



NEB-STAR Demonstrators in Pedersgata 2

Second test period April 2024 - March 2025,
M19-M30

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Summary

This report summarizes the Demonstrators performed at Pedersgata testbed as part of the NEB-STAR project, focusing on the period April 2024 - March 2025 (M19-M32). This document is an update to the previous Demonstrator report for the first period (M3-M18).

This report aims to exemplify innovative, sustainable, and human-centric urban development in line with the New European Bauhaus (NEB) values and working principles. This includes pilots, workshops, digital technology, and new methods to create community engagement for future urban regeneration projects. The project has in this test period focused on strengthening interdisciplinary connections and the relevance of the project within the community.

Key activities involved collaboration with various local actors, including businesses, schools and educational institutions, and community organizations, to co-create solutions and engage residents. The project emphasized participatory approaches, utilizing methods like the Urban Belonging app and Utopian Future Workshops, to ensure community involvement in the development process. A crucial aspect of the work involved addressing complex social and environmental challenges through citizen-led initiatives and social entrepreneurship, supported by tools like the "Vis det!" impact measurement tool. The report highlights the importance of fostering collaboration, securing funding, and integrating such projects into long-term urban development strategies for sustainable and inclusive outcomes. Lessons learned emphasize the value of community involvement, social integration, and adapting urban development processes to empower residents and stakeholders.

Key findings

- 1. Importance of collaboration:** The project emphasizes the value of bringing together diverse stakeholders (municipality, private sector, citizens, artists, etc.) to foster a broader understanding of different perspectives and to facilitate the identification of shared goals in urban development, driving the creation of new collaborative approaches, partnership models and frameworks.
- 2. Need for early and inclusive participation:** The project highlights the need for early and continuous stakeholder engagement, particularly with residents, to ensure their input influences development outcomes. The project focuses on the need to create inclusive processes that move beyond traditional planning methods. It also identifies barriers to participation and suggests how to overcome them.
- 3. Value of art and aesthetics:** The project demonstrates the effectiveness of using art and aesthetics to broaden understanding, inspire creativity, and accelerate progress. By making complex concepts more accessible, and bridging the gap between technical language and public understanding, art and aesthetics can foster a shared vision for development. Aesthetics is identified as a valuable tool and driving force

for achieving sustainability goals and as a tool for inclusion and increased understanding.

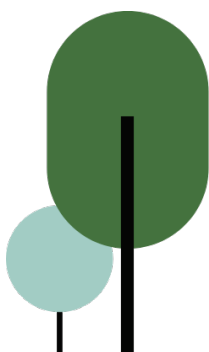
4. **Emphasis on the neighborhood level:** The project demonstrates the importance of focusing on the neighborhood level in urban planning to address specific local needs and create sustainable and balanced communities. It identifies the neighborhood level as a vital link within the planning hierarchy. This also involves a deeper investigation of the qualities in the neighbourhood that contribute to people's experiences, the existing opportunities for reuse, and the human resources already found within a location.
5. **Need for new roles:** To facilitate effective urban development, there's a need for a role of the *mediator* in urban development, highlighting their potential to build trust and act as a neutral facilitator and bridge-builder between different stakeholders. In addition to an *integrator* role for business and partnership perspectives with development considerations to ensure financial viability and implementation, alongside a *coordinator* role for establishing environments and non-commercial meeting platforms to facilitate collaboration, information exchange, knowledge sharing, and inclusion.
6. **Vision-driven development:** The project highlights visions as essential for establishing a shared identity, direction, and overall development strategy. Visions play a role in guiding the development of balanced and sustainable local environments with quality living spaces, green areas, and social meeting places. The project stresses the need to connect visions with concrete mechanisms and plans to ensure that they are implemented effectively and have a lasting impact on the community.
7. **Technology as a catalyst:** The project recognizes the potential of technology and digitalization to drive change, visualizing information, quantifying impact, improve communication, and facilitate participation in urban development.
8. **Economic considerations:** The project acknowledges the importance of considering economic viability and finding solutions that balance quality and economic factors in urban development through the exploration of sustainable financial and partnership models.
9. **Social entrepreneurs as key stakeholders:** The project highlights that social entrepreneurs contribute to a more inclusive and sustainable urban environment by strengthening local economies and empowering residents through creative opportunities, talent development, co-creation, and enhanced access to local resources.
10. **Empowering innovation:** The project promotes innovation and the opportunity to combine effective collaboration with local suppliers, startups, schools and students in testing innovative solutions for urban development challenges. This approach drives co-creation and locally-driven innovation by leveraging the innovative potential and fresh perspectives of startups, local organizations and youth.

Challenges & lessons learned

- **Balancing diverse interests:** The project likely faced challenges in coordinating and aligning the often-competing interests of various stakeholders, including the municipality, private developers, residents, and other community groups.
- **Securing long-term funding:** The document mentions the challenge of securing adequate and consistent funding for community-focused initiatives, which can hinder long-term planning and implementation.
- **Navigating complex regulations:** Dealing with existing planning regulations and bureaucratic processes likely presented difficulties in implementing innovative and citizen-led projects.
- **Achieving genuine co-creation:** The project highlights the imbalance in power relations and the limitations of formal planning processes in achieving true co-creation, indicating challenges in ensuring meaningful citizen participation.
- **Overcoming "siloed" structures:** The project experienced challenges related to "siloed" organizational structures which can hinder cross-functional coordination and the pursuit of common objectives.

Conclusion & recommendations

The NEB-STAR Pedersgata test period 2 serves as a model for future urban sustainability efforts. Continued refinement, stakeholder collaboration, and data-driven decision-making will enhance its long-term impact. The insights gained from this initiative contribute to the broader goal of fostering sustainable, beautiful, and inclusive urban environments across Europe.



1. Introduction

This document summarises the Demonstrators performed in Pedersgata and is an outcome of executing the tasks T2.1 Deploy Demonstrators for long-term, inclusive urban transformations and T2.2 Co-creation with local citizens and professional stakeholders. This report is corresponding with the Demonstrators report for Site 4016, [D3.4](#). The purpose of both Demonstrators is to inform the implementation of the Stavanger TTP, and they are executed in parallel to each other, resulting in equalities and similarities in terms of content as well as application and testing of tools in each testbed.

In chapter two, we present the process of co-creation for the testbed. The third chapter is structured according to the specific tools we have tested and includes reflections, experiences and what we have learned so far.

The background information for the demonstrators can be found in [D1.3](#) Portfolio of Tools, which presents a wide variety of tools to be tested in the project, and [D2.1](#) Feasibility Studies for Demonstrators in Pedersgata, which describes which tools and methods were selected for these testbeds and with which intentions. An updated [D2.2](#) Feasibility Study for Demonstrators in Pedersgata was published for the continuing second period of the Demonstrators (M19-M30), where new tools are introduced in addition to those in continued use from the first demonstrator period (M3-M18). That first demonstrator period was described in [D2.3](#) NEB-STAR Demonstrators in Pedersgata 1.

The testbed for the Demonstrators is the city centre area of Pedersgata, in the borough of Storhaug. In this urban neighbourhood there are a multitude of inhabitants, stakeholders, developing projects and citizen engagement. Through the NEB-STAR project we use the Demonstrators to explore how to increase grassroots engagement, involve creative and social entrepreneurs and vulnerable inhabitants, and develop scalable financing plans and partnership models for the entire testing area - all with the purpose of co-creating a sustainable, inclusive and beautiful future together.

The purpose of the Demonstrators is to give qualified feedback on the relevance and potential use of the tested tools for Stavanger's City Plan. Throughout the tests, at two local places and in two periods, the tools are verified in use, relevance, and transferability. Further qualification is executed in the twinning cities Prague and Utrecht (see report [D1.5](#)). In turn, this qualified data leads up to the main delivery of NEB-STAR and SK: a Detailed Roadmap that describes how the full-scale implementation of Stavanger's TTP can be improved and aligned with NEB principles.

1.1 Focus areas within the Pedersgata testbed

The project has focused the activities in three areas within the Pedersgata testbed: Jammerdalen, Nytorget, and Svankevigå. These areas have been identified as particularly relevant for the NEB-STAR project's objectives in promoting sustainable urban development and also for their characteristics and opportunities for the planned activities.



This map shows the testbed area in Stavanger, identifying the three focus areas. Source: Hans Olav Myskja (SK)

Jammerdalen

The focus on this area was based on insights from the project's "Walk the Land" activities, which highlighted Jammerdalen's strategic importance as a development zone connecting Stavanger city center and Stavanger East. The Nevland building (owned by PU) partly explains the focus on this area, highlighting the need to consider the neighborhood level. A rezoning of the Nevland building and its direct surroundings alone is insufficient. A holistic view of the neighborhood was recognized, informed by experiences in the group.

The area is revealing a diverse stakeholder landscape of public and private actors with varied resources and interests, along with its rich industrial history and development patterns. This area also presents potential for intervention, particularly given the absence of recently adopted regulatory plans. However, it also faces challenges: missing connections and physical links between surrounding areas hinder its full integration, and infrastructure impacted for example by a culvert construction which contributes to spatial fragmentation. Furthermore, a section of Pedersgata within this zone, despite its key location, suffers from

inactivity and some safety issues, impeding its function as an attractive thoroughfare as envisioned by the City Plan.

Compounding these issues, residents have voiced a clear need for upgrades, notably demanding enhanced green spaces and improved lighting. The presence of the Nevland building, a building with undetermined future use, and Jammerparken, a small park in the area, offers a valuable opportunity to explore integration, reuse and innovative development solutions within this complex yet promising testbed context.

Unlike the already-decided Svankevigå redevelopment, the unregulated Jammerdalen presents a distinct opportunity for early citizen participation and co-creation of a vision. The formal decision to redevelop Svankevigå with demolition and new apartment buildings was finalized over 10 years ago, which has made subsequent participation efforts difficult and unsuccessful. This contrast is crucial for understanding neighborhood-level planning insights and future participation strategies.

Building upon preliminary findings from the previous test period, this period has employed workshops, brainstorming, and visualization sessions to further develop the potential for multifunctional use and transformation of Jammerdalen. The goal is to point out strategies, collaboration models and processes to be able to develop a new experience of aesthetics of circular solutions with high-quality relational design methods and physical structures.

Tools tested in Jammerdalen:

- Jammerdalen workgroup
- Jammerparken
- CID
- Guided tours
- Innovation camp
- Agile Pilot Co-Creators and Agile Pilot Asplan Viak
- Urban Belonging app
- Barcode
- Walk the Land
- Impact Model



Jammerdalen area with Jammerparken to the left, and Nevlandsbygget to the right.

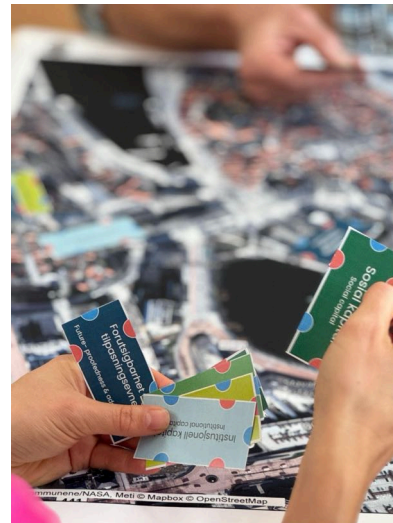
Nytorget

Nytorget (=the new square) is an important public square in the city center and serves as the gateway to Pedersgata. It has a status as a cultural public square due to the Rogaland Art Center¹ and activities located here.

The area is referenced in the Stavanger Municipality's visual arts plan as a strategic area of focus and for the clustering of art activities:

“The development of the art city at Nytorget contributes to a comprehensive infrastructure for art. Nytorget will become a meeting place across art fields and an arena for the dissemination of art. With exhibition venues, educational opportunities, production facilities and residency opportunities, the art field will have good conditions for innovation and competence development in a unique cultural-historical environment.”²

In October 2024, NEB-STAR conducted an Impact model workshop with stakeholders from the area, politicians, artists, urban developers, urban architects and others about the development of the Nytorget area.



Impact model workshop about area Nytorget at Rogaland kunstsenter.

The square is right now (in 2025) undergoing a transformation process to become more pedestrian-friendly, greener, and more dedicated to recreation, cultural happenings, and commercial activity. Nytorget in Stavanger was in 2024 a focal point of public attention due to the demolition of the old police station, which has sparked extensive media coverage and community debate regarding the area's redevelopment. The situation around the redevelopment is mentioned in report D1.10 Co-Creation process.

¹ <http://rogalandkunstsenter.no/>

² <https://www.stavanger.kommune.no/kultur-og-fritid/kultur/plan-for-visuell-kunst/>

Nytorget was chosen as a focus area because of its role as the gateway to Pedersgata and its potential impact on strengthening the street as a link between the city center and the eastern city district. NEB-STAR is also using the area and the Rogaland Art Center for several of the meetings and workshops.

Tools tested at Nytorget:

- Guided tours
- Innovation camp
- Agile Pilot Formverk and Agile Pilot Folkegata
- Urban Belonging app
- Barcode
- Re-take
- Impact Model



A visualization of the future plans for Nytorget.

Related news article from Stavanger Municipality: [Nytorget blir park | Stavanger kommune](#)

Svankevigå

Svankevigå is a bay area with a mix of historical industrial and residential buildings, as well as more recent residential and commercial developments. The area features some historical green landmarks such as Badedammen lake, and the residential area Ramslandberget, as well as innovative residential communities like Vindmøllebakken. It has also been a place where creative businesses and startups have been able to find space due to lower rental costs. Svankevigå is included as a focus area due to its mix of historical and new developments and the ongoing discussions around the preservation of industrial buildings in the area. The project will involve the local community and stakeholders in discussions

around the development of the area, particularly for the Utopian Future Workshops which methodically explore and develop visions for the neighbourhood area.

These three focus areas—Jammerdalen, Nytorget, and Svankevigå—represent important parts of the Pedersgata testbed. The project's activities in these areas aim to address local challenges, promote sustainable development, analyse strategies and collaboration models to be able to enhance the quality of life for residents.

Tools tested at Svankevigå:

- Urban Belonging app
- Urban Future Workshops
- Guided Tours
- Barcode
- Social entrepreneurship



Svankevigå is a bay area with a mix of historical, industrial and residential buildings.

2. Co-creation in the testbed

Co-creation activities implemented within Pedersgata have involved local citizens and stakeholders, startup companies, local communities and students, aiming at fostering social inclusion, participation, and social and creative entrepreneurship in the development of local communities.

2.1 The co-creation approach

The co-creation is building upon existing practices and methods that involve an experimental attitude with partners committed to testing, applying and developing a set of tools, methods and principles for future initiatives. The co-creation process is designed to involve local citizens and professional stakeholders in the project's activities and using a set of tools and methods to facilitate collaboration and gather input, with the goal of addressing the four emblematic challenges of the NEB-STAR project. See report D1.1 Co-Creation Process for more information about the emblematic challenges.

A workgroup was established to define the Jammerdalen area as a common focus for future development and programming. This group is involved in mapping challenges, stakeholders, hypothetical programming, and using tools such as workshops, vision development, aesthetics, participation and the role of new tools. The workgroup is cross-disciplinary and multi-level and consists of representatives from municipal departments, private landowners, architectural firms, city center organizations, and local area development initiatives collaborating on the project.

Co-creation in Nytorget is centered around the square's ongoing transformation and its role as the gateway to Pedersgata. Activities include neighbourhood community building through cultural and social events, temporary meeting places, a public participation forum initiative, sustainability strategy development and workshops and meetings in the area. The public Rogaland Art Center has been the focal point for events, meetings and workshops.

Co-creation in Svankevigå involved engagement with the local community and stakeholders in discussions concerning the reuse of existing buildings and the integration of new residential developments. Utopian Future Workshops have been utilized to enable under-represented, marginalized, and excluded groups to participate in urban politics.

2.2 Tools and methods for co-creation

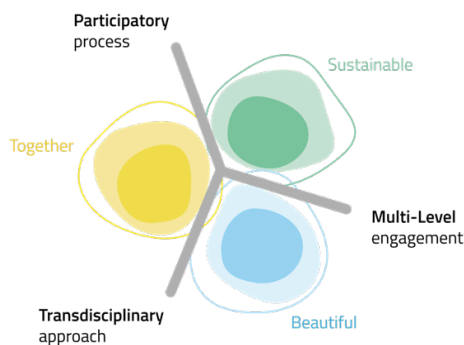
The project has used a variety of tools and methods to facilitate co-creation. For more detailed information of the tool, see report D1.11 Portfolio of Tools. These include: **Kvikkttest (Agile pilots)**: Public entities invite companies to test new products and services that can help solve a challenge. This tool uses agile pilots as a short-term and low-cost procurement strategy. **Innovation Camp**: Focusing on creativity and innovation, involving students in

secondary and upper secondary school. **Barcode:** Digital tool to support planning for urban space usage, providing a quantitative picture of the space needed for balanced urban growth. **Public Participation Forum:** a cross-disciplinary and multilevel forum where barriers, frictions and solutions are discussed regarding public participation and engagement methods and processes. **Urban Belonging App:** A photo-app for eliciting how various groups experience urban space differently, used in conjunction with deliberative workshop activities. **City Impact District (CID):** A formalized public-private collaboration between Stavanger Municipality and Stavanger Sentrum AS to implement the City Center Masterplan. **Guided Tours:** Structured visits for groups to sites or projects, often performed by local organizations. **Unlimited model:** for integrating conditions required for co-creating with place-based social entrepreneurs, contributing with citizen-driven innovation. **Vis Det!** A tool developed to help social entrepreneurs target and measure the effects and impact of their work. **Utopian Future Workshops (UFW):** A method that enables under-represented, marginalized, and excluded groups to participate in urban politics.

For more details on co-creation, see the [D1.10 Co-Creation Report](#).

2.3 Application of the NEB compass

As part of the second test period we have also applied the NEB Compass of the European Commission’s Joint Research Centre for the tools used in the testbed, as can be seen in the overview illustration below and specifically for each tool in the following chapters.



The NEB Compass³ is a guiding framework for decision and project makers wishing to apply the NEB value and working principles to their activities. The Compass sets out key characteristics for NEB projects and it has been applied for all Demonstrators in this testbed to indicate ambition levels and relevance for the NEB values and working principles, and also possible directions for change. The indicators for the individual Demonstrators are shown under each subchapter title.

As part of the Demonstrator, the project has mapped all activities to the ambition levels of the NEB values and the working principles. This is marked in each chapter with text and colors as shown here:

TOGETHER: Ambition II To consolidate	SUSTAINABLE: Ambition II To close the loop	BEAUTIFUL: Ambition II To connect
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³ https://new-european-bauhaus.europa.eu/tools-and-resources/use-compass_en

Participatory: Ambition I To consult

Multi-level: Ambition I To work locally

Transdisciplinary: Ambition II To be interdisciplinary

3. Demonstrators in Pedersgata

3.1 Introduction

This chapter summarises and reflects on our experiences from the second period of the Demonstrators at Pedersgata area. The chapter is structured around our activities, learnings and rationale, the insights we have gained, our progression, and the potential for future work for each tool and method which have been tested.

All demonstrators and tools are described in detail in Portfolio of Tools report, [D1.3](#), and how they are planned to be applied to the Pedersgata test bed is described in the Feasibility Study report: [D2.2](#).

