Mobile Business 1

How digitization enables innovative Business Models

18th of November 2015



Introduction



Today's speakers

Digital Transformation

> Identification of Business & IT Capabilities



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IT Architecture

Today's speakers

Digital Transformation

> Digital Benchmarking



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Digital Culture

Course "Digital Business Models"

Overview

Today

- Digital Transformation PwC's Point of View
- Benchmark Method Four Wave Model
- Business Model Design Introduction and Task

January 19th 2016

Investor Call

Market Overview & PwC's Point of View



Just a vision?

How global megatrends change the way we live...



Any idea what lies behind this numbers?

\$5 Million vs. \$900

Price of the fastest supercomputer in 1975 (CDC-7600) and an iPhone 4 with

equal performance



The election of the pope in 2005 ...



Source: Spiegel online

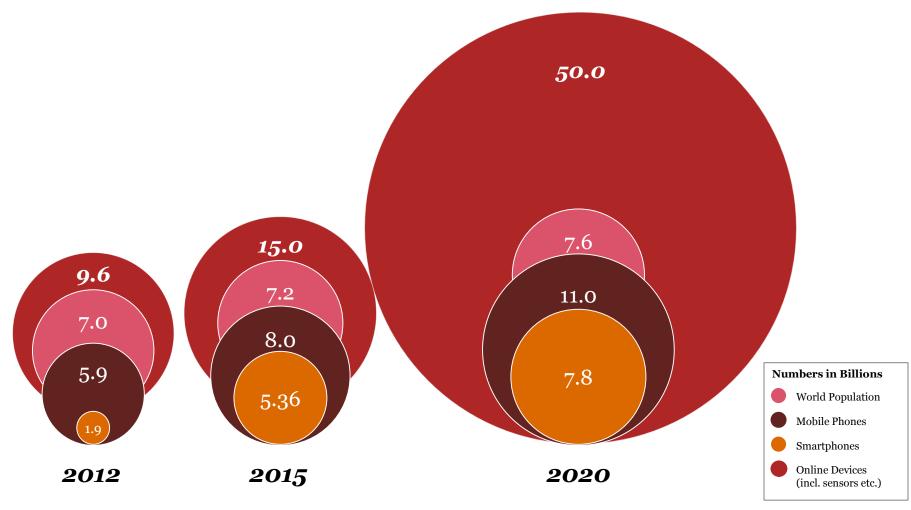
... and in 2013!



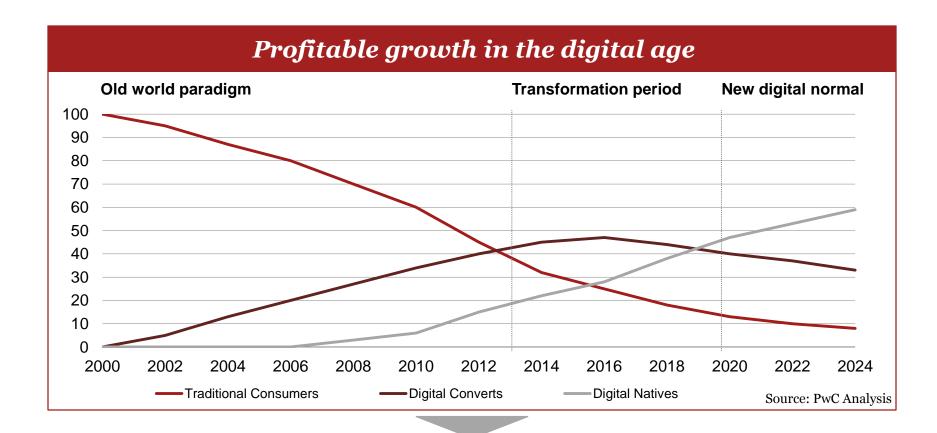
Source: Spiegel online

Digital Transformation

...with regard to the world's population



Digital consumers have already outnumbered traditional consumers



Increasing degrees of digital fitness are required to play and win!

Businesses have only just begun to understand how to create value with new digital tools ...



New technologies and a changing consumer behavior have a significant change impact on the business world

What do we mean by "Digital Transformation"?



Business change, triggered or enabled by digital technology



Computing Power –
everywhere
available



Technologies and Applications –
everywhere
available



Customer behavior change due to "Digital Natives"



Realtime analytics of large amounts of data – by intelligent *Algorithms*



Transparency
and
Information –
everywhere at
any time



New interaction models – due to the "Always on" Culture

PwC's four-wave-model describes the digital maturity of a client's business model (Amazon example)

amazon.com°









Digital Commerce



- Offline and online channel
- Product centricity

"I bought a Book on Amazon.com"

Digital Consumption



- Complex data analytics
- Personalized offering
- Cross-channel

"I buy lots of Books on Amazon – now I see "what, how much and how I read" & receive personal offerings."

Digital Identities



- Omni-Channel
- Individualized services
- Organized innovation

"I've created an Amazon/Kindle profile & share my interests with Amazon and Facebook."

