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Kirsten is a service designer and user experience researcher with experience in co-creation and participative processes. Her expertise has been the conceptualization of new forms of community living for the social housing sector and inclusive living concepts for the disabled. Her work has included building platform models for shared neighborhood services, improving the conceptual design and the user experience of buildings and neighborhood block units.

Designing Supported Living Environments for and with Disabled Individuals

Kirsten Sainio

Abstract

This article explores the evolution of supported living environments for disabled individuals in Europe, focusing on the shift from institutional care to inclusive, community-based housing. Supported by key policy changes, such as the UN Convention on the Rights of Persons with Disabilities (CRPD) and European Disability Strategies, this transition underscores a commitment to autonomy, inclusion, and person-centered care. In Finland, the development of a Supported Living Network concept offers an example of these principles in action, with housing provider Setlementtiasunnot leading initiatives that integrate individuals with disabilities into diverse residential communities.

Through participatory design workshops involving architects, social workers, caregivers, and future residents, this project identified recurring challenges, including safety concerns, inadequate support, and social fears, which were addressed using a variety of support actors within the community. The approach combined structural design and support services, leveraging both personal interactions and assistive technology to create a robust support network. Emphasis was placed on social cohesion, inclusion, and shared spaces to foster a sense of belonging and community among residents.

The workshop methods used in this project not only facilitated solutions to practical challenges but also served as effective communication tools, demonstrating the importance of equity, mutual understanding, and collaboration in inclusive housing design. As technologies like video calls and AI continue to advance, they offer further potential to support autonomy and connection for disabled individuals. The Supported Living Network model has been recognized for its contributions to disability inclusion and community-based living and provides insights into how small design changes, hands-on participatory processes, and dedicated community roles can reshape supported living environments.

Keyword: *Supported Living Networks, Community living, Co-housing, Co-creation, Special User research, Inclusion, Service Design*

Introduction

In recent years, housing for people with disabilities in Europe has shifted significantly from institutional care toward inclusive, community-based living. This shift has been driven by human rights advancements, evolving policies, and innovative co-creation processes involving individuals with disabilities in housing design.

Transition to Community-Based Housing

Historically, people with mental disabilities in Europe lived in large, institutionalized facilities with minimal autonomy. This began to change in the late 20th century as awareness of human rights and quality-of-life concerns grew. In the early 2000s, the European Union started directing EU Structural Funds toward closing down large institutions and establishing community-based housing alternatives,

including small group homes and independent living options. This was bolstered by the 2006 UN Convention on the Rights of Persons with Disabilities (CRPD), which asserts the right to independent living and community inclusion. Ratified by all EU member states, the CRPD catalyzed policies emphasizing community-based housing as a central goal.

The European Disability Strategies have reinforced these commitments, promoting affordable housing, equal opportunities, and self-determination in community living. Current policies also stress high-quality, person-centered care, social integration, and combating stigma through education and awareness.

Despite improved policies, many individuals with mental disabilities face stigma, which can affect their quality of life and opportunities for social integration. Social education campaigns and mental health awareness initiatives continue to be important to support community acceptance.

Social Housing as a Chance for Innovation

Working in the social housing sector as an in-house service designer for a social rental housing developer in Finland, I was fortunate to be part of the development of inclusive living concepts. I planned and facilitated co-creation workshops for user research purposes. In city planning and architecture processes from initial idea to implementation and use are slow and iteration cycles can take years still, I believe user experience methods are very relevant to improve and learn from previous building projects.

A rental housing developer has the advantage of experiencing the usability of their building portfolio, they get feedback through maintenance and through their residents and can use it to iteratively improve their future buildings by informing the hired planners and architects. If not for dedicated resident design choices, user-centred design in this case is for the improvement of future residents' quality of life.

At my employer Setlementtiasunnot, 20% of each building was allocated for special housing units the purpose of these were decided in collaboration with the city well-fare services and funding agencies. The different social tenant groups were ranging from wheelchair-bound disabled, intellectually challenges persons, persons in drug rehabilitation among others. Each building was included the service of a community coordinator, employed by Setlementtiasunnot and included in the monthly rent, this was usually a trained social worker nurturing the building community, supporting tenants and connecting them to the services of the neighbourhood. The apartments buildings were usually planned as part of a city block and the close connections to the neighbouring buildings was an important part of the conceptualization. In many cases collaboration between block partner developers was made mandatory by the city planning office. The size of a block allows for the sharing of services and spaces and can add amenities to affordable housing that are too expensive otherwise.

