2. Basic Patterns and Tools for Lean Startup and Lean Innovation

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http://st.inf.tu-dresden.de/ teaching/saab

1) The Innovator's Toolbox
2) Overview of Lean Startup
3) Evaluating a Canvas
4) Value Proposition Analysis
  1) nABC
5) Lean Canvas
6) Change Analysis
7) Other Canvases
8) Innovation Processes

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2. Basic Patterns and Tools for Lean Startup and Lean Innovation
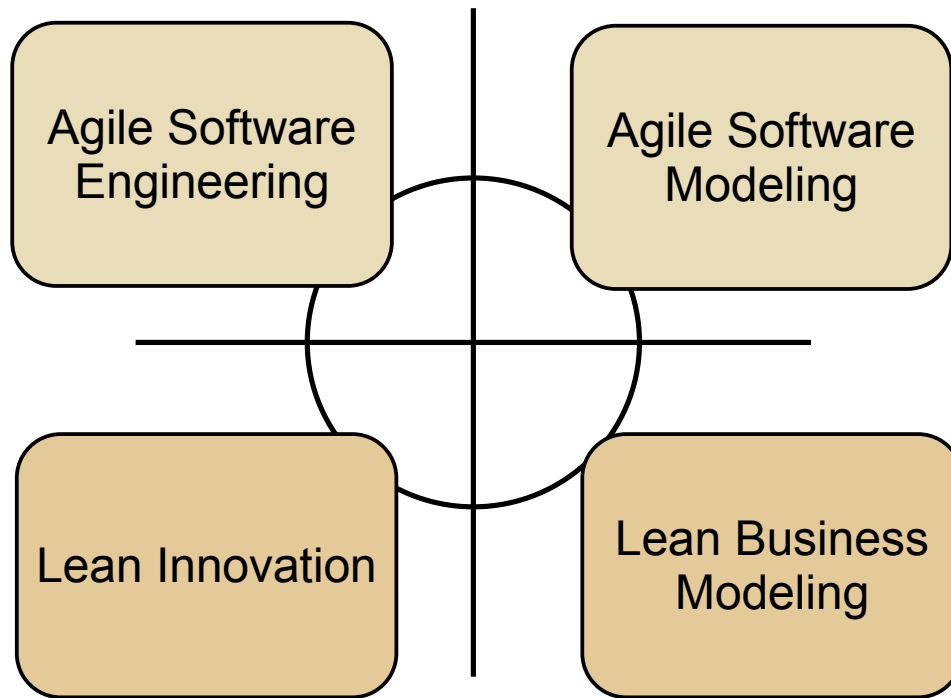
Prof. Uwe Aßmann
WS 2019/2020

Literature

▶ [Osterwalder-PhD]
http://www.hec.unil.ch/aosterwa/PhD/Osterwalder_PhD_BM_Ontology.pdf

▶ [Carlson-Wilmot] Curtis R. Carlson, William W. Wilmot. Innovation. The Five Disciplines for Creating what Customers Want SRI International. Crown Business, US, 2006

▶ [Oddoy] Manuel Oddoy. Softwareentwicklung mit natürlicher Sprache ("Lean Modelling"), Belegarbeit, TU Dresden, Jan. 2014. Supervised by Christian Wende, www.devboost.de

▶ [Korger] Christina Korger. Organisierte Software-Startups mit kollaborativen Canvases. Großer Beleg. TU Dresden, 2014.

  ▪ http://nbn-resolving.de/urn:nbn:de:bsz:14-qucosa-160539

2.1 The Lean Innovator's Toolbox

Lean =^Agile – what does this mean?

Lean or Agile Innovation or What?

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Agile Software Engineering	Agile Software Modeling
Lean Innovation	Lean Business Modeling

Caution: Risk of electric shock
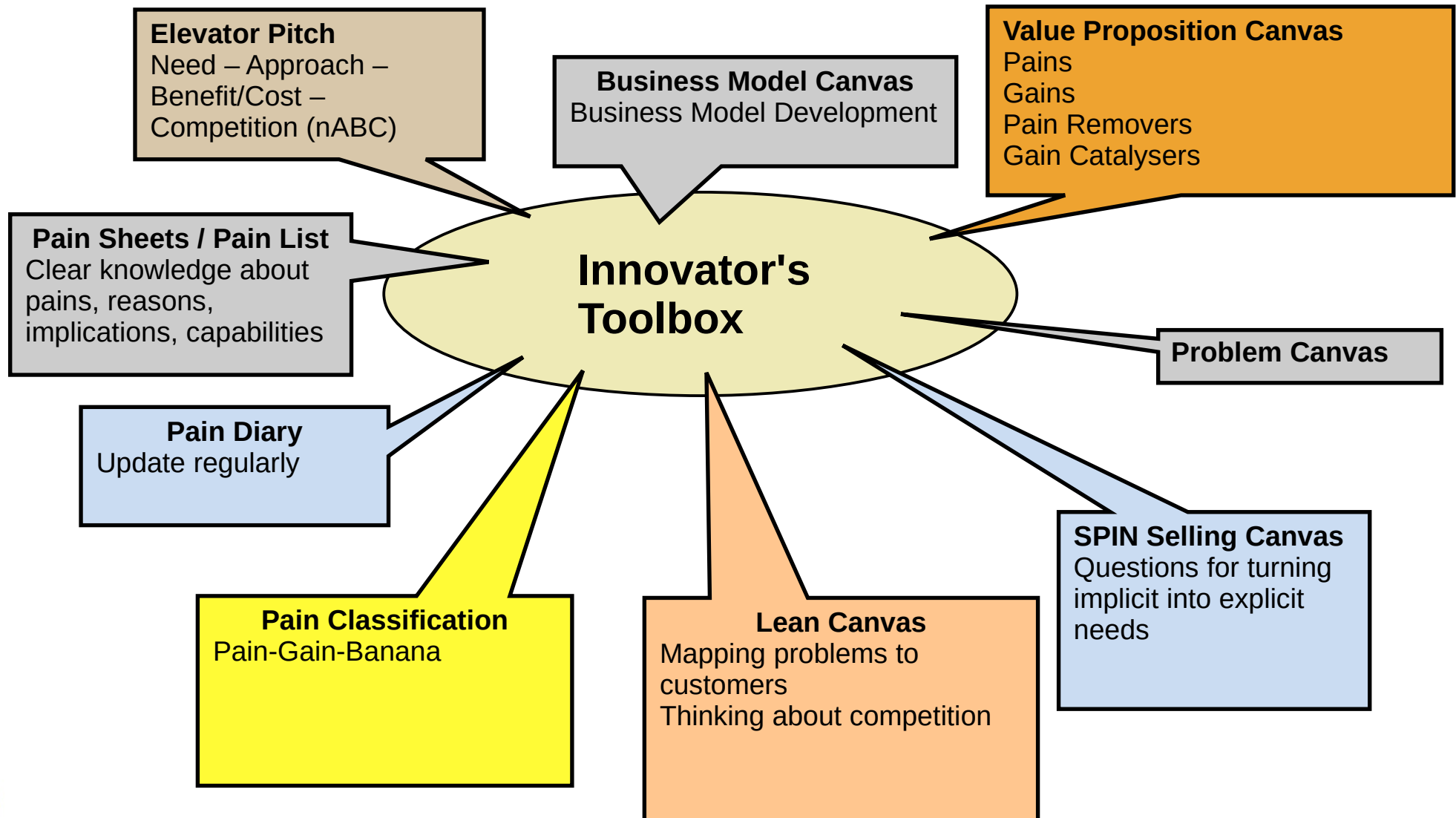Not for use with dimmers
Made in China
(Hg)

The Lean Innovator's Toolbox

- ▶ Every lean innovator needs a toolbox for his products or services he develops
  - ▪ Several important artefacts (lean models) are assembled. He/she should know them by heart.
- ▶ In the course, we will discuss these artefacts and how to mature them.
- ▶ The innovator's toolbox
  - ▪ NABC Elevator Pitch template (use this for pitches)
  - ▪ Working with Canvases (use them for business development)
    - · The Business Model Canvas
    - · The Value Proposition Canvas
    - · The Lean Canvas
    - · The Lean BMC
    - · The Personal BMYou
    - · The Requirements Engineering Canvas
  - ▪ Problem and Pain Diary (use this for idea creation)

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Q1: The Lean Innovator's Toolbox

▶ Every innovator should have the following artefacts present and mature them over time

Elevator Pitch
Need – Approach –
Benefit/Cost –
Competition (nABC)

Business Model Canvas
Business Model Development

Value Proposition Canvas
Pains
Gains
Pain Removers
Gain Catalysers

Pain Sheets / Pain List
Clear knowledge about pains, reasons, implications, capabilities

Innovator's Toolbox

Problem Canvas

Pain Diary
Update regularly

Pain Classification
Pain-Gain-Banana

Lean Canvas
Mapping problems to customers
Thinking about competition

SPIN Selling Canvas
Questions for turning implicit into explicit needs

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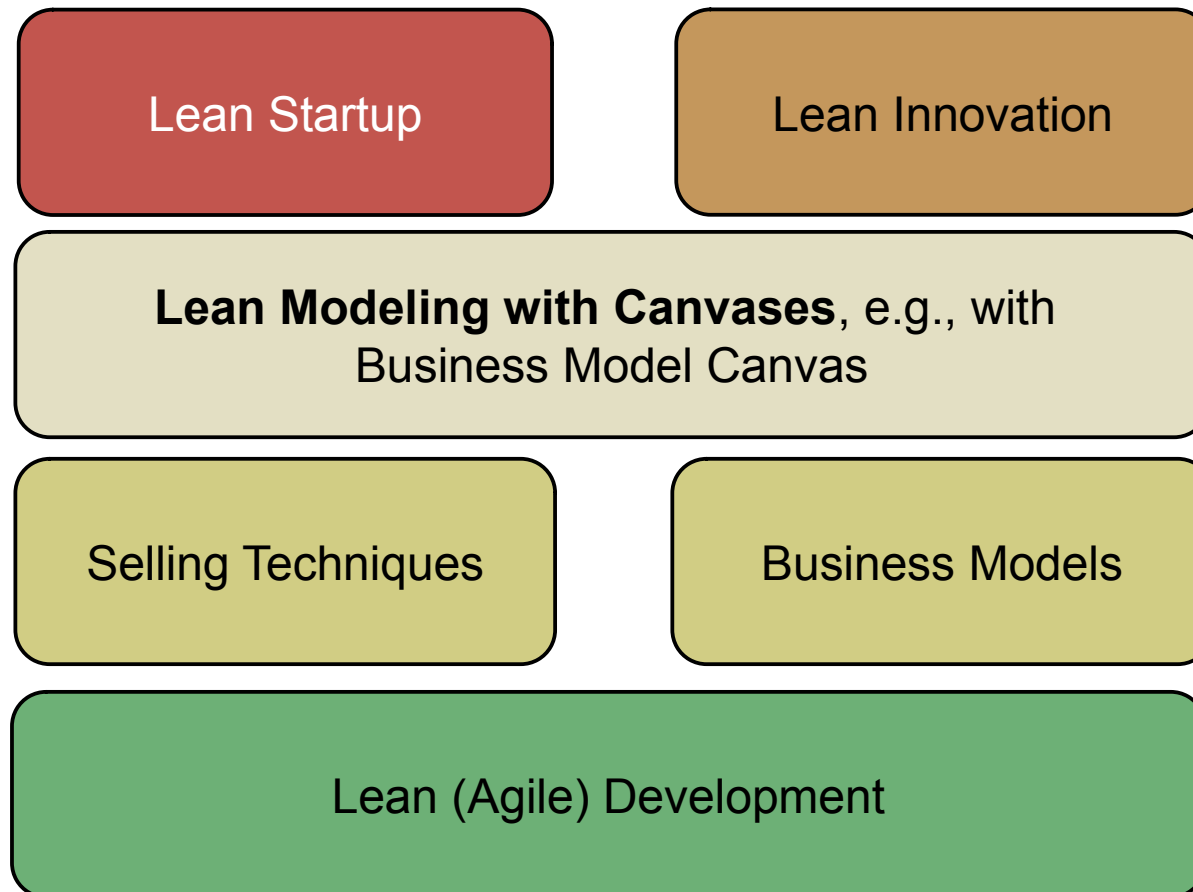
2.2 Overview on Lean Startup and Lean Innovation

3 Process Steps to Lean Innovation and Startup

- ▶ Find a relevant problem
- ▶ Find a relevent product or service
- ▶ Find a scaling business model

Software as a Business, © Prof. Uwe Aßmann

| Find Problem–Solution Fit | Find Product-Market Fit | Scale |

Lean Innovation Process in this Course

- ▶ The **lean innovation process** prototypes early to get early feedback (feedback-oriented process)

- ▶ **Insight: Business can be modeled and metamodeled**

Lean Startup

Lean Innovation

Lean Modeling with Canvases, e.g., with Business Model Canvas

Selling Techniques

Business Models

Lean (Agile) Development

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The Lean Innovation (Startup) Spiral Model

- ▶ Instance of "Scientific Method" of Bacon and PDCA (Plan-Do-Check-Act)
- ▶ Plan - Build – Measure – Learn – cycle [Maurya, Ries]
- ▶ Developing "Business Model Canvases" containing "Customer Hypotheses"
- ▶ The "Learn" - "Plan" - "Build" - "Measure" Cycle is a variant of the Scientific Method and the PDCA.

