

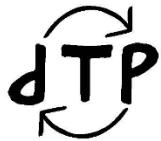
"PROBLEM TO GROWTH & SCALE FRAMEWORK"

How to combine Design Thinking,
Lean Start-up and agile development

Prof. Dr. Patrick Link

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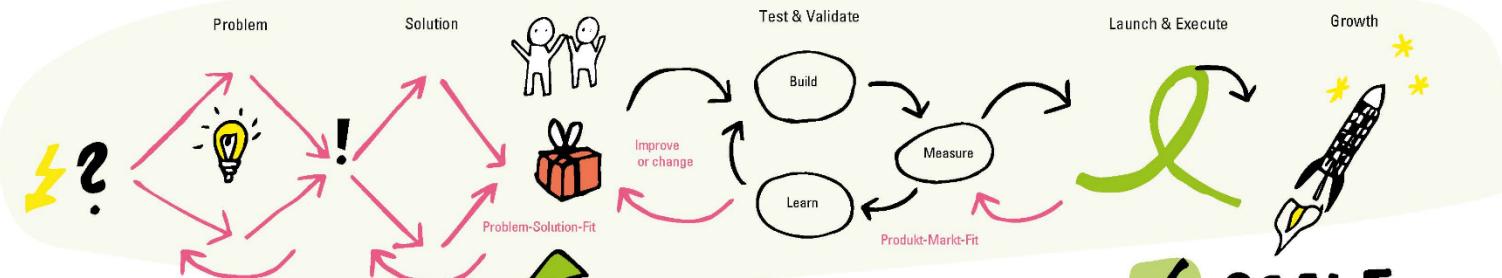


"PROBLEM TO GROWTH & SCALE FRAMEWORK"

... EINE VON VIELEN METHODEN UND WERKZEUGEN
AUS DEM DESIGN THINKING PLAYBOOK ...

1 DESIGN THINKING

- Bestimme deine potenziellen Nutzer, Kunden und Stakeholder
- Erkenne mit Design Thinking die wahren Kundenbedürfnisse
- Finde gleichsam elegante, wie einfache Lösungen
- Nutze Systems Thinking und Data Analytics



2 RESEARCH

- Verstehe das Problem und die Situation ganzheitlich
- Nutze Marktforschungsinstrumente
- Validiere und ergänze deine Erkenntnisse



DAS DESIGN THINKING PLAYBOOK
www.dt-playbook.com

3 CO-CREATION

- Binde weitere Kunden, Nutzer und Lead user ein
- Hol dir die nötige Hilfe von aussen
- Arbeite in Teams über Abteilungs- und Unternehmensgrenzen hinweg
- Entwickle MVPs und bau Vertrauen zu Partnern und Kunden auf

5 BUSINESS DESIGN & AGILE PRODUKT- UND KUNDENENTWICKLUNG

- Verlagere deine Aktivitäten von der Problemlösung und Lösungsfindung auf das Finden des richtigen Geschäftsmodells mit Business Design
- Entwickle das Produkt und das Geschäftsmodell agil weiter, z.B. mit Methoden wie SCRUM
- Denke bei der Entwicklung von Geschäftsmodellen in Varianten

6 SCALE

- Bereite die Organisation für Wachstum und Skalierung vor
- Etabliere skalierbare Prozesse, Strukturen und Plattformen
- Überprüfe das Mindset und die Fähigkeiten in deiner Organisation und folge nicht einfach einem Blueprint
- Bring die gesamte Organisation einen Schritt nach vorne und geh neue Wege

Das Design Thinking Playbook
Michael Levrick, Patrick Link, Larry Leifer
304 Seiten, koloriert.
ISBN Deutschland: 978-3-8006-5384-3

Deutsche Version: jetzt erhältlich bei Amazon!
English Version: coming soon!



LEAN CANVAS: Who wants what for fulfillment of need, because Motivation

The «Lean Canvas» is a tool to develop business models for start-ups. It helps you to describe important aspects of your business idea.

In order to start, you will have to make some assumptions. These will be validated in a further step with the help of experiments.

Complete the sentence above (who wants what...), before you start working on the Lean Canvas. Now try to create your Lean Canvas based on your idea.

Find work on the numbered fields in the order that suits you best. In general, the problem (1) is compared with the solution (4) first.

Do you recognize any aspects of your idea, that can be improved?

Create a detailed customer profile for the early adopters (early customers, who embrace your new product/service after others) and for other user groups (that will buy the product/service after the early adopters)

Problem
What are the main problems your business model should solve?
Describe the 1-3 top problems of your customer.



Solution
Describe one solution for each problem



LVP (unique value proposition)
What are the values you want to put across to your customers?
We are looking for a simple, clear message that explains why the solution is original and significant.

- Profit maker
- Problem solver
- How does your solution support your customer in their job to be done?

Unfair advantage
You need something that makes it difficult for others to copy your solution.

Customer segments
Make a list of the target and user groups. For whom are we creating value? Who are your most important customers? While you work on this panel, create a persona. Describe it on the right hand side.



Existing alternatives
How have the problems been solved so far?



Key figures
What measurable figures can verify, whether the solution is working or not?



Make a match between the value proposition and the customer segment.

High-Level concept
X for Y analogy
Is there a simple analogy you can use?
(e.g. YouTube = Flickr for video)

Early Adopter
Describe the characteristics of your ideal customer. While you work on this panel, create a persona. Describe it on the right hand side.



Cost structure
Make a list of the fixed and variable costs.



Revenue streams
Make a list of your sources of income



Name
Description of persona
Age, gender, residency, social environment, sinus milieu, mindset, etc.



Job to be done
What task fulfillment is supported by the product/service?



Pains
What is it that the customers don't like about the current products/services?



Application scenarios
How and where is the product/service used?
What happens before and after using the product/service?



Gains
What is it that the customers like about the current products/services?

Description of the business opportunity
Target market
Number of potential users/customers (market size)
Scalability, growth
Key challenges for scaling



Source: following A. Osterwalder, Value Proposition Design 2014

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Prof. Dr. Patrick Link
www.wirtschaftsmathe.de

EXPERIMENTS (Prototype – Test – Learn)

Some of the assumptions which you make for the Lean Canvas are more important than others. The assumptions that are essential to your success are called critical assumptions. Now it is important to verify the critical assumptions with the help of experiments. Try to test one assumption at a time and build a prototype. Creating quick and dirty prototypes allows you to test a number of ideas without investing a lot of time and money up front.

Experiment 1

Outcomes 1

What have we learned?

Experiment 2

Step 1: Hypothesis
We believe, that...

Outcomes 1

What have we learned?

Experiment 3

Step 1: Hypothesis
We believe, that...

Outcomes 1

What have we learned?

Step 2: Test
To verify this, we will...

Documentation of the test (photos, etc.)

Step 3: Measure
And measure...

Documentation of the test (photos, etc.)

Step 4: Criteria
We are on the right track, if...

Step 2: Test
To verify this, we will...

Step 3: Measure
And measure...

Step 4: Criteria
We are on the right track, if...

Step 2: Test
To verify this, we will...

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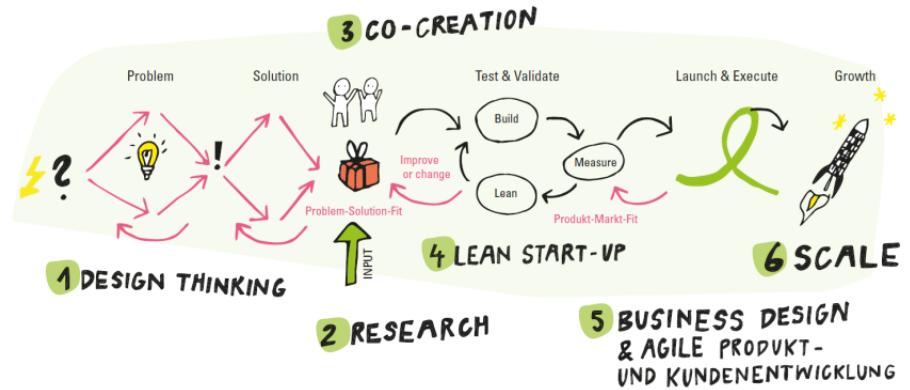
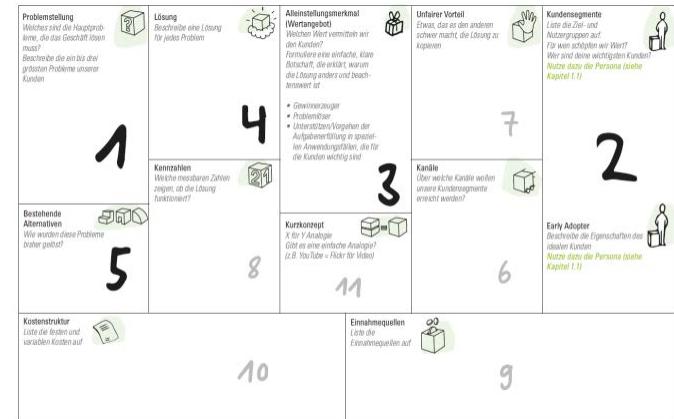
Step 2: Test
To verify this, we will...

Step 3: Measure
And measure...

Step 4: Criteria
We are on the right track, if...

Success factors

- 1** Customer and user orientation
- 2** Document your business model
- 3** Iterate and learn (Prototyping)
- 4** Test risks systematically
- 5** Right mindset
- 6** Interdisciplinary teams
- 7** Holistic problem solving process
- 8** Variable space



Download-Link

www.leancanvas.ch

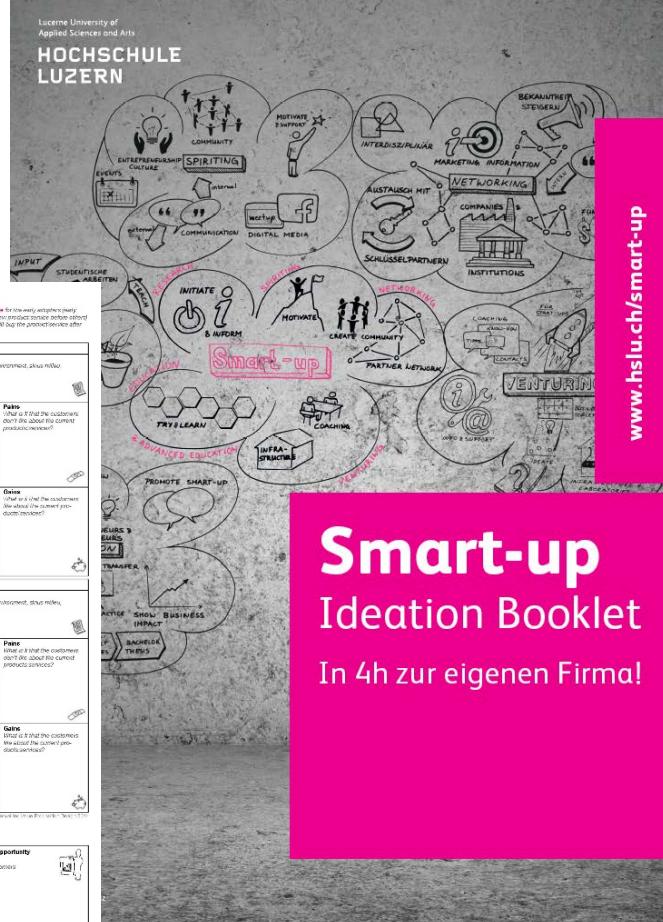
LEAN CANVAS: ... wants ... for ... because ... motivation

This Lean Canvas is a tool to sketch startup models for chart-ups. It helps you to describe important aspects of your business idea. In every section, you will have to decide some assumptions. These will be visualized by icons. You can also add notes with the text area.

First work on the numbered fields in the order that suits you best. In general, the problem (1) is compared with the solution (2).

First work on the numbered fields in the order that suits you best. In general, the problem (1) is compared with the solution (2).

