

# DESIGN THINKING PROCESS



# Learning Goals



- Introduction to the Design Thinking approach
- Interdisciplinary and agile teamwork
- Changing perspectives & build empathy

# What is innovation?



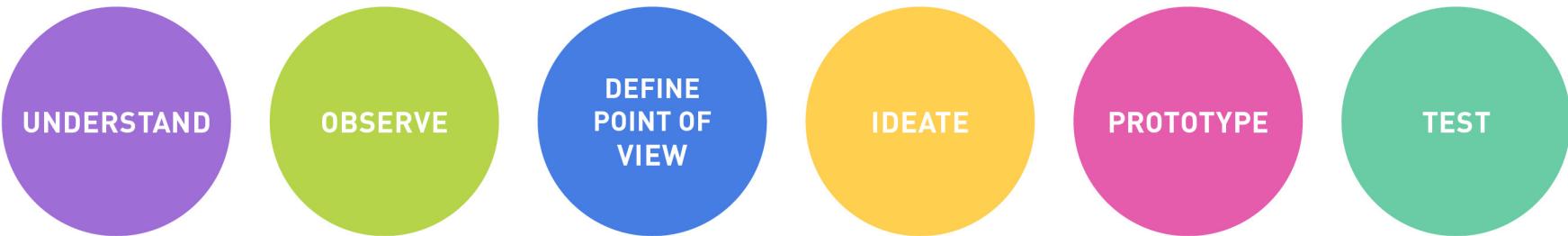
Invention ≠ Innovation

**... and why does  
it need a  
process?**



# Innovation approach

## Design Thinking



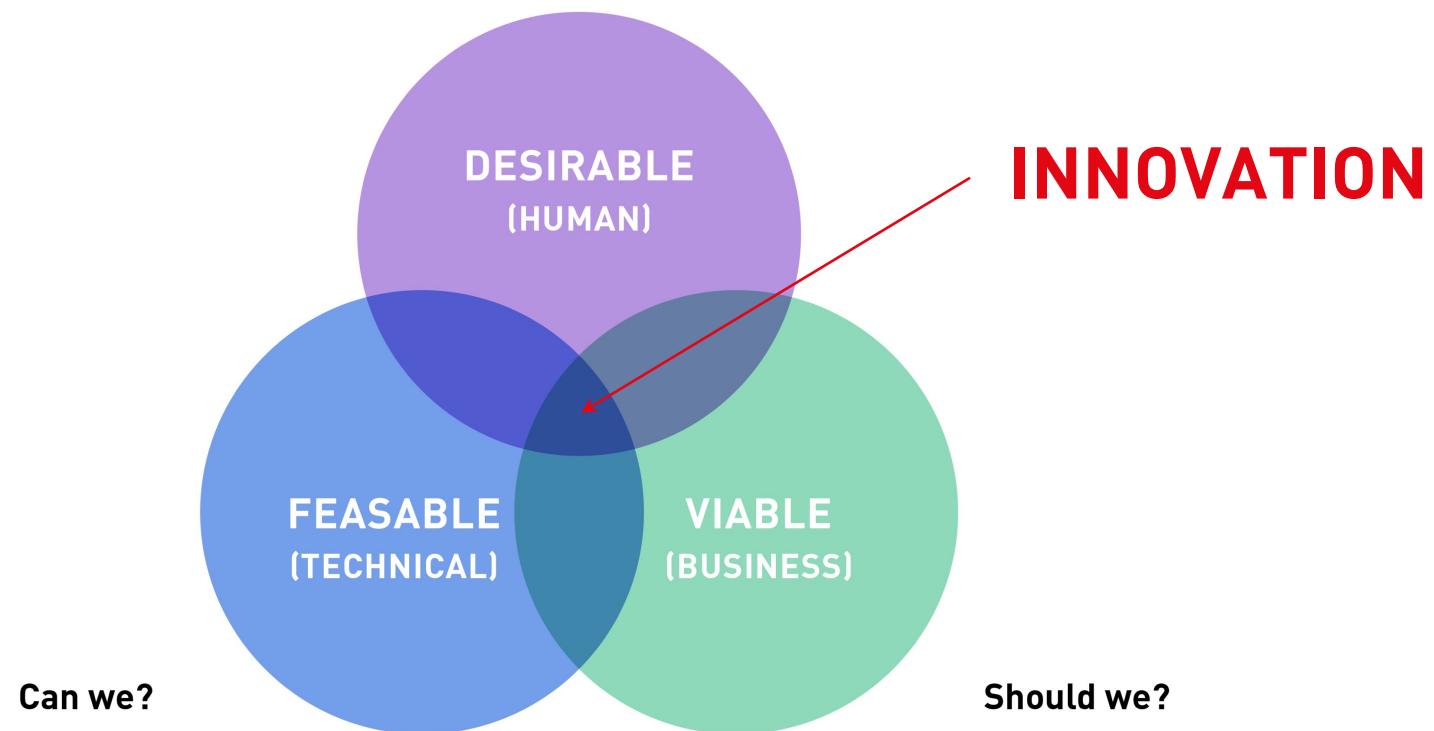
# What is Design Thinking?



