

Date

29th June 2023

THE URBAN POWERHOUSE

Riihimäki, Finland

Towards an NEB roadmap



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Introduction

Introduction

New European Bauhaus initiative

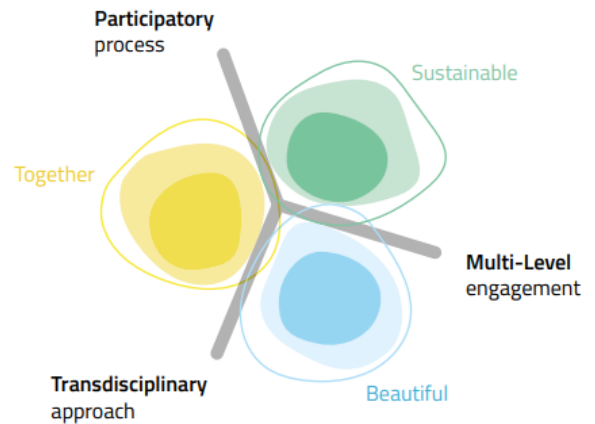
The New European Bauhaus is a creative and interdisciplinary initiative that connects the European Green Deal to our living spaces and experiences.

Originally launched by European Commission in October 2020, the ambition is to reimagine sustainable living and transform our daily environments and cities in order to enhance quality of life. The initiative calls on all of us to build together a sustainable and inclusive future that is beautiful for our eyes, minds, and souls through a multidisciplinary approach mobilising creative minds across disciplines.

The goal is to create places, practices, and experiences that are:

- Beautiful, enriching, inspired by art and culture, responding to needs beyond functionality.
- Sustainable, in harmony with nature, the environment, and our planet.
- Inclusive, encouraging a dialogue across cultures, disciplines, genders and ages.

Last year 20 different project all around Europe each received up to 75 days of Technical Assistance to develop the project further during the period of 9 months. The technical assistance assisted the project owners to shape the projects along the lines of the NEB, integrating the principles of multi-level, participatory as well as transdisciplinary approaches and building capacities at the local level on the development of NEB type projects.



The City of Riihimäki and YIT received the funding to develop an old powerplant building in Riihimäki on Autumn 2022. The funding included technical assistance provided by built environment consultancy Ramboll (Finland) and stakeholder engagement company Volcano (Denmark).

The technical assistance included stakeholder engagement process where the design for life started for the building. Along the way a concept with functional plans was created for Voimala.

This report aims at documenting the key results of the work conducted during the implementation of the Technical Assistance Program. It presents the project vision and the way it exemplifies NEB values. This report complements the other deliverables that have been produced according to the technical assistance program.

Introduction

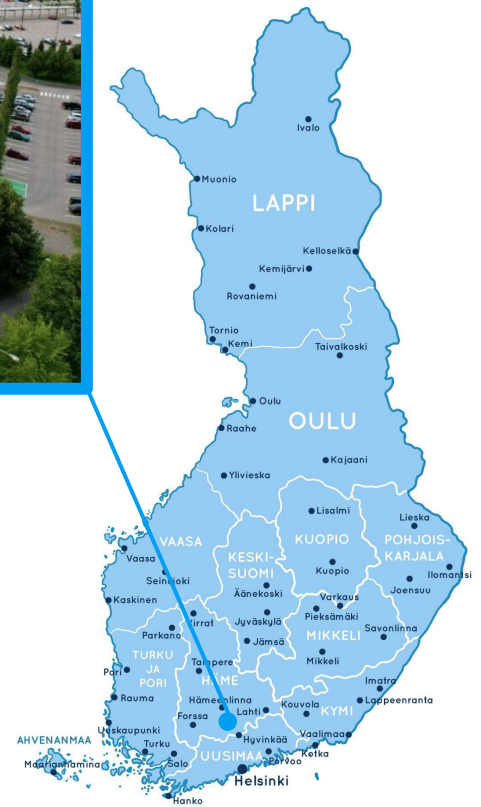


Image: City of Riihimäki

The context

Riihimäki is a city and municipality in the Southern Finland, app. 75 km from Helsinki. It is a train traffic node with huge potential to draw people from the main large cities since railway tracks from Riihimäki lead to Helsinki, Tampere and Lahti. The city has around 28 600 inhabitants. The spirit of Riihimäki is based on an interesting history, based on the railway, the garrison and the glass industry and its especially known for its glass and glass blowing, hosting also the Finnish Museum of Glass.

Right next to the train station of Riihimäki an old powerplant is located. This is the site of the project for New European Bauhaus. The powerplant is a 5,000 m² sized, protected red-brick building. Originally built in 191 and expanded in several stages in 1934, 1949 and 1953, the powerplant operations ended in 2007, after which the property has been largely vacant. The powerplant is part of Riihimäki's industrial cultural heritage.

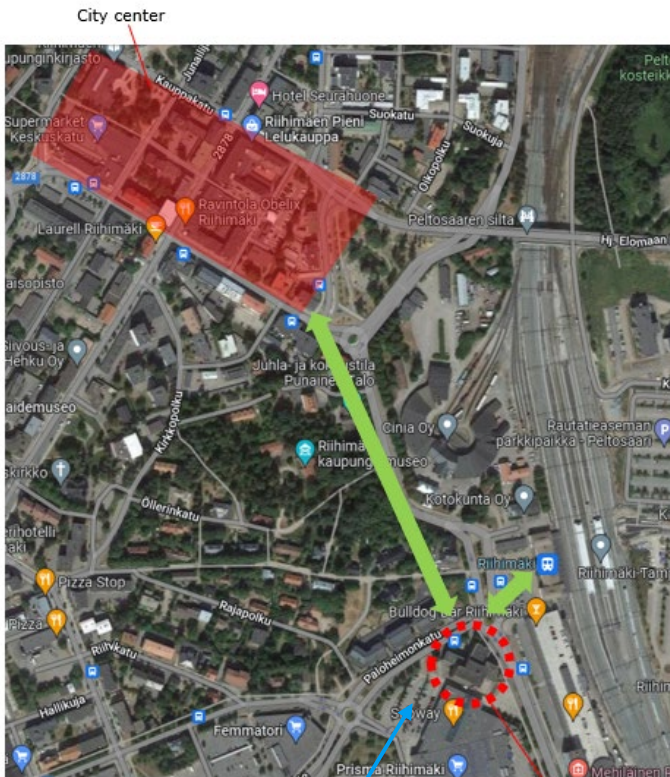


Project governance

The building is owned currently by urban development company YIT, with a goal to sell the property. City of Riihimäki functions as an active developer of the area.

In later stages a consortium of different stakeholders for the Urban Powerhouse is being formed.

The location and images of the powerplant

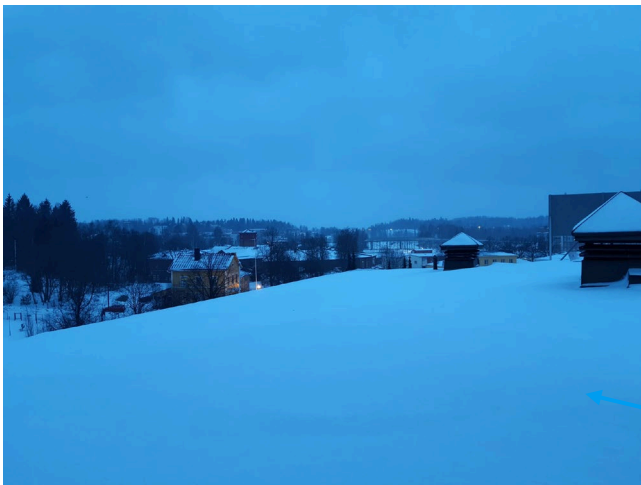


The Urban Powerhouse



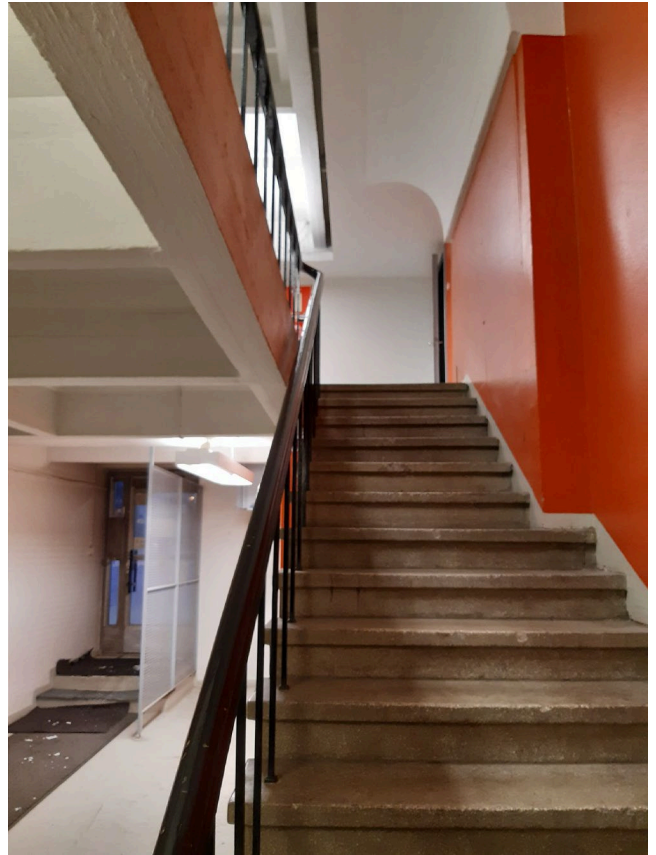
"The powerplant can be a destination not only for the citizens of Riihimäki but for the people coming from other places in Finland and globally. Riihimäki is a mobility hub and the location right next to train station is important aspect".

"We want the powerplant to be on the cover of New York Times".

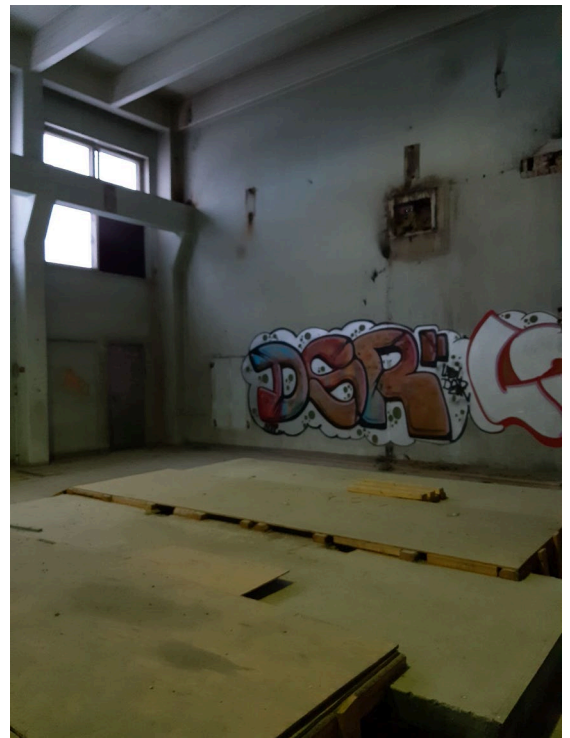


"The roofs could be like city gardens with bees and green fields".

Images of the powerplant



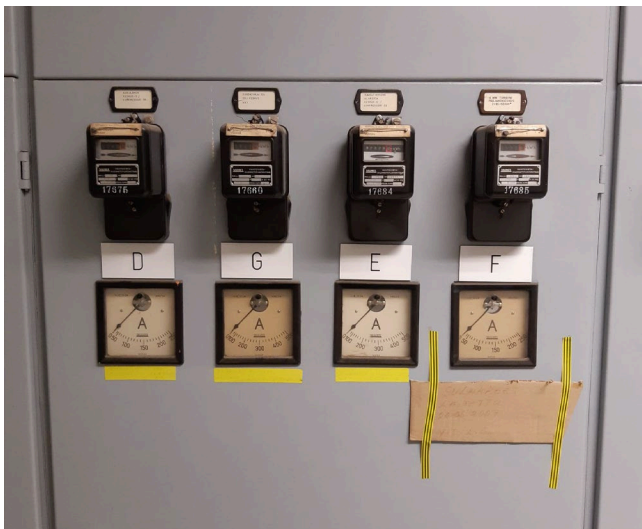
Newer part of the building has already spaces that can be used as offices or e.g. rooms for artists. However, the state of the building needs to be checked thoroughly to ensure safety. In the older part, some of the floor structures could be removed.



Images of the powerplant



The museum authorities want to preserve the feeling of the powerplant with some specific details such as the powerplant gauges, staircases and other distinctive structures.



