







**Monnet** BeSustainAble-101085651-**ERASMUS-JMO-**2022-MODULE











\_\_\_

The project

# E-business models for sustainable development: digital marketing tools

V.N. Karazin Kharkiv National University,

Educational and Scientific Institute 'Karazin Institute of International Relations and Tourism Business',

Department of Hotel and Restaurant Business and Food Technologies (2022-2025)















- 1. The Business Model Concept
- 2. Development of Digital Business
- 3. Business Models in Digital Markets
- 4. B2C Digital Business Models: Content
- 5. B2C Digital Business Models: Commerce
- 6. B2C Digital Business Models: Connection
- 7. Hybrid Digital Business Models
- 8. B2B Digital Business Models
- 9. Digital Business Model Innovation











## 1. The Business Model Concept











1. Foundations of Digital Business Models

B2CContext Model

2. Business Model Concept

5. B2CCommerce Model

4. B2CContent Model

3. Digital Business

9. B2B Business Models

8. Hybrid Business Models

sustainability principles (ESG), models increasingly integrate aiming not only for profit but 10. Modern digital business also for positive social and environmental impact

Digital Business Model Innovation

7. B2CConnection Model

Google Case Study



## Co-funded by the European Union









Context of usage	1975– 1989	1990– 1994	1995– 2000	Total	Per- cent
Value creation	1	7	81	89	17.6
Tacit conception	4	25	55	84	16.6
Revenue model	0	13	58	71	14.0
Electronic commerce	0	7	57	64	12.6
Computer/system modeling	28	19	13	60	11.8
Relationship management	0	17	35	52	10.3
Business strategy	0	11	14	25	4.9
Varied other	3	12	5	20	3.9
Business plan	2	3	13	18	3.6
Organization design	0	5	9	14	2.8
Globalization	0	9	1	10	2.0
Time block totals	38	128	341	507	100
Percentage	8	25	67	100	-

Frequency of the business model term according to context

+ Sustainability / ESG



## Co-funded by the European Union









Business Informatics		Management Theory		
	Information- technological approach	Organization- theoretical approach	Strategic approach	
Development:	Phase I (1975-1995): business modeling for system construction     Phase II (since 1995): e-business	Management as science:     Taylor (1911), Gilbreth     (1911), Fayol (1916)     Various organization     schools (e.g., contingency     theory, transaction cost     theory)     The structuring of     organizations:     Mintzberg (1979)	Innovation: Schumpeter (1934) Strategy and structure: Chandler (1962), Ansoff (1965) Resource-based view: Penrose (1951), Barney (1986) Market-based view: Porter (1980)	
Establishment as a basic approach of the business model concept:	Since 1975     Development parallel to the business model term	Since 1995 Structure detached from IT Business structure/ Business plan/ business architecture	Since 2000     Strategic business structuring     Business model innovation     Value creation	
Important representatives of the view:	Timmers (1998)     Wirtz (2000)     Afuah/Tucci (2003)	Linder/Cantrell (2000)     Keen/Qureshi (2005)     Tikkanen/Lamberg (2005)	Hamel (2000,2001)     Chesbrough/ Rosenbloom (2002)     Zott/Amit (2008)	

Research streams of the business model concept

Concept of business model

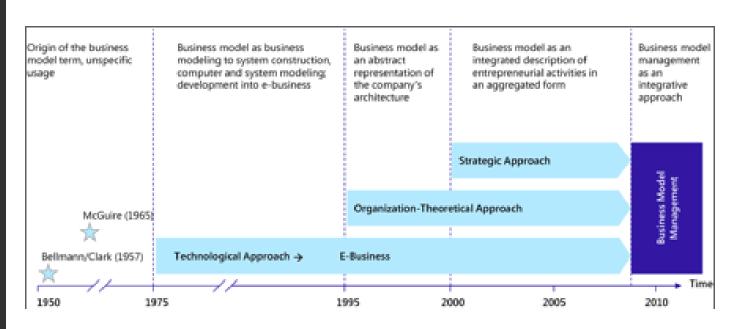








## Development of the business model concept.

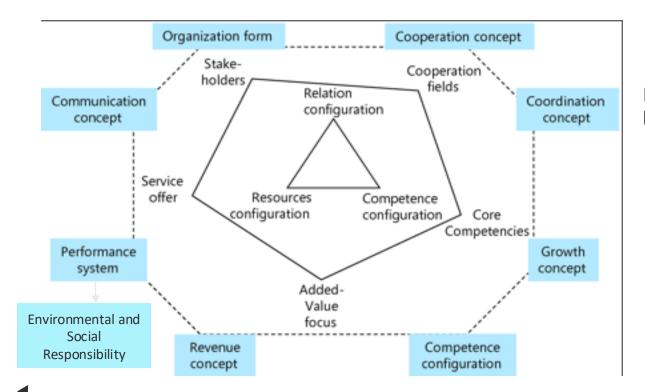












Eight dimensions of a business model

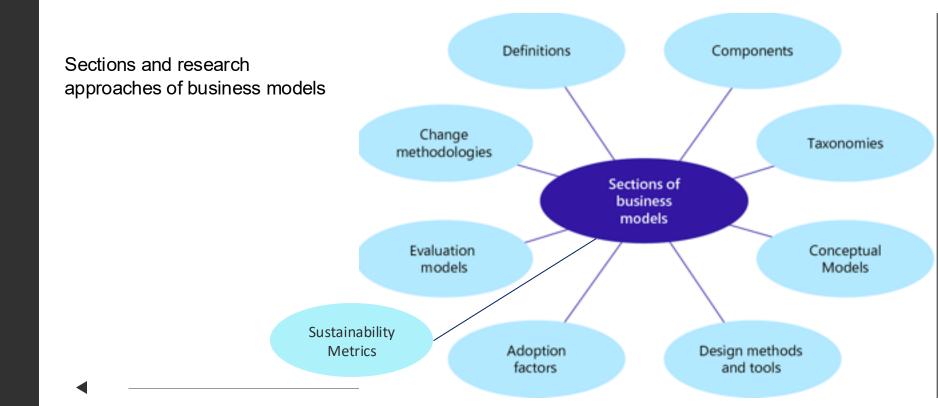












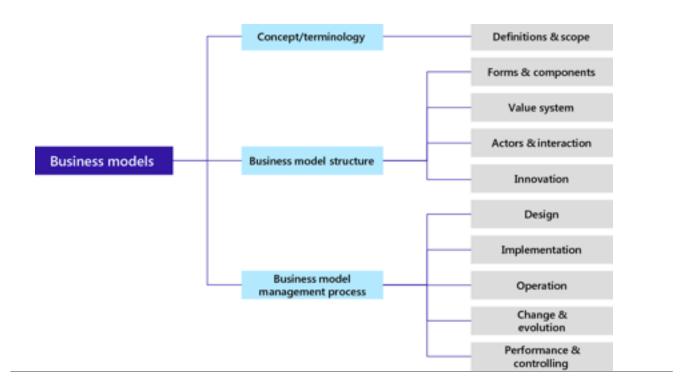








## Business model classification according to Wirtz











# 2. Development of Digital Business

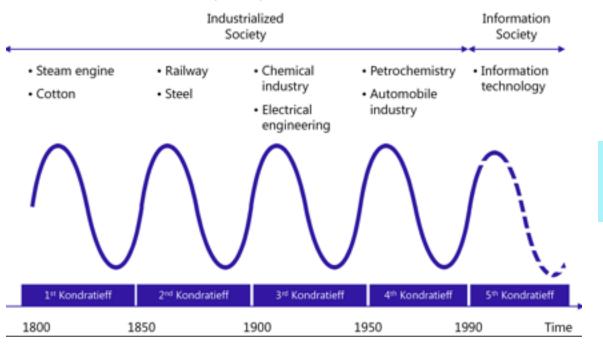








Kondratieff-cycle. Source Nefiodow (1999)



6th Kondratieff (2020+): Biotech, Renewable Energy, Circular Economy, Al for Sustainability

