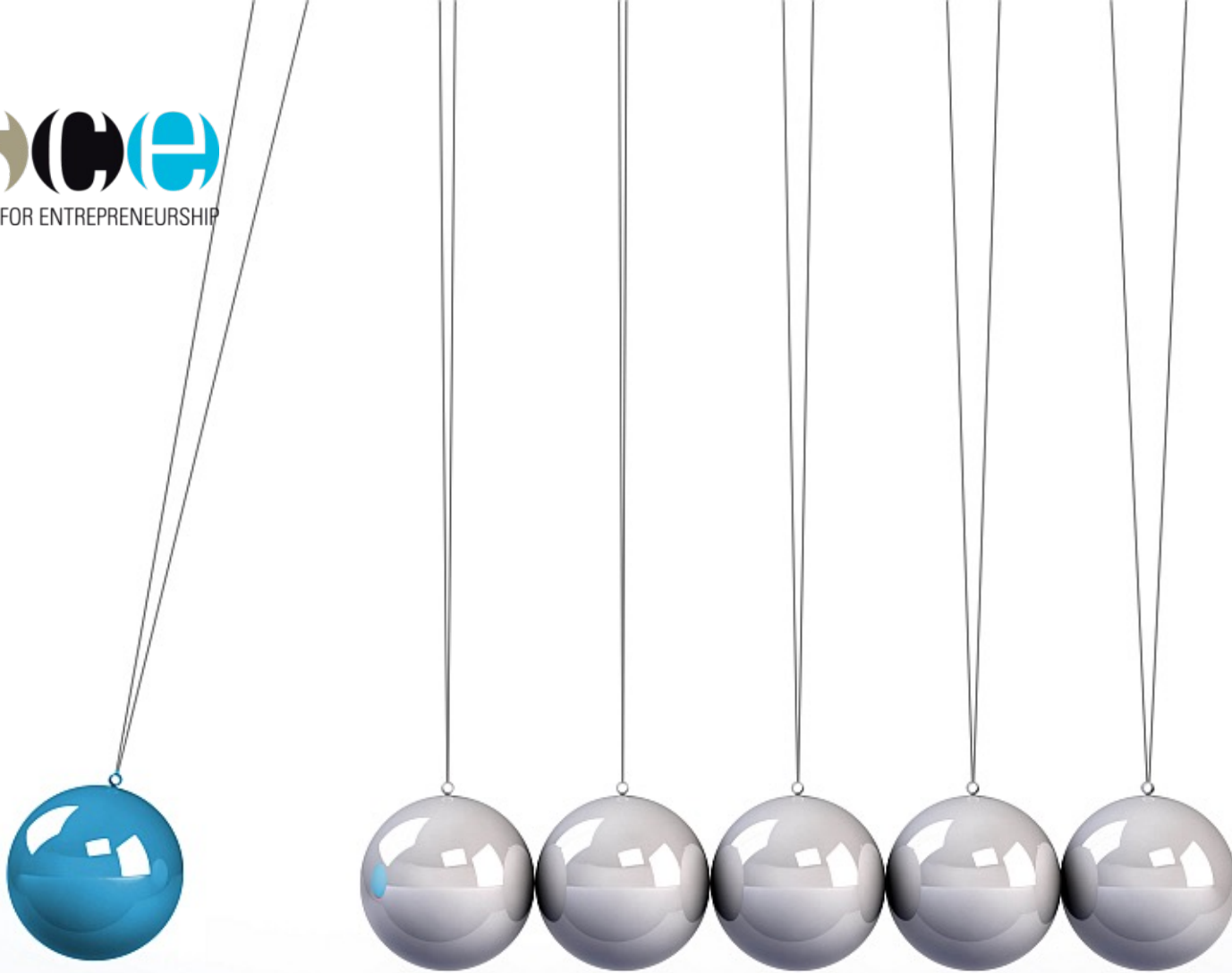




STRASCHEG CENTER FOR ENTREPRENEURSHIP



# ENTREPRENEURSHIP

Prof. Dr. Klaus Sailer, Bruno Müller

# THE DESIGN THINKING PROCESS.

3

HEAR

CREATE

DELIVER



# Synthesis: identify patterns

*This process can be messy and difficult at times, but ultimately very rewarding.*

Gather your notes, photos, any artifacts, interviews, mind maps and research.  
Put them on the WALL.

**Extract Key Insights-** What are the unexpected things that make you sit up and pay attention ?

- Select Key Information
- Aggregate Big Thoughts
- Work at Same Level

**Find Themes-** What are the commonalities, differences and relationships between pieces of information ?

- Look for categories and buckets
- Consider the relationship between categories
- Group and Re-Group
- Get input from the team



