Partnering as a tool for a cost and energy efficient retrofitting of existing buildings – an example from E2Rebuild – Halmstad demonstration project

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Halmstad Demonstration, Giganten 1&7

- 1963, 91 apartments
- Concrete loadbearing frame, concrete sandwich element façade.
- Needed new windows, piping, elevators, and updated heating system
Halmstad Demonstration, Giganten 1&7

- Building owner, (then Apartment AB, now Akelius Fastigheter AB) had a limited budget
- Needed ideas of how to get a realistic payback time
Preconditions for the renovation process

- Limitations
- Private owner
  - Return of investment
- Importance of a suitable business model:
  - Focus on cost efficient solutions
  - Possibility to renovate during continuous occupancy
  - Possibility to replicate results on larger scale
Renovation Process

- Strategic partnering
  - NCC’s “Sustainable Renovation”
  - Partnering is the core
- Several stages in this project
  - mapping of the current state of the building
  - presentation of technical alternatives
  - decision on solution and new contract for renovations
What is Partnering?

- Several definitions: common ground is that it is a method of cooperation within a project where the stakeholders establish a long-term relationship with the project in the centre.
- NCC’s version includes open economy, common goals, common organisation, constant improvements, the right team, common economic interests and problem solving (shared resources).
## Partnering vs. Traditional bid-build

<table>
<thead>
<tr>
<th>Traditional</th>
<th>Partnering</th>
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<tbody>
<tr>
<td>Client decides project requirements</td>
<td>Client decides on some basic requirements</td>
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<td>Consultants and architects produce details</td>
<td>Call for tendering for a partner</td>
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<tr>
<td>Call for tendering entrepreneur</td>
<td>Client and Partners produce details and requirements based on an agreed budget</td>
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<td>Usually cheapest bid accepted</td>
<td>Construction begins</td>
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<td>Construction begins</td>
<td>Price adjustments if necessary (all partners share extra costs and share savings according to an agreed model).</td>
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<tr>
<td>Price adjustments (extra work) usually needed, clients finance extra costs or entrepreneur enjoys cost savings.</td>
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Halmstad Case

- Apartment had some basic requirements (water, sewer, windows, heating) and hired NCC to calculate costs.
- NCC did this and provided four different alternatives, including advice on how to finance these (key retrofits and energy savings).
Halmstad Case
Halmstad Case

- At this point Apartment could stop the project, switch partners or get tenders as a traditional project. They chose to continue the project with NCC as a partner and total contractor.
- After the contract was signed the partners sat down and decided which renovation strategy would be implemented and what financial resources would be allocated to this.
- Because of E2Rebuild, the most aggressive savings package was chosen.
Halmstad Case

- Details!
- Ready, set, build!
Feedback from Partners (Conclusions)

- Both companies have a financial stake in the project.
- Building owner thought that the Partnering process was better than the traditional building process.
- Allows for win-win strategies for both partners.
- More transparent project for both sides.
- Building owner did not have to spend a lot of energy and time defining every detail of the project in advance.
- Could make full use of NCC’s experience and knowledge.
- Better end-product for their money vs traditional project where consultants define the project and solutions.
- Building owner could transfer some areas that they were traditionally responsible for to the entrepreneur.