Introduction

The needs and objectives

The process to understand the needs and what the technical assistance should include for the powerplant project started with a needs assessment (Appendix 1- Needs Assessment) with the project owners from City of Riihimäki and YIT in October 2022.

The city's goal is to increase the number of residents with various activities that support vitality, sustainability, carbon neutrality and circular economy. They want to find a solution for the reuse of the powerplant that supports sustainable growth of the city and revitalization of the building and area.

The biggest need identified was to find a solution for the reuse of the building as the different development ideas during the past 15 years have not been established. The building urgently needs renovation in order to stop its deterioration. There is a clear consensus in the city that the building should be put to a new use and follow the principles of New European Bauhaus. However, there are no documented analysis on the subject or resources to do it.

The main goal at was the crystallization of the final concept for The Urban Powerhouse (purpose of use, users, businesses and other actors, ownership and governance, costs, renovation and planning) and creating a roadmap for that. In order to do this, assistance was needed in:

- technical assistance to the determine the feasibility and renovation needs, risks, costs, possibilities
- stakeholder engagement
- visualizations and concept descriptions
- roadmapping of the necessary steps for the final concept.

To find the best concept idea for the project, three alternative scenarios were identified to be investigated with technical evaluations, requirements, risks and costs:

1. Possible light renovation (e.g. cultural space)
2. Extensive renovation without new construction (e.g. college, movie theatre, business space, restaurants)
3. Extensive renovation and new construction (e.g. museum, photofactory, restaurants, business space, apartments for student housing or elderly)

Based on the analysis of these three scenarios, final concept would be chosen. This phase would then result in final concept description with visualization and deeper technical analysis as a material package to present to possible stakeholders and actors interested to be part of the project consortium or business ecosystem. This material would also help to ensure public and private funding that is needed.

Possibilities for functions in the scenarios had already been investigated through different stakeholder engagement processes, benchmarking and discussions with possible investors. Possibilities were:

- Cultural destination with "black box"-type event hall and other stages to different needs of culture. Three cultural school (civic school, civic school for music and civic school for arts) and private dance schools have stated their interest to move their functions to powerhouse.
- Robotics-based ecosystem (schooling by HAMK, student housing, businesses)
- Proto Innovation Factory (from Estonia) has expressed their interest in the space.

Introduction

Technical Assistance Program

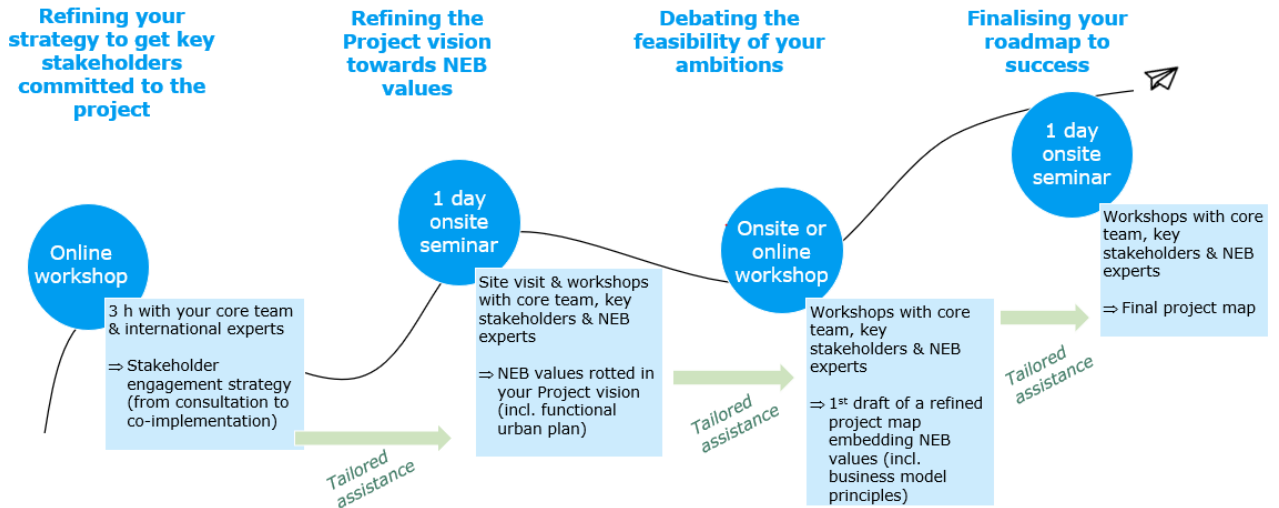


Image: A common journey for all the NEB projects included workshops for stakeholder engagement, vision creation and a roadmap.

The technical assistance provided by the NEB funding includes common journey for the 20 projects, enriched with tailored assistance to specific needs of the project.

Based on the needs assessment and goals created in the beginning of the process, a common challenge was outlined to guide the technical assistance:

How do we create an exciting, beautiful and sustainable Urban Powerhouse for the people?

- *To enhance experiences and knowledge*
- *To vitalize local area and businesses*
- *To envision a place for people to come together*
- *To build a place for long-term livability*

On the next page, the tailored technical assistance modules are presented.

Each project benefits from up to 75 days of Technical Assistance

- Project coordination (20 days)
- Common assistance modules to the 20 NEB projects (10 days)
- Tailored technical assistance modules for each project (45 days)

Common outputs:

- An **NEB project Roadmap** developed with / and delivered to each project owner
- **A common toolbox was built along the process**

Technical Assistance Program

DESIGNING LIFE FOR THE BUILDING, 15 days

The module consists of **stakeholder engagement process** that produces input for the concept creation and the roadmap.

- **Bringing life:** a 1,5 hour online workshop with the core team to recognize the possible ways to start bringing life into the building.
- **Know your ecosystem:** a background analysis on the provided vitality, market and other materials, a Livcy by Ramboll liveability baseline analysis, a 1,5 hour online brainstorming meeting to localise and map relevant stakeholders/citizen groups for the longer term strategy
- **Vision, Mission and Goal:** a 1 day stakeholder engagement workshop on site including the assessment of passions and pains and creating a vision, mission and goals for the concept. The format of the workshop is a Future Workshop where we will develop a common idea, a story and concept through visioning.
- **Functions, organisational setup and roles:** a 1 day workshop on site for the core team based on the findings from the previous workshops and to develop the different activities in the building and who does what. This will include recommendations for the financial model.

GOAL:

- *Understanding the stakeholders and the area in different levels: who are the stakeholders? What is the need and demand?*
- *Creating a clear vision and goals for the concept*
- *Developing and working on a strategy for bringing life in the building (short and long term)*

Output: Roadmap (with suggestions of possible ways on how to start bringing life to the building), input for concept creation (vision, functions, stakeholders), a PITCH to possible investors.

CREATING THE CONCEPT, 30 days

- 1) **Light and preliminary studies for three scenarios** on concept level and focus on renovation needs (but including for e.g., actors, functions, costs in rough level etc.):
 - A. Possible light renovation (e.g., cultural space)
 - B. Extensive renovation without new construction (e.g., college, movie theatre, business space, restaurants)
 - C. Extensive renovation and new construction (e.g., museum, protofactory, restaurants, business space, apartments for student housing or elderly)

Based on stakeholder engagement process findings (what is the ecosystem) and three scenario studies (what is the building viable for), **the final concept is chosen by the end of April 2023.**

2) Final concept creation with

- Concept description with vision, mission, goals and functions/activities
- Analysis on the building's renovation needs and costs, risks, and possibilities
- Livcy by Ramboll livability analysis of the concept and evaluation based on the baseline analysis
- Visualizations and spatial plans of the final concept
- Suggested actors/stakeholders presented (business ecosystem)

GOAL: *To understand what would be the best concept option for the Urban Powerhouse in terms of the space/building, demand and need, and speciality.*

Output:

- Material package of the concept for further stakeholder engagement and funding needs
- Roadmap of the necessary steps towards concept (deadline June 2023)

Introduction

TA program (common pathway & tailored assistance)



Image: The technical assistance was formulated for 9 months starting in October 2022 with needs assessment and defining the tailored program.

The project team

The technical assistance team included experts from built environment consultancy Ramboll (Finland) and stakeholder engagement company Volcano (Denmark) as follows:

- **Project coordinator:** Katri Einola, Ramboll
- **Participation and engagement:** Sara Nardi, Volcano
- **Architecture (lead):** Sasu Alasentie, Ramboll
- **Architecture:** Else Luotinen, Ramboll
- **Construction engineering (lead):** Jukka Lahdensivu, Ramboll
- **Construction engineering:** Tapani Pennanen, Ramboll
- **Livability, vitality and quality manager:** Eero Salminen, Ramboll
- **Livability and background analysis:** Tero Iikkanen, Ramboll
- **Costs evaluation:** Tiina Mäkynen, Ramboll

The portfolio coordinator for the project was Lorraine Mazur, Ramboll. The New European Bauhaus is initiated by DG REGIO (The Directorate-General for Regional and Urban Policy of the European Commission).

The project owners were:

- Kristian Keinänen, City of Riihimäki
- Jarkko Ilkka, YIT.

Other participants from City of Riihimäki and YIT were identified and included during the process where needed. The mayor of Riihimäki was heavily involved which gave a strong impact and visionary atmosphere for the whole team during the process.

City of Riihimäki also had other concurrent consultancies working on the same project from different points of view. They were also included during the process.

- Marketing, business model: Pink Eminence
- Venues and events: No Fear Agency



The process

The software- Designing life for the building:
People, activities, processes

(Sara)

The hardware – Creating the concept:
Architecture, feasibility studies, scenarios for renovation

(Sasu)

The process was divided into the "software", focusing on stakeholder engagement and participation, and "hardware" that focused on technicalities, functional plans and renovation possibilities. These two complement each other.

The process

The project timetable

- **Start of the NEB project – team making, needs assessment, TA program planning**, October 2022
- **Introduction to stakeholder engagement -workshop**, November 2022, online
- **Background research and Livcy livability baseline analysis**, December 2022 – January 2023
- **Immersion site visit**, January 2023
- **Know your ecosystem -workshop**, January 2023, online
- **What is your story to tell? –workshop**, January 2023, online
- **Online survey to citizens**, January-February 2023
- **Vision workshop**, March 2023, on site
 - amount of participants: 65 people consisting of different stakeholders from local organisations, councils, businesses, citizens, schools, museums, possible investors and project team
 - Goal: Collecting ideas for the workshop, bringing people together to tell about the powerhouse plans, creating a common vision.
- **Roadmap 1 workshop**, May 2023
- **Concept finalization** (concept being created during the whole process), May 2023
- **Roadmap 2 workshop** in Voimala soi –event at the powerhouse, June 2023
 - Amount of participants: 15 participants from City of Riihimäki, YIT, councils, citizens

The process

Background studies

Starting the process, Riihimäki and YIT provided a lot of background material which supported the concept creation and especially the livability analysis made in the beginning of the process. The summary of the materials is gathered in Appendix 2 – Master_tauustatedot.

Benchmarking

Riihimäki had already done a lot of benchmarking work, e.g., visiting location such as:

- Proto Innovation Factory (Estonia, Tallinn)
- Kultuurikatel (Estonia, Tallinn)
- Steam hotel (Västerås, Sweden)
- Battersea Powerstation (London, UK).

Ideas from these locations were kept in mind during the process. Also, few other benchmarks that have a strong storytelling approach were introduced as inspirations in the workshops (images below and Appendix 3 – Case library).

Livability analysis

The significance, versatility and walkability of various services in the Riihimäki region have been assessed by utilising the Livcy livability analysis developed by Ramboll. The analysis is based on spatial data set (GIS), which contains information on the location of commercial and public services, public transport stops, sports and exercise services, green areas and cultural services from numerous open databases.

The data have been weighted by their significance in terms of the average need for everyday mobility and according to the population located in the area. The total Livcy index thus formed describes the diversity and accessibility of services in the area on foot.

Livcy helps to identify the strengths and attraction factors of the area and to identify areas for development. Information on the accessibility of services makes it easier for cities and municipalities to understand the needs of their different regions in a diverse manner. Livcy's results provide decision-makers, planners and investment companies with an easy-to-adopt index of the liveliness of an urban area to support their work.



