

Boklok Finland – affordable housing for ordinary people

1. The Company

SKANSKA is a multinational construction company with headquarters in Sweden and operations in 17 countries. It builds residential homes, blocks of flats, and also offices.

IKEA designs and sells ready-to-assemble furniture, appliances and home accessories.

2. Sustainability Innovation

BoKlok is a housing concept, jointly developed by Skanska and Ikea in Sweden. Together they build apartments for average income people who want to live in a home of their own, but still have money left at the month's end. The primary target groups for Boklok housing are young adults; single mothers; young low-income families; but also senior citizens (50+). This is the market segment consisting of people who are often not able to afford a home of their own.

Today BoKlok has spread to different countries of Europe. Each BoKlok project is being planned and designed almost from scratch according to fit the local conditions and cultural settings. The data for this case was collected from two recent BoKlok projects in Finland.

BoKlok (“live smart”) is an affordable apartment made of quality materials and with a highly functional layout to minimize space and energy use in a comfortable fashion. Two-storey blocks of apartments are typically located in the capital suburban area, with a direct bus or train connection to city center (no longer than 40 min). Living “smart” refers to having comparably lower living expenses, smaller ecological footprint, and community spirit. The BoKlok locations are typically in attractive natural settings, close to park areas.

Although Skanska Finland did not originally position its BoKlok projects as a sustainability initiative, multi-stakeholder collaboration and engagement of end users to the development process have led to a number of sustainability-oriented end-results. Typical BoKlok features in Finland are:

- Less heating due to compact apartment sizes;
- District heating or ground heating;



- Water saving and energy efficient basic set of appliances;
 - Access to public transportation in less than 500m;
 - Direct public transportation to Helsinki city center for convenient work travel;
 - Basic local infrastructure for car-free daily life (food store, daycare & school)
 - Wooden modular blocks manufactured locally in Finland;
 - Modular building on site reduced the construction waste by almost 70%;
- Spaces for communal use (sauna in the yard, plot for vegetable gardening)
 - Community spirit: transcending inter-personal and inter-generational barriers; a more communal and friendly type of lifestyles.

3. Engagement of End Users and Other Stakeholders

Impersonation: what would a single nurse with a teenage child want from her home? What is she able to pay for? Having a more concrete “persona”, her needs and income were a starting point in designing the home.

End user integration: However, designing apartments with notably smaller square meters (e.g. a 4-room apartment of 72m²) meant that the layout had to be highly functional to compete with regular apartments. Integrating end users to development process & getting their feedback was a much needed reality-check. The architect designed several apartment layouts, which were tested in a large **consumer survey**. More detailed feedback was obtained during **online focus groups**, made of end users corresponding to Boklok’s primary target groups. The feedback from the discussion was the basis for re-designing & polishing the final layout. End users also opted for having a common sauna in the yard (instead of typical Finnish apartment sauna, which involves high energy consumption), and having joint vegetable plots in the yard to create a more social atmosphere for common yard activities of the residents.

Stakeholder collaboration inside-and-out: closely engaging internal and external stakeholders to concept development was key to the precision of the final result.

- **Externally hired architect** had one of the central roles in concept development as he was responsible for realizing the compactness yet high functionality of apartments. This was implemented through regular communication with Skanska, direct feedback from some stakeholders (like IKEA), and direct inputs from focus groups. Although the idea is simple, architects rarely work with large-scale end user feedback. The architect’s attitude and willingness to trust the feedback were essential for this work.
- **IKEA** contributed with their expertise on space optimization and customer knowledge based on realized sales. In particular, it helped to select wardrobe & storage solutions for bedrooms, most functional & popular kitchen, and to decorate prototype showrooms in IKEA stores. As a final touch, IKEA organizes decoration seminars for new apartment owners to help personalize their otherwise standard homes.
- **Skanska’s own interior designer** optimized apartment layouts to allow for transformability of interior space. Moving window by few centimeters can open up several placement possibilities for bulky furniture, like sofa.

- **Skanska's purchasing department** was responsible for keeping the promise of the cost-efficient apartments with high quality materials. The final solution was complete standardization to achieve the economies of scale.
- **Stora Enso's cooperation** also had a big role in keeping the construction costs low. Stora Enso is a company from the Finnish Forestry sector, which was contracted to locally manufacture the modular blocks for apartment construction. Modular building drastically reduced construction waste (up to 70%) and accelerated the construction.
- **Hanken School of Economics** organized and facilitated a stakeholder workshop for the involved parties of Skanska to increase their understanding of BoKlok concept. This was crucial for ensuring their cooperation and proceeding to the common end result.
- **Municipality** assisted in locating sufficiently low-priced and uncomplicated plots of land for construction. The attractiveness of affordable housing concept was important for lobbying the building of apartment in the areas dominated by detached houses.

4. Multi-stakeholder Collaboration for Affordable Homes

BoKlok's affordability is based on carefully crafted cost efficiency through multi-stakeholder collaboration. BoKlok's challenge was to design affordable yet enjoyable homes without making compromises on the quality of building materials. The solution designing homes that were standard yet flexible, with relatively rapid construction times.

Achieving common understanding of the aspired end result among involved stakeholders was crucial for the project. Yet final decisions and final risks were Skanska's to take, so it had to leverage the inputs from different stakeholders against each other. The architect tried to initially design functional layouts, but the reality-check with end users helped to get them into their final shape and make the concept attractive to wider public. Although end users had many additional suggestions concerning interior materials, the expert inputs from IKEA helped to select standard solutions acceptable to most in order to keep the costs low enough.

Construction industry has so far remained quite conservative and rigid. It is slow to change, and because homes are possibly the biggest single investment in a person's life - novelties and developments are being accepted with much caution. So far, flexibility towards customer preferences has been translating into increased costs for the customer. Many architectural agencies and housing companies offer the service of designing and building sustainable homes, but it is by no means inexpensive. Will the average-income customers be able to afford it? In the context of user integration, it is relevant to question whether new innovative approaches to user integration could overcome the increased cost obstacle?

In line with Boklok overall philosophy Skanska has been very open about Boklok development process. Boklok as an outcome is a child of the close-knit stakeholder collaboration, which is difficult to copy. At the same time, affordable housing is now on the agenda of most competitors in the construction industry. It remains to be seen whether the openness and transparency of Boklok will pay off by attracting customers, or whether it may somewhat backfire by inspiring the competitors.