

Welcome to our Train-the-Trainer program!



An initiative of:



**FALLING
WALLS
FOUNDATION**

With funding from the:



THIS PROGRAMME IS SUPPORTED BY:

DIE ZEIT
VERLAGSGRUPPE

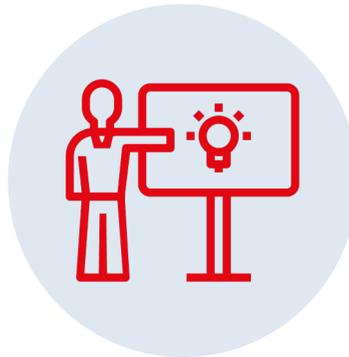
 **academics**

 **Boehringer
Ingelheim**

Workshop setting



YES



Trainer



Partner

Young Entrepreneurs in Science



- opens up new career perspectives for young researchers
- part of the Falling Walls Foundation
- enabled by Federal Ministry of Research, Technology and Space



www.youngentrepreneursinscience.com

Startup workshop – overview



Day 1

Morning
Getting started

Check-in,
Introduction, Your
Role & Goal

Entrepreneurship for
PhDs & Postdocs

Introduction to Design
Thinking

Afternoon
Understanding the User

Introduction
to Design Thinking
Challenge

User Research –
Interviews

Unpacking Interview
Results

Day 2

Morning
Defining the User

Team Check-in

Persona & HMW

Ideation & Idea
Selection

Afternoon
Developing Solutions

Prototyping

Self-Reflection &
Transfer

Wrap-up & Next Steps

Today's agenda



Morning

Check-in

Getting Started

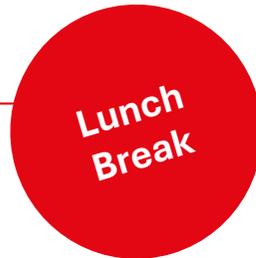
Introduction

Reflection about Roles & Goals

Entrepreneurship for PhDs & PostDocs
(World Café)

Innovation & Design Thinking

Lunch around 12:50 pm



Afternoon

Understanding the User

Warm-up & Teambuilding

Understanding the Challenge

User Research (Interviews with guests)

Unpacking Interview Results

Check-out

Your learning materials



- **Download link:** You will receive a download link for the handout within 3–5 days after the workshop



- **Photos:** We will take photos to document your results, please tell the team if you don't want your picture taken.

Your Personal Profile

Draw your...

- Name and Organization
- Background
- Training Experience: What skills do you bring?
- Motivation for the Program
- Hobbies and personal interests



Check-In



Solo work

On your own:
Draw your profile

10 min

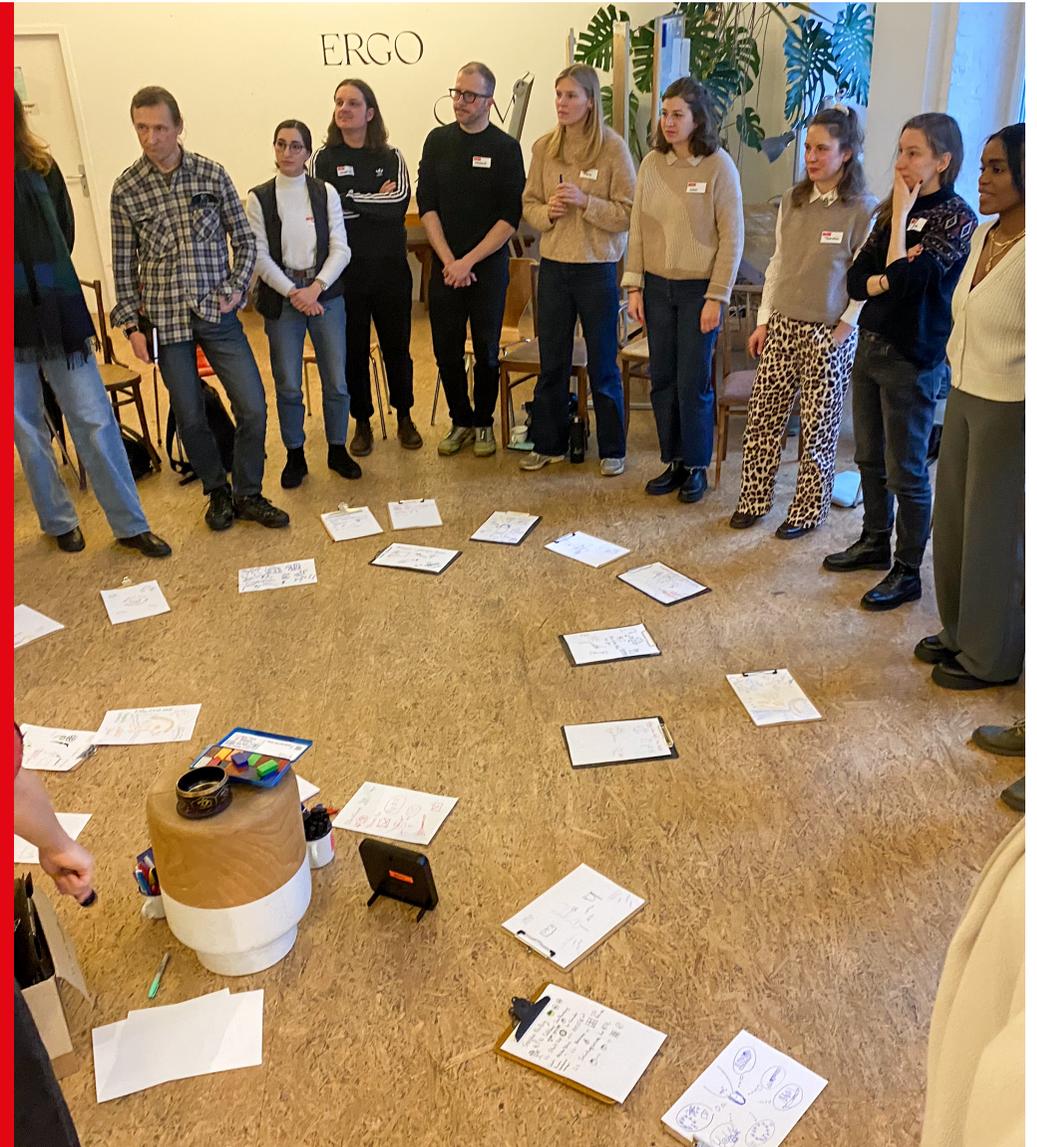


In teams of 4

Briefly introduce yourself and your profile.
As a team find one common fact that connects you.

15 min

Check-In



The YES Program



There are **25,000** new doctorates per year in Germany. Less than 5% develop into innovations.

On the other hand, at the end of their doctorate researchers are often faced with the question: **What now?**



The YES Program



Our Vision

Sciencepreneurship is a driving force for transfer in science and promotes research with a social impact.

Enthusiasm for starting a business and entrepreneurial spirit are part of research culture in Germany.



The YES Program



YES empowers researchers by providing them with new career perspectives and awakening innovation potential in academia.

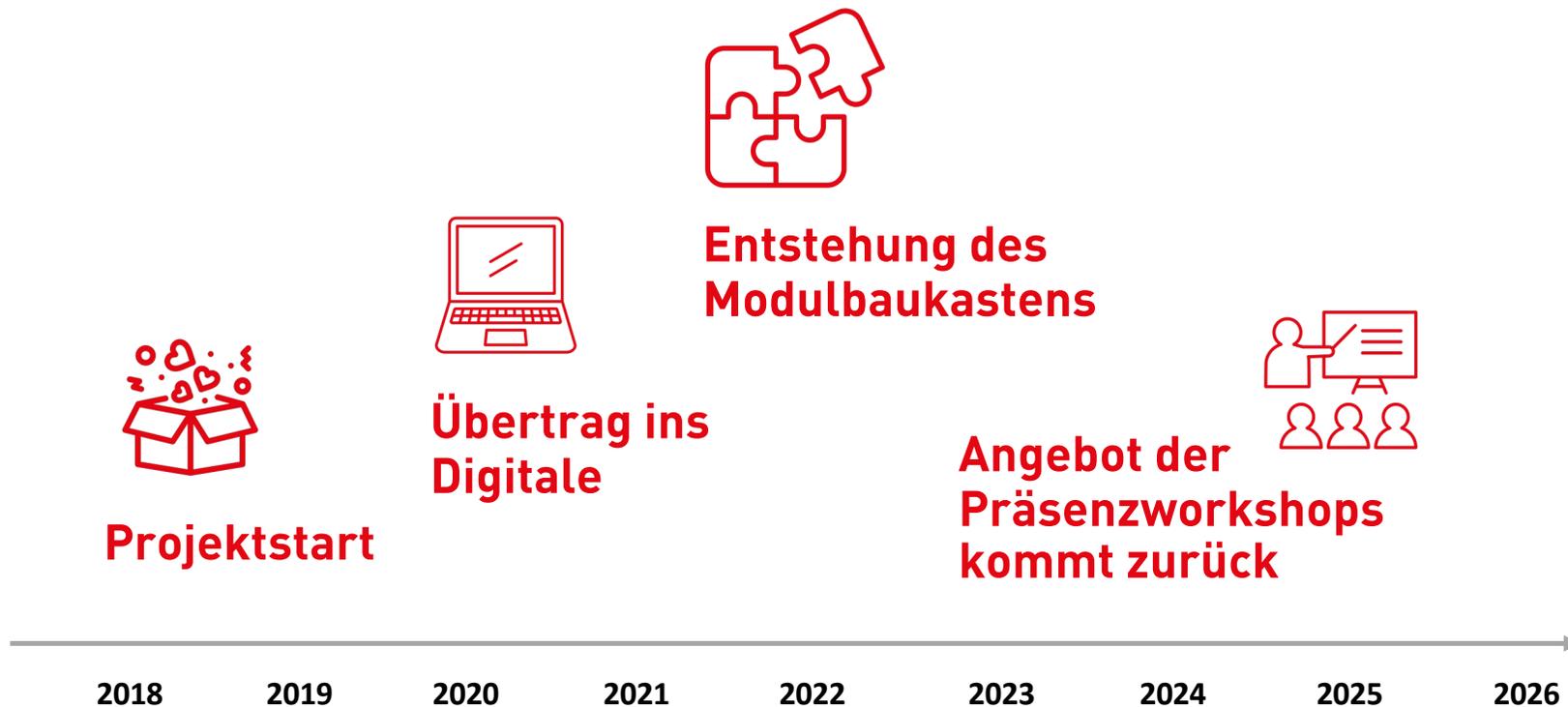


**Trainings &
Workshops**

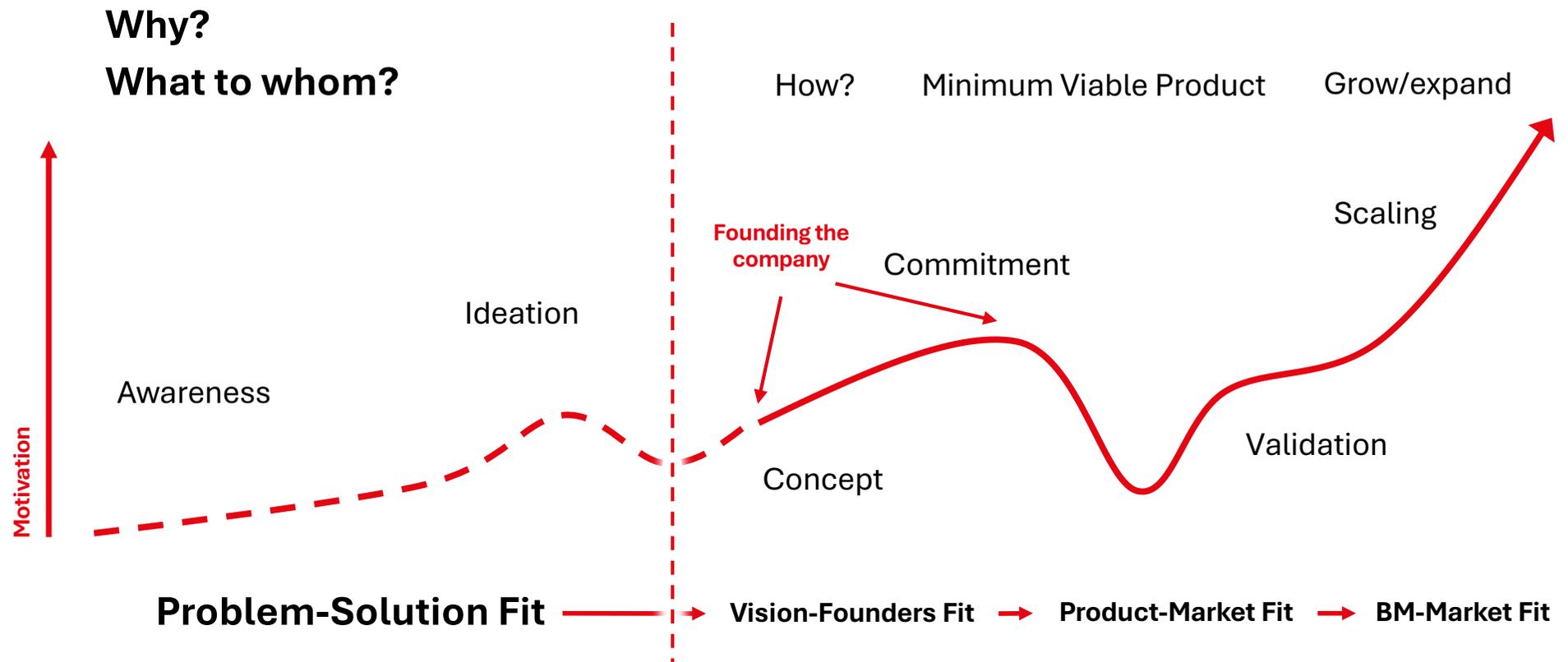


**Building a YES-certified
trainer network**

Entstehungsgeschichte



What our program covers



YES-Modules



CAREER & EMPOWERMENT



1. Your Entrepreneurial Career
2. Empathy for Innovators
3. Your Innovation Skills
4. Your Research Canvas
5. Social Entrepreneurship
6. Teamwork Essentials
7. Entrepreneurial Empowerment (Women*)
8. Discover your Resilience
9. Innovate for Impact
10. Navigating Conflict
11. **Coming soon:** Navigating Power Structures (Women*)

IDEAS & METHODS



1. Design Thinking Process 1-3
2. Ideation
3. Prototyping
4. Pitch Training
5. Future Thinking 1+2
6. Business Model Canvas 1-2
7. Impactful Storytelling

Our Goals



- To empower you as trainers to facilitate the YES-modules at your institution
- Establishing a YES-certified trainer network

Benefits

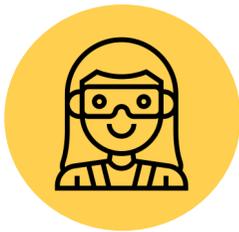


As certified YES-Trainers you can ...