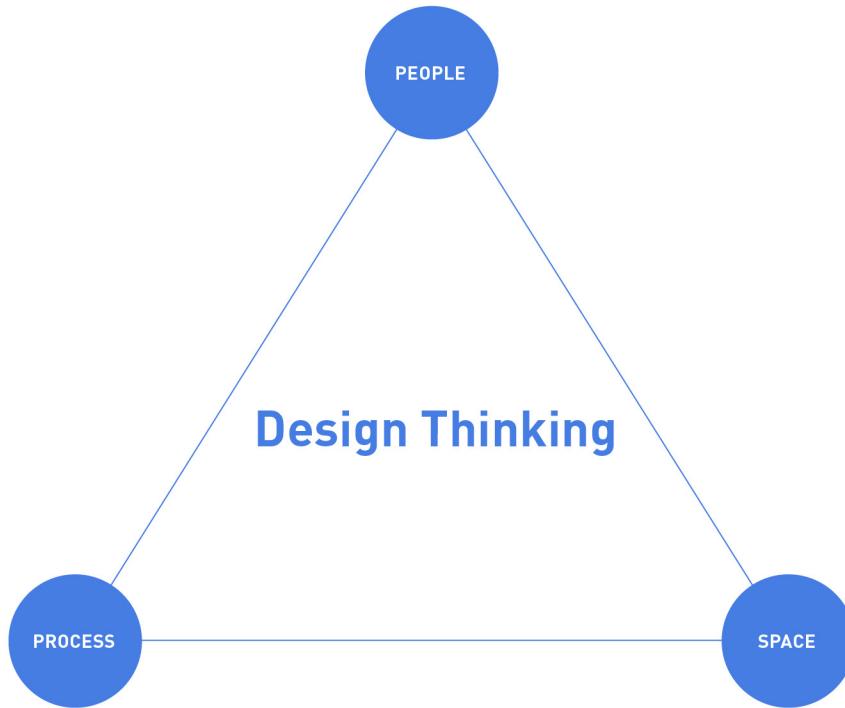
Design Thinking ≠ Design

# The sweet spot

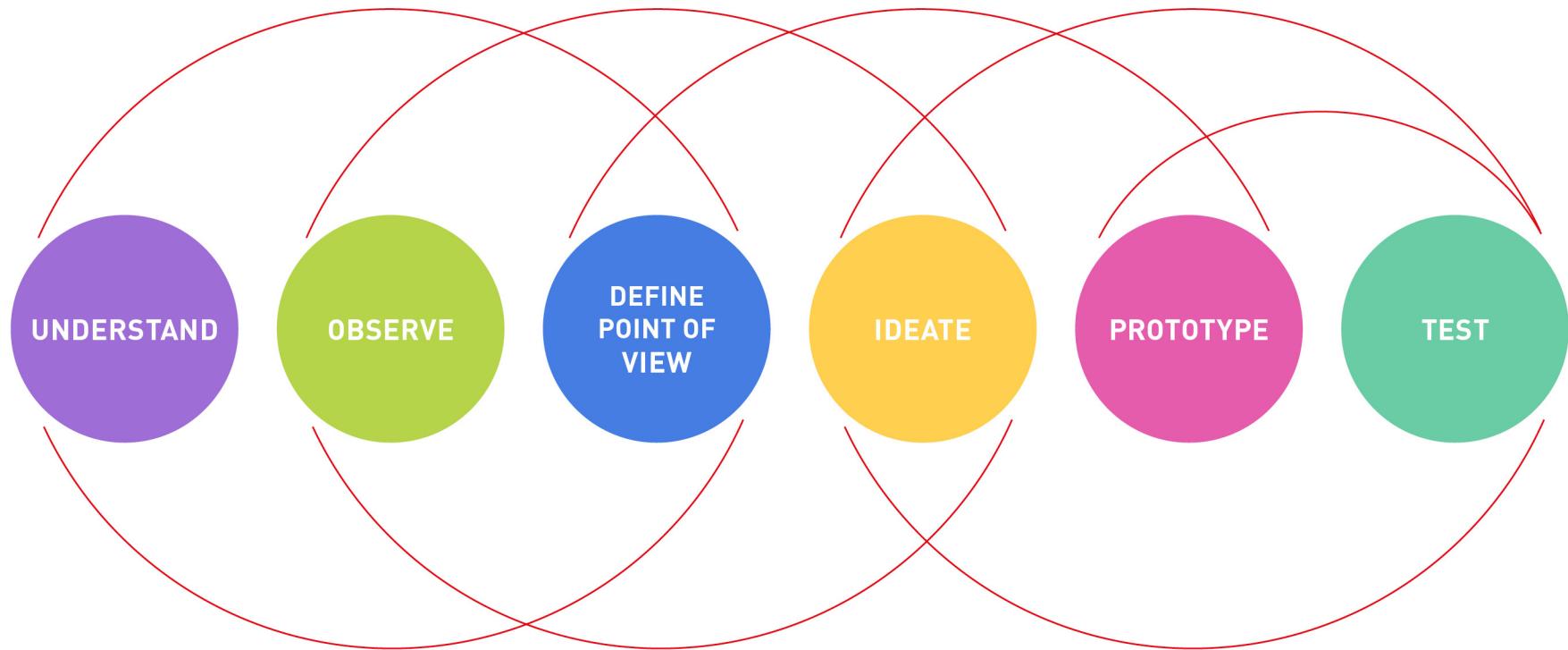
Do they?



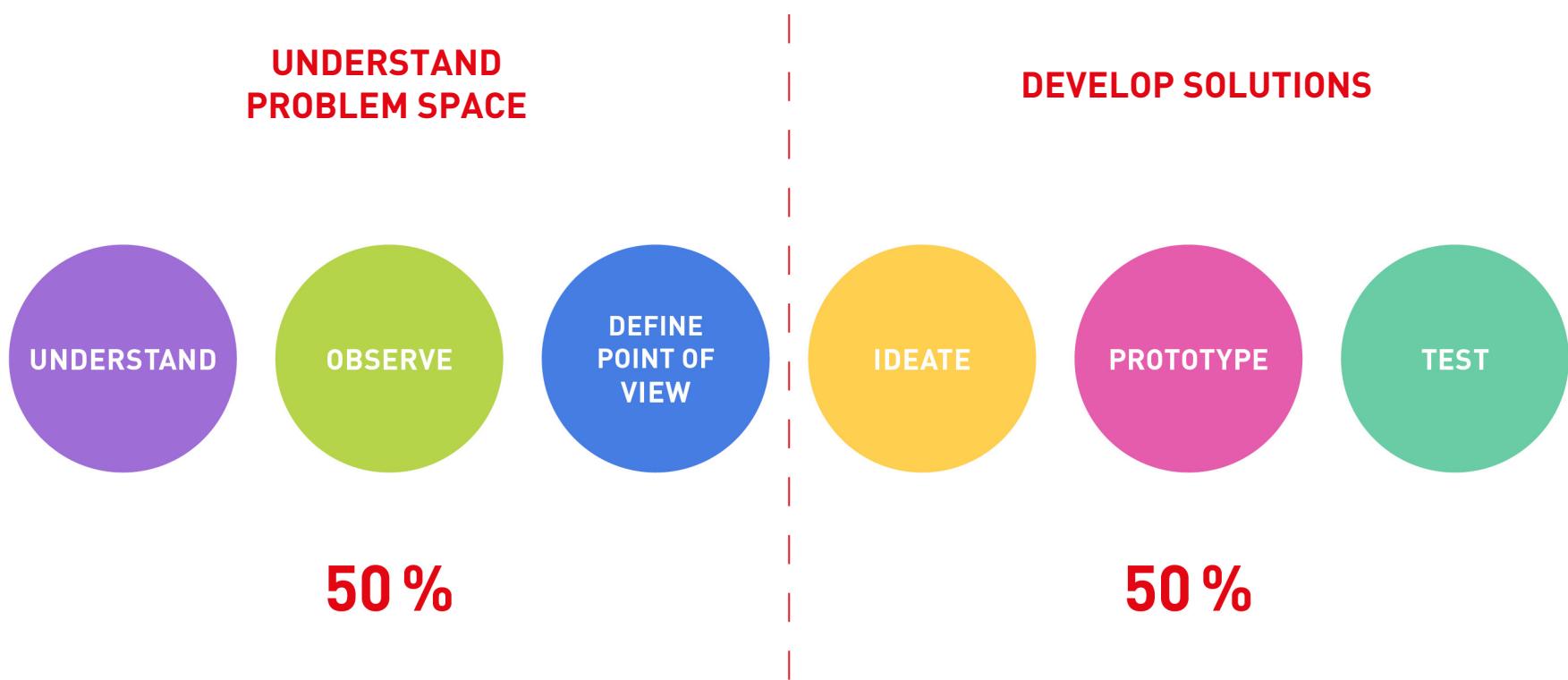
# Design Thinking needs these three ...