## SYNTHESIZE AND POINT OF VIEW: COAT HANGERS.

5

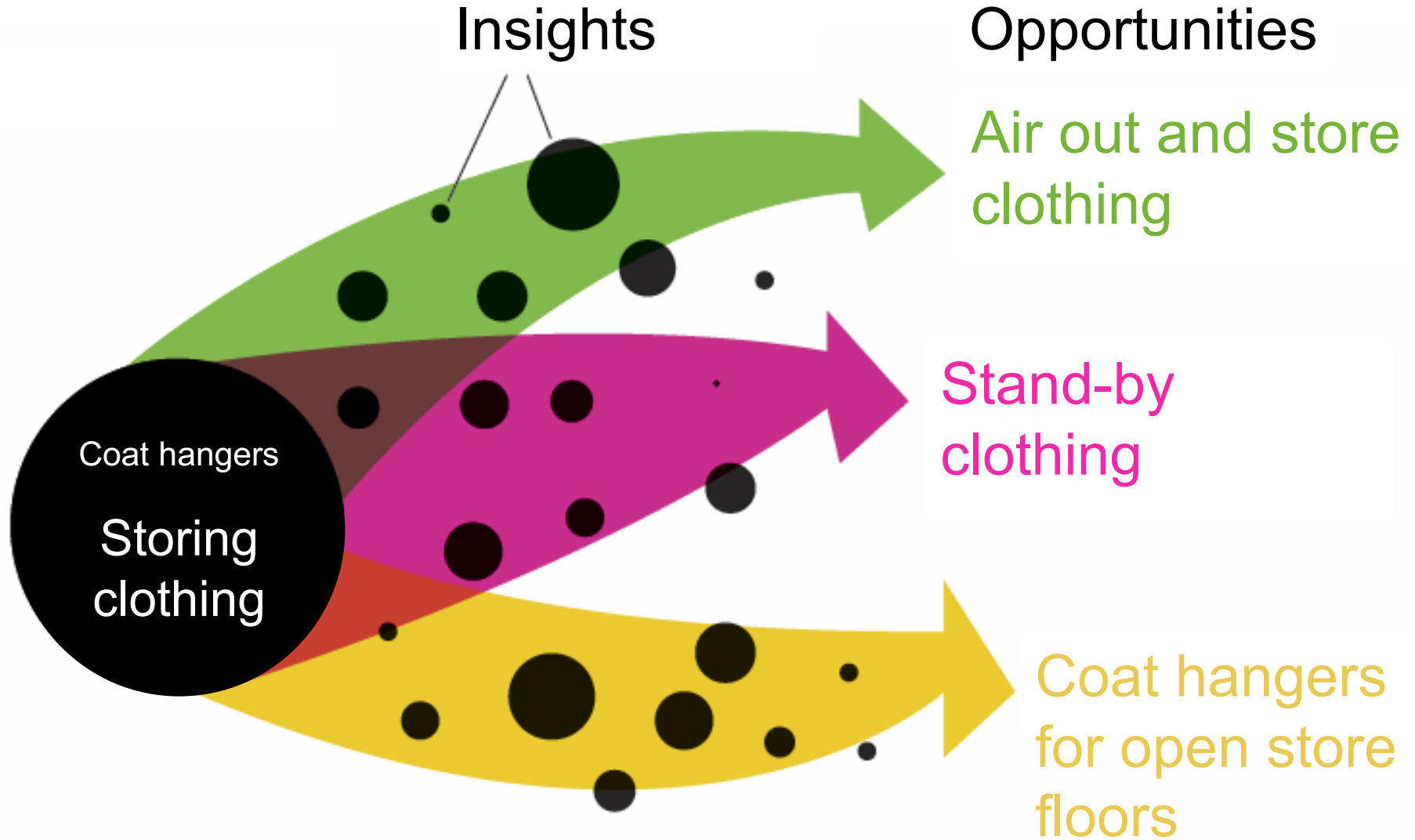
Coat hangers

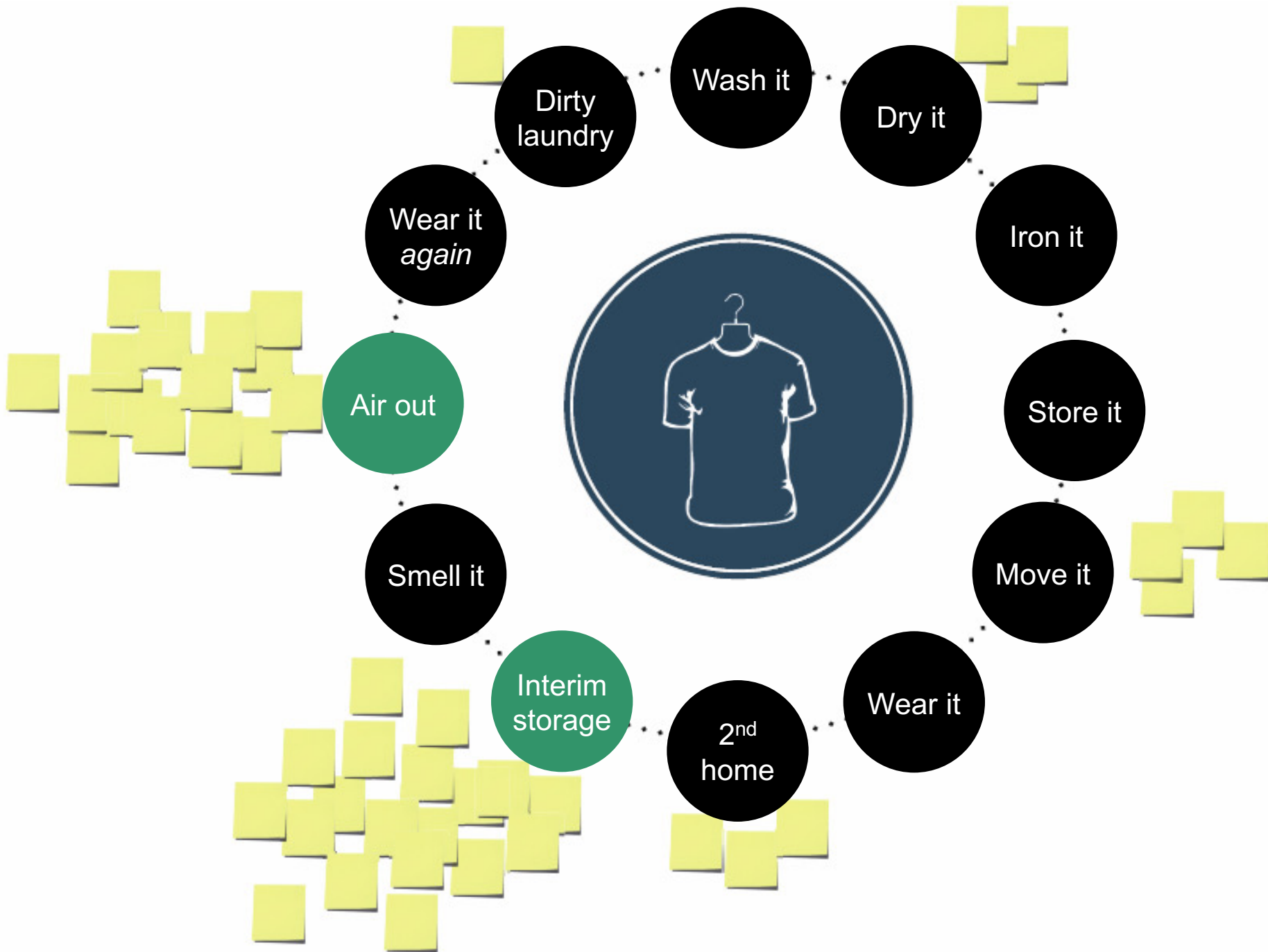
Storing  
clothing



# Insights







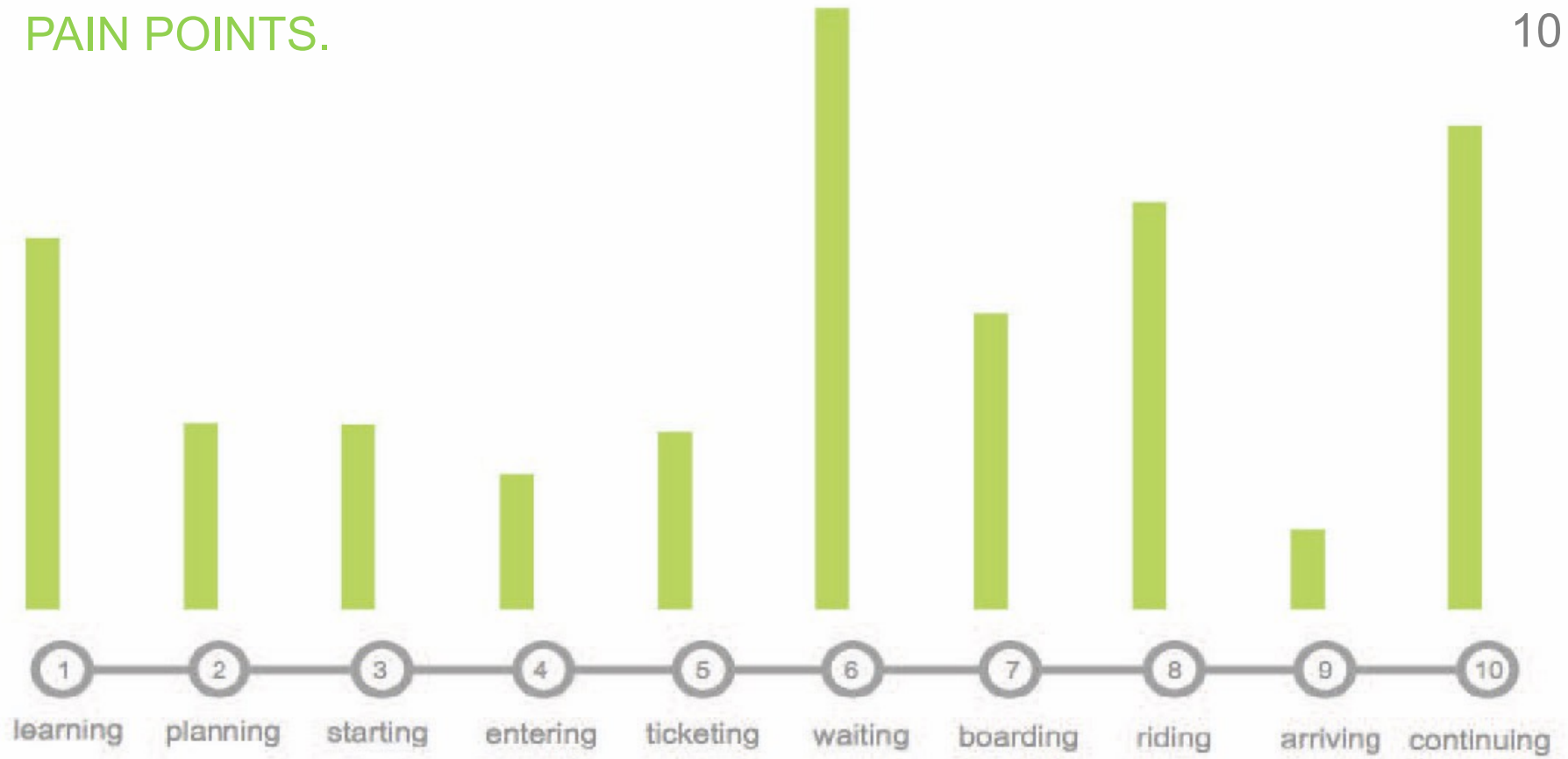
# TRAIN TRAVEL.

9



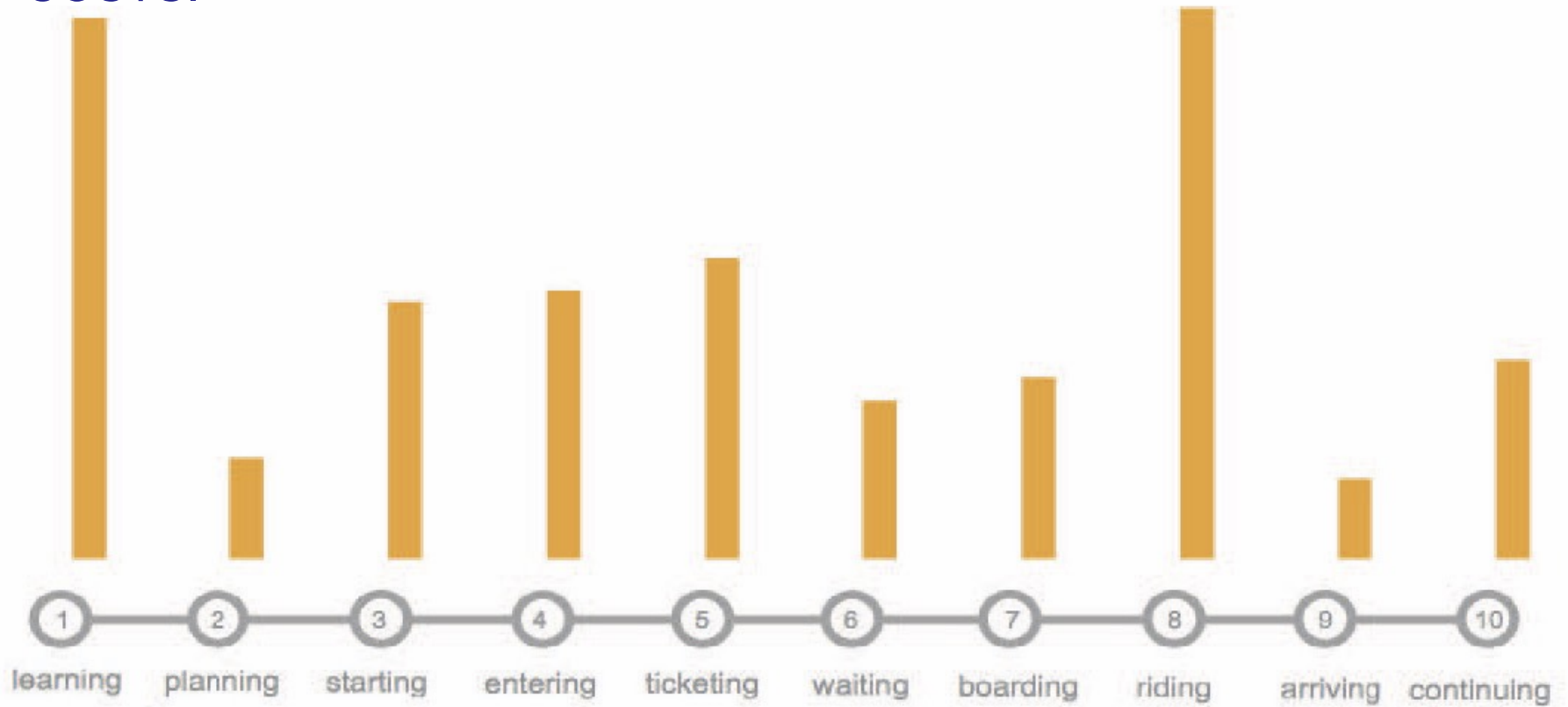
## PAIN POINTS.

10



## COSTS.

11





PAIN POINTS & COSTS.



## FIND PATTERNS.

13

What can be grouped together?

Sort your insights by themes and categories.

How do they relate to each other?

