DESIGN THINKING PDC

HERTIE SCHOOL OF GOVERNANCE

12./ 13. NOVEMBER 2022

WHO WE ARE

Veronika Mohr

- Design Thinking Coach
- Consultant at The Morph Company
- MPP 2019

Sarah Fasbender

- Design Thinking Coach
- Partner at Education Innovation Lab
- MPP 2018

LET'S GET TO KNOW EACH OTHER

INTRO

WORKSHOP OBJECTIVES

1

#Inspiration:
Get to know the Design Thinking Approach

2

#DoItYourself:
Try out Design Thinking Methods

3

#hertielove:
Have fun and get to know Hertie people

EXPECTATION

WHAT WILL HAPPEN

- Overview over Design Thinking process and presentation of case studies
- Deep dive into Design Thinking process
- Practical Application of the methods in small groups

WHAT WILL NOT HAPPEN

- Theoretical input
- Long breaks

WORKSHOP PRINCIPLES

- If you **feel discriminated or if you witness any form of discrimination**, please reach directly out to Sarah or Veronika.

- The workshop will be f**rom 9 – 4:30 pm and in this time we all try to be present**

- Question: Is it alright if **Sarah and Veronika have the job of time keeper**?

AGENDA DAY #1

1. Welcome, Logistics & Warm-Up
2. Input Design Thinking
3. Start Design Thinking Process: Phase 1 & 2
4. Lunch (12.30 - 13.30)
5. Design Thinking Phase 3
6. Presentation time
7. Feedback & Goodbye

CAKE FOR EVERYONE

Task:

Separate a cake into 8 pieces, but only with 3 strokes of a knive.

1. Take a paper and a pencil
2. Think about it :)
3. Three minutes time

WHAT IS DESIGN THINKING?

DESIGN THINKING

is not the same as Design ...

Design Thinking ≠ Design

DESIGN THINKING

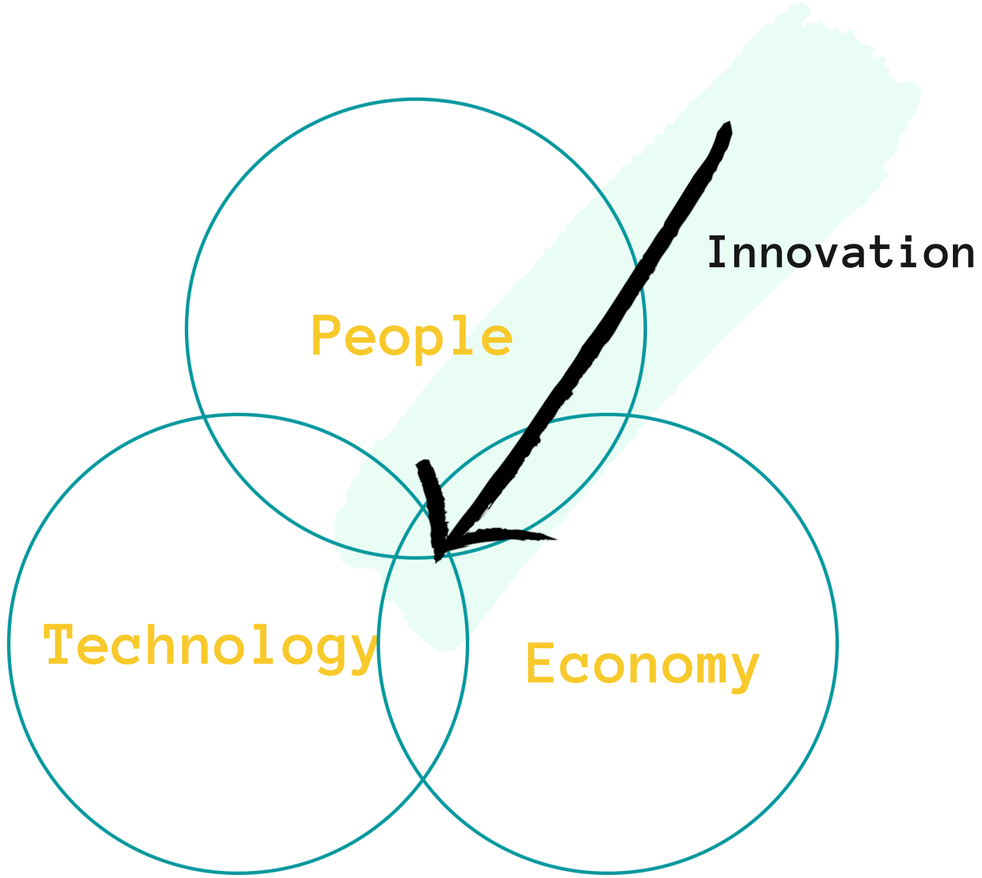
is a ....

process for innovation,

way of working and mindset

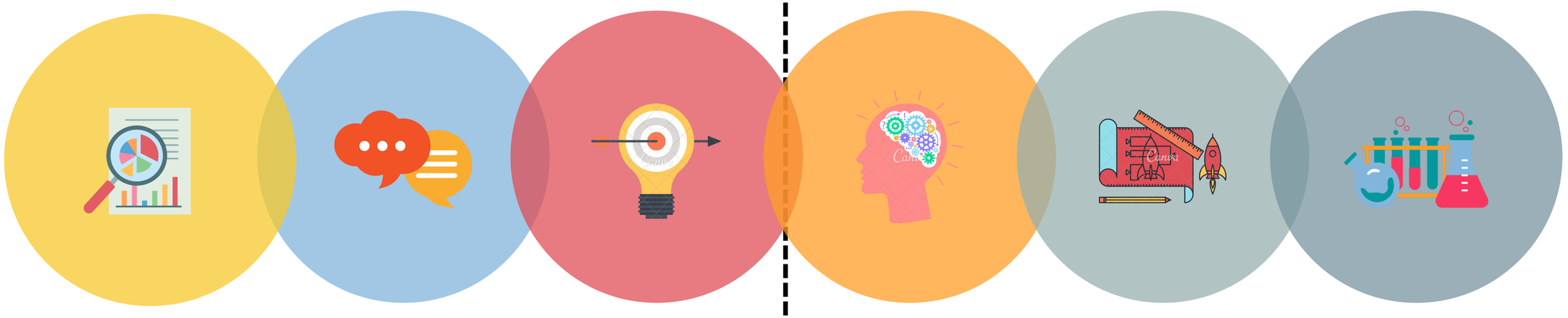
DESIGN THINKING

is a human-centered method



DESIGN THINKING

is a six step process



Understand Empathize Define Ideate Prototype Test

DESIGN THINKING

origin

IDEO

HPI Hasso Plattner Institut
Digital Engineering · Universität Potsdam

SAP®

DESIGN THINKING

aim

to develop innovative ideas for new products, processes or services.

DESIGN THINKING

important elements

Interviewing,
Prototyping & Testing

WHEN TO USE DESIGN THINKING

complex or complictated challenges?

