
Erasmus+

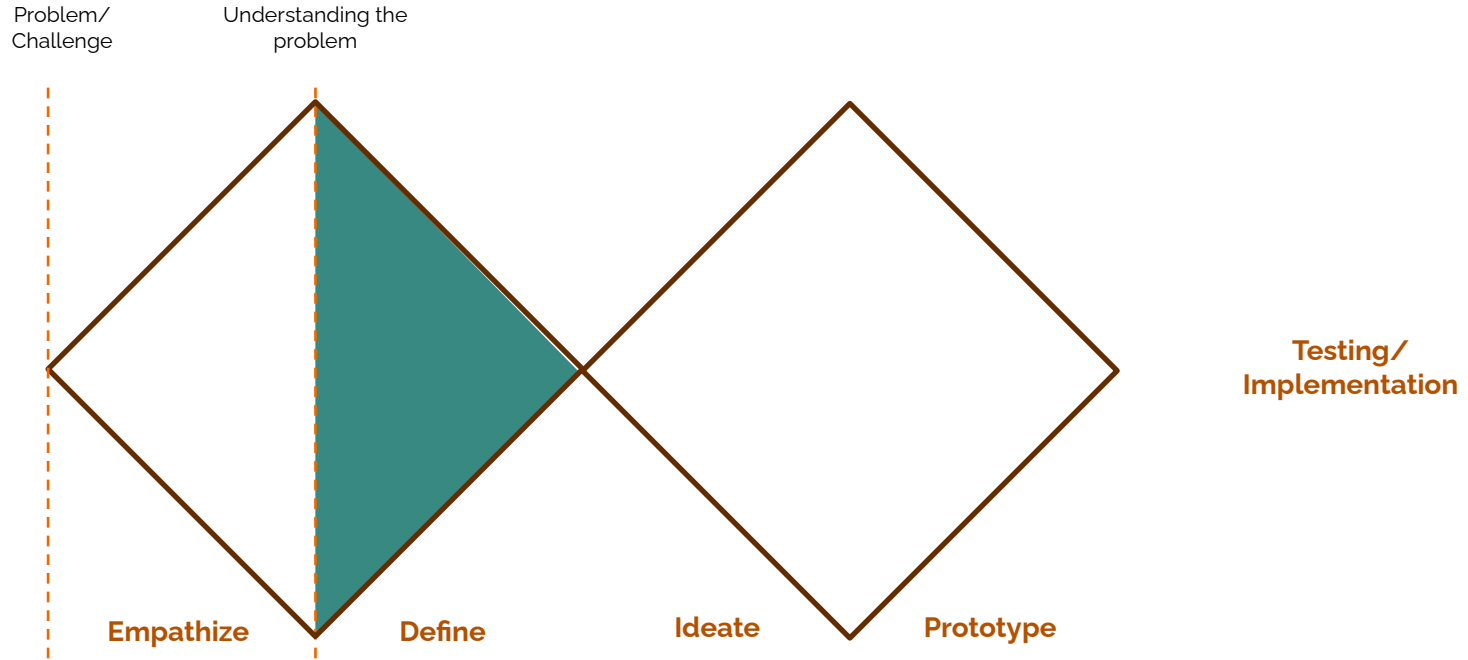
Capacity Building for Higher Education

— Session 4: Define phase —
WP3 Student Competition

Before we start: How are you?

- Stakeholder List
- Spheres of influence
- Desk research
- Topic list
- Hotel case visits
- Find focus
- Empathy map
- **Persona**
- **Researcher assignment -> due by thursday**

Where are we in the DD-model?



What is the define phase?

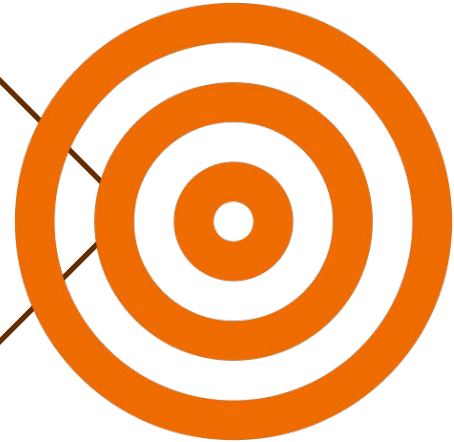
Empathize phase,
Hotel case visits



In the define phase of the double diamond model, **consolidate your research findings** and **pinpoint where your users' problems lie**. While identifying your users' needs, begin **highlighting opportunities for innovation**.



All the information gathered in the empathize phase.



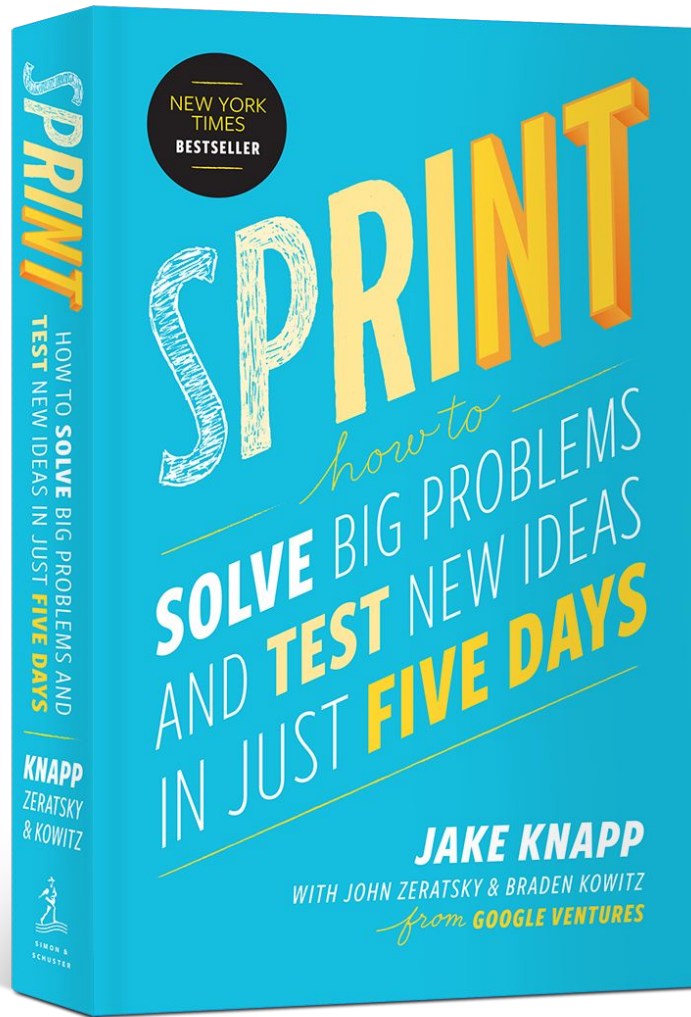
One clearly defined graphable challenge, which your team will try to tackle in the coming 2 weeks.

