Viljanen A., Kurttila M., Toppinen A. (2024). Retrofitting urban areas with wood: the origin of new projects in an emerging business ecosystem. Silva Fennica vol. 58 no. 4 article id 23068. https://doi.org/10.14214/sf.23068

Supplementary file S1

In the interviews five different and interviewee modified interview guides were used, but they were more or less following the basic structure of the following interview guide no 1. Depending on the actor group that particular interviewee represented the questions we modified to represent that point of view, either the producing company with involvement on both WMC and wooden retrofits; or company with involvement solely with wooden retrofits; or that of the owners and investors, or that of the municipality; or an intermediary organization.

Interview guide 1: Companies involved with both WMC and wooden retrofits

Background: Interviewee, company, and projects

- 1) Please, tell me shortly about yourself, who are you and what is your position in the company you represent?
- 2) Would you describe in your own words of the residential construction projects in which the use of wood has been significant, especially related to retrofits (e.g., rooftop stackings), but also from the side of new construction? How has the use of wood been significant in these projects?
- 3) Have the projects relating to wood use been established practice to your company, or have they been experimental projects?

Relationship between new WMC and wooden retrofits projects

- 4) What kinds of roles / tasks have your company had in the new construction projects, in which the use of wood has been significant? Have the roles/tasks of the company you represent been the same in the retrofit projects?
- 5) Has company you represent in your opinion been a promoter of innovations relating to wood use in construction (yes/no)?
- 6) Have the municipalities in which the projects have been located been in a special role in implementation of wood use based new construction or retrofit projects?
- 7) Has there been lessons learned in your opinion especially on the ways that the municipalities could with their actions strengthen the success of projects especially from the point of view of wood use? Have you recognized other actors, who could strengthen the implementation and success of projects especially from the point of view of wood use?
- 8) Are there the same collaborative partners in both new construction and in retrofit projects? In what issues in particular have the potential linkages between the new construction and retrofits either inside your own company or with other actors have promoted the generalization of wood use or the related knowhow? Or in what way could the cooperation in its best promote wooden construction and especially wooden retrofits in the future?

Special focus on wooden retrofit projects

- 9) With which actors have you collaborated in retrofit projects in particular? What kind of cooperation it has entailed and what have been its benefits to your company and the whole project? Do the actors and cooperation differ from the new construction projects?
- 10) Who of the actors were in your opinion the key in different projects? Who led these different projects?
- 11) What kind of role has the retrofit building/site owners or investors had in retrofit projects in which the use of wood has been in special role?
- 12) What kind of role could the different owners and investors have at their best in implementing and promoting wooden retrofits?
- 13) Do the building solutions based on wood use have in your opinion special strengths, which could benefit especially the development of building retrofits? Are there currently enough possibilities in using wood in retrofits?
- 14) Are renewals/changes/development needed for wooden supplementary building/rooftop stacking or in retrofit solutions based on wood use in Finland? By your experience is some knowhow lacking from Finland or your area, which for instance became clear during your own projects?
- 15) What has been learned from the implemented retrofit projects based on wood, for instance their challenges or observed possibilities?

Pillars of sustainable development and low carbon promotion in the society

- 16) Did low carbon goals have any significance in your projects? How was this visible in different stages of execution? Did different project implementing partners emphasize low carbon aspects during the projects? If the different partners/actors emphasized low carbon aspects, who were they?
- 17) Was there something in the network or its structure that promoted low carbon building?
- 18) As you are looking back on it, what kinds of benefits has there been of your project(s)?
- 19) What kinds of benefits would you see there to be, if wooden construction and retrofits would spread widely to the society? And who should in your opinion make this change?
- 20) Were there some lessons learned from these projects that other actors in construction sector or in the society should know about as new similar projects are planned in the future? What is your message to other actors in the field and in the society based on your own experience?