Creating Sustainable Value through Business Model Innovation: the Role of Boundary Work

International Centre for Integrated Assessment and Sustainable Development

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Introduction



- The role of business in society
- The meaning of sustainable business model innovation (SBMI)
- SBMI as a boundary spanning process, reconfiguring different types of organizational boundaries of the firm and its stakeholder network
- Boundary work as an approach to engage in SBMI

The role of business in society (1)



The role of business in society (2)



Pressures on current practices...















































20 year Sustainability continuum (Senge et al, 2008) anniversary International Centre for Integrated Assessment and Sustainable Development Purpose / Mission Integrated Strategy Align with Beyond Core Values Compliance Business Compliance Opport Eco-Non-Risk-Efficiencies Manag Compliance Regulatory Regulatory demands / Threat Enforcement PR Crisis **Public Pressure** Reactive Proact **CSR**

What is a business model?



"How a firm does business" (Margretta's, 2002)

"the rationale of how an organization creates, delivers, and captures value" Osterwalder and Pigneur (2010)

"the design or architecture of the value creation, delivery and capture mechanism of a firm, how the firm delivers value, how it attracts customers, and how it converts this to profit" (Teece 2010).

Business models are boundary-spanning

BUSINESS MODEL



Value proposition

- Product & service offering
- Customer segments & relationships

We focus on both design and flavor at the same time. We don't believe in preservatives so we don't add any of it. Everything you see on our cakes contributes to the flavour and texture balance of the cake.



Value creation & delivery

Activities, resources, distribution in the value chain

Farmers, processers, suppliers, shops, customers machinery. Processes, resources and assets such as ovens, baking knowledge, webshop infrastructure



Value capture

- Cost structure
- Revenue streams

Digital or shop product sale in exchange for payment



VALUE AS 'THE BENEFITS RELATIVE TO COSTS'

What about that other side?



The sustainable business model

"business models that create competitive advantage through superior customer value while contributing to sustainable development of the company and society" (Bocken et. Al. 2013)

Conventional business models span boundaries, however SBM enhance boundary spanning:

- Firm-level focus towards systems-level focus on stakeholders
- Multiple forms of value (positive, negative, missed, surplus)
- Multiple dimensions of value (societal, economic, environmental)
- Enhanced timescale: short-term and long-term



	Business Model	Business Model for Sustainability
Value form	Value created and captured	Value created and captured plus value absence, destroyed, missed or surplus, new value opportunities
Value priority	Economic first	Social and environmental value first or equal to economic value
Value horizon	Direct, short- or medium- term	Direct, short- or medium- term plus indirect, long-term
Value created	(refined) Shareholder value	Value for the common good
Value proposition	Customer value	Sustainable customer value and cobenefits through value for society & environment
Value creation & delivery	Business, value chain, relevant value network partners	Business and interlinked value chains plus value network including new and possibly unusual partners
Value capture	Economic business value (monetary & non-monetary)	Societal, environmental and economic value

Source: Velter et al, 2020



Organizational Boundaries

"the demarcation between the organization and its environment"

Santos and Eisenhardt (2005, p. 491)

- Identity the choice of 'who we are'
- Power ability to control relationships
- Competence resources, capabilities, knowledge
- **Efficiency** demarcation of transactions Boundaries are interrelated: logic of identity sets rules for inclusion and activities





Boundary Reconfigurations in SBMI

20 year anniversary

Typical boundary reconfigurations and tensions in SBMI. Based on Bocken & Geradts (2019), Breuer & Lüdeke-Freund, (2017), Evans et al., (2017), Geissdoerfer et al., (2018), Santos & Eisenhardt, (2005).

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	Boundary reconfigurations	Example	Identified tensions
Boundary of Identity	Based on multiple value creation	We exist to produce 100% circular and sustainable food concepts	Value frames and perceived value creation and benefits, mindset, culture
Boundary of Competence	Development of novel competencies and external relations	We are a network orchestrator in addition to being a food producer	Dynamic capabilities, financial trade-offs, lengthy experimentation, technology innovation
Boundary of Power	(Re)alignment in network context, empowerment of particular actors	We empower a fair division of efforts and payment	Compromising current power division, competitiveness
Boundary of Efficiency	Adoption of novel roles, processes and activities	We deliver, take-back and recycle	Division of material interests, resource division and costs



Example: Niaga

On the company level: use of mono-material, engineering processes...