- plan and facilitate your own workshop formats for PhDs, Postdocs and Masters based on the YES-Modules
- download and use all relevant workshop material (Powerpoint, Microtiming, Templates)
- network and exchange with other YES-Trainers
- secure and optimise the quality of your own workshop offers sustainably
- increase your ownership of what you offer to this target group

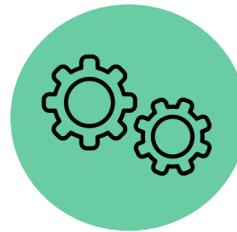
Train the Trainer: 3 levels

Personal



- Reflect your own role as a trainer
- Understand your personal motivation & goals
- Transfer of methods to individual context

Content & Methods



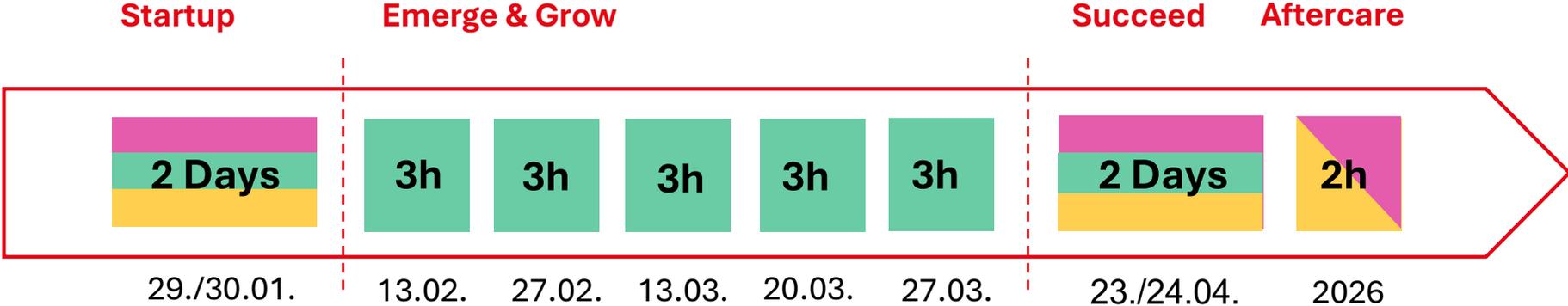
- Get to know YES-Modules
- Understand, try out and practice methods
- Focus: Design Thinking

Contextual



- Understand the target group „PhDs & Postdocs“
- Develop solutions that work for the target group

Our timeline



- Self reflection (personal)
- Methodological input & practice (methodological)
- Contextual challenge & exercises

Practical info



Workshop location & times

- Online meetings: Zoom (10am -1pm)
- Offline meetings: Berlin (9am-4/5pm)

Language

- Slides in English
- Conversations in German
- Facilitation in English/German

Certification requirements

- Signing the YES TtT terms & conditions
- Max. 8h of 47h can be missed
- Submission of online feedback questionnaires

Invitation to Job Shadowing!



[EVENTS](#)

[CURRICULUM >](#)

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[TRAINERS](#)

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[FAQS](#)

EVENTS

SETTING ▾

PARTNERS ▾

Search

AUG

26
MON

Your Research Canvas

Online Workshop

26.08.2024 • 10 – 12.45 PM

Hochschule Hannover
Leibniz Universität Hannover
Medizinische Hochschule Hannover
Universität Vechta
Universität Osnabrück
Hochschule Osnabrück

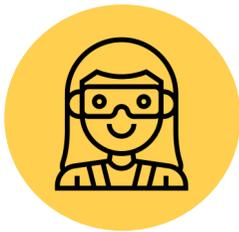
Have you ever thought about the application potential of your own research? If not, this workshop is for you. You will reflect about user groups and the network of stakeholders that surround you and your research. Why could they

Different roles



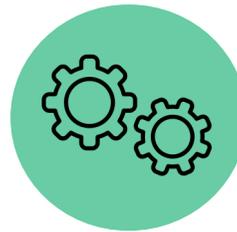
Train the Trainer: 3 levels

Personal



- Reflect your own role as a trainer
- Understand your personal motivation & goals when becoming a trainer
- Transfer of methods to individual context

Content & Methods



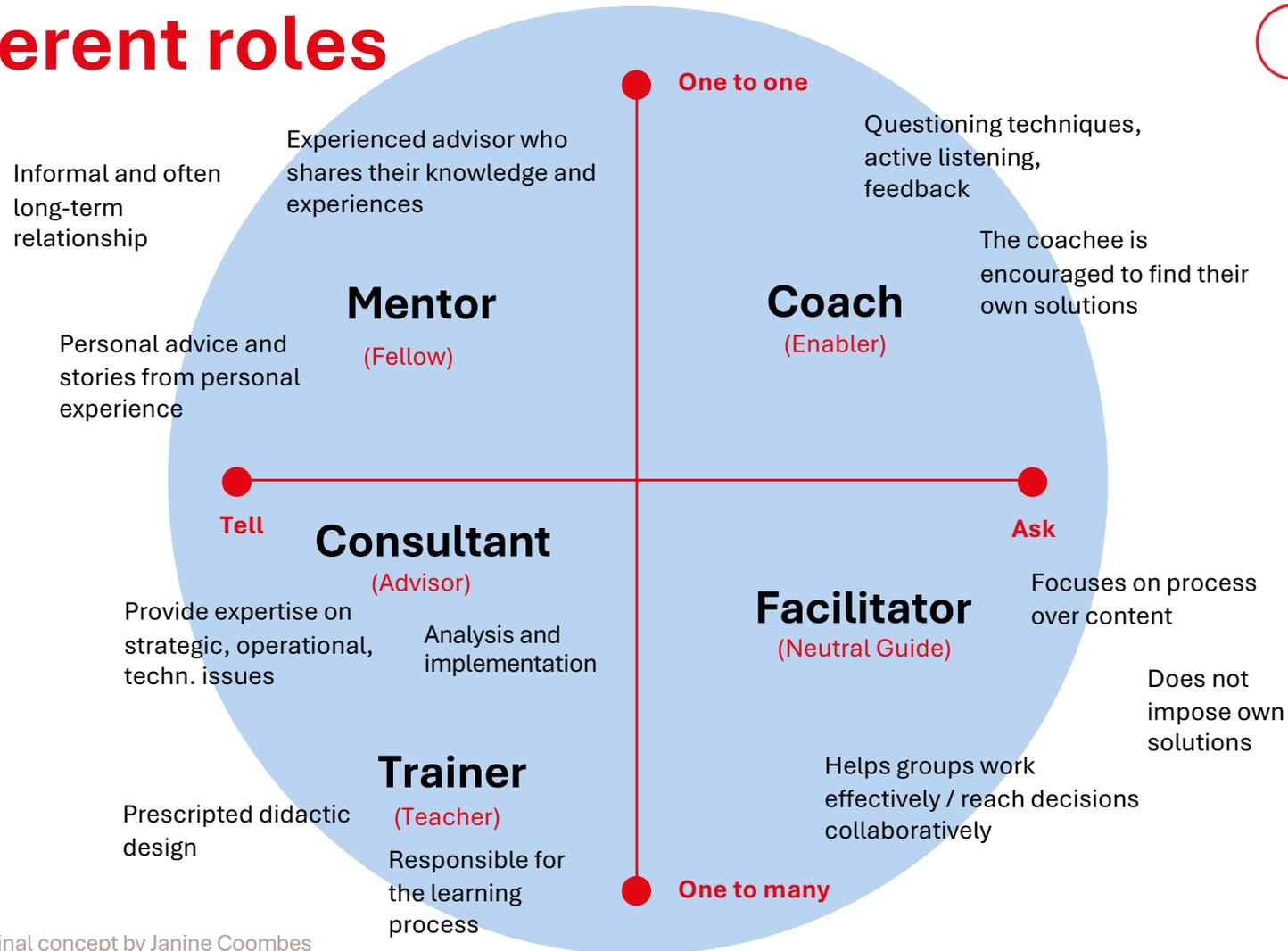
- Get to know YES-Modules
- Understand, try out and practice methods
- Focus: Design Thinking

Contextual



- Understand the target group „PhDs & Postdocs“
- Develop solutions that work for the target group

Different roles



Different layers of each role



Self-reflection



Everyone for themselves: think about and write down

- Which role(s) do you take on in your current job/position?
- Consider the different layers: What are you very conscious of? Which level have you not thought much about yet?
- Which layer would you like to develop throughout this training? What are your expectations?



10 minutes

Self reflection: your role(s)

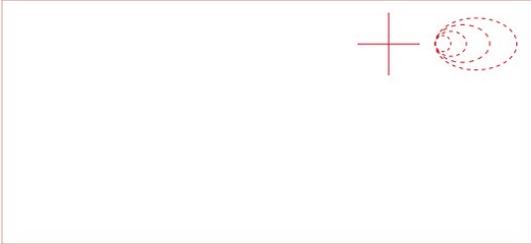
SOLOWORK

**SELF REFLECTION:
YOUR ROLE(S)**

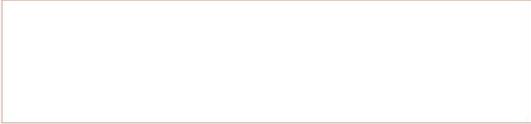
 YOUNG
ENTREPRENEURS
IN SCIENCE

Reflect on the questions below individually and note your answers in the template.
10 min

WHICH ROLES! DO YOU TAKE ON IN YOUR CURRENT JOB/POSITION?



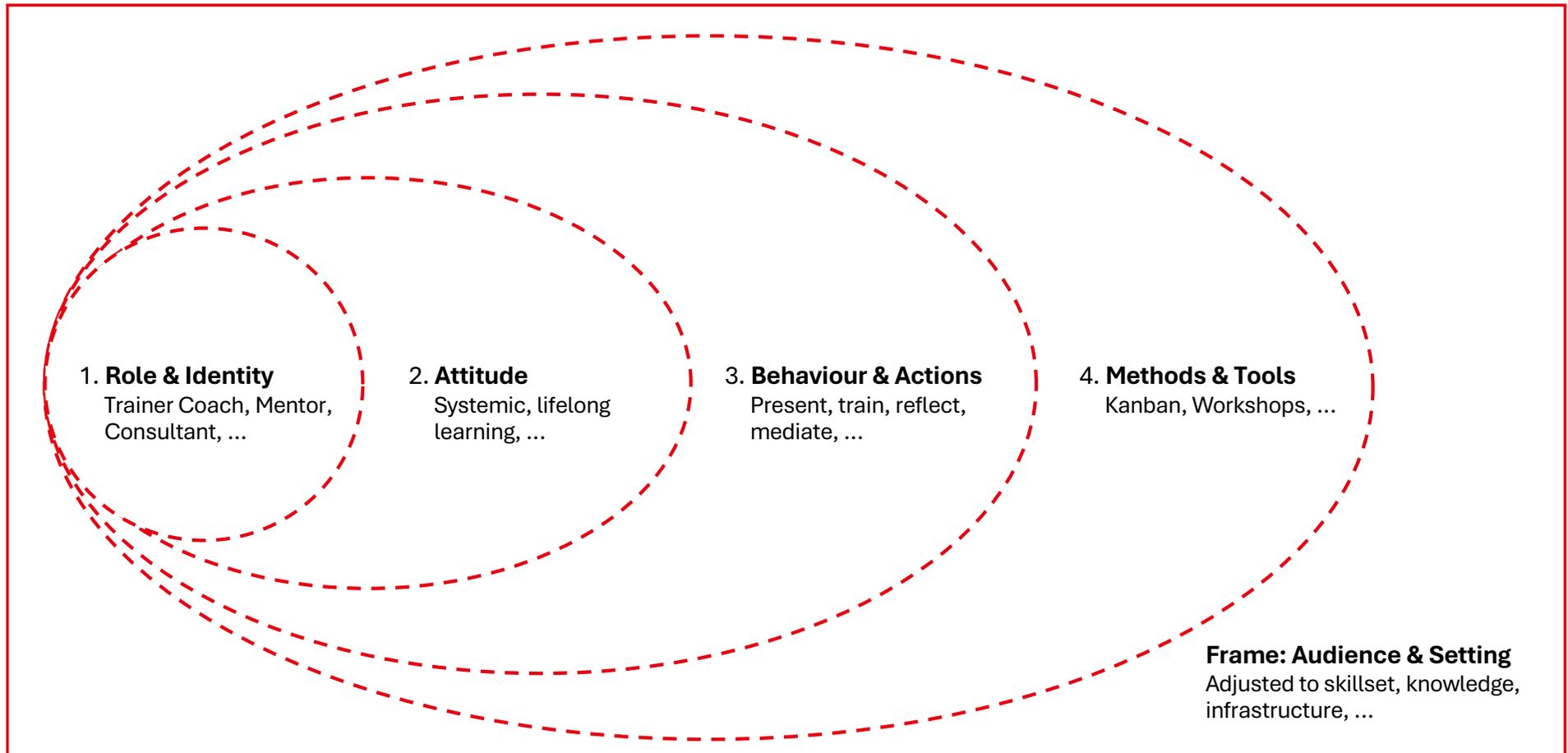
CONSIDER THE DIFFERENT LAYERS: WHAT ARE YOU VERY CONSCIOUS OF? WHICH LEVEL HAVE YOU NOT THOUGHT MUCH ABOUT YET?



WHICH LAYER WOULD YOU LIKE TO DEVELOP THROUGHOUT THIS TRAINING?



Different layers of each role



Our Perspective: Entrepreneurial thinking & acting



The entrepreneurial journey



unrealistic



rather realistic

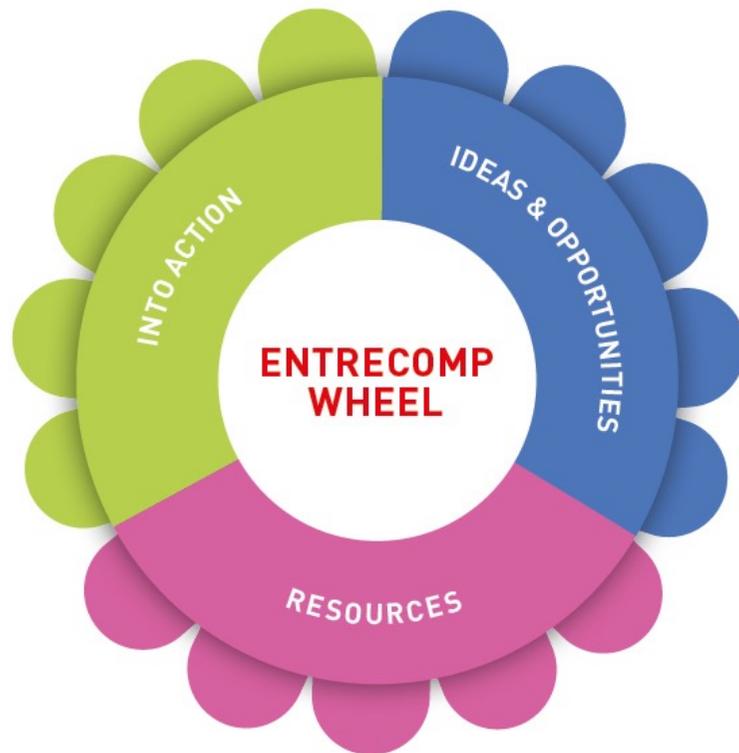
What is Entrepreneurship?



Skill in starting new businesses, especially when this involves seeing new opportunities.

Cambridge Dictionary

Skillset: EntreComp Wheel



- Tool to reflect on your personal development of entrepreneurial skills
- Developed by the Joint Research Centre (JRC) of the European Commission
- Made up of three competence areas: Ideas & Opportunities, Resources, Into Action
- Each area includes 5 competences

Bacigalupo, M., Kampylis, P., Punie, Y., Van den Brande, G. (2016). EntreComp : The Entrepreneurship Competence Framework. Luxembourg: Publication Office of the European Union; EUR 27939 EN; doi:10.2791/593884

YES-Modules

CAREER & EMPOWERMENT



1. Your Entrepreneurial Career
2. Empathy for Innovators
3. Your Innovation Skills
4. Your Research Canvas
5. Social Entrepreneurship
6. Teamwork Essentials
7. Entrepreneurial Empowerment Journey
8. Discover your Resilience
9. Innovate for Impact
10. Navigating Conflict

IDEAS & METHODS



1. Design Thinking Process 1-3
2. Ideation
3. Prototyping
4. Pitch Training
5. Future Thinking 1+2
6. Business Model Canvas 1-2
7. Impactful Storytelling

Promoting entrepreneurship



Why Promote Entrepreneurship?