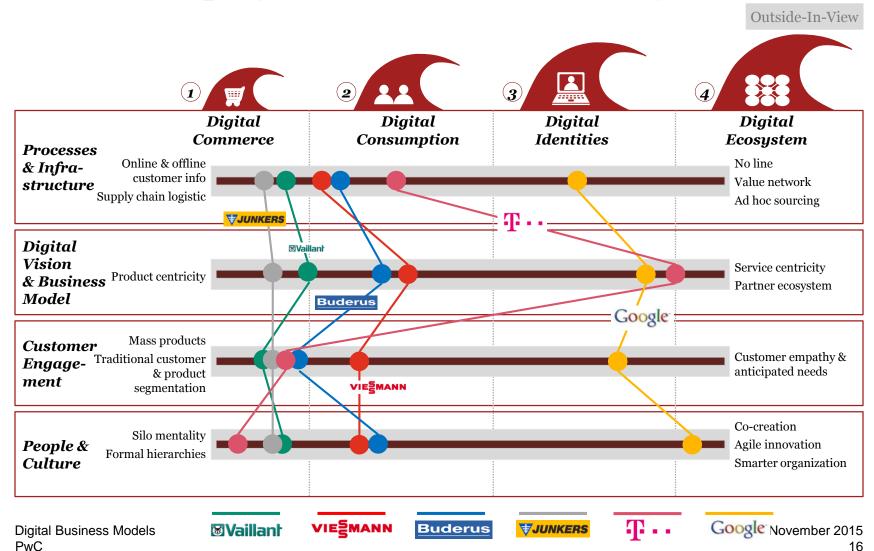
Digital Ecosystem



- Value network
- Partner ecosystem
- Customer empathy

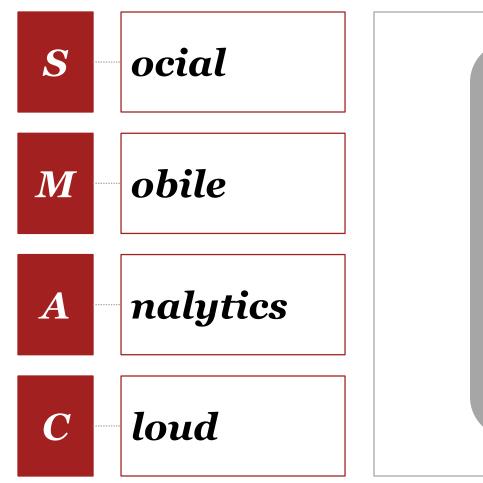
"I use Amazon's food delivery service, their credit card and cloud computing services."

The current competitors are not beyond wave two, but new market players will enter the industry value chain



SMAC

Digital Transformation Drivers





A myriad of services can be embedded due to SMAC technologies



How Social Media is changing the world

News

50% of people learn about breaking news on Social Media.



Law Enforcement

In **2011** the NYPD added a Twitter tracking unit and has used social networking to arrest criminals who have bragged of their crimes online.



Social Media



Social Media has enabled greater **political awareness** and organization, which has in some cases rewritten entire political landscapes.

In 2012, **210,000 years** of music were played on Facebook.

Political Change

Music Industry

Mobility requires integration of a wide set of devices and technologies

Industrial Machines



Fleet



Health Machines



Access Points



Desktop/ Laptop



Device Ecosystem

Sensors

- Pressure Gas
- Electri- Tempecity rature
- Water



Handsets



Utility Machines



Cameras

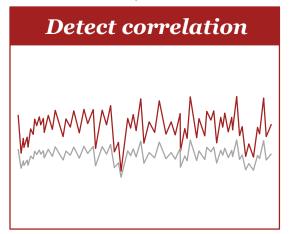


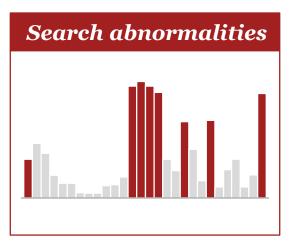
Retail Machines

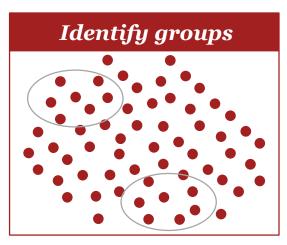


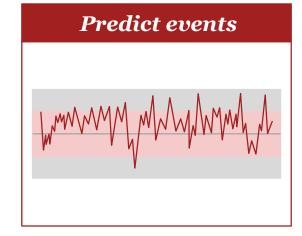
Real-time analysis of structured and unstructured data will become a core competence