PROTO Invention
Factory (EE)



Futurium (DE)



Volumes (FR)



Demokratigarage (DK)

The process

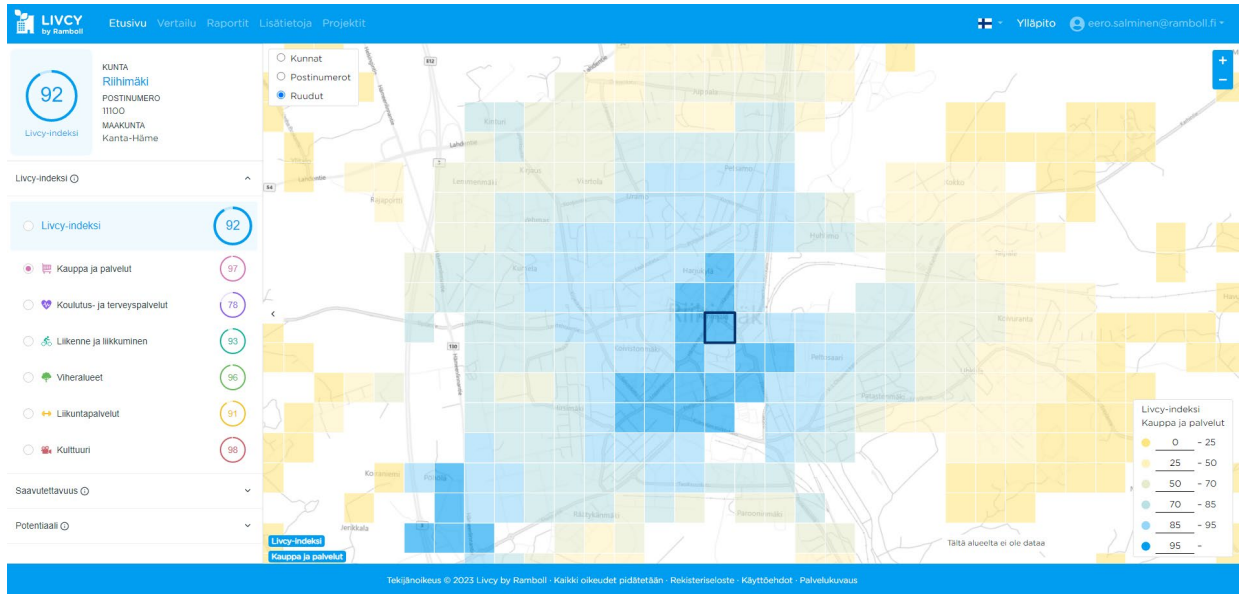


Image: Livcy by Ramboll livability analysis shows in different service categories the livability of a neighborhood, postal area or municipality. The livability indexes of Voimala area are shown here.

Livcy follows the concept of 15 minute neighborhoods where all the daily needs and services can be reached within 15 minute walk. Riihimäki has stated to wanting to be a 15 minute city via biking, making the Livcy tool curious to investigate in this context.

In the Livcy analysis it was evident that most of the services are provided mainly on the Riihimäki city center and the connections to it from the Southern Finland was good. However, the Voimala area lacked common green areas as well as cultural and sports/exercise facilities. Also, Riihimäki has already a good amount of cultural services that Voimala can support as a hub in the city center and next to the train station for people to come from other parts of Finland and world.

The results from the Livcy analysis are on Appendix 4 – Livcy_Riihimäki_tulokset2023.

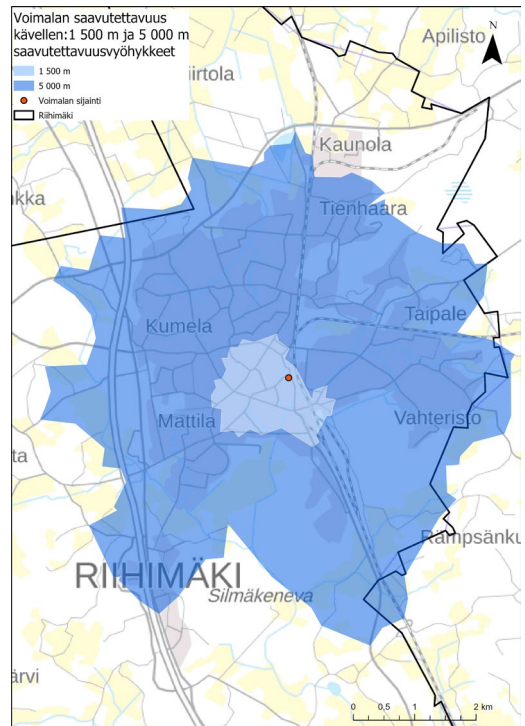


Image: The accessibility by walking with 1500 metre zone and 5000 metre zone.

The process

Immersion site visit

The first site visit took place in 9th of January 2023. The main goal was to get familiar with the site and powerplant building and introduce it to the architect and the building engineer of the TA team. In addition, the goal was to gather the core team to discuss the objectives of the project to ensure the three NEB values (aesthetics, sustainability, inclusion) are rooted into the project.

This first site visit was part of the common modules of the Technical Assistance. With Riihimäki's Kristian Keinänen and Anna Vesén (former cultural manager) and YIT's Jarkko Ilkka, three members of the TA team were taking part of the visit:

- Katri Einola (Ramboll), project coordinator
- Sasu Alasentie (Ramboll), expert in architecture and urban development
- Jukka Lahdensivu (Ramboll), expert in sustainable building engineering.

The day started with a visit to the powerplant right next to the railway station. We toured the whole building and took photos and discussed possibilities. After that, we had a discussion and workshop about what is visioned for the powerplant based on NEB values. We went through the goals the team had for each value in their application and discussed the current ambition levels and status for each value. Based on the discussion the NEB values for the project were refined and cleared, also giving a better view of the values and ideas for the architect.

Evaluation of NEB values can be seen starting from page 40.

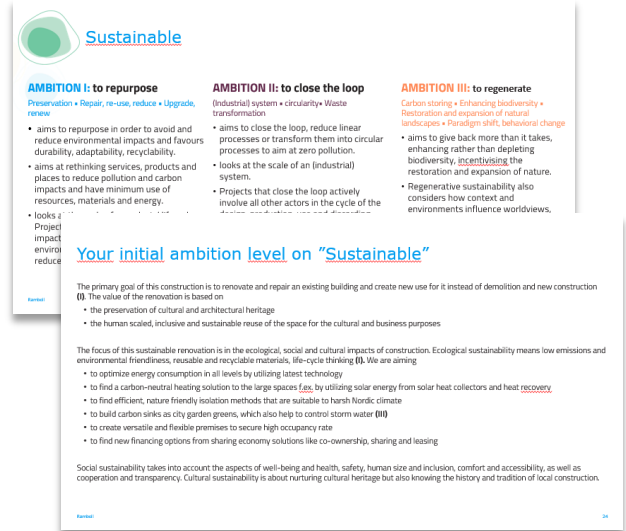


Image. During the discussions we went through the ambition levels of NEB values and what is done even more compared to their initial application.



The software: Designing life for the building

The software: Designing life for the building

Stakeholder engagement

The goal of the project was to engage with people in participatory manner to define a common vision for Voimala but to also create life for the building in short and long-term.

Bringing people together in defining the concept behind the powerhouse was crucial as the concept should work for everyone. In the concept for Voimala, we wanted to offer cultural facilities and functions for people of all backgrounds.

Before starting the engagement process fully, an Introduction to Stakeholder engagement – workshop was organized by Volcano in November 2022 which also introduced the project’s participation expert Sara Nardi to the process. In the workshop the levels of participation were discussed (see image below) and immediate possible actions listed (see Appendix 5 – Citizen and stakeholder engagement workshop report for results from the workshop).

Based on the project maturity and needs discussed in the workshop, a plan for the first TA program module *Designing life for the building* was created. The purpose of the stakeholder engagement process was

- To bring life in the building as soon as possible
- To develop and work on a strategy for bringing life in the building in the longer-term.

The idea was to show the great human, social and cultural capital of the site, in order to stimulate the appetite of people and stakeholders out there. It is the life in and around the building that will make the Urban PowerHouse and the city attractive. It is the life in the building that will attract people who are willing to invest in the renovation of the building. It is also by renting out the place as it is now that we will be able to start generating cash flow.

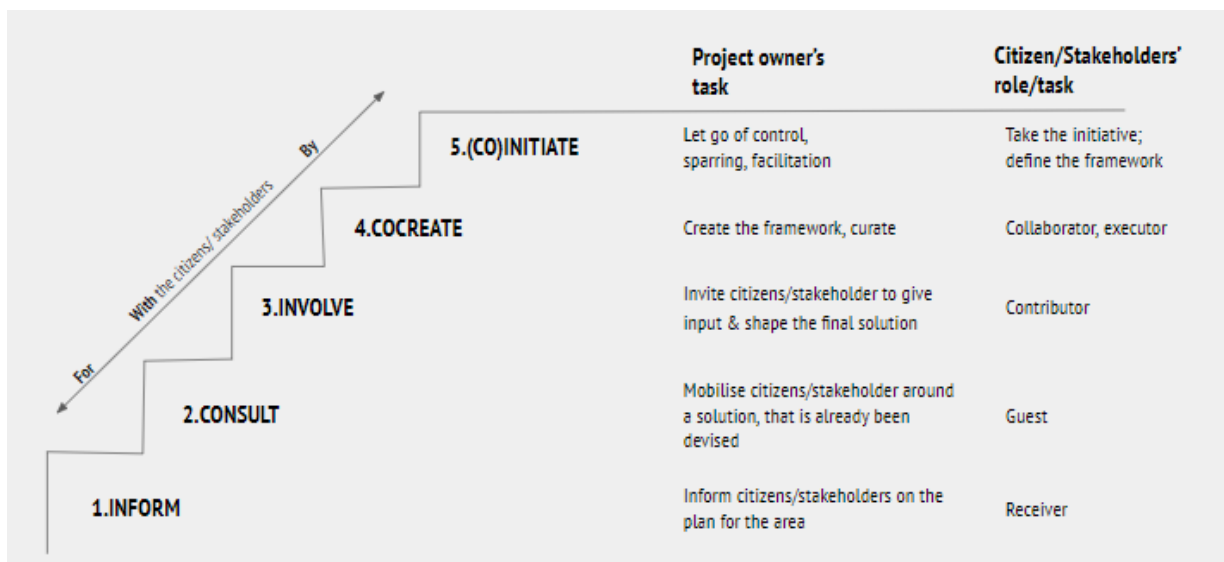


Image. The Participation Ladder. A framework for Citizen and Stakeholder engagement development.

The software: Designing life for the building

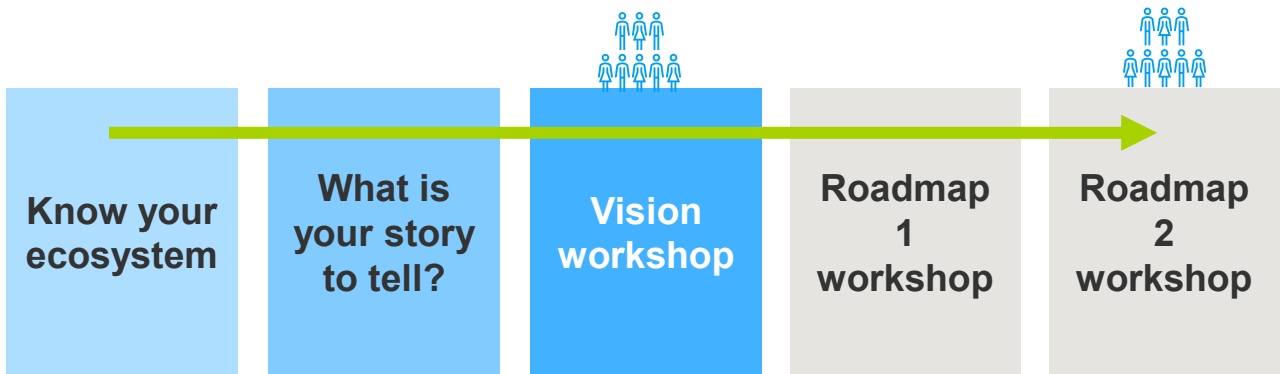


Image. The stakeholder engagement process included several online and live workshops. The roadmap workshops were part of common NEB process.

Workshops

Via several online and live workshops, a vision was created to the powerplant's developmental process. The first workshops were conducted with the project core team to get a view of what had already been done and what were the key findings, core actors to be involved and the story to tell.

The vision workshop and the roadmap 2 workshop were organised as larger stakeholder engagement workshops live on the site. The roadmap workshops were part of the common modules that each NEB project went through (roadmap results are discussed starting on page 50.)

The vision workshop

The vision workshop was a 3-hour event at Riihimäki powerplant and a neighbouring shopping center with a workshop space organised in the 7th of March 2023. The event started with a tour at the powerplant with over 60 people attending. There were attendees from different stakeholder groups from the municipality, business, cultural people, organisations, councils, residents, architects, experts and the youth council.

The participants in the tour and the workshop were excited to be part of the process. Many explained how seeing the actual space in the powerplant made them think of new ideas on top of their previous ones. They agreed that the historical and special elements of the powerplant (e.g. chimney, bricks, gauges) should be somehow saved and be seen.