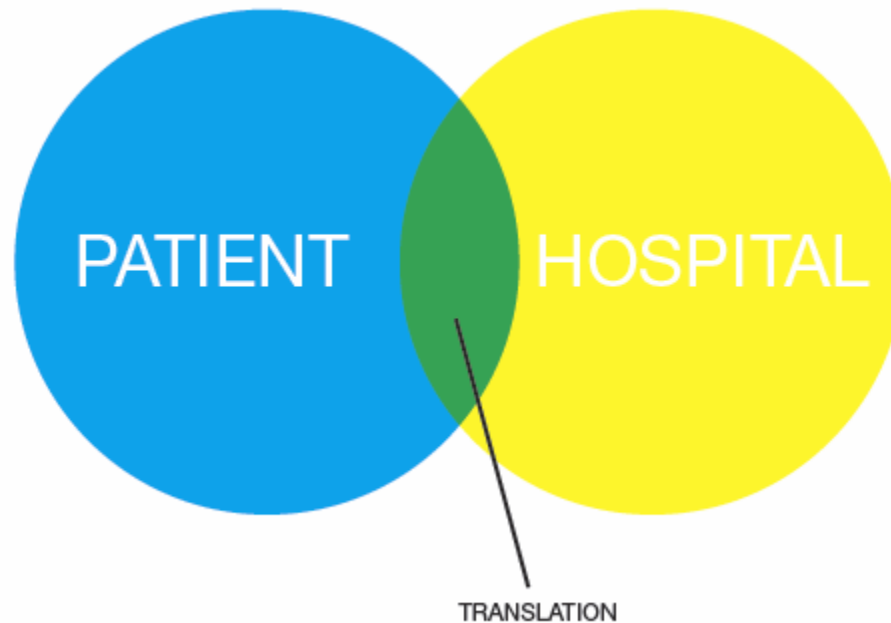
Look for patterns or friction points.

Can you rank or layer the information?

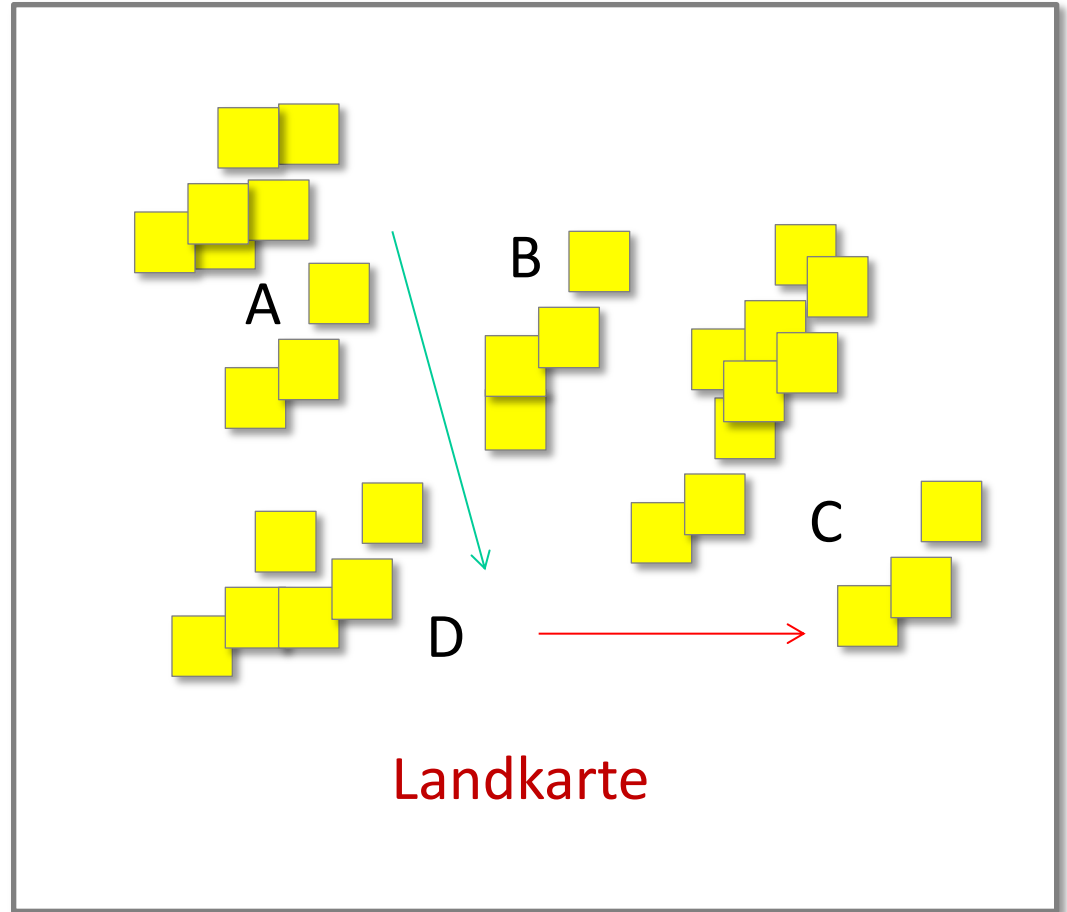
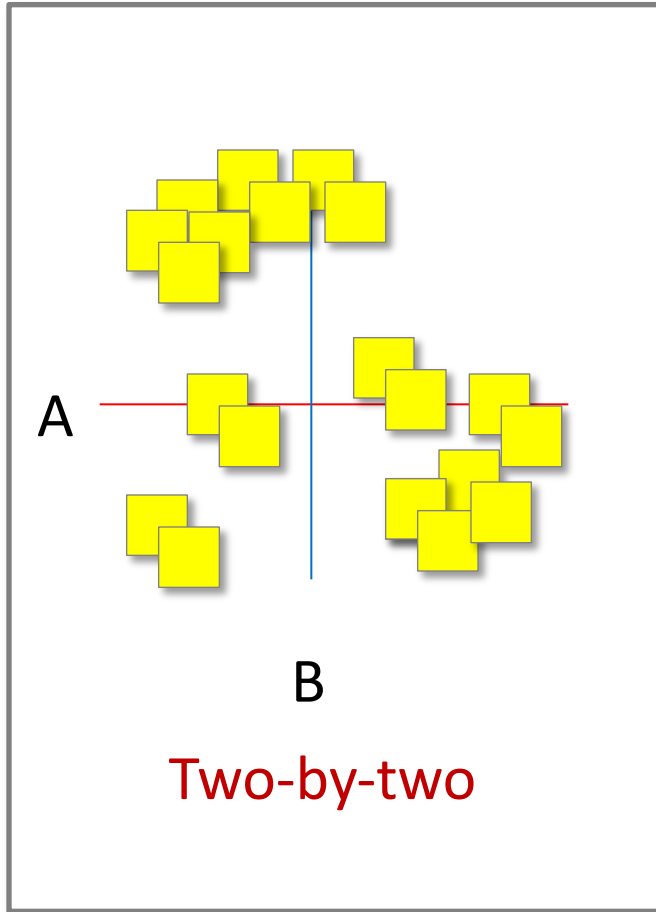
FRAMEWORKS. // VENN DIAGRAM.

14

# THE HOSPITAL EXPERIENCE.



# Synthesis – Patterns

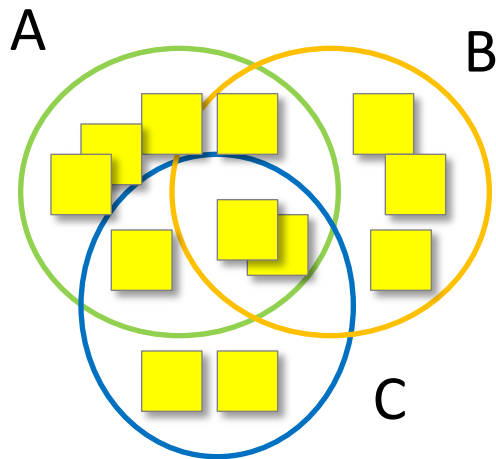


## FRAMEWORKS // TWO-BY-TWO MATRIX.

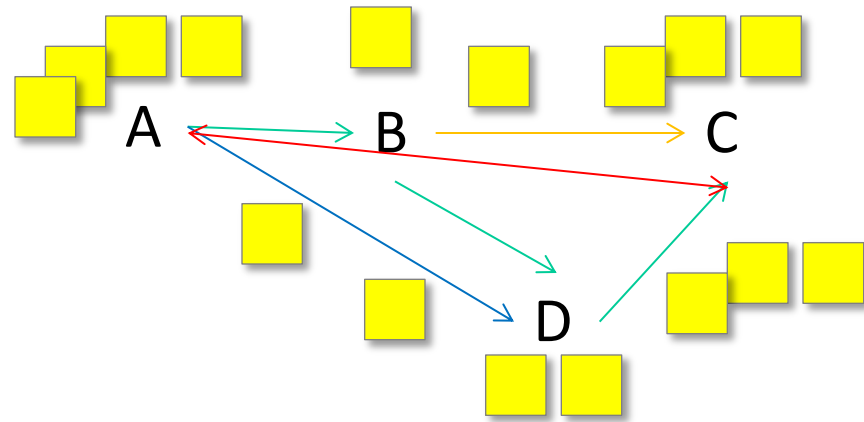
16



# Synthesis – Patterns



Mengendiagramm



Journey



## PAIN POINTS & COSTS.

18





Tell each other **stories**, about what you have discovered.

Just start, even if you don't know why the story might be important.

Group members: Take notes and comments.

Compare things you have learned.

Have you found “work-arounds”?

Which stories & users were most surprising?

Read **between** the lines.

What really moved the users?

How was their mood?

How did the interaction with the users feel?

What was the context?

What information can be grouped together?

## Activity #1: Understanding the Challenge.

In your group, share your personal best and worst experience you had when you observed people.

While one person shares their story, other group members should note the two most memorable quotes from this story on Post-It notes.

Ask questions to clarify each story.

After you all took your turn, arrange the Post-It notes on a blank board.

Watch the time!

# Persona

## Jill Anderson



"I'm looking for a site that will simplify the planning of my business trips."

AGE 29

OCCUPATION Regional Director

STATUS Single

LOCATION Portsmouth, NH

TIER Frequent Traveler

ARCHETYPE The Planner

Organized

Practical

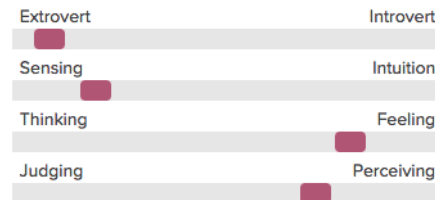
Protective

Hardworking

### Bio

Jill is a Regional Director who travels 4-8 times each month for work. She has a specific region in which she travels, and she often visits the same cities and stays in the same hotel. She is frustrated by the fact that no matter how frequently she takes similar trips, she spends hours of her day booking travel. She expects her travel solutions to be as organized as she is.

