VSR | EDU

Current Trends in Web Engineering

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Prof. Dr.-Ing. Martin Gaedke
Technische Universität Chemnitz
Fakultät für Informatik
Verteilte und selbstorganisierende Rechnersysteme

SECTION://2

- Advanced Backlog Concepts

Alignment Map as Backlog Creation Tool

	Stage 1	Stage 2	Stage 3	Stage N
Stage Purpose				
Actions				
Thoughts				
Feelings	☺	☹		
Pain Points				
Touchpoints				
Services and Offerings				
Processes				
Goals and Opportunities				
SWOT eg.				

Turning Alignment Maps into Backlogs

Goal	Overall Objective the user/customer wants to achieve (broken down in stages and corresponding stage purposes)			
	Stage 1	Stage 2	Stage 3	Stage N
Stage Purpose				
…				
Touchpoints				
Services and Offerings	Epic1.1	Epic2.1 Epic2.2		EpicN.1
…				
Stage specific Stories	Stage Result1.1 Stage Restul1.2	Stage Result2.1	Stage Result3.1	Stage ResultN.1
	Stage Result1.3	Stage Restul2.2 Stage Result2.3 Stage Result2.4 Stage Restul2.5	Stage Restul3.2 Stage Result3.3 Stage Result3.i …	Stage RestulN.2 Stage ResultN.3 Stage ResultN.j …

