

# Unlocking Research Potential



AN INITIATIVE OF



FALLING  
WALLS  
FOUNDATION

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Federal Ministry  
of Education  
and Research

THIS PROGRAMME IS SUPPORTED  
BY:

SARTORIUS

# WELCOME BACK!



# Workshop Programme



## Day 1

Morning	Afternoon	Morning	Afternoon
<b>YOUR INNOVATION SKILLS</b>  The various skills of an innovator	<b>YOUR ENTREPRENEURIAL CAREER</b>  Introduction to entrepreneurship & intrapreneurship	<b>YOUR RESEARCH CANVAS</b>  Learn about the relevance of users and potential use cases	<b>PITCH TRAINING</b>  Key principles for a convincing pitch
Reflect on your own skillset & find your team's superpower	Open up to new career perspectives	Apply the Research Canvas to your own research	Develop a storyline, set the stage, and use your voice
Meet inspiring peers and combine your skill sets	Networking and Q&A with role models	Brainstorming potential use cases for your research topic	Get feedback and learn from your peers

# Agenda

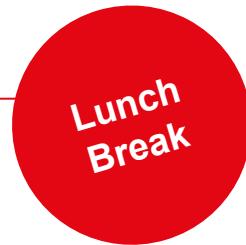
## Part I

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### Your Research Canvas

#### Check-In

- Learn about the relevance of users and potential use cases
- Apply the Research Canvas to your own research
- Get creative by brainstorming potential use cases for your research topic



## Part II

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### Pitching

- Get to know the relevant structure of a pitch
- Develop your own pitch with a convincing storyline
- Practise your presentation skills in front of an audience
- Receive valuable feedback to improve your pitch further

### Wrap-Up

# Check-In



# Check-in



**Small teams**



**Check-in**



**20 min**

Find 2-3 people and build a small group!

1. How are you feeling this morning?
2. When you think of yesterday:

What was an aha-moment?

What would you like to incorporate into your work today?

# YOUR RESEARCH CANVAS



# Learning goals



- Reflect about the potential of your own research topic/idea
- Assess potential through identifying users/stakeholders
- Develop or extend potential use cases based on your research & network

# Your Research Vision



# Think big!

Imagine it's 2030.

Your research project has led to pioneering results with breakthrough solutions and will be featured as title page in the recent edition of Science Magazine.

What could be the headline of this magazine?



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# How it works ...



**Solo work**



**Think big!**



**15 min**

**Fill the title page of the  
Science Magazine template  
with your research vision!**

Time for yourself

Add pictures, symbols or  
other visuals

# Sharing...



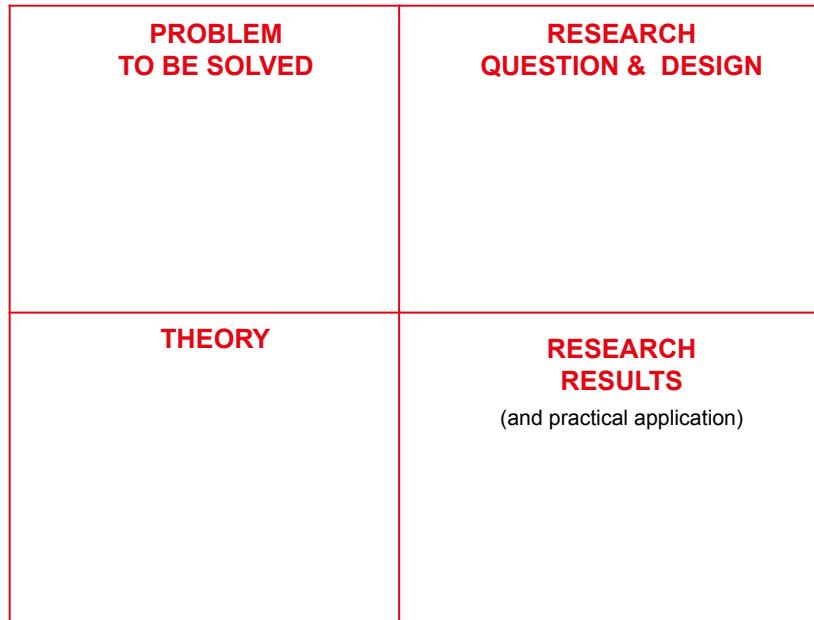
**What is the headline of the Science Magazine  
featuring your research?**