Problem What are the main problems your customer has? What would you like to solve? Describe the 2-3 biggest needs of your customer.	Solution Describe one solution for each problem:  UVP (unique value proposition) What are the values your user is going to get? What are you looking for a certain message? Profit model How do you plan to position your customer in their job or for whom?	Unique advantage You need something that makes it difficult for other companies to copy your solutions.	Customer segments Define who are your target groups? Who are your most important customers? Describe it on the right hand side.		
Key figures Which revenue figures can easily monitor the solution on a weekly basis?	Channels Which channels can you use to reach your customer segments?	Name Description of persons: Age, gender, residence, social environment, skills, interests, contacts, etc.	Job to be done What does the customer want to happen by the product/service?		
Existing alternatives Name the 2-3 best alternatives that do what you do!	High-Level Concept Is there a single analogy you can use? E.g. YouTube = PIONIER für Videos.	Application scenario What does the product/service user? What happens before and after using the product/service?	Genre Define it. Find the relationship between the customer profile and the product/service.		
Cost structure Make a list of the fixed and variable costs.	Revenue streams Make a list of your source of income.	Name Description of persons: Age, gender, residence, social environment, skills, interests, contacts, etc.	Job to be done What does the customer want to happen by the product/service?		
EXPERIMENT'S (Prototypen - Test - Learn) <small>Some of the requirements which you make for the Lean Canvas are more important than others. The assumptions that are essential to your success are called testing hypotheses. It is important to make them as specific as possible. Try to find out what people think at first and build a prototype. Creating a user interview questionnaire allows you to check a number of ideas without investing a lot of time and money up front.</small>		Experiment 1 Outcome 1 Step 1: Hypothesis (or testing idea) Step 2: Test Do something (use URL)	Experiment 2 Outcome 1 Step 1: Hypothesis (or testing idea) Step 2: Test To identify flaws, etc...	Experiment 3 Outcome 1 Step 1: Hypothesis (or testing idea) Step 2: Test To verify this, etc...	Experiment 4 Outcome 1 Step 1: Hypothesis (or testing idea) Step 2: Test To verify this, etc...
Click here to go to the next slide →					



A0-versions including the «ideation booklet» can be ordered by mail:
patrick.link@hslu.ch or info@leancanvas.ch

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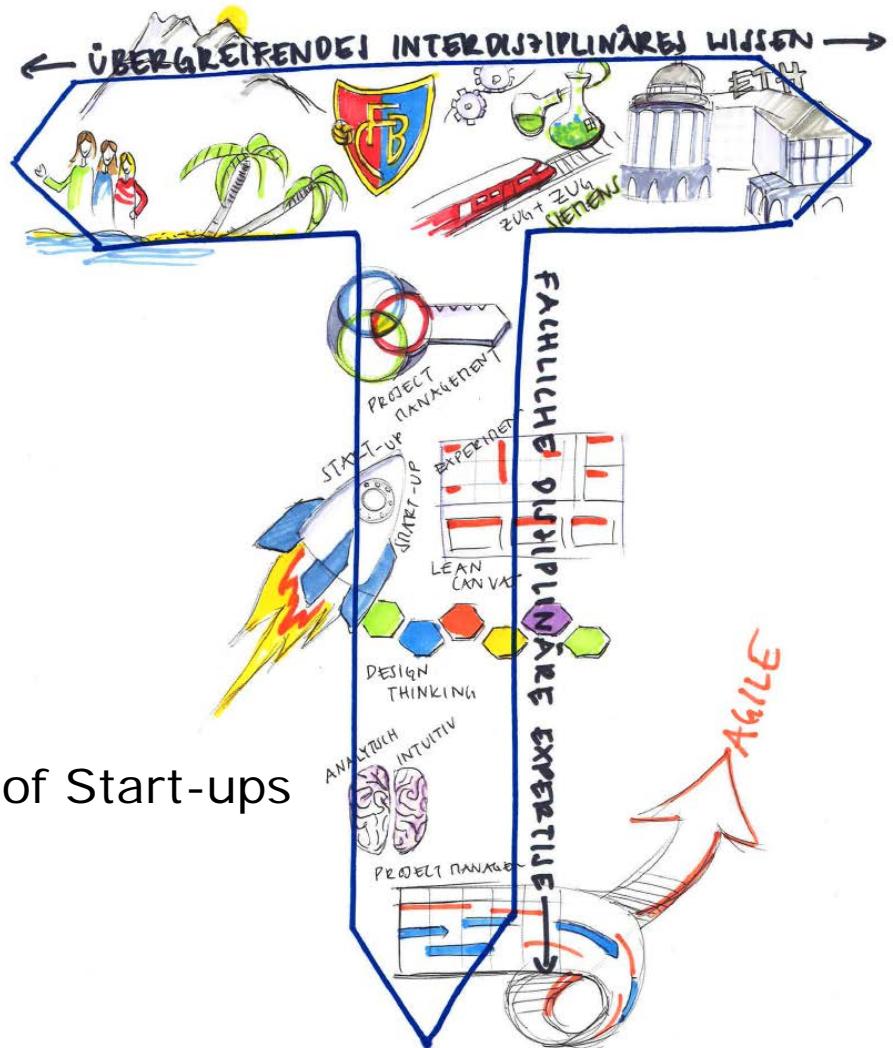
Prof. Dr. Patrick Link

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School of Engineering and Architecture
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CH 6048 Horw
patrick.link@hslu.ch
+41 79 571 34 89



My Background

- Mechanical Engineer
- 5 years: Chemical industry
- PhD at the BWI
(now: M-TEC of ETHZ)
- 8 years Siemens
- Since 2010:
Prof. for Product Innovation
Design Thinking Coach
Co-leader Smart-up- Support of Start-ups
- Co-Founder
- Research in new methods



DAS DESIGN THINKING PLAYBOOK

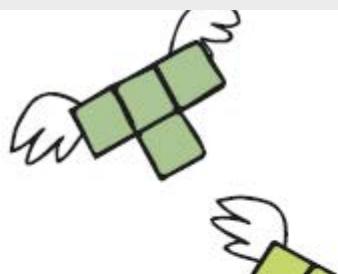
WWW.DT-PLAYBOOK.COM

1. TRADITIONELLE ERFOLGSFAKTOREN IM DESIGN THINKING

- 1.1. Für wen ist das Buch?
- 1.2. Was heisst es den Prozess im Griff zu haben?
- 1.3. Wie erhalten wir eine gute Problemdefinition?
- 1.4. Wie entdecken wir Bedürfnisse von Nutzern?
- 1.5. Wie bauen wir Empathie zum Nutzer auf?
- 1.6. Wie generieren wir Ideen?
- 1.7. Wie strukturieren und selektieren wir Ideen?
- 1.8. Wie finden wir den richtigen Fokus?
- 1.9. Was macht einen guten Prototyp aus?
- 1.10. Wie können wir effizient testen?

2. AKTUELLE ERFOLGSFAKTOREN IM DESIGN THINKING

- 2.1. Wie gestalten wir kreative Räume und Umgebungen?
- 2.2. Welchen Mehrwert bieten uns interdisziplinäre Teams?
- 2.3. Wie visualisieren wir Ideen und Geschichten?
- 2.4. Was macht eine gute Geschichte aus?
- 2.5. Was heisst es Veränderung als Facilitator einzuleiten?
- 2.6. Wie bereite ich die Organisation für den neuen Mindset vor?
- 2.7. Wie können wir bewährte Management Methoden mit einbeziehen?

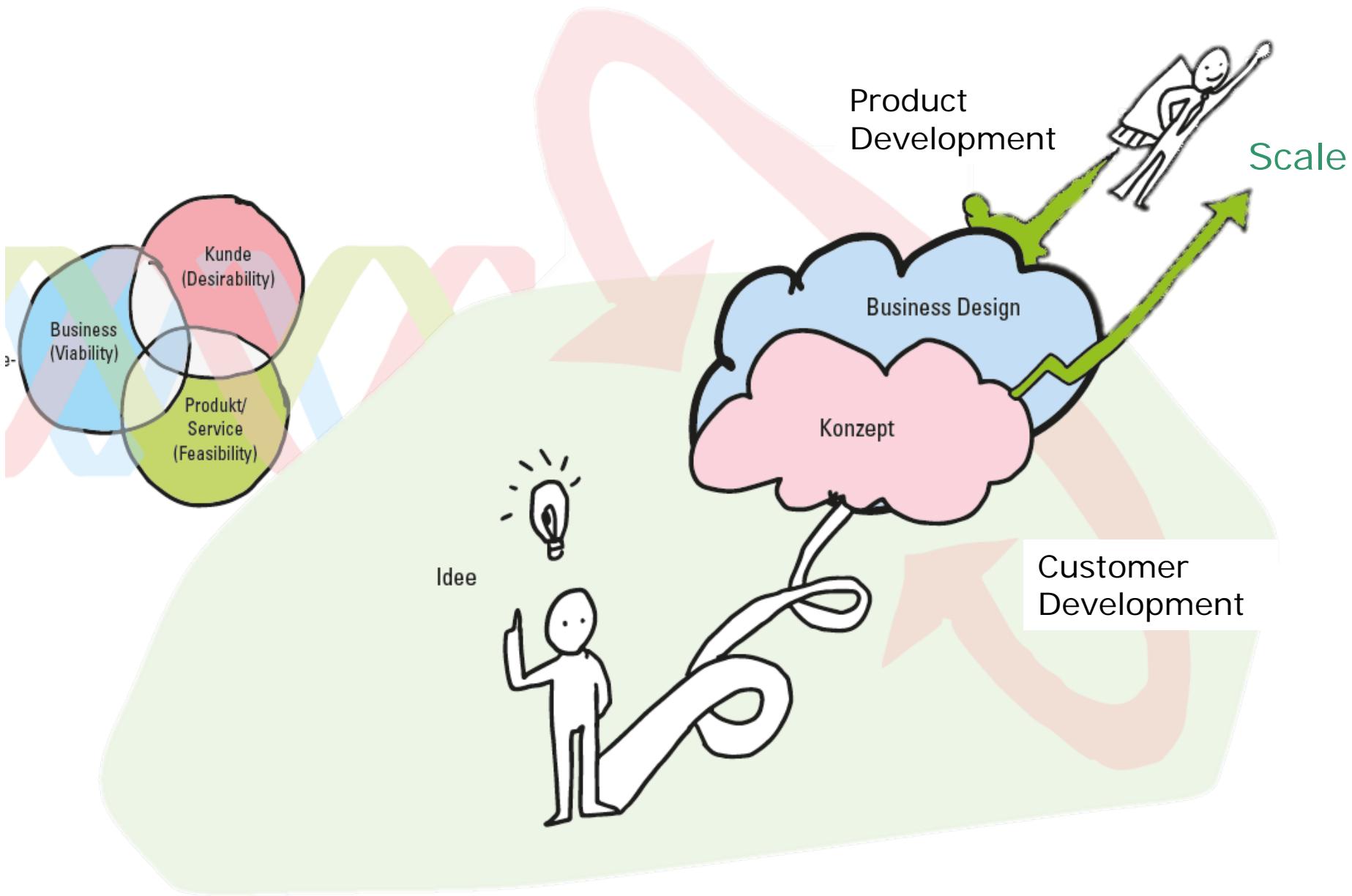


3. ZUKÜNFTIGE ERFOLGSFAKTOREN IM DESIGN THINKING

3.2 WIE BAVEN WIR LEAN EIN GESCHÄFTSMODELL AUF?

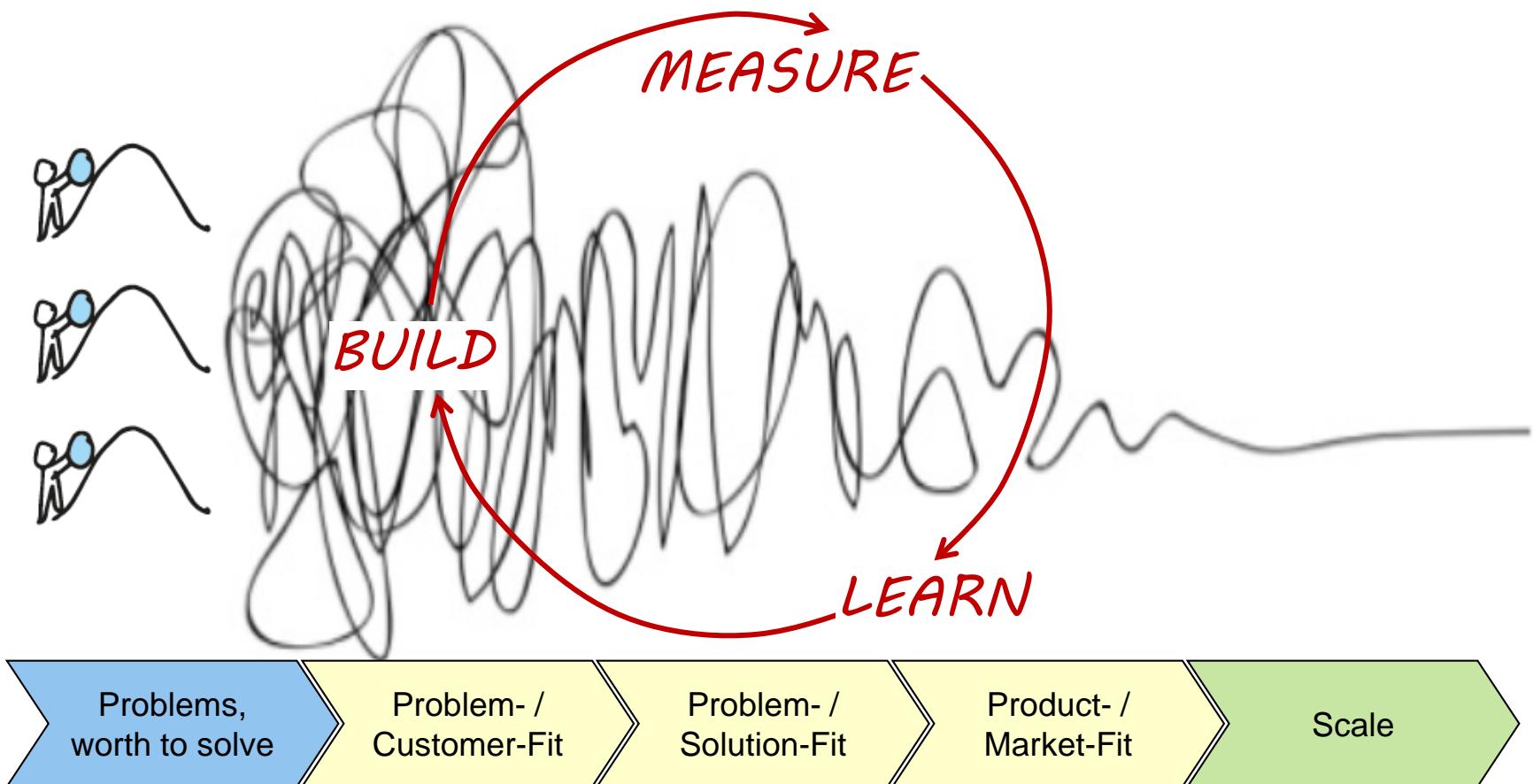
- 3.4. Wie implementieren wir unsere Lösungen erfolgreich?
- 3.5. Was sind die Designkriterien der Digitalisierung?
- 3.6. Wie neue Technologien helfen ein einzigartiges Kundenerlebnis zu erzeugen?
- 3.7. Data Analytics: Was versprechen hybride Modelle?