Sprint 1

Sprint 2

CHAPTER://5

- Design Thinking

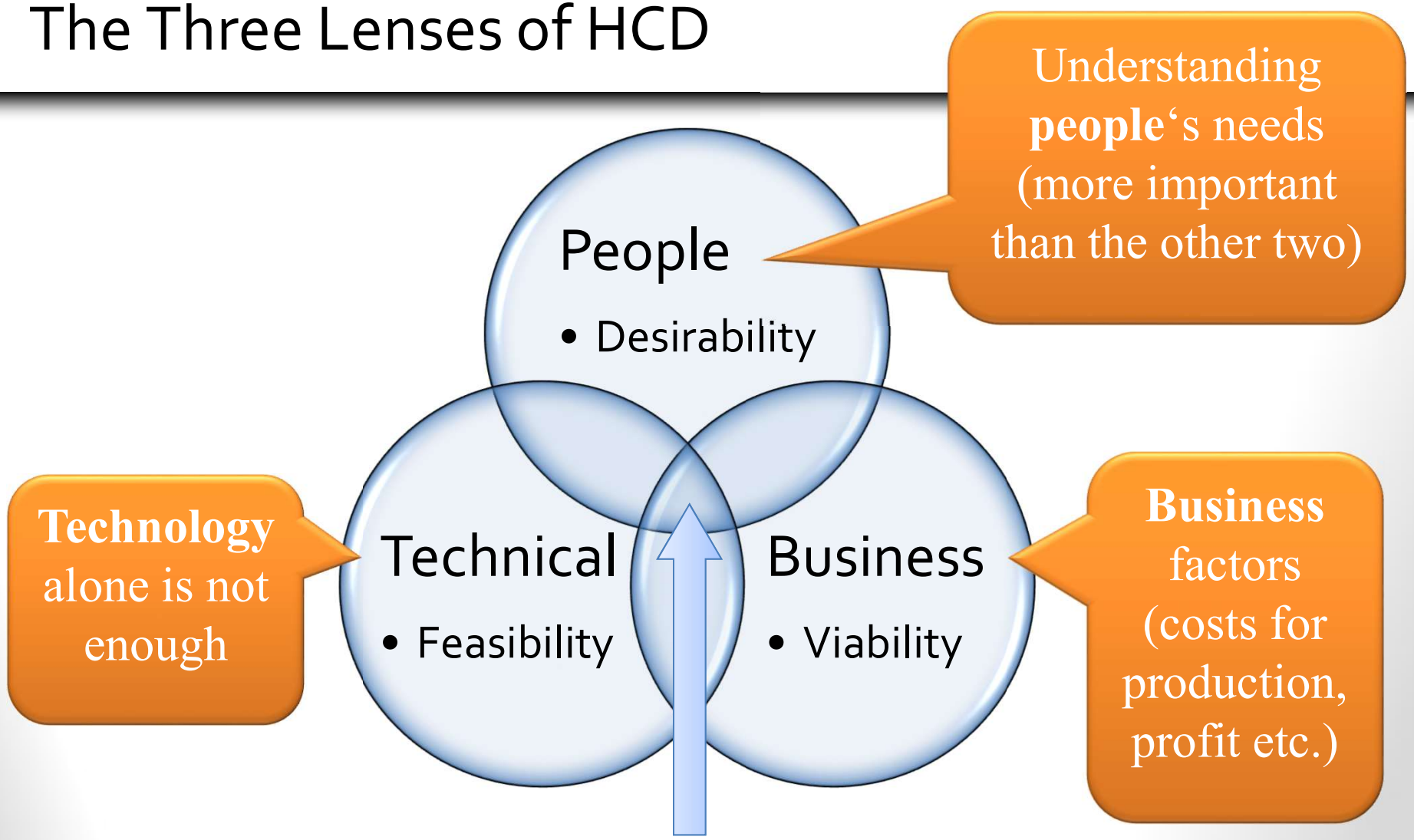
Introduction

- Human Centered Design (HCD) approach by IDEO (David Kelley and Tom Kelley)
- HCD describes an approach **consisting of a process** and a **set of tools** to create new solutions
  - Called "human-centered" because it focuses on solutions for people's problems
  - HCD process starts by examining the needs, dreams and behaviors of the people trying engage with their problems and feelings – getting a deep understanding
- HCD is about creative confidence and the start of **DESIGN THINKING**

SECTION://1

- Human Centered Design (HCD)