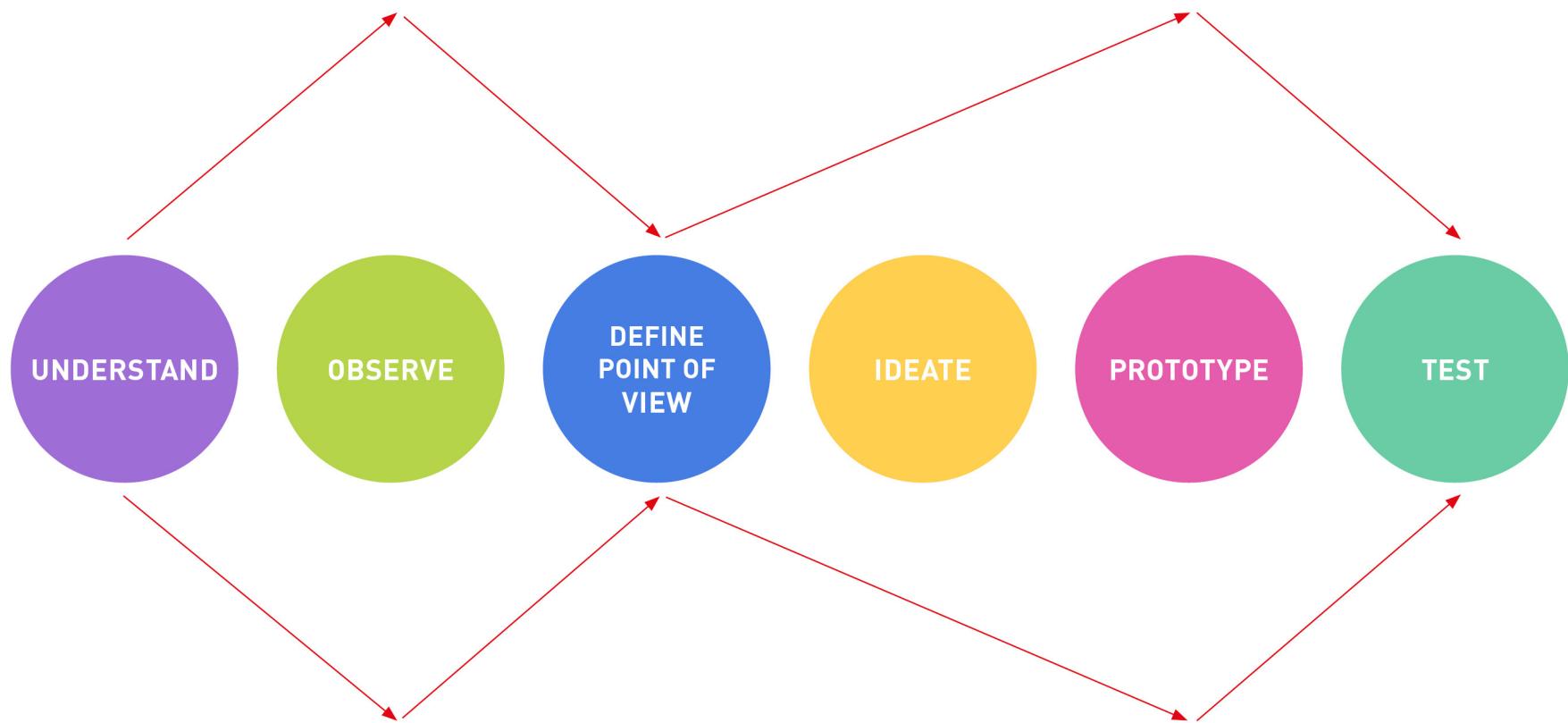
# Design Thinking process



# Design Thinking process



# Design Thinking process



# Building the teams



# GETTING TO KNOW YOUR TEAM

**Instructions:****STEP 1**

2 min

Say hello and designate a time keeper for your team. This person is responsible for ensuring that you stick to the given times in your team.

**STEP 2**

3 min

Everyone chooses a "team member column" and fills in the post-its, change the shape your post-ist and their colour.

**STEP 3**

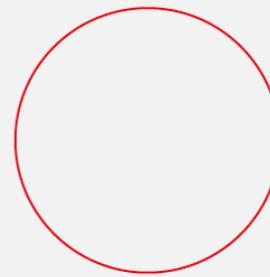
5 min

Introduce yourself one after the other using your post-its. Each person has a minute to do this. The timekeeper makes sure that the times are kept.

**STEP 4**

3 min

As a team, choose a team name, write it down and add a symbol or picture that fits to your team (drag&drop!)

**TEAM NAME****TIME KEEPER  
NAME:****TEAM SYMBOL**

Name 3 characteristics that describe you:

**NAME:**

Name 3 characteristics that describe you:

**FOCUS KEEPER  
NAME:**

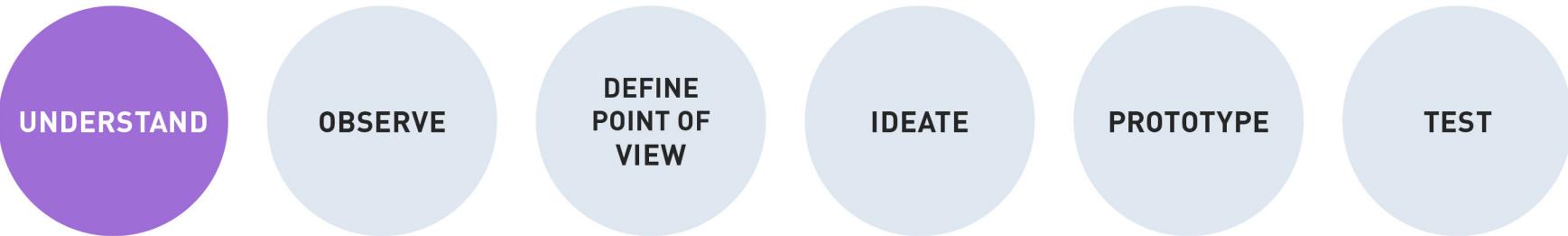
Name 3 characteristics that describe you:

**NAME:**

Name 3 characteristics that describe you:

