Uudenmaan liitto
Nylands förbund

The Green Transition in Uusimaa

Lessons and Perspectives from the Green Transition Working Group

Regional Workbook 2026

“The Green Transition Is Built on Collaboration” - Foreword

The green transition is one of the key opportunities for the future of Uusimaa and, at the same time, essential for ensuring sustainable growth, meeting climate targets, and safeguarding biodiversity. This workbook brings together perspectives, practical examples, and lessons learned on promoting the green transition in Uusimaa.

The publication is based on the work of the Green Transition Cooperation Group, which has been active since 2024. The group was established by the Helsinki-Uusimaa Regional Council to strengthen cooperation among regional actors and foster a shared understanding of green transition issues. The group has brought together municipalities, businesses, and other expert bodies to discuss solutions, opportunities, and challenges, particularly from the perspective of Uusimaa. This workbook is a compilation of the themes addressed so far during the Green Transition Cooperation Group’s pilot phase and may be further supplemented as the group’s work continues.

The aim of the workbook is to support efforts to promote the green transition, particularly in municipalities and regions, but it is hoped that its contents will be of broad benefit to all parties involved in the green transition.

The green transition is built through collaboration—this workbook is an invitation to continue promoting it together.

Contents of the Workbook

Contents:

How is the workbook structured?

The working group's goal has been to efficiently produce a relevant and up-to-date knowledge base on the green transition, and the key aspects of this information are outlined in this workbook.

For each theme, the group has compiled a checklist of best practices and challenges in promoting the green transition based on its work.

The first three chapters of this English version of the workbook have been translated wider for the use of the Helsinki Metrex conference. Of the remaining chapters of the book, only a summary of the collaborative group's lessons learned has been translated.

1 Introduction – A Regional Green Transition as Our Mission

Who created this workbook?
The Uusimaa Green Transition Cooperation Group

- The Green Transition Cooperation Group was established by the Helsinki-Uusimaa Regional Council to promote a green and clean transition in the Uusimaa region.
- Its goal is to promote the green transition by integrating sustainable development, climate change mitigation, and the protection of biodiversity into various sectors of the region's economy and society.
- The cooperation group's objectives and operating methods are based on building a new kind of community-based operating model.
- The group's work has begun with a two-year pilot period from 2024 to 2026. During the pilot period, the cooperation group has met 4–5 times a year and organized meetings, workshops, and field trips related to current topics in the green transition.
- The members represent a diverse range of regions and stakeholders in Uusimaa. The chair during the pilot phase has been Petra Ståhl, Mayor of Lohja, and the vice-chair has been Alpo Tani, Climate Expert for the City of Helsinki.
- The group is coordinated by the Helsinki-Uusimaa Regional Council, whose work is linked to the green transition in many ways. The group has provided input, for example, to the new regional program and the VISIO regional plan for the green transition currently under preparation.
- The group's work will continue. This workbook addresses only those aspects of the green transition that the group has had time to address during the pilot phase.

Cooperation group meets in different thematic workshops, meetings and excursions

What? The goals of the cooperation group

Group objectives:

- To promote the green transition by integrating sustainable development, climate change mitigation, and the protection of biodiversity into various sectors of the region’s economy and society.
- To foster networks among different stakeholders and act as a broad-based collaborative body
- Create an overall picture of the goals and status of the green transition in Helsinki-Uusimaa region
- Produce and share information on best practices and opportunities for the green transition
- Increase understanding of the themes and challenges of the green transition, particularly in Helsinki- Uusimaa region
- Mobilize actors based on our region to promote the green transition

Definition of a green and clean transition

The definition was formulated by the Helsinki-Uusimaa Regional Council in collaboration with a cooperation group to serve as the basis for the VISION planning work on the green transition and the new regional program. It is based on the definition provided by the Ministry of the Environment.

- **A green and clean transition is an essential shift toward an ecologically sustainable economy and vitality. The sustainable economy of the future is based on low-carbon solutions that promote the circular economy and biodiversity, as well as the sustainable use of natural resources**.
  - *The transition enables the building of a carbon-neutral society, improves ecological balance, mitigates climate change and promotes adaptation to it, and secures future livelihoods.*
  - *Clean energy is an integral part of the transition. Replacing fossil fuels with clean energy solutions is a key objective of the transition.*
  - *In Helsinki-Uusimaa, the green and clean transition emphasizes innovation, resource wisdom, the limits set by nature and the environment, the development of sustainable transport, logistics, and infrastructure, as well as fairness and social acceptability.*
  - *The transition is driven by EU-level regulations, international and national climate targets, as well as the Helsinki-Uusimaa region's goal of achieving carbon neutrality by 2030 and its goal of becoming nature-positive. The Helsinki-Uusimaa Regional Council aims to be a pioneer in promoting a green and clean transition both nationally and internationally.*

How should this kind of cooperation group work, and is it a good tool to promote the green transition in collaboration?