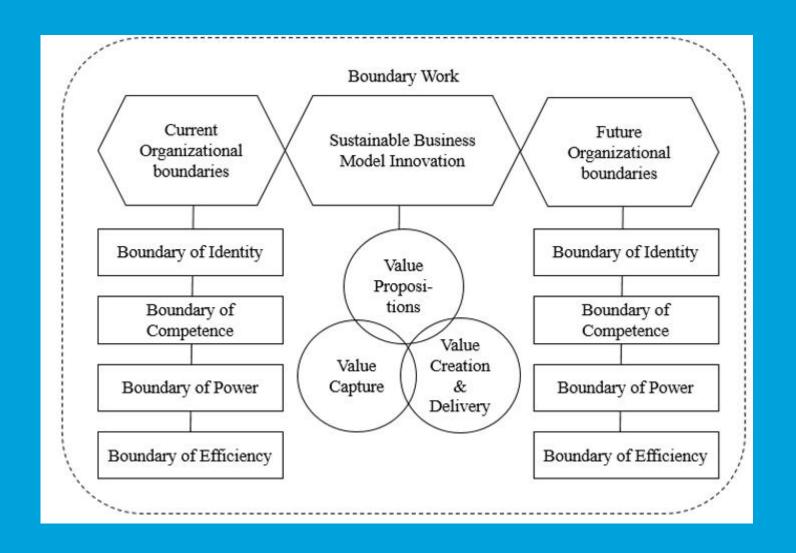




But what about their partners?

Producer raw materials	Redundant? New function as recycler?
Retail	Focus on added value, relational contract, different revenue model?
Carpet Installer	Novel techniques New function in removal?
Reversed logistics and collection?	





So what is the problem with SBMI?

- SBMI involves structural organizational boundary reconfigurations of the firm vis-à-vis its network
- Organizational boundaries consist of 4 different types



Organizational boundaries thus emerge as enabler and barrier to SBMI

- However, boundaries are hard to identify and partly situated outside the experiential spheres of actors
- Boundary Work to explore and negotiate boundaries, find a 'mode of operation', however....
- Not a simple solution to a process that is inherently difficult!

Boundary work in SBMI

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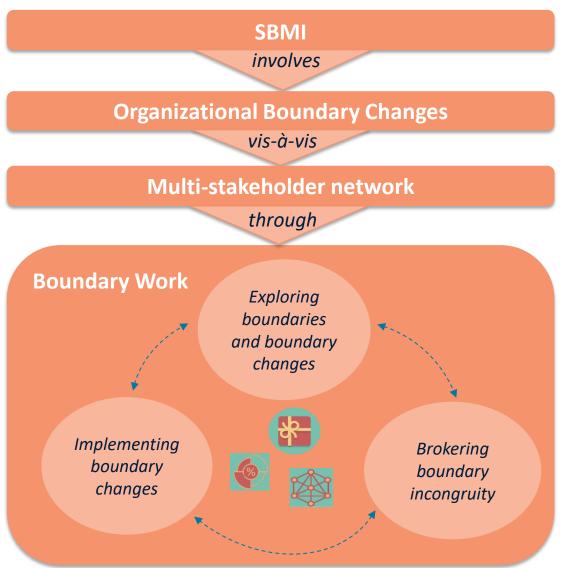
Boundary work:

"the attempts of actors to create, shape, and disrupt boundaries"

Zietsma & Lawrence, 2010, p. 190

Helps to improve the understanding of how organizations explore and overcome critical boundary incongruities

Boundary Work in SBMI





Boundary Work in SBMI



SBMI is a boundary work process in which (representatives from) organizations reach out to their value network, explore relevant organizational boundaries and changes, negotiate boundary incongruities, and promote organizational boundary change

