



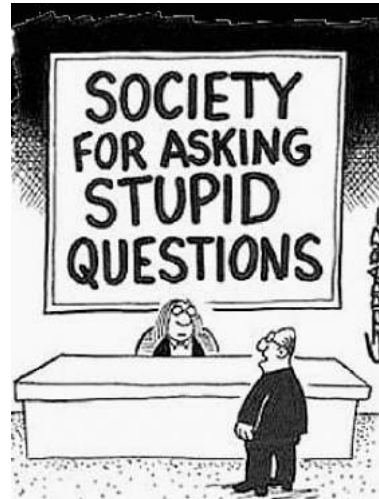
HASSO PLATTNER

d-school **AFRIKA***

Why Design Thinking?



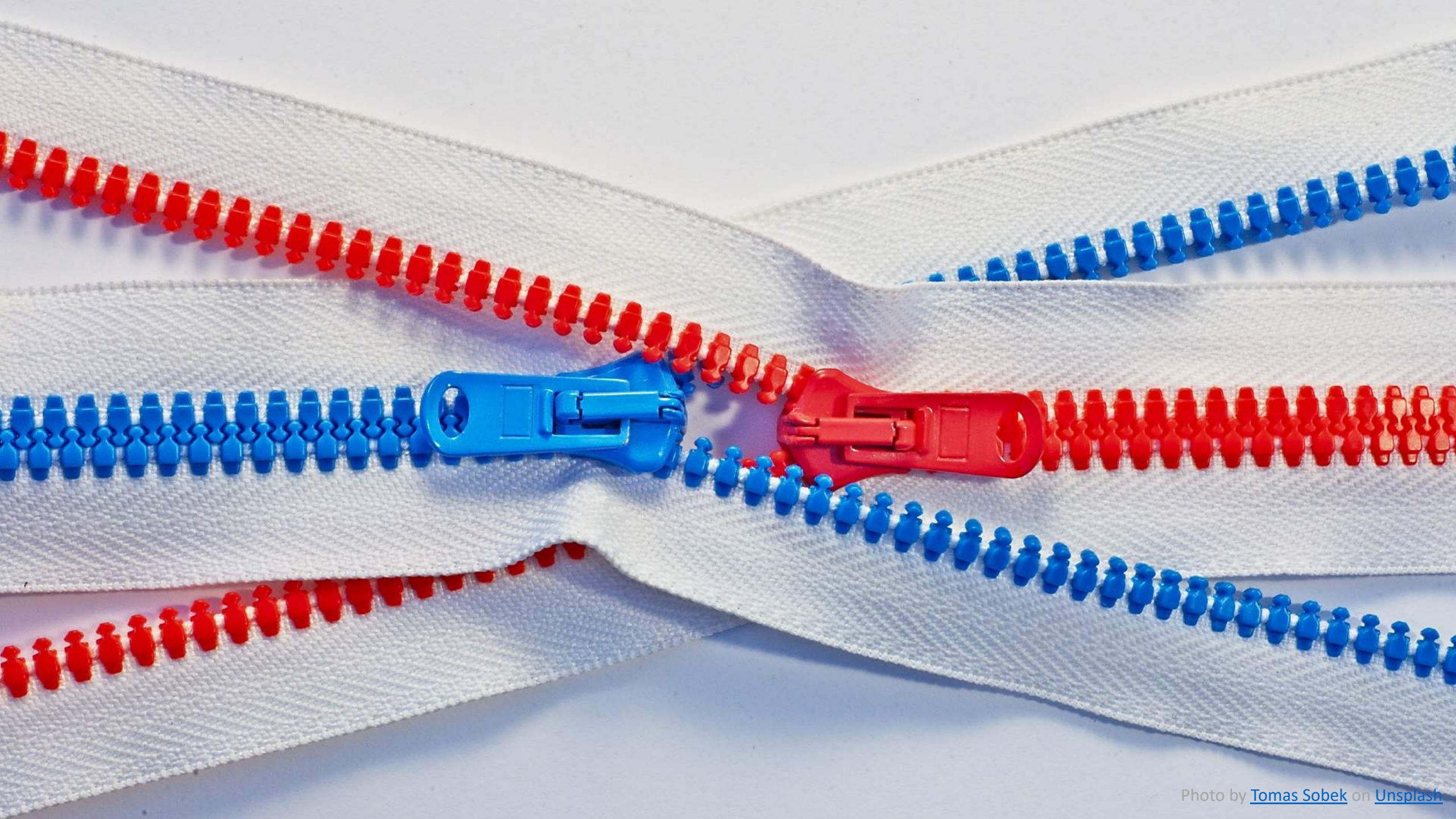
**Rob
Kellas**







**What is the critical function
of toilet paper?**



**The more experience you have,
the less likely you are
to change your behavior.**



EXPERIENCE



COMFORTABLE



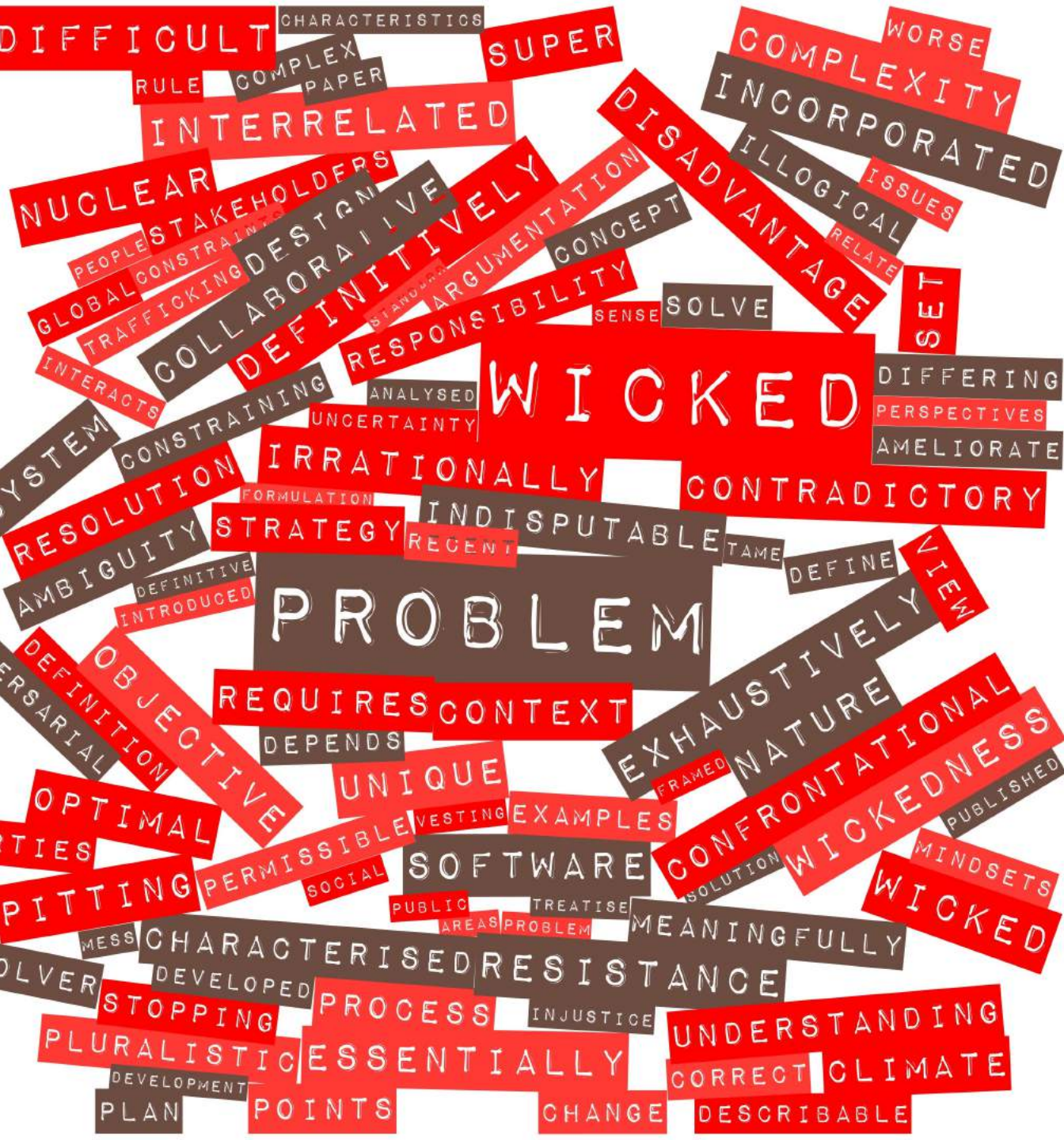
RIGHT



we got
stuck...



We spend so much time teaching people how to answer questions that we often neglect to teach them how to ask them.



WICKED PROBLEMS

noun | wik-id | prob-luhm

a problem that is
difficult or impossible to solve because of

- incomplete,
- contradictory, and
- changing requirements

that are often difficult to recognize

Developing a new skillset...

Top 10 skills of 2025



Creativity

Innovation can't
be automated.

Pattern Interrupt

Flexibility to identify and
adopt different perspectives.

-  Analytical thinking and innovation
-  Active learning and learning strategies
-  Complex problem-solving
-  Critical thinking and analysis
-  Creativity, originality and initiative
-  Leadership and social influence
-  Technology use, monitoring and control
-  Technology design and programming
-  Resilience, stress tolerance and flexibility
-  Reasoning, problem-solving and ideation

Developing a new skillset...

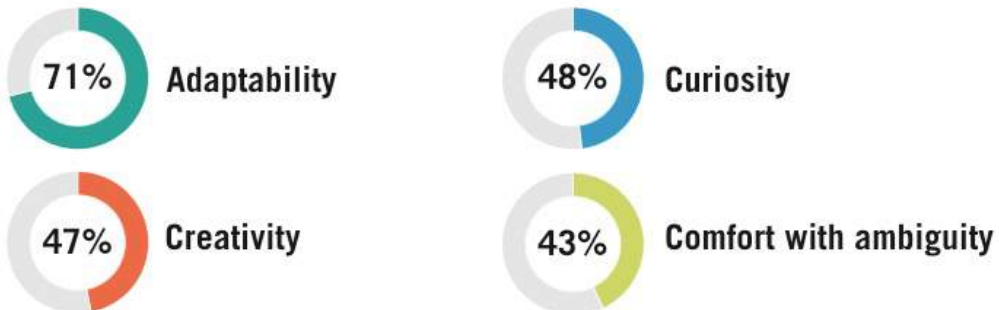


14 FEB 2022 | by Linda A. Hill, Ann Le Cam, Sunand Menon, and Emily Tedards

Transforming an organization starts with transforming its leaders. Data from 1,700 executives by **Linda Hill** and colleagues reveals the most important skills and traits leaders need now.

Leadership qualities necessary for the digital era

We asked survey respondents to identify the leadership traits most critical to success in digital transformation.



Source: Leadership in the Digital Era survey, n=1,500

"LEADERS WILL BE BLINDSIDED IF THEY RELY ONLY ON THEIR PAST EXPERIENCE OR EXPERTISE WHEN MAKING DECISIONS."

1. Be a catalyst, not a planner
2. Trust and let go
3. Be an Explorer
4. Be Courageous
5. Be Present
6. Live Values with Conviction

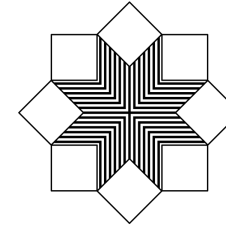
Mindsets



Be Human
Centred



Be Collaborative



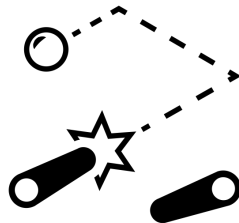
Navigate Ambiguity



Re-Frame



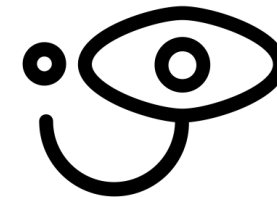
Be Reflexive



Play Deliberately



Make Tangible



Be Curious



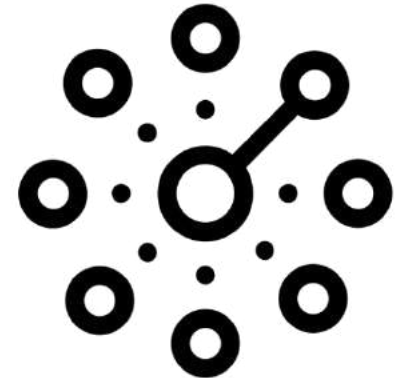
Be Resilient



Take Action

What is a Mindset?

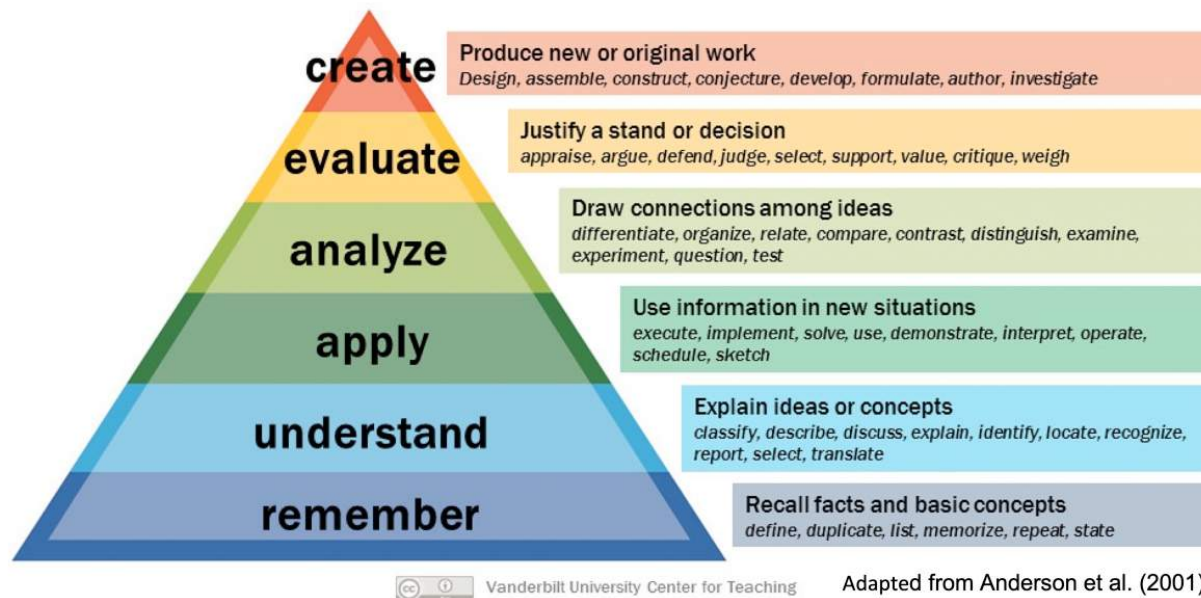
- A **characteristic mental attitude** that determines how you will interpret and respond to situations
- Design attitude as 'expectations and orientations, one brings to a design project'
(Boland and Collopy 2004:9)
- Configurations of cognitive procedures
(Gollwitzer 1991)
 - -> do I want to do x?
 - -> do I believe that I can pull it off?



