Appendix A: Interview guides

Guide for mobility dependent company

Guide for municipality

Standaard:
- Dank voor gesprek
- Vraag om opname
- Introductie deelnemers

Kan je iets meer vertellen over hoe het nu werkt met stadslogistiek waarvoor jullie LEVs gebruiken?
- Waar parkeren jullie ze?
- Wie is eigenaar?
- Hoe zit het met opladen?

In mijn onderzoek tot nu toe zie ik allerlei trends binnen mobiliteit; de overstap naar elektrisch, maatregelen van steden om auto's te weren, meer ruimte voor de fietser, minder bezit en meer deelvervoer, van personen auto's naar LEVs, er gebeurt veel.
Wat is de visie van postNL op dit soort ontwikkelingen?
- Hoe ver vooruit kijken jullie?
- Waarom? Waar baseer je dat op?

Wat zijn jullie grootste uitdagingen ?
Welke ontwikkelingen zijn voor jullie belangrijk?
Wie zijn de belangrijkste partijen voor jullie?

Voor stadslogistiek kan ik me voorstellen dat een groot voertuig handig is om veel mee te kunnen nemen, of misschien vanaf een hub met kleinere voertuigen erop uit
Hoe zien jullie dit voor je?

Standaard:
- Dank voor gesprek
- Vraag om opname
- Introductie deelnemers
- **Heb een aantal vragen maar ben eerst benieuwd naar jou en jouw functie bij de gemeente den haag.**

- Eerst een brede vraag: Kun je mij meer vertellen over hoe de gemeente den haag naar stadsmobiliteit kijkt de komende jaren, welke visie?
- wat is de strategie/plannen om die te bereiken? (hoe ver vooruit?)
  - deelmobiliteit? welke voertuigen
  - Auto's?
  - Actief vs passief (STOMP) principe
  - inrichten publieke ruimte
- Wat zijn volgens jou voorbeelden van eisen aan zo'n nieuw systeem van stadsmobiliteit? Wat zijn voorwaarden om het te laten slagen?

- Zijn er al plannen mbt de infrastructuur voor het ondersteunen van de transitie naar andere stadsmobiliteit? en zo ja wat zijn die
- In hoeverre wil DH de laadinfrastructuur voor LEVs gaan faciliteren?
  - En hoe zien jullie dit in relatie tot de trend van deelmobiliteit vs eigennaarschap?

- Hoe kijkt DH tegen hubs aan?
  - wat voor soort hubs zijn er volgens jullie nodig? Wat is het doel
  - (e.g OV bereikbaar houden, auto's buiten de stad houden, bewoners minder autoafhankelijk maken)
  - Wat zijn de plannen met hubs de komende jaren?

In lijn met de wens van gemeentes om actieve mobiliteit te stimuleren, hoor ik geluiden over scooters tussen steden ipv binnen steden zodat het voor grotere afstanden wordt gebruikt, hoe zien jullie dat?
  - verdwijnen scooters dan uit de stad?
  - In hoeverre weet gem. den haag welke voertuigen ze in de stad willen?
  - Zien jullie steden met een soortgelijke aanpak? En

Guide for two different mobility providers

- welke visie heeft felyx voor de toekomst?
- Hoe ver kijken jullie vooruit?

Heb veel gezien hoe er steeds meer gereguleerd wordt, lijkt op minder free-floating en meer hub achtig,
- in hoeverre herken je dat en wat is jullie plan daarmee?

- Wat zijn de grootste uitdagingen voor jullie de komende jaren
- Welke ontwikkelingen zien jullie met hoop tegemoet?
- waar kijken jullie naar als jullie in een nieuwe stad vestigen?

Het lijkt erop dat MaaS groeipotentie heeft de komende jaren
- hoe zien jullie die ontwikkelingen voor je en waar denken jullie dat het heen gaat?

Misschien komt er steeds meer 1 systeem waarin je zowel OV als deelvervoer kan boeken en betalen van verschillende aanbieders, wat vind je van die gedachte?

Hoe kijken jullie aan tegen een samenwerking zoals die tussen NS en Pon waarmee ze Hely hebben? Hoe gaan jullie daar mee om als bedrijf?

Hoe kijken jullie tegen een laadoplossing zoals tiler aan?
hoe is jullie contact dusver geweest?

Vragen

- - Wat is jullie toekomstvisie als het gaat om deelvervoer in steden?
- Zien jullie waarde aan deelscooters toe te voegen aan jullie portfolio? Zo ja, waarom? Zo nee, waarom?
- Hoeveer vooruit kijken jullie? Hoeveel jaar?
- Als jullie je in een stad willen vestigen hoe gaat zo'n proces?
    o In hoeverre hebben jullie iets te zeggen in dit proces?
- Jullie zijn al in veel landen actief zien jullie soortgelijke ontwikkelingen op verschillende pleken?

Als ik het goed begrijp is de step nog niet toegestaan in de nederlandse publieke ruimtes, en kan dat ook per stad gaan verschillen
- welke voortgang is er en waar willen jullie je op richten?

Elektrische voertuigen zouden duurzamer moeten zijn, maar door de kortere levens duur (vooral bij scooters en stepjes) worden vaak deze voertuigen juist niet als duurzamer gezien.
- Hoe staan jullie hier tegenover? Zijn hier vanuit jullie kant oplossingen voor (om de levensduur van de voertuigen te verhogen)?

Nu gebruiken jullie personeel om fietsen te verplaatsen en batterijen te verwisselen,
- zien jullie ook waarde in vaste parkeerplekken/oplaadpunten?

Guide for research party

Standaard:
- Dank voor gesprek
- Vraag om opname
- Introductie deelnemers

-Heb een aantal vragen maar ben eerst benieuwd naar jou en jouw functie bij: Mobycon

Vragen
- Wat is in jouw woorden visie die jullie hebben op het toekomstige mobiliteits systeem?
- Ik zag in jullie visie dat jullie naar 2030 kijken, kan je me meer vertellen ovre waarom jullie dat jaartal kiezen?
- Welke trends en ontwikkelingen zijn bij jullie erg belangrijk?
    o Welke vind jij dat er meer/minder belicht zouden moeten worden?
- Wat betekent toekomstbestindig in jouw werk?

- Hoe kijken jullie tegen het ontwerp principe "STOMP" aan?
    o Hoe komt dat voor in jullie werk?

Dat willen inzetten op actieve mobiliteit is natuurlijk lastig omdat je dat maar tot zover kan beïnvloeden
- hoe gaan jullie om met de behoeftes en wensen van de eindgebruikers in jullie werk?

In je beschrijving stond iets over het bij elkaar brengen van verschillende perspectieven; als individu en als collectieve samenleving willen we bijvoorbeeld al hele andere dingen,
- Welke belangen strijd zie jij in je werk en hoe ga je daarmee om?
- In hoeverre denken jullie dat LEVs de oplossing gaan zijn voor vervoer in steden?
- Wat is jullie beeld over MaaS?
- Wat is in jullie ogen belangrijker, inzetten op minder met de auto of meer met openbaar vervoer?
-

In mijn onderzoek heb ik veel gezien hoe gemeentes zich richten op het reguleren van de openbare ruimte dus met deelvervoer weg van het free-floating model en meer richting vaste plekken/hubs,
- In hoeverre herken je dat en hoe kijken jullie daar naar?

Ik heb nu het grootste deel van mijn onderzoeksfase achter de rug en ik zie twee dingen die in mijn ogen best bepalend gaan zijn voor de toekomst; de hoeveelheid MaaS en hoe hubs eruit gaan zien
- in hoeverre herken je dat?
- Watvoor hubs gaan we volgens jullie zien in de toekomst?

Appendix B: Vision statement feedback

Future Vision	Future Vision	Future Vision
An urban mobility system built around shared electric micromobility to support healthy, liveable and accessible cities	An urban mobility system adopting shared electric micromobility to satisfy all travel needs in a way that supports the creation of liveable and accessible cities.	A human-centred urban mobility system that facilitates active and (shared) electric micromobility, by shaping cities that people consider safe and pleasant to live in.
A	B	C

Name
I would say A because It is simple and plain but also catchy and informative enough to explain the vision.

Name
A vond ik in eerste instantie het meest clean en duidelijk. Maar na een paar keer lezen misschien toch C. geen duidelijke mening.

je neemt nu het urban mobility system als de basis. je zou ook met de stad kunnen beginnen dat die human centered moet zijn. en dat micromobillity als belangrijke pijler in de urban mobility en daarmee de steden aangenamer kan maken.

feedback:
A: shared misschien tussen () zetten
B: te wollig. satisfy all travel needs. op zich goed maar ik zou het anders onder woorden brengen.
C: het woord active vind ik niet duidelijk in dit verband. that facilitates of wellicht beter "facilitated by".

Name
I really like option C. It puts the the human first.

