

18-10-2017

Välkommen!



AGENDA

- 9:30 Introductions
- 10:00 The Project
- 10:15 Icebreaker: Creative Tensions
- 10:30 Q & A with End Users
- 11:30 Break
- 11:45 Working Session: What We Heard
- 13:00 Lunch
- 14:00 Design Fiction
- 14:30 Working Session: Design Fiction
- 15:30 Fika
- 16:00 Synthesis and Share back
- 17:00 Next Steps
- 17:15 Mingle

18-10-2017

9:30

Introductions

18-10-2017

PROJECT OVERVIEW

SISP Team



OLLE DIERKS
DIRECTOR FOR
GLOBAL CHALLENGES



JESPER JOHANSSON
OPERATIONAL
PROJECT MANAGER

SEA Team



STIVA LIWIZ
PROJECT MANAGER
SUSTAINABLE MOBILITY AS A
SERVICE



ERIK HENNERDAL
BUSINESS DEVELOPER
SWEDISH ENERGY AGENCY



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BUSINESS DEVELOPER
SWEDISH ENERGY AGENCY



CHARLOTTE LEJON
HEAD OF COMMERCIALIZATION
AND ENTREPRENEURSHIP



PETER ENGDAHL
HEAD OF SUSTAINABLE
TRANSPORTATION

**A Challenge
from Sweden**

Initial workshop for Sustainable Mobility as a Service



Sweden
Sverige



Energimyndigheten



SWEDISH INCUBATORS
& SCIENCE PARKS

IDEO

18-10-2017

PROJECT OVERVIEW

IDEO Team



PETER OLSON
DIRECTOR
SOFTWARE DESIGNER



LOREN FLAHERTY
SENIOR
COMMUNICATION DESIGNER



VIVIAN LO
INTERACTION DESIGNER

18-10-2017

10:00

The Project

VISION DISCUSSION

The Swedish Energy Agency is tasked with lowering Sweden's emissions per the Paris Climate Agreement. The SEA is looking at the transportation sector as a critical opportunity and is helping to foster Sweden's Mobility as a Service (MaaS) sector as one strategy for lowering Sweden's carbon emissions.

Our task is to build a movement around sustainable mobility as a service that will improve the lifestyles of the people of Sweden and beyond.

18-10-2017

10:15

Icebreaker Creative Tensions



EMPOWERED

ENDANGERED



Should police be in charge of school discipline?

I believe the role of the police is to

The best place to relax on holiday is:

Beach

Mountains



The biggest gains in zero carbon will be found in:

Personal transportation

Shipping



Going zero carbon will be easier in:

Urban Areas

Rural Areas



A successful challenge program is focused on:

Inspiration

Real World Application



For the mobility challenge, the timeline to implement should be:

Right Now

5 Years



The mobility challenge should focus on the needs of:

Sweden

The World



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10:30

Q & A with End Users

Q & A

18-10-2017

11:30

Break
15 Minutes

18-10-2017

11:45

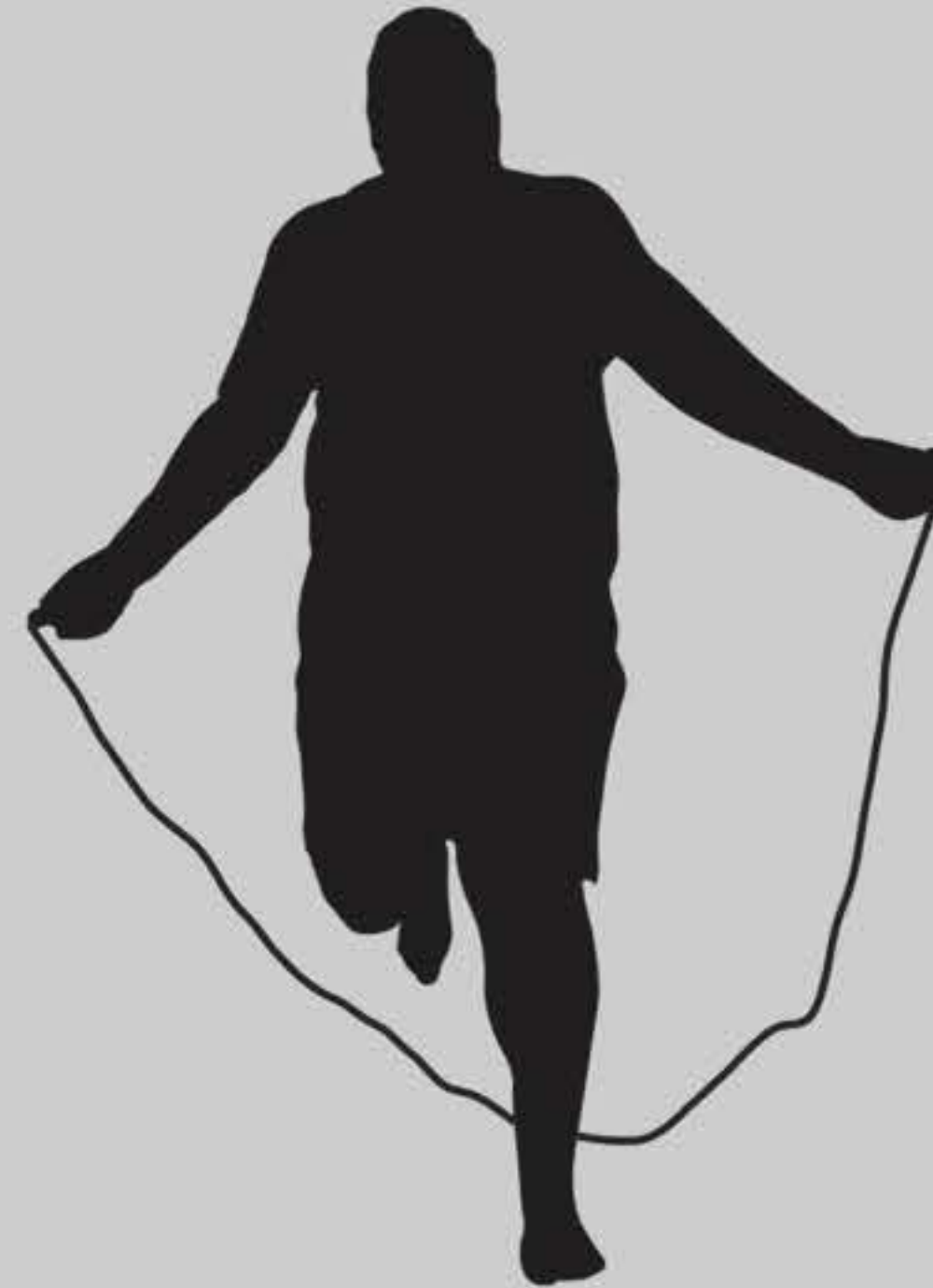
Working Session: What Did We Hear?



Advocates



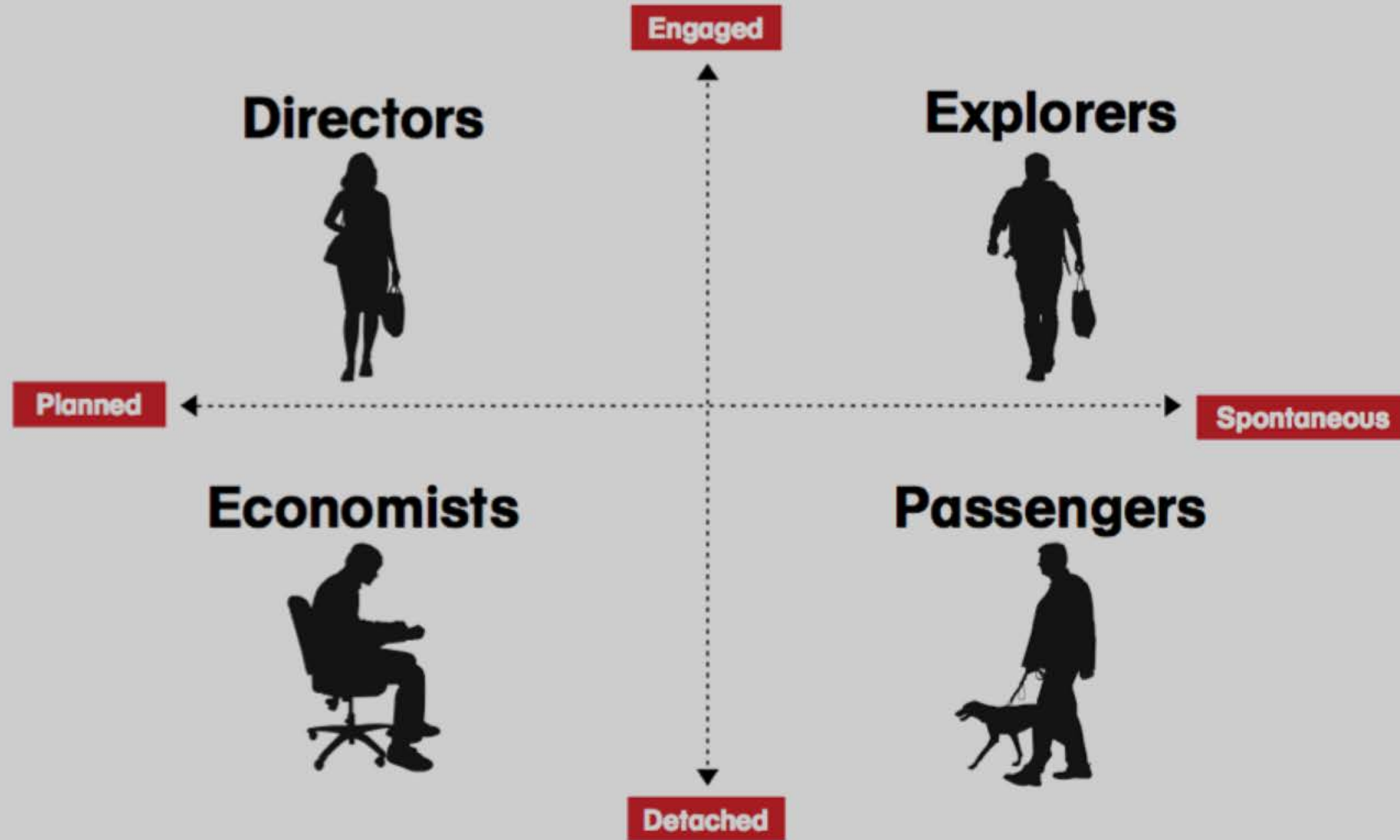
Attendees



Intenders



Quitters



17-10-2017

WORKING SESSION: WHAT DID WE HEAR?

What stood out to you?

What are some commonalities that you heard?