The evaluation of the tools within this test period was conducted across five dimensions:

- *The Activity dimension (What has been done)* assessed the practical activities performed and how they were utilized.
- *The Rationale dimension (Why has it been done this way)* examined the justification for the tool's selection and its alignment with project goals.
- *The Insight dimension (What did we learn)* focused on the knowledge and understanding gained through the tool's use, including any new perspectives or discoveries.
- *The Progression dimension (What has been done differently)* evaluated the tool's contribution to the project's development and advancement towards its objectives.
- *The Future Potential dimension (What is the potential)* considered the tool's applicability and value beyond the project's lifespan, exploring its potential for wider use or adaptation in future initiatives

Overview of tools in the second WP2 demonstrator

Tool	Description	Target Group	Outcome	Status
Barcode	A tool designed to standardize layouts for land distribution and accounting, providing a visual map.	Municipality, planners, real estate developers, landowners, urban designers, citizens.	Adapted the Barcode framework, producing functional "as-is" analysis for relevant planning areas and yielding insights into data-driven urban planning.	Planned tested and in pilot
Citizen Participation Forum	A multi-stakeholder participation forum to analyze barriers in current participation processes and develop improved guidelines for public engagement.	Municipality departments, citizens, urban planners, architects and researchers.	Established a multi-disciplinary forum to improve citizen participation. Identified barriers and solutions for today's	Planned and tested.

Tool	Description	Target Group	Outcome	Status
Digital twin	See document D3.4 Demonstrator Site 4016 for a comprehensive description of the use cases for Digital Twin among the various partners.	Municipalities, local citizens and professional stakeholders	participation processes. A set of specific use cases for virtual representation to support visualization, simulation, and decision-making.	Combined with testbed Site 4016.
Figma	Figma is a professional design tool, which is mainly used for designing interactive prototypes, but also for presentations, reports, and other digital assets.	Designers, communication experts, project managers and stakeholders	A structured and navigable information site which is accessible for everyone inside or outside the project.	New opportunity, tested
Finance Models Workshop	Various models combining public and private financing for projects and/or events related to the project	Municipalities, social entrepreneurs, NGOs and private companies	See the Finance and Partnership Models reports: D2.5 and D3.5.	Implemented in the Finance and Partnership Models report
Guided Tours	Physical walks through an area combined with storytelling from local actors to provide insights into its development and unique aspects	Citizens, visitors, social entrepreneurs, politicians, professional stakeholders, residents.	15 guided tours successfully engaged diverse groups, effectively storytelling and showcasing the local area.	Planned and tested.
Innovation Camps	A workshop methodology where participants work in groups to solve a given problem using a process poster and present their solutions.	Students, teachers, schools, planners.	Successfully engaged students, leveraging their perspectives to generate creative and valuable solutions for the future development of the Pedersgata area.	Planned and tested.
Jammerdalen work group	A cross-disciplinary group using dialogue, presentations, and shared exploration to understand and implement NEB values at a local level.	Municipalities, city architects, private landowners/ developers, artists, architectural companies, FutureBuilt	Enhanced stakeholder collaboration and a foundation for future urban development strategies and vision development. Utilized aesthetics as a tool to make shared goals tangible.	Planned and tested.
Jammerparken	Citizen engagement and collaborative methods to redesign an urban park.	Local residents and neighbours.	The project's outcome is a concrete plan for the redesign of the park that incorporates community input.	Planned and tested.

Tool	Description	Target Group	Outcome	Status
Kvikkttest (Agile Pilots)	Public entities invite companies to test new products and services that can help solve a challenge.	Entrepreneurs, start-up companies and others	Tested and validated 5 innovative solutions to address specific challenges and opportunities at Site 4016.	Planned and tested.
Local social entrepreneurs	Storhaug Unlimited, a neighborhood incubator, supports residents in developing solutions to complex challenges through tools, guidance, and funding.	Inhabitants in the neighbourhood having an idea addressing challenges they see.	12 ideas including 15 social entrepreneurs, established and tested their ideas with intention for social impact.	Tested and scaled to two other areas.
Re-Take	Reusable tableware. Utilizes a system innovation approach to address the issue of single-use cups by looking at the entire distribution chain.	Municipalities, local businesses, events and festivals, citizens and consumers.	Reusable tableware service established and insights gained on reducing single-use packaging.	Planned and tested.
Smart art	Integration of artists and their competence and skills in collaboration, communication, aesthetics, and critical thinking	Municipalities, artists, private businesses, urban development actors	Explored collaboration models, roles, and value of integrating artists into municipal and business projects	Planned and tested.
Smart Omslag	Educational innovation program for 5th–7th grade students, engaging them in developing creative, sustainable solutions for future societal challenges through hands-on workshops, prototype development, and collaboration with local partners.	Students, educators, school administrators, local policymakers, partners focused on sustainability, innovation, and youth engagement	Students gain key transition skills such as innovation, problem-solving, and teamwork. Schools integrated sustainability and entrepreneurship into their curriculum.	New opportunity, tested
Urban Belonging app	The Urban Belonging app served as a platform for data collection and interpretation in the testbed.	Municipalities, social entrepreneurs, local organisations, NGOs, architects, real estate developers	Gathered citizen feedback related to the testbed area to ensure its development aligns with community needs and preferences.	Planned and tested.
Utopian Future Workshop (UFW)	Enables under-represented, marginalised, and excluded groups to build capacities for making a difference in urban politics and city development.	Municipalities, social entrepreneurs, local organisations, NGOs, vulnerable groups	Integrated community visions, particularly from marginalized groups, into the development plans	Planned and tested.

Tool	Description	Target Group	Outcome	Status
Vis det!	A tool designed to help organizations and businesses measure and communicate their societal impact.	Municipalities, social entrepreneurs, private companies	Improved methods for measuring and communicating societal impact.	New opportunity, tested

3.1 Agile pilots

Agile pilots carried out in the Pedersgata area

Pilot	Domain	Outcome	Next steps
Asplan Viak: Tool for bottom-up sustainable development.	Urban Planning, Sustainable Development	Conducted the first democratically anchored sustainability strategy in the city. Successfully tested a methodology for developing sustainability strategies together with citizens and stakeholders.	Planning to communicate the results to other municipalities and political levels, further developing the bottom-up version of the tool SØM.
Co-Creators: Modules for urban meeting places which enable creativity and interaction.	Urban Design, Community Engagement, Place-Making	Produced the first series of 3D printed urban outdoor modules in a sustainable and biodegradable material. Tested modules in an urban park area together with citizens.	Planning to expand the modules with sensors for better data collection and analysis. Is researching scaling strategies and new materials for 3D printing.
Folkegata: Developing the social and cultural neighbourhood.	Social Innovation, Culture, Urban Revitalization	Positively impacted the local area with a stronger sense of community and engagement. Improved understanding of and influence over urban development and the value of artistic projects. Enhanced the area's cultural value. Engaged 1500 participants in a series of events.	Planning to continue similar events and other initiatives.
Formverk: Developing and building a mental charging station for the urban environment.	Urban Design, Community Engagement, Place-Making	Co-developed and tested a modular urban installation, for better mental and social well-being, using neuro-architecture principles	Already designing an indoor version of the installation, developing a new service business plan, is in contact with potential new customers.

Pilot	Domain	Outcome	Next steps
Permaby: Urban food garden initiative.	Urban Agriculture, Regenerative, Community Development	Successfully established a community-driven urban garden with reusable materials; promoted local food production and social engagement.	In the process of expanding the garden with new elements, and planning to hand over the operational responsibility to the community.

Administrative process

What has been done?

The administrative process for the Agile pilot project in Stavanger municipality was a comprehensive and well-organized process, which involved several key steps from preparation to implementation and evaluation.

The first step was the preparation of the procurement documents. In close collaboration with the Procurement Department in Stavanger Municipality (SK), all necessary documents for the public procurement were prepared. This included the tender text, assessment criteria, contract template and offer letter. A communication package was then drawn up to ensure broad visibility of the announcement in relevant channels and environments.

The evaluation of the offers was carried out by a neutral and skilled working group consisting of four representatives from various departments and service areas in SK. The working group carried out a thorough evaluation of all received offers. The evaluation combined joint work meetings, discussions and individual assessment. This intensive process spanned two weeks, during which the group reviewed extensive application documentation (approx. 400 pages in total) and applied nine assessment criteria with a point scale from 1 to 10 to ensure a fair and objective assessment. The work process was experienced as positive, with good cooperation and commitment from all participants.

After the evaluation, the Procurement Department in Stavanger Municipality announced the five winners and sent out offer letters. Contact was established with the five winners, who were invited to start-up and contract meetings in March 2024. The contract signing between the suppliers and the Municipality was carried out digitally via Mercell.

To mark the start of the Agile Pilots, a kick-off event was organized at restaurant Bellies on 30 April. All five winners, NEB-STAR partners and relevant departments in SK were invited. The aim of the event was to create motivation and establish Agile pilot as a framework for sustainable innovation in the region.



To mark the start of the project, a kick-off event was organized at restaurant Bellies on 30 April.

In the period from May to October 2024, the NEB-STAR role was to assist, facilitate and coordinate the five Agile pilots, with Stavanger municipality in lead. Regular status meetings were held every second week to promote cooperation and information exchange. The project followed the development of the Agile pilots, published news articles, produced a video, and the suppliers provided mid-term and final reports as documentation.

Agile Pilot Pedersgata area 2024 ended with a "Closing Event" in Kulturhuset in Stavanger at the beginning of November. The event brought together the 10 Agile pilot suppliers from both test areas, NEB-STAR partners, subcontractors, stakeholders and managers from SK.

Why was it done this way?

The administrative process for the Agile pilots is subject to the rules for public procurement. These rules contain specific procedures for carrying out such announcements, and as the pilots are financed with funds from Stavanger Municipality (SK), it is obligatory to follow these rules.

NEB-STAR has a twofold impact in this process. First, NEB-STAR helps to NEB-ify procurement by adding sustainability, inclusion and aesthetics as assessment criteria. This ensures that the Agile Pilots not only focus on functionality, but also on the wider values that NEB-STAR stands for. Secondly, NEB-STAR takes responsibility for the entire execution of the procurement, including communication and follow-up of the suppliers along the way. In this way, NEB-STAR's value base and working principles are anchored in the Agile pilot project from start to finish.



Hybrid physical-digital regular bi-weekly meetings with all agile pilot vendors.

The five suppliers themselves were responsible for the implementation of the projects, planning and resource use. This was the most efficient way to do it, while at the same time showing confidence in the suppliers' competence and ability to realize and deliver what is described in the application. The suppliers also had a great deal of freedom during the project so that innovation, development and new ideas are not restricted by tight frameworks.

What have we learned?

The implementation of resource-intensive projects such as Agile pilot requires good planning and the allocation of dedicated resources that can maintain focus throughout the project period. It is essential to inform internally about progress and results, so that all the partners in NEB-STAR can take an active part in the process, see values and possible connection points.

One of the most important experiences from this Agile pilot is the importance of motivational work. Positive feedback to the suppliers, pointing out potential, being a door opener and support along the way, as well as availability, challenges and cross-links between the various deliveries are essential for a good result.

Given NEB-STAR's complexity, there is room for improvement in the communication of goals and working methods to external suppliers who enter the project without an onboarding process. As a project, we should spend time establishing a common understanding of goals and purpose when so many different Agile pilot suppliers will be working together. The experiences from this Agile pilot show that the best and easiest way to do this is to gather physically, go through the NEB values, working principles and associated examples, spend plenty of time on questions and discussion, and challenge the suppliers to read up on documentation, such as the NEB Compass.

The communication and advertising of the Agile pilot announcement can also be improved. We currently have no channel or platform where we meet potential applicants. This means that we use social media, LinkedIn, the municipality's website, information in mailboxes,

e-mail to the networks we have as employees, etc., but still we do not meet everyone. Most of the applicants say that they heard about this orally through friends, professional circles and word of mouth.

Finally, consideration should be given to standardizing the applications. There is currently no standard or template for suppliers who must submit an application to agile pilots. This leads to a large spread of content in the applications from the suppliers, and it creates uncertainty among the submitters as to whether they have submitted an acceptable application. Further on in the process, this becomes a major problem for the working group that will evaluate the applications. Certain suppliers have submitted half a page of application text, some have submitted a 100-page long presentation, while others have submitted a document with a high degree of academic content and justification. This can be easily solved by creating a template and setting a limit on the volume of the application texts.

What was done differently from demonstrator 1 to 2?

The communication process was simplified with less focus on explaining NEB-STAR and NEB. In demonstrator 2 we had a more inclusive process with the call text, which was designed jointly among all the partners. We received more press coverage and handed out flyers to the local business community in the area. The information meeting was held during the day, while in the first announcement it was in the evening. The regular meetings every 14 days were physical, while in the first Agile pilot it was digital as 2 suppliers had offices in Oslo. We received more press circulation, among others from Storhaug Bydelsavis.

What potential do we see in this tool moving forward?

The agile pilot concept offers smaller and local suppliers a valuable opportunity to navigate the municipality's procurement processes. Through an agile pilot, companies will gain direct access and contribute to a closer dialogue with the municipality and residents, enabling the testing and implementation of new ideas and services. By actively engaging with local suppliers and residents, the municipality gains a direct pipeline to new perspectives and innovative solutions tailored to the local community's specific needs. This fosters a dynamic co-creation environment, moving beyond traditional procurement methods to unlock locally-driven innovation.

Agile pilot Co-creators

sustainable materials • biodegradable • citizen engagement • urban infrastructure • social meeting places

TOGETHER: Ambition II To consolidate	SUSTAINABLE: Ambition II To close the loop	BEAUTIFUL: Ambition II To connect
Participatory: Ambition I To consult	Multi-level: Ambition I To work locally	Transdisciplinary: Ambition II To be interdisciplinary

What has been done?

The Co-Creators project has focused on advancing the use of sustainable materials in 3D printing for outdoor infrastructure, alongside developing innovative methodologies for site analysis and citizen engagement. They tested a blend of PLA⁴ and wood fiber for 3D-printed modules, aiming to create environmentally friendly outdoor installations. The addition of wood fiber reduces the overall plastic content and gives the printed modules a more natural look and texture, making it an attractive material for aesthetic and sustainable design applications.

Additionally, the project explored the integration of automated data collection methods, such as location sensors, to enhance site analysis and gather real-time data on public space usage. This data-driven approach also seeks to improve the inclusivity and effectiveness of citizen engagement in urban planning.

Why was it done this way?

Co-creators' dual focus on materials and methodologies stems from a need to address sustainability and inclusivity in urban development. The exploration of PLA-wood fiber blends and other biodegradable materials is driven by the desire to reduce the environmental impact of urban infrastructure. Similarly, the adoption of automated data collection and analysis aims to provide a more accurate, efficient, and inclusive approach to site analysis and citizen engagement, ensuring that urban development projects are responsive to community needs and preferences.

⁴ PLA = Polyactic Acid, derived from renewable resources like corn starch, is a bioplastic known for being biodegradable under industrial composting conditions.



The urban furniture modules were tested in the Jammerparken park area.

What have we learned?

Key learnings include the potential and limitations of PLA-wood fiber blends in 3D printing for outdoor use, highlighting the need for further research into materials like PHA⁵ for full biodegradability. The tests demonstrated that this PLA-wood fiber mix offers good structural stability and is a step forward in creating sustainable outdoor infrastructure. In outdoor environments, especially in colder climates, PLA may persist for a long time before breaking down naturally. The inclusion of wood fibers increases the biodegradable content but may also affect the durability of the modules when exposed to the elements.

Achieving fully biodegradable, flexible, and durable 3D-printed outdoor modules requires further advancements in materials science. Moreover, scaling up the use of bio-based polymers in 3D printing requires addressing current barriers, such as cost, material consistency, and printability. The future holds significant potential for more eco-friendly solutions.

The project also demonstrated the significant benefits of integrating automated data collection with traditional site analysis methods, showing how real-time data can enhance understanding of public space usage and inform more dynamic and responsive urban planning. Additionally, it underscored the importance of addressing data accessibility and ensuring that technological advancements complement rather than replace genuine citizen engagement.

⁵ PHA (Polyhydroxyalkanoates): Unlike PLA, PHA is truly biodegradable in a wide range of environments, including soil and water. This makes it a more attractive option for outdoor applications. PHA is produced by bacterial fermentation of sugars and lipids, and while it offers superior environmental credentials, it is currently more expensive and less available than PLA.



3D printing the modules using biodegradable materials.

What potential do we see in this tool moving forward?

The project has set the stage for future innovations in sustainable urban development. The research into biodegradable 3D printing materials opens possibilities for creating eco-friendly outdoor infrastructure that minimizes environmental impact. Moreover, the development of data-driven site analysis and citizen engagement methodologies can lead to more inclusive, efficient, and responsive urban planning practices. The integration of these approaches has the potential to transform how cities are developed, making them more sustainable, resilient, and attuned to the needs of their inhabitants.



A poster was mounted near the Co-Creators modules to encourage public interaction and use.

Agile pilot Folkegata

community revitalization • social meeting places • urban culture • community meals • art workshops • grassroots initiatives • social integration

TOGETHER: Ambition II To consolidate	SUSTAINABLE: Ambition II To close the loop	BEAUTIFUL: Ambition II To connect
Participatory: Ambition III To self-govern	Multi-level: Ambition I To work locally	Transdisciplinary: Ambition II To be interdisciplinary

What has been done?

The Folkegata project, initiated by Rogaland Kunstsenter and Byverksted, focused on revitalizing the Pedersgata area in Stavanger by creating social meeting places and providing resources for residents. Over six months, the project conducted various activities, including community meals, art workshops, and urban space redesigns, engaging over 1400 participants. Key initiatives included "Folkemåltid," offering hot meals and discussions; "Drømmegata," which reimagined streetscapes through community input; and "Morning Disco," a morning dance event to draw diverse crowds. These efforts aimed to counteract the area's perceived social isolation and lack of community involvement in its transformation.



Repair cafe was one of the events.

During the project, a number of collaborations with local and international organisations and resources were developed, among others a coffee roastery, StUF (Stavanger Urban Folk High School), Frænd social entrepreneur café, Stilken&Strøm, a Repair Café group, the University of Stavanger, The Nature Doctor, local artists, neighbours, DJs at Morning Disco, the Storhaug Carpenter's Association, the City Architect of Stavanger, the Kurdish Culture and Nature Association in Rogaland, and the Friends Palestinian Association. The events created a lot of opportunities for collaboration and new networks where the concrete activities enabled these opportunities through participatory engagement.

Event	Description	Location	Dates	Partners/Support
Talk about the city	A community meeting to discuss connections to Pedersgata and urban planning.	Rogaland Art center.	5 events in May, 3 in august	Kaffetrykkeri.
Folkemåltid	Series of shared meals inviting organizations to share culture and food.	Rogaland Art center's café	June 8, June 22, August 31, September 14	Kurdistan Culture and Nature organisation, Palestinian Friends Forening, Stavanger Municipality
Be a bridge, build a mountain	Participatory games and workshops exploring how to create adaptable urban spaces.	Storhaug Snekkerforening	September	
Dream street/Park(ing) Day/Reimagining streetscapes	Transformation of parking spaces into public areas.	Nedre Dalgate, Rogaland Art center, streets	September - October	Todor Kesarovski (UiS), Stavanger Municipality, Stavanger Parking, Terran Community, Repair Café-group
Morning Disco	Morning dance party.	Rogaland Art center	May - October (bi-weekly Fridays)	Local DJs

Event	Description	Location	Dates	Partners/Support
Neighborhood party	Neighborhood celebration to connect with neighbors.	Rogaland Art center	November 9	Frænd café, Kaffetrykkeri, Repair café/Fiksekaféen, Stavanger Urban folkehøyskole, Stavanger Municipality, Nærmiljøtilskudd, Folkeakademiet Stavanger

List of events: activities, including community meals, art workshops, and urban space redesigns, engaging over 1400 participants.

Why was it done this way?

The project adopted this approach to address the social and cultural gaps in the urban development of Stavanger, particularly in the Pedersgata area. By employing art, culture, and direct community engagement, Folkegata aimed to provide a platform for residents to influence and participate in the shaping of their neighbourhood. This method was chosen to ensure that the development of the area reflected the needs and desires of its inhabitants, promoting inclusivity and combating the isolation often exacerbated by rapid urban development.



Drømmegata workshop where the goal was to reimagine streetscapes through community input.

What have we learned?

Folkegata demonstrated the power of community engagement in urban development, highlighting that inclusive, grassroots initiatives can significantly enhance social integration and community ownership. The project underscored the importance of creating accessible platforms for residents to voice their concerns and ideas, showing that even small-scale, creative interventions can foster a sense of belonging and influence urban spaces positively.