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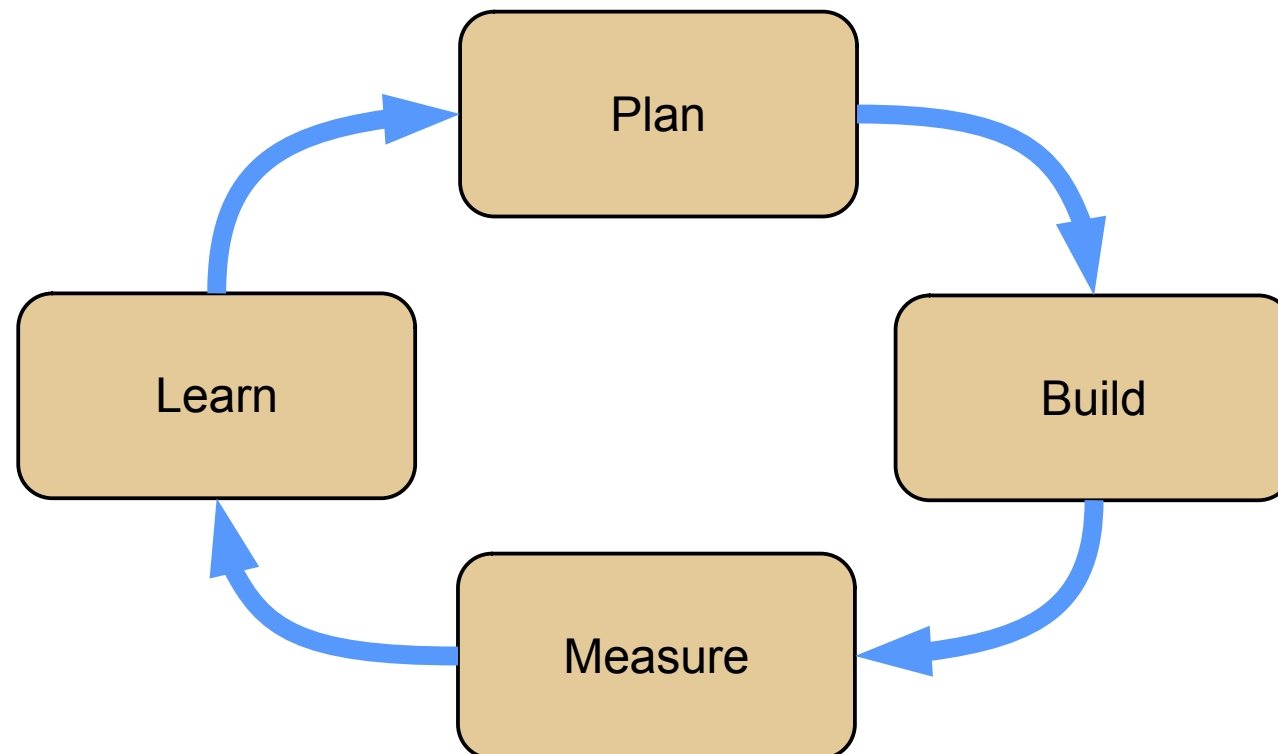
Business Model Generation with BMC Osterwalder/ Pigneur

► CC-BY-SA:
http://www.businessmodelgeneration.com/downloads/business_model_canvas_poster.pdf
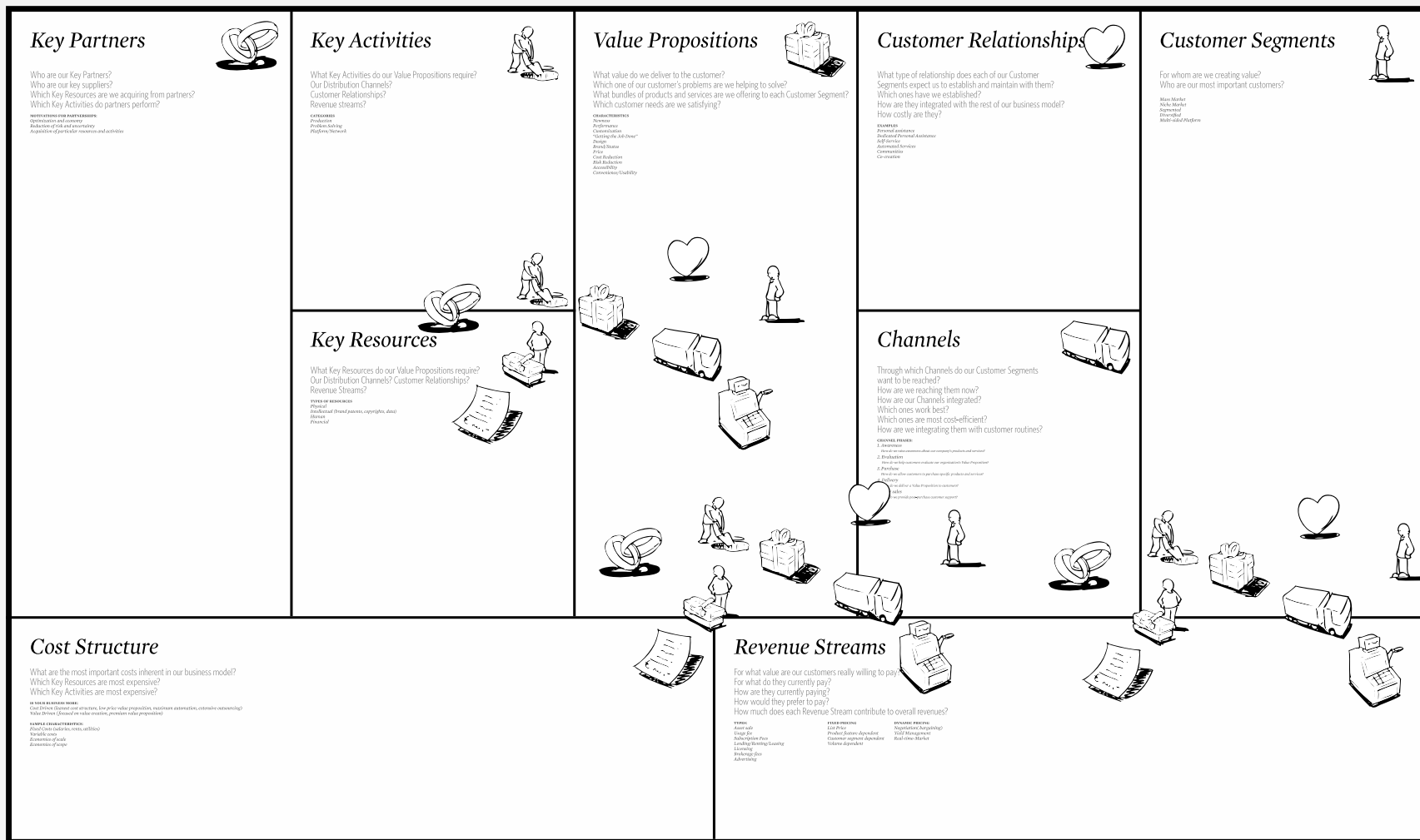
Business Model Analysis with the Business Model Canvas

Software as a Business, © Prof. Uwe Aßmann

- ▶ **Business model development** creates business models
  - For start up and placement of new products
  - [Osterwalder/Pigneur] suggest to split the business model in 9 parts, divided by input, output, and in between
- ▶ Input (Resource) Side
  - Cost vs Profit
    - Estimate costs! Cost leadership?
    - Estimate break-even point!
    - Distinguish cash flow and profit
- ▶ Middle: Value Proposition and Pain Killing
- ▶ Output Side (Customer Side)
  - Target customer group
    - Companies? End customers? [champagne]
    - Selling directly or via distributor?
  - Channels
    - Market entry strategy
    - Segmentation of the market

Bridging Two Worlds in BMC

- CC-BY-SA: http://www.businessmodelgeneration.com/downloads/business_model_canvas_poster.pdf
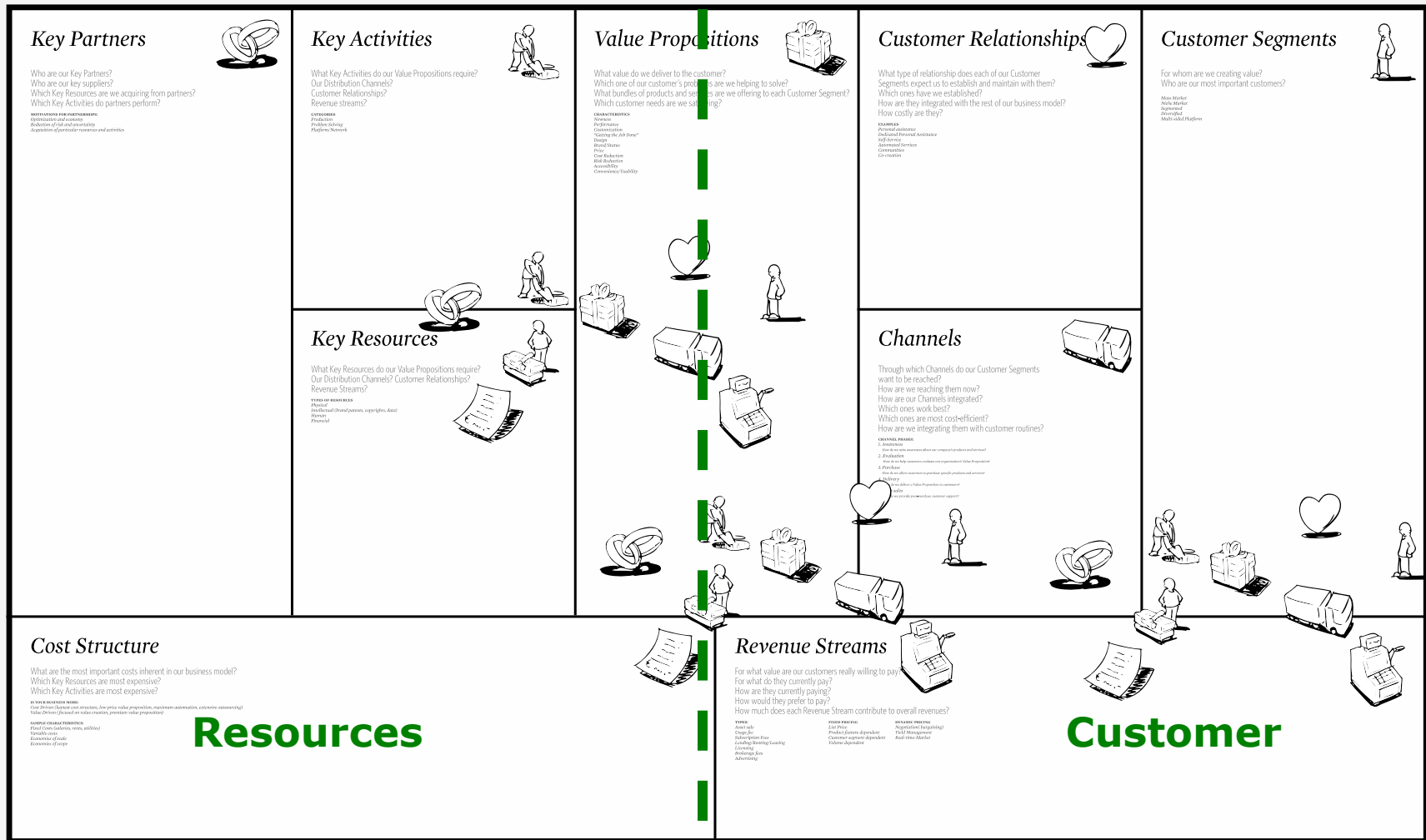
Earning money with software, © Prof. Uwe Aßmann
Software as a Business

Business Model Canvas Process

► Basically from right to left

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[Osterwalder-BMC]
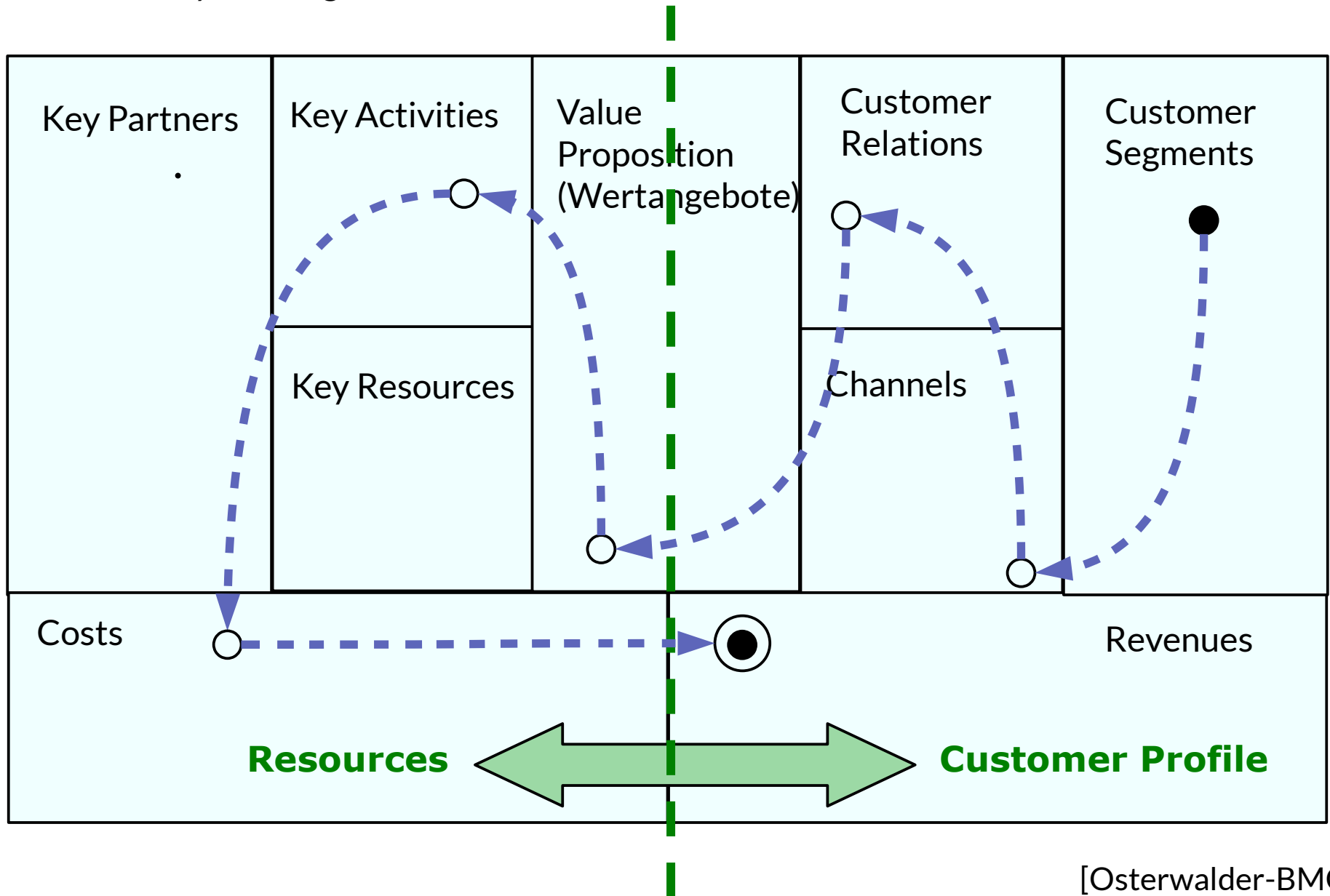
The Business Model Canvas Cactus (BMC Cactus)