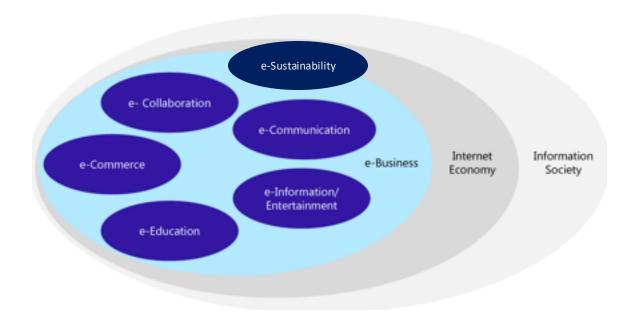








## Dimensions of the information society



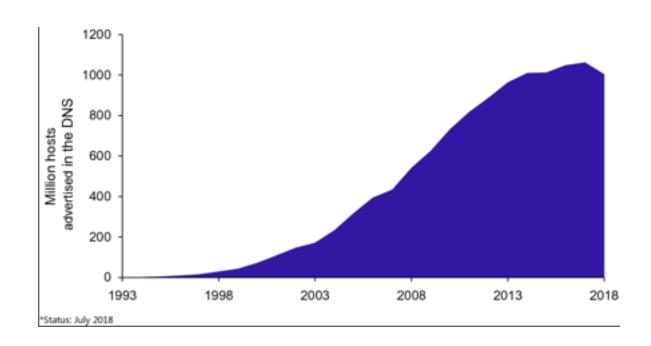








## Dimensions of the information society













Worldwide Internet usage and population statistics

Regions	Population (2017 Est.)	www users (31 Dec 2000)	www users (31 Mar 2017)	Pop. in %	Growth (2000– 2017) (%)	Users in %
Africa	1,246,504,865	4,514,400	345,676,501	27.7	7557.2	9.3
Asia	4,148,177,672	114,304,000	1,873,856,654	45.2	1539.4	50.2
Europe	822,710,362	105,096,093	636,971,824	77.4	506.1	17.1
Latin Ameri- ca/Caribbean	647,604,645	3,284,800	385,919,382	59.6	2035.8	10.3
Middle East	250,327,574	108,096,800	141,931,765	56.7	4220.9	3.8
North America	363,224,006	18,068,919	320,068,243	88.1	196.1	8.6
Ocea- nia/Australia	40,479,846	7,620,480	27,549,054	68.1	261.5	0.7
World total	7,519,028,970	360,985,492	3,731,973,423	49.6	933.8	100.0

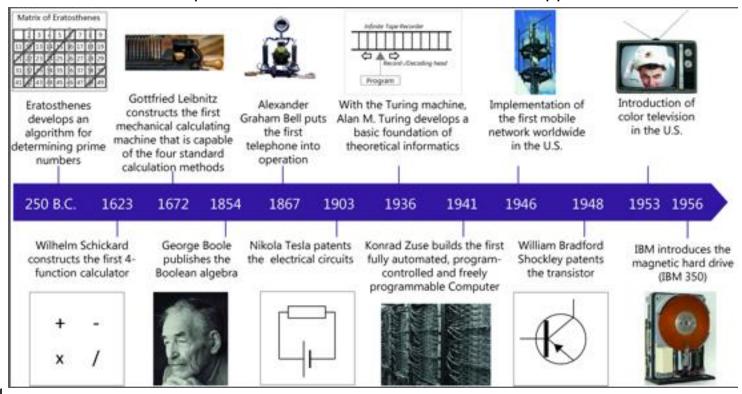








## Development of information and communication applications



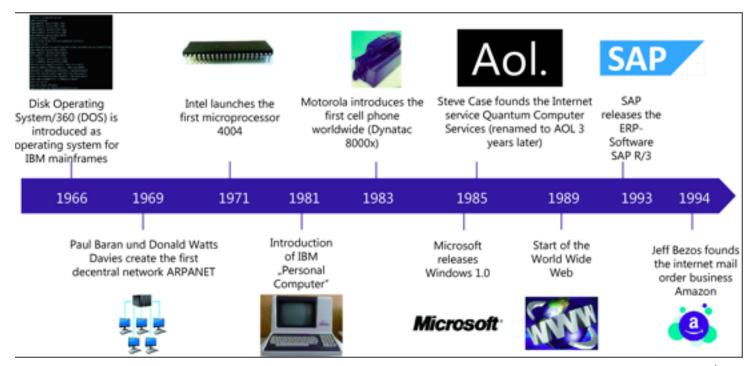








## Development of information and communication applications (1966 until 1994)



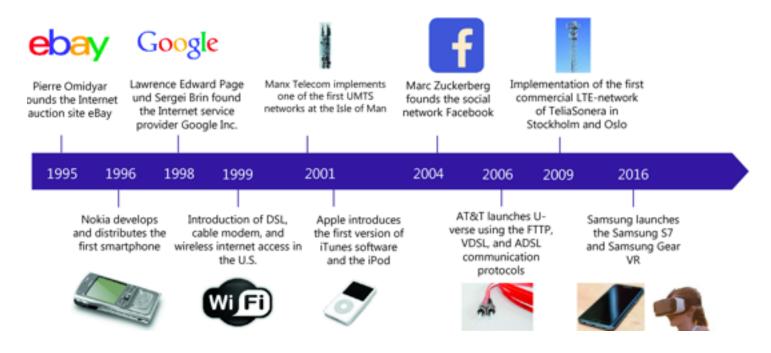








## Development of information and communication applications (1995 until 2016).





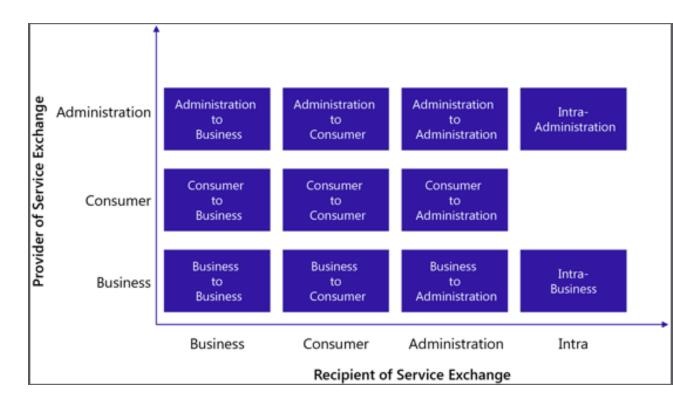








Matrix of interaction patterns in digital business













Stage of Development

Commercial

Transaction

· Back office integration

Online transaction.

e.g., conclusion of sales contracts



Economic Activity/ Value Creation

## Stage of Development Static Presentation

- · Product and business description
- Static content
- No personalization
- · Publication of company information

## Stage of Development

Communicational Interaction · Pre- and aftersales

- services
- · Customer request, e.g., via email
- · Sending information

### Stage of Development Value and Partner

- Integration
- · Electronic integration of transaction partners into value
- · Highest stage of

- creation processes
- interactivity

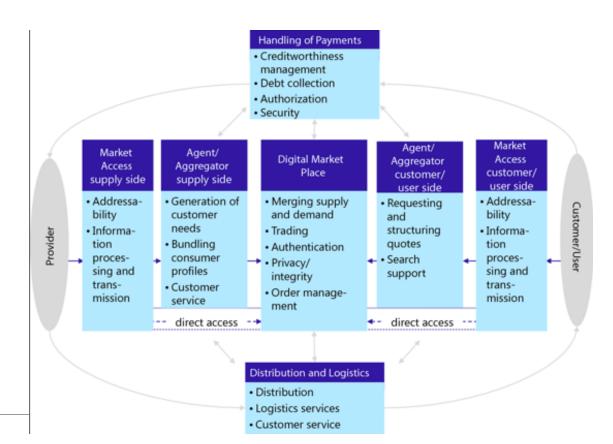








Service exchange model of Internet economy



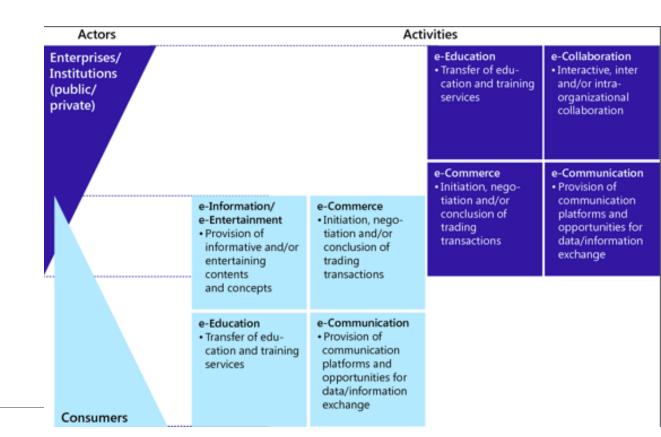








Actors and activities of digital business





## Co-funded by the European Union









Success factors of digital business

## Digital Innovation Capability

- Market analysis/customer needs
- Evaluation of risks and opportunities of a innovation
- Physical vs. virtual goods
- Digital Marketing Efficacy (Leveraging digital marketing tools (SEO, content marketing, email marketing, SMM) to communicate sustainability initiatives, engage audiences, and build loyalty based on shared values.

