

Transferable Skills 1 – *Design Thinking* Module

Lesson 2

Violeta Clemente
Professora Adjunta

Escola Superior de Design,
Gestão e Tecnologias da
Produção de Aveiro - Norte da
Universidade de Aveiro

catarina.clemente@ua.pt



universidade de aveiro
theoria poiesis praxis

Lesson 2 Contents

2.1

5 Syndromes of Problem Solving

- Lone warrior
- Freeze the world
- Self made box
- Rational high ground
- Identification

2.2

Design Thinking Models

- Convergence
- Divergence
- Iterativity
- Evolution 6²

2.3

Emergence phase

- Opportunity Mind Map
- Framing (metaphors)

Empathy phase

- Stakeholder map
- Persona
- Empathy map
- User journey

how long
can you
hold on
without
blinking?



2.1

5 Syndromes of Problem Solving

think outside the box



There is
no box.

2.1
5 Syndromes
of Problem
Solving

LONE WARRIOR
FREEZE THE WORLD
SELF-MADE BOX
RATIONAL HIGH GROUND
IDENTIFICATION

From “Frame Innovation, Kees Dorst, 2015

2.1

5 Syndromes of Problem Solving

“THE LONE WARRIOR”

First of all, we can observe that in all these cases the problem-solving situation was set in such a way that one major party rightly or wrongly felt that they “owned” the problem and needed to drive the problem-solving process, and they honestly believed this approach to be in everyone’s best interest. In cases like these, one party seeks total control over the problem-solving process, and usually positions itself outside the problem-solving arena (everything else needs to change, but never them). While that may be a good and efficient way to work in conventional problem situations, we can see that in situations like the high-speed train problem, where other stakeholders seek to influence the solution, conflicts arise immediately. There has been no process to create a basis of trust and understanding between the lead organization and these

2.1

5 Syndromes of Problem Solving

that focus only on “position bargaining.” In all the open, complex, dynamic, and networked problem situations above, the problem-solving situation can move forward only through collaboration.

The pattern that emerges is that the lead party who had heroically shoulered too much of the problem-solving responsibility is just one step away from deep frustration. This party will see the involvement of others as “interference,” and feel misunderstood and unappreciated in their implacable motivation. These are strong sentiments that easily turn into anger, and often cause them to stop listening to others altogether.

2.1

5 Syndromes of Problem Solving

“FREEZE THE WORLD”

Conventional problem-solving processes tend to be curiously static. Apparently, conventional problem-solving requires us to stop the world, isolate the problem, and come up with a one-off solution. But in an environment that is very dynamic and open, this approach just isn't realistic: the influence of time and connectedness means that the borders around the problem situation are very permeable, and that the rules of the game keep changing over time. The presence of such a “freeze the world” practice is indicated by telltale signs like endless amounts of preliminary research and interminable working group discussions before a project is allowed to start. The problem solver tries to carefully understand the problem situation before deciding on an elegant and convincing solution. This approach is curiously nonexperimental, and underlying it is the apparent need to attain complete closure before the solution is put into action. When the problem solvers realize they have failed to contain

2.1

5 Syndromes of Problem Solving

“THE SELF-MADE BOX”

All organizations will initially try to approach a new problem in ways that have worked in the past. This reaction is completely understandable—it is prudent to avoid the investment and hassle that always accompanies change unless it is really necessary. Even organizations that pride themselves on being innovators in their field aim to be just ahead of the others, and avoid unwarranted innovation. But in these case studies, we have seen that there is a great reluctance to change tack even when these trusted practices are clearly not delivering the desired results. The organizations seem to be trapped by their habits.

2.1

5 Syndromes of Problem Solving

This pattern of behavior, effectively the locking down of a problem situation, leads to a deeply engrained inability of organizations to step beyond the boundaries of their earlier ways of thinking. Creativity consultants then provide workshops to help people “think outside the box”—which may help a little, but organizations often do not realize what a real change in their own practice will mean, and do not realize that the boxes they are trying to escape from are completely self-made. Later in this book we will see how design practitioners manages to escape creating these thought traps for themselves. The “self-made

2.1

5 Syndromes of Problem Solving

“TAKING THE RATIONAL HIGH GROUND”

Deep down, all organizations that display clear signs of these first three syndromes are convinced that their way of dealing with the problem situation is completely rational, and that they couldn’t have done anything else. This belief in their own rationality, and the deeply rooted conviction that there is only one rational position, can make organizations strangely inflexible in their problem-solving approach. This inflexibility persists even to the point of inducing a

Symptomatic behavior that accompanies this syndrome can be the repetitious use of sentences that start with “Of course ...,” exemplifying the inability to discuss other viewpoints. Such appeals to rationality and causation come

2.1

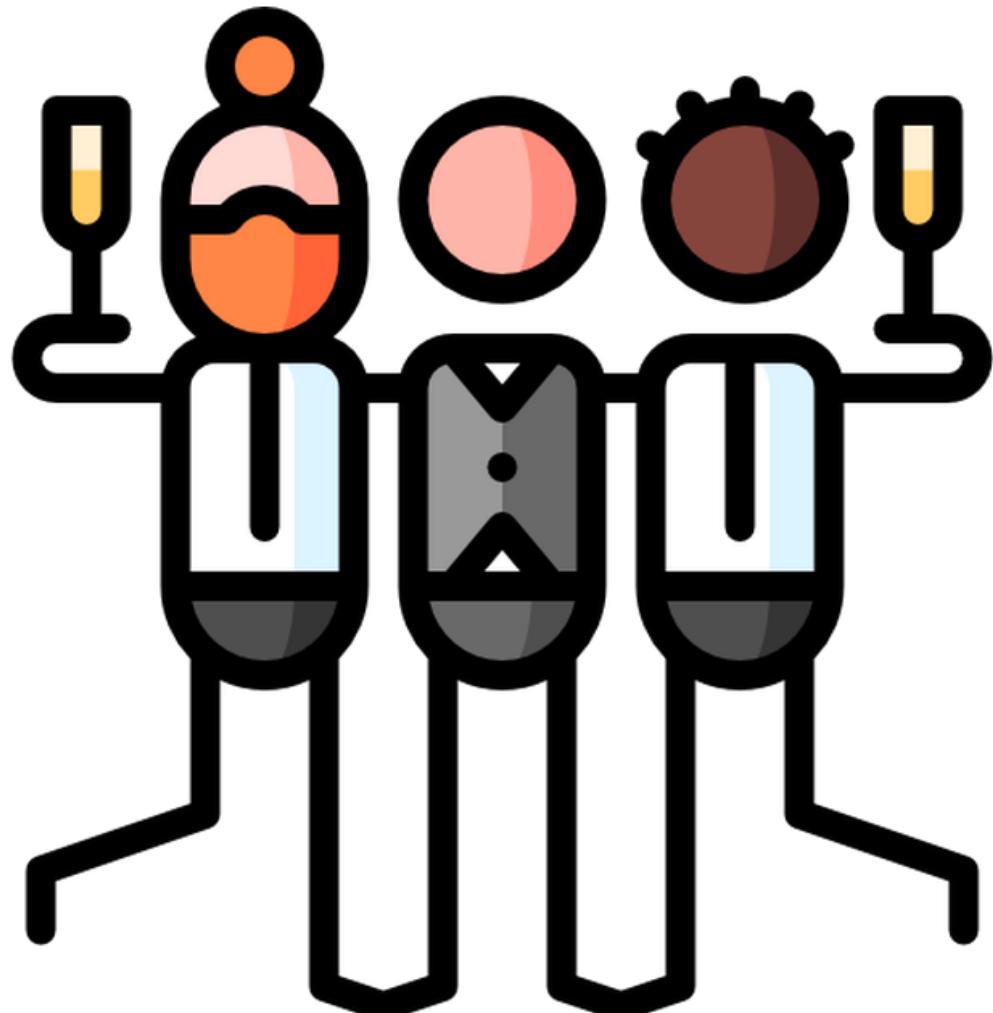
5 Syndromes of Problem Solving

“SHAPE YOUR IDENTITY AROUND ESTABLISHED PRACTICES”