Supported Living Networks

When planning an inclusive apartment building with a fifth of the apartments ear-marked for mentally challenged persons, Setlementtiasunnot applied the idea of supported living networks early on. That means that the apartments for the special tenants are

mixed among different floors of ordinary apartments and should not be distinguishable from the outside thus avoiding the placement of the special resident apartments into clusters as much as possible, as it leads to stigmatization. The distribution of apartments also increases the overall diversity of direct neighbours and offers the chance for inclusion.
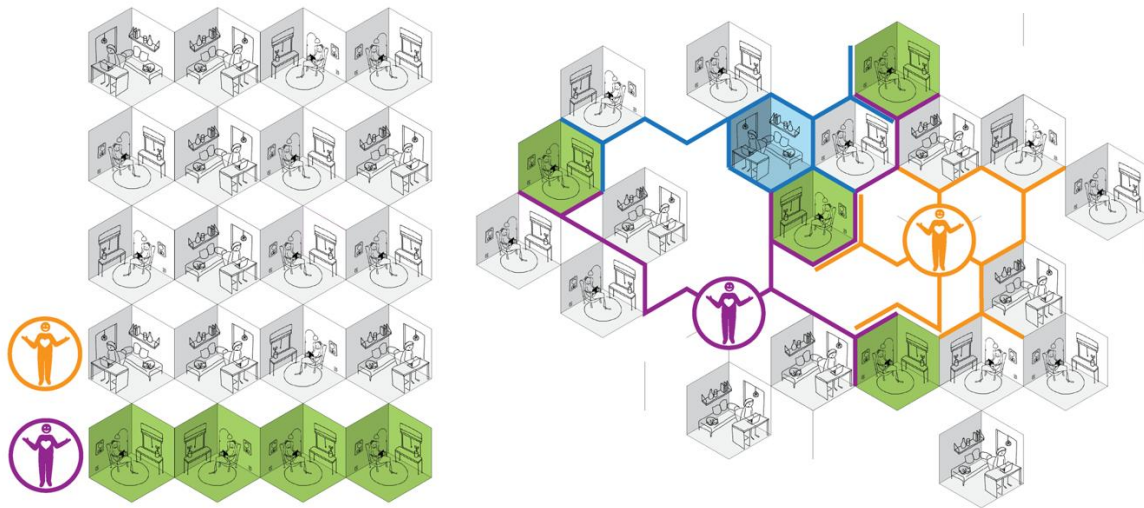
Image: From a group home on the left (apartments for the disabled in green) towards a Supported Living Network on the right, with supporting staff actively connecting neighbours

These apartments are homes to their residents and should not resemble institutionalized living. Collaborating with support service providers and cities' social councils to make living networks the new normal in assisted living was and is important, because the shift from institutionalized living is at the same time a disruption of the service provider's business model. As one anonymous participant of one of our workshops put it: First and foremost, this is a person's home and not a caregiver's workplace. Groups Homes are the most common form of disabled housing, where the disabled are living in groups sharing kitchen and bathrooms. Care providing services would build their own facilities and offer places to live to disabled persons, making

sure their services can be run as lean as possible, while reducing the disabled residents right to for self-determination.

Co-creation with Community Principle

As a service designer my task was to find a way to include participatory design into the planning process that consisted of an inclusive ideation workshop in the early planning stage of a building, and an architecture evaluation council before the finalization of the architectural drawings.

Among the participants of these workshops were the project architects, construction manager, landscaping architect, people from the city planning department, facility managers, social welfare workers, community coordinators, tenants of existing similar buildings, possible community members of the new building area, and special user group members and their care givers. Giving all these people voice in the workshop and seat them in small groups at mixed tables is a first step to inclusion.

