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- DESIGN APPROACH
  - analysis
  - design
  - evaluation

Business model > SIKS Amsterdam > May 30, 2006

- BUSINESS MODEL
  - Business model analysis
  - IT architecture design
  - Alignment evaluation

A design approach for business model innovation and IT alignment

INNOVATION

Alexander Osterwalder  
Yves Pigneur

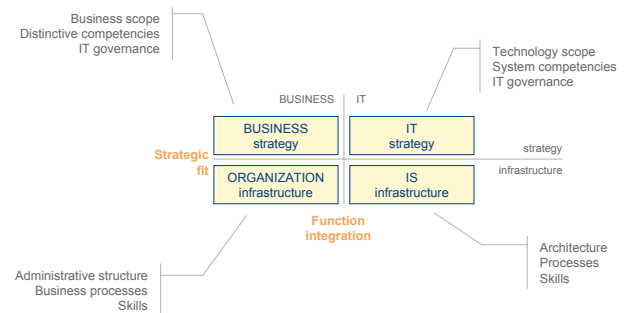
Agenda

1. Design approach
  - Business task (and IT service)
  - Business process (and IT workflow)
  - Business model (and IT architecture)
2. Business model
  - Business model analysis
    - Product and value proposition
    - Customer relationship and distribution channel
    - Operations management and value chain
  - IT architecture design
  - Business/IT alignment evaluation
3. Innovation

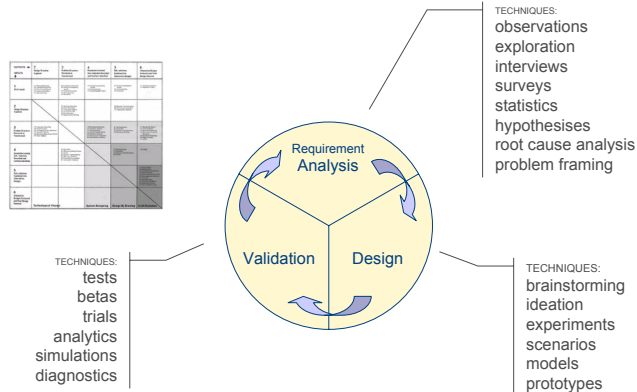
Hypotheses

1. Requirement engineering is not independent from design
  - but part of the "design loop": requirement analysis, IT solution design, prototype & evaluation
2. Goal-based requirement engineering is not appropriate for expressing business needs
  - but business model-based requirement engineering seems to be adequate
3. Innovation does not come from (goal-based) requirement engineering
  - but from business model and design

The dominant paradigm: business/IT alignment ...



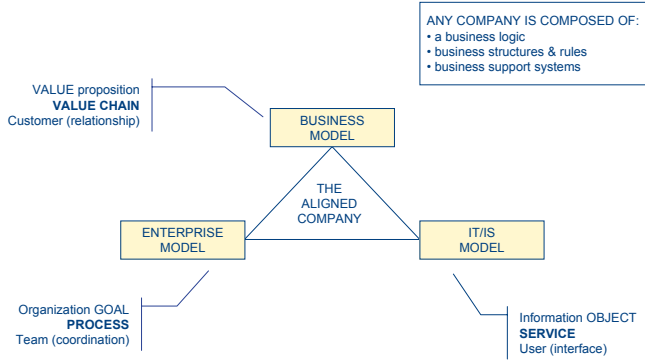
DESIGN APPROACH



Design approach > the designer's core competencies

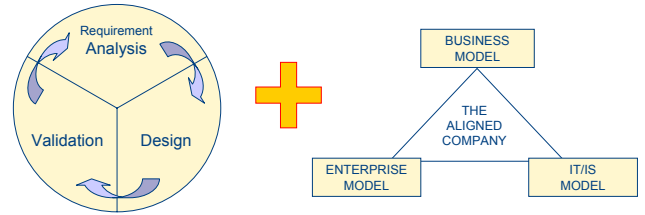
1. The ability to understand the context or circumstances of a design problem and frame them in an insightful way
2. The ability to work at a level of abstraction appropriate to the situation at hand
3. The ability to model and visualize solutions even with imperfect information
4. An approach to problem solving that involves the simultaneous creation and evaluation of multiple alternatives
5. The ability to add or maintain value as pieces are integrated into a whole
6. The ability to establish purposeful relationships among elements of a solution and between the solution and its context
7. The ability to use form to embody ideas and to communicate their value

### Design approach > services, process & business model

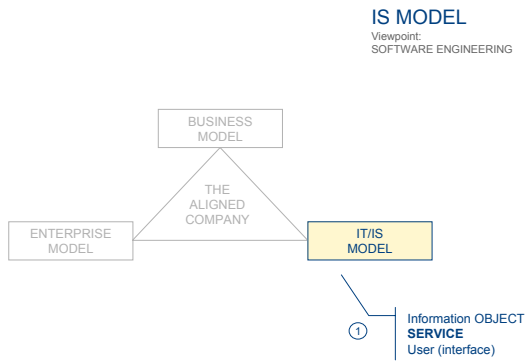


### Design approach > a cross-cutting discipline

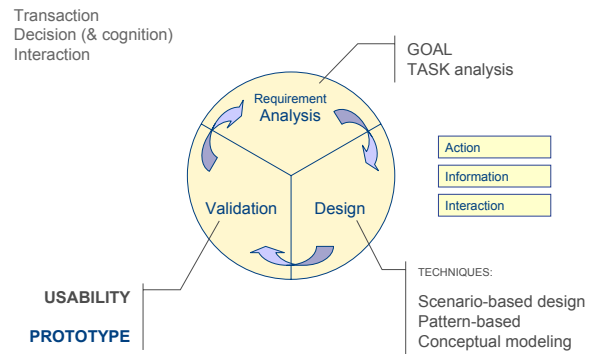
	Service	Process	Business Model
<b>Analysis</b>	user goal and task	goal and process	business model
<b>Design</b>	application/service	workflow	IT architecture
<b>Evaluation/Validation</b>	utility/usability	efficiency	profitability/fit



### Design approach > BUSINESS TASK AND IT SERVICE

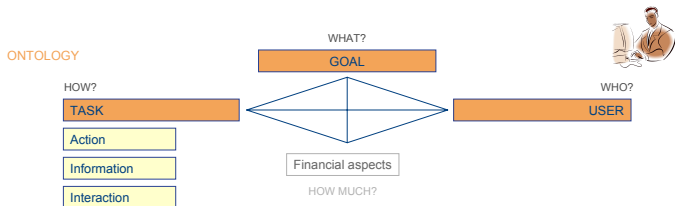


### Design approach > service > design loop



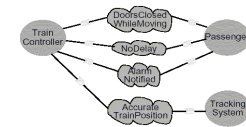
### Design approach > service > ontology

Viewpoint: HCI ENGINEERING

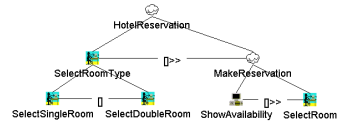


### Design approach > service > requirement analysis

- Goal-based requirement engineering



- Task analysis



### Design approach > service > IT solution design

- Action design
  - Focus on functionality
- Information design
  - Information provided to the users by the systems
- Interaction design
  - Details of user action and feedback