Well-worn problem-solving paths become deeply entrenched in the minds of people, and indeed in the structure and procedures of an organization. They easily become a major part of what people feel is the organization’s core, its identity and “culture.” This culture is embodied in the organization’s goals, structures, processes, espoused values, practices, and the accepted definition of “quality” within the organization. If the organization operates in a stable

Persistence in holding on to an organization’s practices can be seen most clearly and explicitly in what is called organizational autopoiesis, the subtle ways in which new staff members are initiated into “how we do things here” by the resident staff. Initiation starts as soon as the new person arrives (which incidentally can be frustrating to the management if they had tried to bring fresh ideas and new practices into the organization by hiring this person). This

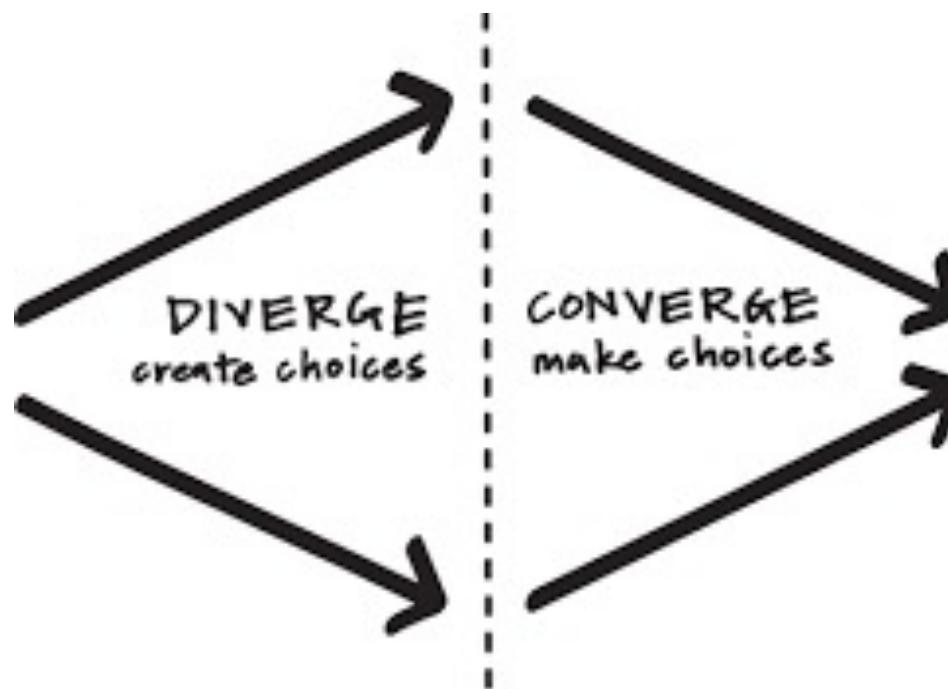
I am going
to the
party and
I'm
bringing ...



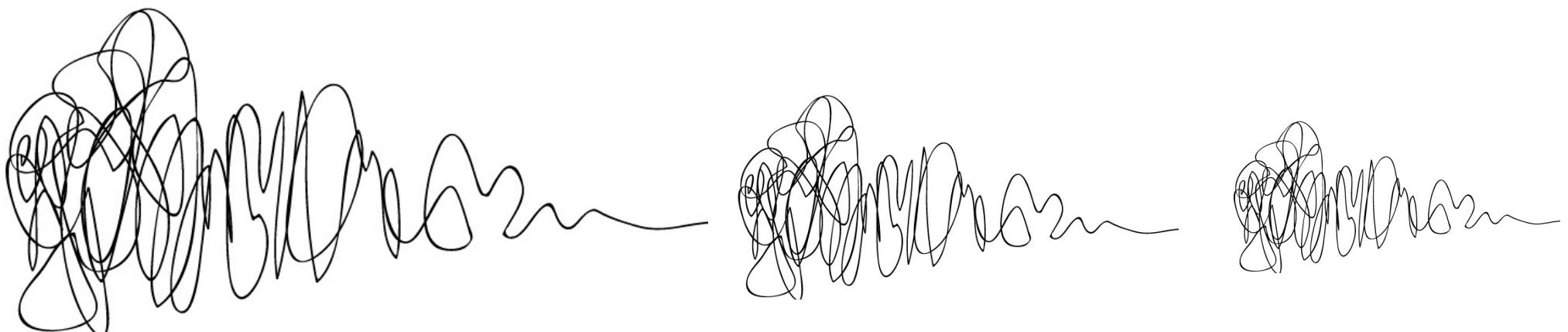
2.2 Design Thinking Models



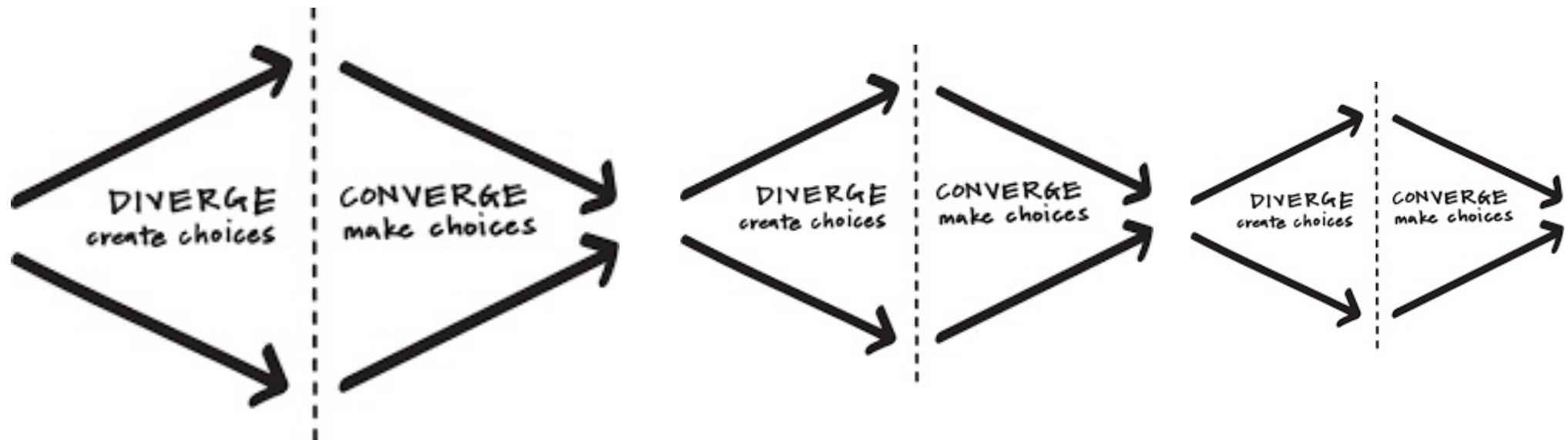
2.2 Design Thinking Models



2.2 Design Thinking Models



2.2 Design Thinking Models



1.3 Design Thinking Models

PHASES

1

DISCOVERY



I have a challenge.
How do I approach it?

2

INTERPRETATION



I learned something.
How do I interpret it?

3

IDEATION



I see an opportunity.
What do I create?

