DESIGN THINKING

BOSCH

Design Thinking
History

1940

1973

1984

BOSCH

Design Thinking
History

1992

2005

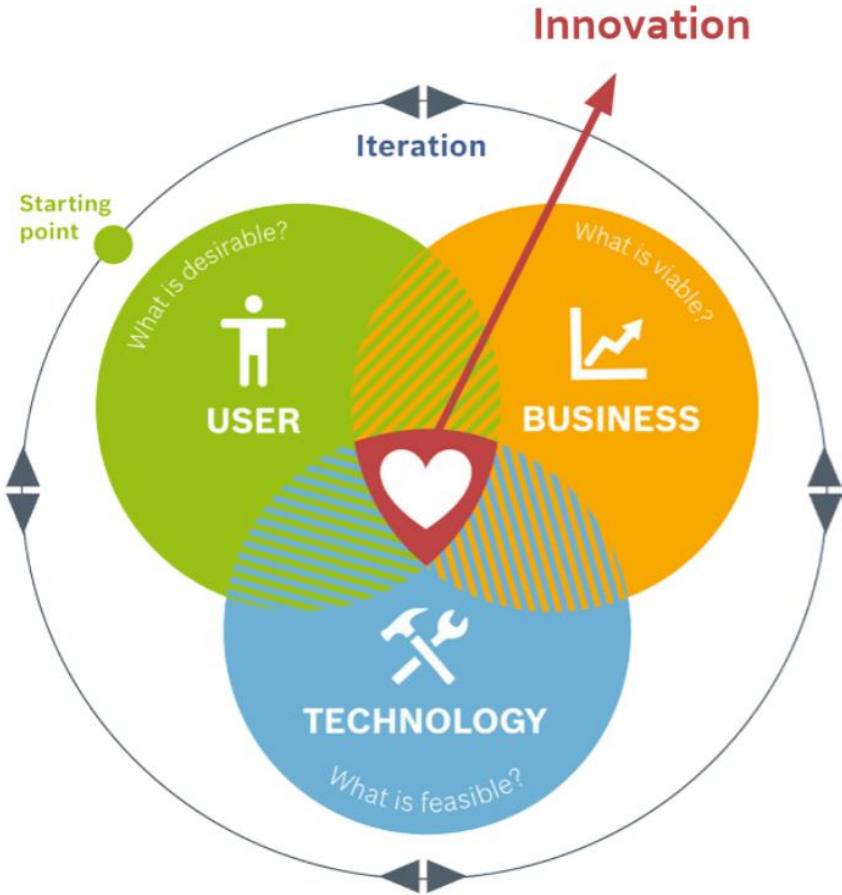BOSCH
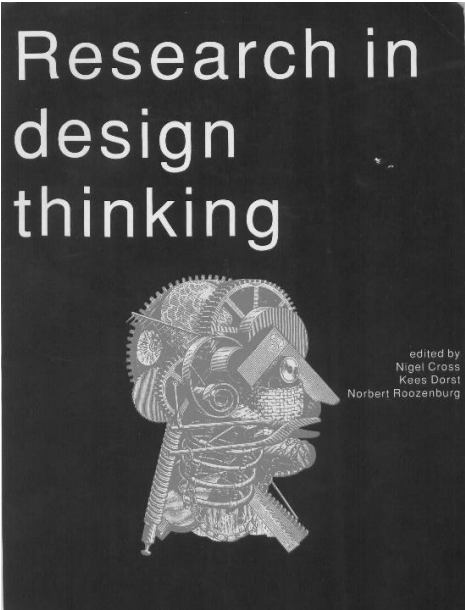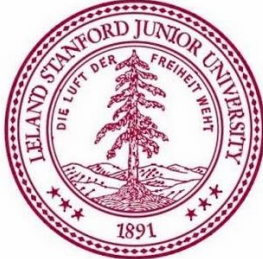
Design Thinking
Innovation Holistic View

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Design Thinking
Why a user wants a product?