## Capability for Networking and Integrating

- Digital combination and processing of information
- Resources and time advantage through electronic networking without media disruption
- Network effects and lock-in effects

## Strategic and Organizational Flexibility

- Dynamic environment of the Internet economy
- Focusing on customer relationship
- Capability of adapting to market structure at different company levels

#### Ease of Use

- Efficiency of and access to business interfaces
- Transfer of offline basics to e-business
- Focus on customer/user needs
- Sustainability Integration Capability: supply chain transparency, green tech, responsible consumption



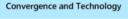
Five-forces model of digital

business



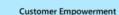






- · Convergence in ICT
- Convergence in the broadband Internet and mobile networking
- Technology-driven infrastructure and networking

Sustainability & Regulation



- Rising market transparency and accountability
- Reduction of switching barriers decreases customer loyalty
- Connecting customers in social networks and virtual communities

#### Digitalization and Innovation Dynamic

- Digitalization of products and services
- Rapid product and service developments
- High innovativeness and innovation dynamics

#### Market Complexity

Companies

- Rising market transparency and market fragmentation
- Decreasing market entry and switching barriers
- Disintermediation

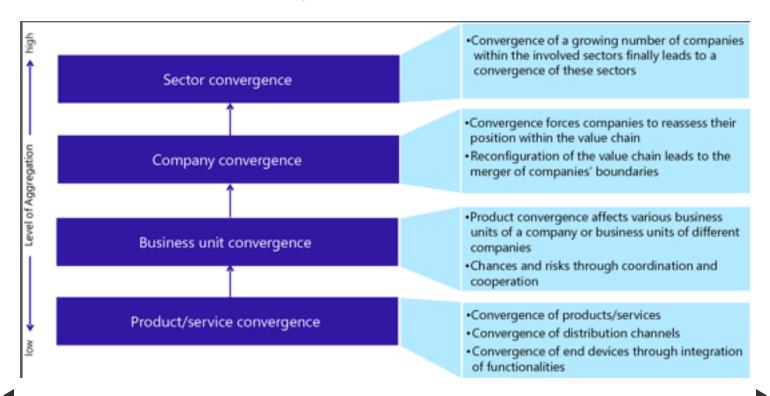








## Four-level convergence model



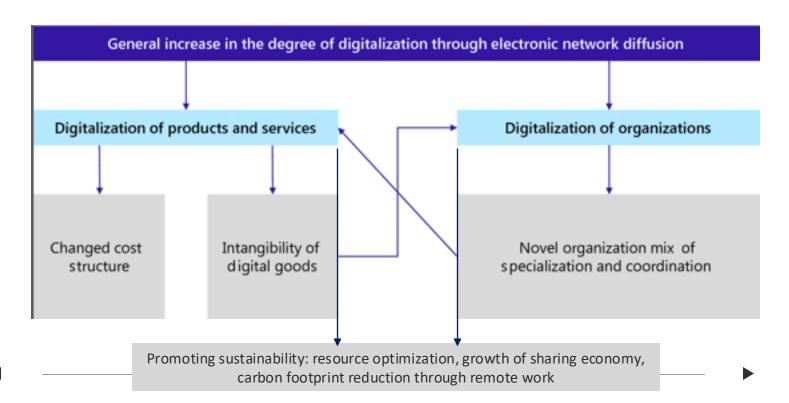








## Impacts of digitalization



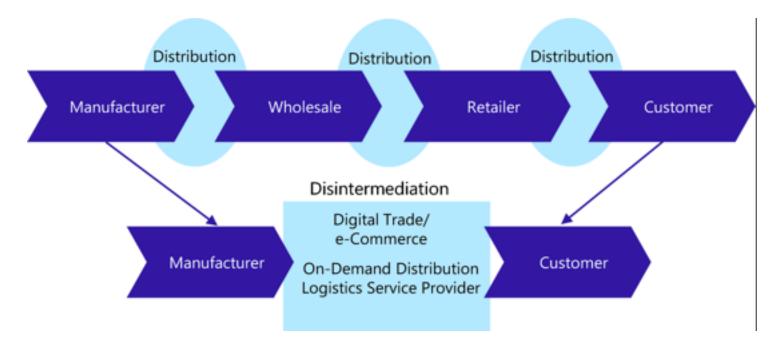








### Disintermediation











# 3. Business Models in Digital Markets









## 4C-Net Business Model

Content	Commerce		
Compilation (packaging)     Depiction and provision of content on a domestic platform	Initiation and/or settlement of business transactions		
Context	Connection		











### 4S-Net Business Model

Sourcing	Sales
Initiation and/or     Settlement of direct B2B business transactions from buyer to seller	Initiation and/or     Settlement of business transactions from seller to buyer
Supportive Collaboration	Service Broker
<ul> <li>Supporting collaborative value generation</li> <li>Collaborative research and development</li> <li>Collaborative production</li> <li>Collaborative sale</li> </ul>	Support of B2B business transactions     Providing information and marketplaces of third parties





















 Depiction and provision of content on a domestic platform

Content

### The content business model

### e-Ecology

leonardo.eco platform

## Marketing Tools for the Content Model:

SEO for 'green' keywords; Content marketing (blogs, articles, sustainability reports); ESG-focused email newsletters; Webinars and online courses

#### e-Information

- e-Politics
  - state.gov
- · e-Society
  - thesun.co.uk
- e-Economics
  - wsj.com
- ....

#### e-Entertainment

- e-Games
  - partypoker.com
- e-Movies
  - gutenberg.us
  - movies.go.com
- e-Prints
  - worldlibrary.net
- e-Music
  - apple.com/iTunes

#### • ...

#### e-Infotainment

- nba.com
- sportsline.com
- ...

#### e-Education

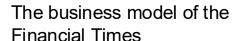
- Virtual University
  - vu.org
- Public Education
  - onlinelearning.com
  - salto-youth.net
- ....







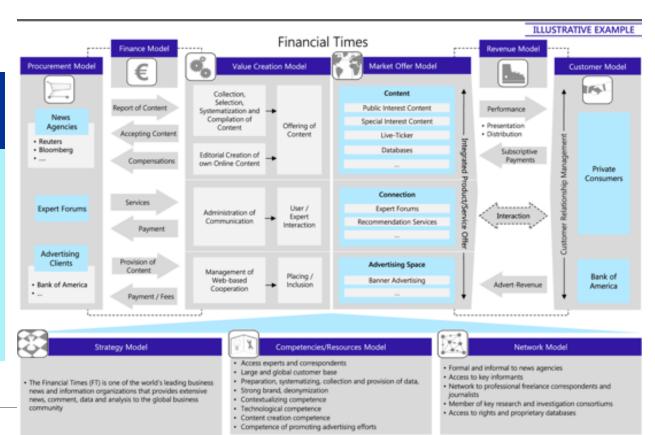




Coverage of ESG topics and support for corporate transparency

Marketing Channels:

Targeted contextual advertising for finance professionals; SMM for promoting ESG research; SEO articles on trending sustainability topics











## Service offer from online-learning.com











## Aggregated value chain of the content business model

Conception	Content Development/ Production	Acquisition & Placement of Advertising	Technical Distribution	Marketing & Distribution	Billing
Content selection Service selection Design Determination of the target group	Content procurement (content sourcing) Content creation User-generated content	Standardized banner advertising     Integration of individualized advertising     Sponsoring	<ul> <li>Pull (i.e., download)</li> <li>Push (i.e., RSS- feed)</li> </ul>	Cross-medial marketing Coordination of the sales channels Price and conditions strategy Communication strategy	Payment processing     Receivables management











# Competitive Advantage

#### Core Assets

- Content, Exploitation Rights
- Brand
- Employees
- Networks

## Core Competencies

- Content Sourcing Competence
- Content Creation Competence
- Product Development Competence
- Distribution
   Competence