**Identify
points of pain**



**'How might we'
questions**





Applied by companies
such as: KLM, United
Nations, Slack, ...

<https://www.thesprintbook.com/>
<https://d-pdf.com/book/4407/read>

1) Points of pain: What, where and why does it go wrong now?

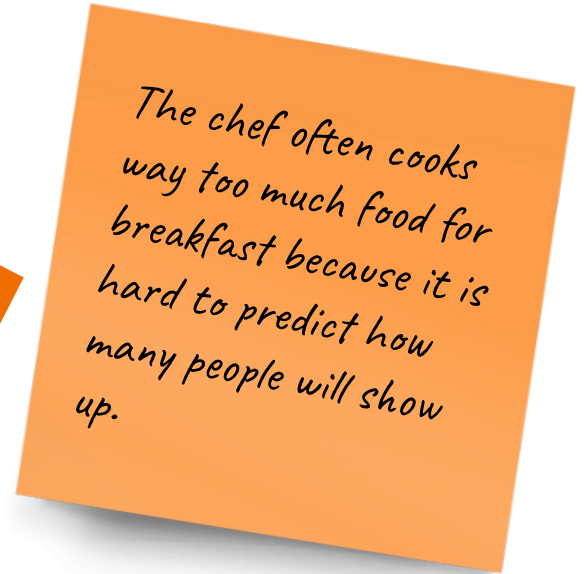
5' individual + 10' to put your ideas together +
10' to discuss your findings with other groups

1. Grab your results from the **empathize phase**
2. Identify points of pain (be as specific as possible)
3. Write one idea per sticky note.

The more the merrier!



We are identifying problems, **do not jump to solutions just yet**. Trust the process, we will arrive there when the time is right.



1) Points of pain: Root cause analysis



1. The problem

Schools are consuming a high amount of energy, leading to increased costs and environmental impact.

2. Symptoms of the problem

High electricity bills for schools.

3. Possible cause

Outdated Infrastructure and Equipment

4. Root cause

Schools lack systems to monitor energy consumption in real-time, making it difficult to identify and address spikes in usage.

1) Points of pain

In discussion with the other groups, become aware of:

- Differences and similarities in points of pain.
- Which points of pain are generalizable?
- Which points of pain are unique for your hotel case?


-> this might have an impact on your solutions

2) 'How might we' notes: reframe problems as opportunities

10'

1. Start with the letters "HMW" on the top left corner.
2. Start from the defined problems and reframe them as opportunities
3. One problem might hold various opportunities
4. Write one idea per sticky note.

The chef often cooks way too much food for breakfast because it is hard to predict how many people will show up.



HMW
better predict the number of people attending breakfast to reduce food waste?

HMW
repurpose excess food from breakfast to minimize waste?

Why it is important to stick to the HMW structure

The **open-ended optimistic phrasing** forces you to look for **opportunities and challenges**, rather than getting bogged down by problems or, almost worse, **jumping to solutions too soon.**

Tips on writing good HMW-questions

#1 Start with the Problems (or Insights) You've Uncovered

*Users aren't
always aware of
the full product
offerings*



*HMW...
increase
awareness of the
full product
offerings?*

Tips on writing good HMW-questions

#2 Avoid Suggesting a Solution in Your HMW Question

Users are often unsure about which form to complete when they file their taxes.



*HMW...
create a website to
tell users which
form to complete
to file their taxes!*



*HMW...
make users feel
confident they
are filing their
taxes correctly?*



Tips on writing good HMW-questions

#3 Keep Your HMWs Broad enough

Users often spend a long time checking their submission for mistakes.



*HMW...
make it quick and easy for users to check their work for mistakes.*



*HMW...
support users to efficiently draft submissions that they're happy with?*



Tips on writing good HMW-questions

#4 Focus your HMWs on the desired outcome

Users often call us because they're unsure about the application process.



*HMW...
stop users from calling us?*



*HMW...
make users feel confident they have all the information they need?*



Tips on writing good HMW-questions

#5 Phrase your HMW questions positively

*Users find the
return process
difficult.*



*HMW...
make the return
process less
difficult?*



*HMW...
make the return
process quick and
intuitive?*



Tips on writing good HMW-questions

#6 Clearly state your stakeholder

Many tax forms are submitted after the submission deadline.



*HMW...
ensure tax forms
are submitted in
time.*



*HMW...
ensure tax forms
are submitted in
time by small
business owners.*



Checklist HMW-questions

#1 Start with the Problems (or Insights) You've Uncovered

CHECK: Is it based on an existing problem or insight?

#2 Avoid Suggesting a Solution in Your HMW Question

CHECK: Does it suggest a solution?

#3 Keep Your HMWs Broad

CHECK: Is it broad enough to ensure many creative ideas?

#4 Focus your HMWs on the desired outcome

CHECK: Does it track a desired outcome?

#5 Phrase your HMW questions positively

CHECK: Is it written positively?

#5 Clearly state your stakeholder

CHECK: Is your stakeholder included?