STIMULATION

SECURITY

SELF-ACTUALIZATION

RELATEDNESS

INFLUENCE

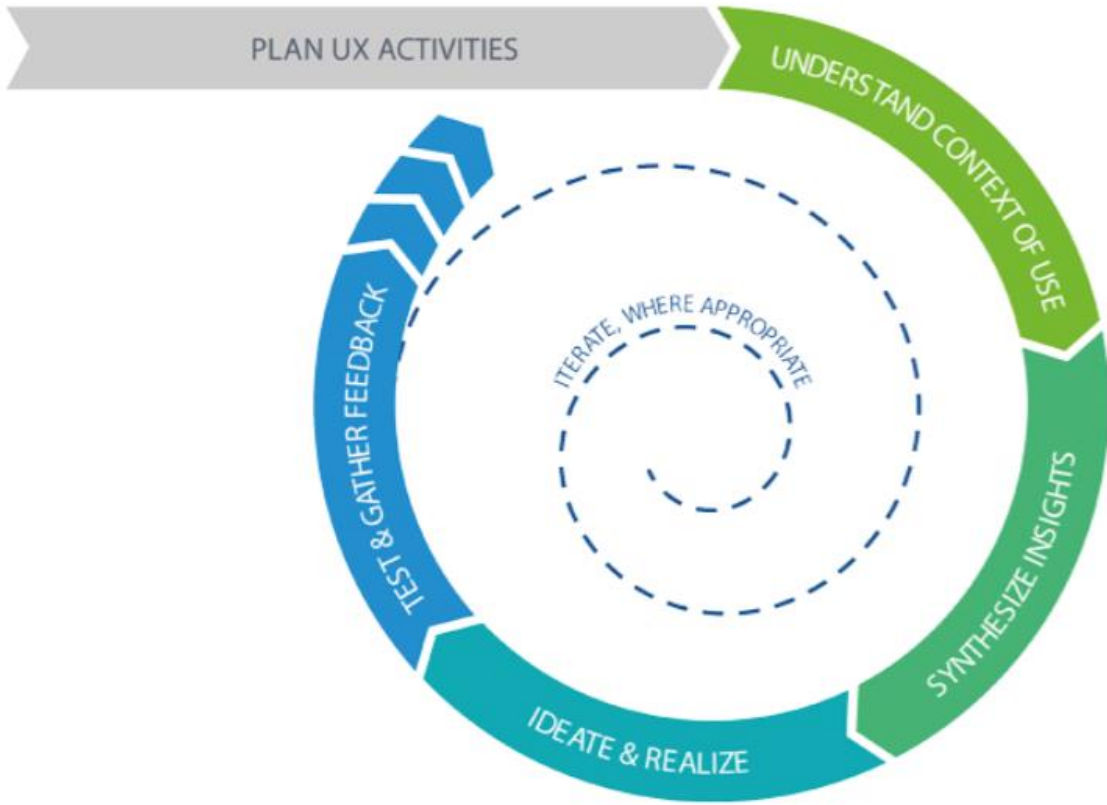COMPETENCE

IDEALISM

COLLECTING THE MEANINGFUL

POPULARITY

WELL-BEING

BOSCH

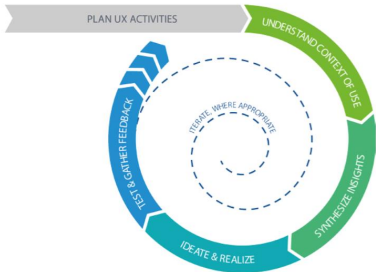# Design Thinking
Human Centred Design Process

BOSCH

Design Thinking
Understand context of Use

UNDERSTAND CONTEXT OF USE

Design Thinking
Understand context of Use

Question 0

Fall in love with the problem, not the solution

- Contextual Inquiry
- User Observation
- User Interviews
- Customer Journey Map

- Expert Interviews
- Focus Groups
- Stakeholder Analysis

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Design Thinking
Understand context of Use

Write down words related with FRIDGE!
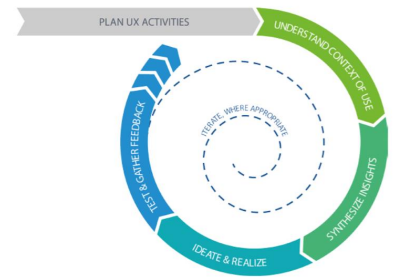
The expert is not a user!

Users are not always logical, at least not on the surface. To be a great designer you need you look a little deeper into how people think and act.

Want your users to fall in love with your designs? Fall in love with your users.

20sec

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Design Thinking
Understand context of Use

Optimist

The glass is half-full

Pessimist

The glass is half-empty

Engineer

The glass is twice as big as it needed to be

Realist

The glass is full, half each with water and air

Idealist

There is certainly more for everyone

Opportunist

The main thing is that I have enough to drink

Capitalist

I do not care where the bottle is

Communist

The water in the glass belongs to everyone

Sexist

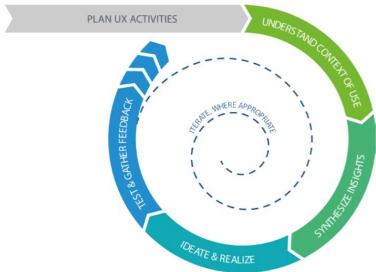The glass does not fill by itself, babe!
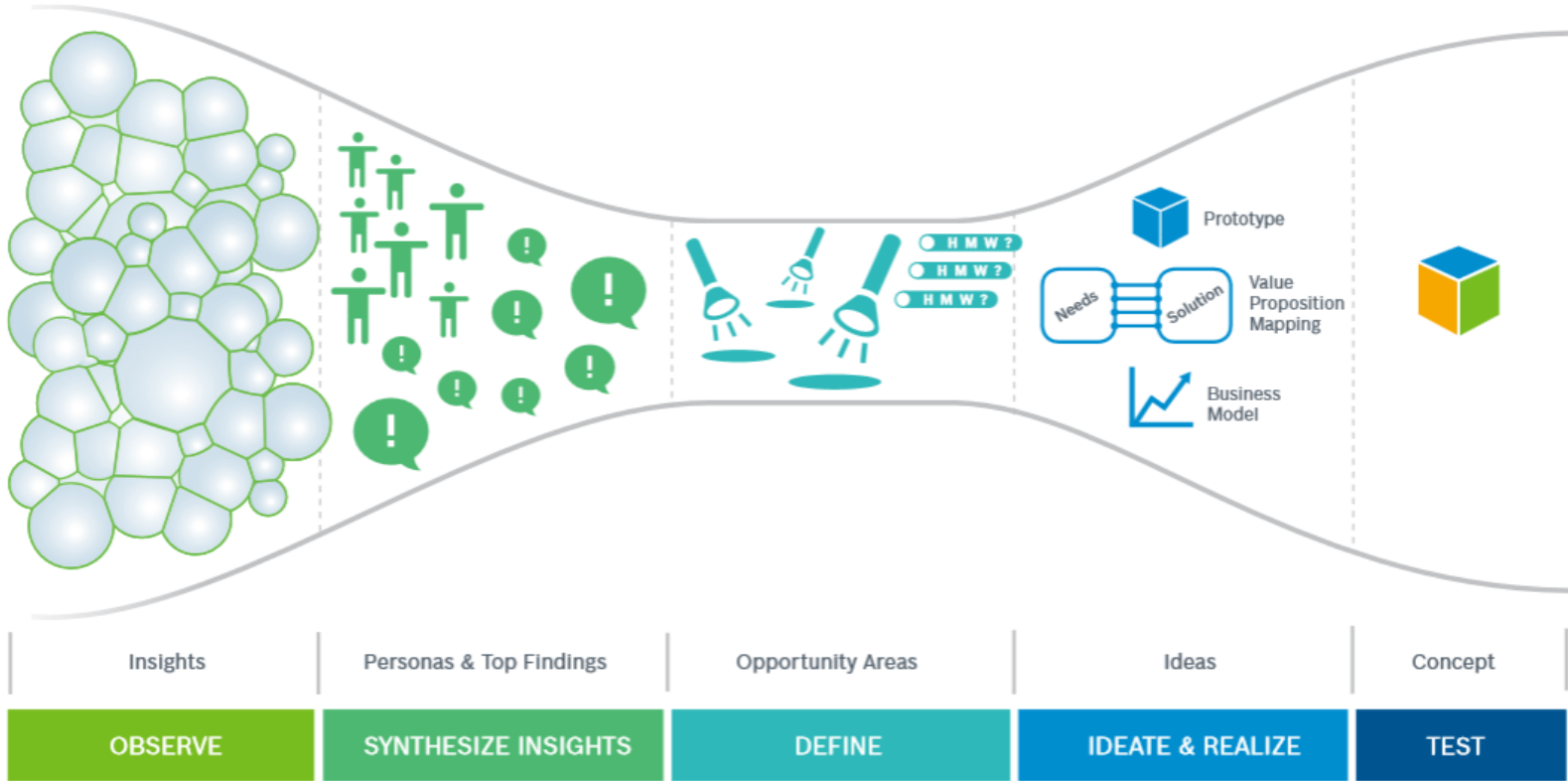
Nihilist

The glass exists only as a graphic.