You choose the "mobility system" a the core. But is free and multi purpose public space not more important that mobility? "We power the public space not to be build around transport but around people".

I don't think you need to mention "electric" that is kind of implied.

Micromobility as a term is still a factor of debate. Perhaps mention the mobility system enable the use of the right size vehicle for the journey.

Name
My pick would be B because to my eyes it is the most "inclusive", realistic and applicable in the next decade. The way I see it, it should be the first step to incorporate the shared electric micro-mobility first in combination with traditional mobility aspects and bring it actively into people's everyday lives, before trying to design communities solely based on it.

Name
My preference goes to C, because it really puts people first. Less about pushing micromobility, but offering mobility that fits the needs. Also like the wording here of cities that are safe and pleasant to live in, gives a vivid picture in mind.

😄 1 🙂

Name
In C, I think the sentence now has shared micromobility *as a result* of liveable cities. I'd think it should be the other way around: by replacing cars in the city centers with (shared) micromobility, we shape cities that people consider safe and pleasant. Therefore, I personally think B is a better sentence, as it depicts shared light electric mobility as part of the solution for better cities.
Also, I feel that the way you are describing the urban mobility system in B is more likely to include forms of public (= shared as well) transportation as compared to C.
A is more to the point (as Olivier already pointed out) but sparks my interest much less. Maybe too simplified ('platgeslagen')?
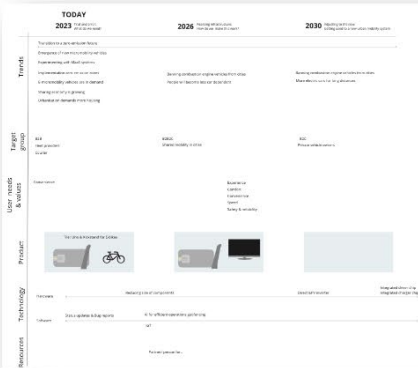
Name
Great, I would go with C - it's the people first- and you want people to be safe in urban environment - people should have the most effective (sustainable) way of getting from A to B in a timely and most comfortable fashion.

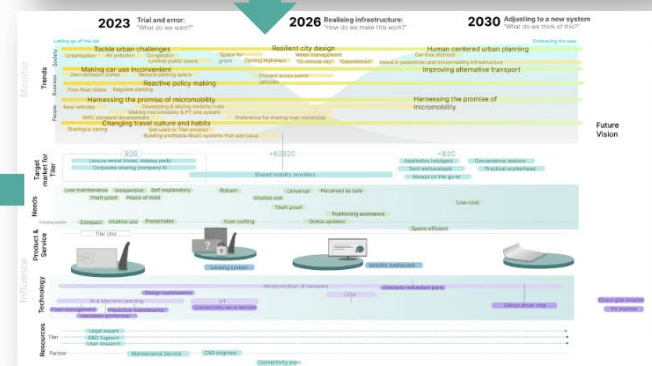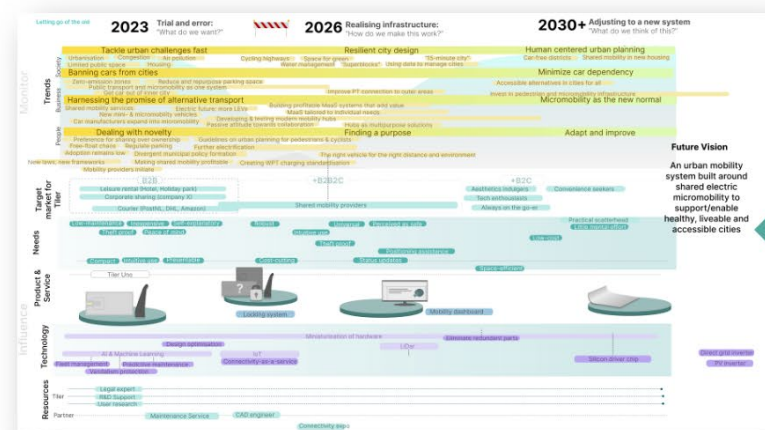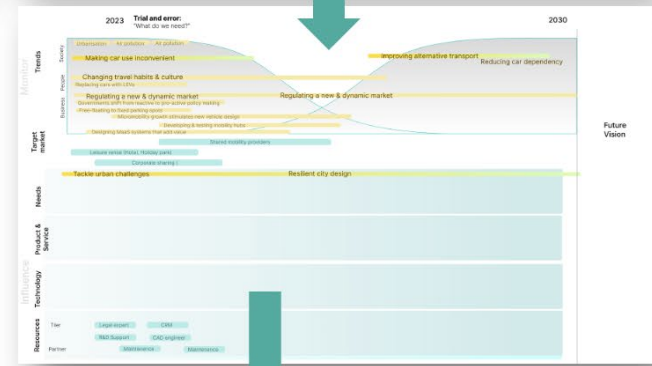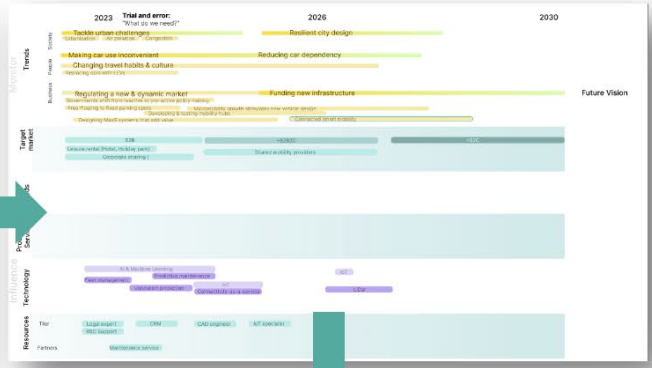Also freedom to choose which transport you want to take. with TILER there is freedom,

Appendix C: Building the roadmap
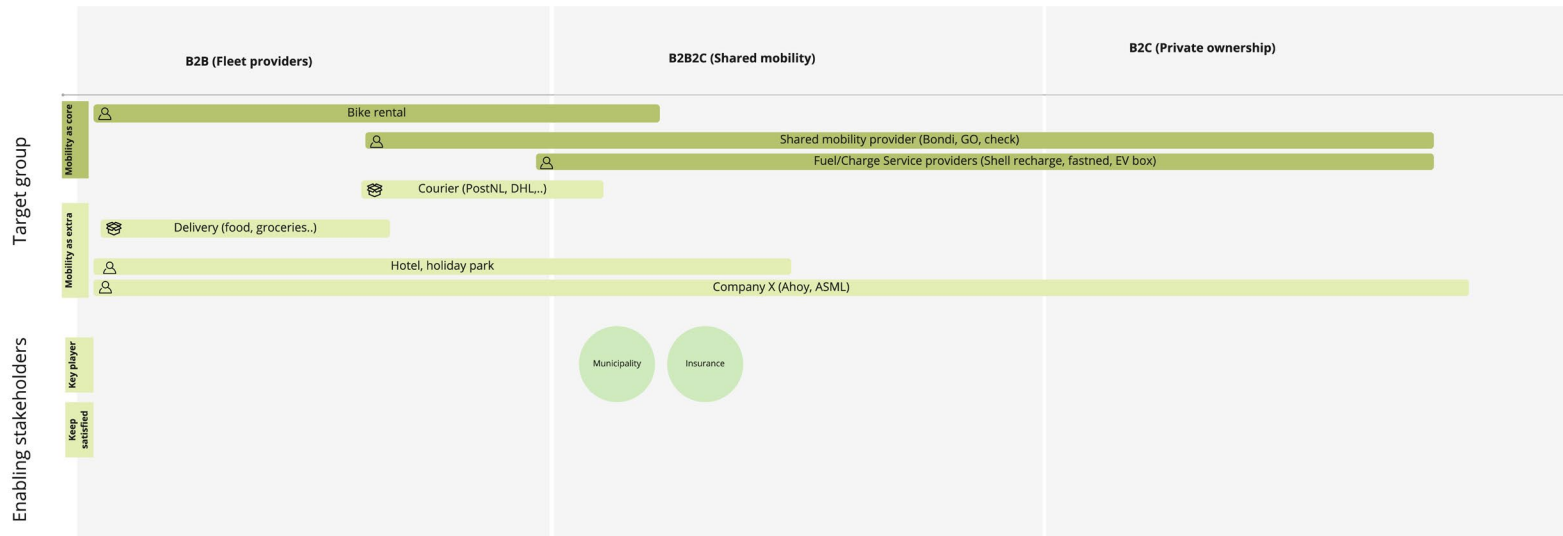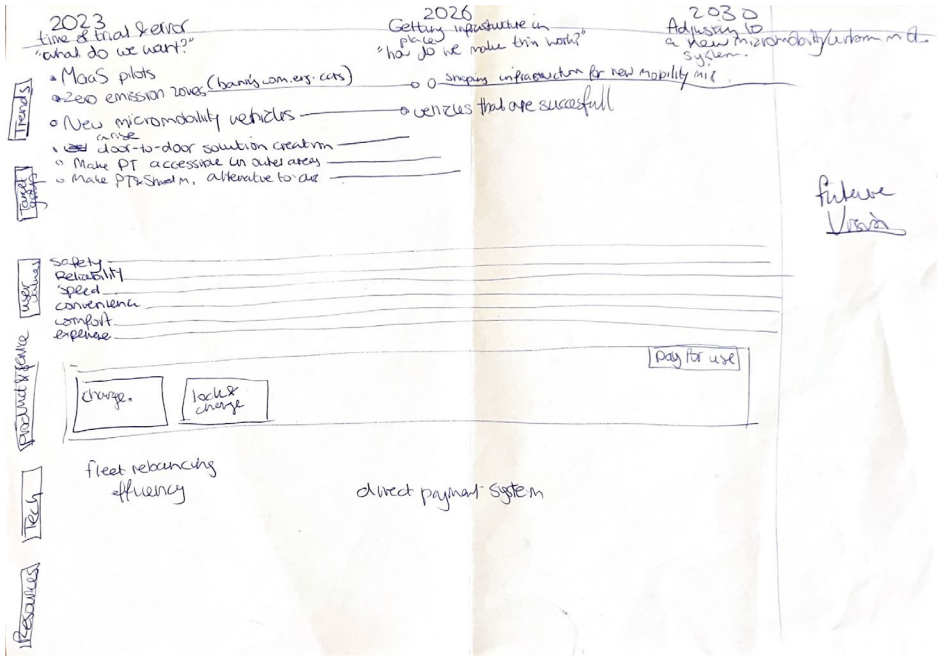
Draft | Iteratie 1 | Iteratie 2
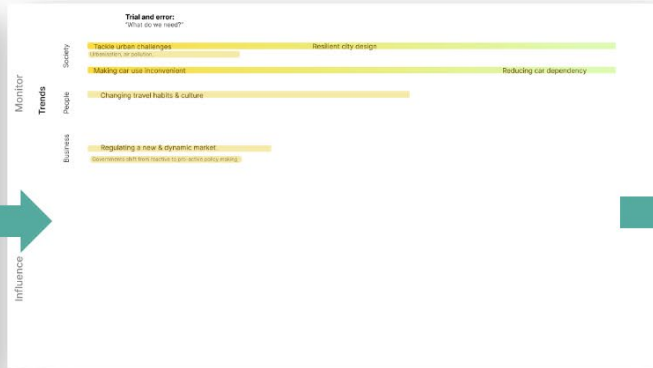
Appendix D: Sensitiser

