

Business models generation in forest sector: exploring innovation potential

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- Background
- Methods
- Cases
- Tentative results

New
business models
in the European forest
sector?

Digitalization, urbanization,
climate change,
forest ownership structure,..

Extended canvas & core values
CIMO-analysis

Twelve cases from eight countries totally
Six cases from six countries implemented

Traditional forestry adopts new models

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Urbanization



Defined by UN HABITAT as a city with a population of more than 10 million



Customer Behavior



Forest Ownership Structure

Business Models

=> Forest sector is a passenger in a school bus

Key concepts to improve business performance



Value Networks

1950 - 1970

1970-1990

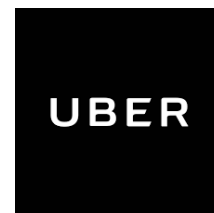
2000-2010

2010-

Each network member relies on the others to foster growth and increase value

Examples of changing business models

- media company don't print
 - hotel service provider don't own real properties (hotels)
 - taxi company don't own vehicles
-
- What in Forest Sector?



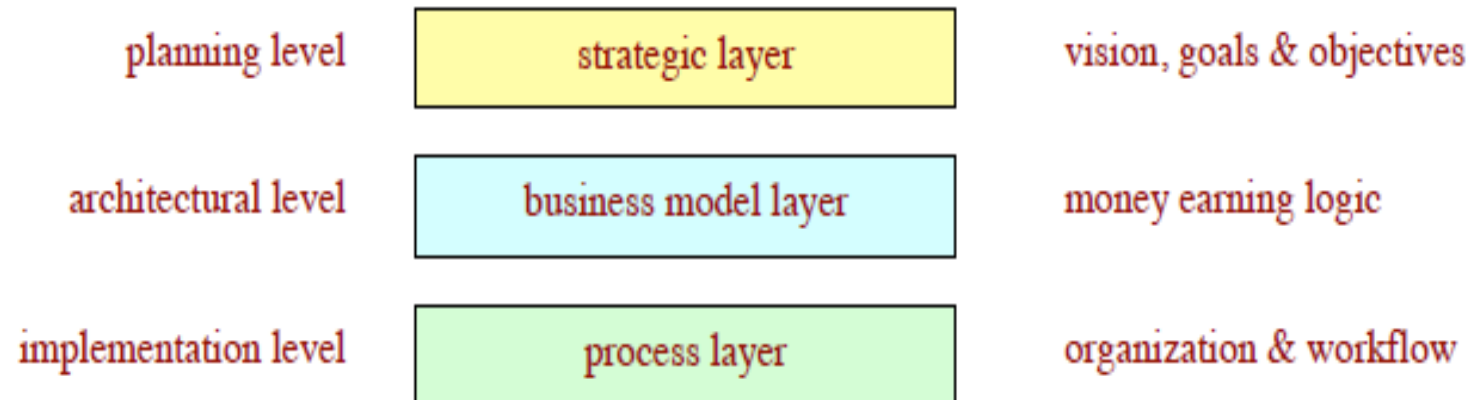
What is Business Model?

- Academic discussion quite new, since approx. yrs. 2000-2001
- No common and shared definition. Here are some.
 - Osterwalder, 2004: Business model is a simplified model and representation of how a company buys and sells goods and earns money. It contains the set of elements and their relationships and allows expressing company's logic of earning money.
 - Zott & Amit, 2010: The business model is an activity system that should be seen as a whole.
 - Frankenberger et al., 2013: closed business models (focus primarily on internal value creation) and open business models (focus on external resources as key contributors to a firm's value creation process)
 - Wu et al., 2013: There is some consensus that business model describes the design of the value creation, value delivery and value capture mechanisms of the firm.
 - Teece, 2010: The essence of a business model is in defining the manner by which the enterprise delivers value to customers, entices customers to pay for the value, and convert those payments to profit. It thus reflects management's hypothesis about what customers want, how they want it, and how the enterprise can organize to best meet those needs, get paid for doing so and make profit.

Main Elements of a Business Model?

- Business Model describes the key components of given business.
- Main elements are:
 - Value Proposition
 - The Customers
 - The Performed Activities and Transactions
(Frankenberger, Weiblen, Gassmann. 2012.)
 - Customer Value Proposition
 - Profit Formula (revenue model, cost structure, margins, inventory turnover)
 - Key Resources (people, technology, products, ...) and Processes
(Johnson, Christensen, Kagermann. 2008.)

Business Models in between strategy and implementation



Osterwalder. 2004.