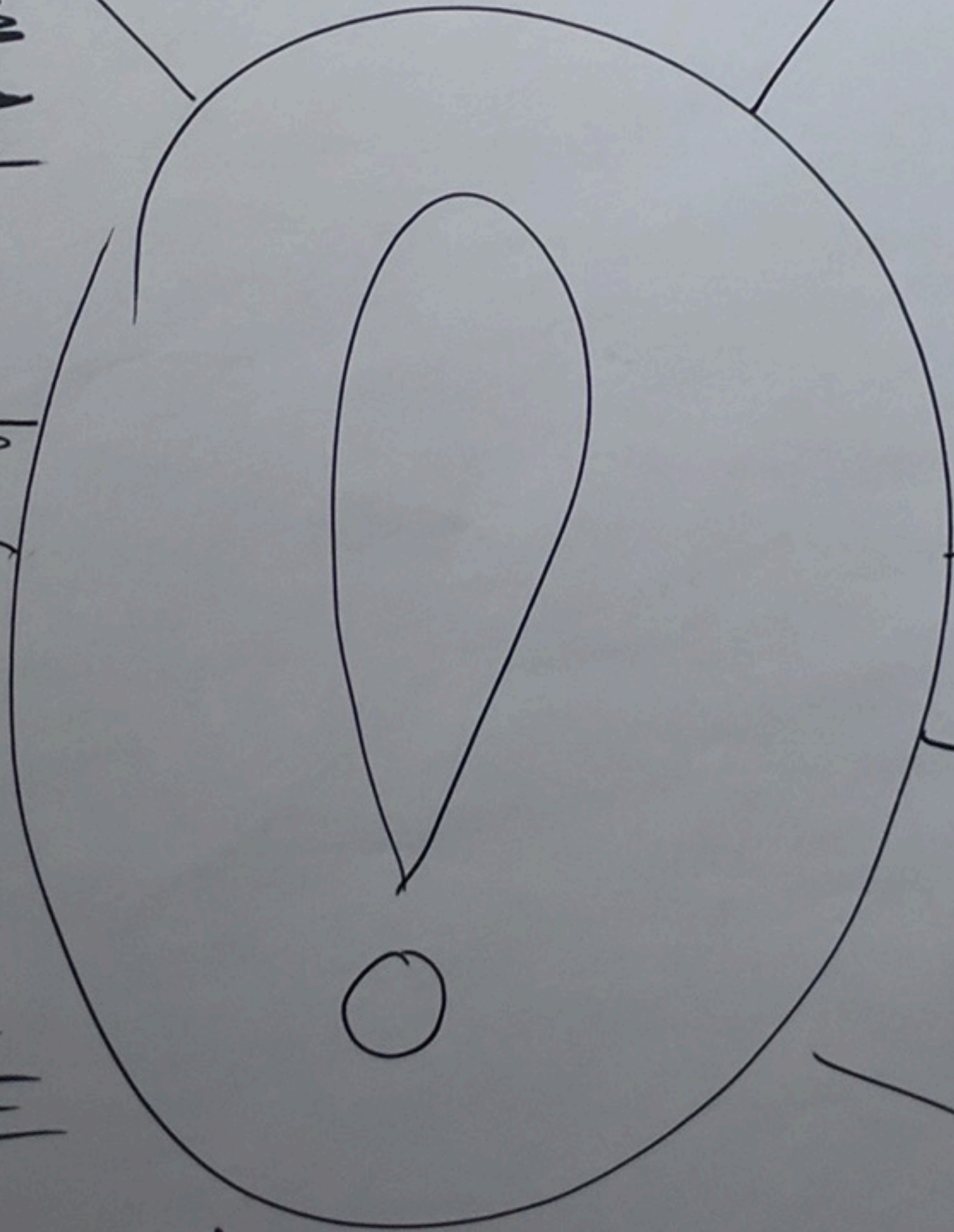
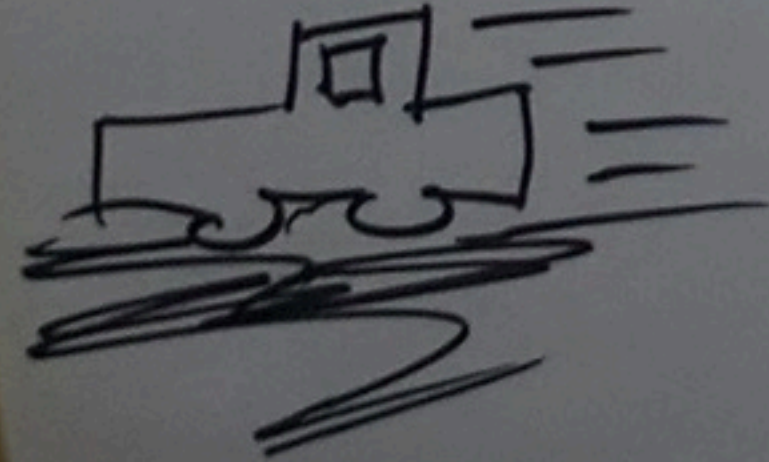
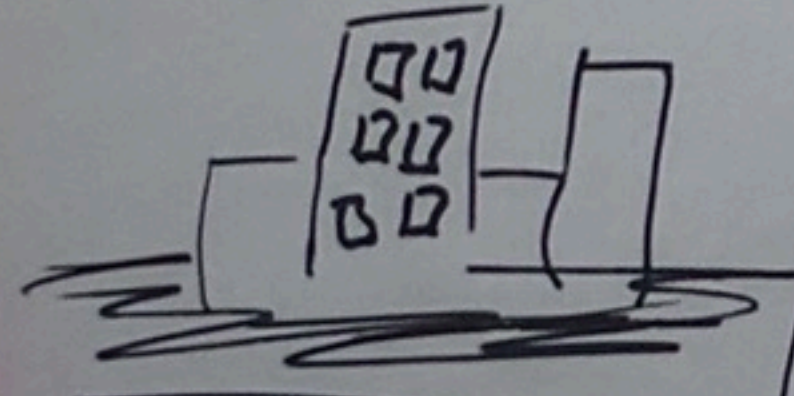
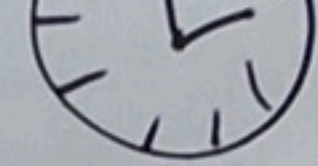
What surprised you?

What challenges or opportunities did you you hear?

How does this align to what you work on?

How will this affect your work going forward?





Company
purity/solutions
missing

^{VISIBLE}
CO2 footprint
on choices
(food/transport)
would help
make good
choices

Companies
pay for
work tickets
with own car,
and free
parking

Identity

Non existent
density

House

relaxing

Quick change
of habits. Boyfriend
with car.

PT → car

Livoresa
Journey of life

with
- No Kids!
- Kids!

Simplicity
of new services
↳ same ticket
↳ seamless

ACTIVE
VS.
PASSIVE
CHOICES

PLANNING

It's all

Large city-
centered panel

Infrastructure
(wifi)

18-10-2017

13:00

Lunch
60 Minutes



18-10-2017

14:00

Design Fiction

PERSONA
+
CONTEXT
+
TOOL
=
POTENTIAL SOLUTION

PERSONA
+
CONTEXT
+
ZERO CARBON MOBILITY
=
POTENTIAL SOLUTION

Tyrone

MEET TYRONE, A SINGLE PROGRAMMER WHO LIVES IN BUSHWICK. HAVING WORKED AS AN INDEPENDENT CONTRACTOR FOR MANY YEARS, HE RECENTLY TOOK A FULL TIME JOB AT A STARTUP NEAR MADISON SQUARE, BUT IS UNSURE HOW THE L TRAIN SHUTDOWN WILL AFFECT HIM AND HIS JOB. AT WORK, HE IS STRUGGLING TO UNDERSTAND THE NYC AND NY STATE TAX CODE.



Our deserted town at night

CONSIDER A WORLD WHERE HOUSING PRICES WITHIN THE FIVE BOROUGHS BECOMES SO HIGH IT CREATES A MASSIVE EXODUS, ENSURING THE POPULATION DIPS BELOW THAT OF THE 1970'S. THE CITY, NOW HIGHLY DEPENDENT ON JOBS, STARTS TO INVEST HEAVILY IN TRANSPORTATION. WORKERS BEGIN TO COMMUTE FROM AS FAR AS PHILADELPHIA, BOSTON, THE HUDSON VALLEY, AND DC USING ULTRA-FAST TRANSPORTATION NETWORK COMPRISED OF HYPERLOOPS AND HIGH SPEED RAIL.

18-10-2017

14:30

Working Session: Design Fiction

Meet Elsa, they are is a student who lives with two friends, studies and feels guilty about the impact of her lifestyle.

Elsa, lives in a world where combustion engines is history.

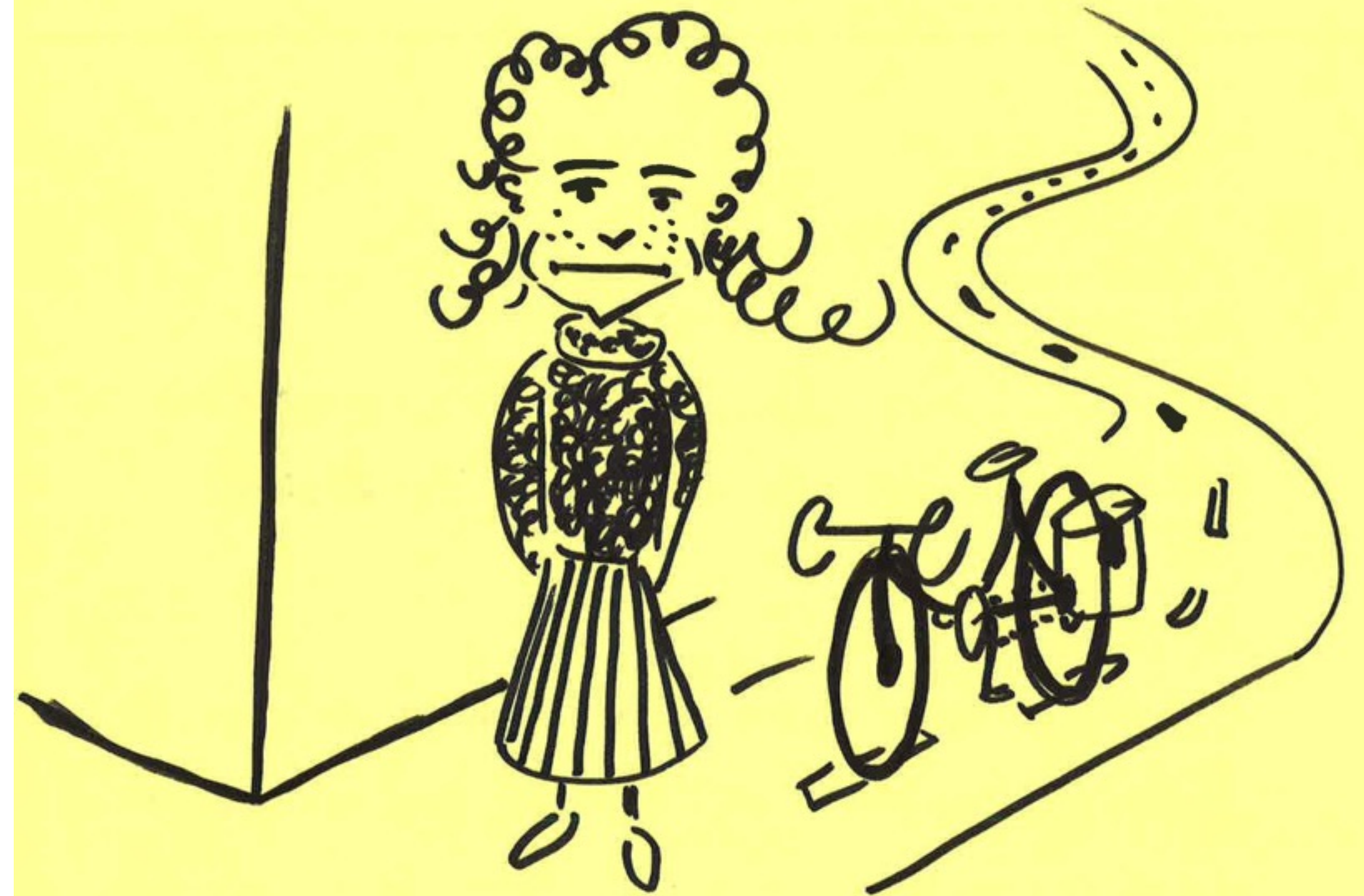
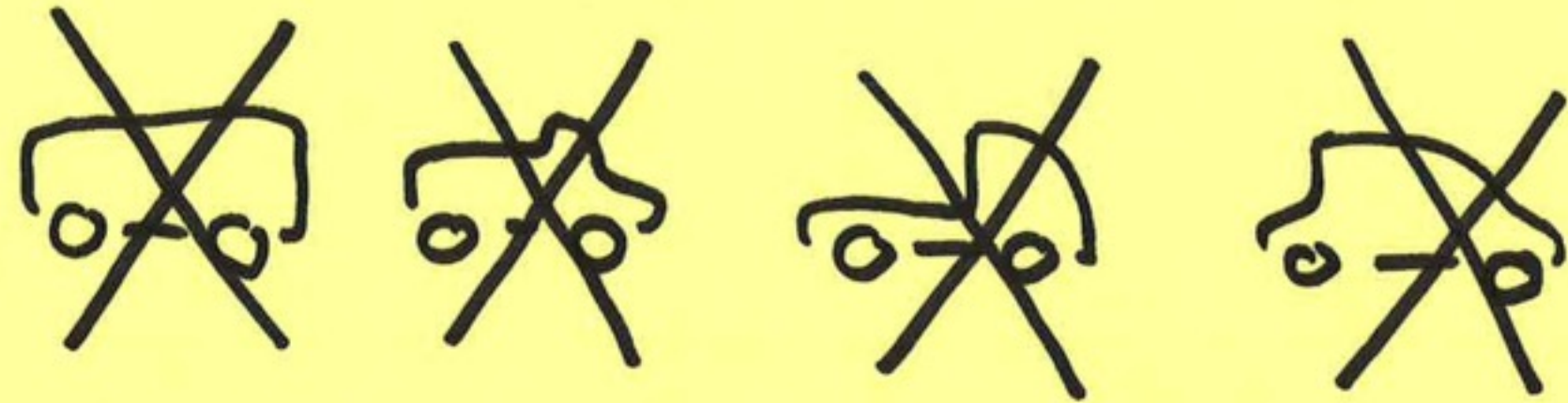
- Elsa faces challenges that are
1. Her personal economy - student life
 2. The conflict between her ideals & actual behavior
 3. The bus card (PT) is getting more expensive.

