindful Profession: Retired flight tenant

#### Gardening

Edible plants: 15 fruits, 16 different herbs, 8 types of root vegetables, 6 types of grains and beans Time spent: Everyday 4-5 hours Experience level: Expert Motivation: Appreciate connection



#### Personal

Name: Bibi, the health guru Profession: Yoga instructor Age: 38

Cardening
Edible plants: 6 fruits, 12 root
vegetables, 19 herb types, 5 types of
grains, 4 types of beans
Time spent: Everyday 2-3 hours
Experience level: Experienced
Motivation: Healthy and organic lifestyle

#### Workshop Manifesto #1

This manifesto will guide you through this workshop. It is a starting point that describes one of the concept ideas of prosumerism graduation project of Yağmur. You are expected to carefully read and understand below mentioned points and imagine experiences/interactions based on them.

#### Subtle Advice Giving

In the neighborhood, inhabitants contribute each other's know-how. Knowledge exchange is made in a surprising, simple and easy way. One should take the initiative to start the knowledge sharing loop and others will join. There is an unconscious interpersonal interaction among inhabitants, in other words shared knowledge is anonymous. Neighborhood becomes a hub where knowledge can be retrieved easily and in a surprising way.

#### Guidelines

#### Knowledge

- From one to many Think of what can be a reason to start the loop, why taking initiative?
- How experiences and memories can be translated into knowledge?
- How would this knowledge be present in the neighborhood?
- What are the forms of knowledge retrieval in the public space?
- How can this knowledge sharing system be sustained?

#### Meaning

- How meaning can be embedded in this kind of a system?
- What if meanings would be visible within this neighborhood?
- What are the contributions of this system to individuals' value systems?

#### Workshop Manifesto #2

This manifesto will guide you through this workshop. It is a starting point that describes one of the concept ideas of prosumerism graduation project of Yağmur. You are expected to carefully read and understand below mentioned points and imagine experiences/interactions based on them.

#### "-Able"rs

Imagine the neighborhood becomes a public space for its inhabitants to make, create and hack for a shared wealth and specifically knowledge. Neighborhood becomes a communal resource and empowers people through the sense of communal ownership. People take active role as makers, hackers and other forms of doers. There is a visible community building going on in the public space.

#### Guidelines

#### Knowledge

- What are the forms of knowledge in this kind of a hackable environment?
- How would the neighborhood look like?
- How "making the knowledge" would be like?
- What are the "-ablers" for inhabitants?
- How may inhabitants DiY the neighborhood?
- Slow or fast How would be the pace of making the neighborhood be like?
- How can we transform our personal resources into meaningful public experiences?
- How can the public space support inhabitants to enhance their gardening practice?

#### Meaning

- What are the motivations of inhabitants to make the city?
- How those motivations can be supported within the neighborhood?
- How would the meaning of the public space evolve over time?

#### Workshop Manifesto #3

This manifesto will guide you through this workshop. It is a starting point that describes one of the concept ideas of prosumerism graduation project of Yağmur. You are expected to carefully read and understand below mentioned points and imagine experiences/interactions based on them.

#### Comprehensive Planner

In this ideal smart world, you know everything regarding food growing. You can plan your garden through knowing interactions between plants, receiving seasonal tips and many more. You can even organize workshops, events and request participation to them. The other food growers' gardens are accessible to you and you can follow what they grow and how they make planning. You can even get tips and tricks from the *things you use* while you are in your garden.

#### Guidelines

#### Knowledge

- How would data contribute to the knowledge of growers?
- What if inhabitants know everything about each other's gardening practice?
- How does privacy is experienced in this kind of a system?
- What are the ways of generalizing data?
- What is the "correct" moment to retrieve what kind of knowledge in this kind of a smart environment?

#### Meaning

- What would the meaning of food growing become?
- How knowledge may affect meaning?
- Can it bring new meanings?
- How connection of growers with soil may be sustained?
- How would collaboration be like?

How's the form of your design and why is it tha way?	Name / Slogan:	Sketch it!  Draw your idea here. It can be system map, service offering, anything that explains your ideal	Sketch it! a here. It can be service offering, oldins your idea!
What is the purpose of your design?			
How your design contributes to knowledge sharing?			
What are the critical issues that should be taken into account in your design?	(a) realise it!	effortial fast ownership	example:
	design look like? How would an area of it belike?	pre- known	And the second s

#### A3.4 Storyboard Template

Storyboard		

#### A3.5 Procedure of Brainstorming Workshop

Welcome!

First please have a look at the consent forms and read it carefully.

Alright, now I want to briefly explain you the context of my project: Oosterwold and how it looks like.

#### show presentation

Personal growth is linked with the meanings that those people associated the practice of food growing with. Today in order to bring those meanings into the table, you will work with different personas that are in front of you.

Now please have a look at them for a moment. So, before we start, let's have an introduction round so that we know each other, the personas I mean, because you will work in pairs and you are from Oosterwold, it's good to know each other © During the session, try to imagine and design from your persona's shoes.

#### persona introduction

Now I will pass out 3 different manifestos of which you will brainstorm and later design for.

#### give out manifestos

The manifestos include a brief explanation of the ideal world of your design in Oosterwold together with some questions that will help you to brainstorm and also take into account while designing. What would be your first impression of the described world in your manifesto? Now you can make a mindmap with the one sitting next to you. You will have around 10 minutes for that.

#### pass out empty sheets & record 10 minutes

Now based on your mindmaps, you can start making your ideas concrete through drawing your system/service into those sheets and make a storyboard to show the intended interaction. You have 15 minutes for that. Feel free to discuss with your mate.

#### pass out the other sheets & record 15 minutes

Now you can use the blocks, clay and postits to build your designs. You have 10 minutes for that. After that each pair will briefly explain what they did.

#### Give out making materials.

Perfect! Now let's present the ideas, who wants to start? You can also present your storyboard and service map.

How's the form of your design and why is it tha way?

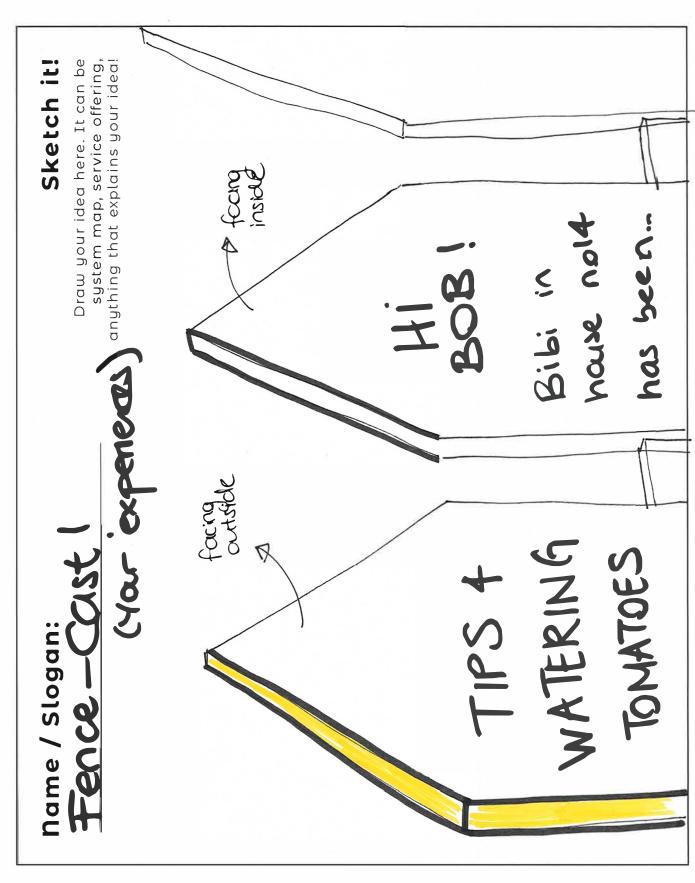
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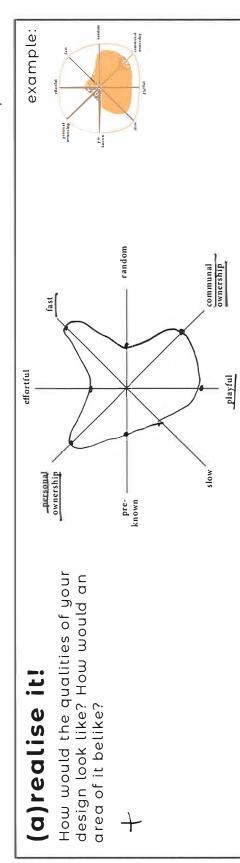
what is the purpose of your design?