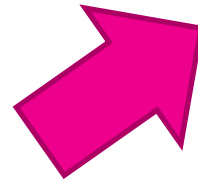
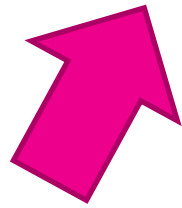
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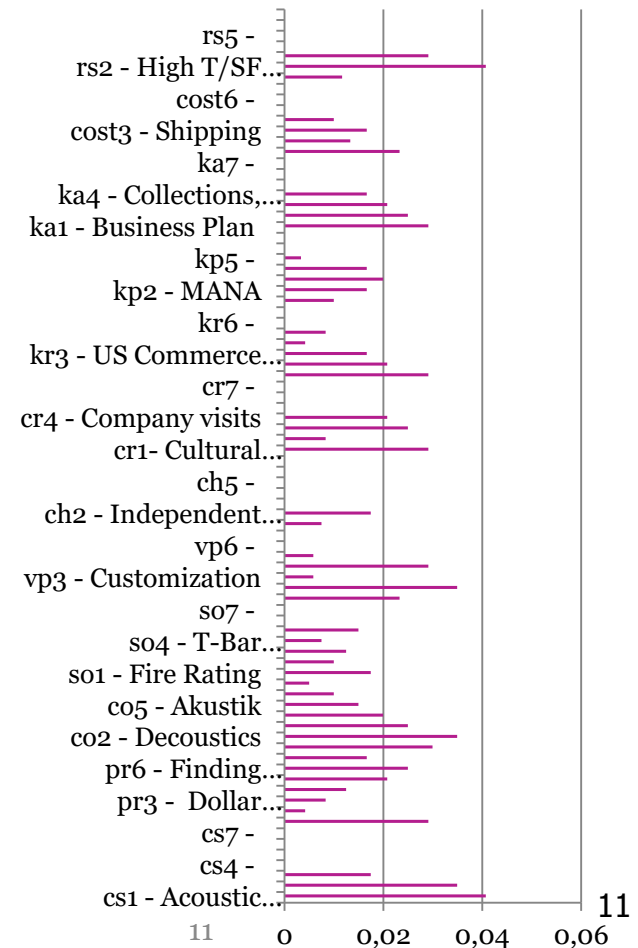
Extended Business Model Canvas and Core Value Analysis

1. Critical business issues added:

- Customer needs
- Competition
- Proposed solution



2. Analytically assessed prioritization of the elements



The Business Model Canvas Designed for: _____ Designed by: _____ On: _____ Iteration: _____

Key Partners What are our Key Partners? Who are we dependent on? Who can help us get started? Who are our suppliers/partners?	Key Activities What key activities do our Value Propositions require? Do Customers Demand? Customer Relationships? Revenue streams	Value Propositions What are we offering to the customer? Which are the customer problems we are helping to solve? Which benefits do we provide and for whom are we offering to each Customer Segment? Which customer needs are we satisfying?	Customer Relationships What type of relationship does each of our Customer Segments expect us to establish and maintain with them? Which ones have we established? How are they engaged with the rest of our business model? How much are they?	Customer Segments For whom are we creating value? Who are our most important customer segments?
	Key Resources What key resources do our Value Propositions require? Do Customers Demand? Customer Relationships? Revenue streams		Channels Through which channels do our Customer Segments want to be reached? How do we reach them? How are our Channels integrated? How much are they worth? Which ones are most cost-effective? How are our Channels being used to reach customer markets?	
Cost Structure What are the most important cost drivers for our business model? Which Key Resources are most expensive? Which Key Activities are most expensive? Which Key Partners are most expensive?		Revenue Streams For what value are our customers really willing to pay? For what do they really care? How are they really paying? How would they prefer to pay? How much are they willing to pay? How much are they willing to pay for each customer segment?		

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Key partnerships



Key activities



Value propositions



Customer relationships



Customers needs



Key resources



Delivery channels



Solution provided



Customer segments



Competition



Cost structure



Revenue streams



PROFIT FORMULA

Business Model Design Phases

1. Setting up the Context

- Problem area pain chain
- Who, how and when?