- The group's composition should include broad representation from different sectors and levels of government (national, regional, and local). This enhances the group's effectiveness and fosters a shared understanding.
- The group's activities should aim to foster joint learning and the joint development of solutions, as well as the building of mutual understanding among different stakeholders, sectors and levels.
- Highlight the importance of multi-benefit solutions
- The group's activities should also be communicated externally, and group members should be encouraged to share information and experiences with their own background and stakeholder groups (e.g. through blog texts, workbook etc.)
- Useful elements in this group have included experiences from different municipalities, general knowledge of land use planning, the views of various experts, the development of a broader overall picture, various case examples and visits, as well as networking.
- Need to add more concrete elements and practical tools to the group's activities

2 The green transition requires a comprehensive societal transformation

Tips from the group on how to promote the green transition by tools of land use planning

Tips from the group on promoting the green transition – a summary of the workbook's themes

- **Start early and be genuine**: early engagement clarifies roles, risks, and opportunities.
- **Speak the same language and pull together**: shared concepts and collaboration are key to ensuring a smooth transition.
- **Steer projects to the right places for the environment and society**: recognize the scale and support decisions with data, criteria, and coordination.
- **Make impacts, benefits, and responsibilities transparent**: ensure a fair distribution of benefits and burdens, and establish compensation mechanisms.
- **Keep the big picture clear**: prioritize multiple benefits; avoid, mitigate, and compensate.
- **Enable profitable business and ecosystems**: centralize infrastructure, expertise, and collaboration so that investments materialize and vitality grows.
- **Accelerate the circular economy**: make room, experiment boldly, and connect stakeholders.
- **Strengthen collaboration**: align municipalities and the region with a shared strategy, tools, and data-driven leadership.
- **Justify with security**: link the transition to security of supply, self-sufficiency, and resilience—acceptance will also grow.
- **Let's build a new industrial foundation for Finland together**: clear rules of the game, up-to-date laws, and sustainable and smart project investments.

I Acceptance of the Green Transition, Interaction, and Communication

The Acceptability of the Green Transition

Early, open, and clear interaction and communication

Changes associated with the green transition often affect new areas, sparsely populated regions, farmlands, and forested areas. These changes involve new and unfamiliar technologies and can have a visible impact on the landscape and living environment.

Wind farms visible from afar, hydrogen pipelines laid beneath farmland, and new large-scale industrial projects are all part of the green transition.

Visible change often raises concerns, and new, unfamiliar things are perceived as carrying more risks than the familiar and safe. Generating information and building communication channels are crucial for facilitating the green transition.

It is important to act in a timely and up-to-date manner regarding both the information to be shared and the interaction. The earlier the information is available, the better it can be utilized to steer projects in the right direction. Information produced at an earlier stage is also typically considered more reliable than that produced during the project, which may be subject to doubts regarding its impartiality.

The information produced should also be made available to the public as openly as possible. Stakeholders interested in green transition projects fill any information gaps either with information provided by the project, community concerns and rumors, or the endless stream of more or less accurate information on the internet. Withholding information often only accelerates the spread of misinformation. In particular, the adverse effects and risks of green transition projects must be communicated as clearly as possible.

Checklist for Project Implementers Regarding Acceptability

- **Get to know the local community and build cooperative relationships**
- **Identify key stakeholders**
- **Introduce yourself and the project idea to everyone within the project's area of impact**
- **Strive to better understand the challenges, concerns, and hopes of the people who may be affected by the project**
- **Listen actively to what people have to say**
- **Discuss the ground rules for project development and interaction**

Source: Local Acceptance of the Green Transition – A Playbook. Akordi Oy

https://www.akordinpelikirja.fi/en/clean-transition/

How can we build cooperation and trust?

Early and ongoing interaction builds trust

It is important to establish a dialogue as early as possible so that local needs and emerging concerns can be genuinely taken into account in the local development of the green transition. Furthermore, time and opportunities for meaningful engagement must be set aside for this dialogue. In particular, there needs to be room for dialogue that does not yet have to lead to decision-making, but rather to the maturing of ideas. Rushed discussions and communication that leaves no room for alternatives can escalate the situation and slow down the progress of the green transition.