Complicated

-> Traditional Project Management

- Solution clear, it has been done before, no major uncertainties (e.g. engine), expert knowledge required
- One project manager who plans the project
- Fixed project plan with milestones, responsibilities, deadlines
- Different experts execute their individual milestones

Complex

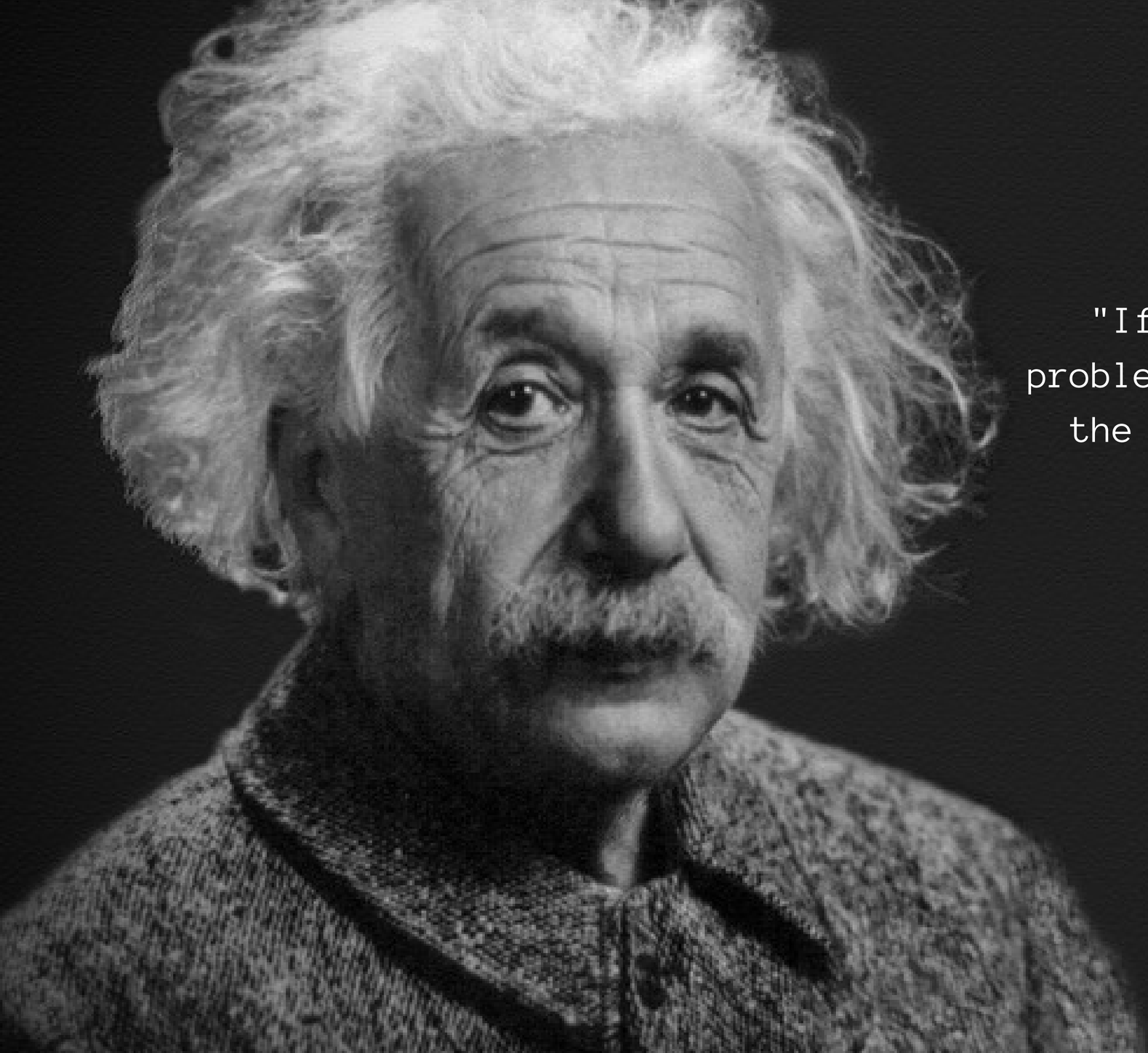
-> Creative/agile Methods

- Problem is ambiguous, no obvious solution exists
- Interdisciplinary self-managed team, collaborative solution-development
- Iterative process: One step after another, no fixed project plan for the entire project timeline
- DT: concept/strategy phase; Scrum: implementation phase

CHARACTERISTICS OF DESIGN THINKING

50 PERCENT OF THE PROCESS IN THE CHALLENGE-ZONE

- **Context:** Who plays a part in this challenge? How has it been solved so far? What rules and regulations apply?
- **User-Research:** Who are our users? What are they needs and circumstances?



"If I have one hour to solve a problem, I would spend 55 minutes on the problem and 5 minutes on the solution.

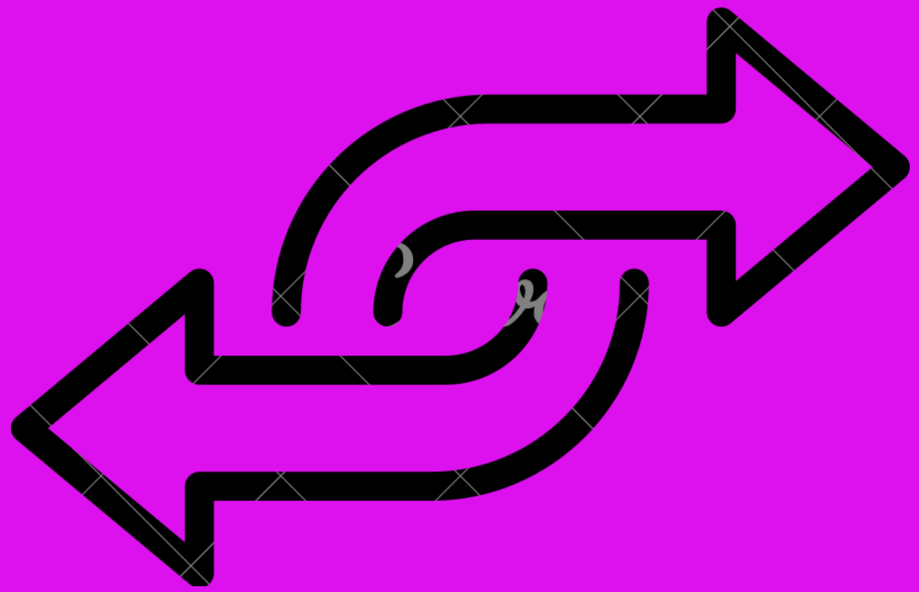
ALBERT EINSTEIN

CHANGE BETWEEN DIFFERENT TYPES OF THINKING

– **Open Thinking:** Create as many insights of your user group as possible. Develop as many ideas as possible.

– **Focused Thinking:** Decide on the most important insight. Choose your favority idea.

SWITCH BETWEEN THE PHASES



- **Non-Linear Process:** According toour individual Design Thinking Process we can jump between the phases and repeat methods.