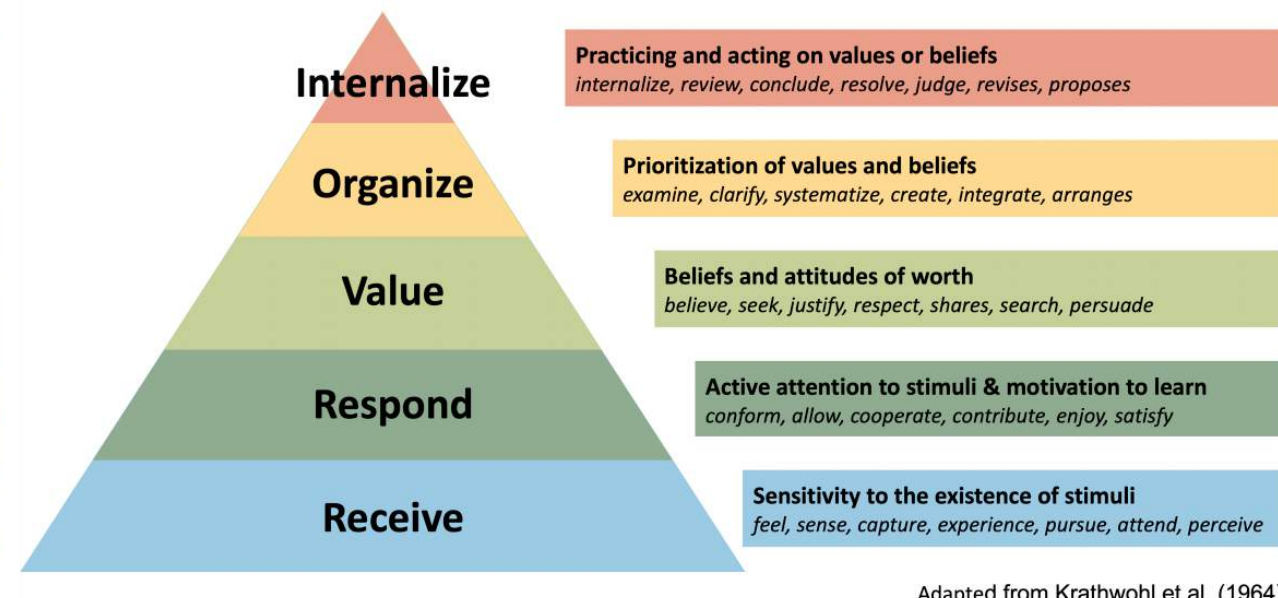
Why should you care?

Garbuio et al. (2018) emphasise the importance of design cognition, including the cognitive acts of framing, analogical reasoning, abductive reasoning and mental stimulation. They find that **teaching thinking modes and mindsets is more effective than teaching processes and demonstrating tools**, which are often not easily transferable to other domains.

Bloom's Taxonomy – Cognitive Domain



Bloom's Taxonomy – Affective Domain

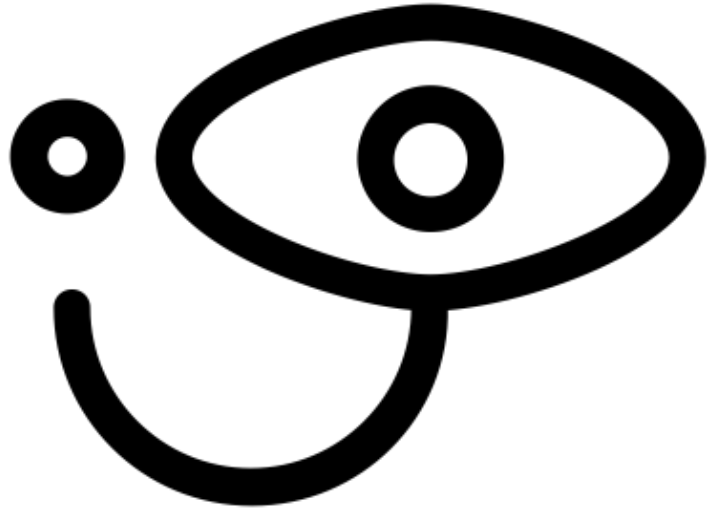


Human-centred



Ground and frame your thinking and doing in the view of humans, their needs, context and feedback.

Curious



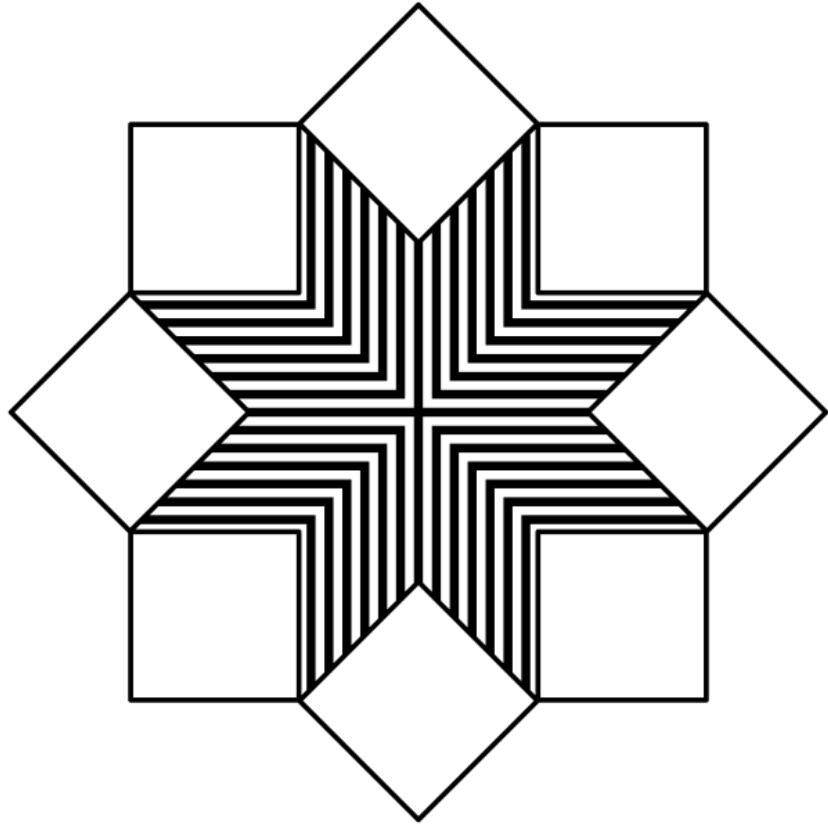
Explore knowledge, novel possibilities and experiences to learn and make sense of the world.

Reflexive



Be able to stand back and critically question own assumptions and actions, their impact on others and ways for improvement.

Navigate Uncertainty



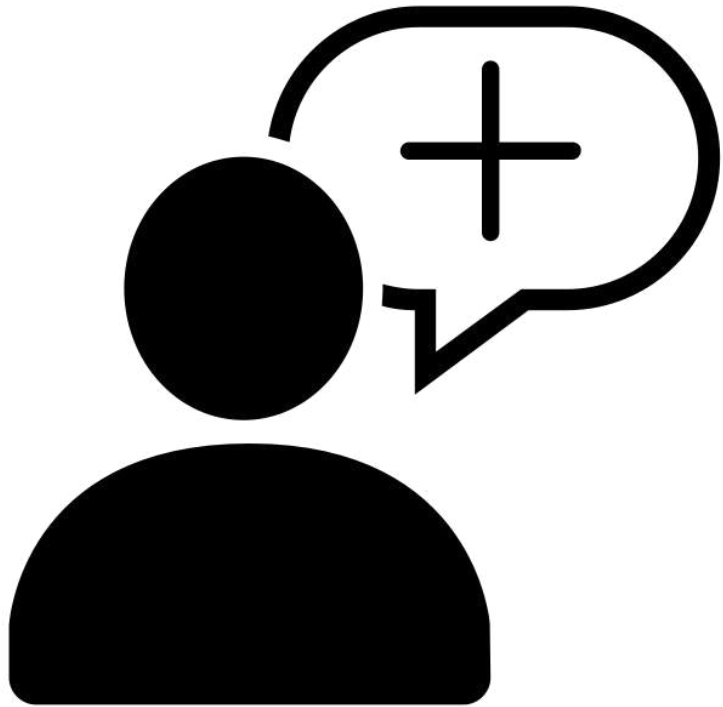
Deal comfortably with
ambiguous and complex
situations.

Collaborative



Believe in working together toward a shared purpose and solution; be effective in the service of the team's purpose

Resilient



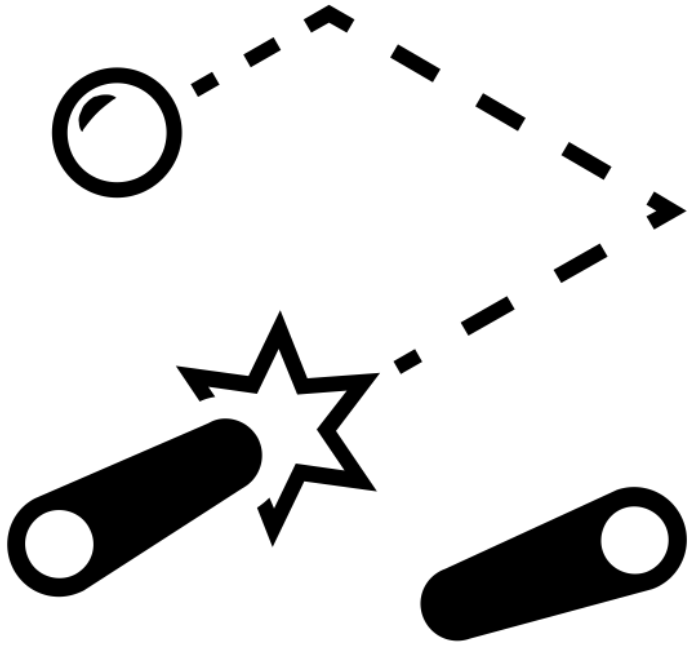
Withstand or recover from difficult conditions and be hopeful and confident about outcomes.

Take Action



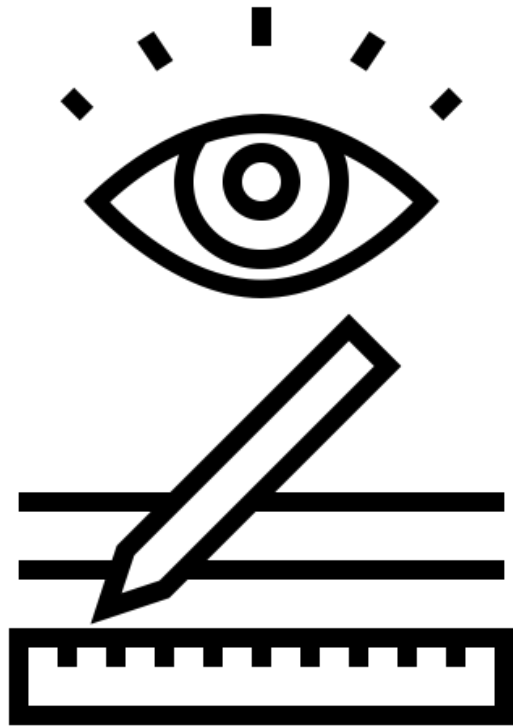
Initiate activities and getting things done to improve situations.

Play deliberately



Choose open, joyful and fun approaches to tasks over being excessively serious about knowledge creation and diffusion.

Make Tangible



Externalize information, ideas and concepts by activating all human senses.

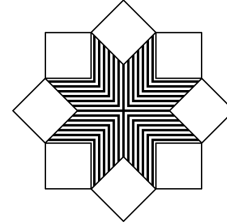
Mindsets



Be Human
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Be Collaborative



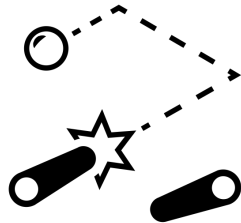
Navigate Ambiguity



Re-Frame



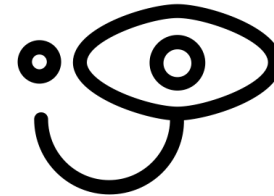
Be Reflexive



Play Deliberately



Make Tangible



Be Curious

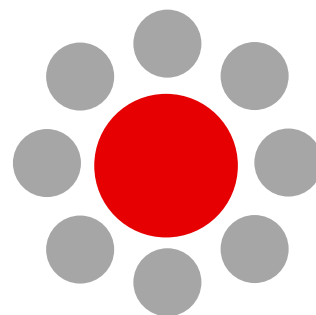
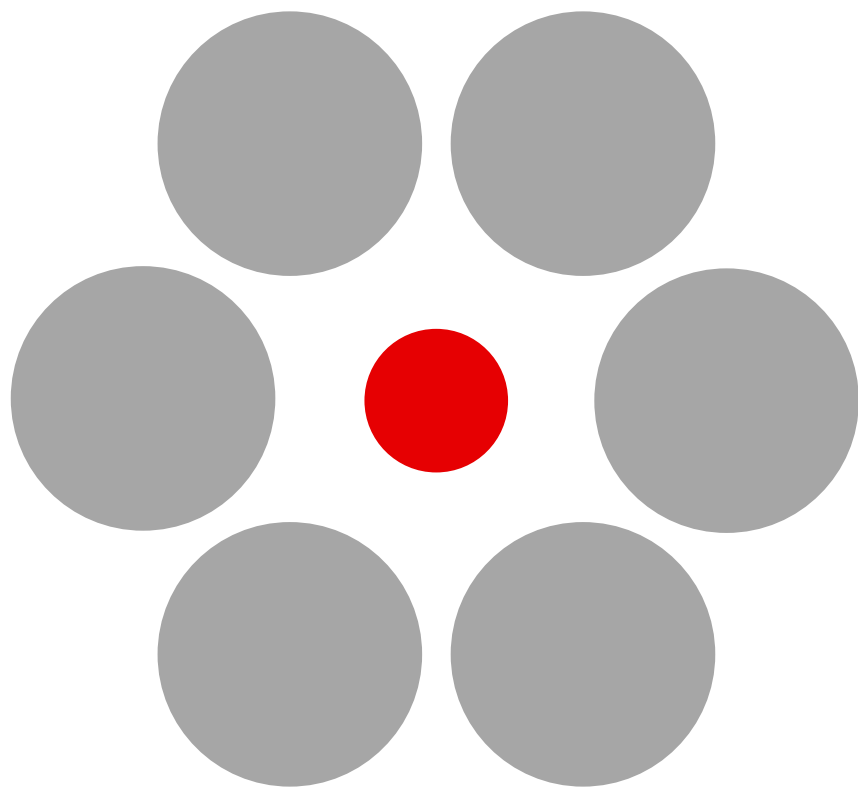