- ▶ Growing a model tree with side edges (dag cactus) out of a first version [Maurya]
- ▶ Assess with red-yellow-green; choose a current "champion"
- ▶ Follows the Generate-Assess-Test problem-solution process
- ▶ Not too many canvases are kept active (small dashboard)
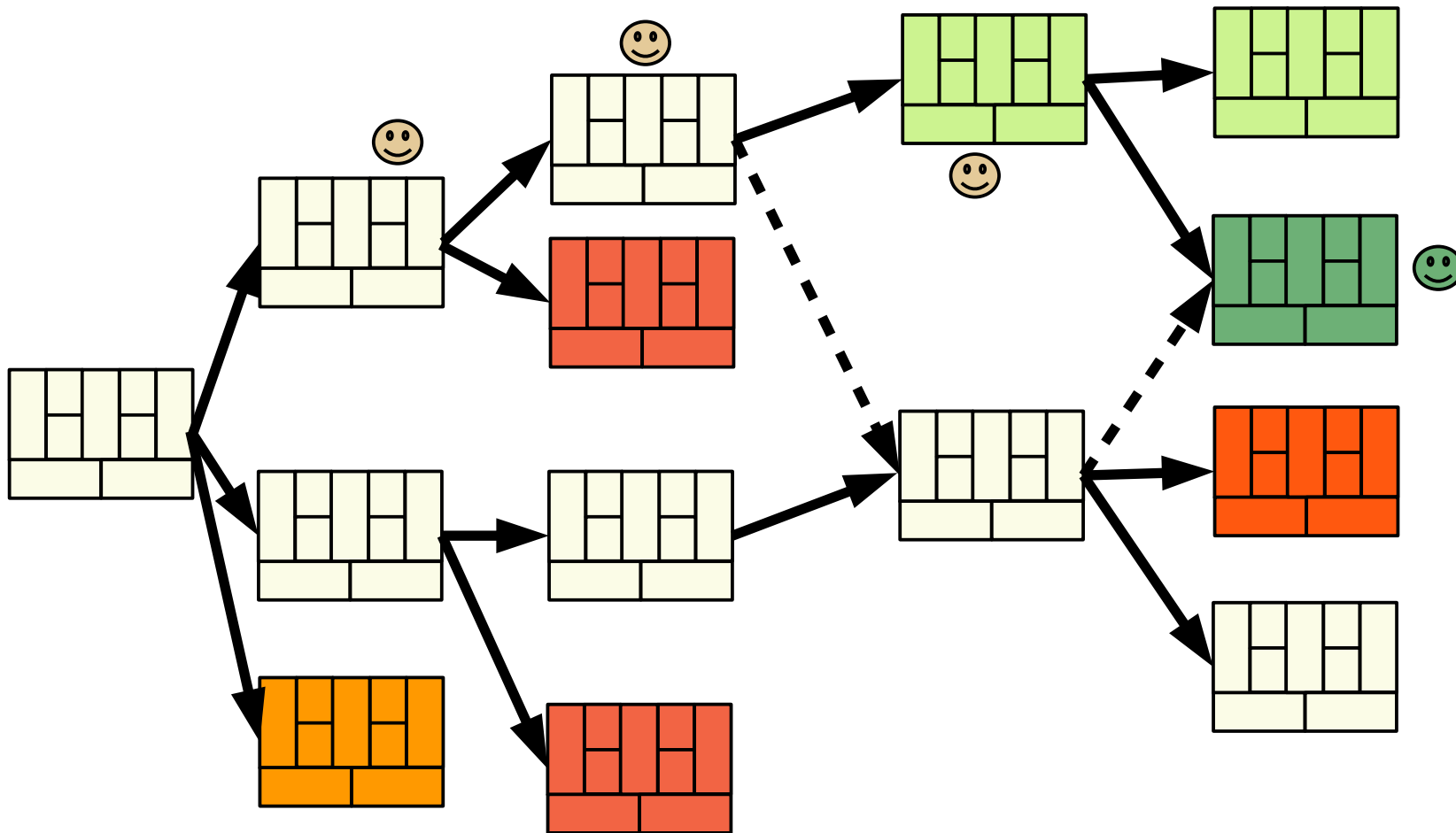
Lean Hypothesis Testing Cycle in Customer Modeling (Blank/Dorf)

▶ **Customer Analysis (Customer Modeling)** is a variant of business model development that creates a trustworthy, realistic model of the customer of the product, his pains, his gains, his desires, her stakeholders, ...

▶ During customer modeling, **customer hypotheses** are proposed in form of BMC and validated (Lean Hypothesis Testing cycle, resulting over time in the BMC Cactus).

▶ The "Ask" - "Measure" - "Learning" Cycle is a variant of the Scientific Method and the PDCA.

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"Ask" Hypothesis elicitation | "Design" Of Experiment | "Measure" Hypothesis Validation by Testing | "Learning" Reflect

The Model Aspect of Business Model Canvas

Software as a Business, © Prof. Uwe Aßmann

▶ BMC is based on a simple metamodel of business models

▶ Its instances are business models

Key Partners .	Key Activities	Value Proposition (Wertangebote)	Customer Relations	Customer Segments
	Key Resources		Channels	

Costs	Revenues
Cost/Resources for Company	◄ **Cost-Value-Bridge** ► **Value for Customer**
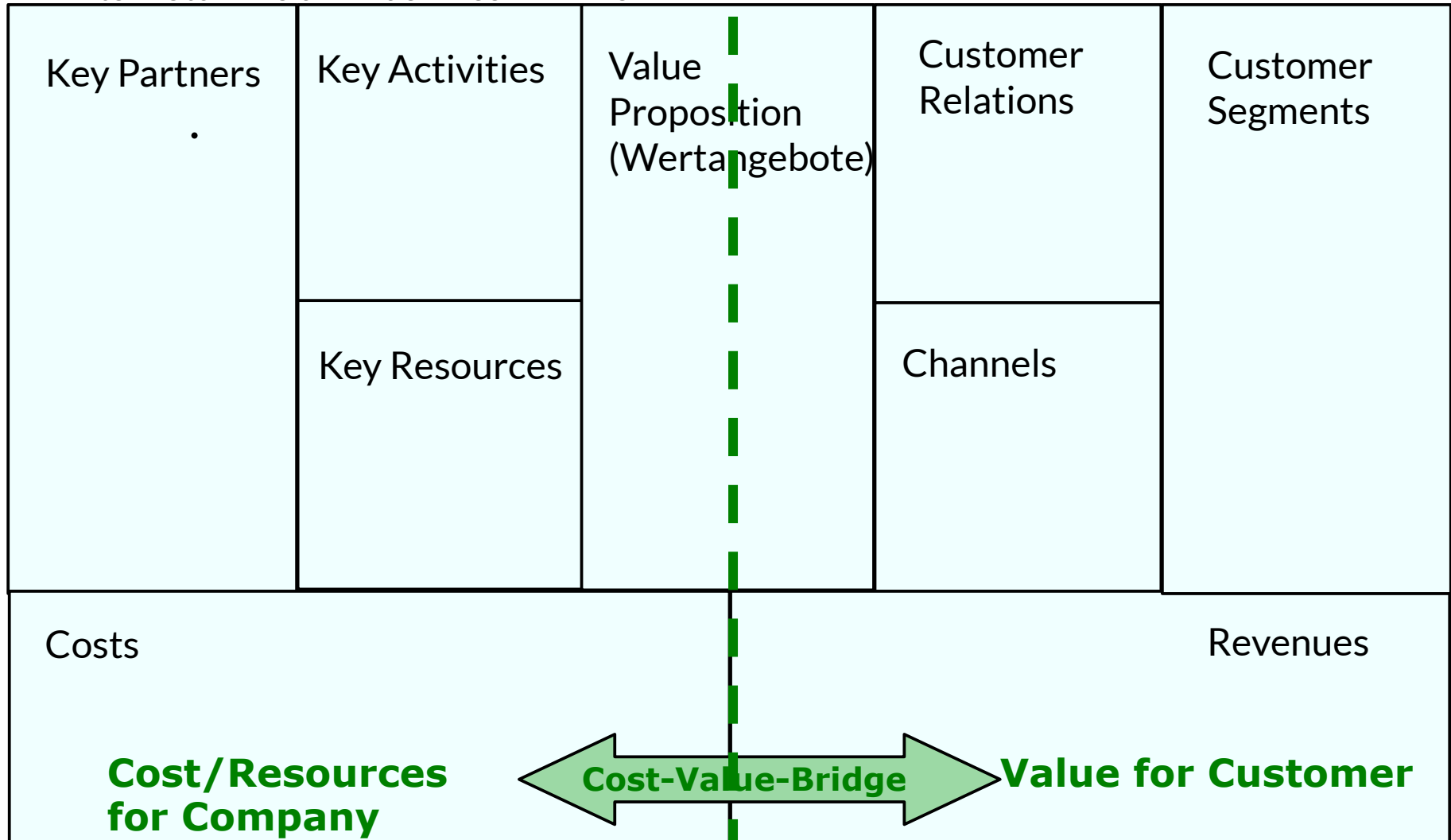
[Osterwalder-BMC]

Metamodels and the BMC

▶ One of the central insights of BMC is that a canvas is a *model* following a *metamodel* [Osterwalder PhD]
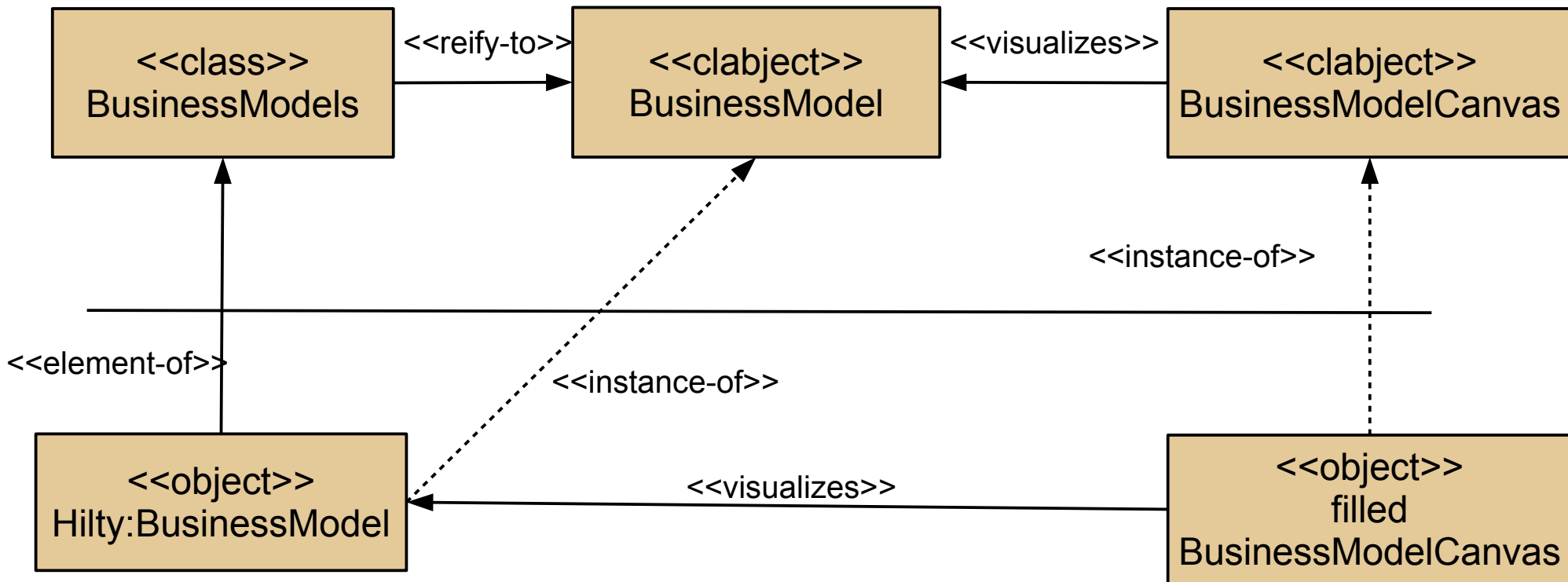
Instruments for Filling Canvases

- ▶ Paper and Notes
- ▶ App
    - ▪ http://www.businessmodelgeneration.com/canvas
    - ▪ https://strategyzer.com/app
- ▶ Google docs
    - ▪ http://scrumology.com/how-to-create-a-business-model-canvas-in-google-docs/
- ▶ **Fridolean platform (LINC) https://fridolean.saab18.inf.tu-dresden.de/**
    - ▪ Nested canvases
    - ▪ Live editing of canvases
    - ▪ Linked with RocketChat do discuss online
    - ▪ Linked with codiMD to life-edit documents

A **canvas** is a form to collaboratively brainstorm a model.

Canvas question and answering - how to Work with Canvases

▶ Finding answers to the fields of a canvas is easier, if you have defined questions before

  ▪ Some canvases, like the BMC, state pre-defined questions.

  ▪ For others, you have to find questions yourself

▶ You can use for questions many methods:

  ▪ the "Honest Serving Men" of Kipling

  ▪ The SWOT analysis (strengthes, weaknesses, opportunities, trends)

  ▪ The CoTIQQ analysis (cost, time, quality, quantity)

  ▪ The BeNiSiLo analysis (better, Nicer, Simpler, Longer-lasting)

▶ Answers can be quite unrealistic and immature. Evaluate maturity of canvas fields by

  ▪ Asking experts

  ▪ Check cross-constraints

  ▪ Evaluation of metrics

Find questions ⟩ Find answers ⟩ Evaluate maturity

Canvas question and answering
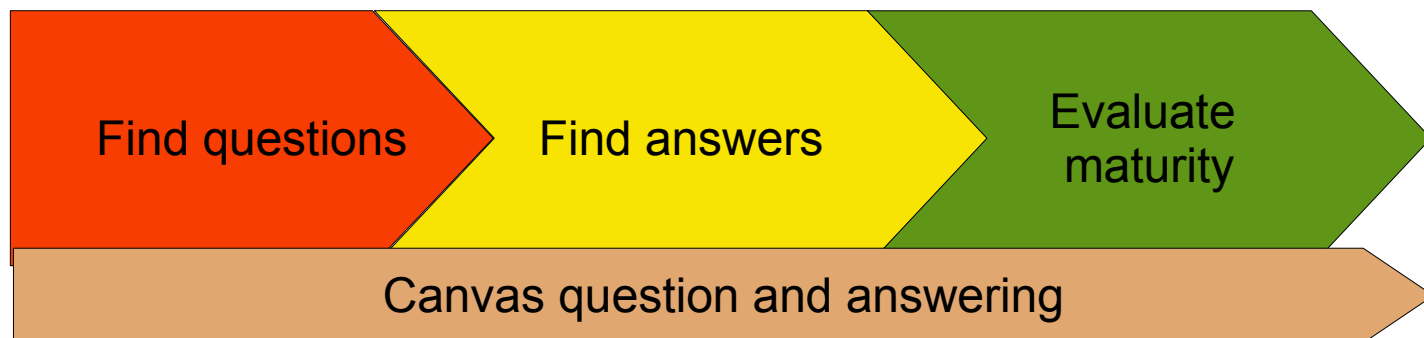
Different Purposes of Canvases