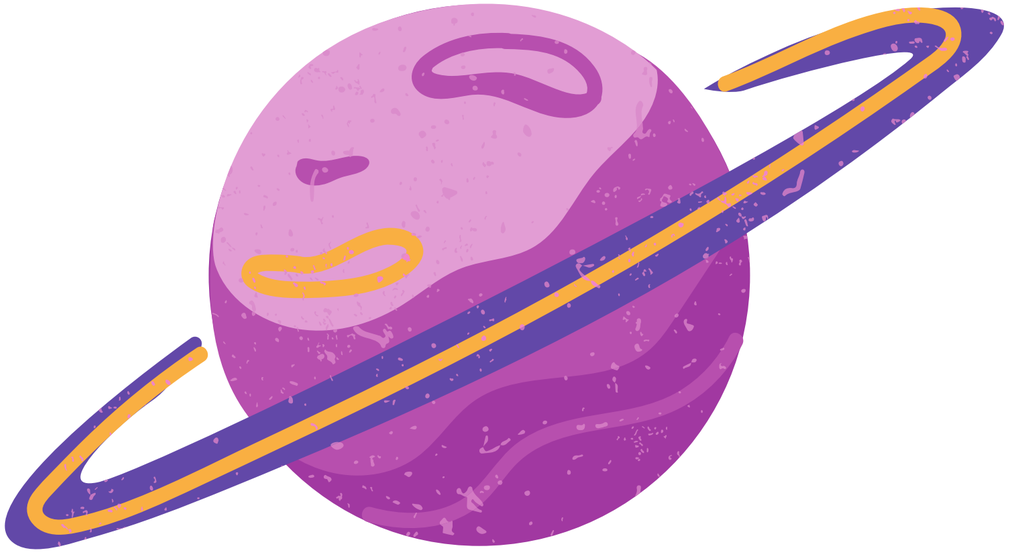
FOUNDATIONS OF DESIGN THINKING

FOUNDATIONS OF DESIGN THINKING

Number 1: A group of diverse people

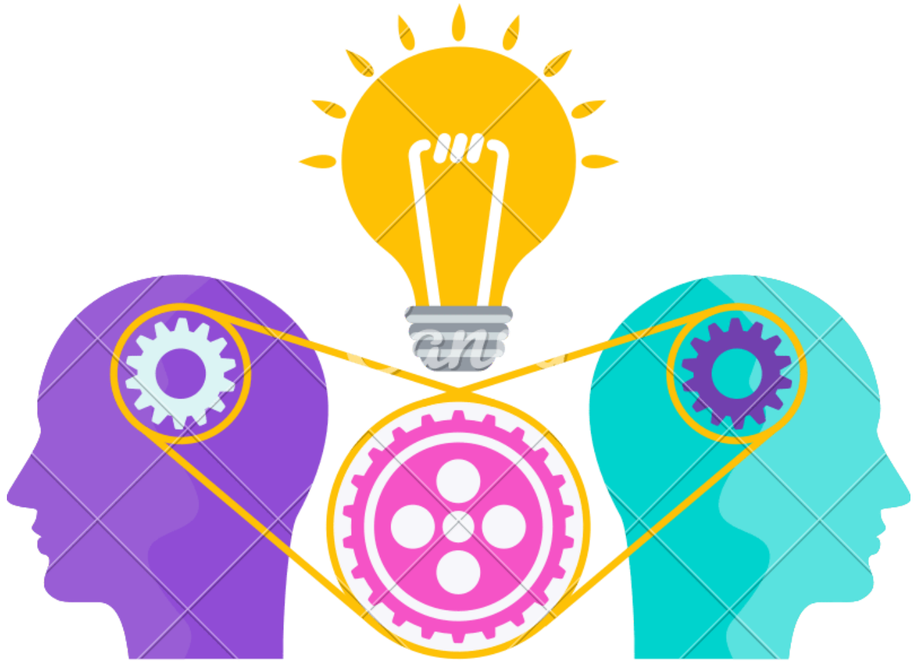
FOUNDATIONS OF DESIGN THINKING

Number 2: Physical and mental space and flexibility



FOUNDATIONS OF DESIGN THINKING

Number 3: A mix of the right Design Thinking methods



https://www.businessinsider.de/karriere/arbeitsleben/erfolgreiche-menschen-benutzen-eine-bestimmte-technik-um-ihre-ziele-zu-erreichen-aber-es-gibt-einen-haken-10-2018/

“All learning depends on feedback. The faster the feedback, the faster you can learn.
Thus, in many domains, the individual, team, or organization with the fastest feedback cycle is the one that works best.

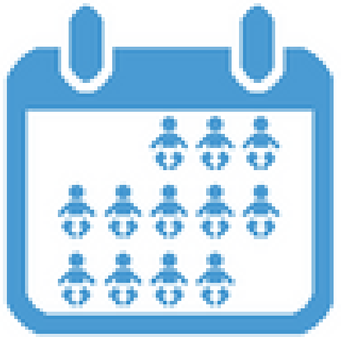
JAMES CLEAR


EMBRACE CASE

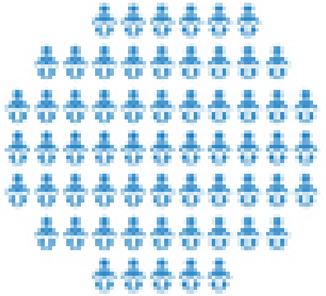
EMBRACE CASE: BACKGROUND INFORMATIONEN

Every 10 seconds the world loses a newborn

Six babies die every minute



Three million of those babies die in the first 28 days of their life



Millions more grow up with debilitating health issues

Source: https://www.embraceglobal.org/

EMBRACE CASE: BACKGROUND INFORMATIONEN

- Group of university students
- Challenge: Design affordable incubators for underserved commnúnities
- Design Thinking Course --> First step: Interviews

Source: https://www.embraceglobal.org/

- Key finding: Many premature babys die outside of a hospital setting, because they cannot regulate their body temperature

- New question: How can we help babys to regulate their body temperature independet from a hospital infrasturcture ?


Portable
Allows for close
mother-child interaction
Reusable
Intuitive to use
Does not require
stable electricity
embrace


Portable
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Intuitive to use
Does not require
stable electricity
embrace

Embrace has already saved over 350,000 lives

Our Goal: Save 1 Million Babies by 2026

LET`S GET STARTED

CHALLENGE I

-

REDESIGN THE SUSTAINABLE SHOPPING EXPERIENCE.

CHALLENGE 2
-
REDESIGN THE SUSTAINABLE SHOPPING EXPERIENCE.