In the workshop, people emphasized the need for a space for all the ages and groups, a space open 24/7 with communal spaces, workshops, and experiences. The powerplant should be a destination for people coming for all over Finland but also abroad for a staycation, unique experience or culture. Many ideated how to use the chimney and large spaces e.g. for climbing, arcade halls, virtual reality spaces, event spaces and so on.

The mayor of Riihimäki interviewed also three members of the local youth council, giving an inspirational break at the workshop. The youngsters had always lived in Riihimäki and saw a great potential with the powerplant, saying it has been a crucial monumental element in their life and they are waiting for it to be open for everyone. They also wanted to create Riihimäki a better place, stating that they want to stay there themselves as well.

The software: Designing life for the building



The city of Riihimäki saw the workshop especially important way to bring people to design together the future functions of the powerplant and to showcase that something concrete is happening. They were all invited to join a 3-day open event in June at the powerplant where the final concept was showcased.

Key take homes from the Vision Workshop

- The characteristic elements of the powerplant (e.g. chimney, bricks, gauges) should be preserved and be a visible element of the identity after the renovation. The chimney and large spaces could for example be used for climbing walls, arcade halls, virtual reality spaces, event spaces and so on.
- Voimala should be a space with life all day round with communal spaces, workshops and interactive experiences
- Voimala should be a destination for staycation for locals and for people coming for all over Finland as well as an attraction for citizens abroad searching for unique intellectual, experiential and social experiences
- With its activity offerings, Voimala will create a vibrant local economy, cultural life and learning environment, that makes it attractive for current residents – especially young people - to live in the city of Riihimäki
- The engagement process leading to the development of the concept has been a meaningful experience. Similar engagement processes should take place ongoingly allowing for people to take active part in the transformation and ownership for the realisation of the vision.

The results from the workshop are on Appendix 6 – vision workshop results.

The software: Designing life for the building

The vision

The whole concept is the fruit of a very ambitious 9 months long engagement process where the needs and dreams of different stakeholders were gathered to a common vision for the powerplant.

The basis of the vision was already laid when the TA team entered the process, emphasizing that Voimala will be an urban powerplant for the people. This idea was then investigated based on the background analysis and stakeholder engagement process. The final outcome for the vision then supports the initial thoughts but also has a backbone on people's needs and desires.

Riihimäki's oldest power plant is transforming into a Factory of the Future, a living experimentarium for future ways of living in society. Together, we will give old ideas a new life and develop innovative solutions to society's complex challenges.

Voimala will be a place for the local community as well as visitors to get energised and empowered with new ideas, hands-on-learning, and tools to experiment with future concepts, ideas and social innovation.

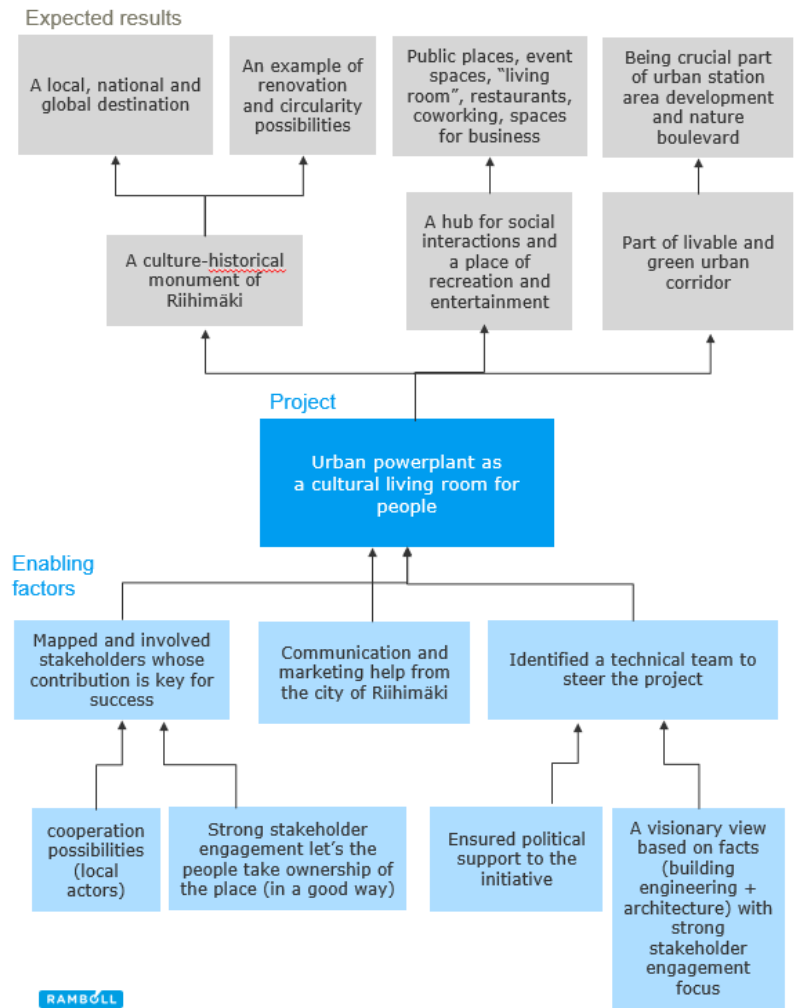


Image. Project vision in the beginning of the process.

The software: Designing life for the building

Through the process and visionary workshop we have developed a vision and themes for the Urban Powerhouse.

VISION

From providing power to the city ...to energizing, synergizing and empowering people

Experiential learning, trying things out, "tekemisen meininki".

Using Voimala and the city as an experimentarium for future concepts as well as hang out place for the community.

THEMES AND ACTIVITIES

Riihimäki's Living room

What do you do in
your livingroom?

- Relax
- Enjoy
- Study
- Gather around what?
 - *Activities*
 - *Common interests*
 - *Hanging out*
 - *Traditions and rituals*
 - *Invite friends*

Future Experimentarium

How does the future
look like?

*Social, cultural, technological,
political*

Living
Work
Home
Food
Food
City
Transport
Society
Democracy
Ethical dilemmas
Technology and materials
Arts and Culture
Education

The software: Designing life for the building

Think about the future, 20 years from now.
How would you like it to look?
How is it different from today?

Voimala will be a place for the local community as well as visitors to get energised and empowered with new ideas, hands-on-learning, and tools to experiment with future concepts, ideas and social innovation.

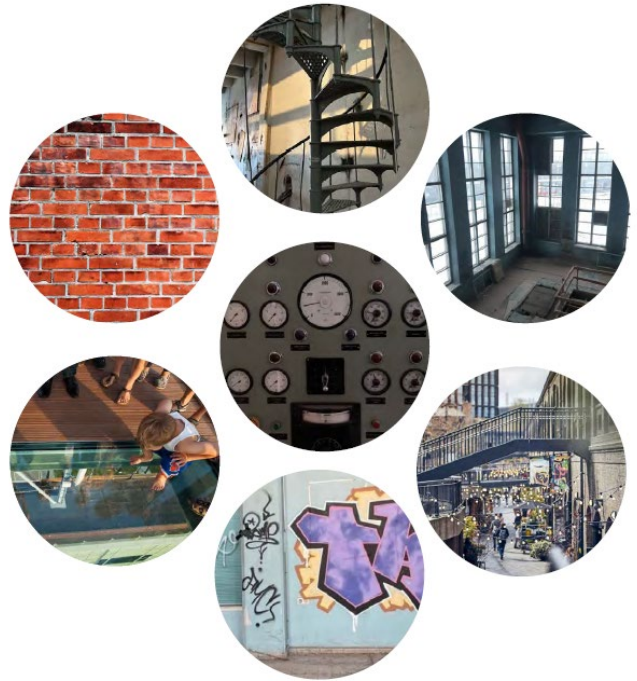
It will house various functions under one roof and it will be a hybrid mix of public services and private entertainment and leisure services. Between these activities, new ways of utilizing synergies and interaction can be identified.

The heart of Voimala will be its Community Livingroom designed to accommodate different social activities: vintage markets, communal dining, quiz nights and informal hang out..

From the Community Livingroom you are also invited to go and discover the rest of the building, where you can experience how different actors work with different concepts experimenting with future ideas.

Learn how to program your own robot; see a VR-powered art exhibition; make a new piece of clothing out of alternative textile; listen to a talk on the future of democracy.

The residents of Voimala will be actors within the field of innovation, entrepreneurship, robotics, design, arts and craft, urbanism, health and wellbeing.





The hardware – Creating the Concept

The hardware: Creating the Concept

Structural engineering studies

As the basis for creating the concept for the powerplant, many technical studies done in the past were investigated by the team's construction engineers. This project did not include any new additional structural studies to the building.

Based on the analysis, the team recommends that **full investigation of the condition of the structures should be performed**. Details notes from the analysis can be found on Appendix 8 – Havaintoja teknisistä selvityksistä -KOONTI.

The building is also subject to protection regulations such as:

- Sr-1: Historically valuable building with cityscape significance. The building must not be demolished. The materials and openings of the facades must not be substantially altered. The shape of the roof must not be changed.
- Sr-2: The chimney must not be dismantled.

However, the **chimney's condition should be examined** with an attempt to preserve it. Usually discarded brick chimneys decay from the top beyond repair, so there are few repair/protection options.

The condition of the woodpiles supporting the powerplant must be mapped as their service life is coming to an end.

There is also **contaminated soil** under the concrete floor of the building in the crawl space. This requires at least bottom floor ventilation but should be investigated further.

Based on material samples taken from walls and floors, petroleum hydrocarbons were detected. Some compounds may be carcinogenic and may also vaporize into indoor air.

During the process an **encapsulation of the contaminants** especially in the brick walls was discussed. At the Kulttuurikattel site in Tallinn, the brick surface was encapsulated with a thin coating so that harmful substances remained inside and beautiful brick surface remained. However, health authorities in Finland are rather lukewarm about encapsulating harmful contaminants as the results may vary. Hence, encapsulation should be investigated further.

There is also **a need for structural reinforcements** based on the final concept as the large event halls will mean that supporting pillars will need to be taken off. The structures of the upper floors might need additional support.

The different options for **thermal insulation** need to be investigated as now the old part of the building only has brick walls. The concept and cost estimate now uses the assumption to insulate the inner walls. One suggestion was to cover the building with glass walls outside but it will be a costly solution with little examples in Finland.

The hardware: Creating the Concept

<p>Center for culture and entertainment</p> <ul style="list-style-type: none">• Culture halls/theater• Movie theater• Diverse cultural/entertainment activities <p><i>Building extensions not necessary</i></p> <p>1</p>	<p>Hotel as the core + leisure and culture</p> <ul style="list-style-type: none">• "Steam hotel"-type destination hotel• Sauna + spa• Leisure activities• Cultural activities <p><i>Hotel rooms need to be situated away from noise, might need a separate extension building</i></p> <p>2</p>	<p>Community college (music school) as the core</p> <ul style="list-style-type: none">• Diverse educational spaces• Culture halls/theater space to be used by the college and other people• Approx. 5000 m² <p><i>Building extension necessary</i></p> <p>3</p>
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Image. Functional scenarios based on the architectural concept and adapted to the building hardware according to that. All the scenarios include cultural activities and spaces, restaurants, and spaces that are open to all citizens.

Functional scenarios

Based on the vision, initially three functional scenarios were created for the discussion following the needs and aspirations recognized during the process (presented in the image above):

1. Center for culture and entertainment that would not need any additional extensions to the current building
2. Hotel as the core with cultural and leisure spaces that would require a separate extension
3. Community college as the core with additional cultural spaces that would require building extension.

Every scenario was based on the idea of how the Powerhouse could function for the future purposes of the people. All the functions had been discussed earlier and

for example there is a need for new spaces for the community colleges and especially music school functions were investigated to be moved to the powerplant.

Other requirements for the scenarios, presented by the project owners, were that there needed to be a large enough space for an event hall and spaces for movie theatre and Proto innovation factory as they had already discussed these operators being interested to locate to powerplant in the future.

The main goal was to create urban living room that functions as a place for culture and recreation with public services although providing spaces for private functions as well.

The hardware: Creating the Concept

During the process all of these three scenarios were investigated through architectural plans (Appendix 9 – NEB 3 scenario plans). Initially the hotel scenario was dismissed as being unfeasible and difficult to develop further (to get a hotel developer join the process). Also, the hotel scenario supported the least NEB values.