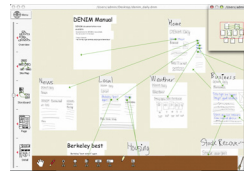
#### Scenario



#### use case



#### hand sketch ...



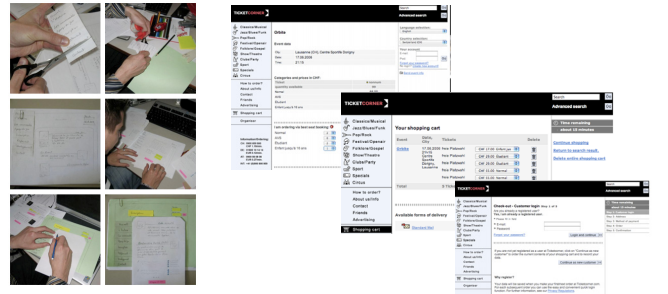
http://guir.berkeley.edu/projects/denim

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### Design approach > service > prototype

- Lo-fi prototype
- Hi-fi prototype

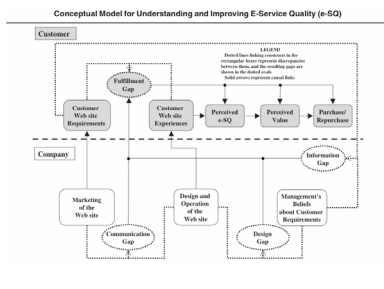


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### Design approach > service > usability evaluation

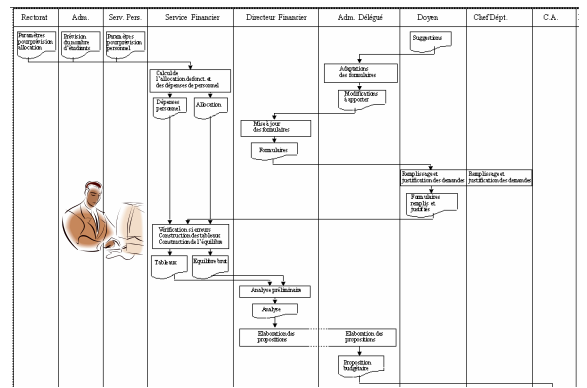
- Usability testing with user

model-based > service quality



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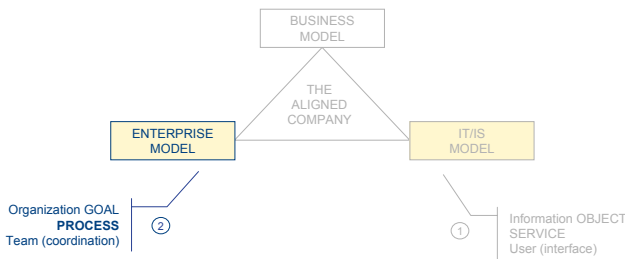
### Design approach > service and process alignment



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### Design approach > BUSINESS PROCESS (AND IT WORKFLOW)

#### ENTERPRISE MODEL Viewpoint: BUSINESS PROCESS (RE-) ENGINEERING

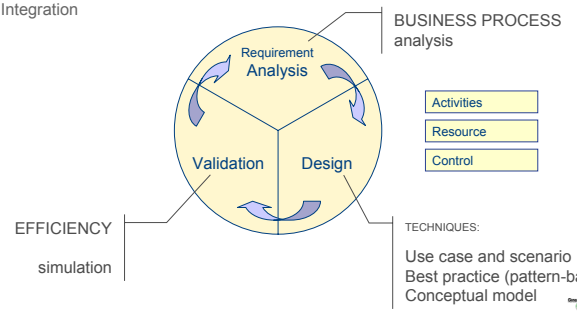


> State of the art in requirement engineering > Strategic fit weakly addressed

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### Design approach > process > design loop

Organization  
Coordination  
Integration



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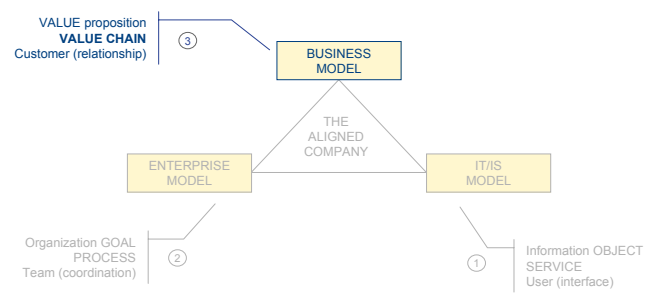
### Design approach > process > ontology

Viewpoint:  
ENTERPRISE MODELING  
BPR



### BUSINESS MODEL AND IT ARCHITECTURE

**BUSINESS MODEL**  
Viewpoint:  
e-BUSINESS DEVELOPMENT



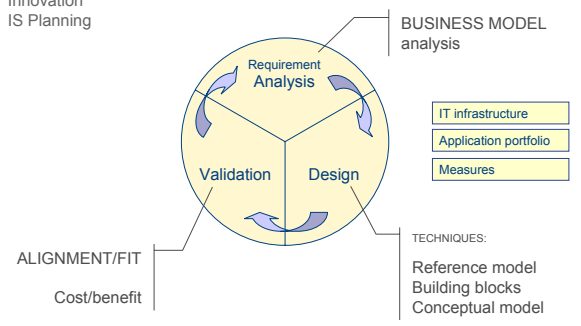
### Business model > definition

- A model of the business of a company, aggregating ...
  - the value a company offers to one or several segments of customers, and
  - the architecture of the firm and its network of partners
  - for creating, marketing and delivering this value and relationship capital,
  - in order to generate profitable and sustainable revenue streams

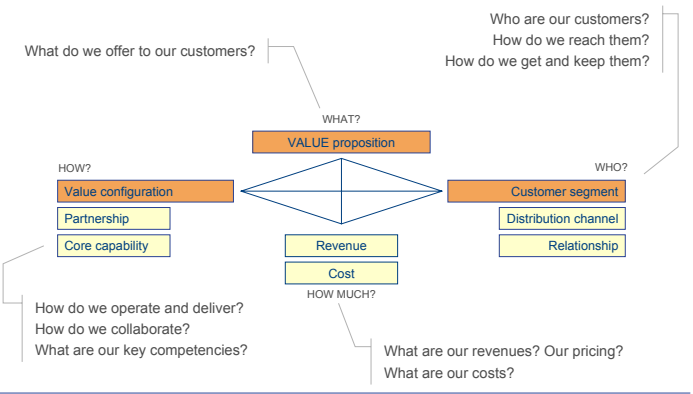
- Business model analysis**
  - Product and value proposition
  - Customer relationship and distribution channel
  - Operations management and value chain
- IT architecture design**
- Business/IT alignment evaluation**