(Umfrage Mentimeter)



“Karriereweg Gründung nicht Teil der Doktorandenausbildung.”

“Neue Karriereoption.”

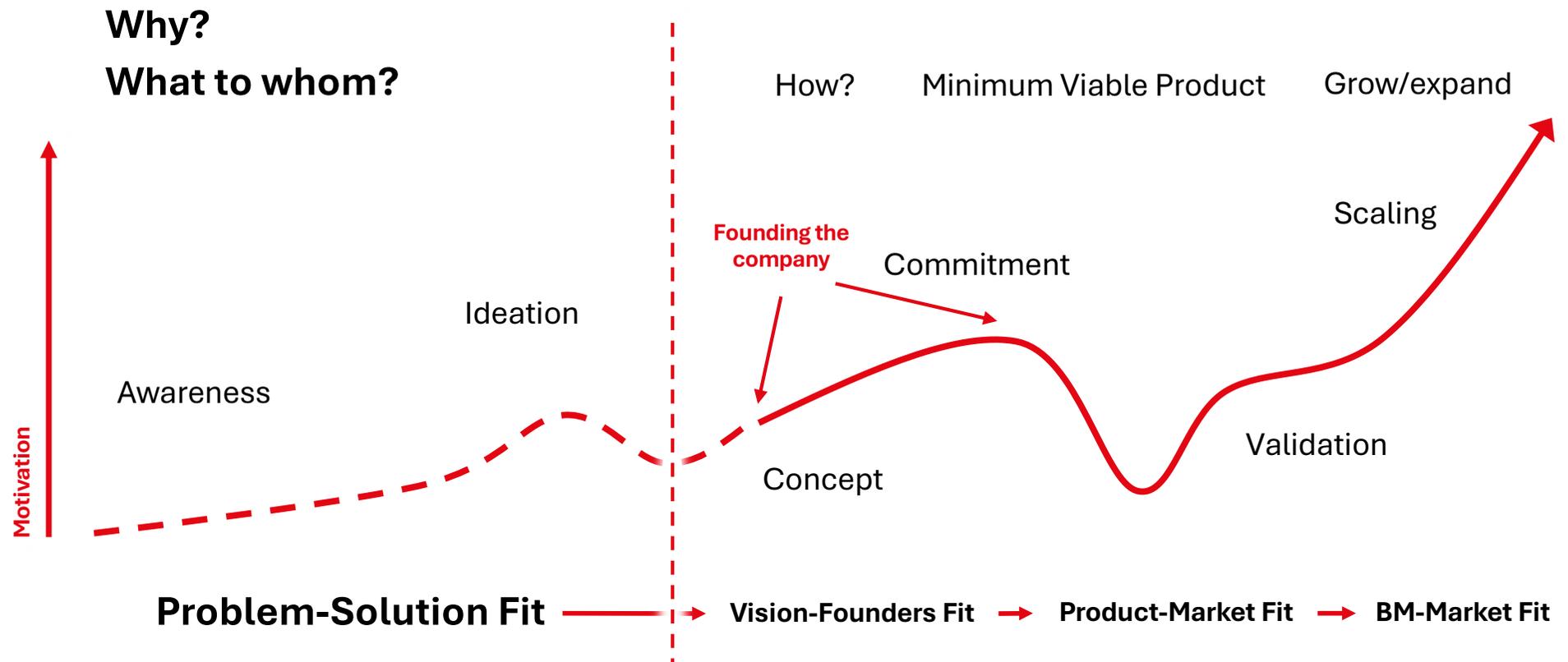
“Karrierewege außerhalb der Universität.”

“Quelle für Innovation.”

“Hohes Potenzial für Innovationstransfer in die Gesellschaft.”

“Die Karriereoption ist nicht bekannt.”

What our program covers



Promoting Entrepreneurship



We think...

Entrepreneurship is a **buzzword**

Scientists often have a very specific and **limited view** on their career possibilities

Entrepreneurial thinking and acting is a skill and mindset **that can be learned**

There are **overlaps & differences** in the mindset and skillset of scientists & entrepreneurs

So...



How can we clarify what it really means and offers?



How can we support PhDs & PostDocs to put their research & career into perspective?



How can we stimulate & teach this mindset and skillset?



How can we make PhDs & PostDocs aware of these overlaps & differences?

Promoting Entrepreneurship to..?



Master's Students, PhDs & PostDocs are scientists who...

...have (mostly) completed their studies & continue their research on a specific subject

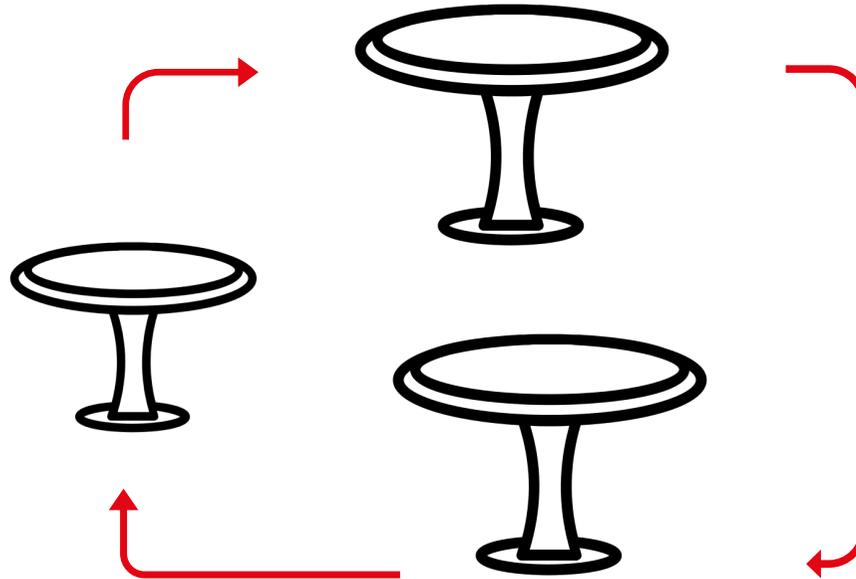
...may have obtained or are obtaining a doctorate

...are working at a university or research institute on a temporary basis (up to 6 years)

World Café

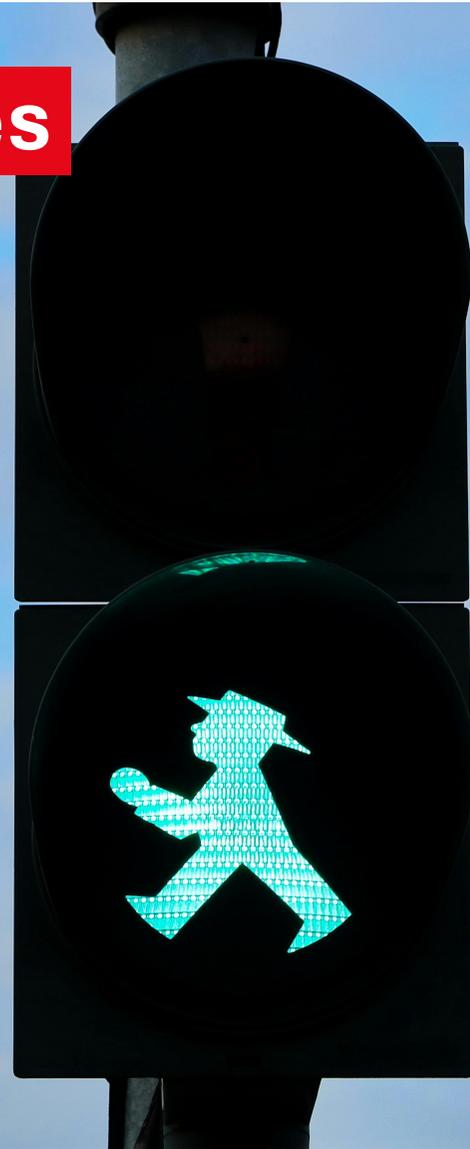
What discourages PhDs to consider an entrepreneurial career?

What motivates PhDs to become entrepreneurs?



What do you already do or offer at your institution to promote an 'entrepreneurial mindset' for PhDs?

Getting to Know the Modules



YES-Modules



1. Your Entrepreneurial Career
2. Empathy for Innovators
3. Your Innovation Skills
4. Your Research Canvas
5. Social Entrepreneurship
6. Teamwork Essentials
7. Entrepreneurial Empowerment Journey
8. Discover your Resilience
9. Innovate for Impact
10. Navigating Conflict



1. **Design Thinking Process 1-3**
2. **Ideation**
3. **Prototyping**
4. Pitch Training
5. Future Thinking 1+2
6. Business Model Canvas 1-2
7. Impactful Storytelling

Innovation & Design Thinking

CHANCE

The word "CHANCE" is spelled out using six wooden blocks. The first five blocks are arranged in a single row, showing the letters C, H, A, N, and C. The sixth block, showing the letter E, is positioned to the right of the fifth block and is tilted upwards, so its top face is visible, showing the letter 'A'. This visual pun suggests that "chance" is a key element in innovation and design thinking.

**Where ideas come
from ...**



Where ideas come from



Design Thinking



What is Design Thinking?

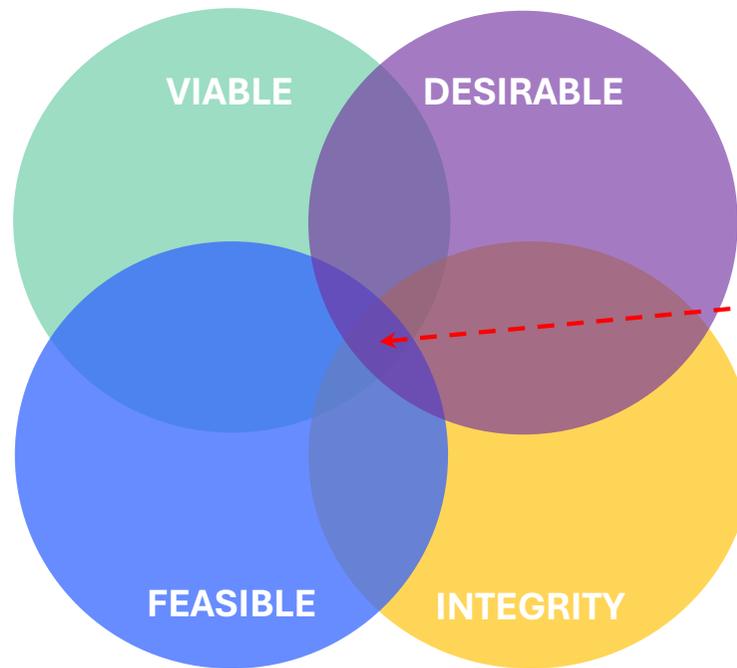


- Design Thinking ≠ Design
- Is a holistic creativity approach
- Puts the human and their needs in center
- Works as a catalyst for innovation culture
- Is based on three components: process, team and space

Why does innovation need purpose?

What's the
business case?

Who wants it
and why?



INNOVATION

Can you make it
and deliver it?

What impact can you
create with your purpose?

Design Thinking needs space ...



Design Thinking guidelines

Timeboxing



Design Thinking guidelines

Build on the
ideas of others



Design Thinking guidelines

Defer
judgement



Design Thinking guidelines

Fail early
and often



Design Thinking needs a team...



Design Thinking is a process ...



MINI-AGENDA

STORYLINE 20'

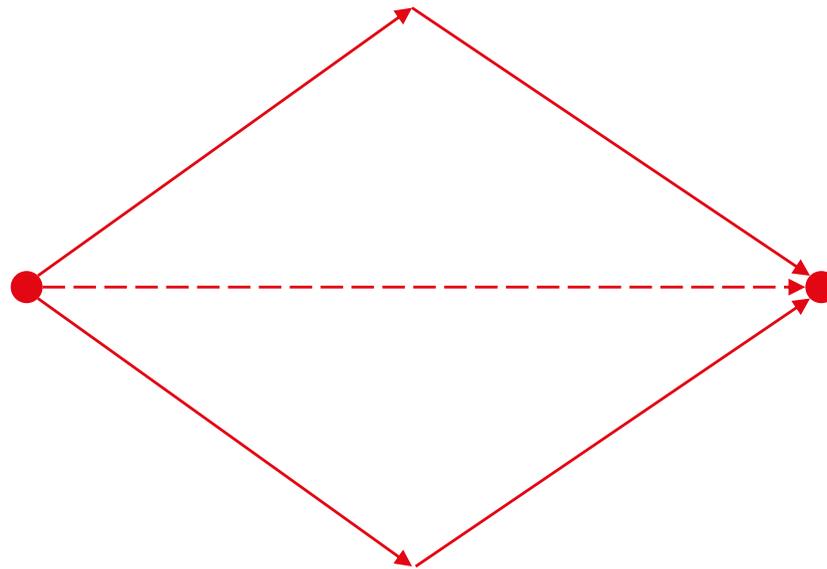
DETAILS 25'

REHEARSE 15'

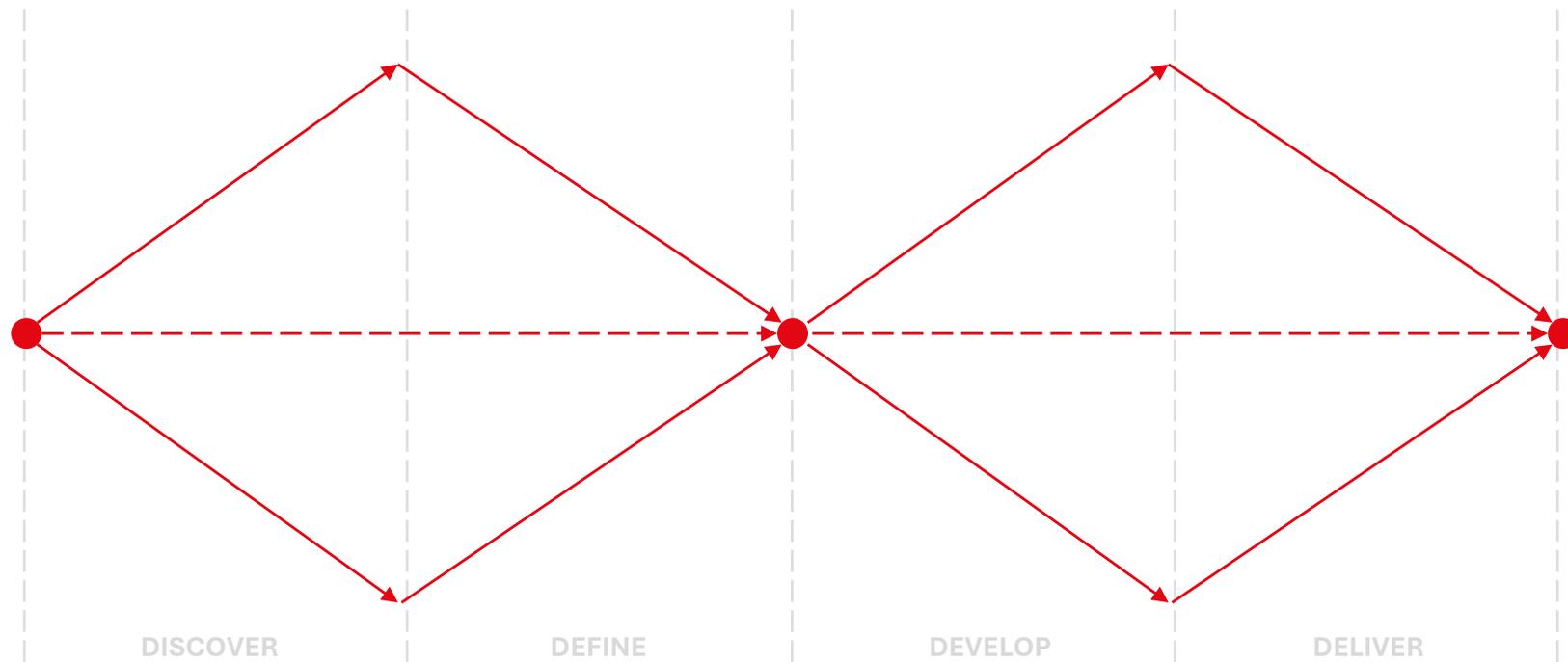
BUILDING THE PIT

- 1. WHAT IS THE USER'S PROBLEM YOU'RE TRYING TO SOLVE?
- 2. WHO IS THE USER'S BUSINESS YOU'RE TRYING TO SOLVE FOR?
- 3. WHAT IS YOUR SOLUTION FOR THAT PROBLEM? (MAKE A LIST OF FEATURES)
- 4. HOW DO YOU MEASURE SUCCESS IN YOUR BUSINESS?
- 5. HOW DOES YOUR PRODUCT FIT INTO YOUR TARGET MARKET?
- 6. WHAT IS THE ESTIMATED SIZE OF YOUR TARGET MARKET?
- 7. HOW DO YOU MEASURE SUCCESS IN YOUR BUSINESS?
- 8. HOW DO YOU MEASURE SUCCESS IN YOUR BUSINESS?
- 9. HOW DO YOU MEASURE SUCCESS IN YOUR BUSINESS?
- 10. HOW DO YOU MEASURE SUCCESS IN YOUR BUSINESS?