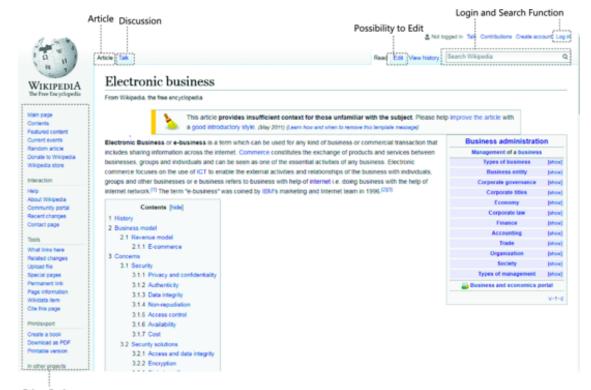








Functions of Wikipedia



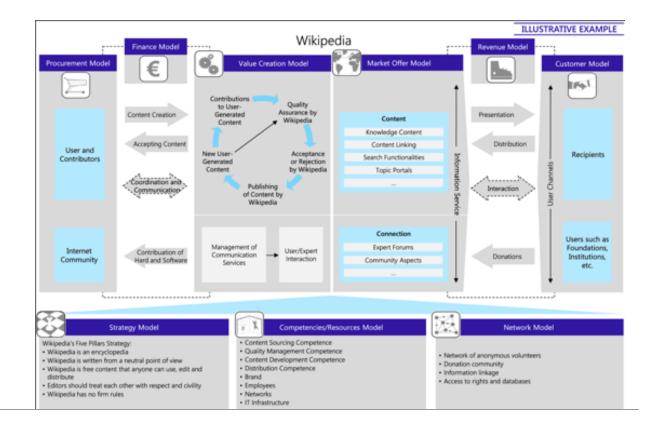


# Co-funded by the European Union













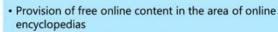






# Strategic orientation of Wikipedia

# Strategy



· Information leadership in the knowledge sector

Business Model  Content aspect: collection, selection, systematization, compilation and provision of knowledge in form of a freely accessible and advertisement-free information portal

Aspects

 Business model type: E-information without focus on one specific area of information

Service Offer

- · Extensive pool of knowledge
- · Extended content through other Wiki-tools
- · Integration with other Wiki-tools
- Community Features

Success Factors

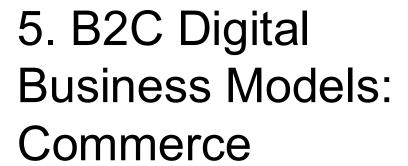
- · Non-profit, free-of-ads and free-of-charge encyclopedia
- Activity of intrinsically motivated authors
- · Well-known brand
- Large customer base, high number of users
- Community aspect
- · Collected knowledge of a worldwide collective authorship





















The commerce business model

Initiation, negotiation and/or settlement of business transactions

Commerce

#### Green e-Tailing

zero-waste stores

Marketing Tools for the Commerce B Model. Green SEM (ads highlighting product eco-features); Social media marketing (Instagram, TikTok for eco-products); Retargeting for sustainability-interested shoppers; Loyalty programs for ecopurchases

#### e-Attraction

- Online Advertising
- -google.com/adsense
- Market Place
  - shopping.com
- ...

## e-Bargaining/ e-Negotiation

- Auction
  - ebay.com
  - marmaladeskies.com
- Price-seeking
  - Pricegrabber.com
- ...

# e-Transaction

- Payment
  - paypal.com
  - paybox.net
- Delivery
  - fedex.com
  - -ups.com
- ...

#### e-Tailing

- amazon.com
- ..









# Example of context-specific advertising of Google

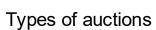












		Seller	
		One	Multiple
Buyer	One	Not applicable	Reverse Auction
	Multiple	Forward Auction (English or Dutch Auction)	Double Auction

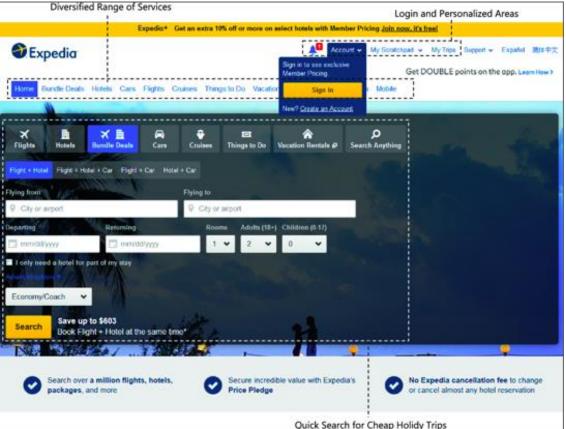








Services of Expedia.com.











## Value chain commerce business model

Design	Presentation	Transaction Initiation	Price- Setting	Services/ CRM
Design  • Determining Target Group  •	Shop Design Product Presentation Service Design Experience Design	<ul> <li>Interconnectedness</li> <li>Brand Development</li> <li>Customer Acquisition</li> <li>Sales Activities</li> </ul>	<ul> <li>Contract     Finalization</li> <li>Price Determination</li> <li>Payment     Handling</li> <li>Distribution</li> </ul>	<ul> <li>Customer Relationship Management</li> <li>Customer Data Management</li> </ul>

• Utilization of digital marketing tools (content marketing, email marketing, targeted advertising, social media marketing)

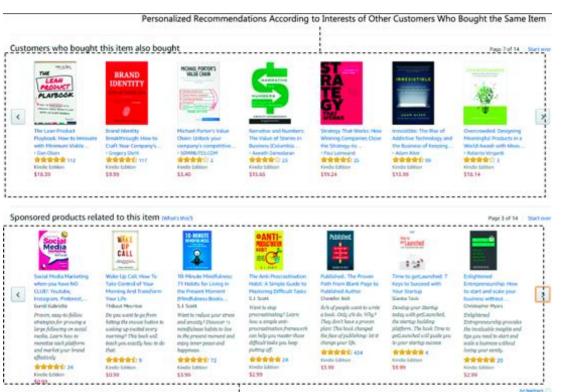








# Personalized product recommendations on Amazon











Core assets and competencies of the commerce model.

# **Competitive Advantage**

#### Core Assets

- Customer Base
- Customer Network
- Customer Data
- Sales Structure
- · Technical Infrastructure

# Core Competencies

- Assortment Selection
- Bundling Competence
- Experience Design
- Sales Structure
- Technical Infrastructure









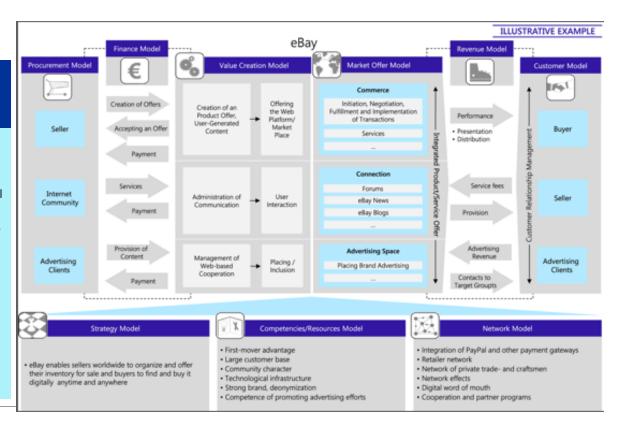
=

The business model of eBay

Promoting circular economy by extending product lifecycles

 eco-enthusiast communities

Market Offer Model
(Digital Marketing:
SEO for "buy used",
"recycling" queries;
SMM campaigns on
"give items a
second life"; Email
marketing with
curated secondhand product
selections)















# Strategic orientation of eBay

#### Strategy

- · Provision of online auction plattform and market place
- Further services related to the negotiation/ bargaining as well as the processing of transactions through the Internet

Aspects

· Market leader of online auctioning

#### Business Model

- Commerce aspect: initiation, negotiation and processing of business transactions
- · Business model types: e-bargaining/e-negotiation

#### Service Offer

- Provision of a simple online plattform to present and offer products, as well as an optional auction-based pricing tool
- Extended services to increase visibility, market products, as well as the integration of different payment options
- Community features

#### Success Factors

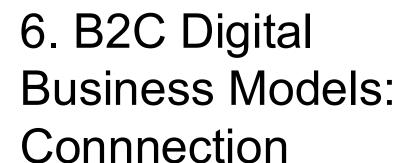
- · First-mover advantage, well- nown brand
- · Large customer base, high number of users
- Community aspect
- · Worldwide market leader in online auctions





















The context business model

 Classification and systematization of information available on the Internet

Context

#### Sustainability Networks

 eco-enthusiast communities

Search Engine
Optimization (SEO) for
sustainability
websites; Search
Engine Advertising
(SEA) for eco-brands;
Local SEO for 'green
stores near me

#### **Search Engines**

- · General Search
  - Google.com
  - Bing.com
- Special Search
  - Technorati.com
  - ...
- Meta Search
  - Dogpile.com
  - -.
- Desktop Search
  - Google Desktop
  - Yahoo! Desktop
  - ..