**What breakthrough does your research offer to  
whom?**

# DEEP DIVE INTO YOUR RESEARCH



# The research canvas



RESEARCH



USE CASE

# The Research Canvas Example

**Getting ahead of  
Alzheimer's disease**

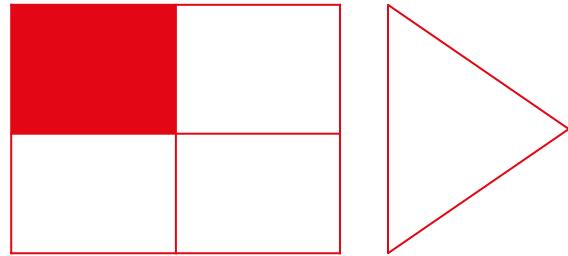


# Problem to be solved

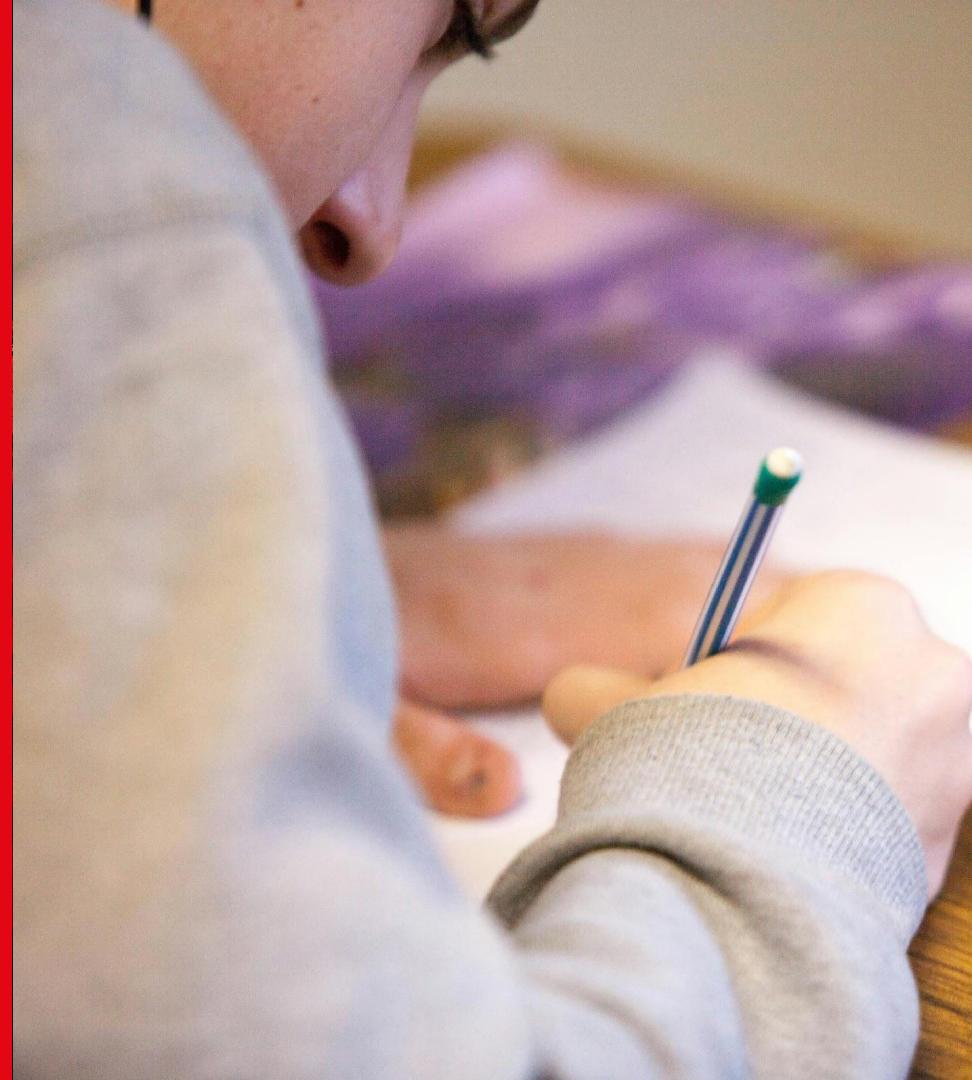
- What is your object/topic of research?
- What underlying problem or challenge are you addressing with your research?

## EXAMPLE

So far, there is no efficient treatment available to cure Alzheimer's disease. Thus, there is a need for an early diagnosis, when first changes in the brain occur.