The future of Tiler

On thursday, you will participate in a workshop in which we will do roadmapping activities together. This is an essential part in the evaluation of the concept I am developing.
To prepare, I need you to perform the short activities on these papers.

1 Who is Tiler?

With a charging solution for light electric vehicles, Tiler is part of the mobility transition.
In a transition there are two major" change waves" happening at the same time: letting go of the old and embracing the new.

Below is a graphic in which you see these two waves and the attitudes one can have in such a transition. Which role do you think Tiler has now and which role do you think Tiler should have in the future?

Please circle the two roles on the graphic and mark them with "Now" and "Future" , and write a short motivation in the box at the bottom
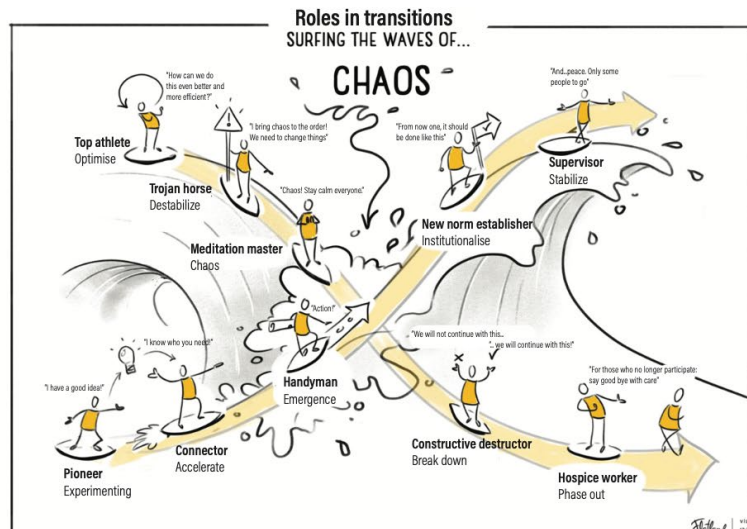
Roles in transitions
SURFING THE WAVES OF...
CHAOS

"How can we do this even better and more efficient?"
"I bring chaos to the order! We need to change things"
"From now one, it should be done like this"
"And..peace. Only some people to go"

Top athlete Optimise
Trojan horse Destabilize
"Chaos! Stay calm everyone"
Supervisor Stabilize
New norm establisher Institutionalise
"Action"
Meditation master Chaos
"I know who you need"
"I have a good idea!"
"We will not continue with this..."
"..we will continue with this!"
Handyman Emergence
"For those who no longer participate: say goodbye with care"
Connector Accelerate
Constructive destructor Break down
Pioneer Experimenting
Hospice worker Phase out

gebaseerd op: X-curve, Loorbach, 2014

Write your motivation here:

2 Evolution of the Tiler Uno

Tiler has worked hard to realize the Tiler Uno system, but the product will evolve and get new functionalities using different software, hardware, or new embodiment design. Items 1 to 10 below are examples of such changes.

Please place the 1 to 10 on the timeline of when you think this addition or change is relevant.
(You can skip an item if you do not think it's relevant for Tiler, write a question mark next to the item if you don't know)

1: Design for mopeds
2: Physical/digital locking feature
3: AI& ML* for predictive maintenance
4: PV inverter to connect to solar
5: Integration in hubs
6: AI&ML for fleet management
7: Expand to other vehicles
8: Design for b2c use
9: Make design more compact
10: Tiler data dashboard

*artificial intelligence & machine learning

Other.. (add anything you think is missing)

2023   *2026*   *2030...*

3 Thinking in scenarios

There are many trends and developments happening in the business context of Tiler, some more certain and impactful than others for the companies' future.

What do you think are the most uncertain yet impactful trends of the list below? Take a moment to think about what it means for Tiler when the scales tip to the right. Consider the clients Tiler sells to, who Tiler needs to collaborate with, the design of the product itself etc. Please select 3 you consider most important

☐ Government continues to help advance shared micromobility — Government hinders shared micromobility by strict regulation

☐ Preference for sharing vehicles continues to increase — Preference shifts and people would like to own different vehicles instead

☐ A LEV charging standard is developed in the coming years — A LEV standard is NOT developed in the coming years

☐ Shared mobility and its charging infrastructure becomes a profitable business — Shared mobility and its charging infrastructure does not become profitable

When you are finished please put this back in the envelope and return it to me!

Appendix E: Workshop Script

Time	Action
10 min	Introduction
20 min	P1: warm up
1 uur	Part 2: fill in roadmap
10-30 minuten	Part 3: reflect

Introduction
Say:
- Welcome everyone to this workshop
- After my research and interviews, I have been working on a roadmap concept
- In the sensitizer you already started thinking about the future
- Today we will do this together and consider this roadmap more in depth
- But first what do I mean with a roadmap

Go through slides
- A roadmap is a strategic plan for the future
- That contains the stepping stones to realize the future vision the company has defined as the point on the horizon they want to make reality
- It is used to create collective understanding of the future in the company
- And to align everybody
- Next to that it can be used as an external communication tool
- PAUSE
- CONTINUE WITH SLIDES

___Consent form signed?
___So far so good, I will keep track of time

START

Part 1: Warm up: foundation of the roadmap
- Future vision, defined as..... because....
- Chunks of years to get there are horizons
- Vertical categories are .... how do these relate to the horizons
- CHECK: Is this clear?

Part 2: Fill in roadmap, starting scenario

- **Now fill in roadmap**
- **Understand the whole, discussion and then alternative scenario**

Horizon 1:
- Now we can start filling in the first horizon
- Tiler currently has the Uno system
- Working on design for mopeds and perhaps a locking feature
- So far your target market has been leisure rental and corporate sharing
- You have operating in a more closed system where your main stakeholder as the fleet provider
- So what's happening around tiler >> Explain trends
- **LOSMAAK VRAGEN**
- **THIS IS START SCENARIO BUT WHAT IF alternative scenario 1**
- **LOSMAAK VRAGEN >> faciliteer discussie, waarom etc**

Horizon 2:
- What's happening in horizon 2
- Then target market shared mobility...
- new stakeholders..
- Product for hub use
- **WHAT IF alternative scenario 2**
- **What if alternative scenario 3**

Horizon 3:
- What's happening in horizon 3, far away ..
- Then target market b2c
- new stakeholders.., versatile consumers
- new product design, maybe thin, maybe flexible
- **What if alternative scenario 4**

Losmaak vragen
- What does this mean for Tiler?
- How would you respond to this? What would you change in the company to deal with this?
- What do you think your competitors would do?
- What would you change about the company strategy?
- What does this mean for the direction the company is going in?
- What will investors want to know from you?