4

EXPERIMENTATION



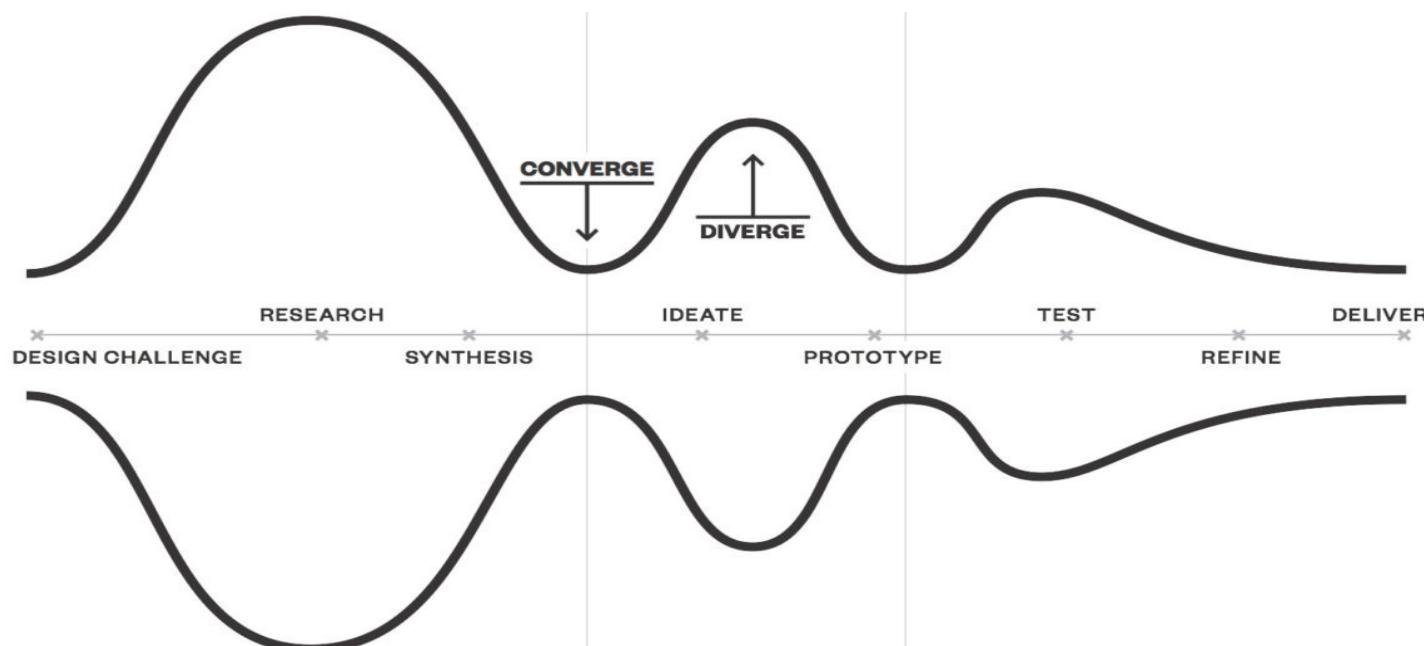
I have an idea.
How do I build it?

5

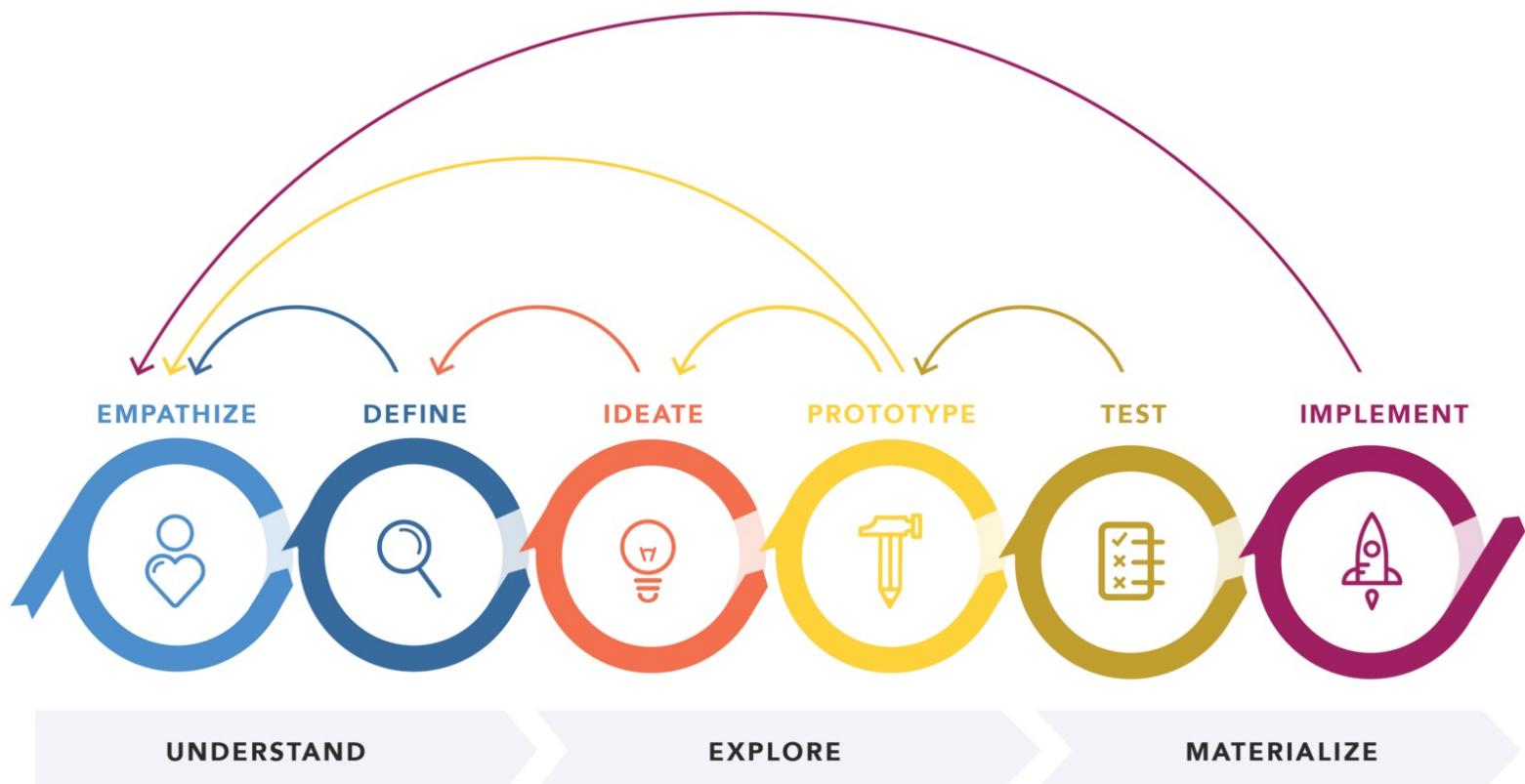
EVOLUTION



I tried something new.
How do I evolve it?