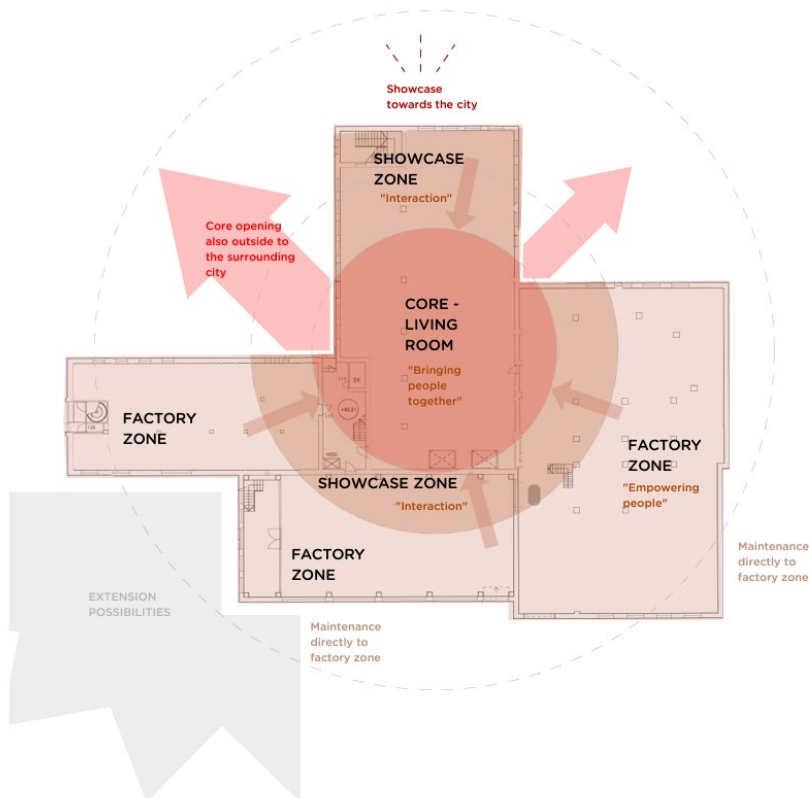
The music school scenario with urban living room idea was being developed further at the end as it serves the best NEB values, and was a great mix on public and private spaces. However, at the last minute the concept was changed to the center for culture and entertainment because larger spaces for the event halls were needed, leaving not enough space for the music school functions. Also, the hotel wanted to be added on as an option to the plans.

The final architectural concept

The spatial and functional architecture concept of the power plant is based on the vision formulated through participation and workshops. The starting point in planning the building's changes has been to create an entity that reflects history, looks to the future open-mindedly and innovatively, brings people together and empowers them and lives sustainably also in the future.

Zoning

In the heart of the powerplant is the Core zone, i.e. the core of the building, formed by a high central lobby, which serves as a natural meeting place for different users and functions and as a comfortable living



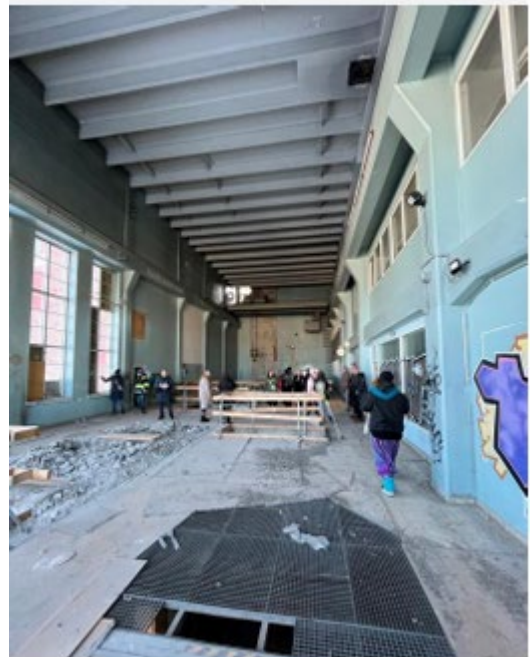
The hardware: Creating the Concept

room for the city. The central lobby encourages residents, visitors and various actors in the building to engage in joint activities and encounters. Due to the shape of the building, the core and central lobby also open directly to the yard areas and terraces in the inner corners.

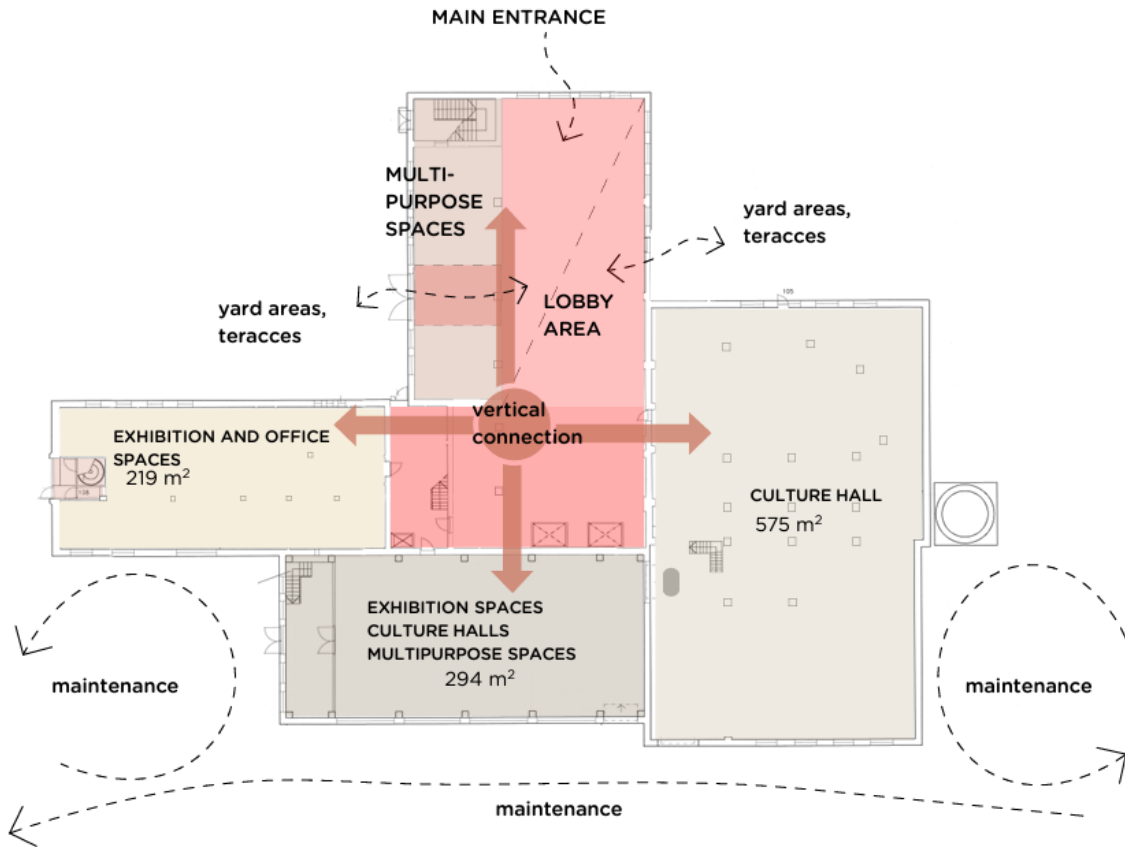
Various cultural and entertainment activities are easily accessible from the powerplant's core and are visible to the core as well as interact with each other in the mediating Showcase zone, which includes, for example, foyers of halls, multifunctional common areas, exhibition spaces and other spaces in open contact with the lobby.

The Factory zone will house various cultural halls and other spaces that can be closed, having diverse activities related to culture, entertainment, learning and leisure. The facilities provide a platform for different experiences, education and innovations. The functions have been adapted so that the spacious hall spaces and the visual identity of the premises can be preserved in the new use as well as possible. In the future, the functions of the zone can also change flexibly and offer new kinds of opportunities.

It is possible to design additional floors or extensions to the building in the western corner of the building towards the parking area of the Atomi shopping centre. It is most natural to arrange space for maintenance and loading in the southeast corner and on the side of the Atomi shopping centre.



The hardware: Creating the Concept



Internal traffic and central facilities

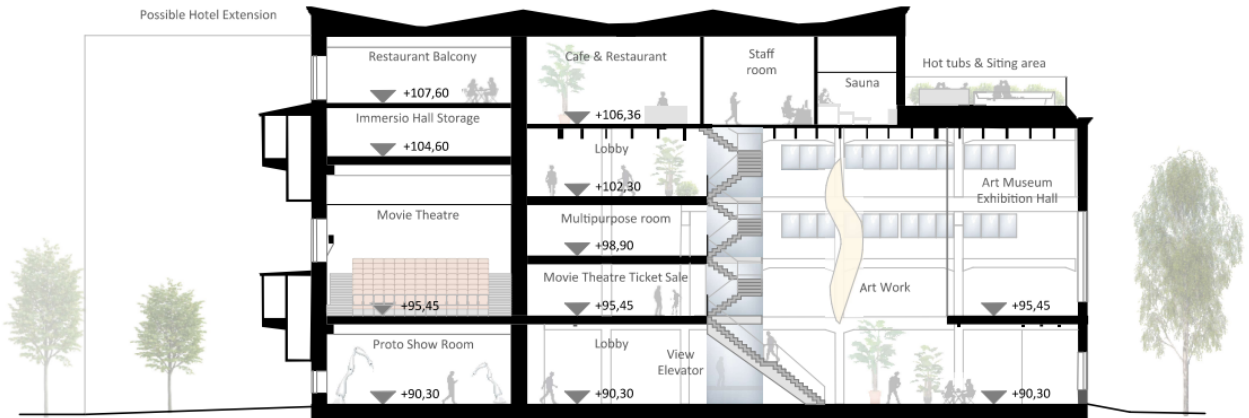
The aim is to direct traffic inside the building through the central lobby, which would thus become a lively meeting place. The solution aims to lower the threshold for interaction and participation. The lobby will have a new elevator connection and an impressive open staircase. A clear, accessible internal transport solution will also improve orientation and effortless accessibility. On the different floors, the spaces and corridor connections are structured as similarly as possible.

The central lobby is a living-room-like space open to all residents and visitors, offering various corners and working spaces as well as restaurant services.

Different kinds of events can also be held in the lobby. As soon as you enter the building, the lobby offers an impressive space reflecting history, where everyone is welcome. New doorways and windows at street level emphasize the accessibility and visibility of the space in the environment.

The spaces bordering the lobby open onto the lobby from behind the lofts and glass structures on the upper floors, and the design aims at transparency in the overlapping interfaces of different functions so that the spaces encourage interaction and participation. The activities of various cultural and exhibition spaces can also spread to the lobby and the balconies bordering it in event situations.

The hardware: Creating the Concept



Leikkaus A-A aulan kohdalta 1:200

Architecture and aesthetics – the principles of repair and modification

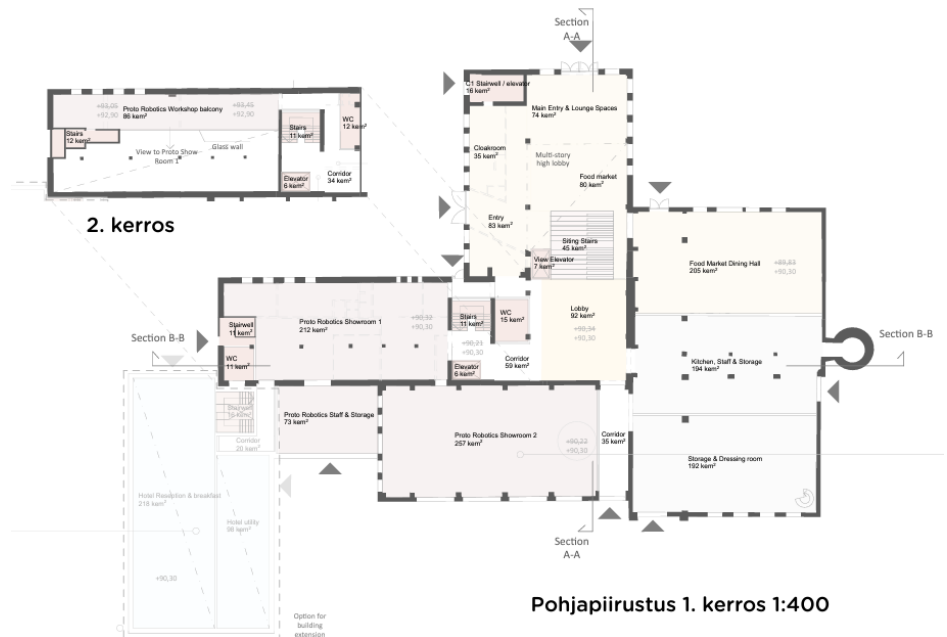
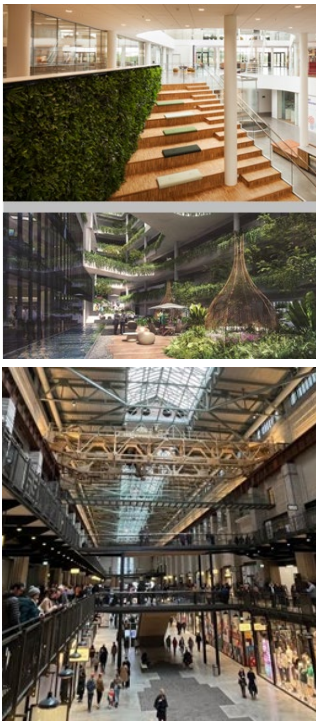
The aim of the powerplant's repair and modification work is to preserve the building's identity and aesthetical properties that highlight history, such as materials and surfaces, visibility of structures and general roughness. The old building parts should be kept and highlighted also as part of the renewed building from both the point of view of sustainability and aesthetics. For example, old iron spiral staircases and old instrument clusters can be incorporated into interior design solutions.

