



Nordic Superblocks as Decarbonization Catalysts

Newsletter

2/2025



Visiting Oodi inspired a lively discussion

At the end of January, the NSDC partners gathered at Oodi to experience first-hand what a popular and functional building can offer its community. Juho Grönholm, partner of ALA Architects and the lead designer of Oodi, shared his experiences from design to planning and implementation of the Oodi Library. Oodi has become not only a central gathering place for residents in the Helsinki region, but also an architectural landmark attracting significant international interest. More than just a library, Oodi serves as a hub connecting people, ideas, and creativity as a common living room. ALA Architects translated the extensive list of wishes given by the City of Helsinki and library users into a vibrant yet homey architecture that people are eager to come to.

Elina Alatalo of Tampere University shared insights on the Superilla development in Barcelona and her observations from a study visit there. Barcelona's Superblock initiative, initially launched by Barcelona in 1993 but significantly expanded in 2016, embraces urban activism. The way Barcelona aims to transform urban spaces is an important reference when developing the Nordic Superblocks concept.

Through the Superilla development, Barcelona wants to instill a stronger sense of community among residents by engaging them in joint decision-making on the future of the city together with city planners. Events, workshops, and a dedicated urban design bookstore further fuel public discourse and act as successful marketing tools internationally. However, rising property values and gentrification pose challenges, sparking debates about the future direction of Barcelona.

Understanding the needs and processes of energy communities was the focus of a talk given by Jussi Valta from Tampere University. Resident-driven energy communities can benefit from the use of digital tools to improve system reliability, information sharing, and community engagement. Understanding what information residents need and how it influences their behavior is key. Another type of energy collaboration is around a Positive Energy District (PED), which is a term coined by the EU to describe an energy-efficient and energy-flexible urban area that connects buildings which produce net zero greenhouse gas emissions. PEDs support technological advancements and a top-down approach in order to ensure correct prioritization and reliability of the local energy systems with little required of the end-users. Research, thus far, has indicated that the top-down approach may be more effective but energy communities are still not very common so their role must be further explored.

Jouko Makkonen, also of Tampere University, presented his research on digital platforms in residential communities. Common features of digital tools related to neighborhood and communities are administration and management, mobility, parks and yards, services, shared spaces, and community engagement. The discussion on the key functions of a local neighborhood community platform in the context of Nordic Superblocks will continue.



Image: Architect Juho Grönholm showing NSDC partners around Oodi, Helsinki

Building viability with residents

Small group discussions among the NSDC members at Oodi raised issues such as flexibility, governance, community engagement, and affordability when developing next generation livable environments. A strong engagement among community members is important to ensure good collaboration between the residents, city representatives, energy providers and other service providers. The shared facilities for common services provide the basis for a thriving community. However, without active engagement among the residents the use of common facilities might fall short and become expensive to maintain. A difficult challenge is how to engage residents early on in the construction project. This is a topic we will look into more deeply during the remainder of the NSDC initiative

Engaging in new city development projects

At the workshop in Oodi, it was unanimously agreed that the learnings from NSDC thus far are promising enough to be applied in a real-world project. The further development of the NSDC concept would be served by cooperating with city planners aiming to launch a new advanced city block. Such a collaboration would enable the partners to pilot the NSDC ideas in the specific context of a city block to be developed. Such a piloting opportunity would give the NSDC initiative a chance to engage in collaboration with relevant stakeholders, enabling the possibility to specify in more detail the NSDC governance model for collaboration around the development of a new city block. A city block comprising commercial, residential, and retail space would offer the possibility to identify what the superblock level synergies would be when aligning the interests of different stakeholders.

Finding a concrete case around which to collaborate this spring would also suit the NSDC timeline as the NSDC Design Manual should be completed by the end of 2025. This implies that engaging with the developers around an actual case would provide the NSDC partners with an action learning opportunity ensuring that the Design Manual will be firmly anchored in the practicalities of developing new city blocks. Inspired by the discussion at the Oodi workshop, it was agreed that all NSDC partners will actively look for possibilities to get engaged with some potential candidates for such a collaborative undertaking.

Exploring energy communities

The discussion at the Oodi workshop touched upon the learning potential from benchmarking existing energy communities. The aim should be to examine the progress on both technological and practical implementation, particularly the readiness of residents to engage and invest in such solutions. An understanding of the state of the art in Finland would be valuable for the NSDC partners when developing an energy management solution suited for export. One interesting energy community case run by the municipality exists in Lempäälä.

The Marjamäki industrial estate in Lempäälä covers 300 hectares of land and will host 400 companies. The area is already home to the Ideapark shopping and leisure center which attracts 7.5 million customers annually. The 13,000 solar panels that were taken into use in 2019 represent the first stage of building the LEMENE Energy Community. The aim of the community is to improve energy efficiency and self-sufficiency in electricity production. The LEMENE energy management system predicts electricity consumption and production and uses this information to make decisions on whether to buy electricity from the national grid or to make do with electricity produced in-house. The technological infrastructure includes a microgrid control system, as well as an electricity storage system. The region is also home to a virtual power plant, which operates on a nationwide demand response market and smooths out fluctuations in supply and demand.

The Lempäälä Energy Community is a compelling benchmark for the NSDC partners as they look to develop innovative energy management solutions.

Excellence Through Ecosystems – Event

How can ecosystems drive radical innovation and sustainable growth?

Join us on March 18, 2025, at Finlandia Hall, Helsinki

[Read more about the event and register now.](#)



[Subscribe to our NSDC newsletter here](#)