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Design Thinking
Understand context of Use

SYNTHESIZE INSIGHTS & DEFINE

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Design Thinking
Synthesize Insights and Define

"Out of clutter, find simplicity. From discord, find harmony. In the middle of difficulty lies opportunity."

Albert Einstein

Insights	Personas & Top Findings	Opportunity Areas	Ideas	Concept
OBSERVE	**SYNTHESIZE INSIGHTS**	**DEFINE**	**IDEATE & REALIZE**	**TEST**

BOSCH

Design Thinking
Synthesize Insights and Define

How might we?

Personas

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Design Thinking
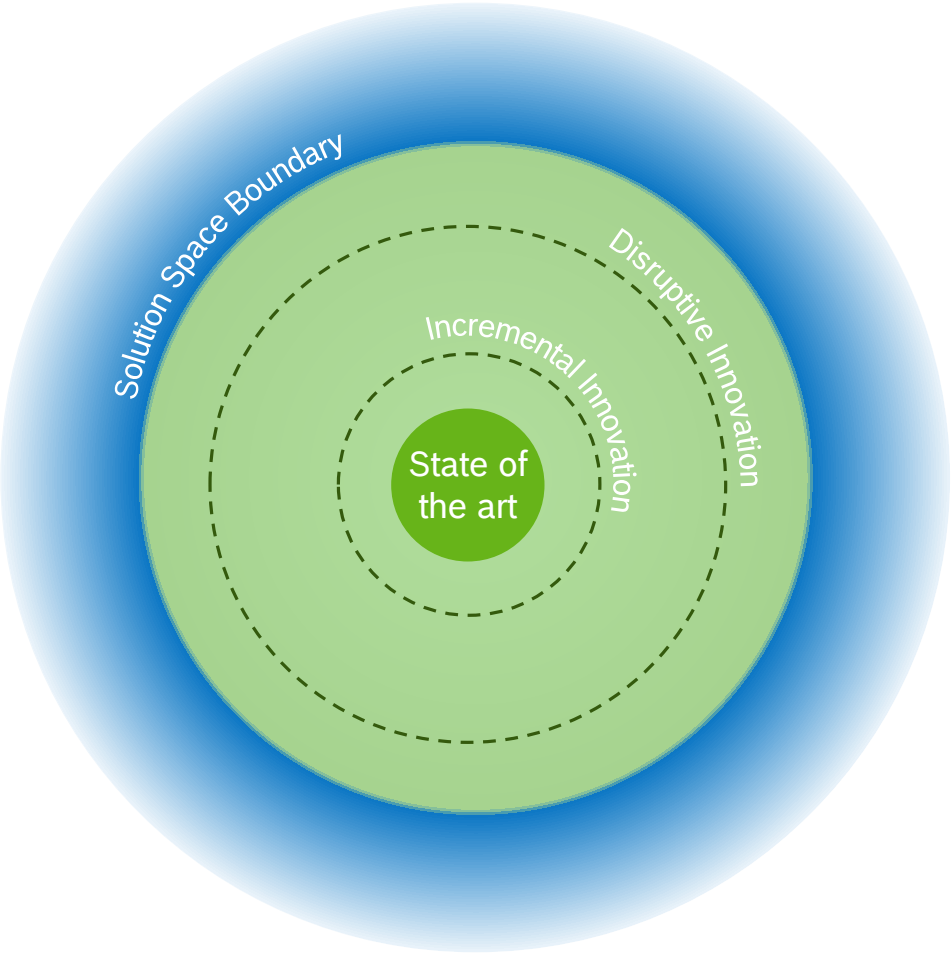## Synthesize Insights and Define

Top Findings
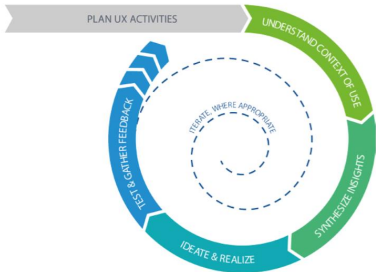
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Design Thinking
Understand context of Use

Ideate & Realize

BOSCH
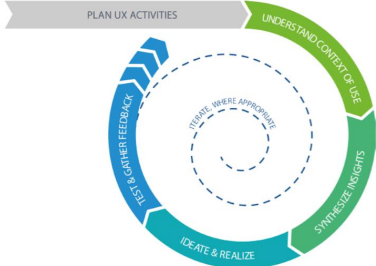
Design Thinking
Ideate and Realize

Design Thinking
Solution Space

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Design Thinking
Ideate and Realize