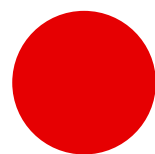
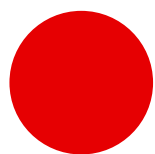
Be Resilient

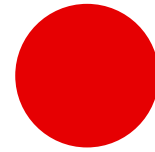
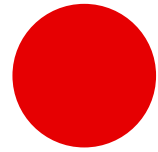


Take Action



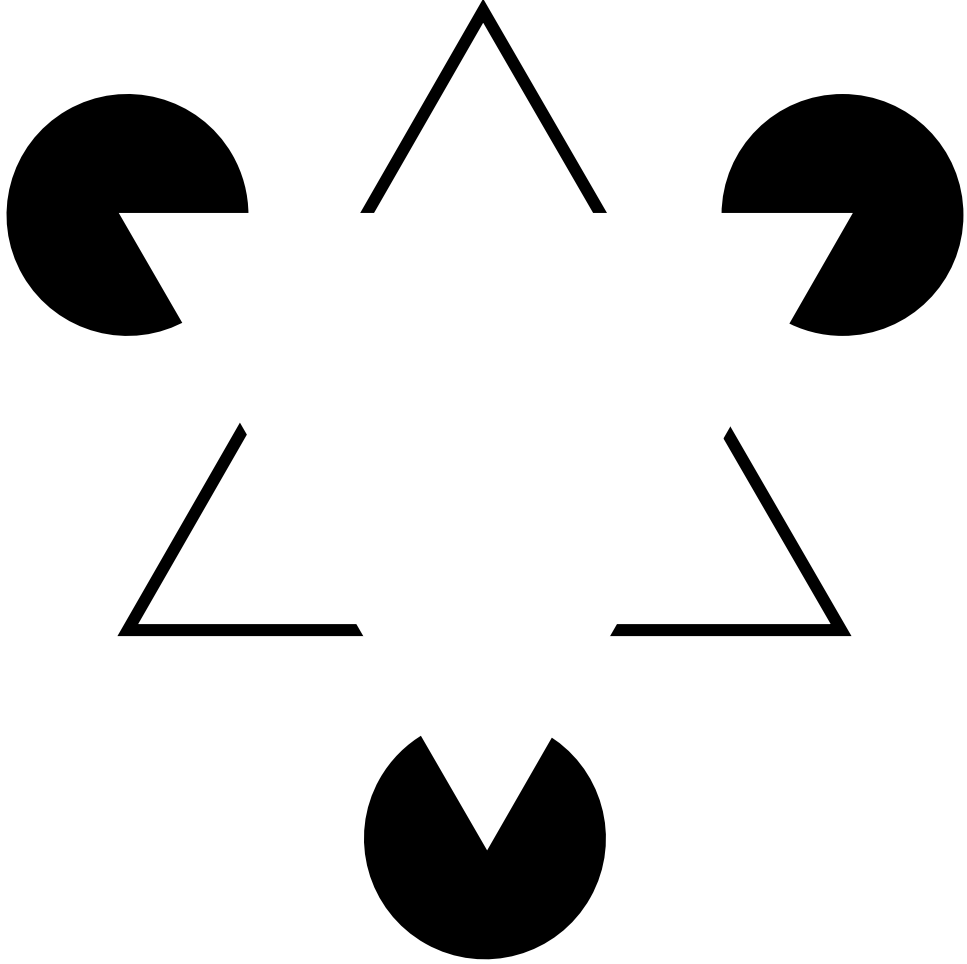


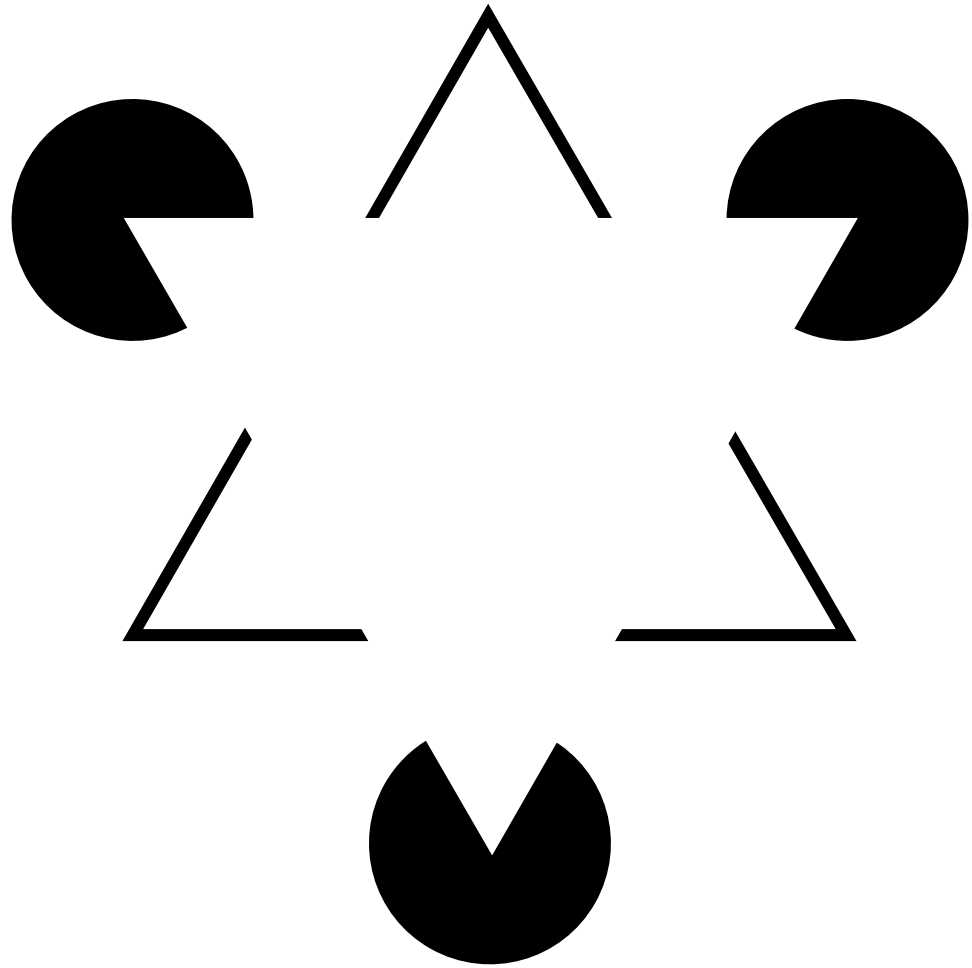




CONTEXT MATTERS

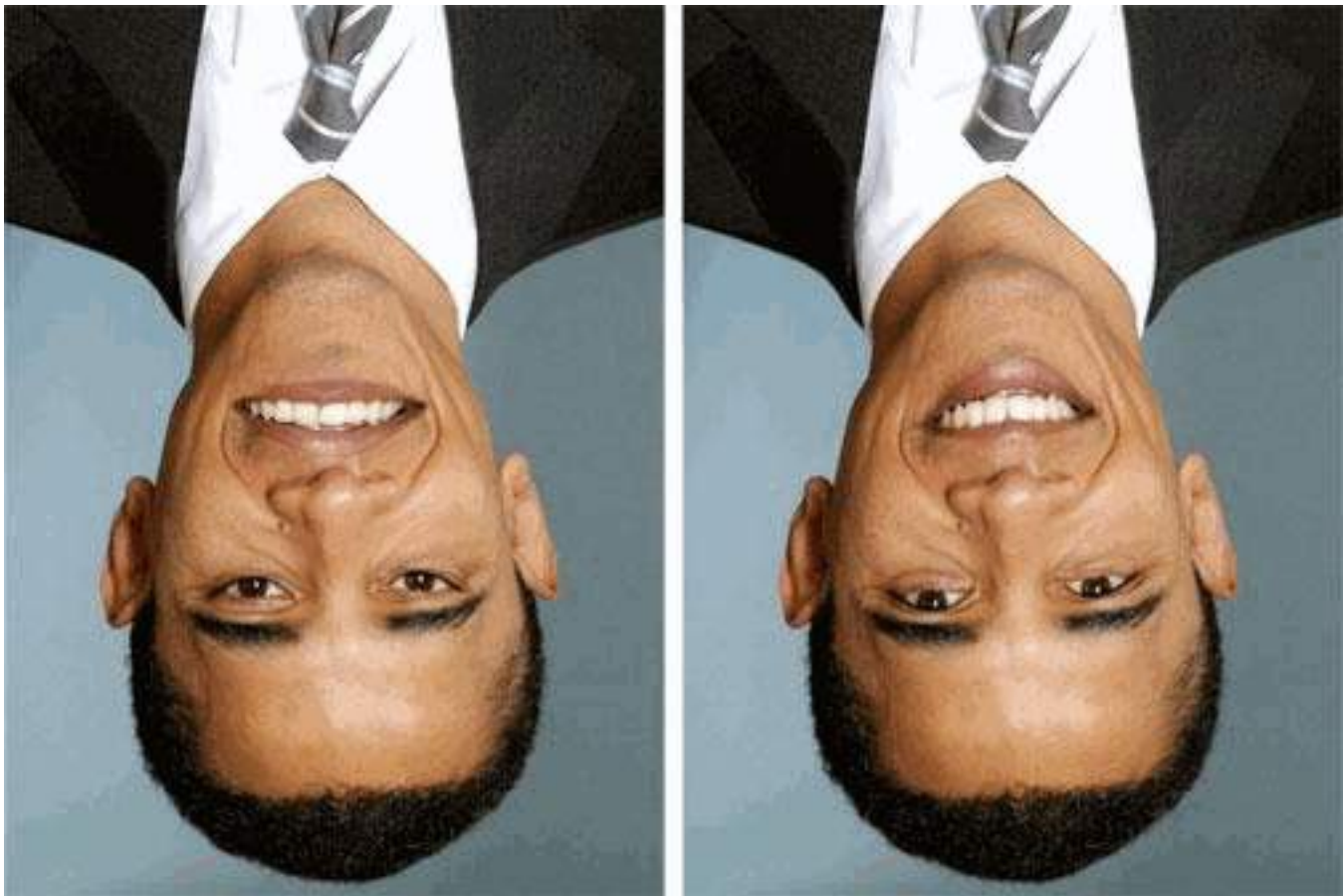






MIND THE GAPS





A woman with blonde hair, wearing a dark blue sleeveless dress, is speaking on a stage. She is gesturing with her right hand, pointing upwards. The background is dark blue with diagonal light blue lines.

"We need to be more human!
That is our competitive
advantage."

Dr Vivian Ming

Neuroscientist and AI Expert

Potential barriers to empathy work:

- reality is complex**
- there are different perspectives**
- perception is limited**
- subject to conscious / unconscious self-deception**
- no direct access to latent needs**



**design
thinking**

?



design thinking

"... a way of finding human needs and creating new solutions using the tools and mindsets of design practitioners. It's a methodology and using it we can address a wide variety of personal, social and business challenges in creative new ways."

— David Kelly (IDEO & Stanford d.school)

3

slides



design thinking

Ask yourself two questions:

Who are we designing for?

What do they need*?

Determine what your customer needs, and work backwards.

Jeff Bezos



42-17318054 [RF] © www.visualphotos.com



**WORKING
BACKWARDS**



"Most companies write the software, they get it all working, and then they throw it over the wall to the marketing department, saying 'here is what we built, go write the press release.' That process is the one that's actually backwards."

Jeff Bezos

The 5 Questions



Press Release



- Focus on the customer need
- The customer quote is key
- Leap into the future: Think BIG
- Avoid jargon
- Say it simply and clearly

Amazon Campus

Amazon.com confidential

Amazon Campus Launches First Multi-Channel Student Store at the University of California Berkeley

www.amazon.com/Campus & berkeley.amazon.com

SEATTLE-(BUSINESS WIRE) – August 31st, 2014 – Since returning to school for the Fall semester, Berkeley students have experienced a fresh take on the college bookstore as the new Berkeley Student Store opened at an online address: berkeley.amazon.com.

The Amazon-run online Student Store brings Amazon's broad selection, low prices, and convenient shopping experience to the heart of Berkeley's campus and offers a number of additional student-focused features. With the launch of the Student Store, Berkeley students can now pay for any purchase on Amazon with their Cal1Card, buy course materials in any format via links in Berkeley's Learning Management System or directly on Amazon.com, pick up orders at convenient locations across campus, and receive FREE One-Day Shipping on textbooks sent to the campus area. Amazon Student members at Berkeley are eligible for FREE One-Day Shipping to campus on millions of additional products plus FREE Two-Day shipping on millions more.

"I've been an Amazon Student member for two years," explained Senior Aubrey ~~Primasoo~~ ^{Primasoo}, "Getting the extra free one day shipping was huge. I've been ordering everything from Amazon since I got back to school. I may never have to leave campus again."

Students can access these campus-specific payment methods and shipping benefits, along with the full selection of custom textbooks - typically available only through the university's licensed bookseller - by activating the Berkeley co-branded Amazon experience when they visit berkeley.amazon.com, sign up for Amazon Student and select 'Berkeley' as their school, or click on links to Amazon within the Berkeley Learning Management System.

In place of a traditional campus bookstore, Amazon has deployed Lockers across campus and built the first Amazon Student Lounge, a space that features a package pick up desk, technology showroom, and lounge area for students to study, meet, read or just relax in between classes. "Getting my textbooks was way easier this year. Instead of making the trip to the store to pick out my books and wait in line, I simply went to berkeley.amazon.com, paid for my books with my Cal1 Card, and came down to the Student Lounge to pick them up the next day," said Gloria Min, sophomore, "I spent less than 10 minutes on the entire process." Inside the Student Lounge, Amazon offers students free access to Prime Instant Video and Prime Music streaming. "It's my new favorite spot to crash in between classes," said John White, Junior, "I didn't even know Amazon had so much streaming video until I logged on to the Wi-Fi network in the lounge, and I definitely didn't know you got it for free with Amazon Student. I just cancelled my Netflix subscription."

Press Release

We will optimize the customer experience to enable enhanced accuracy in Buy-Box pricing to facilitate increased rapidity and elevated confidence in purchase decisioning by cross-border retail customers.

Press Release

We will optimize the customer experience to enable enhanced accuracy in Buy-Box pricing to facilitate increased rapidity and elevated confidence in purchase decisioning by cross-border retail customers.