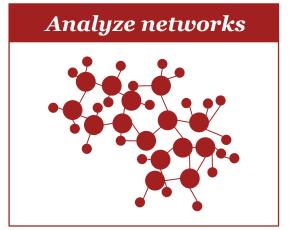
Data analysis



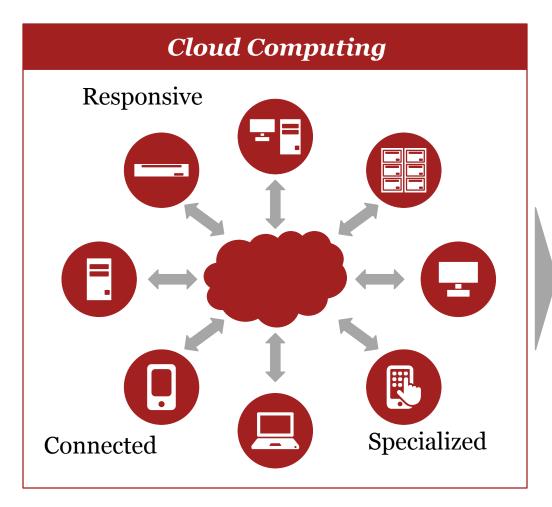


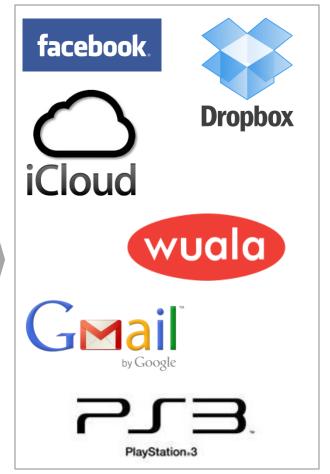






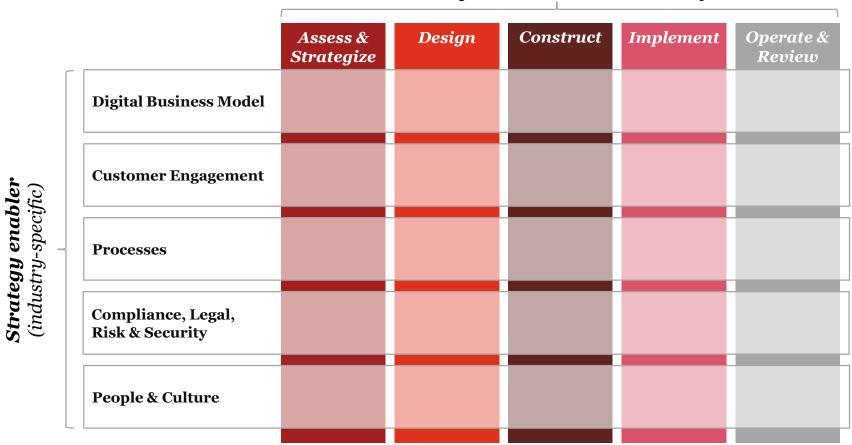
There are three main factors enabling potential business benefits of using cloud computing





We have a holistic approach to cover Digital Transformation demand among the whole lifecycle

PwC **Transformation Process** (Transform)



Introduction: Business Model Design



The breakthrough of new technologies and its impact on existing business models is still to come...



The breakthrough of new technologies and its impact on existing business models is still to come

From 2007: Establishment

1999 - 2007: Increasing digitization



- Internet as sales channel
- New digital market places
- Digitization of products
- Digitization of processes

of disruptive technologies Change of Business Models Google facebook. bing You Tube Linked in twitter 3 Mobile Social Media **Solutions** Cloud **Analytics** Computing Big Data

Tomorrow:New digital ecosystems







- New partnering models
- Flexible value chain networks
- Service-orientation
- Convergence of industries (Consolidation)

The term "business model" is used for a broad range of informal and formal business descriptions

Definition of a business model

"A business model describes the rationale of how an organization creates, delivers, and captures value (economic, social, cultural, or other forms of value)."

Source: PwC; Business Model Generation, A. Osterwalder, Yves Pigneur, Alan Smith, et. al, self published, 2010

Comments:

- This definition is based on "Business Model Generation".
- It has become the most widely-used definition for the term "business model".

The choice of a suitable business model depends on different factors

Example

Client's Strategic Goals

- · Revenue Growth
- Profitability
- Price Leadership
- Innovation Leadership/ Diversification

Future Scenarios

- Value Networks / Partner Ecosystem
- Next Generation Commerce
- Service Orientation

Technology-Enabled Business Models

Macro Trends

- Health Care
- Sustainability
- Digital Consumers
- Consumerization
- Smarter Organizations
- Industry 4.0
- Changing customer behavior

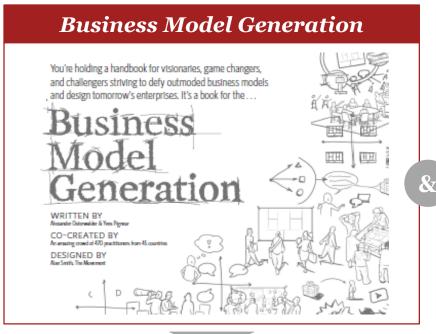
Key Technologies

Green IT

- Cloud Computing
- Internet of Things
- Mobile Computing

- Big Data
- Social Computing

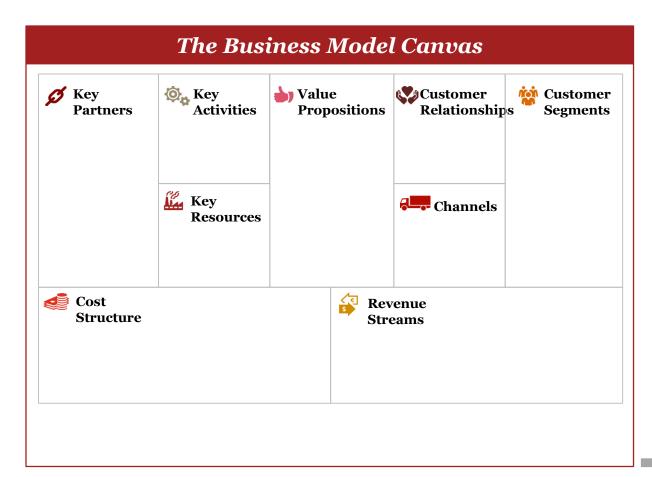
The "Business Model Generation" framework and market trends are the basis for business model design





- Widely-used design framework
- Business Model Canvas is a visual chart
- Key trends for technology-enabled innovations
- New thinking and technological breakthroughs into existing ecosystems

Canvas is a template for developing new or documenting existing business models



Comments:

- Enables an opportunity to design business models creating value for business, customers and society
- An easy-to-use method to illustrate ideas and dependencies of business models

Source: PwC; Business Model Generation, A. Osterwalder, Yves Pigneur, Alan Smith, et. al, self published, 2010

Business Model Canvas

A template for developing new or documenting existing business models



Key Partners

- Who are our Key partners?
- Who are our key suppliers?
- Which key resources are we acquiring from partners?
- Which Key Activities do partners perform?