Kano Model

Reframing

Building Technologies | Pedro Bastardo (BT/ENI2-Ovr) | 2018-11-26

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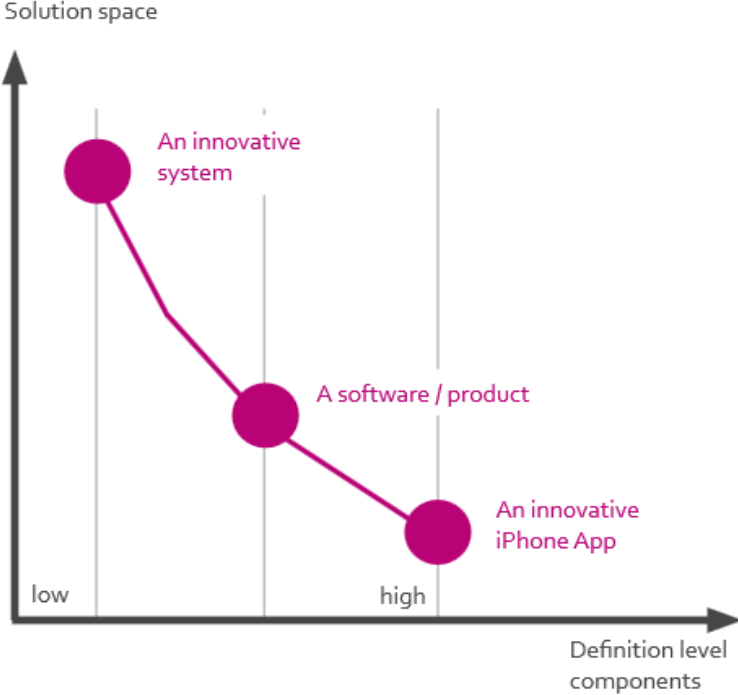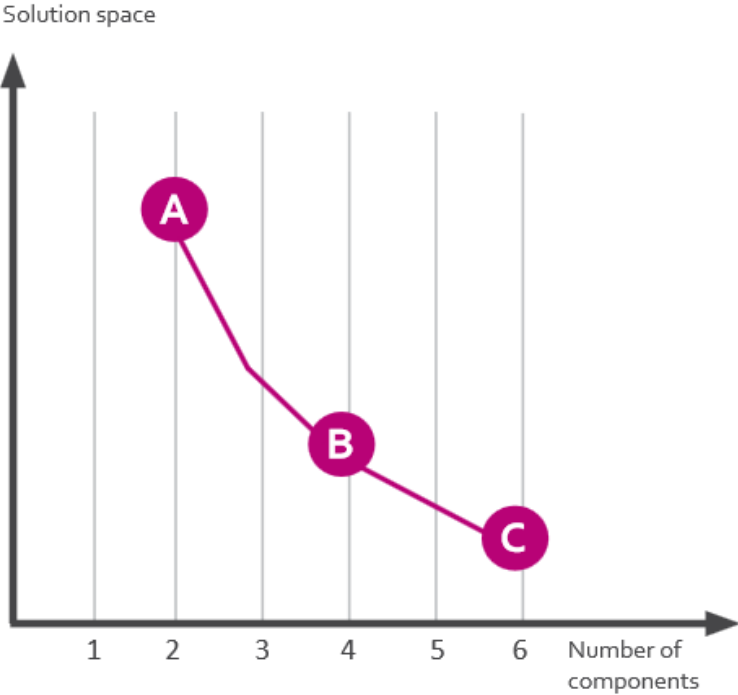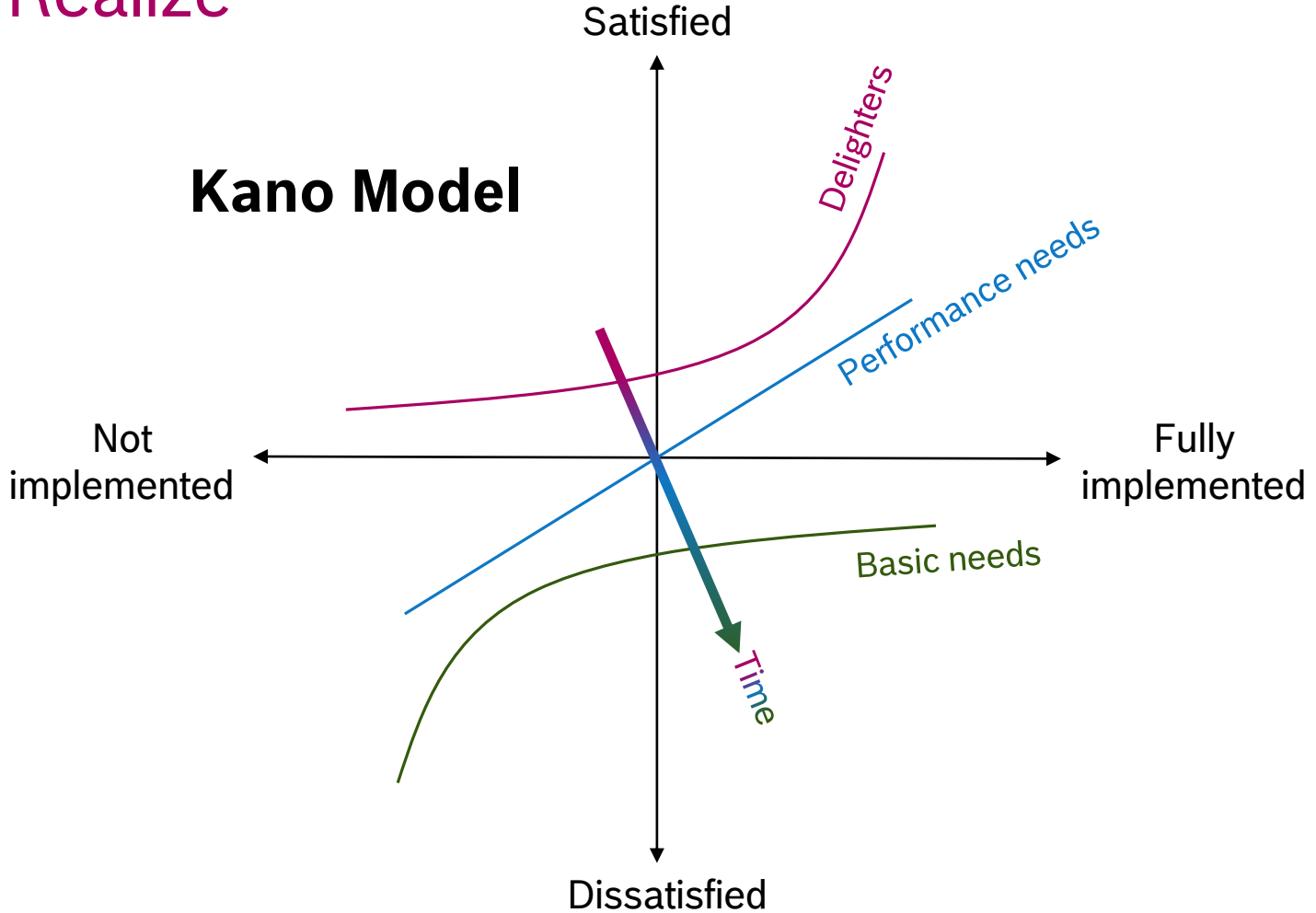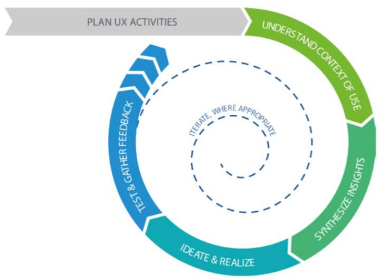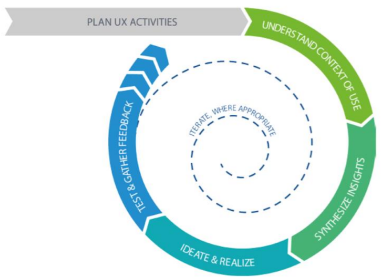
Design Thinking
Ideate and Realize
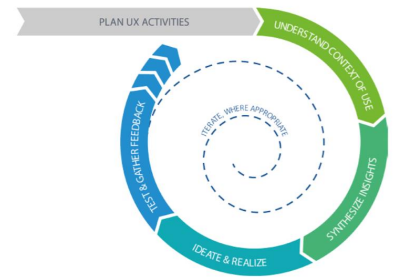
Reframing