# Problem to be solved

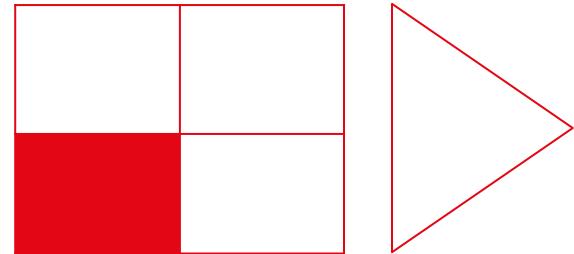


# Theory

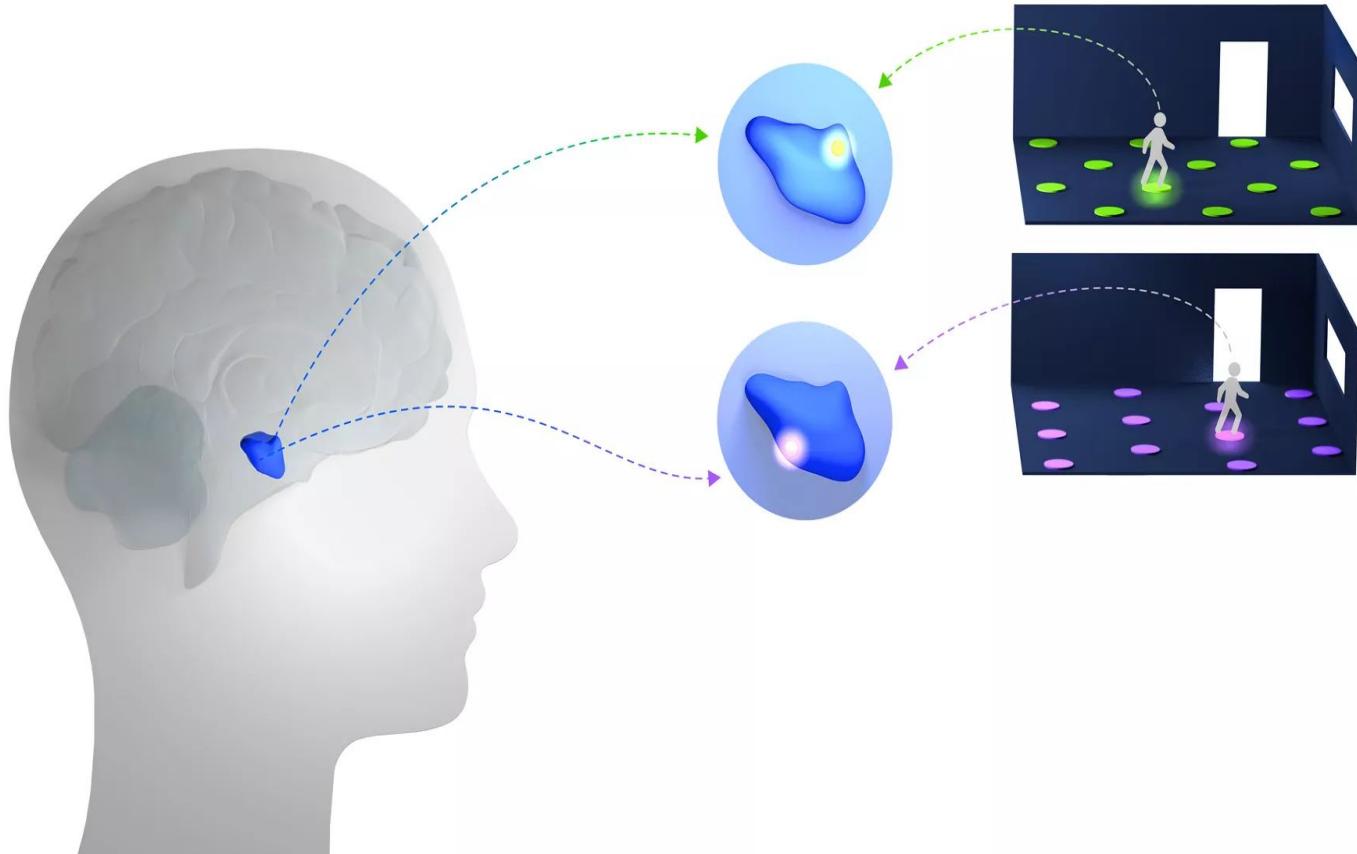
- What theoretical background underlies your research?
- Note the state-of-the-art highlights!

## EXAMPLE

Protein accumulations in certain brain regions at the earliest stages of the disease.