Amazon makes it easier for international shoppers to decide what to purchase by showing them the total landed cost of an item. Total landed cost includes all taxes, duties, and shipping costs.

FAQ



- Include both customer FAQs and stakeholder FAQs
- Include the hard questions
- Share your Press Release early to gather questions

Stakeholder FAQs

Here are some questions that your internal stakeholders might like to know about. There will be unique FAQs to your project, here are some examples of Stakeholder FAQs to get you started.

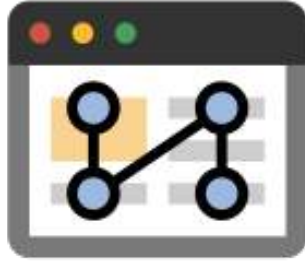
- Why is this customer problem or opportunity important right now?
- How will we know if this raises the bar on customer experience?
- How do we know if we're succeeding?
- What's provoking the most internal debate?
- What if this product/service is a runaway success? Is it scalable over all our customers?
- What if this product/service is a failure? Is it simply lost resources? Or more?
- Are there trust busters?
- How does it work? (i.e., the tech)
- What is your plan for mobile?
- What is the problem you are solving?
- How does the solution make customers' lives better?
- What is the estimate on how many customers will use it?
- How will customers' questions and feedback be handled (e.g., notification)?
- What is the timeline for bringing this to market?
- What are the similarities to existing solutions?
- What other solutions exist or have been tried?

Customer FAQs

Put yourself in your customers' shoes with these sample FAQs. There will be unique FAQs to your project or program, but here are some Customer FAQs examples to get you started.

- How do I find this? How do I get started?
- How do I [complete the main task - e.g. Return an item]?
- How can I get help, if I have a problem?
- Can I use this on my mobile device?
- How does it work? (i.e., features and functionality)
- How is this different than what <insert a tool> offers me today?
- Can I use this on all of my devices?
- What do I need to know? (i.e., policy change)
- What do I need to do before I can use it? (i.e., sign-in)
- Does this cost money? If so, how much does it cost and how will I be billed?
- Are there things I need to manage or keep track of?
- Which features will I care about the most?
- Which features will I care the least about?
- I'm expecting to be able to do <insert a task>, why can't I do that?
- What happens if I use it the wrong way?
- What if I change my mind and no longer want to use this?

Visuals



- Rough idea – rough drawing
- Match fidelity to maturity of your idea
- Don't be afraid to be provocative
- Create discussion



It's a conversation starter
to achieve clarity and
customer focus.

Read... discuss... debate...

knowing that Amazon will send them the right sized diaper at the right time.

Custom Benefit?

~~Babies need an average of about 3,800 disposable diapers across seven sizes in three years, and remain in a size anywhere between a few weeks to several months. A baby might need just one box of size 1 diapers but need as many as eight boxes of size 4 diapers. To complicate matters, weight – and not age – is the best predictor of a baby's diaper size.~~

With Amazon's Subscribe & Save program, customers previously created diaper subscriptions in a specific size which was replenished until the customer decided it was time to move up a size. This meant that parents needed to anticipate the change in diaper size and either cancel their existing subscription to create a new one, or go to the Manage Your Subscriptions page to update the existing diaper subscription with the new size. This caused endless frustration for parents, added to the stress of having a new baby, and the experience ran counter to the concept of a subscription that should run smoothly with minimal touch points.

Not a good Name for this

With the introduction of the new auto-sizing feature, customers who subscribe to diapers will be asked to provide their child's weight, in addition to the existing child info. They will then be able to set up a single subscription that will take them through the various sizes at the right time. Customers will be notified before the next box of diapers is due to ship that it has automatically sized up – if it's too soon, there will be a simple one-click process to keep the current size.

Would a customer really say this?

"I love using Subscribe & Save. But for my older child, I have had to return boxes that were one size too small, which actually increased my work load," says Mara Steiner, who has used Subscribe & Save for her baby needs for several years. "As I expect my second child, I am very excited at the thought of having the right size diapers show up at my door each month. New parents have enough to do without having to keep calculating which size of diapers they should be buying for their baby."

~~"We want parents to always have the right sized diaper for their child at the right time," said Greg, director of Subscribe & Save. "This single subscription experience for diapers will ensure that customers can depend upon Subscribe & Save to do the work for them, and never have to worry about changing size as their children grow."~~

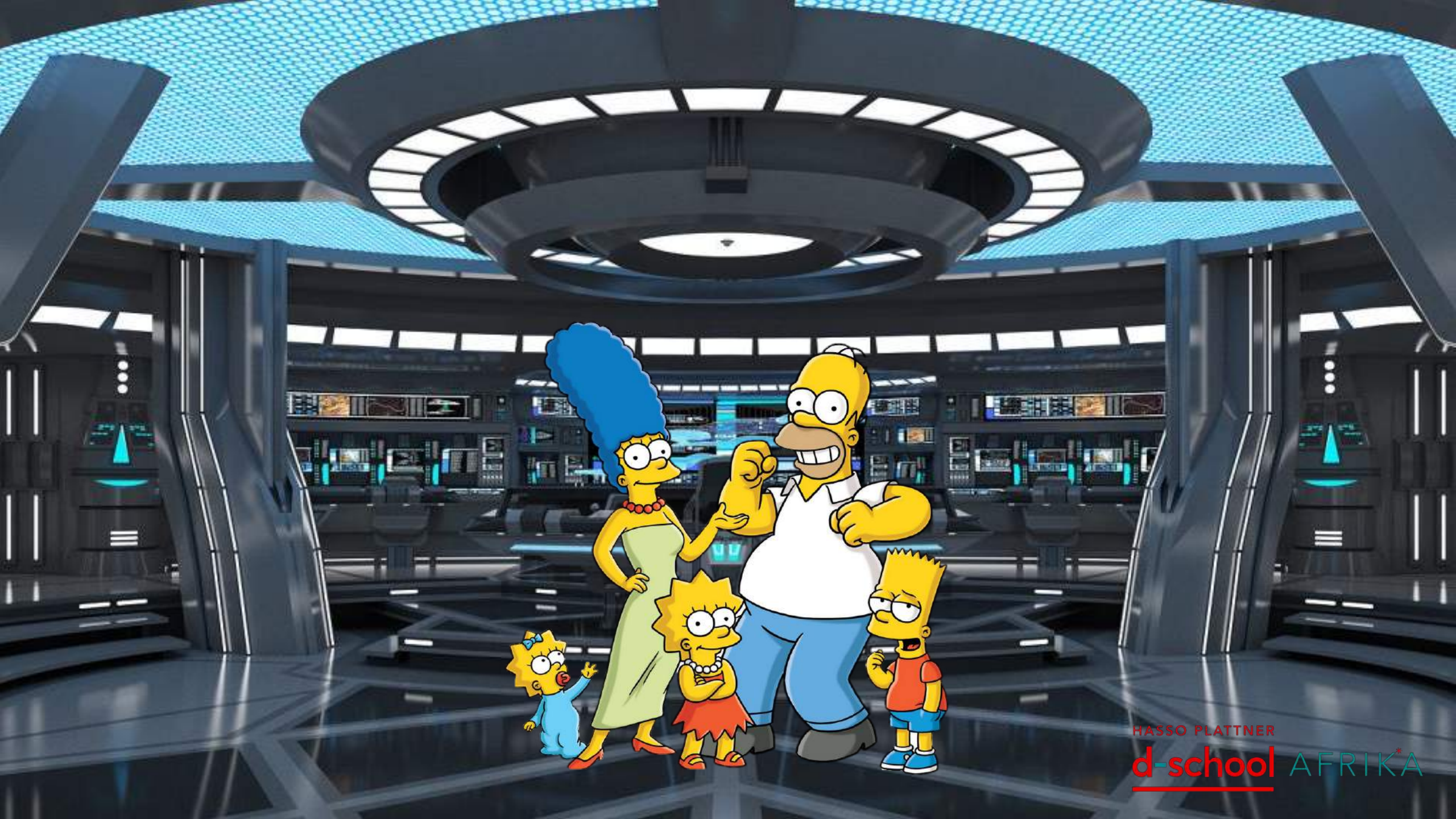
Amazon's Subscribe & Save ships thousands of items to their customers on a regular basis with additional discounts. With the diaper subscription service, the program has simplified the experience for new parents.

To learn more about Subscribe & Save's diaper subscriptions auto-sizing, go to www.amazon.com/diaper-subscription

What about mobile?

Sharpie





HASSO PLATTNER

d-school AFRIKA*



design thinking

4 layers:

a collection of tools

supported by a process

developing a mindset

to practice creative confidence



design **DO**ing

The outcome of design **DO**ing:

creating change agents

(individual level)

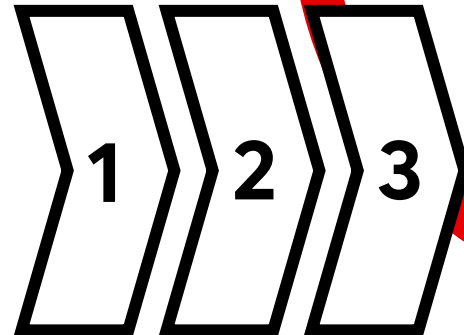
changing the way we work

(team level)

designing desirable solutions

(content level)