Boundary Work phases

After generating an initial idea, businesses engaging in boundary work for SBMI have shown three highly iterative phases of activity (Velter et al., 2020):

- 1. Explorating, conversating, discovering, investigating, learning, drawing, activ exploring, discussing, searching, realizing, developing, enhancing, the important sketching, setting, previously/then/now, finding novel network constellation.
- 2. Brok creation of choices, sufficiency, going along, discussion, distribution, setting priorities, confronting, proposing initiating pasiness and key stakenolaers.
- 3. Implementing boundary changes. This phase involves the implementing agreeing, determining, changing, shifting, signing stake



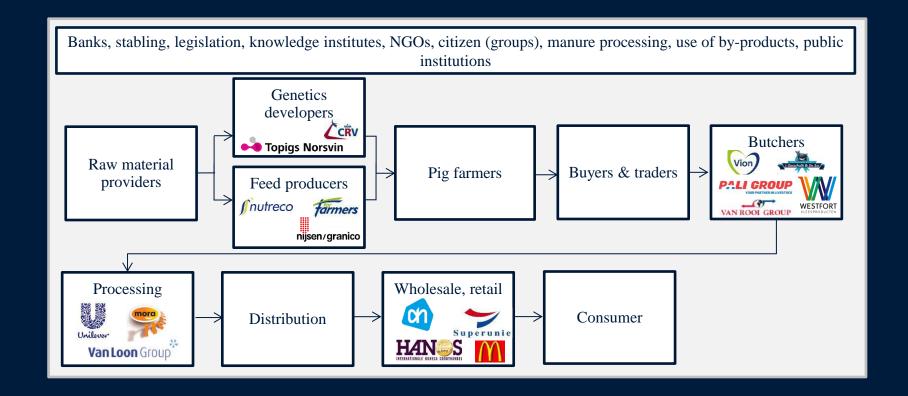
Towards a circular pig sector



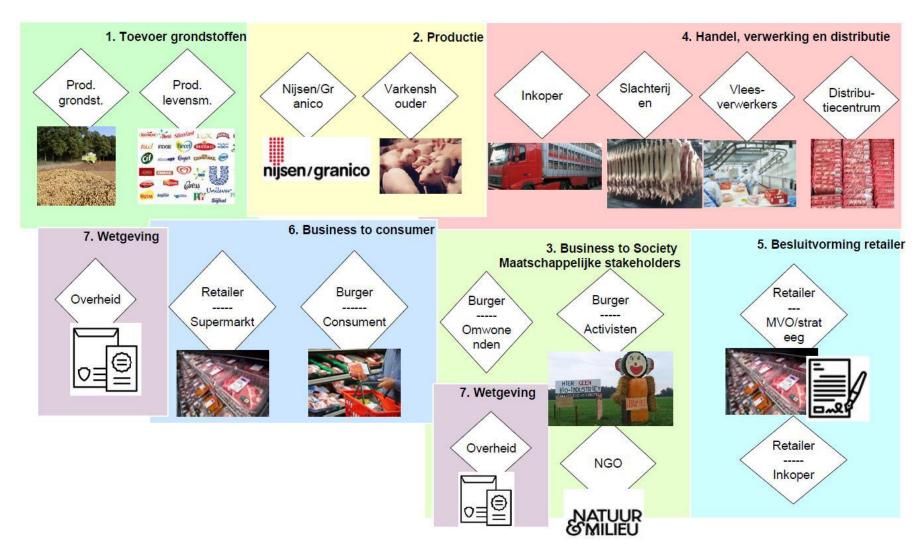
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Value chain



Value network



Envisioned value creation

As-is	To-be
Sourcing from food waste and raw	Sourcing only from food waste,
materials; human-animal competition	elimimate competition
for land	
Fragmented value chain	Network-orientation, integrated
	value chain
Price-focus	Focus on multiple forms of value
Pig entrepreneurs in weak position	Improved position pig entrepreneurs
Food to biomass, legally obstructed for	No food waste
animal feed	
High negative environmental and	Low / no negative
social impact (CO2, methane, smell,	environmental/social impact
phospate, animal welfare)	
Global, oil-based sourcing	Regional, sustainable sourcing