It is easier to develop the region's strategy and the municipalities' shared vision at a stage when no specific actor's project or needs are yet at stake. Engaging in proactive discussion and outlining early development paths is easier when the discussion is not rushed toward a final outcome. At this stage, for example, the regional council can play a key role in bringing different actors together and initiating dialogue.

Communication must also promote mutual understanding among actors. In many cases, the green transition requires changes in land use and may alter the character of the area locally. In such situations, it is essential to communicate openly about the project's benefits and drawbacks, as well as what will be lost and, on the other hand, what new gains will be achieved. It is also essential to identify who benefits from the project, who are the enablers, and who are the losers, as well as how potential disadvantages could be avoided, mitigated, or compensated for.

At the regional level, it is advisable to develop an overarching strategy for the green transition to which both municipal and project stakeholders could commit. This would help anchor individual projects and their interactions within a broader regional framework for the green transition. The predictability and acceptability of projects could improve if a broader vision of the green transition—such as a regional program and/or plan—provided a broader framework and rationale for the project, and the project would be integrated into the region's overall strategy and the broader discussion on regional development.

Principles for engagement in the green transition

- Take people's basic needs into account in all interactions
- Respect people's autonomy and choices
- Practice reciprocity
- Ensure clarity in your approach and communication
- Build trust before presenting facts

Source: Local Acceptance of the Green Transition – A Playbook. Akordi Oy
https://www.akordinpelikirja.fi/en/clean-transition/

Lessons from the group on acceptance, interaction, and communication

Best practices and tips

- Interaction that is as early and proactive as possible, including to define the plan's objectives and assess its impacts by stakeholder group
- Gathering local information and perspectives early on improves the quality and acceptability of the plan
- "The earlier information is available, the better it can be utilized to guide projects to the best locations"
- Making the process, handling, and impact of feedback and interaction transparent both beforehand and afterward (e.g., in a report, plan description)
- Valuing local experiences, perspectives, and customs, e.g., tailoring presentations to each group and demonstrating in various ways that participants are valued—such as through the choice of meeting location, a more informal start, refreshments, etc.
- Listening and discussing without preconceptions
- Identifying and enabling alternatives is important
- The significance of the values of the land, as well as ownership of the processes, must be recognized and taken into account in various ways throughout the process
- lllustrating the distribution of the project's benefits and drawbacks

Things to Avoid and Challenges

- Interpreting early silence or positivity as final approval
- Involving local residents too late
- Involving locals without giving them a say
- Relying on official processes as the sole means of communication
- Making assumptions about the values and motives that guide people's actions
- A rushed discussion can slow down progress toward the green transition.

Case: the VISION plan for an innovative green transition, public discussions

II The Energy Transition

Energy Use and Production in a Time of Transition

The challenge of aligning consumption and production

Finland is a pioneer in renewable energy production, where wind and solar power account for a significant share of energy generation, and low-cost energy attracts international investment. However, a challenge for renewable energy production is the alignment of energy production and consumption, both geographically and over time. The decentralization of production and consumption requires the continuous development and strengthening of the energy transmission grid, as well as the development of energy storage.

The demand for electricity will increase in the future as more and more industrial operations and sectors of society become electrified, ranging from urban district heating networks to steel production. The energy transition represents both an opportunity and a challenge for Finland. Improving energy availability also accelerates the transition of other industrial sectors and clearly strengthens Finland's attractiveness from an investment perspective, but the ever-growing need for renewable energy poses many problems for the power grid and the environment.

The Impact and Challenges of the Transition

Increasing renewable energy production requires extensive land-use coordination. Where is energy produced, how can it be transmitted to the areas where it is used, and, conversely, how can energy be stored? Energy production will also become decentralized, with many small operators operating alongside large power plants. In the densely built-up Uusimaa region, the focus is on sectoral integration that enhances energy efficiency and the circular economy, where by-products of operations, such as industrial waste heat, can be utilized efficiently.

When it comes to the energy transition, it remains important to focus on improving energy efficiency. The electrification of transportation, industry, and heating will significantly increase the need for energy production. Solar energy requires a large amount of land, and both solar and wind power have social and ecological impacts, while solar panels and battery storage also have their own lifecycle costs. As the energy transition progresses, we must also ensure that Helsinki-Uusimaa retains sufficient untouched natural environments and cultural landscapes, and that these natural environments remain sufficiently interconnected.