# Theory

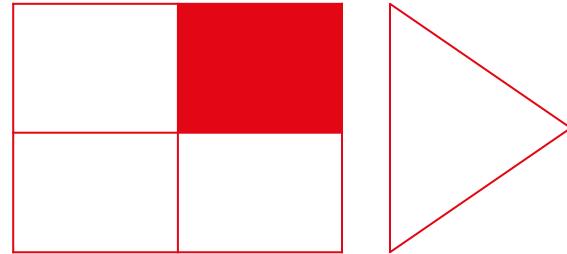


# Research Question & Design

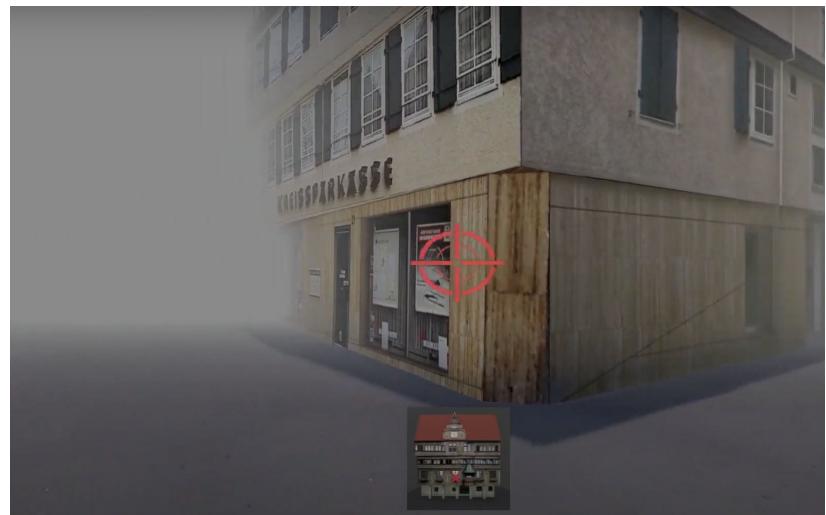
- What specific aspects of the problem/challenge are you researching?
- Note some details about your research setting! (qualitative vs. Quantitative, samples etc.)

## EXAMPLE

Can our movement patterns during wayfinding in our surroundings be used to detect early changes/degeneration in the brain?



# Research Question & Design



# Research Results

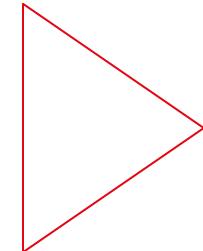
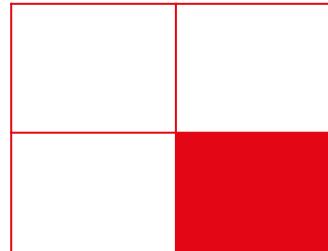
(+practical applications)



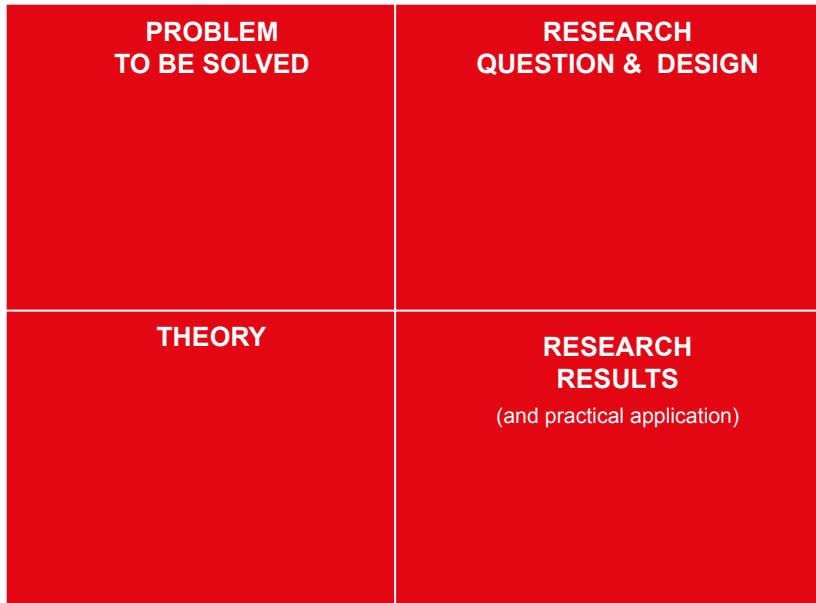
- What are your results so far?

## EXAMPLE

Tracking GPS and sensor data from smartphones can be used to study movement patterns and related brain change



# The research canvas



RESEARCH



USE CASE

# How it works ...



**Solo work**



**The Research Canvas**



**15 min**

**Fill all the fields on the LEFT side of the Canvas.**

Try to keep it short and concise

**15 min time for yourself**

**We will call you back to the screen**

# Potential Product/ Service

**What about our walking  
patterns? Why not use data  
from our smartphones to  
study our question?**



**It's coffee  
o' clock!**



# The Research Canvas Example

**Translating the research result into a product, together with a team of other experts such as software developers and business experts.**





**“For somebody who wants to become an entrepreneur, it is crucial to be proactive in order to build up a network outside your lab.”**

**Nadine Diersch**

Young Entrepreneurs in Science Alumna

# FROM RESEARCH TO USE CASE

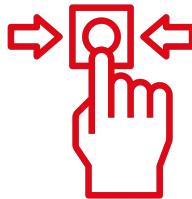


# What is a use case?



What comes to your mind when you  
think of users/use cases?