### Personality



### Brands



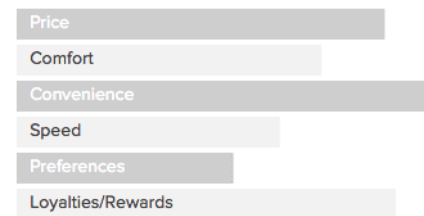
### Goals

- To spend less time booking travel
- To maximize her loyalty points and rewards
- To narrow her options when it comes to shop

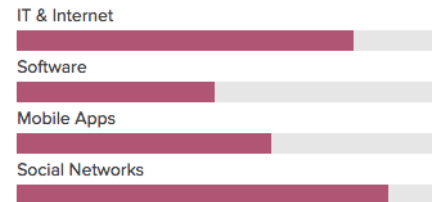
### Frustrations

- Too much time spent booking - she's busy!
- Too many websites visited per trip
- Not terribly tech saavy - doesn't like the process

### Motivations



### Technology





# Positioning by a PERSONA:

## Describe your target group by an individual

### Peter

#### The busy parent

#### About Peter

- Works in London for an advertising firm
- Lives in Surrey with his wife and 2 young kids
- Has a busy life so is a big fan of time savers
- Is comfortable online and does a lot of shopping online (as it's more convenient)
- Is a 'hunter' shopper – wants to get in and out as quickly as possible
- When shopping usually just wants to find something that ticks all the boxes
- Wants to get good value – preferably the best price possible
- Gets frustrated by not being able to specify a delivery window for online purchases
- Gets annoyed by slow and clunky websites



*"I don't want to have to  
faff around"*


#### Key goals

- To get the best price possible
- Be inspired
- A quick and painless online purchase

# Positioning by a PERSONA:

## Describe your target group by an individual

# TOBI DAY



**AGE** 26

**OCCUPATION** Record Store Manager

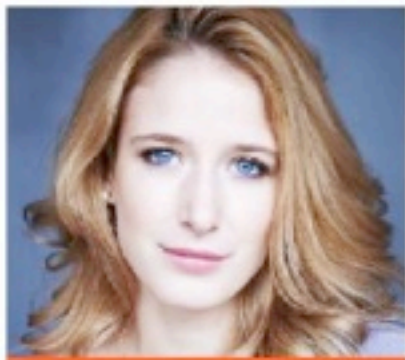
**STATUS** Single

**LOCATION** New York, NY

**TIER** Enthusiast

**ARCHETYPE** The Maestro

**Tags:** Ambitious, Admired, Focused



*"If I had a way to share projects and collaborate in real time, that would make my workload so much easier to manage."*

**MOTIVATIONS**

Incentive	Low
Fear	Low
Achievement	Medium
Growth	High
Power	Medium
Social	Medium

**GOALS**

- To grow a strong industry reputation
- To build an audio-pro portfolio
- To keep track of everything

**FRUSTRATIONS**

- Slow download times
- Data crashes
- Poor communication

**BIO**





Tobi has a day job at a record store, but on the side she does all kinds of production work for up-and-coming artists. She never hesitates to learn something new and she often acts as tech support for her friends and clients. She is usually working on a dozen projects at a time and is trying to establish herself in the industry, so she hates data crashes or anything that makes her look bad. Because she works alone and in her home, collaboration is everything.

**PERSONALITY**

Extrovert	Low	Introvert
Sensing	Low	Intuition
Thinking	Low	Feeling
Judging	Low	Perceiving

**TECHNOLOGY**

IT and Internet	High
Software	Medium
Mobile Apps	Medium
Social Networks	Medium

# Focus → Vision and Mission

## Key Message

What is the single most important thing to convey?

### Who

Who is this for?

This is called the **target audience**.

### What

What is the goal?

This is called the **problem statement** or **challenge statement**.

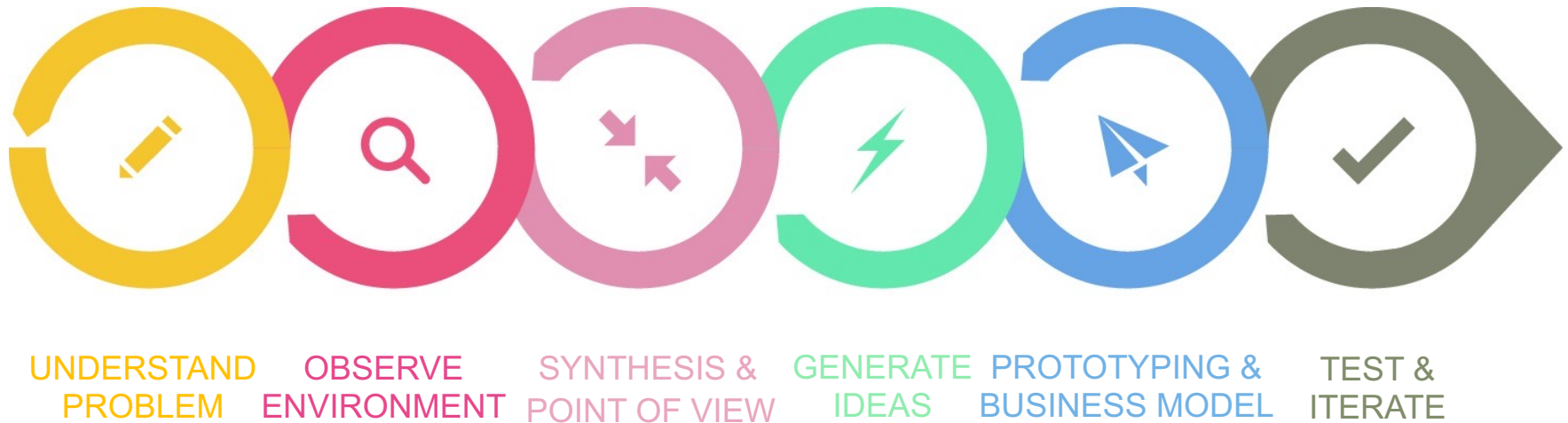
### Why

Why is this being done?

This is called the **purpose statement**.

# THE DESIGN THINKING PROCESS.

30



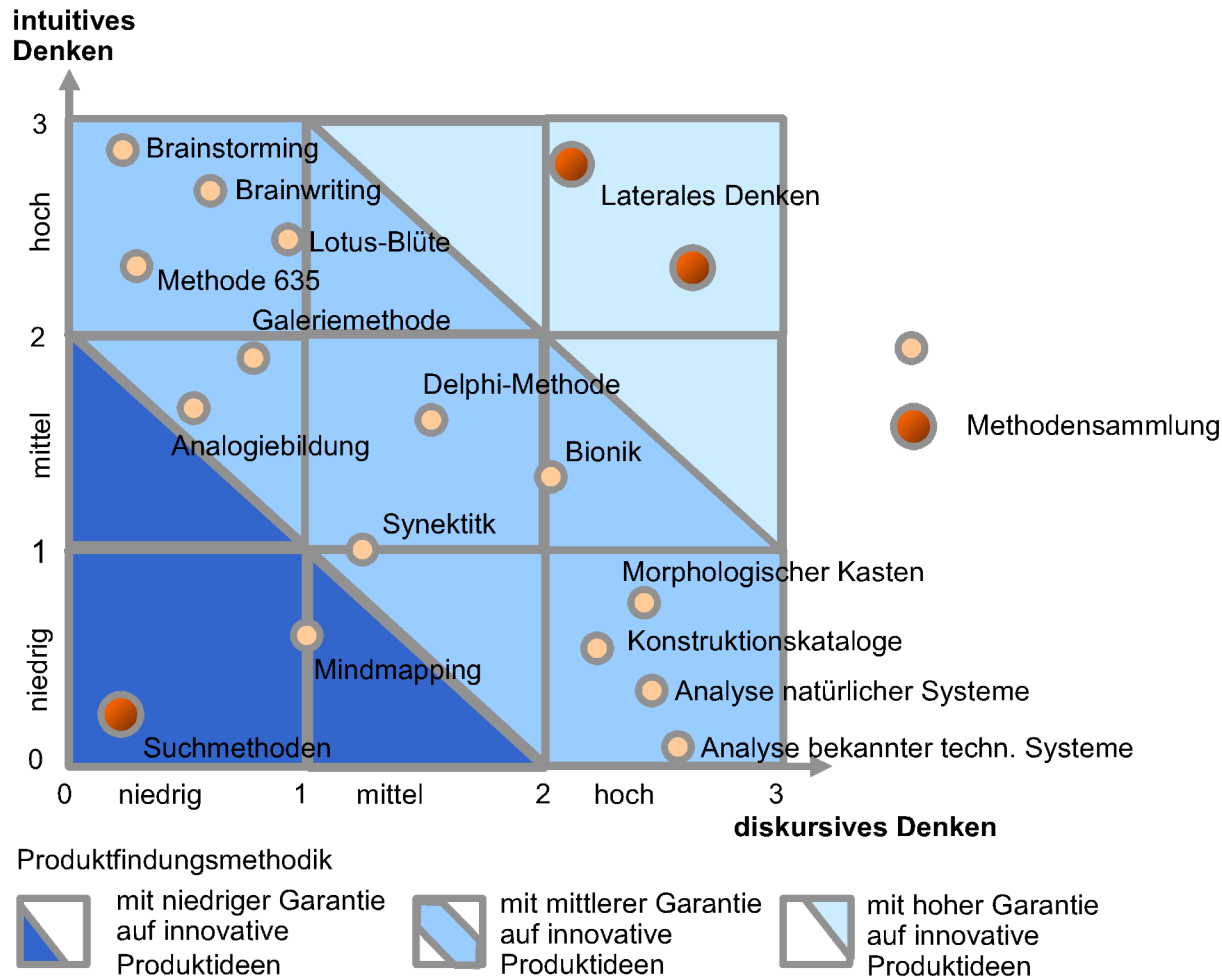


# ALWAYS ASK “HOW MIGHT WE ...” QUESTIONS.

31



# Creativity methods





## GENERATE IDEAS. // BRAINSTORMING.

33

Don't manage to fix.

Manage to **create**! It is all about what might be!

Good brainstorm topics start with:

**“How might we ...”**

Topics shouldn't be too broad or too narrow.

Good topics should **inspire** you.

Usually you start with a warm-up.

## GOOD BRAINSTORMING NEEDS RULES !

34



## GOOD BRAINSTORMING NEED TOOLS !

35

Post-It notes.