It also revealed the challenges of balancing community needs with urban development pressures, emphasizing the need for ongoing dialogue and flexible planning.



Left: "Folkemåltid," offering cultural meals and discussions. Right: an event poster announcing a neighbourhood party.

What potential do we see in this tool moving forward?

The Folkegata project has laid a foundation for future community-led urban development initiatives. Its success in engaging a diverse group of stakeholders and fostering a sense of community offers a model for other cities facing similar challenges. The project confirms that integrating arts and culture into urban planning can lead to more inclusive and vibrant communities. Furthermore, the lessons learned from Folkegata can inform policy-making, encouraging the adoption of more participatory and community-centered approaches to urban development.

Learning Points for Other Cities in Europe:

1. **Community involvement:** The project demonstrates the importance of including residents in the development of their local environment to create a stronger sense of ownership and belonging and lead to better results which satisfies the needs of the actual users.
2. **Social integration:** Folkegata has served as a meeting point for diverse social groups spanning multiple generations, individuals and groups and different cultures and heritage, which has fostered integration and community.
3. **Public art institutions as meeting places:** The project shows how art institutions can function as incubators for community-engaged projects.

Recommendations for further work:

1. **Secure funding:** It is important that politicians and decision-makers invest in projects like this to provide stability and further development opportunities.
2. **Promote collaboration between art institutions and urban actors:** Strengthened collaboration between actors and funding sources will ensure that the project can reach more people.
3. **Integrate projects into development plans:** Ensure that initiatives like Folkegata, which work with social engagement and art, become part of long-term urban development strategies.
4. **Simplify regulatory processes:** Political support should aim to make it easier to use premises for citizen-initiated art and cultural activities.

Agile pilot Formverk

mental well-being • neuroarchitecture • public space design • iterative design • urban intervention • social meeting places • community feedback

TOGETHER: Ambition II To consolidate	SUSTAINABLE: Ambition II To close the loop	BEAUTIFUL: Ambition II To connect
Participatory: Ambition II To co-develop	Multi-level: Ambition II To work across levels	Transdisciplinary: Ambition II To be interdisciplinary

What has been done?

Formverk has designed and built an urban street furniture installation, called “The Booster”. The idea is to enhance mental and social well-being in public spaces. It functions as a “mental charging station”, providing a space to sit down and eat lunch, be social or just relax in natural material surroundings. By creating a prototype grounded in neuroarchitecture principles⁶, the project has provided a respite from the city's hustle and bustle. This prototype, placed in Pedersgata, Stavanger, has been pivotal in testing how physical design can foster mental wellness and encourage social interactions. The initiative also prioritized community involvement, establishing a test group of locals to ensure the design met their needs and preferences. Data collection through surveys and observations has further allowed for iterative design improvements, focusing on maximizing the positive impact on users' mental and social health.

⁶

See <https://ugreen.io/transforming-spaces-transforming-minds-the-comprehensive-guide-to-neuroarchitecture/>



The Booster - an innovative urban installation built and installed in Stavanger city center

Why was it done this way?

This project was fundamentally driven by the need to counteract the growing mental strain associated with urban living. By grounding the design in neuroarchitecture, the project aimed to create spaces that naturally promote mental wellness. The approach was deeply community-centric, ensuring that the solutions were not only effective but also relevant to the local context. Piloting the Booster prototype allowed for real-world testing and immediate adjustments based on user feedback, ensuring that the final design would be both practical and impactful. While there was also an ambition to use sustainable materials, the project faced challenges in fully realizing this aspect, indicating a learning curve for future iterations.



The construction of the Booster attracted passersby who joined the process.



Testing and designing prototypes together with citizens.

The design of the Booster is based on a synthesis of what we know about neuroarchitecture that promotes mental well-being and social interactions in an urban context. Natural light is crucial for well-being, productivity, focus, and especially for the immune system, with access to direct sunlight being an important factor in the design of the space. In terms of form, organic, round shapes promote security, create welcomingness, calm, and interaction. A circular space increases reflection and relaxation levels, as well as creating a common anchor point in the middle that promotes interaction, while enclosed, intimate spaces increase presence. Natural materials like wood contribute to calmness by reducing stress and blood pressure. With these principles as a foundation, we have laid the groundwork for the realization of the prototype being tested in the pilot project.

What have we learned?

The Booster project has provided invaluable insights into the interplay between urban design, mental health, and community engagement. It has underscored the importance of community involvement from the outset, demonstrating that community feedback is crucial in creating relevant and successful public spaces. Moreover, the project highlighted the complexities of material sourcing and maintenance in urban settings, particularly for green installations. Operationally, the project underscored the value of interdisciplinary collaboration and the need for flexibility to adapt to feedback and logistical challenges.

- 1. Strong effect as a mental charging station:** The Booster has proven to be a distinct and effective place for mental recharging, confirming the various design principles upon which it is built.
- 2. Input for design improvements:** There is a need for denser walls and more comfortable seating, as well as the possibility of implementing a roof in the structure.
- 3. Insights into several key design elements:** We have identified several key design elements, such as sound and smell, that have not been part of the prototype.
- 4. Solution to specific challenges:** An interesting effect related to the needs of individuals with anxiety has been discovered, opening up further exploration.

5. **Good framework for social interaction:** Although the Booster creates a safe framework for social interactions, it turns out that the dialogue between users is limited, with mostly greetings exchanged.
6. **Need for further investigation:** It is necessary to explore how the Booster can function as a year-round piece of furniture, especially with regard to winter conditions, lighting, and plant maintenance. Mobility/portability could also be an interesting aspect to consider.
7. **Redesign of the construction:** The construction must be redesigned with practical considerations in mind, such as watering, portability, and maintenance.
8. **Insights into municipal conditions:** Knowledge of municipal bodies and the importance of good cooperation early in the process has been useful in terms of the placement and maintenance of the Booster.
9. **Commitment to further collaboration:** Participation and sharing of experiences with the test group, contractors, and engineers have led to increased engagement and interest in further collaboration. We have established contact with several potential partners for further development.

96% of respondent users experienced mental effects from spending time in the Booster, with 73% experiencing a strong to maximum boost.

The survey asked direct questions about the Booster's effects on users' increased focus, joy, calm and relaxation, as well as increased energy. All points were perceived as fulfilled by most, with only 1-2 people for each theme not experiencing an effect. Based on the responses, increased relaxation and calm stand out as the strongest, somewhat stronger than the other three. The others are at approximately the same level with a median that is still high.

The mental effect is overwhelmingly positive, which strengthens our perception that the Booster has relevance in public space. Furthermore, a person with anxiety in public space expressed that the Booster provided a calming effect and the opportunity to retreat from the city's chaos, which has had a noticeable positive impact on their well-being. This insight makes us want to investigate whether the Booster can more specifically meet other mental needs and create more inclusive places in our cities.



The test group suggested that the Booster needed to be small enough to provide a space for good conversations and social interaction.

What potential do we see in this tool moving forward?

Looking forward, the Booster project has laid a solid foundation for future work. The lessons learned can be applied to scale and adapt the Booster concept for different urban settings, addressing diverse community needs. Future designs can incorporate feedback on materials, maintenance, and features like seating and seasonal adaptability. Furthermore, the project can influence urban planning and public health policies, advocating for spaces that prioritize mental wellness. Finally, there is significant potential for ongoing research and expanded community involvement, ensuring that future urban interventions are both innovative and deeply rooted in community needs.



The Formverk team: Cecilie Austerå and Marion Jensen.

Agile pilot Permaby

urban gardening • social meeting places • sustainable materials • permaculture • food production • closed-loop systems

TOGETHER: Ambition II To consolidate	SUSTAINABLE: Ambition III To regenerate	BEAUTIFUL: Ambition II To connect
Participatory: Ambition III To self-govern	Multi-level: Ambition I To work locally	Transdisciplinary: Ambition II To be interdisciplinary

What have we done?

The Permaby is a project that takes an unused concrete backyard and turns it into a lively, food-producing space. The aim of the project is to promote urban food production as a meaningful activity that addresses multiple societal challenges, such as social inclusion, community engagement, and sustainable urban development. We were working to create a demonstration project rooted in circular principles, representing a holistic and achievable

concept for sustainable practices. PermaBy began as an urban farming project, but over time, it has evolved into a model for integrating circular and regenerative principles into urban living.



Before...



...and after. The transformation of the backyard includes a greenhouse, permaculture soil, fruit trees, a terrace, rainwater management system, slate tiles with permeable sealant and a beehive (on the roof).

The Permaby project involved several key activities and installations:

- *Creation of a food-producing garden:* This included a greenhouse, compost system, and planting beds. The design incorporated permaculture principles to support natural ecosystem functions.
- *Implementation of water management systems:* The project installed a rainwater tank to collect and reuse rainwater, along with underground systems (Aquacell and tree tanks) to manage heavy rainfall, prevent flooding, and support tree growth. The equipment was donated by our partner WAVIN⁷.
- *Permeable surfaces:* As cities grow, more land gets covered in concrete and asphalt, which don't let water through. This increases the risk of flooding during heavy rains. Permeable surfaces solve this by allowing rainwater to seep into the ground, reducing runoff and easing the burden on urban drainage systems. The project partnered up with GIND⁸, a local vendor who has developed a biogenic binder for street tiles. They created the backyard floor using their innovative biogenic binder sealants that let water pass through. The stone tiles are leftovers from a local factory that would have otherwise gone to waste. By integrating these sustainable water management practices, including permeable surfaces, the project evolved to not just creating a garden, but to build a model for how urban spaces can adapt to and thrive in changing climates.
- *Community engagement and knowledge sharing:* The project involved the local community in the design and building process, and organised knowledge-sharing events to share information about sustainable urban development practices. Permaby is now in the process of expanding the garden with new elements, and planning to hand over the operational responsibility to the Terran community.



Why was it done this way?

A good starting point: The project had a good starting point with the Terran Community⁹ backing the initiative. The people involved were also highly motivated and interested in community development, sustainability, circularity and urban farming. Professional resources, practical knowledge and a responsive network were key factors for how the project idea was developed.

Community involvement and collaboration: The project involved community members in the design and

⁷ <https://wavin.com/nb-no>

⁸ <https://www.gind.no/>

⁹ Terran Community is a local community who connects companies and organisations with individuals who look for opportunities to contribute. See <https://www.terran.team/en>

implementation process to create a value of local knowledge and a sense of ownership.

Flexibility and adaptability: The project adopted an agile approach, allowing the design and implementation to evolve based on available resources, community input, and emerging opportunities.



Planting fruit trees and plants in the backyard space.

Youtube video produced by NEB-STAR: <https://www.youtube.com/watch?v=fpNzC3QEOKQ>

What have we learned?

- **Importance of networks and collaboration:** Establishing connections with various stakeholders, including material suppliers, community members, and municipal authorities, was crucial for accessing resources, knowledge, and support.
- **Challenges and benefits of material reuse:** Reusing materials can significantly reduce environmental impact but requires careful planning, timing and coordination.
- **The power of community engagement:** Involving the community fosters ownership and contributions, and ensures the project meets the needs of its users.
- **The effectiveness of agile project management:** Adopting a flexible approach without planning everything in advance allows for changing priorities underway and adapting to new situations and challenges.
- **The importance of municipal support:** Collaboration with the municipality significantly enhanced the project and overall success.

What is the Future Potential?

The Permaby project has established knowledge, experiences and a strong foundation for future initiatives in sustainable urban development. The project's framework can be adapted and applied to transform other areas into generative, sustainable spaces. This pilot will have an inspirational effect and can be used as motivation for local communities and citizens.

The project's focus on community engagement and collaboration between private, public and community can serve as a model for creating inclusive urban spaces that empower residents and promote social cohesion.

The project's findings can also inform public and private planning strategies and policies, for more sustainable, resilient, and community-oriented cities.



The Permaby team: Josy Kang, Lars Urheim, Harald Brynlund-Lima, Mariia Bartakhanova, and Yuvalakshmi Thiruthiyappan.

Agile pilot Asplan Viak

democratic urban planning • sustainability strategy • stakeholder engagement • framework • community consensus • urban redevelopment • public participation

TOGETHER: Ambition III To transform	SUSTAINABLE: Ambition I To repurpose	BEAUTIFUL: Ambition II To connect
Participatory: Ambition III To self-govern	Multi-level: Ambition I To work locally	Transdisciplinary: Ambition III To be beyond disciplinary

What has been done?

The 'Bærekraftstrategi nedenfra' (Bottom-Up Sustainability Strategy) project aimed to test a methodology for developing democratically grounded sustainability strategies. Focusing on Jammerdalen, an area in Stavanger slated for redevelopment, the project facilitated workshops to gather input from a diverse group of stakeholders. These workshops utilized the Asplan Viak SØM framework¹⁰, which covers social, economic, and environmental sustainability, to define goals and actionable measures for the area's development. The outcomes were consolidated into a publicly presented sustainability strategy, marking a shift towards inclusive urban development planning.



Invitation to the sustainability workshops.

¹⁰ <https://www.asplanviak.no/verktoy/baerekraftsverktoyet-som/>



The project facilitated workshops to gather input from a diverse group of stakeholders.

Why was it done this way?

This approach was chosen to address the perceived lack of democratic input in urban development. We engaged a wide array of stakeholders: landowners, local politicians, various parts of the municipal administration, resident associations/neighbourhood associations, and various types of residents (youth, single residents, families with children, singles, young adults, elderly, middle-aged, tenants, homeowners, etc.) have participated. An important group that we have not reached to a significant extent is business actors, such as those who run cafes, kiosks, and the likes in the area. The project sought to ensure that the development of Jammerdalen would reflect the community's needs and desires. The use of the SØM framework ensured a comprehensive approach to sustainability, and the emphasis on achieving consensus aimed to minimize future conflicts and foster a sense of collective ownership over the area's development.



We engaged a wide array of stakeholders: landowners, local politicians, various parts of the municipal administration, resident associations/neighbourhood associations, and various types of residents (youth, single residents, families with children, singles, young adults, elderly, middle-aged, tenants, homeowners, etc.)

What have we learned?

Our goal was to test whether we could create an operational sustainability strategy for a theoretical urban development project, not developed by traditional experts, but by a diverse group of stakeholders with various motives and desires. To a large extent, we believe we achieved this goal within the budget framework.

A key challenge was developing a sustainability strategy for something beyond a typical urban development. Property owners in the area became uncertain, and we had to reassure them. We didn't anchor and inform this well enough. It was also challenging to explain to participants that they were involved in a case study, which could potentially have an impact in the future. The risk of participation fatigue was thus greater.



The Asplan Viak team: Tonje Broch Moe and Karen Hatleskog Zeiner

A key lesson learned is the critical importance of participant composition in workshops. In the area of Pedersgata with pre-existing or underlying conflicts between residents, real estate developers and the growing presence of restaurants and pubs, this factor significantly complicated the work. We anticipate that applying this methodology would be simpler and more effective in less conflict-prone settings. However, the high level of community engagement was a strength; participant recruitment was easy, and residents actively contributed to discussions and expressed a strong desire to shape their area's development. Support from the local district newspaper also proved valuable.

It was also important to find a suitable venue in the area. There would hardly have been the same turnout if we had held the workshops in another part of the city. Recruitment was another crucial factor. It was far more time-consuming to recruit participants than we had estimated in advance. At the same time, we believe it was right to spend time on this phase, because we wanted as many perspectives as possible to be represented.

It was crucial to prepare the participants for the next workshop, summarize the previous one, and create starting points for them to respond to. 2.5 hours pass quickly when large questions about many topics are to be discussed. Strict management and good preparation are essential.



The SØM tool for holistic sustainability in urban development, developed by Asplan Viak, was used as a starting point to define goals and measures. In this way, we ensured professional anchoring and that nothing important for sustainability was left undiscussed.

The most gratifying for us was that we saw how using a professional framework like SØM as a basis for the discussions helped to clarify unnecessary misunderstandings and conflicts, identify some common points of agreement, and make any conflicts visible. This is important information to take with you, whether you are a property owner in areas to be developed, or a local resident who is affected, or a consultant or municipality that will advise and influence the project in a good professional direction.

A major remaining challenge is to hand over the sustainability strategy to decision-makers such as the municipal administration, politicians, landowners, neighbourhood associations, and other important actors in the area, and ensure that they actively use the strategy when the area is further developed.

We hope and believe that the methodology with a democratic sustainability strategy can be used in other places in the municipality, the country, or indeed in Europe. Design processes become more inclusive and combine and balance considerations of environmental, social, and economic sustainability in a democratically anchored way, which we believe is not so common in urban development processes.



Group discussions seeking consensus.

What potential do we see in moving forward?

The success of this methodology in Jammerdalen suggests potential for its application in other urban development contexts. By proving that inclusive, democratically grounded sustainability strategies are achievable, the project paves the way for broader adoption of such practices. This approach could lead to more sustainable, equitable, and community-supported urban development projects in the future.

The lack of participation and democratic anchoring are problems in urban design and urban development projects, also outside Norway. Often, stakeholders mistrust each other's intentions, hindering participation from becoming decision-relevant and constructive.

It is possible to gather experts, property developers, and civil society to jointly develop professionally anchored sustainability strategies with goals and concrete measures based on consensus.

By identifying points of agreement, resolving misunderstandings, and clearly outlining conflicts, this work can facilitate improved communication and reduce friction between stakeholders in urban development projects.

SØM | Jammerdalen Sustainability Strategy Goals and actions for a more sustainable development of Jammerdalen

Goal 1
In Jammerdalen it is easy to participate in and have influence on important decisions
 We will establish a resource group with representatives from the different neighborhood associations in the area to improve dialogue.
 We want participation processes in Jammerdalen to build on systematic and goal-oriented analyses of local inhabitants needs and preferences, and happen early enough to influence important decisions.
 When people are asked to participate in Jammerdalen, it must be documented how input has influenced what happens, and when input is not taken into account it must be justified.

Goal 2
In Jammerdalen there are many good common meeting places for residents, indoors and outdoors.
 We encourage the municipality to make a plan to strengthen the connections to Kjelvene, Johannesparken, Skankevigå and Badedammen.
 We encourage the municipality to upgrade "Pålskarken", which few people use today, in line with local needs and preferences.
 We want more covered outdoor seating in Jammerdalen, where you don't need to buy something to sit, designed by and for young people in the area.
 We want urban spaces to be better suited for elders in Jammerdalen, with enough benches to rest on.
 We want there to be rich and lush vegetation in Jammerdalen, that makes streets and urban spaces prettier, and improves conditions for insects and animals.
 We want more meeting places in Jammerdalen where you don't have to buy something to sit. We want to work to get institutions, like the youth club Metropolis into one of the existing industrial buildings in Jammerdalen.

Goal 3
Jammerdalen is a good place to live for everyone, where you avoid people being involuntarily displaced.
 We encourage the municipality to revise "Sentrumsplanen" weighing living conditions in the area higher.
 We want the municipality to ensure that affordable housing is introduced to the area through actions such as reaching out, advising and facilitating self-building and other participatory housing schemes, co-living and other social housing models, category housing or rent to ownership models in cooperation with commercial developers.

Goal 4
In Jammerdalen we don't waste resources, and take care of what is already built.
 We don't want existing buildings in Jammerdalen to be demolished unless necessary.
 We want new buildings in Jammerdalen to have architectural identity, and adapt to the existing buildings in the area.
 We encourage the municipality to establish a pickup point for "Frilager" in Jammerdalen.
 We encourage all serving places and shops in the area to do what they can to reduce food waste and make available food that would otherwise be thrown out, f.ex. through "Too Good to Go".
 We encourage the municipality to improve the communication of support mechanisms that reduce the cost of maintaining and rehabilitating existing buildings in Jammerdalen, like "Kulturminnefondet" and "Bansittarens Blåskudd", and that they work to increase the rates.