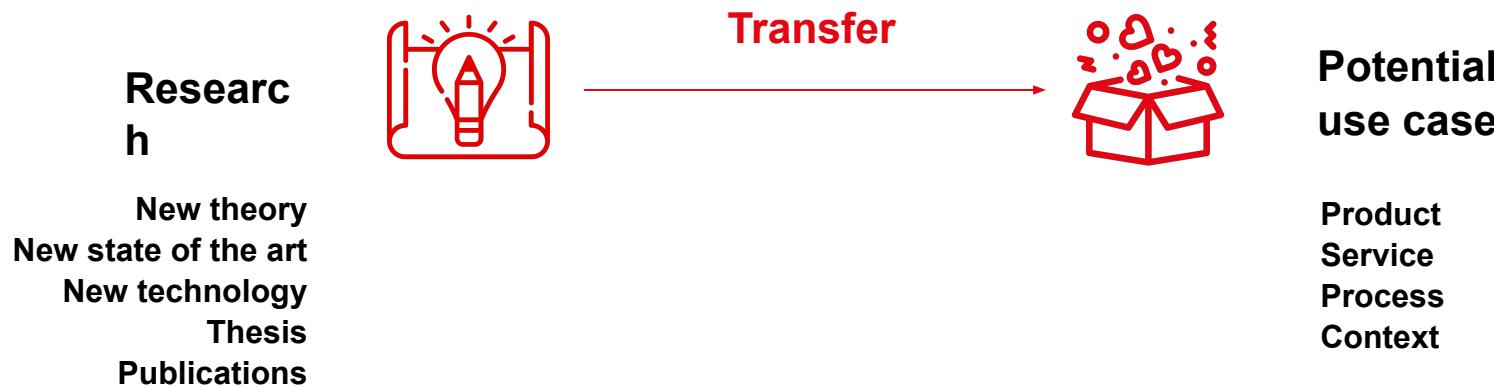
# What is a use case?



**“A specific situation in which a product/service/  
solution can potentially be used.”**

Lawerence Chapman for PMA

# From research to use case



# From research to use case



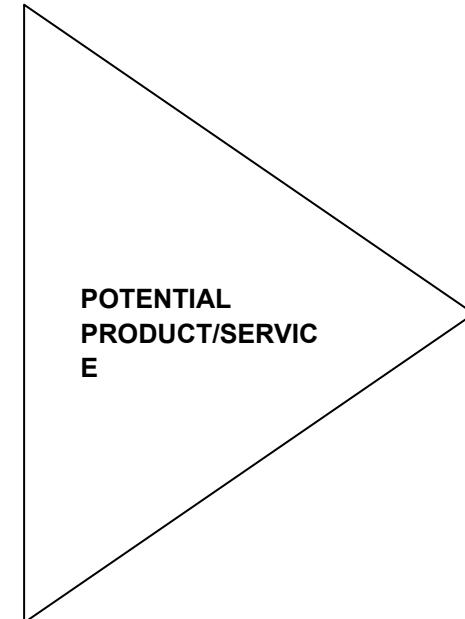
# Identifying users

PROBLEM TO BE SOLVED	RESEARCH QUESTION & DESIGN
THEORY	RESEARCH RESULTS (and practical application)

RESEARCH



USER



USE CASE

# Identifying users

## Stakeholder

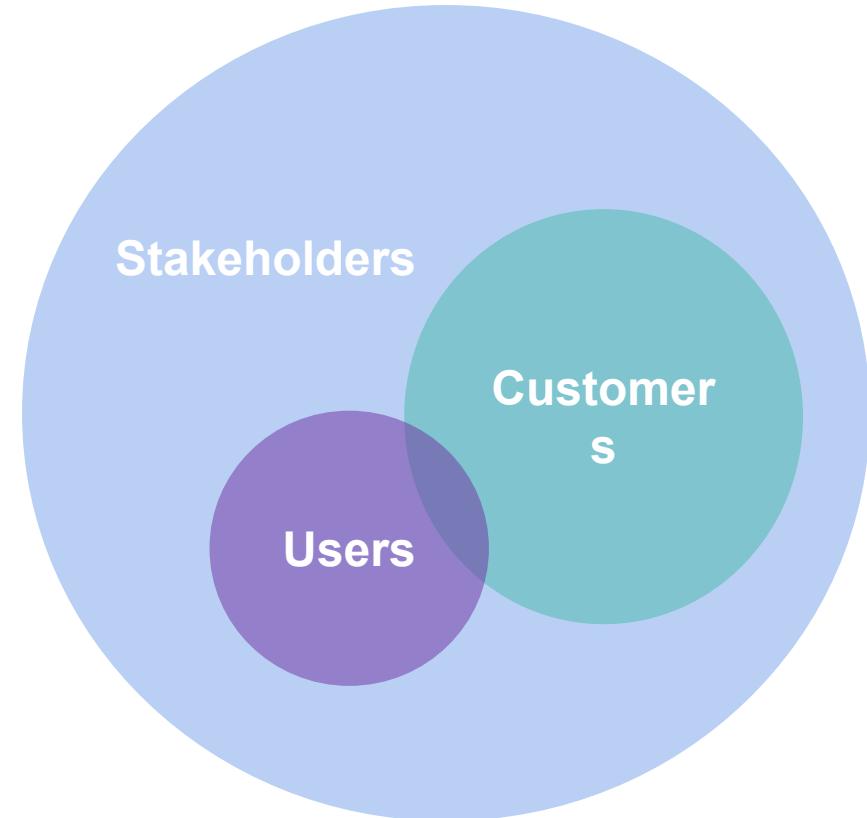
has an interest in, or is affected by what a business does