The new structures aim for experiential spaces and transparency; original, multi-level hall spaces are preserved by means of glass structures and preservation of spatial atmosphere where possible.

No major changes will be made to the facades, but new access openings will be opened at street level and window surfaces to liven up the street level and make the building more accessible and to emphasize attractiveness. Possible additional layers and extensions are designed as its own temporal layer, however respecting the old architecture and proportions.

City residents and building users are involved in the design of visual appearance of the premises, and it is important that the spaces are cosy and that the users feel that they are their own. The building can also display art created by its users.

The hardware: Creating the Concept



Space specific details

Main lobby- a common living room and meeting place

The main lobby, which will be built in the old machine hall, will combine the different parts and functions of the power plant in terms of traffic. The old mezzanine between the 1st and 2nd floors will be demolished to form an impressive, uniform high space that is open and inviting to all residents and visitors. The lobby will be designed into a living room-like and comfortable lounge area that offers natural meeting places for spontaneous and planned encounters and events. There is a grandstand-like seating staircase in the lobby, which can be used as a seating area and, in event situations, as a stand. The visible structures and rough, unfinished material surfaces that affect the nature and identity of the power plant will be preserved

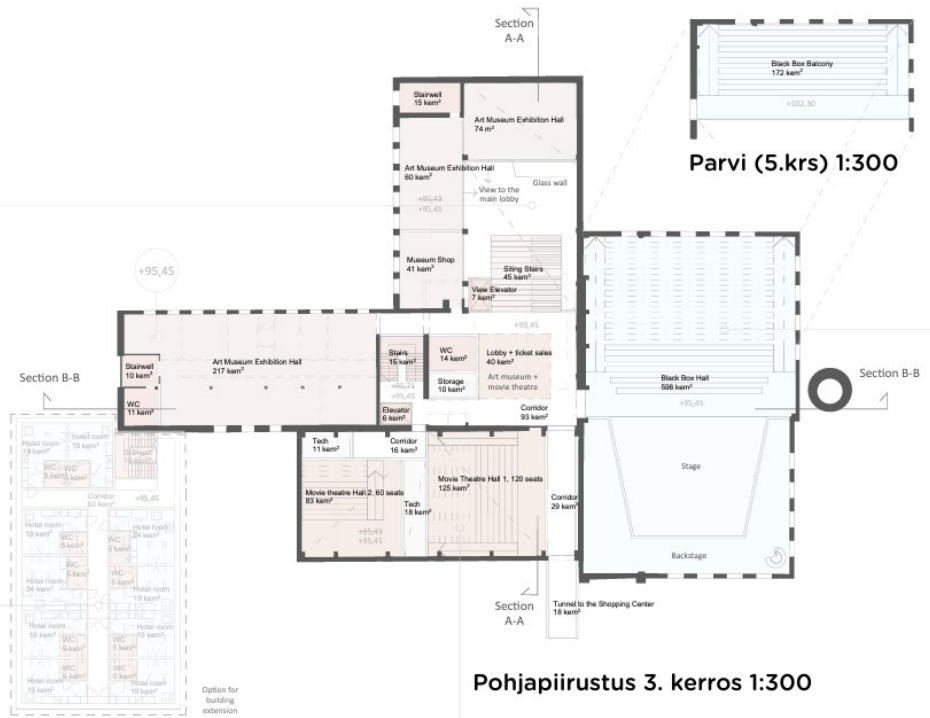
so that the space can sense the building's long history and originality. Vegetation and greenery will also be brought into the space.

Option for a hotel

It is also possible to place experiential accommodation services in connection with the power plant in the annex. The potential hotel would be connected to the Voimala premises and could, for example, utilize the restaurant services located in the Voimala and also offer other users of the powerplant the hotel's spa and sauna facilities, for example.

The option for hotel in this concept is defined to have 40 hotel rooms with upper floor sauna and balcony, app. 2 170 total squaremeters.

The hardware: Creating the Concept



Multifunctional hall - voimala black box

The powerplant's largest unified hall space, the old boiler room, will house a new, adaptable cultural hall, Black box, which offers opportunities for a superior performance technical experience. The auditorium will have seating for a maximum of about 650 spectators, and the grandstand will also be complemented by a loft located on the 4th floor. The hall can be used for theatre and dance performances, concerts, seminars and various events. The hall is designed to be flexibly adaptable so that it can offer facilities for a wide variety of events.

Proto factory

The first floor of the power plant, the old maintenance workspace and the office wing would house an entertaining

information experience centre for families with children, which would be the first in Finland. The centre would also offer various workshop activities and hobbies. A commercial operator would offer learning and experiences in the premises.

Art Museum and/or glass museum gallery facilities

The 3rd and 4th floors, the spaces bordering the lobby and the old office wing will house exhibition spaces for the art museum and glass museum. The exhibition spaces partially open into the lobby and the high lobby area can also be used to place large works of art. The museum's ticket office and museum shop are located on the 3rd floor in connection with the lobby.

The hardware: Creating the Concept



Asemapiirros 1:500

Yard areas and connection to the environment

The new main entrance to the power plant will be arranged visibly and easily accessible at the end of the old data centre, i.e. the future main lobby hall, on the station side. The yard areas are designed as pavement areas structured with green and planting areas, and the yard areas are also utilized as terrace areas so that the power plant's operations can also spread to the yard areas from time to time. The new roof terraces, which also include planting areas and vegetation, will also serve as an extension of the outdoor spaces. Access to the adjacent shopping centre will be arranged indoors as a pedestrian bridge on the 2nd floor.

Multifunctional spaces

On the landings bordering the lobby, there are several multifunctional spaces on different floors that can be closed and opened as part of the lobby areas. These spaces may include, for example, foyers of cultural spaces, group work spaces, rentable banquet or exhibition spaces, or communal meeting spaces. In event situations, they can also be part of the event space in the lobby.

Immersive modes

The immersive spaces offer visitors an immersive, digital 360 degrees world. The premises enable different content experiences through new technical means, such as animated fairy tales for children, visual stories and visual art experiences.

The hardware: Creating the Concept

Cost estimation

After finalizing the concept, a cost evaluation giving a rough estimate of the renovation and construction costs was formulated.

The estimation is based on the technical materials provided by the project owners and the squaremeters of different functions and the quality of the spaces (materials, needed structures etc.) defined in the concept (Appendix 11 - Voimala huoneistoalat_2023-06-20).

The powerplant's total size is around 6700 gross squaremeters including technical spaces. On top of that, the yard is around 4000 squaremeters and is included in the total cost estimate for construction. The hotel (around 2170 gross squaremeters) is calculated as an additional option and is not included in the total costs. The cost for the hotel would be around 8,03 million €.

The evaluations of the cost are based on a case where the powerplant is renovated and renewed based on modern demands, using new materials. However, Voimala will be renovated based on circular economy as much as possible, using also creative and cost-effective solutions to preserve the building's current industrial structures and features. Different options for renovations and how to support sustainable construction and renovatoin options should be investigated in the later stages and will have an effect on the final costs.

The conclusions from the cost estimate show that due to the large structural and functional changes in the building as it is transformed from uninsulated powerplant to a cultural center for modern functions, the total cost is very high as expected, ranging between 30-40 million €.

Costs per item (based on TALO80)	Costs (VAT 0 %)	€ per gross squaremeter	%
Developer's costs: planning, construction management and supervision tasks	5 213 000 €	782 €	13,6
Civil engineering work	19 420 000 €	2912 €	50,8
HVAC/SPR work	3 374 000 €	506 €	8,8
Electrical work	3 918 000 €	588 €	10,3
Separate costs (kitchen machinery/equipment)	556 000 €	83 €	1,5
Total construction costs. (VAT 0%)	32 481 000 €	4871 €	
Project reserves	5 721 000 €	858 €	15
Project cost forecast (VAT 0%)	38 202 000 €	5729 €	100

The hardware: Creating the Concept

The building will have large technical spaces that require major changes in the structures but also special event technology, hence needing a lot of electric work, raising the costs there as well.

It is also evident that further investigations on the structures and contaminated soil is needed and costs for those can be even higher based on the conditions.

The rooftop terrace and spa area will be expensive to build due to structural enforcements needed and high-end spaces. The building will also need some safety features such as sprinklers and safety glass, making the costs rise. In later stages the need for the rooftop area and the safety features should be further investigated.

The concept also includes museum spaces that might have specific demands for the indoor climate. The cost estimate has only considered demanding room-specific cooling for museum spaces. In later stages, the needs for the museum spaces need to be discussed.

The conclusions from the cost estimation are that this is the first rough evaluation of the costs and many details in the concept should be clarified and further analysis of the condition of the building and the site is needed to get a clearer view of the costs. For example, the actors of the building (movie theatre, immersion hall, art museum etc.) need to be analyzed further and the spaces adapted based on their specific needs.

Also, the concept did not include all the technical spaces needed (around 400 gross squaremeters) so the spaces for those need to be included in later stages.

Based on the amount of people needed to be fit inside the building during bigger events (almost 1000 people) in several floors, the amount and size of elevators need to be considered again as the plan now only has one elevator for 8 people and a scenic lift. There is also need for a bigger freight lift for event organising materials and goods.

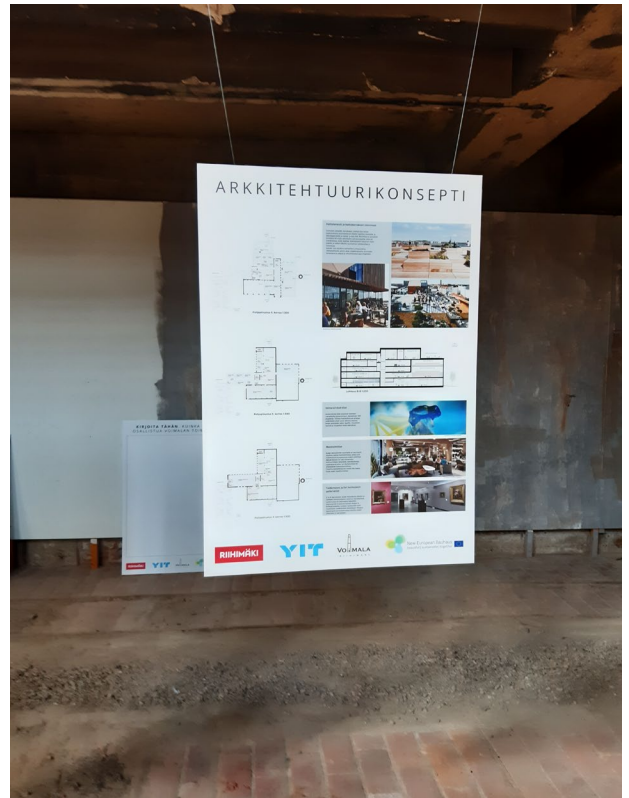
The detailed cost estimation can be found in Appendix 12 - Riihimäen voimala_Investointilaskelma.

The hardware: Creating the Concept

Final outcomes

The concept was presented to the public at Voimala soi – open house event in 7th to 9th of June 2023. The event itself was organized by City of Riihimäki and included media infos, music shows and exhibition of the concept during three days. At the last day, the Roadmap 2 workshop was kept.

The final outcomes for the NEB process included the concept with functional plans presented in posters at the event (Appendix 13 – Voimala posters A0 CMYK), and pitch deck presentation for marketing (Appendix 14 – Voimala marketing presentation).



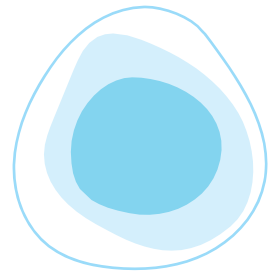


Ambitions towards NEB values

In the immersion site visit, we workshopped around NEB values for the powerplant. These have been re-checked in the Roadmap 1 workshop. By going through the initial NEB goals from the project's application and setting the bar to the current ideas, the next pages showcase the objectives for each value.