People

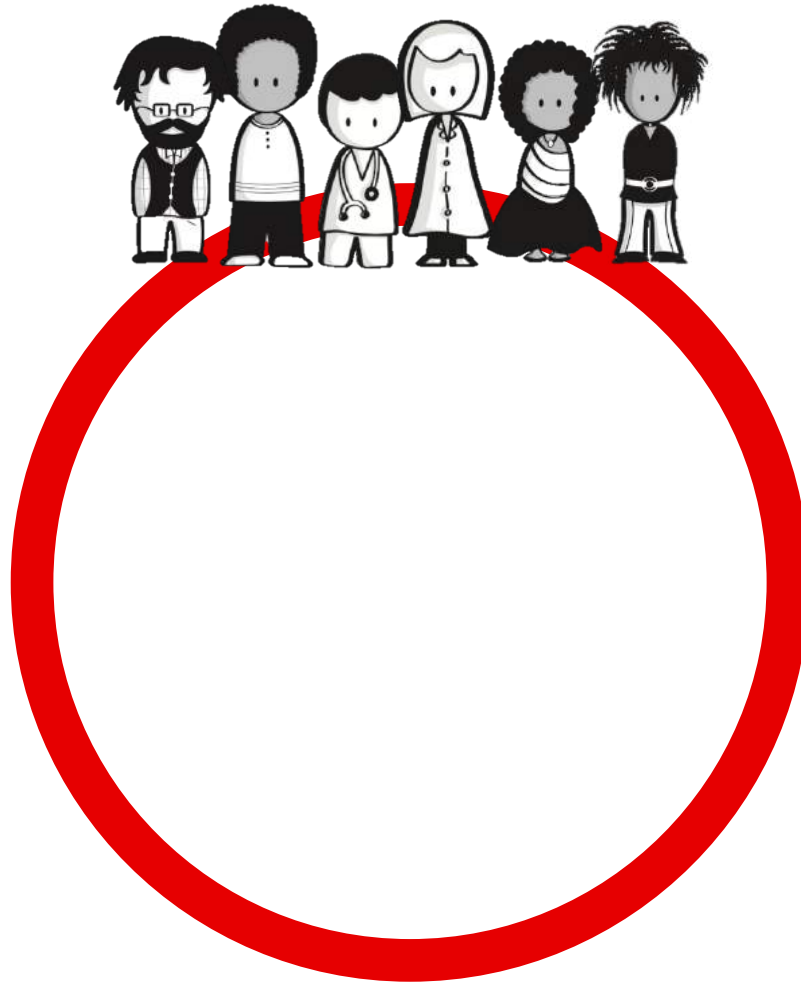


Process



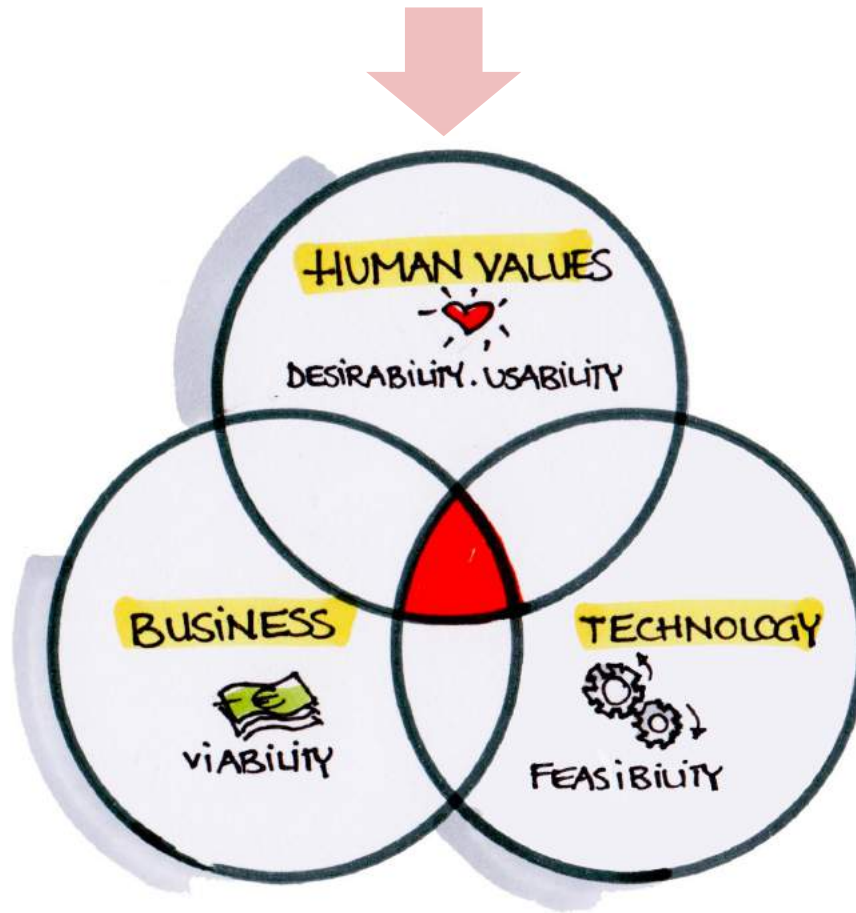
Place

People

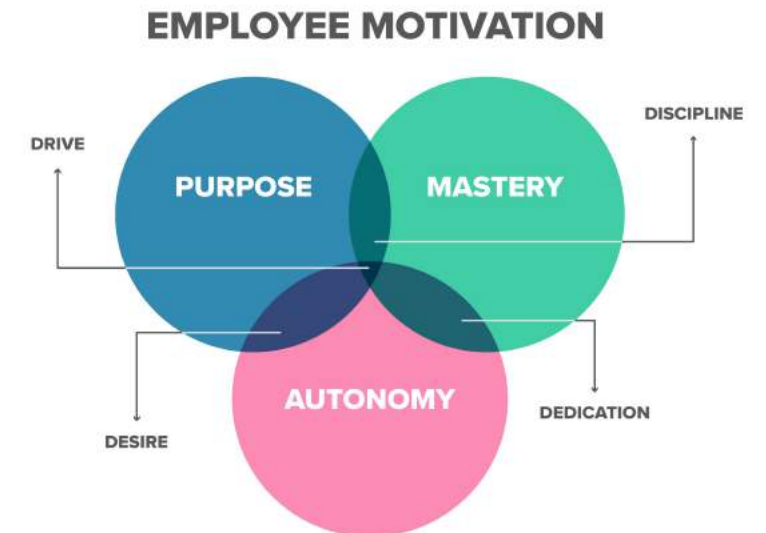
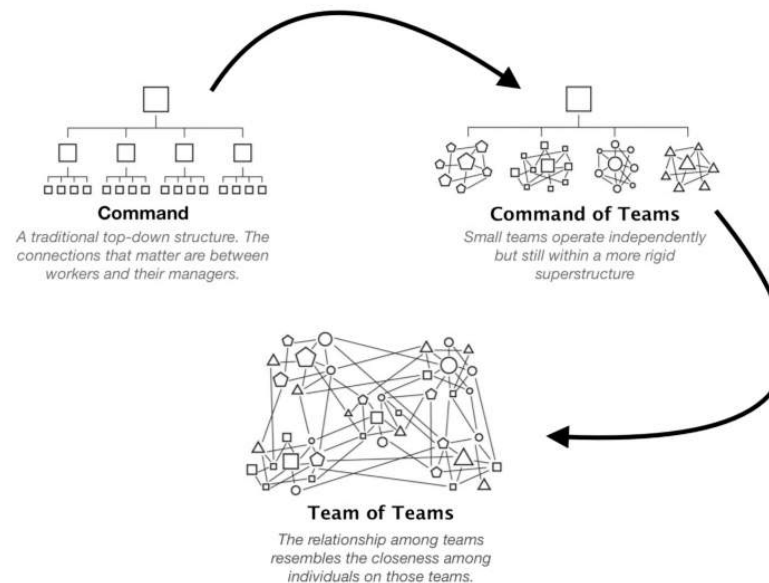
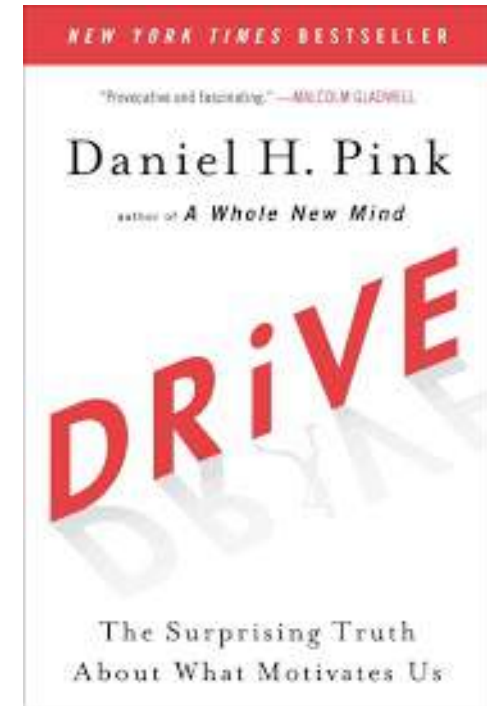
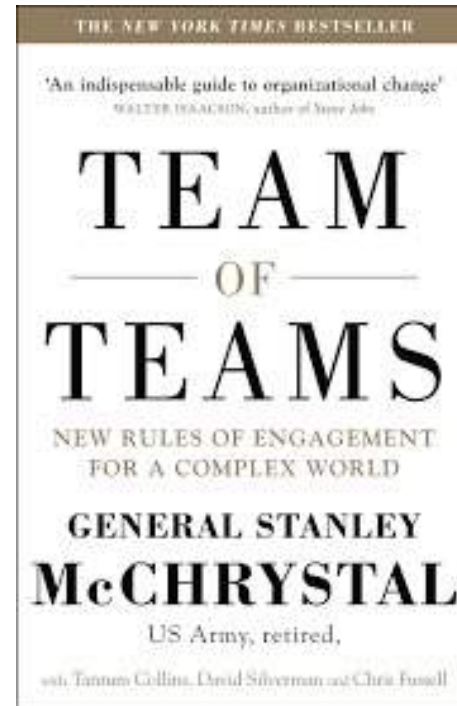
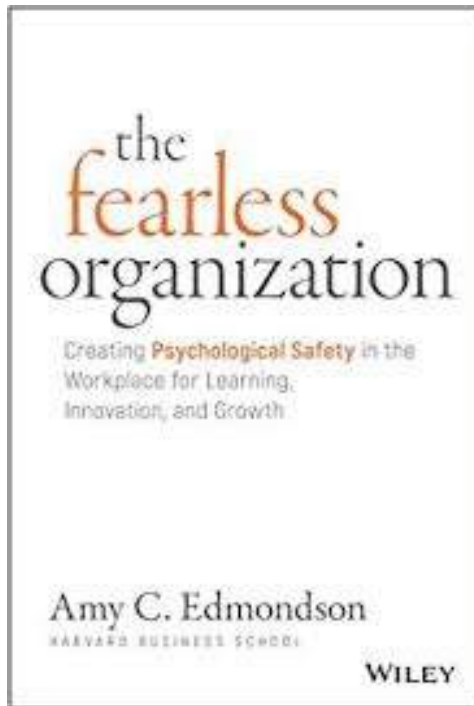


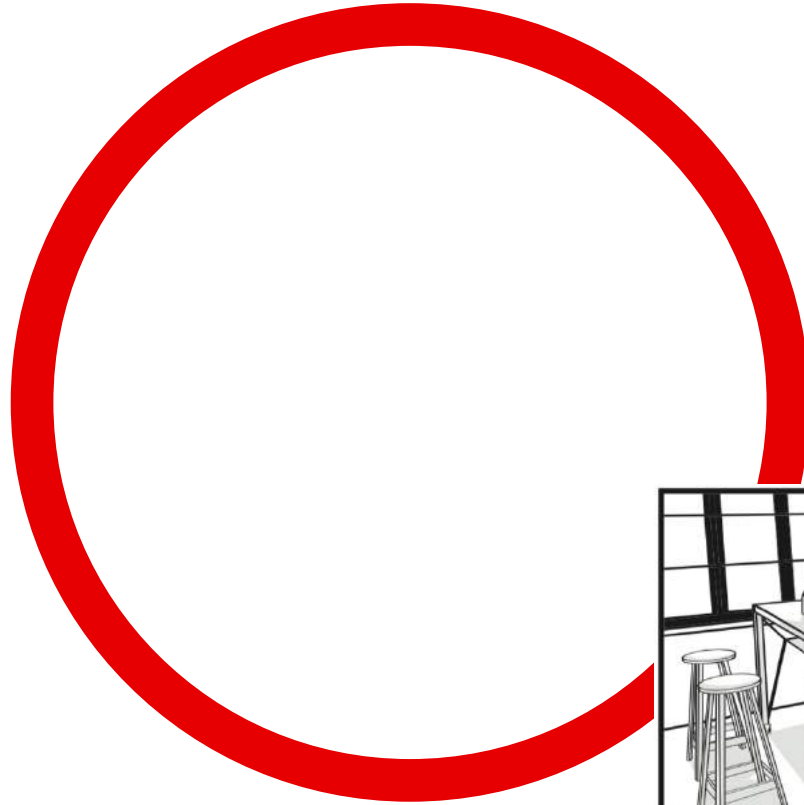


Who are we designing for?



Start with **USER NEEDS**





Place

Space



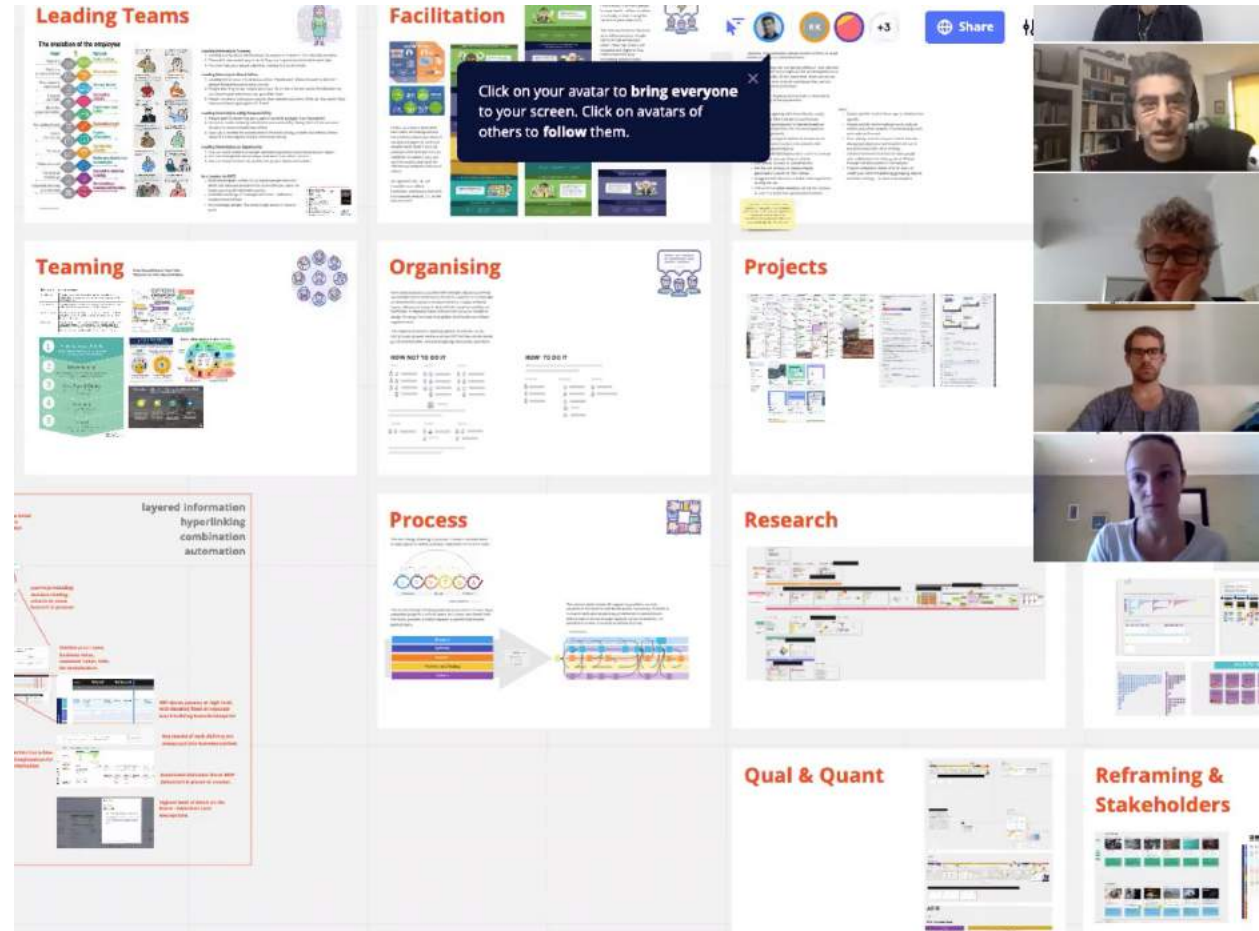
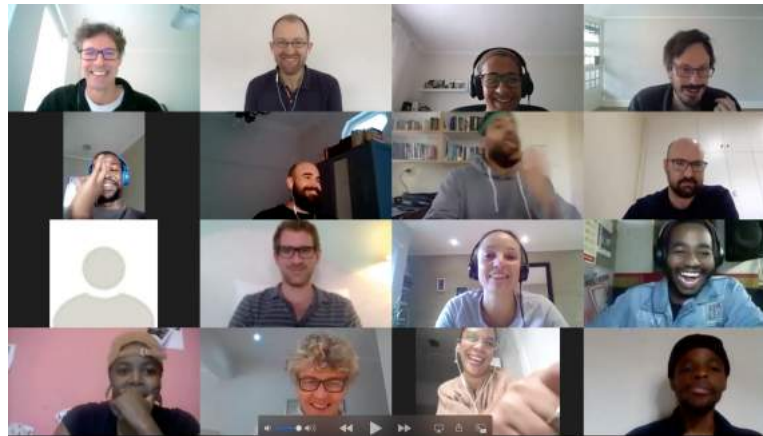
Space