## Customer

is willing to pay for a product or service that satisfies an unmet need

## User (Beneficiary)

benefits from the value created by the product or service (though they might not be the one to pay for it)

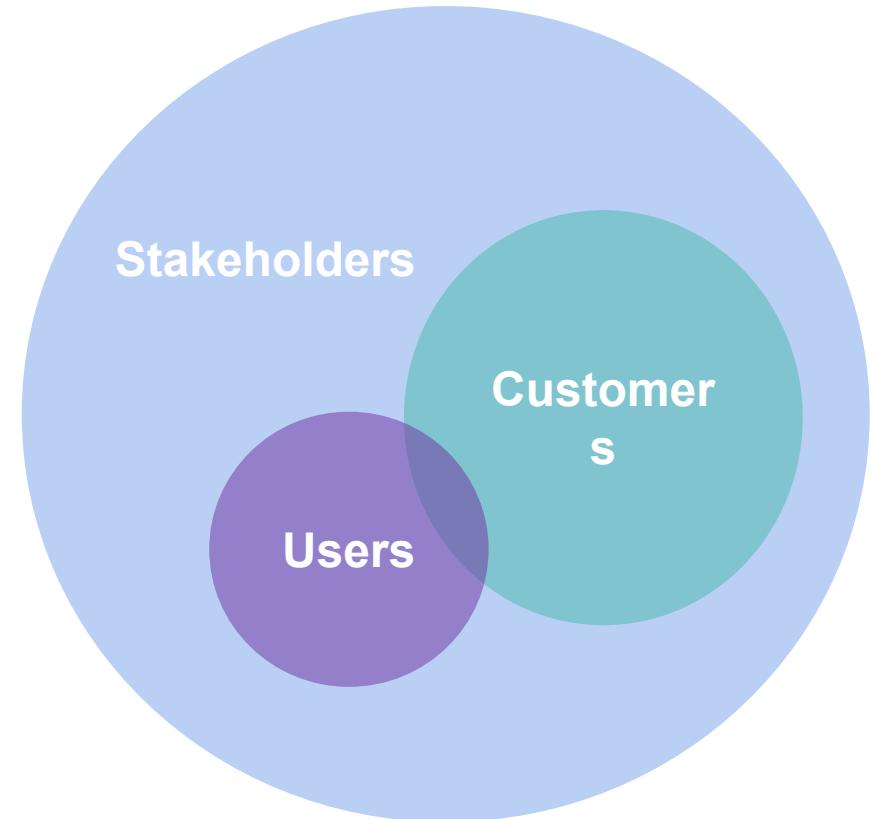


# Identifying users – example

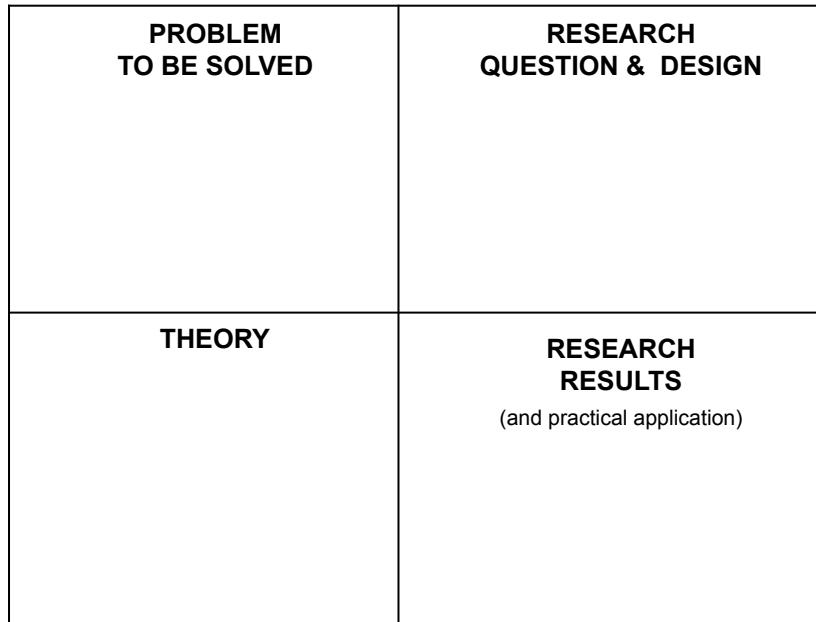
**Stakeholder**  
Society in General

**Customer**  
Health Care System  
Medical Industry

**User (Beneficiary)**  
Patients with subjective  
cognitive decline



# From research to use case



RESEARCH



USER



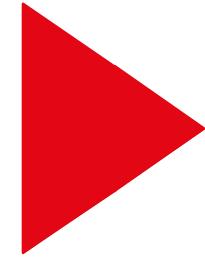
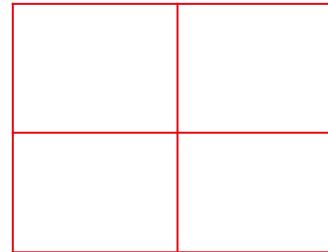
USE CASE

# Potential use case

- In which context could your research find application?
- What is a problem you could solve in that field and who is having that problem?
- Can you build a new product/service around your research to solve their problem?

## EXAMPLE

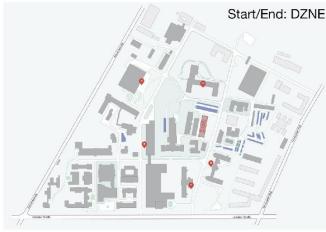
Smartphone App and state-of-the-art Machine Learning algorithms to classify individual movement patterns and to predict cognitive health status



# Explore-app

## EXPLORE

Task: Finding 5 Pots on campus



- walking  
- map-viewing

GPS data logging



# BRAINSTORM



# How it works ...



**Solo work**



**Stakeholders and use  
cases**



**10 min**

Reflect and collect on your  
sheet of paper:

Time for yourself

1. Who are your stakeholders?  
Out of those: who are your  
potential users that use your  
product/service/process  
(middle box)?
2. What could be use cases for  
those users (right box)

# From research to use case

## Some questions to brainstorm

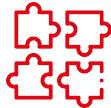
- In which contexts and for whom could your research be useful as well? Think out of the box!
- What would you do with your research if you had 1 billion Euro?
- With which add-ons or features could you extend and improve your research (idea)?



# Build on each other's ideas



# How it works ...



## Small teams

Find two people and build a group!



## Build on each other's ideas

Present your canvas to each other:  
Ask & discuss questions  
**Brainstorm new ideas based on what you have understood**



## 30 min

**30 min in total – 10 min each canvas**

Countdown for last 30 sec

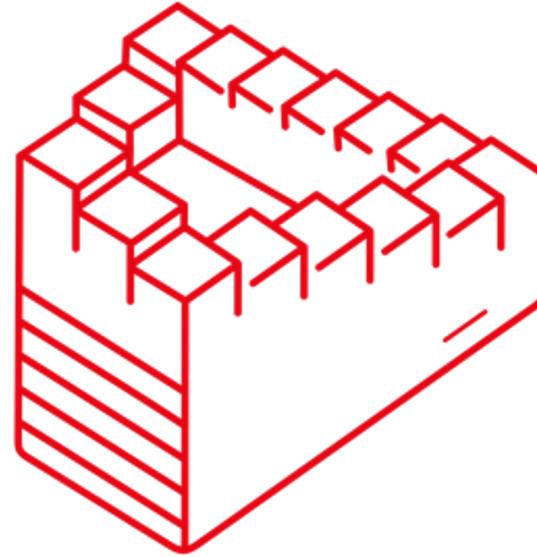
# Sharing...



**What did you learn from this exercise?  
What was interesting to you?**

# Next steps

- Build up a network