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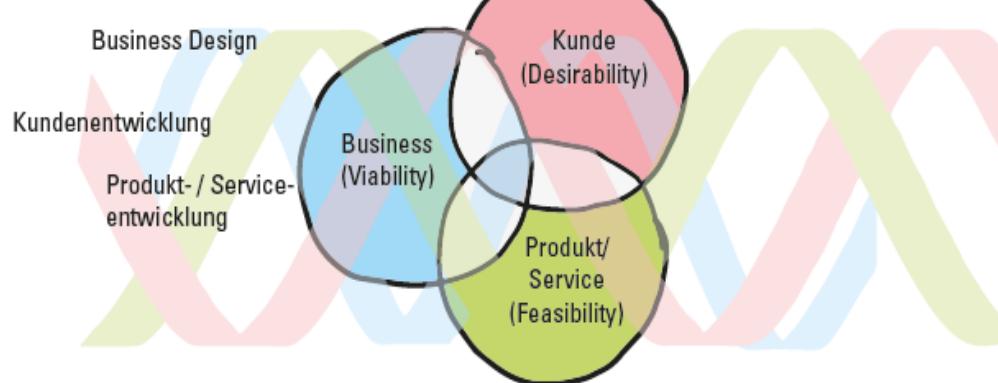
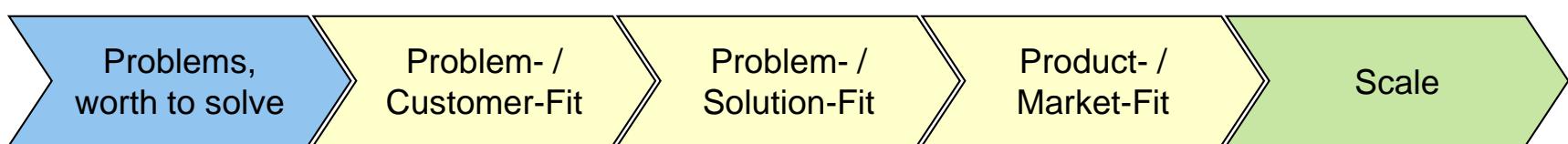
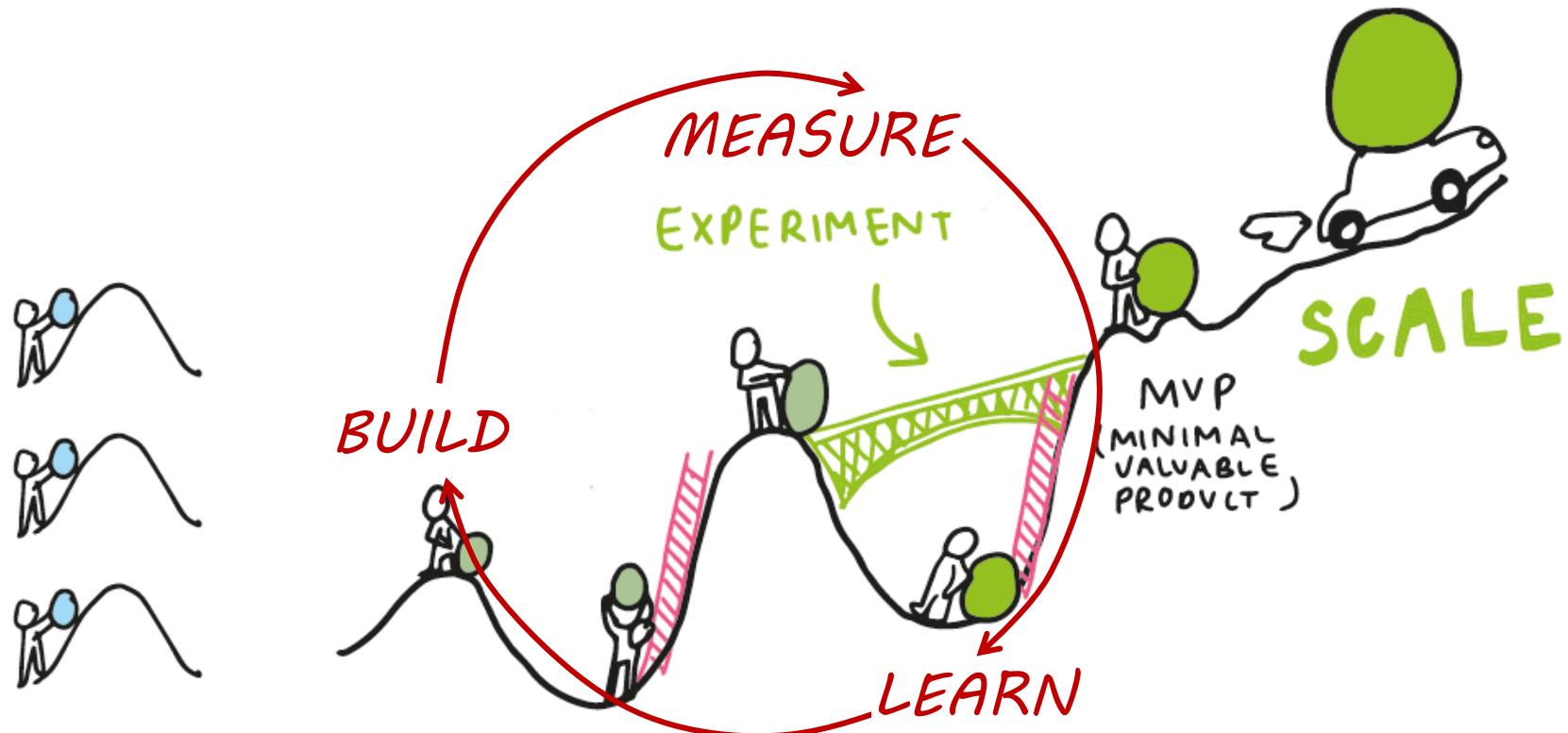
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Search for a functioning, scalable business model

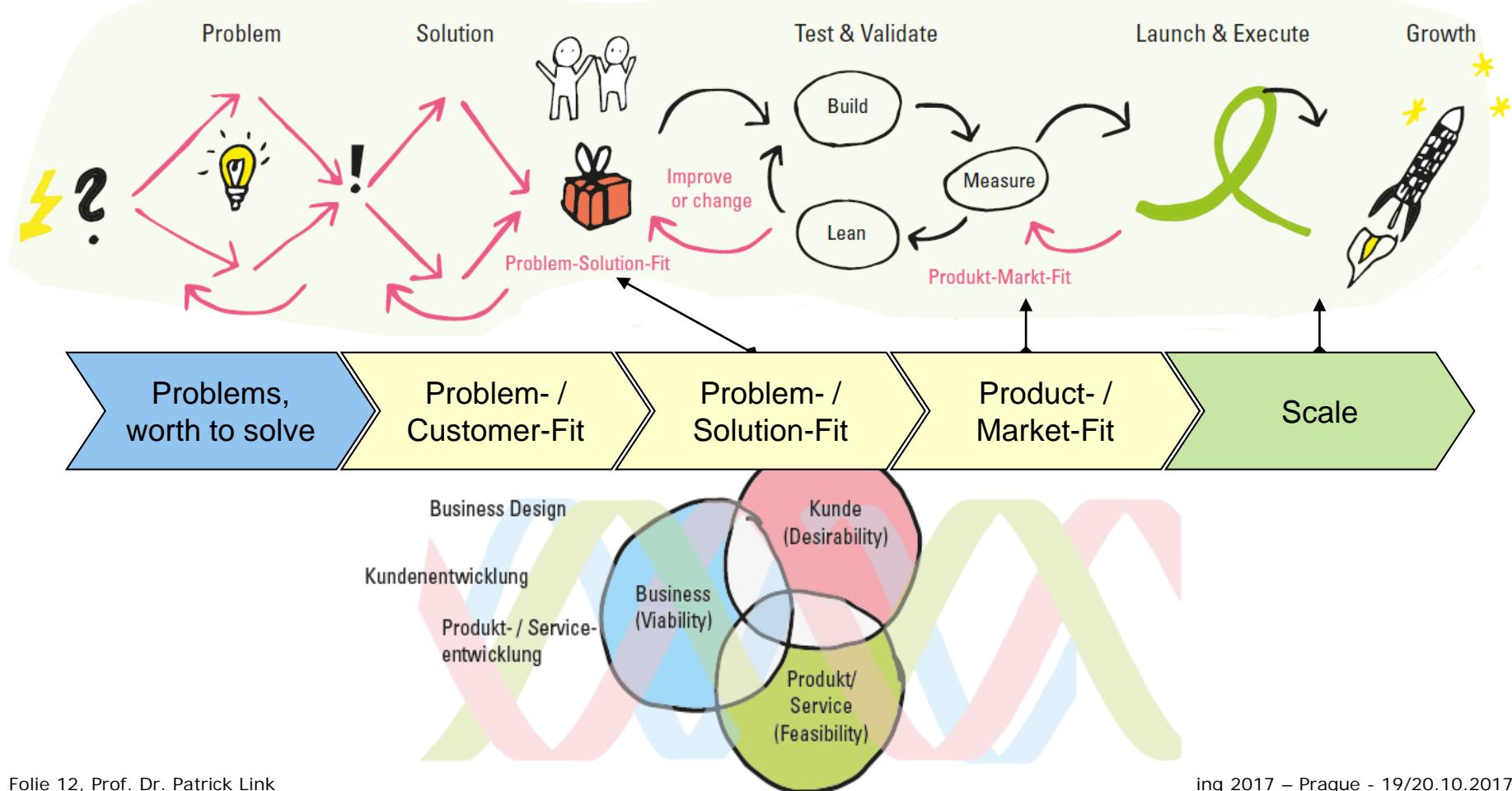
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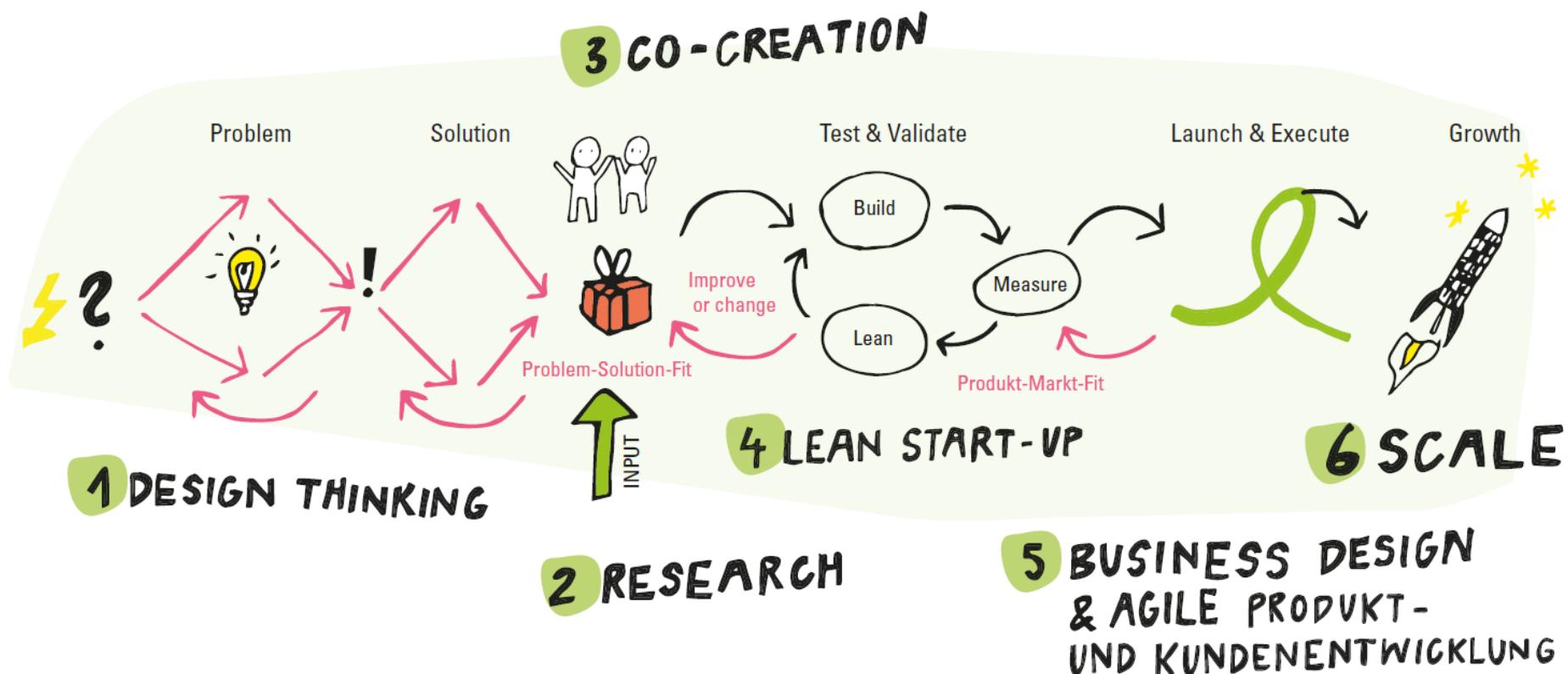
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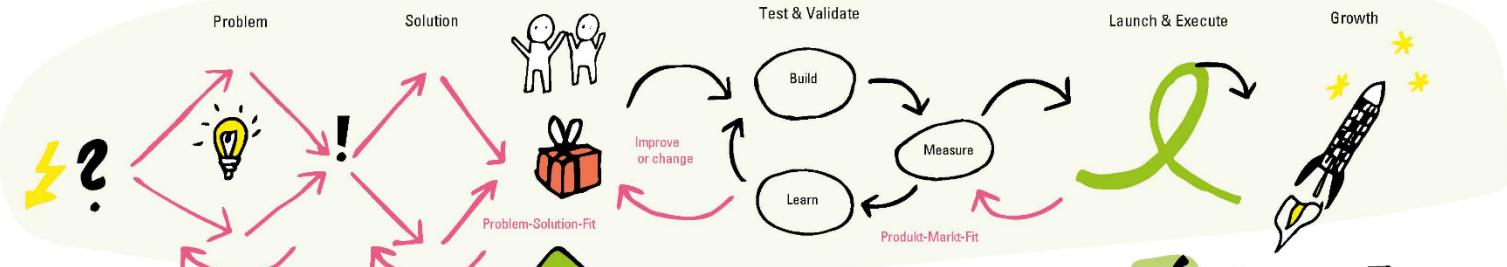
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- Nutze Marktforschungsinstrumente
- Validiere und ergänze deine Erkenntnisse