► A **canvas** has different purposes. It is a model with a metamodel, so it inherits the benefits of the language of its metamodel

Bridging two (left and right) Worlds

- Partner – Customer (BMC)
- Problem – Customer (LC)
- Pain – Pain killer (VPC)

Brainstorm Canvas

- Structured process for excellent elicitation
- Finding answers to the questions

Question Canvas

- To generate questions for interviews with customers and stakeholders

Structured Process

- Use the experiences of metamodels others have collected for you
- Evaluate canvas maturity by asking evaluation questions

Agile Working with a Canvas

- ▶ Every canvas is linked to a **backlog of agenda (to do) items**
    - ▪ Empty fields to be filled (Initial filling of the backlog, in filling order)
    - ▪ New questions to be answered
    - ▪ New answers to be discussed
    - ▪ Evaluation questions to be answered
- ▶ Backlogs are burned down in **canvas sprints (question sprint, answer sprint, valuation sprint)**
    - ▪ BMC sprint
    - ▪ LC sprint

Canvas Backlog

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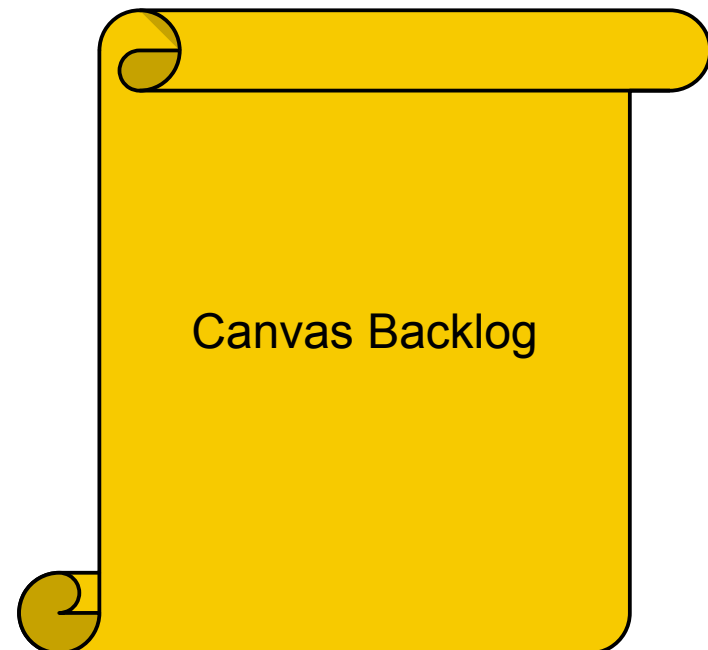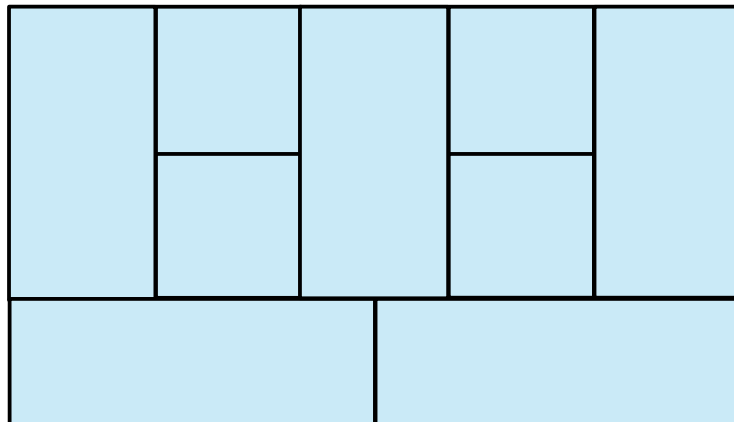
2.4 Value Proposition Analysis

Value Proposition (Pain-Gain Analysis) for the Customer

▶ **Value proposition analysis f**inds a *real problem (pain)* of the customer, or a *real win (gain)*. It is a subprocess of Business model development.

> Make sure your innovation is a ***pain killer*** and not just a ***vitamin***.
>
> David Ladd, venture partner at Mayfield Fund [Carlson/Wilmot]

> ***Pain killers*** are too dangerous, you only get them on prescription – but we have a large set of *vitamins.*
>
> [Swedish pharamacist, when Aßmann asked for Korodin Kreislauftropfen]

> [Ein Unternehmer] hat einen Spürsinn für das, was die Leute brauchen oder zu brauchen glauben.
> Urs Wälterlin. Weit weg im Outback.]

"Pain-Gain" Value Proposition Canvas [Osterwalder]

- ▶ Gains
- ▶ Pains
- ▶ Customer Jobs

- ▶ Gain Creators
- ▶ Pain Relievers
- ▶ Products and services

Download for personal use
http://www.businessmodelgeneration.com/downloads/value_proposition_canvas.pdf

Background:
http://businessmodelalchemist.com/2012/09/test-your-value-proposition-supercharge-lean-startup-and-custdev-principles.html

The Value Proposition Canvas

Designed for:

Designed by:

On: Day | Month | Year

Iteration: No.

Gain Creators

Do they...

Create savings that make your customer happy?
(e.g. in terms of time, money and effort, ...)

Produce outcomes your customer expects or that go beyond their expectations?
(e.g. better quality level, more of something, less of something, ...)

Copy or outperform current solutions that delight your customer?
(e.g. regarding specific features, performance, quality, ...)

Make your customer's job or life easier?
(e.g. flatter learning curve, usability, accessibility, more services, lower cost of ownership, ...)

Create positive social consequences that your customer desires?
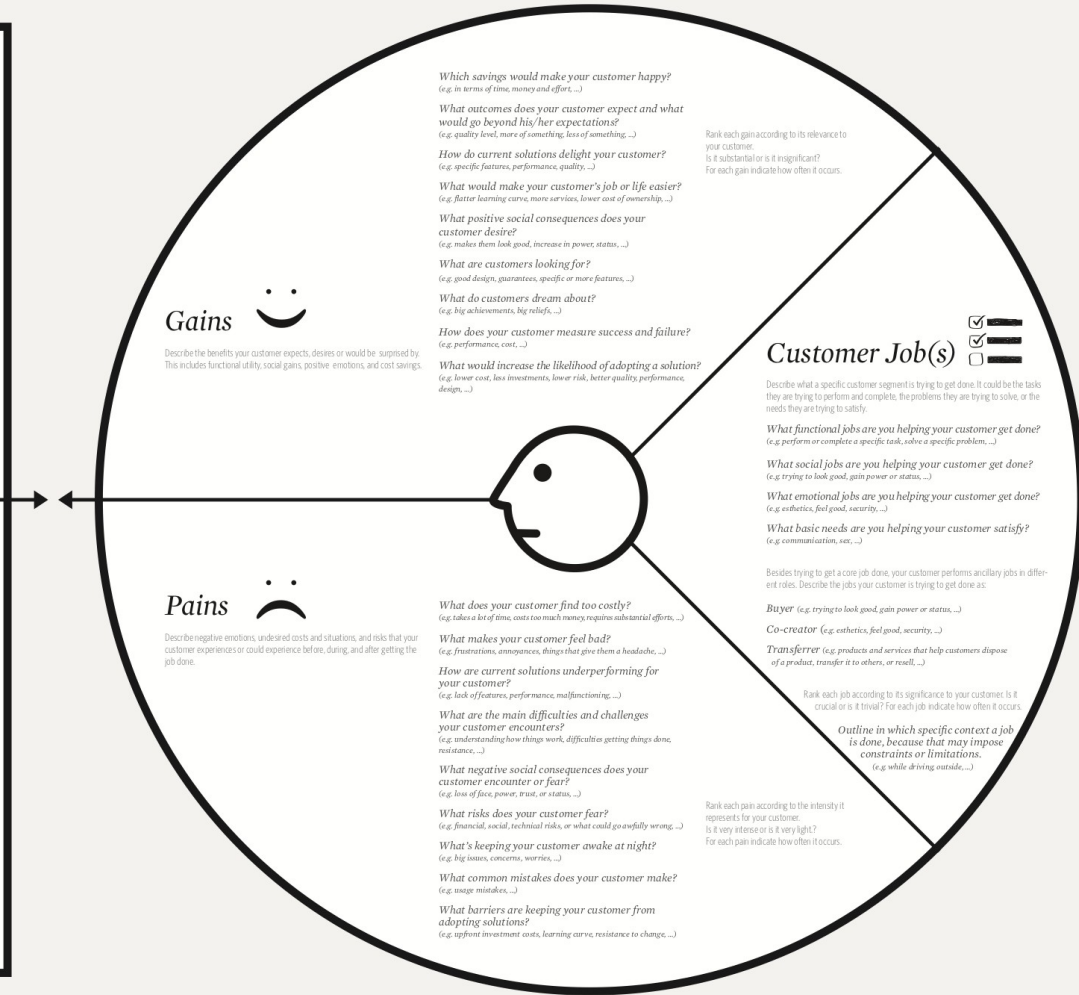(e.g. makes them look good, produces an increase in power, status, ...)

Do something customers are looking for?
(e.g. good design, guarantees, specific or more features, ...)

Fulfill something customers are dreaming about?
(e.g. help big achievements, produce big reliefs, ...)

Produce positive outcomes matching your customers success and failure criteria?
(e.g. better performance, lower cost, ...)

Help make adoption easier?
(e.g. lower cost, less investments, lower risk, better quality, performance, design, ...)

Rank each gain your products and services create according to its relevance to your customer. Is it substantial or insignificant? For each gain indicate how often it occurs.

Describe how your products and services create customer gains. How do they create benefits your customer expects, desires or would be surprised by, including functional utility, social gains, positive emotions, and cost savings?

Products & Services

List all the products and services your value proposition is built around.

Which products and services do you offer that help your customer get either a functional, social, or emotional job done, or help him/her satisfy basic needs?

Which ancillary products and services help your customer perform the roles of:

Buyer
(e.g. products and services that help customers compare offers, decide, buy, take delivery of a product or service, ...)

Co-creator
(e.g. products and services that help customers co-design solutions, otherwise contribute value to the solution, ...)

Transferrer
(e.g. products and services that help customers dispose of a product, transfer it to others, or resell, ...)

Products and services may be either tangible (e.g. manufactured goods, face-to-face customer service), digital/virtual (e.g. downloads, online recommendations), intangible (e.g. copyrights, quality assurance), or financial (e.g. investment funds, financing services).

Rank all products and services according to their importance to your customer. Are they crucial or trivial to your customer?

Pain Relievers

Do they...

Produce savings?
(e.g. in terms of time, money, or efforts, ...)

Make your customers feel better?
(e.g. kills frustrations, annoyances, things that give them a headache, ...)

Fix underperforming solutions?
(e.g. new features, better performance, better quality, ...)

Put an end to difficulties and challenges your customers encounter?
(e.g. make things easier, helping them get done, eliminate resistance, ...)

Wipe out negative social consequences your customers encounter or fear?
(e.g. loss of face, power, trust, or status, ...)

Eliminate risks your customers fear?
(e.g. financial, social, technical risks, or what could go awfully wrong, ...)

Help your customers better sleep at night?
(e.g. by helping with big issues, diminishing concerns, or eliminating worries, ...)

Limit or eradicate common mistakes customers make?
(e.g. usage mistakes, ...)

Get rid of barriers that are keeping your customer from adopting solutions?
(e.g. lower or no upfront investment costs, flatter learning curve, less resistance to change, ...)

Rank each pain your products and services kill according to their intensity for your customer. Is it very intense or very light?

For each pain indicate how often it occurs. Risks your customer experiences or could experience before, during, and after getting the job done?

Describe how your products and services alleviate customer pains. How do they eliminate or reduce negative emotions, undesired costs and situations, and risks your customer experiences or could experience before, during, and after getting the job done?

Gains

Which savings would make your customer happy?
(e.g. in terms of time, money and effort, ...)

What outcomes does your customer expect and what would go beyond his/her expectations?
(e.g. quality level, more of something, less of something, ...)

How do current solutions delight your customer?
(e.g. specific features, performance, quality, ...)

What would make your customer's job or life easier?
(e.g. flatter learning curve, more services, lower cost of ownership, ...)

What positive social consequences does your customer desire?
(e.g. makes them look good, increase in power, status, ...)

What are customers looking for?
(e.g. good design, guarantees, specific or more features, ...)

What do customers dream about?
(e.g. big achievements, big reliefs, ...)

How does your customer measure success and failure?
(e.g. performance, cost, ...)

What would increase the likelihood of adopting a solution?
(e.g. lower cost, less investments, lower risk, better quality, performance, design, ...)

Rank each gain according to its relevance to your customer. Is it substantial or is it insignificant? For each gain indicate how often it occurs.

Describe the benefits your customer expects, desires or would be surprised by. This includes functional utility, social gains, positive emotions, and cost savings.

Customer Job(s)

Describe what a specific customer segment is trying to get done. It could be the tasks they are trying to perform and complete, the problems they are trying to solve, or the needs they are trying to satisfy.

What functional jobs are you helping your customer get done?
(e.g. perform or complete a specific task, solve a specific problem, ...)

What social jobs are you helping your customer get done?
(e.g. trying to look good, gain power or status, ...)

What emotional jobs are you helping your customer get done?
(e.g. esthetics, feel good, security, ...)

What basic needs are you helping your customer satisfy?
(e.g. communication, sex, ...)

Besides trying to get a core job done, your customer performs ancillary jobs in different roles. Describe the jobs your customer is trying to get done as:

Buyer (e.g. trying to look good, gain power or status, ...)

Co-creator (e.g. esthetics, feel good, security, ...)

Transferrer (e.g. products and services that help customers dispose of a product, transfer it to others, or resell, ...)

Rank each job according to its significance to your customer. Is it crucial or is it trivial? For each job indicate how often it occurs.

Outline in which specific context a job is done, because that may impose constraints or limitations.
(e.g. while driving outside, ...)

Pains

What does your customer find too costly?
(e.g. takes a lot of time, costs too much money, requires substantial efforts, ...)

What makes your customer feel bad?
(e.g. frustrations, annoyances, things that give them a headache, ...)

How are current solutions underperforming for your customer?
(e.g. lack of features, performance, malfunctioning, ...)

What are the main difficulties and challenges your customer encounters?
(e.g. understanding how things work, difficulties getting things done, resistance, ...)

What negative social consequences does your customer encounter or fear?
(e.g. loss of face, power, trust, or status, ...)

What risks does your customer fear?
(e.g. financial, social, technical risks, or what could go awfully wrong, ...)

What's keeping your customer awake at night?
(e.g. big issues, concerns, worries, ...)