The Living Concept that grew out of these workshops and strengthened the building portfolio and brand and made the company into a leading partner for community-based living in Finland. By focussing on pathways and common areas of the block it is possible to offer spaces for community growth as an extension to the personal home. Sharing common spaces in the neighbourhood allows for different uses of the spaces, instead of building 3 similar multipurpose common rooms it is possible to build e.g. a gym, a library and a communal kitchen, thus offering more quality of life.

Addressing Fears Together

The challenges that people with intellectual disabilities bring to the workshop table are often social in nature, and although the Ideas Workshop breaks down some barriers and is usually positive in nature, a sense of despair or fear of possible isolation can develop or return later. This was the case with a group of social workers and parents of young, mostly intellectually disabled people who were about to move out of their family home to live independent adult lives. While most of the disabled themselves were eager to stand on their own two feet like any other young person, there were concerns about their safety and health that needed to be addressed.

We did just that in a 'what if' workshop. We invited people with disabilities, their carers, and parents, the council's social services, the architects and construction managers, and the community coaches. The plans for this particular building included a supported living network of 14 apartments and a group home for 8 severely disabled people who would not be able to live independently. In total the building has 103 apartments.

Participants were divided into small mixed groups of four to six people. The first task of this workshop was to create a support group. A support group is personal and flexible, members change, and the group can grow over time. The most important thing is to have trusted people in the support group. We all have a support group, but we rarely think specifically about the members. By mapping this out in a small group we see a bit of overlap, most support groups include family members and close friends, but for disabled people they also include carers. The template given to the group included the

community coordinator and the social worker but was otherwise open for development.
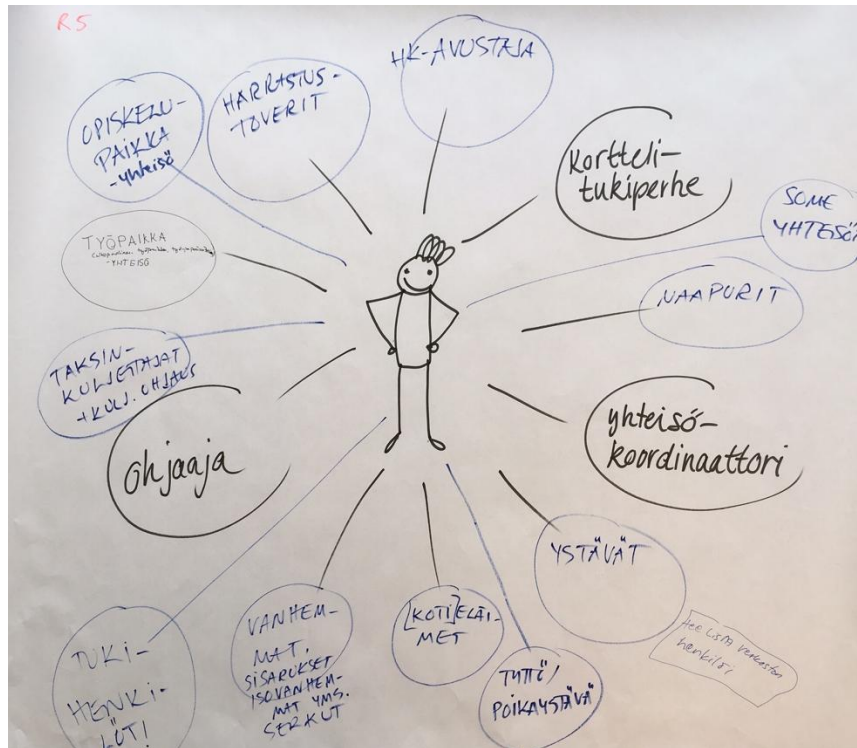
IMAGE: Support group map, listing all the actors who are supporting an individual (parents, partner, friends, neighbour, online friends, personal carer, classmates, workmates, hobby friends, taxi drivers, pets)

The next mapping exercise asked for worst-case scenarios in three key areas that had been identified as important in previous discussions: concrete safety and health risks and less concrete fears were to be documented on sticky notes. Safety can mean different things to different people. What are the dangers of living at home alone and what are the things that can make you feel unsafe? Health and taking care of your health is important. What are the risk factors in this area? Taking daily medication and looking after your own diet or fitness are important steps for everyone in becoming independent. Everyone has fears, which can include fear of loneliness, fear of getting lost, fear of the dark, etc.