# Understanding the problem space

# Understand



Dive into the topic

Share ideas and associations

Identify possible stakeholders

# Sticky notes: Don't



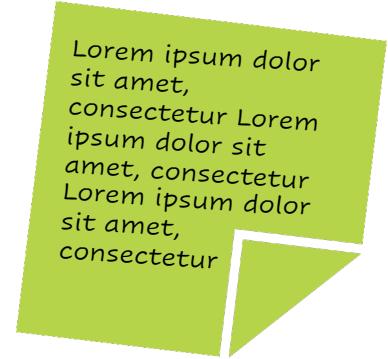
**Don't**

write very small text



**Don't**

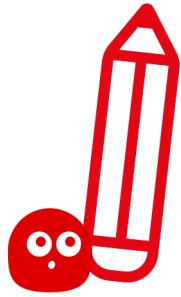
make bullet points



**Don't**

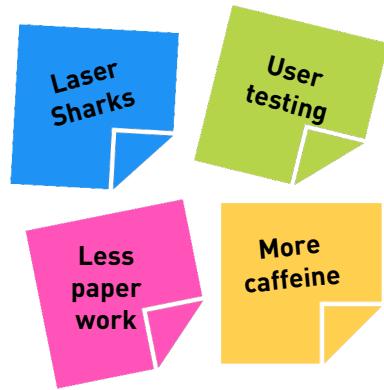
overfill the note

# Sticky notes: Do



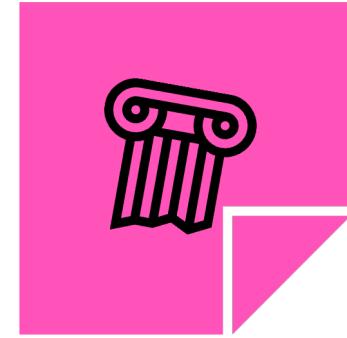
**Do**

use a bold font



**Do**

1 note = 1 idea



**Do**

be visual

# Understanding the challenge



# UNDERSTANDING THE CHALLENGE

## Instructions:

### STEP 1

3 min

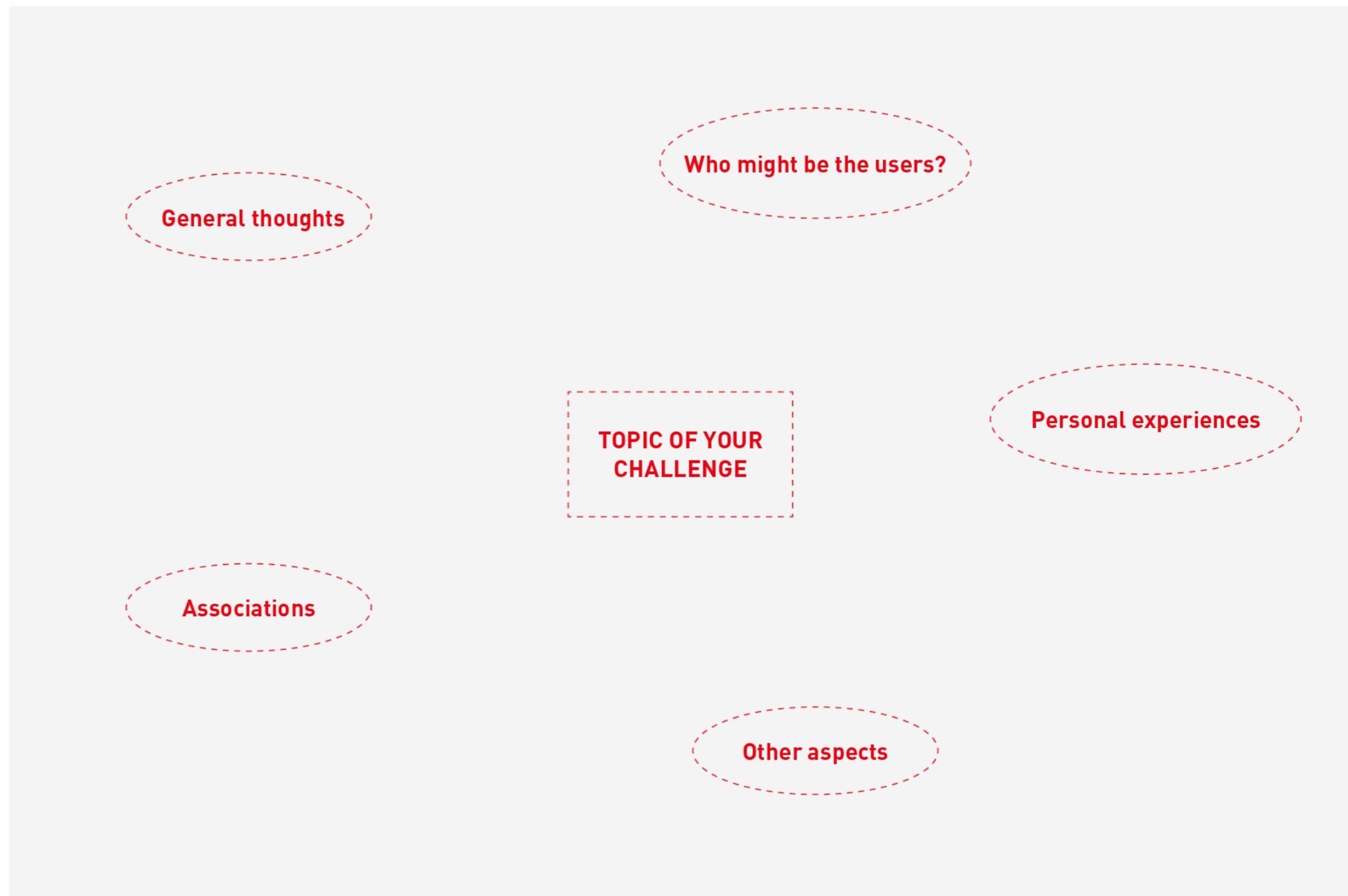
Everyone for her/himself think about the challenge and add your thoughts to the mindmap. Feel free to add new categories.

### STEP 2

10 min

Share your thoughts and discuss the aspects you feel most relevant regarding to your challenge. You have 10 minutes.

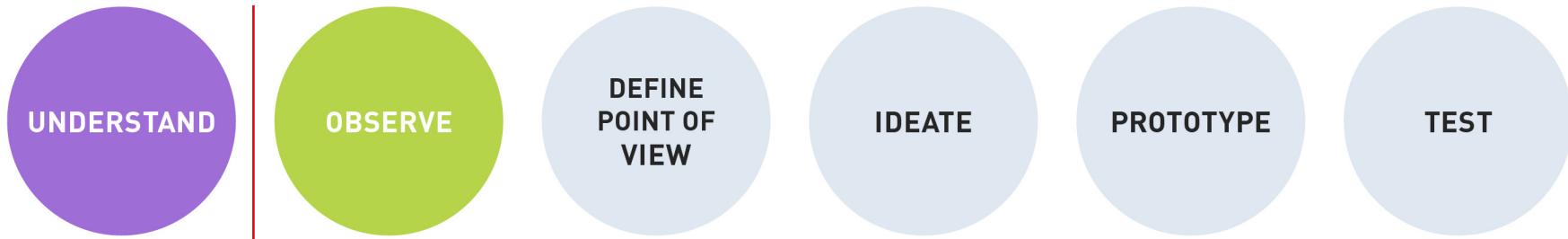
The timekeeper makes sure that the times are kept.



# DESIGN THINKING PROCESS II



# Observe



**Change perspectives**

**Build Empathy: Develop deeper understanding**

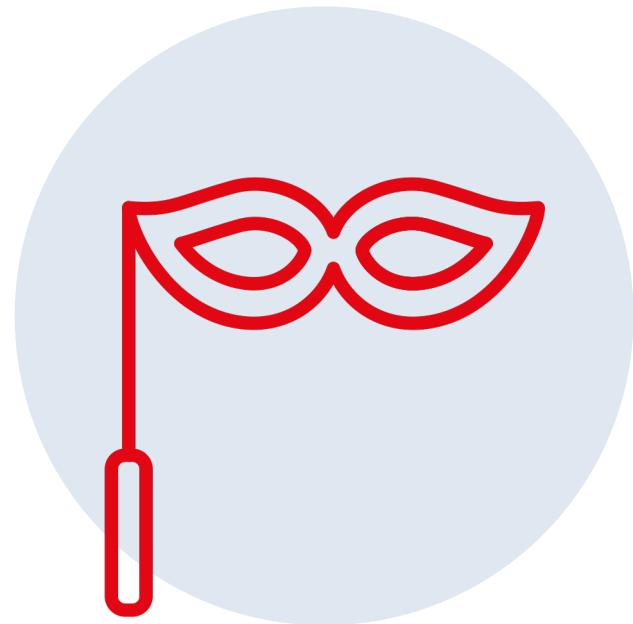
**Question your own preconceptions**

**Understand users**

# Set aside your own perspective



**... and try to mentally step into  
the shoes of the person/user  
you're interviewing.**



# The “need” onion



# What is the need?



# What is the need?



# What is the need?



**“PROTECT MYSELF  
AGAINST THE SUN”**

is a need.



**“SHADOW”**  
is a solution.

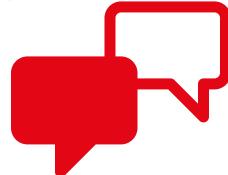
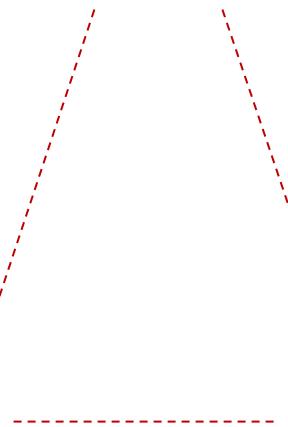
# Build empathy



OBSERVATION



SELF  
EXPERIENCE



INTERVIEW

# Interview guidelines



Introduce yourself



80% Listening  
20% Speaking



Conversation  
at eye level

Dig for stories and  
emotions



One at a time



Ask short and open  
questions



Ask “why”

# Prepare the interviews



# PREPARE THE INTERVIEWS

## Instructions

Prepare the interviews

10 min

Find max 4 relevant open questions to ask and collect them on sticky notes.

- What are your first associations with the topic ...?
- When you think about the topic, what was a good/bad experience ...?
- When was the last time ... ?