Ambitions towards NEB values

AESTHETICS



GOAL LEVEL FOR AESTHETICS:

AMBITION III: to integrate

Enabling creation • Restructuring of values • Long-lasting movement

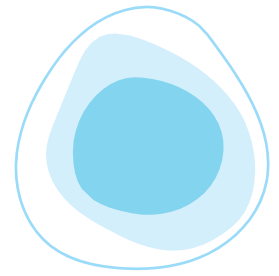
- enables creation, and the collective re-invention of the places, lifestyles, and communities we identify with.
- integrates new cultural and social values, notably through the meaningful experience of a broader 'us' (including the non-human world).
- it aspires to anticipate future transformations, and may generate a long-lasting movement

Obstacles & levers to deliver on the ambitions

- The museum authorities (how much can be saved versus changed, how can we preserve the feeling of powerplant e.g. the chimney)
- The innovativeness of the professional architects and interior designers
- The renovation needs (as the powerplant is originally designed for heat, the isolation of the building for other functions inherently changes the structures)
- People not taking the powerhouse as their living room and a place for life

Ambitions towards NEB values

AESTHETICS



BASELINE

Inputs from the NEB application



REFINED OBJECTIVES

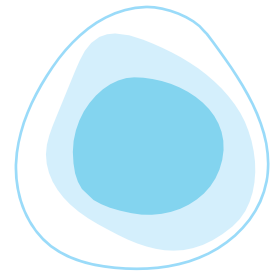
New inputs after the vision workshop

Valuing aesthetics and beauty in this projects means:

- to utilize the innovativeness of professional architects and artists in the architectural and interior design
- to preserve the original rough industrial appearance as well as the technical details and structures related to the history of the power plant
- to highlight the local culture and history in the architecture, interior design and decoration details and make use of local craftsmanship such as glass artists and local raw materials such as wood and wood chips in the choice of materials
- to integrate public art on a large scale into the interior and exterior of the property
- to use natural materials and colour palettes and recycled materials and items in the interior design and furnishing
- to promote human-sized and inclusive design that provides achievable and multi-sensorial experiences
- to utilize intelligent technology in the form of active lighting and condition control at different times of the day to create mood lighting
- to bring green walls and other live natural elements to interiors to create an aesthetic and experiential environment and improve indoor air quality
- Beautiful powerplant through architecture but beauty also as a creation of beautiful life for the people.
- Currently the overall look of the powerplant and its environment is sad. As it is developed to active use, it will make the environment beautiful and flourishing with life.
- By preserving and renovating the powerplant the distinctive historical monument of Riihimäki will be valued and brought to life and a place for culture.
- Preserving as much as possible the elements of the powerplant (gauges, staircases, chimney, steel structures etc.) with collaboration to local museum authorities. The personality of the powerhouse should be part of new development and its identity as well.
- Make the public space outside the powerplant also interesting and inviting to people.
- The powerhouse and it's outer spaces (event park) will be a continuum with a larger boulevard Riihimäki is developing in the station area, connecting people and nature. In active use, the area will be more beautiful.
- Green elements (green walls, roof gardens etc.) inside and outside of the building.

Ambitions towards NEB values

AESTHETICS



REFLECTIONS AND REFINED OBJECTIVES (in addition to previous) *After Roadmap 1 workshop*

Now

- Bridging and brokering networks
- Compassionate leadership of the mayor - bring his networks to the table for the benefit of the project; motivating and inspiring the core team
- Getting citizens, representatives of local organisations, investors and people from the municipality to ideate and work at the same table
- Tapping into the collective knowledge and imagination of the local community
- The youth views on the vision workshop: they really want to be part of Riihimäki also in the future. We should really listen to their needs then.
- The survey for citizens got a good amount of new answers and ideas!
- Curiosity, pride of being Riihimäkians, high turn-up rate (workshop and survey) and commitment

Future

- Developing a governance and decision-making model for actors involved in Voimala
- Continue the involvement of the local community in idea generation, decision-making and co-creation, when Voimala is up and running. Creating a model for further stakeholder engagement.
- collaborations with local innovations/innovators/ entrepreneurs
- Activate a Voimala reference group also in the future (we have contact info from the vision workshop and survey)

Ambitions towards NEB values

SUSTAINABILITY



GOAL LEVEL FOR SUSTAINABILITY:

AMBITION I: to repurpose

Preservation • Repair, re-use, reduce • Upgrade, renew

- aims to repurpose in order to avoid and reduce environmental impacts and favours durability, adaptability, recyclability.
- aims at rethinking services, products and places to reduce pollution and carbon impacts and have minimum use of resources, materials and energy.
- looks at the scale of a products' lifecycle. Projects that repurpose are aware of the impact their initiative has on the environment and have the ambition to reduce their environmental footprint.

Obstacles & levers to deliver on the ambitions

- Building restrictions e.g. for new sustainable materials and methods can hinder the use of some solutions
- Discussions and cooperation with the neighbouring projects can bring new energy solutions for the site
- Not aiming for high enough goals in terms of circularity and regeneration

Ambitions towards NEB values

SUSTAINABILITY



BASELINE

Inputs from the NEB application



REFINED OBJECTIVES

New inputs after the 1st workshop

The primary goal of this construction is to renovate and repair an existing building and create new use for it instead of demolition and new construction. The value of the renovation is based on

- the preservation of cultural and architectural heritage
- the human scaled, inclusive and sustainable reuse of the space for the cultural and business purposes

The focus of this sustainable renovation is in the ecological, social and cultural impacts of construction.

Ecological sustainability means low emissions and environmental friendliness, reusable and recyclable materials, life-cycle thinking. We are aiming

- to optimize energy consumption in all levels by utilizing latest technology
- to find a carbon-neutral heating solution to the large spaces f.ex. by utilizing solar energy from solar heat collectors and heat recovery
- to find efficient, nature friendly isolation methods that are suitable to harsh Nordic climate
- to build carbon sinks as city garden greens, which also help to control storm water
- to create versatile and flexible premises to secure high occupancy rate
- to find new financing options from sharing economy solutions like co-ownership, sharing and leasing

Social sustainability takes into account the aspects of well-being and health, safety, human size and inclusion, comfort and accessibility, as well as cooperation and transparency. Cultural sustainability is about nurturing cultural heritage but also knowing the history and tradition of local construction.

- Circular economy is crucial for Riihimäki and in this project. By renovating and using the existing materials at the site (e.g. in green space structures) the circularity of materials is supported, while new materials used are recyclable, renewable and natural.
- Integrating the outside green spaces of the powerplant to a larger urban green corridor and other services of station area.
- Enhancing biodiversity and health by making rooftop gardens with beekeeping, indoor green spaces and outside public event and green area.
- Sustainable energy solutions are being investigated in HÄSPI climate project where the powerplant can act as a pilot. Also, cooperation with the neighbouring shopping center and its plans for energy solutions is an option. Possibilities for geothermal energy are studied.

Ambitions towards NEB values

SUSTAINABILITY



REFLECTIONS AND REFINED OBJECTIVES (in addition to previous) *After Roadmap 1 workshop*

Now

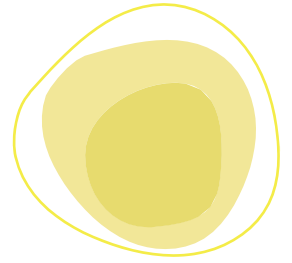
- Developing scenarios for renovation with the intent to preserve, reuse what is there and stay true to the building's industrial identity

Future

- Focus more on ecological sustainability (e.g. circularity, biodiversity etc.)
- Full investigation of the structural conditions of the building to create healthy buildings
- Invite artists to collaborate in the spaces while waiting larger structural changes

Ambitions towards NEB values

INCLUSION



GOAL LEVEL FOR INCLUSION:

AMBITION II: to consolidate

Overcoming segregation • Representation and social stability • Sharing resources and opportunities

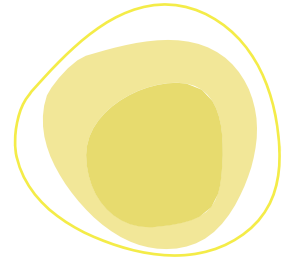
- fosters and equalises relations between users and/or communities, safeguarding the principle of equal treatment and social justice over time.
- Inclusion and open access to services are secured by formal, structural mechanisms such as funding instruments, business models, planning, policies, regulations and other institutionalisation processes.

Obstacles & levers to deliver on the ambitions

- The inclusion will be secured in the project if many social organisations are involved from the beginning (councils for youth, elderly, people with disabilities etc.)

Ambitions towards NEB values

INCLUSION



BASELINE

Inputs from the NEB application



REFINED OBJECTIVES

New inputs after the 1st workshop

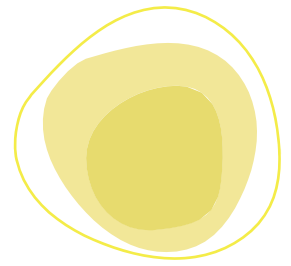
Our city has a clear policy of accessibility and inclusion. The same line will be continued throughout this project. All public and cultural services located in the renovated premises will be physically, economically and socially accessible. The overall goal is to create a feeling of a common living room space, which supports the citizen's sense of belonging and togetherness. The idea of "Our Power Plant", also reflects the spirit of the Riihimäki for those from elsewhere. The concrete result will be a renovated building, which offers diverse space that combines public services, third sector activities, cultural and commercial spaces and even affordable housing in one concept.

Inclusion is secured by

- taking into account the needs of minorities and special groups in spatial planning from the point of view of accessibility
 - following the principles of safe space on the premises
 - investing in public leisure services in the building, where citizens of all ages can engage in activities on a low threshold
 - connecting a new housing component to the building, that offers affordable housing in the heart of the city, next to public transport and services. Student housing will respond to the shortage of student housing in the area. Pilot project for a community service housing unit for elderly citizens will respond to the aging of the population.
- The project wants to create a feeling of a common, inviting living room space, which supports the citizen's sense of belonging and togetherness. Hence, designing of spaces for social interaction with cocreation of local associations and citizens.
 - All the citizens are welcome.
 - The powerhouse aims to be not only for private sector services but to be a place where everyone can enjoy culture no matter of their background.
 - One idea is to have also public services and for example a city's info at the powerhouse.
 - Improve the accessibility and safety of the building and public space to create inclusion.
 - Design events spaces that are inclusive and accessible (subtitles, Braille, etc.).
 - Design spaces where cocreation is enabled for the citizens and local initiatives and organisations (e.g. robotics workshops).
 - Robotics studies are incorporated to all levels in Riihimäki (from pre-school to higher studies). One option is that the theme of robotics could be the focus on building the ecosystem.
 - E.g. The Proto Innovation Factory in Estonia has shown interest in bringing their functions to Finland and to the powerplant

Ambitions towards NEB values

INCLUSION



REFLECTIONS AND REFINED OBJECTIVES (in addition to previous) *After Roadmap 1 workshop*

Now

1. Invitation to and participation of youth council and of the handicap council in survey and vision workshop
2. Focusing on favouring encounters across groups, generations and functions in the building through the main hall, which gives a sense of conviviality as well as an understanding of who else is there in the building
3. Good dialogues and conversations between stakeholders

Future

1. keep the stakeholder group well informed and close to the process for ongoing validation. They are our ambassadors
2. Making the design of the interiors flexible for users to adapt it to each activity
3. Making the design of the interiors according to the principles of universal design
4. Developing a model for collaborations with local innovations/innovators/entrepreneurs; validation of the concept with them.
5. Using renderings and VR to show scenarios for renovation and gain feedback from different types of users



NEB roadmap

NEB roadmap

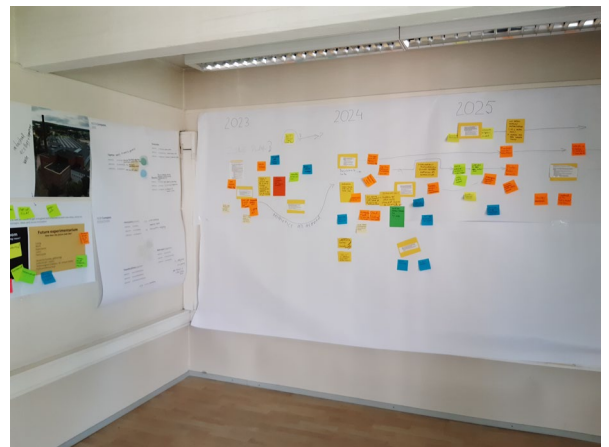
The NEB roadmap, that supports the further development of the project, was part of the common modules of New European Bauhaus process. The roadmapping included two workshops: first one focusing on long-listing the possible flagship actions and principles for the project (see the long-list in Appendix 15 – Roadmap longlist of actions). Based on the long-list, a NEB roadmap actions were categorized as a draft. This workshop was done online on the beginning of May 2023 with the project core team.