Opportunities for them include:

1. Umeå is a tiny town - walk & bike for god sake
2. New non-fossil fuel vehicles (and services) popping up
3. Servification

Draw a potential solution on the back of this sheet:

THE BICYCLE



Meet LILLY, they are husband
+ two kids

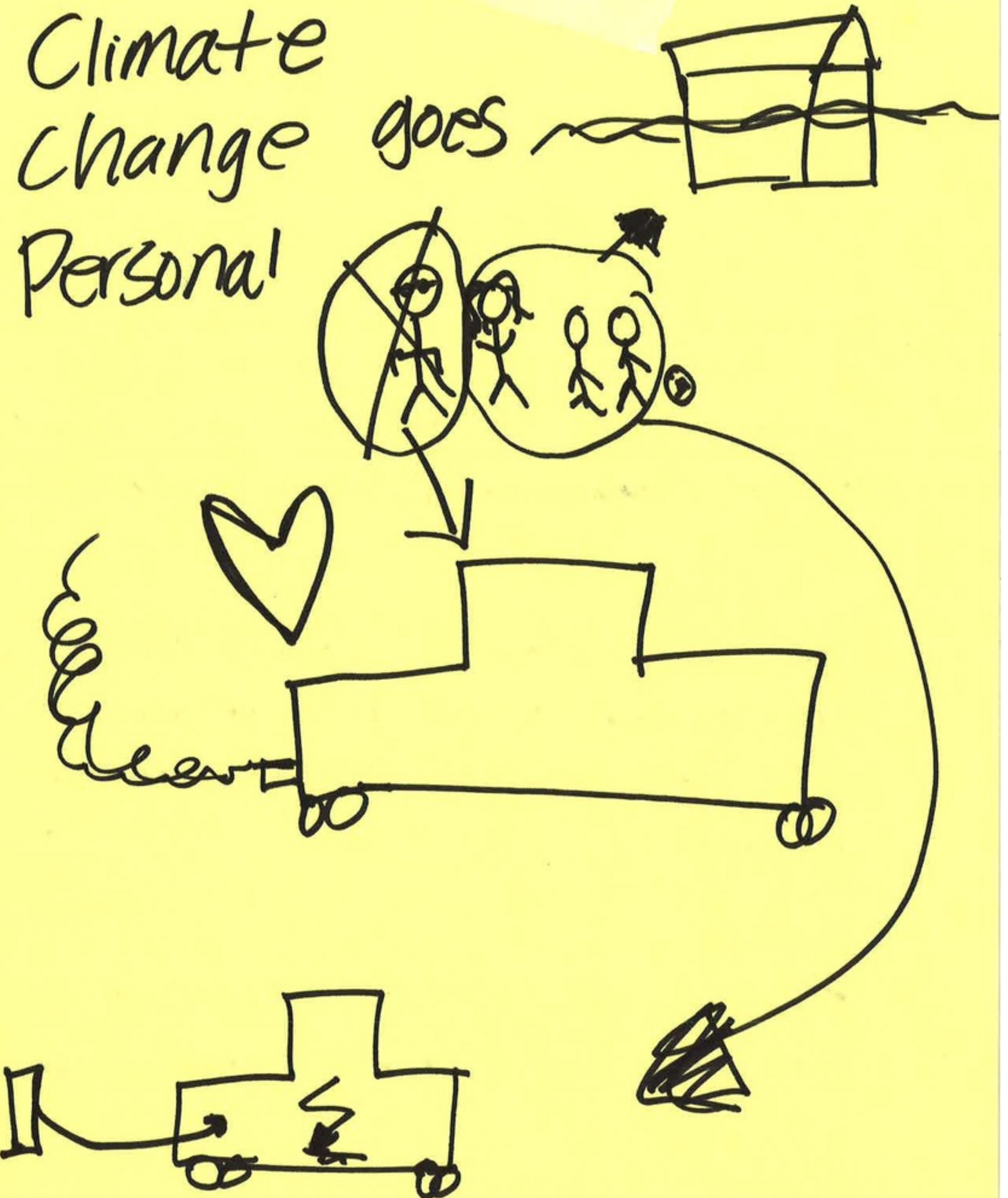
Env. Migr. Lilly, lives in a world where
sustainability is not an issue until
weekend threatened by rising sea levels.

- Lilly faces challenges that are
- her kids may not be able to keep house
 - her husband is old fashioned and the
 - kids will not ride SUV to weekend house.
- + loves his SUV.

Opportunities for them include:

- Divorce
- Electric SUV - too expensive
- Car pool env. friendly weekend car.

Draw a potential solution on the back of this sheet:



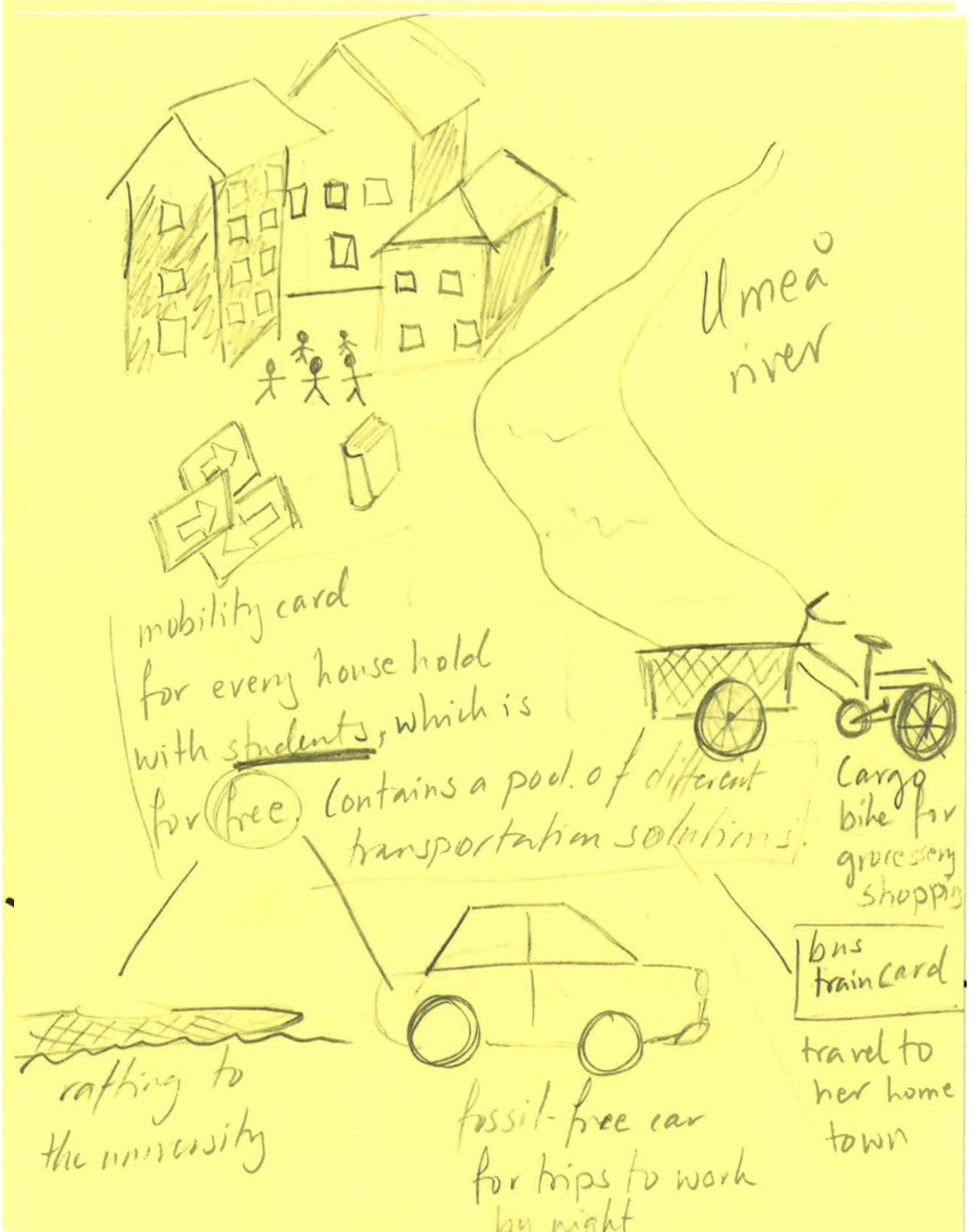
Meet Elsa (NAME OF PERSON), she is is
a poor student in Umeå, working by
night. living in a student apartment with
two friends.

Elsa (NAME OF PERSON), lives in a world where
there are only fossil-free fuel vehicles.

- Elsa (NAME OF PERSON) faces challenges that are
1. her lifestyle affects the environment
 2. is poor
 3. has a lack of time.
 4. is afraid of biking by night.

- Opportunities for them include:
1. everything is fossil-free
 2. her room mates help each other
 3. the community of the university
 5. Live far from her parents.

Draw a potential solution on the back of this sheet:



Meet Axel & partner, they are living
in a single family house driving
2 trucks to work. Axel is disable
Every weekend they drive for 3h to
their farm.