The hydrogen economy and electrification as trends

The Hydrogen Economy and Renewable Energy Sources

The EU's goal is to produce 10 million tons of green hydrogen annually, of which Finland could account for up to one-tenth. Planning for a national hydrogen pipeline network is underway. Through hydrogen electrolysis, electrical energy can be converted into chemical energy where the electricity is generated, allowing it to be transported for use without the need for new power grids.

Different forms of energy complement each other; wind and solar power production peaks occur at different times of the year. There are plenty of new wind and solar power projects in the pipeline, but many are still waiting for demand to grow.

Electrification

A strong growth in electricity consumption is expected in the near future, as society becomes even more electrified. Clean electricity is attracting electricity-intensive industries to Finland, and the electrification of transportation is gaining real momentum as technological advancements drive prices down. At the same time, efforts are underway to make district heating in major cities low-carbon, which increases the need for electricity generation, especially during the winter. Significant investments have already been made in the transmission grid, and more are planned, to better connect areas of energy production and consumption. In Finland, a lot of clean energy is produced on the west coast, while a lot of energy is consumed in the capital region.

In recent years, the energy production base has expanded, and production has become cleaner and more domestically sourced. Energy previously imported from Russia has been replaced by alternative sources. The price of electricity in Finland has remained at the same level for about six years, while in many EU countries it has doubled during the same period. The emissions factor for electricity, on the other hand, has fallen significantly in recent years as production has become cleaner, particularly with the growth of wind and nuclear power generation.

In the future, energy production and storage will become even more decentralized. For example, housing associations and other organizations can establish energy communities and increase local energy production and storage.

Continued growth—or cost savings as well?

Finland has great potential to increase renewable electricity production. However, renewable energy production has its own lifecycle costs, and generating it requires land. The green transition also involves reducing energy consumption and improving energy efficiency.

The slow pace of the transition may also have its own advantages. Limited capacity may force us to assess which societal functions need to be electrified, which in turn will also accelerate the shift in consumption habits.

"Do we have the expertise—and the time to apply that expertise—to understand the best solutions? Energy consumption shouldn't just keep rising; we also need to curb it. Capacity issues can actually be a good thing, as they prompt us to think about consumption and how to reduce it. Are we able to limit our own usage, and do we use energy for sensible solutions?"

Decentralization improves resilience

Greater decentralization of production also supports the resilience of the energy system. The energy grid is part of society's critical infrastructure, and its protection must be taken into account in planning, implementation, and asset management.

Can the energy transition be steered, and if so, how?

The need for energy system coordination

Should the overall portfolio of projects involving energy consumption, transmission, and production be coordinated or managed, and if so, by whom? Perspectives on coordination:

+ The construction of hydrogen and electricity networks also determines which locations will be attractive for green transition projects. Management is needed to determine where projects will be built, who gets to implement the best sites, and who gets to make the decisions.

+ What if there isn't enough energy? A single steel mill can consume a significant portion of Finland's total energy, so how will the resulting energy shortfall be addressed? Competing projects wouldn't need to be rushed through the permitting process if coordination ensures sufficient energy supply.

+ Balancing electricity production, storage, and use: smoothing out peaks in production and consumption by developing energy storage.

- On the one hand, energy production regulation should be as agile as possible to utilize the best locations and areas such as decommissioned farmland.

- Excessively multi-layered and inflexible land-use regulation reduces the volume of investments and may thus slow down the energy transition and the green shift.

How do you steer?

In Finland, the green energy transition is guided through land-use planning and permitting, environmental impact regulation and oversight, as well as by influencing municipal demand and fostering cooperation. However, the overall effort is perceived as loosely coordinated, and there is significant competition between projects and municipalities, which does not contribute to the green transition as a whole.

Developing the Energy System as a Strategic Goal – The Case of Espoo

The City of Espoo commissioned a study on the impacts of developing the energy system. Espoo's population growth and electrification will require a total of €1 billion in investments in district heating, electricity distribution, and the transmission grid. The impacts are significant: 1,000 jobs (direct and indirect combined), €23 million in annual tax revenue, and a 65% reduction in emissions. The additional capacity will enable new investments, such as the implementation of data centers.

There are many other benefits for city residents and the economy: vitality and sustainable growth, a foundation for the electrification of transportation, and greater opportunities for residents to participate in the energy market—for example, through their own solar panels, battery systems, and charging stations, thereby saving on costs. At the city-wide level, security of supply improves, and dependence on fossil fuels is reduced in both transportation and heating.