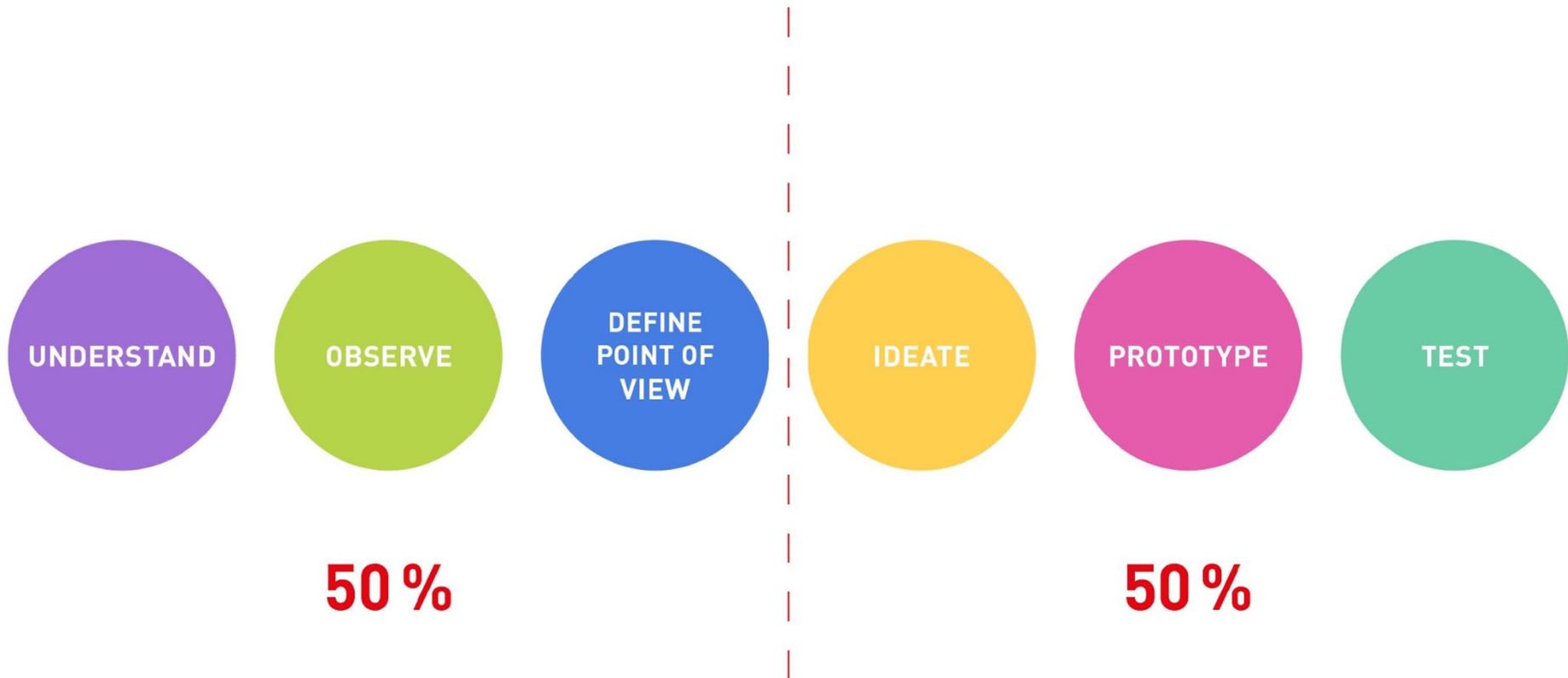
Divergent/convergent



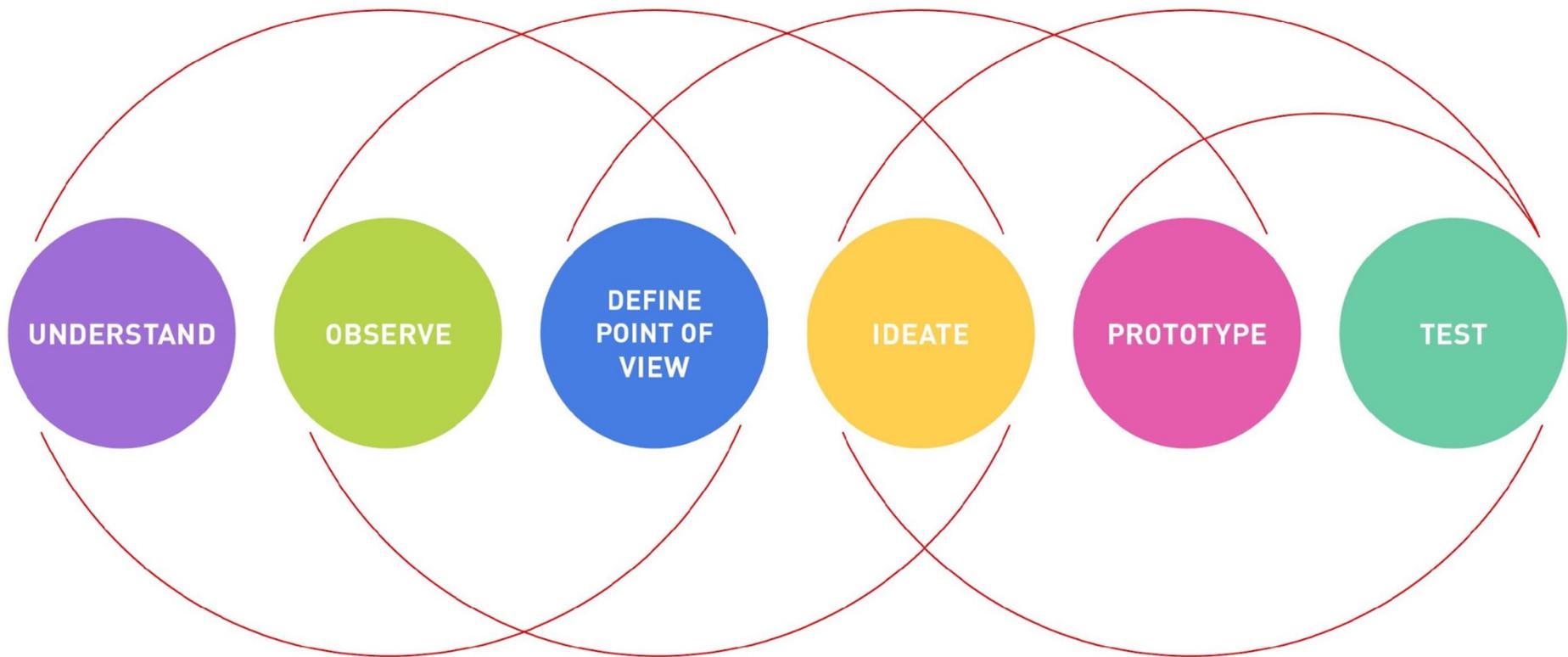
Double diamond model



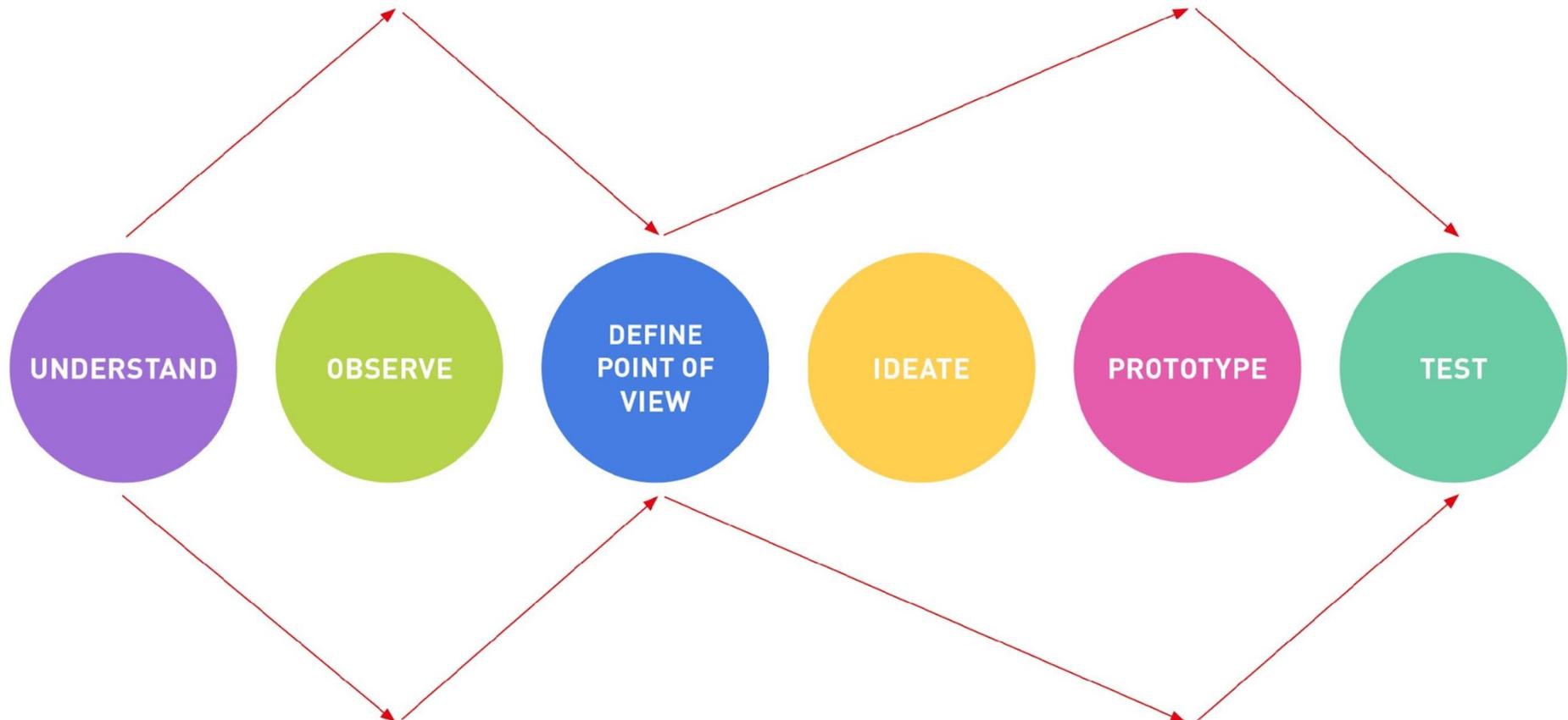
Design Thinking Process



Design Thinking Process



Design Thinking Process



LUNCH BREAK



LET'S DANCE!



BUILD TEAMS!