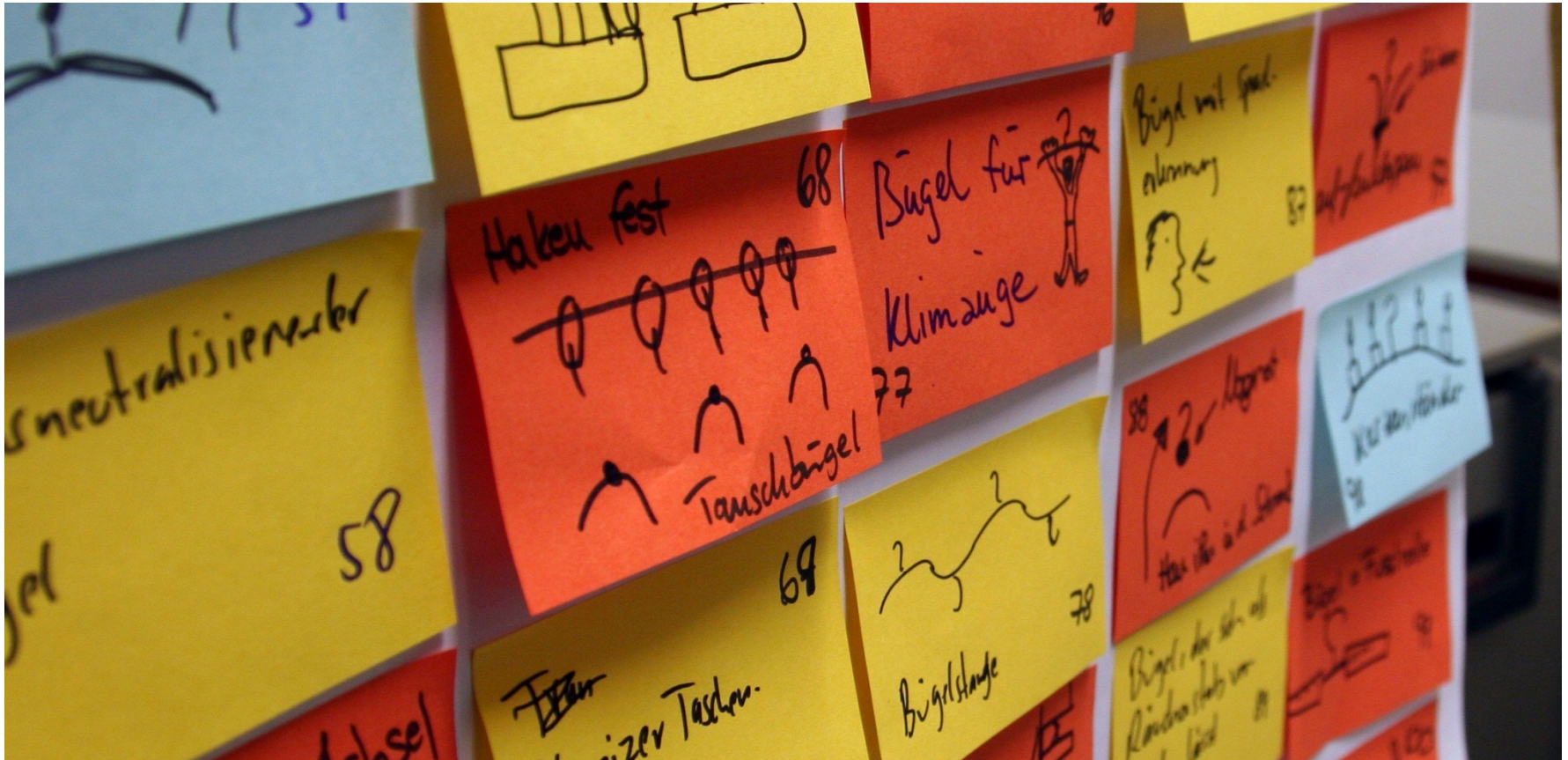
Walls, boards, flipcharts.

Felt-tip pens (not too thin!).

Drawing is thinking!

Moderator ?

... and the good stuff: chocolate, snacks, and if everything else fails, even beer.





## SHOULD WE USE A MODERATOR FOR BRAINSTORMING?

37



# Value Innovation

In the red ocean, differentiation costs because firms compete with the same best-practice principle. Here, the strategic choices for firms are to pursue either differentiation or low cost. In the reconstructionist world, however, the strategic aim is to create new best-practice rules by breaking the existing value-cost trade-off and thereby creating blue ocean.

Red Ocean Strategy	Blue Ocean Strategy
Compete in existing market space.	Create uncontested market space.
Beat the competition.	Make the competition irrelevant.
Exploit existing demand.	Create and capture new demand.
Make the value-cost trade-off.	Break the value-cost trade-off.
Align the whole system of a firm's activities with its strategic choice of differentiation <i>or</i> low cost.	Align the whole system of a firm's activities in pursuit of differentiation <i>and</i> low cost.

# Blue Ocean Strategy

Key:

- Focus
- Divergence
- Tagline

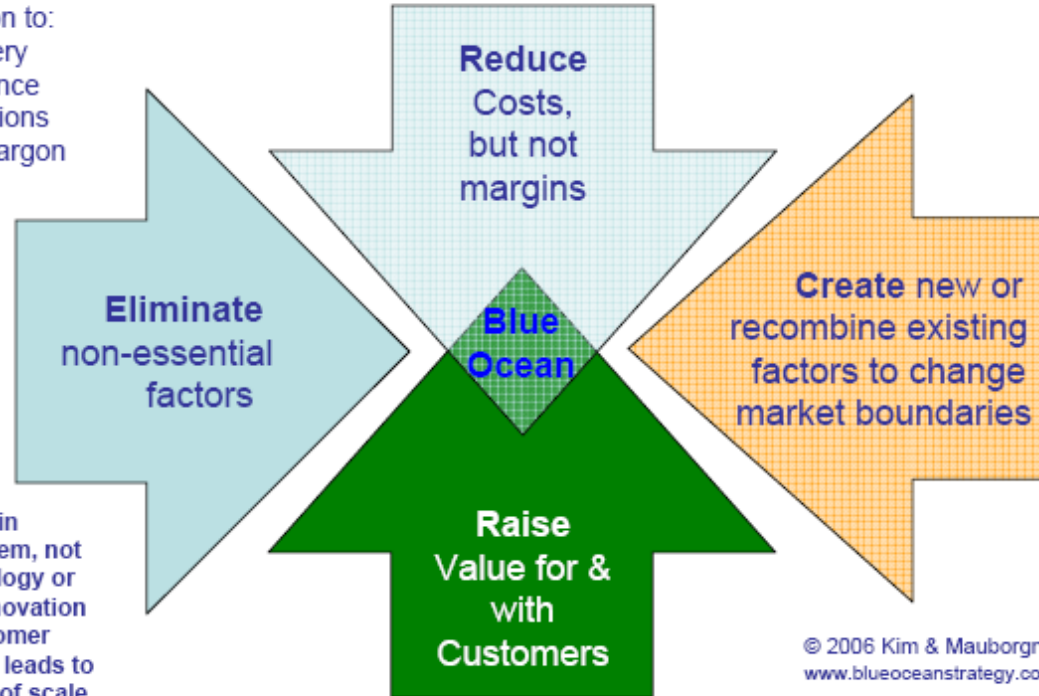
**Value Innovation - leaping to the  
“Blue Ocean” Market Space**

Pay attention to:

- Overdelivery
- Inchoherence
- Contradictions
- Complex jargon

Note:

- Innovation in Whole System, not just technology or process innovation
- Rapid customer acceptance leads to economies of scale



© 2006 Kim & Mauborgne  
[www.blueoceanstrategy.com](http://www.blueoceanstrategy.com)

Prepared by KEE International & Innovatika

# Blue Ocean Strategy

## Cirque du Soleil The “Eliminate-Reduce-Raise-Create” Grid



<b>Eliminate:</b> <ul style="list-style-type: none"><li>• Star performers</li><li>• Animal shows</li><li>• Aisle concession sales</li><li>• Three rings</li></ul>	<b>Raise:</b> <ul style="list-style-type: none"><li>• Unique venue (tent with comfort)</li></ul>
<b>Reduce:</b> <ul style="list-style-type: none"><li>• Fun and humor</li><li>• Thrill and danger</li></ul>	<b>Create:</b> <ul style="list-style-type: none"><li>• Theme</li><li>• Refined environment</li><li>• Multiple productions</li><li>• Artistic music and dance</li></ul>

Reduced Cost of Product      Differentiation

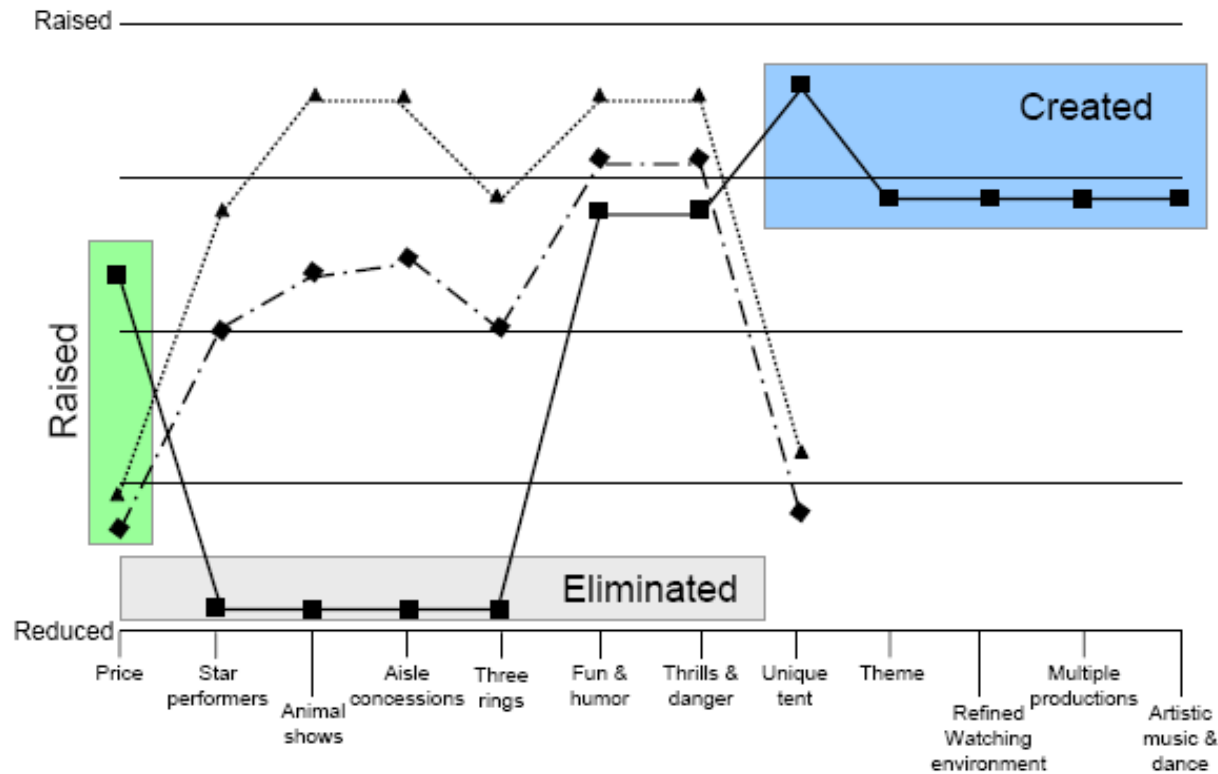
© 2006 Kim & Mauborgne  
[www.blueoceanstrategy.com](http://www.blueoceanstrategy.com)