## Prepare your open questions:

1

2

3

4

# Interviews



# Interviews



Each team should have

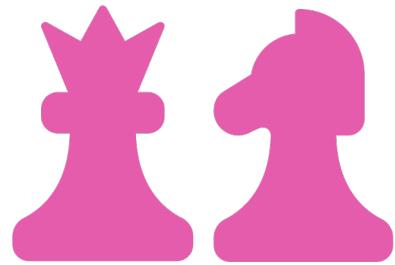
- The team questions

For both interview-sessions:

- 1 interviewer
- 2 people that write down the learnings
- 1 interviewee, that will be sent to another team



INTERVIEWER



WRITERS



INTERVIEWEE

TEAMWORK: THE DESIGN THINKING PROCESS

# INTERVIEW NOTES



## Instructions

Conduct two interviews and take notes.

14 min

Each interview lasts **7 minutes**.

Work with colour coding: Choose one sticky note colour for each interviewee.

Don't forget to time yourself!

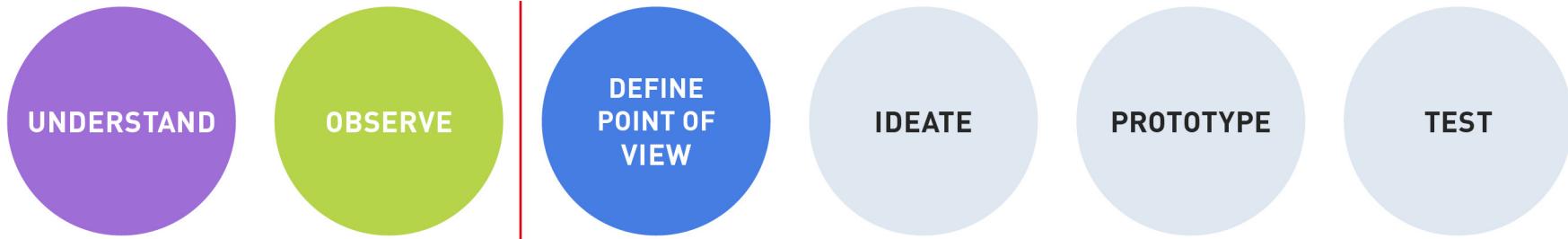
## INTERVIEW 1

 INTERVIEWEE 1  
NAME:

## INTERVIEW 2

 INTERVIEWEE 2  
NAME:

# Define



Structure and synthesise user insights and findings

Search for strong problems and emotions

Don't find solutions yet, but focus on user need

# Evaluate your interview insights ...



Filter the most interesting findings out of your interview notes.



Look for strong emotions!



What has been surprising to learn?

# Discuss your interview insights



# DISCUSS YOUR INTERVIEW INSIGHTS

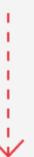
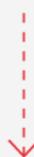
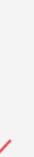
## Instructions

As a team, discuss your interview insights from **template 4** and choose the 3 most powerful/surprising needs you could identify.

10 min

### INTERVIEW INSIGHTS

### MOST POWERFUL NEEDS YOU COULD IDENTIFY:



# HOW MIGHT WE?



# How might we ...?



- HMW-Questions reframe the needs and problem areas into opportunities for design
- They open up different solution space by the chance to answer them in various ways
- They are the launchpad for your brainstorming



**Build them on your most powerful interview insights.**

# Asking the right questions

- Problems usually offer various entry points for possible solutions
- Be very clear about what specific question you want to find answers to!



# Example

## PROBLEM

An old woman having troubles crossing a busy street.

## HMW-QUESTION

- *How might we help the lady cross the street?*

# Example



## PROBLEM

An old woman having troubles crossing a busy street.

## HMW-QUESTIONS

- *How might we help the lady cross the street?*
- *How might we slow down the traffic for her?*
- *How might we help her getting from A to B without crossing the street?*

# Define your HMW-questions



# DEFINE "HOW MIGHT WE?" QUESTIONS

## Instructions

### STEP 1

7 min

Based on the main pains and needs you chose: Define 1-2 "How-might-we"-questions each and write them on the post-its.

### STEP 2

3 min

Share the questions with your team. Select the one question you would like to work on.

## A little help defining "How-might-we"-questions:

Think of the old person having troubles crossing a street ...

The obvious question to ask:

- How might we help the old lady cross the street?

However, you can also frame the problem differently...

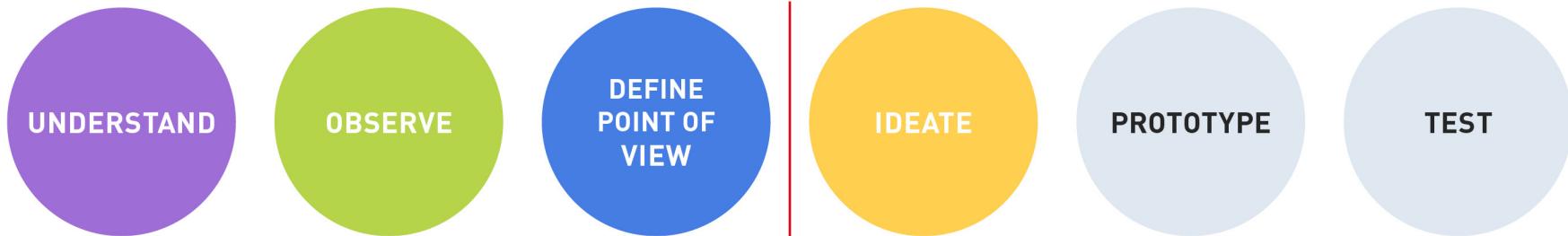
- How might we slow down the traffic for the old lady?
- How might we help the old lady getting from A to B without even crossing the street?"

**HOW MIGHT WE ...**

**SELECT THE ONE QUESTION YOU WOULD LIKE TO FIND ANSWERS TO:**

# Finding human-centred solutions

# Ideate



**Find various ideas & solutions  
based on your HMW-Question**

**Use the multidisciplinary  
thought power of your team**

**Be sure to divide idea  
generation and idea selection**

# Design Thinking guidelines



## 1. Timeboxing



# Design Thinking guidelines



## 2. Go for quantity



# Design Thinking guidelines



## 3. Defer judgement



# Design Thinking guidelines



## 4. Build on the ideas of others



# Brainstorm ideas



# Silent brainstorm



Think about your HMW question & silently write down as many different solutions as you can.



# SILENT BRAINSTORM

## Instructions

### STEP 1

1 min

Copy your "How-might-we"-question from **template 6** in the middle of the board

### STEP 2

4 min

Everyone looks for a space on the brainstorming surface and selects their personal colour of sticky notes.  
Silently and by yourself develop as many ideas as possible.  
Use one sticky note per idea.

### STEP 3

5 min

Each team member briefly presents their main ideas. Divide the time so that each of you has enough time to share.  
With 5 team members, everyone has 1 minute and a bit.  
The timekeeper makes sure that the times are kept.

## SPACE FOR YOUR IDEAS:

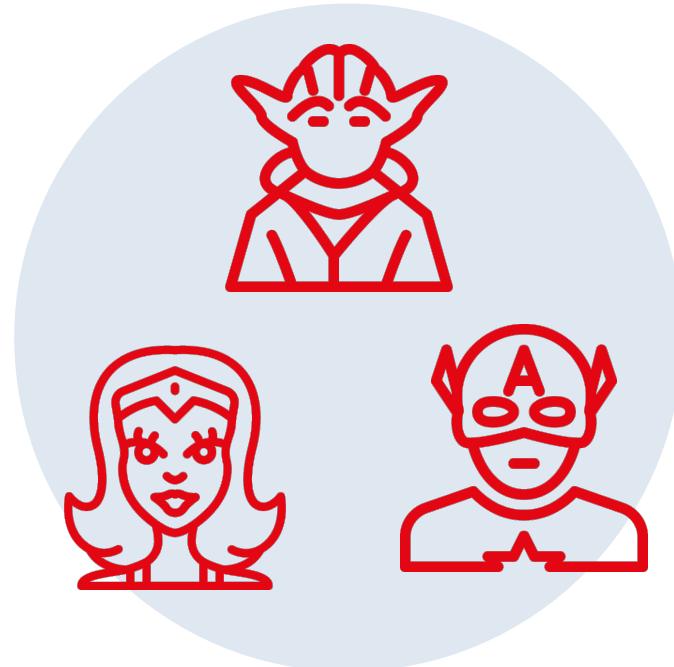
YOUR  
HMW-QUESTION  
HERE

# Super hero brainstorming



**Put yourself into the shoes of a super hero.**

**How would this super hero with their super powers solve the problem at hand?**



# SUPER HERO BRAINSTORMING

**Instructions:**

**STEP 1**

**2 min**

As a team, define one hero or character that inspires you.