What common mistakes does your customer make?
(e.g. usage mistakes, ...)

What barriers are keeping your customer from adopting solutions?
(e.g. upfront investment costs, learning curve, resistance to change, ...)

Rank each pain according to the intensity it represents for your customer. Is it very intense or is it very light? For each pain indicate how often it occurs.

Describe negative emotions, undesired costs and situations, and risks that your customer experiences or could experience before, during, and after getting the job done.

Value Proposition
Create one for each Customer Segment in your Business Model

Customer Segment

www.businessmodelgeneration.com

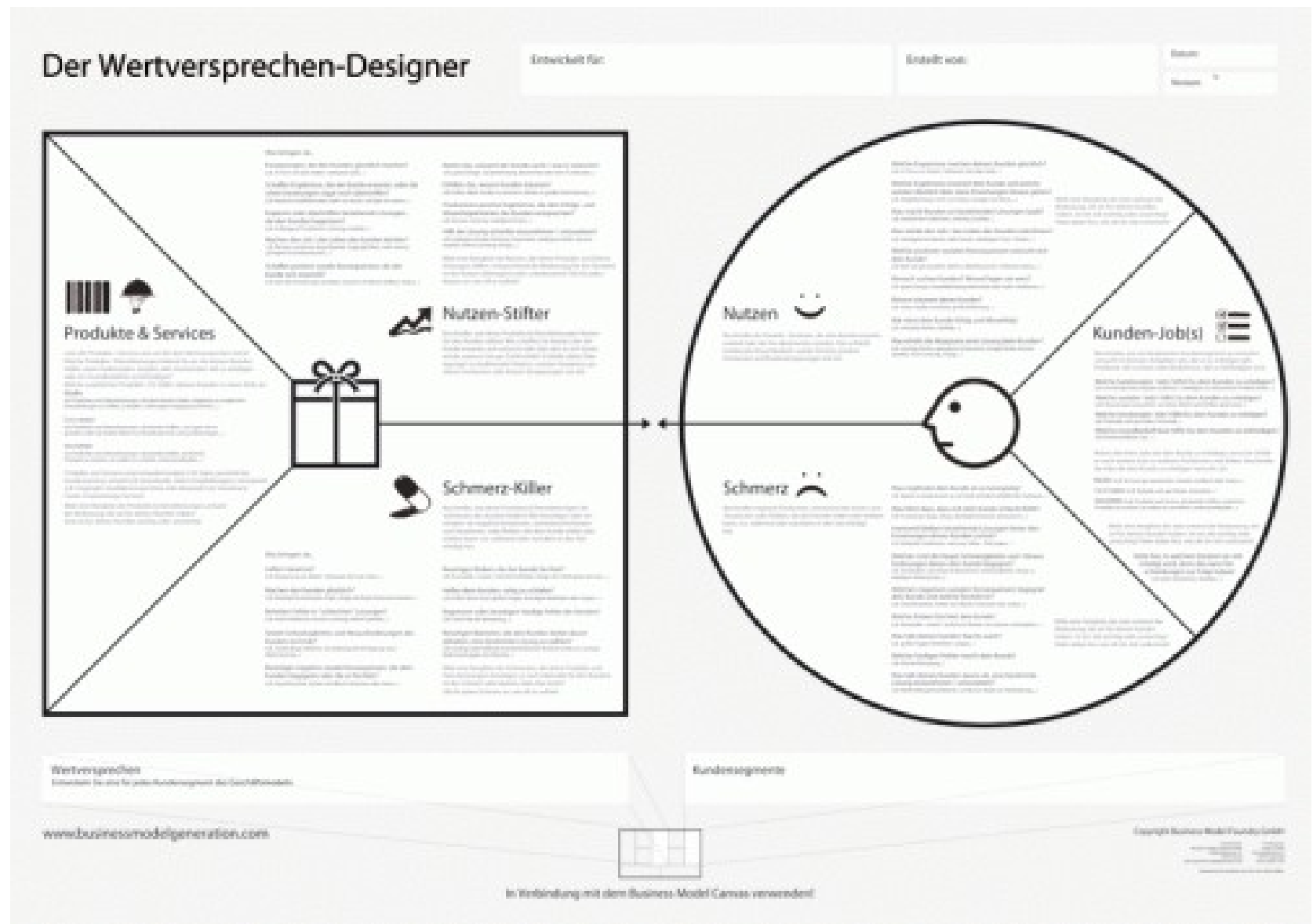**Use in Conjunction with the Business Model Canvas**

http://businessmodelalchemist.com/

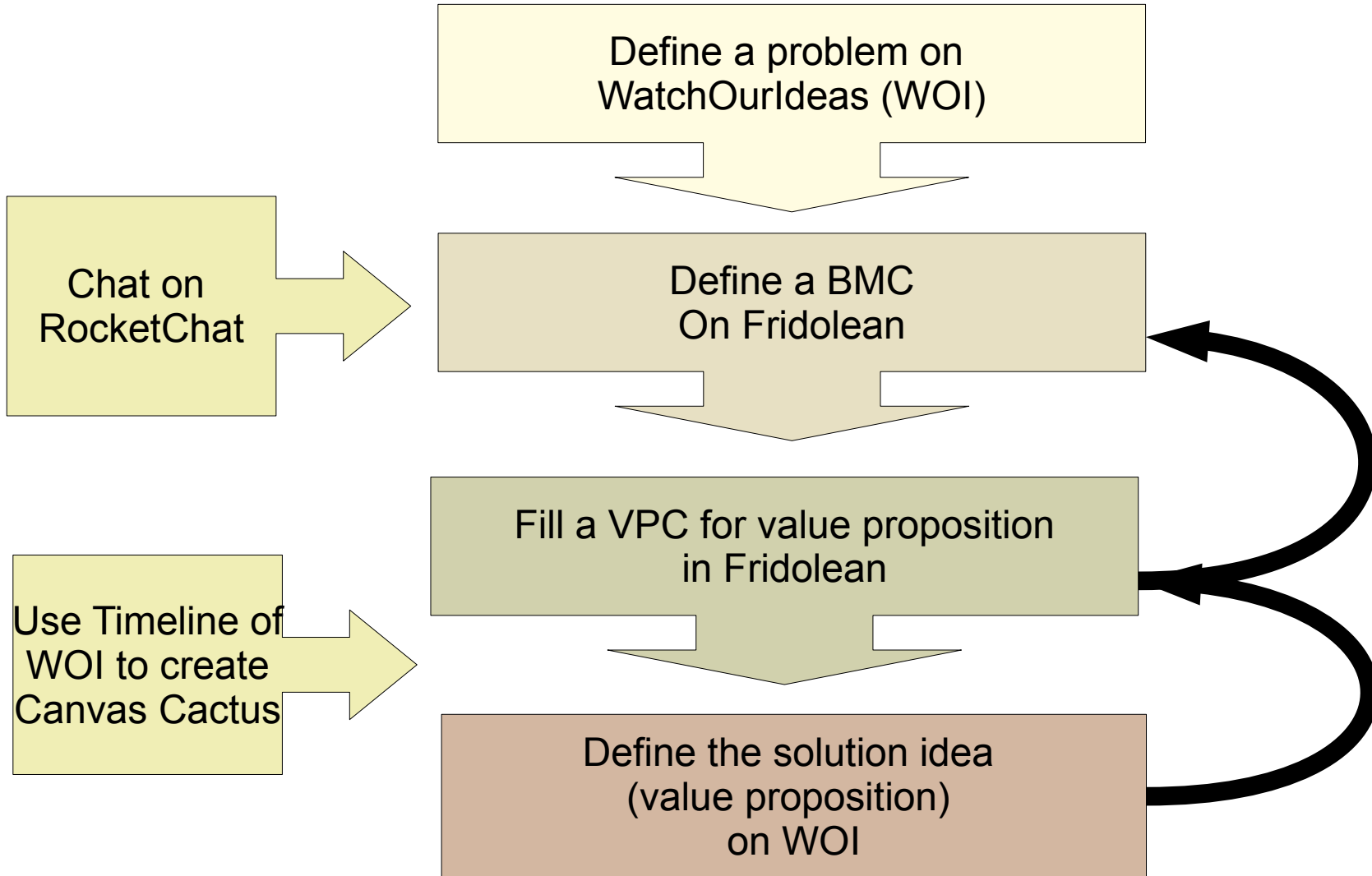http://geschaeftsmodellcoach.de/assets/Bilder/_resampled/resizedimage501353-valuepropositiondesignergif.gif

VP Canvas Process

▶ [Osterwalder-OPC] VPA uses a canvas to map the customer pains and gains to products and services
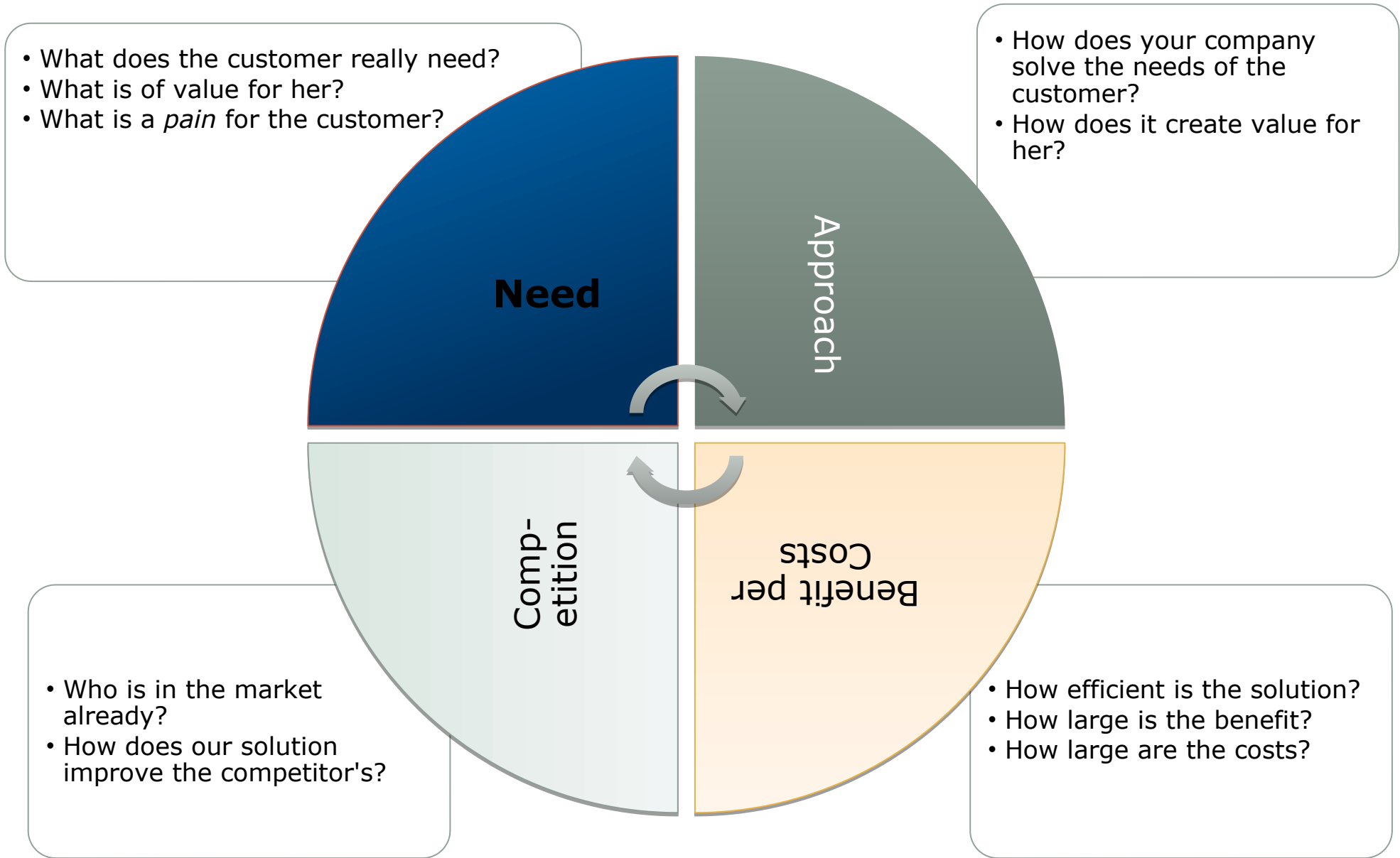
▶ The VPC defines the field "value proposition" of the BMC

BMC-VPC Innovation Workflow on LINC

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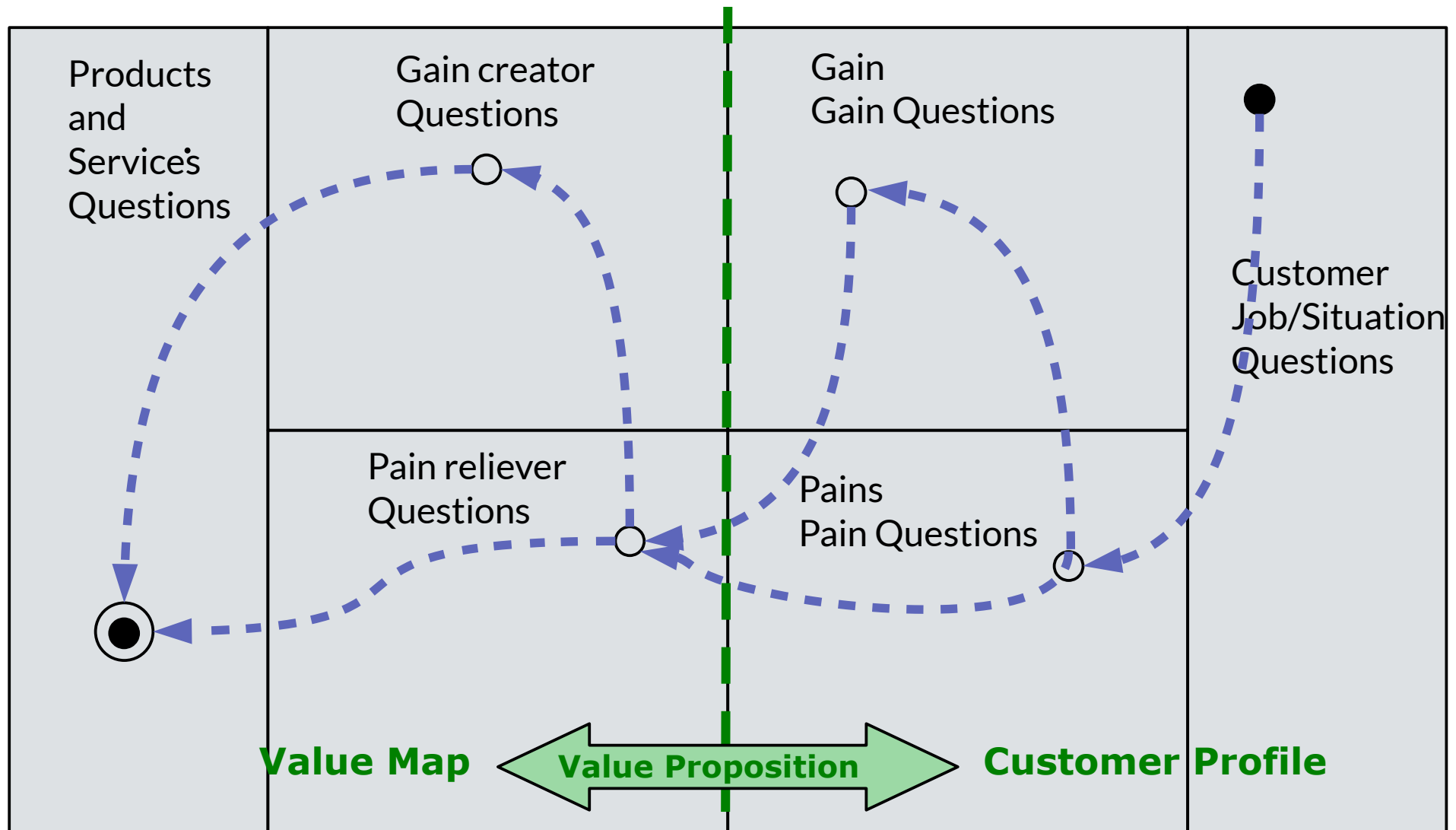
2.4.2 Value Proposition Analysis with nABC

- NABC is a fantastic 4-step scheme for summarizing your idea for a new product or service.
- Learn it by heart, it will change your life.