### Business model > design loop

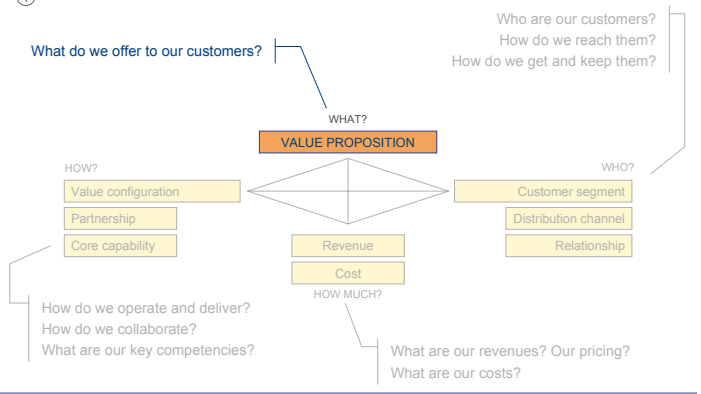
Strategy  
Innovation  
IS Planning



### Business model > ontology > 9 questions



### Value proposition



## Value proposition

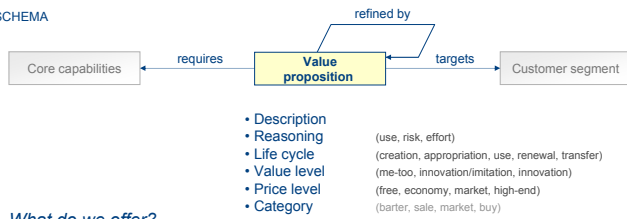
①

### DEFINITION

A VALUE PROPOSITION is an overall view of a firm's bundle of offerings, products and services, that together represent a benefit or a value for its customers ...

refers to [Kambill *et al.*, 1996] ...

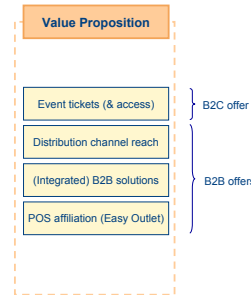
### SCHEMA



What do we offer?

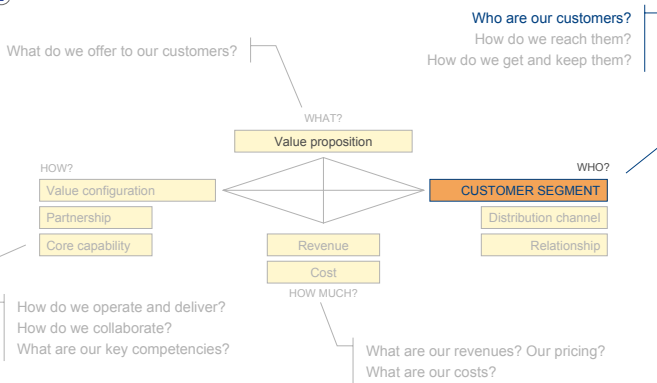


## Value proposition > example



## Customer segment

②



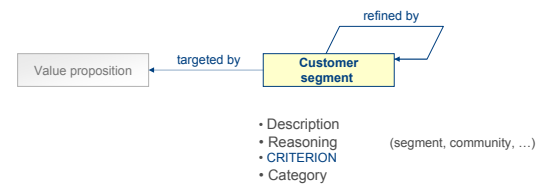
## Customer segment

②

### DEFINITION

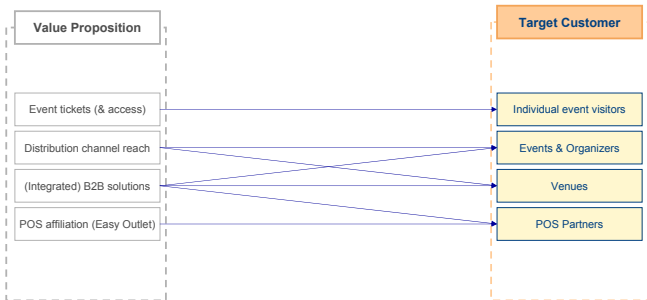
Categorizations of the population into social class or psychologically defined groups

### SCHEMA



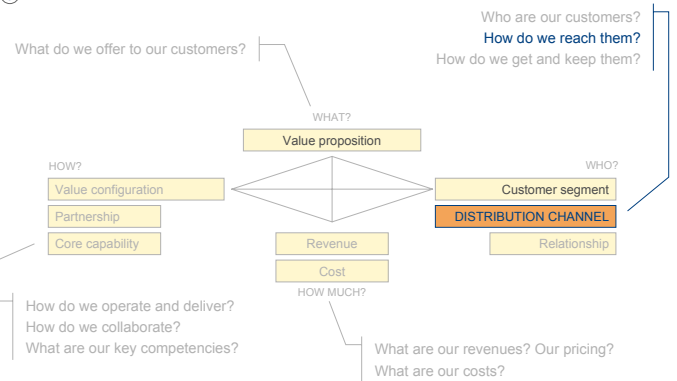
Who are our customers?

## Customer segment > example



## Distribution channel

③



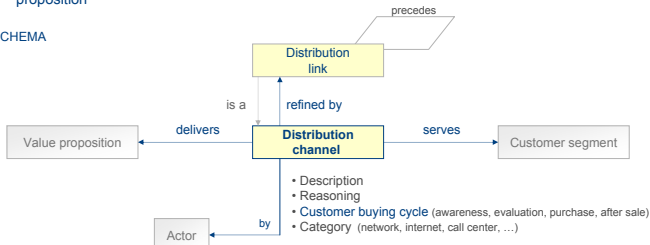
### Distribution channel

③

#### DEFINITION

a set of links or a network via which a firm "goes to market" and delivers its value proposition

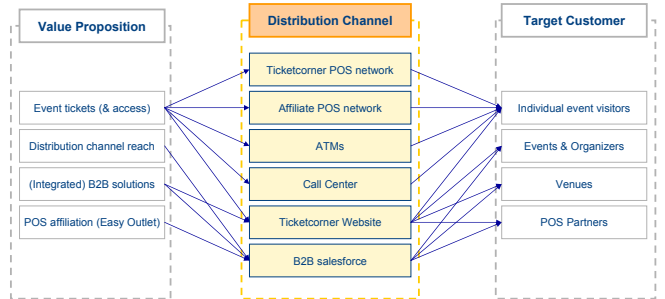
#### SCHEMA



How do we reach our customers? Feel and serve them?