Possible scenario losmaak vragen
- What if news breaks during the weekend that the **government will regulate shared mobility strictly from now on (1#)**, when you get back to the office on Monday, what will be discussed in the first meeting? what questions will you get from investors?
- What if new micromobility vehicles pop up that are so cheap to own that this people choose to buy instead of sharing, what does this mean for Tiler's strategy?
- What if the

Specieke respons vragen
- H1:How can you deal with changing policies
- H1:How about partnerships that might be needed?
- H2: What can the effect be of PT and shared mob becoming one?
- H2: On what level do you want standardisation, from the market? from the govt?

Part 3: Reflection

Say:
- Now that you have been thinking together about the future during this workshop
- Reflect on the activities
- Want to discuss what worked, what did not work
- So first, how did it go?

Reflectie vragen
- How did it go?
- What did you think of this
- What was easy, what was hard
- what would you do differently?

Appendix F: Workshop introduction slides

Roadmapping workshop

Strategic plan for the future

Future vision for Tiler

Collective understanding

Tiler

Internal alignment

Tiler

External communication tool

Tiler

Municipality

Investor

Client X

What are we doing today

Put the puzzle pieces together as a team

1 Warm up: foundation of the roadmap

2 Fill in roadmap & discuss alternative scenarios

3 Reflect on workshop

Appendix G: Full transcript workshop

00:00 -7:00
* Me talking, explaining horizons and foundation*

min 7: What if 1#
A: For when is this, now or later? (Answered now)
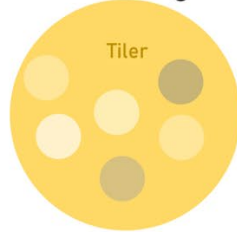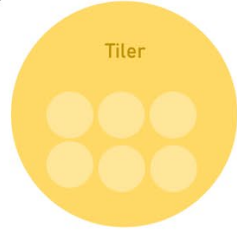A: Govt not involved now, more detrimental for later

T: [..] we are a lot on private property right now

Ol: Yes but, we do aim to already to start up relationships with municipalities for 2024 and 2025 where they are preparing their vision as a municipality we are interacting with them it will influence those conversations

J: for our investors we are studying the picture of a large tiler network and if there is a general vibe of municipalities pushing against this then that picture gets a lot harder to sell to investors

Am: yes, and also to customers and the overall picture of shirt micro mobility maybe

Ol: yes, and the sales cycle towards municipalities is long, could be years so we already now have to anticipate and kind of fit into that in order to be involved there

On: can the government prevent us from selling our products?

T *chuckles*

On: You said that [...] private space
Ol :[...] not the private places...
Ol/Am: .. well, they could but that's a different
J: Everything that goes into the public space, that's their territory

On: exactly that's what I'm saying

T: I think the public space is a very big group for us because in one municipality we can drop a lot of tiles and if that gets restricted or we must do a lot more permits that's going to slow us down a lot

On; basically government can't do much more than slow us down like they can shut down all operations we definitely need their support

Ol; in the public domain yeah definitely

On; how our products can be used in the private domain

J: that's what we're doing right now right mostly so we're in the closed ecosystem basically

On: closed ecosystem you mean hubs right?

J: well, on private ground like all the apartment garages except for the one hub in Arnhem all the rest is private property

On ; government cannot reach those right?

Ol; they don't care, it's not their responsibility as long as it's safe

V; there in terms of how much effort we put on the grid so the government could also set specific regulations also on the private properties not to spend more than a specific amount of watt hours

J; but our grid is privately owned and managed so the power

companies...

V;oh okay

J; but in other countries that might be the case

T; that's also not the.. the sign is more about restricting the shared mobility that's of course something else

J; it is a point where in other.. I'm guessing friends or in the UK..

V; in Greece it's public

J; yeah it would be publicly owned and from a grid issue maybe they run into issues with their light pole power supply I don't know, and they would act on something else like limiting micro mobility to fix this issue

On; yeah, that's true

D; do you have any ideas what would happen like for example if this would happen what would your competitors do how would they respond to that?

* silence*

V; first of all, we have to define who is our competitor in this market

On; they can call their network fix it first of all

D; how do you mean?

On; if they know our people enough...

J; lobbying
O n; yeah exactly, that might be an option this is very common in Turkey for sure
[inaudible]
V; if you know the right people you can do whatever you want *laughs*

Ol; it's definitely ..lobby..hè so lobby for sure and not only on a national level but especially on a municipality level

J; yeah
On: second of all they can try to work around like legally [..] if they legally find a way to work around little changes maybe say oh they can say you blame us for this but we don't affect this and I don't know like... on paper

J; but in the end they would affect our customer right not us directly, if they affect our customer, it's also a problem

On; yeah yeah exactly, one third option maybe they can do something where they can do a work around technically they can just change the design or something..

J; there is one scenario though where [the two are disconnected because they can regulate micro mobility providers because they are commercial companies and they need a permit to occupy space but if we are not charging fleets but consumer bikes those consumers don't need a permit to park their bike in the street so that target market would not be affected by... so there we would be disconnected from the general stance towards micro mobility providers

Ol; I think this is the most important, I think that's the key what you say now in this question because we talk about shared but now we talk about government if you.. at the end it's about the

public domain, it could be the..

J; yeah so it might not feel like a problem right now but it might be a problem somewhere in the middle here but on the long term if we're charging if we end up charging private vehicles then it might not be an issue at all

ol; yeah so that's also indeed your question here what I answered there is I think it's much more important that the people themselves had well that question was referred to sharing but if the individuals like our solution at the end the government should follow in the ideal scenario but so then maybe it might not be shared anymore but then it could still be Tiler in a different setup

am; but also maybe it has some influence on why the government restricts shared mobility because if that's because of the free floating and they don't like vehicles all over the place and then we could help

T; then we could help yeah
AM: yeah, we could enable..

D; yeah so what would that mean if you say that, what would it mean for the company?

T: *chuckles* well.. domination
Am; well that would mean that we are part of the solution, not the problem and that we can make shared mobility popular again if it's in the right [..]

ol/ v : let's make shared mobility great again
laugh together

J: but still to get this implemented we still need to lobby right..

Am: yeah sure

J; ..we need to make the municipality aware of this solution before they ban it altogether

va; we need to make friends many friends *laughs*

D: and for example if this news would break on Friday and you would go and have your weekend and you know oh the government's going to restrict it and you know oh we are part of the solution
On: the problem to this question is that it's too general, the reason is very important like why do they restrict it, shared mobility, it changes because depending on the reason how we will act or how our competitors will act to changes

va; for example also like what do they change in shared mobility like for example the government can say yeah we are banning E scooters but not e-bikes or they ban electric vehicles in total and we only allow public sharing with regular bikes

on; exactly, I can give an example to this this just happened in Turkey last month there's a lot of steps scooters that are used in Turkey exactly a shared mobility and the problem with that the users can park their scooters anywhere they just need to attach it to a light or a tree, they need to physical thing and the users usually leave their step scooters everywhere in the streets they occupy places they shouldn't so municipality started to collect those step scooters and started to bend them so for example that's the reason and you can identify a solution to that right? by creating certain parking spaces for them

D; true but if you look at for example Utrecht they said let's get rid of the e-mopeds..

on; that comes to lobbying I think the problem is obvious occupying places and they shouldn't, so they can say that" get rid of all step scooters" but most companies producing those step scooters we'll say OK we will solve your problem so why do you want us to get rid of the scooters anyways, [..] you shouldn't do that because we will solve your problem if the municipalities keep going and say get rid of those scooters I think there is what you call it " bad intent" under it so that's something else understand what I'm saying?

D: does the rest agree? Teun you were saying something in between?

T ; no I was saying the providers we'll go to the municipality and say what if we do it like this and then maybe we can help it

on; yeah exactly if there's a certain problem and the companies who work in this sharp mobility can solve those problems and even if then the municipalities and governments don't want those vehicles then I think there should be an added reason

D; so you think that it's more up to those mobility providers to what they do
on; what they can solve exactly;

j; but all the stories end up with communicating and talking with governments along the way and helping them understand their own problem trying to find solutions for it

on; they ruled the country we cannot do any business without their permission right

ol; so we are talking about not about the Netherlands we talk about the future of Tyler in general is that right? so globally

D; yes
[..]