Motivations for Partnerships

Optimization and economy Reduction of risk and uncertainty Acquisition of particular

resources and activities



Key Activities

- What key activities needed to deliver:
- •our Value Propositions?
- Our Distribution Channels?
- •Customer Relationships?
- Revenue streams?



Key Resources

• What key resources do our Value Propositions require?

Types of Resources

Physical, Intellectual (brand patents, copyrights etc), Human



Value Propositions

- What value do we deliver to the customer?
- Which one of our customer's problems are we helping to solve?
- What bundles of products and services are we offering to each Customer Segment?
- Which customer needs are we satisfying?



Customer Relationships

- What type of relationships does each of our Customer Segments expect us to establish and maintain with them?
- Which ones have we established?



Customer Segments

- For whom are we creating value?
- Who are our most important customers?



Channels

- Through which Channels do our customer (segments) want to be reached (store, online, etc)?
- How are our Channels integrated?



- What are the most important costs inherent in our business model?
- Which Key Resources cause which expenses?
- Which Key Activities cause which expenses?

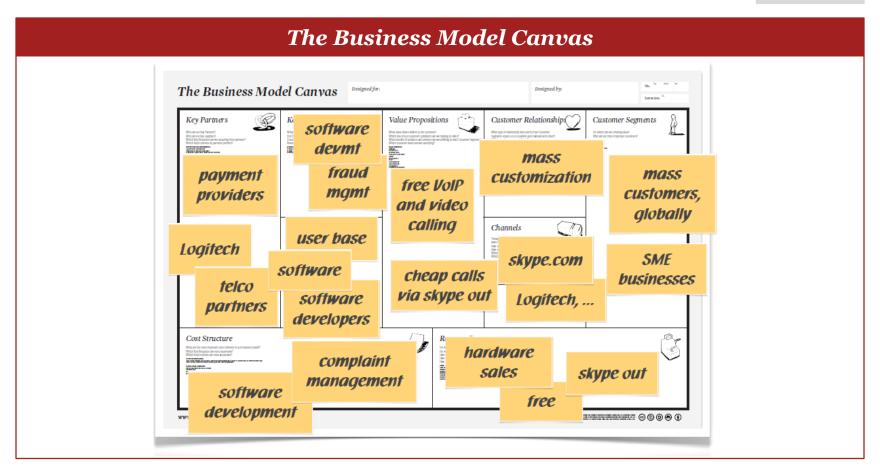


Revenue Streams

- For what value are our customers really willing to pay?
- For what do they currently pay?

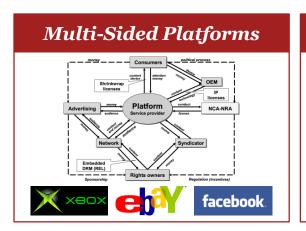
Separate areas of the Canvas can be used as a guideline to analyze a company's holistic situation

Example Skype

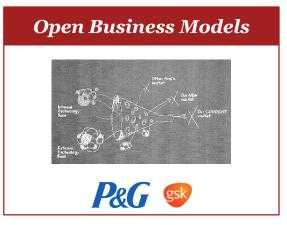


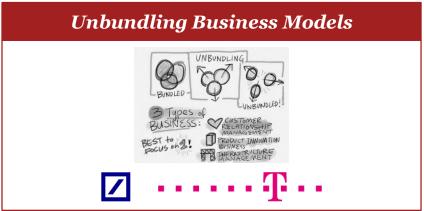
Source: PwC; Business Model Generation, A. Osterwalder, Yves Pigneur, Alan Smith, et. al, self published, 2010

Business model patterns are architectural design ideas used as archetypal and reusable descriptions