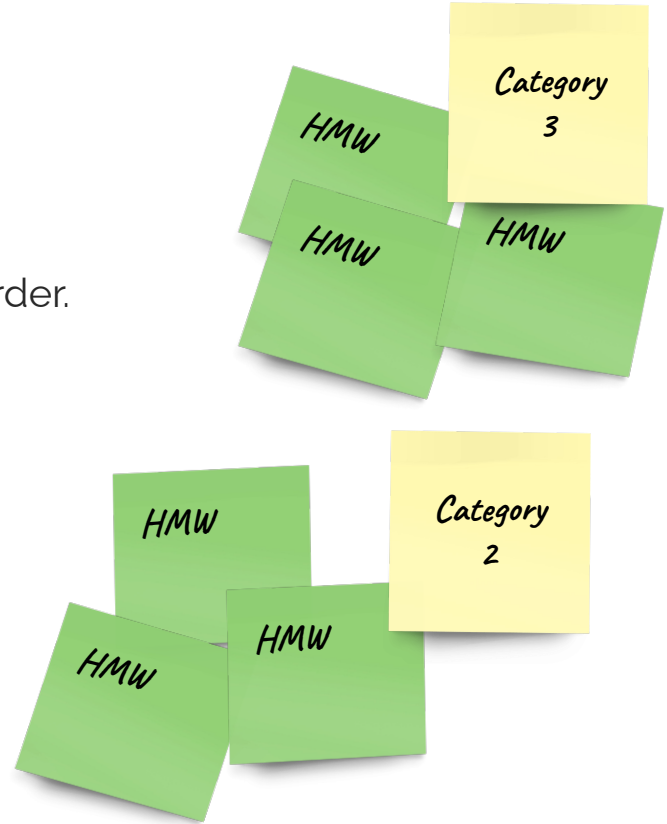


How might we...
install solar panels
on every school
building to reduce
energy consumption?

3) Organize 'How might we' notes

10'

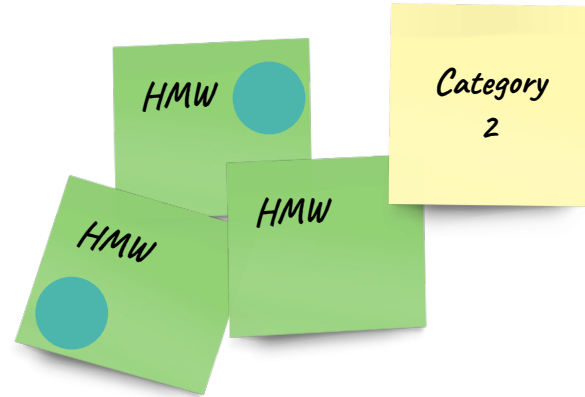
1. Stick all the *How Might We* notes onto a wall in any order.
2. Move similar ideas next to one another.
3. Label themes as they emerge. Don't perfect it.
4. Do not force it: it is ok to have a category 'others'



4) Prioritization: Vote on 'How might we' notes

5'

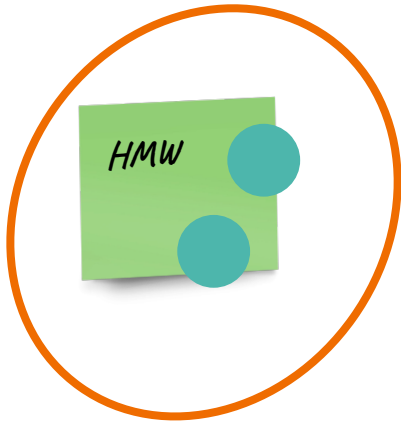
1. Rules for voting:
 - a. Each person has two votes,
 - b. can vote on his or her own notes,
 - c. or even the same note twice.



5) Pick a target

5'

1. Move winners onto your map. Stick all the *How Might We* notes with votes onto a wall in any order.
2. Discuss shortly in group on which opportunity you want to focus. In case that there is no consensus within the team the decider has final power.
3. Circle this target



Pick a target checklist

While deciding on a final HMW challenge, reflect upon the following questions:

- Is this a realistic challenge to be tackled within the given timeframe?
- Is this challenge challenging enough?
- Does it really address the concerns expressed by the stakeholders?



55' in total to complete these exercises (due by 10:15)



Do not forget to document every step

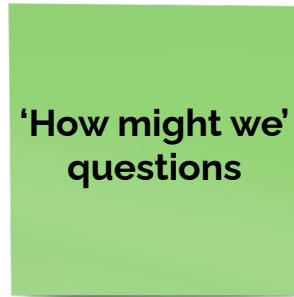
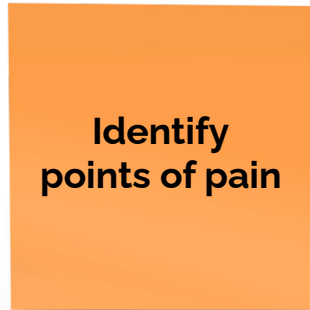
5' individually
10' in group
10' to discuss with other groups

10'

10'

5'

5'

