Sustainable business model innovation – what’s next?

Disclosure for the Green, Inclusive & Open Economy – Blueprinting the Future

Nancy Bocken, Amsterdam, 31 May 2017
Sustainable business models: *Value delivery*

Bocken (2015) adapted from businessmodelgeneration.com
Design by Cheyenne Schuit
Different forms of value: *Value logic*

**Opportunities for New Value Creation**
- New forms of value for existing stakeholders
- Value for new stakeholders

**Value Destroyed**
- Negative social impacts
- Depletion of non-renewables
- Environmental damage

**Value Missed**
- Under-utilised assets, resources, capabilities
- Overcapacity
- Failure to capture value
- Waste streams

**Current Value Proposition**
- Generate solutions that capture new value through the reduction or elimination of destroyed value
- Capture currently missed value through new activities, relationships, and network reconfiguration

**Re-conceptualize**
- Destroyed value as missed value

*Value mapping - Bocken et al (2013)*
Value mapping tool

- **Value captured**: value currently provided by company/product and ‘valued’ by each stakeholder.

- **Value missed**: value the company failed to capture from stakeholders, current resources and capacity.

- **Value destroyed**: value destroyed for each stakeholder (negative outcomes).

- **Value opportunity**: new opportunities to resolve value missed and destroyed for stakeholders.

---

NBS report – hourglass model for total value creation

- Business (model) depends on diverse stakeholders that provide different forms of capital, such as investors providing financial capital, the environment providing natural capital, and employees providing intellectual and human capital.

- Those stakeholders are the partners with and for whom value is created, destroyed, or even missed.
Sustainable Business Model Archetypes

**SBM archetypes – Bocken et al. (2014)**
### NBS report: understanding the implications

#### Short definition
- **Do more with fewer resources.**
- **Generate less waste, emissions, and pollution.**

#### Innovations within this archetype
- **Lean manufacturing.**
- **Dematerialization.**
- **Increased functionality.**
- **Cradle-to-cradle, industrial symbiosis.**
- **Extended producer responsibility.**
- **Cleantech.**
- **Renewable energy (e.g., solar, wind).**
- **Biomimicry.**
- **Rental/lease.**
- **Pay per use.**
- **Product-service combinations.**
- **Community development.**
- **Biodiversity protection.**
- **Choice editing.**
- **Consumer education.**
- **Demand management.**
- **Slow fashion.**
- **Frugal businesses.**
- **Social enterprises and benefit-corporations.**
- **Non-profits.**
- **Hybrid models.**
- **Net positive initiatives.**

#### Typical positive impacts
- **Enhance efficiency and improve resource use.**
- **Reduce waste.**
- **Reduce use of finite resources, waste, and pollution.**
- **Supports long-term energy supply.**
- **Can encourage the right behaviours with manufacturers and users.**
- **Ensure long-term well-being of planet (e.g., forests) and society (e.g., health).**
- **Ensure long-term viability of the value network.**
- **Actively reduce consumption.**
- **Encourage community sustainability, sustainable living.**
- **Build long-term customer loyalty, and new repair and service markets.**
- **Deliver positive societal (e.g., community development) value.**
- **Deliver positive environmental (e.g., afforestation) value.**
- **Prepare for a resource capture for long-term business sustainability.**
- **Achieve scale from small sustainability pilot or start-up to large-scale project or business.**
- **Create industry-wide change for sustainability.**
- **Create breakthrough innovation.**

#### Possible negative side effects
- **May generate incremental change only.**
- **May lead to rebound effects.**
- **May lead to job losses.**
- **May generate more sales cycles and more material use.**
- **May sustain waste streams because waste = value.**
- **“Carbon lock-in” and NIMBY prevent uptake.**
- **Embedded footprint of production (e.g., solar panels).**
- **Lack of recyclability consideration of (solar-based) products.**
- **More product/service usage.**
- **If not combined with efficiency improvements, it may have negligible environmental impact improvement.**
- **Potential price premium for consumers.**
- **If not combined with efficiency improvements, it may have negligible environmental impact improvement.**
- **Remaining niche because it goes against “growth” principles.**
- **Potential to remain niche without policy changes.**
- **Potential to remain niche within current capitalist framework.**
- **If not combined with efficiency improvements, it may lead to limited environmental improvement.**
- **May induce more product/service use due to wider accessibility.**
- **Focus on scale might detract from sustainability purposes.**
- **Risk of unproven radical innovation.**

---

**NBS report – Lüdeke-Freund et al. (2017)**
Example: Deliver functionality, not ownership

Bugaboo FlexPlan: sell access – not ownership

Value destroyed:
• Customers buy an expensive product which they need to get rid off after a short period → negative impact from wasted resources and economic loss

Value missed:
• Products made to last for at least 8 years: large second-hand market not tapped into
• Family expansion – need another stroller

Value opportunities:
• Refurbish, remanufacture and recycle
• Create a new market for lower end of market
• Create a flexible offering for expanding families
Example: Closing resource loops

British Sugar – biggest sugar refiner as well as tomato grower

Value destroyed:
- Carbon emissions from refining process

Value missed:
- Low grade heat from the process, wasted into the environment

Value opportunities:
- Convert value destroyed into a positive – e.g. CO2 to pump into greenhouses for tomato growing; pulp for animal feed
- Captures value missed – latent heat for greenhouse

Value missed:
- Captures value missed – latent heat for greenhouse

Value destroyed:
- Carbon emissions from refining process

Value missed:
- Low grade heat from the process, wasted into the environment

Value opportunities:
- Convert value destroyed into a positive – e.g. CO2 to pump into greenhouses for tomato growing; pulp for animal feed
- Captures value missed – latent heat for greenhouse

Everything is transformed into sustainable products
Example: Closing resource loops

British Sugar – biggest sugar refiner as well as tomato grower

Value destroyed:
• Carbon emissions from refining process

Value missed:
• Low grade heat from the process, wasted into the environment

Value opportunities:
• Convert value destroyed into a positive – e.g. CO2 to pump into greenhouses for tomato growing; pulp for animal feed
• Captures value missed – latent heat for greenhouse
What’s next?

• Business model experimentation for sustainability

• Sufficiency, Slow consumption

• Designing business models with societal and environmental intent and impact

• Tracking, measuring and reporting societal and environmental impact

• Collaborations focused on system-level change
Sources