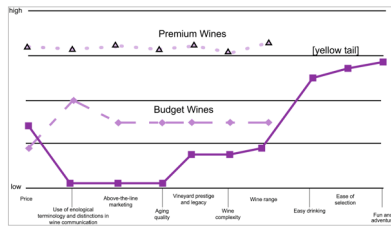


### Distribution Channels

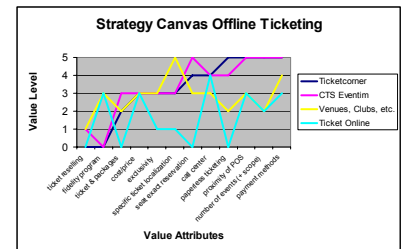
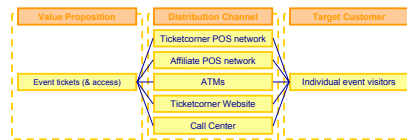


### Value proposition > strategy canvas

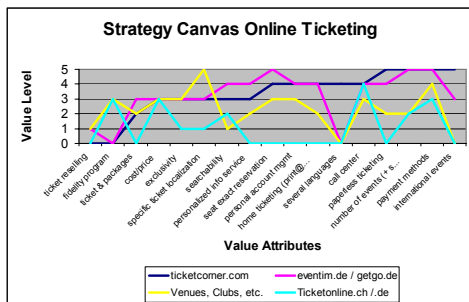
- A way to visualize the strategic profile
- Based on the factors that affect competition among industry players
- Showing the strategic profile of current and potential competitors, identifying which factors they invest in strategically



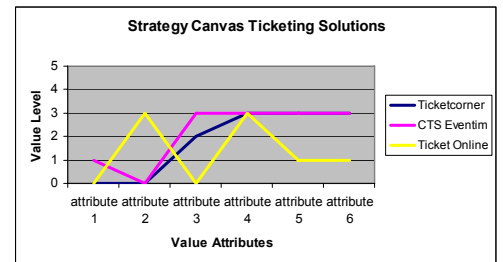
### Value proposition > Strategy canvas > B2C customer (offline)



### Value proposition > Strategy canvas > B2C customer (online)

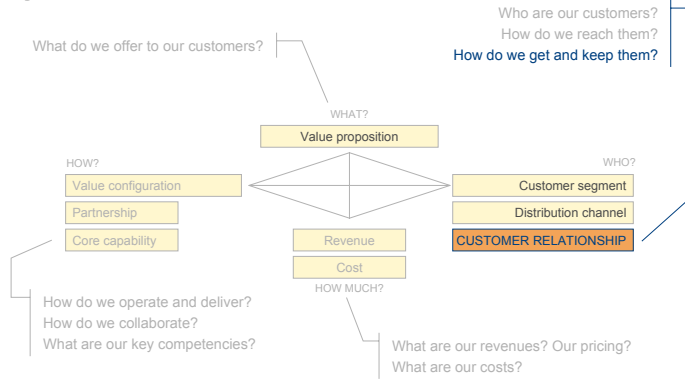


### Value proposition > Strategy canvas > B2B customer



### Customer relationship

④



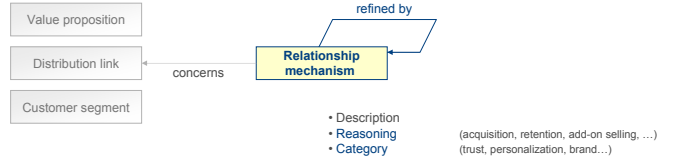
### Customer relationship

④

#### DEFINITION

customer equity: acquisition, retention, add-on selling  
trust and personalization mechanisms, ...

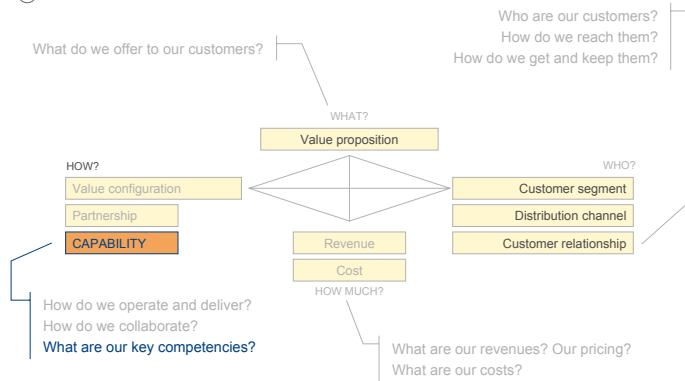
#### SCHEMA



*How do we get and keep our customers?*

### Core capabilities (resources)

⑤



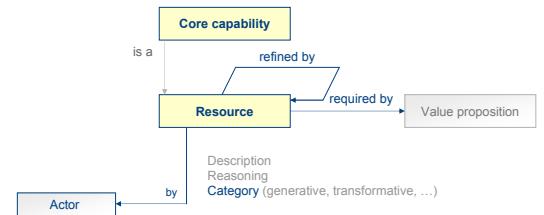
### Core capabilities (and resources)

⑤

#### DEFINITION

Resource (assets): available & useful in responding to market opportunities or threats  
Capability (know-how): aptitude to exploit and coordinate resources to create, produce, and/or offer products and services to a market

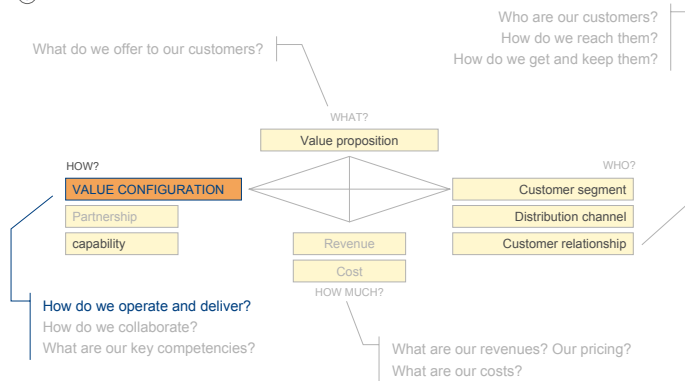
#### SCHEMA



*What are our key competencies?*

### Value configuration

⑥



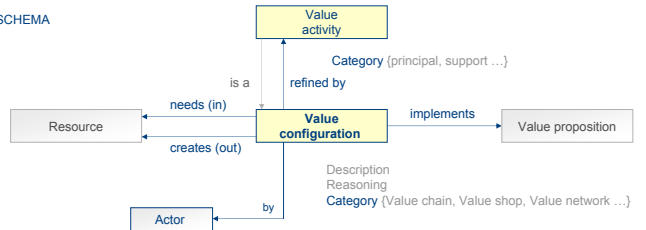
### Value configuration

⑥

#### DEFINITION

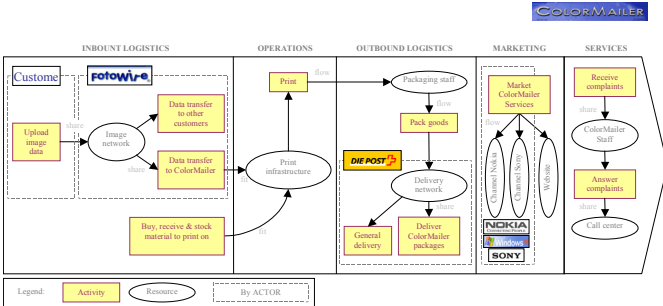
Set of interdependent activities that add value for the customers to the company products or services