Goal 5
In Jammerdalen pedestrian and bikers are prioritized, while still ensuring that those that need to drive a car can get around
 We want more connections across the area, and between the area and "bybrua" for pedestrians and bikers.
 We want fewer short term parking places, to make room for more urban space, meeting places, benches and trees in the streets.
 We want better conditions for car sharing in the area.

Goal: What we aim for
Action: How we achieve it

The sustainability strategy is created by and unanimously adopted by 35 committed people of all ages who live in and around Pedersgata. Local residents, neighborhood associations, Pedersgata utvikling AS, local politicians and people working in the municipal administration (as themselves) has been represented. The strategy was developed through two workshops August 19th and September 10th 2024, with Asplan Viak as advisor for Stavanger Municipality.

The end result of the Asplan Viak agile pilot is a combined sustainability strategy developed together with all stakeholders.

3.2 Digital twin

The project has adjusted its approach regarding the Digital Twin tool in this testbed. Initially, testbed 1 and 2 were considered as separate use cases for the tool. However, these two areas share similarities for leveraging the tool. Consequently, to maximize efficiency and ensure aligned focus, the project has combined the two areas into a single chapter.

See document D3.4 Demonstrator Site 4016 for a more comprehensive description of the use cases for Digital Twin among the various partners.

3.3 Innovation camp

innovation • youth entrepreneurship • student engagement • participatory design • collaborative problem solving • community engagement • youth • skills development

TOGETHER: Ambition I To include	SUSTAINABLE: Ambition II To close the loop	BEAUTIFUL: Ambition II To connect
Participatory: Ambition I To consult	Multi-level: Ambition II To work across levels	Transdisciplinary: Ambition II To interdisciplinary

What has been done?

Ungt Entreprenørskap (Youth Entrepreneurship) facilitated an "Innovation Camp" for teachers and students, in collaboration with NU and SK. Participants were organized into groups and tasked with developing solutions to a specific problem, utilizing a process poster to guide them through key stages of innovation. The process culminated in a pitch of their ideas to a jury. The challenge presented was: "How would you envision the future of the area in and around Pedersgata? Consider one or more specific locations as a starting point."



An area inspection was conducted the day prior, ensuring students had a recent and tangible understanding of the context when beginning their work.

Why was it done this way?

While the Innovation Camp is an established format, its application in this context was unique due to the direct client engagement and thematic relevance for the students. Given the project's focus on design and decorative solutions for Pedersgata, it was logical to engage art, design, and architecture students from Bergeland upper secondary school. A crucial component of the camp's success was the opportunity to provide students with an on-site tour of the area, fostering a deeper connection to the problem. This was made

possible through the collaboration with Storhaug Unlimited¹¹ and Stavanger Municipality. An area inspection was conducted the day prior, ensuring students had a recent and tangible understanding of the context when beginning their work.



On-site tour of the area.

What have we learned?

- **Value of youth perspectives:** The students' perspectives proved highly valuable in generating innovative solutions.
- **Stakeholder engagement:** The involvement of SK, PU, and NU in task design and jury participation facilitated the integration of student outcomes into future planning.
- **Importance of physical context:** Experiencing the area firsthand, including its positive attributes and challenges, significantly enhanced the students' engagement and understanding.

¹¹ <https://storhaugunlimited.no/>



Pictures from the Innovation Camp.

What was done differently from demonstrator 1 to 2?

In the Pedersgata demonstrator, students participated in a pre-camp guided tour, featuring insights from social entrepreneurs and municipal representatives. This two-day event was executed in collaboration with NU and SK, with active involvement from consortium partners (SK, PU, and NU) in task formulation.



Participants were organized into groups and tasked with developing solutions to a specific problem

What potential do we see in this tool moving forward?

The Innovation Camp framework has demonstrated its effectiveness. This project highlighted the benefits of incorporating on-site inspections and interdisciplinary collaboration. The presence of industry professionals was highly appreciated by the students. The effort students put into developing these creative and innovative ideas for the area holds great potential for future planning. When combined with other insights from the planning process, involving youth through the Innovation Camp (UE) seems to be an effective, win-win approach—benefiting both the students and the public and private sector actors responsible for planning specific areas. With more extensive planning time, further collaboration with additional project partners could be explored, enhancing the project's impact.

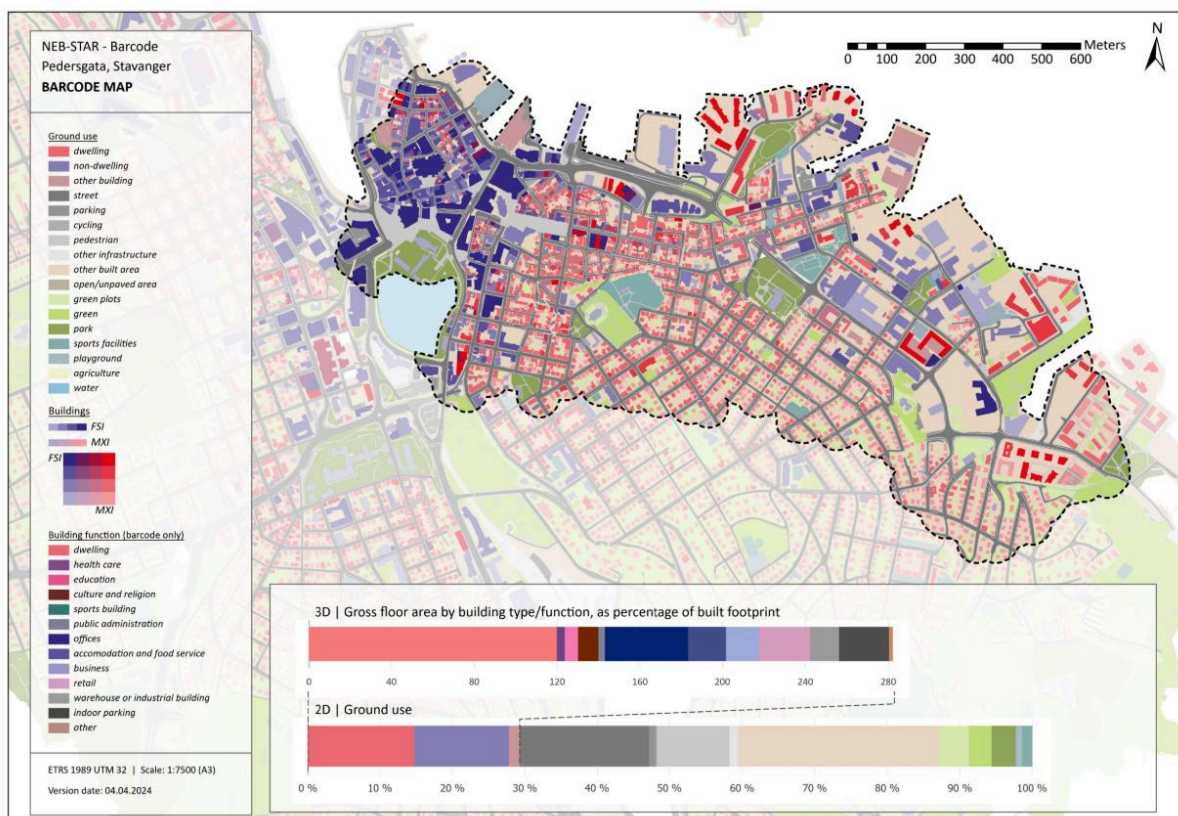
3.4 Barcode

urban planning • land use • data analysis • collaboration • visualisation • decision support • spatial planning

TOGETHER: Ambition I To include	SUSTAINABLE: Ambition II To close the loop	BEAUTIFUL: Ambition II To connect
Participatory: Ambition I To consult	Multi-level: Ambition II To work across levels	Transdisciplinary: Ambition I To be multidimensional

What has been done?

The Barcode tool was used to generate digital maps of the testbed, visualizing land use for functions, buildings and infrastructures such as roads, parking and green parks, etc. The primary goal was to calculate ground-level square meter usage for all land usage categories to determine if the area is in balance with societal standards and urban development recommendations, thereby informing objective and holistic planning.



Zero situation map generated using the Barcode tool

Technical testing of the Barcode tool was paused for a period due to insufficient data. However, the initial phase yielded a prototype within Work Package 2, followed by a three-day workshop in April 2024 with representatives from Utrecht Municipality and the Technical

University of Delft, facilitating valuable knowledge transfer. This workshop explored five key perspectives, which were subsequently documented in a comprehensive report. The insights gained were then integrated into WP3, culminating in the development of the Barcode model for Site 4016 before summer 2024. Unfortunately, the model's output did not accurately reflect real-world conditions due to missing data, low data quality and data inconsistency.

Following the departure of key technical personnel, the project faced a restart in August 2024. This necessitated a complete review of the data infrastructure to ensure data quality and reliability. We conducted rigorous technical tests to validate substrate control and accuracy. The entire setup was re-evaluated and largely rebuilt.

Subsequently, we generated "as-is" Barcode analyses for two district area plans: "Våland sør" and "Hillevåg". These locations were chosen as they represent more relevant test beds for the tool, given its intended application during the early planning stages, where it can serve as a platform for discussion and informed decision-making.

Why was it done this way?

Our initial phase focused on familiarizing ourselves with the Barcode tool and adapting it for Norwegian contexts. We also aimed to identify its technical capabilities and limitations. Barcode was selected as a tool to create a map visualizing area qualities and functions, thereby minimizing subjective assessments and enabling the quantification of planning area characteristics and purposes.

We employed the "As-is" Barcode to generate a comprehensive overview of the existing area distribution. This served as a baseline for developing a future Barcode model, which would guide planning and building decisions to achieve holistic and desired development outcomes. This "Future Barcode" would then serve as a target for future planning.

What have we learned?

Through the initial adaptation and testing phases, we gained critical insights into the Barcode tool's potential and limitations within a Norwegian context. We confirmed its effectiveness in shifting planning discussions from subjective opinions to data-driven analyses, enabling a more objective assessment of area qualities. Furthermore, the "As-is" and "Future Barcode" methodology proved valuable in establishing a clear baseline and target for holistic area development. However, we also learned the importance of rigorous data quality control, data consistency and the necessity for ongoing refinement to ensure the tool's accuracy and relevance to real-world scenarios. This experience underscores the tool's potential as a powerful communication and decision-making platform, provided it is implemented with a thorough understanding of its technical requirements and contextual adaptations.

What potential do we see in this tool moving forward?

The Barcode tool holds significant potential for transforming urban planning practices. Its ability to quantify and visualize complex spatial data can empower municipalities and developers to make better informed, sustainable, and equitable decisions. By integrating the

tool early in the planning process, we can foster collaborative discussions, align stakeholder visions, and ensure that development projects contribute positively to the overall quality of life. Future development should focus on enhancing user interfaces, and expanding the tool's analytical capabilities to support both As-Is and Future cases. We also see that success is not dependent only on the technical maturity of the tool itself, but even more on the organisational implementation including information for employees, knowledge transfer, building relevance and motivation.

Barcode workshop

The "Pedersgata Barcode Workshop," held in Stavanger from 10 to 12 April 2024, was a collaborative initiative that focused on the potential of revitalizing the Pedersgata area using the Barcode as a tool and method. This workshop brought together a diverse group of stakeholders, including city planners, urban designers, real estate developers, artists and experts, to explore innovative approaches to urban development. By integrating the principles of sustainability, beauty, and inclusivity, the workshop aimed to develop actionable strategies for creating a vibrant, resilient, and community-focused urban space. Central to the workshop was the application of the Barcode concept to balance various urban development aspects, ensuring quality and achieving the city's strategic goals. The goal was to move from reactive planning to proactive planning.

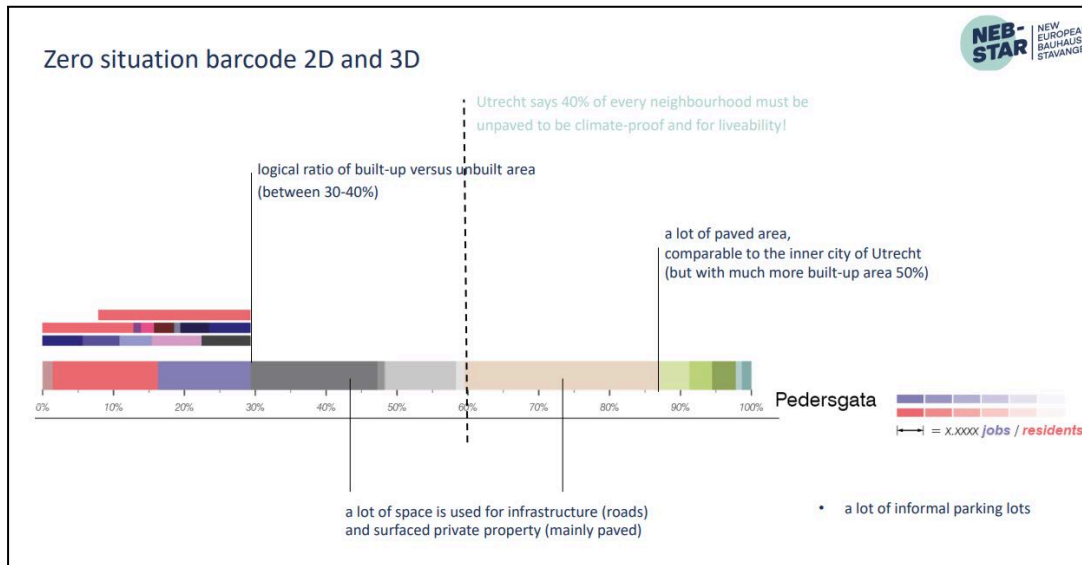


The workshop brought together a diverse group of stakeholders.

Stakeholders and Roles

The workshop in Stavanger involved a group of stakeholders, including Stavanger Municipality, Utrecht Municipality, University of Stavanger, Technical University of Delft, Pedersgata Utvikling, Artist Anna Ihle, and others. The roles ranged from city planners, architects, local business owners, and community members. Their task was to contribute with ideas and feedback to actively participating in sketch sessions and discussions about the area's future. The involvement of various stakeholders highlights a collaborative approach to urban development, ensuring that different perspectives are considered in the

planning process. Four employees from Utrecht participated and made the workshop both inspirational and an arena for knowledge transfer.



Zero situation barcode generated for the workshop.

Process and Methods

The workshops utilized a variety of methods to gather insights and develop strategies for the Pedersgata area. These included mapping the current situation, brainstorming sessions, sketch sessions to visualize potential changes, and discussions around the "Barcode" concept to balance urban development. The process was designed to be agile, moving from initial ideas and pilot projects to formal planning, with a focus on Agile piloting and evaluation to refine approaches.



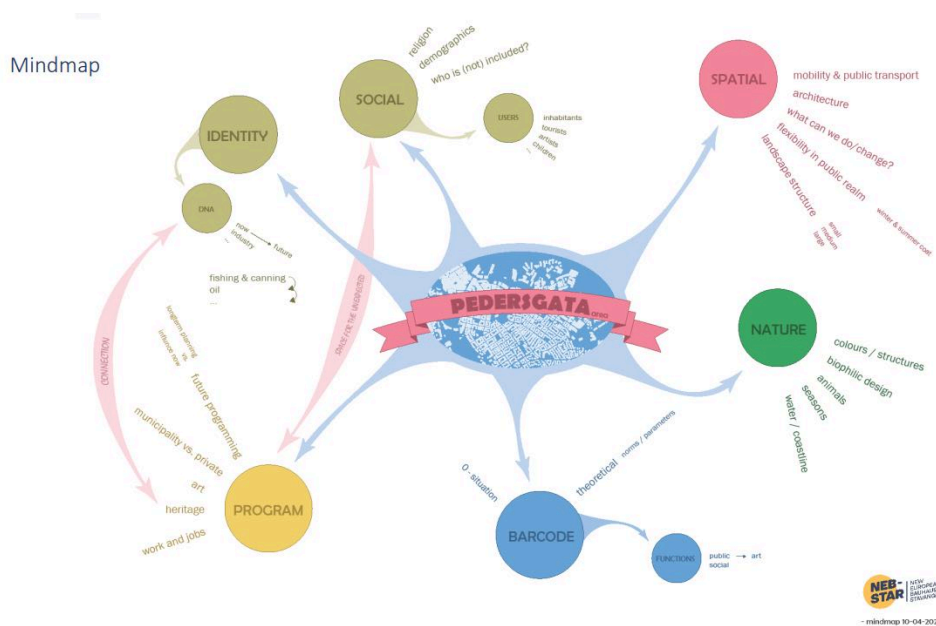
From the spatial sketches sessions in the workshop

Achievements

While the documents primarily outline the workshop process and discussions, the achievements can be seen in the development of actionable strategies and the identification of pilot projects. The workshops successfully engaged a wide range of stakeholders, fostering a collaborative environment. The "Barcode" concept was further developed as a tool for urban planning, and various ideas for enhancing the Pedersgata area were generated, including green network improvements, preservation of creative spaces, and better integration of social functions.

Collaboration

The workshops emphasized the importance of public-private partnerships and collaboration between different municipal departments. The approach taken was both top-down and bottom-up, aiming to integrate formal planning with community-driven initiatives, as well as the formalized public-private partnership model CID. The use of temporary events like food festivals for pilot testing also exemplifies a collaborative model involving various local actors.



Mindmap developed at the start of the workshop to identify focus area and agenda

Key Takeaways

Key takeaways from the workshops include the importance of proactive planning, the value of community engagement, and the need for flexible, agile processes in urban development. The "Barcode" concept was highlighted as a valuable tool for balancing different aspects of

urban development. The workshops also underscored the significance of storytelling and communication in urban planning, as well as the potential for leveraging local events and heritage to foster community identity.



From one of the Barcode workshop sessions

Future potentials

The next phase should focus on what the Barcode analysis will lead to regarding urban planning and development of the area. Future potentials identified in the workshop include the implementation of pilot projects, further development of the "Barcode" concept, and continued collaboration between stakeholders. There's also potential for leveraging the 900-year Stavanger anniversary to highlight the city's history and future vision. The focus on creating non-commercial social functions and preserving creative spaces points towards a vision of a vibrant, inclusive urban environment.

Moving forward: Future potentials and next steps compiled from the workshop:

- **Public-private partnerships:** Involving employees from the planning department and the City Architect to discuss the private partnership model for the area.
- **Agile process:** Implementing an agile process that includes low-hanging fruit, pilot projects, and upscaling.
- **Use of temporary events:** Using the food festival as an enabler to start experimenting with different pilots.
- **Map and conserve creative spaces:** Identifying the cultural creative clusters in Pedersgata and what can be done to preserve them.

- **Make a story of the street:** Connecting the different elements of the area through storytelling.
- **Heritage:** Identifying which areas or specific buildings need preserving and where changes can be made to make new functions affordable and possible.
- **Green areas:** Identifying ways to make Pedersgata green and the underlying values we want to improve.
- **Removing barriers:** Using the Barcode to visualize barriers, connectors and corridors.
- **Inclusiveness and non-commercial social functions:** Finding a good way to get non-commercial social functions in the neighbourhood.
- **Create excitement:** Thinking of fun ways to create excitement, both for citizens, private parties and the municipality.
- **900 Years Stavanger:** Using the 900 year anniversary of Stavanger to tell the story of the city.
- **Goals (values) of the city. Quality goals linked to barcode:** Defining the goals behind the “barcode norms”.
- **Combine social data with the Barcode:** Connecting social data with the “physical” data and the goals of the city.



The workshop started with a tour in the area with the Director of Cultural Heritage Management, Hanne Windsholt, as guide.

Recommendations

1. **BALANCE INNOVATION WITH TRADITION:** To enhance urban planning in Norway, it is essential to balance innovation with tradition by integrating new ideas into existing frameworks, ensuring that developments respect cultural heritage while embracing modern solutions.
2. **PROACTIVE PLANNING:** Given that Norway’s planning system is primarily private and often reactive, a shift towards proactive strategies is crucial—this could involve early

stakeholder engagement, scenario planning, and flexible policies that anticipate future urban needs rather than merely responding to challenges.