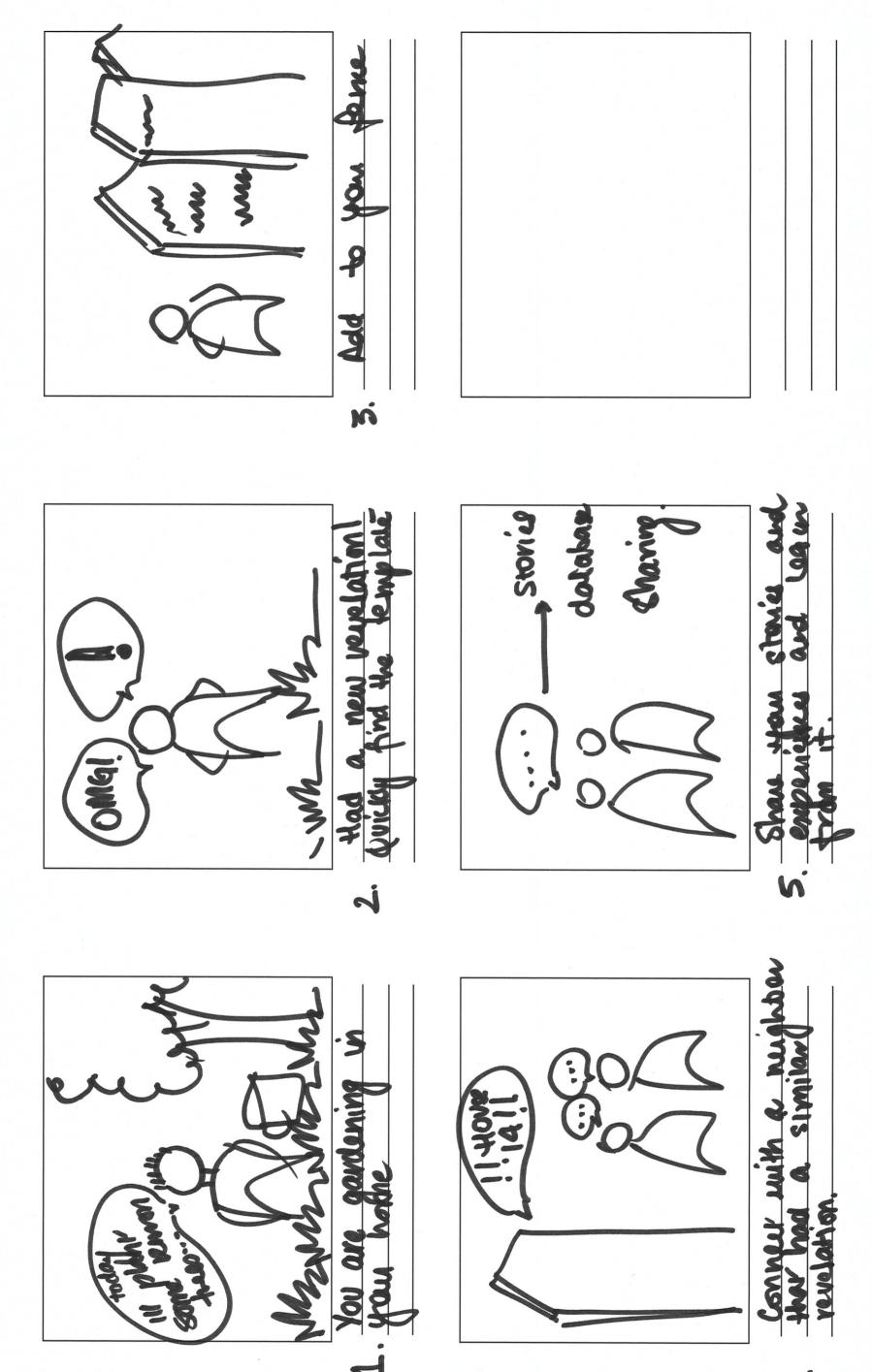
To share landing & experience with the committy

How your design contributes to knowledge sharing? it contributes by arecting a common grand / data collection system for everyone

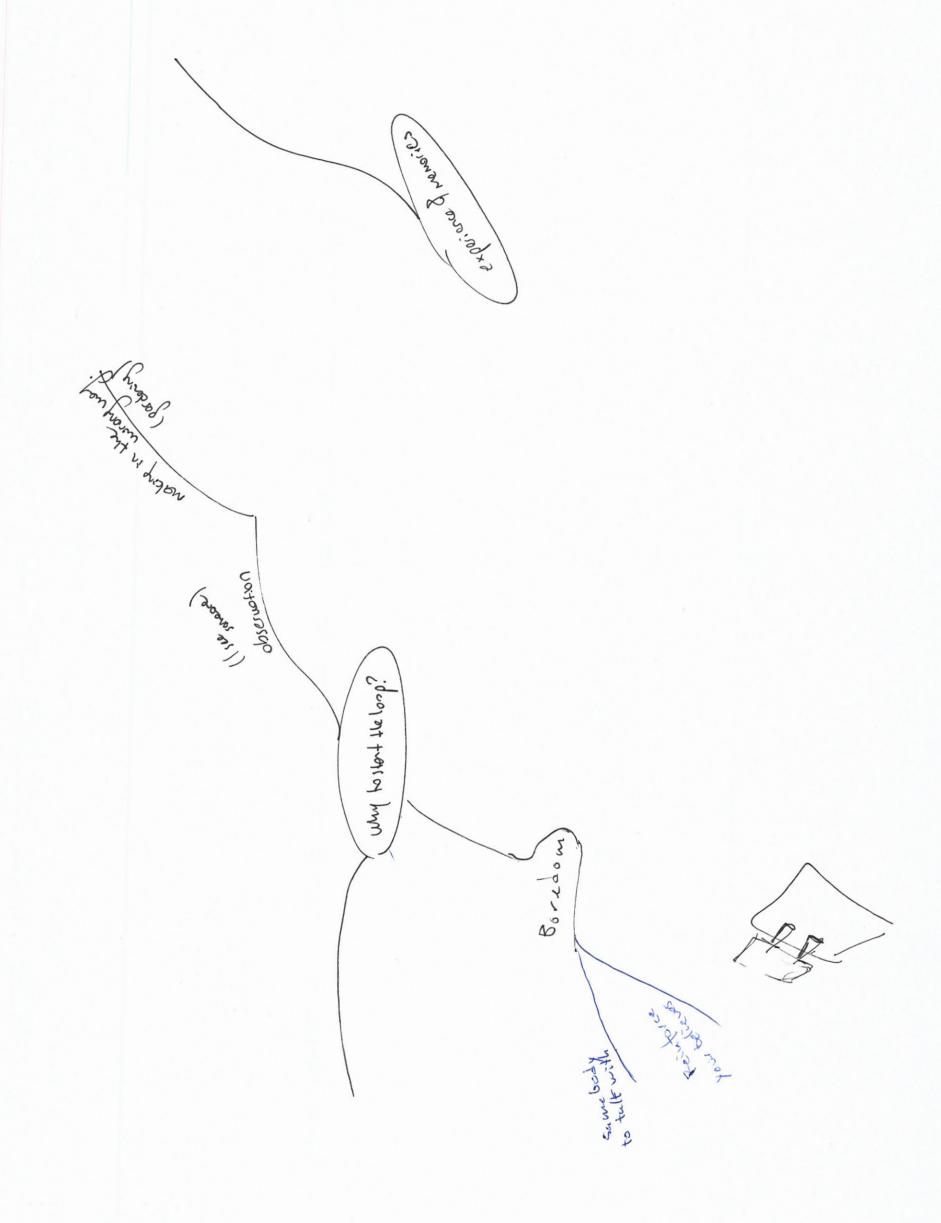
What are the critical issues that should be taken into account in your design? Share their negative experiences so it small be (the temple) should from the issue in a positive ug.

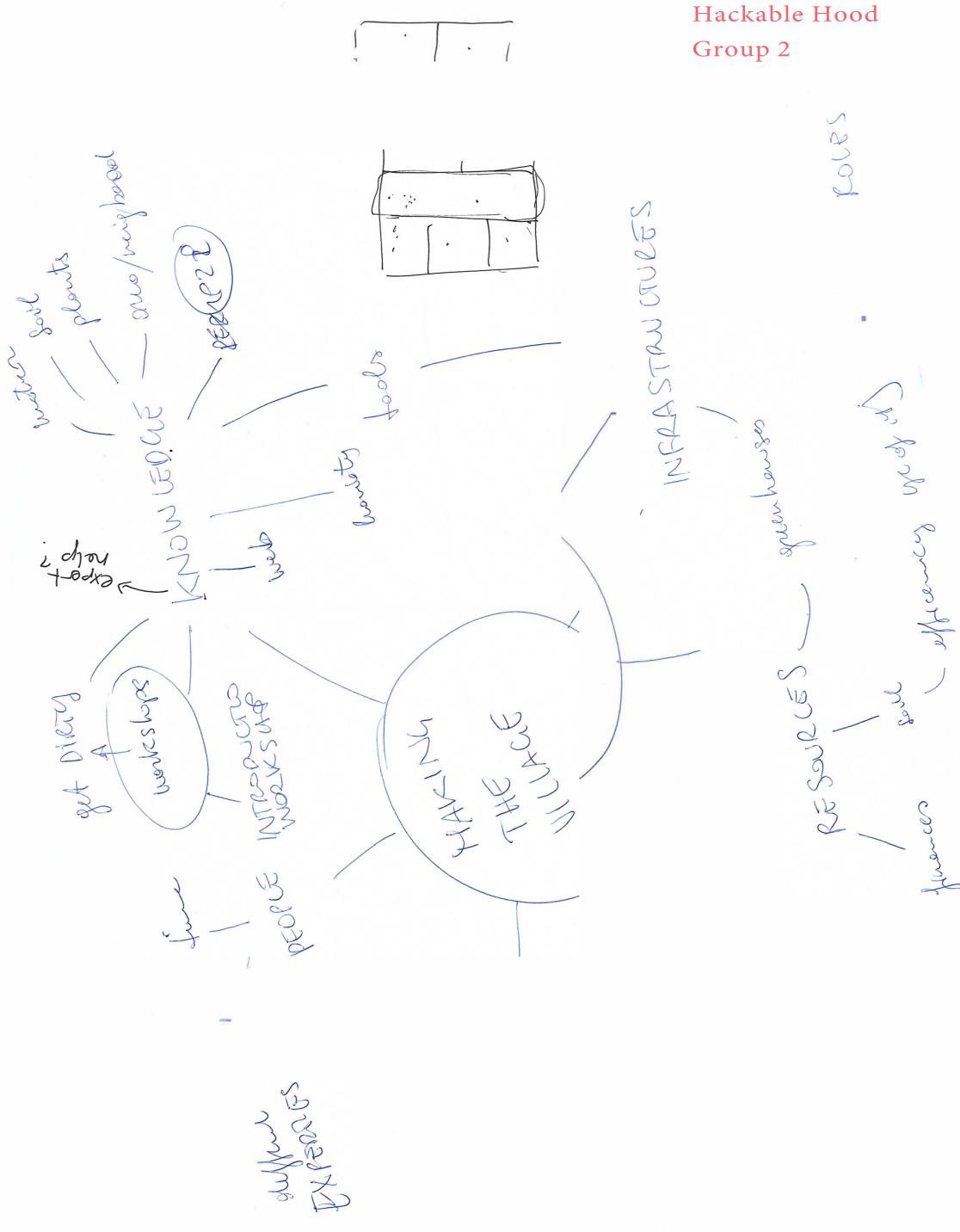






4





How's the form of your design and why is it tha way?

What is the purpose of your design?