**STEP 2**

**3 min**

Brainstorm ideas and imagine how that character would solve your problem or achieve the task. Everyone looks for a space on the brainstorming surface and selects a colour of sticky notes.

Silently and by yourself develop as many ideas as possible.

Use one sticky note per idea.

Please be very specific with your ideas.

**STEP 3**

**5 min**

Each team member briefly presents their 3 favourite ideas.

Divide the time so that each of you has enough time.

**STEP 4**

**5 min**

Together, turn your hero ideas into reality and put them into the circle. Immediately add and share new ideas.

The timekeeper makes sure that the times are kept.

**SPACE FOR YOUR IDEAS:**

**THIS IS OUR  
HERO CHARACTER:**

[image/name]

**REALISTIC IDEAS:**

**YOUR  
HMW-QUESTION  
HERE**

# Anti/reverse brainstorming



**Reverse the problem or challenge  
by asking: “How could I possibly  
cause the problem?”**



# REVERSE BRAINSTORMING

## Instructions

### STEP 1

5 min

Choose a red sticky note from the menu (N). Write down your negative/anti idea about the question. Add as many new evil ideas as can think of on red sticky notes. Remember: one idea per sticky note!

### STEP 2

5 min

Now, each of you: Look for a red sticky note and create a positive idea related to it on a green sticky note. Then you switch to the next evil idea.

### STEP 3

5 min

Share your ideas for the remaining 5 minutes.

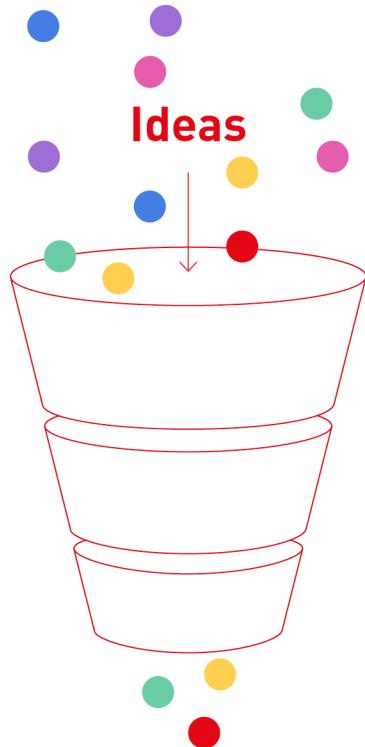
SPACE FOR YOUR IDEAS:

YOUR  
HMW-QUESTION  
HERE

# Let's evaluate our ideas!



# The idea filter



Use the idea filter to find the best idea.

- User-centred: Which idea addresses your users *pain/need* best?
- Degree of novelty: Which idea is the *innovative one*?
- Favourite idea: Which idea are you *most excited* about?

# IDEA FILTER

## Instructions

### STEP 1

3 min

Each of you individually browse through all the ideas and pick 2 ideas. Copy them next to this board.

### STEP 2

3 min

Filter most user-centred ideas. Copy them into the first filter layer.

### STEP 2

3 min

As a team: Out of those, choose the ones that are the most innovative and move them into the second filter layer.

### STEP 3

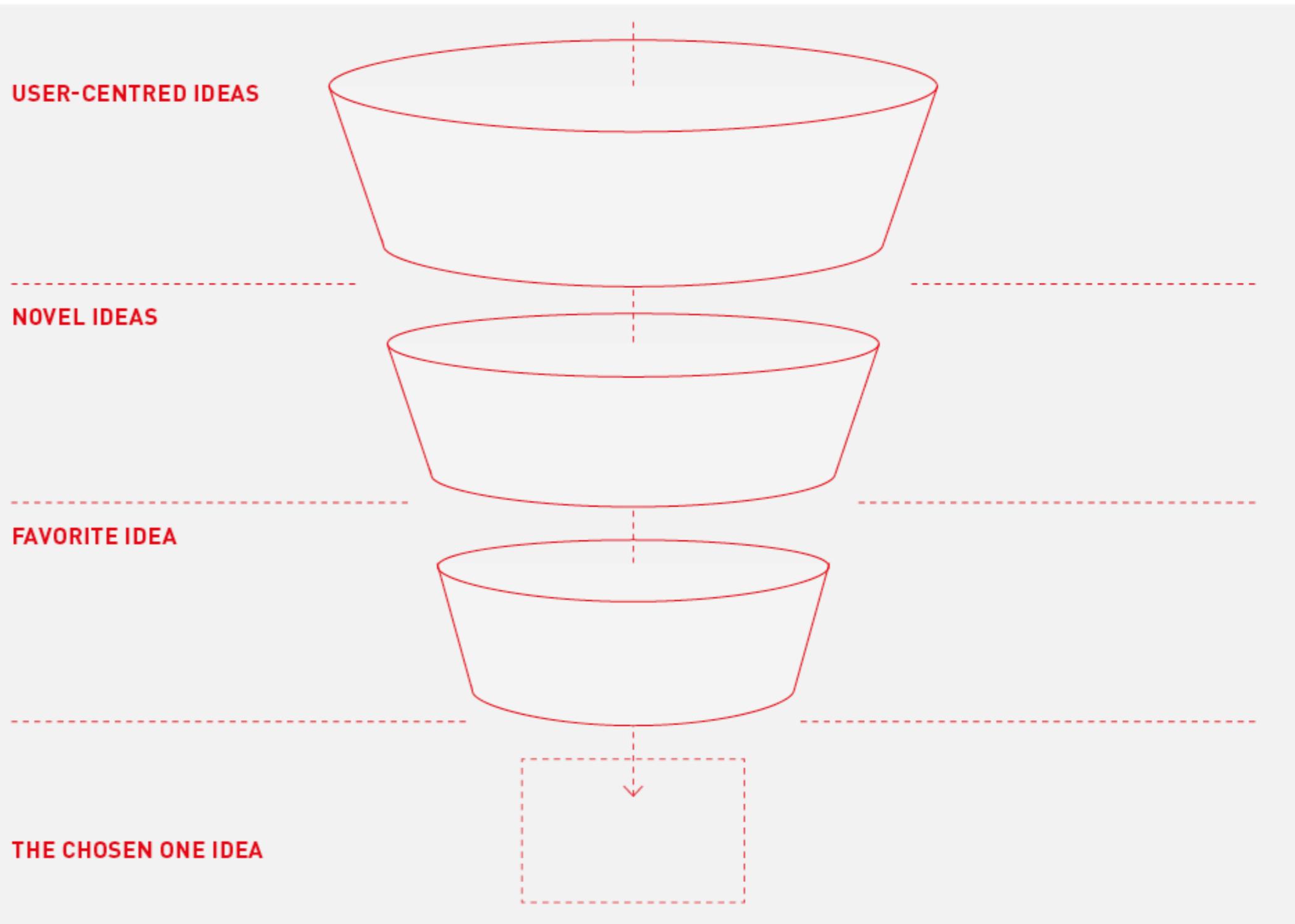
3 min

Again: Out of those, choose the ones that you are most excited about as a team and move them into the third filter layer.