They (NAME OF PERSON), lives in a world where
all important decisions about
energy production - taxes, subsidies
are taken in Brussels

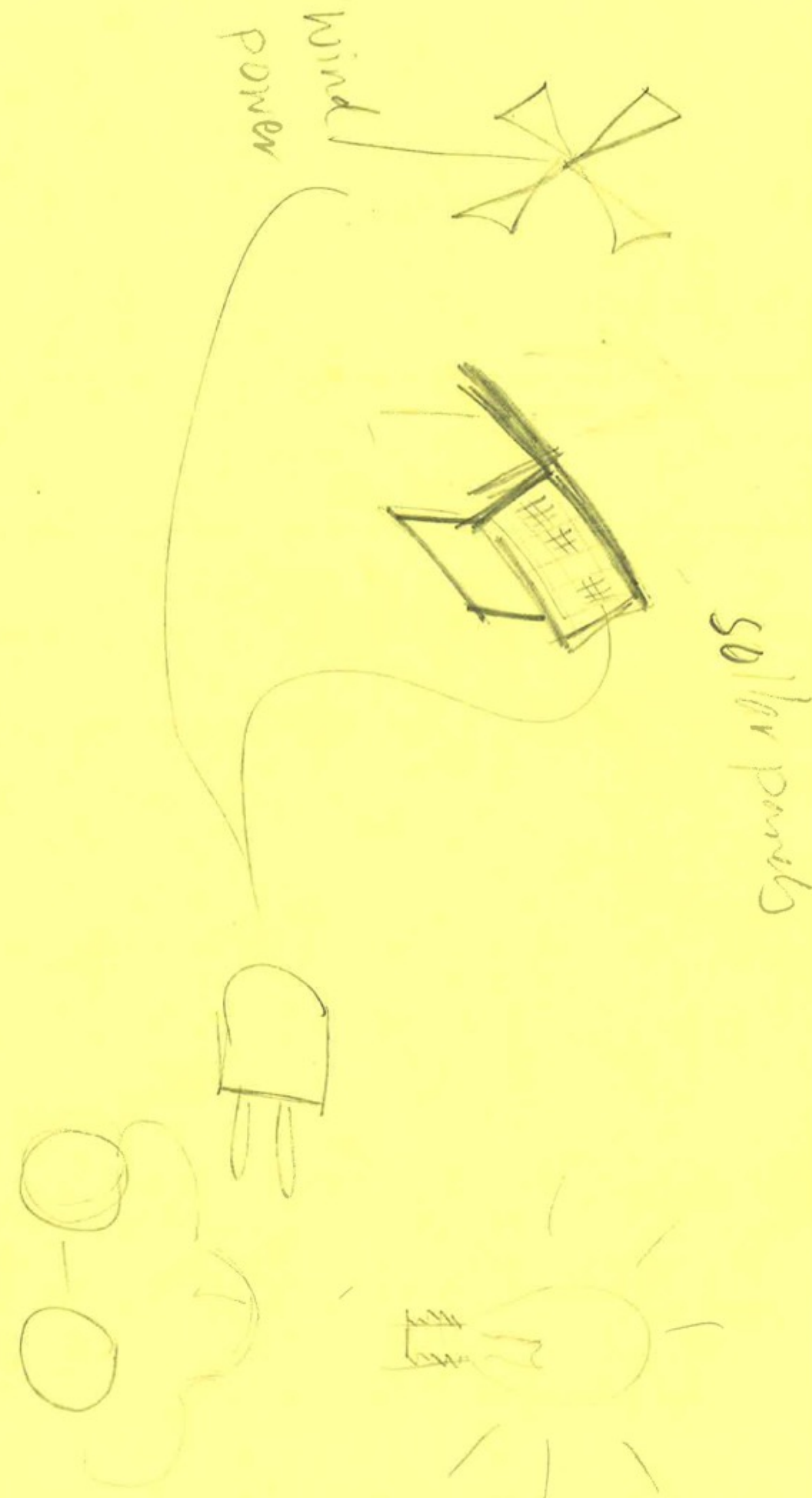
They (NAME OF PERSON) faces challenges that are

1. want Sweden to be independent (energy)
2. daily need for travelling to work
3. his disability decreases his opportunities
to choice of mobility solutions

Opportunities for them include:

1. Independent small scale energy production House Farm
2. Electric vehicles
3. _____

Draw a potential solution on the back of this sheet:



Meet Lilly, they are a family with two children
uses PT for daily use + bike/walk
uses car on weekends/holidays

"ICE no more" fossil fuel ^{cars} abandon.

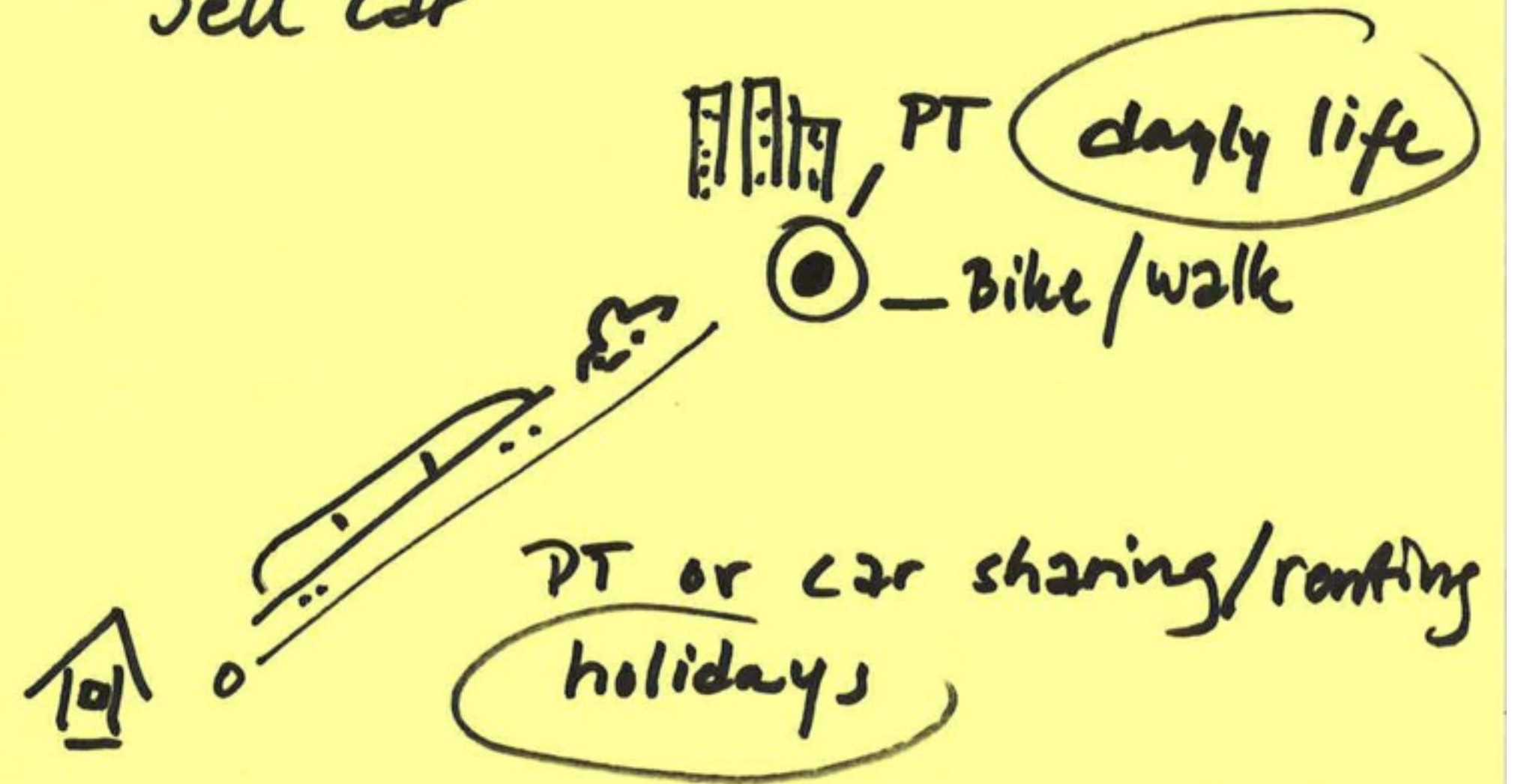
- The family faces challenges that are
1. Mobility on weekends and holidays
 2. Childrens activities and mobility
 3. Economy problem

Opportunities for them include:

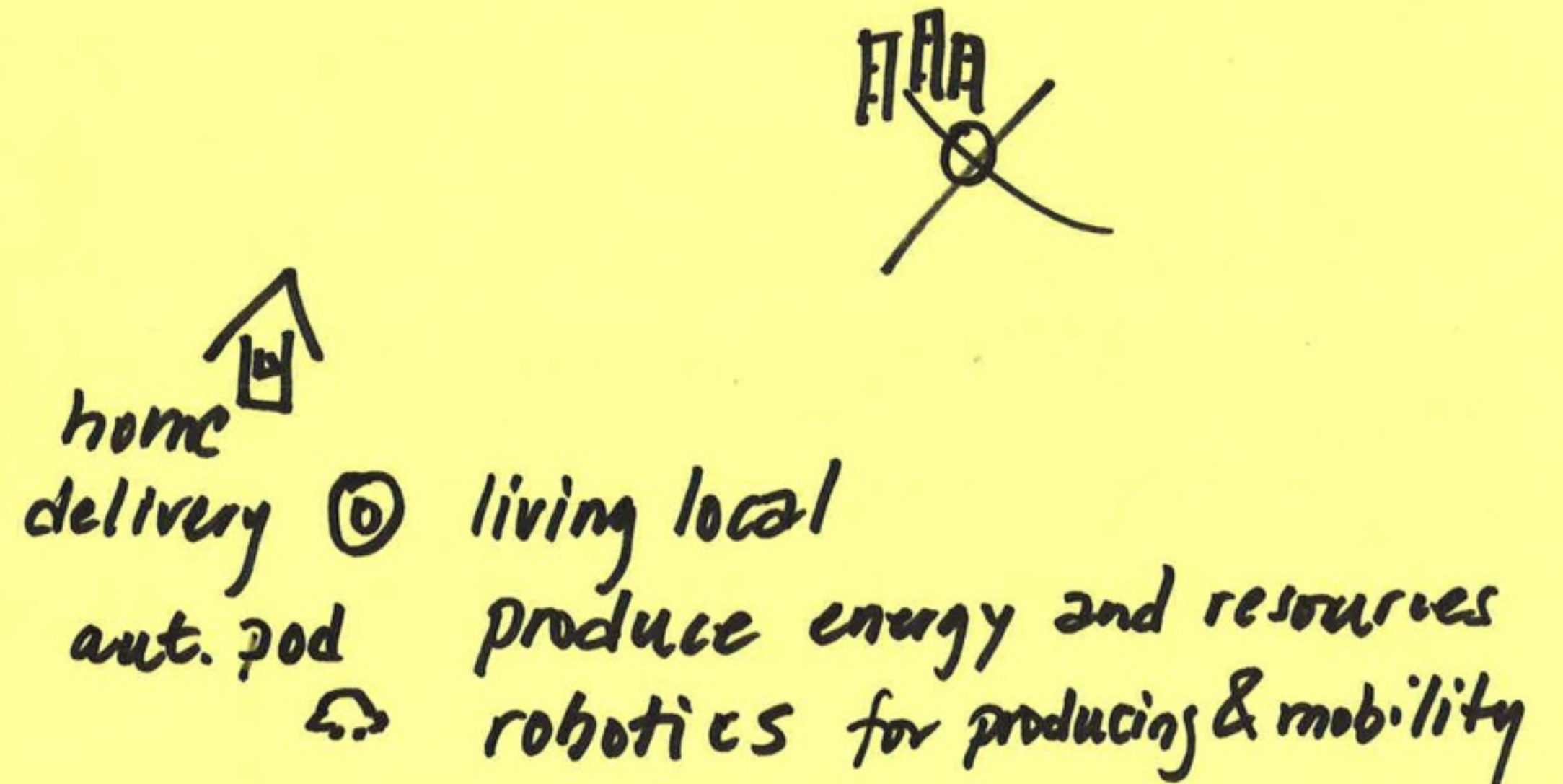
1. Car sharing, PT etc for better economy
2. Selling the summer house or move to the sea
3. and produce energy etc.

Draw a potential solution on the back of this sheet:

1. "Sell car"



2. Move and live "green wave"



Meet William (OF PERSON), they are 32 years old he is a 32 year old
software developer in Stockholm. (THEM) Time and efficiency
 is important to him.