IMAGE: A participant holding up their group's list of safety risks, health risks and fears

As a break, we assessed some of the fears and risks in the room by measuring them on a scale. I had taped a long line across the room and marked one end of the line with 'harmless' and the other end with 'very dangerous'. We organised one risk or fear per group according to its level of danger, taking one risk at a time, and each participant placed themselves on the tape line according to their own opinion. We found that a risk is not equally dangerous for everyone. For the risk

of a fire in the building: all participants agreed that fires are very dangerous, and all went to the same end of the line. Other risks, such as "forgetting to take medication", depended on how important the medication was to the person. This exercise was only meant to break up the tense risk thinking during a break and get everyone out of their seats. But it also made it visible that we all have fears and risks, and that there are risks that are a danger to the community and other risks that are very individual.

The next task moved to more solution-oriented thinking, a fear and risk solution matrix. Participants started with the most worrying risk from their sticky note collection and placed it at the top of the matrix. Here they think about: when and where this risk situation will occur; and then go through the remaining 3 steps of the matrix:

- Who could help in this situation (think of support group members)?
- Can technology help in this case?
- How can this risk situation be avoided?

IMAGE: A group working on the risk solution matrix

The purpose of this risk assessment was to identify potential situations that could arise in everyday life and determine who could help or provide solutions in each case. The supporting actors were categorized as the resident, the block (including the community coordinator and neighbors), the supporting caregiver, and external assistance. Recurring risks and fears were gathered from the raw data and grouped into themes. The main themes identified were:

- **Unexpected changes and events**

- **Small everyday difficulties, routines, and habits**

- **Frightening individuals**

- **Insufficient support**

Solutions were developed for each of these situations. Often, the resident can act as the problem solver, sometimes with the aid of technology. In many cases, someone from the block network can provide support. The combination of a strong neighborhood community, the community coordinator, and assistive technology can free up the primary support staff's time for more critical or urgent tasks.

The final task of this intensive workshop was to revisit the support network identified in the first task and consider how its members could function effectively as a cohesive network. Who are the most important links? Are there any missing connections? What should be the role of each member? What are the best tools to support the network? Do these tools already exist, or should new ones be developed?
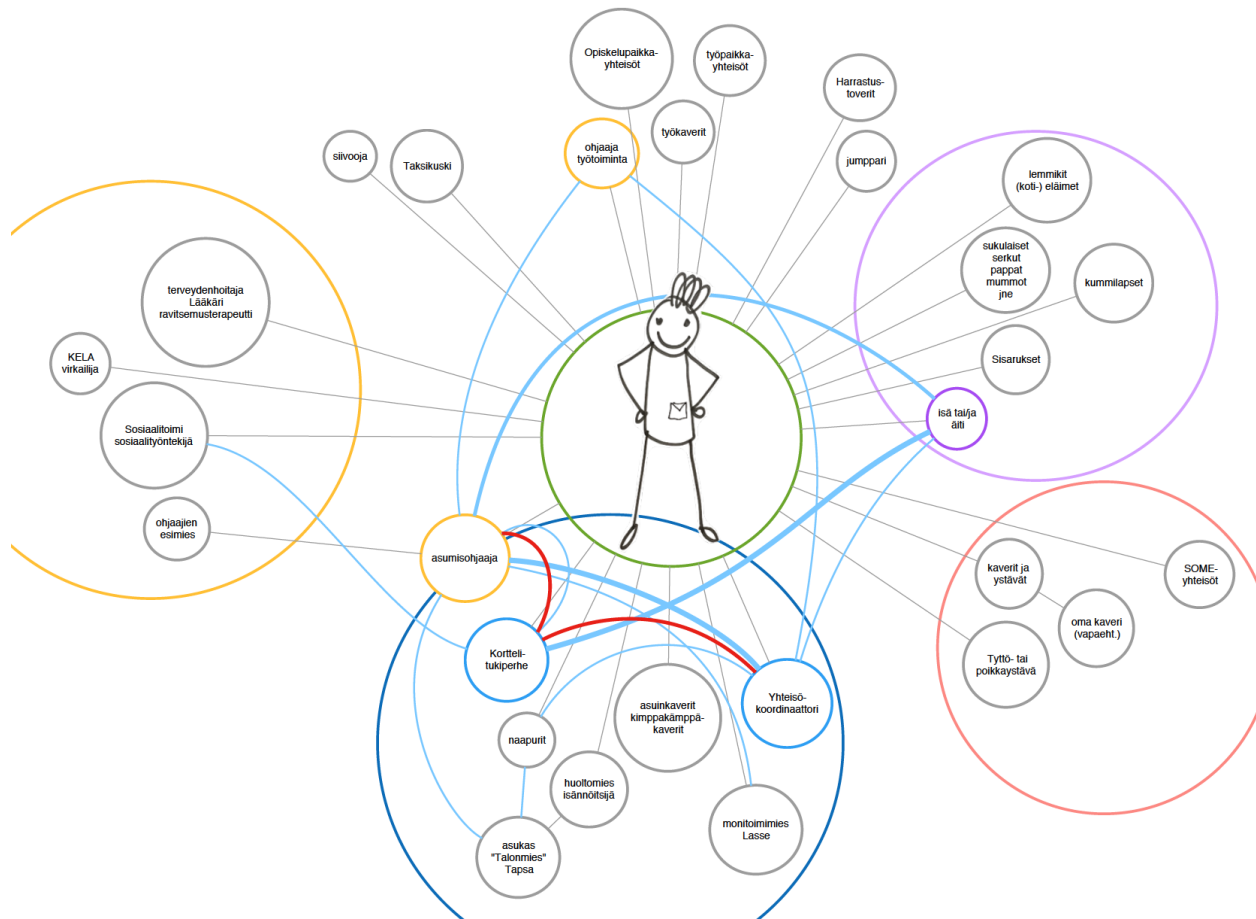
Image: The visual analysis of all the groups support networks. The supporting actors where categorized and the importance of connections between them was reflected in the thickness of the connecting lines.