3. **CONSENSUS BUILDING:** A key approach is to build consensus before urban projects become politically charged, using informal discussions, pilot programs, and evidence-based success stories to create support among decision-makers and the public.
4. **DEMONSTRATING SMALL-SCALE INTERVENTIONS:** Rather than waiting for formal mandates or assignments, urban planners and stakeholders should take initiative by testing small-scale interventions, demonstrating their value, and then scaling successful projects.
5. **INNOVATION RESOURCES:** Leveraging innovation resources in Stavanger, including research institutions and technology hubs, can drive forward-thinking urban solutions, fostering collaboration between private and public sectors to create smart, sustainable, and resilient cities.

3.5 Urban Belonging app

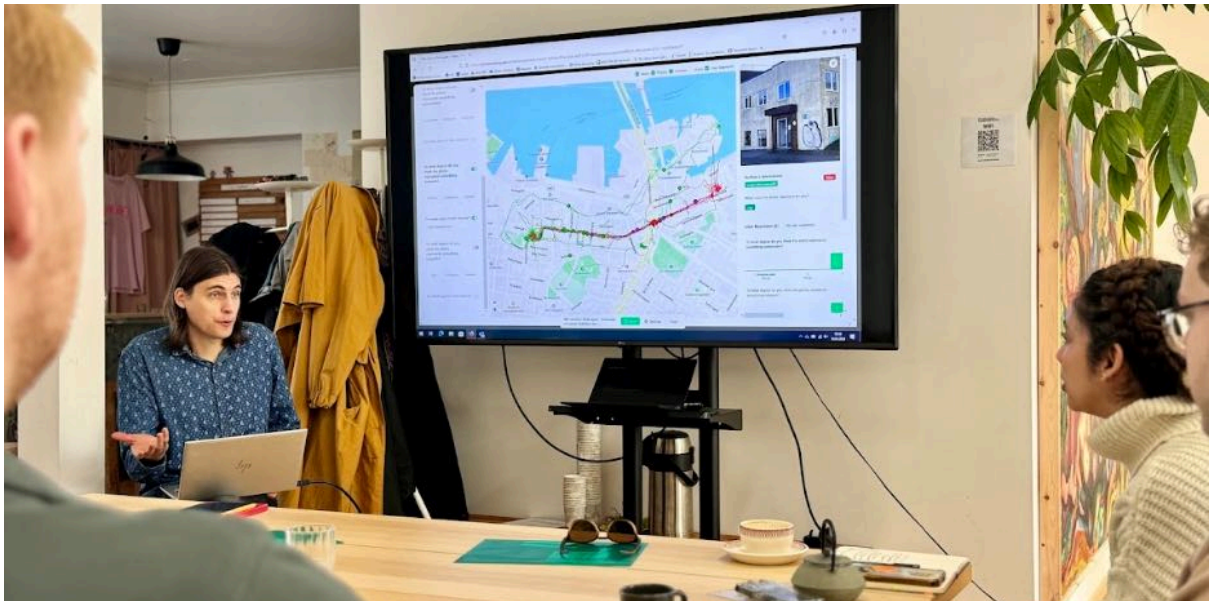
citizen engagement • data collection • urban perception • community feedback • place attachment • digital tool

TOGETHER: Ambition I To include	SUSTAINABLE: Ambition II To close the loop	BEAUTIFUL: Ambition II To connect
Participatory: Ambition I To consult	Multi-level: Ambition II To work across levels	Transdisciplinary: Ambition II To be interdimensional

What has been done?

The Urban Belonging (UB) app was used in two different contexts to explore places belonging to the Pedersgata testbed. The first activity took place on 10 March 2024 and involved 22 residents from the Svankevigå/Badehusdammen area. The participants used the UB app to take pictures and record feelings related to places and objects that they disliked in the neighbourhood. The data were then visualized in the UB datascape, which formed the basis for a discussion led by UiS. During the conversation, the experiences were categorized according to the NEB values: Beautiful, Sustainable and Inclusive.

The second activity was carried out on 11 April 2024, where 15 NEB-STAR participants from NTNU, Utrecht and Stavanger took part in a city walk in Pedersgata. Using the UB app, the participants documented places that represented the three NEB values: Beautiful, Sustainable and Inclusive. This was followed by a discussion about how differently these values were perceived among the participants.



The visualization of the data in the Urban Belonging datascape made it possible to identify common experiences and concerns.

Why was it done this way?

The use of the Urban Belonging app in these activities was deliberately chosen to ensure a systematic and participatory approach to place belonging. The first activity followed the critique phase in the utopian future workshop method, where the aim is to develop a common understanding of a problem before looking at solutions. By letting the residents of Svankevigå/Badedammen identify and document places and objects they disliked in the neighbourhood, we gained insight into challenges that are often overlooked in traditional urban development processes. It was particularly important to work with residents who are not usually included in decisions about how their local environment should be developed. The visualization of the data in the UB datascape made it possible to identify common experiences and concerns, which laid the foundation for a discussion related to the NEB-STAR values and how they can be addressed in practice.

The second activity with NEB-STAR partners had a different approach, where the participants documented places that they believed represented the NEB values: Beautiful, Sustainable and Inclusive. Although all the participants were part of the same project NEB-STAR, there were great variations in how they understood what these values entail and how they should manifest themselves in the cityscape. The UB app enabled an individual and subjective documentation of the neighbourhood, where the participants could record their own experiences before discussing the findings together. This process provided valuable insight into the different perspectives that exist among the NEB-STAR partners, and contributed to a deeper reflection on how the values can be operationalized in practice.



Using the UB app, the participants documented places that represented the three NEB values: Beautiful, Sustainable and Inclusive.

What have we learned?

Through the first activity, we learned how important it is to give citizens a voice in processes that affect their local environment. Several participants expressed that they were rarely involved in decisions about urban development, and that the activity gave them a long-awaited opportunity to share their perspectives. On the other hand, some participants who were already actively involved in neighbourhood development felt that the activity gave them little significant new insight for their understanding of the area. This shows that different groups have different needs when it comes to participation processes, and that it is important to adapt the methodology to ensure that everyone feels that their perspectives are valued and taken forward. Nevertheless, the visualization in the UB datascape proved to be a useful tool for identifying patterns in the experiences and connecting the residents' experiences to the NEB values.

From the second activity, we gained insight into how the NEB-STAR partners' different professional and cultural backgrounds influence their understanding of what makes a city beautiful, sustainable and inclusive. Even within a joint project such as NEB-STAR, there are no clear interpretations of these values, and it became clear that their implementation can vary significantly depending on the context. The UB activity proved to be a useful method for concretizing and comparing these different perspectives, as the participants not only discussed the values theoretically, but also documented how they manifested themselves in the cityscape. This emphasizes the need for more nuanced and context-dependent approaches in sustainable urban development, where both local residents and professionals have the opportunity to share and reflect on their experiences.

A general insight from both activities was that using the UB app was a good way for the participants to get out, explore the neighbourhood, take pictures and record their

experiences. This created a concrete basis for the subsequent discussions and made it easier for the participants to relate to the values in a physical context. At the same time, we received feedback that the questions in the app were perceived as too general and difficult to answer. This applied both to the citizens in the first activity and to the NEB-STAR participants in the second. This challenge shows that the formulation of the questions in the app requires special attention to ensure that they are sufficiently concrete and intuitive for different user groups.

What was done differently from demonstrator 1 to 2?

In demonstrator 1, UiS got to know the app, how to formulate questions (prompts), facilitate the activity and use the datascape. Internal workshops were held to test the app. In demonstrator 2, the UB app was used with NEB-STAR partners and a local citizens' group.

What potential do we see in this tool moving forward?

So far, we have tested the tool on a small scale at two test beds. The greater potential lies in using the tool on a larger scale, across entire cities and between cities. This will enable larger data sets, which can provide deeper insight into how different population groups experience their neighbourhoods and urban spaces. A significant challenge is to find a common and clear prompt in the app that engages and provides meaningful data. In addition, citizens must be trained in how to use the tool effectively.

3.6 Jammerdalen workgroup

urban development • collaboration and co-creation • stakeholder engagement • visioning and planning • public-private partnerships • community involvement • place development

TOGETHER: Ambition III To transform	SUSTAINABLE: Ambition III To regenerate	BEAUTIFUL: Ambition III To integrate
Participatory: Ambition I To consult	Multi-level: Ambition II To work across levels	Transdisciplinary: Ambition II To be interdisciplinary

What has been done?

The Jammerdalen workgroup was formed in response to a need for scoping and concretising the work in the testbed. A collaborative group of partners with shared interests in the area around the auto repair shop “Nevlandbygget” and the Jammerparken area, convened to facilitate knowledge exchange, explore potential synergies, and connect relevant stakeholders, aiming to enhance the demonstrator's outcomes. Participants sought to concretize objectives and foster a deeper understanding of the NEB values and working principles. Concretizing and applying these ideas required a neighborhood-level focus. However, understanding their connection to values and broader goals necessitated a perspective beyond standard zoning plans.

To ensure effective communication, a regular meeting schedule was established, with pre-prepared agendas and presentations addressing key issues. The scope of the work was geographically narrowed to “Jammerdalen”, a defined neighbourhood within the testbed area. This delineated area, situated between the scales of municipal and zoning plans, addresses a perceived gap in the planning hierarchy.

The group synthesized extensive input, including analyses and historical documents, to develop a comprehensive spatial understanding of the neighbourhood. We identified and discussed challenges and opportunities that transcended public and private land ownership boundaries. This mapping process involved evaluating the significance of acquired knowledge and its implications for various stakeholders.

Our collaborative efforts included:

- In-person meetings
- Joint sketching and collaborative design sessions
- Shared presentations and in-depth discussions
- Pilot testing of tools such as the Impact Model and Barcode

Post-meeting discussions were documented and the ideas were refined to ensure they were carried forward and developed further.

The workgroup consisted of these partner representatives:

- The municipal planning department (SK)
- The municipal city center coordination team (SK)
- The City Architect's office (SK)
- A private landowner and real estate developer (PU)
- An architectural company (HH)
- Stavanger City Center (STAS)
- A business and partnership role (NE)
- FutureBuilt (SK)
- Local Area Improvement Project Storhaug (Områdesatsingen - SK) was invited and presented its participatory work regarding the public park “Jammerparken”.

Helen & Hard held a unique “independent role” in this group as the company was not funded by either the developer or the municipality. This impartiality was significant in building trust with all parties. It enabled the architects to act as a neutral facilitator and driving force within this collaboration. This experience holds important lessons for future discussions regarding the role of architects in urban development.



A glimpse into a Jammerdalen group working session.

Why was it done this way?

The group started with discussions based on the NEB-STAR project and the NEB values and working principles, and how the general and academic level could lead to practical urban development. There was a lack of clarity regarding the practical impact on real urban development. Key questions arose concerning how to secure commitment from various decision-makers within the municipality and politicians, and how to prioritize and integrate NEB values and working principles.

We found it necessary to make these abstract concepts concrete and relevant ("bring it down to street level") to understand their implications for individual players/partners, the municipality, developers, and residents. This involved examining the specific context of Pedersgata as a testbed.

This "street-level" approach was also used to understand how other key documents, such as Stavanger's City Climate Contract¹² and the NEB Impact Model, would apply in local neighborhood contexts.

¹² See presentation of the Climate Contract (Norwegian): [Climate Contract for Stavanger](#)

Video production

As part of their work, Helen & Hard has collaborated with a local media production company to produce a short video. The planned video will document and illustrate how visual tools, especially drawing, can be used to concretize common goals, enable new forms of collaboration, and lead inclusive processes. This is connected to the methods from Helen & Hard's practice, which includes "drawing as a tool". A central goal of this idea is also to use the video format as a communication and dissemination tool showing the principles in a more visual way than written form. The video includes participants from various actors, including residents, developers, the municipality, a social entrepreneur and other stakeholders.



The framework for the video is linked to a specific meeting that took place on 11 March 2025 in Nevland car repair shop.

The goal of the video is to convey the movement towards a common dream and vision for the area, at the neighborhood, building, and individual levels. This early-stage process, before zoning plans are finalized, utilizes drawing as a key tool to concretize ideas and ensure broader understanding beyond technical and professional jargon and regulatory maps. It will highlight and select the existing qualities in the area that are desired to be built upon, and communicate this in a concrete and direct way. An important aspect is also to reach a wider audience to create interest in the further area and neighborhood development, as well as to include and democratize more people around the table through drawing as a common language.

The film will also raise awareness about the architect's possible roles in urban development processes, including as a link, translator, facilitator, and bridge-builder for trust. Furthermore, it will contribute to increasing awareness of visualisation as a driving force for achieving sustainability goals and as a tool for inclusion and increased understanding.



Photos from the video recordings: The "drawing meeting" which is a central part in the video, gathered a wide range of people with different roles connected to the Jammerdalen area, including artists, residents, developers, representatives from Stavanger Municipality and Nordic Edge, as well as architects from Helen & Hard. The video also demonstrates how drawing meetings facilitate inclusive discussions where multiple "conversations" occur simultaneously, blurring roles and clarifying the consequences of the discussion, within an inviting setting created by facilitation, such as the use of an "unfinished" drawing that encourages participation.

What have we learned?

Collaboration

Bringing together individuals with diverse roles to discuss area development fostered a broader understanding of differing perspectives and facilitated the identification of shared goals. These discussions encompassed project activities, learnings, and the application of tools from both NEB-STAR testbeds (e.g. Barcode, Impact Model, Urban Belonging App, CID, Walk The Land as well as input from the conference Nordic Edge Expo). Furthermore, this collaborative environment enhanced comprehension of how to transfer and implement NEB values and working principles within a real-world context, particularly concerning economic considerations, social entrepreneurs, and climate issues.

Participation

Effective and real co-creation necessitates a balanced power dynamic among participating parties/actors. Formal planning processes governed by PbL (the Norwegian Planning and Building Act) often lack sufficient scope for genuine co-creation, as actors without ownership interests or significant influence have limited opportunity to shape their neighbourhood beyond expressing objections. While vision work, typically conducted informally in early phases, can generate building program proposals, the incorporation of

these visions into formal processes like building applications or zoning plans remains uncertain. Visions lack formal political grounding, and there is no obligation to integrate them into planning documents. Consequently, opportunities for influence are constrained, and politically unanchored visions risk being disregarded.

Vision

Neighbourhood-level visions are essential for establishing a shared identity, direction, and overall development strategy. They ensure that new projects contribute to a balanced and sustainable local environment characterized by quality living spaces, green areas, and social meeting places. A clear vision fosters engagement among residents and private stakeholders, strengthens community cohesion, and enhances the long-term attractiveness and sustainability of the neighbourhood.

To be effective, a vision must be anchored in concrete mechanisms such as zoning plans, planning programs, or binding action plans. Past experiences, including the Urban Sjøfront (1999) and CID (2017->) initiatives, highlight the need for vision processes to encompass both actionable and non-actionable measures. Realizing vision-aligned measures requires sufficient incentives for relevant actors.

Project-Developed Principles for Vision Creation in Urban Development:

- **Vision integration:** Sustained relevance and periodic review. Lessons from VPOR¹³ work in Oslo ("Veiledende Plan for det Offentlige Rom = Guidance Plan for Public Space) indicates that visions should be integrated into planning programs to provide clear guidelines for regulatory plans.
- **Neighbourhood focus:** Anchoring with relevant stakeholders. While broad, overarching area visions may become unwieldy and lose relevance, focused neighborhood-level visions are crucial for generating commitment, as individuals are most invested in their immediate surroundings. Resources and effort should be concentrated where they will have the greatest impact.
- **Early-stage collaboration:** The Urban Sjøfront experience underscores the importance of trusting collaboration between the municipality and private actors in the early stages, prior to the application of the Planning and Building Act (PBL). Critical factors include strong private sector initiative, high-level municipal support (from councilors and the mayor), and constructive, open dialogue with politicians. A neutral facilitator possessing an understanding of political, administrative, and private sector perspectives can effectively bridge communication gaps between different stakeholders.

¹³ A Guidance Plan for Public Space (VPOR) outlines the economic aspects and the overarching premises for the development of an area. VPOR originates from the Ensjø project in Oslo municipality and is part of the so-called "Oslo model".

Learning from previous processes

- **URBAN SJØFRONT:** The successful transition from vision to zoning plan was facilitated by strong collaboration and a balanced approach to private initiative and public sector support.
- **HILLEVÅG AREA:** A non-legally binding area vision, established in 2010, proved ineffective due to its inability to inform detailed regulation and a lack of buy-in and collaboration from key stakeholders

New tools as a driving force for change

New methods and technological tools can act as catalysts for change. Experience from Urban Sjøfront shows how use of new digital solutions created incentives for actors to reconsider their original plans and adapt to a common vision. Offering a new tool or a new approach can give actors a reason to embrace change.

Need for roles and spaces that "do not exist" / are often not included in development work today:

1. A role that integrates business and partnership perspectives with development considerations, highlighting financial viability and opportunities to promote implementation.
2. A neutral facilitator to initiate, manage, and coordinate processes.
3. Projects and neutral platforms/opportunity spaces, such as NEB, to provide resources and time for cross-sectoral collaboration, enabling the definition of shared goals and a common understanding of the situation.
4. Neutral and inspiring non-commercial meeting places to facilitate collaboration, information exchange, knowledge sharing, and inclusion.

Focus on understanding, not just analyzing, urban places

Traditional site analyses often adhere to rigid templates focused on the current situation and historical context, neglecting future-oriented goals like climate targets. They frequently overlook human factors, experiential value, and other "non-measurable" qualities crucial for holistic urban development.

For example, inclusive communities require spaces for interaction and learning. These communal meeting venues facilitate essential communication. Urban planning, and understanding of a place, should prioritize their assessment and development.

In contrast, a "place understanding" approach considers the entirety of an area – encompassing not only physical structures but also social dynamics, local resources, and existing strengths. A recommendation map prioritizing desired development could enhance awareness of how to achieve sustainable solutions within a neighborhood. For instance, this involves examining the implications of the climate contract for a specific area and exploring

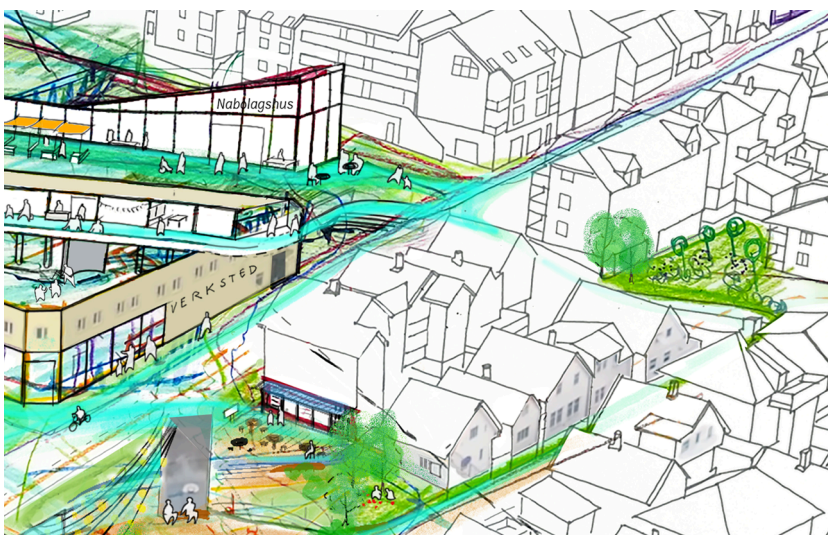
the potential of social entrepreneurs or informal meeting places to strengthen the local environment. This requires a shift from static analysis to a dynamic understanding of the area.

The Importance of physical meetings

It is essential that actors have genuine opportunities for influence and are adequately prepared for meetings. Motivation to participate and having a clear mandate/legitimacy to do so are important and can be facilitated through financial incentives or formal directives. Challenges include "siloes" organizational structures, such as within municipal systems where strong leadership and teamwork are crucial. A transition from more linear to team-based working methodologies within municipalities is desirable to reduce person-dependent processes. Multifaceted municipalities and "silo working" can hinder cross-functional coordination and the pursuit of common objectives.