D; what I was just saying before you made your point if this news would break for example in the weekend and you come to the office on Monday like what would be the first what would the first meeting be about, what would you discuss?

ol; yeah but this would never be a national thing I don't believe that in the Netherlands, it would be municipality, government could say we could bend the charging tiles because they are radiating emission, so charging tiles forbidden so that would be from safety or specific general but not...

j; it could be our most important launching city like we're doing a..

ol; exactly

j; .. it tender together with a very important partner we won the tender but somehow part of our solution we want to provide a suddenly banned for safety reasons

19:00 ~ ol; yeah I don't know it could be a big opportunity because that would mean that there will be a change to hubs and we are more relevant for hubs, could be a big opportunity

j; yeah, the good thing

on; I think if that would happen like government bans something for some reason I think the company, the quickest solution would be like that's an opportunity for example let's just say there are ten companies doing similar business for and for some reason government banned something related to their business the

quickest solution[...] they will be the first to operate again if its competitors don't work all the customers will be drawn to that company

D; I think what Olivier just said is a nice bridge to the second horizon so unless you still have thoughts about this I would like to move on, so the second horizon is[...]

va: * asks question about trend, whether it concerns private vehicles only*
J: Petrol vehicles

va: So if you have a truck..
T: it needs to be electric
Va: really??
T: I think so

* D continues explaining h2*
va: * Asks about what MaaS is*
D ; those are mobility as a service systems 23:00~
* va: asks about new sharing concept trend, what are they*
D ; I heard something about that you can also you do share a car it's basically yours, but you can choose to to rent it out again

J: ah lynk & co does that
ol : lynk & co
T: I also heard about a concept where you can own a car but via an app you can rent it out
ol: that's lynk & co
J: *speaks about details of lynk & co*
am; that's also what some smart lock companies try to enable that you can share also your bike and stuff
j; it's similar to snap car but then you have to do all the financing yourself, these new models they [inaudible] the financing for you which is pretty cool

D; yes so there's a lot going on there, *continues to explaining*
* everyone responds to size of paper*
T/ol; that's a big market *chuckle*
Am: you mean here public share mobility

ol: can you explain insurance
25:00~ D: yes so for example what myrthe and I saw at check, they really have to comply with what the insurance companies want for their operations for battery swapping and stuff so everything that was set out there in trailers where all the batteries were charged how they were stored how far the containers were apart it's really all complying to the insurance company needs because if you don't do that then you just don't have your insurance

j; so for legislation it's just insurance companies making up the rules?
D: not necessarily making up the rules but they are really impactful as it means that check had to move their operations outside to those containers whereas before they did it inside and now it's not allowed anymore because otherwise your damages are not covered

Ol: it's intertwined I think

Am: that's also connected to the insurance companies they are already influencing the leisure and the corporate share

D: * introduces scenario 2#; what happens if this preference to share disappears and changes towards a preference to own

ol; I think there's a big difference between countries cultural legacy and how this will evolve we are from .. well it's good to have the two of you here
va; in Greece nobody wants to share..

j; COVID had a massive impact as well COVID showed a real move from shared to privately owned LEVs.. this can realistically happen

T: trains are also shared vehicles and if you see how many people switched from trains to cars and COVID that's mad, and they're still not back

On: LEVs usually are suitable for short distances
J: but that doesn't matter if you own a Lev or someone elses right [inaudible]

Ol: in the Netherlands we have the legacy of everybody having his own bike and I think that has a big impact on the market and as being a flat country so I think that..
[Fire alarm goes off] - Workshop interrupted for 15 min
_____
* everyone gets back sit down again finding out where we left off*
T: we weren't yet really discussing right you were finishing your explanation
J: preference to own instead of share
va; yeah here's a problem

D: what would change for Tiler, how would that impact the company
T: Oh yes, yeah
T: we would have to make the shift towards consumer market
J; *nodds* mhmh
On: what does that mean?

T: if people own instead of share then our customer would be the people who owned the vehicles still but then our customer would suddenly be the people that own vehicles instead of companies that own a lot of vehicles

va; yeah but then again the government would be a big stakeholder because you would have to place the tiles in public spaces for people to use
j; well you..
am; you can also do it at home
ol; but in the city it's not [inaudible] so then you would need in the sidewalk

j ; but.. what it mainly changes is the problem we are solving right.. so for a sharing provider we're solving the problem but it's goddamn expensive to charge a vehicle operationally, but for a private person we're just adding convenience

am; and also maybe we could make E bikes more available for everyone if the batteries can be smaller because you can charge everywhere and there will be cheaper
j; yes some more easily accessible

am; yeah

j; so the purchase price of the bike could be lower

T: ...we are becoming a gimmick

J: No no,
T: that's a good one, but if we we are just convenience

j; it's going to be very convenient

T: mhmh *agreeing sound*

j; it's nice that you have a phone charger that you can plug into a wall you don't have to cycle on a bike to charge it up or squeeze some kind of... convenience is worth something

ol; definitely because I think for many reasons especially when the ebike will have more inbuilt batteries it's right now in the big cities a reason not to buy one
*agreeing sounds"

ol; and therefore use their car or whatever

j ; but our problem solution fits completely changes, the problem changes, solution..

on; yeah that's what I'm saying

j;... i would say

on; the problem affects everything

D: and what would.. if this would happen what questions would you get from investors for example, to the company

va : " how can you make this cheaper" *laughs*

T: yeah **chuckles*
j; the same question they're asking now is to show customer traction and all of a sudden you have to show traction to a different customer because we have different customers

silence

D: and what would that change internally what would it change to day-to-day activities

J: yeah we.. we..f

Ol: it has to be cheaper

va; yeah because then we would [inaudible]

j; we fire all business development, because now we are not doing b2b anymore

T: eliminate some features

va; yeah eliminate features that are mostly used for commerce like we wouldn't be needing some cloud fleet management, like charged to lock, we wouldn't need any of this

T: the whole fleet management

J: we have to be compatible with a lot more bikes all of a sudden

Va: yeah , so that becomes much more relevant, so it's kind of shifting priorities and features of the product and trying to make it cheaper

T: we need to get standardized

va; Yeah

On: yeah, yeah but I think if we can manage that we would get a lot more profits because the amount of products we sell increase because a lot of people then will buy

ol; maybe a more dense network what you say so not just on the hotspots having hubs there for sharing but now if 10 people in a street want a charging solution then in that block in that street there has to be some charging facilities so a bit more dense

am; and our whole business model changes as well where they pay per charge or the government pays for the infrastructure

j; [inaudible] .. you're in public space yeah

D: how would it change?
05:00 Am; now like the fleet provider is. or yeah the provider is paying for the charging infrastructure because they're the ones benefiting and it's a public facility then people have to pay per charge rather than for the tile or..

j; but would there be enough of a problem to facilitate such a scenario? would there be a big enough problem for consumers where the municipality would actually facilitate them charging their vehicles

am; well could be if they really want to facilitate light electric vehicles and they want to get the car out and have a good alternative

j; yeah but is there enough urgency like it works now..
t; or will it be at supermarkets and eh ..
j; well the supermarket is always within the range of your battery right
t; yeah or restaurants or in the outskirts if the company has it provided for their employees

am; or in the cities for example in Amsterdam if you have your van moof you cannot charge it like if you're on the third floor

ol; if we get more safe batteries instead of lithium then you can take it inside your house
j; yeah no problem

t; no problem if you live on the second floor..
ol; no just the battery
t; Oh yeah

am; yeah but if you cannot take the battery out people can still steal it

j; yeah so then there needs to be a big push for integrated batteries Non removable batteries, right now it's only an aesthetic push basically only van moof it's the only big company that does that

am; what about cowboy, oh no yeah, Watt
T: Watt is not a big company
ol; But then we talk about ebikes and the battery of bigger vehicles light electric
j; I think those in scooters are removable
am; yeah but it's clumsy because they're heavy
ol; how big is the scooter battery?
j; between 7 and 12 kilograms

on; but no one would ever prefer removing the battery if they can buy this, for example if I own a scooter or E bike why would I want to remove the battery and plug it on the wall
ol; because it gets stolen
on; we can prevent that of course
t; because our solution is not really cheap at the moment and you would have to buy the solution in order to be able

ol; OK but if we would sell the kickstand for let's say 100 euros
t; and have a dense network

on; but for example why wireless phone chargers are also not cheap but lot of people buy it right, like brands give free chargers with the phone but people buy the wireless chargers anyway so I think it's also a matter of comfort as well like if you if customer finds your product viable they buy it anyway even if it's unnecessary even if you don't needed if it's more expensive

j; I think one way would be if we can provide fairly convincing business models for municipalities if they can really charge money per charge and they can make money out of this they could even find a way to give kickstands away for free and still have a profitable business model

t; sort of a parking fee

j; like a parking fee and it allows them to manage the amount and placement of bikes
on; the only problem is our Business model is very dependent on the partners like Ebike producers or their fleets

j; yeah it could be public but it can also be the owner of an apartment building providing tiles in the basement charging customers per charge

on; exactly but what I'm saying is to accomplish that ebikes must be more popular than it is right now

j; 50% of bikes sold is an ebike
on ; really??
am; I think 5,000,000 Dutch people have an E bike
va ; really?
on; like how do people charge their ebike taking the battery every time at home
[inaudible]

on; maybe we should also consider.. maybe we are considering I don't know to go for individual bikes like as soon as possible in the future because if we can if this product gets popular I'm telling you fleets would be like kindergarten sales products because the amount of customers will increase tenfold if we can sell this

V; flats are a lot of bikes and they make like a lot of systems so you get a lot of traction
on; but think about it like your cell phone..

va; yeah but would you buy your cell phone from a less Known company that isn't[..] or a Samsung
[..]
ol; OK but now we are maybe talking a bit too much inside for Tiler

j; it's an interesting point because what's Vasil is saying is basically once we go to consumers our brand recognition needs to improve so the way we work at ourselves needs to be dramatically different as well compared to the business-to-business case

D; so now you have already mentioned quite a lot of changes that could possibly happen or should take place when this preference shifts to owning and what if we have a second one here (scenario 3#) that changes and there the standardization for the charging actually doesn't get developed, continue thinking like this, what's the impact for Tiler how does it change the strategy?