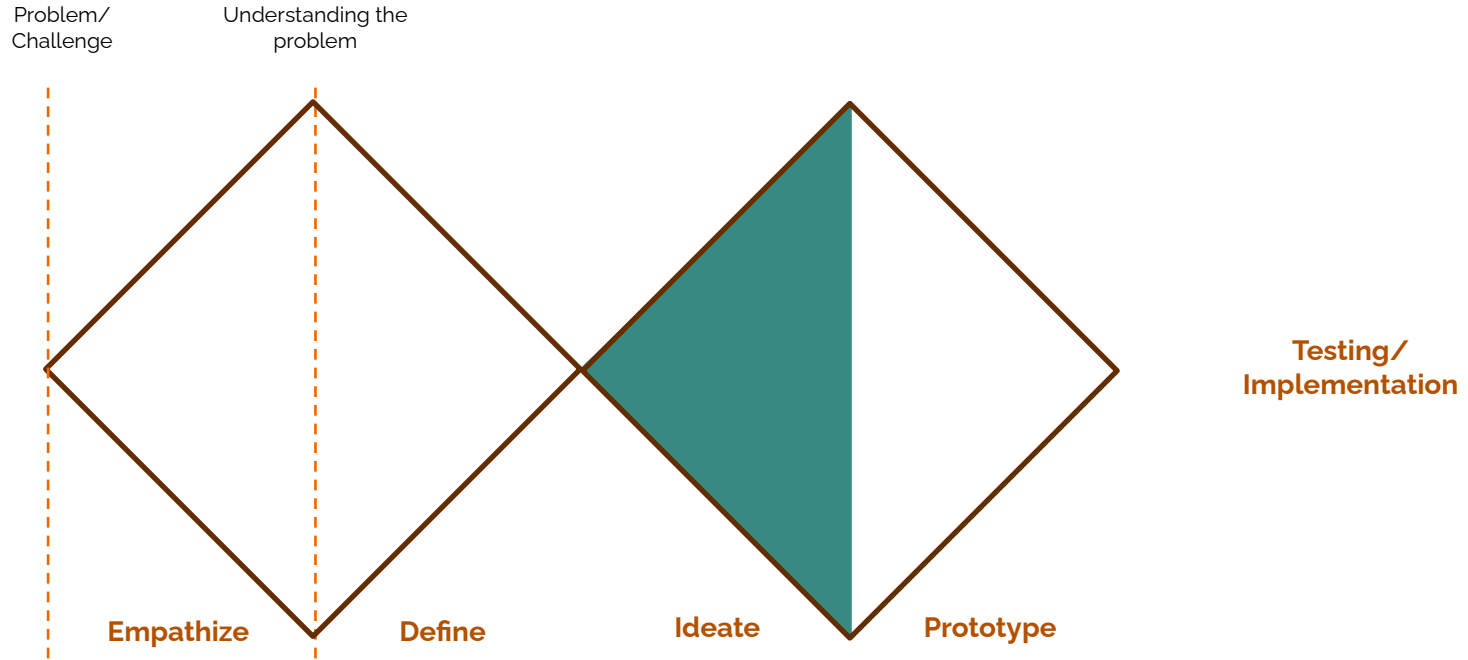


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Capacity Building for Higher Education

— Session 3: Ideate phase —
WP3 Student Competition

Where are we in the DD-model?



What is the ideate phase?

Brainstorm a range of crazy, creative ideas that address the unmet user needs identified in the define phase. Give yourself and your team **total freedom**; no idea is too far fetched and **quantity supersedes quality**.

At this phase, bring your team members together and **sketch out many different ideas**. Then, have them share ideas with one another, mixing and remixing, building on others' ideas.

What is the ideate phase?

Opportunities



Solutions





Benchmarking



**Lightning
demos**



Lotus blossom

What is benchmarking



What is benchmarking

What?

The essence of benchmarking is the process of **identifying the highest standards** of excellence for products, services, or processes, and then making the improvements necessary to reach those standards – commonly called "**best practices**".

Why?

- Get to know what already exists -> avoid reinventing the wheel
- Learn from the strengths and weaknesses of your 'competitors'
- **Get inspired**

Benchmarking tips

Benchmarking tips:

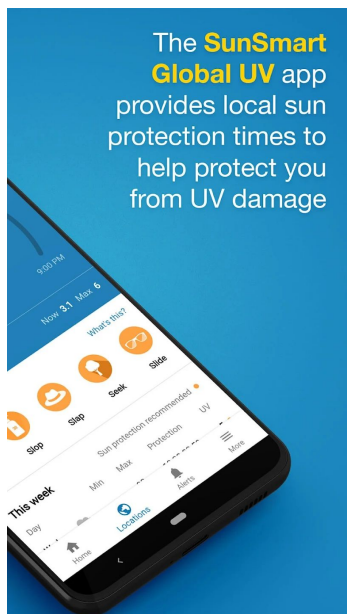
- 1. Look Outside Your Industry or application domain**

The ideas that spark the best solutions come from similar problems in different environments.

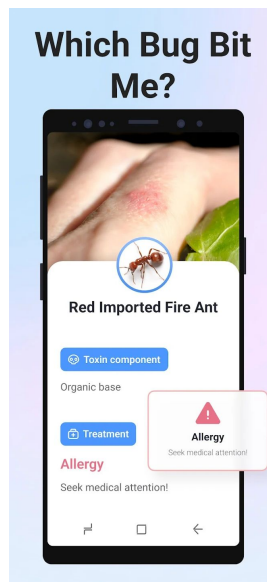
Benchmarking: example

How might we better prevent people suffering from the consequences of skin cancer?

Benchmark in the same domain

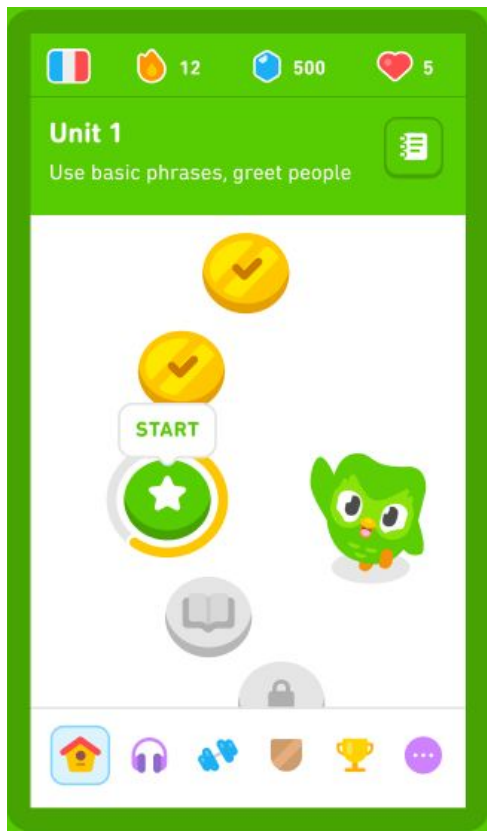


Benchmark from another domain



Can we use similar technology to distinguish between non harmful birthmarks and melanoma (a skin cancer symptom)?