The Three Lenses of HCD

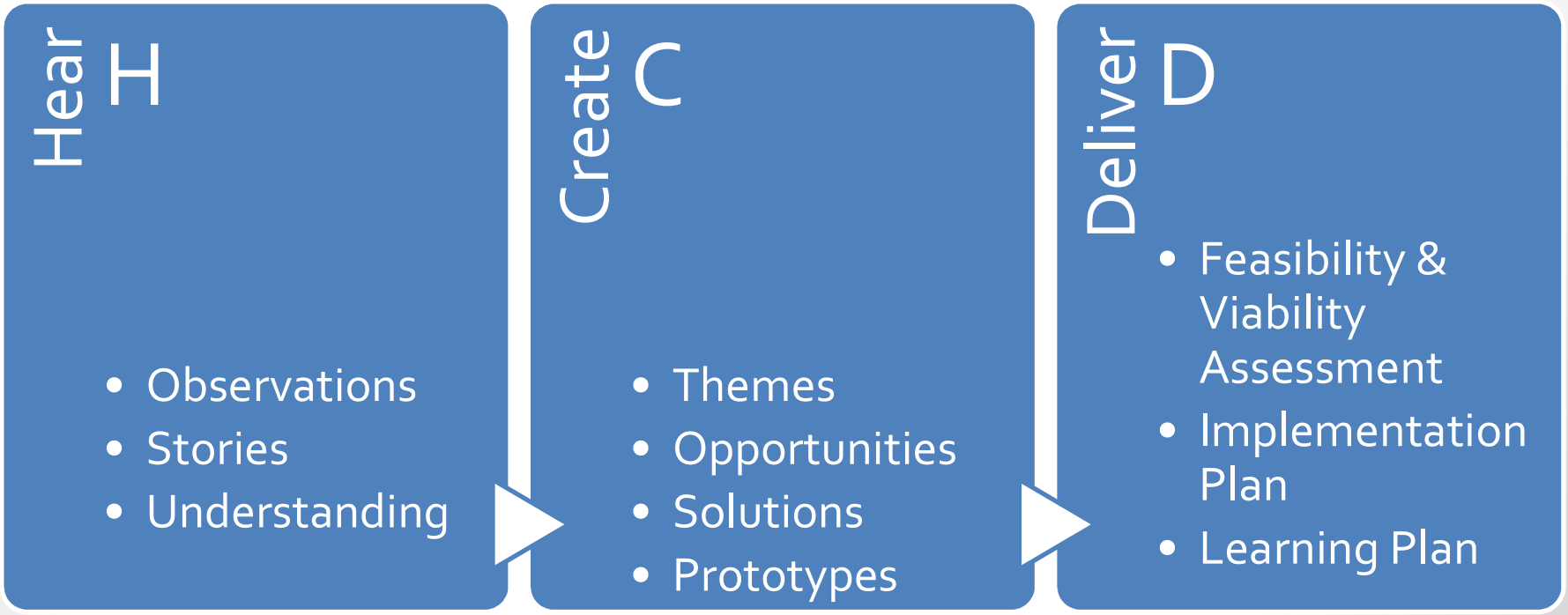


Finding the sweet spot: Create solutions which are **Desirable, Feasible and Viable**.

HCD and …

- IDEO´s approach adapts and evolves continuously
  - ► Inspiration for many different interpretations
  - ► Inspiration for many new tools for better understanding
- The key elements remain stable and are applicable for many aspects
  - ► yes, it is about solving problems, humand needs, and the border of technology and business
  - ► In other words again: To create solutions, which are desirable, feasible and viable

IDEO´s HCD approach



Hear

- Goals
  - Who to talk to
  - How to gain Empathy
  - How to capture Stories
- Outputs
  - People's Stories
  - Observations of Reality
  - Deeper Understanding of Needs, Barriers & Contraints

Hear

1. **Identify a Design Challenge**
2. **Recognize Existing Knowledge**
3. **Identify people to speak with**
4. **Choose Research Methods**
5. **Develop an Interview Approach**
6. **Develop your Mindset**

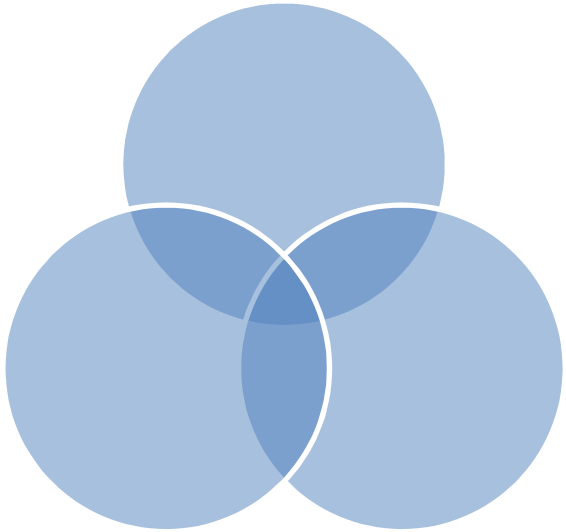
Create

- Goals
  - Making Sense of Data
  - Identifying Patterns
  - Defining Opportunities
- Outputs
  - Opportunities
  - Solutions
  - Prototypes

Create

1. **Develop the Approach**
2. **Share Stories**
3. **Identify Patterns**
4. **Create Opportunity Areas**
5. **Brainstorm New Solutions**
6. **Make Ideas Real: Prototyping**
7. **Gather Feedback**