# Blue Ocean Strategy

Tagline: "The circus-theater for adults with children's hearts"

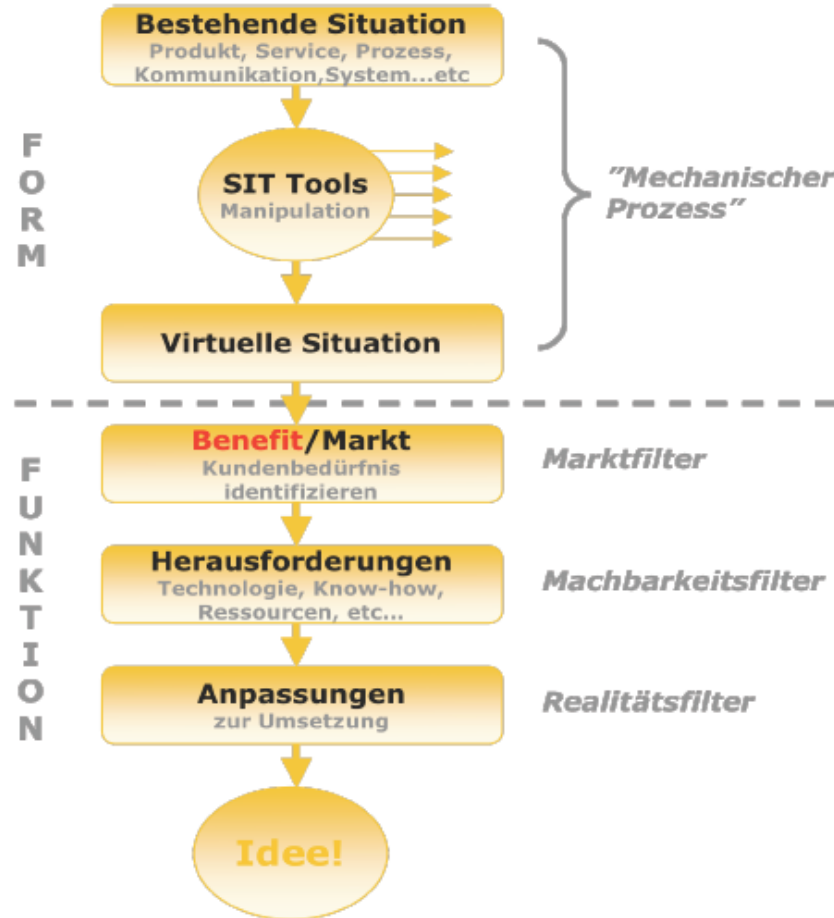
## Blue Ocean Strategy Canvas Cirque du Soleil



© 2006 Kim & Mauborgne  
[www.blueoceanstrategy.com](http://www.blueoceanstrategy.com)

# SIT Process

## Funktion Follows Form



# The Tools: Multiplication

In gewisser Hinsicht ist dieses Tool die Umkehrung von Subtraktion, denn anstatt eine Komponente zu entfernen wird hier eine hinzugefügt. Jedoch unterliegt dieses Hinzufügen klar definierten engen Beschränkungen.

## Ablauf

1. Die internen Komponenten des Produktes auflisten.
2. Eine dieser Komponenten duplizieren
3. Das Duplikat darf nicht komplett identisch sein, sondern muss eine qualitative Veränderung beinhalten gegenüber der Originalkomponente
4. Das daraus resultierende virtuelle Produkt visualisieren
5. Potentiellen Nutzen, Märkte, Werte identifizieren
6. Anpassungen vornehmen

## Beispiele



Kapro Wasserwaage

- Multi-Wasserwaage
- Mehrkammer-Wäschebox
- Gillette Mehrklingenrasierer
- Stereo-Effekt
- 2 Augen, 2 Ohren
- Neutralisation von Geräuschen durch phasenversetzte Gegengeräusche

# SIT: The Tools



## Division

Die Resultate aus der Anwendung von Division sind oft recht ähnlich mit denen von Multiplikation, doch nicht immer. Die Grundidee von Division besteht darin, neue gedankliche Spielräume zu eröffnen indem man das Produkt oder dessen Komponenten aus ihrer momentanen Lage, Verbindung oder Aufgabe herauslöst.



## Subtraction

Die Idee von Subtraction besteht darin, vom bestehenden Produkt eine oder mehrere wesentliche



## Multiplication

In gewisser Hinsicht ist dieses Tool die Umkehrung von Subtraktion, denn anstatt eine Komponente zu entfernen wird hier eine hinzugefügt. Jedoch unterliegt dieses Hinzufügen klar definierten engen Beschränkungen.

# SIT: The Tools



## Task Unification

Einer vorhandenen Ressource wird eine neue Aufgabe zugeordnet, um dadurch ein Problem zu überwinden oder eine Innovation zu schaffen.



## Attribute Dependency

Attribute Dependency ist das wirksamste Tool von SIT. Es ist etwas komplexer als die anderen, da es mit Attributen arbeitet, und nicht einfach mit Komponenten. Die Grundidee besteht im schaffen, ändern oder beseitigen bestehender Abhängigkeiten von Produktattributen.

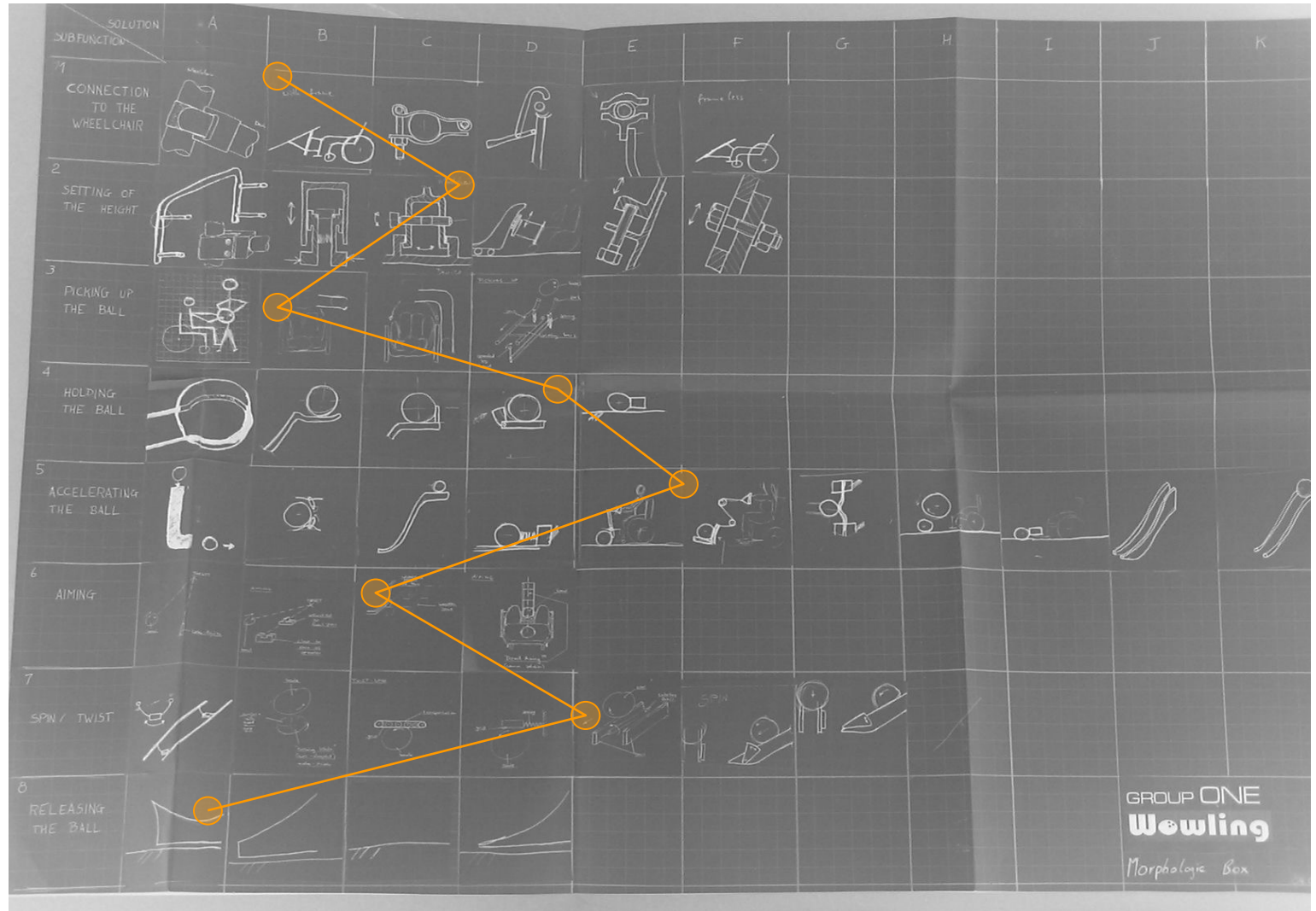
# Morphological Box

- **"Morphology" is a method of thinking which has been introduced by the astrophysicist Fritz Zwicky (1898-1974).**