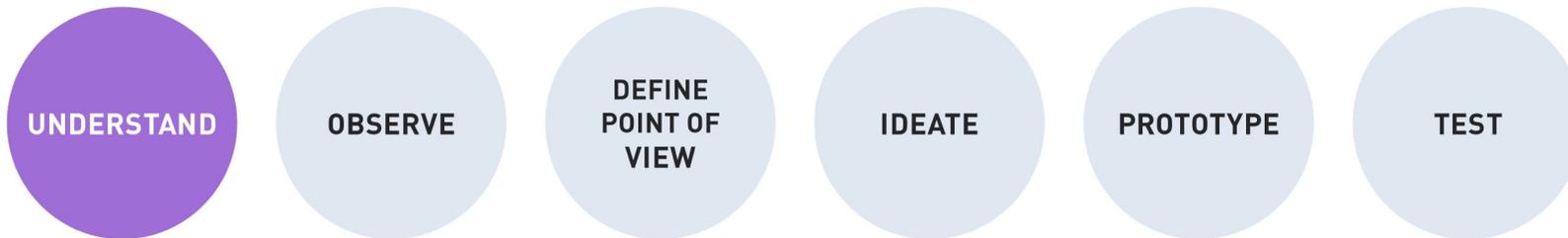
CHALLENGE

**Design a way to stimulate an
entrepreneurial mindset for
PhDs**

Understand



Understand

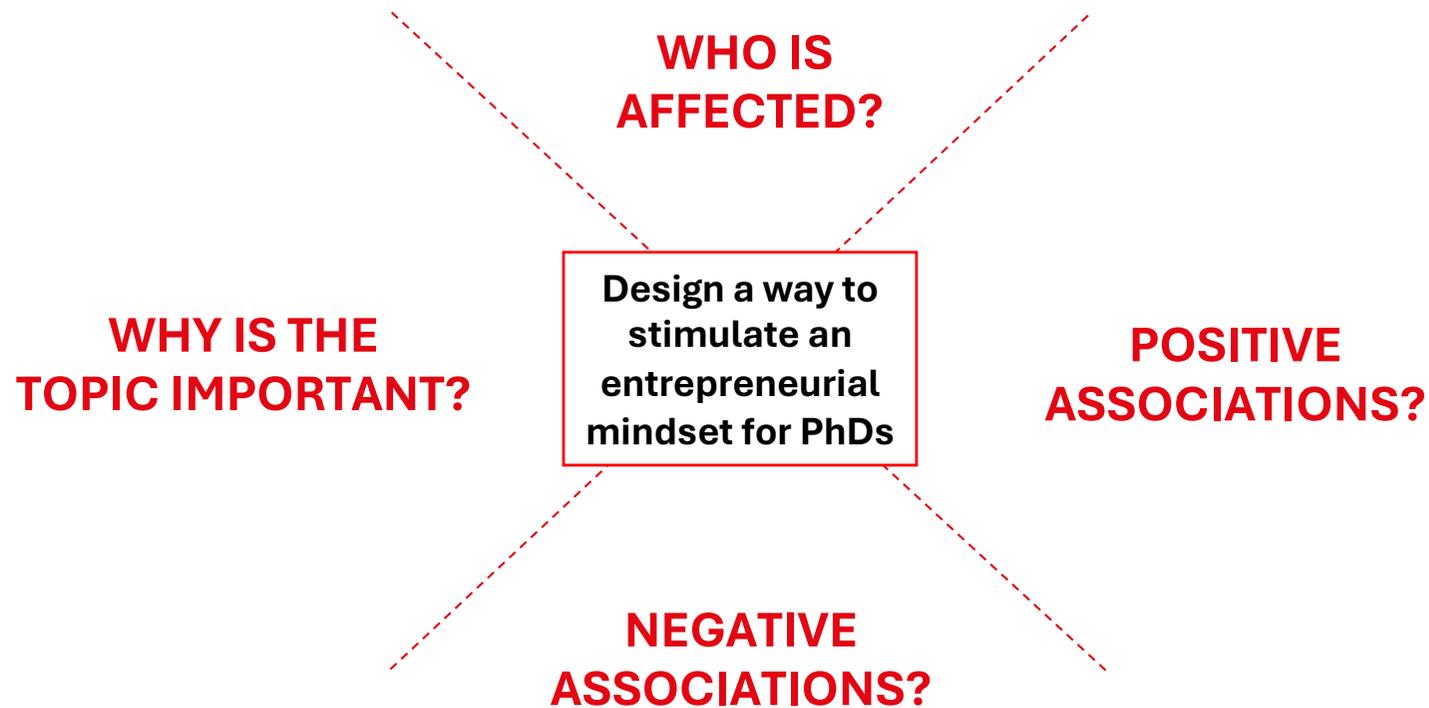


Synchronise team

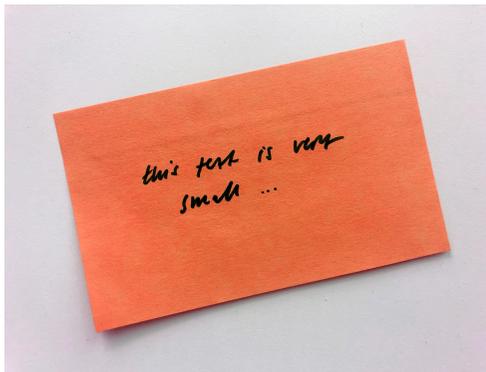
Dive into the topic

Share ideas and associations

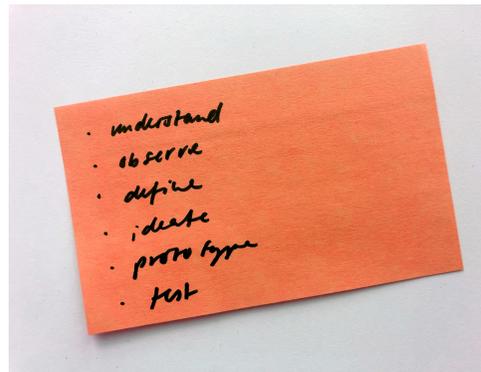
Mindmap



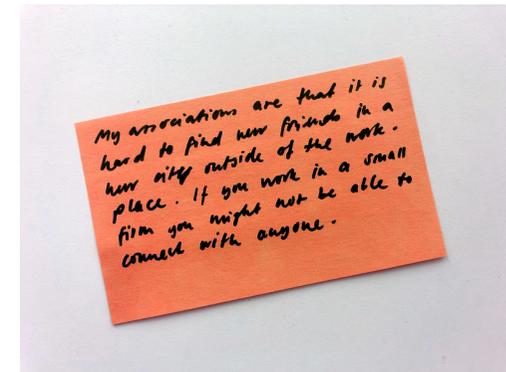
Sticky notes: Don'ts



DON'T: VERY SMALL TEXT



DON'T: BULLET POINTS



DON'T: TOO MUCH TEXT

Sticky notes: Dos



DO: USE THICK PENS



DO: 1 POST-IT = 1 IDEA



DO: BE VISUAL

Understanding the Challenge



How it works ...



4 Teams



Teambuilding

Create your team space

Select a team name

Select a time keeper



5 minutes

How it works ...



**Think about and answer these questions individually.
Write your thoughts on sticky notes.**

- Who is affected?
- Positive/negative associations?
- Why is the topic important?



5 minutes

How it works ...



Share your notes with your group and put your sticky notes on the wall according to the mindmap.

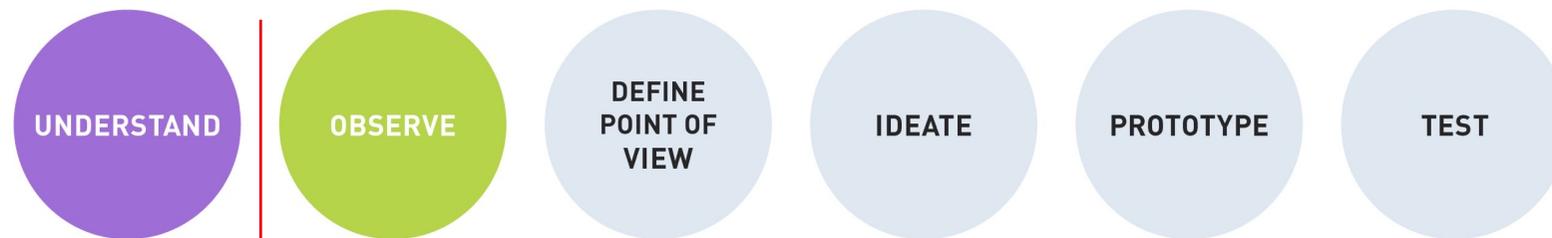


10 minutes

OBSERVE



Observe



Change perspectives & Understand user groups
Build Empathy: Develop deeper understanding
Question your own preconceptions

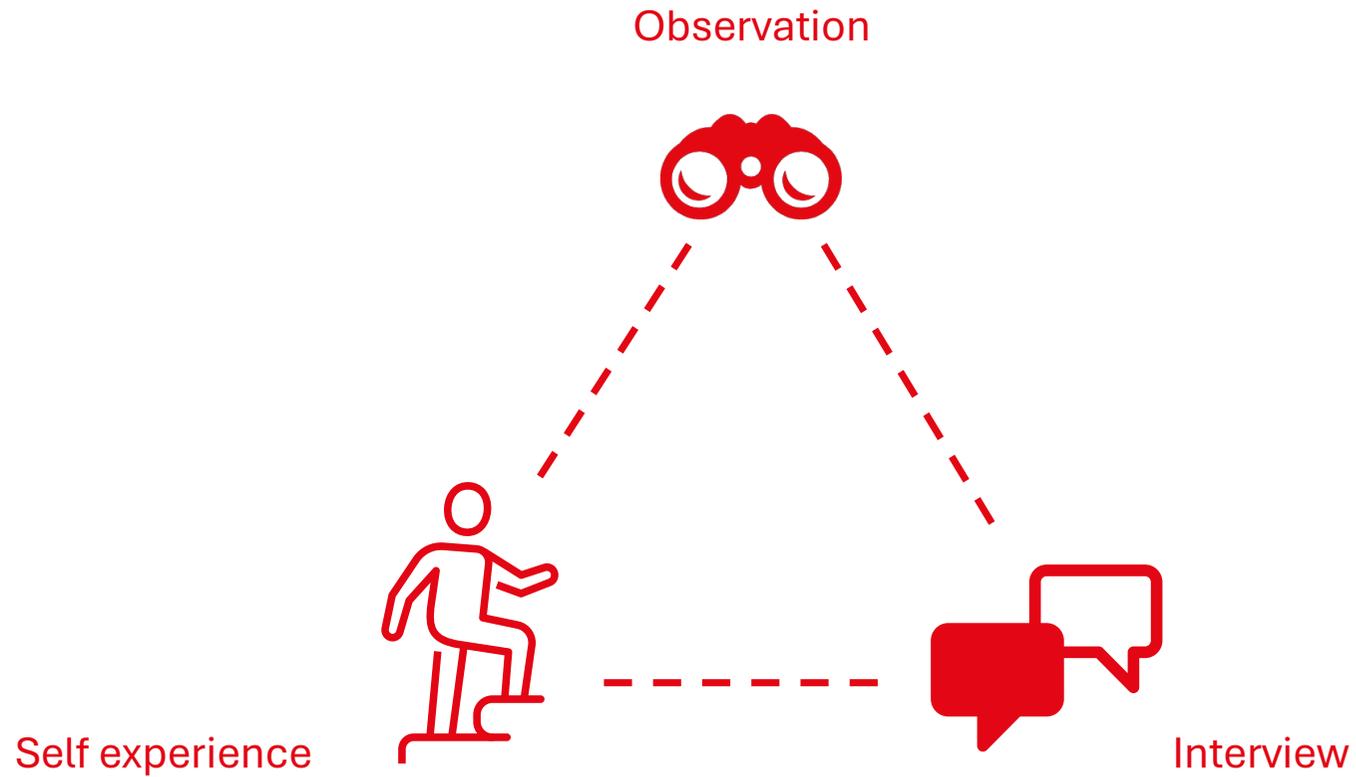
Who are these PHDs..?



...and what are their needs?

- in different research fields
- at different stages
- with different languages & cultures
- with different possibilities

Empathy



EMPATHY

WHAT DO YOU SEE?

Foto by Andrea Piacquadio via pexels.com

EMPATHY

**WHAT DO YOU
INTERPRET?**

Foto by Andrea Piacquadio via pexels.com

EMPATHY

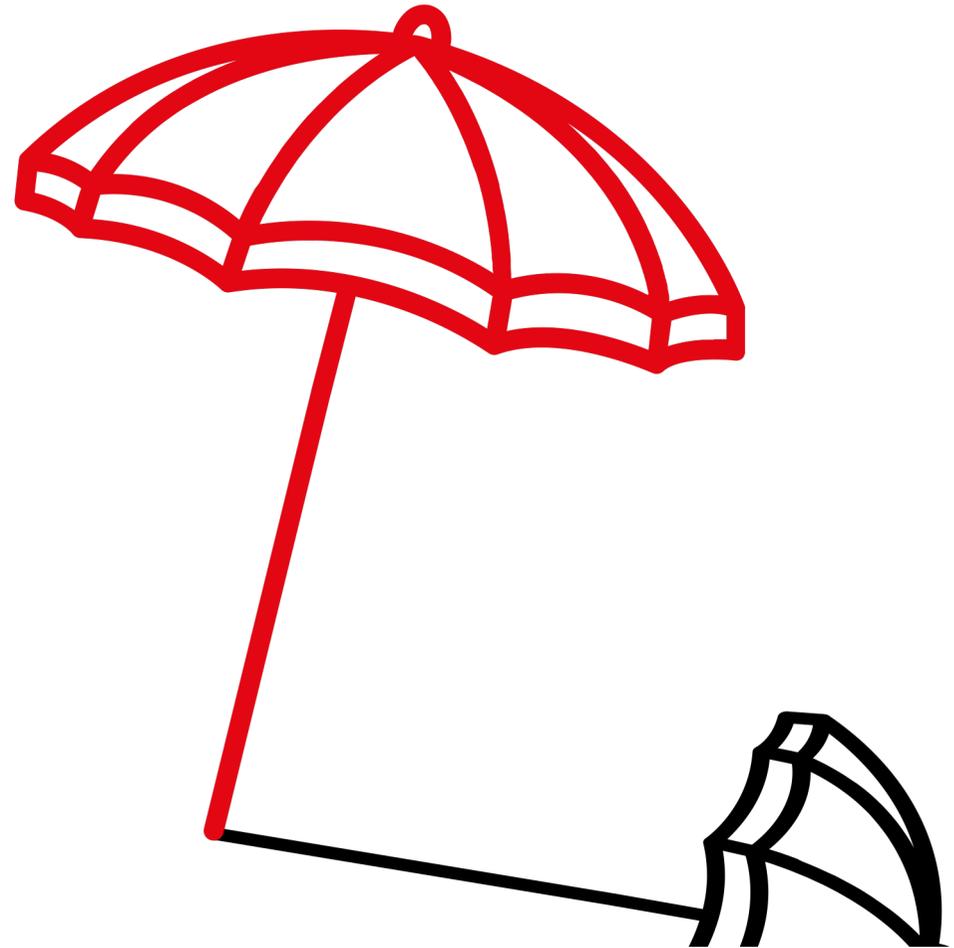
**WHICH QUESTION
WOULD YOU LIKE
TO ASK NOW?**

Foto by Andrea Piacquadio via pexels.com

The “need” onion



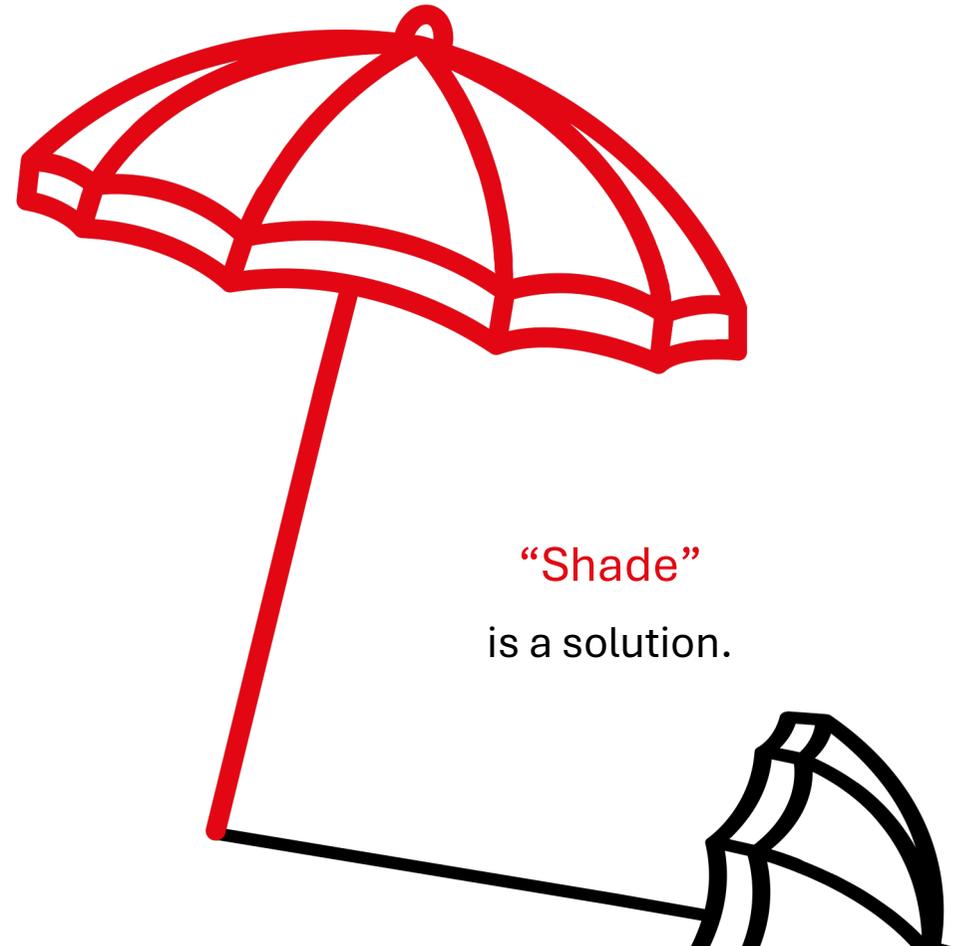
What is the need?



What is the need?

“Protect myself
against the sun”

is a need.



“Shade”
is a solution.

Empathy Trap! Why good interviews...



... often lead to the same ideas.

Be aware...

You will talk to different PhDs - but you usually listen through your own professional filters.

What happens typically?

Selective listening:

1. Hearing what fits familiar patterns.
2. Instant translation into solutions.
3. Empathy with the individual, not the system. What about...
 - ... the academic evaluation system?
 - ... the hidden costs of changing your path?

Result:

The interview feels successful - but the ideas stay the same.

How to break this pattern?

Shift the interview focus to build empathy:

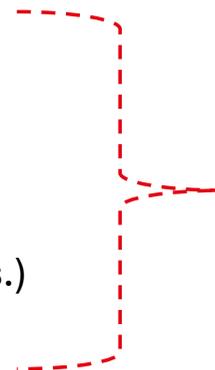
From “Why not?” to “Why is this rational?”