William (OF PERSON), lives in a world where
 the environment has changed radically. Öland, Gotland,
 and Skåne are underwater and the population of
 Sweden are now 25M, due to environmental migrants from
 the entire world.

- (IN William) faces challenges that are
1. can no longer walk to his office, nor take an Uber due to the high number of population and crowded streets
 2. due to government regulations he has to share his apartment with Kim from Hong Kong, Elaine from Dubai, Bob from Zimbabwe.
 3. can no longer take the plane to Copenhagen, due to international laws forbidding flying, this due to the increasing temperatures.

- Opportunities for them include:
1. New job opportunities.
 2. New transportation - cable cars
 3. New technologies to work at distance,
VR: play football shop → drone delivery

Draw a potential solution on the back of this sheet:
vacation to Zimbabwe, Dh, Hong Kong



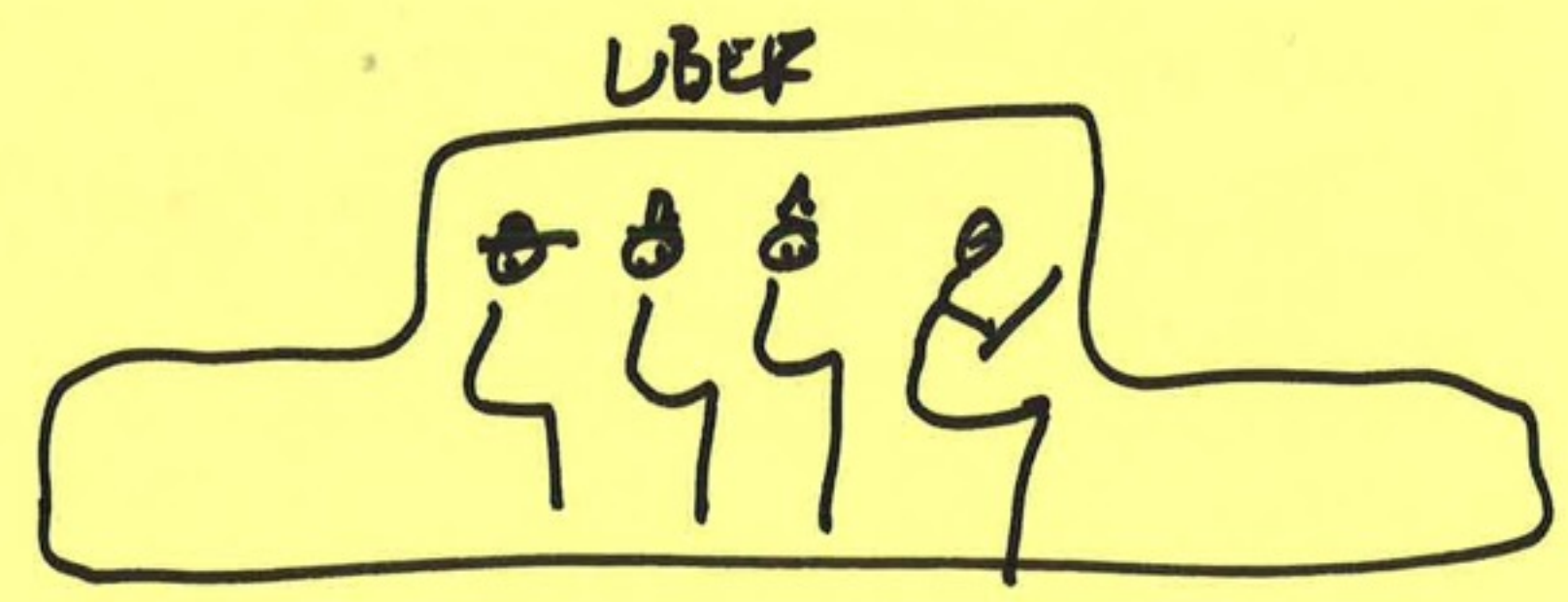
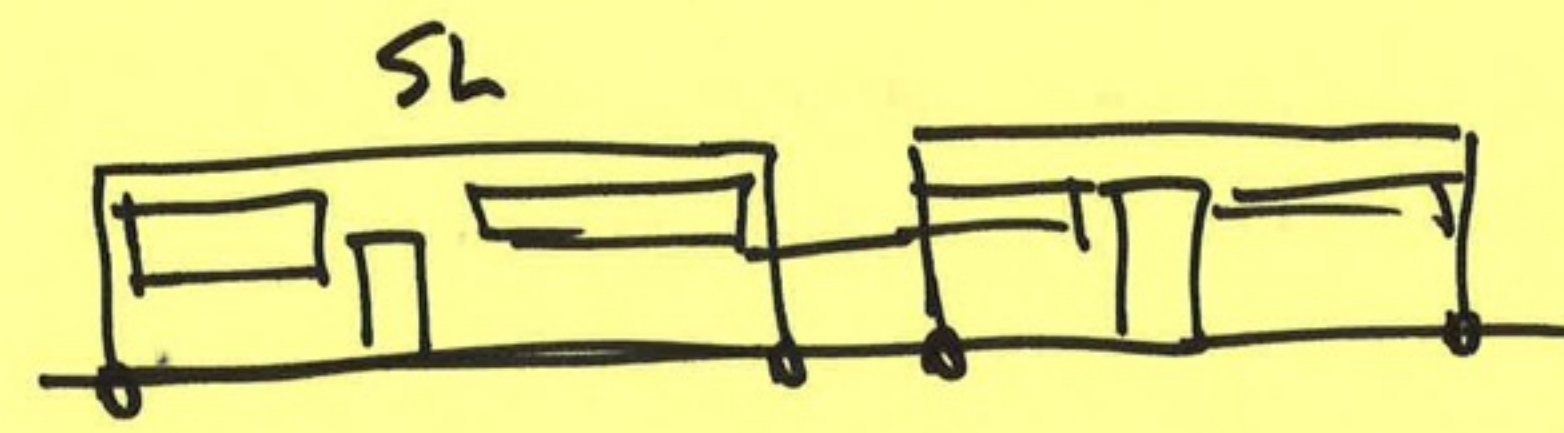
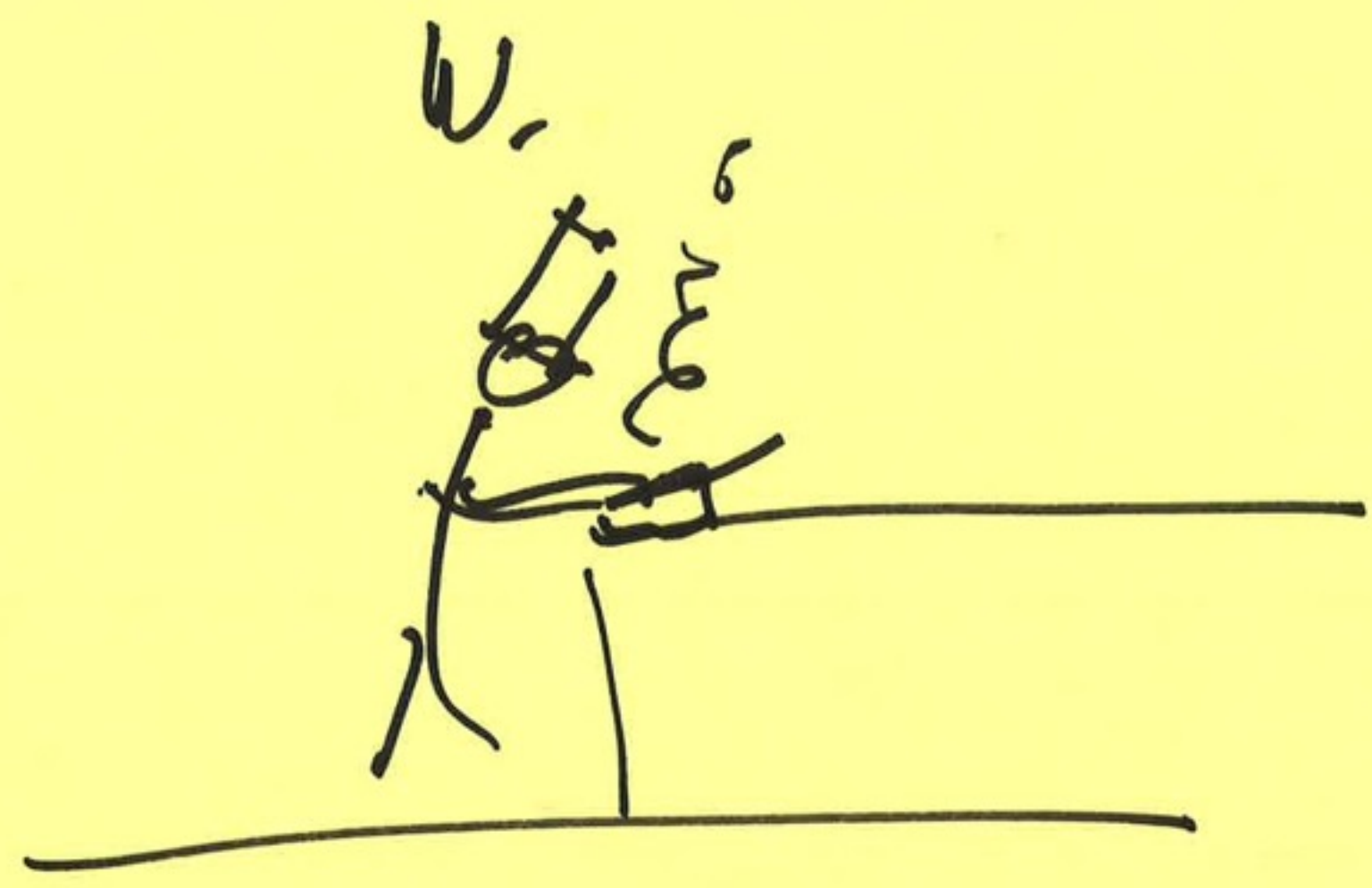
Meet William, ^{he is} they are a software developer

William, lives in a world where ICE cars no more.
→

- William faces challenges that are
1. transport costs are rising
 2. flights are taxed much higher
 3. Uber stops due to taxes
 4. gasol fuel tax raised by 200%

- Opportunities for them include:
1. Share ~~with~~ Uber ride
 2. Take train - buy transit pass
 3. Cook himself

Draw a potential solution on the back of this sheet:



Meet Axel (NAME OF PERSON), they are slightly disabled (DESCRIBE THEM)