CHALLENGE 3
-
REDESIGN THE EXPERIENCE OF FOREIGN STUDENTS SETTLING IN BERLIN

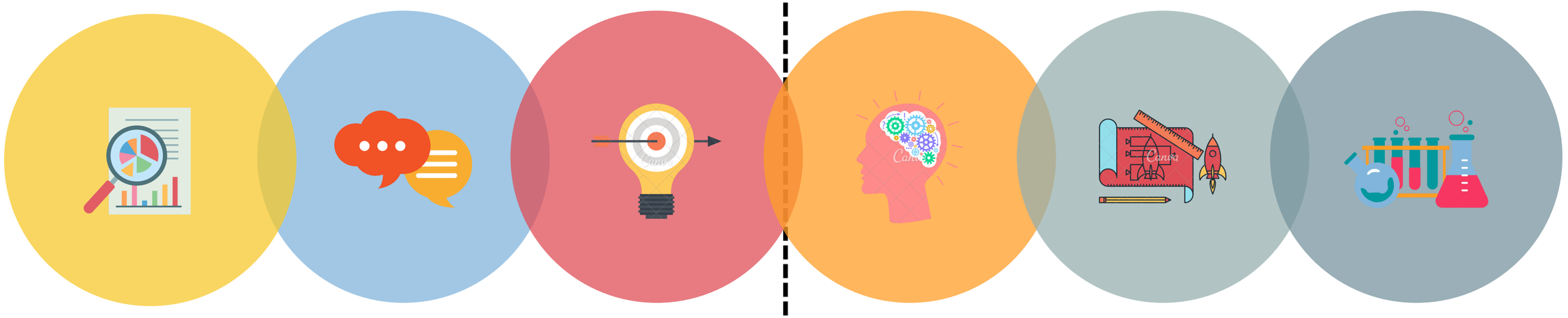
MEET YOUR TEAM

1. Round of introduction
2. Find three things you have in common
3. Agree on a team name

7 minutes time

DESIGN THINKING

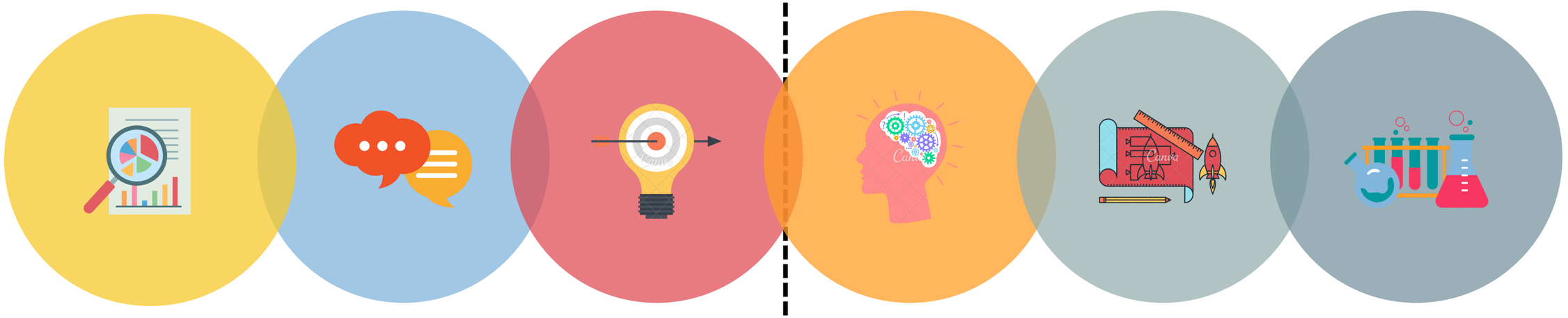
is a six step process



Understand Empathize Define Ideate Prototype Test

DESIGN THINKING

is a six step process



Understand Empathize Define Ideate Prototype Test

PHASE I - UNDERSTAND

- **Aim?** Understand the challenge and the context. Get synchronized in the team.

- **What are we doing during PDC?**
5 Whys, Semantic Analysis/ MindMap

- **What else can you do during this phase?** Desk-Research (read studies, reports, etc.), Stakeholder-Map, analysis of the political and legal framework, map existing solutions

WARM-UP FOR INTERVIEWING

Ask-Why-Five-Times Exercise

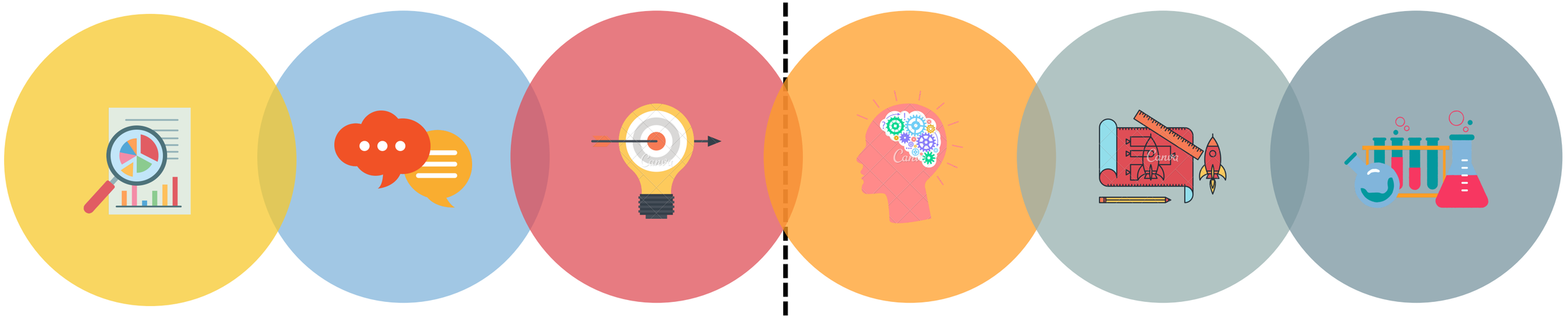
Step 1: Pick an **easy conversational topic** like "What was the best present you ever got?" or "What is your favorite way to enjoy nature?"

Step 2: Go into **groups of three people**. You will do three rounds of interviews. In each round, one person will listen and observe while the others talk.

Step 3: **Person A asks Person B the question** you agreed on in Step 1. Person B answers and **Person C just listens**. Person A keeps asking Person B to elaborate on their answers by asking "Why?" or "What is the reason for this?", etc. for at least five times. Person C counts how many times Person A asked Person B to elaborate. After each round, you switch roles so that **everyone gets interviewed once.**

DESIGN THINKING

is a six step process



Understand **Empathize** Define Ideate Prototype Test

PHASE II - EMPATHIZE

- **Aim?** To activly change perspective and gain empathy for your furture user group.

- **What are we doing during PDC?** Interviews with potential users.

- **What else can you do during this phase?** High number of interview sessions, combination of qualitative and quantitative research, immersion

TYPES OF QUESTIONS FOR INTERVIEWING

The overall aim of the interview is **to get to know your interviewee better and to gain real empathy for their situation, needs, actions and emotions.** Key to a successful interview are open-ended questions that invite long answers.

Introduction-Question: Pick a **easy question that introduces** your topic without any judgment, for example with the structure: "*What do you think about (insert your topic)?*"

Experience-Question: Go deeper into the topic by **asking specifically what your interviewee has experienced** regarding your topic – *"What is your experience with (insert your topic)?"*

Needs-Question: **Ask for feelings:** *"What are your feelings regarding (insert your topic)? How did you feel during your experiences with (insert your topic)?"*

CHECKLIST FOR CONDUCTING INTERVIEWS

- You make your **interviewee feel comfortable and respected** by introducing yourself and giving some context of the interview.

- You ask **open-questions** and dig deeper into the answers by asking "why", "how come", "can you describe that in more detail", "can you tell me more..". **Ideally, you speak 20 percent of the time and your interviewee speaks 80 percent of the time.**

- You keep the **conversation focused on the topic** and you try to get "to the heart of things" and beyond superficial chit-chat. You keep **a neutral and friendly expression**, regardless if you agree with the interviewee or not. You do not try to convince the interviewee.

CHECKLIST FOR PREPARING INTERVIEWS

- You agreed on a location where you can find **2 – 3 interviewees** that respresent your user group.

- You have developed **3 – 5 questions that will guide you through the interview**. The questions are **open questions**, that invite the interviewees to talk about their experiences, thoughts and emotions regarding your topic / product.

- If you do the interviews within your team, you have **agreed on roles for the interview**. One person does the interview, the others take notes and (super important!) write down the most insightful quotes.