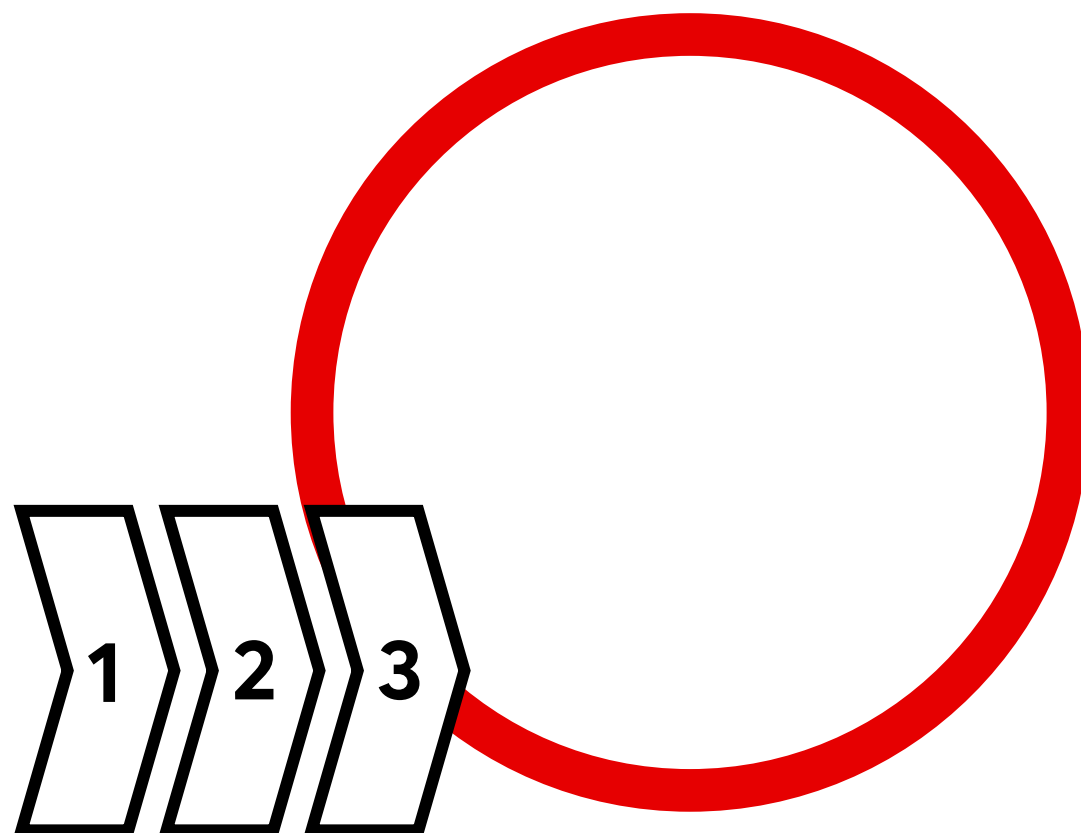


Space



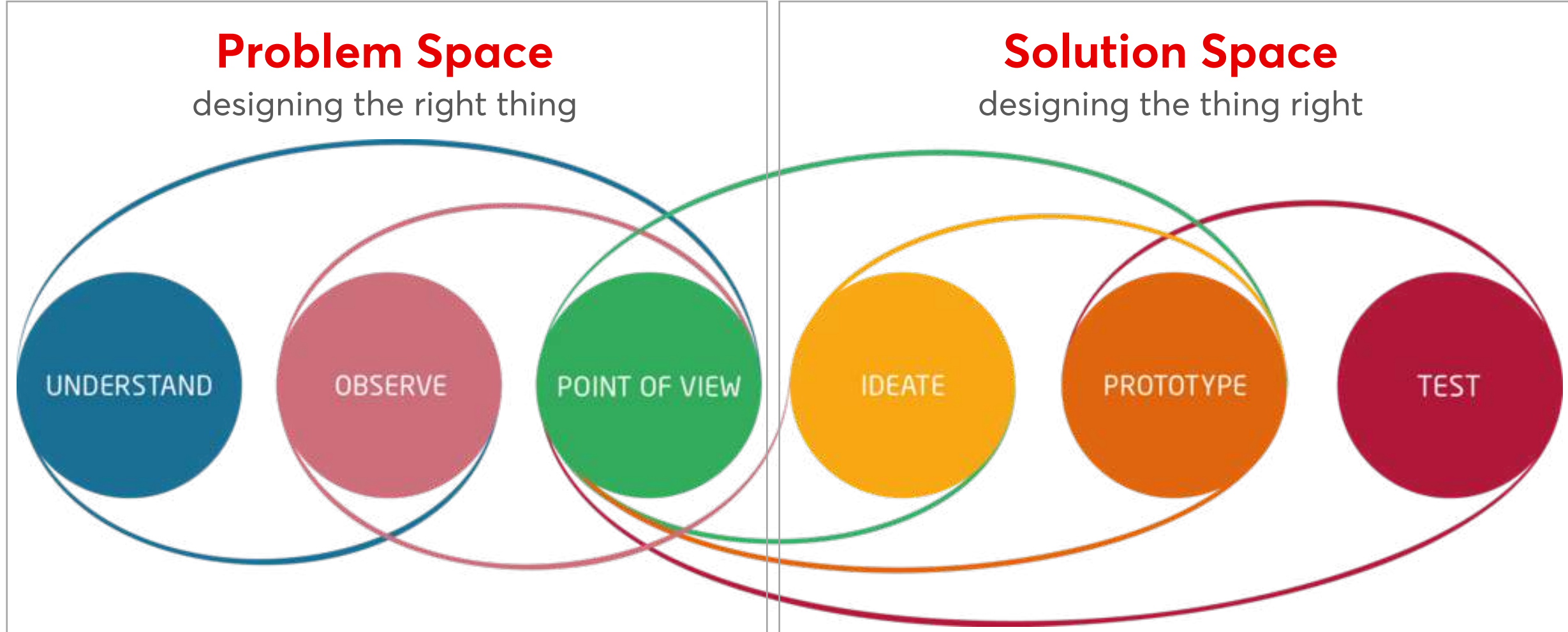
Space





Process

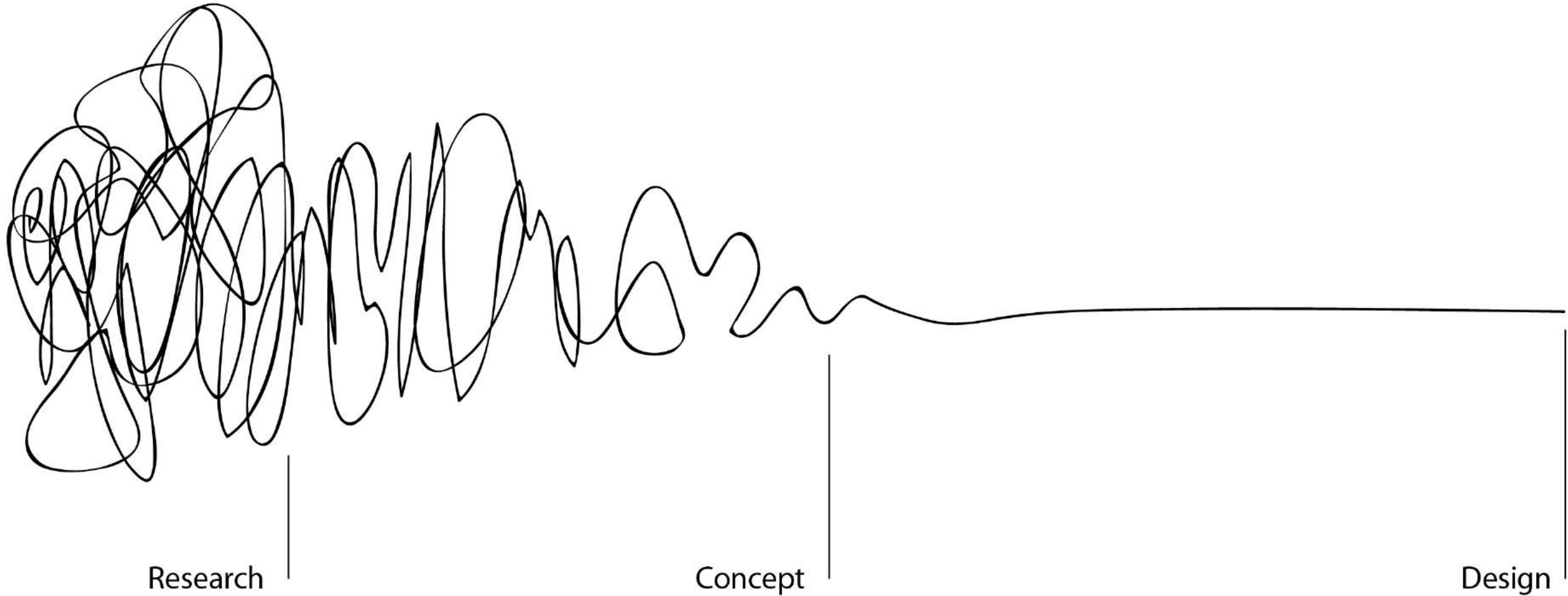
Design Thinking Process – Looks Like



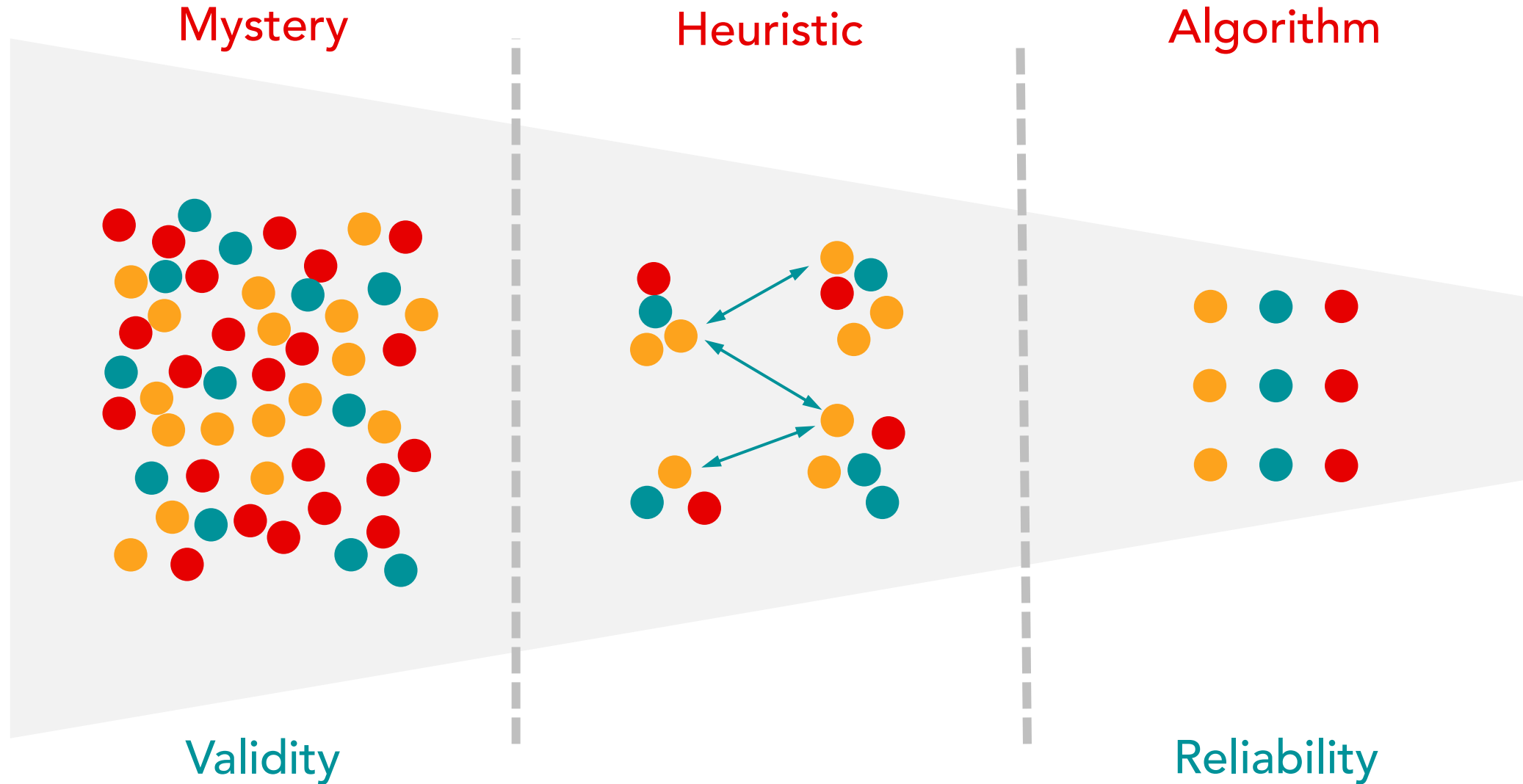
Design Thinking Process – Feels Like

Uncertainty / patterns / insights

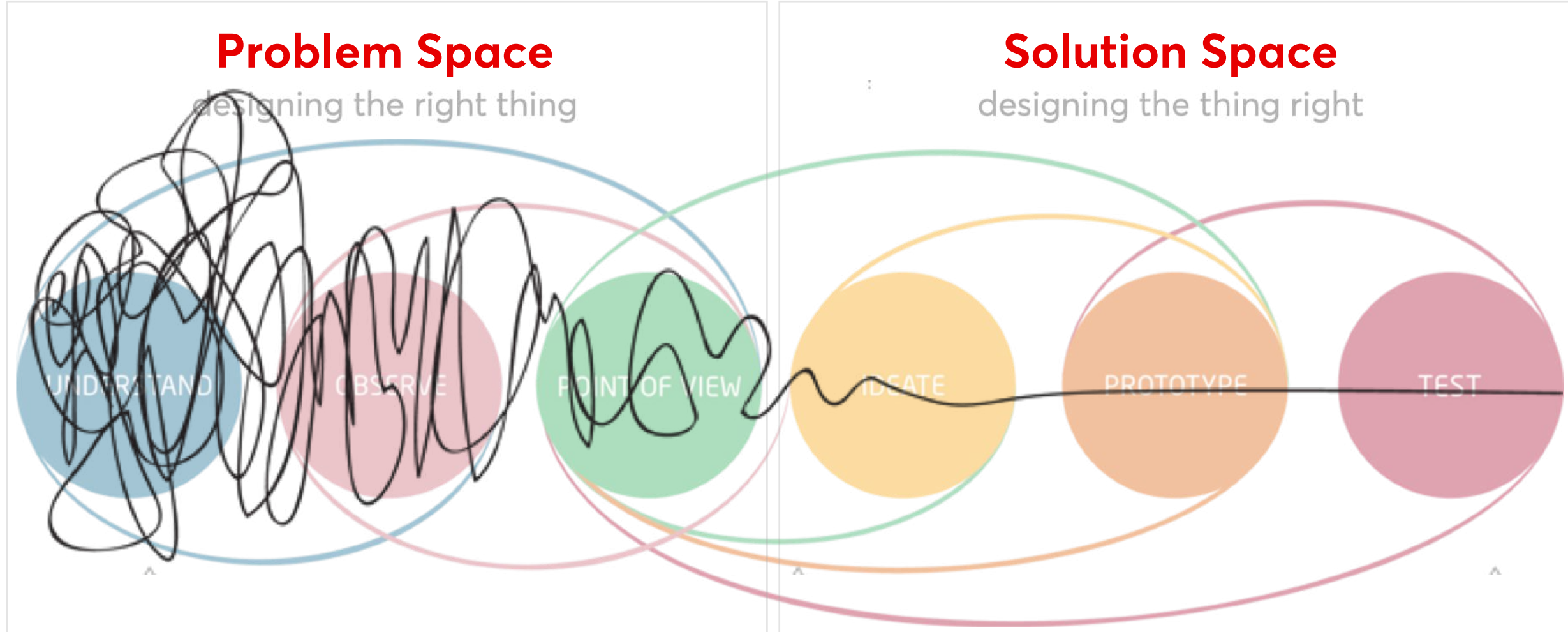
Clarity / Focus



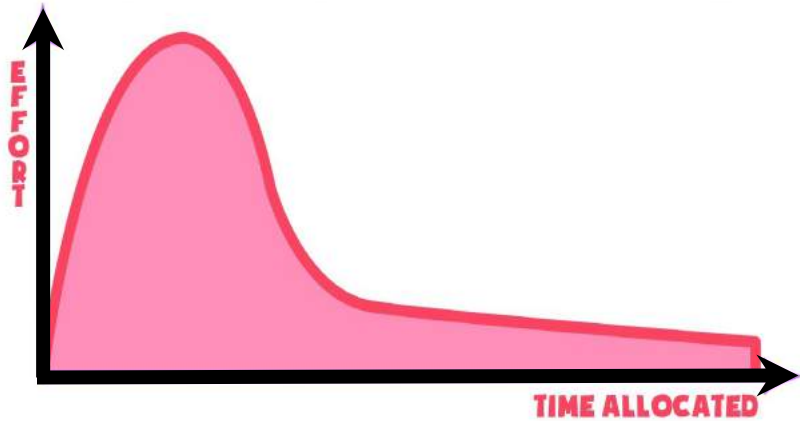
The Knowledge Funnel – Roger Martin



Trust the Process



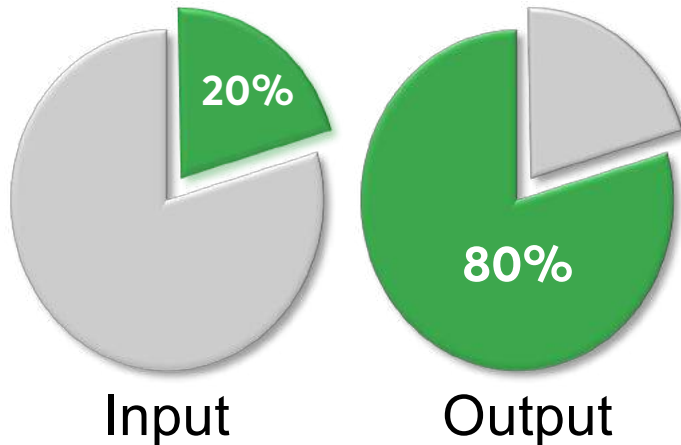
Ways of Working



Parkinson's Law

work expands so as to fill the time available for its completion

Use time as a positive constraint

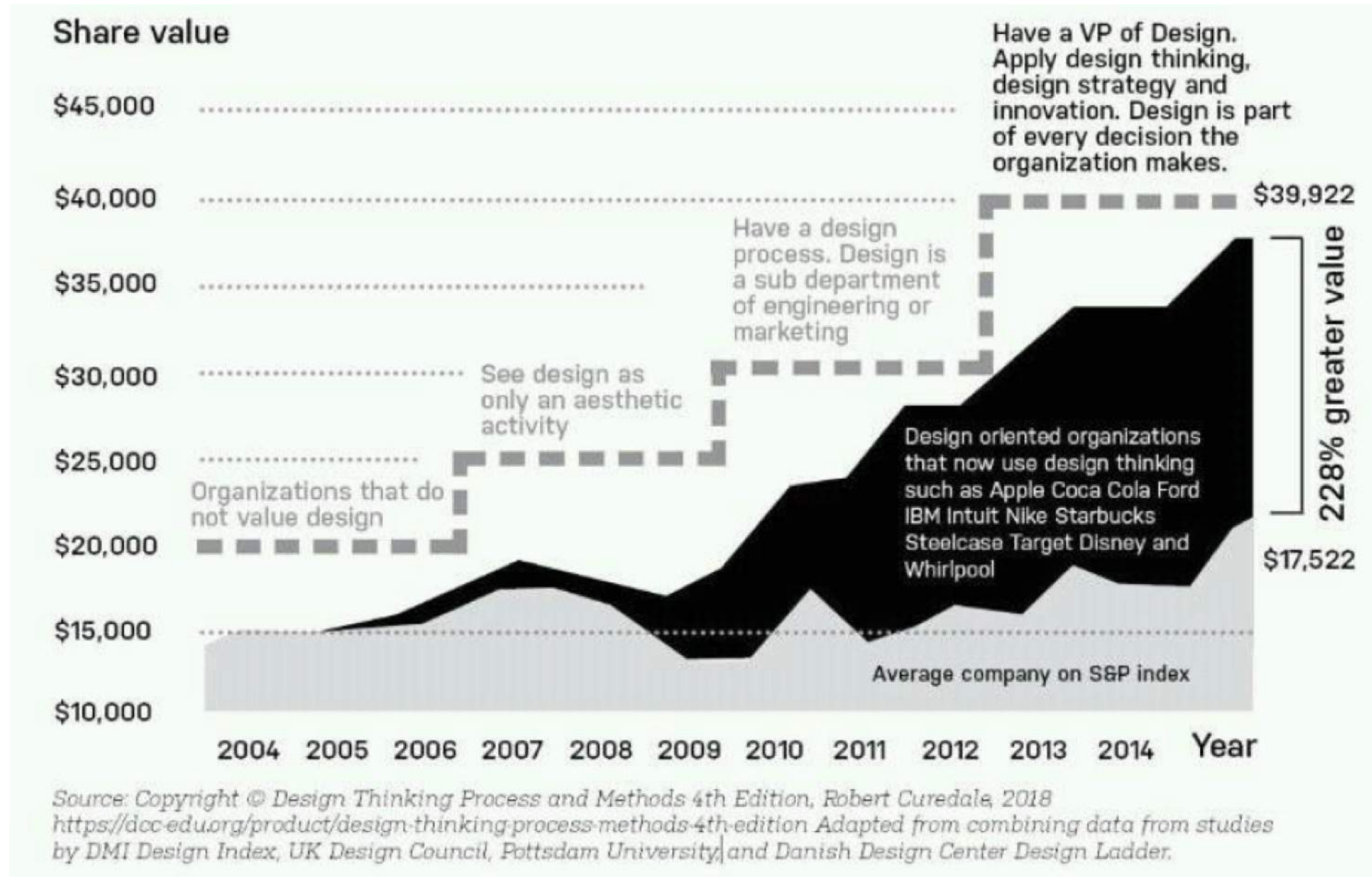


Pareto Principle

20% of your input (time, resources, effort) accounts for 80% of the output (results, rewards).

Aim for done, not perfect.

The Business Case for Design Thinking



The Business Case for Design Thinking

Companies with top-quartile McKinsey Design Index scores outperformed industry-benchmark growth by as much as two to one.

Annual growth (normalized), %

Top-quartile McKinsey Design Index performers

Industry benchmarks¹



¹The envelope was set by the minimums and maximums of three independent data sets: MDI 2nd, 3rd, and 4th quartiles; the S&P 500; and a McKinsey corporate database of 40,000 companies.