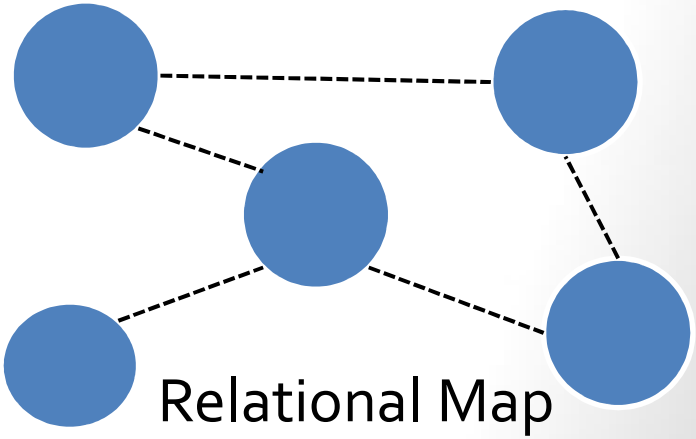
Frameworks



Venn Diagram

Two-by-Two Matrix

Process Map



Relational Map

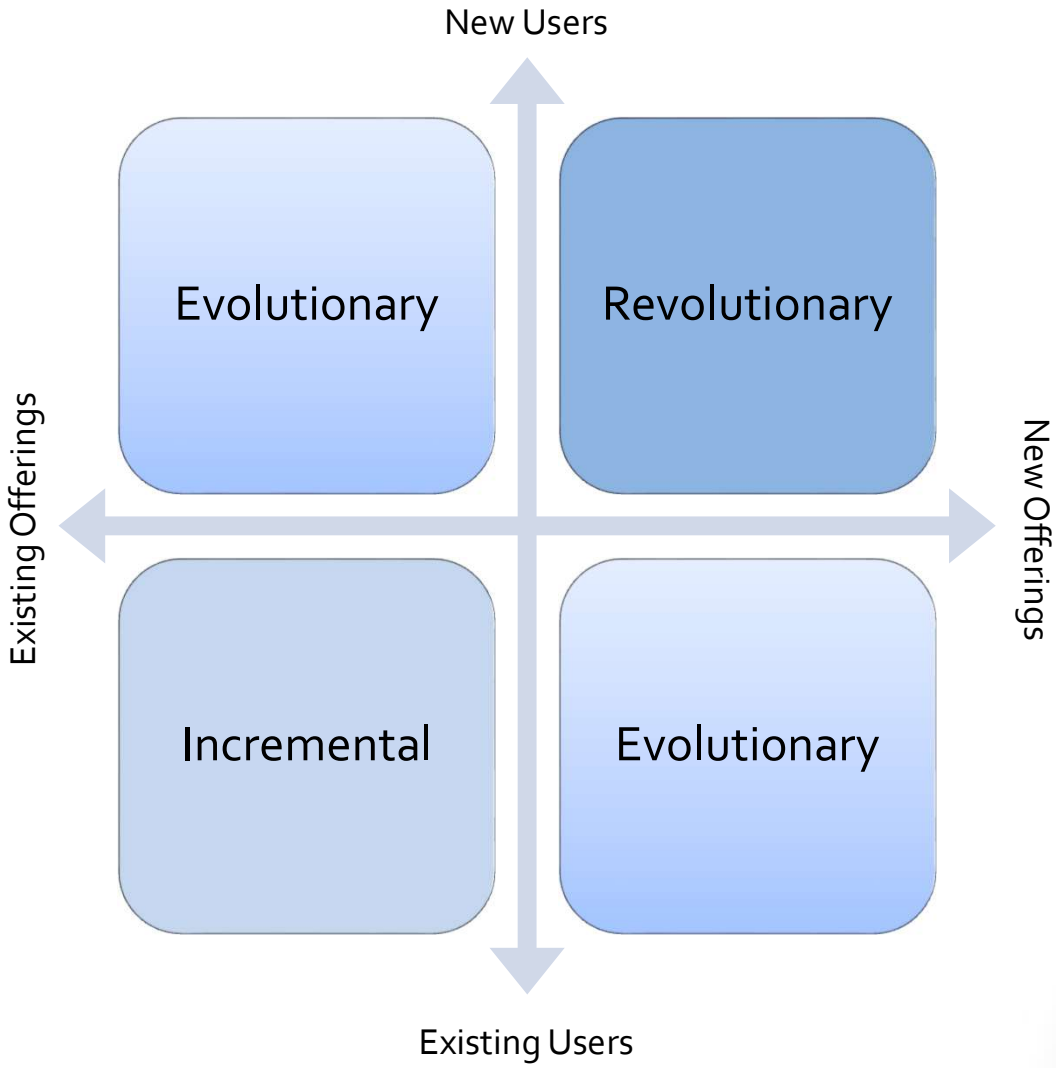
Deliver

- Goals
  - Identify required Capabilities
  - Create a model for Financial Sustainability
  - Develop an Innovation Pipeline
  - Plan Pilots & Measure Impact
- Outputs
  - Feasibility & Viability Assessment
  - Innovation Pipeline
  - Implementation Plan
  - Learning Plan

Deliver

1. **Develop a Sustainable Revenue Model**
2. **Identify Capabilities Required for Delivering Solutions**
3. **Plan a Pipeline of Solutions**
4. **Create an Implementation Timeline**
5. **Plan Mini-Pilots & Iteration**
6. **Create a Learning Plan**

Solution Matrix



IDEO´s Design Driven Innovation

- Design Driven Innovation
  - ► Inspiration
    - look to other industries, get inspiration „customer service in restaurant" versus „customer service in hospital"
  - ► Synthesis
    - sense making → recognize patterns, identigy themes, create empathy maps, categorize type of solutions
  - ► Ideation and Experimentation
    - Generate countless ideas, and advance and iterate over the most promising ones → quick and dirty exploring of solutions for very fast early feedback
  - ► Implementation
    - Prepare a roadmap to the marketplace, live in beta, iterate through new launched-product improvements loops

IDEO´s Design Thinking

- Design thinking is a way of finding human needs and creating new solutions using the tools and mindsets of design practitioners.

[Creative Confidence: Unleashing the Creative Potential Within Us All, David Kelley, Tim Kelley]

SECTION://2

- Applying Design Thinking With Some Typical Tools

[based on "Designing for Growth", Liedtka and Oglivie]

Four Questions...

- What is?
- What if?
- What wows?
- What works?

Four Questions: What is?

- **What is? (Engage)**
  - ▶ Explore the present and develop a deep understanding of the user/customer (of their lives and problems)
  - ▶ Understand how value for the user/customer could be created (explore to asess the potential for value capture (i.e. profit)
  - ▶ Find patterns and make sense of all the data collected and explored – to create new ideas for the customer/user
- What if?
- What wows?
- What works?

Four Questions: What if?

- What is?
- **What if? (Ideation)**
  - ▶ Generate masses of new ideas based on the data collected (there are no limits – only possibilities and pure creativity)
  - ▶ Formulate hypotheses about new possibilities
  - ▶ Develop concepts based on most primissing ideas
- What wows?
- What works?