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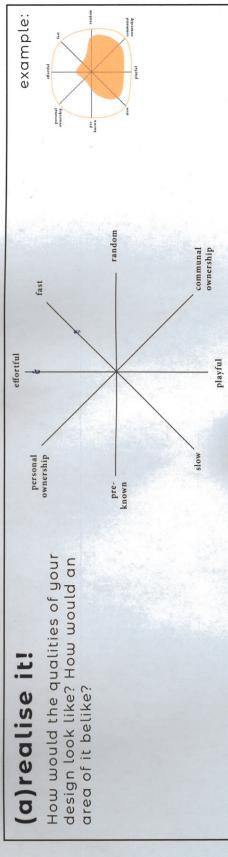
How your design contributes to knowledge sharing?

where follows personal

What are the critical issues that should be taken into account in your design?

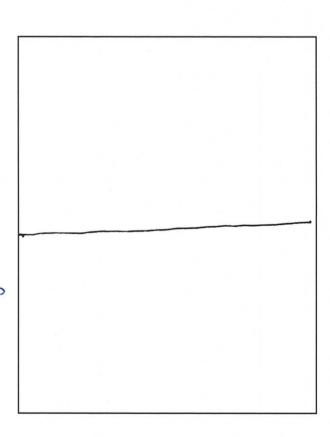
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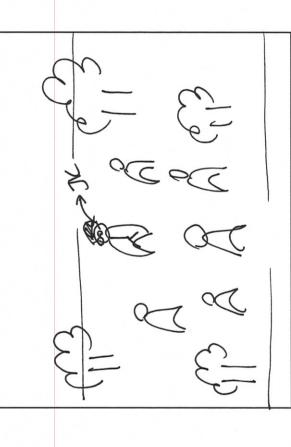


The (member in the community) of the standard

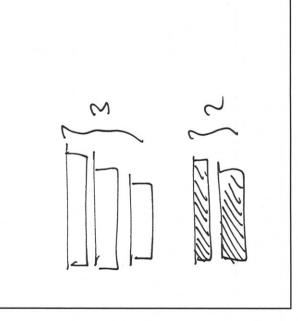
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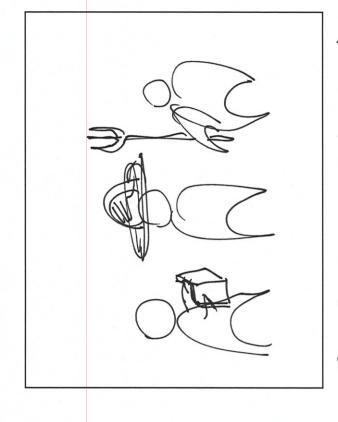
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# Hackable Hood Group 1

design and How's the form of your why is it tha way?

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your What is the purpose of design?

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How your design contributes to knowledge sharing?

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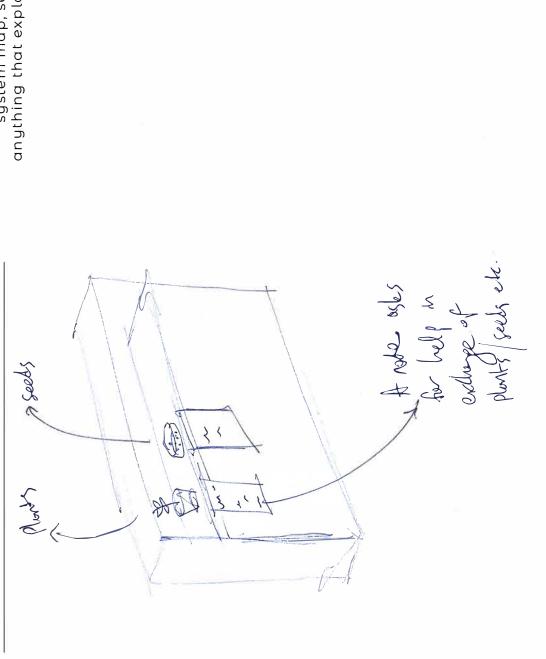
What are the critical issues that should be taken into account in your design?

Jun 7 people unput toke the Mysse of the Shord den It offer

# Name / Slogan:

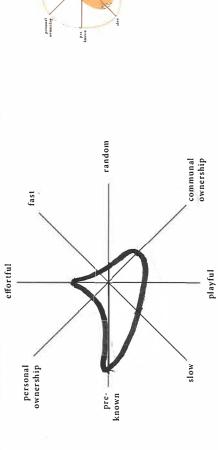
Draw your idea here. It can be system map, service offering, anything that explains your idea!

Sketch it!





How would the qualities of your design look like? How would an area of it belike?



example:

Storyboard

# Comprehensive Planner Group 1

the hand/ nent our small space design and premalor Dome . How's the form of your why is it tha Mgy & and si esect band

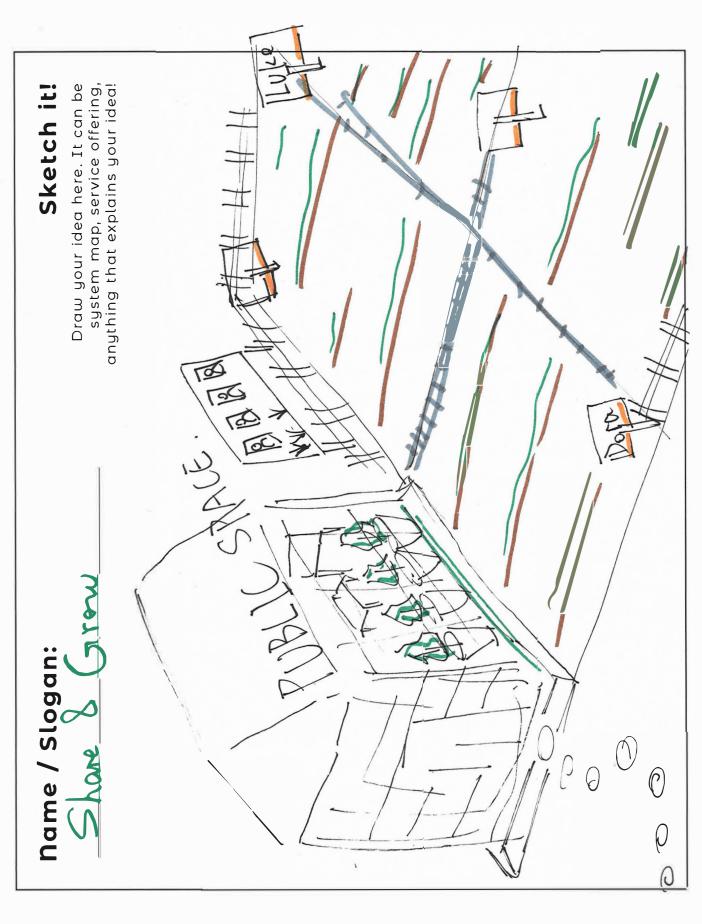
each other plants & knowledge design? Leonin from the mers How your What is the purpose of Sharex mitha

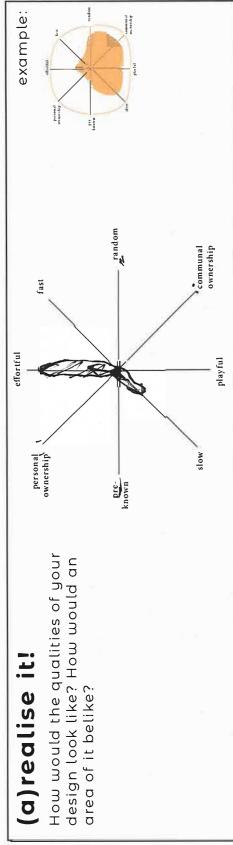
How your design contributes to Exertore is responsible knowledge sharing?

Environment enables them

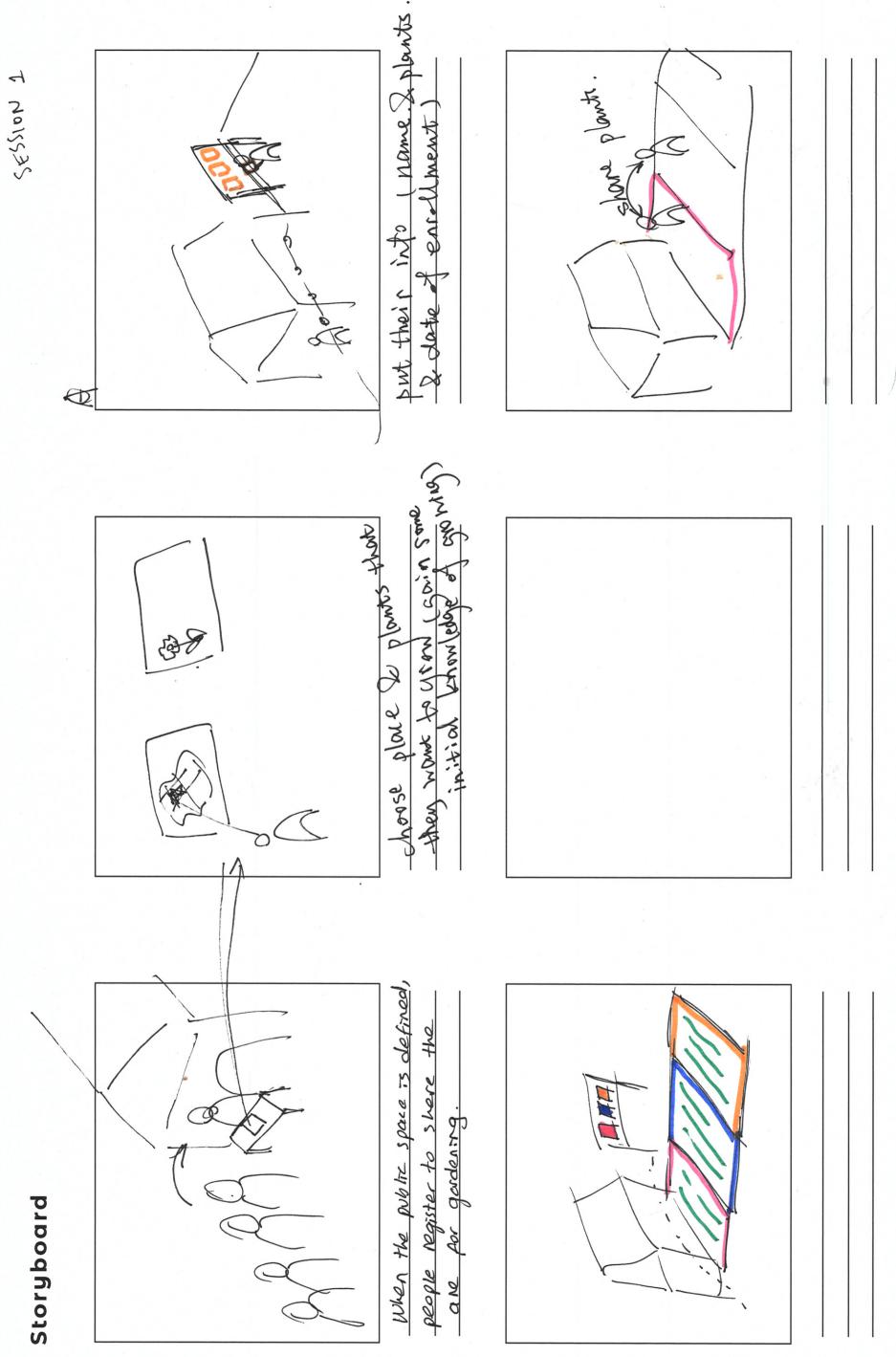
to work together.