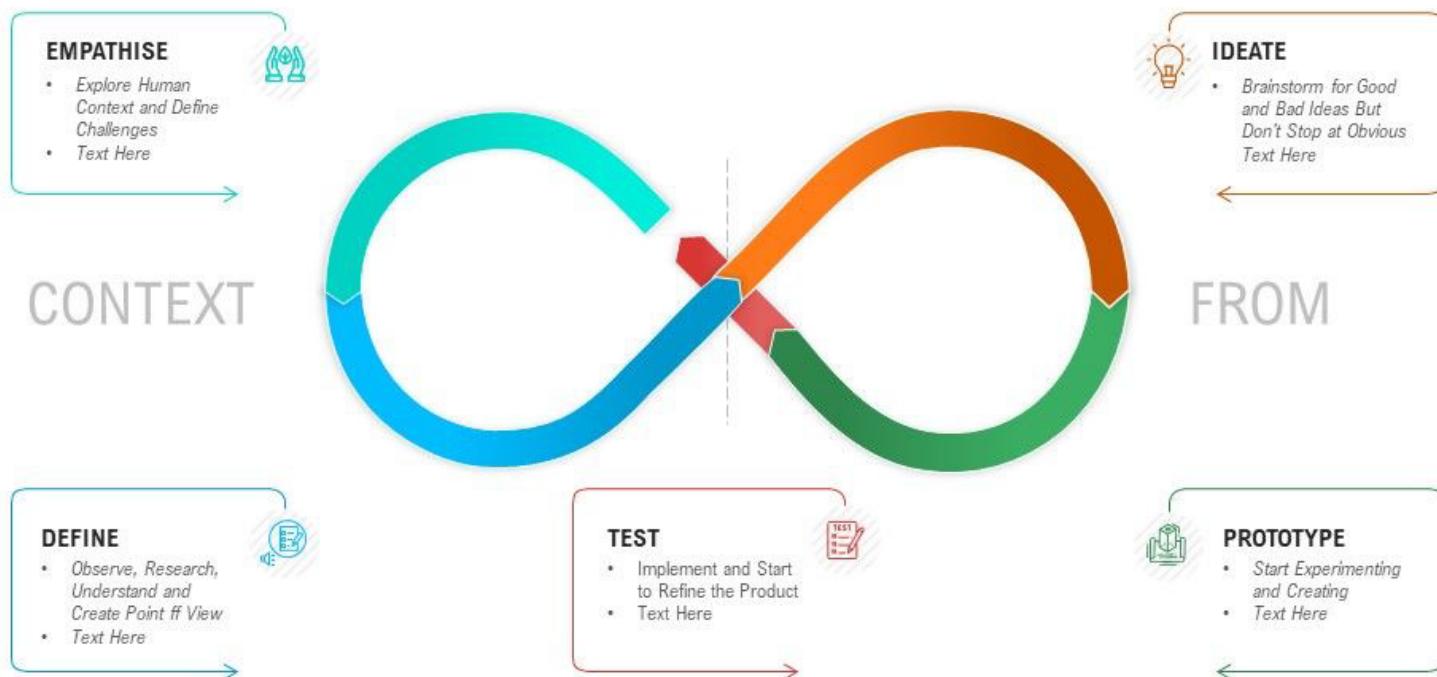
2.2 Design Thinking Models



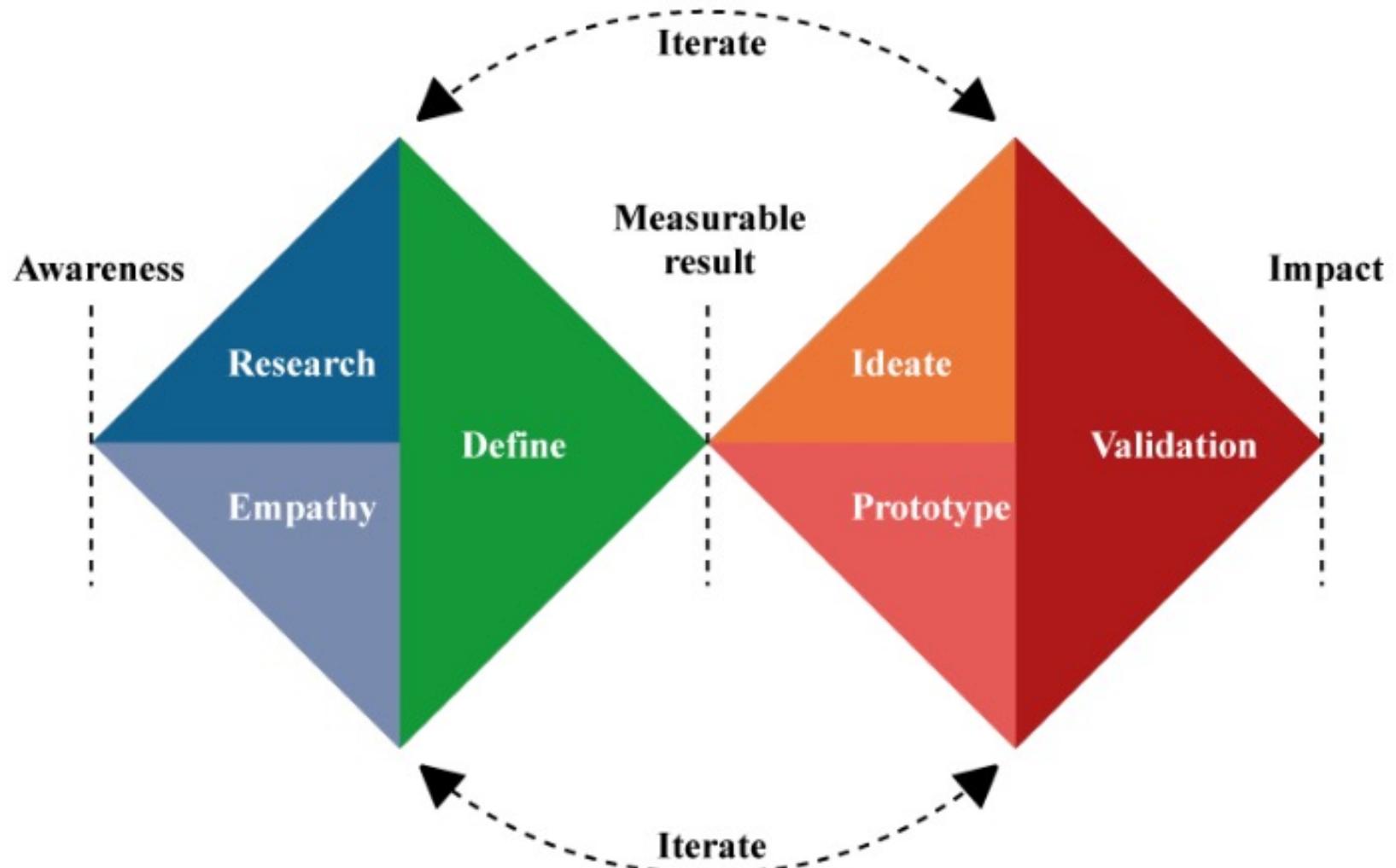
2.2 Design Thinking Models

Design Thinking Innovation Framework

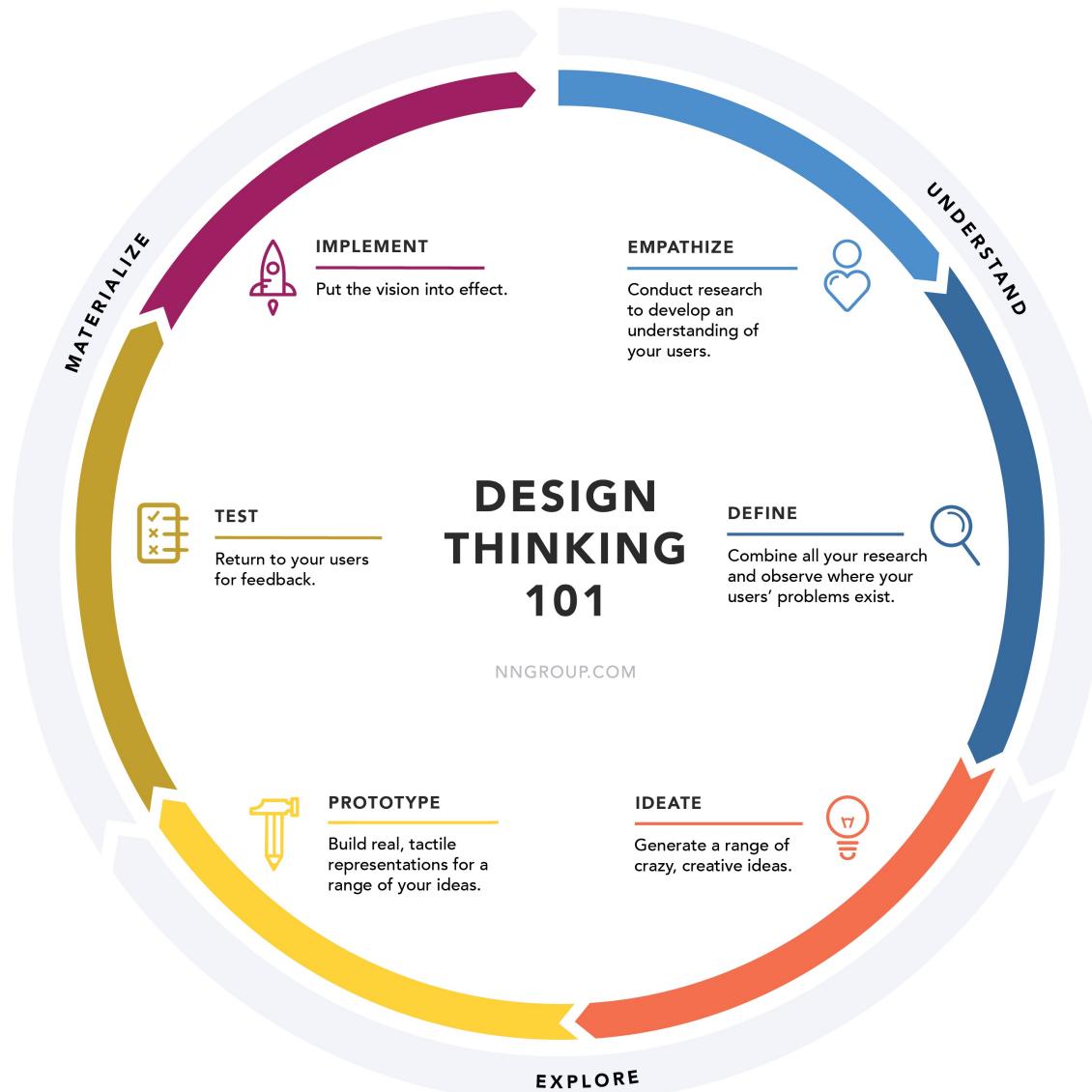
This slide is 100% editable. Adapt it to your needs and capture your audience's attention.