### STEP 4

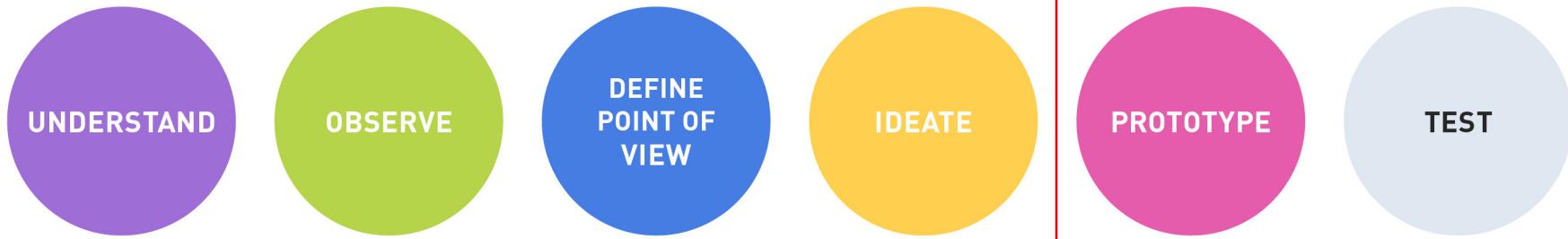
1 min

Together then choose the one idea that you want to move forward with!



# Prototyping & Testing

# Prototype



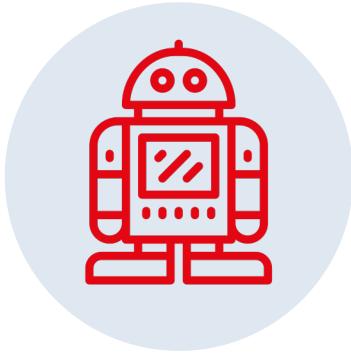
Make idea tangible and testable  
Think with your hands  
Develop your idea further

# Building the prototype



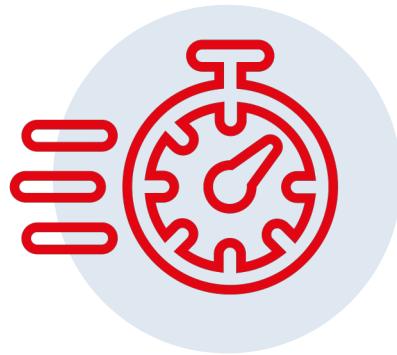
- The vague idea turns into more concrete shapes
- The team synchronises
- The idea gets tangible and therefore ready to be tested