What kind of experience do you want to have?



Case Study



Talking to Humans



* develop empathy

Talking to Humans

They told us...

We need electricity for radio, TV and to charge our phones.

There are no banks, and houses can't be locked.

People look after and respect their valuables

Existing PV panels in the area often don't work anymore.

Our key insight from this...

The demand for electricity is way higher!

Money must be spent when it is earned.

Private property is maintained far better than rentals

There is no support infrastructure to maintain panels

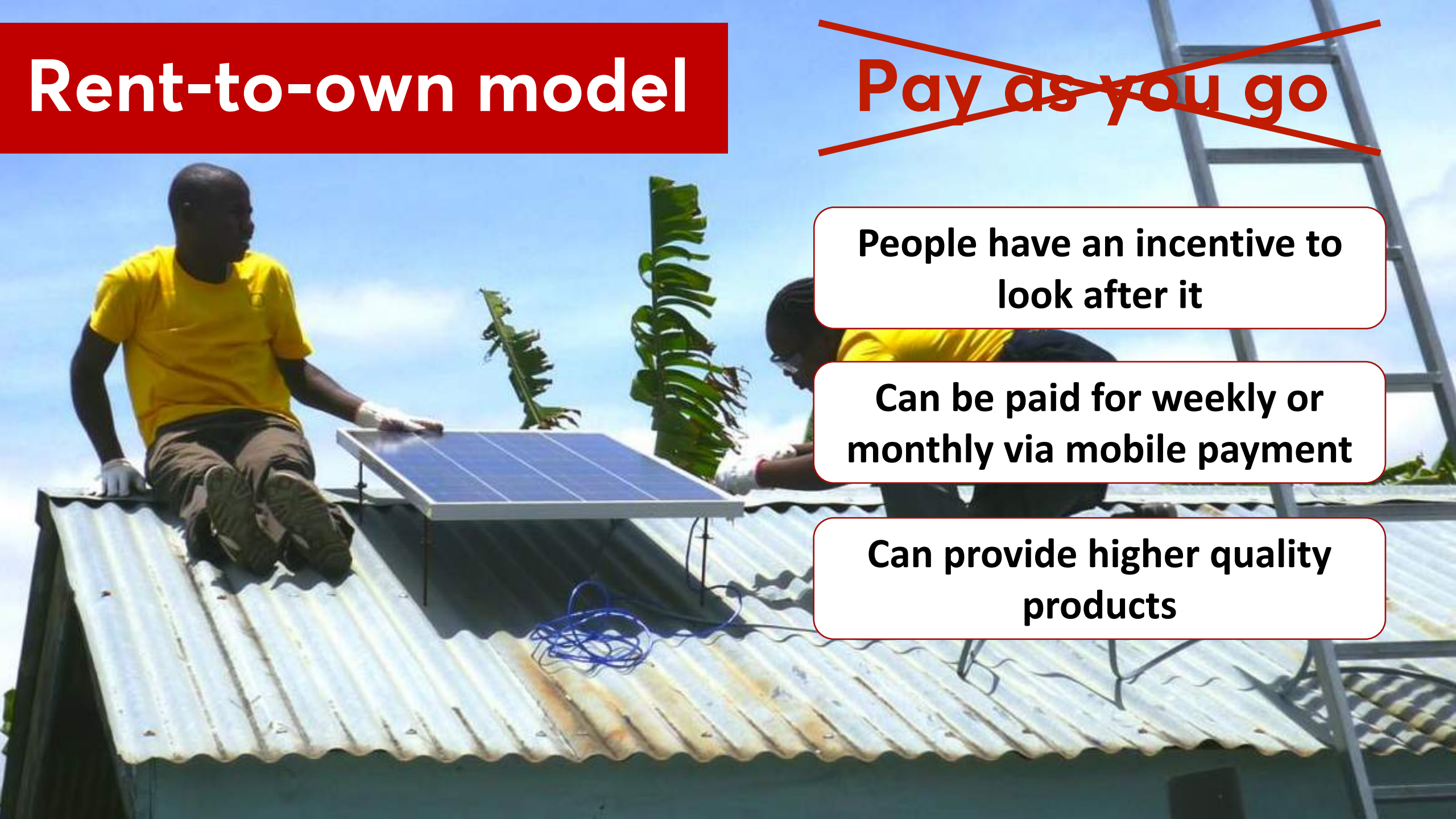
Rent-to-own model

~~Pay as you go~~

People have an incentive to look after it

Can be paid for weekly or monthly via mobile payment

Can provide higher quality products



Provide Support



“Our customers just don’t want to do it themselves as they don’t want to be responsible if something goes wrong.”

There are local “repairmen” in every community – we can train them to do the installations and repairs.

The Last Mile

No street names or house numbers

Customers know the most cost-efficient route home

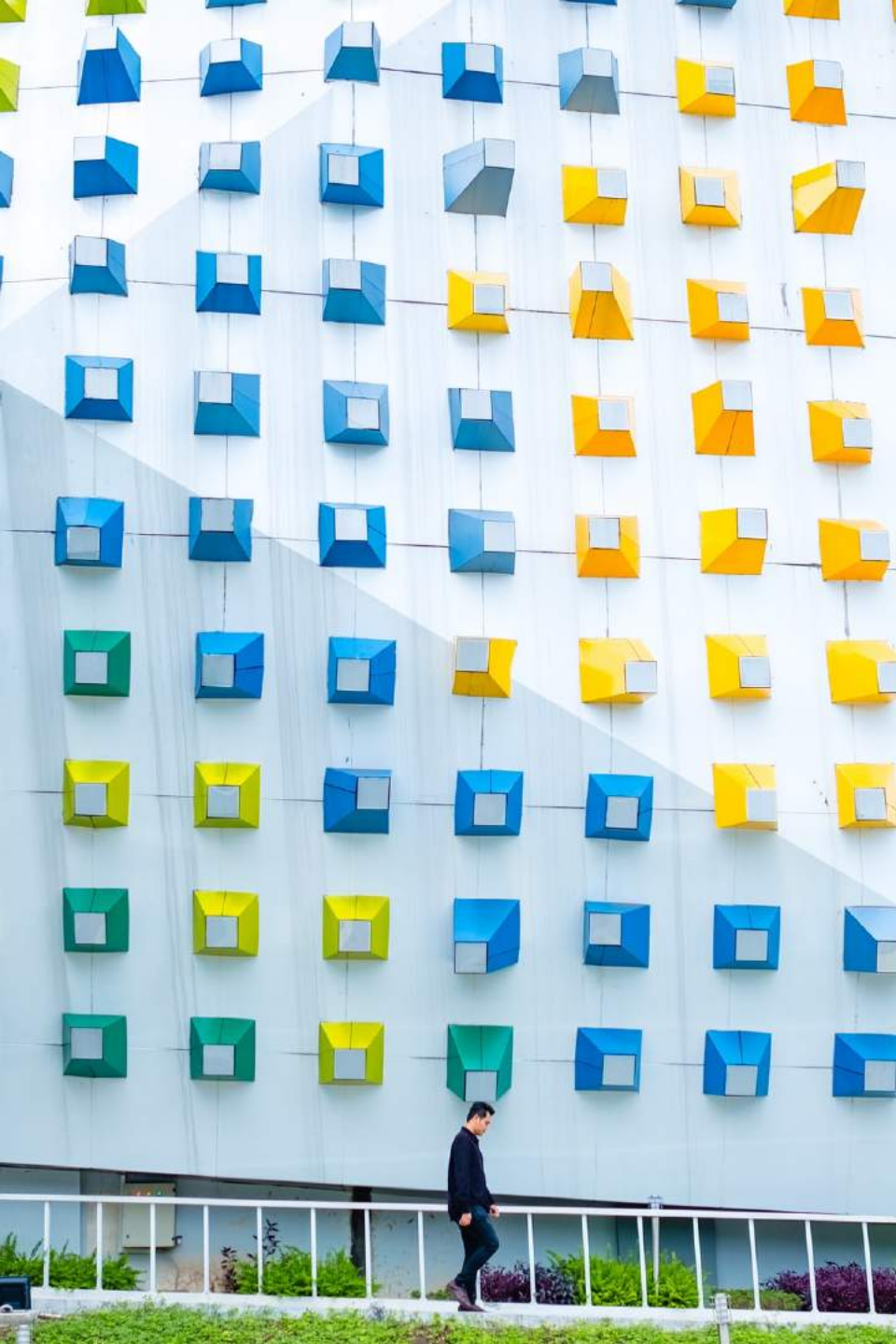
This is not our job.