#### **Web Directories**

- · Web Directories/ Lists
  - Yellow.com
  - Yahoo.com
  - Sharelook.com
- -..

# **Bookmarking Services**

- Social Tagging
- Del.icio.us
- Dmoz.org
- Citeulike.org
- ...









## Context value chain

Operation of Server	Search Software/	Sale of	Presentation/	Marketing/
	Algorithm	Advertising Forms	Contextualization	Billing
Hardware     Software	Reliability of Search Results     Amount of Data Included     Differentiation/ Objective	Keyword     Advertising     Placement	Relevance     Integration of     Advertising     Cross-Linking	<ul> <li>Data Mining</li> <li>Cross-Selling</li> <li>Cost per Click/ Performance</li> <li>After Sales</li> </ul>

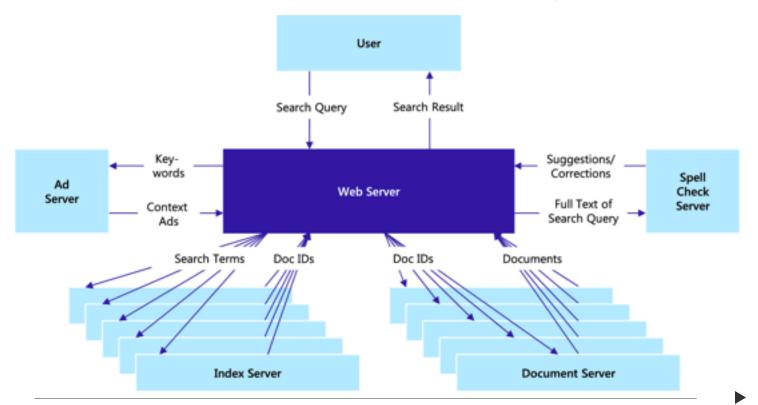








# Server structure and interaction for a search query





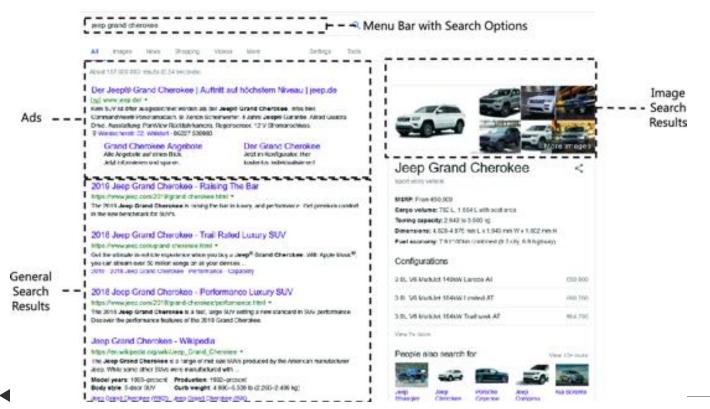
# Co-funded by the European Union







Integrated search result of the search engine Google.





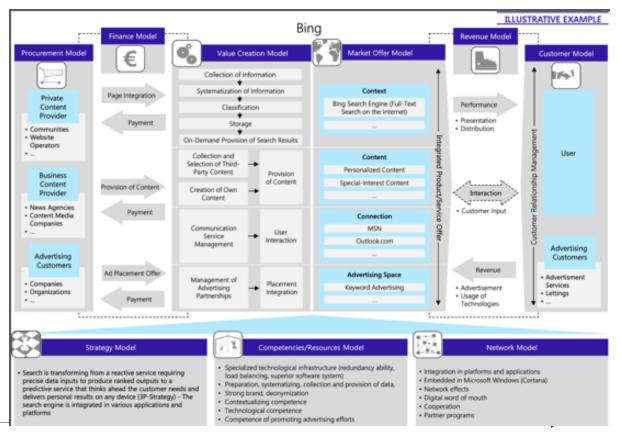








Business model of Bing













# Strategic orientation of Bing

### Strategy

 Organize and systematize global presence of information on the Internet and provide it to users by means of an userfriendly interface

**Aspects** 

#### **Business Model**

- Context aspect: Classification und systematization of information available on the Internet
- Business model type: e-search classified as general search
- Partial content aspect: collection, selection, systematization, compilation (packaging) and provision of own content and third-party content
- Partial connection-aspect: Opportunity to exchange information by means of social web applications, integration of Microsoft's services

# Range of Services

- · Free search engine
- Integration of other Microsoft services such as MSN and Outlook.com
- · User-friendly interface

#### **Success Factors**

- Brand awareness of Microsoft as parent company behind the search engine Bing
- · Network effects/economies of scale
- Cooperation and partner programs

Opportunity for brands to use the platform for **green SEM** and targeting audiences interested in sustainability









The connection business model

 Creation of the possibility to exchange information in networks

#### Connection

# Intra-Connection (Community)

- Social networks
- facebook.com
- plus.google.com
- snapchat.com
- User messages
  - skype.com
  - icq.com
  - twitter.com
- File exchanges
  - rapidshare.com
- flickr.com
- · Customer opinion portal
  - yelp.com
  - epinions.com
- Mailing services
- gmail.com

• ..

#### Inter-Connection

- · Fix connection
- earthlink.net
- sonic.net
- · M-connection
  - att.com
  - t-mobile.com
- ...

Social Media Marketing (SMM) for building ecocommunities; Influencer marketing with 'green' bloggers; User-Generated Content (UGC) campaigns (#myecoproduct); Video marketing (YouTube, TikTok) for promoting sustainability









• ....

Tesco Mobile

M-Connection Providers in the UK

 $O^2$ EE Three Vodafone Mobile network hosts and 1pMobile Anywhere Sim AfriMobile 360Coms Telecom operators in the Airwaye Smart Mobile
 Believe Mobile Anywhere Sim · Age UK My Phone UK. Anywhere Sim C4C Mobile Cloud SIM Anywhere Sim Asda Mobile Champions Mobile FreedomPop Bemilo Auracall Travel Talk Fonome Mobile Gamma Telecom Candy Telecom · Axis Telecom giffgaff iD Mobile Jump BT GT Mobile Pebble Mobile Kontakt Mobile Network Chromebook 3G SIM Jadoo Mobile Lebara Mobile Piranha Mobile Ltd CTExcelbiz · Pebble Mobile Jump Rok Mobile Network Delight Mobile KC Mobile RWG Mobile Talkmobile Digital Phone Lycamobile Shebang (PG Truphone Econet Mobile Mobilek Mobile) · Pebble Mobile Food Mobile Simwood Network · Virgin Mobile Telfoni · Piranha Mobile Ltd White Calling









Value chain of the connection business model

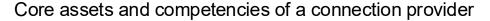
Server Operations	Network Infra- structure	Marketing/ Sales	Billing	After-Sales Services/ CRM
Software     Hardware	Extension and maintenance of the network infrastructure     Implementation of new hardware standards (LTE, G5)     Cooperation with infrastructure partners (e.g., backbone networks)	Management of physical distribution     Continuous increase of brand awareness and brand extension     Up-selling of own rate structure to premium rates	Extension of payment functions     Payment processing     Receivables management     Development and implementation of innovative payment methods	Customer relationship management     Relief of aftersales services through easy-to-use services (e.g., FAQ, chatbots)











# **Competitive Advantage**

#### Core Assets

- · Network infrastructure
- IT platform
- Employees
- · Sales structure
- Brands
- Customer or user base and respective data

## Core Competencies

- Technology competence
- Integration competence
- Customer acquisition
- Customer loyalty