- From: Why don't you think entrepreneurially? To: In which situations is it rational not to act entrepreneurially?
- From: What would you need? To: What would you lose (tomorrow, next week, ...) in your PhD role?

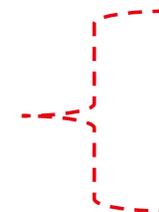
Whilst in the conversation separate data from interpretation and write down only:

- Direct quotes
- concrete situations
- real decision moments

(No conclusions. No solutions. No assumptions.)



Dig deeper &
pay special
attention to:



Surprises
Contradictions
Emotions
Problems

Interview guidelines

Introduce yourself



80% Listening
20% Speaking

Dig for stories and
emotions



Conversation
at eye level



Ask one short and
open question

Why?
Why?
Why?

INTERVIEW TEMPLATE



KICK OFF YOUR INTERVIEW

1. Introduce yourself.
2. Build trust: Share something about yourself.
3. Ask for specific experiences:
Can you tell me about the first time you ...?
What was your best/worst/craziest/most memorable experience with ...?
Could you tell me a story about a time when you ...?

DIG DEEPER

1. Explore emotions:
Why do you say that? Tell me more.
How did you feel at that moment?
Could you tell me why is ... important to you?

A large rectangular area defined by a red dashed border, intended for taking notes during the interview. The area is divided into two columns by a vertical dashed line.

How it works ...



Find interview questions based on your team synchronisation:

- What do you want to learn from your „users“?
- 3-4 questions



10 minutes

Teamwork



Conduct the interview:

- Introduce yourself and the topic
- Ask one **open** and **specific** question at a time
- Search for stories and **emotions**
- **Write down quotes**

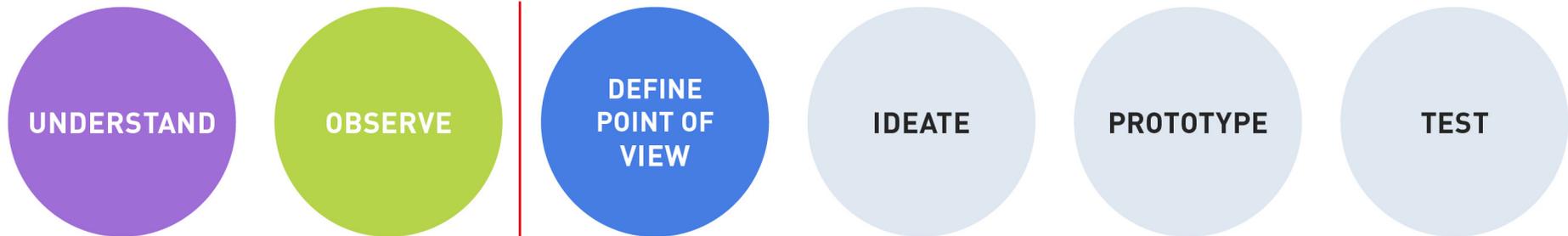


2 x 15 minutes

DEFINE



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. Needs? Pain Points?



What has been surprising to learn?

Share your Interview Results



How it works ...



Step 1: In pairs (5 min)

- Select the 3–5 most important findings (**quotes?**) and **write them down** on large sticky notes!

Step 2: Together (15 min)

- Collect them on your board.
- What is most interesting for you?

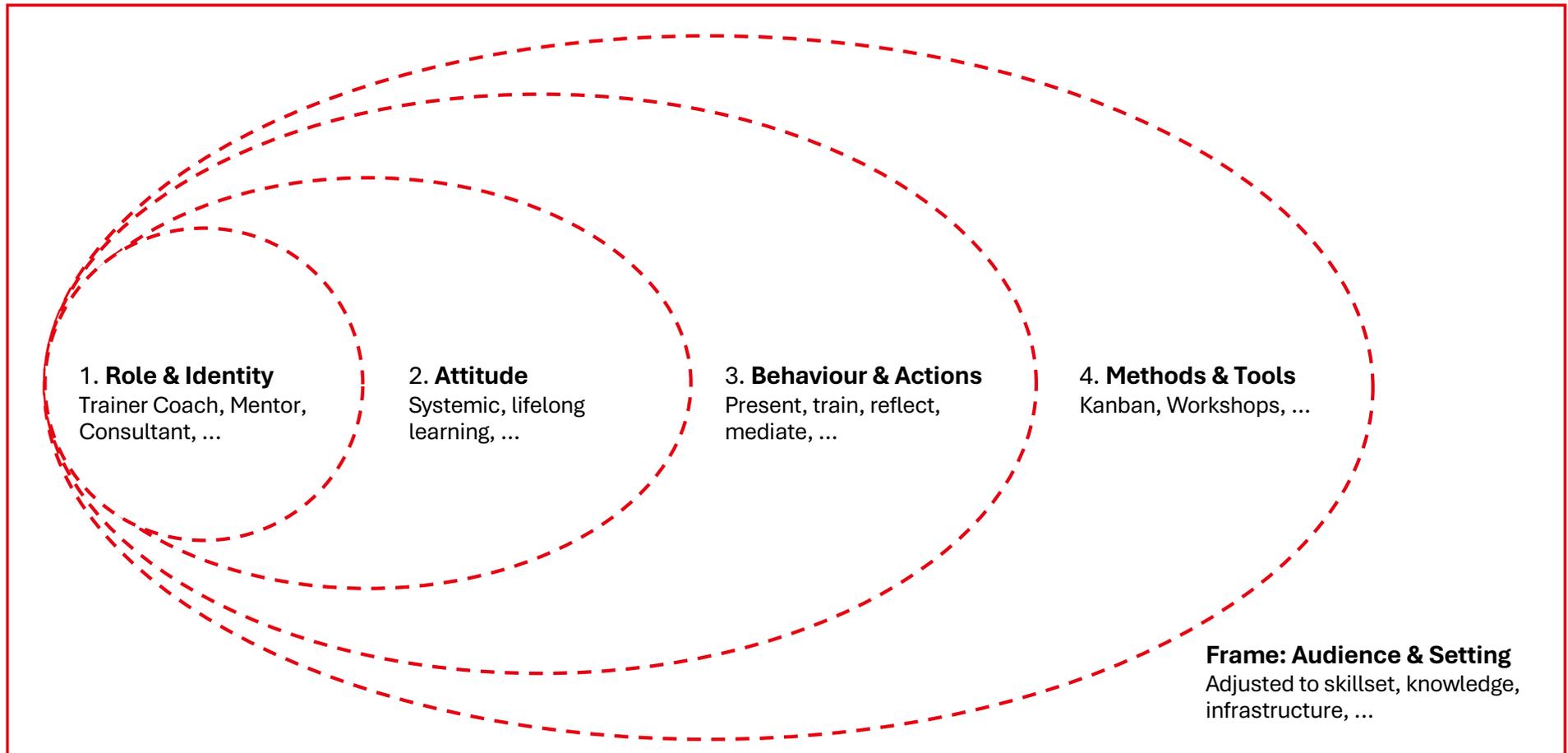


20 minutes

**Let's look at the
Trainers'
Perspective**



What comes to your mind thinking back?



Startup workshop - overview



Day 1

MORNING

Getting started

Check-in, Introduction, Your Role & Goal

Entrepreneurship for PhDs & Postdocs

Introduction to Design Thinking

AFTERNOON

Understanding the User

Introduction to Design Thinking Challenge

User Research - Interviews

Unpacking Interview Results

Day 2

MORNING

Defining the User

Team Check-in

Persona & HMW

Ideation & Idea Selection

AFTERNOON

Developing Solutions

Prototyping

Self-Reflection & Transfer

Wrap-up & Next Steps

TRAIN-THE-TRAINER

DAY 2



An initiative of:



FALLING
WALLS
FOUNDATION

With funding from the:



THIS PROGRAMME IS SUPPORTED BY:



SARTORIUS

Today's agenda

Morning

- Check-in

Getting Started

- Teamwork: Persona & HMW-Frage
- Brainstorming Methods
- Teamwork: Ideation & Idea Selection

Afternoon

Understanding the User

- Teamwork: Prototyping
- Prototype Presentation
- Self-Reflection & Transfer
- Wrap-up, Next Steps & Feedback

- Check out

Check-in



Associative check-in



Pick two cards ...

- one that resonates with how you feel right now
- one that reflects how you feel about yesterday
- share with your team how you are and why you chose those cards

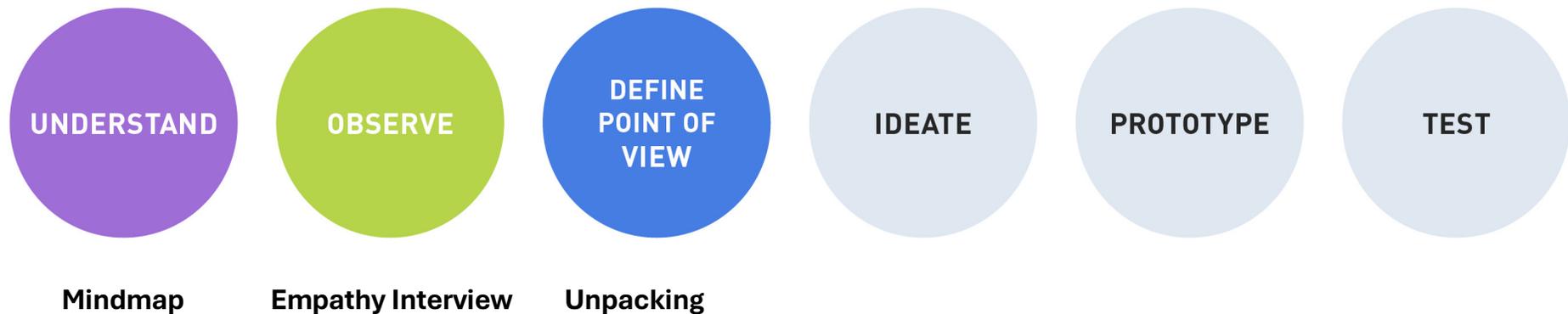


15 minutes

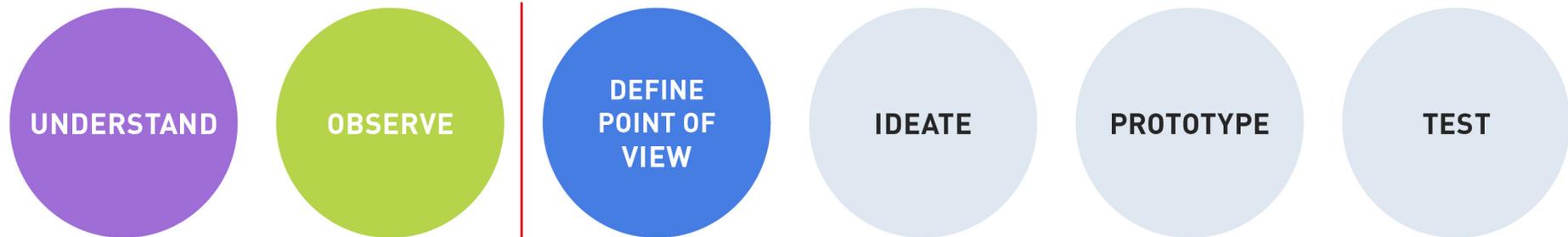
CHALLENGE

**Design a way to stimulate an
entrepreneurial mindset for
PhDs**

Review: Methods used so far



Define



Structure and synthesise user insights and findings

Search for strong problems and emotions

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

Synthesise your results

1

Unpacking

2

Create a persona

3

Find Brainstorming
Questions

“How might we..?”

Persona



NAME, AGE

Naomi, 28, she / her

PERSONALITY

conservative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	open
carefree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	organized
introverted	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	extroverted
competitive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	cooperative
self-confident	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	vulnerable

KEY DATA AND BIOGRAPHY

- PhD student in Social Sciences in her third year
- doesn't have a sufficient student loan, so works part time in an art café
- engaged in a local project for digital education in elementary schools

Persona



NEEDS, DESIRES & MOTIVATIONS

- She is motivated to explore her career options
- She has a desire to see social change, especially in education
- She would like to learn more about the possibilities of starting a startup as a social scientist and exchange ideas with more experienced people. However, she secretly thinks that this option might not be worth exploring further

PROBLEMS & FRUSTRATIONS

- She doesn't see a clear career path for herself after obtaining her doctorate. Her professional and social circles include exclusively those who cannot imagine leaving academia
- She has a pronounced fear of failure, increased by the pressure to succeed in academia.
- She worries about how to make money and support a family in the future.

How it works ...



TEAMWORK

Work together as a group.



PERSONA

Find a focus from the synthesis work yesterday (5 min)

Create a persona with the (for you) most interesting:

- needs & desires
- motivations
- **problems** & challenges

Fill in the persona sheet (25 min)



30 minutes

How might we?

- HMW-Questions reframe the needs and problem areas into opportunities for design
- They suggest, that there is a solution for the users' challenge
- They open up a solution space by the chance to answer them in various different ways
- They are the launchpad for your brainstorming



Build them on your most powerful interview insights.

How might we?



How might we help/enable [persona]

to [need]

without/although/despite [problem]?

Persona



NAME, AGE

Naomi, 28, she / her

PERSONALITY

conservative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	open
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Persona



NEEDS, DESIRES & MOTIVATIONS

- She is motivated to explore her career options
- She has a desire to see social change, especially in education
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PROBLEMS & FRUSTRATIONS

- She doesn't see a clear career path for herself after obtaining her doctorate. Her professional and social circles include exclusively those who cannot imagine leaving academia.
- She has a pronounced fear of failure, increased by the pressure to succeed in academia.
- She worries about how to make money and support a family in the future.

Persona



How might we...

help Naomi to feel confident in pursuing unconventional career paths without being constrained by academic pressure?

Persona



How might we...
inspire Naomi to explore an
entrepreneurial career by stressing
the parallels and differences
between academia and entrepreneurship?

Persona



How might we...

inspire Naomi with success stories and case studies of social scientists who have successfully founded startups to increase her motivation and confidence without her attending a workshop?

Persona



How might we...

inspire Naomi with ~~success stories and case studies of social scientists who have successfully founded startups~~ to increase her motivation and confidence without her attending a workshop?

Please pay attention...



- Is your “How might we?”- question formulated positively?
- Is your “How might we?”- question focussed but broad enough to leave open space for creative ideas?
- Does your “How might we?”- question address the problem but not offer a solution yet? (no technologies, methods, ...)

Teamwork



Develop brainstorming questions based on your most powerful interview insights.

Step 1: Write down 1 - 2 questions on your own (3 min)

- Define “How might we?”-questions for your persona.
- Build them on your most powerful interview insights.

Step 2: Share with the group and select 1 - 2 of your questions to brainstorm on. (12 min)



15 minutes

Presentation



Presentation of Persona & HMW question (3 min)



Feedback (2 min)

Coffee break



Teamwork



Refine your brainstorming question.

- Is your question formulated positively?
- Is it broad enough?
- Does it address the problem but not offer a solution yet?



10 minutes

IDEATE

How might we show
the possibilities of
buying organic food
more affordably &
less time consuming

How might we
make trash organization
in the house
easier & more fun?

Bio-degradable
take
out
packaging

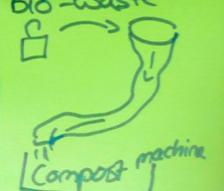
INFO APP
-APPWAY PRODUCT I
How PLAC POSTER USE
PACKAGE ↓

color-coding
system on
packaging
bins



How might we
make trash organization
recycling
look nicely & be
hygienic?