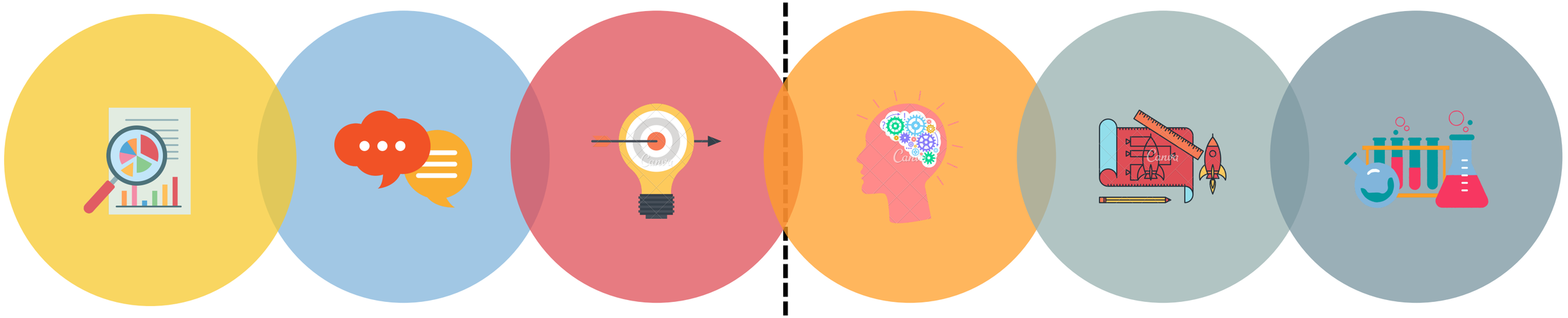
LET'S PRACTICE: INTERVIEWING

1. Go into groups of two people
2. Take 5 minutes to come up with some questionsn regarding your challenge using the "Types of Question" framework
3. Interview each other for about 5 minutes. Try to dig deeper into the answers and ask follow-up questions like "Why" or "What was the reason for that ...".

15 minutes

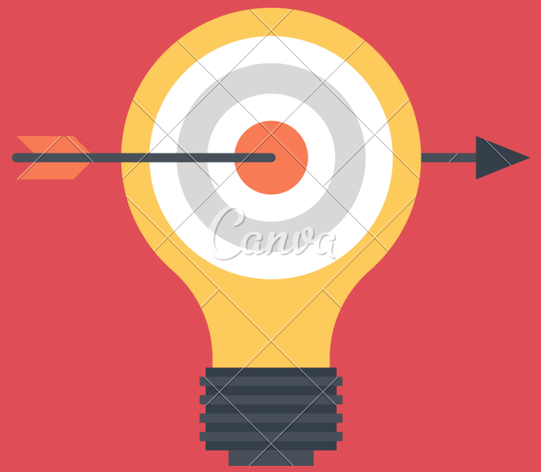
DESIGN THINKING

is a six step process



Understand Empathize **Define** Ideate Prototype Test

PHASE III - DEFINE



- **Aim?** Based on the most important insights from Phase 1 + 2 you reframe the challenge into a more precise point of view.

- **What are we doing during the PDC?** Development of user cards and a poke map, development of a individual point of view

- **What else can you do during this phase?** User-Journeys, Empathy Map

REFLECTION DAY#I

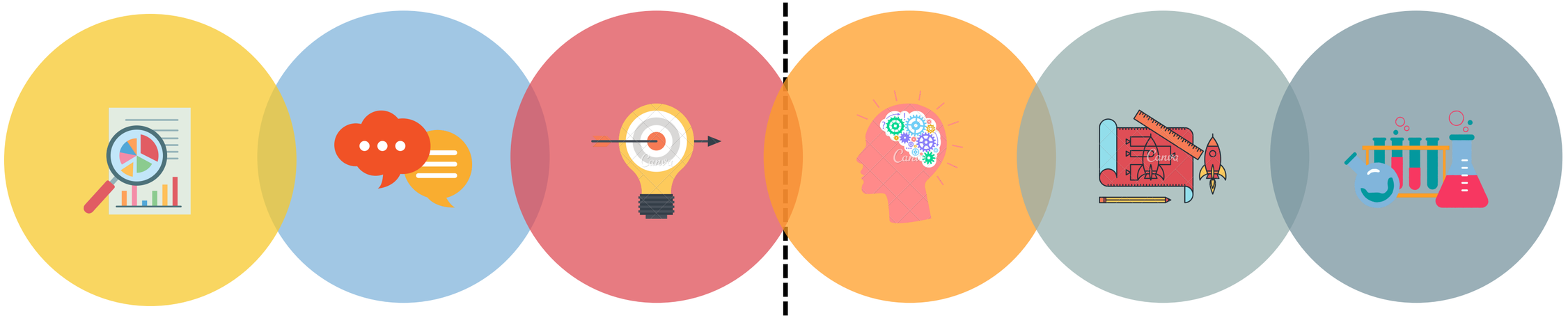
- How do you feel? How was the rest of your day?
- What thoughts came to your mind?
- Do you have any questions?

AGENDA DAY #2

1. Welcome, Recap & Warm-Up
2. DT Phase 4: Ideating
3. DT Phase 5: Prototyping
4. Lunch (12.15 - 13.15)
5. DT Phase 6 (Testing) & Presentation
6. Input: DT Limitations & DT in your career
7. Feedback & Goodbye

DESIGN THINKING

is a six step process



Understand Empathize Define **Ideate** Prototype Test

DT PHASE #4: IDEATE

- Now it is time for developing as many ideas as we can.
  Quantity over Quality!

- Statistics show that you need a pool of ideas to generate one good idea.

- Different creative techniques are used to generate ideas.

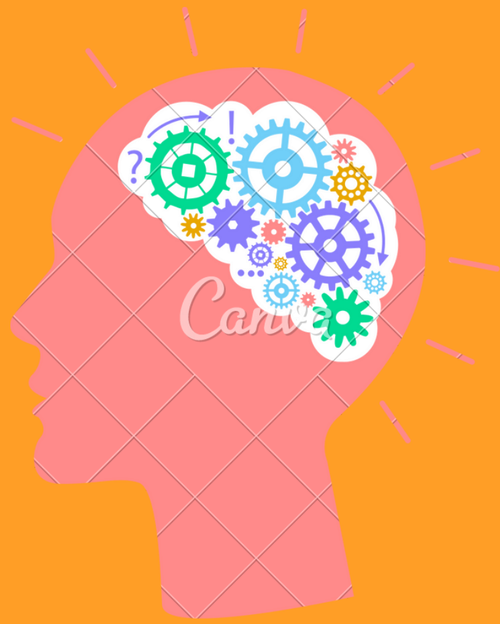
- Every idea is valuable, don’t censor yourself.

PHASE IV - IDEATION

- **Aim?** To develop a high volume of ideas

- **What are we doing during the PDC?** We will try out different brainstorming techniques

- **What else can you do during this phase?** Additional brainstorming techniques, co-creation session with the target group

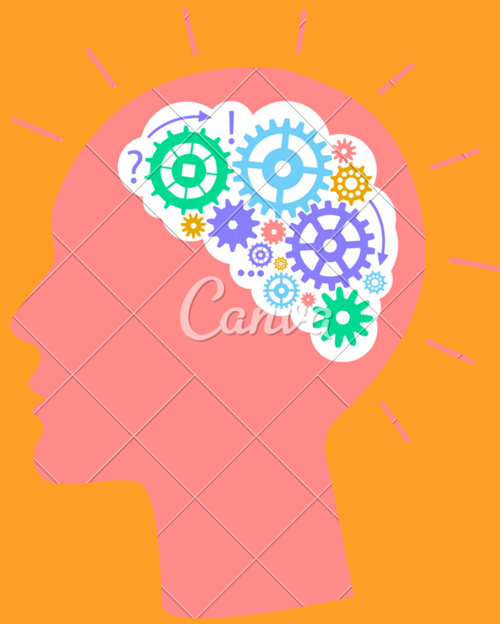


IDEATION METHOD #1: SILENT BRAINSTORMING

- **STEP 1:** Write down all the ideas that you are having in your head regarding your How-might-we Question in silence and on your own. One idea per post-it.(5 Min)

- **STEP 2:** Share the ideas with your teammates and discuss them. Put similar ideas together in the idea-clusters (10 Min)