From gaming to learning a new language

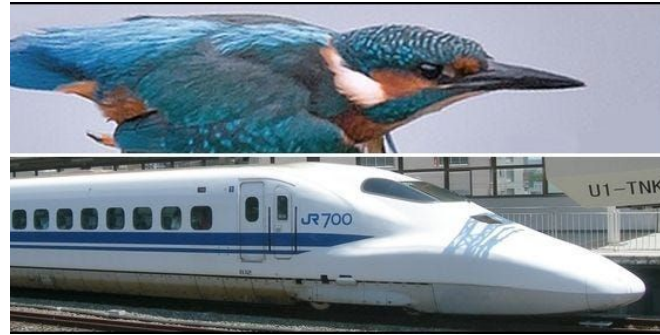
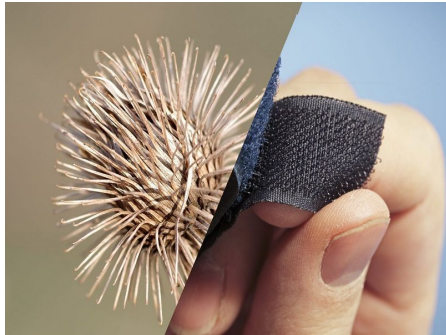


Benchmarking: Biomimicry



Benchmarking: Biomimicry

is a practice that learns from and mimics the strategies found in nature to solve human design challenges



Benchmarking

Solutions for food waste

Benchmark in the same domain



KUMIASI



Benchmark from another domain

This is what we are mostly looking for today!

Benchmarking tips

Benchmarking tips:

1. Look Outside Your Industry or application domain

The ideas that spark the best solutions come from similar problems in different environments.

2. Find the best out there by leveraging product reviews

e.g. look at products in webshops with five star ratings/ most downloaded applications

3. Explore the Real World.

Do not limit yourself to online research, think of past experiences, cool product you've maybe used yourself before

4. Consult Industry Experts.

Ask the coaches. Think back about the interviews and the examples from the lectures that were given before.

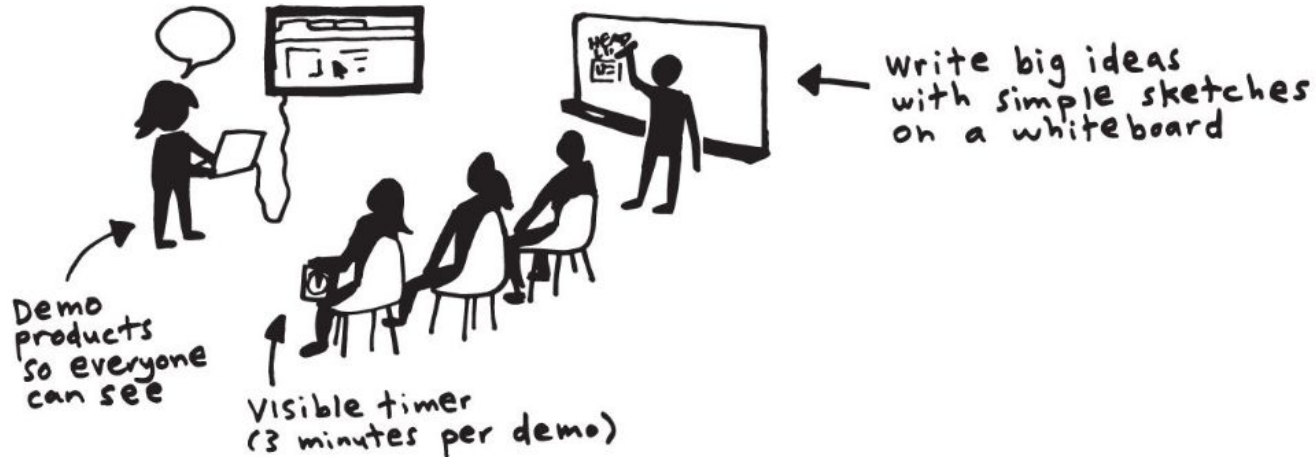
1) Benchmarking

Individual assignment

1. Look back at your final HMW challenge.
2. Search individually for **at least two inspiring existing solutions for similar challenges**.
Paste screenshots, pictures, links or other relevant materials below. Also dare to search for solutions not directly related to your challenge, think out of the box.

2) Lightning demos ⚡

1. Give a **two minute demo** to the rest of the group presenting the product(s)/service and why it is interesting.
2. Highlight the most inspiring and interesting elements by noting them down on a sticky note.