Visualisation as a tool

Processes can be enhanced by working with maps, drawings, and shared visuals/references. Utilizing drawing and modeling facilitates collaboration and inclusion across different roles. Real participation is achievable early in the process if a vision can be translated into visual formats like images, structures, or films. Visualisation serves as a valuable tool in these processes, as shared visuals can broaden understanding, inspire creativity, and accelerate progress. Language can be limiting and overly technical, potentially excluding certain participants. Collaborative map drawing can concretize concepts and bridge the gap between theory and potential physical outcomes. Visually processed maps can improve memory and comprehension of the process. There is a strong need to make complex relationships visible (e.g. city plan/regulation).



A section of a preliminary drawing of a vision of Jammerdalen with the Nevland building to the left and Jammerparken at the bottom. Input from stakeholders must be further clarified, reinforced, made concrete, and developed. This processed image can then form the basis for further participation in the desired development of the area.

What was done differently from demonstrator 1 to 2?

The Jammerdal group has been a continuous learning group. It started with the programming of one building and developed into programming a whole neighbourhood/district.

Gradually in the process, more roles/actors were brought to meetings in the group to expand insight, discuss across disciplines, and anchor findings further. Nordic Edge, The City Architect and Future Built were connected later in the process and others, such as UiS and the Local Area Improvement Project Storhaug (Områdesatsingen), were involved in individual meetings.

What potential do we see in this tool moving forward?

The work has verified the value of the CID collaboration, supplemented by a significantly increased understanding of economic, social and environmental sustainability. The potential is to establish public-private center cooperation as the 'new normal', with joint efforts for and understanding of:

- The context and triggering factors in the entire plan hierarchy with anchoring in KDP (Ministry of Local Government and Regional Development).
- Reducing the gap between the planning phase of a project and its actual implementation or execution.
- What economic, sustainable and aesthetic principles are needed before projects become feasible.
- How to reduce mistrust or defensive mode in future projects. E.g. Socio-economic value if NEB values and working principles are included in projects. Today, this is polarized; the municipality talks about quality and the private sector talks about the economy. It is possible to find solutions for more "open book" processes in the future if good cooperation is established and role understanding increases. Even if in such a group there is a lot of conversation on a professional and detailed level, it may be important to have a system that ensures that voices are also collected from, for example, residents/neighbours and social entrepreneurs.

3.7 Jammerparken

urban development • park redesign • citizen participation • community engagement • co-creation • place development • social sustainability • aesthetics • urban design

TOGETHER: Ambition I To include	SUSTAINABLE: Ambition II To close the loop	BEAUTIFUL: Ambition II To connect
Participatory: Ambition I To consult	Multi-level: Ambition II To work across levels	Transdisciplinary: Ambition II To be interdisciplinary

What has been done?

One of the initiatives of Stavanger Municipality’s local area development of Storhaug was redesigning a park in the Pedersgata area, Jammerparken, specifically involving local youths and residents in the process. A collaborative synergy was established between NEB-STAR and this initiative to share information and insight in an area that is highly relevant for both projects. NEB-STAR invited the project manager to relevant meetings, including the status meetings with the agile pilots who were also working with citizen participation, social meeting places and relevant activities in the area. One of the agile pilots, Co-Creators, has worked closely with the initiative to align plans and identify synergy effects. Co-creators were using the park as their pilot area.



The Jammerparken, previously named Pulsparken, is a small urban park with a basketball court, some green areas, but mostly concrete and asphalt surfaces. The area is characterized by the city bridge, which creates an enclosed space with reduced light.

Activities in the redesign and participation process of the park was not part of NEB-STAR, but the collaboration was valuable and highly motivational since it was part of a bigger picture and context. The process included mapping the park’s usage, engaging local youth, and involving area residents. Methods for gathering insights and promoting participation ranged from observations and interviews conducted by UngLab, to workshops and the establishment of a citizen panel. The citizen panel consisted of a group of neighbours from

various age groups and was formed using a random selection process to ensure demographic balance. The project also focused on the physical transformation of the park, which was renamed Jammerparken, into a "neighbourhood garden" featuring seating areas, creative lighting, and art that reflects the area's identity.



Vision of the area - goodbye Pulsparcken, hello Jammerparken - neighbourhood garden

Why was it done this way?

The area development project employed methods to ensure that the park's redesign effectively met the needs and desires of the local community. Engaging youth and neighbours directly allowed for their input to shape the design, promoting a sense of ownership and relevance. The use of a citizen panel aimed to create a more balanced representation of the community's views, as traditional participation methods often result in skewed demographics. The emphasis on understanding the park's current usage patterns ensured that the redesign would be functional and address existing needs, such as preserving the existing thoroughfare.

Involvering av ungdom

- Det beste er å vise Top Gun på storskjerm og låne en popcornmaskin
- UngLab gjorde intervju og assisterte ved tegning.
 - Ungdom vil ha det pent – ikke stygg tagging
 - Tak
 - Trenger ikke aktivitetsapparat, men mer grønt og sitteplasser



Unglab's youth participation event featured an outdoor cinema and popcorn while conducting interviews with young people about the local area.

Et superlokalt borgerpanel

- Det er flere artikulerte grupper i området
- Vi ville ha med naboene:
 - Storhaug avis
 - Brev i alle postkassene
 - Snøballmetoden
 - Henge i nabolaget og stoppe folk på gata



Superlocal citizen panel: participants were gathered by engaging with the neighborhood through local newspapers, mail, and direct conversations with residents.

What have we learned?

The collaboration highlighted the importance of coordination and communication across projects. This is not only valuable for technical planning, but also for the social aspects for employees to be part of a common goal and to gain support, inspiration and motivation in a bigger context.

The coordination and discussions were also helpful to understand the area better, to get an overview of what was going on and to see the redesign process in context of sustainability, aesthetics and inclusion. Especially useful were the discussions between the agile pilots

Co-Creators, Formverk, Folkegata, Permaby and Asplan Viak who all worked with related local initiatives.

A positive example of the impact of this work is evident in the statement of a resident who participated in the process and now intends to stay in the area due to the engagement process. The family intended to move away, but is now reversing previous plans to relocate. He now envisions positive developments, such as a safe and child-friendly park, offering him hope for the future of the area. This serves as a concrete example of the value of involvement and shared vision.¹⁴

What Potential Do We See in the Future?

The success of transforming Pulsparken into Jammerparken offers a model for future urban development projects focused on community engagement and place-making. The emphasis on citizen involvement, aesthetics, social sustainability, and historical awareness can be adapted and applied to other public spaces to create vibrant, inclusive, and meaningful environments. The use of citizen panels and UngLab methods can be further developed and refined to ensure effective community participation in urban planning.

14

<https://www.rastavanger.no/her-blir-det-ny-park-na-vurderer-oscar-og-familien-a-bli-boende-i-området/s/5-165-71224>

3.8 Guided tours

guided tours • community development • area regeneration • urban exploration • place-based storytelling

TOGETHER: Ambition I To include	SUSTAINABLE: Ambition II To close the loop	BEAUTIFUL: Ambition II To connect
Participatory: Ambition I To consult	Multi-level: Ambition II To work across levels	Transdisciplinary: Ambition II To be interdisciplinary

What has been done?

During the project period, around 15 guided tours in the Pedersgata area were carried out by various actors, including Storhaug Unlimited and Stavanger municipality. Storhaug Unlimited offers this tool to groups from UiS, visitors from other municipalities, administration and politicians who want better insight into how social entrepreneurs contribute to positive area development. Social entrepreneurs tell their stories about why they started and what challenges they want to solve in their local area.

NEB-STAR has had several trips linked to other tools we have tested, Innovation Camp and Agile pilot, to tell about the area's history and uniqueness, social and creative entrepreneurs, area development and planned transformation. In addition, we have carried out tours on request for visitors from other municipalities, schools, other countries, and more.



Left: guided tour in an area close to Pedersgata in connection with a visit to Stavanger as one of 112 Net Zero City with Patrick Child (EU Commission).

Right: guided tour with pupils from Bergeland VGS (High School) as part of an Innovation Camp.

Why was it done this way?

The tours are based on the experiences of Storhaug Unlimited, where the stories of the social entrepreneurs create credibility and show commitment to creating good neighbourhoods. It was also built on previous guided tours in connection with the Nordic Edge Expo. On some of the trips, actors in the area were asked to tell their stories from the

neighbourhood - they were social entrepreneurs, creative actors, Helen & Hard employees, residents of Vindmøllebakken cohousing, Municipal employees, Director of Cultural Heritage, the City Center coordinator, employees of the area initiative, and others. In large groups, we rented headsets and microphones to be able to talk to a large group on the street, while also going from one stop to another. The tours were adapted in length, with different stops depending on the interests of the group - from the City Square to Tou Scene, with stops around Nytorget, Pedersgata, Jammerparken, Badedammen, Svankevika, Vindmøllebakken and more.

What have we learned?

Being in the test areas together with local actors in the test areas as they share their stories creates powerful impressions and clearly demonstrates their commitment. At the same time, it's important to ensure that smaller participants are not overburdened and receive appropriate compensation for their time. This residential area encompasses diverse opinions, stakeholders, and past experiences with authorities, all of which must be carefully considered in the narratives shared. It is vital to present a balanced view, highlighting the various perspectives, benefits, and drawbacks associated with the area's development.



Guided tour in the Pedersgata area during Nordic Edge Expo 2024 with participants from local and national government, inhabitants, artists, architects, students, politicians and international guests.

Future welfare

On 19 October 2024, NU and SK organized a professional day on social entrepreneurship and future welfare. Local social entrepreneurs from neighbourhood Incubators in other municipalities in Norway also participated, and they were both part of the Guided Tour. We learned that many people are passionate about citizens getting support to create good lives for themselves and their neighbourhoods - sometimes with system-changing potential at community level. All over the world there is a renewed focus on how social entrepreneurs, cooperatives and other non-profit actors are central to good welfare solutions and sustainable societies.



Left: Future welfare, guided tour and visit to social entrepreneur Elefantteateret (a toddlers' theatre). Right: Future welfare, guided tour and visit to social entrepreneurs and neighbourhood development areas.

What was done differently from demonstrator 1 to 2?

In test period 2, we used professional guiding equipment for larger groups. Greater involvement from local social entrepreneurs in the various guided tours.

What potential do we see in this tool moving forward?

To continue building crucial knowledge, especially insights tied to the physical environment, this tool is essential. Hearing directly from local stakeholders about their unique viewpoints, experiences, and sensory perceptions provides irreplaceable information. Additionally, exchanges with other cities, like Utrecht, offer valuable external perspectives and stimulate innovative thinking.

3.9 Vis det!

societal impact • impact measurement • data collection • reporting • social entrepreneurs • local initiatives • public service • neighbourhood voices

TOGETHER: Ambition III To transform	SUSTAINABLE: Ambition II To close the loop	BEAUTIFUL: Ambition II To connect
Participatory: Ambition III To self-govern	Multi-level: Ambition I To work locally	Transdisciplinary: Ambition III To be beyond disciplinary

What has been done?

“Vis det!” - literally “Show it!” - is a practical tool that helps measure the effect your work has on society. It is available free of charge on the website [visdet.no](https://www.visdet.no)¹⁵, and was developed over four years of close collaboration between social entrepreneurs, founders of non-profit organizations and local initiatives, and people who work in public services in Norway. The Vis det! tool takes you through three steps that make it easier to show the effect the activities actually have.

1. In the first step, the history of the project is mapped to start measuring the effect of the work. This part is based on the company's theory of change.
2. The second step is about investigating what you are going to measure and planning how to get started with the data collection. Here you will get tips on different ways to collect data from the target group. For someone who works with the local environment, this way of measuring helps to ensure that voices from the neighbourhood come to the fore.
3. The third step gives a summary of a report on the project's impact on society.

Storhaug Unlimited has delivered courses for social entrepreneurs and others involved with the local neighborhood incubator. Norge Unlimited has conducted courses with the Agile pilots in the two testbeds on how to go deeper when measuring the societal impact of your business, as well as offering support for planning and carrying out impact measurement.

Why was it done this way?

For businesses committed to driving positive societal change, understanding, measuring, and reporting their impact is becoming as important as maintaining sound financial practices. The NEB-STAR Impact Model, a tool designed to quantify and articulate these societal contributions, plays a vital role in this process. One of the core work packages within the NEB-STAR project (WP4) specifically focuses on refining and applying this Impact Model, exploring how various focus areas contribute to tangible positive outcomes.

¹⁵ <https://www.visdet.no/>

Within this framework, citizen-driven innovation and social entrepreneurship stand out as particularly relevant. It's highly significant that this group, often operating with limited resources but high social ambition, is actively engaged in measuring and documenting the effects of their businesses and projects.

What have we learned?

Those who started with the tool from the start of the project are the ones who have reported the most benefit, as by setting up a simple theory of change for the business, they ensure that the focus is naturally included throughout the project/operations. Several have mentioned that it is a bit like going to therapy with their project and being given help to explain what they are doing, and are motivated by focusing on the fact that they produce lasting effects.

Many course participants, particularly the social entrepreneurs, already demonstrated a significant focus on the social impact of their work. They identified a need for more accessible tools to report and showcase this impact, aiming to strengthen their existing reporting practices. Integrating impact measurement into routine operations takes time, and without a specific requirement, it can be challenging to prioritize. We observed that even with an existing focus on social impact, prioritizing its measurement is difficult without a mandated plan. Among the Agile Pilots, social impact awareness was generally high, and several already had effective methods for ongoing reflection. It's likely that the courses on measuring social impact further reinforced this focus.

What was done differently from demonstrator 1 to 2?

The main emphasis of the use of the tool has been on test bed 2, because it is used in the neighbourhood incubator, Storhaug Unlimited. Courses in Vis det! have been conducted for the Agile pilots both at Site 4016 and Pedersgata. Demonstrator at Site, however, has not had any neighbourhood incubator during the test period, so experiences from place-based social entrepreneurs are not included in testbed 1.

What potential do we see in this tool moving forward?

We experience that highlighting a tool for measuring social impact helps to raise the focus on impact on several of the sustainability goals, as well as increasing awareness for giving the neighbourhoods a voice by letting the recipients of a service or the users of an offer describe the effect/possible lack of the desired effect. We have also experienced that it provides a potential for discovering effects we had not anticipated, and thus can contribute to developing the indicator set. Work is now underway on a version 2.0 of Vis det! Feedback from Agile pilots and others who have tried out the tool has provided important insight on what can be improved to make it easier to use.

3.10 Social entrepreneurship

social innovation • neighbourhood development • social entrepreneurs • community empowerment • place-based initiatives • local incubators

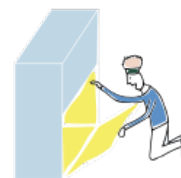
TOGETHER: Ambition III To transform	SUSTAINABLE: Ambition II To close the loop	BEAUTIFUL: Ambition II To connect
Participatory: Ambition III To self-govern	Multi-level: Ambition I To work locally	Transdisciplinary: Ambition III To be beyond disciplinary

What has been done?

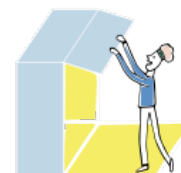
The Unlimited model, an overarching model designed to facilitate citizen-led solutions to complex social and environmental challenges within their local communities, has been utilized. This model aims to provide access to a Neighbourhood incubator, and resources for citizens to further develop and test their ideas. The Neighbourhood incubator functions as a platform, resource hub, learning community and network for social entrepreneurs who want to change their neighbourhood for the better.

Storhaug Unlimited was established in relation to the area improvement program, facilitating a Neighbourhood incubator. The support consists of funding, co-working and office space, access to new networks, mentoring, 1-2-1 guidance and workshops. The neighbourhood incubator offers three distinct packages of support:

1. Try it! - for social entrepreneurs at the idea or beginning stages, who want to test their business model.

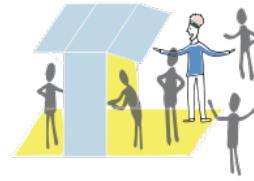


2. Do it! - help building a stronger, more robust business model and grow your social impact.



3. Build it! - for social enterprises ready to scale.

(Illustrations: Handbook Norway Unlimited)



Why Was It Done That Way?

Residents with strong ties to a defined area or neighbourhood often possess the most accurate understanding of local issues and frequently have innovative ideas for potential solutions. They also typically have established networks within their community (neighbours, family, local businesses) that can provide rapid feedback on pilot projects, enabling quicker adjustments.

In the initial stages, place-based social entrepreneurs are encouraged to utilize the "Vis det!" tool, which involves developing a theory of change for their ventures, including descriptions of desired short-term and long-term impacts. This approach aims to foster the development of targeted solutions for complex social and environmental challenges with local, and potentially national, impact.



Neighbourhood incubator - Unlimited in action. (Source: Norge Unlimited)

What have we learned?

Place-based social entrepreneurs seek to solve local challenges, have deeper access to target groups and often create creative and accurate solutions. In addition they create local jobs, sell products and services that fill gaps in the existing market and contribute to service development, they engage local volunteerism, strengthen the local economy, are visible role

models in the neighborhood, and more women see the opportunity to start a business through this type of business.

Through various workshops, we have experienced how place-based social entrepreneurs possess a competence that can be useful in several areas, and perhaps especially when it comes to area development.



Picture from workshop with Storhaug Unlimited – doing Problem tree.

What was done differently from demonstrator 1 to 2?

During the initial testing phase, a neighborhood incubator was established in testbed 2, and meetings were conducted to explore the feasibility of implementing a similar incubator in testbed 1. Unfortunately, delays hindered progress, preventing an evaluation of its impact on learning. However, the model was thoroughly discussed, and as part of the Hillevåg area development initiative, a decision has been made to investigate the effects of establishing a neighborhood incubator with supporting infrastructure for locally based initiatives.

What potential do we see in going forward?

- Facilitate opportunities for local creativity, competence, and talent to contribute to innovation and effective solutions.
- Strengthen the local economy.
- Foster a sense of "mattering" by empowering residents to contribute to building positive neighborhoods, become co-creators in future welfare models, and recognize their individual contributions to the community.
- Enhance preparedness by ensuring residents are aware of the resources available within their neighborhood.

3.11 Utopian Future Workshop

workshops • citizen participation • urban development • community engagement • visioning • participatory design • social inclusion • sustainable cities

TOGETHER: Ambition I To include	SUSTAINABLE: Ambition II To close the loop	BEAUTIFUL: Ambition II To connect
Participatory: Ambition I To consult	Multi-level: Ambition II To work across levels	Transdisciplinary: Ambition II To be interdisciplinary

What has been done?

The Utopian Future Workshop method was used to explore and develop alternative visions for the Svankevigå/Badedammen neighbourhood together with residents in the Pedersgata test bed. The critique phase and the utopia phase were carried out in 10 formal workshops from January to August 2024, where local residents, researchers and relevant actors participated. In the critique phase, we used the Urban Belonging (UB) app to map challenges in the neighbourhood, with the participants' observations visualized in a UB datascape. In the utopia phase, we used participatory utopian mapping, where the participants collectively developed visions for a beautiful, sustainable and inclusive neighbourhood. In the realization phase, which started in August with informal meetings every two weeks, the participants have followed up and further developed the ideas into concrete measures.

Why was it done this way?