#### SCHEMA



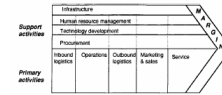
*How do we operate and deliver?*

### Value configuration > value chain

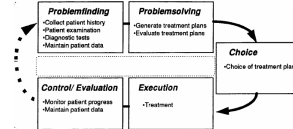


### Value configuration > category

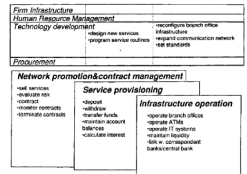
#### Value chain



#### Value shop



#### Value network



### Value configuration (and resources)



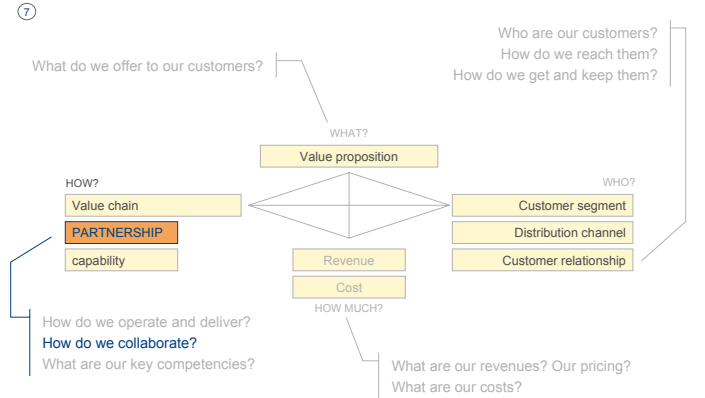
	Network promotion and contract management	Service provisioning	Infrastructure operation
activities	<ul style="list-style-type: none"> <li>Mainstream marketing</li> <li>POS acquisition &amp; development</li> <li>Event, Venue acquisition</li> </ul>	<ul style="list-style-type: none"> <li>Selling tickets</li> <li>Printing tickets</li> <li>Delivering tickets</li> </ul>	<ul style="list-style-type: none"> <li>POS network maintenance</li> <li>Platform (TicketSoft) operation, development &amp; maintenance</li> <li>Website maintenance</li> <li>Operating call center</li> <li>Installing solutions</li> </ul>
resources	<ul style="list-style-type: none"> <li>Newsletter</li> <li>Recommendation system</li> </ul>	<ul style="list-style-type: none"> <li>Printing infrastructure</li> <li>Delivery logistics</li> </ul>	<ul style="list-style-type: none"> <li>Own POS network</li> <li>Partner POS network</li> <li>Web platform</li> <li>TicketSoft</li> <li>Call center</li> </ul>

consists of activities (& resources) associated with inviting potential customers to join the network, selection of customers that are allowed to join and the initialization, management, and termination of contracts governing service provisioning and charging.

consists of activities (& resources) associated with establishing, maintaining, and terminating links between customers and billing for value received. The links can be synchronous as in telephone service, or asynchronous as in electronic mail service or banking.

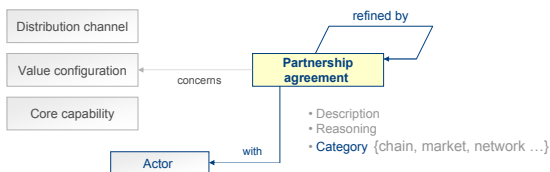
consists of activities (& resources) associated with maintaining and running a physical and information infrastructure. The activities keep the network in an alert status, ready to service customer requests.

### Partnership agreement



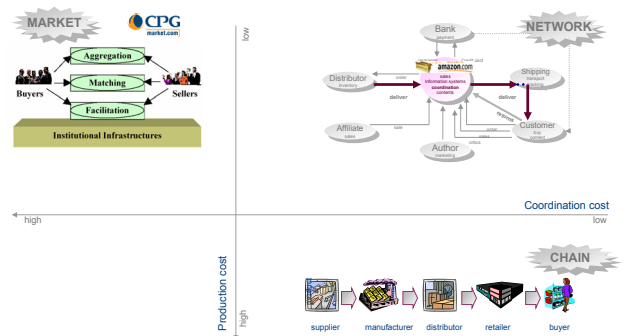
### Partnership agreement

⑦



#### How do we collaborate?

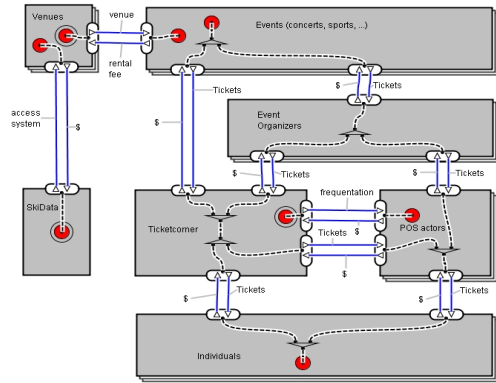
### Partnership agreement > category







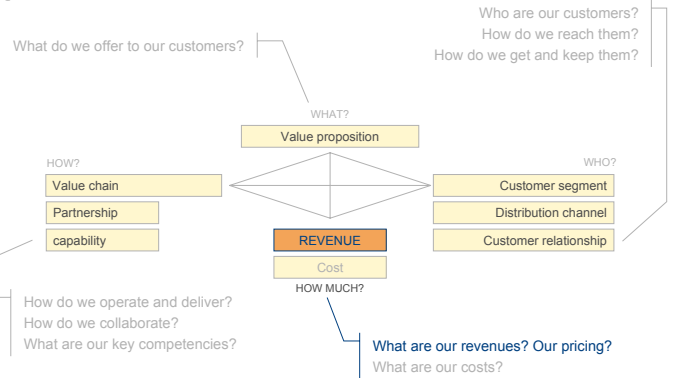
### Value configuration with partners > e<sup>3</sup>value model



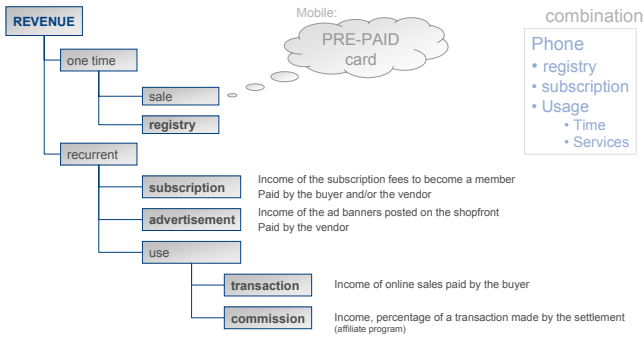
[Gordijn, 2002]

### Revenue stream

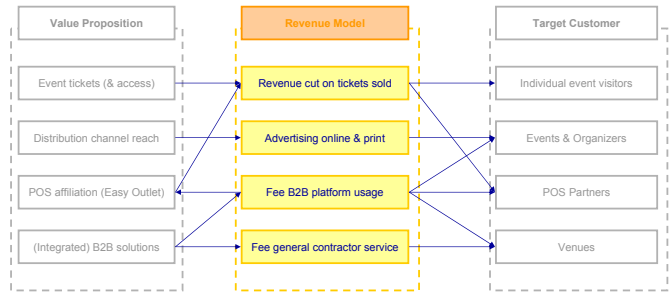
⑧



### Revenue stream > categories

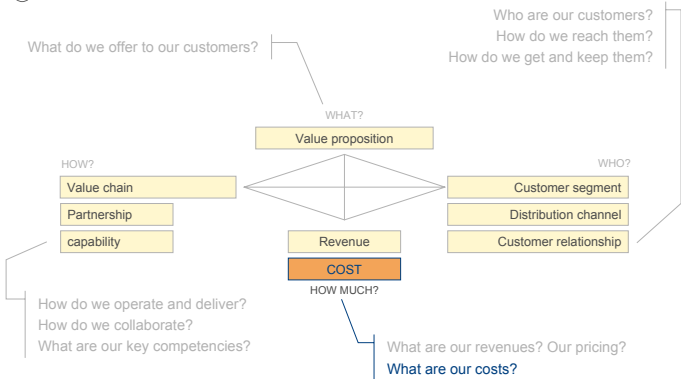


### Revenue Model



### Profit and cost account

⑨



### Profit and cost account

<b>Revenues</b>
Total net revenue
<b>Cost of goods sold</b>
Total Costs of goods sold
<b>Gross margin</b>
Total Costs of goods sold
<b>Operating expenses</b>
research and development
sales and marketing
general and administration
Total operating expenses
<b>Operating income (loss)</b>
Income (loss) before tax
<b>Net income (loss)</b>