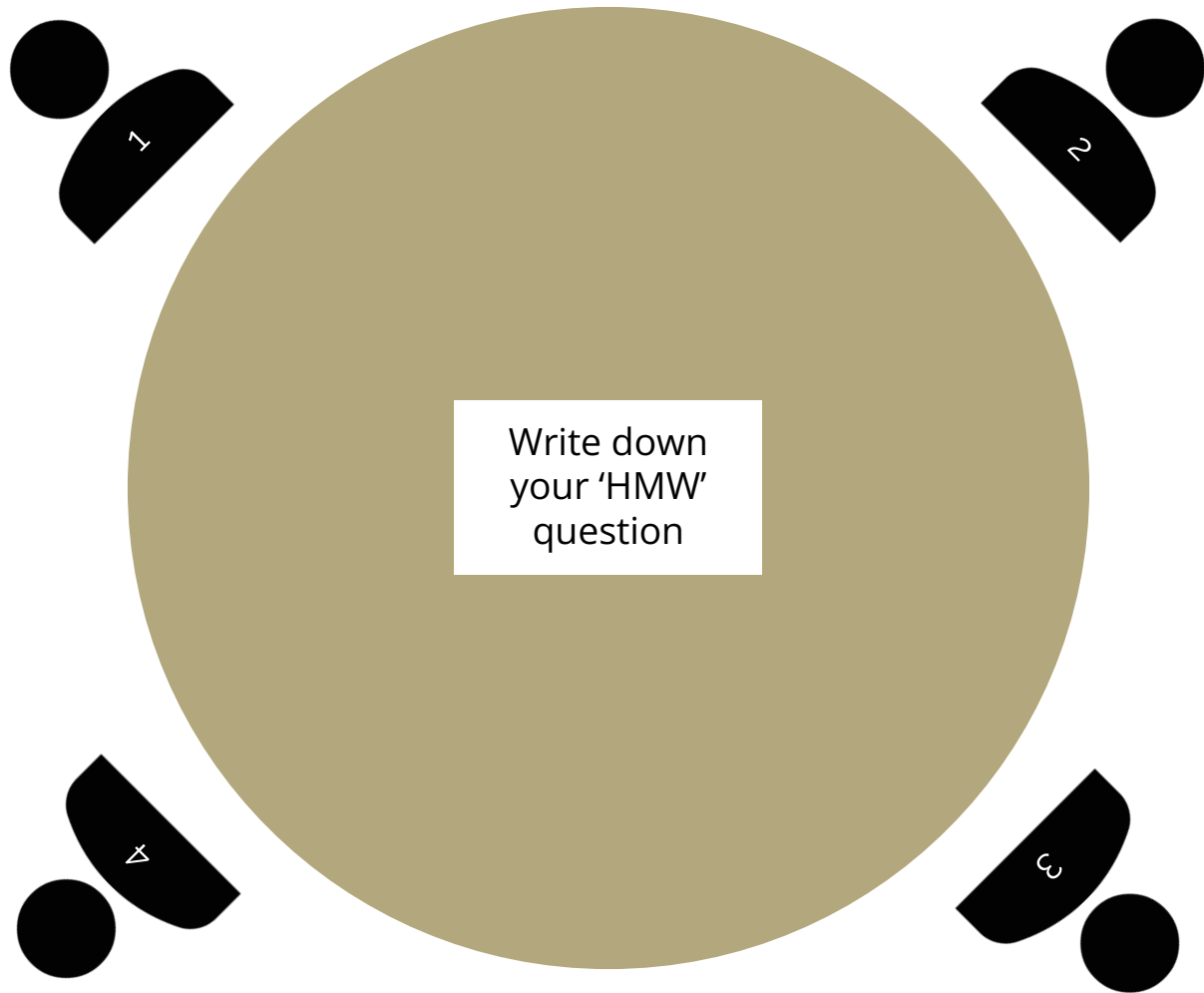
3) Lotus Blossom brainstorm

The lotus blossom method is a **brainstorming technique** that involves **building ideas around a central theme** and then **breaking them down** into deeper sub-themes.

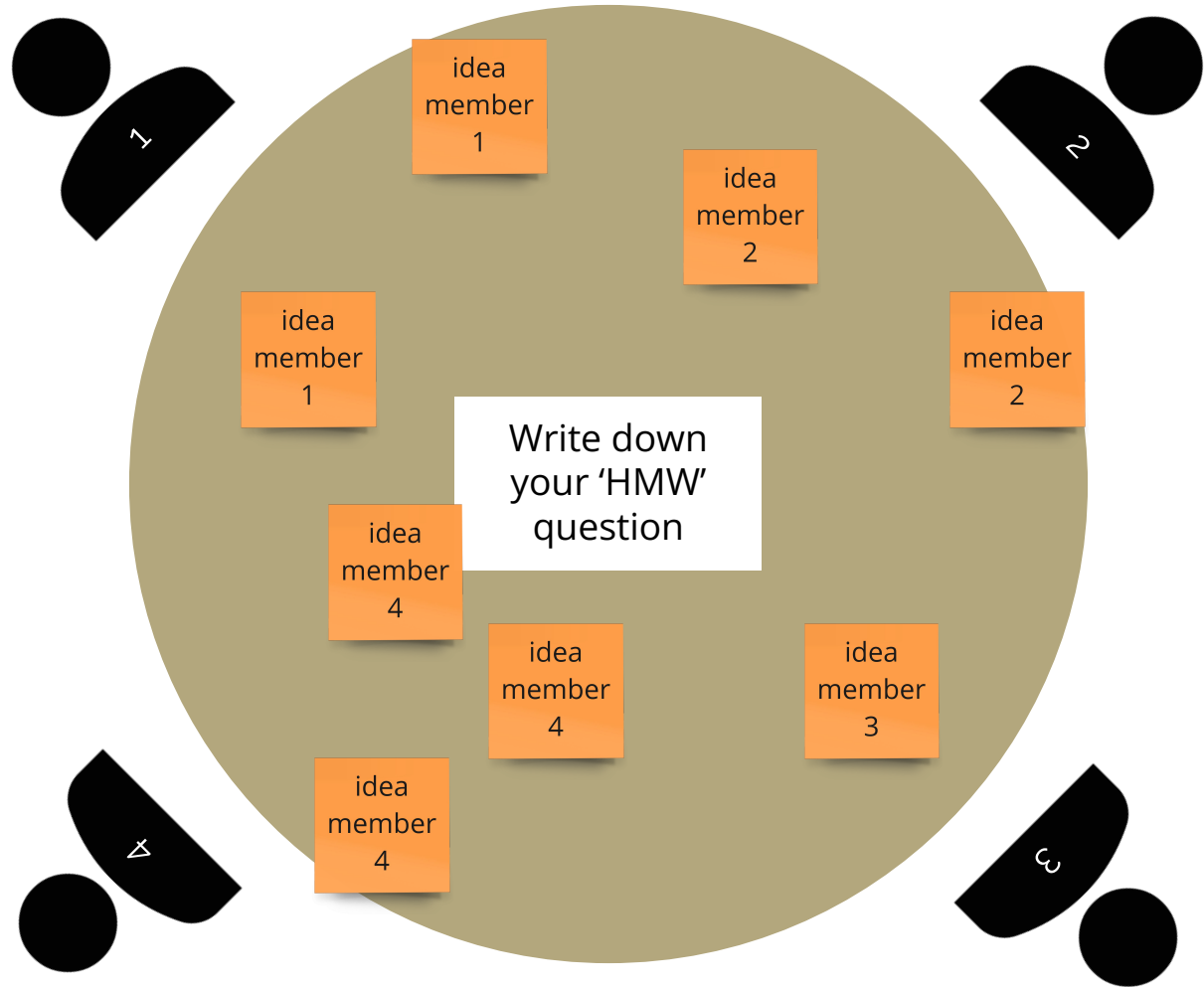
Why? A lotus blossom diagram challenges you to systematically explore one idea before moving on to the next.