Best Seller
amazon.de

Projektmanagement

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- Denke bei der Entwicklung von Geschäftsmodellen in Varianten

4 LEAN START-UP

- Nutze den Lean Start-up Ansatz, um mit wenig Kapital dein Angebot weiter zu entwickeln
- Strukturiere die Lösung schrittweise
- Verbessere und validiere mit schnellen Iterationen dein Geschäftsmodell
- Kläre mit Experimenten die größten Unsicherheiten ab

6 SCALE

- Bereite die Organisation für Wachstum und Skalierung vor
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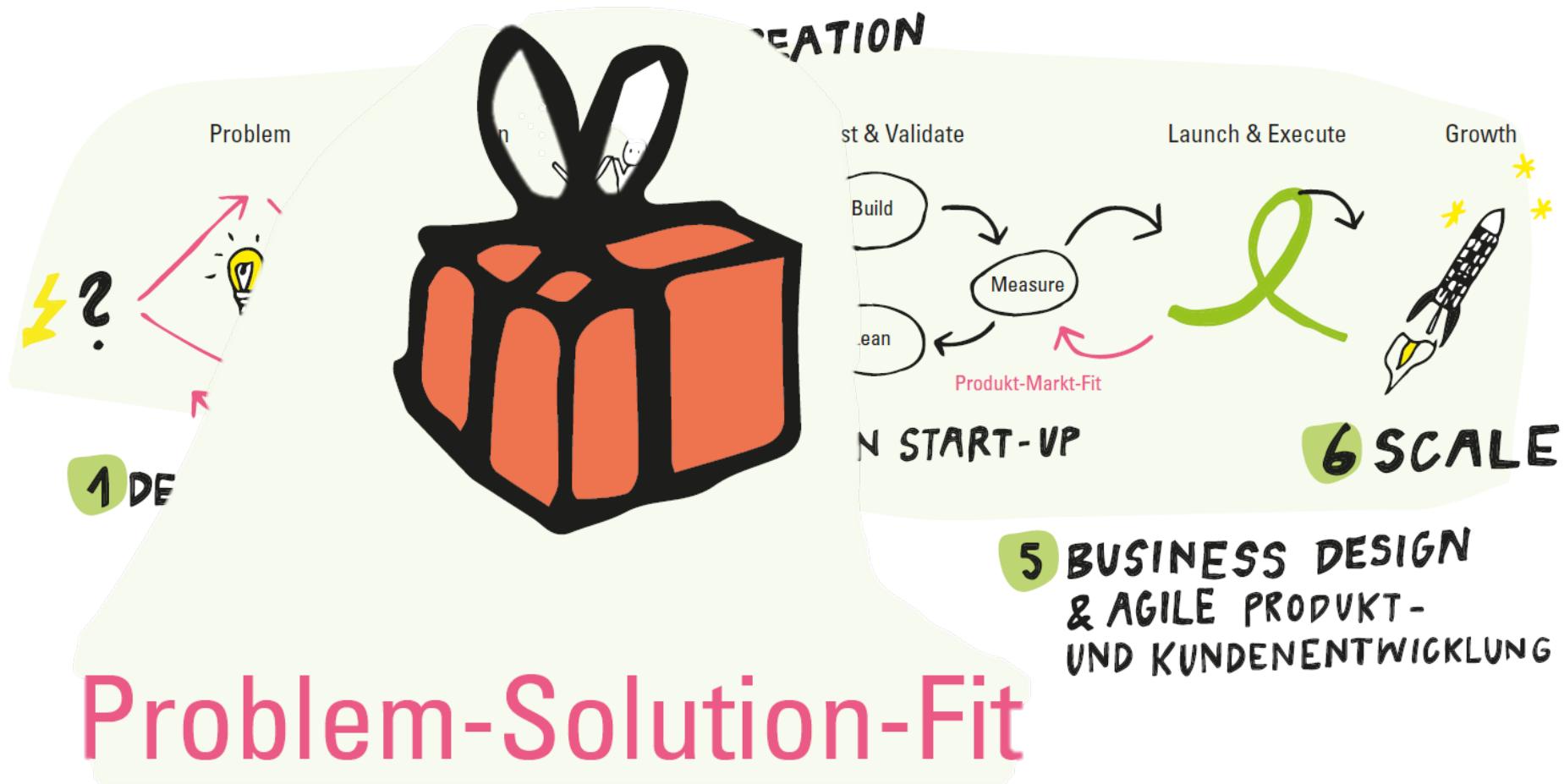
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English Version: coming soon!