2.2 Design Thinking Models



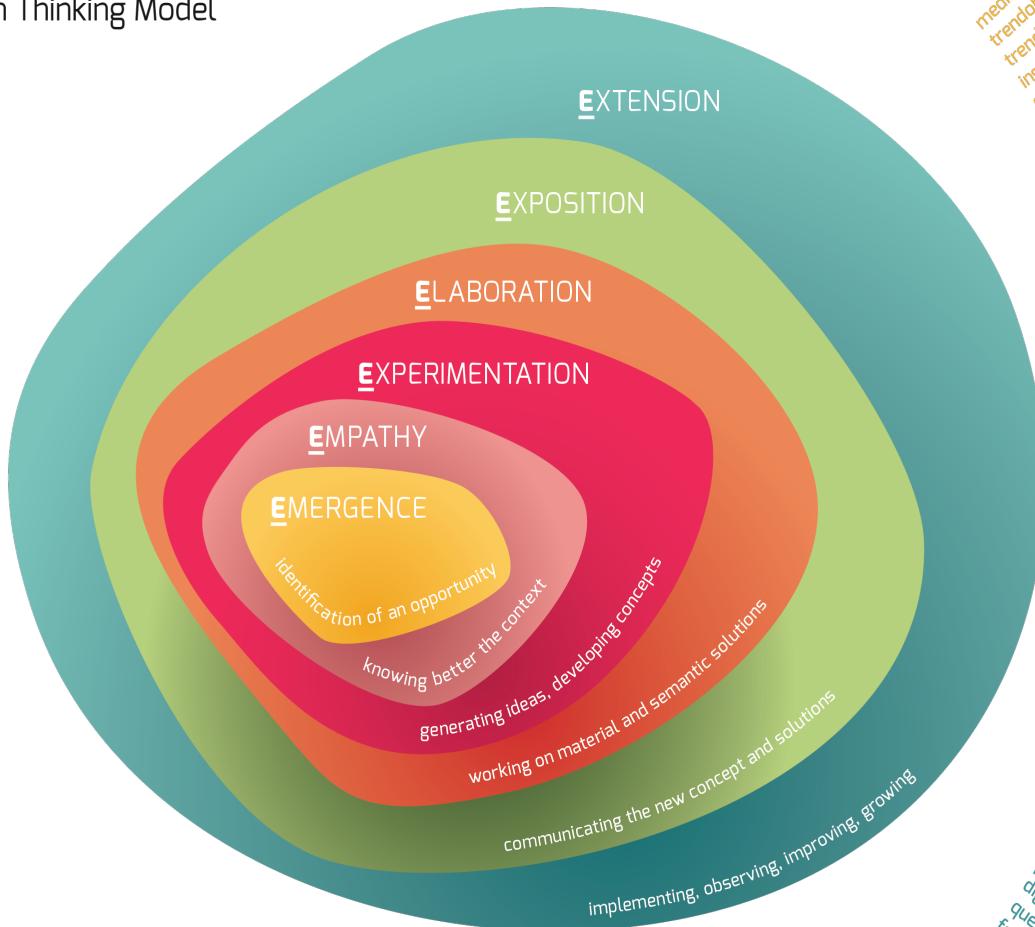
2.2 Design Thinking Models



2.2 Design Thinking Models

EVOLUTION 6²

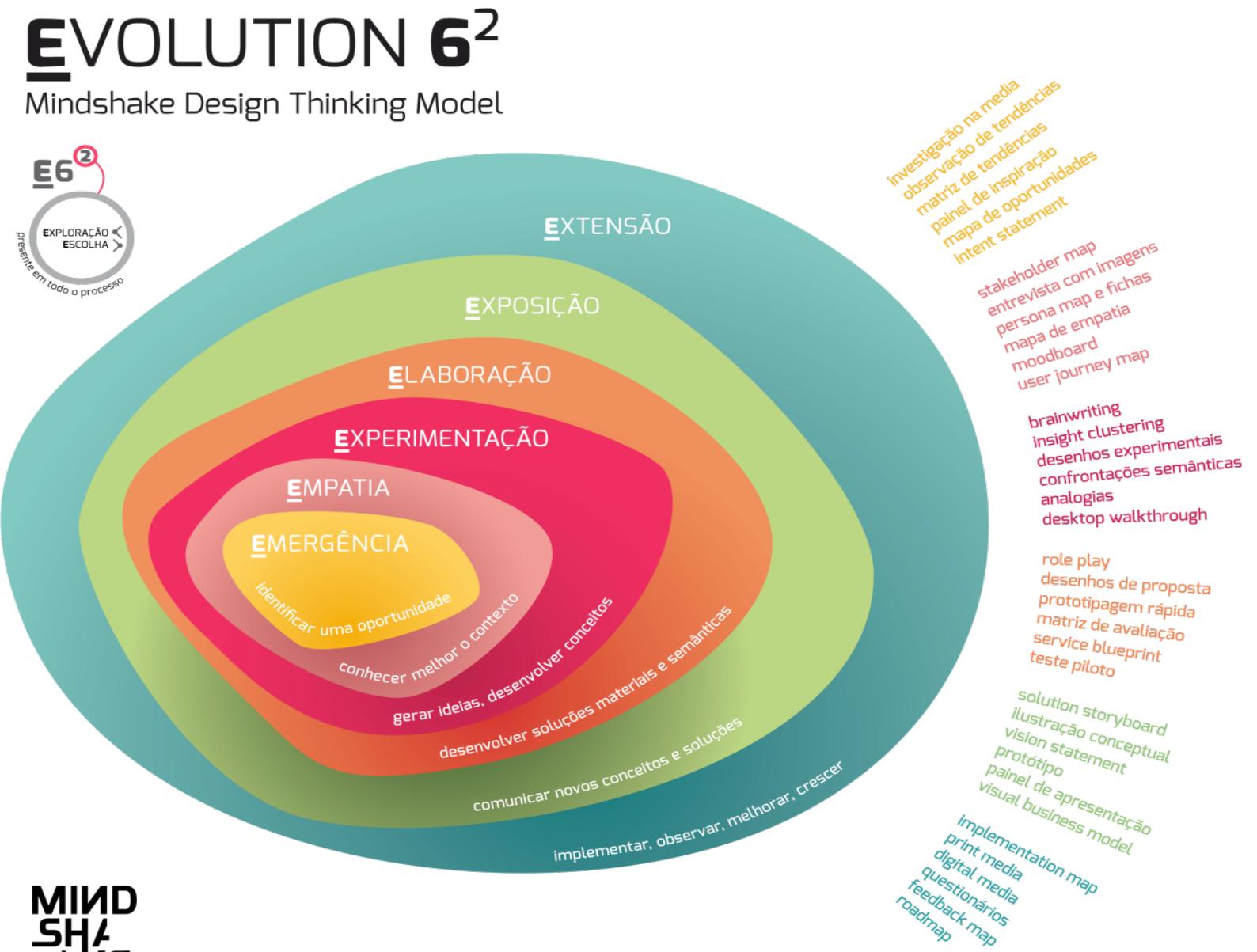
Mindshake Design Thinking Model



- media research
- trendobservation
- trendmatrix
- inspiration board
- opportunity mind map
- intent statement
- stakeholder map
- image interview
- persona map and cards
- empathy map
- moodboard
- user journey map
- brainwriting
- insight clustering
- experiential drawing
- semantic confrontations
- analogies
- desktop walkthrough
- role play
- proposition drawing
- rapid prototyping
- evaluation matrix
- service blueprint
- pilot testing
- solution storyboard
- concept illustration
- vision statement
- solution prototype
- presentation prototype
- visual business model
- implementation map
- print media
- digital media
- questionnaire
- feedback map
- roadmap

**MIND
SHA
KE**

2.2 Design Thinking Models



2.3 Emergence phase

mindsets

The Sense Intent mindset is about continuously detecting the latest changes happening in the world today and forming speculations about what new situations may be looming on the horizon. It is about recognizing what is new or in flux, and identifying hotspots of potential growth. This mindset helps us identify potential opportunities for innovation and form our initial hypotheses. While these hypotheses will be explored and tested in the modes that follow, the goal in this mode is to provide sufficient early direction for research and exploration.