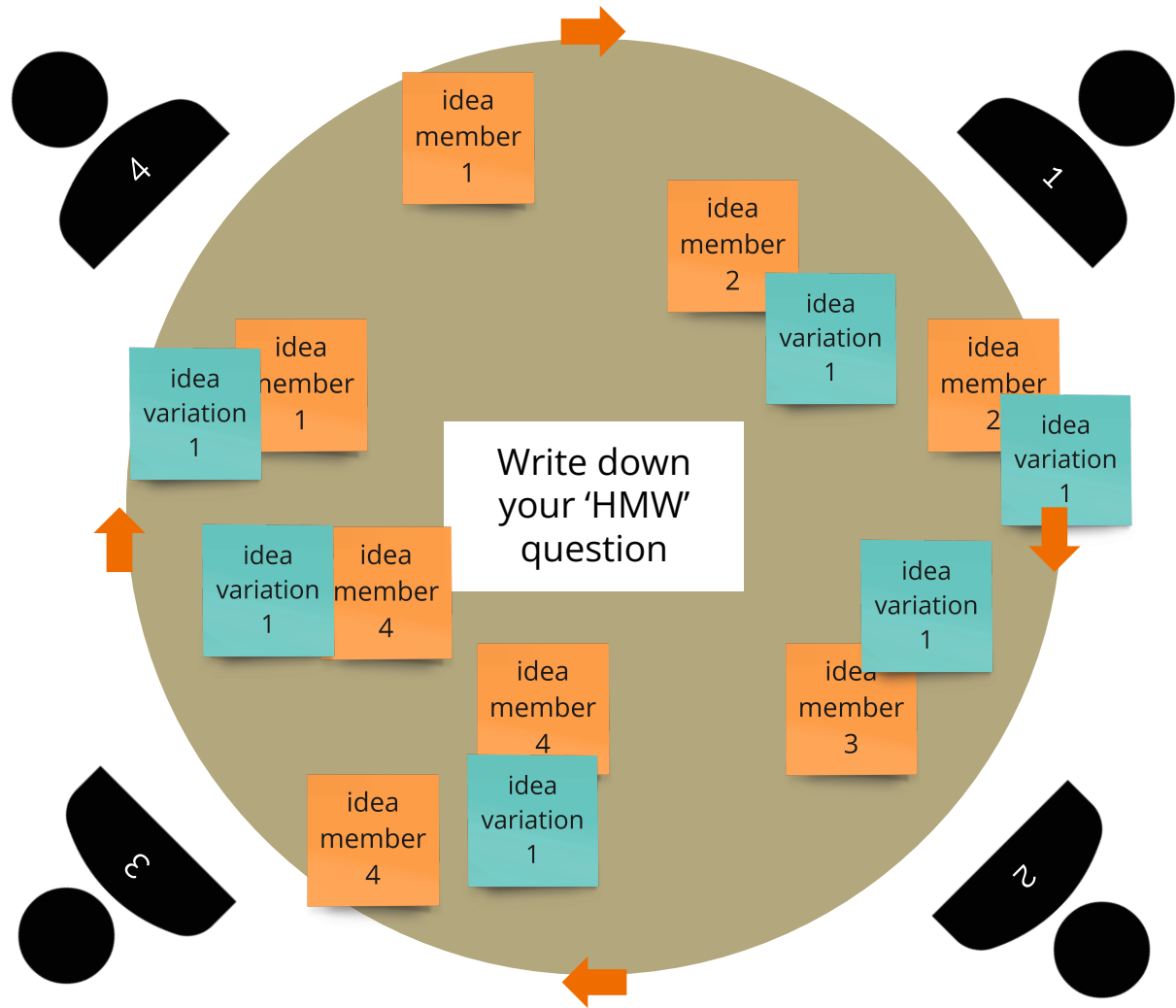
Step 1:
Write down your HMW question and
place it in the middle of the table.



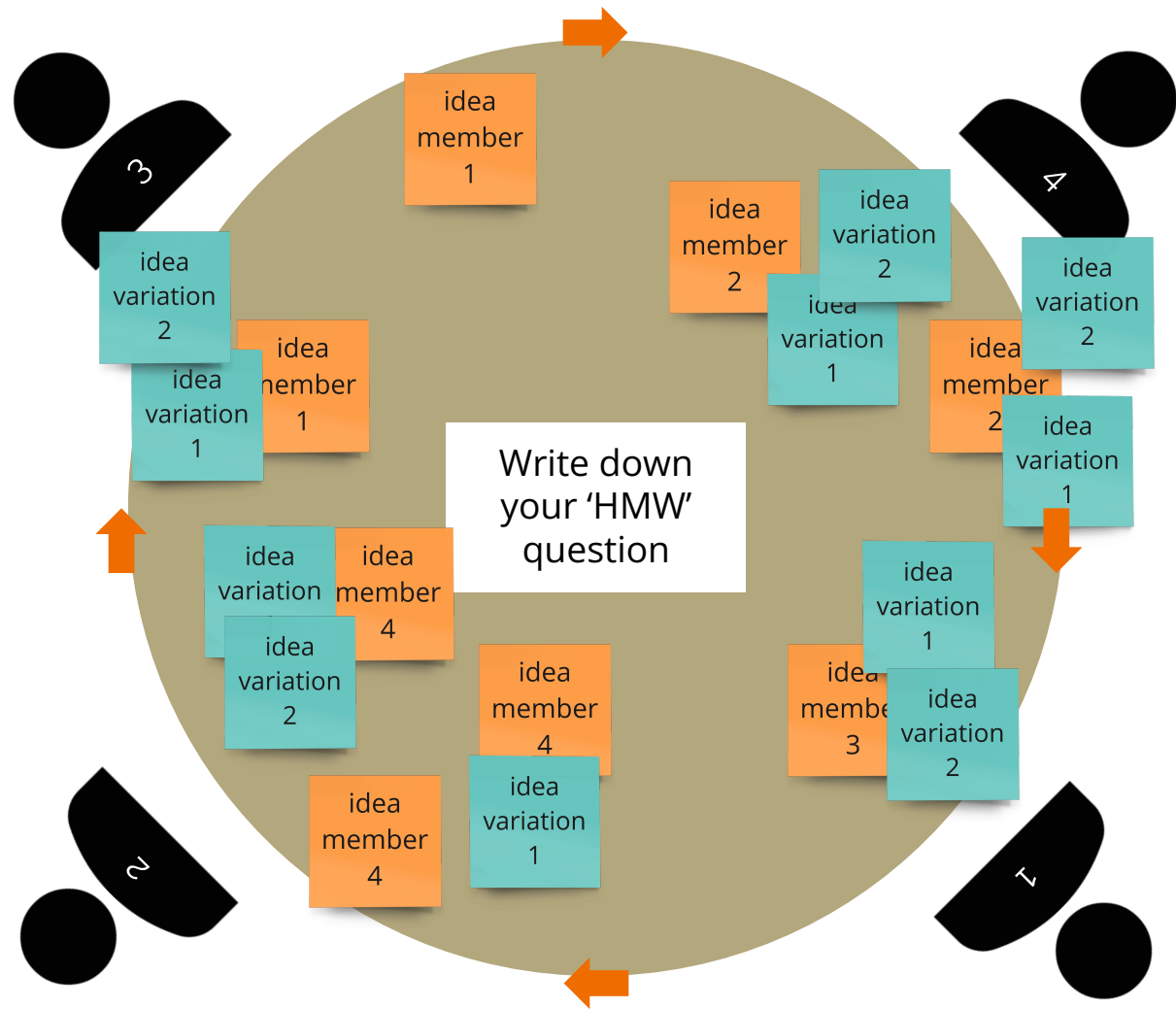
Step 2:
Take 10' to individually write down all your ideas on how to tackle your challenge. Use the result from the lightning demos as inspiration. You can either write down or sketch your solutions.