- **STEP 3:** Move your favorite ideas to the area titled "Favorite Ideas" (5 Min)



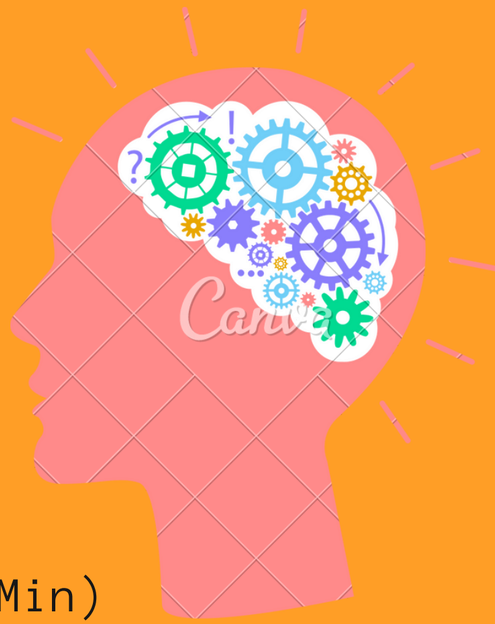
IDEATION METHOD #2: WHAT WOULD X DO?

- **STEP 1**: Every person selects a person or institution that you admire. For example “Martin Luther King Jr” | “a religious institution” | “Harry Potter” | "Greta Thunberg", et.) (3 Min)

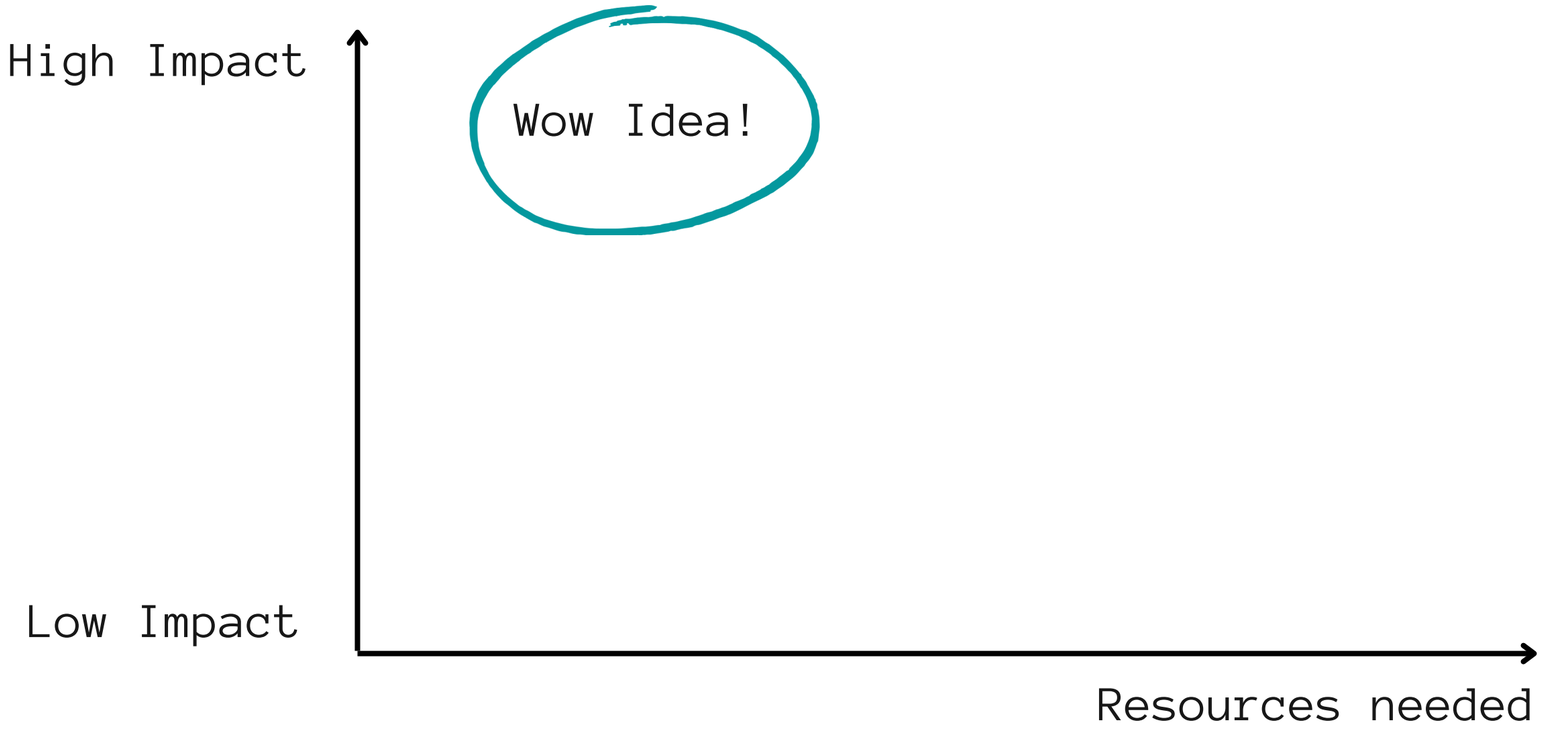
- **STEP 2:** Write down a ideas for solving your challenge based on how you think your selected person / institution would solve the challenge (10 Min)

- **STEP 3:** Share your ideas with your team and discuss them. (10 Min)

- **STEP 4:** Cluster your ideas and put your favorite ideas in area "Favorite Ideas" (5 Min)



SO MANY IDEAS...HOW TO CHOOSE THE BEST ONE?



IDEA NAPKIN

Name of your idea:

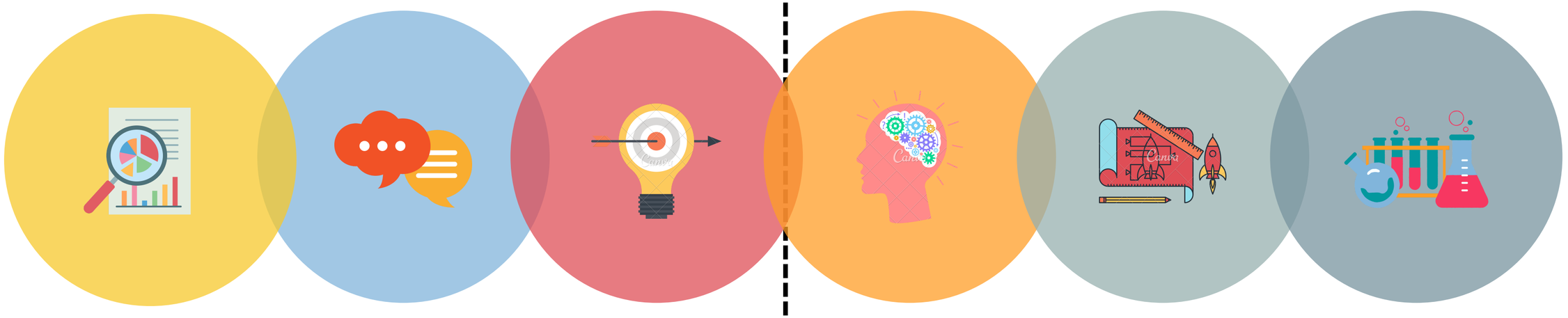
Short description of your idea:

Main functions of your idea:

How does your user group interact with your idea?