NABC Analysis [Carlson-Wilmot]

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- What does the customer really need?
- What is of value for her?
- What is a *pain* for the customer?

- How does your company solve the needs of the customer?
- How does it create value for her?

Need

Approach

Comp-
etition

Benefit per
Costs

- Who is in the market already?
- How does our solution improve the competitor's?

- How efficient is the solution?
- How large is the benefit?
- How large are the costs?

http://www.oulu.fi/english/sites/default/files/content/NABC_presentation.pdf

NABC Elevator Pitch

▶ An **elevator pitch** is a 2-minute speech about the value proposition (problem-solution analysis) of your PhD thesis project

- You should be able to tell it an important investor in an elevator (2 min)

▶ It combines a problem solving pattern such as NABC with a hook, a gripping introductory remark

- You may use any other pattern, too
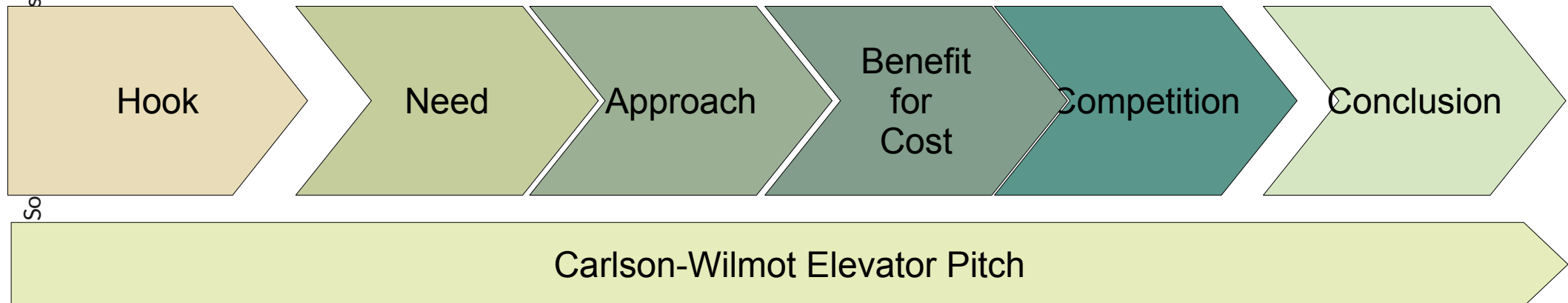
Exercise: Application

- ▶ For preparing your next application for a job,

- ▶ Analyze the future employer with NABC

  - ▪ What are his needs?

  - ▪ What is your approach?

  - ▪ What is his benefits?

  - ▪ Who are your competitors?

- ▶ Learn the answers for these questions by heart, to be able to present them in the interview!

nAbc   Nabc

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2.5 Lean Canvas

- Bridging problems, solutions, and customers
- An important variant of the BMC for problem-solution analysis of customers
- Combining BMC and VPC

Lean Canvas [Maurya]

Problem	Solution	Unique Value Proposition	Unfair Advantage	Customer Segments
	Key Metrics		Channels	

Cost Structure	Revenue Streams
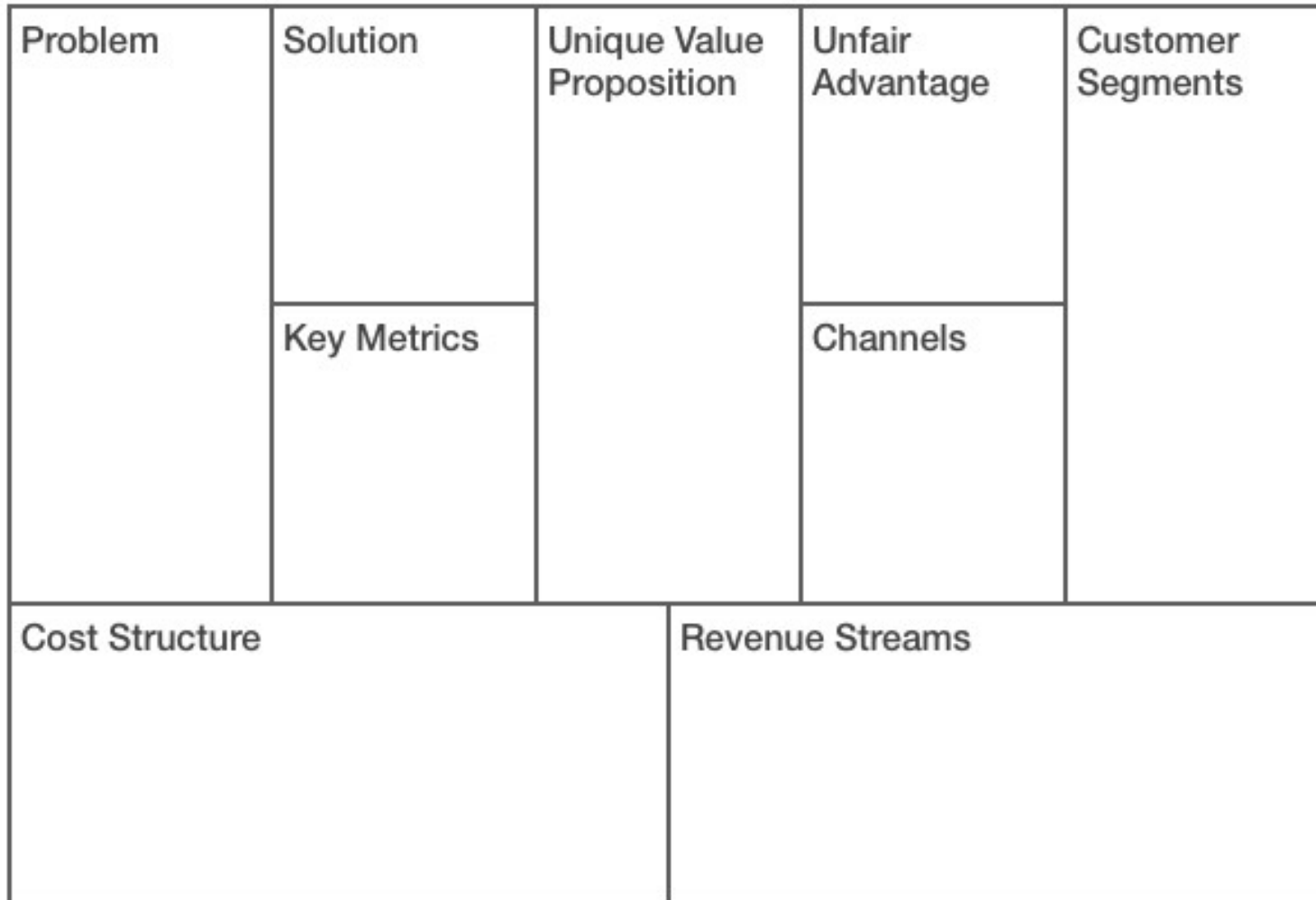
Lean Canvas is adapted from The Business Model Canvas (http://www.businessmodelgeneration.com) and is licensed under the Creative Commons Attribution-Share Alike 3.0 Un-ported License.

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Lean Canvas [Maurya] [http://leancanvas.com/]

► The Lean Canvas substitutes the Cost Subcanvas by the Problem-Solution-Key-Metrics Subcanvas

► The Lean Canvas supports Problem-Objective-Solution-analysis (POA)

Lean Canvas [Maurya]

▶ The Lean Canvas substitutes the Cost Subcanvas by the Problem-Solution-Key-Metrics Subcanvas
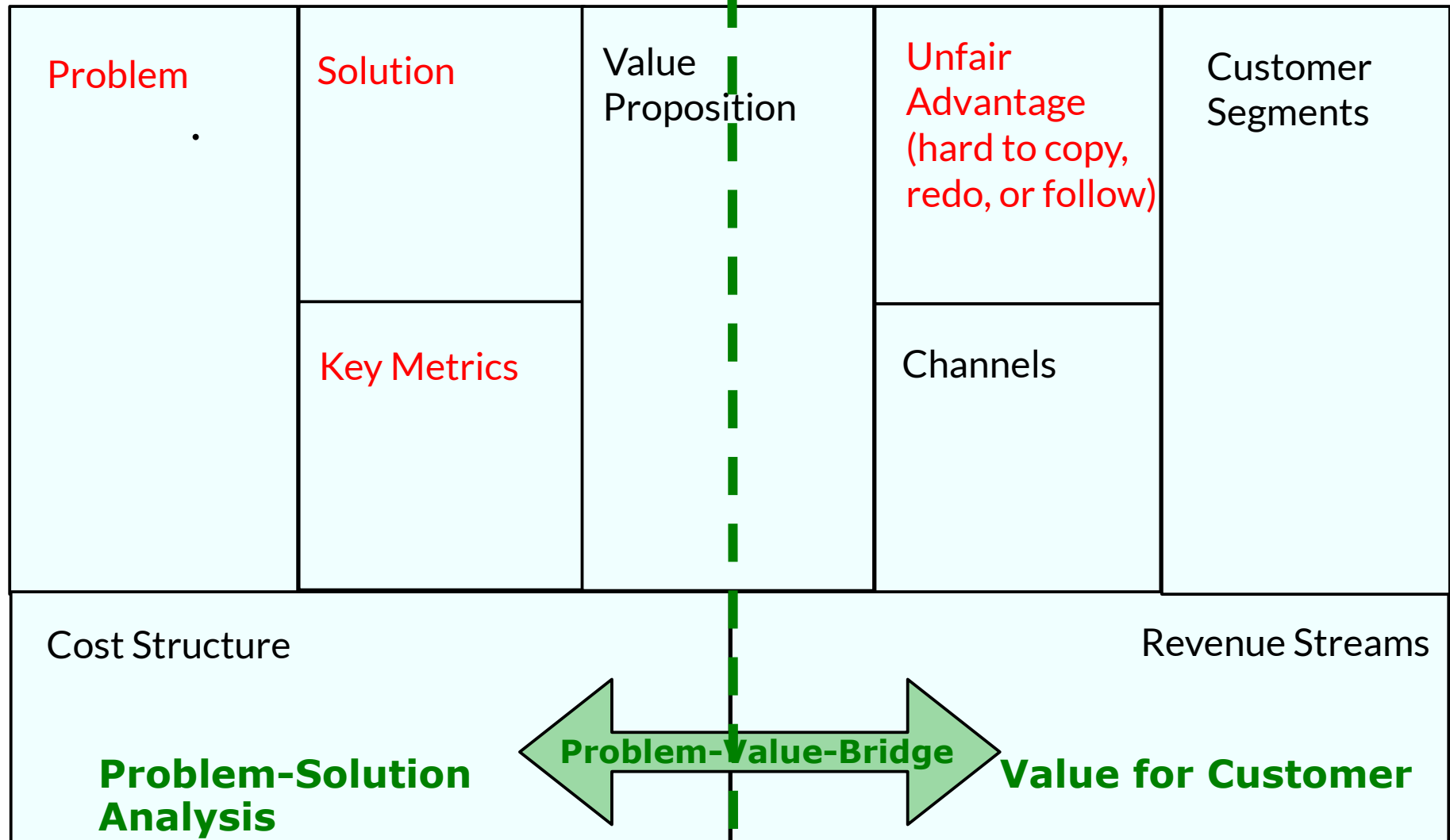
▶ The Lean Canvas supports Problem-Objective-Solution-analysis (POA)