**One of the ideas of morphology is to systematically search for a solution of a problem by trying out all combinations in a matrix of expressions. The matrix is called a 'morphologic box'. The fact that the search will also reveal unusual or even crazy combinations, is one of the basic ingredients of creativity.**

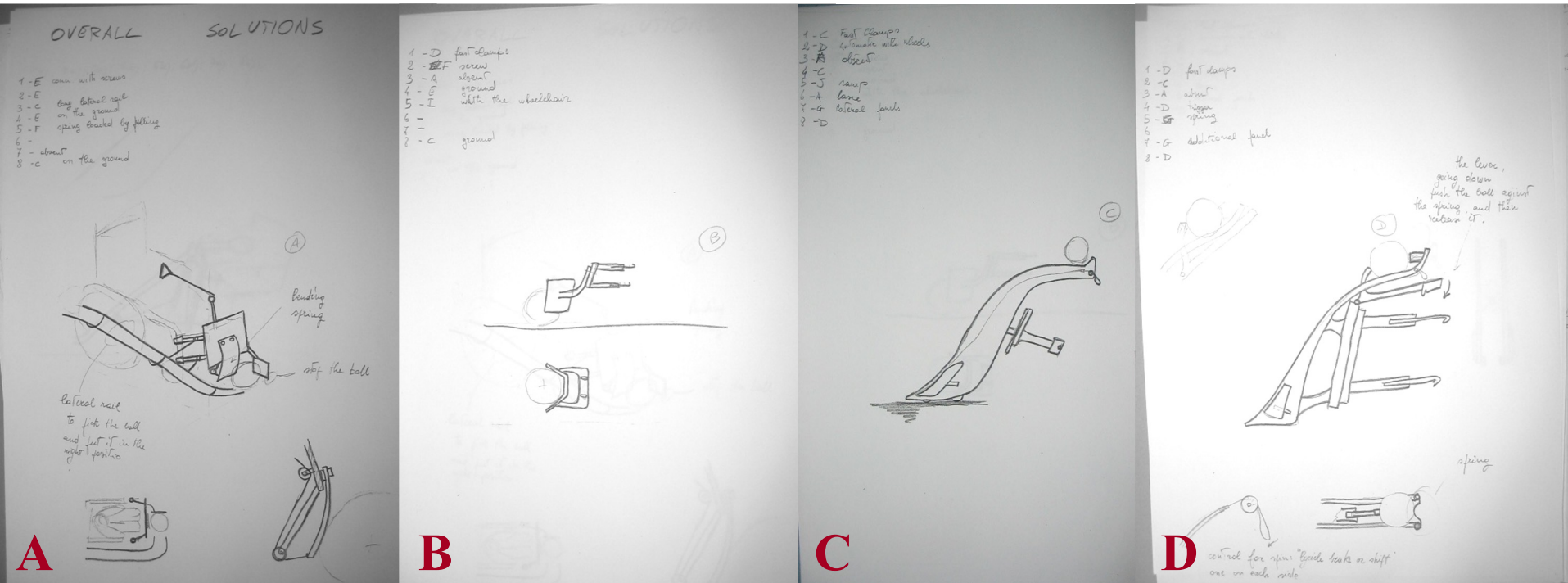
- **Typical Approach:**
  - **Define problem**
  - **Determine the categories /subfunctions**
  - **List subfunctions**
  - **Draw the matrix and fill in the elements**
  - **Decide upon the combinations**
  - **Select the solution**

# Morphological Box





# Morphological Box

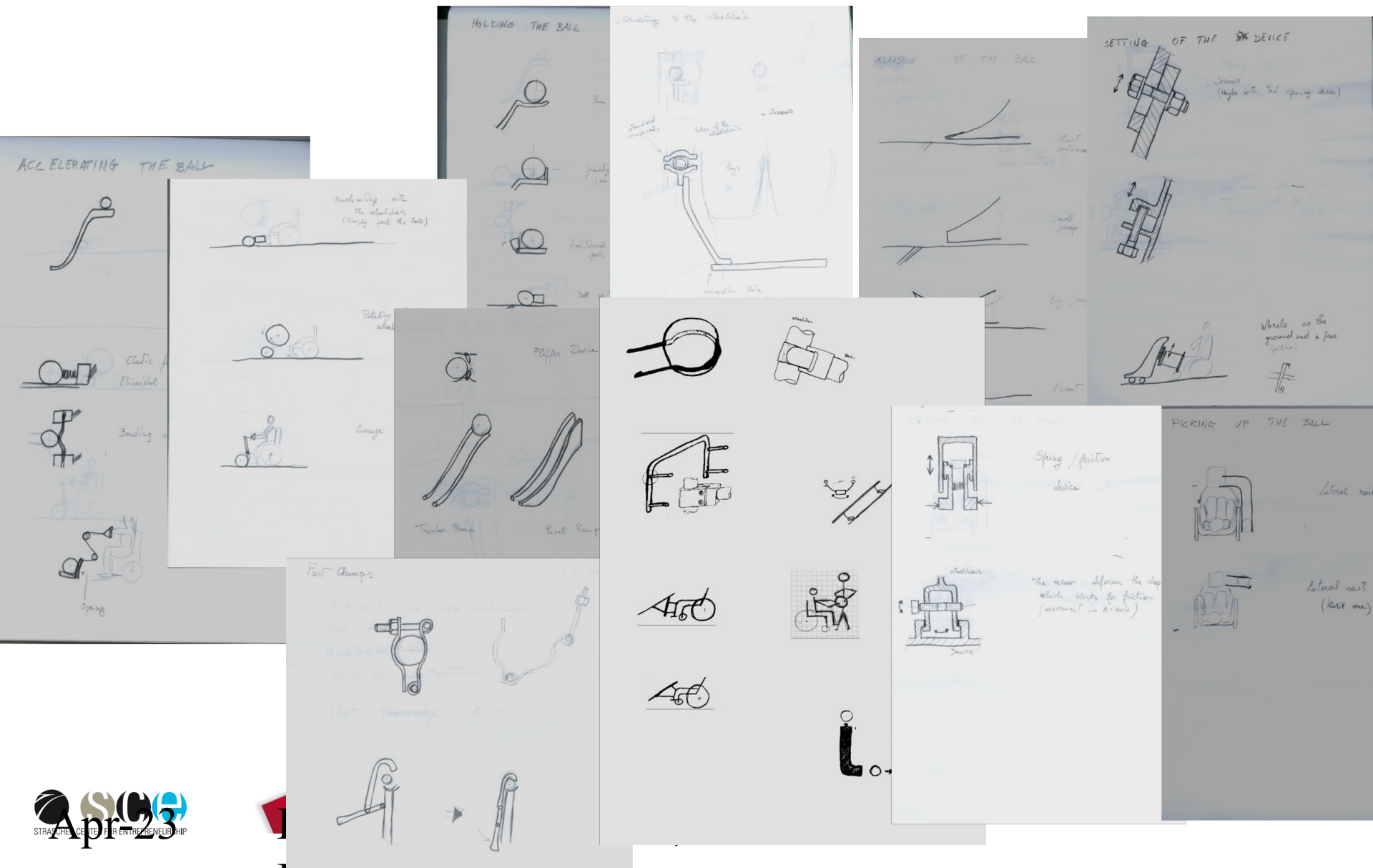




## SELECTING IDEAS. // VALUE MATRIX

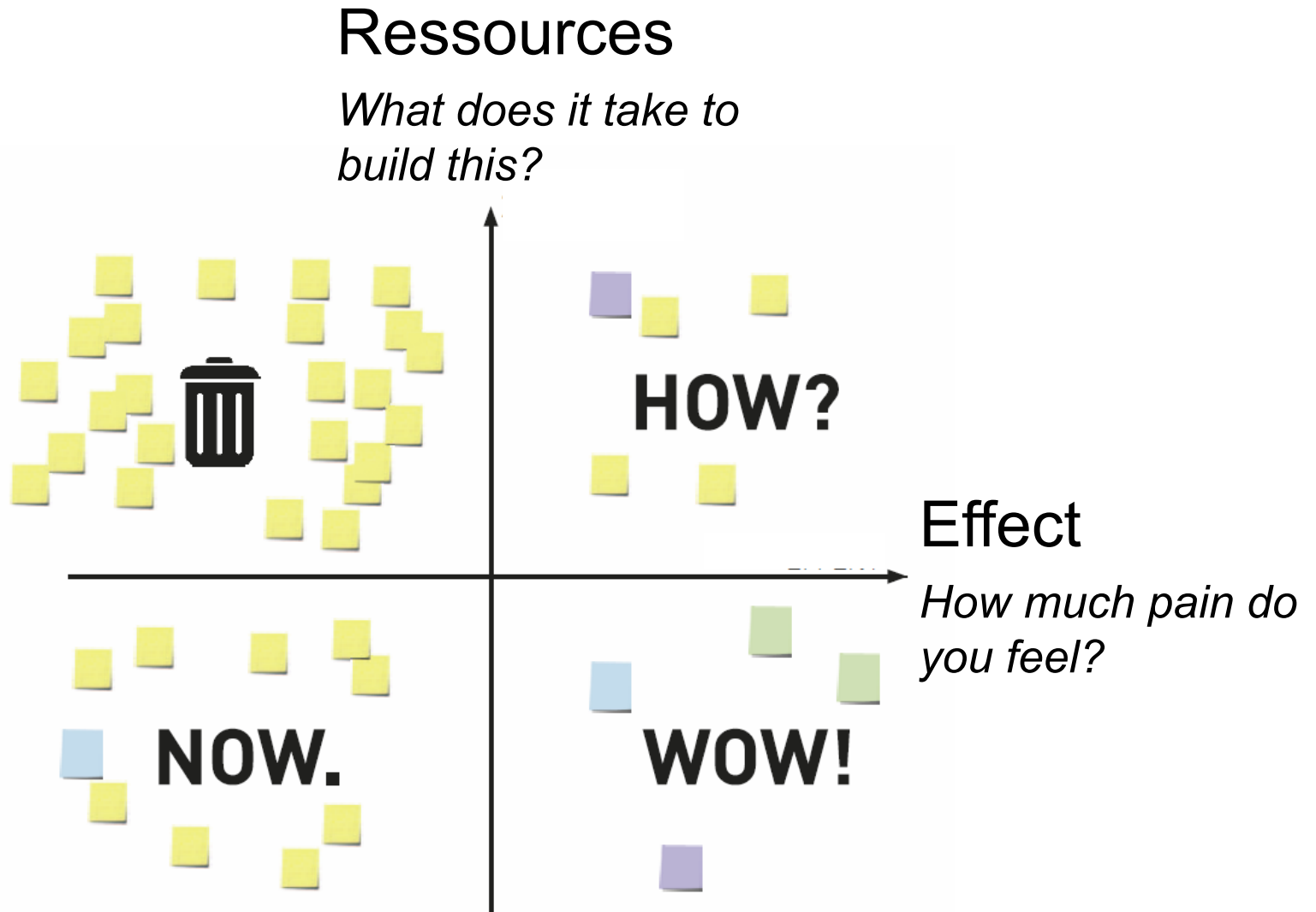
SOLUTION	A	B	C	D	E	G	H	I	J
Easy to produce	1	4	3	2	3	2	3	1	0
Easy to attach	1	4	3	4	2	1	0	0	0
Easy to use	0	1	4	2	4	4	4	2	1
Easy to maintain	0	4	3	2	3	2	3	1	0
Easy to store	0	4	3	3	3	3	2	2	0
Lightweight	1	4	3	3	4	3	0	2	1
Special feature	2	0	3	3	3	3	0	4	2
Sum	5	21	22	19	22	18	12	12	4

# Morphological Box



## SELECTING IDEAS.

52



# PROTOTYPE



“The best way to experience an experience is to experience it.”