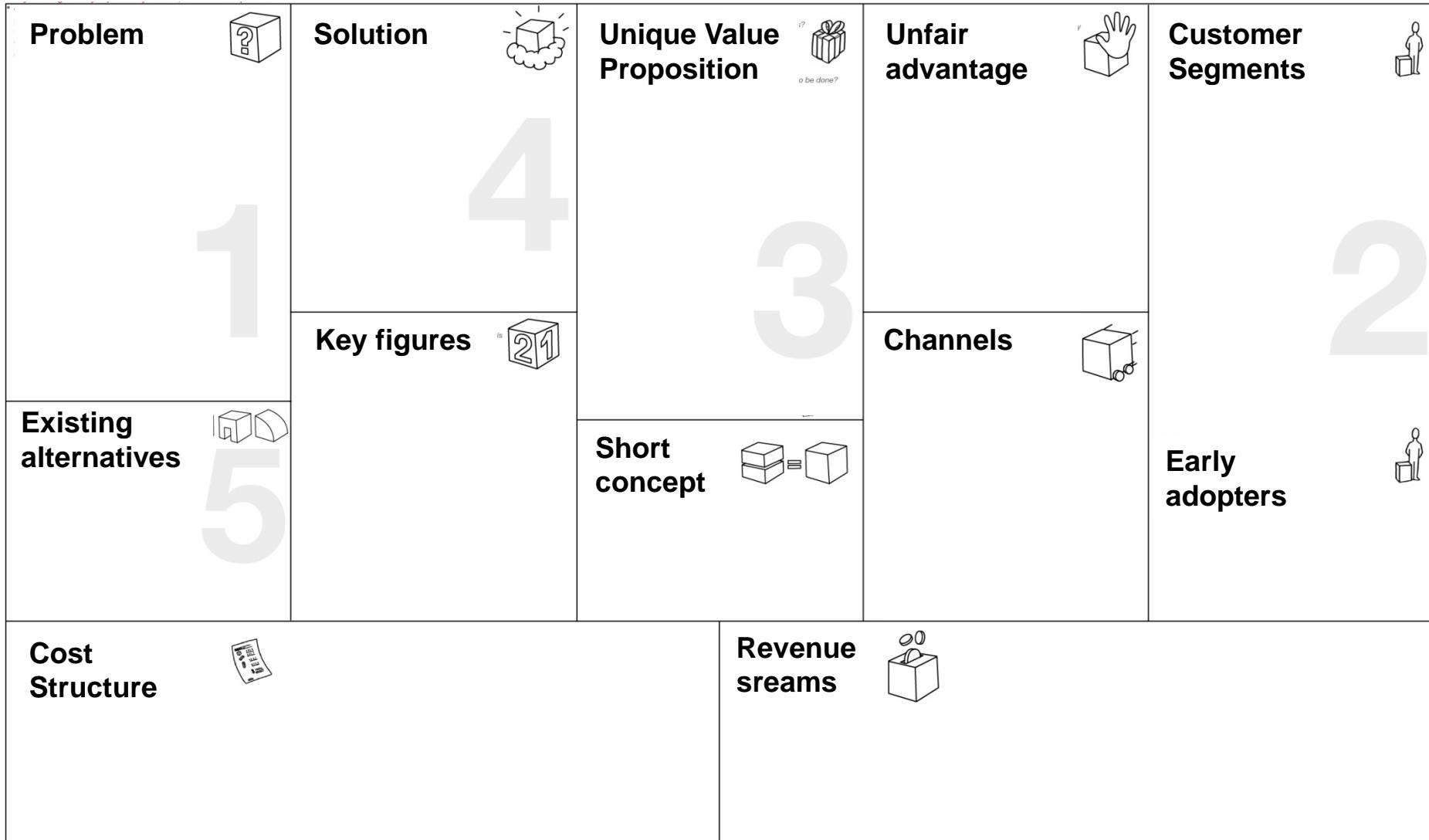


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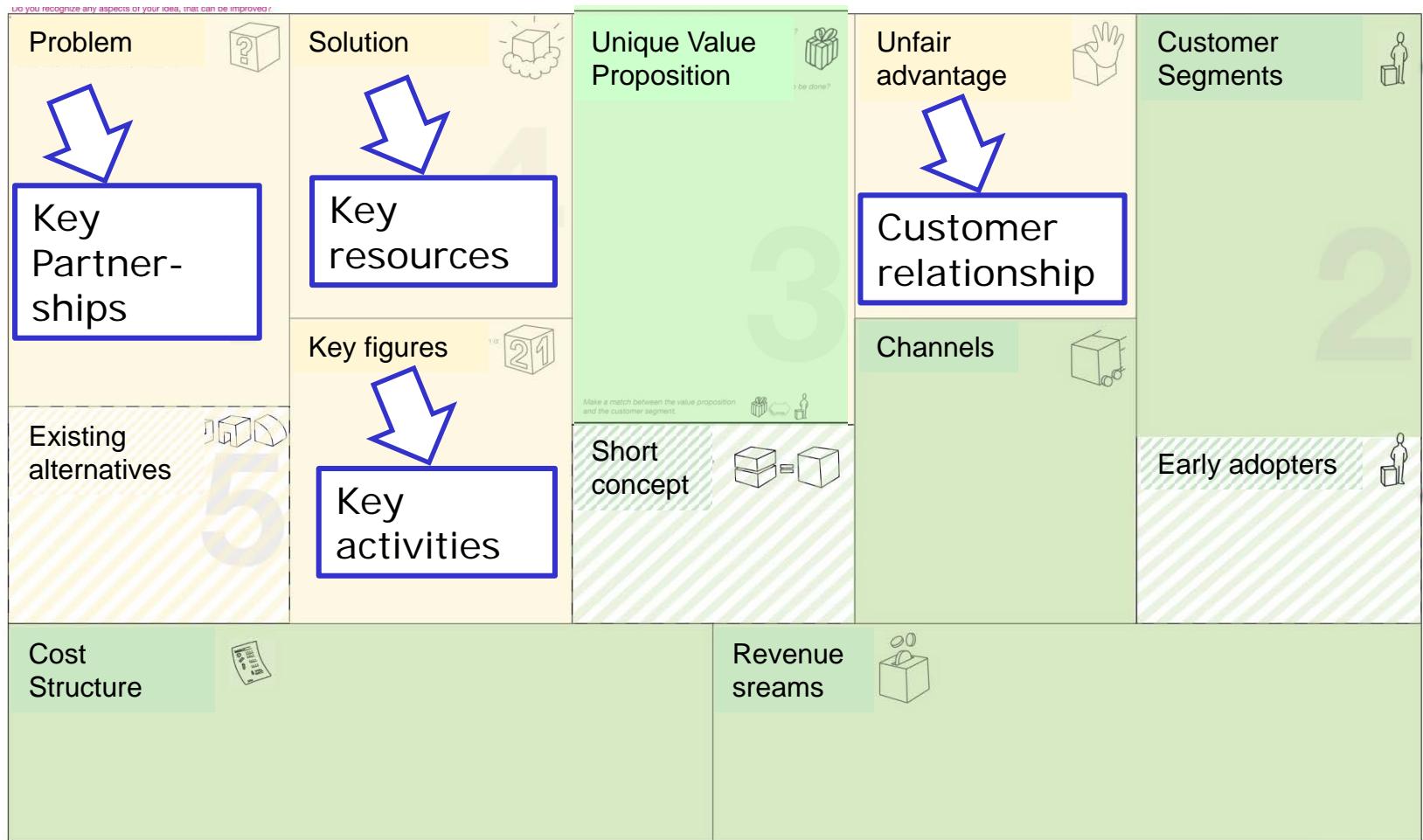
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Lean Canvas (by Ash Maurya)



Differences Lean Canvas and Businessmodell-Canvas



LEAN CANVAS:

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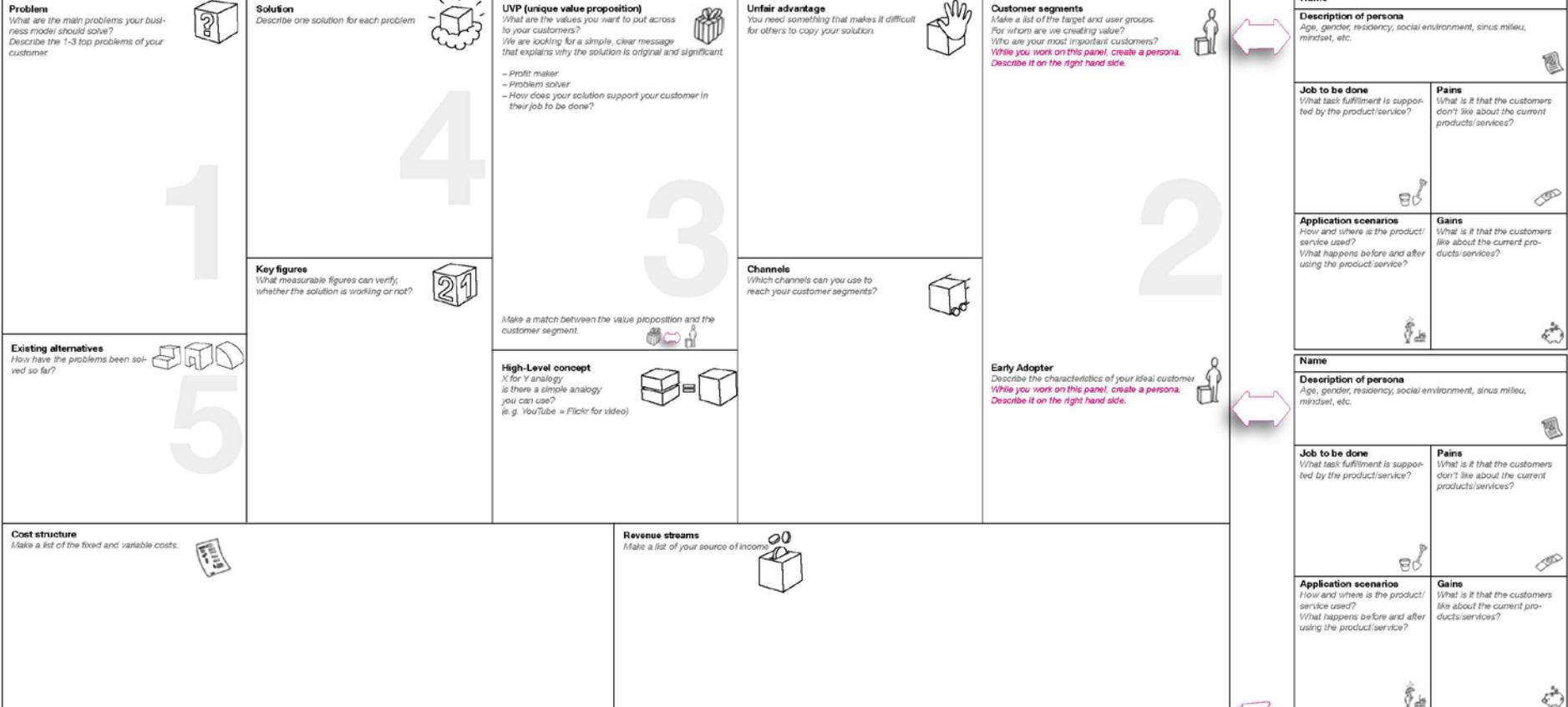
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Do you recognize any aspects of your idea, that can be improved?

Create a detailed customer profile for the early adopters (early customers, who embrace your new product/service after the early adopters) and for other user groups (that will buy the product/service after the early adopters)

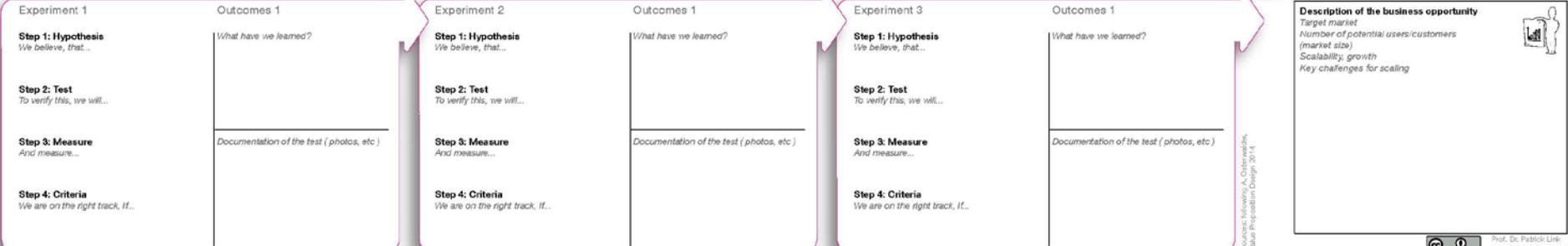


Sources: Arie Maurya, Running Lean 2013

Sources: following A. Osterwalder, Value Proposition Design 2014

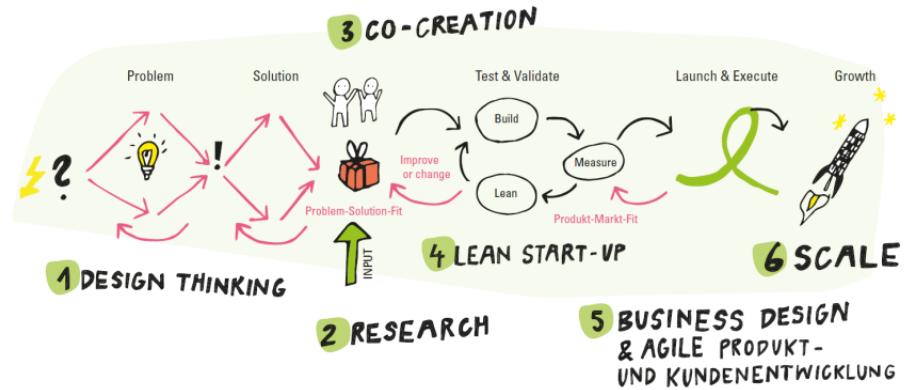
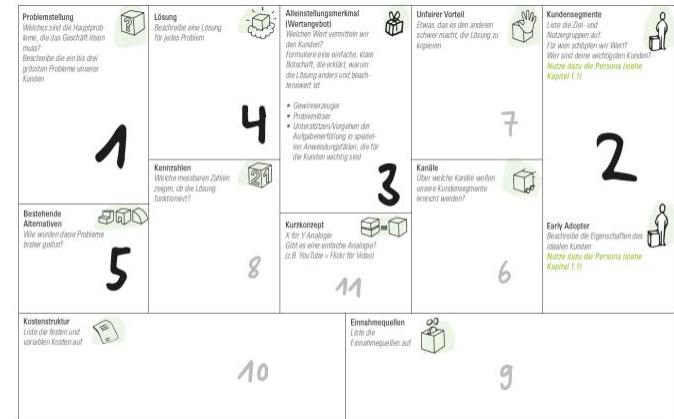
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Success factors

- 1** Customer and user orientation
- 2** Document your business model
- 3** Iterate and learn (Prototyping)
- 4** Test risks systematically
- 5** Right mindset
- 6** Interdisciplinary teams
- 7** Holistic problem solving process
- 8** Variable space



1 Customer and User orientation (Desirability)

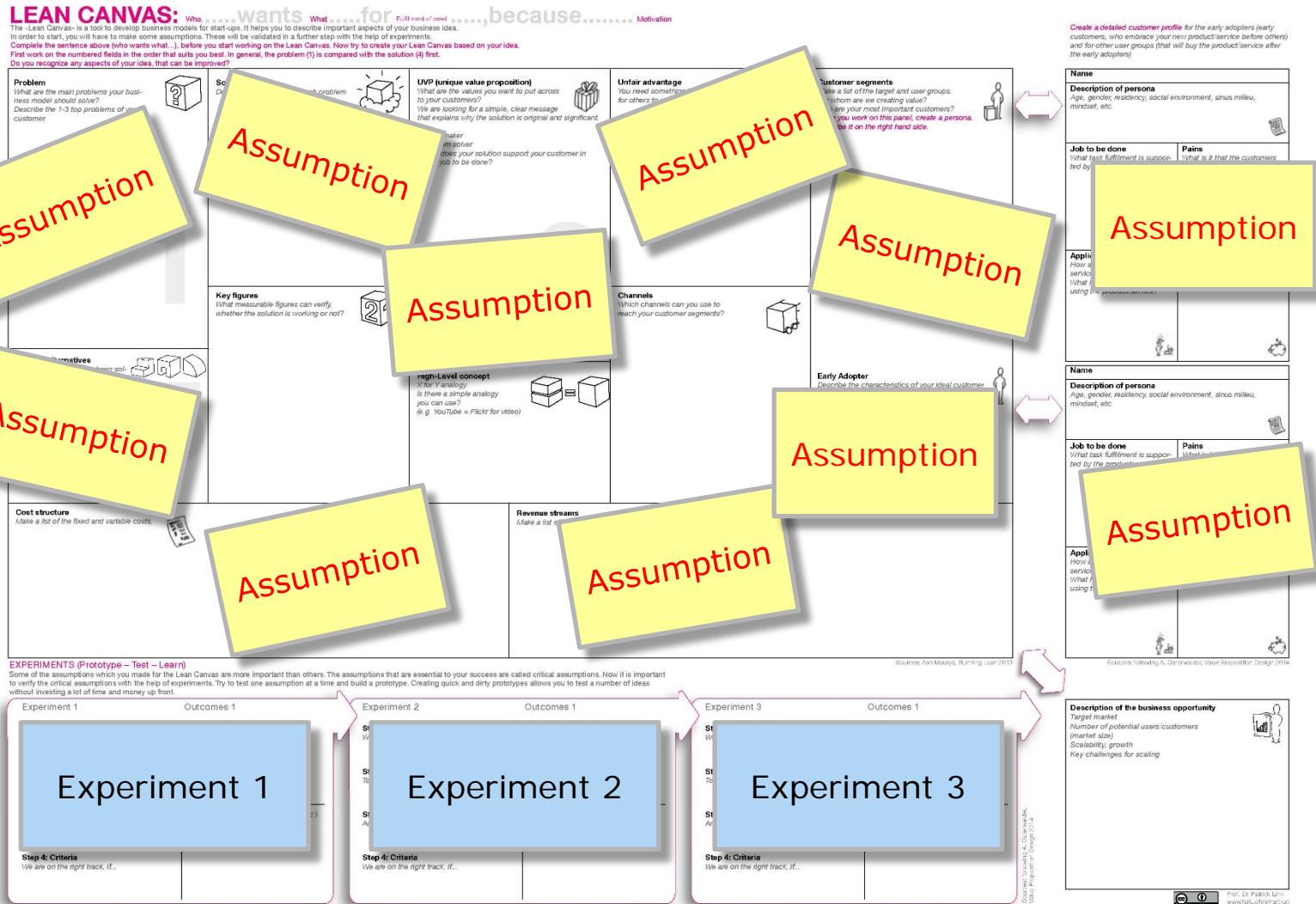


Get-out-of-the-building

«There are no Facts inside your building, so get outside»
(Steve Blank)