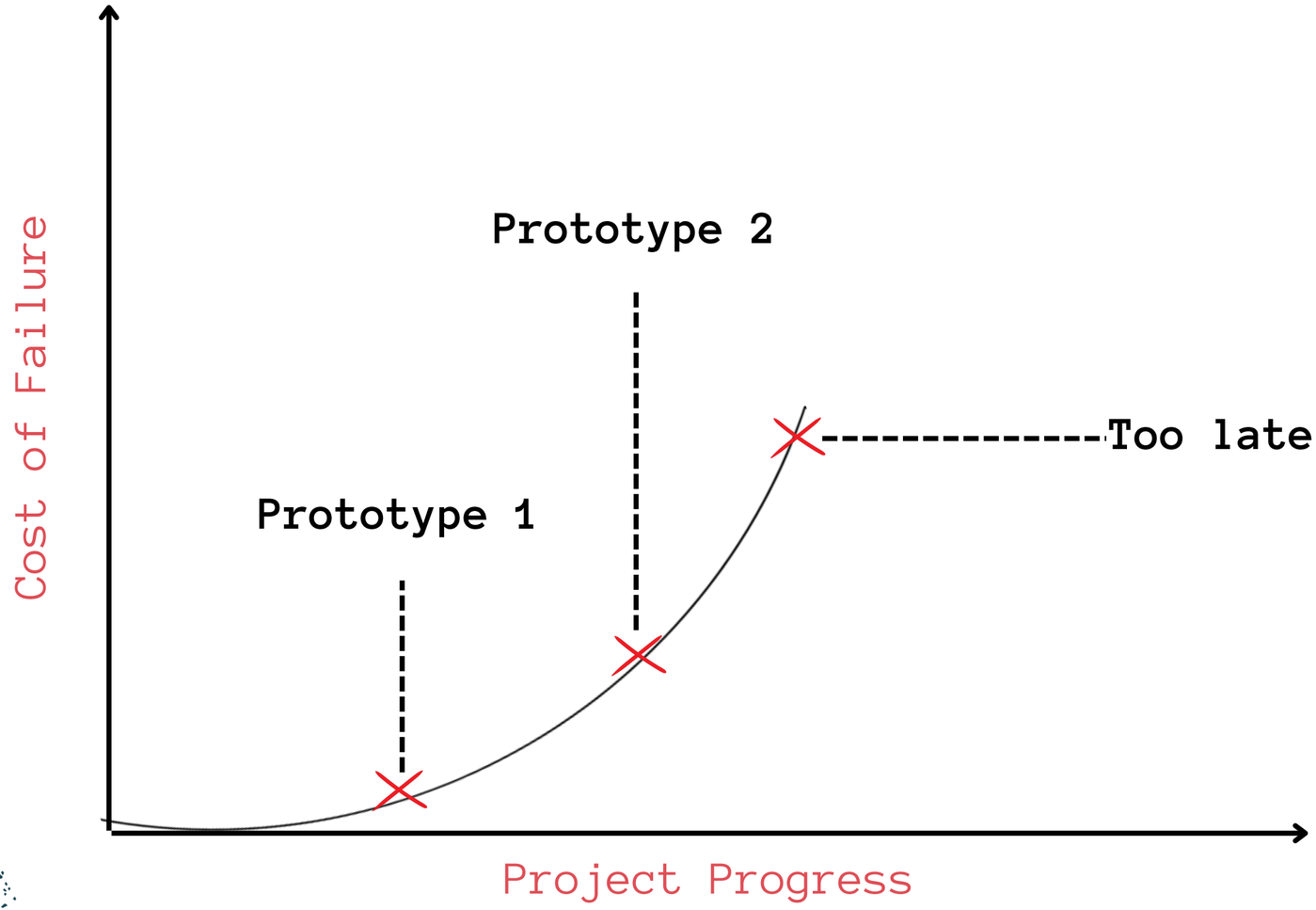
DESIGN THINKING

is a six step process

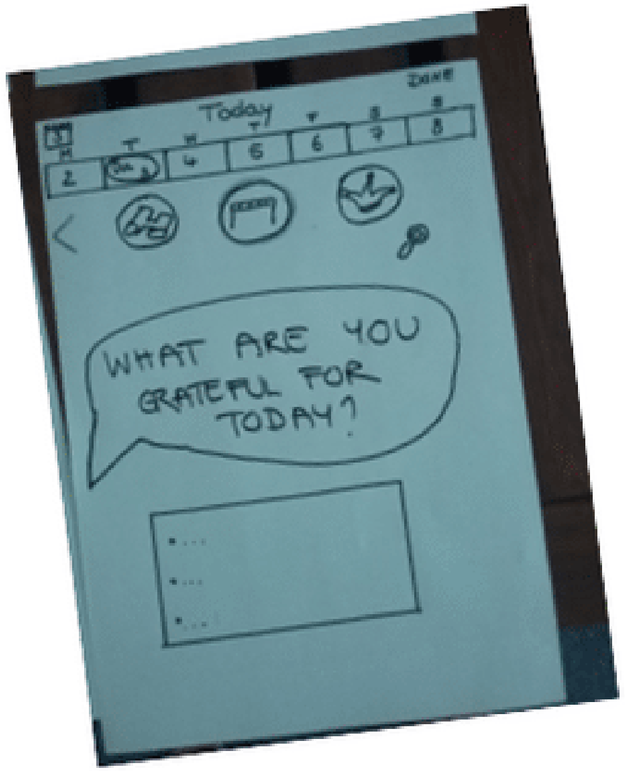


Understand Empathize Define Ideate **Prototype** Test

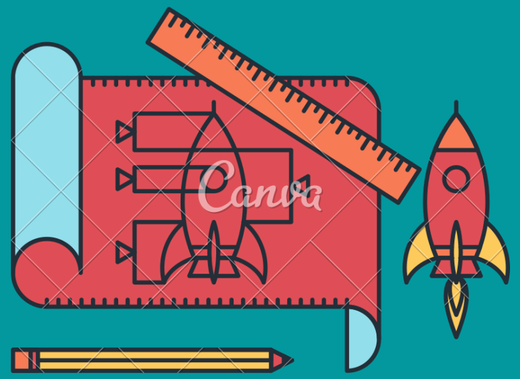
RISK MANAGEMENT THROUGH PROTOTYPING & TESTING



WHAT COULD PROTOTYPES LOOK LIKE?



PHASE V - PROTOTYPE



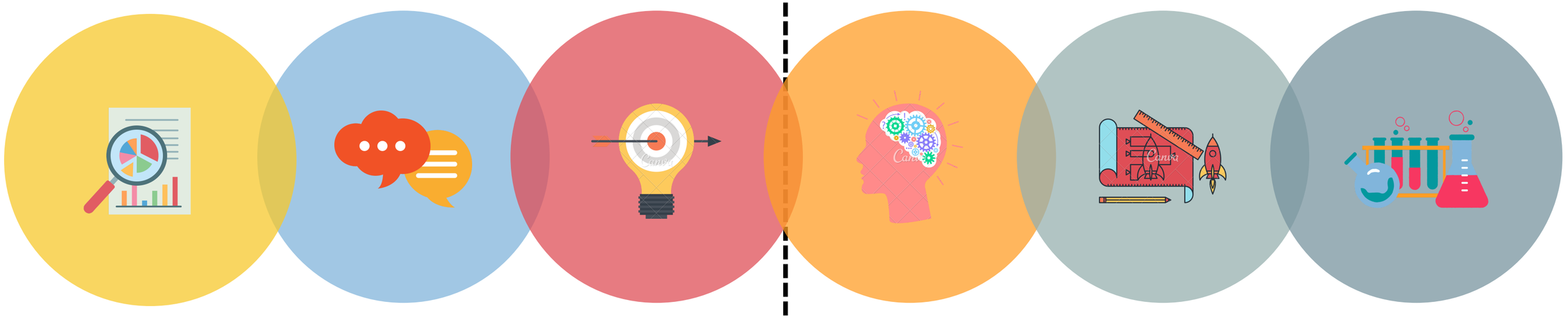
- **Aim?** To make your idea tangible by building a "touchable" version of the idea

- **What are we doing during the PDC?** All creative ideas are welcome. You can create a mock-up, do a role play, etc.