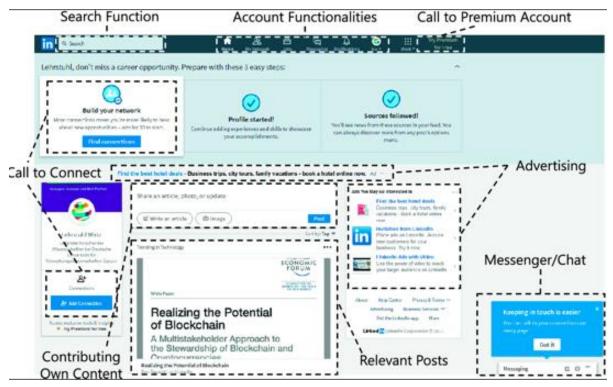
# Co-funded by the European Union







### Screenshot LinkedIn home





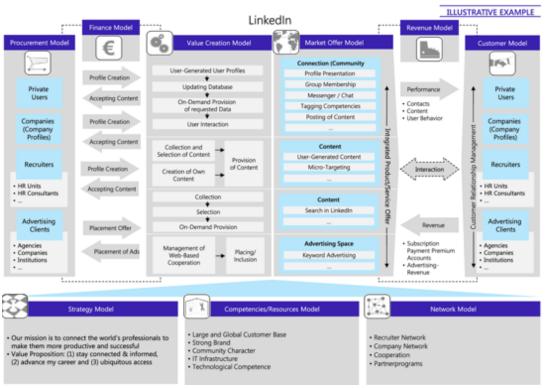
# Co-funded by the European Union







#### The LinkedIn business model













# Strategic focus of LinkedIn

### Strategy

 LinkedIn's mission is to connect the world's professionals to make them more productive and successful

Aspects

#### Business Model

communicative services. LinkedIn is a community-platform and therein can be assigned to social networks

• Partly a content-approach by providing user-generated content.

· Focus on intra-connection, offering of online commercial and

- Partly a content-approach by providing user-generated content in customer and company profiles. Here, the collection and selection of content is particularly relevant
- Partly a commerce-approach through the sale of services to business customers and the provision of initiation/ negotiation functions

B2B Marketing Solutions
Targeted advertising for promoting
ESG consulting,
green tech, and sustainable B2B
solutions among professionals

#### Service Offer

- Provision of professional and company profiles and placement of contacts
- · Provision of personalized advertising
- · Provision of analysis services

#### Success Factors

- · Brandawareness of the company and high number of users
- Global presence and pronounced scale and network effects
- · Comprehensive and differentiated recruiting services









# 7. Hybrid Digital Business Models

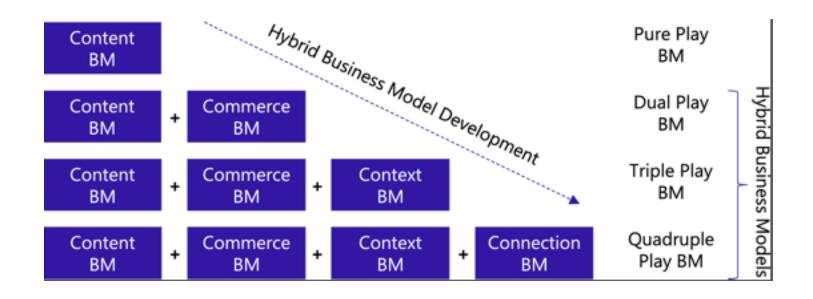








# Hybrid business model development

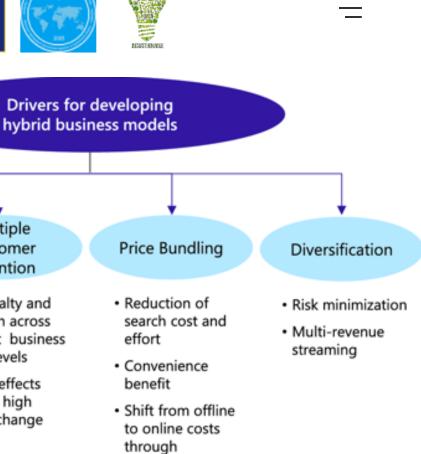












Reasons for the development of hybrid business models

Sustainability

Resource efficiency and waste reduction through service integration

- Network Effects
- Economies of scale to expand service provision
- Network effects to strengthen the customer base
- · User loyalty and retention across different business model levels

Multiple

Customer

Retention

- Lock-in effects through high system change costs
- One-stop interface

automatization









Development of Google's hybrid business model

**Business Units** Commerce Context Connection Outside the 4C-Net: Content Information Technology Google! 1998 Google AdWords Google Google Google Groups 2001 Catalog Search Images Google Google Google Froogle Search 2002 News Toolbar Appliance Google Google Google Blogger 2003 AdSense Desktop Google Google Google GMail Google Orkut Picasa 2004 Scholar Local Books Google Google Google Google Talk Google 2005 Maps Earth Analytics Blog Search You Google Google Google Google Google Google Tube Finance Trends Apps Checkout SketchUp Google Google Google Street iGoogle Google Product 2007 Docs View Search Google Google Google Google Knol Friend 2008 Android Health Chrome Connect Moderator Sites Google Google Google Google Google Google Google Google 2009 Base Calendar Places Voice Wave Latitude Ventures\* Google Google Google Google Google 2010 Nexus Dashboard Goggles Buzz Fiber\* Google Google Merchant Google+ Chrome OS 2011 Centre Google Google Google Google Google 2012 Politics & Chromebook Catalogs Play Shopping Google Google+ 2013 Calico\* CapitalG\* Google Keep Drive Hangouts 2014 Google Chromecast Cardboard, Glass (i.E.) Labs\* Chromecast 2015 Project Fi Nexus Player audio 2016 Google Google Google Google Google FarmeBit Daydream Pixel Home 2017 Google Assistant

Source: Wirtz (2019, 2020)



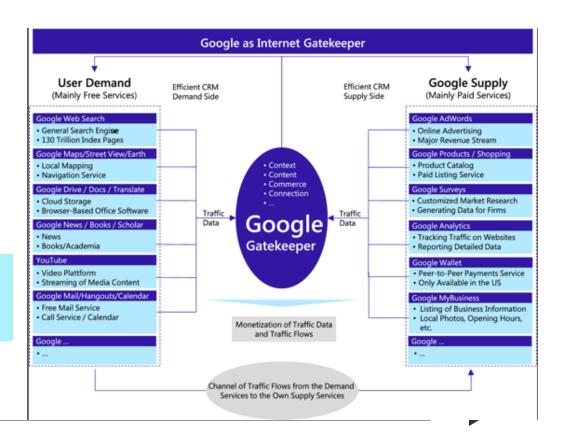






Google as Internet gatekeeper

Google's Sustainability Initiatives: Carbonneutral since 2007, aim to operate on 24/7 carbon-free energy by 2030, tools like Environmental Insights Explorer













# **Digital Marketing Toolkit for Sustainable E-Business**

Business Models	Marketing tools	Examples of use for sustainability
Content	SEO, Content marketing, Email marketing	Promotion of articles on Sustainable Development Goals (SDGs)
Commerce	SEM, SMM, Retargeting, Affiliate marketing	Advertising of goods from ethical sources, 'green' certificates
Connection	SMM, Influencer marketing, UGC, Video marketing	Creation of communities around eco-initiatives, challenges
B2B	LinkedIn Ads, Webinars, Email narratives	Promotion of ESG reporting, sustainable supply chains









# 8. B2B Digital Business Models











# 4S-Net Business Model

Sourcing	Sales
Initiation and/or     Settlement of direct B2B business transactions from buyer to seller	Initiation and/or     Settlement of business transactions from seller to buyer
Supportive Collaboration	Service Broker
• Supportive Collaboration • Supporting collaborative value generation	• Support of B2B business transactions
	Support of B2B business transactions     Providing information and marketplaces of
Supporting collaborative value generation	Support of B2B business transactions



# Co-funded by the European Union







- Initiation and/or
- Settlement of direct B2B business transactions from buyer to seller

Digital business model sourcing

#### Sourcing

# Private B2B-Exchange (One To One)

- Extranet/EDI
  - NEC
  - Dell
  - IBM
  - ...

# Buy Side B2B-Exchange (One To Many)

- Buy Side E-Marketplace
  - General Motors
  - Siemens
  - ...
- Intranet
  - Intel
  - ...









#### Aggregated value chain of the sourcing business model

Requisition	Search Provider	Select Provider/ Product	Order	Order Processing
Specification of Needed Items     Quantity of Needed Items	Search for Potential Providers     Contacting Potential Providers	Selection of Providers     Selection of Products	Order Purchasing     Order     Transmission	Receipt     Invoice Verification     Payment









Core assets and core competencies of the sourcing business model

#### **Competitive Advantage**

#### Core Assets

- Integrated Procurement System
- Provider-Network
- IT platform

#### Core Competencies

- Buying-Know-How
- Negotiation Skills
- Data Processing Skills









- · Initiation and/or
- Settlement of direct B2B business transactions from seller to buyer

Sales

#### Digital business model sales

#### Private B2B-Sale (One To One)

- Extranet
  - Cisco
  - Roche
  - ...