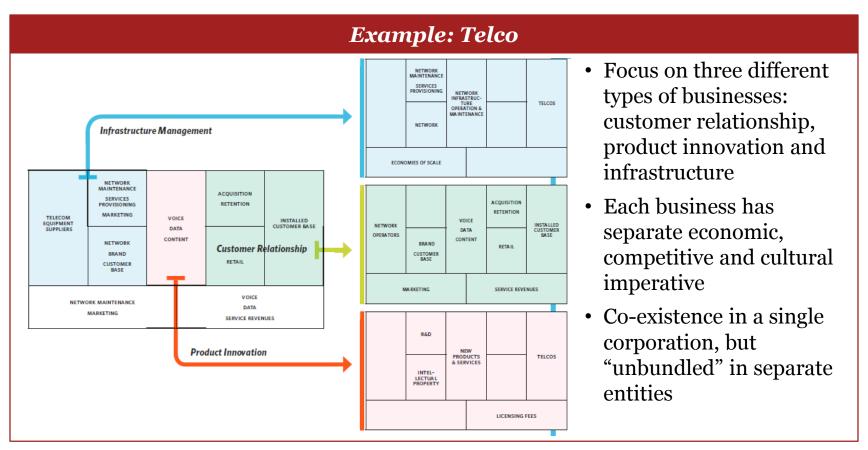




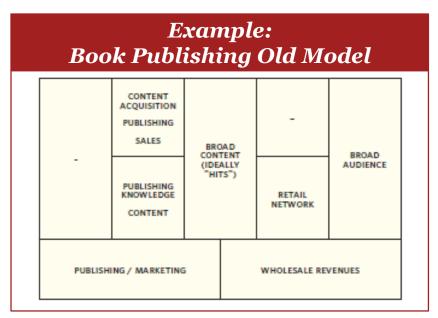


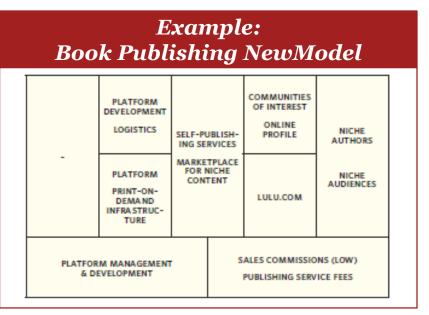


Unbundling Business Models combine fundamentally different types of businesses



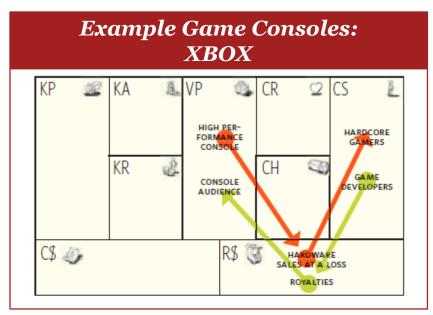
Long Tail Business Models combine aggregated sales of niche products

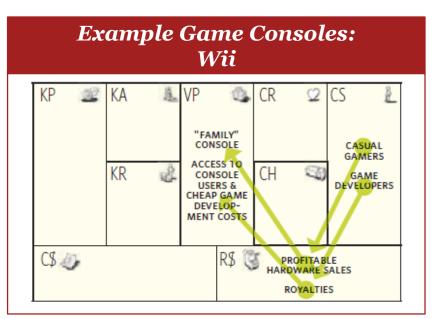




- Focus on offering a large number of niche products, each of which sells relatively infrequently
- A small number of bestsellers account for most revenues
- Require low inventory costs and strong platforms to make niche content readily available to interested buyers.

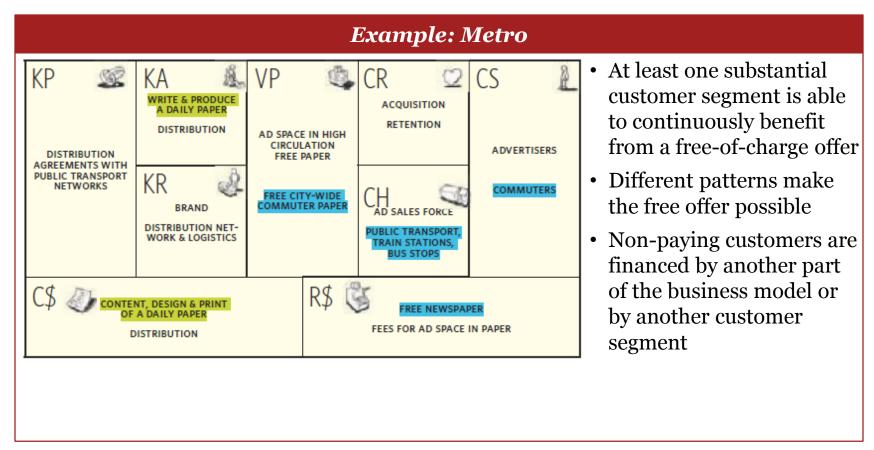
Multi-Sided Platform Business Models combine different groups of customers





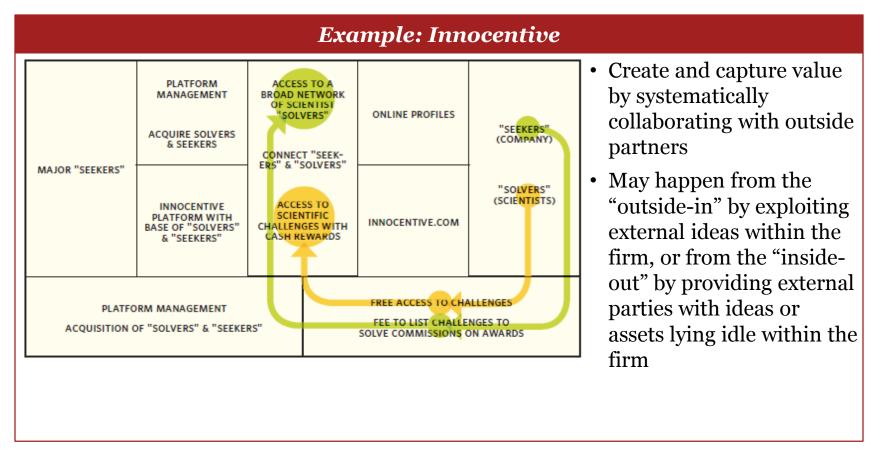
- Bring together two or more distinct but interdependent groups of customers
- Value to one group of customers only if the other groups of customers are also present,
 value creation by facilitating interactions between the different groups
- A multi-sided platform grows in value to the extent that it attracts more users, a phenomenon known as the network effect

Freemium Business Models combine non-paying and paying customer segments



Source: PwC; www.businessmodelgeneration.com; Business Model Generation, A. Osterwalder, Yves Pigneur, Alan Smith, et. al, self published, 2010

Open Business Models systematically combine collaboration with outside partners



Source: PwC; www.businessmodelgeneration.com; Business Model Generation, A. Osterwalder, Yves Pigneur, Alan Smith, et. al, self published, 2010

Our three-step-approach to technology-enabled business innovation leads firms to a sustainable future

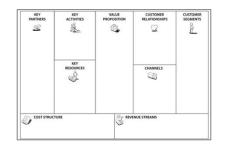
1 Preparation

- Analyze a firm's current (economic) situation and business goals
- Identify technology and market-economical key trends relevant for client



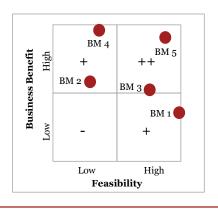
Business Model Generation

- Create understanding for key technologies and economical key trends
- Generate ideas for technology-enabled business models
- Design business models with "Business Model Canvas"