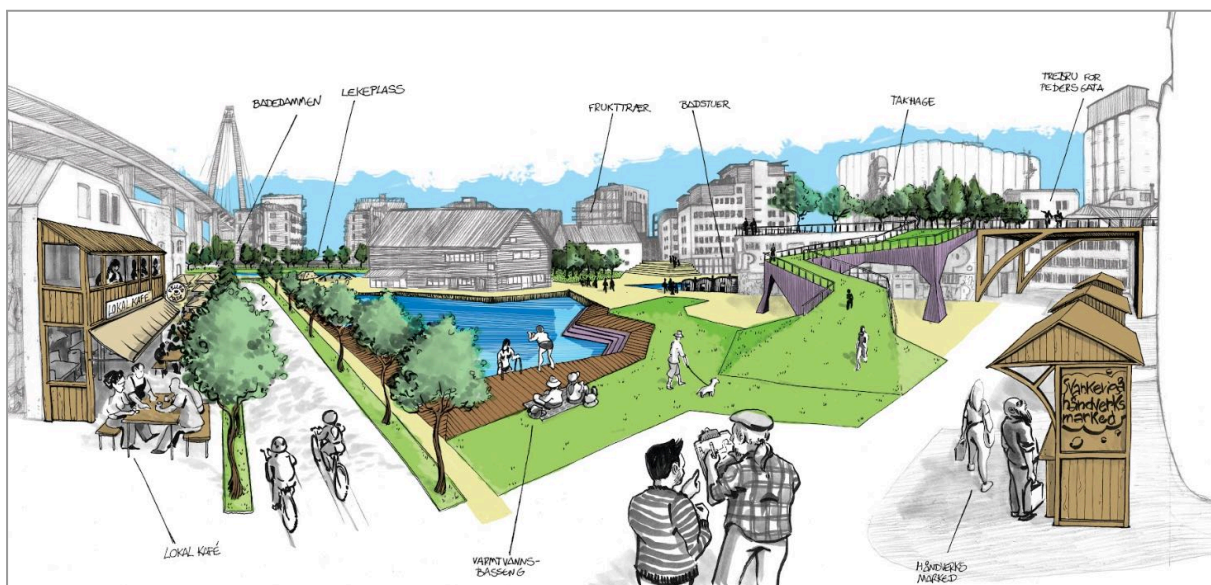
The Utopian Future Workshop method was chosen because it provides a structured yet creative approach to engaging residents in the development of their own neighbourhood. By dividing the process into criticism, utopia and realization, we ensured a gradual transition from problem understanding to vision development and concrete measures. The critique phase was crucial for establishing a common understanding of the challenges in the area, and the use of the Urban Belonging app made it possible to systematize the residents' experiences and visualize them in a common UB datascape.

We decided to work directly with local residents who are often excluded – or feel excluded – from decision-making processes in urban development. Instead of inviting the municipality or developers early in the process, we wanted the residents themselves to develop their visions for the neighbourhood without the influence of actors with more power in the urban development hierarchy. The logic behind this was that the citizens should first create their own utopian visions, before inviting, on their own terms, external actors, such as the municipality and developers, to translate the visions into concrete actions.

In the utopia phase, it was important to give the participants the freedom to develop ambitious and radical visions without restrictions. Participatory utopian mapping was chosen as the method because it allows the participants to collectively draw and negotiate

their ideal version of the neighbourhood, which both stimulates creativity and makes different perspectives visible.

The realization phase was structured through informal meetings every two weeks, as continuous follow-up was necessary to ensure that the visions did not remain abstract ideas, but could actually be translated into action. These meetings provided space for reflection, adjustment of strategies and identification of possible resources and partners to bring the ideas closer to reality. The iterative approach ensured that citizens remained active participants in the development process, rather than only being involved in isolated workshops, and that they could take ownership of how and when external actors were included in the process.



Participatory utopian mapping was chosen as the method because it allows the participants to collectively draw and negotiate their ideal version of the neighbourhood

What have we learned?

The utopian future workshop method has proven valuable in allowing the citizen group to explore possibilities without external interference in the early phases. The aspirational and utopian nature of the method promotes creativity and motivation, and provides a fresh and positive perspective on what the neighbourhood can become. By removing external constraints in the initial phases, the participants have been given the opportunity to formulate their own visions, which has created ownership of the process. At the same time, the process has also functioned as an exercise in democracy, where residents have learned how to express their opinions, be heard and influence the development of their own neighbourhood. This means that the involvement itself is as important as the concrete results.

Challenge

However, citizens have different needs and interests. Some are inspired by long-term visions, while others are more concerned with short-term, tangible results. This can create tensions between the desire for an ambitious, long-term approach and the need for more immediate changes. Furthermore, such differences can challenge the method itself, as some participants may experience it as too abstract or time-consuming. Another major challenge is how we can inspire and mobilize broad participation, especially among those who may not be aware of ongoing participation processes or do not feel empowered to participate. Many may feel that urban development processes are distant and out of their control, which makes it crucial to lower the threshold for participation and show that their voices actually have an impact.



Utopian Future Workshop participated with a stand at the Svankevigå festival.

Key questions arose: How can we balance the need for short-term results with the desire to pursue long-term, aspirational goals? How can we ensure continuous engagement throughout the entire process? How can we effectively promote citizen involvement from the start to ensure broad, democratic participation and strengthen citizens' sense of ownership and influence?

What was done differently from demonstrator 1 to 2?

The Svankevigå/Badedammen group has been in a continuous learning process through the various workshop phases, with a dynamic flow of local players who came and went along the way.

What potential do we see in this tool moving forward?

The utopian future workshop method has great potential as a tool for citizen involvement in urban development, especially as a democratic exercise. Due to the high number of new urban development projects in Stavanger, there is a growing need for methods that give citizens the tools to get involved and influence the development of their neighbourhoods. By letting the citizens formulate their own visions before external actors are invited in, the method strengthens their ownership and influence in decision-making processes.

Furthermore, it can help to lower the threshold for participation by offering a structured but creative and inclusive arena where different voices are heard. In order to further realize this potential, it is important to find methods to balance long-term visions with concrete, short-term measures that maintain commitment over time.

3.12 SMART Omslag

education • youth engagement • innovation • sustainability • social sustainability • primary school • entrepreneurship education

TOGETHER: Ambition I To include	SUSTAINABLE: Ambition II To close the loop	BEAUTIFUL: Ambition II To connect
Participatory: Ambition I To consult	Multi-level: Ambition II To work across levels	Transdisciplinary: Ambition II To be interdisciplinary

What has been done?

Young residents of the Stavanger region (5th-7th grade elementary students) have participated in our idea workshop, SMART Omslag¹⁶. This is a collaborative educational program that teaches elementary school students in Stavanger to develop innovative solutions for future challenges, focusing on resource management, energy consumption, and social sustainability. The program emphasizes sustainability and inclusion, running from autumn 2024 to summer 2025.

SMART Omslag is a collaborative initiative with Stavanger Municipality and IVAR¹⁷ (municipal operations company handling water, waste water and general waste). So far, we have implemented the program in 19 schools, engaging a total of 1,000 students. An additional three schools, with 200 more students, will participate in the spring. This competition with prizes is judged by a jury including politicians, NEB-STAR partners, and representatives from local industries and businesses.

At its core, SMART Omslag aims to use today's knowledge to create forward-thinking solutions. Students follow a structured innovation process, where they develop ideas, build prototypes, and present their solutions. Each school has hosted a kick-off event with UE and a final presentation with a jury. The 10 best solutions will be preserved in the Stavanger city archives, to be opened in 100 years' time for the city's millennium. The students who contributed these solutions are invited to a celebratory event at Sølvsberget (Library and

¹⁶

<https://www.stavanger.kommune.no/stavanger2025/dette-kan-du-glede-til/ungt-entreprenorskap--stavanger-2025--smart-omslag/>

¹⁷ <https://www.ivar.no/english/>

Cultural Center in Stavanger) on 2 June 2025, where their work will be showcased and recognized.

Why was it done this way?

Stavanger Municipality approached us seeking high-quality educational programs for primary schools in connection with the city's 900-year anniversary. Given that the anniversary is future-focused, one of its key themes, "OMSLAG" (transformation), encourages reflection on how we can use our knowledge to create something new. By aligning SMART with OMSLAG, we actively involve young residents and integrate their valuable perspectives into shaping future solutions.



The jury at the kick-off event at Skeie elementary school.

Our goal is to enhance transition competence among students. Through SMART, students develop skills in problem-solving, innovative thinking, and collaboration. They engage with real-world challenges, making learning meaningful and impactful. The future belongs to these children—they will tackle upcoming challenges, contribute to the green transition, and shape the development of our city and region. By integrating SMART into the broader entrepreneurship education curriculum, we equip them with the tools they need to succeed.

What have we learned?

The project has generated significant engagement, resulting in a wealth of creative solutions. Additionally, SMART has now been established as a program in several new schools across the Stavanger region. We believe this sets the foundation for continued implementation and expansion of this type of education in the coming years.

What is the future potential of this tool?

We have successfully integrated SMART into multiple schools in the Stavanger region, and we believe this lays the groundwork for sustained participation. As more schools join the program, they help recruit additional schools in subsequent years. Our current focus is on

inviting schools to participate in new challenges for the 2025/26 school year, ensuring the program's continuity and long-term impact.

Related news articles:

- <https://www.stavanger.kommune.no/stavanger2025/nyheter/disse-skal-mote-framtidens-utfordringer/>
- <https://www.stavanger.kommune.no/stavanger2025/dette-kan-du-glede-til/ungt-entreprenorskap--stavanger-2025--smart-omslag/>

3.13 Public participation forum

citizen participation • community engagement • urban planning • democratic processes • governance • participatory processes

TOGETHER: Ambition I To include	SUSTAINABLE: Ambition II To close the loop	BEAUTIFUL: Ambition II To connect
Participatory: Ambition I To consult	Multi-level: Ambition II To work across levels	Transdisciplinary: Ambition II To be interdisciplinary

What has been done?

NEB-STAR has taken an initiative to establish a participation forum which includes representatives from citizens, all relevant departments in the municipality (both politically urban planning departments and communication), the city architect, the Rogaland Art Center and researchers from the University of Stavanger. This forum has so far held seven meetings during the last half year where challenges and barriers in today's participation processes have been analyzed. Potential solutions to these barriers are under construction as part of this work. In addition, a knowledge base has been established with approximately 40 reports and documents that describe participation work in Stavanger over the past years.



The forum meets every other Friday afternoon at Rogaland Art Center. The discussions are open for new topics and perspectives, but the overall plan is to create a set of guidelines for public participation that will address today's barriers and frictions.

The background for this initiative is twofold: 1) Growing urban development in the city, resulting in increased density and demolition of older buildings, has been criticized by professionals architects, urban designers and citizens over many years. Criticisms include experiences of ineffective participation and a sense that public voices are not being heard. 2) Stavanger Municipality's administration acknowledges the importance of enhancing and

standardizing participatory practices, and is seeking ways to increase citizen engagement in planning.

An important part of the work consisted of identifying barriers to participation from the citizens' perspective, and looking for solutions. Some of the barriers which have been identified so far:

1. **The Planning and Building Act (Plan- og bygningsloven) lacks clear and specific requirements for ensuring consistent participation in public and private development projects.** *This ambiguity leads to inconsistent engagement and methods, potentially excluding residents and hindering the incorporation of diverse perspectives.*
2. **Current processes struggle to create local relevance and engage residents meaningfully.** *This results in a lack of local knowledge input, potentially leading to plans that don't fully address community needs and desires.*
3. **Planning overlooks the crucial neighborhood level.** *By not focusing on the local neighborhood context, plans may fail to address specific challenges and opportunities unique to those communities.*
4. **Political district committees are weakly connected to planning.** *This disconnect reduces the ability of local representatives to voice community concerns and influence development decisions.*
5. **Plans take too long to develop.** *Lengthy processes can lead to citizen fatigue and disengagement, as well as plans becoming outdated before implementation.*
6. **The Stavanger City Centre Plan is outdated.** *An outdated plan may not reflect current needs and priorities, potentially hindering relevant and effective development in the city center.*
7. **Conflicts exist between plans in different planning levels for the same area.** *These conflicts create confusion, uncertainty, and can stall development or lead to outcomes that don't align across different levels of governance.*
8. **Plans are highly complex and plan documentation lacks clear language.** *This makes it difficult for citizens to understand proposals and provide informed feedback, hindering meaningful participation.*
9. **The municipality often communicates indirectly and in one direction with citizens.** *This limits dialogue and the ability for the municipality to understand citizen needs and for citizens to feel heard and understood.*
10. **Significant barriers currently hinder engagement, necessitating more flexible and tailored participation methods for citizens' daily life and diverse circumstances.** *These barriers (lack of time, resources, knowledge) prevent many citizens from participating, leading to an unrepresentative input in planning.*
11. **Improving involvement and communication with politicians at all levels is necessary.** *Insufficient engagement with politicians limits their understanding*

of citizen perspectives and reduces political accountability for planning outcomes.

- 12. Power relations are imbalanced, hindering co-creation.** *Unequal power dynamics can lead to the dominance of certain interests, preventing genuine collaboration and the development of truly shared solutions.*
- 13. User-friendly digital tools that support local needs are lacking.** *The absence of accessible and relevant digital tools makes it harder for citizens to access information, provide input, and participate conveniently.*
- 14. Citizen input frequently occurs too late in planning processes to influence outcomes.** *When input is sought late, key decisions may already have been made, leading to citizen frustration and a perception that their participation is not valued.*
- 15. Follow-up, tracking, and connecting citizens' input to actual changes in an area, in a searchable way for citizens, needs improvement.** *The lack of transparency and feedback loops can lead to citizens feeling their input is ignored and reduces trust in the planning process.*
- 16. Lack of coordination and communication between different departments and professional areas.** *Internal silos within the municipality and with other public and private companies can lead to inefficiency and frictions in the development processes.*
- 17. The municipality faces a challenging financial situation.** *Financial constraints can limit the resources available for effective participation processes and the implementation of citizen-driven initiatives.*

To overcome these identified barriers, we propose the following solutions:

- 1. Integrate the neighborhood level into planning and processes** to create more natural and relatable opportunities for citizen participation and the development of shared visions which plans can be built upon.
- 2. Develop or reuse well designed digital solutions** that put the citizen's need and requirements in participation processes in centre.
- 3. Creating transparent participation guidelines.** Establish clear and open rules outlining how individuals can get involved and contribute to the process.
- 4. Using clear and easily understandable language and using visuals in all communication.** Ensure all information is communicated simply and accessibly, incorporating visual aids to enhance comprehension for everyone.
- 5. Improving expertise in various participation methods.** Enhance the skills and knowledge of those facilitating participation to effectively utilize a range of engagement techniques.
- 6. Defining key terms.** Establish and use a uniform understanding of important vocabulary throughout the participation process to avoid confusion.

7. **Implementing a more adaptable ("agile") planning process.** Adopt a flexible and iterative planning approach that allows for adjustments and changes underway based on feedback and evolving circumstances.
8. **Exploring different forms of partnership.** Investigate and utilize diverse collaborative models to broaden engagement and incorporate various perspectives.
9. **Supporting grassroots initiatives.** Provide resources and encouragement for local, community-driven efforts and projects to foster participation from the ground up.
10. **Ensuring continuous and long-term engagement.** Develop strategies to maintain ongoing involvement and commitment from participants throughout the duration of the initiative.
11. **Leveraging neutral and welcoming spaces** such as the Rogaland Art Center or local cafés for continuous participation opportunities. Utilize accessible and comfortable public locations to host ongoing engagement activities and make participation more convenient and inviting.

Why was it done this way?

The participation forum was established to gather resources and commitment across disciplines and actors to create a common momentum and focus on participation processes. The main reason for an interdisciplinary composition with committed residents, the university and specialists in the municipality, is to shed light on different perspectives so that we can work holistically with complex issues. In this way, we can ensure that the work with any conclusions and recommendations is in accordance with the municipality's goals and strategies. The analysis of challenges and barriers was carried out to identify areas for improvement in the participation processes and the knowledge base was established to ensure that previous participation work is used further.



The Participation Forum consists of representatives from citizens, all relevant municipal departments, the City Architect, the Rogaland Art Center, and researchers from the University of Stavanger.

What have we learned?

Participation work is complex and challenging, and involves a number of different actors. In order to succeed, it is crucial to listen to the citizens' real needs and how today's participatory processes are experienced. One of the main findings is that the current participation processes are at a minimum level in accordance with the Planning and Building Act, and that there are many and relatively high barriers for these processes to be experienced as real participation and lead to positive results for the municipality. We have seen that evaluation of the processes is essential to ensure efficiency, while at the same time there is a great need to strengthen competence in the field. We also believe that raising ambitions beyond the minimum legal requirements is necessary. Communication must be clear and understandable, and a good and mutual dialogue with citizens is necessary to ensure that their voices are heard and valued. In addition, better digital tools should be developed to support the actual needs in the participation work, and it is important to follow up on citizens' input and ensure good coordination between the actors involved.

What potential do we see in moving forward?

- **Common meeting place:** The participation forum can help gather engaged people and create a common meeting place across levels and disciplines, inside and outside the municipality.
- **Creating relevance:** The value of being able to see and evaluate the real experiences in public participation from the citizens' perspective is a key to improve and make the processes relevant. Real participation processes will be able to improve democracy

when residents are being listened to and get a real say in relevant matters, whether it concerns plans in the neighbourhood or in the municipality in general.

- **Increasing commitment:** Good participation processes will be able to increase commitment and belonging by citizens experiencing a real influence on the development of their local environment, more active and committed local communities and a stronger sense of ownership of their own city. This can lead to a positive influence on citizens' quality of life.
- **Better decisions:** Citizens' local knowledge and experiences are valuable resources in urban development processes, and by involving citizens to a greater extent, better informed decisions can be made that take different needs and perspectives into account.
- **Building trust:** It is no secret that there are a number of conflicts in today's urban development in many cities. These conflicts create a gap between different actors and reduce positive values that the municipality depends on, for example community, trust, belonging and well-being. Real participation processes can help build trust between residents, developers and authorities.
- **Sustainable development:** Good participation processes can help promote more sustainable urban development by taking social, economic and environmental aspects into account. This can create a more inclusive society where all residents, regardless of background and resources, have the opportunity to participate and influence their everyday lives.

3.14 Smart art

art integration • urban development • creativity • community • aesthetics • social transformation

TOGETHER: Ambition I To include	SUSTAINABLE: Ambition II To close the loop	BEAUTIFUL: Ambition II To connect
Participatory: Ambition I To consult	Multi-level: Ambition II To work across levels	Transdisciplinary: Ambition II To be interdisciplinary

What has been done?

Investigate what collaboration with artists can look like, what formalities need to be in place, and how the expertise can be put to use in various collaborations and projects. Therefore, we have:

- 1. Hired an artist as a consultant.** The municipality directly engaged artistic expertise by hiring an artist as a consultant, demonstrating a proactive approach to integrating artistic perspectives into projects. This involved the consultant providing advice, insights, and creative solutions based on their artistic background, allowing the municipality to gain firsthand experience of the benefits of an artist's unique viewpoint.
- 2. Tested a scheme for artists in residence.** The test explored a more immersive, potentially longer-term integration of artists by providing studio space and resources. This allowed the project to observe the impact of embedding an artist, fostering direct interaction, collaboration, and environment-inspired creative output, while also providing insights into the challenges of such residencies.
- 3. Described artistic competence as a business model.** This was a fruitful collaboration between the artist Anne Ihle and partner Nordic Edge which have experience of developing business models. The process highlights the effort to articulate the value and applicability of artistic skills beyond aesthetics, recognizing the potential as a valuable asset for innovation, problem-solving, and communication within a business or organizational context.
- 4. Explored different roles and contributions into collaboration and in different phases and processes.** The municipality investigated the diverse ways artists can engage in collaborative projects, acknowledging contributions varying by project, stage, and collaborator needs. This exploration likely considered roles like facilitator, translator, visualizer, critical thinker, and innovator, aiming to understand how artistic expertise can be effectively leveraged throughout a project's lifecycle, from ideation to evaluation.



Workshop during Nordic Edge Expo 2024, by Maike Statz, interior architect and artist. Photo: H. Elliott

Why was it done this way?