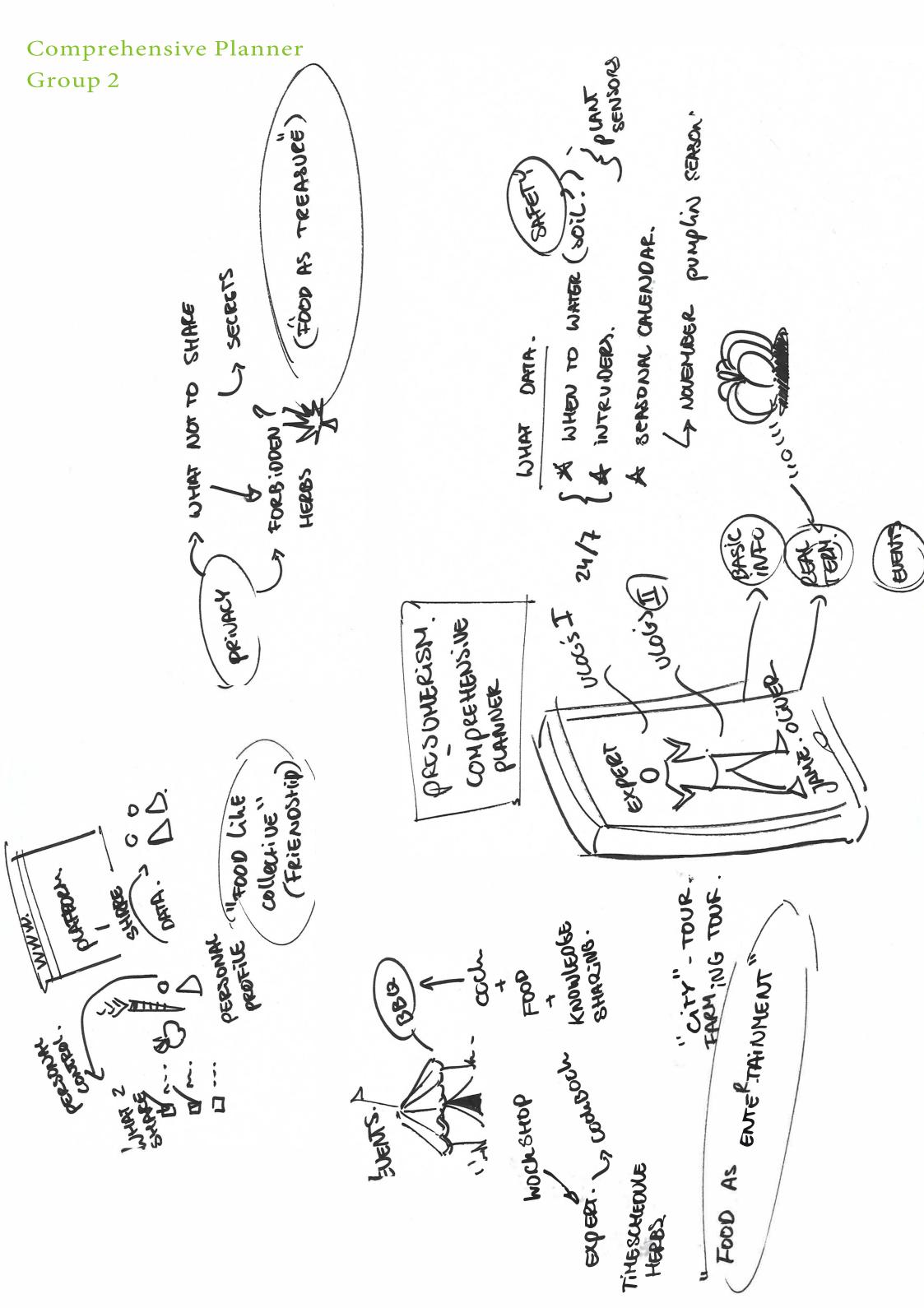
Everyone showbl respect Privacy.





What are the critical issues that should be taken into account in your design?





How's the form of your design and why is it tha way?

LE GUE EYTHING IN TEACHED

WHY NOT SAVE IT TO LOOK

IT BACK: RERECTION TO WHAT IJENT.

TO BACK: RERECTION TO WHAT IJENT.

What is the purpose of your design?

CONVENIENCE

How your design contributes to knowledge sharing?

A COMPETITION -

What are the critical issues that should be taken into account in your design?

+ HARVESTING TO GETHER SENSOR SENSOR New HOUTS Draw your idea here. It can be Sketch it! Inything that explains your idea! system map, service offering, D + Accomplishment +Trps & TRICALS SHARED EXP. + comperition 0 0 A JAMIE OLIVER SERSONAL TIE BASIC LNOWLEDGE + SEADONAL INTO. A TOUR DE TARBAD ENTERTAINMENT +TUTORIAL. Name / Slogan: A CHETACA

(a)realise it!

How would the qualities of your design look like? How would an area of it belike?

presonal fast ownership preknown slow communal ownership

# Feedback Report

Food Growing Practices in Oosterwold

Prepared by Yağmur Gökçe on 24/05/2019 at TU Delft

### Introduction

This report presents the initial concept directions of design research project of me, Yağmur Gökçe. It is prepared in order to receive feedback from you, in order to understand food growing practices in Oosterwold.

Once again, thank you very much for creating time and participating in my project. Without you, none of these would be possible.

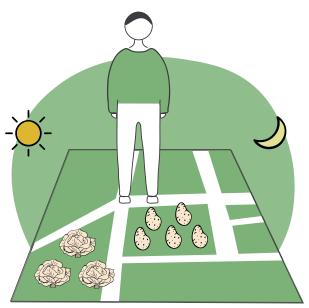
Based on your feedbacks, my coaches' feedbacks and an ideation workshop with other design students, I am going to finalise my design in the upcoming month. If everything goes well, I am planning to be in Oosterwold on 22nd of June participating event of Stadslandbouwplein Oosterwold Ontkiemt.

I am looking forward to see you and your neighbors there to share my final design with you! In this report first you will find a summary of my research findings. Following that, I will introduce four concepts with different design characteristics. Once you read them, then we can have chat about the concepts. While you are reading keep in mind that they are not finished designs, they just provide an overview of the possibilities that can be in Oosterwold. Also note that the word prosumer refer to someone who produce and consume her own food.

While you are going over the concepts, I kindly ask you to think about:

- 1. whether you would use it,
- 2. why would you use it,
- 3. what are the possible problems or misfunctionings that you think about
- 4. whether your neighbors would use it,
- 5. how it can be improved / changed

Sincerely yours, Yağmur Gökçe



First impression of Oosterwold from my eyes.

### **Findings**

The research study that I conducted in Oosterwold revealed that lack of knowledge is the main issue that hinders the practices of people who grow their own food in Oosterwold. This lack of knowledge is visible in two categories: plants and planning. Plants include interaction between plants, compost making, permaculture approach, seasonal tips and garden making in general. Planning covers the whole process of planting a vegetable or fruit, covering steps like buying seeds, growing before planting, planting, daily care taking and harvesting. As one of the elements of the gardening practice, competence in the case of Oosterwold has a lot of room for improvement.

Interestingly, the research findings show that the meanings people associated food growing with, tie them into the practice itself and enables it to prolong. In other words the meanings are people's motivations. Those meanings are either on a personal or collective level. People may consider gardening as a meditative practice, a practice to stay healthy and be one with nature, or a tool for money saving. Hence, spirituality, health and monetary concerns are examples of personal level motivations.

Collective motivations on the other hand are the issues that should concern the whole world. For example, people grow their own food as a way out from the globalised food and money system, a way to be against mass-production or the best thing for the environment. Collective concerns were thus social, financial or environmental.

Such meanings associated with gardening are pull-factors towards food growing practices in Oosterwold and they should be targeted in the future.

Accordingly, the design goal of the thesis project is formulated as: How can we enable knowledge sharing of prosumers through supporting the meanings they associate with gardening? Through that, the project aims to enable community building and increase in the number of people who grow their own food in Oosterwold.

### Concepts

In order to translate findings of the previous sections into concrete ideas, this section presents initial design concepts of the graduation project. They are different ways of tackling the previously mentioned design goal with different design characteristics. Further the project will proceed with a brainstorming workshop with 12 designers together with the feedback from you in order to decide which concept or which combination is going to meet design goal the best.

### 1. Advice Giver

In this concept, knowledge exchange is made in a surprising, simple and easy way. The concept comprises of two parts. In the first step, through an online platform prosumers share their know-how regarding plants, planning or motivation. It is like filling out an online form but regarding their practical know-how, motivational memories or daily experiences. Image 1 shows how this online platform looks like.