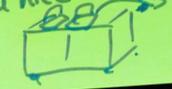
bio-waste



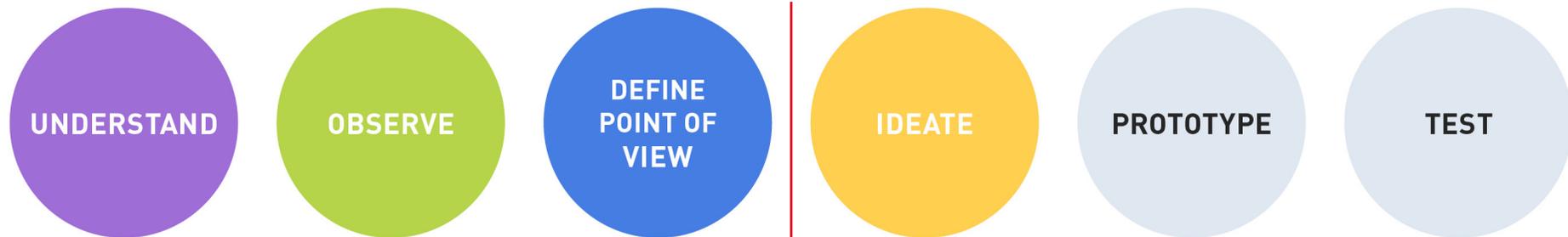
Bins
with
Motivation
quote

bin system
that is
movable, has
a nice design

WASTE
LIFT



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

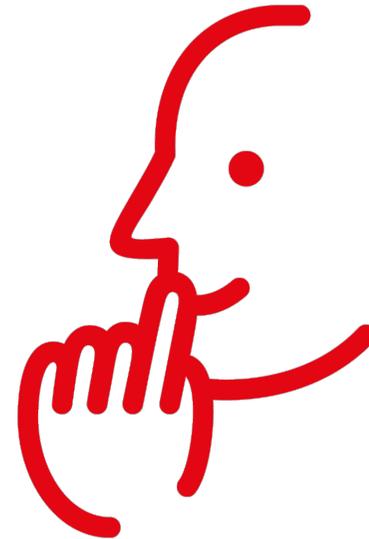
BRAINSTORMING METHODS



sponsored by
Dirk Ellerbrok

Silent brainstorm

Write as many different solutions as you can individually and silently.



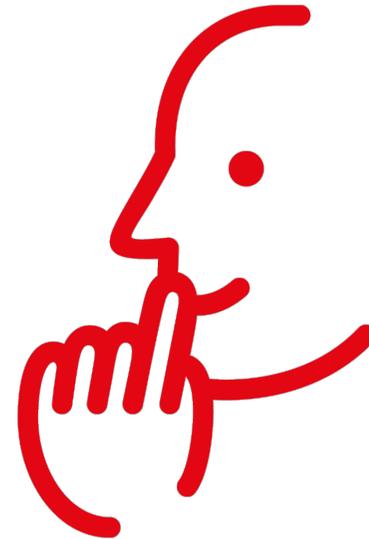
Silent brainstorm

Step 1:

Every team member writes down ideas
silently (3 min)

Step 2:

Everyone shares her:his 3 favorite ideas
with the team (4 min)



Anti / reverse

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



Anti / reverse

Step 1:

Individually write down ideas of how to make the solution worse (2 min)

Step 2:

Every one shares 3 ideas with the team (4 min)

Step 3:

As a team, reverse the negative ideas into positive ideas (4 min)



Hot potato

Step 1: Form a circle and define a 'Hot potato' (object). **1 min**

Step 2: Declare one person that notes down all ideas on sticky notes

Step 3: Start throwing the hot potato around – you can only throw it to the next person AFTER you've shared an idea. **4 min**

The potato is very hot so be quick :)

Step 4: Add all the ideas onto the board and build on them if a new idea comes up. **5 min**



Tischlauf

Step 1: Stand in a circle around a table (not too small)

Step 2: Place your whiteboard with space for your ideas on one end/side of the table

Step 3: Everyone takes a pen and a block of post-it's

Step 4: Start walking around the table with the whole group

Step 5: When you arrive at the board, add your idea on a sticky note on it and say it out loud. Do that for up to **5** minutes.

Step 6: Keep moving and adding ideas to the board.



Superhero brainstorm

Step 1:

Put yourself into the shoes of a superhero. Everyone chooses an individual superhero. **2 min**

Step 2:

Imagine: How would this superhero with their superpowers solve the problem at hand? Brainstorm ideas and add them to the board. **3 min**

Step 3:

Everyone shares their 3 favourite ideas to the board. **3 min**

Step 4:

As a team translate the ideas into realistic ideas. **4 min**



Remember ...

- Keep track of the time
- Keep it short
- Don't judge ("Yes, and ..." instead of "No, but ...")

SOLOWORK

BRAINSTORM METHODS

YOUNG ENTREPRENEURS IN SCIENCE

SILENT BRAINSTORM

1. Every team member writes down ideas silently (3 min)
2. Every one shares her/his 3 favorite ideas with the team (4 min)



HOT POTATO

1. Form a circle and define a 'Hot potato' [object] (1 min)
2. Declare one person that notes down all ideas on sticky notes
3. Start throwing the hot potato around – you can only throw it to the next person AFTER you've shared an idea (4 min)
The potato is very hot so be quick. :)
4. Add all the ideas onto the board and build on them if a new idea comes up (5 min)



SUPERHERO BRAINSTORMING

1. Put yourself into the shoes of a superhero. Everyone chooses an individual superhero. (2 min)
2. Imagine: How would this superhero with their superpowers solve the problem at hand? Brainstorm ideas and add them to the board. (3 min)
3. Everyone shares their 3 favourite ideas to the board (3 min)
4. As a team translate the ideas into realistic ideas (4 min)



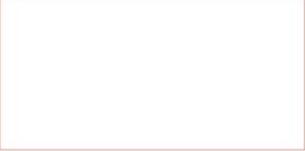
ANTI / REVERSE

1. Individually write down ideas of how to make the solution worse (2 min)
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3. As a team, reverse the negative ideas into positive ideas (4 min)



TISCHLAUF

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2. Place your whiteboard with space for your ideas on one end/ side of the table
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4. Start walking around the table with the whole group
5. When you arrive at the board, add your idea on a sticky note on it and say it out loud. Do that for up to 5 minutes.
6. Keep moving and adding ideas to the board.



How it works ...



**Together with your team, use the brainstorming methods.
Keep in mind the Design Thinking Guidelines:**

- Chose one HMW Question and put it on your board
- Start with a silent brainstorming
- Do the anti/reverse storming + 1 other method
- Cluster your ideas (if needed)
- **Track the time**



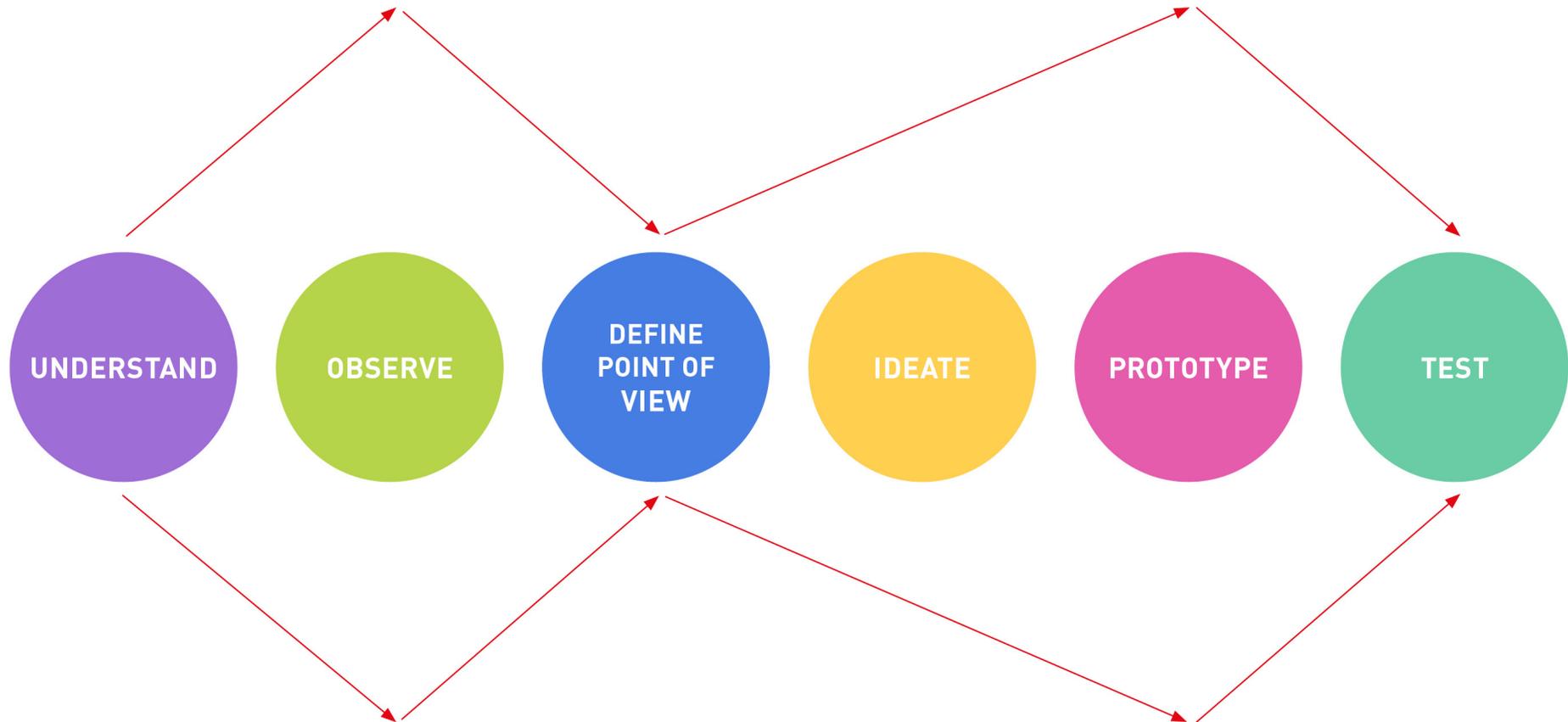
35 min

No need to select ideas yet!!

Let's go!



Design Thinking process



SELECTING THE BEST IDEAS



Dotmocracy



The Dotmocracy method is used for democratic evaluation of ideas, using sticky dots. Each team member gets the same amount of dots to vote for their favorite ideas.

Filter your ideas



How it works ...



Use Dotmocracy to find the best idea within your team. Use the dots to vote. Everyone gets 2 dots of each color.



Need-based: Which idea is addressing the need/problem of your **user** best?



Ease of implementation: Which idea is easiest to implement? Realistic for you to implement?



10 minutes

Lunch Break



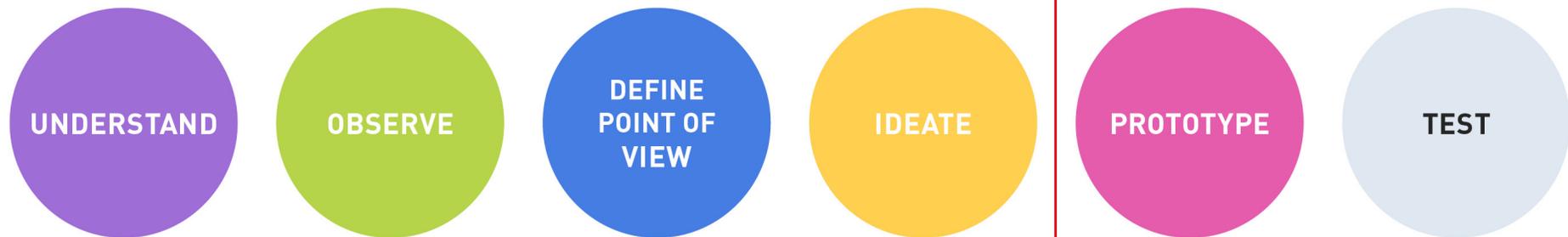
Warming up ...



PROTOTYPE

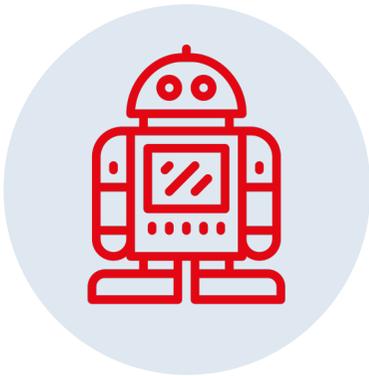


Prototype

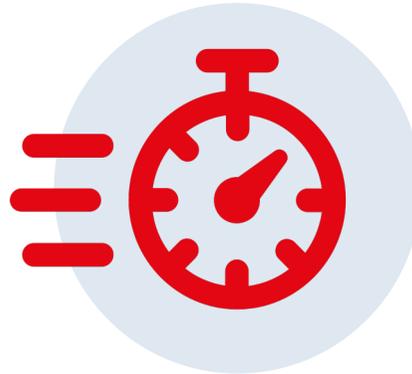


Make idea tangible and testable
Think with your hands
Learn about your idea instead of defending it