Business ModelAssessment

- Define criteria for business model assessment
- Assess business models (strategic, finance, market, resource view)



Criteria (KPIs) to assess business models can be selected from different clusters

Business Alignment	Market View	Competitive Advantage	Resource Orientation	Financial View	Technology View
Strategic Fit / Business Fit	Market Size / Market Demand	Competitive impact of technology	Manufacturing costs	Risks	Market entry costs
Impact on business	Market Growth	Durability of competitive advantage	Copyrights	Price elasticity of demand	Complexity
Cannibalization effects	Probability of commercial success	Competition (geographical limits, oligopoly	Core competencies / strengths (technology, marketing, operations)	Market barriers (capital intensity of industry, limits of imitation)	Uncertainty
	Innovation potential (degree of innovation)		Feasibility	Time-to-break even	Experiences / size of skill-gap
	Market Risk (geographic, political situation, resources)	Protectability (Patents, proprietary knowledge)	Effort / Resource availability	Earned Value Added (EVA)	Probability of technical success
	Uniqueness		Synergies (ability to leverage core competencies)	Net present value / Profitability	
	Market Share			Product margin	

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Task: Business Model Design



Investor Call

Describe your new business idea for your customer

Your task

- Establish teams of 3-5 people and select one use case
- Brainstorm new business ideas for your use case
- Develop technology-enabled business models to your ideas
- Select the most promising 1-2 business model idea(s)
- Prepare an investor call meeting to present your business idea

Time



• 2 min. Q&A

Investor Call

Select one of the following five cases studies

Customer Loyalty@ Insurance

Digitization@ Media Industry

Value-adding Electric Vehicle-charging station services

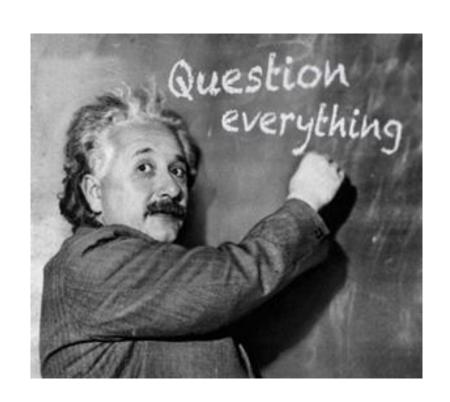
eCommerce@ Food & Beverage Retail

mHealth

Wrap up of the day

Comments?

Questions?



Use Case No 1: Customer Loyalty@Insurance

Background

- The Insurance Company "WeCareforYou" is an international corporation headquartered in Frankfurt, Germany with a
 premium income of € 5bn in 2012. With nearly 5.000 employees it is one of the leading insurance companies in
 Germany. It provides life- and property insurances for private and industrial customers
- "WeCareforYou" is quite active in some social networks (LinkedIn, Facebook, XING), but failed to implement a comprehensive digital transformation strategy and did not invest sufficiently in digital opportunities
- Therefore, compared to the competitors, the digital appearance lacks refinement
- For the last two financial years the customer figures have not grown. "WeCareforYou" is forced to act

Client- Challenge

- "WeCareforYou" notices that customer acquisition and customer retention become more and more difficult whereas customer needs become more complex
- "WeCareforYou" explores how to make more use of the existing client portfolio and **how to increase customer retention** and customer value (e.g. cross selling potential)
- Furthermore, the company has to reduce costs and the complexity of its internal processes
- Digital opportunities might help to manage these challenges but "WeCareforYou" did not evaluate how this
 might work out and how to integrate digital opportunities into their existing business processes

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Use Case No 1: Customer Loyalty@Insurance

Your Task

- Please prepare 2-3 business models for "WeCareforYou" and compare them on a qualitative basis
- Please consider the **digital opportunities**
- How could "WeCareforYou" enhance its digital appearance in order to take advantage of the opportunities of the digital transformation?

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Use Case No 1: Customer Loyalty@Insurance First Ideas to increase customer value

Customer Value@Insurance Companies - Examples

Attract new customers with gamification methods (e.g. insurance simulation on Facebook)

Use Big Data from social media to **customize customer approach**

Evaluate online cases of damage input behavior, to **detect fraud** (if people cheat they act differently)

Rapid/ad-hoc recording liability cases via app Integrate feedback forums for doctors and hospitals

> Explain insurance policies in common speech

Provide platforms for (critical) discussions (e.g. political aspects of insurance, scandals, liability cases)

Cooperate with 3rd parties like gyms

Channels

- Social Networks
- Blogs
- Twitter
- Website
- App

Revenue growth

Attract customers & increase selling's

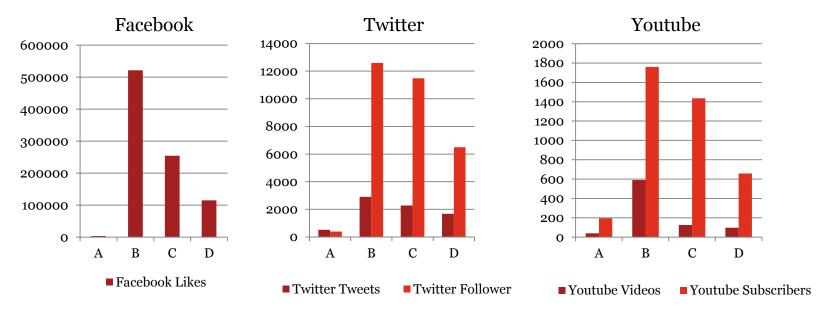
Cost reduction

Accelerate self service & fraud detection

Reputation/Image measures

Improve attention & scandal management

Use Case No 1: Customer Loyalty@Insurance Mini Benchmark



	Facebook Likes	Twitter Tweets	Twitter Follower	Youtube Videos	Youtube Subscribers
"WeCareforYou" A	3.561	523	394	39	195
Competitor B	521.498	2.901	12.593	591	1.760
Competitor C	254.381	2.277	11.486	125	1.435
Competitor D	115.321	1.681	6.489	98	658