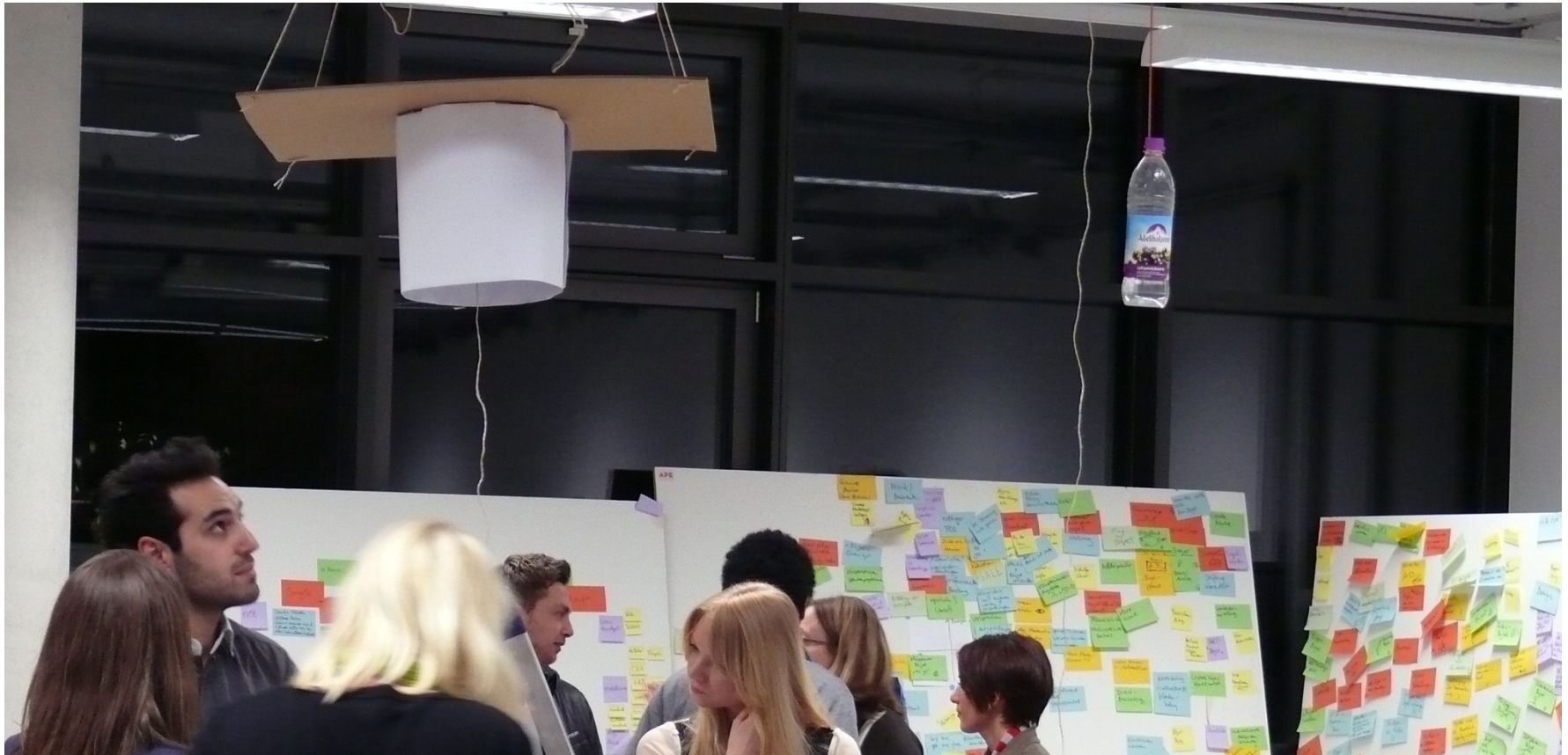
## BUILD PROTOTYPES.

57



## BUILD PROTOTYPES.

58





## PROTOTYPES SHOULD BE ...

59

**right** = Choose the right method.  
**rapid** = Test different assumptions fast.  
**rough** = Just good enough.  
Your goal is to learn.

## BE PRACTICAL.

60



TRY ROLEPLAYING. SAVE PLENTY OF TIME = MONEY.

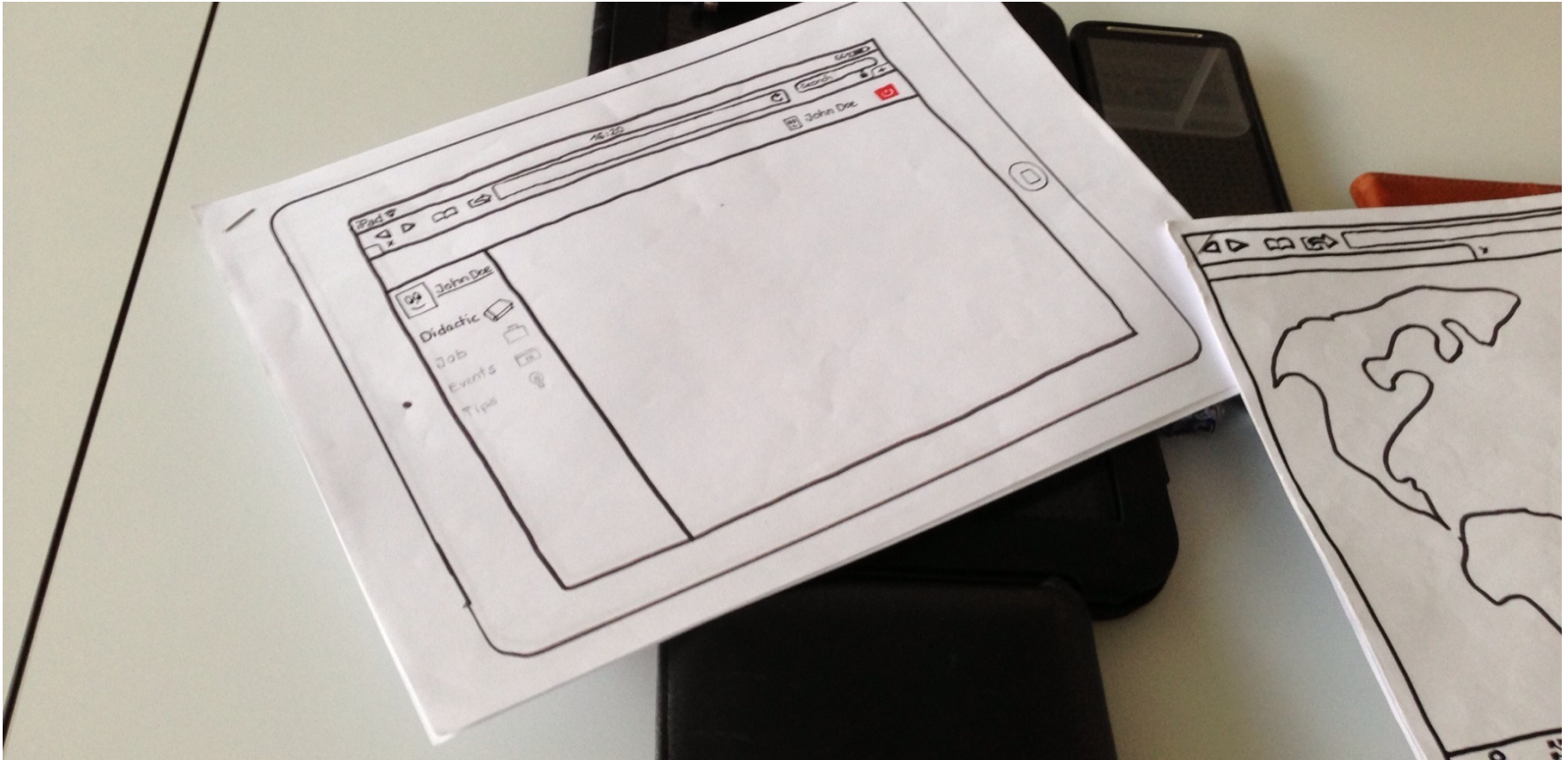
61





## LOW-RES PROTOTYPES OF APPS & SERVICES WITH PAPER

62



[illegible]



## HIGH-RES PROTOTYPES.

64



NEVER GO INTO A MEETING WITHOUT A PROTOTYPE !

65





TEST

## TEST YOUR PROTOTYPES.

67



## WHY TEST PROTOTYPES (AGAIN, AGAIN & AGAIN) ?

68

It helps you make decisions.

User testing allows for “real world” feedback.

You may discover even more latent user needs.

Feedback will restart your creative process.

Builds confidence.

## HOW TO TEST YOUR PROTOTYPES ...

69

Set the context for your prototype.

Don't sell your idea! If people don't like your prototype try to find out why.

Ask for gut feelings. Provoke direct responses and do not allow for too much time to (over)think answers.

Use prototypes as conversation starters. Ask people: "What would you do with this ... ?"

Say thank you.



# Lean Startup: PIVOTING ...

70