#### Sell-Side B2B-Exchange (One To Many)

- Sell-Side E-Marketplace
  - Microsoft
  - Bosch
  - ...
- B2B-Storefront
  - Hertz.com
  - Stapleslink.com
  - ...









#### Aggregated value chain of the sales business model

Key-Account- Management	Channel- Relationship	Sales Execution	Billing	After-Sales- Management
Analysis of     Customer     Segments     Selection of     Customer     Segments	Customer     Relationship     Management     Building the Sales- Platform	Order Processing     Delivery of Good,     Provision of     Services	Classical Invoicing Practice     Electronical Transferal, Direct Debit	Customer Loyalty     Service, Care     After-Sales- Support









Core assets and core competencies of the sourcing business model

#### Competitive Advantage

#### Core Assets

- Customer Base
- Key Account Network
- Brand Development
- Distribution Structure
- IT Platform

#### Core Competencies

- Negotiation Skills
- Pricing Skills
- Setup and Operating of Technical Infrastructure









#### Digital business model of supportive collaboration

- Support of Collaborative Value Generation
- Collaborative R&D
- Collaborative Production
- Collaborative Sale

#### Supportive Collaboration Collaborative R&D Collaborative Production Collaborative Sale Network Innovations Partner Networks Trading Exchange of Consortiums - Automotive sector - Sony - Telecommunication sector - BMW - GHX.com - Staralliance.com - Pharmaceuticals









#### Aggregated value chain of the supportive collaboration business model

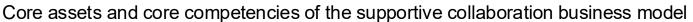
#### Collaboration Collaboration Collaboration Collaboration Collaboration Planning Scheduling **Fulfilment** Partnering Audit Analysis of Value Itentification and Negotiation of Collaboration Examination of Chain According to Selection of Contact Conditions Fulfilment Collaboratioin Collaboration Potential Fulfilment Definition of · Execution of Potential Collaboration Organizational Defined Performance-Partners Chart Collaboration Measurement of · Contacting and Collaboration and Conclusion of Installation of IT-Contract Implimentation of Collaboration Platform Negotiations Improvements Contract











#### Competitive Advantage

#### Core Assets

- Collaboration Network
- Distribution of Collaboration Resources
- IT-Platform

#### Core Competencies

- Negotiation Skills
- Cooperation Skills
- Integration Skills









# 9. Digital Business Model Innovation









#### Overview of business model innovation literature

	2000 – 2004	2005 – 2	2010	201	1
Corporate strategy	Chesbrough/Rosen- bloom 2002 Mitchell/Coles 2003 Mitchell/Bruckner Coles 2004	2005	Aspara et al. 2010 Sanchez/Ricart 2010 Teece 2010	Amit/Zott 2012     Bock et al. 2012     Casadesus- Masanell/Zhu 2013	Desyllas/Sako 2013     Carayannis/Sindakis/ Walter 2015     Taran/Boer/Lindgren 2015
Innovation & Technology Management	Malhotra 2000     Voelpel/Leibold/ Tekie 2004	Chesbrough/     • Chesbrough/	Chesbrough 2010 Gambardella/ McGahan 2010	Koen/Bertels/ Elsum 2011     Pynnönen/Hallikas/ Ritala 2012     Evans/Johnson 2013	Kastalli/ Van Looy 2013     Fichman/Dos Santos/ Zheng 2014
Entre- preneurship		Sosna/Trevinyo-Rodríguez/Velamuri 2010     Sosna/Trevinyo-Rodríguez/Velamuri 2010     D		Trimi/Berbegal-Mirabent 2012 Schneider/Spieth 2013 Denicolai/Ramirez/Tidd 2014 Bohnsack/Pinske/Kolk 2015	
Early phase		Formation phase of a	overall concepts	Consolidation and	differentiation phase

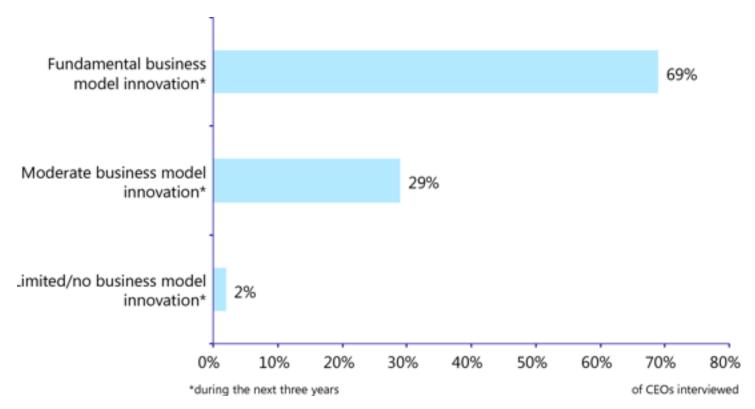








#### Planned business model innovations of CEOs interviewed











Business model innovation approaches in the literature

# Definition of business model components

ante

post

Non/ex

- Business model innovation has the character of an experiment and is often a product of chance
- Business model innovation takes place within ex ante defined components

- Business model innovation has the character of an experiment and is often an product of chance
- There is no structural frame underlying business model innovation

\*Business model innovation a structured and planned management task

 Business model innovation takes place within ex ante defined components IV

П

 There is no structural frame underlying business model innovation

Business model innovation a

structured and planned

management task

Experiment

Plan

Degree of structuring of business model innovation









#### NICE-framework

Ν	Novelty	<ul> <li>Adoption of innovative elements</li> <li>The focal points are new activities, new structures and new approaches</li> <li>e.g. Apple iTunes as a new way to market music</li> </ul>
Ι	Lock-in	Creating lock-in effects to attract third parties to become business model participants     e.g. eBay, where sellers become linked to the system due to the great number of buyers
С	Comple- mentarities	Bundling of activities with the goal of generating added value (especially along the value-added chain)     e.g. biotechnology companies that do research for large pharmaceutical companies
Ε	Efficiency	<ul> <li>Reorganizing activities in order to reduce transaction costs</li> <li>e.g. outsourcing of certain activities (relocating production to India, etc.</li> </ul>

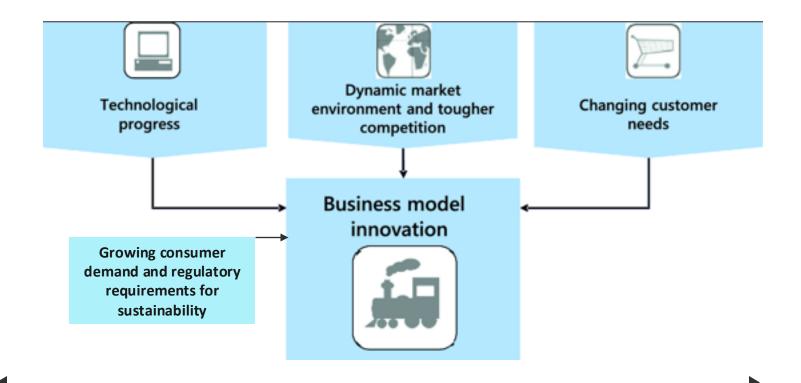








#### Drivers of business model innovation





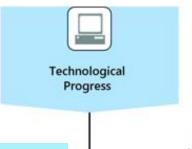








Types of business model innovation





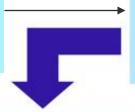
Dynamic Market Environment and Tougher Competition



Changing Customer Needs

### Sustainability-Driven Innovation

 circular economy-based models (HelloFresh, Rent the Runway)



#### Business Model Innovation





#### Value Constellation Innovation

- Business model innovation by changing or redesigning the value constellation
- e.g., Dell

## Joint Innovation

- Combination of value constellation and proposition innovation
- e.g., Apple iTunes

#### Value Proposition Innovation

- Business model innovation by changing or redesigning the value proposition
- · e.g., Southwest Airlines