How would nature deal with the issues such as any kind of animal, weather etc.?
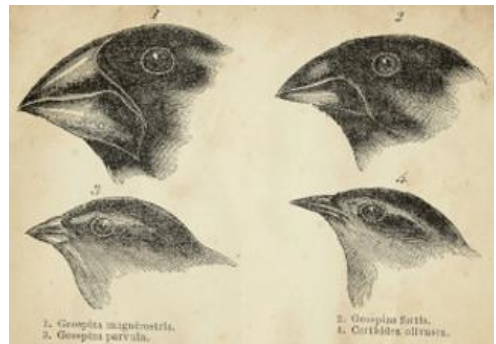
How would another type of organization deal with the problem such as Mafia, Military, University, etc.?
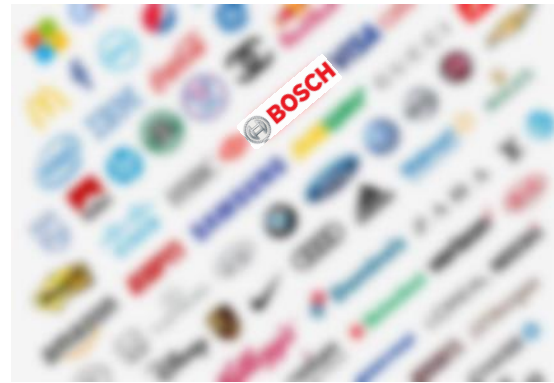
How would a famous person deal with the issue such as Mahatma Gandhi, Steve Jobs etc.?

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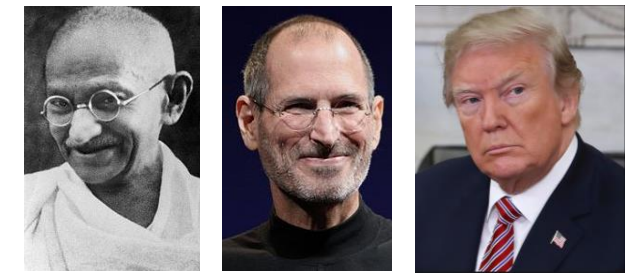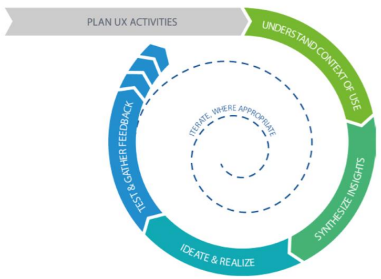
Reframing

What's your favorite superhero?
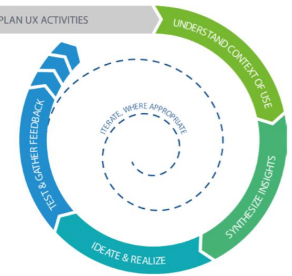
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Object Observation

https://www.randomlists.com/things

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Build on ideas of others

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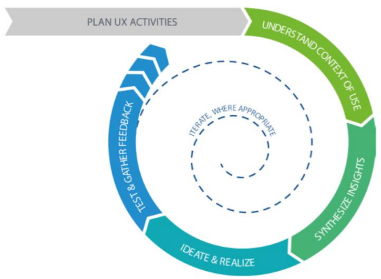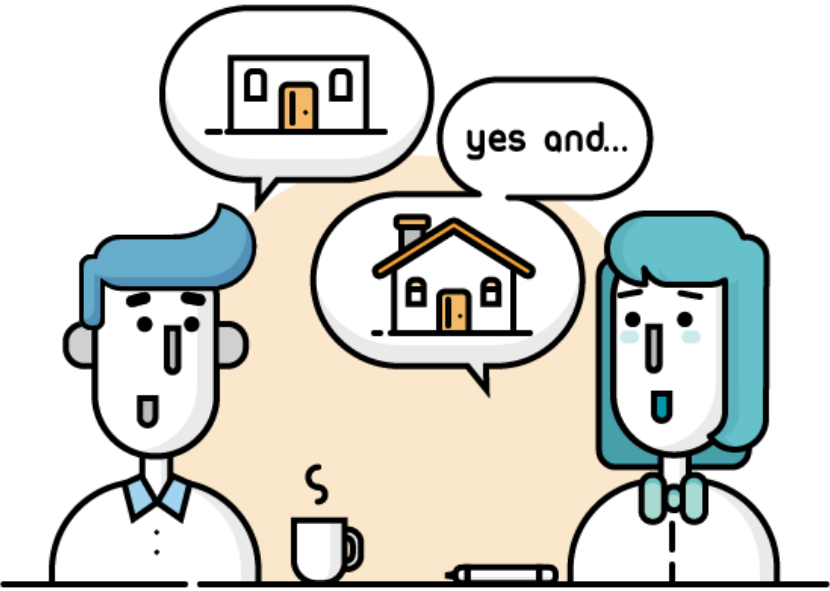
Design Thinking
Ideate and Realize

The hardest part of design is keeping features out.

design is part the features The out.