Iteration



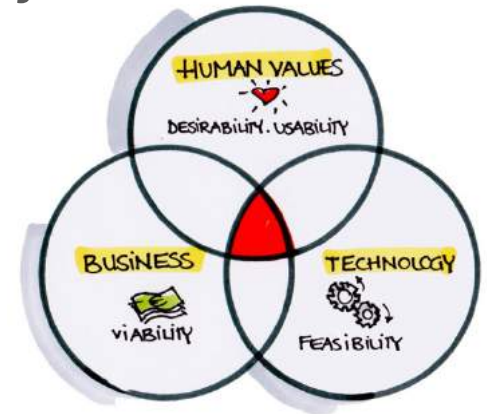
* there is always something you can improve / do differently

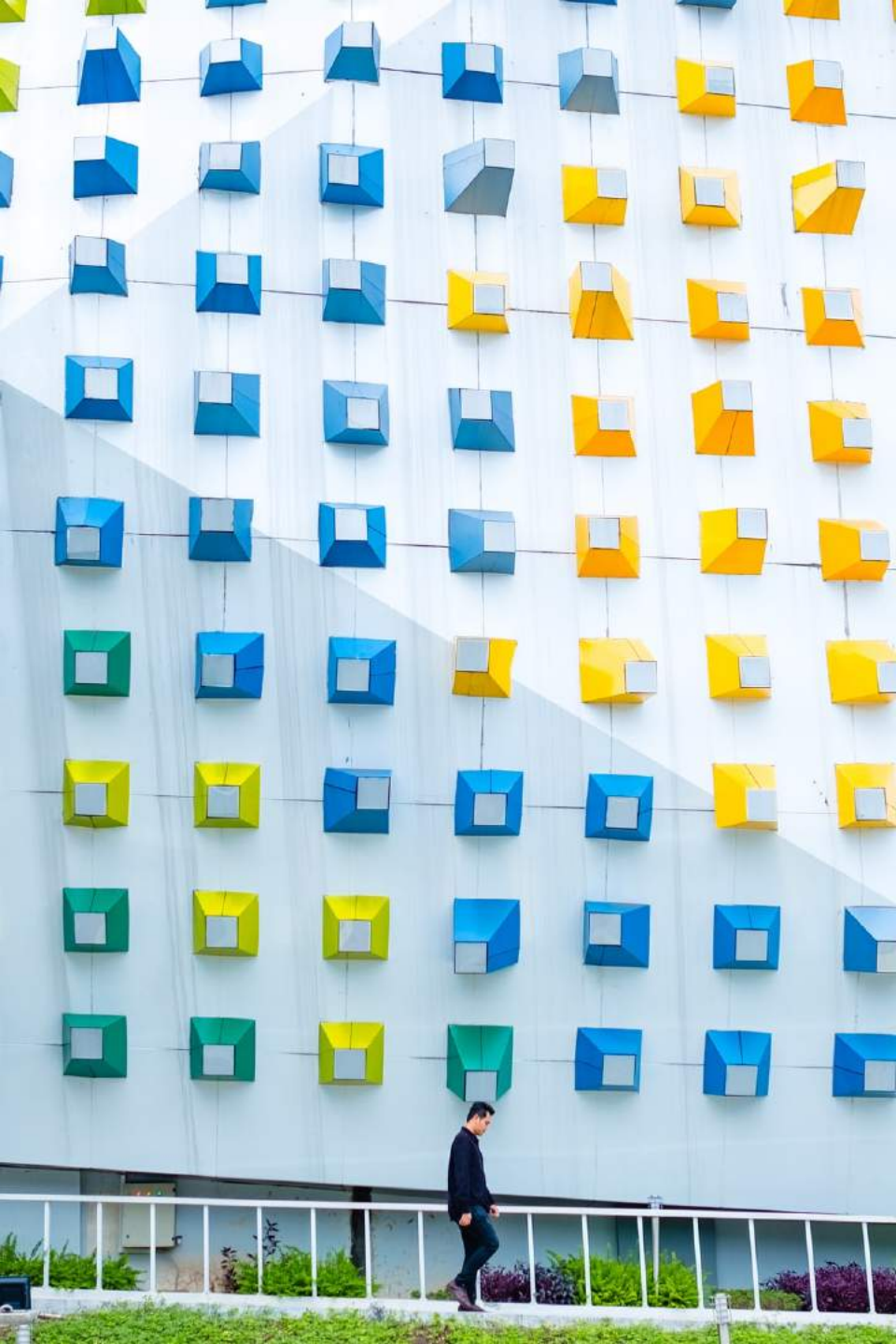


Why Design Thinking...?

1. User-Centred

- Explicit focus on understanding the needs and Pain Points of the 'USER'
- Prioritizes Desirability

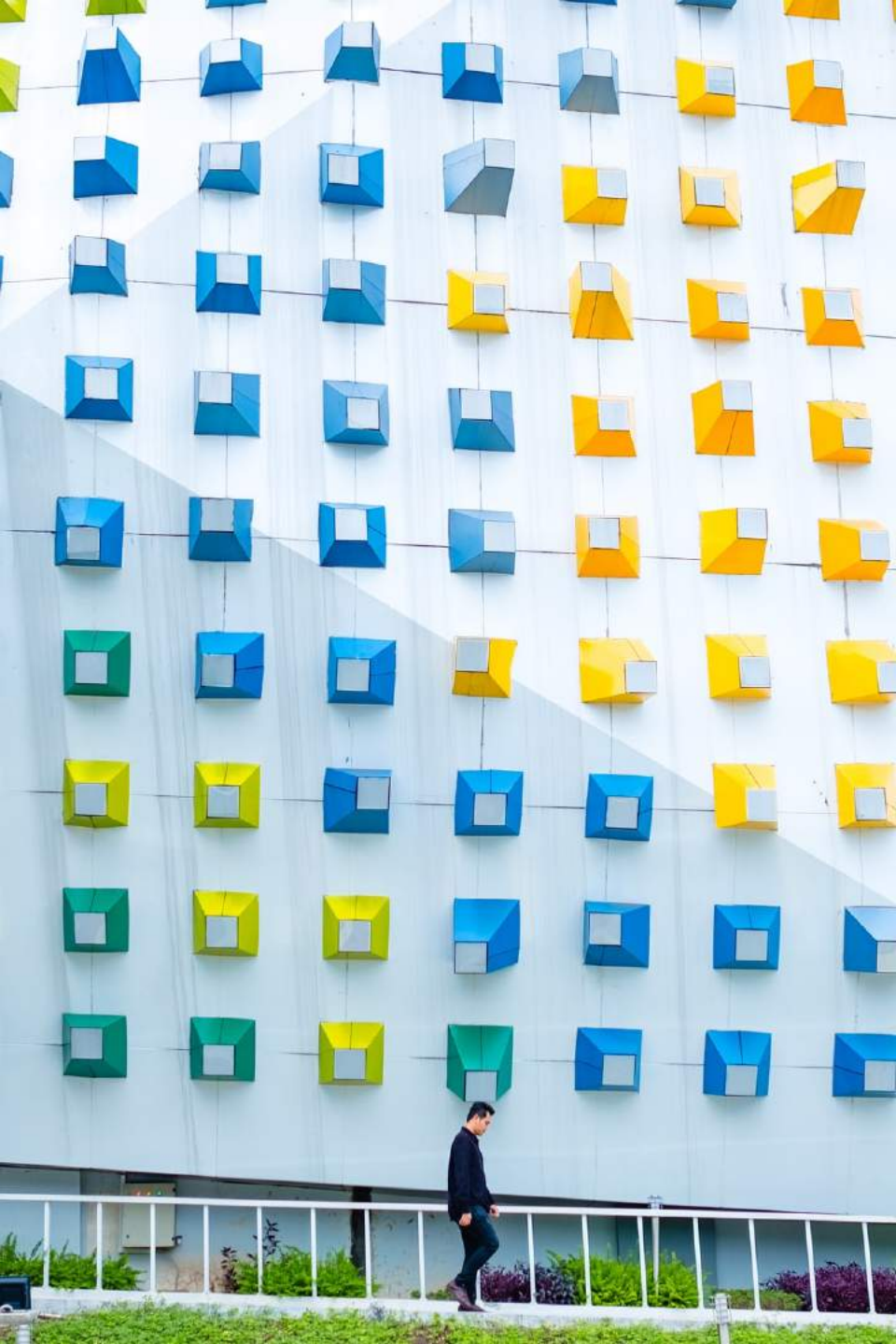




Why Design Thinking...?

2. The Process

- Easy to understand
- Provides structure
- Encourages Iteration



Why Design Thinking...?

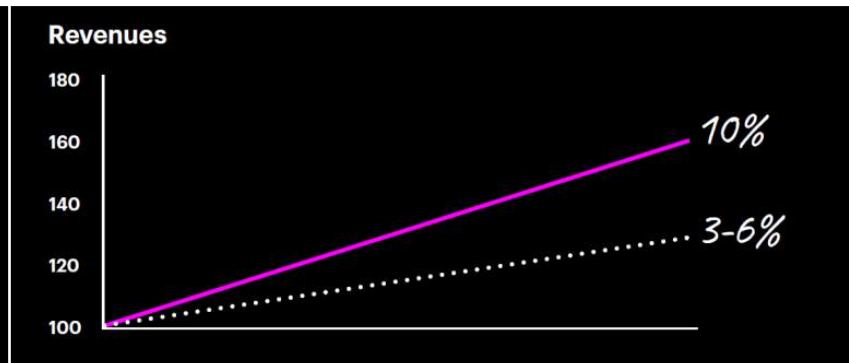
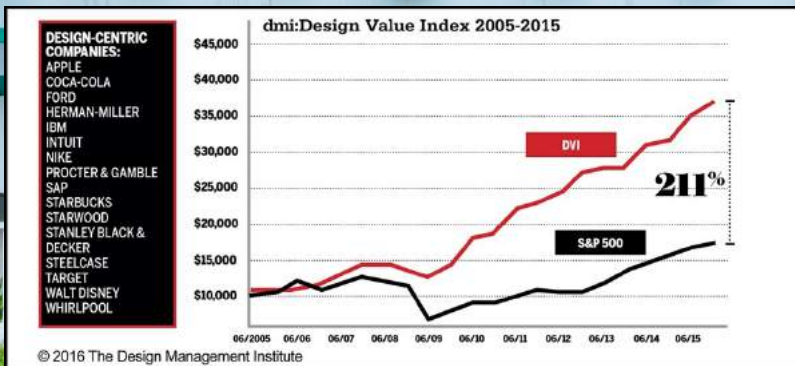
3. Collaborative

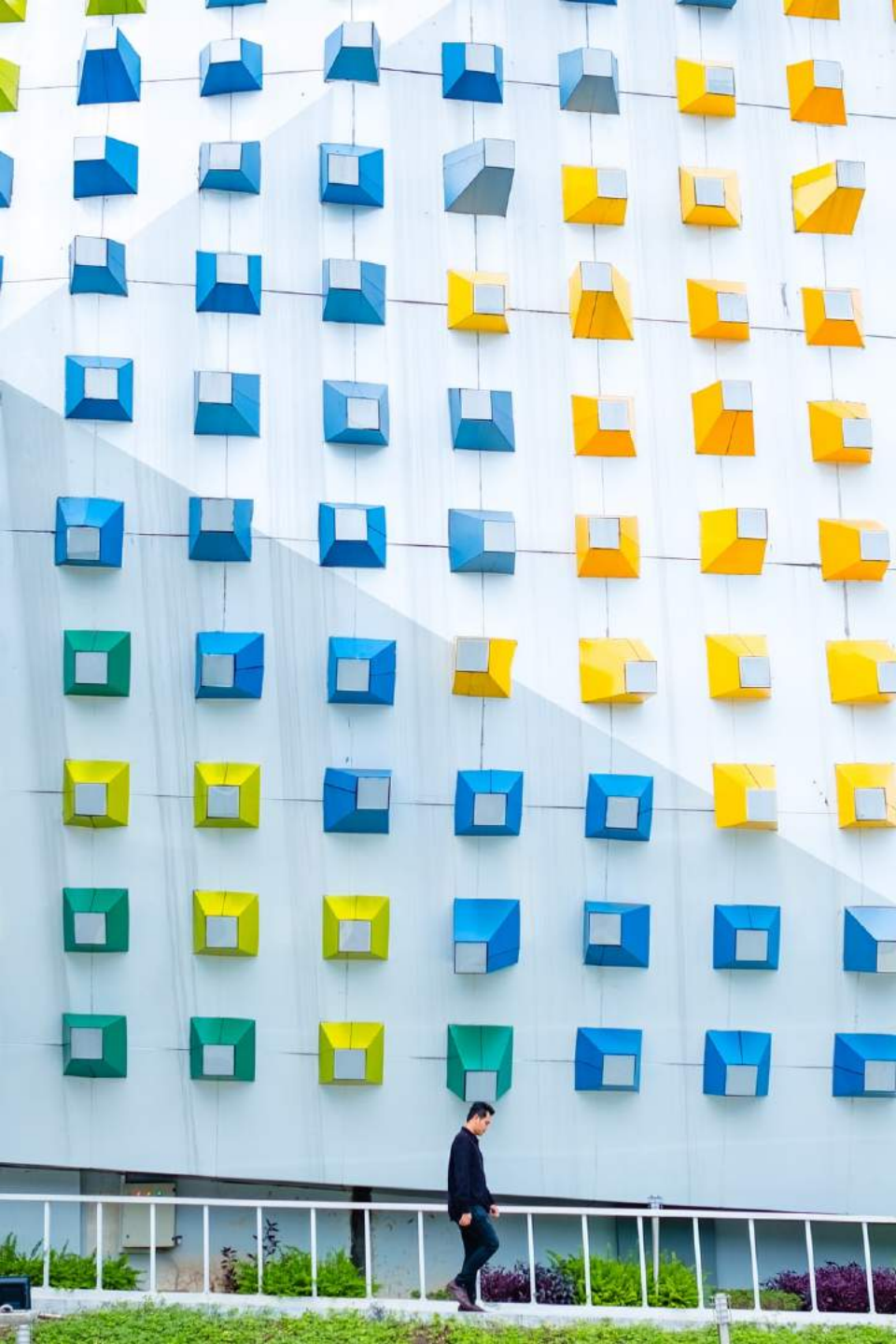
- Multidisciplinary teams mean that all parts of the business are given a voice
- Regular engagement with and feedback from our users means that we are creating the right thing and delivering value

Why Design Thinking...?

4. Manage Risk

- Speed up innovation cycles with low-cost experimentation
- Reduce the risk of spending time and money building the wrong thing





Why Design Thinking...?

5. Creative Problem-Solving Approach

- Reinforces innovation by exploring hidden assumptions and actively seeking out new opportunities
- Generates more creative options to choose from (not just what we've always done)

THANK YOU*

HASSO PLATTNER

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Why Design Thinking?