$$PROFIT = (P - V_C) \cdot Q - F_C$$

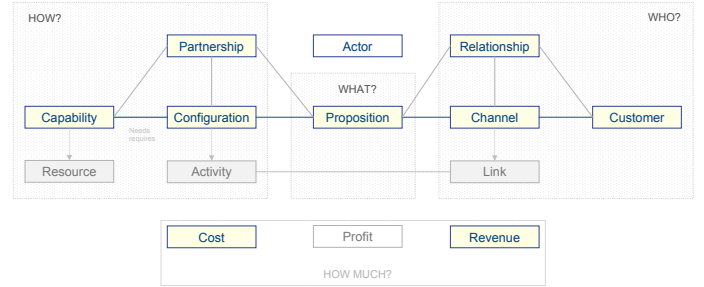
P the unit price of a product  
 V<sub>C</sub> the variable cost of a unit  
 Q the number of products sold  
 F<sub>C</sub> fixed costs



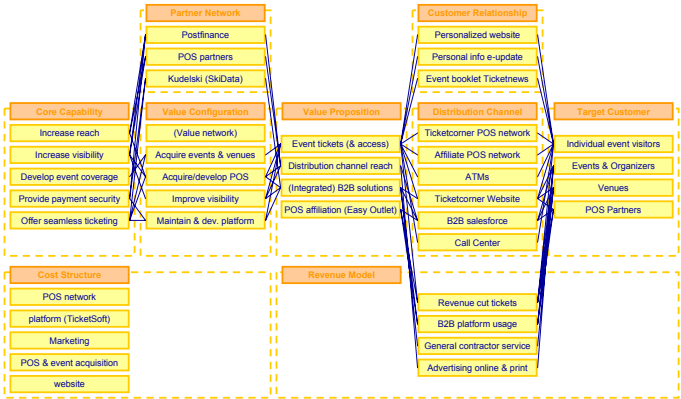
### Cost Structure

Cost positions	Percentage of total
Point of sales network development and maintenance	
TicketSoft platform development and maintenance	
Ticketcorner marketing	
Point of sales & event acquisition and maintenance	
Website	
Call center	
R&D	

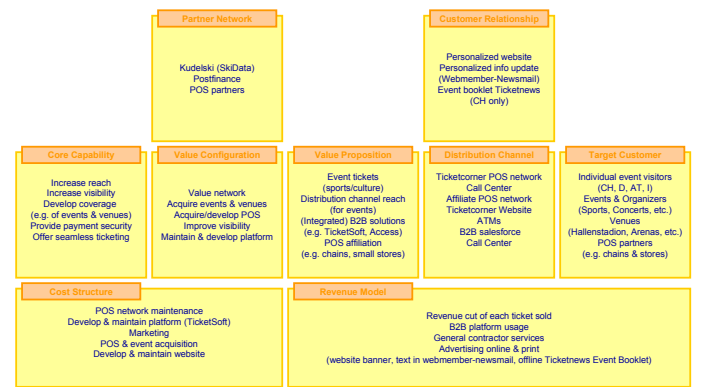
### Business model ontology > model



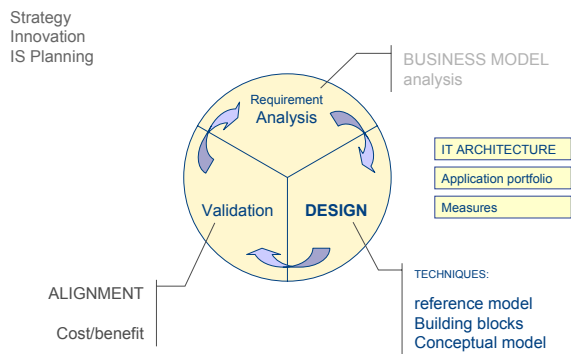
### Ticketcorner Business Model



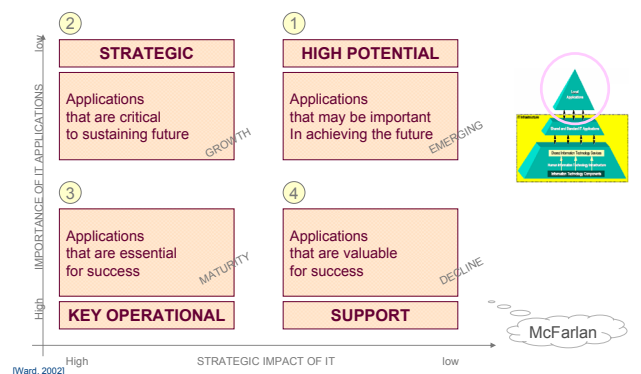
### Ticketcorner Business Model > bird eyes view



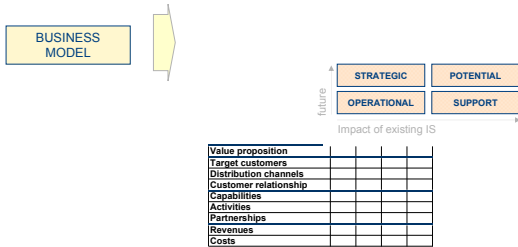
### Business model > design loop > IT architecture design



### Business model > design loop > IT architecture > application portfolio



Business model > design loop > IT architecture > application portfolio

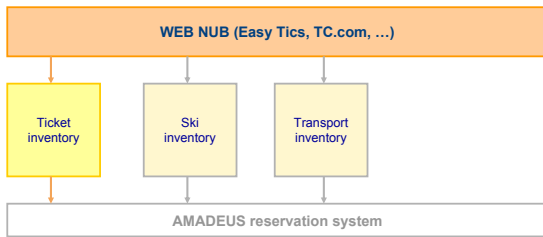


Business model > design loop > IT architecture > application portfolio

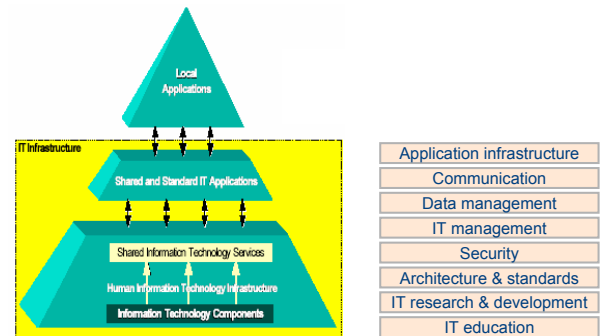


Activities	Strategic	Key Operational	Support	High Potential
Contracting musicians			Database, Office	
Contracting sponsors				
Ticketing	Website (NAGRA's system)	Reservation System	Accounting	
Promotion	Website		Mailing Database, Office	CMS
Concerts	(NAGRA System)	Production		
F&B	(NAGRA System)	Paycenter	Accounting, Office	
Commerce	(NAGRA System)	Paycenter	Accounting, Office	
Merchandising	(NAGRA Syst. em)		Accounting, Office	Website
Selling recordings		Concert Database	Accounting, Office	Website (Music downloading)
manage MJF infrastructure				
Production		Production		
JAZZ, currency & CASH		Paycenter & Views	Accounting, Office	
Volunteer management	(NAGRA system)	Volunteer Database	Volunteer Database, Office	