Va; also taking into account the previous? so now we have two restrictions?

D; You can do both you could also just think of this one and keep the other one in mind

j; I think without standardization it will be difficult to get into the public space or at least any investment in permanent infrastructure needs to be future proof it needs to have a certain amount of non-competitiveness in it because it's publicly owned

potentially

va; and also standardization also implies that the companies we'll start to produce more similar bikes and that we will then have to be compatible with everything so if that doesn't happen we will still need to figure out like with its different bikes like if we are compatible with it

on; what kind of standardization are we talking about?
j; that's a good question
on; what standardizing standardizing what
D; the way of charging
on; the meeting that we had two or three weeks ago;
j; the one with the wireless power consortium?
on; yeah it's already getting standardized..
ol; but that's about the energy transfer not the charging of the battery

j; Yes so the standardization can be multiple points or multiple embodiments right so wireless power consortium is working on like the electromagnetic interface and maybe the communication but there could also be standardization on the vehicle side like where to plug into the wiring room maybe or the voltages communication on the bike this exists for cars for cars this is all defined so it can be done

va; if the market is big enough

j; yeah it could also be if we want to go to a broader charging network the standardization could be in the payment system just how you pay for your transaction how your ID is tracked how the back-end works. it can have multiple facets I think to be able to go into public space there needs to be a standardization of electromagnetic interface so at least [inaudible] Kickstand from different operators or OEM's can charge on the same tiles and

vice versa,

D: is that something like for example that you want to influence like how that standard gets developed? like Amarins what do you think ? should the market help with this should the government do this?

am: I think for standardization is for us more important to work together with the big players in the market for example Bosch/ Bafang so that they at least have Tiler as their preferred

ol; that's on the interaction with the bike by excite in order to have the tighter network and the infrastructure there it's much more on the energy transfer side as long as you talk about wireless

am; yeah but also it's about supply and demand right like if everyone wants accepted as the standard and there's no official standardization that could also be a solution right

ol; right so I believe more not in a legal but in an industry standard

j; yeah yeah, a standard can be an agreement between two companies that can already be standardization like the wireless powers consortium is an industry standard of 10-20 members and they just agree on one standard there's no government involved

D; and do you think you would need resources for that like do you think you need to get into this as a company maybe to partner with someone or hire someone for this

ol; yeah
j; with the wireless power consortium we need to attend
va; subscription
j ; we need to pay them

ol; 50000e uros per year
t; what???
j; it was 25 right?
D; to be in that club?
j; And then you're also obliged to attend and there are multiple day events all around the world the next one is in New Zealand
am; *exclaims in disbelief* serious? Who is doing that?
ol; big corporates

ol; this is then specifically about wireless and of course there are other charging solutions, they just do it with a wire and they don't care about this one then you come to the bosch and the other ones I think it's still a wild Wild West on the [..]

j; The funny thing with bosch I have been researching the compatibility with bosch over the last days, bosch is already standardized within its own ecosystem they have one charger that fits all batteries they have one battery that fits all bikes it's completely universal within their ecosystem they have these components rolled out to all of their service suppliers like all bike stores can have their parts in stock [..] they are already so much bought into their own ecosystem it would be very difficult for them to change or convert or move over to another compatibility

va; but it's also easy for them to make others move to their ecosystem

j; if there is Going to be standardization and Bosch is involved they will try to push their own system

ol; no because other systems Compatible with their system and then they don't have the whole then it's open again because they don't want other batteries to fit in there they want to keep the whole system

j; and this is why [..] have been stalled for almost 15 years

ol; on that ide it's going That blocks completely the whole innovation to become safer or smarter, talk about [..] or other communications there's not much happening there

D; you made a comment just know about the costs what was that about?

T: that Bosch has much more money than we do they can fly people to New Zealand to get their standardization

j; or to block the standard from happening

D; we can move on to the third horizon *explains third horizon*
D: [..] example of a consumer could be the aesthetic indulgent or see them as the form of consumer who is willing to pay a lot for a pretty product
J; or these are the people with an integrated battery
~20:00

D: so there we have the fourth curve ball (scenario 4) what happens if sharp mobility does not become profitable what's the impact for the company?

Am; well if those are the people buying it then

on; what do you mean by not profitable like for individuals or for companies?

am; it's about only the shared mobility yeah

ol; it's on top right so we have this one(points to first market) , this one (points to second market) and this one (points to 1/3 market) all on top of each other going from there to there

ol; if you look at our current slides we do say we go from fleet to public to consumer it's like a road map now we are changing the road map

D; in the sensitizer you have also looked at some product evolution things that I presented to you that you were asked to place on the timeline, some of your answers were the same

ol; place here or here?
D; I'm placing them roughly so for example [..]

D; now that you have this whole collective picture it's probably easier to think about the impact of when shared ability would not become profitable? which could also happen earlier on no mistake about that

 am; that we would move to B2C earlier

va; and we would do all the things we said before, like the priority shift the features we need to put inside

ol; I find it hard to say all shared, there's a big step like at first is it gonna be more public or private sharing instead of saying no sharing at all

t; there's two ends like everyone writes shared vehicles all the time or no one rides shared vehicles ever but there's also a very big middle Gray area where for example OV bike I use OV bikes every now and then those are electric, I am not using shared mobility a lot only the trains every now and then an OV bike there's a big Gray area of how often you use public transport or a shared transport mobility I think

j; I think the simple answer is if it's not profitable part of our

customers won't exist, we won't have any choice than to serve other customers
ol; or to go to another country because I think it's definitely a big difference between countries we might not serve the Netherlands but only Germany..

j; the key to this [inaudible] what if the target customer where we think now is the best market fit or solve the biggest issue does not exist anymore or their business model does not turn out we are facing exactly this with mobian, this is exactly the scenario we are in right now

on; we are not profitable?
j; well it's a bit marginal …
am; and uncertain..

j;… So what happens is they start doubting whether they should buy our product and have electric bikes at all so either if we are a very big part of their expenses than one way we need to make our product a lot cheaper and try to make it profitable even if we are negligibly cheap and it's still not profitable then we are aiming at the wrong customers
on; but they use our product right how many tiles did we give them?

t; five
on; so we have to statistics and..
j; yeah but we are discussing the hypothetical scenario where it doesn't work right
ol; they don't know, they have limited data
on; they don't know how many persons use that bike?

ol; no they have limited data to say what it would mean if they would scale their whole business big time but their business model they don't know yet they don't have enough data there

on; they don't know how to run their business they still have to decide what kind of world they want to follow right

j; maybe it's the other way around maybe this is the situation right now that it's not profitable and we're betting on something which we think is going to be profitable
on; it's very easy to test that let's say you have 10 bikes on five of them you put the kickstand and on five if you don't and then you see how many people use our bikes and how many people use the other bikes and then you have something for a start

j; there's one way to prove the profitability

on; so if you do that with the company and the company comes back to you and says the numbers didn't change that much so we don't think we need your product, I think there's reasoning but without that kind of statistic and reasoning and say we don't need your product I think it's kind of unfair

am; but it's not only our product it's like the whole ebike offer

ol; it's not that they think that they have a better cheaper alternative

D; what you discussed earlier on about the network that you can get when you have more tiles for shared mobility providers like if shared mobility is not profitable but you have already managed to put tiles in the public space but it turns out it's dying out and it's not profitable what happens then for the company what does it mean?

am; that we moved to B2C and that we make them charge on the public charging network

j; yeah but what if the public charging network at that point is not dense enough yet for b2c it might just be the tile every..