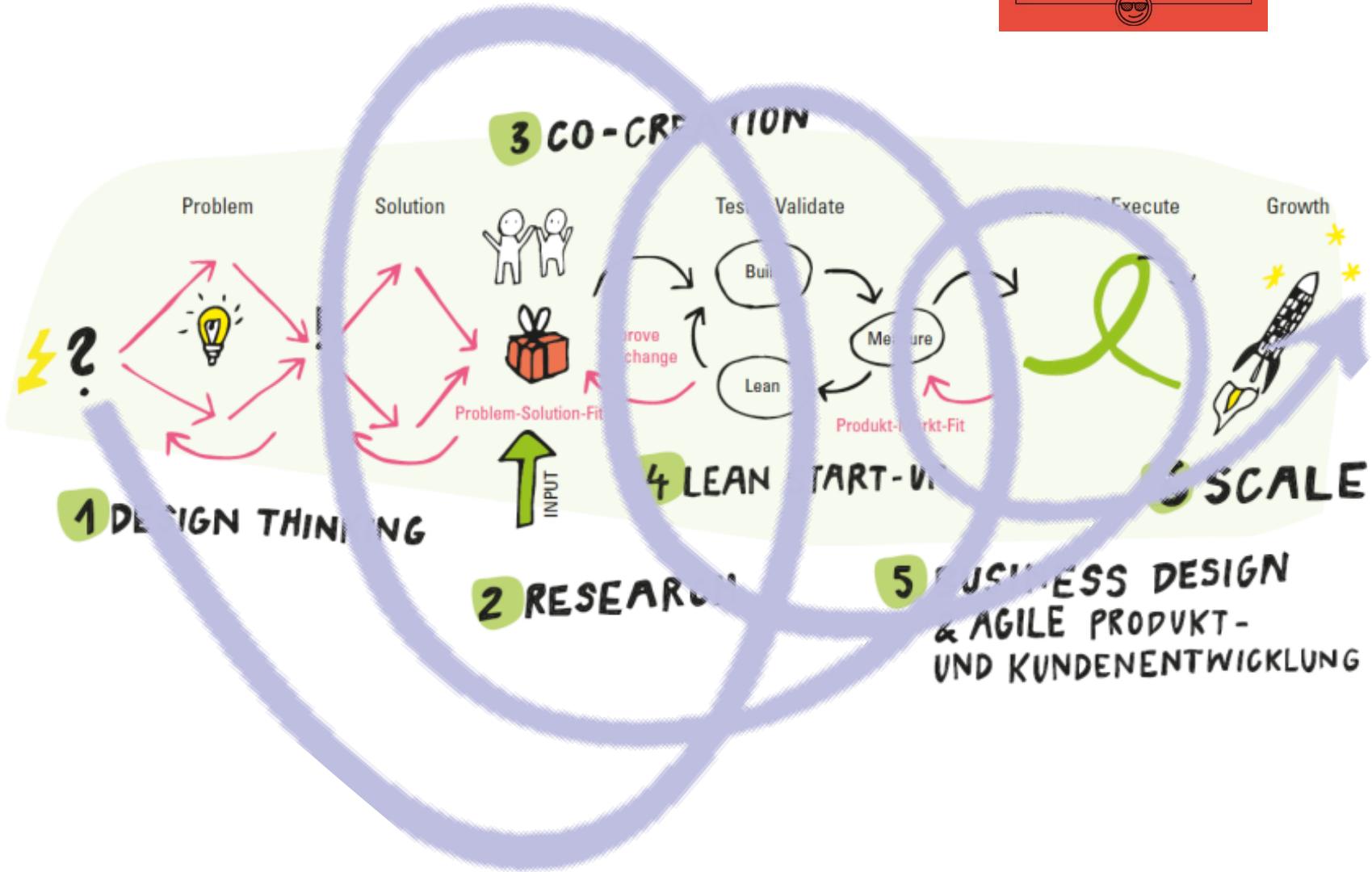
2 Document your business model (Viability)