▶ The fill order is top-down outside-in
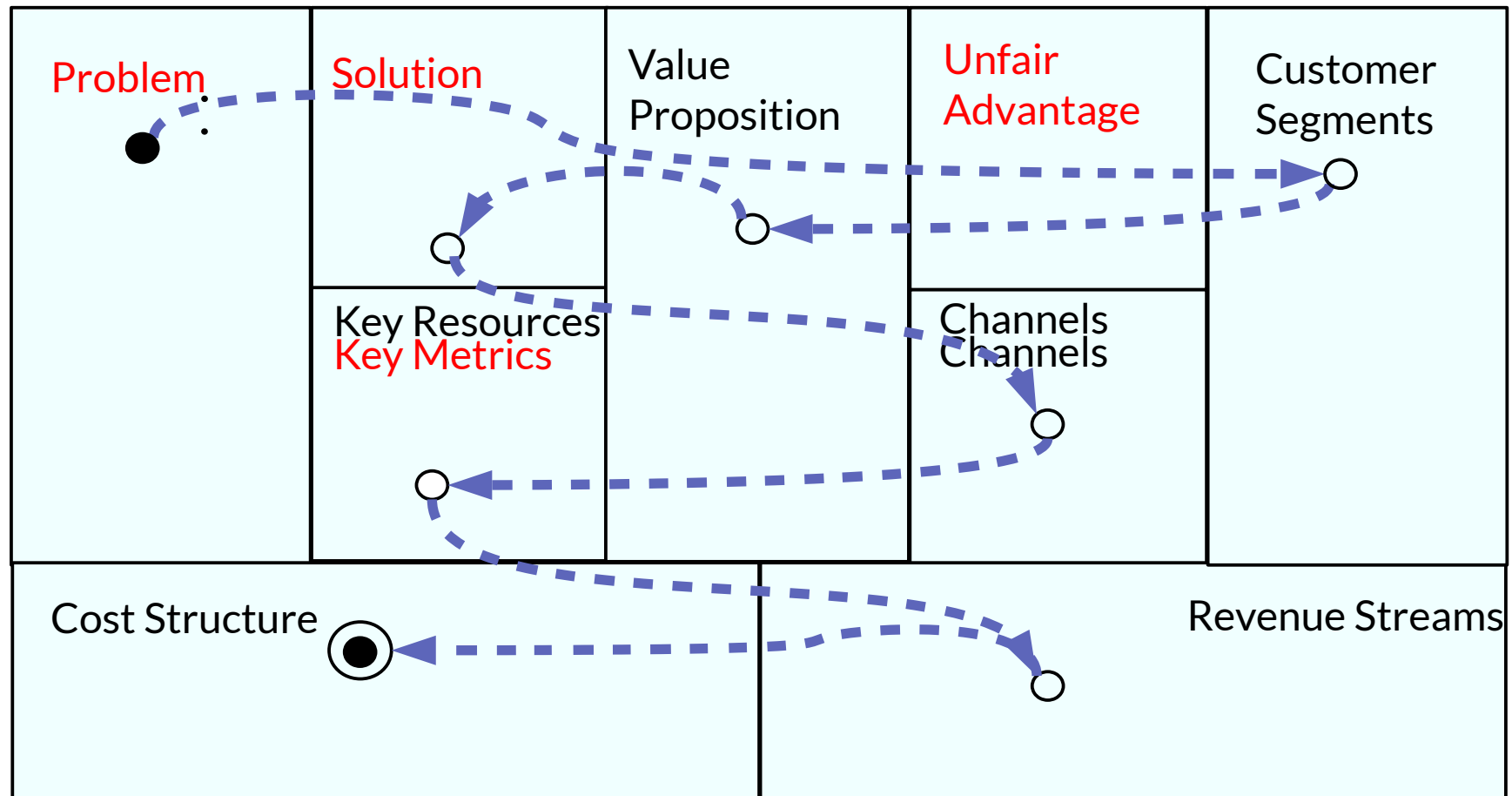
Lean Canvas Combined with BMC
(Lean Business Model Canvas, LBMC)

▶ The Lean Canvas and the BMC can be unified by adding the subcanvases

▶ The LBMC supports Problem-Objective-Solution-analysis (POA), Competition analysis,

Problem **Problem-Solution Analysis**	Solution		Ultimate Competitive Advantage	**Competition**
	Key Metrics		Unfair Advantage	
Key Partners	Key Activities	Value Proposition	Customer Relationships	Customer Segments
Resources	Key Resources		Channels	**Customers**
Cost Structure			Revenue Streams	

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Lean Canvas Innovation Workflow on LINC

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Define a problem on WatchOurIdeas (WOI)

Chat on RocketChat

Define a LeanCanvas On Fridolean

Define a solution idea (value proposition) on WOI

Use Timeline of WOI to create Canvas Cactus

Fill a BMC for resources On Fridolean

2.6 Change Analysis with Change Canvases

- Value Proposition is about what customers need today
- Change analysis is about what customers will need tomorrow

Change Patterns the Lean Innovator has to Know and the Opportunities in the SWOT Analysis

External factors of change:

▶ Society

- Finding new governance rules and laws (Sarbanes-Oxley, certifications)

- Change of government, also in other countries (Wende, Treuhand...)

▶ Nature

- Times of the year

▶ Technology

- New technology (innovation waves, disruptive technology,...)

- Digitalization

▶ Economics

- Commodity pattern

- Economic cycles

Internal factors of change:

▶ Supplier changes

▶ Patents expire

Internal attributes

Strengthes

Environment

External attributes

Threats

Opportunities

Weaknesses

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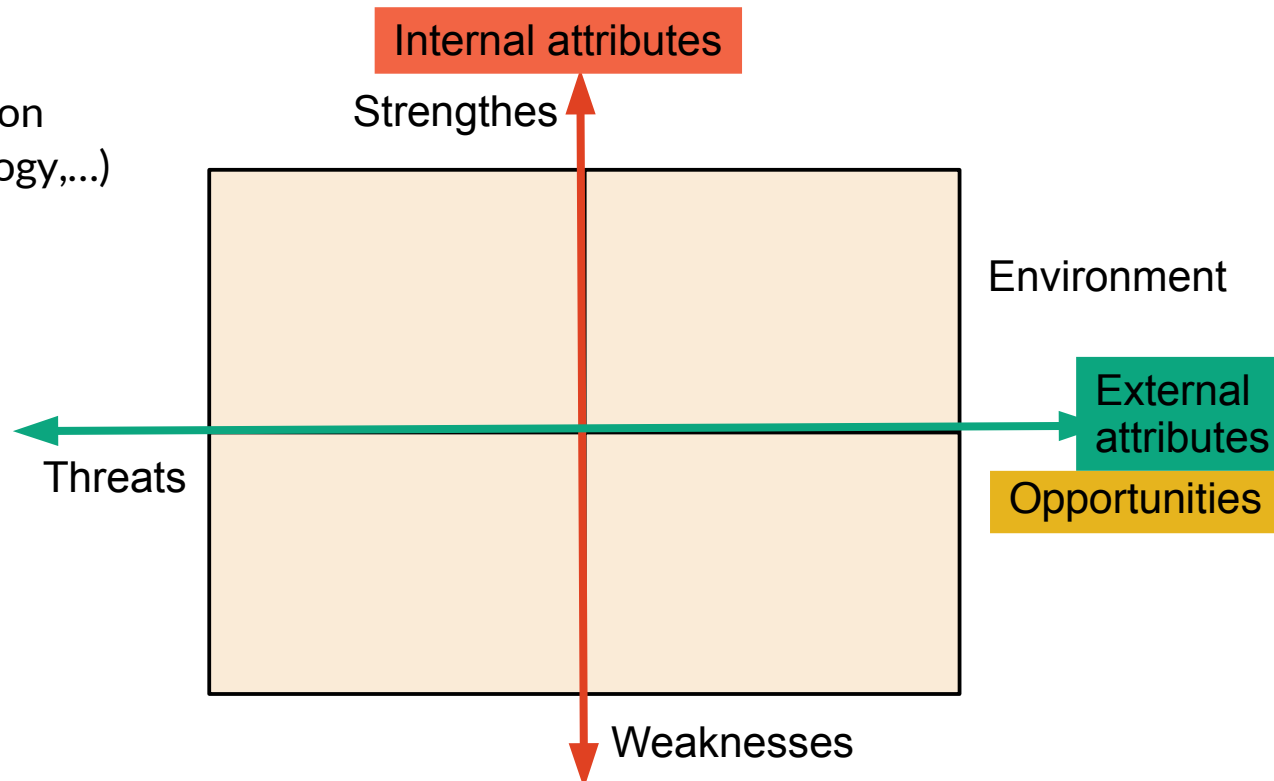
SWOT Change Canvas

▶ Derived from SWOT

Lean Change Canvas

- ▶ http://agileconsulting.blogspot.de/2012/08/lean-change-part-1-combining-kotter-and.html?m=1
- ▶ https://canvanizer.com/new/lean-change-canvas
- ▶ https://leanchange.org/resources/canvases/

Strategic Change Canvas

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STRATEGIC CHANGE CANVAS

VISION: WHAT IS THE VISION FOR THIS CHANGE?	IMPORTANCE: WHY IS THIS CHANGE IMPORTANT TO OUR ORGANIZATION?

SUCCESS MEASUREMENTS: HOW WILL WE MEASURE SUCCESS?	PROGRESS MEASUREMENTS: HOW WILL WE SHOW PROGRESS TOWARDS OUR VISION?

WHO AND WHAT IS AFFECTED?: WHAT PEOPLE, DEPARTMENTS AND PROCESSES NEED TO CHANGE IN ORDER TO REALIZE OUR VISION?

HOW WILL WE SUPPORT PEOPLE?: WHAT ACTIONS WILL WE (THE CHANGE SPONSORS AND CHANGE TEAM) DO TO SUPPORT PEOPLE THROUGH THE CHANGE?

WHAT IS OUR PLAN? OPTIONS: A LIST OF POSSIBLE EXPERIMENTS	-1 MONTH EXPERIMENTS LIKELY TO BE INTRODUCED IN ABOUT A MONTH	NEXT THE NEXT MOST IMPORTANT CHANGES TO INTRODUCE	PREPARE EXPERIMENTS BEING PLANNED AND VALIDATED	INTRODUCE EXPERIMENTS IN PROGRESS	REVIEW EXPERIMENTS BEING REVIEWED

2.7 Other Canvases

Business Model You Canvas (BMYC)

▶ The BMYC is a canvas for your personal life and career development, inspired by the BMC. http://businessmodelyou.com/

- ▪ http://www.ideogram.us/BMY_preview/Business_Model_You_preview.pdf

Name:

's Personal Business Model Canvas

Who helps you (Key Partners)	**What you do** (Key Activities)	**How you help** (Value Provided)	**How you interact** (Customer Relationships)	**Who you help** (Customers)
	Who you are & **what you have** (Key Resources)		**How they know** **you & how you** **deliver** (Channels)	

What you give (Costs)	**What you get** (Revenue and Benefits)

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Personal Value Proposition with the Personal BMC (BMYC)

[http://businessmodelyou.com/]

▶ The BMYC is for the development of your career and yourself

Key Partners **Who helps You?**	Key activities **What do you do?**	Value Proposition **How do you help?**	Customer Relationships **How do you interact?**	Customer Segments **Whom do you help?**
	Key Resources **What you are and have**		Channels **How do they know you? How do you deliver?**	
Cost Structure **What do you give?**			Revenue Streams **What do you get?**	

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Customer Journey Canvas for Services

The Customer Journey Canvas

Persona   Service   Service Provider   Design Team

**PRE-SERVICE PERIOD**   **SERVICE PERIOD**   **POST-SERVICE PERIOD**

INFORMATION MANIPULABILITY

INFORMATION CREDIBILITY

ADVERTISEMENT / PUBLIC RELATIONS

How is the service proposition communicated by the service provider?

SOCIAL MEDIA

Which pre-service information can people access through social media?

WORD-OF-MOUTH

What do friends, colleagues and family actually communicate about the service and/or service provider?

PAST EXPERIENCES

Which experiences do people have with (similar) services and/or service providers?

SERVICE JOURNEY

Which touchpoints do customers experience during the service journey?
Are there any critical incidents, i.e. touchpoints customers experience as especially good or bad?

[...]

CUSTOMER RELATIONSHIP MANAGEMENT

How does the service provider follow-up with customers?

SOCIAL MEDIA

What do customers communicate about the service and/or service provider through social media?

WORD-OF-MOUTH

What do customers tell their friends, colleagues and family about the service and/or service provider?

EXPECTATIONS

What are (potential) expectations towards the service and/or service provider?

EXPERIENCES

What are the individual experiences customers have with the service and/or service provider during the service period?

SATISFACTION / DISSATISFACTION

Customers individually assess the service by comparing service expectations with their personal service experiences.

Customer Journey Canvas for Services (CJC)

▶ Service design is very important for young companies (→ chapter "Business models")

- A lightweight way to create business and customer relations

▶ CJC allows for brainstorming about all **customer touchpoints,** contact points with the customer during the service

- http://thisisservicedesignthinking.com/

▶ http://www.servicedesigntools.org/tools/8

▶ On this website, you may edit several canvases, also the CJCS

- https://canvanizer.com/choose-canvas

The Dependency Structure of Canvases

- ▶ Some canvases are subcanvases of others.
- ▶ Here is a little metamodel excerpt
- ▶ How would you maintain a cactus for all these canvases?

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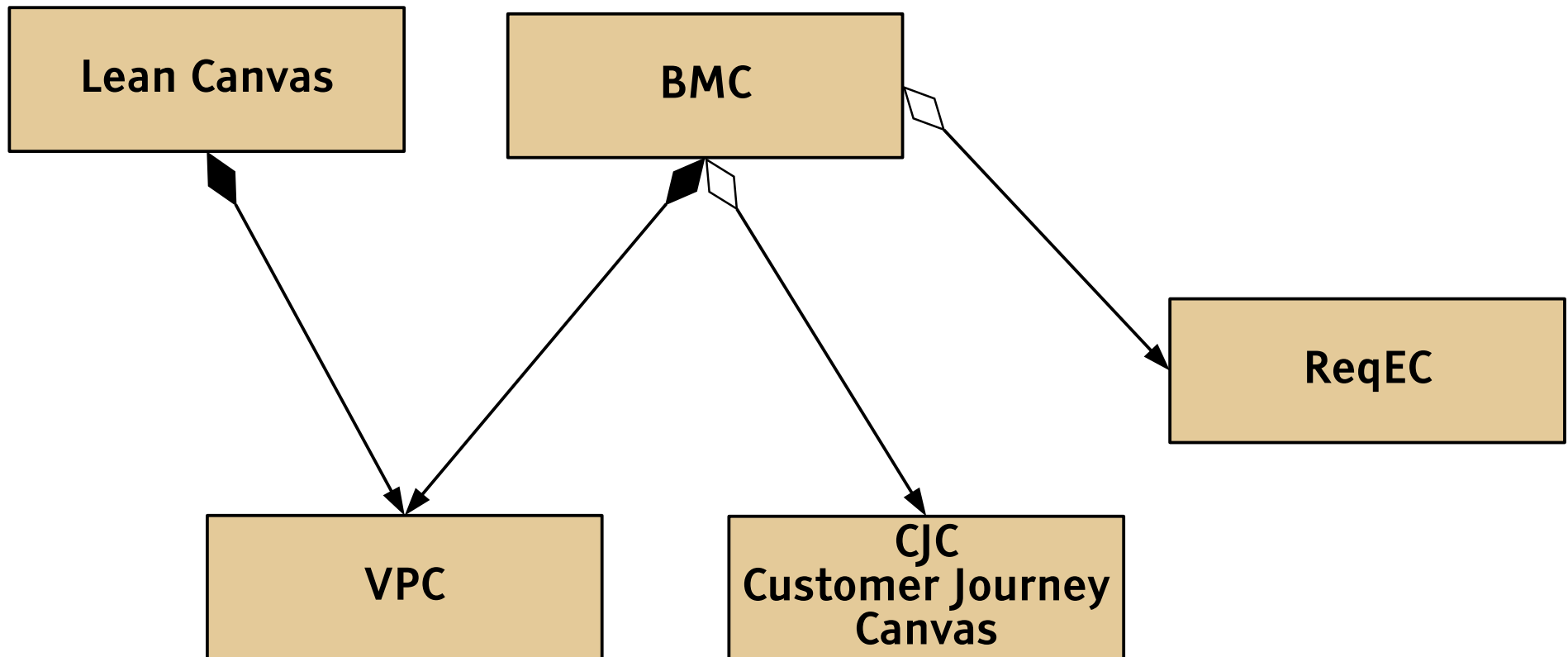
2.7 Other Innovation Processes