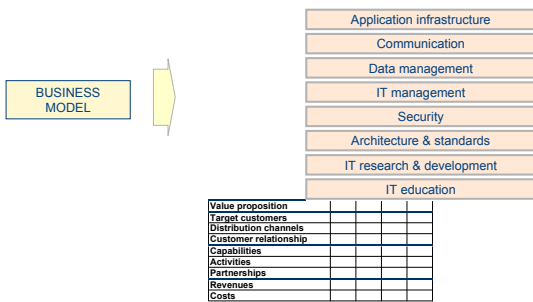
Business model > design loop > IT architecture >



Business model > design loop > IT architecture > infrastructure



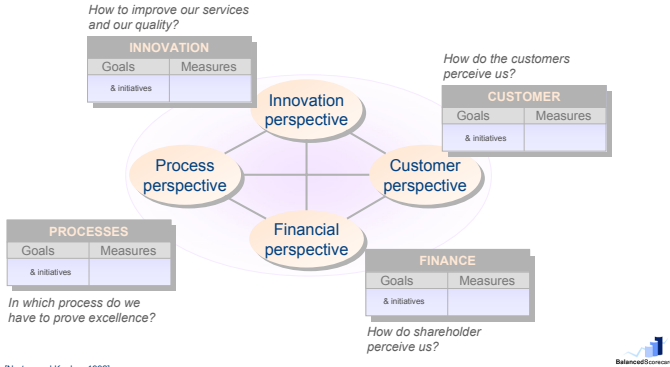
Business model > design loop > IT architecture > infrastructure



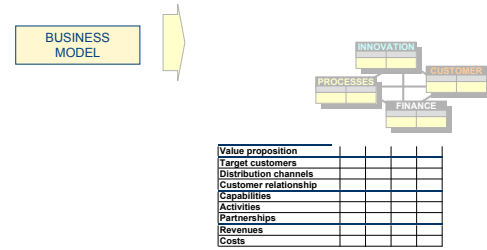
Business model > design loop > IT architecture > infrastructure

Application Infrastructure	Application Infrastructure Management	Data Management	IT Management	Security	Architecture and Standards	Human Management	IT Research and Development	IT Education
MJF concerts								
MJF off								
MJF organization	??	??	??	??	??	??	??	??
MJF sponsorship								
MJF merchandising	??	??	??	??	??	??	??	??
MJF festival & franchise	??	??	??	??	??	??	??	??
Target Customers								
Festivals/venues	??	??	??	??	??	??	??	??
Shows	??	??	??	??	??	??	??	??
Sponsorship	??	??	??	??	??	??	??	??
Special TV artists	??	??	??	??	??	??	??	??
Franchises	??	??	??	??	??	??	??	??
Distribution Channels								
www.musiquejazz.com	??	??	??	??	??	??	??	??
MJF event	??	??	??	??	??	??	??	??
Ticket Corner	??	??	??	??	??	??	??	??
www.ticketcorner.ch	??	??	??	??	??	??	??	??
MJF program	??	??	??	??	??	??	??	??
Media	??	??	??	??	??	??	??	??
www.musiquejazz.com	??	??	??	??	??	??	??	??
MJF sponsors	??	??	??	??	??	??	??	??
Classical Music F&S								
Relationships								
Sponsorship & VIP	??	??	??	??	??	??	??	??
Festivals/venues	??	??	??	??	??	??	??	??
Live (entertainment)	??	??	??	??	??	??	??	??
Capabilities								
Attractive MJF venue								
Attract. IT Service dev.	??	??	??	??	??	??	??	??

Business model > design loop > IT architecture > balanced scorecard



Business model > design loop > IT architecture > application portfolio

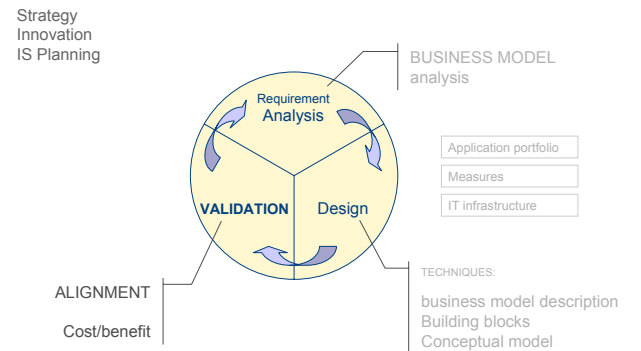


Business model > design loop > IT architecture > balanced scorecard

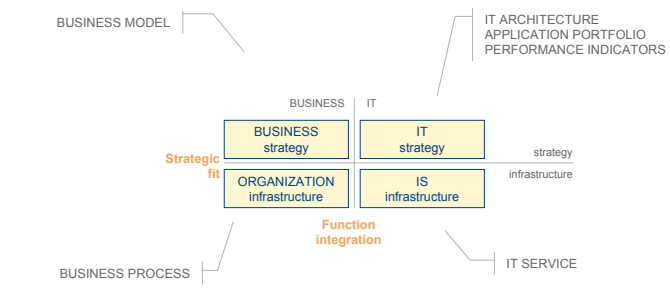
	BM element	Indicator	current	target	alarm
INNOVATION	Value Proposition	MJP concerts	percentage of seat capacity sold		
	Target Customer	Franchisees	quality of franchised festival		
	Distribution Channels	Media	media coverage (e.g. Nr. of TV broadcasts)		
CUSTOMERS	Relationship Management	Sponsor satisfaction	sponsor questionnaire		
	Value Configuration	F&B	hours out of beer		
	Capabilities	Attract and feature stars	nr. of top 20 Jazz musicians		
INFRASTRUCTURE	Partnerships	F&B	nr. of different exotic food stand		
FINANCE	Cost Structure	Artists	cost of contracts		
	Revenue Model	Merchandizing	percentage of total revenues		

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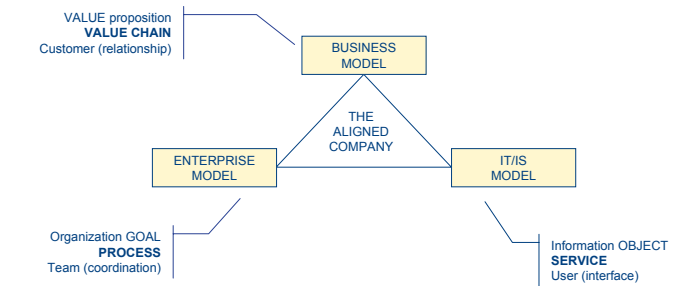
Business model > design loop > alignment