Use Case No 1: Customer Loyalty@Insurance Business figures

		2012	2011	2010	2009	2008
Gross premiums written	Mio EUR	2.631	2.685	2.761	2.834	2.776
	%	-2,0	-2,7	-2,6	2,0	2,3
Net premiums earned	Mio EUR	2.523	2.591	2.658	2.753	2.695
	%	-2,6	-2,5	-3,4	2,1	1,9
Concluded insurance contracts	Nb	2.378.788	2.423.275	2.486.342	2.512.658	2.492.653
	%	-1,8	-2,5	-1,0	0,8	1,9

Use Case No 2: Digitization@Media Industry

Background

- "TradMedia" is a national media company (newspaper and magazines) headquartered in Hamburg, Germany. Its total revenues are about € 1bn per year
- "TradMedia" divides its business activities into two divisions, each comprised of two business units. The publications
 cover the areas of the economic and financial sector and range from a weekly newspaper to a few magazines for both
 sectors
- Against the global trend the owner and head of "TradMedia" insisted to the traditional way of print media and refused to develop new technologies
- "TradMedia" is loosing customers, so they are forced to work out a digital transformation strategy

Use Case No 2: Digitization@Media Industry

Client- Challenge

- Media (especially publishing) companies struggle with decreasing revenues due to declining circulation of their print products
- They are seeking for new opportunities to adapt their business models to the digital age
- Most of the publishing companies have **not yet identified such a business model**, the media industry still seems to be in a "trial-and-error"-phase
- Integration of the digital strategy into the internal process how can a media company stay visible?
- What's your USP that you offer your customers? It's necessary to get a value from digital print media. Digital media currently accounts for just 12% of the revenues compared to the traditional print media. However 1 of 10 magazine subscriptions is already digital
- Using costumer information to create opportunities in digital media

Your Targets

- Please prepare 2-3 business models for TradMedia and compare them with each other on a qualitative basis
- Please consider the **challenge** of **decreasing revenues** of media companies due to the **declining circulation** of print products

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business models

Use Case No 2: Digitization@Media Industry Key Questions for Media Companies – input for developing new

- 1. What is my **core business?** (e.g. regional newspaper: local information, providing value for people in a special region)
- 2. Which **technical platform** is suitable to support my core business? (e.g. separation of content creation and re-utilization → focus on core business)
- 3. Which **cooperation partners** are appropriate to boost my core business and offer added value to my customers? (e.g. create world of experiences for customers via different mediums and channels)
- 4. Which **USP** do I offer my customers?
- 5. How can I take my customers **through the digital transformation** (e.g. print subscriber becomes a free digital subscriber)

Background

- The Pharma Company "Health&More" is an international pharmaceutical corporation based in Berlin,
 Germany
- "Health&More" **discovers**, **developers**, **produces**, **and distributes new medicines** worldwide and with over 40.000 employees it's one of the 20 biggest pharmaceutical companies globally
- Its core business is the development of pharmacy technology for cardiovascular heart disease and women healthcare
- The total revenues are about € 12 bn per year
- "Health&More" is **quite active** in some social networks (**LinkedIn**, **Facebook**, **XING**)

What is mHealth?

- mHealth (mobile health) is a sub-segment of eHealth (electronic health) and describes the practice of medicine and public health, supported by mobile devices such as mobile phones, tablet computers and PDAs
- mHealth applications may for example collect health data, deliver healthcare information to doctors, researchers, and patients, allow real-time monitoring of patient vital signs and direct provision of care
- After the pharmaceutical and medical engineering markets **mHealth is** already seen as **the third largest growth area** within the health care market
- In developed countries mHealth can help to meet the growing demand of health care services of ageing societies
- In many less developed countries, which have seen a rapid rise in mobile phone usage in recent years, mHealth is already
 a quite common feature which helps to provide medical assistance to people lacking regular access to
 health care

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Client- Challenge

- Growing significance of digital communication channels
- Different and more personalized way to get in contact with patients and health care professionals
- Improving access to clients while reducing costs
- **Cultural changes** regarding healthcare delivery
- The **demographic change** and the **skepticism** of the elderly towards new technologies
- "Make the right decision": It is difficult to take the right course through the variety of digital opportunities
- Healthcare is moving towards a **precision based model or personalized medicine**
- The healthcare sector's conservatism towards innovation might slow down the adoption of innovative mHealth
- The **pluralism of interests** in the sector contributes to its complexity
- Bad infrastructure in emerging countries

Your Targets

- Please prepare **2-3 business models** and **compare** them with each other on a **qualitative** basis
- Please **consider data privacy and information security** issues for interaction with clients and their personal data