From “101 Methods of Design, Vijay Kumar, 2013

2.3 OPPORTUNITY

Emergence
phase

Opportunity
Mind Map

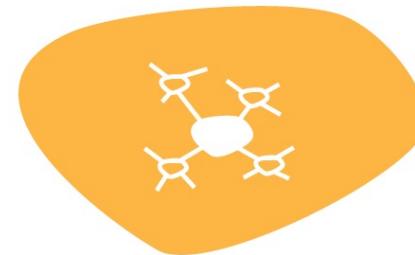


TRANSFERABLE SKILLS 1 – DESIGN THINKING MODULE

2.3
**Emergence
phase**

Opportunity
Mind Map

**OPPORTUNITY
MIND MAP**



*radial and visual
organisation of selected
information, the first
ideas and insights*

visualisation of data,
create an overview

reveal opportunities and
directions

find connections between
information and ideas

EMERGENCE



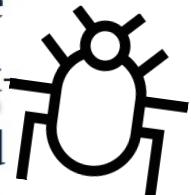
2.3

Emergence phase

Framing (Metaphors)



In creating a frame, or a novel standpoint from which a problem can be solved, a design practitioner will say: let's suppose we use this particular pattern of relationships (in Kings Cross, the pattern was a “music festival”) and see if we can achieve the outcomes we are aiming for. As Einstein once said, “A problem can never be solved from the context in which it arose.” Apart from the obvious circularity of this statement (if the issue could be solved in its original context, it would probably never have registered as a problem), there is some wisdom here as the statement highlights the need for a problem solver to look at the context in which the problem was formulated. By looking at a broader context, the designers in these cases could frame the issues before them in a way that made the problem situation amenable to solution.



2.3 Emergence phase

Framing (Metaphors)

Futro Fanzine

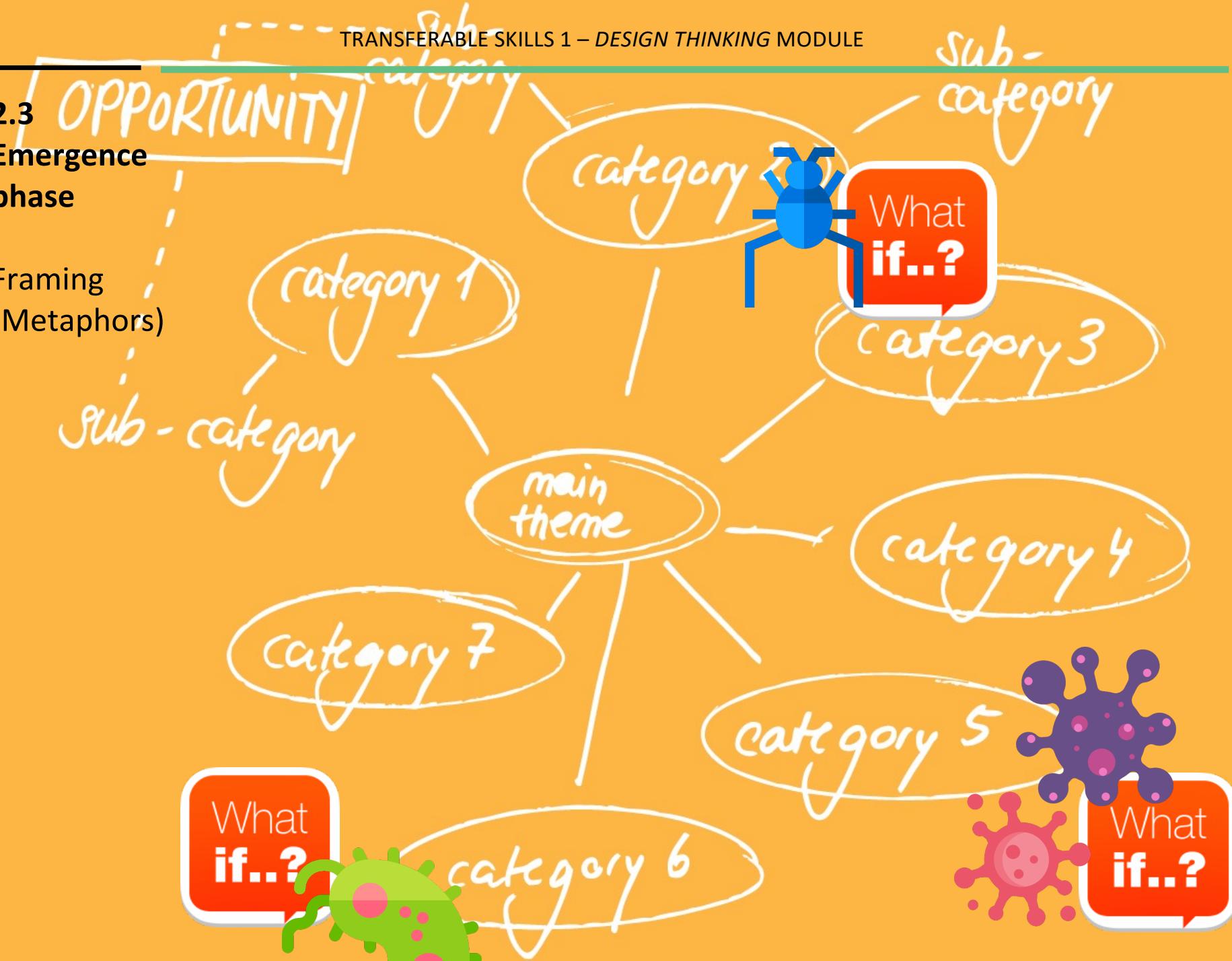
This poster, created by Futro, appropriates a famous fast-food logo and adapts it to the context of organised religion by making it appear like a church building or bishop's mitre. The appropriation transfers the fast-food brand characteristics and colour scheme to the new context and implies that organised religion is akin to a massive global brand with great marketing muscle. The design questions how people view both large corporations and religion.



2.3

Emergence
phase

Framing
(Metaphors)