Donald Norman

BOSCH
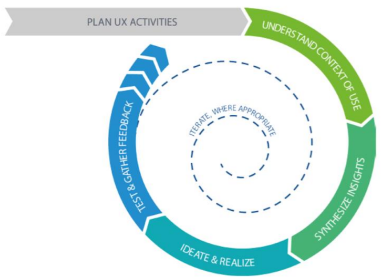
Design Thinking
Ideate and Realize
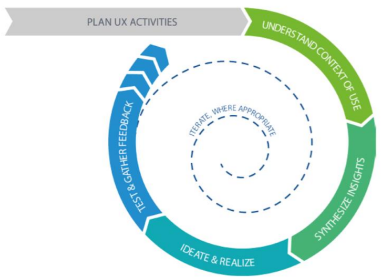
If a picture's worth a thousand words, a prototype is worth a thousand pictures.

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Design Thinking
Understand context of Use

TEST & GATHER FEEDBACK

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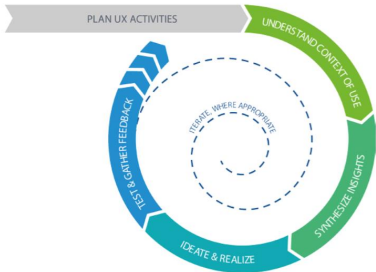
Design Thinking
TEST & GATHER FEEDBACK
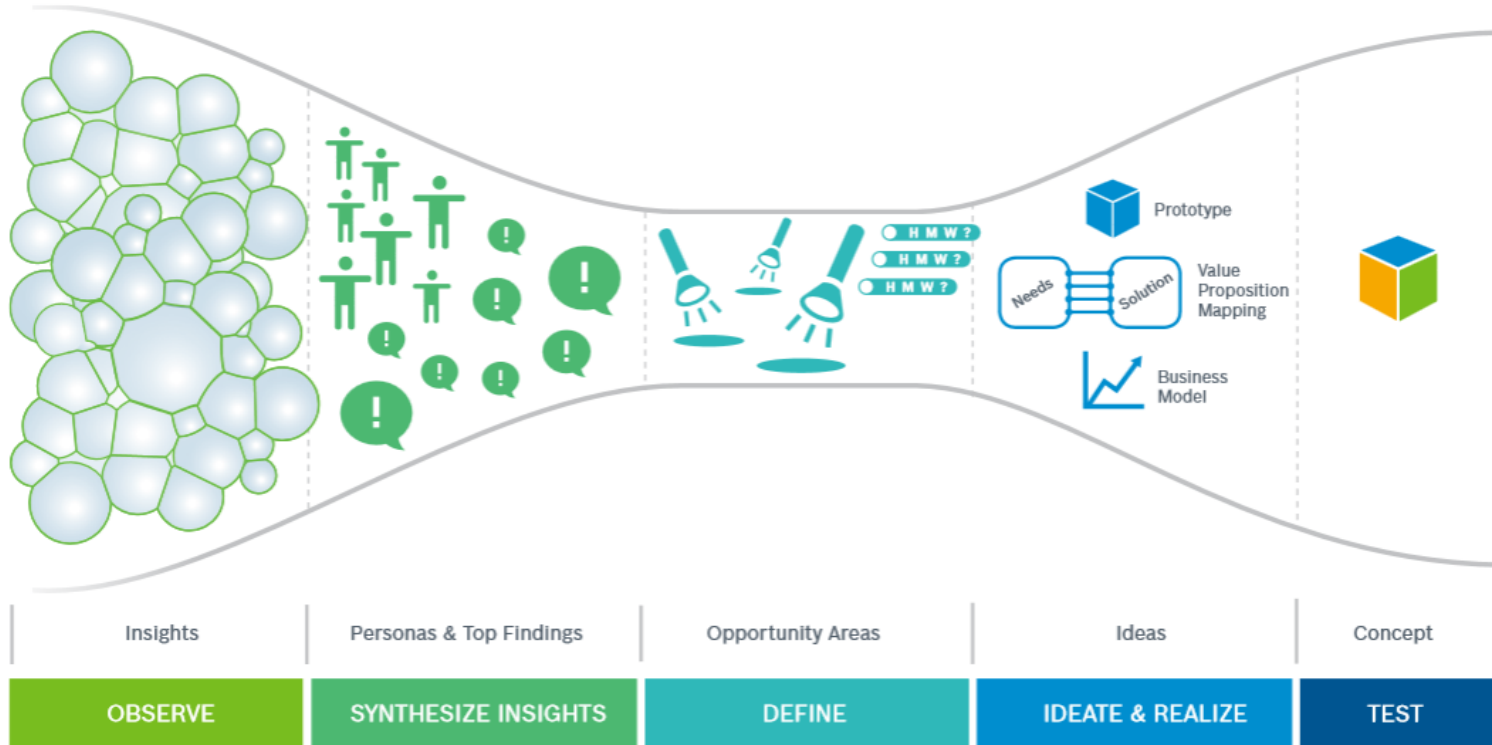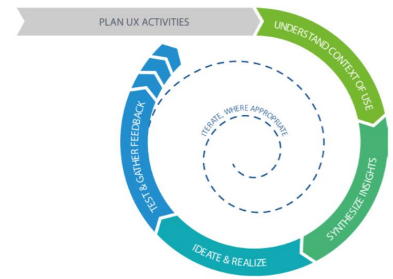
- Contextual Inquiry
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- User Interviews
- Expert Interviews
- Focus Groups

Insights	Personas & Top Findings	Opportunity Areas	Ideas	Concept
OBSERVE	SYNTHESIZE INSIGHTS	DEFINE	IDEATE & REALIZE	TEST

BOSCH

Design Thinking
TEST & GATHER FEEDBACK
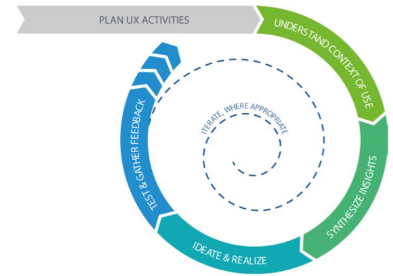
- Be patient, watch and understand
- Give the users the feeling of being appreciated
- Accept criticism and valuate the chance to improve your product. Do not defend your design.
- Don't contradict the user nor agree with her/him – stay neutral

Don't fall in love with your design!

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Design Thinking

And Then?