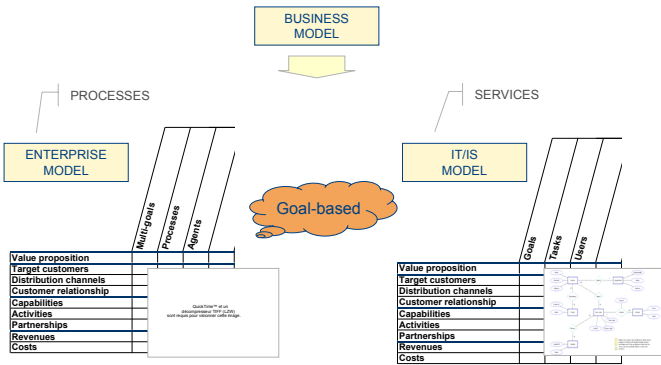
Business model > design loop > business/IT alignment



Business model > design loop > business/IT alignment



### Business model > design loop > alignment with processes and services



### Business model innovation

- Innovating in one or several of the business model components and as combining them in new and innovative ways
- Managers and executives had a whole new range of ways to design their businesses, which resulted in innovative and competing business models in the same industries.
- Before it used to be sufficient to say in what industry you were for somebody to understand what your company was doing because all players had the same business model.
- Today it is not sufficient anymore to choose a lucrative industry, but you must design a competitive business model.
- In addition increased competition and rapid copying of successful business models forces all the players to continuously innovate their business model to gain and sustain a competitive edge.

### Business model innovation > typology

- Supply-driven innovation
  - New way of doing/supplying or new technology
- Demand-driven
  - New or changing customer needs
- Similar business model
  - Same value proposition
- Extended business model
  - Adding new things
- New business model
  - New rules of the game ...

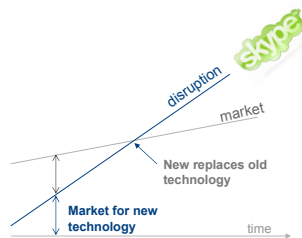


### Business model innovation > examples

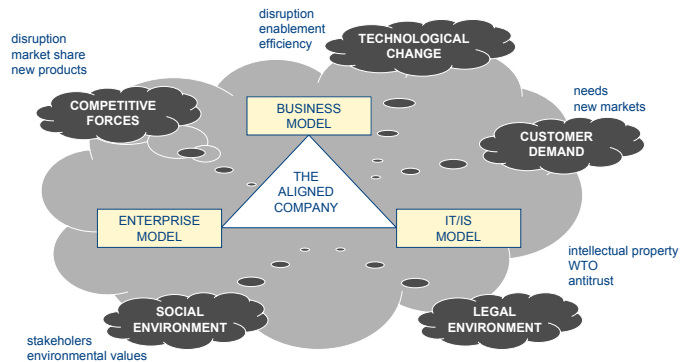
1. Value proposition	
2. Target customer segment	
3. Distribution channel	
4. Customer relationship	
5. Core capabilities	
6. Value configuration	
7. Partnership agreement	
8. Revenue streams	
9. Cost structure	

### Business model innovation > disruptive technology

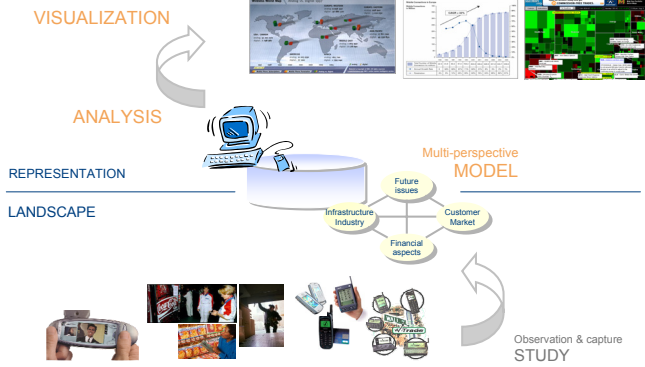
- A disruptive technology is a technology or an innovation
- "that results in worse product performance, at least in the near-term..."
- [It] brings to the market a very different value proposition than had been available previously...
- Products that are based on disruptive technologies are typically cheaper, simpler, smaller, and, frequently, more convenient to use.
- [But, they generally] under-perform established products in mainstream markets."



### Business model innovation > environmental pressures



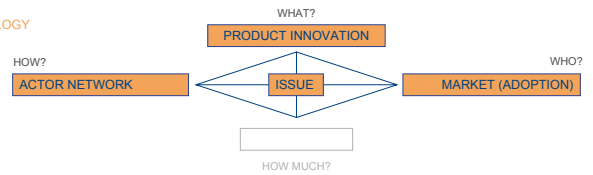
### Business model innovation > environment assessment



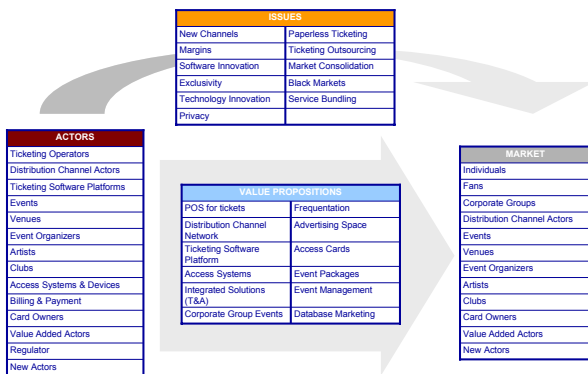
### Business model innovation > environment assessment > model

Viewpoint:  
ENVIRONMENT INTELLIGENCE

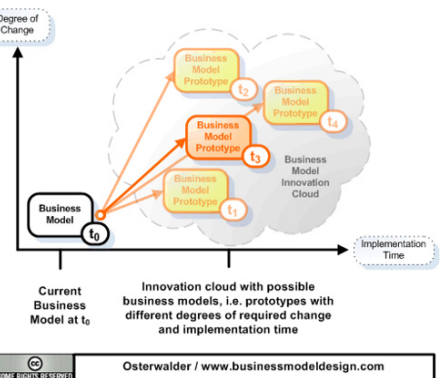
ONTOLOGY



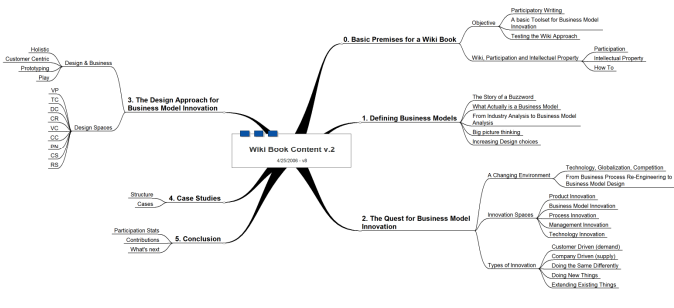
### Business model innovation > environment assessment > model



### Business model innovation > evolution & change management



### Next > wikibook "Business model design and innovation" > content



### Next > wikibook "Business model design and innovation"



Questions ...



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