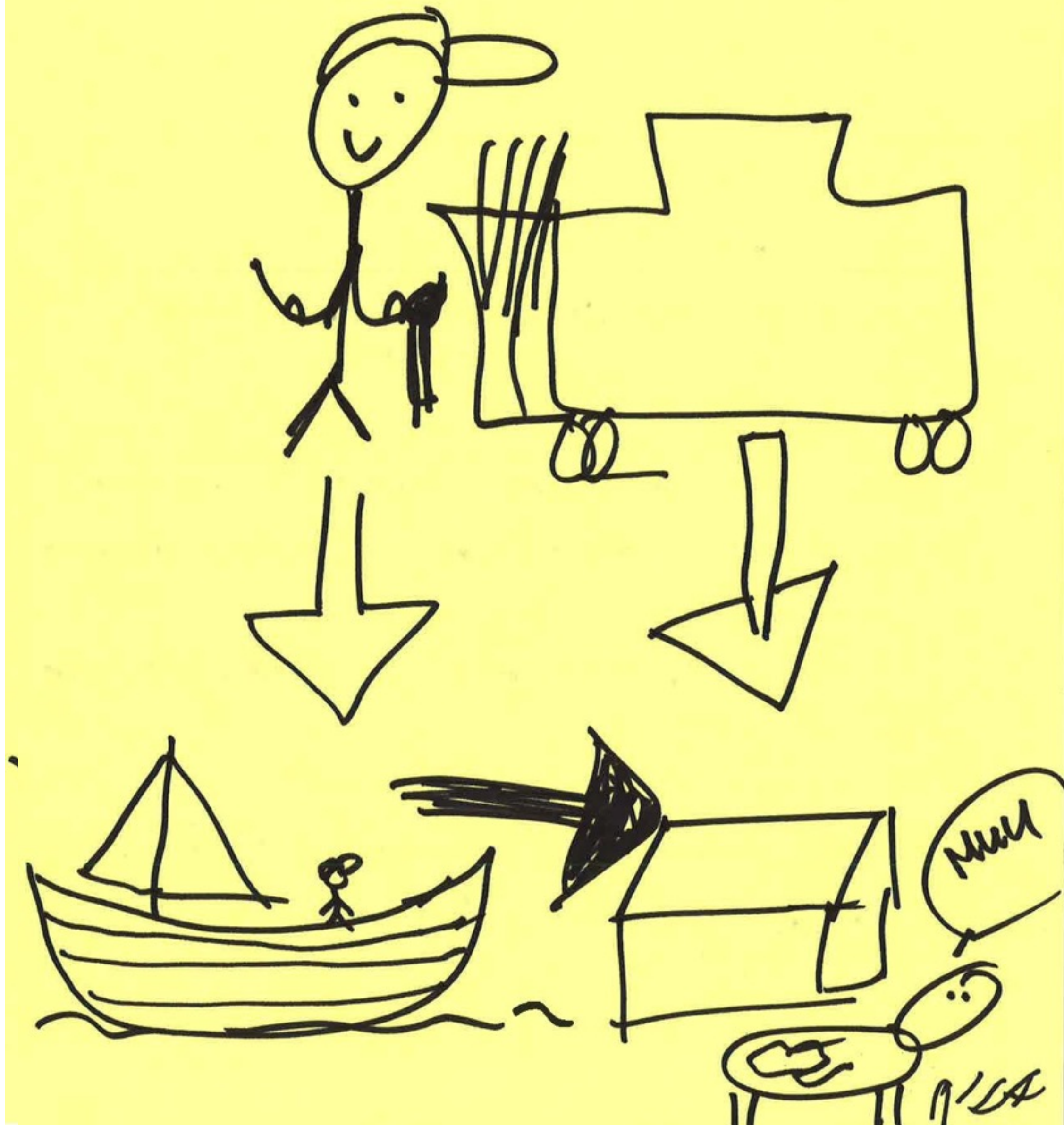
Axel (NAME OF PERSON), lives in a world where JCE no more and Sweden has decided to ban ff cars in and around Gälle, mifjörön (CONTEXT)

- Axel (NAME OF PERSON) faces challenges that are
1. can't use their trucks - partner
 2. only can beach in allowed due to
 3. Public doesn't like this, and ^{can} his car is full of eggs and ~~containing~~

Opportunities for them include:

1. Change car, in the city
2. Keep truck in the countryside
3. Take boat to fägelsjö. is jakt

Draw a potential solution on the back of this sheet:



Meet William, ^{he is} they are _____

tech savvy and very plugged in. He is ~~on the~~ starting to have more money to spend. He is very judgemental but he doesn't always stick to his ideals.

William, lives in a world where it's possible to work anywhere on the continent

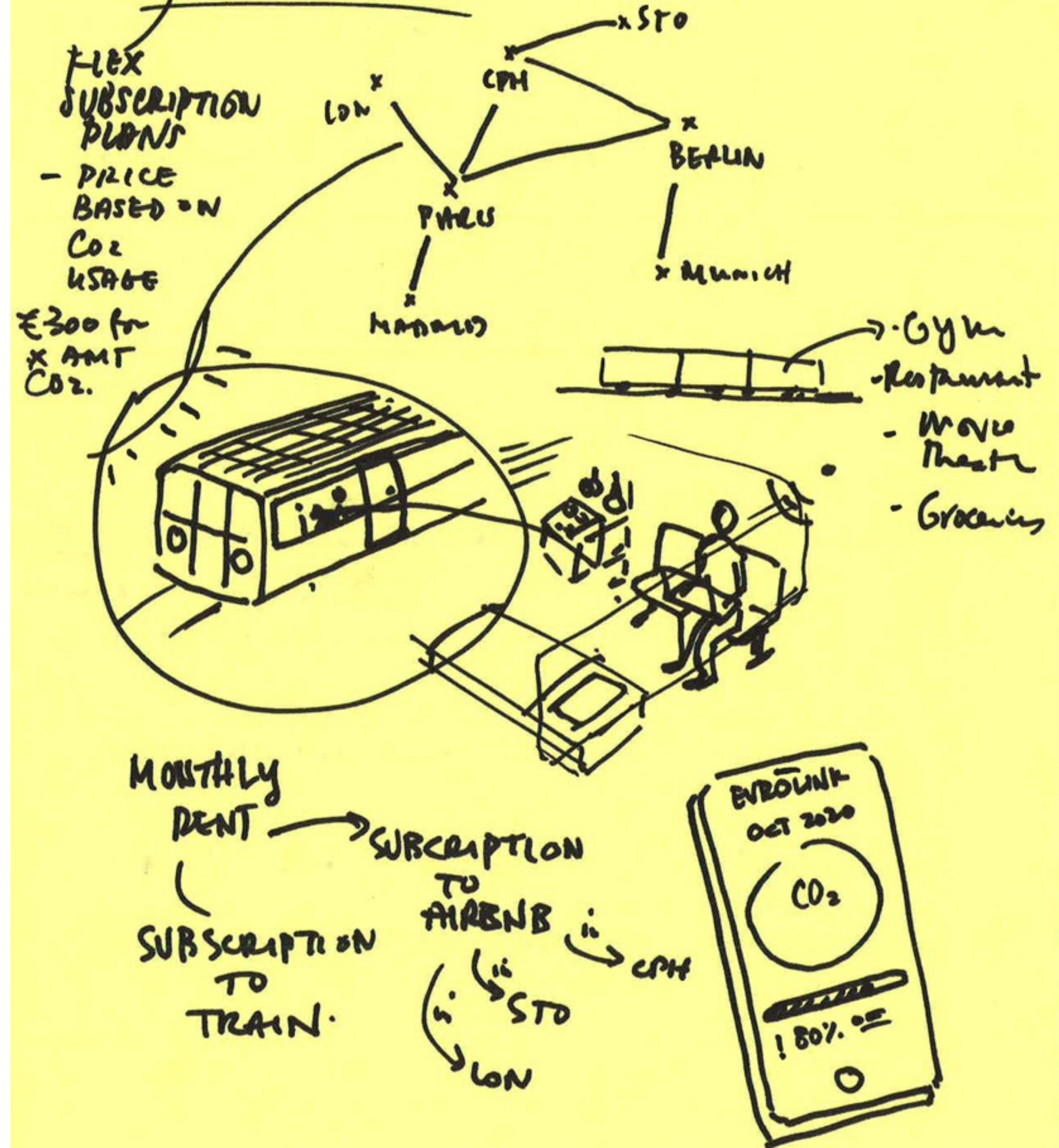
- William faces challenges that are new unions laws prohibit him and his startup to ~~how can he move his belongings to his work destination~~ ^{could be outside of Europe}
1. ~~How can he move his belongings to his work destination~~
 2. He Balance life on the road and having a lifestyle at home
 3. He can't live up to his own ideals in other places as social norms are different.

Opportunities for ^{him} them include:

1. offsetting his CO₂ footprint w/ a life of a lot of travel
2. applying his skills to a sustainability co / startup in Copenhagen
- 3.

Draw a potential solution on the back of this sheet:

HIGH-SPEED & SOLAR-POWERED TRAIN WITH LIVING QUARTERS



ICE no more

Meet Axel, they are _____

Can't walk?
Refinery Worker who enjoys driving trucks at work and to the farm 3h away. Thinks that Energy Indep. Sweden = Powerful Sweden

Axel, lives in a world where Internal comb. engines are soon history,

_____ faces challenges that are

1. Loses the job
2. 2 cars quickly lose value
3. Life style threatened

Opportunities for them include: *Villmark* and City GÄVLE ELVÄG

1. Suggest to Refinery to switch into ~~Storage~~
2. Export to China
3. Green energy independence possible!

Draw a potential solution on the back of this sheet:



Meet Lilly PERSON, ~~they~~ ^{she} is a hipster who likes to bike and commute.

Her partner ~~is~~ is a politician for the Green Party but she's not very engaged. But she considers herself a world citizen.

Lilly PERSON, lives in a world where nationalism blooms and the borders are closing. Government spending on military increases and public transport and gas prices both goes up.

Lilly PERSON faces challenges that are

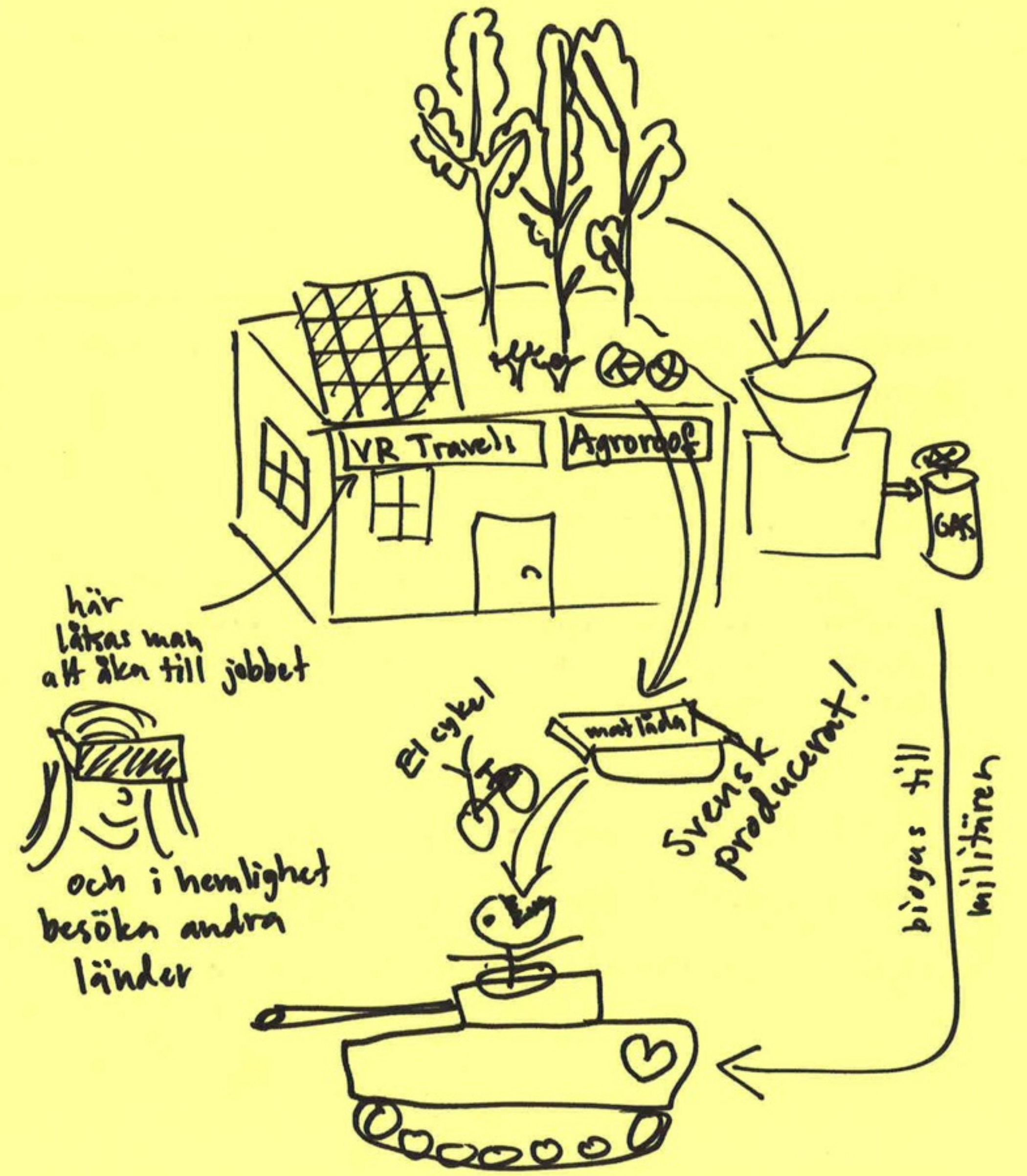
1. More expensive transport
2. Increased tensions in society makes her feel unsafe (also when travelling together with other people)
3. Sweden feels too small and her world has become smaller

Opportunities for them include:

1. Could change career to the military
2. Start a movement for roof agriculture
3. Open a VR travel agency to stay global

Draw a potential solution on the back of this sheet:

Odla biobränsle på taket på VR Travels Agroroof Södermalm



Meet Axel (NAME OF PERSON), he is an adult, who lives with his partner in Gävle. He is handicapped due to an accident. They love to spend time at their family farm 5 hours from their home. Axel works at a refinery and cares about energy questions ~~and~~ He ~~the same~~ believes in an energy independent Sweden.