2.3 Empathy phase

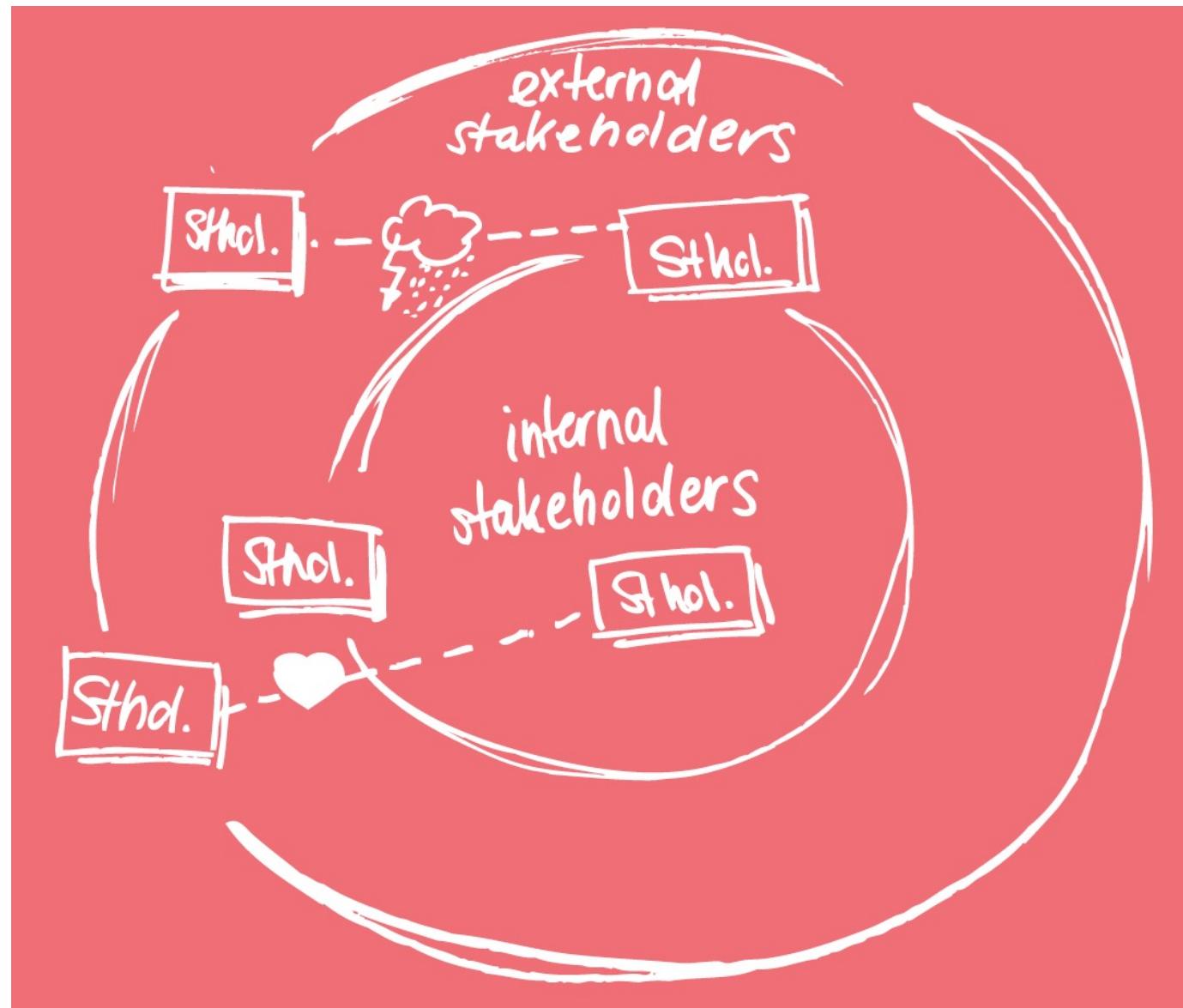
mindsets

Knowing people is about gaining an empathic understanding of people's thoughts, feelings, and needs by listening, observing, interacting, and analyzing. Immersing yourself in people's daily lives and keenly listening to their stories can reveal very valuable insights, sometimes quite surprising and nonobvious. To get to such valuable insights we should focus on everything that people do, say, and think; we should be in the mindset to deeply understand people's activities, needs, motivations, and overall experiences, just as well as we study our products when we do a product development project. We should be on the lookout for understanding the problems they face, the workarounds they do, challenges they overcome, and the needs they express and those they do not express. Knowing people well can lead us to entirely new categories of products, services, or business strategies that fundamentally address people's needs and desires, create significant new value, and are very hard to copy.