Test your hypothesis with potential customers

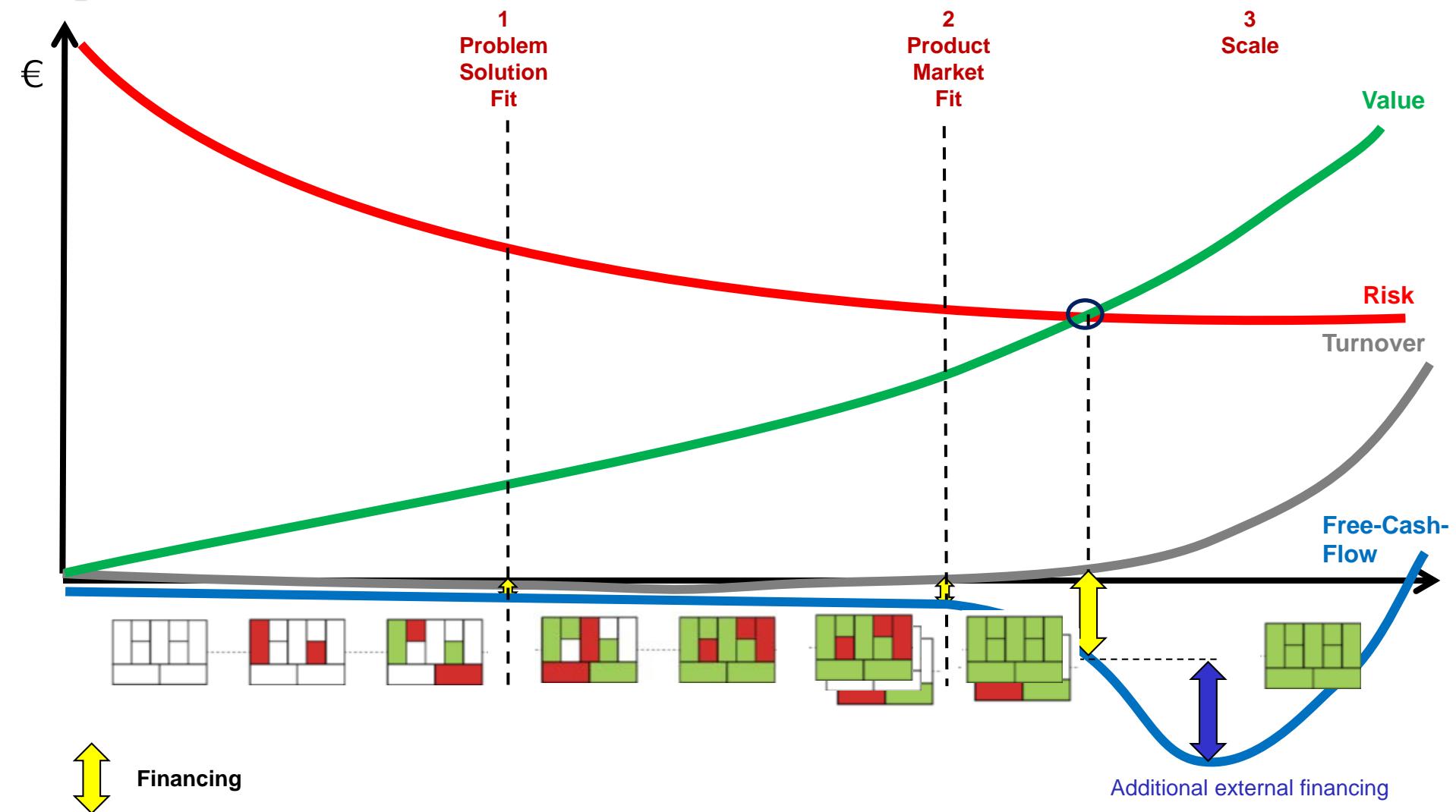


3

Iterate and Learn (Prototyping) Minimize waste – maximize learning



4 Test the biggest Risks systematically



5

The right Mindset for your Organisation

Driven by curiosity

- Human and User centered

Accept complexity

Visualize and show

Experiment & iterate

Co-CREATE, Grow & Scale

- With varying mental states

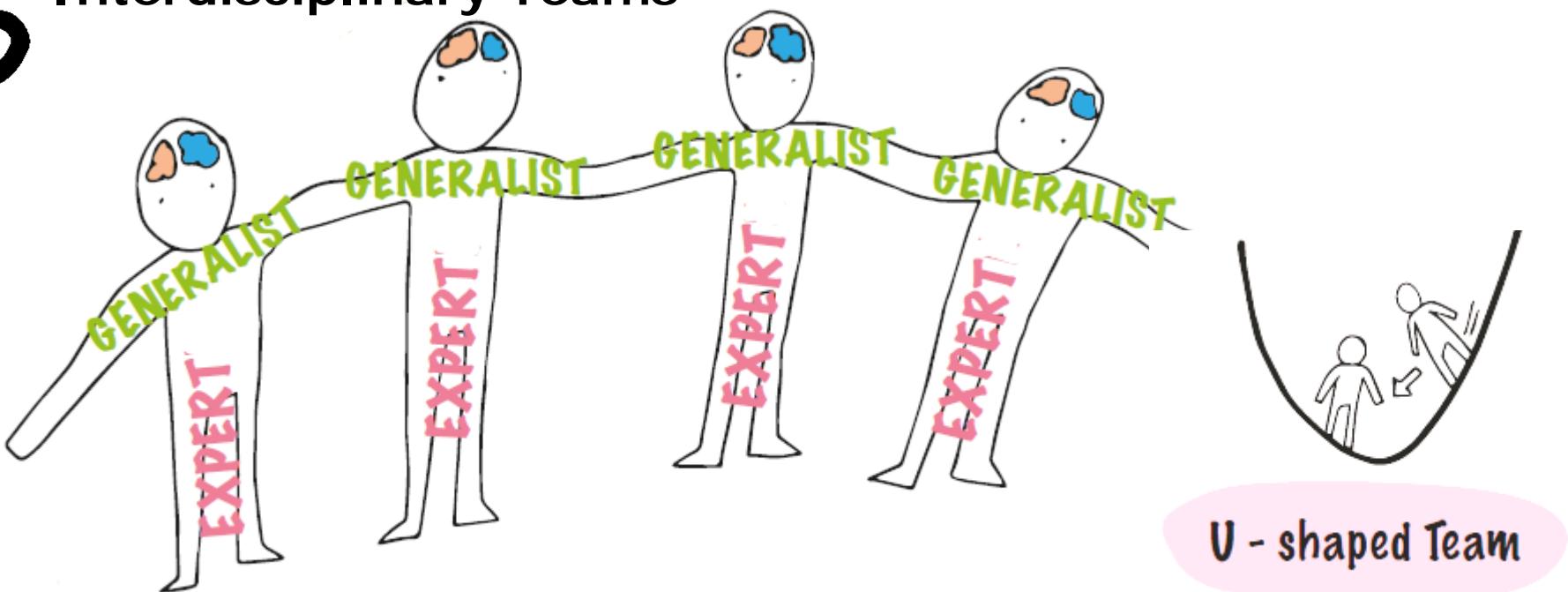
Develop process
awareness

Networked
Collaboration

Reflect your actions
and acting



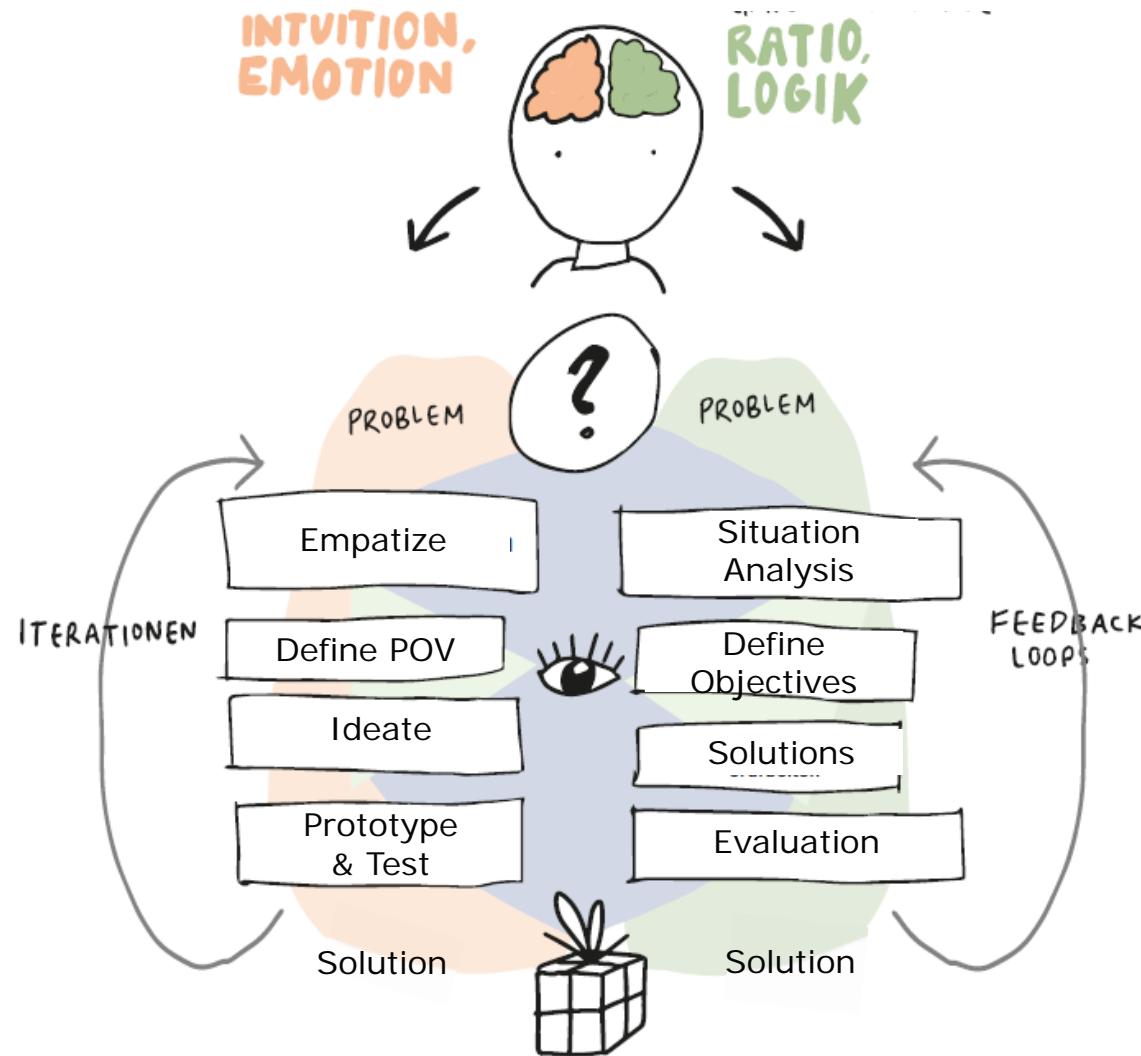
6 Interdisciplinary Teams



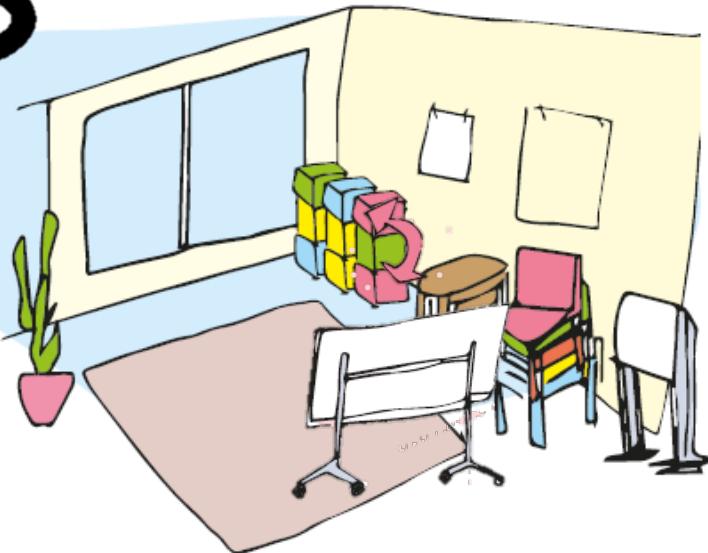
U - shaped Team

- Work in inter- or multidisziplinary teams („radical collaboration“)
- Constructive team work („build on ideas of others“)
- Distinctive questioning of the problem („change perspective“)
- Positive attitude towards uncertainty („embrace ambiguity“)
- Joint Vision (e.g. How might we...)
- Common and agreed values (e.g. brainstorming and feedback rules)
- Concrete, open and positive feedback
- Trust and respect