2. Identifying ideas

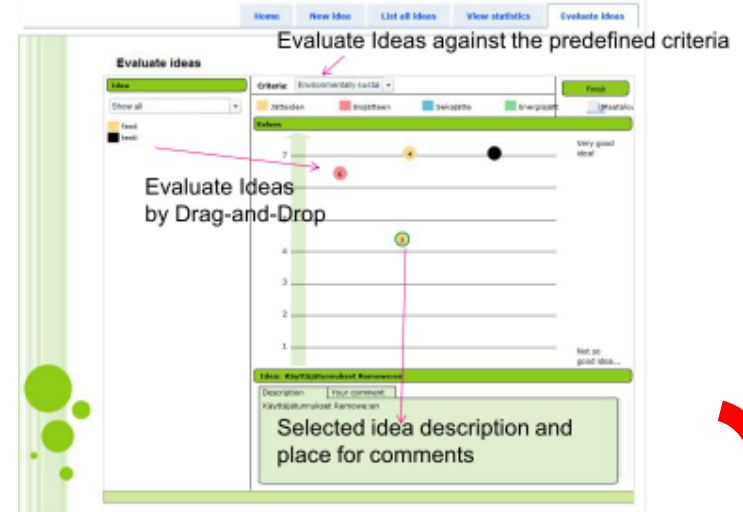
- Interviews (face-to-face, phone)
- Small group interviews
- Brainstorming (different methods)
- Input by net link

5. Co-creation workshop

=> Business Model

=> Action Plan

3. Evaluating the identified items



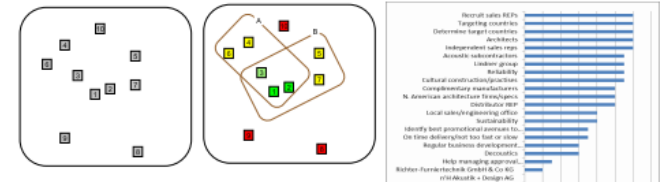
4. Core value analysis



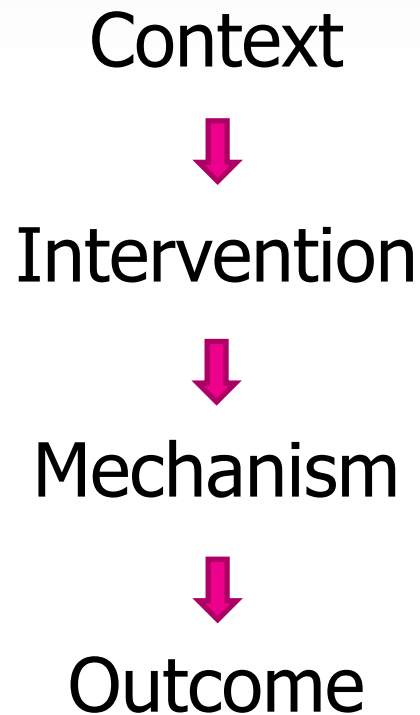
Selecting key items to Business Model (BM) by core value calculations

- BM can be seen as a portfolio of items connected and interrelated with each others
- Method identifies the best portfolios by calculating a big number of alternative criteria weights
- Core value calculation helps identifying the most preferable set of key items

- Core items included in every effective portfolio = BM (core index = 1)
- Borderline items included in some effective BM (0 < core index < 1)
- Exterior items not included in any effective BM (core index = 0)



CIMO-analysis



Context[s] C

Problem[s]

Including challenges and opportunities

Business Models

Intervention[s] I

The "what" part

Results of the MCDS analysis are included as a post-hoc BM design analysis

Generative mechanism[s] M

The "how" part

Evidences of the causalities between interventions and outputs

Output[s] O

The "results" of the business[es] that solve the problem[s]

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Finland: Forest berry map, eShop of PFOA, Virtual Forest

Estonia: Invest Forest

Sweden: Permaculture

Czech: small forest owner, municipal forest

Latvia: former state forest based limited company

Serbia: SERBIO, PFOA

Slovenia: New auction based wood market

Croatia: Private forest company "Šuma"

Six already implemented cases, tentatively analyzed

Identification	Country
Permaculture based forestry and education	Sweden
Forest Owners e-Shop	Finland
Joint Investments to forest property	Estonia
High Quality wood auctions	Slovenia
Forest owners voluntary professional organisation	Czech Republic
Joint Stock Company Latvia's State Forests	Latvia