- **What else can you do during this phase?** build a professionel mock-up or several mock-ups

DESIGN THINKING

is a six step process



Understand Empathize Define Ideate Prototype **Test**

PHASE VI - TEST

- **Aim?** To get as much feedback as early as possible, especially regarding the key functions of your prototype (Think: Let's fail early).

- **What will we do during the PDC?** Go outside of Hertie and ask people for feedback regarding your prototype.

- **What else can you do during this phase:** You can do all types of testing, for example A-B testing with web-based prototypes,etc.

https://urbanmilwaukee.com/pressrelease/ge-healthcares-doug-dietz-to-address-graduates-at-commencement/

DOUG DIETZ


UCSF

USER RESEARCH: TESTING

Aim: Get feedback on your prototyp

- What do your users think about your prototyp?
- What do they like? What do they not like? What ideas for future development do they have? What do they understand or not understand regarding your prototy?

Methods: Test-Interview & Observation

CHECKLIST FOR PREPARING TESTINGS

- [ ] You have organized **testees that respresent your user group**.
- [ ] You have developed a **prototyp that allows your testees to interact** with it. You have someting that you can show your users (show-don't tell-approach).
- [ ] You have preapared a **simple feedback-template**, where you can caputure the thoughts of your testers (see template "Feedback-Grid" in Notion)


LIKE

CHECKLIST FOR CONDUCTING TESTINGS

- You **introduce yourself and you give some context** for the testing.
- You let your **testee interact with the prototyp** without explaining it. You ask your testee to voice their thoughts while interacting with the prototyp. You do not try to sell your prototyp, you try to understand what your testee thinks about it :)
- Whenever your **testee asks you to explain something about your prototyp (example: *Why is this button here?*) you try to ask your testee to come up with an answer** (example:*"Why do you think this button is there?"*)
- You **write down insights from your interview** in your feedback grid.

FEEDBACK GRID

like 👏

👎 not like

difficult to understand ❓

💡 new ideas

LET'S PRACTICE: TESTING

1. Go into groups of two people
2. Take 2-3 minutes to find a object that you can test with your partner.
3. Conduct quick 3 minute test interviews with each other. Try to let your tester speak as much as possible. No need to take notes, it is just an exercice.

10 minutes

PRESENTATIONS (3' EACH)

What is your **users' problem?**

What is your **solution?**
How would your user interact with your solution? What are the critical functions of your solution?

What did you **learn from testing?**

What would your **next steps** look like?

HIV PROTECTION CASE

The limits of Design Thinking

HIV PROTECTION CASE

A public health challenge

- **Girls in Tanzania, like 18-years-old Neema**, are returning home from school for the summer hoping to reconnect with their boyfriends,
- But also wants to **protect herself from pregnancy and a potential HIV** -> need for HIV testing, condoms/oral contraception
- However: **High stigma/social control/social norms** for young girls to ask for such products at local drug stores -> misinformation, fear, shame
- Speed up solution adoption, not go through entire innovation adoption curve

HIV PROTECTION CASE

On the way to the solution

- **First idea:** Home delivery programm to circumvent social gatekeeping by parents/shop keepers

- **Why it did't work**:
  - not exciting for the target group
  - failed to reach most vulnerable due to not hacing their own phones to order

HIV PROTECTION CASE

The solution

- **Loyalty program**

- **Why it works:**
  - **sparking delight** in otherwise mundane shopping by awarding prizes from mystery boxes stocked with desirable items
  - **symbols** for sensitive products on back of loyalty cards to point at when at the shop
  - fits into shop keepers' **workflow**
  - **buy-in of professional association and coalition of participating shop**s: increase bottom-line, implicit social permission

HIV PROTECTION CASE

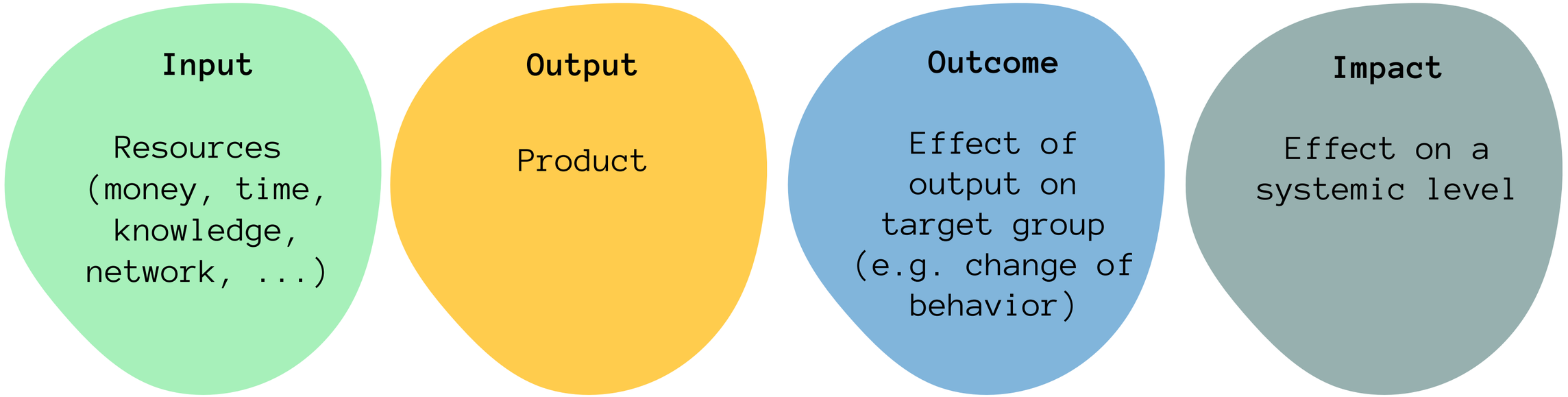
The methods and their limitis -> complementarity

- **Design Thinking:**
  - Stakeholder system analysis
  - Interviews, testing
  - Empathy and creativity
  - Typically no igorously validated, external evidence

- **Behavioral Science**
  - Understand behaviors in more depth & inform potential solutions
  - Reduce risk of testing solutions that, by failing, scare off the girls
  - Little structure to identify/clarify ambiguous barriers and opportunities, or to create solutions that address them

REFLECTION: DESIGN THINKING & SYSTEM DYNAMICS

Design Thinking



Building a solution

Understanding what the users need

DESIGN THINKING OPPORTUNITIES

- Foundation: Design Thinking Certificate at HPI in Potsdam
- Work as a freelance Design Thinking Coach
- Bring your Design thinking expertise in your daily job
- Use Design Thinking Mindset for your university tasks (thesis, etc.)

GIVE US YOUR FEEDBACK

THANK YOU.

BIBLIOGRAPHY

Quelle Zitat Einstein: https://beruhmte-zitate.de/zitate/2082040-albert-einstein-wenn-ich-eine-stunde-zeit-hatte-um-ein-problem-zu/