on; we need a new public strategy right a new market strategy

am; then the stranded assets are not really our problem anymore,

j; but we're also not selling anything new so then the company comes to an end, it's a dead end

am; yes so then you focus on a new market maybe not in public space but in the private space

ol; and we could refurbish them so take them out again

va; we try to sell our knowledge to Bosch *chuckles*

on; that might be an option as well in the future if you have some knowledge about a niche and it's valuable but it's again all about marketing it doesn't matter how good quality product you have unless you can sell it

ol; the bigger picture I think do we all believe that micro mobility is going to keep on growing... light electric vehicles? *silence* *murmured yes*

ol; is there a reason to doubt that?

j; I think in the shared micro mobility..
ol; no in general
j; i think in the private owned micro mobility will continue to grow
ol; yeah that's what I mean in general the whole chunk

j; yeah definitely, but this is specifically about shared I don't

think as it is I don't think the business model at this moment in time with the current technologies and current landscape is profitable enough to continue to grow

on; I think it changed from country to country one of the reasons shared mobility increased so much in Turkey it's because car expenses increased hugely so people were forced to cheaper options step scooters they are much cheaper and faster as well

va; yeah but why they're not just buy your own step scooter
on; because that's also again expensive
va; yeah but you buy it once

[…] on; if you use shared mobility only once a week it doesn't make sense for you to buy it

va; I'm speaking more of regular users not users who only use it once a week

j; maybe the commuter persona doesn't fit but maybe a leisure a traveller in different city

ol; I'm sure that depends on how long but in some at least big cities and some countries the shared micro mobility will just keep on growing and in some not depending on legislation but especially also getting profitable I think charging really is an enabling factor to get it profitable and now the big shake out are all lost making they don't have a good business model so once they're charging is getting cheap enough and the hub based like the acceptance of the general public the legislation needs to be there and people don't own because many countries people don't own bikes don't own stuff in that case I'm sure it's going to keep on growing in that situation but when and where that's the question

on; for example the Netherlands is a great country to use ebikes and those kind of but since everyone has one so sharing it's kind of in the second
*talk about scooters in turkey, prices are high over there

on; it's expensive over there but for example over here it's cheap so why would anyone bother with the sharing

D; what could also happen is that for example now public transport and shared mobility are still very much separate things and they are trying to see if they can bring that together because then you can have like what I said earlier on the budget governments have for these things they can actually put some of the money they are now putting in public transport put it into sharp mobility and boost that a lot more so that there is more certainty that it can keep growing and then you can see it's coming together also maybe with the payment system that you could for example use your OV chipkaart for a felyx in the future who knows that also connects somewhere to the mobility as a service systems and those things could also be favourable to Tiler I wonder what your thoughts about what I just said now because you can already see in your conversation there's a lot of things happening happening at the same time a lot of different dynamics

t: there's a lot of "what if's"

j; as long as it provides more quality of life there will always. whether it's going to be government financed or a niche solution it's always going to be there to some extent

D; but if it becomes one system it could also mean if public transport in itself improves in the future that suddenly shared mobility is not that much needed in the city but more outside the city and what the statue for Tyler, if the public transport

system is mostly good in cities now and if it gets even better now we won't need shared mobility within a city because they can use public transport to get around and then it becomes more interesting in the outer areas where there are no connections now where maybe people in other social classes live who don't have access to good transport. What does that mean to Tiler if that happens?

va; and the suburbs people want to use the car

D: true you have the outer areas where the car is almost a necessity because the distances are large then you have those in between areas where you don't necessarily need a car maybe you don't even own a car or it's not even allowed to have a car So what do you do then because then as mobility provider you can maybe put your scooters there or your mopeds
[..]
va; if it's not a dense area it wouldn't make sense to put a lot of scooters there

j; the vision for Dott, or at least of their French founders, was to provide public transport in the suburbs of the big French cities there's very little capital investment of governments in those areas generally they just want the Banlieus to disappear so there's hardly any public transport there and they see free float share as a way to provide mobility to those people and empowered them again to get around

D; that's also more inclusive mobility as well now you see for example that a bus comes to a neighborhood every hour if you have to wait for four hours if you missed the bus people need something else and what if you could provide them shared mobility and then maybe if Tyler can get into those spaces they can contribute

j; yeah it's like the emancipation of the forgotten neighborhoods
on; or how about using tiler's product for amusement as well, [..] *speaks about using the vehicle for fun*

t; rental bikes we are already doing that
on; for amusement right
t; tourism

on; right so I think even if public transport evolves too much then Tyler might still earn itself a place in the public space

ol; that's a niche, that's a big piece of the market, the kick scooters in Paris that's a big percentage of the market I would say it's maybe 30 to 50% I don't know

D; they are also going to vote about it soon like whether they want it
t; yeah referendum
D; so like those things could also suddenly change the market
am; about what?
D; about whether they want the kick scooters or not
am; ohh okay
t; whether they are still allowed or not in Paris
ol; but then you still have the bikes

D; true true but then some things for example if your next vehicle would be a kick scooter you expand to and then suddenly major cities decide oh we don't want those any more and we you get a sort of domino effect then oops what do you do as a company?

T; file for bankruptcy
ol; it's also interesting like this week in the US in New York they get a huge tax incentive to buy ebikes so you get $800 within 20 minutes all the tickets were sold out from the municipality to get a ticket for $800 reduction on buying an E bike so people

kind of get free ebikes there

j; that could really push the private ownership
ol; so now they do it for private but they could kind of if the shared is well organized in the hubs they could also subsidize that

D; but especially in the US when I think about it they have much larger distances then it will probably be really nice if you have some tiles in the public space

t; a lot of outskirts to cities

D; yeah but then if you have tiles there and also at your home then it's almost it's sound like you first need to have this and then the consumer market but some of the changes almost force you to first go into the consumer market and then maybe something else

ol; yeah and then people can charge at home and once the battery is empty it's too far they would facilitate at least some additional infrastructure

j; but it's a good point within all of the trends the least risky one has been the consumer markets all the other stuff is super dependent and high risk

D; because there is a lot of things you cannot influence as a company or you can try to see if you can and then you come down to the resources do you want to hire people for that do you want to make partnerships do you want to maybe do some technologies first because you know that municipalities really want that things like that

ol; that's true but I would say most of the infrastructure for individuals would still be in a public domain in this case in those

scenarios not on private property in your garden

j; may be most conservative customer target market would be people who can have the tell at home rich people

on; in America a lot of people have big houses right, *inaudible]

va; they also have very big cars are very cheap gas

ol; [inaudible]   you don't have to take out the battery you just plug it in there in the garage

t; I think for the consumer market it becomes more like a gimmick if you have the space you can put it in the tile and you also have the space to park your bike next to a wall outlets and then it's more like a gimmick so there has to be an added benefit which should be a networks if you go a bit further with your vehicle

ol; exactly
t; that you can charge it on the go
j; to be honest
t; and that's going to be tricky to develop that network and at the same time have enough people to use that network and those should grow at the same time and and that's difficult

va; you also have to take into account for ebikes that if you're battery is out you can still cycle
t; for mopeds not so much
va; so then this is only mandatory for mopeds
[inaudible]
t; I think it's also convenient for ebikes
va ; yeah it is convenient but who's going to make a ride of more than 50 kilometers in one go

j; I am now a first time ebike owner and user, cargo bike I park it in front of my house I have to carry my battery inside to charge it and I'm really considering to claim one of the prototype tiles to charge it because it's such an incredible hassle because I have an additional lock on the battery outside because all the batteries gets stolen from all the cargo bikes in Haarlem so I have two keys to take it out and then that's on the same keychain as the main lock so it's a big hassle otherwise I would have to put a charger outside but I don't have a charge port so I cannot even charge it on the bike

on; you do that every day?

j; no what I do now is I charge it almost every three or four days and I always end up having range anxiety and putting it in eco mode to get home so for me it would be a big convenience and there are some trips, I wanted to go kite surfing with the cargo bike but it wasn't fool enough to get to the beach and back and if it's always full enough it keeps your range constant

ol; that's an example I've heard from two or three different friends of mine so they take their cargo back to the beach and they say oops I have ranging anxiety it would be great if there would be some some tiles infrastructure nearby the beach
[more talk about cargobikes]

t; i think that issue is bigger with other vehicles than bikes, because one it's easier to take a bicycle inside and two if a bicycle's empty you can still ride it with other vehicles that becomes a little harder so maybe then this would be something that we need to put forward a bit

D; but Amarins what do you think about what they are suggesting expanding to other vehicles moving that forward

am; I think cargo by especially I think that's also pretty much already the market that we are in right now
[inaudible]
[conversation about cargo bike on bike path, and the congestions that that would case]
[inaudible]
t; I think a cargo bike at this moment is the only real alternative for a car because of its loading capacity, I have to do groceries only five times a week only because I cannot carry more on my bicycle
[about a podcast, benno bikes, bringing forward a different cargo bike design > longtail bikes]

j; he thinks the sweet spots for a utility bike is between a regular bike and the current cargo bike

ol; I think in the US there are some of those like family bikes
am; can you send it
[inaudible]
ol; ah yes on the micro mobility podcast