Axel (NAME OF PERSON), lives in a world where fossil-free ~~electric~~ ^{future} vehicles are the only option since China has enabled new technology to meet the world's demand.

Axel (NAME OF PERSON) faces challenges that are

1. He is worried ^{for} his job since he works at a refinery that is undergoing a big transition. = Economic stress
2. They use two vehicles today, and ^{feel that they} can't afford to replace them ~~to~~ with fossil-free technology.
3. _____

Opportunities for them include:

1. ~~A~~ To become energy independent by using solar power on their properties.
2. Sell both cars → invest in solar panels, electric bike, leased electric bike.
3. _____

Draw a potential solution on the back of this sheet:



Meet Axel, they are a refinery worker who walks with a cane and uses his two trucks for solving his transport needs. (in Gävle primarily) (also to and from Fägelsjö).

Axel, lives in a world where EV is no more. However, this new movement, United Europe, wants to unite the splintered continent.

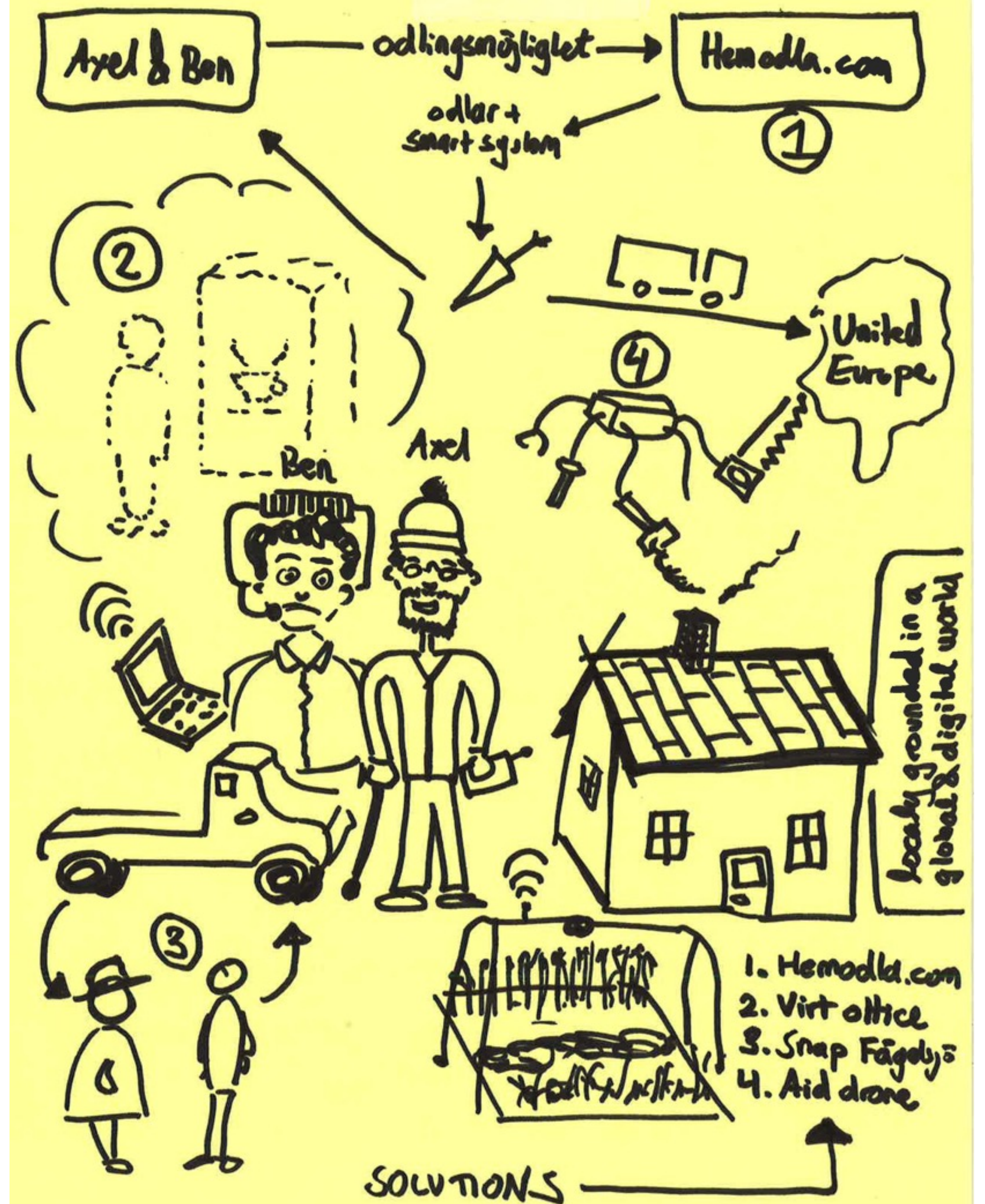
Axel (unemployed) faces challenges that are

1. He's getting poor. The refinery was closed down.
2. Fägelsjö is degrading - no Germans anymore - no local shop
3. Fuel prices are rising as an effect of the trade blocks.

Opportunities for them include:

1. Higher incentives for "local" businesses (so far)
2. No work at the refinery - Permanently move to Fägelsjö
3. The possibility of a united Europe - new opportunities to global roll-outs of new solutions.

Draw a potential solution on the back of this sheet:



Meet Axel and partner, they are living in Gäddede. Involved in a local community, do stay independent from EU

Axel, lives in a world where more and more decisions are taken further away from them, and believes in taking action on a local level.

(NAME OF PERSON) faces challenges that are

1. A central government in EU affects policies
 2. Ban of fossil fuels in EU
 3. Needs a car due to health
- ↳ Sustain their lifestyle

Opportunities for them include:

1. Producing renewable energy (solar cells) and
2. starts car sharing service to sell electricity
3. less costs due to sharing business, RPP - development
Energy storage in car batteries
Business model for other stakeholders

Draw a potential solution on the back of this sheet:



18-10-2017

15:30

Fika

18-10-2017

16:00

Share back

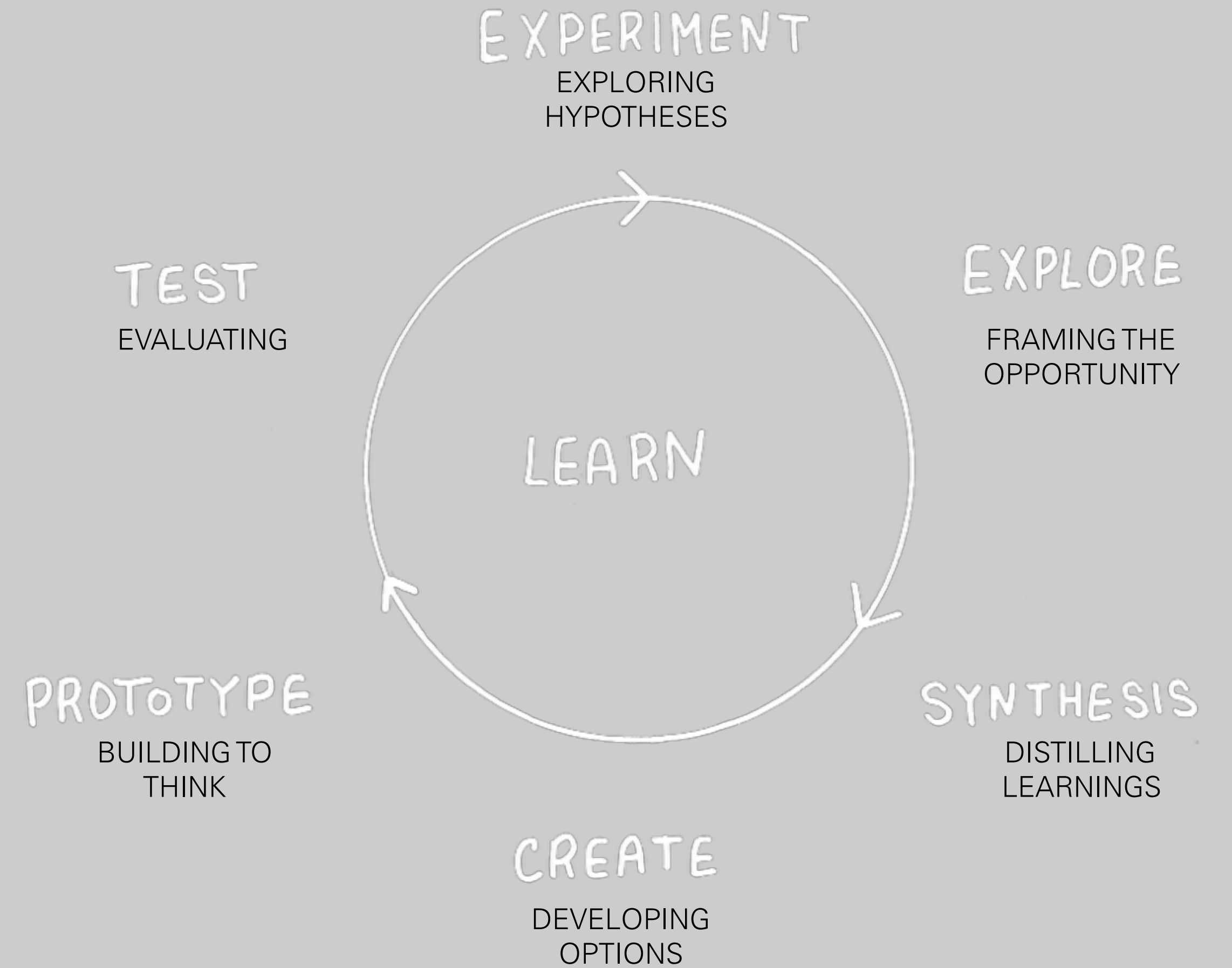
17-10-2017

10:00

IDEO Process and Next Steps

IDEO PROCESS

Our process is
cyclical, and iterative.