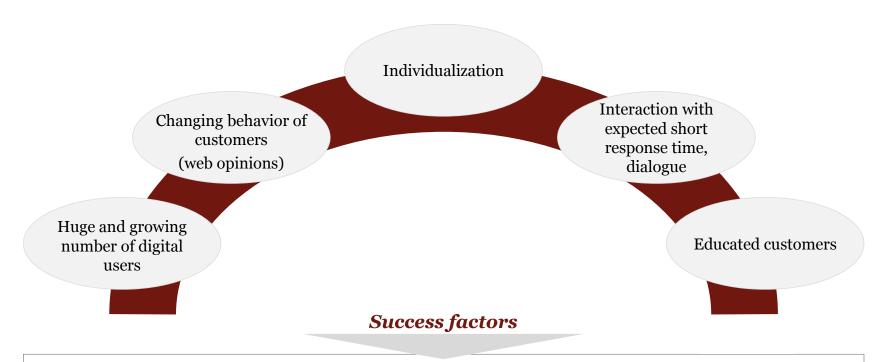
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Trends & success factors



- Growing significance of digital communication channels
- Different and more personalized way to get in contact with patient and health care professionals
- Cultural changes regarding healthcare delivery

Use Case No 4: Value-adding Electric Vehicle- charging station services

Background

- "MyCar Company" is an international car manufacturer with over 120.000 employees headquartered in Munich,

 Germany
- Its total revenues are about € 40bn per year
- The product range covers commercial- and non-commercial vehicles. Additionally there is a great commitment for e-mobility
- "MyCar Company" is planning to start a national car sharing service for electronic vehicles in all German
 metropolitan as well as rural areas. In order to promote the presence of electric vehicles in Germany the company is
 planning to develop and expand the infrastructure of charging stations. Therefore it is looking for feasible
 solutions to make charging stations attractive for partners and consumers and to maintain the station
 network at low costs
- "MyCar Company" is quite active in some social networks (LinkedIn, Facebook, XING)

Use Case No 4: Value-adding Electric Vehicle- charging station services

Client- Challenge

- Electric Vehicle (EV-)-market and EV-services still lack attractiveness
- Nevertheless **E-Mobility with growing potential in Germany.** Private and public initiatives in this sector are to be expected to reach the political target of 1m electrical vehicles in Germany in 2020
- The expansion of EV-charging station infrastructure is a critical success factor and fundamental element of upcoming E-Mobility initiatives
- There is a **multitude of charging station providers on the market** offering more or less the same type of product:
 - Many EV-charging stations are equipped with often outdated and unmaintainable software
 - The charging station market is shaped by heterogeneous technology
 - **Cross-/up selling potential** for new services is not leveraged due to missing insights and limited interaction models with consumers or partners to build lasting relationships

Your Targets

- Please **define possible charging station services** taking into account the different perspectives of the provider (in that case "MyCar Company"), consumers and potential partners. How does a typical service look like, which parts does it consist of?
- Please prepare 2-3 business models and compare them with each other on a qualitative basis

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Use Case No 4: Value-adding Electric Vehicle- charging station services

First Ideas for possible services – input for developing new business models

Potential Charging Station Service		
Basic Services	Charging Basic Services (Authentication, Payment,) Station-Service	
Centrally managed Services	Charging Charging Station displays received content Station-Service	
User-centric, partner managed Services via WLAN	Charging Station displays partner specific content, Charging Station Station-Service sends information via WLAN-interface to user's car or mobile device	
•••	Charging Station-Service	

Use Case No 5: eCommerce@ Food & Beverage Retail

Background

- "YourFood Company" is an international retailer for foodstuff based in Hannover, Germany. With over 70.000 employees worldwide, "YourFood Company" is one of the biggest retailer in Germany. In 2012 they generated total revenues of € 12bn
- **Beside their traditional business** with stores, in 2012 the company **started as an eCommerce** retail service for nutrition, but **currently only for non-perishable food** (e.g. sausages and other meat products, canned food, delicatessen, staple foods such as noodles and sauces)
- "YourFood Company" is quite active in some social networks (LinkedIn, Facebook, XING), but they did not develop a comprehensive eCommerce strategy and did not invest a lot in promoting their eCommerce business
- They're planning to expand their product range for perishable food in the next year

Digital Business Models PwC

Use Case No 5: eCommerce@ Food & Beverage Retail

Client- Challenge

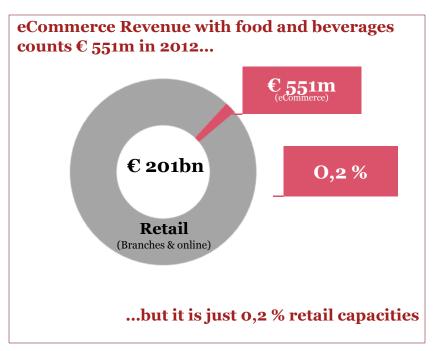
- Most of the Food & Beverage Retailers have not designed and implemented an eCommerce-service yet
- Very **limited market share** for foodstuff in eCommerce
- Clients with **missing experience and trust in eCommerce**, e.g. the elderly
- Flexible delivering with a moderate pricing system
- Delivering of fresh foodstuffs
- Environmentally-friendly packaging systems
- Especially younger clients expect that food companies **use digital opportunities to interact with clients**, e.g. extended packaging

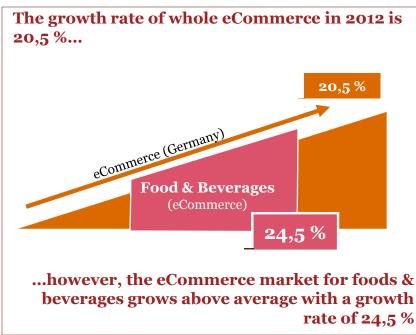
Your Targets

- Please prepare **2-3 business models** and **compare** them with each other on a **qualitative** basis
- Please consider the struggle with inflexible delivery, production of packaging material and client expectations in terms of using digital opportunities

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Thank you.