Multiple Value Creation

Societal Value Propositions	Environmental Value Propositions	Partner Value Propositions	Consumer Value Propositions
 Increased public space Increased food availability, elimination of human-animal competition for land Contribute to solving manure problem Decrease smell and improve air quality in areas surrounding stables 	 No additional need for resources & agricultural land (forests, soy, wheat) Radical carbon emission reduction through local sourcing & production process Less phosphate pig manure 	 Pig farmers Decrease manure problem Price/volume certainty Improved image Retailer Circularity Avoid waste costs Improved image & avoid NGO campaigns Butchers Distinct proposition to retail NGO No additional resource need & agricultural land Reduced CO2 emission through regional sourcing & production Less phosphate pig manure 	 Immediate: Certified meat Improved taste and structure Improved animal welfare Improved environmental performance (renewable energy, manure) Long-term: Improved environmental performance (logistics)



Required boundary reconfigurations

Producer raw materials	Sourcing raw materials	Redundant
Nijsen/Granico	Sourcing from food waste and (global) raw materials	Sourcing only from food waste System integrator offering sustainable food concepts
Pig entrepreneur	Purchases animal feed from focal business	Strategic partner in sustainable pig keeping Dropouts
Butcherer	Bulk production	Funneling production
NGO	Campaigning against retail to increase animal welfare and change environmental impact	Collaborating with retail to enhance sustainable food and influence customer
Retail	Price-focused, transactional contract Purchasing meat	Focus on added value, relational contract Direct supplier for animal feed
Municipality	Promoting societal values through legislation and control	Early facilitation and promotion of societal values

Exploring boundaries & boundary changes



"I offer a solution to a retailer's problem. The retailer wants to be circular, he feels the heat of NGOs, [] he is tired of those advertisements of cut-price meat and the lame pig. Well, I can solve that problem, and I can do it circular. [...] I can tell the retailer, if you supply certain raw materials, then I can ensure that they are made into Feed, which in turn comes to you as Food.

Then, we have a circular food concept"

(J. Geurts, personal interview, 19-05-2017).

- current boundaries & boundary changes in relation to the value proposition
 DO WE DO ENOUGH IS IT GOOD ENOUGH?
- whom to collaborate with? Challengers / defenders?



Brokering boundary incongruity



"the reproach I have for retail is that eventually, they don't take any responsibility. SuperUnie said 'fine, just take care of it'. But they should make sure that it comes to me.

And secondly, there is this buyer, a category manager, and he starts complaining about prices. If I tell him 'you should take responsibility because you must use your position in the market to steer the butcher, you determine the positioning, the price and the appearance of the product. That is your responsibility, you cannot put that on us'..." (J. Geurts, personal interview, 19-05-2017).

other actors can accommodate interests and create an improvement perspective



Implementing boundary changes



"Nijsen/Granico wants to change their role from 'feed producer' to a strategic partner for sustainable feed concepts. This is still a struggle, as we are often introduced as the feed supplier for Kipster"

(J. Geurts, personal communication, 22-3-2018).

- who should take initiative?
- who should facilitate this process? E.g. systemic intermediaries

In conclusion

 Sustainable business model innovation (SBMI) is a boundary spanning process, spanning different types of organizational boundaries

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- SBMI involves structural organizational boundary changes of the firm, but also of actors in its stakeholder network.
- Tensions for SBMI emerge through existing organizational boundaries on four dimensions
- Reconfiguring organizational boundaries requires a boundary work process that exceeds the experiential spheres of participating actors in isolation, consisting of exploration, brokering and implementation of boundary changes



Food for thought

- What do you think the new role of business is?
 Could they be part of the solution to sustainability challenges and the circular transition?
- What would be ways to facilitate boundary work?
 Who will be responsible for that?
- Are the required business transformations possible within the current business paradigm that demands continuous economic growth?
- What policies might be needed to support SBMI?





Thank you for your attention