- Talk about your use case(s) with friends, family, colleagues > collect feedback
- Get professional support
- Train your entrepreneurial mindset
- Exchange with role models
- Take it step by step



# Lunch Break



# PITCHING



# Learning goals



- Getting to know the relevant structure and elements for a pitch
- Building a pitch on your own
- Practise to hold a pitch in front of an audience

PITCH &

# STORYTELLING



# What is pitching?



**A short but effective explanation  
that is intended to persuade someone  
to buy a product or accept an idea.**

Cambridge Dictionary

# How to build a pitch



1. Problem
2. Target Group

# How to build a pitch



1. Problem
2. Target Group
3. The solutions
4. User experience: how does it work?

# How to build a pitch



1. Problem
2. Target Group
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5. Create trust (team / market / finances)

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1. Problem
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6. Punchline

# How to build a pitch



1. Problem
2. Target Group
3. The solutions
4. User experience: how does it work?
5. Create trust (team / market / finances)
6. Punchline
7. Call to action

# STORYTELLIN

G



# Why tell stories?



- ... because they draw us in emotionally
- ... because we can learn from them
- ... because they connect us
- ... because it's easier this way for our brain to understand connections
- ... because they help us remember

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WALLS

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WALLS



# Sharing ...



**What did you like/dislike regarding his storytelling?  
What was missing for you?**

# In summary ...



**... everybody needs to find her/his own style  
based on the storyline!**

# What is next ...



## **PART 1**

Build your pitch individually

## **PART 2**

Test your pitch and get feedback in groups

# Build your pitch



# Build your pitch



**Choose the topic of your pitch.**

- Your own startup idea
- Your PhD topic

# Build your pitch



## Step 1: Problem-solution-fit

**Based on what we just learned, build the foundation of your pitch.**

- Problem & target group
- Solution & how it works
- Call to Action

# Build your pitch



## Step 2: Storyline

Based on your foundation (problem-solution-fit) think about how to transport this in an emotional story!