From “101 Methods of Design, Vijay Kumar, 2013

2.3 Empathy phase

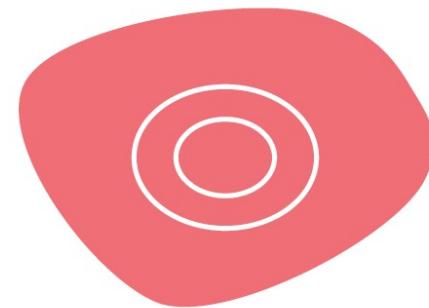
Stakeholders
map



2.3 Empathy phase

Stakeholders
map

STAKE- HOLDER MAP



*clustering stakeholders
and showing their
relationships*

enable systemic analysis

reveal roles and relationships

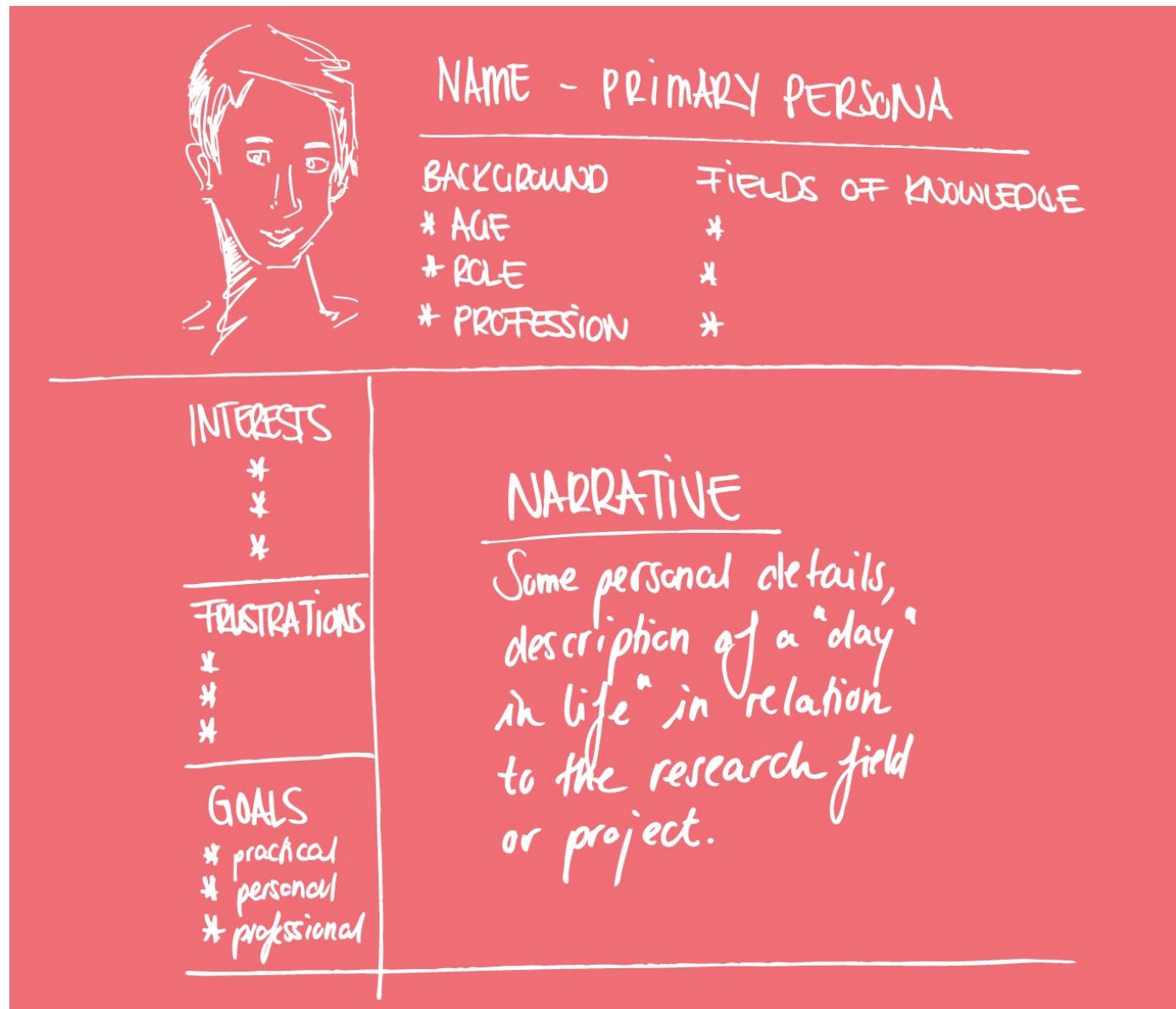
understand the context

reveal shared interests between
stakeholders

EMPATHY

2.3 Empathy phase

Persona



2.3 Empathy phase

Persona

PERSONA MAP AND CARDS



defining different kinds of users present in a context

identify the users' characteristics and cultural backgrounds

discover features of an existing social group

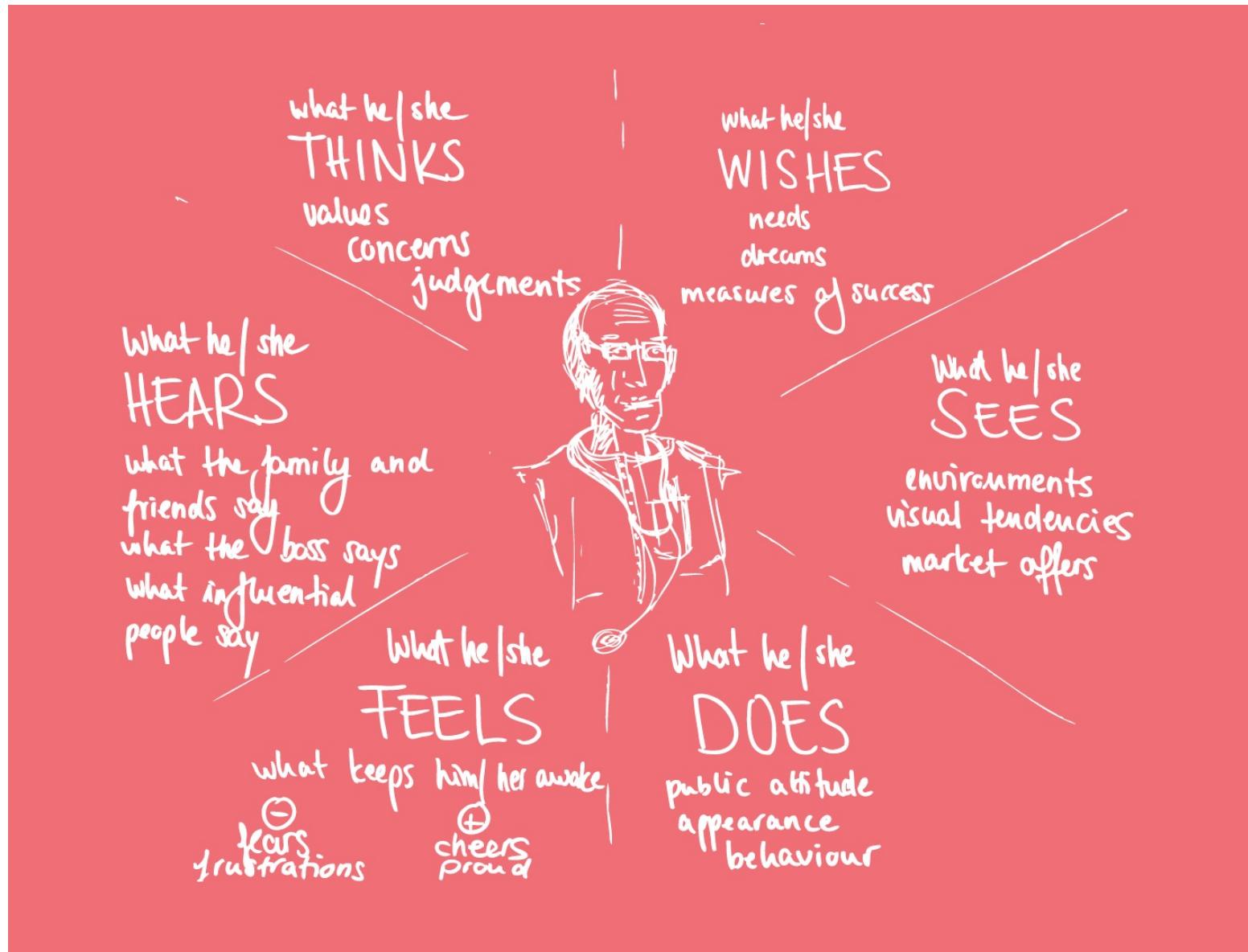
discover stories

define directions

EMPATHY

2.3 Empathy phase

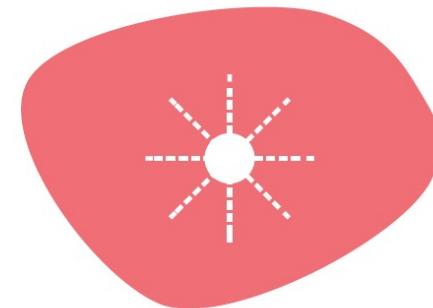
Empathy map



2.3 Empathy phase

Empathy map

EMPATHY MAP



*developing the profile
of a typical user*

build empathy

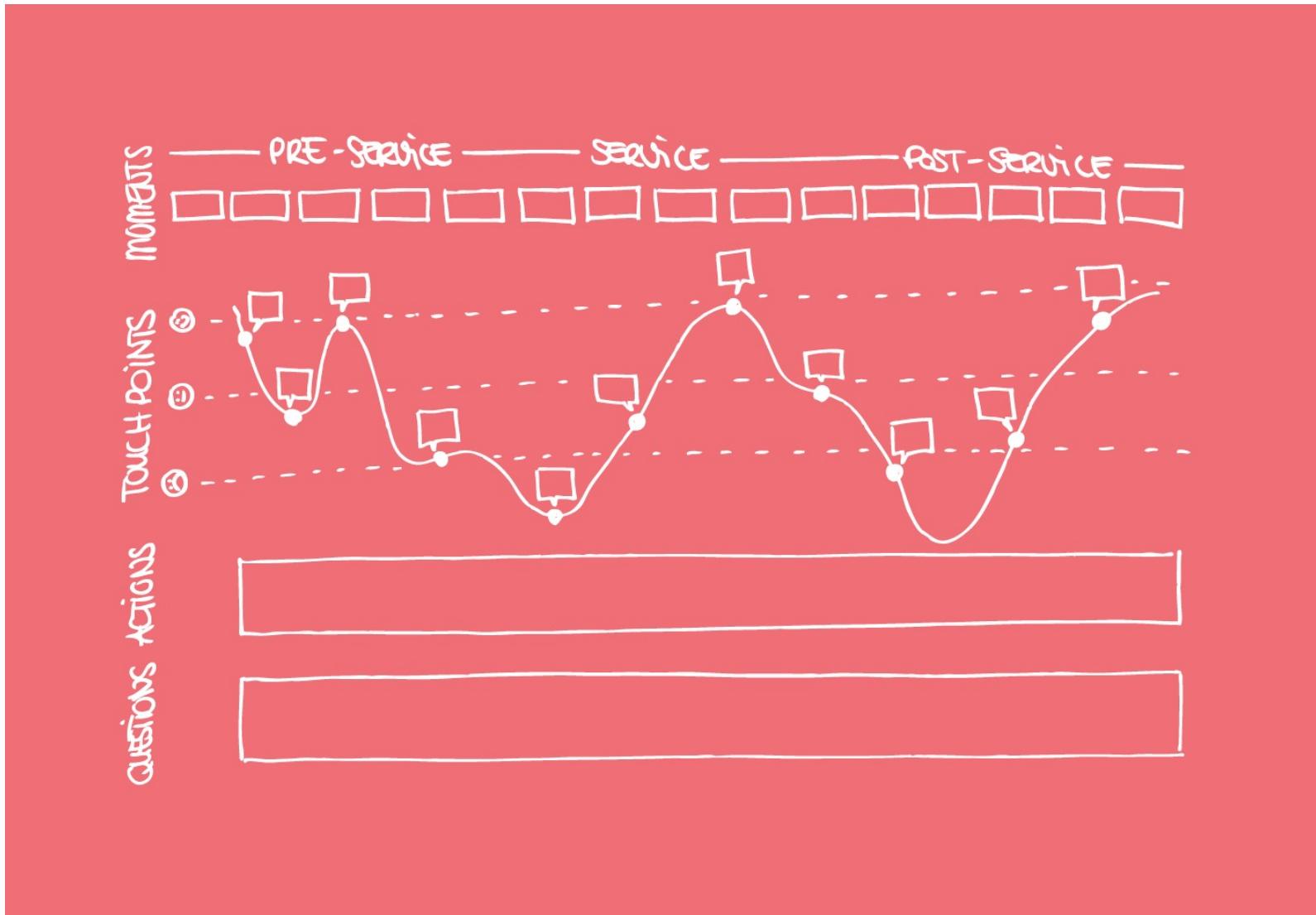
find details about the users'
behaviour and values

identify patterns

EMPATHY

2.3 Empathy phase

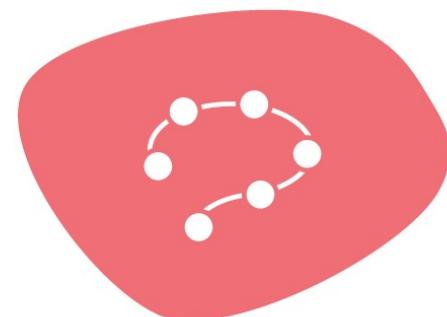
User
journey



2.3 Empathy phase

User
journey

USER JOURNEY MAP



visualising the users' journey through the service/context

visualise information

understand better the users' perspective

identify positive and negative experiences

EMPATHY