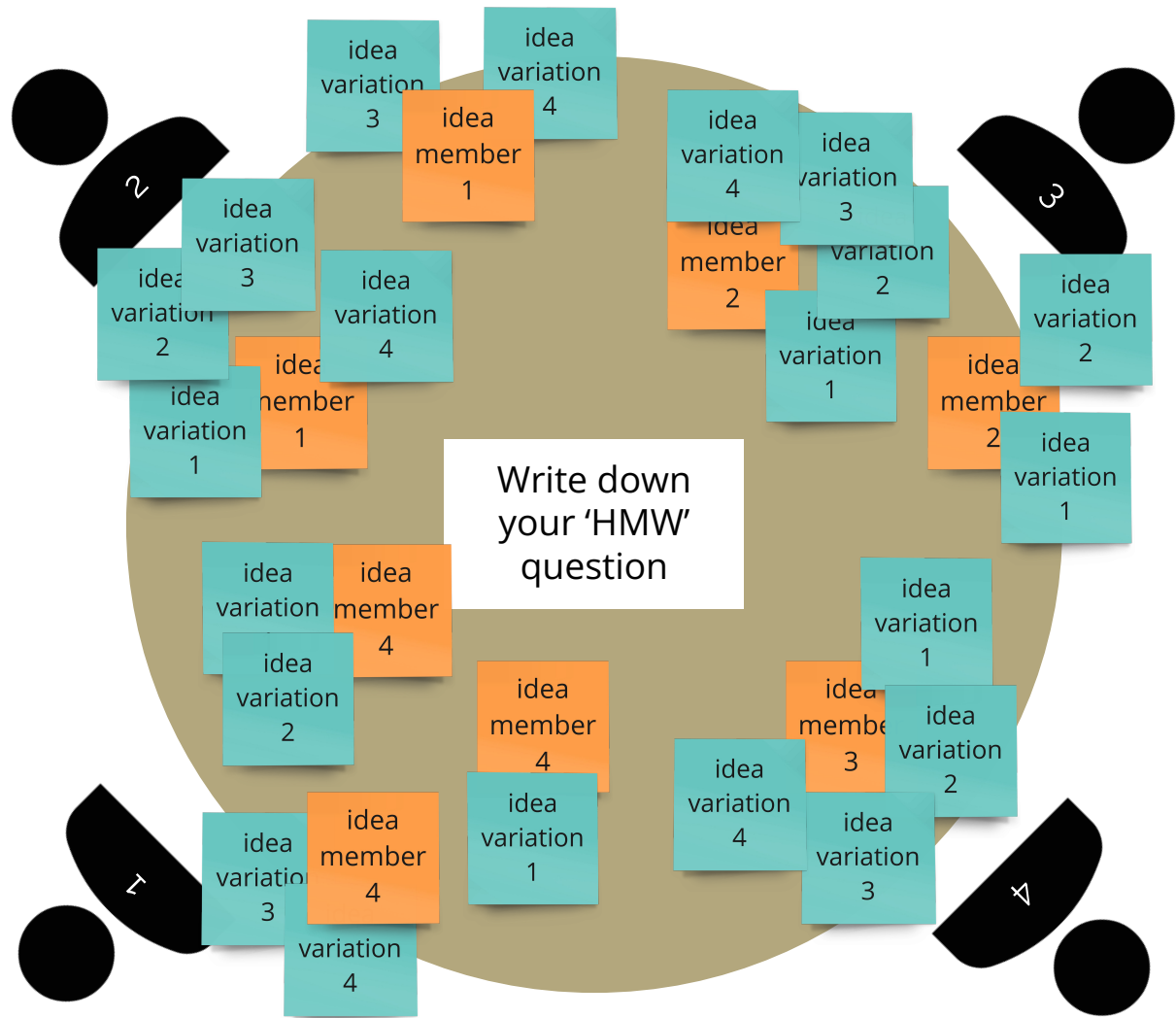
Step 3:
Move to the ideas of your neighboring group member and iterate on it (e.g. suggest improvements, alternatives, extensions, ...). Move to the next after 5'.



Step 3:
Move to the ideas of your neighboring group member and iterate on it (e.g. suggest improvements, alternatives, extensions, ...). Move to the next after 5'.



Step 4:
Take the rest of the time to go over all
the ideas in group.



Rules and tips for a successful brainstorm

Rules

- **Postpone** judgement!
- Be open and be **enthusiastic**
- Be **open** for naïve and **crazy ideas**
- Remember your **goal -> HMW**

Things you should not worry about yet:

This is too new...

The change is too big...

Let's be realistic...

I am not creative...

That is not logical...

There is no budget...

Our user will not like it...

Older people will not like it...

We can do it without...

Idea selection is a worry for tomorrow

1h 15' in total to complete these exercises (due by 12:00)



Do not forget to document every step

20'



Benchmarking



10'



**Lightning
demos**



45'



Lotus blossom