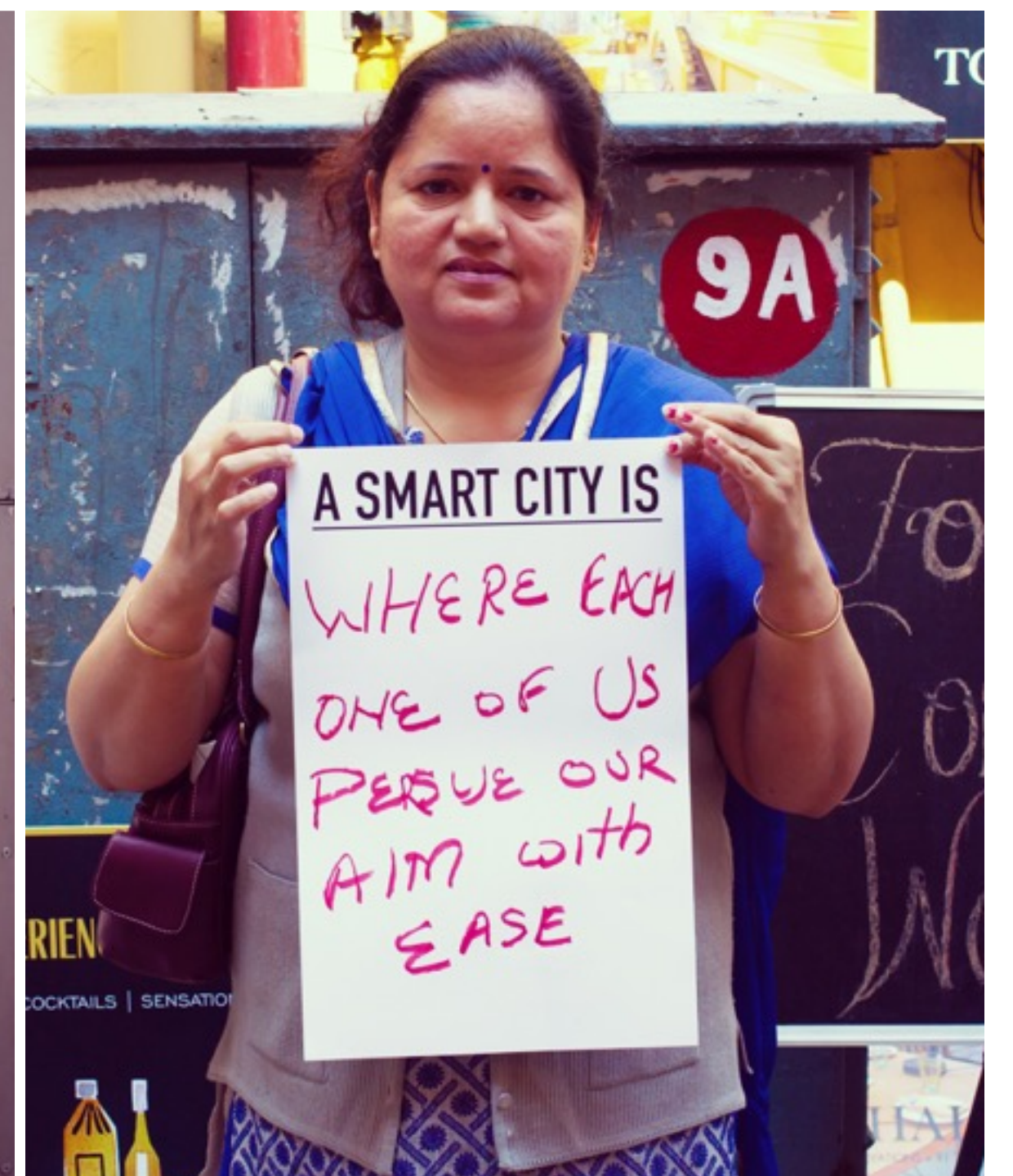
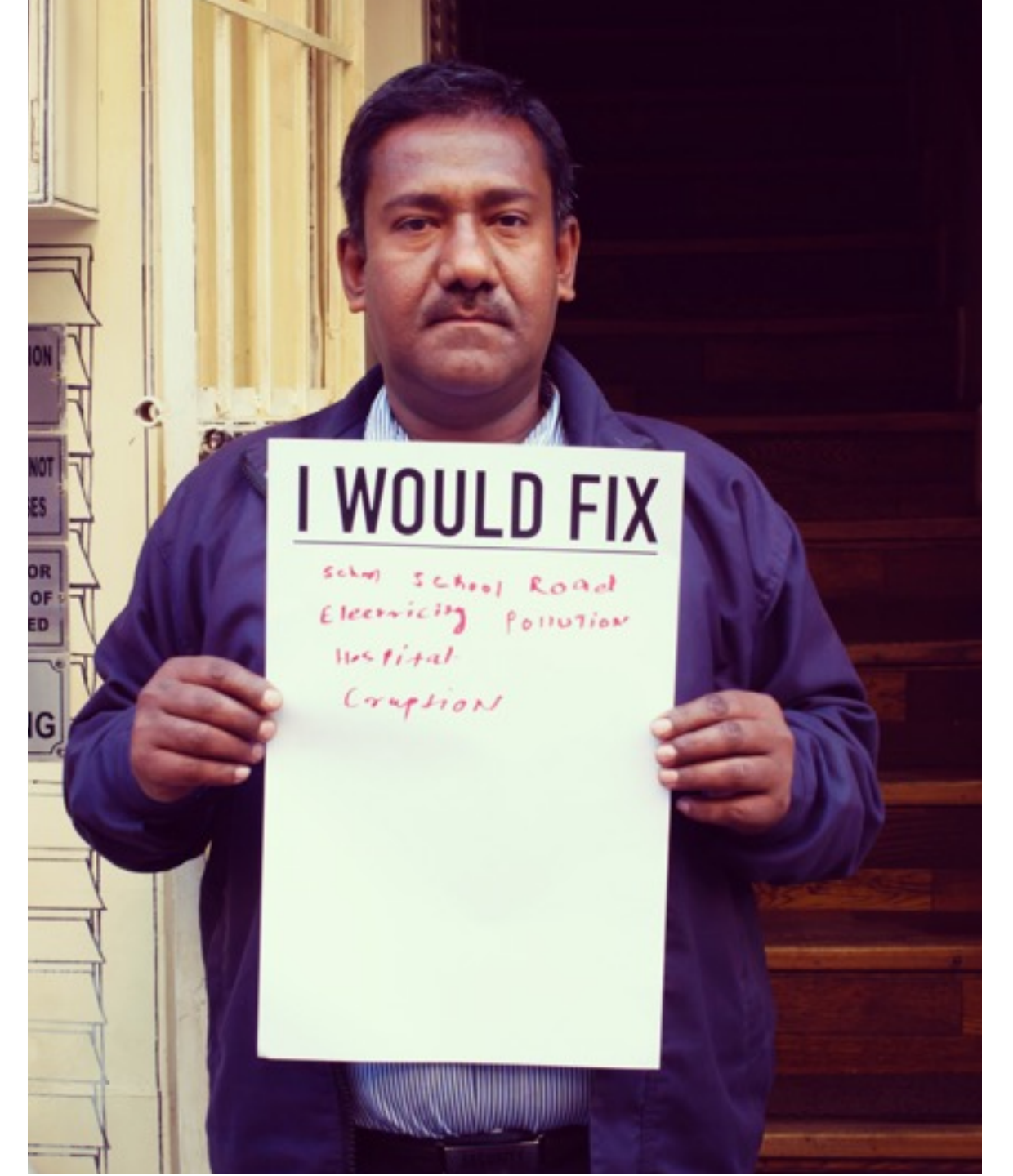


17-10-2017

IDEO PROCESS

Explore

We are inspired by people, and include them wherever possible in research and co-designing.



17-10-2017

IDEO PROCESS

Synthesis

We make sense out of madness.



17-10-2017

IDEO PROCESS

Create

We go for a broad number of ideas to build a foundation to create great outcomes.

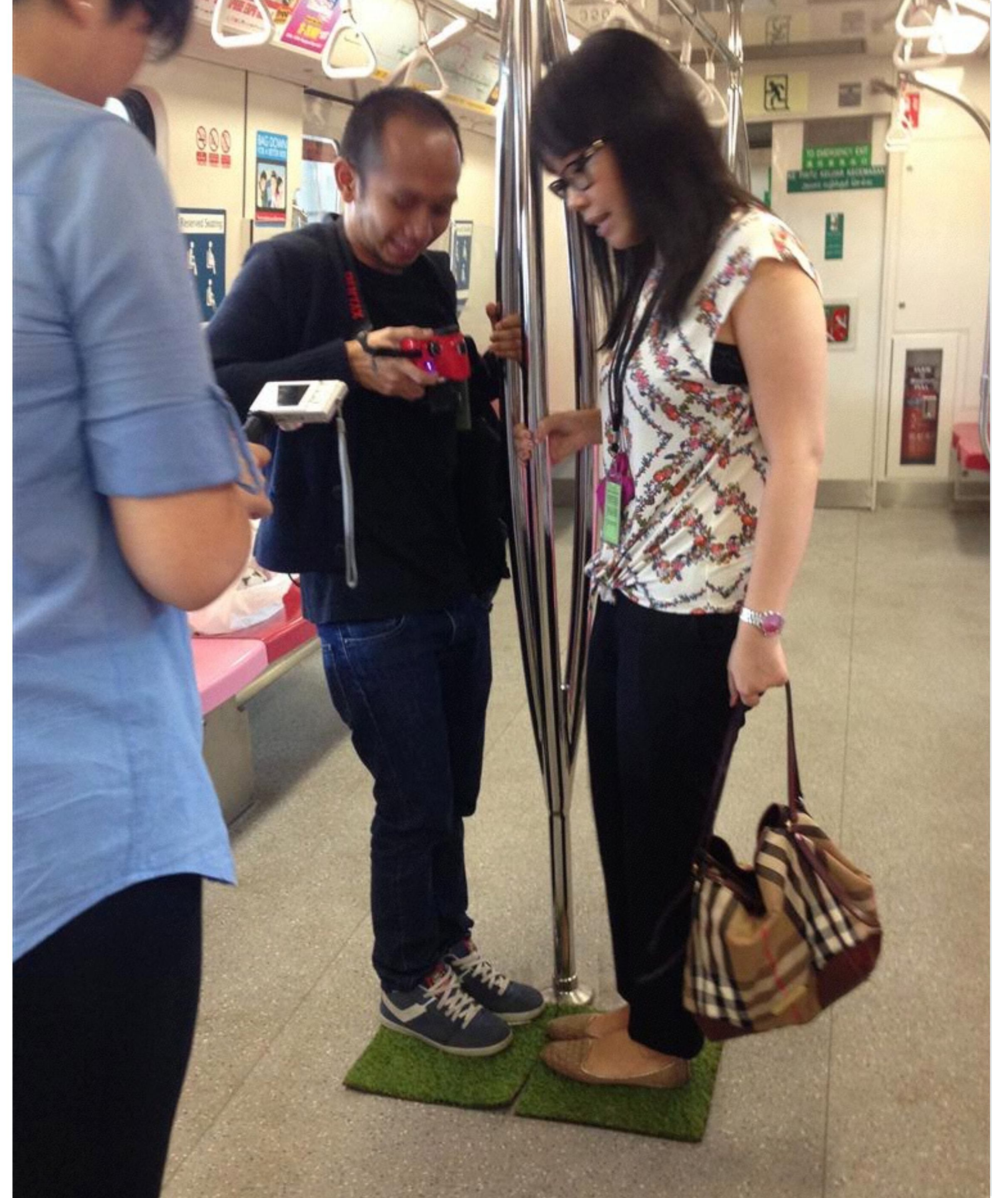


17-10-2017

IDEO PROCESS

Prototype

We build in context to learn quickly and fail fast.



17-10-2017

IDEO PROCESS

Test

Rough, Rapid, Right.



17-10-2017

IDEO PROCESS

Experiment

We release things into the world and use that to understand what the next challenge is.



NEXT STEPS

Who should we be talking to?

What do you want to know about our research in Sweden?

How do you want to stay informed over the course of the project?

18-10-2017

Tack!

vaxla@ideo.com