Those forms then are transferred into the boxes that are located around Oosterwold, this is the second step of the design. Other prosumers, or inhabitants of Oosterwold may retrieve those forms through pressing the type of know-how they are looking for; planting, planning or motivation. This way, the neighborhood becomes a hub where knowledge can be gained in a surprising way. Images 2 and 3 illustrate the intended interaction with the concept.



Image 1. Online platform flow of advice giver



Image 2. Impression of advice giver in Oosterwold

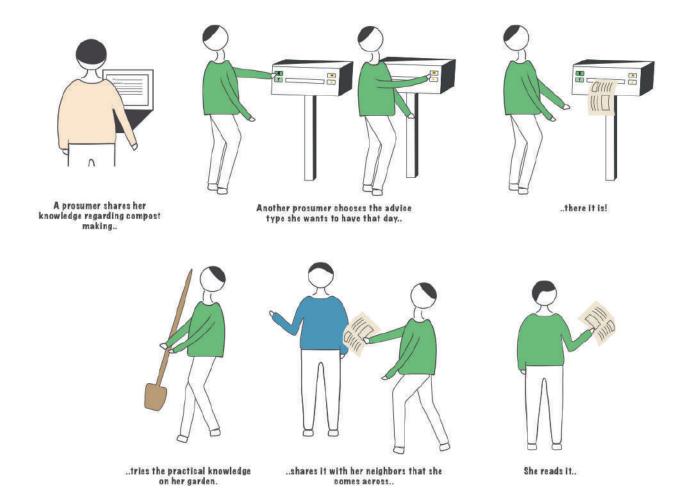


Image 3. Storyboard of advice giver

### 2. Attachable

'Attachable' comprises of (1) attachable paper templates and chains to attach it to gardening tools and (2) attachable boxes that are located around Oosterwold. Through writing on the papers and folding it based on the paper templates, prosumers may make origami-like shapes which they can attach on their tools and later share with each other through the boxes. In this concept, know-how about gardening is shared in a slow and careful way, like in the old times, as if we used to write letter to each other. By exchanging tools and information attached to those, 'attachable' aims to create a sharing network like illustrated in images 4 and 5.

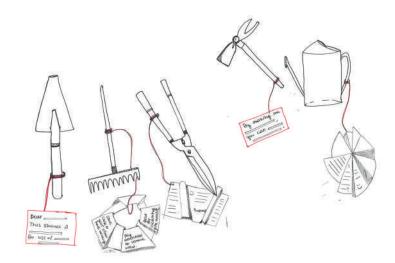


Image 4. Hand sketches of attachable

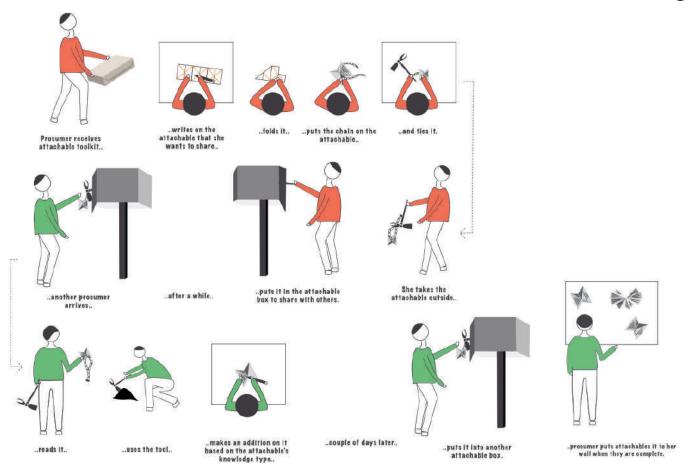


Image 5. Storyboard of attachable

### 3. Hackable

In a neighborhood, where you can hack the public space; how would knowledge look like? Started from this idea, the concept of hackable presents an Oosterwold that can be transformed into a living and visible know-how hub. Prosumers may exchange their tools, or practical knowledge regarding plants and garden planning through public space. By hacking the public objects such as, traffic lights, electric panels; prosumers create their knowledgeable Oosterwold. Image 6 and 7 illustrate how Oosterwold would look like.



Image 6. Impresion of Hackable

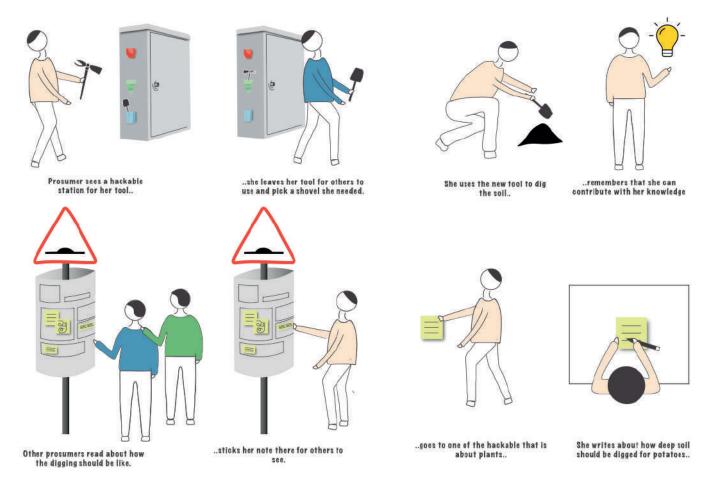


Image 7. Storyboard of hackable

### 4. Personalised Planner

This concept introduces a smart and comprehensive way of gardening through its personalised screen that are installed in prosumers' houses and smart clips that are attached onto gardening tools. Through the screen, prosumers may plan their garden, see what their neighbors plant, organise events, ask questions to others and decide daily work load on their garden. The benefit of this concept is that the screen and the clip communicate. In other words, the clip knows what the prosumer does while she is in the garden and it can give recommendations based on the activity type of prosumer. Image 8 and 9 gives an overview of the concept.

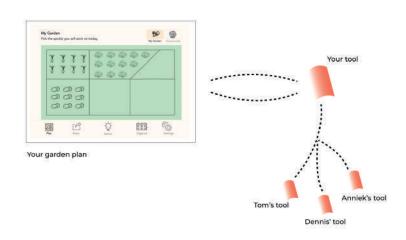


Image 8. System background of personalised planner



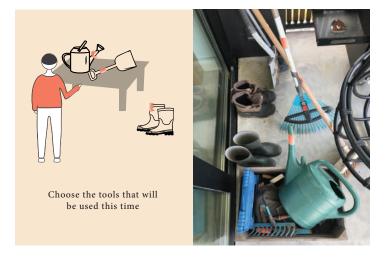


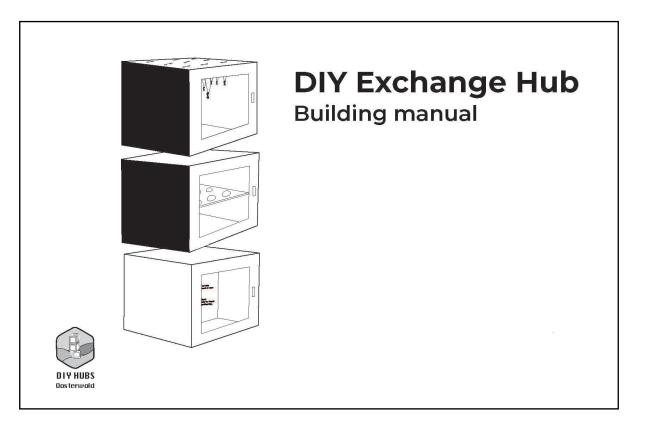




Image 9. Storyboard of personalised planner

### Conclusion

This report presents outcomes of the ongoing design project of food growing in Oosterwold. Based on the findings of design research, lack of practical knowledge is found to be the most dominant drawback of the food growing practice in Oosterwold. This may cause low number of engagement with prosumerism, and further may demotivate community of Oosterwold. In order to tackle this issue, four concepts are presented with different design characteristics. The project will continue to further iterate on concepts and further develop one final design by the end of July 2019.