- An *innovation process* is a systematic way to generate innovations in a company or in a startup
- There are other innovation processes than Lean Startup

Innovation Process acc. to [Scholtissek]

▶ **Idea generation** with idea generation techniques

- Idea management mit Idea Management Systems (IMS)
- Idea labs and workshops
- House-of-Quality – Idea matrix crossing requirements and ideas

▶ **Innovation planning**

- Marketing concept
- Market analysis
- Idea Detailed Analysis with Questions acc. to Scholtissek

▶ **Prototyping** (realizability)

▶ **Piloting**

- Market research about customer acceptance
- Test phase

▶ **Commercialization**

- Introduction to market

BMC
VPC

BMC
VPC

ReqEC

VPC

VPC

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| Idea Generation | Innovation planning | Prototyping | Piloting | Commerci-alization | Scale |

Success Factors of Innovation Processes acc. to [Scholtissek]
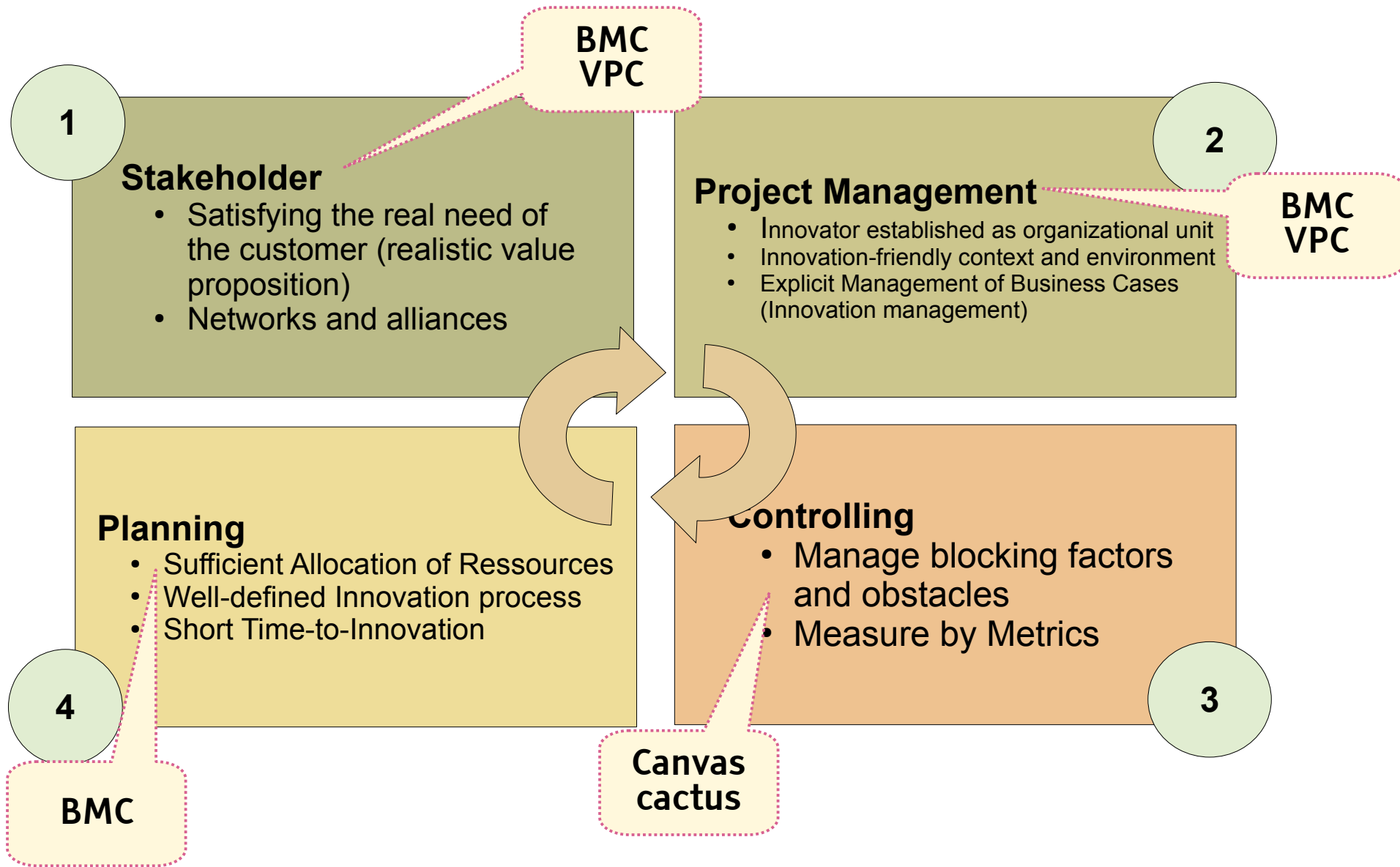
Statistical Innovation Process Metrics (-KPI) acc. To [Scholtissek]

Acc. To Scholtissek, every innovation process needs:

▶ **Metrics for Idea Generation**

- Number of Innovation Ideas of employees

- Number of filled or matured canvases

- Number of ideas per process step

▶ **Metrics for efficiency of innovation** (utility, investments vs cost per innovation)

- Turnaround of the new products in the last years

- Rise in market share due to the new products

- Cost reduction by process innovation

- Cost for research and development in relation to turnaround

▶ Time of Innovation Process (**Time-to-Innovation**)

▶ **Different innovation types**

- Product, process, business model innovation, etc.

- Evolutionary, revolutionary, disruptive

- ▶ [Fit für innovation, Arbeitskreis 1. http://www.fitfuerinnovation.de/
- ▶ http://www.fitfuerinnovation.de/wp-content/uploads/2011/07/ Fit_Fuer_Innovation_AK1.pdf]
- ▶ Innovations need several conditions:
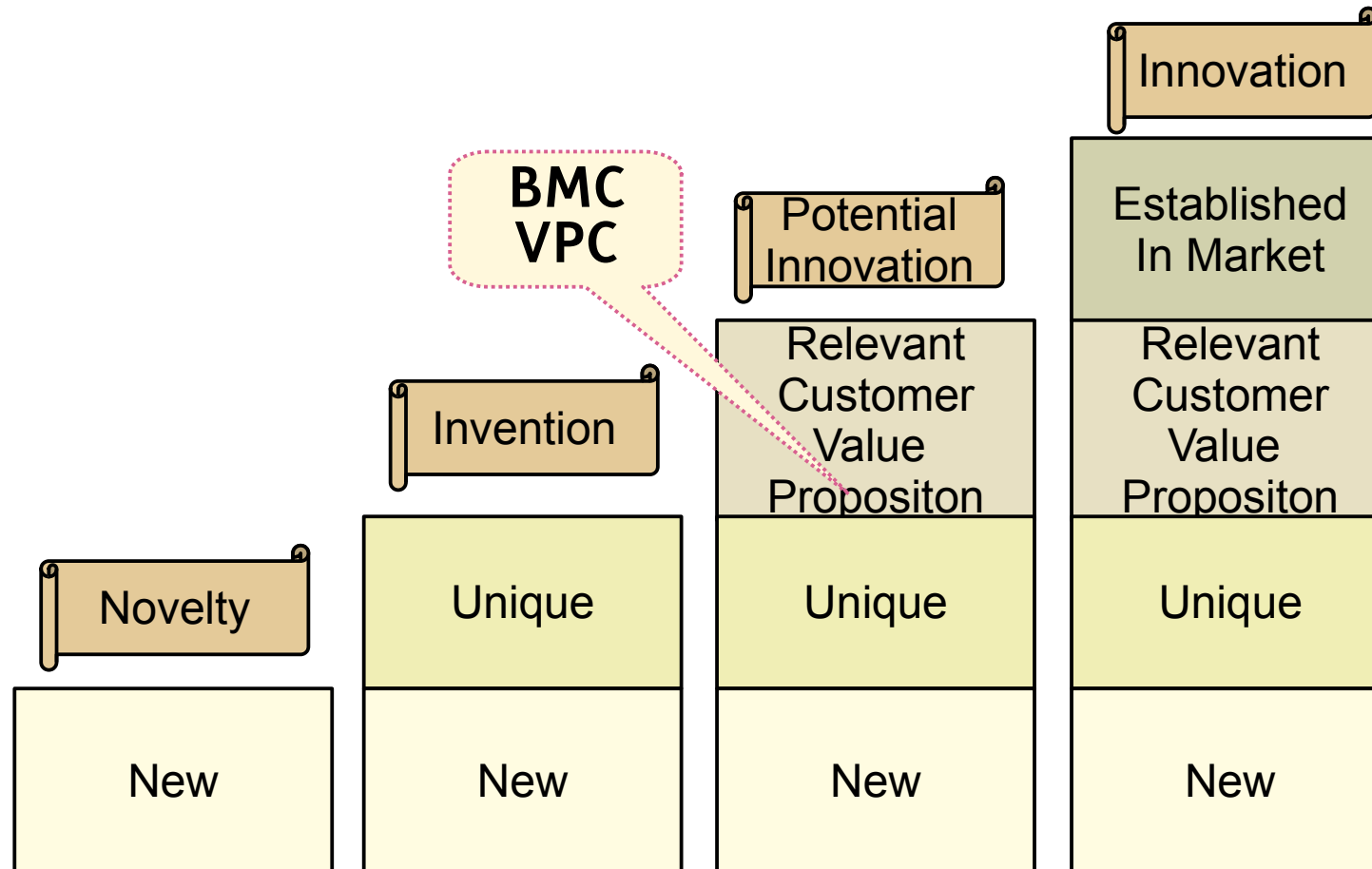
Innovation Process of Project Open4Innovation

Sebastian Eichler. Evaluation von webbasierten Innovationsplattformen und Konzeption einer geeigneten Softwarearchitektur für Open Innovation. Diplomarbeit. Fakultät Wirtschaftswissenschaften, TU Dresden, August 2011.
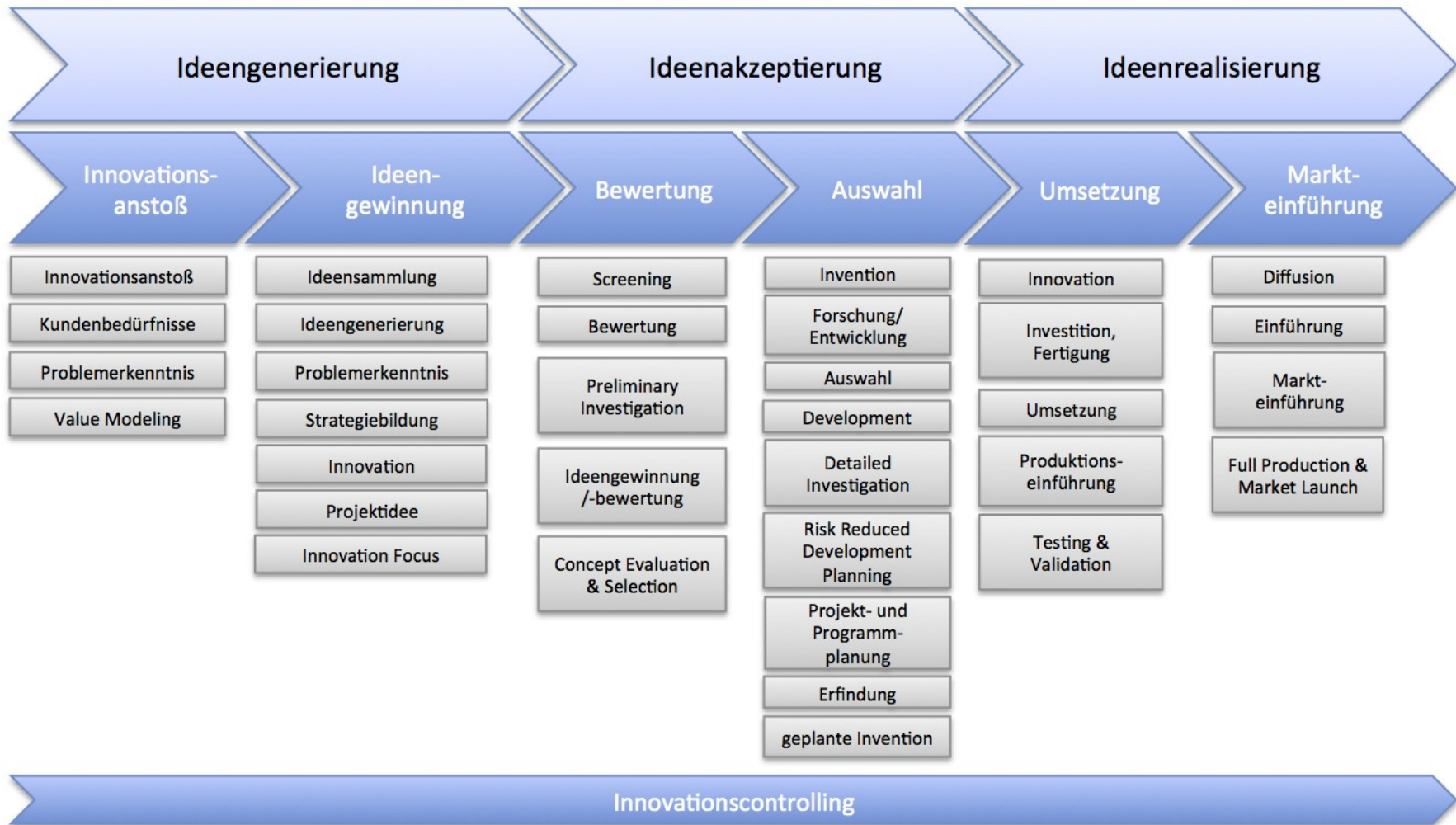
The End

- ▶ How are BMC and VPC related? Describe how to do a BMC-VPC innovation workflow on LINC.

- ▶ What is the difference of a canvas and a metamodel?

- ▶ Explain the three phases of canvas filling.

- ▶ How do you create questions for a canvas? Explain one of the instruments to get ideas.

- ▶ Why is pain important in the VPC?

- ▶ Why is change important for business?

- ▶ Explain the LeanCanvas. What is different to BMC?

- ▶ Describe how to do a Lean Canvas innovation workflow on LINC.

- ▶ Why is the Lean Startup process a specific innovation process?

- ▶ Why are canvases models?

- ▶ Which canvas you would recommend for Volkswagen in its 2015 crisis?

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