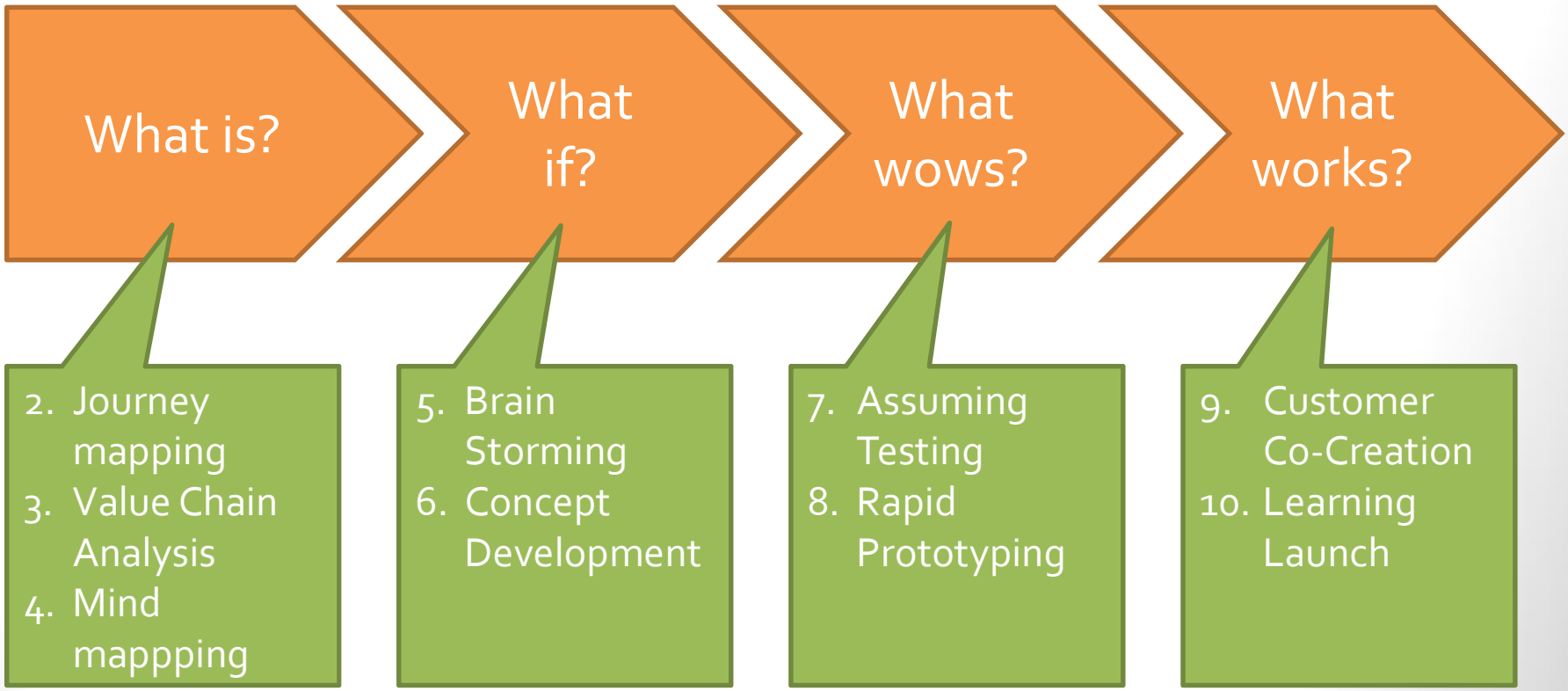
Four Questions: What wows?

- What is?
- What if?
- **What wows? (Find the sweet spot)**
  - ► Test the assumptions underlying each hypothesis, i.e. not finding the truth but making better choices under conditions of uncertainty
  - ► Translate the finding into something actionable – something that you can feel, touch, see, talk about, i.e. create prototypes (not products!) to better understand
- What works?

Four Questions: What works?