The municipality initiated this exploration to understand how art and the unique skills of artists could contribute to complex collaborations and foster positive social transformation in Stavanger. Expanding beyond the municipality's existing art projects, a key objective was to showcase to private businesses the tangible benefits of engaging with art. This included highlighting how artistic thinking can spark innovation, enhance problem-solving, improve communication, and create more engaging and human-centered products, services, and environments.

What have we learned?

- **Artists as bridges:** We learned that artists effectively translate complex ideas and connect diverse individuals and groups.
- **Amplifying marginalized voices:** Artists can serve as neutral representatives, providing a platform for new and often unheard perspectives, broadening participation beyond the usual stakeholders.
- **Integrating aesthetics:** Artists bring expertise in aesthetics and creativity – as a subject of knowledge, a unique way of seeing, and a creative process – and also possess valuable networks and access to relevant resources.
- **Shaping and adapting environments:** Artists have the ability to influence and adapt spaces and environments to better suit the needs of a project or community.
- **Fostering critical thinking:** Artists play a vital role in ensuring projects are critically examined and thoughtfully developed by asking the right questions.
- **Enhancing appeal:** Artists contribute to making projects, places and materials more attractive and engaging.

- **Facilitating flexible organization:** Artists demonstrate competence in self-organization and can help establish adaptable and more organic and agile working structures.
- **Driving efficient solutions:** Artists can contribute to developing solutions that are more profitable or utilize resources more efficiently.

What potential do we see in this tool moving forward?

To effectively integrate the artists' 'patchwork economy' into urban development, municipalities and businesses must adapt their formal processes and frameworks to foster genuine collaboration. This necessitates legal and financial adjustments that ensure the artists' security and well-being. An example is in connection with NEB-STAR, a consultancy assignment for artists at Site 4016 was announced. The collaboration in advance of the announcement was pioneering work for Stavanger municipality and resulted in a new model for job announcements for artists. The position was designed as a freelance assignment, previously similar announcements have been project-based assignments with a standard VAT-liable fee. The engaged candidate receives a salary based on hours, from which tax is deducted. This means that the candidate is freer in the disposition of work, and is exempt from VAT-liable fees. For more information, see [D5.2 NEB-STAR Progress Stories - Nordics 1 report](#)

Furthermore, a model is required to preserve and leverage the knowledge and skills gained from these collaborations. Given that artists contribute their unique practices to each project, a standardized procurement approach is unsuitable. Instead, clients should possess a clear understanding of their specific needs while simultaneously facilitating an open, innovation-driven selection process. Finally, establishing a shared conceptual understanding and mutual respect is essential for ensuring successful and productive partnerships.


3.15 Re-Take

reusable systems • waste reduction • circular economy • disposable cups • reusable tableware
 • innovation project • system innovation • sustainability

TOGETHER: Ambition III To transform	SUSTAINABLE: Ambition II To close the loop	BEAUTIFUL: Ambition I To activate
Participatory: Ambition I To consult	Multi-level: Ambition II To work across levels	Transdisciplinary: Ambition II To be interdisciplinary


What has been done?

In 2021, Stavanger Municipality carried out a pilot in two districts on the lending of reusable tableware. In the autumn of 2023, the pilots were continued as a permanent service with economic support from the climate and environment department and operation support from the municipality's job training center. Order forms, website, packaging for transport and equipment for the kitchen were developed.



Stavanger kommune
13 191 følgere
2md. • Redigert

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Besøgsliste	Servise	Leiepris 24 og 48 timer	Tagne deler (24 og 48 timer, inkludert skitt)
Tallerken dyp 24 cm (8)	Diameter 24 cm Høyde 5 cm	2 kr	55 kr
Tallerken 18 cm (8)	Diameter 18 cm Høyde 2 cm	2 kr	35 kr
Saltebolle 3,5 liter	Diameter 25 cm Høyde 11 cm	10 kr	100 kr
Skål 4 dl	Diameter 13 cm Høyde 6 cm	2 kr	30 kr
Mugge 2 liter	Diameter 22 cm Breddde 11 cm Høyde 14 cm	10 kr	120 kr
Kopp 3 dl	Diameter 9 cm (med hank) Høyde 10 cm	2 kr	20 kr
Drikkebeget 2,4 dl	Diameter 7,4 cm Høyde 9 cm	2 kr	40 kr
Strøglasse 2 dl	Diameter 7 cm Høyde 21,9 cm	2 kr	50 kr
Gaffel	Lengde 18 cm	1 kr	15 kr
Kniv	Lengde 20 cm	1 kr	15 kr
Spiseskje	Lengde 18 cm	1 kr	15 kr
Kaffeskje	Lengde 12,5 cm	1 kr	10 kr





171 likes • 5 kommentarer • 5 innlegg lagt ut på nytt

Left: SoMe, information about the reusable tableware at the job training centre.
 Right: Order form from municipality web page.

At the same time, Stavanger Municipality joined an intermunicipal innovation project led by [Era Strategic Innovation Consultancy](#) with support from [Handelens Miljøfond](#) (Norwegian Retailers' Environment Fund).

About the project:

“New regulations, increased environmental concerns and niche innovations require rapid transformation of take-away practices. It is necessary to establish common guidelines across value chains and municipal boundaries for a sustainable transformation. Re-Take is a municipality-driven innovation project that aims to reduce littering in urban spaces from take-away beverage packaging and contribute to a sustainable transformation that creates value for local communities, businesses and nature. The project focuses on beverage packaging for hot drinks, especially take-away coffee, which is a major source of litter and will be affected by upcoming regulations. Solutions from here can be transferred to other take-away items.”

Source: [ÆRA | Re-Take](#)



About the project : *Re-Take is an inter municipal innovation project to explore new ways to reduce single-use packaging.* Source: [Re take - Page 1](#)

Kirstin Kverneland (NEB-STAR) and Gabriele Brennhagen (climate and environment department) attended 2 seminars in Oslo and several digital meetings sharing knowledge and developing recommendations and guidelines. Æra had a dialogue with the ministry, Virke (national business and employers' organization) and other national and international players. Insights and experiences from previous national and international projects were shared between the cities.

Stavanger municipality conducted a workshop with local businesses in the Pedersgata area that serve hot drinks, especially take-away coffee. The goal of the workshop was to inform about previous national projects and get insight from the attendees about barriers and possibilities within current system and a future reusable system for takeaway packaging.



Workshop at Nytorget as part of the Re-take project, stakeholders from Stavanger Sentrum (STAS), expert employees from the municipality, local businesses and the nonprofit organisation Gladmat food festival.

Stavangers Re-take partners investigated cup waste in the city center's bins and employed a student to research plastic article consumption across Stavanger municipality.



Good Cup - Bad Cup: The experiment collected take-away packaging from waste bins and disseminated the results through local media, including NRK Rogaland, Stavanger municipality's social media, and NEB-STAR channels.

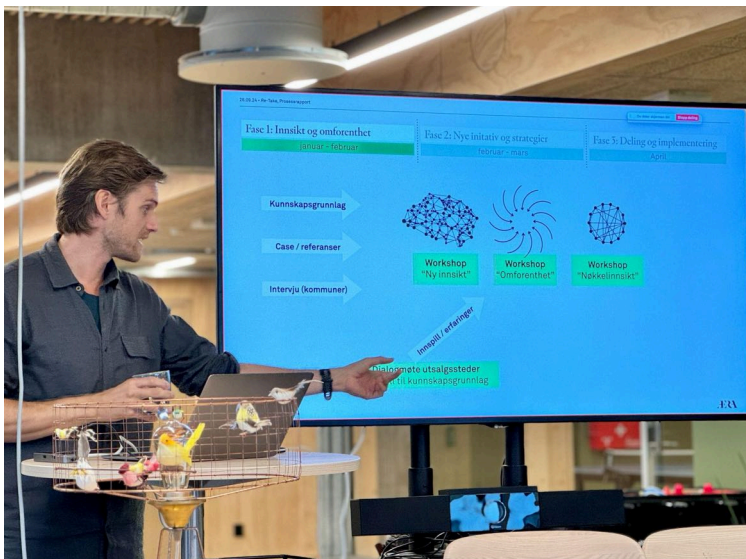
Seminar in Stavanger with local stakeholder sharing knowledge from Re-take.

Aera presented the Re-Take project; an inter-municipal innovation project to reduce littering in urban spaces from take-away beverage packaging.

Invitation to the seminar:

"New regulations, increased environmental concerns and niche innovations require rapid transformation of take-away practices. It is necessary to establish common guidelines across value chains and municipal borders for a sustainable transformation. With support from the Norwegian Trade Environment Fund, 7 municipalities have worked together to meet the challenge of single-use packaging and find new answers.

The project focuses on beverage packaging for hot drinks, especially take-away coffee, which is a major source of littering and will be affected by upcoming regulations. Learning and solutions for this type of packaging also have great transfer value for other packaging, and can make us better able to create more sustainable take-away practices in urban spaces, in addition to more circular systems in general. Simen Knudsen is Director of Sustainability at Æra and has led the Re-Take project.”



Simen Knudsen from Æra presented the results from Re-take to local stakeholders at Innoasis.

Reusable tableware has been used in gatherings and workshops for NEB-STAR.



Reusable tableware used at NEB-STAR events. Left: Opening of Meeting Place at Site 4016. Right: NEB-STAR meeting at Nytorget/Pedersgata.

Why was it done this way?

The reusable tableware needed a permanent owner, as the response in the market was good, but the structure around the pilot was not financially sustainable.

Re-take gave us the opportunity to look at the whole system around the disposable cup and uncover opportunities and barriers to improve this in our own city.

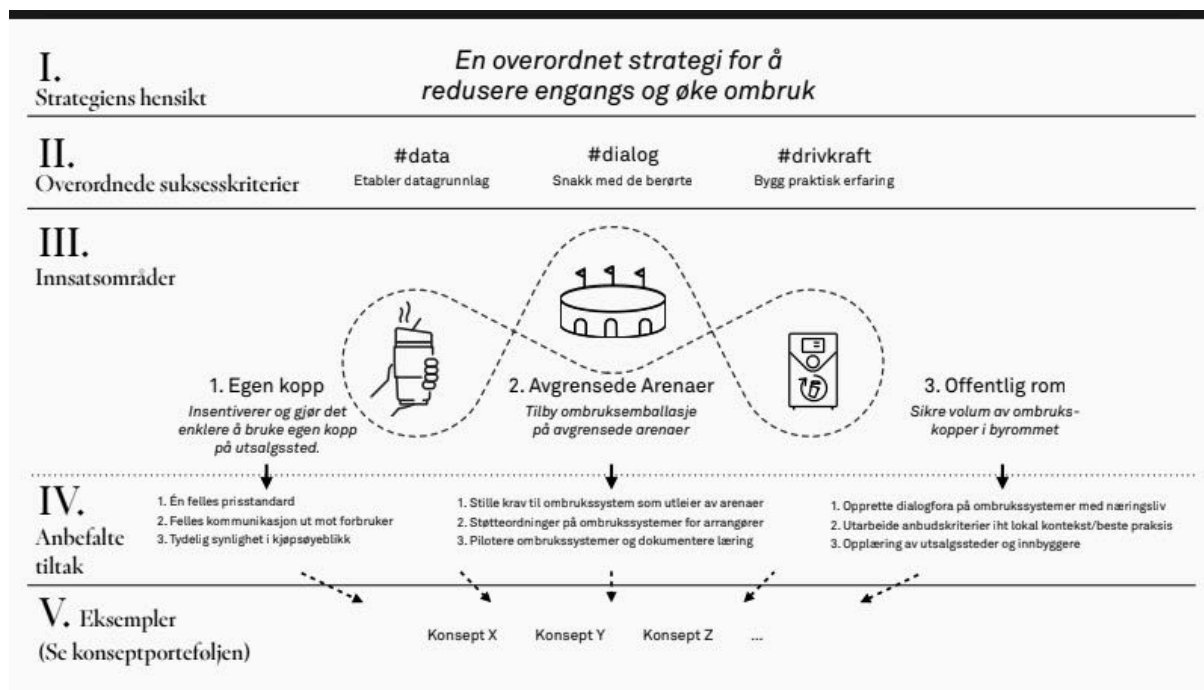
What have we learned?

From the reusable tableware, we have learned how to think through the entire distribution chain. Details are important for delivering a good service, so is clear communication.

Re-take enabled us to shift priorities with new tactics, improve the existing system, and strategically work towards a circular solution. We focused on gaining better knowledge about our own consumption, which is extensive and makes it difficult to extract data on the proportion of waste from food and drink packaging. We also learned more about new EU directives and experiences from other countries. In 2025, the municipality will test the concept on closed arenas and events before considering a system for local businesses.

What potential do we see in this tool moving forward?

The strategic innovation methodology employed by Æra, developed through work on complex challenges, provides valuable lessons for other projects. This approach emphasizes creating a portfolio of concepts that encourage contributions from various stakeholders, enabling collaborative progress towards a shared objective. See the illustration below for more details.



Slide from Re-Take presentation: from top: 1. strategic purpose: reducing single-use packaging and increasing re-use. 2. success criteria: #data # dialogue #driving force. 3. focus area: a.own cup, b.arenas and zones, c.public space in general. 4. recommended efforts, 5.examples.

3.16 Figma

project communication • design • documentation • visual communication • dissemination

TOGETHER: Ambition I To include	SUSTAINABLE: Ambition I To repurpose	BEAUTIFUL: Ambition I To activate
Participatory: Ambition I To consult	Multi-level: Ambition II To work across levels	Transdisciplinary: Ambition II To be interdisciplinary

What has been done?

Figma¹⁸ has been adopted as a tool for the presentation and dissemination of demonstrator information. It is a professional commercial design tool which is mainly used for designing interactive prototypes, but also for presentations, reports, and other digital assets. The content of this Demonstrator report in addition to other relevant information, together with photos, videos and relevant documents is added and structured into one navigable site which will be made accessible online to everyone inside or outside the project.

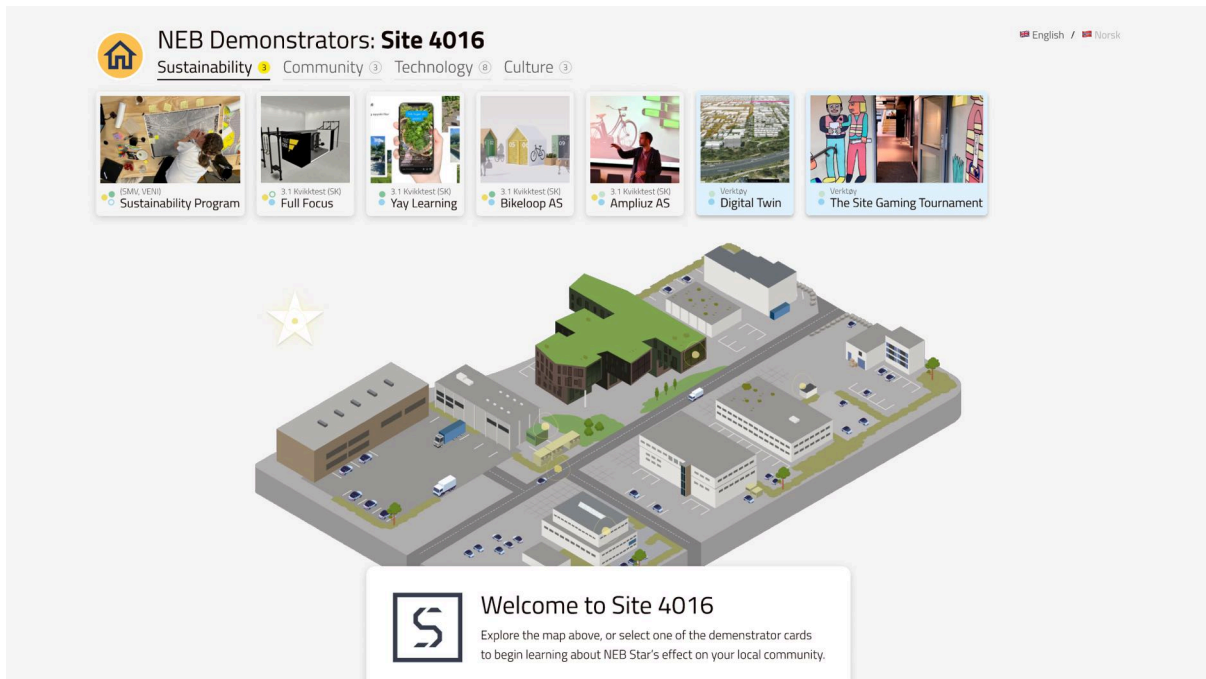
Why was it done this way?

The project started using Figma for several key reasons. Firstly, VENI was already using the tool internally as part of their company services, and they also had the knowledge and designer resources to create and refine information and materials. Secondly, the tool's capabilities enable the creation of a visually appealing and interactive site in a rather easy way. Traditional static documents are often perceived as hard to grasp. Figma allows for a more dynamic and user-friendly approach. Thirdly, Figma's accessibility on the web ensures that the information can be easily accessed and viewed by a wide range of stakeholders.

What have we learned?

Through the project's use of Figma we have learned to build a digital platform with a small amount of effort compared to developing a traditional website. But the quality and results are dependent on skilled designers that have experience with the tool as well as with general information structure and user navigation. Fortunately, VENI had the opportunity to offer this type of internal resources. So far, we have learned that the tool enhances communication efficiency and significantly improves information dissemination by using well designed visuals and information structure.

¹⁸ <https://www.figma.com/design/>



An early version of the NEB-STAR Figma site showing how the user can navigate in both a geo-structure as well as menus, and access relevant information from the Site 4016 Demonstrator. The plan is to also add information from the Pedersgata Demonstrator to this Figma site.

4. Concluding remarks

The second test period of the NEB-STAR Demonstrators project in Pedersgata 2 has further confirmed the importance of collaborative, community-engaged approaches to urban development. The initiatives undertaken have demonstrated the value of:

- **Community involvement:** Prioritizing the inclusion of residents and stakeholders in the planning and development processes fosters a stronger sense of ownership, belonging, and ultimately more sustainable outcomes.
- **Interdisciplinary collaboration:** Bringing together diverse actors, including municipal departments, private sector entities, researchers, artistic and aesthetic disciplines and community organizations, provides a holistic understanding of challenges and opportunities, leading to more innovative and effective solutions.
- **Contextualized solutions:** Tailoring development strategies to the specific needs and characteristics of the local context, as seen in the Jammerdalen and Folkegata projects, is crucial for creating relevant and impactful change.
- **Vision-driven development:** Establishing clear, shared visions at the neighborhood level provides direction and ensures that development contributes to a positive and sustainable local environment.
- **Iterative and adaptive processes:** Embracing flexible methodologies, such as agile pilots and the Utopian Future Workshop, allows for continuous learning, adaptation, and refinement of strategies based on community feedback and evolving needs.
- **Pre-planning assessment:** A new form of site assessment is required to expand and broaden our understanding of a location prior to the planning process. This will provide deeper insights into the site.

The project's emphasis on practical tools, such as the "Vis det!" impact measurement tool, the Barcode tool and the Urban Belonging app, highlights the importance of quantifying impact and utilizing technology to enhance participation and understanding of urban spaces.

The lessons learned and recommendations outlined in this report provide valuable insights for future urban development projects, not only in Stavanger but also in other European cities. These include:

- Building trust in relationships between stakeholders
- Securing adequate and consistent funding for community-focused initiatives.
- Promoting stronger collaboration between various urban actors and funding sources.
- Integrating community engagement and arts-based initiatives into long-term urban development strategies.
- Simplifying regulatory processes to facilitate citizen-led projects.
- Employing art and visualisation as both a tool and driving force to foster inclusive processes and concretize shared goals.

By embracing these principles and continuing to prioritize collaboration, innovation, and community empowerment, cities can continue to create vibrant, inclusive, and sustainable urban environments that serve the needs of everyone.

Website: www.nebstar.eu

Instagram: [@nebstavanger](https://www.instagram.com/nebstavanger)

LinkedIn: [@NEB-STAR](https://www.linkedin.com/company/NEB-STAR)