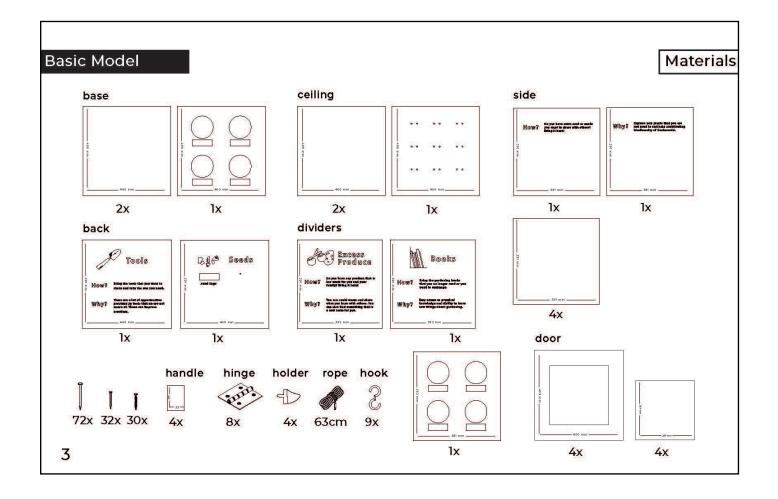


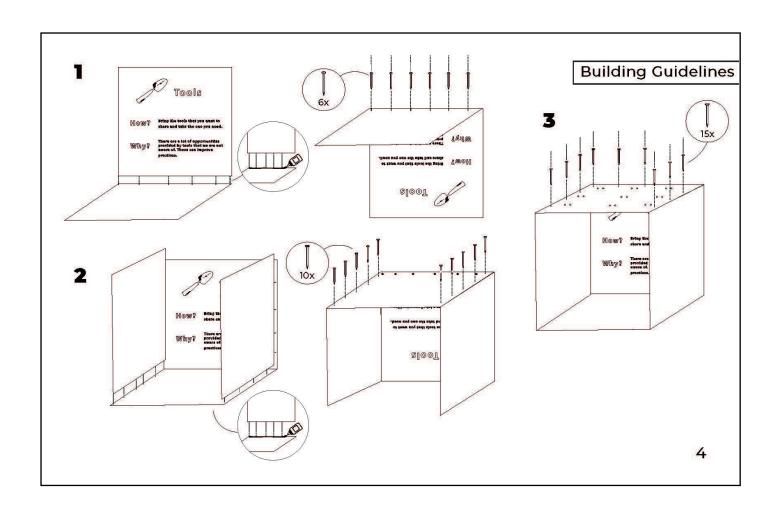
# Before you start

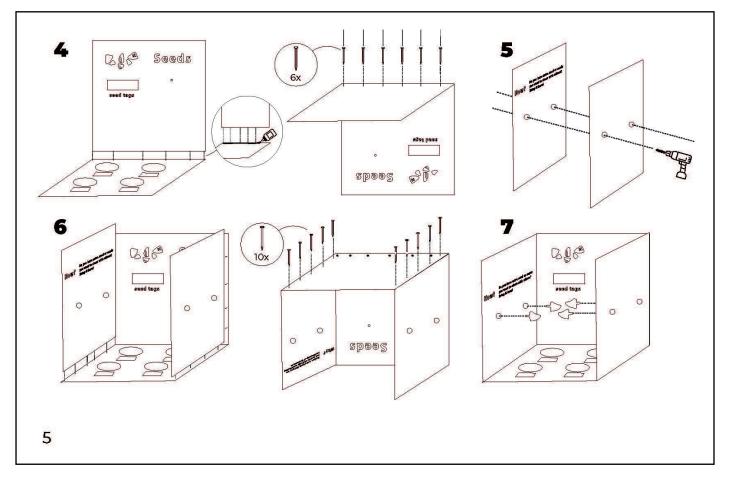
This manual will guide you through building exchange hubs for Oosterwold. Through these hubs; gardening tools, seeds, excess produce and books can be exchanged. The manual shows basic and extended building ways; depending on what you want and need. Basic model describes a standard way of building of DIY Hubs. Extended features provide insights about how to increase visibility of the hubs as well as offering different options for storage and usability.

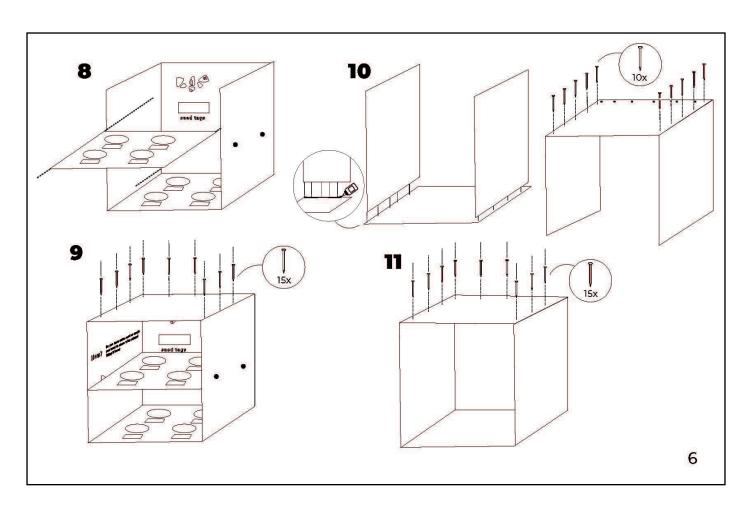
DIY Exchange Hubs is an outcome of a project specifically designed for Oosterwold in collaboration with WUR and TU Delft by a master student, Yagmur Gokce.

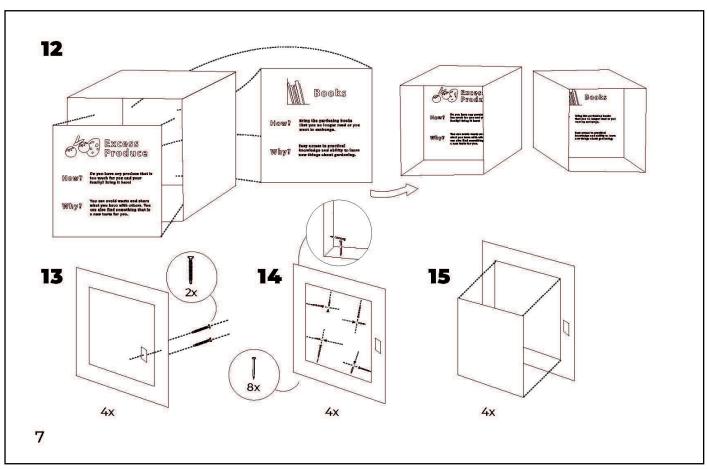
# Contents Basic Model 3 Materials 3 Building Guidelines 4 Extended Features 10 Coloring and Visibility 11 Shape & Functional Differentiation 15

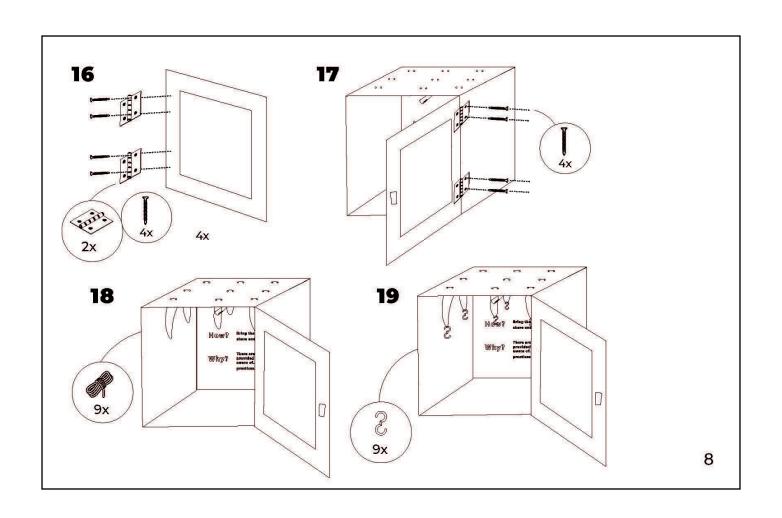


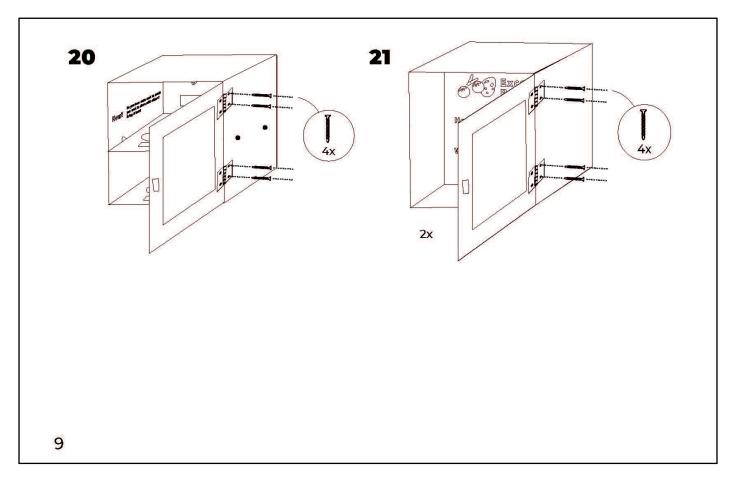












### Extended Features

### Coloring & Visibility



### **Duct Tape**

### Recommended Application & Installation

- ► Circular ground: Use tape to stripe outer sphere of DIY Hubs in a way that will create a circular zone.
- ► Linear indication: You can use the tape to create temporary indications that leads to DIY Hubs by cutting the tape into pieces.

### **Tips and Considerations**

- Sweep or wash the street to remove dust and soil residuals before applying.
- > Suitable for short term usage from 1 day to 1 week
- ⊳Can become slippery if wet.
- > Low cost option that is easy to source and remove.

### **Potential Sources**

⊳Buy it from a local hardware store.



An example of linear indication to DIY Hubs



### Recommended Application & Installation

- ▶ DIY Hub Mats: Cut the black floor mat in a way that it will create a mat base for DIY Hubs.
- ► Zoning: You can use the mats to make zones around DIY Hubs; like chatting zone, maker zone or music zone.

### **Tips and Considerations**

- ▷Cheap, easy to create, and re-usable.
- >Material can be cut with strong scissors if needed.
- DChoosing a heavy mat material will prevent blowing ups from the wind.
- > If you are looking for a cheaper alternative, black tar can be an option.

### **Potential Sources**

▶The material can be found at hardware or office supply hardware stores.



A floor mat example painted with blue lines.

12



### **Spray Chalk or Paint**

### Recommended Application & Installation

- ▶ Path indication: You can use the spray paint on the desired paths towards DIY Hubs.
- ► Ground prints: Spray paint can be used to strengthen the location of DIY Hubs by simply applying it to the ground with a template.

### Tips and Considerations

- >To remove, pressure water may be required.
- > Will endure for a long period of time depending on the quality of the paint and weather conditions.
- Limit environmental impact by purchasing non-toxic, eco-friendly brands.

### **Potential Sources**

Purchase from hardware, craft or art supply stores.



Ground floor painted with spray paint in form of circles



### Corn Starch

### Recommended Application & Installation

► Attractiveness: Colorful mural surface treatments add beauty, space definition and can help attraction towards DIY Hubs.

### **Tips and Considerations**

- Sweep or pressure wash the street to remove roadway debris before applying.
- > Easy to wash away and it's non-toxic. Suitable for summer usage in the Netherlands.
- > Mix equal parts corn starch and water, and add pigment using either tempera paint or food coloring.

### **Potential Sources**

▶ Local supermarket or wholesale stores.



Paint made by corn starch to attract inhabitants

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### Shape and Functional Differentiation



### **Beer Crates**

### Recommended Application & Installation

- ► Lifting DIY Hubs: You can allocate beer crates below DIY hubs or in between two modules to make the hubs higher.
- ► Temporary Storage: Putting crates inside of a module will create an organised storage space for hub contents.

### **Tips and Considerations**

- > Adding layers from crates may improve aesthetics of the hubs since they bring color.
- ▷ Bottle sections can help an organised way of storing.
- ▷ Beware of durability of the crates. Open nature of surfaces will not allow you to store weather sensitive content.

### **Potential Sources**

> Purchase from supermarket or transport supplier.



Using a beer crate to lift DIY Hubs



### **Shipping Pallets**

### Recommended Application & Installation

► Sitting area: They can be used to create sitting area around DIY Hubs. When combined with zone-making through black floor mat, they can create an environment for socialization.