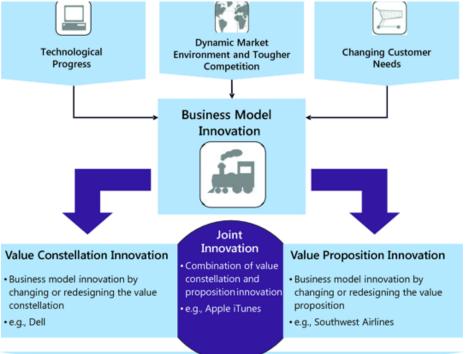








Effects of business model innovation



Disruptive effects on existing industry/ existing markets

Creating a new industry/market

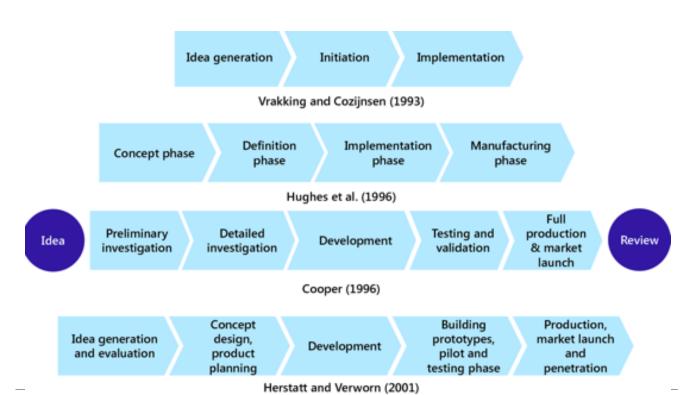








#### Classic innovation processes











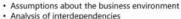


- · Analysis of the current business model
- · Analysis of products/services
- · Analysis of target group/customers
- · Analysis of market/competition

#### Idea Generation

- · Determination of the BMI mission
- Generation of customer insights
- Development of customer scenarios · Visual/networked thinking
  - Storytelling





- · Analysis of potential internal or external business model alignment



- · Analysis of different BMI design alternatives · Creation of different BMI design alternatives
- · Development of several detailed concepts
- · Refinement of the components/partial models

#### · Evaluation of each BMI design alternative Decision-Making

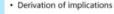
- Selection of one BMI design
- · Final harmonization of the components
- · Realization and test of the BMI
- · Potential adaptation of the BMI



- Development of implementation plan
- · Communication and team setup
- · Step-by-step realization of the BMI
- · Implementation completion



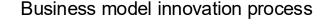
- · Monitoring BMI performance
- · Value proposition controlling Value constellation controlling





- · Potential adaptation of the BMI
- · Sustained growth through organization-wide learning · Creation of isolating mechanisms towards competition
- · Securing long-term competitive advantage





Analysis of the current business model

ESG metrics audit

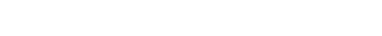




**Business Model** 

Innovation

Process



















business model innovation

#### 

#### Value Constellation Innovation

- Business model innovation by changing or redesigning the value constellation
- e.g., Dell

#### Joint Innovation

- Combination of value constellation and proposition innovation
- e.g., Apple iTunes

#### Value Proposition Innovation

- Business model innovation by changing or redesigning the value proposition
- e.g., Southwest Airlines

Disruptive effect on existing industry/ existing market

Creating a new industry market

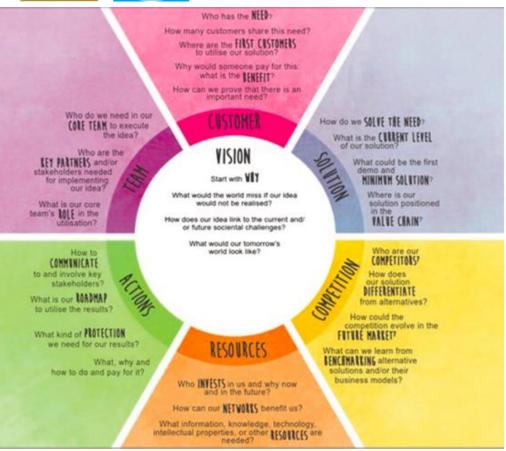








Impact Canvas tool and a built-in iteration with Status-Target-Test and Do for each section of the Canvas



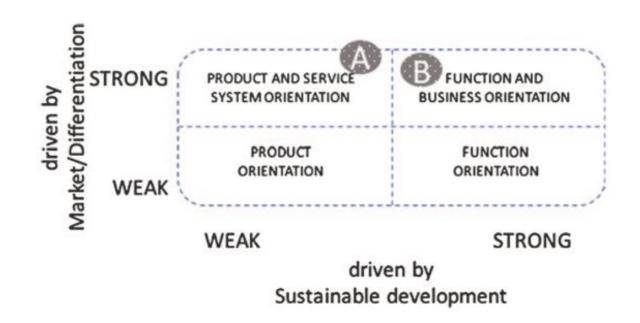








#### Different driving forces push for different innovation



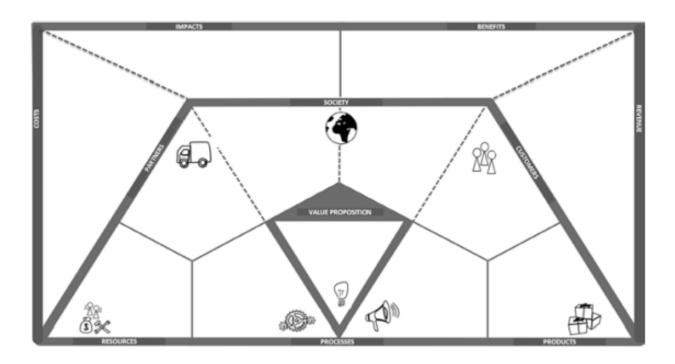








#### Value triangle business model Canvas













#### Value triangle business model Canvas

- 1. Society: the various stakeholders whom the firm establishes and maintains mutually beneficial relationships including natural environment with its ecosystem services including the natural environment and its ecosystem services.
- 2. Value proposition: firm's statement to co-create and co-deliver value for its stakeholders.
- 3. Customers: the different group of people or organizations that the firm aims to reach and serve.
- 4. Products: the bundle of goods and services that create values for customers.
- 5. Key operational activities: key operational activities include inbound logistics (i.e., procurement and supply channels), R&D, and operations as well as marketing and outbound logistics (i.e., distribution and communication channels).











#### Value triangle business model Canvas

- 6. Resources: capital types used by the firm: financial (e.g., cash used in transactions), manufactured (e.g. semi-products, infrastructure), intellectual (e.g., patents, tacit knowledge), human (e.g., labor, skills, motivation), social and relationship (e.g., shared norms, brand loyalty), and natural capital (e.g., clean air, biodiversity).
- 7. Partners: the network of suppliers and partners that makes the BM work.
- 8. Benefits: benefits are divided among benefits delivered to society and environment (i.e., public and partner value) and revenue sources by which firm captures some economic value for itself. Clearly separate social/environmental benefits.
- 9. Costs: costs are divided between costs that represents the negative impact of firm's outcomes and outputs on society and environment and cost drivers that impact the financial aspects of firm's performance. Clearly separate social/environmental costs.











#### References

- 1. Osterwalder, A., & Pigneur, Y. (2010). Business model generation: a handbook for visionaries, game changers, and challengers, 1st ed. John Wiley & Sons.
- 2. Strapchuk, S. (2023). Integrated business model of sustainable development for agricultural sector. *Journal of Innovations and Sustainability*, 7(4), 03.
- 3. Strapchuk, O., Koniordos, M., Strapchuk, S., & Nitsenko, V. (2025). Sustainable business models in the digital transformation of higher education: Evidence from Ukraine. *Transformations and Sustainability*, 1(2), 87–99.
- 4. Talmar, M., Walrave, B., Podoynitsyna, K.S., Holmströmc, J., & Rommea, A.G.L. (2020). Mapping, analyzing and designing innovation ecosystems: the ecosystem pie model. Long Range Planning, 53, 101850.
- 5. Teece, D.J. (2010). Business models, business strategy and innovation. Long Range Planning, 43(2–3), 172–194.
- 6. Wirtz, B. W. (2019). Digital business models: Concepts, models, and the Alphabet case study. Heidelberg: Springer.
- 7. Wirtz, B. W. (2020). *Business model management: Design, process, instruments*. Springer Texts in Business and Economics.
- 8. Wirtz, B. W. (2020). *Media management: Strategy, business models, and case studies* (2nd ed.). Heidelberg: Springer.
- 9. Wirtz, B. W. (2023). Medien- und Internet management (11th ed.). Wiesbaden: Springer Gabler.
- 10. Wirtz, B. W. (2024). *Digital business and electronic commerce: Strategy, business models and technology* (2nd ed.). Heidelberg: Springer.