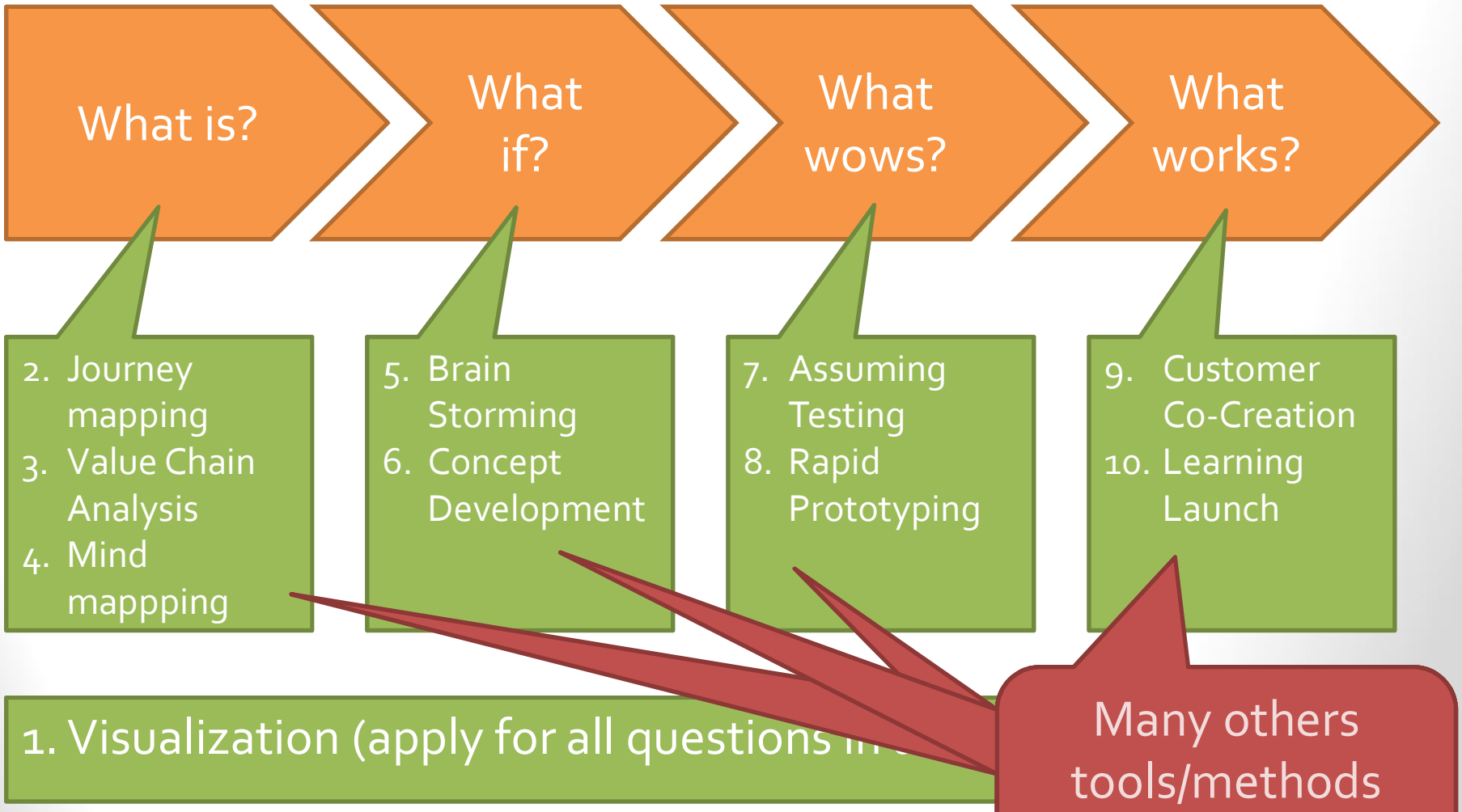
- What is?
- What if?
- What wows?
- **What works? (Time for action)**
  - ► Now, with prototypes at hand - Find out what user/customer really want – engage them to design your solution
  - ► Move to the market and start learning and improve as quickly as possible

Four Questions, One set of tools/methods



* Check the many books out there about learning to visualize things. Try it at home.
(Some Books: "Gamestorming", "Unfolding the napkin", "Visual Meetings", "Sketchnote Handbook“ etc.)

Four Questions, One set of tools/methods



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Project Management Aid

- What is? **Design Brief**
  - Formalize the project
  - Define goals, resources, timelines etc.
  - Serves as north star throughout the project
- What if? **Design Criteria**
  - Sets critera to evaluate alternative designs
  - Becomes part of the design brief
- What wows? **Napkin Pitch**
  - Crystalizes communication of solution concepts
  - Describes each of the best few (3-5) solutions that meet the design criteria in a template that allows for comparing each solution
- What works? **Learning Guide**
  - Defines affordable level of resources to invest in learning, i.e. wether the 2-3 top concepts are feasable