Business models for nZEB renovation of small wooden dwellings

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Why is business model innovation important?
About the research project OPPTRE

OPPTRE's goal is to propose a nearly Zero Energy Building (nZEB) level for the renovation of wooden dwellings, enabling upgraded energy performance with low costs and a low carbon footprint.

User partners
- Mesterhus (part of Mestergruppen Bolig AS)
- Systemhus (part of Mestergruppen Bolig AS)
- Hunton Fiber AS
- Isola AS
- Flexit AS
- VELUX Norge AS
- RATIO arkitekter AS
- Enova SF
- Funded by ENERGIX, Research Council of Norway

Research partners
- SINTEF Community
- NTNU

Photo: Jiri Havran. Architect: RATIO arkitekter AS (SEOPP project)
Approach

How can business opportunities be created when transforming wooden dwellings to nZEB level?

Subgoals

• Study how the partners in OPPTRE work to develop their business model(s)
• Create ideas for business model innovation
What are business models, really?

"..simplified representations of the value proposition, value creation and delivery, and value capture elements and the interaction between these elements within an organizational unit." - Geissdoerfer, 2018
### Key Partners (Partnerne)
- Who are our Key Partners?
- Who are our Key Suppliers?
- Hvem er partnerne våre?
- Hvilke leverandører har vi?

### Key Activities (Kjerneaktiviteter)
- What key activities do we have to do to deliver the Value Propositions?
- Hvilke kjerneaktiviteter må vi selv utføre for å levere verdiløftet?

### Value Propositions (Verdiløfte)
- What value do we deliver to the customer?
- Which one of our customer’s problems are we helping to solve?
- Which customer needs are we satisfying?
- Hva slags verdi gir vi kundesegmentene våre?
- Hvilket problem løser vi for kundene?
- Hvilke kundebehov tilfredsstiller vi?

### Key Resources (Ressurser)
- What Key Resources do our Value Propositions require? (Physical, Intellectual, Human, Financial)
- Hvilke ressurser trenger vi for å oppfylle verdiløftet?

### Customer Segments (Kundesegment)
- For whom are we creating value?
- Who are our most important customers?
- Hvem skaper vi verdi for?
- Hvem er våre viktigste kunder?

### Customer Relationship (Kunderelasjon)
- How do we maintain the relationship with our customer segments over time? (i.e. Personal assistance, Self-service, Automated services)
- Hvilkj type relasjon har vi til våre kundesegment?

### Channels (Kanaler)
- Through which channels do we reach our customers? (Channel phases: Awareness, Evaluation, Purchase, Delivery, After sales)
- Gjennom hvilke kanaler når vi våre kunder?

### Cost Structure (Kostnader)
- What are the most important costs in our business model?
- Hva er de viktigste kostnadene i forretningsmodellen?

### Revenue Streams (Inntektsstrøm)
- For what are the customers currently paying?
- Hvordan tar vi oss betalt?
- Hva tar vi oss betalt for i dag?
A triple layered business model

- Economy (profit)
- Environmental life cycle (planet)
- Social stakeholder (people)
Mapping of business models

<table>
<thead>
<tr>
<th>The architect</th>
<th>Economic aspects</th>
<th>Environmental aspects</th>
<th>Social aspects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer</td>
<td>Provides plan and design, as well as holistic cost control. Often in cooperation with builders. Sees renovation projects as a small but stable source of income.</td>
<td>Provides functionality and aesthetic solutions. Promotes environmental and energy-friendly solutions on website. Eco-Lighthouse Certified.</td>
<td>Develops solutions in line with the client’s budget.</td>
</tr>
</tbody>
</table>

**Table 1.** Key aspects in a triple layered business model canvas related to the OPPTRE partners.
Ideas for business model innovation

• One Stop Shop
• Neighbourhood approach
• Strategic partnerships and diversification
• New technological possibilities
• Bottlenecks in the market
• ...and more

Picture 1: Example from SEOPP, before (1) and after (2 and 3) upgrading. Photo: Jyri Havran.
Thanks for listening!

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