The second workshop gathered project owners, core team, key stakeholders and citizens to cocreate a roadmap and actions on the site during Voimala soi –event in June 2023. The workshop followed NEB principles of working in participatory manner, with multi-level approach and transdisciplinary view. The drafts of actions were further developed, also putting them on to the timeline.

The goal for Riihimäki is to get the Voimala partly open (at least the first floor functions) by 2027 when Riihimäki will be hosting a Housing fair. The full house would then be ready by 2030.

In the workshop we used backcasting as a method to organise the actions into feasible steps to develop the powerplant in the upcoming years.

The following pages will present the roadmap developed in the process and actions cards for NEB actions.



NEB roadmap

The roadmap for the project (results from workshop)

2023:

Design start:

- Check the zone plan
- Building permit application (town plan)
- Start full constructional investigation
- Start discussion and planning with Museum Authorities (Museovirasto)

Engagement and participation:

- NEB Action 1.1. Create a living room during all stages of the powerplant development
 - Consider aesthetics and the instagrammability
 - Give a space and materials to local youth to make murals and art the powerplant
 - Use lighting art
- NEB Action 2.1. Develop a model for stakeholder engagement and communication for different stages of development
 - Ask opinions and ideas from young people via online surveys or people visiting Atomi shopping center
 - Social media marketing towards young people with a lot of visual content
 - Start discussion with HAMK (University of Applied sciences)
- NEB Action 3.2. Mapping the focus areas and best practices for being better at creating synergies across teams working on the projects and initiatives

2024:

- NEB Flagship action 3. Conduct in depth analysis on energy efficiency solutions to minimize the building's daily footprint
 - Plan the collaboration with Hämeenmaa about the common energy solution
- Do more benchmarks (e.g. Museum of Technology / Tekniikanmuseo)
- NEB Flagship action 1. Ensure that the ground level is designed as an urban living room accessible to all ages and publics
- Continue to bring life into the building:
 - Designing experiments with young people on how to use the outside areas
 - Summer cafe
 - Summer market place once a week
 - Once a week jazz night during summer 2024
 - Other events and open house during the summer with young people leading the activities
 - Ensure that there are places for young people during the construction as well
 - Order public artwork (interior and exterior)

Action model:

- Contract with Proto innovation Factory
- Recruit key personnel
- Get the restaurant operator
- Robotics campus from HAMK as a designer
- Crowdfunding as an option: investigate
- Selling stocks of the building: investigate

NEB roadmap

- NEB Action 2.2. Use 3D-renderings, VR (virtual reality) or Digital twin to showcase concept scenarios and gain feedback from different types of users
 - Make a VR/3D workshop for the schools in the powerplant
 - Create a VR-pop up happening

2025:

- NEB Flagship action 2. Host educational and inspiring aspects in the building (schools, events, innovation hubs etc.) and create a future experimentarium, giving high visibility and quality to this educational public offer
 - HAMK-hosted activities
 - Robotics campus's workspace as part of Proto
 - Proto-robo-concept
 - Workspaces for vocational school
 - Create a makers pace – digital and crafts space for everyone
 -

Building start:

- Estimated year to get the building permit
- New hotel next to Voimala (YIT owned site), city could also buy the lot
- Start space and event sales
- Geothermal energy resources
- NEB Action 3.1. Invite different fields from science and arts to collaborate in the spaces while waiting larger structural changes
 - Art and architecture
 - Health & well-being
 - Automized "omakanta"-system (health information systems)
 - Health kiosk

2026:

- Heat and cooling systems and air conditioning
- The large concert hall in use
- HAMK new campus business hub with auditorium at Voimala
- Events during the whole year
- The housing fair office and management at Voimala
- Voimala opens for housing fair

2027:

- 1st level of Voimala will be open
- Opening event for the housing fair, Voimala is opened for the public

...2030:

- Whole Voimala open
- Finalized revenue generation model (Robin hood) - affordability

Project strategy **Flagship action card**

that ensures that NEB values are met

Flagship action 1

Ensure that the ground level is designed as an urban living room accessible to all ages and publics

Description

- | | |
|---------|---|
| Purpose | <ul style="list-style-type: none">• Make the design of the interiors flexible and accessible for users to adapt it to each activity• Create an inviting safe space for people to meet and collaborate• Make the design of the interiors according to the principles of universal design• Focus on different aspects of sustainability from ecological to social (e.g. circularity, biodiversity etc.)• Make the building safe for everyone with full investigation of the structural conditions of the building ahead of construction |
|---------|---|

Expected outputs	Accessible, aesthetical and communal space for everyone
------------------	---

NEB value or working principle the action seeks to contribute to	Beautiful, sustainable, together
--	----------------------------------

Responsibilities

Architectural company + investor/developer

Success factors

Following accessibility recommendations, engaging with youth, elderly and disabled councils, thinking from different aspects of sustainability throughout the design

Timeline

2024-2030

Budget

TBT

Project strategy Flagship action card

that ensures that NEB values are met

Flagship action 2

Host educational and inspiring aspects in the building (schools, events, innovation hubs etc.) and create a future experimentarium, giving high visibility and quality to this educational public offer

Description

Purpose

- Bring in the culture for many levels of society by providing free cultural services and education but also private paid services such as concerts and events
- Collaborate with educational partners (such as local schools, organisations etc.) to keep the Voimala an inspiring space.

Expected outputs Collaboration with local schools, organisations and businesses, different kinds of events and hubs

NEB value or working principle the action seeks to contribute to Beautiful, sustainable, together

Responsibilities

City of Riihimäki, the developer

Success factors

Good local buzz over Voimala, lots of various events and collaborations

Timeline

2025

Budget

TBT

Project strategy Flagship action card

that ensures that NEB values are met

Flagship action 3

Conduct in depth analysis on energy efficiency solutions to minimize the building's daily footprint

Description

- Purpose
- Investigate the possibilities for collaboration with Hämeenmaa Atomi shopping center and a common energy system (using excess heat from the shopping center to heat and cool the powerplant)
 - Investigate different energy efficiency solutions to provide a sustainable building for the future

Expected outputs Energy efficient building, innovative and collaborative energy systems

NEB value or working principle the action seeks to contribute to sustainable, together

Responsibilities

City of Riihimäki, the developer, SOK Hämeenmaa

Success factors

Local energy system

Timeline

2024-2027

Budget

TBT

Project governance working principles- Action card

Action 1.1 – Participatory process

Create a living room during all stages of the powerplant development

Description	
Purpose	<ul style="list-style-type: none">• Continue to organise different kinds of events and collaborations at the powerhouse during the development process• Set up an ongoing dialogue pop up office e.g. once every months, where people can propose ideas• Consider aesthetics and the instagrammability as young people are drawn to that• Give a space and materials to local youth to make murals and art the powerplant• Use lighting art to "light up" the building
Expected outputs	Social media visibility, events, buzz over Voimala, place for local people and art scene
NEB value or working principle the action seeks to contribute to	Together, beautiful
Responsibilities	
<i>City of Riihimäki</i>	
Success factors	
Openness, collaboration	
Timeline	Budget
2023-	TBT

Project governance working principles- Action card

Action 2.1 – Multi-level engagement

Develop a model for stakeholder engagement and communication for different stages of development

Description

- Purpose
- Involve the local community for idea generation, decision-making and co-creation
 - Collaborate with local innovators/businesses but also investors to make it feasible and interesting for everyone
 - Activate a Voimala reference group also in the future (we have contact info from the vision workshop and survey)
 - **Make a communication plan to** keep the stakeholder group well informed and close to the process for ongoing validation. They are our ambassadors.
 - Set up the webpage and social media
 - Continue to communicate what is happening at Voimala
 - Allocate more resources on marketing and communications
 - Establish social media channel connected to the website and hire a young person/entrepreneur from Riihimäki to curate it
 - Prepare Riihimäki branded presentation/marketing deck of the Voimala concepts with a short pitch

Expected outputs Social media visibility, open communication and marketing, buzz over Voimala, collaboration and engagement

NEB value or working principle the action seeks to contribute to Together, beautiful

Responsibilities

City of Riihimäki

Success factors

Regular visibility, resources for communication and engagement

Timeline

2023-

Budget

TBT

Project governance working principles- Action card

Action 2.2. – Multi-level engagement

Use 3D-renderings, VR (virtual reality) or Digital twin to showcase concept scenarios and gain feedback from different types of users

Description

Purpose

- Ask for help e.g. from HAMK robotics/ICT students. And connect them more deeply to the development of the building.
- Make a VR/3D workshop for the schools in the powerplant
- Create a VR-pop up happening

Expected outputs

Educational opportunities, collaboration globally, new innovations

NEB value or working principle the action seeks to contribute to

Together

Responsibilities

City of Riihimäki, HAMK, investors

Success factors

Collaboration, spaces for innovation

Timeline

2024-

Budget

TBT

Project governance working principles- Action card

Action 3.1. – Transdisciplinary approach

Invite different fields from science and arts to collaborate in the spaces while waiting larger structural changes

Description

- | | |
|---------|--|
| Purpose | <ul style="list-style-type: none">• Create a ground for growing commitment to build a common cultural and recreational living room where all the fields collaborate• Continue to collaborate with HAMK (University of Applied Sciences) as well as other schools for transdisciplinary opportunities at Voimala• Showcase the Voimala concept nationally and internationally as the model for urban livingroom |
|---------|--|

Expected outputs	Educational opportunities, collaboration globally, new innovations, marketing
------------------	---

NEB value or working principle the action seeks to contribute to	Together
--	----------

Responsibilities

City of Riihimäki, HAMK, investors

Success factors

Collaboration, spaces for innovation

Timeline	Budget
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2025-	TBT
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Project governance working principles- Action card

Action 3.2. – Transdisciplinary approach

Mapping the focus areas and best practices for being better at creating synergies across teams working on the projects and initiatives

Description	
Purpose	<ul style="list-style-type: none">• Set up a steering committee consisting of people from different departments from the City of Riihimäki in order to keep everyone committed and informed of the process and finding a model for collaboration• List best practices and learnings to steer the project further• Investigate the total process and gather the best practices
Expected outputs	Action model for Voimala
NEB value or working principle the action seeks to contribute to	Together
Responsibilities	
City of Riihimäki	
Success factors	
Enough resources, enough commitment	
Timeline	Budget
2023-	TBT



Conclusions and suggestions for the next steps

Conclusions and suggestions for next steps

During nine months (from autumn 2022 to summer 2023), a clearer vision for the future functions of the old powerplant in Riihimäki has been developed based on New European Bauhaus framework (inclusive, sustainable, beautiful). The powerplant aims to be a common living room for the locals as well as future experimentarium, drawing people from other parts of Finland and globe to Riihimäki. It will function as a cultural and experience center with a common lobby and foodmarket, an art museum, Proto Robotics space, immersion hall, event spaces, movie theater and roof terrace with spa. Also an option for an annex hotel with 40 rooms was investigated.

The crucial part of the process was to get the local community and actors to be part of the visioning as they are the users of Voimala in the future. It was evident that the locals need a place where they can meet intergenerationally, a place to share knowledge and skills and a place to be entertained and get excited. Especially the youth should be included in developing and bringing life into the building as they see Voimala as interesting and potential part of their future in Riihimäki.

The final concept is a labour of several rounds of scenario ideation and will include around 56 % public and 44 % private operations. The total cost of the building renovations and construction is estimated to be around 30-40 million €, with the additional hotel being extra 8 million €.

The project defined roadmap for the developmental work in order for the project owners to continue to follow the New European Bauhaus values throughout the process. The following list gives suggestions for the upcoming year and the roadmap laid out starting page 53 will continue to further years.

Suggestions for the next steps

- A defined project plan to execute the process further (concept, tenants, rental income, real estate financial calculations, operational and management model, operator surveys/trial marketing etc.) including for example:
 - Assessment of the level of rent at Voimala with assessment of return of investment for the investors. This could also include the impacts for regional economics.
- A sustainability coordinator for steering the project from social, ecological and economic point of view continuing the work towards NEB values
- Check the zone plan (change of use for Voimala's future operations)
- Start full constructional investigation
- Further concept and construction plans for Voimala
- Develop a model for stakeholder engagement and communication for different stages of development
- Start using Voimala as a space for locals already by planning events and functions for example with local youth and artists using participatory methods.
- Continue to develop the energy symbiosis with neighbouring shopping center (geothermal etc.)



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