Case studies	1 Customer and competition	2 Offering	3 Resources	4 Profit formula
Permaculture [Sweden]	Heligfjäll (holy mountain) ecosystem	By offering unique field trips	A personal commitment and openness to new ideas	Customers recognize the value
	10 Forest owners, young with internet ability	20 Easy access for forest related products	31 FOA services ltd.	40 Product-based marging about 20%
FOA eShop "Savotan Puoti" [Finland]	10 Older forest owners	Advantages of FOA members	32 Constructing the way of actions with other FOAs	40 delivery costs
	10 Distant forest owners	21 Marketing channel, Google	32 Marketing strategy and budget	41 Enough big product butches
	12 Hit products	Marketing forest journal		
		Marketing through a network of FOAs		
Commercial association [Estonia]	11 Democratic decision making	20 Legal issues, impossible to sell the organisation	30 Good idea	40 Increase of biological assets
	13 Possibility of regular payments		31 Leader with the clear vision	
HQ wood auctions [Slovenia]	11 Supply of high quality/rare wood	22 Professionalism and sincerity	30 Intelctual sources	41 Wood transportation and wood manipulation
	13 Assurance of supply and demand (i.e. market)		32 Intelligible identified target market and customers 32 Establishing of logistical system	
SFO [Czech Republic]	10 Residents living near the local forest property	20 Reliable and honest member of the community	30 Basic knowledge and willingness to learn	40 Income from sale of wood
	11 Cheaper raw material directly from the source	20 Wood in the place of delivery	31 Selected local forest owners	
	11 Flexibility and speed of delivery	20 Cheap firewood	31 Forest management Institute (FMI)	
	11 Good price and saving money for transport	21 Personal communication	32 Cooperation with other forest owners	
		22 Providers of forest services		
		22 Customer requirements		
JSC [Latvia]	11 Stability and predictability	Stable and trustworthy enterprise	Forests and land	Incomes are much higher than costs
	13 Knowledges	No threats for wood flow	Adequate road network	
	13 Collaboration with researchers			

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Traditional forestry adopts new models

Results - observations

- Cases are grounded on **traditional forestry** businesses and mainly deliver either **new service** or **organisational improvements**.
- The business models analysed introduce **new channels** for reaching customers (e.g. Finland – eShop), satisfies **new customer needs** (e.g. Sweden – Permaculture), target **new customers** (e.g. Slovenia – auctions), **reduce transaction costs** (e.g. Czech Republic – SFOA), and improve **customer relationships** (Estonia – Commerce and Latvia – JSC).

Results - observations

- The most important areas of analysed business were the **infrastructure** and the **offering**
 - key resources (e.g. human resources, infrastructure),
 - customer relationships (e.g. uniqueness, personalization)
 - key activities (e.g. innovative services, reinforced cooperation).
- A difference was observed in the highly developed countries (e.g. Sweden, Finland) focused on **service innovation** ex-eastern bloc countries (e.g. Estonia, Latvia) concentrated on **organisational innovations** (related to Liviu's finding?)

Results - observations

- The main mechanisms recognized vary **according to the context**
- as a general result we consider the following design proposition:
 - in a **context** of changing forest ownership, emerging new forest owner types, changing Forest Owners Associations (FOAs) structures, membership decline, unstable legislative and business environment, ungrounded wood market ,
 - in order to improve forest management, increase the FOAs turnover or forest owner profit, reach new forest owners, overcome the distrust to cooperation and improve the organizational environment (i.e. outcomes)

Results - observations

- Understanding the relationships between the interventions and the outcomes, namely the **mechanisms**.
- For example, a **legally grounded joint ownership** might represent a tool to ensure the **democratic decision-making** in order to eliminate or reduce the distrust.
- Another example is the **legal entity** (e.g. a company, FOA) that might offer to forest owners the possibility to **sell their wood in an organized way** and thus increasing the motivation to manage their forests in order to increasing profit;

Tentative recommendations

- enhance **reliability and honest membership** of communities (i.e. mechanisms) by increase the professionalism of FOAs and promote consultancy (i.e. interventions);
- increase the **motivation** of forest owners by e.g. offering them the possibility to sell (high-quality and rare) wood through auctions;
- ensure **democratic decision-making** by ensuring the creation of legal structure for joint ownership;
- enhance **efficient communication** channels by building partnership with traditional FOAs;
- stimulate personal **commitment and openness** to new ideas by offering field trips to permaculture areas;
- increase the **awareness and education** of forest owners by performing demonstration on selected topics.
- Encourage and support **newcomers** to forest sector (new forest owner) to introduce something new to forest sector!

Conclusion 1

- Traditional forestry is adapting to changing world, reflecting to Value Network & Ecosystem Service approaches

=> Forest sector can be an active passenger in a school bus

Conclusion 2

- Business Model thinking is suitable in the European forest context
- It provides tools to generate new business model for exploring innovation potential
 - systematic co-creation among different actors
 - culture of fast experimenting

Conclusion 3

- Every case is context dependent. However, you don't need to change everything. It is enough to identify the vital 2% of behavior (e.g. wood auction) adding value for the whole value network and put efforts to change it by applying business model thinking approaches
- Motivate and enable the change at personal, social and structural levels
(see Grenny et al. 2014 Influencer, the new science of leading change)

	Motivation	Ability
Personal	1 Make the Undesirable Desirable	2 Surpass Your Limits
Social	3 Harness Peer Pressure	4 Find Strength in Numbers
Structural	5 Design Rewards and Demand Accountability	6 Change the Environment