D: I want to go back to something you said earlier about charging because what you see now is that people mainly charge at the pace is where they stay a long time so at home or maybe at work and with bikes because they're still expensive and the batteries get get stolen they still want them within their sight and I think I heard you say something about where you want to put the charging points that don't necessarily have to be at home

ol; what we mentioned is if the sharing will not be profitable would there still be tiles across the city or if ten people in the streets go to the municipality and say can we have a Tile or a charging in front of our house then and also if the municipality would block that just like with Evie with cars because it's cheaper and easier in many countries the cars will not be charged in the

public domain at church polls at their company or sometimes even at McDonald's so there will be private properties and those will be the gas stations for the electricity

j; t("Tegel van de Toekomst" Verovert Arnhem | BNR Nieuwsradio, n.d.)here's interesting technologies that go with this and that will be fast charging so the places where you charge are the places where you spend less time so you charge fast like McDonald's

ol; and then the companies if you go to work then your employer..

on; opening to individual markets might be the greatest thing for Tyler I hope we can do that
ol; Amarins?
am; yeah I think it would be really cool
on; moving to individual markets (consumer market) would be the greatest thing and if we can mark correctly
ol: *exclaims in enthusiasm* let's do it!

on; as a firmware engineer I know we are not ready we have a lot of things to do
Olivier chuckles

on; the way I see it is our current customers is like preparation for us too individual market
j; we could go bet on a few b2c customers in a controlled manner but then we would have to partner up with OEMs instead of a specific bike

ol; but there is a big thing I think but now we are talking about Tyler selling La La la but it's a whole new product category so if you look to the EV's it started also that one company provided the hardware software the payment et cetera and now you have just a hardware providers they make the charging pole you have the fleet operators and they do the software updates and the

payment systems and then they have a range of standards for the OCCP like communication protocol etc and if we are looking here it's the same we don't know yet what the role of Tyler will be it could very well be that we just sell hardware two charge point operators to others and it will end up in different markets so it's not us selling to the individuals or to the companies or maybe we are and we will not do the hardware just the fleet operator and then we will be so it's not clear yet where Tiler what our added value is so will be maturity of the whole product category which [inaudible]

j; besides that besides the product is what we make the fact that the consumer is the end user doesn't mean we are a direct to consumer company most likely not
ol; no

D; Amarins you are nodding do you agree?

am; ehm yeah there are a lot of things we are not sure about it could go different ways

ol; if we talk about standardization IF it will be standardized then I'm quite sure we will not own the whole chain from hardware to pay per charge and the municipality there will be different value chain with different parties in there

j; do you think compared to the current situation our part in the value chain will shrink or stay the same and there will just be more value chain on top

ol; shrink yeah like the activities will shrink

j; right now we are just providing hardware
ol; oh that's true

j; which you think at this point that we would not be providing hardware anymore but just IP
ol; but just hardware would not be enough to serve this

j; no so here we need to add value chain in payment services that kind of stuff so that grows on top of what we are or do we actually..

ol; we don't know that maybe it goes on top maybe we will increase our number of activities or will be necessary partnerships
am; what do you mean with reduce?

j; we could stop making hardware and only sell the license of our technology then we're just the technology
t; to bosch or?

D; and what would that mean for you for example?
on; most probably we are going to get fired *laugh*
j; we're all going to get legal training

D; this is a great moment to round off this discussion unless someone has finishing thoughts they want to share

va; for me like the best way to use our products the way I see it would be like and train stations basically so have large charging infrastructure and train stations and then for example NS or whatever like companies operating stations to have also contact with mostly company complexes around the city who were at biking distance and make then part of our network from the station

ol; like den haag

va; I think this is the most valid scenario

am; for consumers you mean or for shared?

j; would people then charge their own bike at the train station or take an ov bike which is charged through our product?

va; take an ov bike,   like sell the kickstand to consumers is [inaudible]
[more discussion about vasil's suggestion]

va; to whom we sell the kickstand doesn't matter, could be to consumer or somebody else
va; I don't know a lot of marketing or how city planning should go but in mind this makes the most sense

27:00~ ol; I think we do have some govt connections, that we should offer them we as tiler we known a really good independent strategy consultant with a certain method, proposed her, named Darcy, and do like, I can completely imagine doing this session with some people in the municipality

j; absolutely
Ol: same format, exactly this, you get 1000 euros for one session, we are in because we have a nice conversation, add value there

Reflection
D; you are connecting to the reflection already because that's exactly what I wanted to ask, how did it go, can you share some thoughts?

ol; I love to do this with our clients municpality whatever, so many uncertainties, nobody knows

am; we can do this with mobian

ol; this will be different across cities and countries so nobody can say "noo we already know" nobody knows

t; might also be good to get a few stakeholders from different areas get somebody from rent a bike somebody from the municipality of Amsterdam someone from us altogether and then do a session like this

ol; I already know who's going to sell you, because I had a session with your friend Roland this week, it's a smart way of doing lobby

D; I wonder were there things that you found easy or difficult

ol; i found it good
am; me too
ol; I mean there are things that could be nitty gritty but I loved it

j; I think the way you structured the conversation by having alternatives to specific entries and really focusing on the conversation around those I think that was really powerful and depending on who you do this session with you can choose which parameters to change and start a conversation I think there was a real nice way to have a big road map and really have a focused discussion still

ol; and I can also imagine if you are with a municipality it's really nice to have the discussion to say this is going to happen what do you think about consumers not only your own responsibility to let them talk about the big picture and not just their circle of influence

va; these now make much more sense (points to scenario papers) than they did on the questionnaire because I couldn't understand why I was choosing what I was choosing at the time but now it makes much more sense

ol; yes and therefore I think like providing if you put this on a nice picture or slide I think it's really good to just share with people because of course there's value in its own and I think it's always good to give away but still it's more about the discussion and understanding and the guidance of the discussion where the value is added not just in the overview itself

va; and we could also make this in a format like miro right

D; i have it here

ol; my other question would be , i'm looking forward ..[inaudible]

D *shows figma prototype*
* explains about external evaluation*

on; I like the general structure and what you try to do I think some of the questions or some of the content might be can be phrased better for some things at least maybe it's my English or the way I think but sometimes I had a hard time understanding the question exactly what it means beside rephrasing I think everything was great

ol; can you give an example

on; for example standardization was a bit broad for me, we also assumed a lot you mentioned some of the situations and you gave examples and said what would you do if that happens but but for me it sounds kind of imagined for that occasion to happen because it seems impossible or very broad that's why I told you a couple of times depending on the cause of the problem how we how we find a solution matters so maybe be more specific about those questions or the problem change the phrasing to help understand it better or grasp it quickly

va; for us standardization is like with technology you have different.. [inaudible]

on; more specific
va; more versatile to whom your speaking

D; I have a torch from you two yet what did you think?

T: I think the format is really nice I think the cards worked well you can really follow the steps how it's laid out and tell the story I think that works well I think it would be nice to invite people more to move around stuff to make it more dynamic that way

on; it's kind of small actually

t; you forget what's written all here it's too much (points at bottom)
[inaudible]

am; I agree with everything that's been said for example also here with the government restrict shared mobility it would have been nice to have a little bit of info around it to really see what you mean there but I really liked the discussion and the difference opinions there also maybe this wasn't really clear for me what we did here what was the use of that (points to technology and resources layer)
[speak about disconnect between top layers and bottom layers]
ol; I feel this is a bit more separated because this is more very much related to Tiler right now in that segment so I find this really interesting but it's a theme on its own and I don't think it's necessarily contributing to the bigger picture

va; I think if you would have done a session with us like with the preparation that you gave us it would be a nice exercise to make

[..] and put this together speaking to each other
[speak about difference between external and internal version and revisiting it after a couple of months stop keeping it updated]

j; I think that that technology it's basically our technology and product pipeline that part's doing this exercise we can come up with topics which are relevant and robust against external changes if we work on the topics which will work in multiple scenarios we make the entire company more future proof

ol; that makes sense
j; so if we have something that fits all the horizons

ol; I kind of liked it that we did not play too much around with the cards because this gave some kind of structure to not be too chaotic and then these little cards gave enough room for discussion instead of discussing the fact if what is standing exactly here or whether it should be here or there

j; these cards kind of show that it's up to debate anyway

ol; this does represent phases to give some status quo instead of this was quite a clear discussion and still going into depth instead of moving too much around because then people might get confused

t; you can do this whole exercise based on one card pretty much

ol; but the way that you put them in one by 1 and give a bit more context the way you put it there you were telling your story and I think the more often you would do it you would not just, by putting it there you tell this story in context background it's nice thanks

D: Thank you for your rich discussions

Appendix H: Statement cards