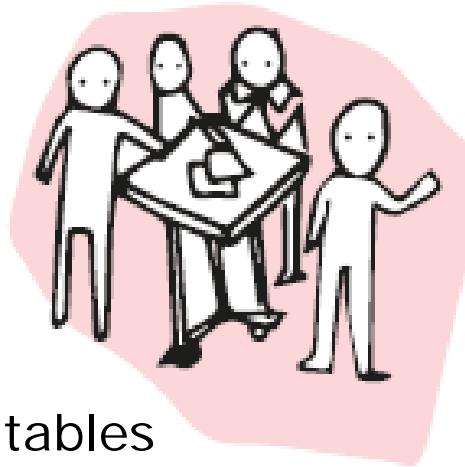
7 Holistic Problem Solving Process



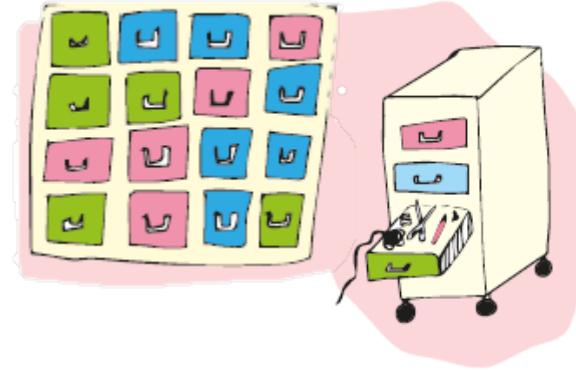
8 Variable Space



Flexible, mobile furniture



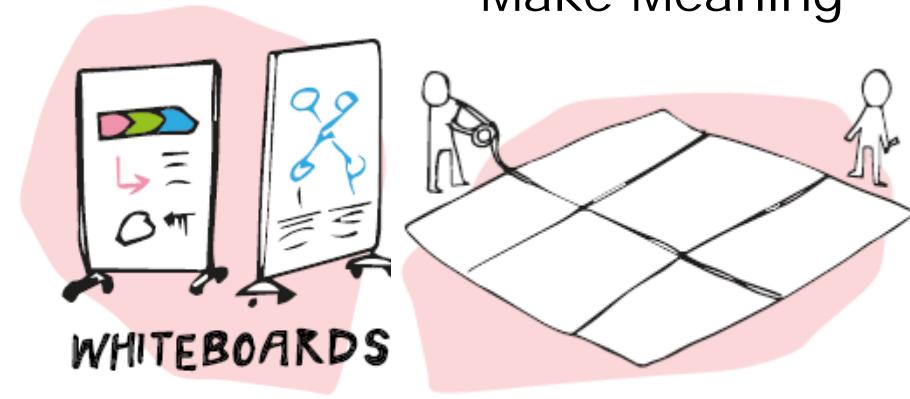
High tables



Prototyping Material

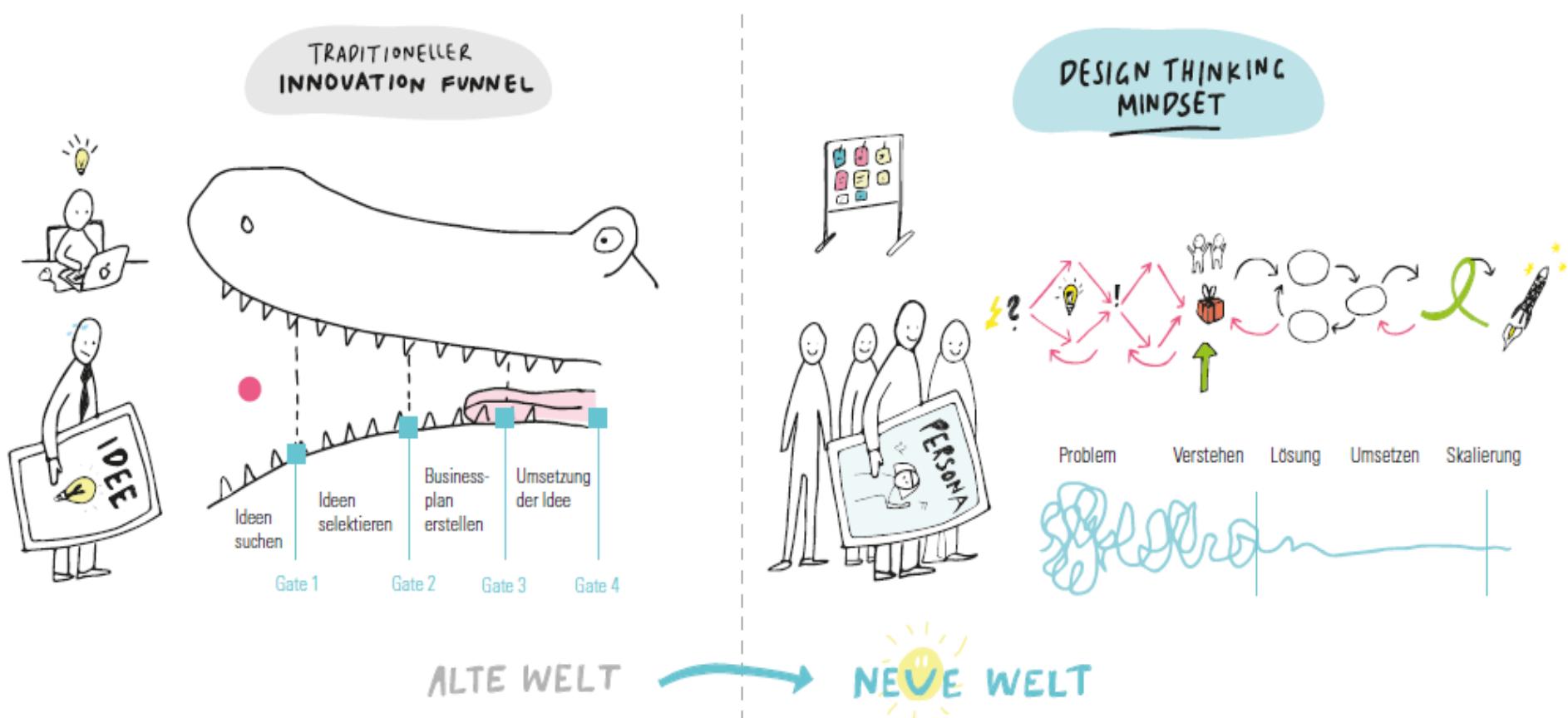


Make Meaning



Different visualisation possibilities

Transformation of the Organization



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www.dt-playbook.com

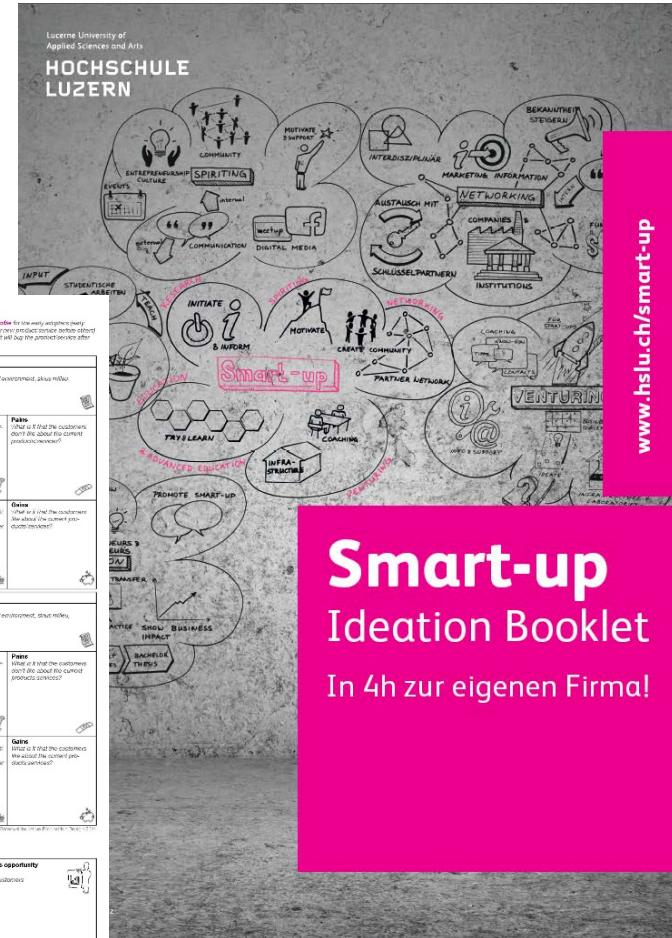
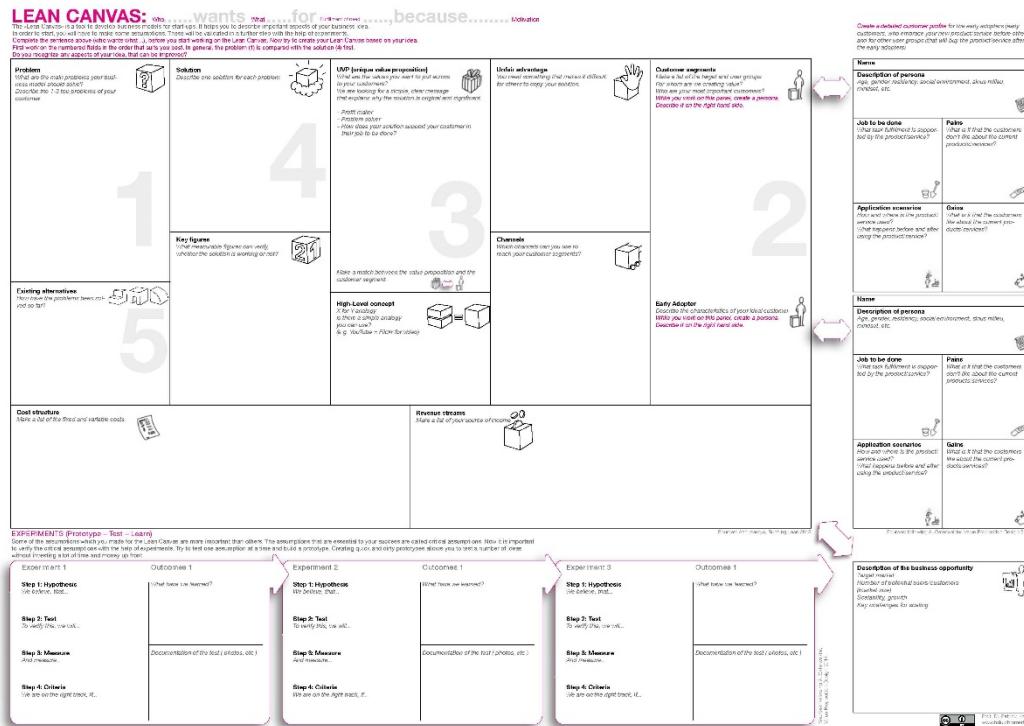


Available in German (now) and in English (Spring 2018)

Thank you for your attention

Download-Link

www.leancanvas.ch



A0-versions including the «ideation booklet» can be ordered by mail:
patrick.link@hslu.ch or info@leancanvas.ch

3 Iterate and Learn (Prototyping)

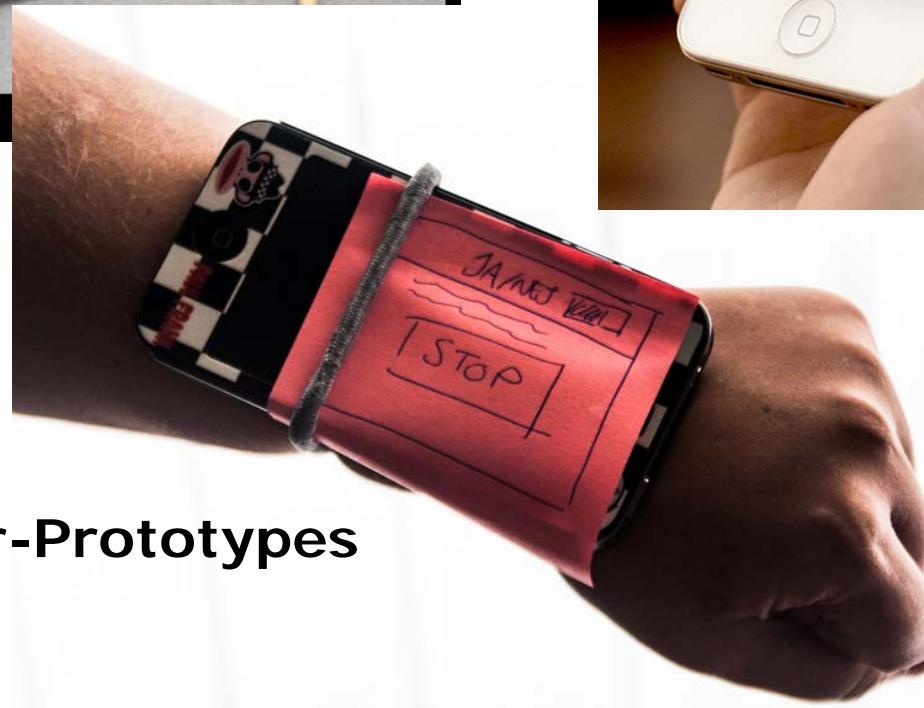
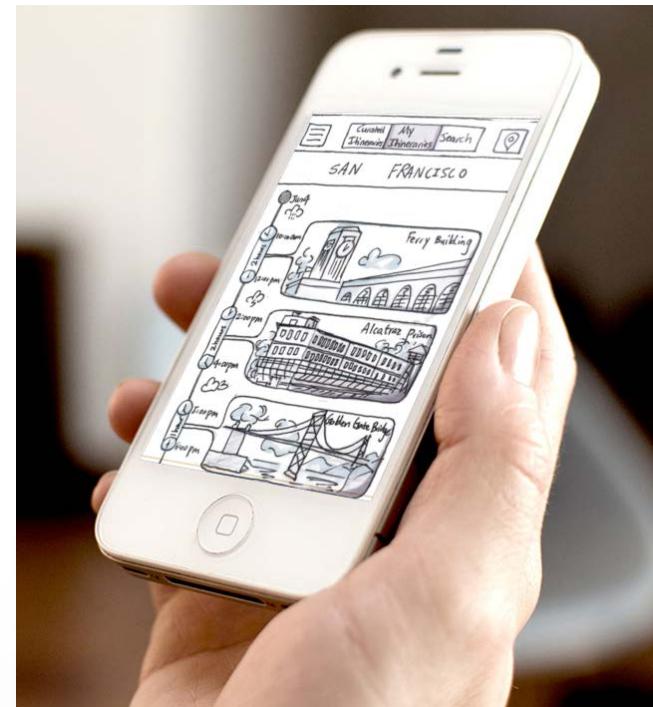
Minimize waste – maximize learning



Prototypen



COURTESY PALM



Mock-up's, Paper-Prototypes and Pinocchios

Software Prototype

Paper Prototyp
(also Powerpoint possible)



Quelle: <https://www.kickstarter.com/projects/1990245787/sticky-jotslang=de>

Explanation Video Example: Dropbox



Quelle: <http://scalemybusiness.com/the-ultimate-guide-to-minimum-viable-products/>

Wizard of Oz or Mechanikcal Turk

Example : Zappos

The screenshot shows the Zappos.com homepage. At the top, there's a banner with the text "free shipping & no sales tax." and a photo of a smiling couple. To the right are links for "customer service", "shopping bag", and "account & register". Below the banner, there are categories for "women's" and "men's" shoes, with sub-categories like "dress", "casual", "athletic", and "kids". A sidebar on the left allows users to "Pick a category to shop from:" and provides a "Category" dropdown menu, a "Register now & Save Money" button, and a login form for "registered customers" with fields for "username" and "password". A "Free Shoes!" button is also present. The main content area features a "WHAT WE'RE HEARING" section, a "Welcome to Zappos" message, and a search bar. The navigation bar includes "Customer Service", "Available 24/7 at (800) 927-7671", "Join Zappos Rewards & Get Expedited Shipping", "Sign In / Register", and a "MY CART" button. On the right, there are sections for "featured brands.", "SHOP WOMEN'S", "SHOP MEN'S", "SHOP KIDS'", "BAGS & ACCESSORIES", and promotional offers for "BEST-SELLING SNEAKERS" (\$100 & Under), "BACKPACKS", and "SUNGGLASSES".

Quelle: <http://scalemybusiness.com/the-ultimate-guide-to-minimum-viable-products/>, Image Source: Archive.org.

Types of Prototypes

Art	Beschreibung	Grad der Auflösung tief mittel hoch	Geeignet für / Beispiele
Skizze	Papier oder digital, skizziert oder gekritzelt, auf Flipchart oder kleineren Papiergrößen wie A3 oder A4 oder auch Post-it.	X	Praktisch alles
Mock-up	Zeigt den Gesamteindruck eines Systems, ohne notwendigerweise zu funktionieren.	X	Produkte, digital oder physisch
Wireframe	Früher konzeptioneller Entwurf eines Systems. Zeigt funktionale Aspekte und die Anordnung von Elementen auf.	X	Webseiten
Diagramm	Dient zum Aufzeigen von Zuordnungen. Damit kann geprüft werden, wie Ideen miteinander verknüpft sind und wie sich das Erlebnis über die Zeit verändert.	X X	Räume, Prozesse, Strukturen
Papier	Bau oder Anreicherung von Objekten und Produkten mit Papier oder Karton.	X	Produkte, digital oder physisch. Möbel, Accessoires
Storytelling und Storywriting	Kommunizieren oder Präsentieren von Abfolgen und Geschichten.	X X X	Erlebnisse
Storyboards	Die end-to-end Customer Journey einer Serie von Bildern oder Skizzen aufzeigen. Kann auch als Grundlage für ein Video, für Storytelling oder als witzige Art ähnlich einem Comic verwendet werden.	X X	Erlebnisse
Video	Aufnahme und Darstellung auch von komplexen Szenarien.	X X	Erlebnisse
Open Hardware Plattformen	Analoge und digitale Schnittstellen für die Kombination mit Motoren und Sensoren.	X X	Elektromechanische Systeme
Foto	Fotomontage für die simulierte Darstellung einer Situation unter Einsatz von Bildbearbeitungs-Software.	X	Produkte, digital oder physisch. Erlebnisse
Physisches Modell	Zeigt eine zweidimensionale Idee in drei Dimensionen auf. Kann in Form eines 3D-Drucks erfolgen, aber auch anhand anderer Materialien wie beispielsweise Lego erbaut werden.	X	Produkte, Räume und Umgebungen

Art	Beschreibung	Grad der Auflösung tief mittel hoch	Geeignet für / Beispiele
Service Blueprinting	Strukturierte Beschreibung von Services für die umfassende Erlebnisgestaltung in der end-to-end Customer Journey.	X X X	Produkte, digitale und physische Services
Geschäftsmodell	Systematische Darstellung von geschäftlichen Zusammenhängen und Beziehungen, beispielsweise mit dem Business Model Canvas oder Lean Canvas.	X X X	Geschäftsmodelle
Rollenspiel	Emotionales Erlebnis des Kunden mit einem Produkt oder Service, gespielt durch Projektteammitglieder.	X X	Erlebnisse
Bodystorming	Nachbilden von spezifischen Situationen unter körperlichem Einsatz der Projektteammitglieder.	X	Physische Erlebnisse
Pinocchio	Rudimentäre, nicht funktionierende Version eines Produkts.	X	Palm Pilot (Personal Digital Assistant)
Minimum Viable Product (MVP)	Lauffähige Version eines Systems oder einer Version, nur mit der allernotwendigsten Funktion versehen.	X X X	Digitale Produkte, Software
Fake door	Kreierter, getäuschter Zugang für ein Produkt, welches noch gar nicht existiert.	X X	Zynga, Dollar Shave Club
Pretend to own	So tun, als würde man es (Raum, Produkt, Angebot etc.) besitzen; effektiv aber bezieht man es anderswoher, mietet oder leihst es, bevor gross investiert wird.	X X X	Zappos, Tesla
Re-label	Ein anderes Produkt mit einer eigenen Marke und Verpackung versehen.	X	Produkte, Services
Wizard of Oz (auch „Mechanical Turk“ genannt)	Benutzer interagieren mit der Schnittstelle einer Anwendung, die gar nicht existiert. Die Reaktionen des Systems werden durch handelnde Personen simuliert.	X X	IBM's speech to text Experiment

Grad der Auflösung:

tief = in einer frühen Phase

mittel = erste Lösungsansätze

hoch = eher finale Lösungen