- Who is your protagonist?
- How do you set an emotional hook?
- Make your story tangible and relatable for your audience

# Claim your worksheet



**SOLO WORK: PITCHING**

## BUILD YOUR PITCH

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**Fill in your pitching template!**  
25 min

**Step 1: Problem-Solution-Fit**  
Build the foundation of your pitch with the Problem-Solution-Fit.  
10 min

**Step 2: Emotional storyline**  
Build an emotional storyline.

- Who is your protagonist?
- How do you set an emotional hook?
- Make your story tangible and relatable for your audience

10 min

**Step 3**  
One runthrough by yourself.  
5 min

**NAME YOUR IDEA:**

**PROBLEM-SOLUTION-FIT**

<b>1. TARGET GROUP</b> Who are your users?	<b>2. PROBLEM</b> What is their problem?	<b>3. SOLUTION</b> How are you solving their problem?	<b>4. CALL-TO-ACTION</b> What do you want from your audience?
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**EMOTIONAL STORYLINE**

# How it works ...



**Solo work**



**Build your pitch!**



**25 min**

- Build the foundation of your pitch
- Build an emotional storyline
- One runthrough by yourself

# Test your pitch & get feedback



# How to give feedback



# Feedback grid



I like ...

I wish ...

---

New ideas

Open questions

# How to receive feedback



## Embrace feedback!

- Understand feedback as a learning opportunity
- Don't defend your idea or your pitch (listen and learn!)
- Take notes

# How it works ...



Small teams



Test your pitch



15 min

**One after another:**

- Present your pitch (2 min)
- Get feedback (5 min)

# After the break ...



## **PART 1**

How to pitch

## **PART 2**

Pitches and expert feedback

**Write your name on a piece of paper  
and throw it in the hat.**

**It's coffee  
o' clock!**



# HOW TO PITCH!



# Behavior & interaction



- Remember to speak slowly and work with pauses
- Do not read from your slides
- Make eye contact with the audience
- Let your body talk, too. A big audience allows for big gestures (using not only your hands but also arms)
- Don't practise any positions beforehand :)

# Behavior & interaction



If pitching as a team:

- Be sure everyone knows their part in the presentation
- Look at the stage beforehand and decide how to use it as a team

# Ready to go



- Be ready right away
- Have your props prepared
- Practice, practice, practice!

# Iterate your pitch & practise!



# How it works ...



**Teamwork**



**Iterate & practise**



**15 min**

With a (new)  
partner

Iterate your pitch based on the feedback.  
Run it through with your partner one more  
time!

# WARM-UP



# The pitches!



PLEASE MEET OUR  
EXPERTS!



# How it works ...



**Teamwork**



**5 Pitches**



**30 min**

Let's present 5 pitches!

2 min each

3 min feedback from our experts

coaches will set the timer

# HOW TO TOUCH



# Wrapping up ...



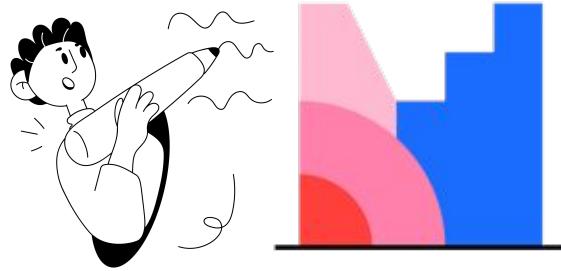
**Open questions?**

# REFLECTION

N



# Time for feedback!



**Please, follow the link in  
the chat window.**

# Wrapping up!



**I like, I wish, I take away...**

# Stay connected with the YES community



- Join our **LinkedIn group**
- Take part in other (Online-) **Workshops**
- Tell your peers and spread the word via **social media**
- Stay active in our **Alumni-Community**
- Keep learning from each other on your entrepreneurial journey



# Boost your career with your YES experience



- Connect with YES and fellow participants on LinkedIn
- Share your YES certificate on Social Media
- Add YES to your trainings on LinkedIn and your CV
- ... and carry the entrepreneurial spirit further.



# Time for feedback!



# Thank you!



Connect with us and each other via Social Media ...



LinkedIn  
Page



LinkedIn  
Group



Instagram  
@sciencepreneurs



Newsletter

# THE END