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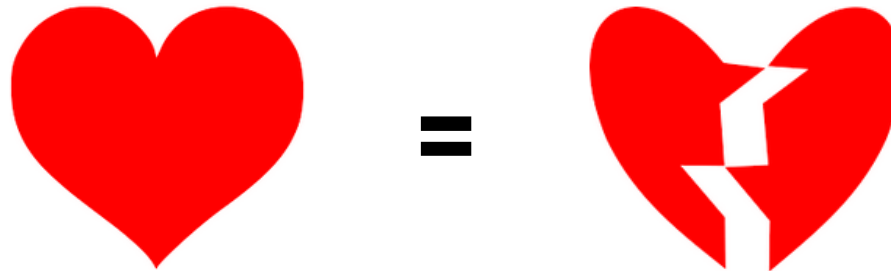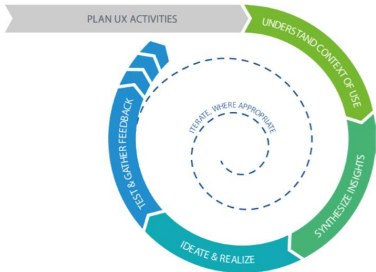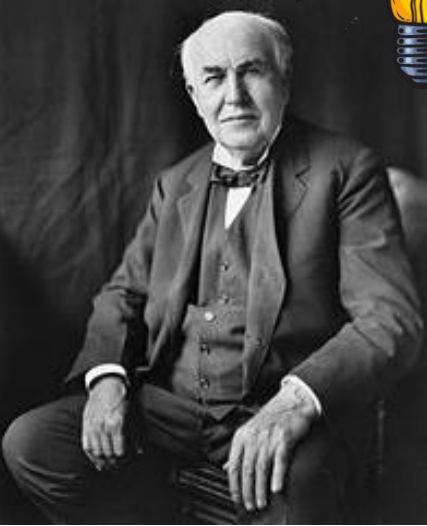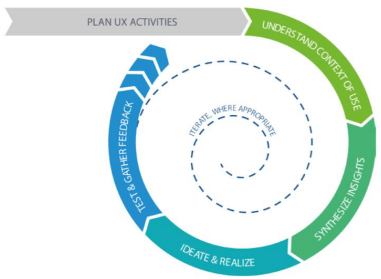
Design Thinking

How did it feel to fail 1000 times?

I didn't fail 1000 times. The light bulb was an invention with 1000 steps.

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Design Thinking
Human Centred Design Process
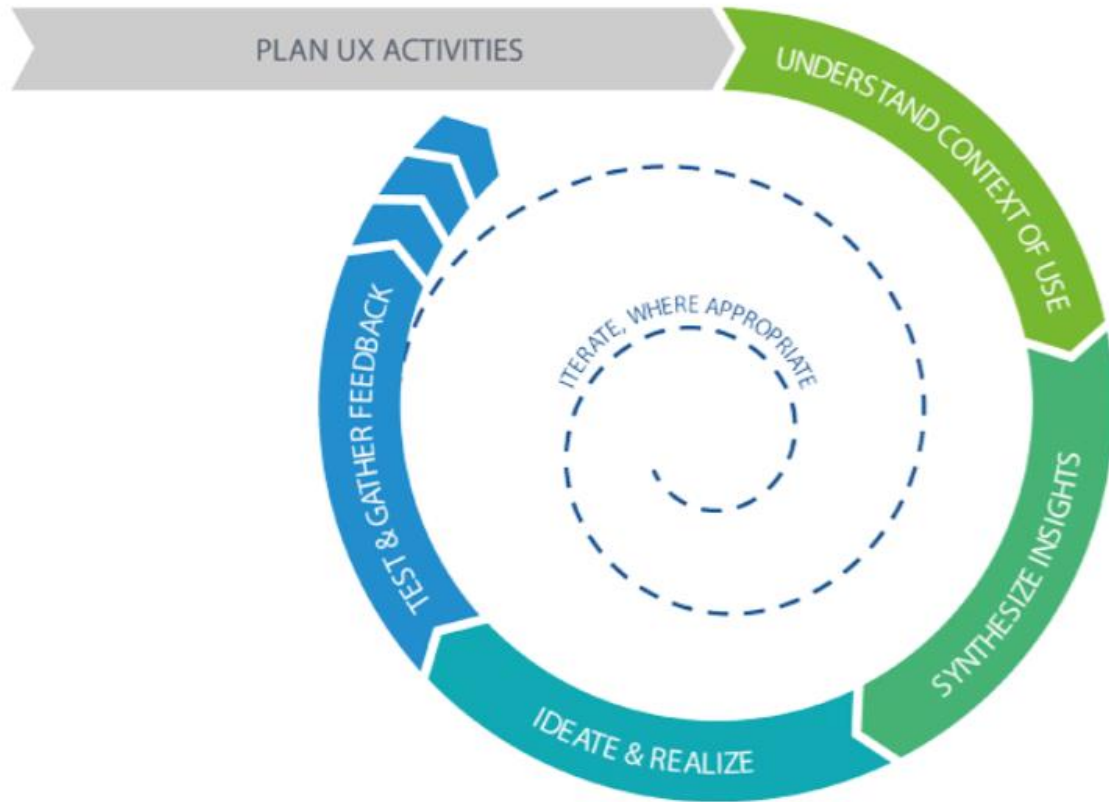
"If you're not falling now and again, it's a sign you aren't doing anything very innovative."
Woody Allen

"It's fine to celebrate success but it's more important to heed the lesson of failure."
Bill Gates

Go for quantity, not for quality. Fail the earliest possible and learn from it.

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Design Thinking
How does it fit with SCRUM?