# Building the prototype



**WHAT?**

Make the idea  
tangible



**HOW?**

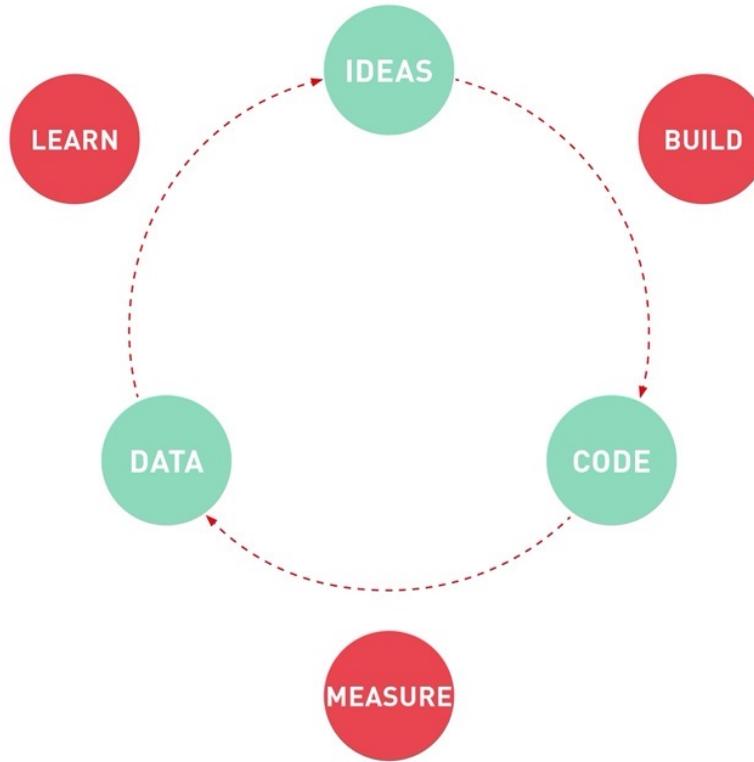
Quick and dirty



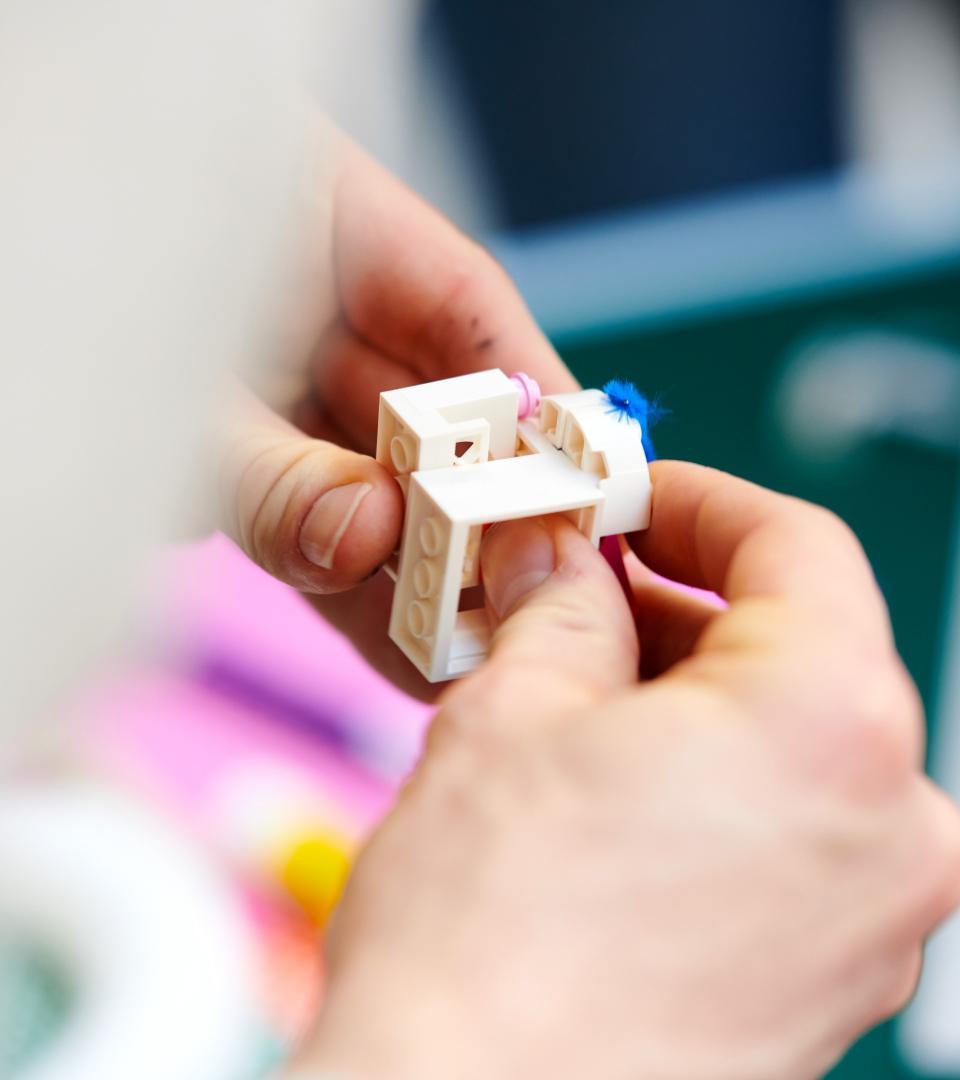
**WHY?**

Understand  
and test

# Lean startup



**There are  
different  
kinds of  
prototypes ...**



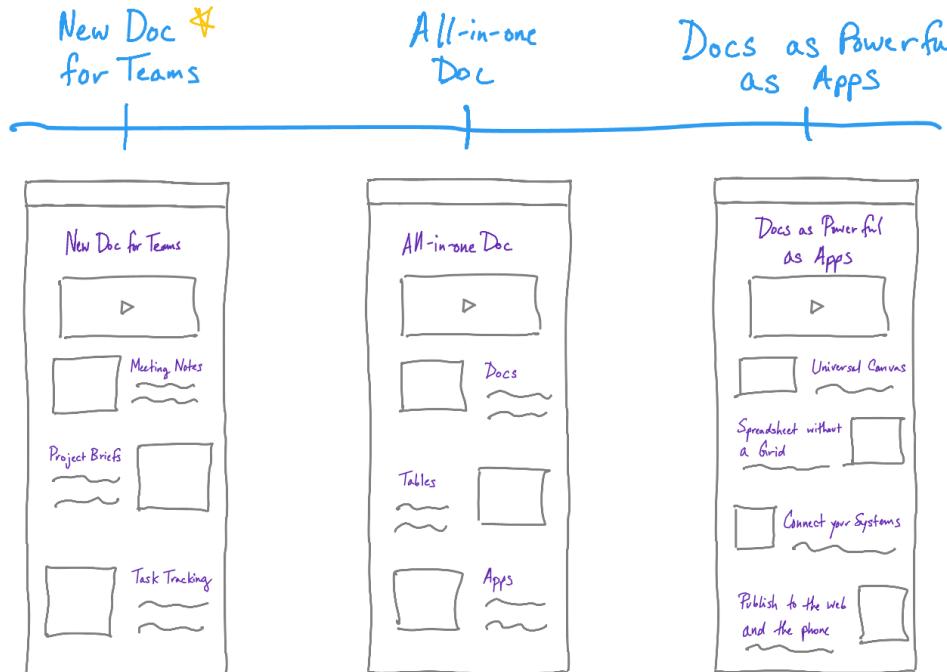
# SKETCH



# MOCK-UP



# DIGITAL WIREFRAME



Use case driven  
Less vision?

Building Block Centred  
Problem orientation?

Inspiring!  
Geeky?

# USER JOURNEY



# ROLE PLAY



# In summary ...

**... think about what (hypothesis) you want  
to test with your users first.**

**Based on that, build the prototype as  
simple as possible.**

# Build your digital prototype!



# BUILD YOUR DIGITAL PROTOTYPE

## Instructions

**Get creative with your prototype!**

15 min

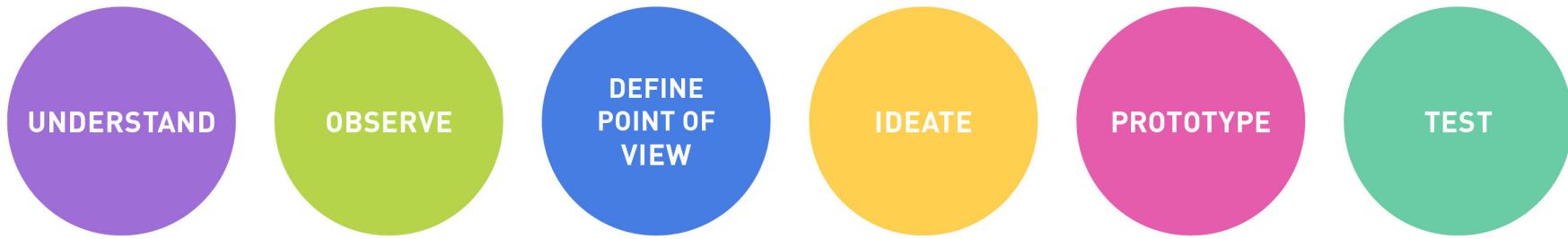
Visualise your idea and make it tangible.

Think about:

- How does it work?
- How does it interact with your user?
- What is your users experience?

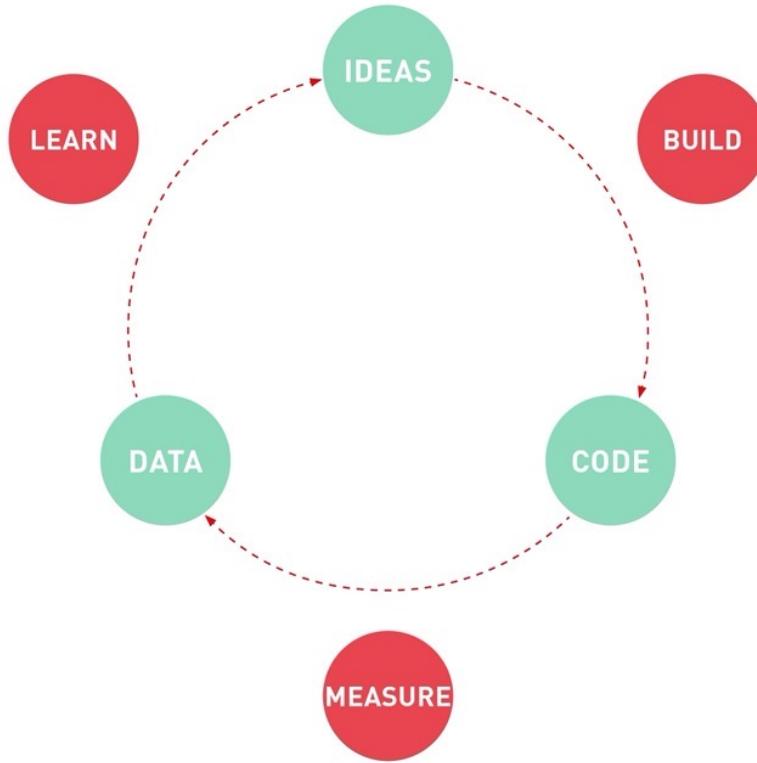
**This is your building space:**

# Testing



Get direct user feedback  
Find your blind spots  
Find the starting point for  
your next iteration

# Lean startup



# How to: Testing



- Show! Don't tell.
- Testing is not presenting
- Don't try to sell your idea!
- Let your user interact with your prototype

# Test presentations



# PREPARE YOUR PRESENTATIONS

## Instructions

### STEP 1

3 min

Build the storyline of your presentation.

### STEP 2

3 min

Decide on who is presenting what.

Make sure everybody is taking an active part in your presentation.

### STEP 3

9 min

Practise your presentation and time yourself.

You only have 3 minutes.

## PRESENTATION STORYLINE

- A. Who is your user and what is their pain or need?
- B. What is your solution and how does it work? (Prototype)

## TEAM ROLES

Who is presenting what?

# How to give feedback



# Feedback grid



I LIKE ...

I WISH ...

NEW IDEAS

OPEN QUESTIONS

# Giving feedback



- Be sensitive!
- Keep in mind your varied cultural backgrounds
- Keep a sense of mutual respect
- Practise clear and constructive feedback

# Receiving feedback



- Embrace feedback!
- Understand feedback as a learning opportunity
- Try not to defend yourself or explain too much
- Take notes!
- Practise listening with curiosity and openness