### **Tips and Considerations**

- >You can find already used pallets from warehouses and/or big-box stores.
- > For safety purposes, look pallets with a tag of HT (heat treated) instead of MB (treated with methyl bromide).
- >You can put the pallets on top of each other to create a higher stall.

### **Potential Sources**

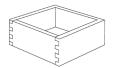
- > Reclaim from industrial and construction sites.
- >For ideas and project instructions you can check 1001pallets.com & instructables.com





Flexible usage of the shipping pallets

16



### **Joinery Cutting**

### Recommended Application & Installation

► Closed boxes: Easy way of making sectioning and also preservation boxes that can be installed inside of DIY Hubs.

### **Tips and Considerations**

- >This technique works best for wood materials that are thicker than 9mm.
- ➤ While cutting, make sure that the thickness of the material is the depth of your zigzags.
- >To make the cutting, it would be beneficial to consult to your local carpenter or a laser-cutter.
- > For stronger connections, use wood glue and/or nails.

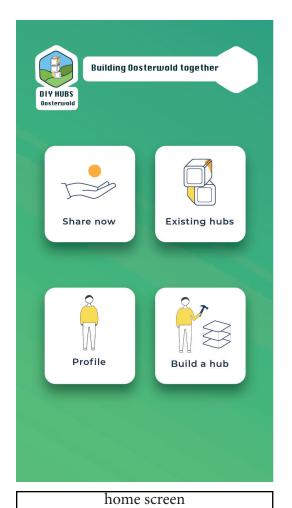
### **Potential Sources**

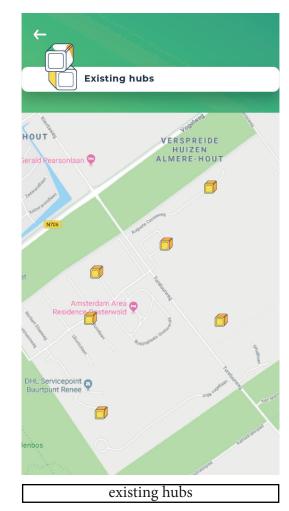
- ▶Get in touch with your carpenter.
- You can make your own template via makeabox.io



How joinery cutting boxes may look like

## **B2.2 UI Screens of DIY Hubs**







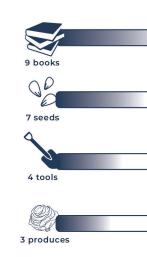


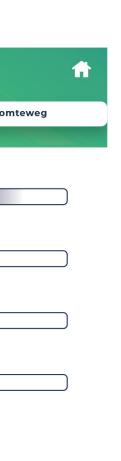




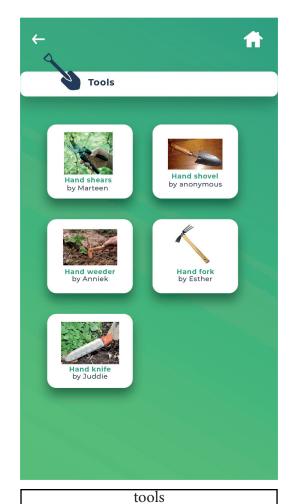


existing hu









bs 1



books





Hand weeder Given by Anniek This is a very old tool of mine to remove unwanted weed from the soil. It does its job very good still!

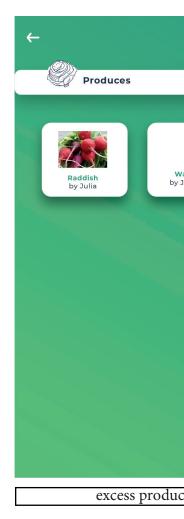
How should I use it?

You can soften your soil by soaking it from the night before you will remove weeds. To start, poke the forked prong into the soil to loosen the soil around the root. Pull out the weed from its root.

When should I use it? There's no specific time to use the weeder. You can use it anytime weeds annoy you.

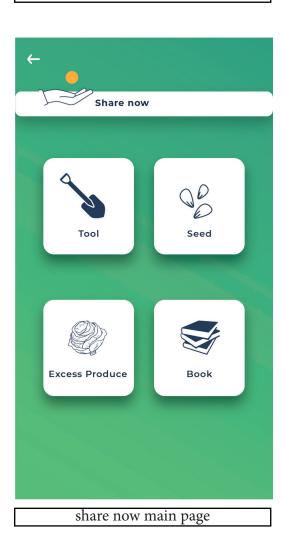




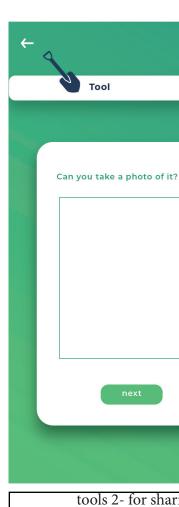


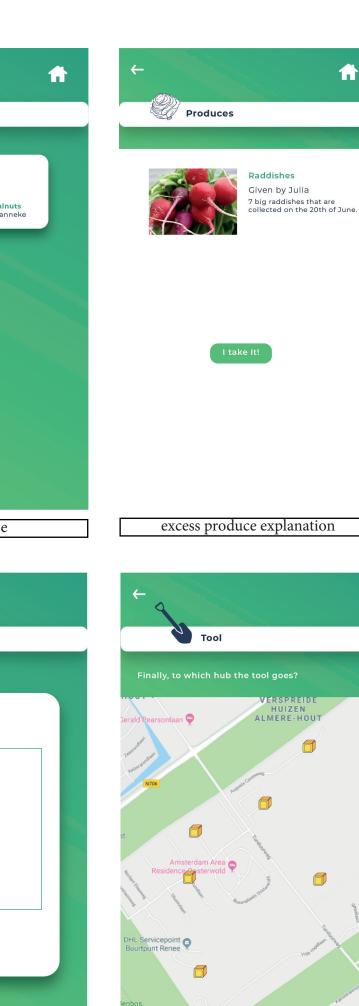
seeds

seeds explanation



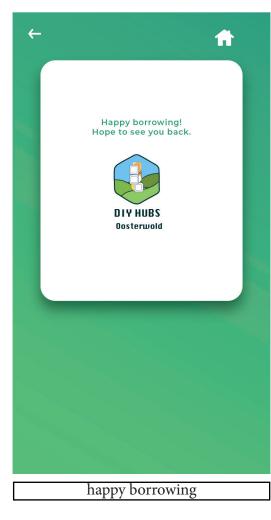


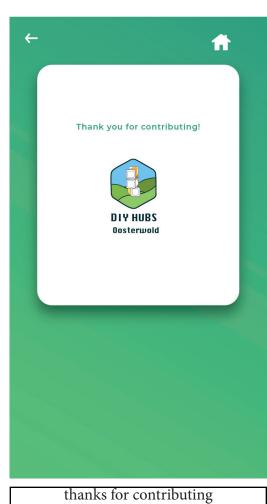




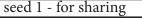
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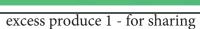


seed 2 - for sharing



seed 3 - for s



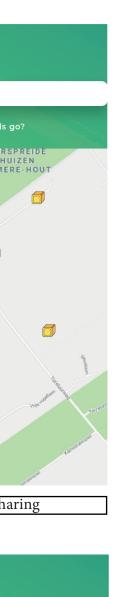


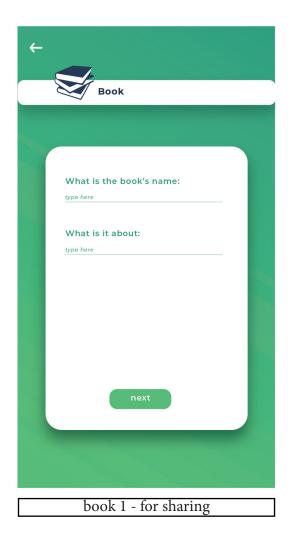


excess produce 2 - for sharing



excess produce 3 -





Book

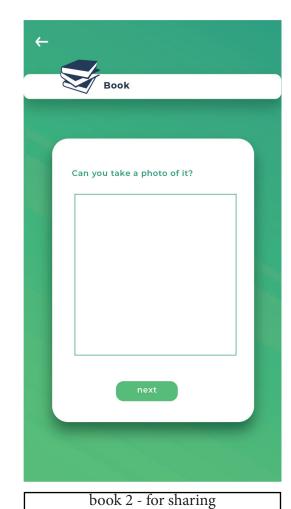
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DHL Servicepoint Buurtpunt Renee

enbos

Finally, to which hub the book goes?

VERSPREIDE HUIZEN ALMERE-HOUT







Ce duces go?

CRSPREIDE HUIZEN
MERE-HOUT

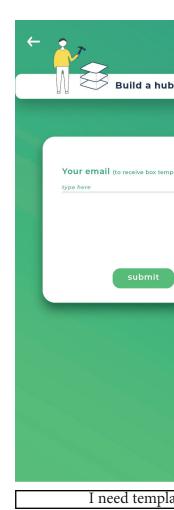
CONTRACTOR AND ADMINISTRATION AND ADMINISTRATIO

for sharing

book 3 - for sharing







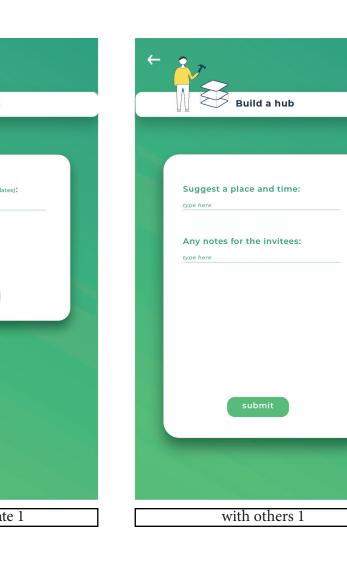
build now 1 - allocate hub

on my own 1 - how to build?











### **B3.1 Testing Procedure**

This is DIY Exchange Hubs, modular boxes where you can exchange tools, excess produce, books and seeds with Oosterwolders. The way it works is you have this manual and with that, you build a hub, just like you do with Ikea products. You can either do it with your neighbors, friends, or alone this is up to you.