A major challenge will be coordinating the support network. The carer will remain the primary support person, as they possess the necessary skills and experience for the role. The community coordinator will serve all residents in the block, acting as a community builder to ensure that everyone feels included. Additionally, a support neighbor could offer more personalized outreach to residents with developmental disabilities, although participation should be voluntary.

Collaboration as Communication

This workshop may not have resulted in significant architectural changes; from the outside, the building resembles any modern apartment block. However, it did foster a more assured move toward supported living networks for the housing provider, the city's social services, and the residents and their families. The participatory risk assessment empowered disabled individuals and their families, making them feel seen and engaged in the process. Such methods not only generate solutions but also serve as vital communication tools, illustrating that inclusion starts with genuine encounters and collaboration.

Community-based living began here, with shared spaces that encouraged collective ideas and joint problem-solving. By exchanging experiences in this manner, all participants could shift their perspectives, providing planners with valuable insights into residents' daily lives. The planning phase for this building commenced in 2015, workshops were conducted in 2016, and the building was completed in 2019, just as I transitioned to other tasks. From what I've heard, the tenant community is quite active. The Supported Living Network solution and community-based concept received recognition from The Finnish Association on Intellectual and Developmental Disabilities in 2021.

Since 2016, much has changed, and revisiting the workshop material prompted me to reflect on the role of assistive technologies. Most participants mentioned using Skype as their primary connection method. Today, video calls have become more mainstream and user-friendly, facilitating connections with family and friends, especially

since the pandemic. Seeking advice or support through a quick video call has become commonplace. AI and other smart technologies continue to evolve, providing practical assistive solutions for disabled individuals.

Another notable shift since 2016 is the growing awareness of mental health and neurodiversity in mainstream discourse. Stigmatization surrounding mental health is gradually receding as empathy increases, fueled by collective experiences of mental health challenges and disabilities. We are moving closer together as a society, and mainstream norms are diversifying, slowly diminishing their conforming influence.

Nonetheless, there remains potential for improvement, and effective solutions do not always necessitate sophisticated technology. Engaging in equitable, open interactions, coupled with hands-on tasks utilizing pen and paper, can substantially advance any project's trajectory.

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