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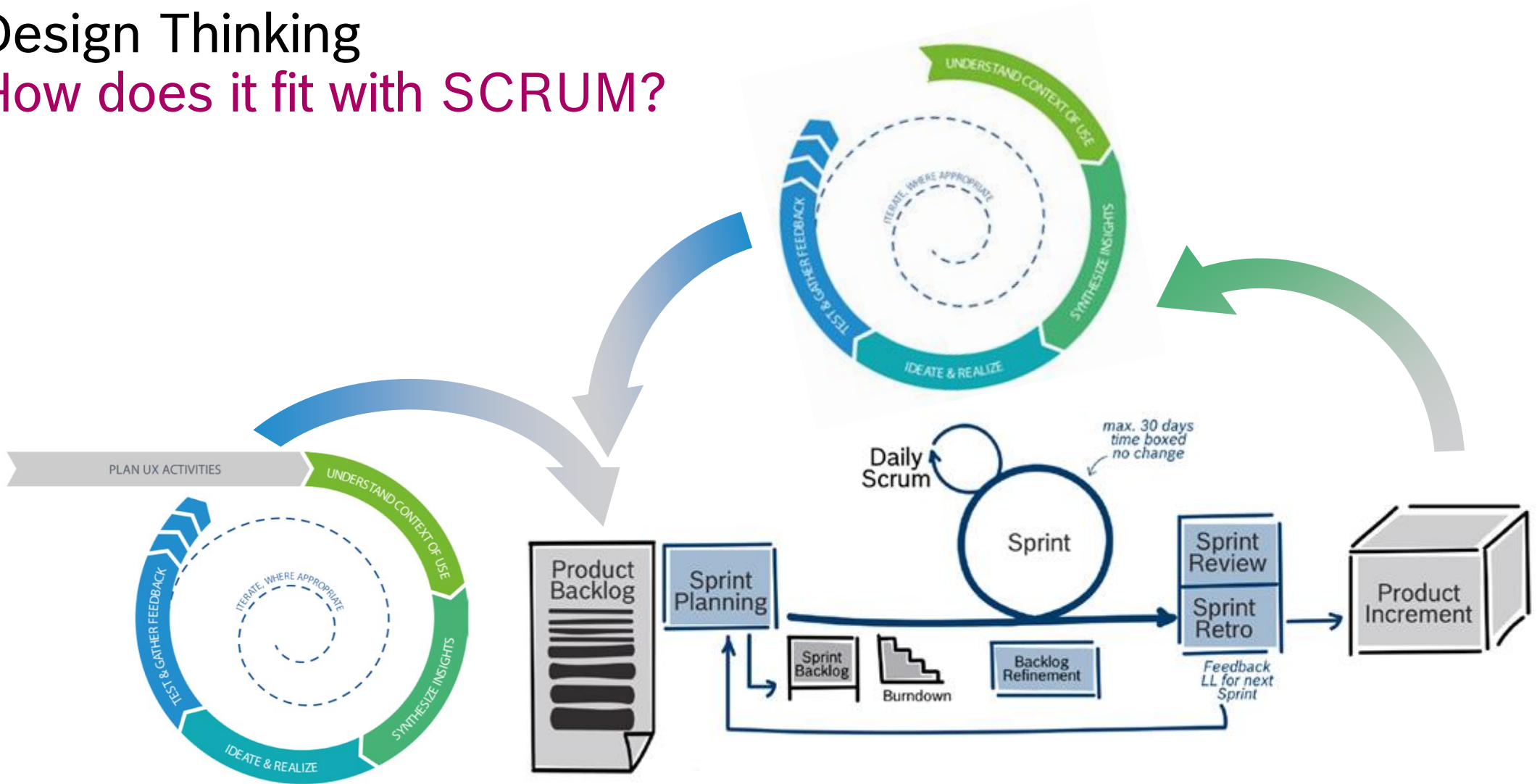
Design Thinking
Design Thinking Rules

Be visual.

A picture is worth a thousand words. Present your idea without the limitations of text. This way others will understand it much quicker. Remember, this is not about art or perfect sketches. Everybody can draw.

Put your thoughts and ideas on paper. Use writeable walls or sticky notes and tell a story with scribbles.

Let´s have fun.

A playful approach to work on ideas increases creativity and out-of-the-box thinking. If we have fun with our work, success in business will follow.

Get ready to discover how new approaches help you to warm-up. You will be more creative, energized and concentrated.

No hierarchies.

The absence of hierarchy supports a new culture and way of working. Every idea is of equal value – no matter if it's coming from an intern or a manager. Success stories belong to the group and not to an individual.

Be open and enable creative workshops without regarding hierarchy.

Stay focused.

Never lose track of the big picture, but stay focused on the next iteration step.

Break down your overwhelming project into small manageable tasks and define for yourself what you want to achieve and how you will do it.

Fail early and often.

Everything is a prototype. Through early testing with real users you will see where your prototype fails and which of your assumptions are false. These early failures will lead you to solutions that really work.

Reflect on your observations and be critical of your own ideas. Make radical changes, if needed, or even abandon the idea completely.
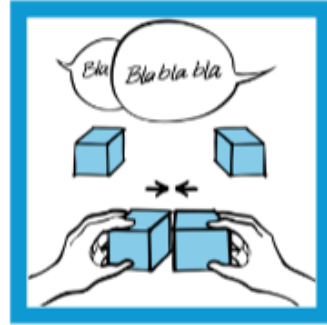
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Design Thinking
Design Thinking Rules

Build on ideas of others.

The most unusual ideas originate from different ideas of different people. Putting them all together results in promising and surprising new thoughts.

Learn from each other and build on the ideas of others to make the most of the group's potential.

Don't talk. Do!

Make your ideas tangible. Even the simplest things can act as a prototype. Learn how much your idea really fits in with the needs of the target group. Give them something to touch and feel.

Stop the "bla bla" and create something: Just do it!

Dare to be wild.

The wilder the ideas, the better they are. Think out-of-the-box. This is your opportunity to experiment! The most extraordinary ideas inspire unusual combinations.

Let's find unconventional paths to extend the range of solutions.

Avoid criticism.

By turning off criticism you will identify new opportunities. Negative communication such as "but this will not work and has never worked before" will kill any idea and destroy the constructive group atmosphere.

Give ideas room to flourish. Replace your "buts" with "ands". Don't play the devil's advocate.

Go for quantity.

It's not necessary to come up with good ideas in the beginning because there are no "good ideas". It's about generating a wide range of ideas. This is the basis for genuine innovation.

Create a pool of ideas before discussing details: 5 people can come up with 25 ideas in 5 minutes, minimum – the more the better!

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Design Thinking
Successful Use Case

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Design Thinking
Further information

Websites:

Interaction Design Foundation - https://www.interaction-design.org

Innovation Training - https://www.innovationtraining.org/category/design-thinking

Books:

Design Thinking Methodology Book, Emrah Yayici

Digital Innovation Playbook, Dark Horse Innovation

Innovation by Design, Thomas Lockwood and Edgar Papke

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THANK
YOU