Building the prototype



WHAT?
Make the idea
tangible

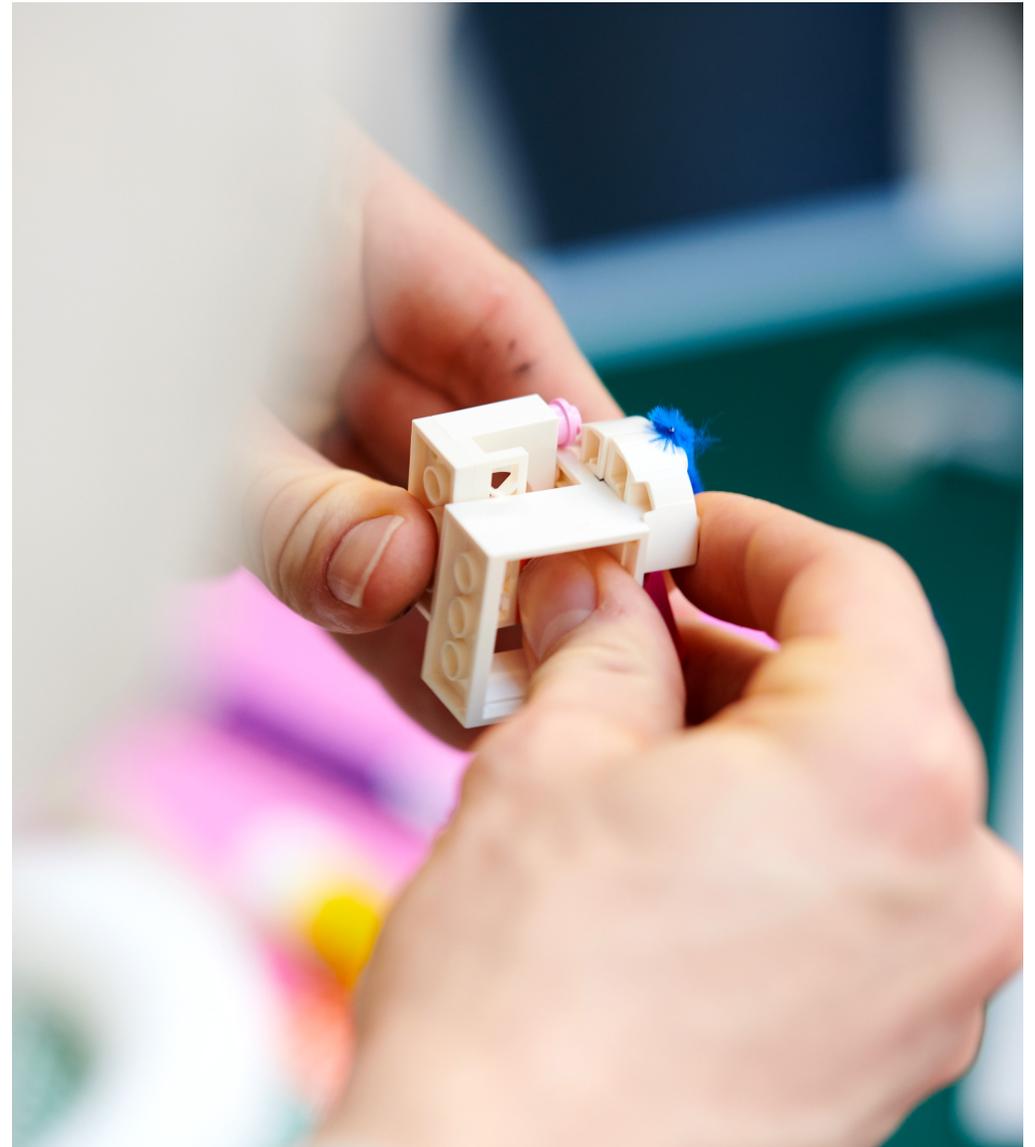


HOW?
Quick and dirty



WHY?
Understand
and test

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



SKETCH



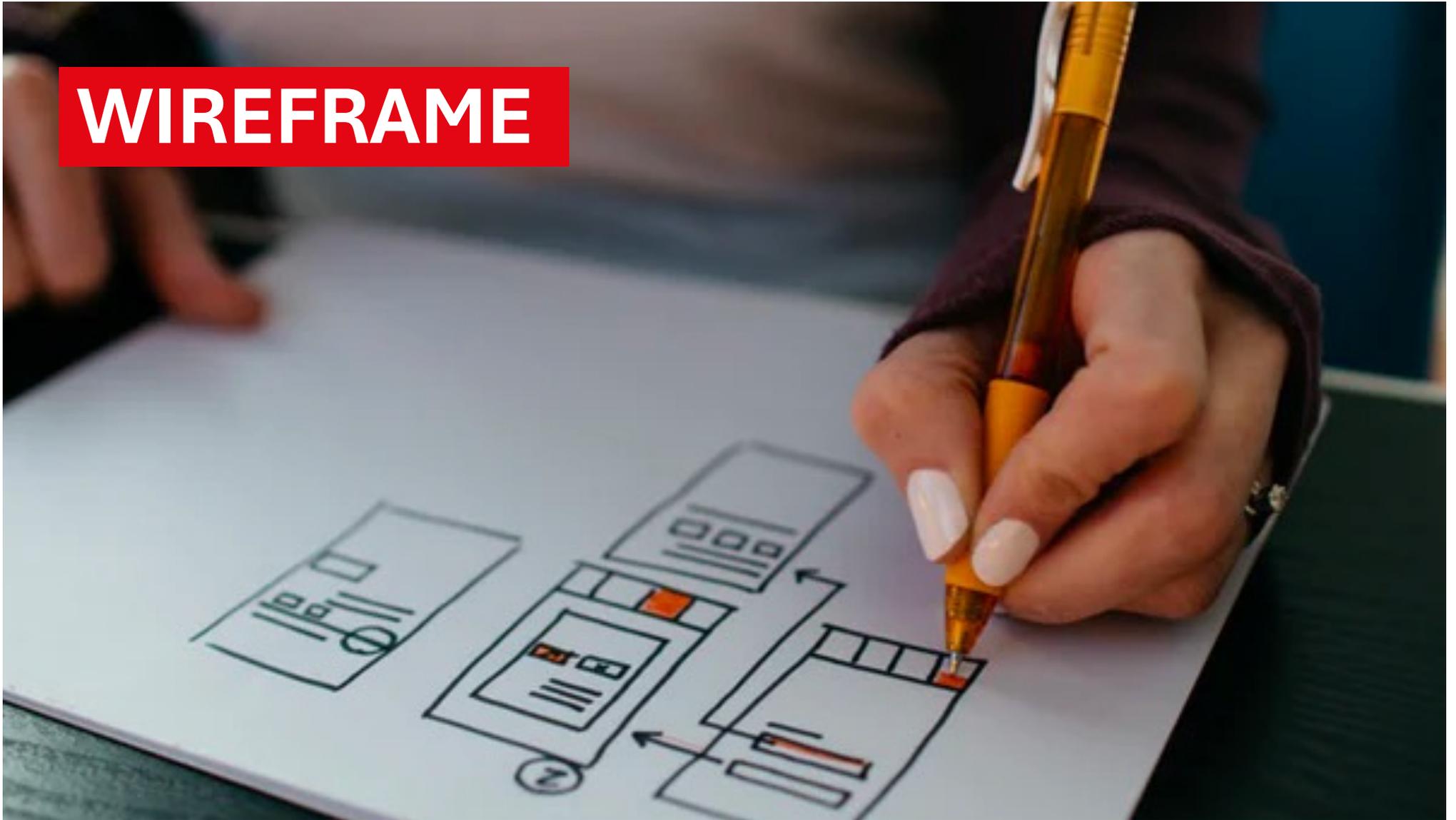
MOCK-UP



WIREFRAME



WIREFRAME



WIZZARD OF OZ



CRITICAL FUNCTION



In summary ...



... think about what you want to test first.
Based on that, build the prototype as simple as possible.

Build a prototype



How it works



Together with your team, build a prototype and get ready to present it!

You can sketch, wireframe, mock up and build with the material on the prototyping table!



25 minutes

PhD Lounge

Sketch me



ANILIA / 28 / W
name / age

Personality:

- ZIELSTREBI
- NEUGIERIG
- FLEXIBEL
- RESILIENT
- INTROVERTIERT
- SPRACHBEWUSST

key data & biography:

- 28 JAHRE
- WEIBLICH
- MINT AREA
- INTERNATIONAL (NON EU) / MITTELSCHICHT

needs / desires / motivations:

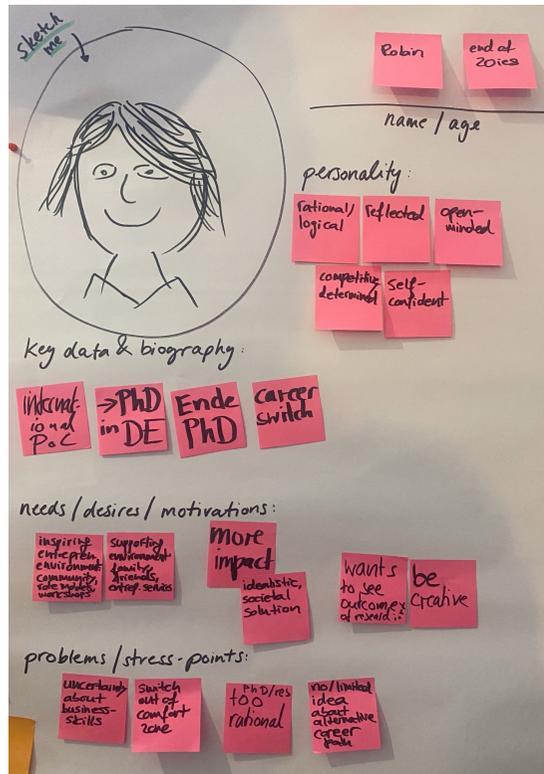
- > BALANCE ZWISCHEN KARRIERE & PRIVATLEBEN (BZW. RISIKO & SICHERHEIT)
- > WUNSCH NACH SELBSTWIRKSAMKEIT
- > WÜNSCHT SICH IN EINEM MOTIVIERTEM TEAM ZU ARBEITEN

problems / stress-points:

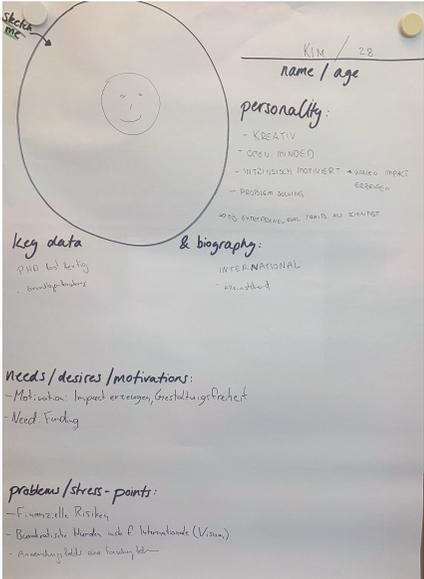
- > EINGESCHRÄNKT DURCH UNIVERSITÄRE STRUKTUREN (z. B. PUBLIKATIONSDRUCK, BÜROKRATIE, STARKE ABHÄNGIGKEIT IM KARRIEREWEG, ...)
- > ENTÄUSCHT DARÜBER, DASS DAS WISSENSCHAFTLICHE IDEAL NICHT IM FOKUS STEHT
- > UNSICHERHEIT & UNKLARHEIT ÜBER KARRIERE & PRIVATLEBEN



Test - You



Role Model Meet-up



Role Model Roulette

Sketch me



Juni, 33, she/her
name/age

personality:

- offen & neugierig für Neues
- selbstbewusst
- zielorientiert

key data & biography:

- abgeschlossener PhD, Umsehung nach Alternativen zu Abschluss
- FGA
- Kind
- Kommt aus DE

needs / desires / motivations:

- Sicherheit: finanziell (für Familie)
- Flexibilität / Freiheit (zeitlich, örtlich) / Selbstbestimmtheit

problems / stress-points:

- Unsicherheit Karriereweg
- Angst vor Misserfolg bei Business Plan
- Entscheidung als "Zufall" exakt
- Informations Defizit Entrepreneurship (Empirebuilding)
- Zeit und Ressource

Handwritten notes in pink:

- Was macht es möglich dass sie hier ist? Warum hat sie keine professionelleren skills? Welche Rolle spielt sie hier? Ist sie glücklich?
- Wie können wir Juni auf mögliche alternative Karrierewege unterstützen? Machen wir sie hier? Realistic, legitime Diskussion.



Role Model Roulette

Filter
Spin

Hi! I'm Uta, I'm 34 and after my PhD I founded a company.

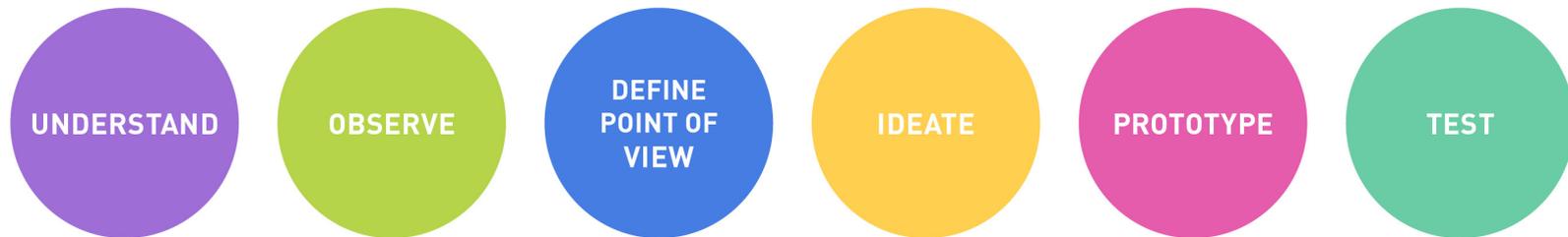
Profil-Information

His a match? Reach out!

TEST



Testing



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

Test, test, test!



Interview guidelines

Introduce yourself



80% Listening
20% Speaking

Dig for stories and
emotions



One at a time



Conversation
at eye level



Ask short and open
questions



Ask "why"

Prepare your test scenario



Until April...



Think about and maybe discuss with your team before testing!

- *Who* do you need to test your idea with?
- *What* do you want to learn from your user?
- *Where* should you test your idea?

Presentation



Presentation of Prototype (3 min)



Feedback (2 min)

YES-Modules

CAREER & EMPOWERMENT



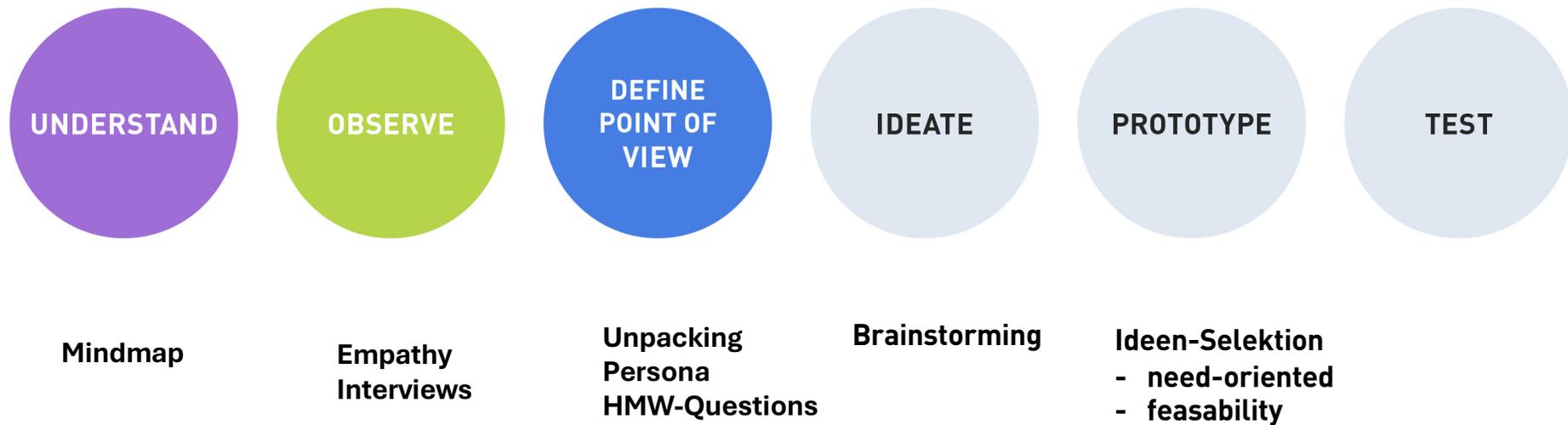
1. Your Entrepreneurial Career
2. Empathy for Innovators
3. Your Innovation Skills
4. Your Research Canvas
5. Social Entrepreneurship
6. Teamwork Essentials
7. Entrepreneurial Empowerment Journey
8. Discover your Resilience
9. Innovate for Impact
10. Navigating Conflict

IDEAS & METHODS



1. Design Thinking Process 1-3
2. Ideation
3. Prototyping
4. Pitch Training
5. Future Thinking 1+2
6. Business Model Canvas 1-2
7. Impactful Storytelling

Review: Methods used so far



Self reflection

SOLOWORK

SELF REFLECTION

 YOUNG
ENTREPRENEURS
IN SCIENCE

Please reflect on the questions below individually and note your answers in the template.
10 min

WHAT IS TODAY'S MAIN TAKE-AWAY? WHAT CAN YOU IMPLEMENT IN YOUR DAILY WORK?

WHAT'S IMPORTANT WHEN PRESENTING & FACILITATING DESIGN THINKING FOR PHDS?



Self-reflection



Everyone for themselves: think about and write down

Fill out the self-reflection sheet



3 minutes



With a partner

Discuss your answers



7 minutes

Practical info

Workshop location & times

- Online meetings: Zoom (10am -1pm)
- Offline meetings: Berlin (9am-4/5pm)

Certification requirements

- Signing the YES TtT terms & conditions
- Max. 8h of 47h can be missed
- Submission of online feedback questionnaires
- Read all of Ilaria´s E-Mails! 😊

Language

- Slides in English
- Conversations in German
- Moderation in English/German

The End