The manual explains how so, do you want to have a look at it?

Yes, then those hubs, once they are out there can be traced and tracked with a mobile application. Like this, so let's say you want to have chili pepper from the hubs. Let's perform this with the application.

Now we have a short	survey, can	you fill th	nis out?
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.....

### Q: Is this project real?

A: Depending on whether you like the concept or not, whether you will use it or not the concept m ay be implemented in the coming months. I would be available the week after to post materials for the basic model. It costs 62 euro per pack, so 3 hubs in total.

### Scenarios for app:

- You want to give away one of your tools to a hub. You take the app and check the existing hubs.
- You would like to borrow some radish seeds from the hubs. How would you do that?
- You want to get the hand weeder from the hubs.
- You want to borrow chili peppers from the hubs.
- You want to initiate building on your own. To make it cut, you need a cutting template.

# **Overall Experience of DIY Hubs**

Please answer the following questions in a scale to 1-5; 1 being less likely, 5 being very likely.

1.	Currently, vegetables									
2.	In the futu Mark only o			ce initial	tive to b	uild the	hubs.			
		9	2	3	4	5				
	Not likely	$\bigcirc$		$\bigcirc$	$\bigcirc$		Very likely			
3.	Once the h			am goi	ng to u	se the h	ubs.			
		1	2	3	4	5				
	Not likely	$\bigcirc$	$\bigcirc$				Very Likely			
4.	Do you thi Mark only o			n be a∣	part of (	Oosterw	old?			
		1	2	3	4	5				
	Not likely	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	Very likely			
5.	Do you thi Mark only o			e conve	enient a	nd acce	essible?			
		1	2	3	4	5				
	Disagree	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$		Agree			
6.	How do yo Mark only o			bs woul	ld affec	t your re	elationship w	ith your	neighbours	;?
			1	2	3	4	5			
	do not char	nge (					improv	e		

		1	2	3	4	5	
				ى 	4		
do not cha	ange						improve
Do you th Mark only			e more c	onfiden	t about	Do-it-yo	ourself a
		1	2	3	4	5	
do not cha	nge						improve
The manu Mark only	one ova	al.		4	E		
	1	2	3	4	5		
complex The manu	ual ope	ned up	new way	vs of cre	eating [		rstandabl
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The manu Mark only	1 all enco	2  ourages	3 to build	4	5	DIY Hubs	s
The manu Mark only disagree	1 all enco	2 Ourages	3	4	5	DIY Hubs	s
The manu Mark only disagree	1  ual enco	2  ourages	3 to build	4 d DIY Hu	5 ubs	DIY Hubs	<b>S</b>

	1	2	3	4	5					
Disagree						Agree				
Do you thi			plicatio	n is con	venient	?				
Mark only	one oval									
	1	2	3	4	5					
Disagree						Agree				
Disagree  Ontact I  rou want to b			the futu	ure, plea	se share		ail add	ress w	ith us.	
ontact [	uild DIY	Hubs in	the futu	ure, plea	se share		ail add	ress w	ith us.	
ontact [	uild DIY	Hubs in	the futu	ure, plea	se share		ail add	ress w	ith us.	

# **B3.3 Survey Results**

vaar	-	-	က	2	2	2	4	4	က	4	5	4	က	4	4	က	က	7	2	က	က	2		
gebouwd zijn Denk je dat DIY Hubs onc Denk je dat DIY Hubs har Hoe denk je dat de DIY hi Hoe denk je dat je tuinier vaar																							gardening skills will be affected	GENERAL
Hoe denk je dat de DIY h	5	-	4	5	5	5	3	4	5	5	3	4	3	4	3	3	4	4	3	3	4	5	hubs would affect relationship with neighbors	HUB
Denk je dat DIY Hubs har	4	4	5	2	4	4	4	3	5	5	5	5	5	2	3	3	5	3	3	3	4	4	hubs are convenient and accessible	HUB
Denk je dat DIY Hubs ond	4	3	5	5	4	5	4	5	5	5	5	5	5	4	4	5	5	4	4	5	4	4	hubs can be part of oosterwold	GENERAL
Als de hubs gebouwd zijn	5	3	4	5	5	4	3	4	4	5	3	5	5	5	5	3	5	5	5	3	4	5	once it's built, i am going to use the hubs	HUB
k wil in de toekomst initia	4	2	8	4	8	3	9	4	4	5	1	8	4	5	2	4	4	5	5	4	8	4	I want to take initative to once it's built, i am going hubs can be part of build the hub oosterwold	HUB
Op dit moment, hoeveel s lk wil in de toekomst initia Als de hubs	8	9	0	25	2	0	0	10	9	42	20	15	0	20	10	0	9	20	10	0	0	0	How many edibles you I grow?	
Timestamp	22/06/2019 13:23:49	22/06/2019 13:46:15	22/06/2019 13:55:06	22/06/2019 14:01:41	22/06/2019 14:38:35	22/06/2019 14:48:11	22/06/2019 14:56:40	22/06/2019 15:06:56	22/06/2019 15:11:08	22/06/2019 15:21:52	22/06/2019 15:30:11	22/06/2019 15:38:44	22/06/2019 15:47:28	22/06/2019 15:53:54	22/06/2019 16:06:47	22/06/2019 16:15:52	22/06/2019 16:22:28	22/06/2019 16:32:54	22/06/2019 16:47:26	22/06/2019 16:59:01	22/06/2019 17:05:37	22/06/2019 17:23:04		

۵	your email address	5 Marckauffman@gmaii.com		5 harm.joann@gmaıl.com	5 francinaannetje@yahoo.com				5 nicovannus@hotmail.com	4 winkelen2009@hotmail.com	3 djuttien@YAHOO.COM	3 berryvandewal@planet.nl	3 yuroen@yahoo.com		gerdienvanholst@gmail.com				gerdienvanholst@gmail.com			4 caroline.vanveggel@gmail.com	4 Daan.schieman@gmaii.com			
0	Denk je dat de DIY Hub a	5	3	5	5	5	5	5	5	4	3	3	3	5	5	4	4	5	5	4	4	4	4	application is convenient	APP	
Z	Vind je dat de DIY Hub ap	5	3	3	5	5	5	3	5	4	5	5	4	5	5	4	4	5	5	4	4	3	4	application guide through the process of exchanging	APP	
M	Hoe zou je de hubs willen	4 Zelf, Met mijn familie, Met	3 Zelf, Met mijn familie, Met	5 Zelf	5 Zelf	3 Zelf	5 Zelf	3 Zelf, Met mijn buren	3 Zelf, Met mijn buren	4 Met mijn buren	5 Met mijn vrienden	5 Zelf	4 Met mijn buren		4 Zelf	3 Met mijn buren	4 Zelf	5 Zelf	4 Zelf	3 Met mijn buren	Zelf		3 Zelf, Met mijn familie	on my own, family, neighbors, friends		
Γ	De handleiding moedigt a	4	3	2	5	8	2	3	8	4	2	5	4	9	4	8	4	2	4	8	4	8	8	the manual encourages to buid hubs	MANUALL	
×	De handleiding gaf inspira	4	3	4	5	5	4	4	3	5	3	5	4	4	4	8	4	5	4	8	4	8	4	manual opened up new ways of creating	MANUALL	
٦	Denk je dat je zelfverzeke De handleiding van DIY h De handleiding gaf inspira De handleiding moedigt a Hoe zou je de hubs willen Vind je dat de DIY Hub ap Denk je dat de DIY Hub a your email address	5	5	4	5	5	4	4	3	5	5	4	4	4	4	3	4	4	4	3	4	3	4	manual of the hub (complex-understandabl e)	MANUALL	
_	Denk je dat je zelfverzeke	5	3	3	5	3	4	3	4	3	3	3	2	3	2	5	3	3	3	5	3	3	4	more confident about DIY approach	GENERAL	



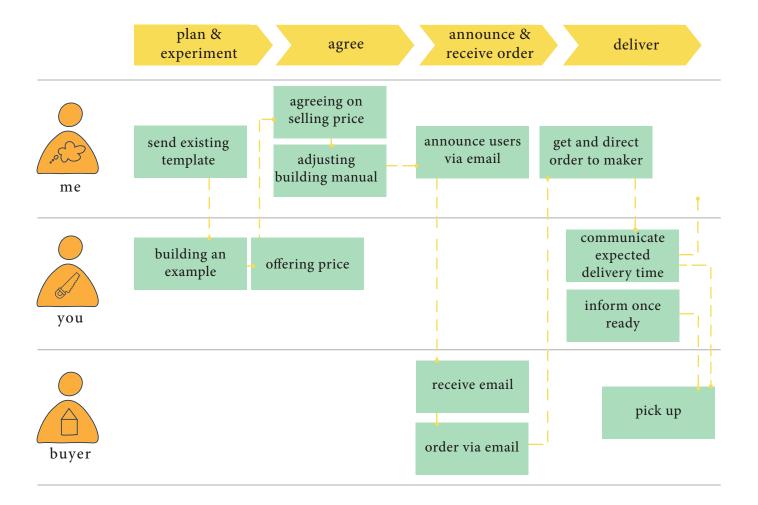
Hi!

This document contains mutually agreeable points about the implementation plan of DIY Exchange Hubs in Oosterwold. Since my project is going to be over in two weeks, I am looking for local collaborators who will be willing to realize the project.

The document consists of the steps that should be taken and the roles of us during the process of implementation.

In case you would have further questions feel free to send me an email or give me a call from 0645644980 or +905364752066.

Below the chart explains the delivery process of DIY Hubs and different responsibilities of us during this process. The process starts by me sending you the existing Illustrator templates that I used for lasercutting and the building manual of the hubs. Then it continues with you building an example hub and the process goes on as shown below. Here it is important to note that one set of DIY Hubs consist of 3 boxes. In reality, we will not sell the boxes in a built way, we will only provide pieces and materials for them to build. Since the boxes are more or less the same, you can cut only one box and make price offer according to that. Since building process of the boxes may be different due to material difference, we would need to build one box to see how the pieces will come together. In case the building process is different, I need to make changes in the building manual of DIY Hubs.



If this sounds like a plan to you, lets keep in touch!

Regards,

Yağmur Gökçe