However, the City of Espoo does not own any energy companies or power grids, so achieving these goals can only be accomplished through close cooperation with energy sector operators. For example, the city is currently working with energy company Fortum on a carbon-neutrality project to electrify district heating production and reduce the emissions it generates.

https://www.espoo.fi/en/news/2025/09/developing-espoos-energy-system-enables-sustainable-growth

Lessons from the group regarding the energy transition

Best practices and tips

- Recognize the scale of the energy transition: electrification is growing rapidly and is driving all planning.
- Examine the land-use and environmental impacts of different energy sources in an open and comparable manner.
- Set clear criteria to ensure that energy and industrial clusters attract operators that genuinely reduce emissions
- Invest in proactive engagement where regional actors serve as information brokers—mere statutory minimum participation is not enough.
- Make project ownership, responsibilities, impacts, benefits, and drawbacks transparent at the local level.
- Guide projects to the best locations for the environment and society through advance information and regional coordination.
- Information on project parameters as early as possible to support decision-making
- Emphasize the multiple benefits of energy projects
- Ensure fairness: distribute benefits equitably and ensure compensation for disadvantages.
- Recognize the great potential of hydrogen facilities to effectively reduce emissions.

Things to Avoid and Challenges

- The energy transition involves an inherent paradox: while the goal is to minimize emissions and negative impacts, the rapid electrification of society is causing a massive increase in electricity consumption
- The green transition is currently based largely on increasing renewable energy production and the electrification of industry. This development increases demand for electricity and requires a significant expansion of generation and transmission capacity.
- The growth in electricity demand leads to fierce competition for clean energy, as exemplified by data centers.
- We must be able to break free from the path dependencies and structural barriers of the energy system to meet growing demand.
- Accelerated permitting for clean energy can increase environmental risks.
- The risk of greenwashing grows without clear criteria and guidance.
- Large-scale energy projects and new types of industry often face local opposition, especially if the area’s history includes negative experiences with polluting industries.
- In a post-industrial society, the dynamics of the emergence of large-scale industry have been forgotten
- Poor communication and engagement erode trust and slow down projects.

III Circular Economy Innovations

Circular economy

The circular economy refers to an approach in which the use of products and materials is carefully considered, and efforts are made to preserve the value of existing resources for as long as possible through repair, reuse, and recycling. The goal of the circular economy is to reduce the consumption of natural resources and to mitigate climate change and biodiversity loss. Achieving this requires broad systemic change, such as the adoption of new operating models, cross-sector collaboration, and economically viable and sufficiently low-risk solutions.

The Circular Economy Act currently being drafted in the EU aims to strengthen the single market by improving the availability, quality, and mobility of recycled materials. The goal is to promote the transition to a low-carbon and resource-efficient economy as part of the broader Green Deal and Clean Industrial Deal initiatives.

Finland's National Circular Economy Program (2021) aims to halt the growth in the use of natural resources and to double resource productivity and the circular economy rate of materials from 2015 levels. The long-term goal is a carbon-neutral circular economy society in which economic growth is decoupled from the consumption of natural resources.

Challenges of the circular economy in land-use planning

Promoting the circular economy requires space and infrastructure, factors that have not yet been sufficiently taken into account in land-use planning in Finland. Circular economy activities, such as sorting, storage, pre-processing, repair, and remanufacturing, compete for the same areas with other economic activities. The needs of the circular economy are easily overshadowed by other spatial demands. Anticipating and addressing the needs of the circular economy in land-use planning is therefore a key prerequisite for the success of the green transition.

Furthermore, municipalities lack standardized models for optimizing mass coordination, material flow visibility, or regional logistics, which leads to inefficiency, long transport distances, and poor cooperation between businesses. These challenges are particularly acute in smaller municipalities due to a lack of resources. Multifunctional circular economy zones can provide platforms for experimentation and support the transition from a linear economy to a circular economy.

Benefits of transitioning to a circular economy:

A. Minimizes the use of virgin raw materials and waste

B. Reduces the need for new land use and supports soil conservation and sustainable use

C. Reduces emissions and harmful environmental impacts from housing, consumption, transportation, and industry

D. Reduces consumption-oriented lifestyles, strengthens community spirit, and increases social well-being.

Source: Finnish Environment Institute project "Land Use Planning Enabling Circular Economy Solutions" (KITARA) https://helda.helsinki.fi/items/b18dcbcc-2857-4232-b384-b547c6a9f4c6

Examples of the circular economy in Uusimaa at various planning levels I

A regional circular economy area shared by two municipalities: Kiilan Kiertola

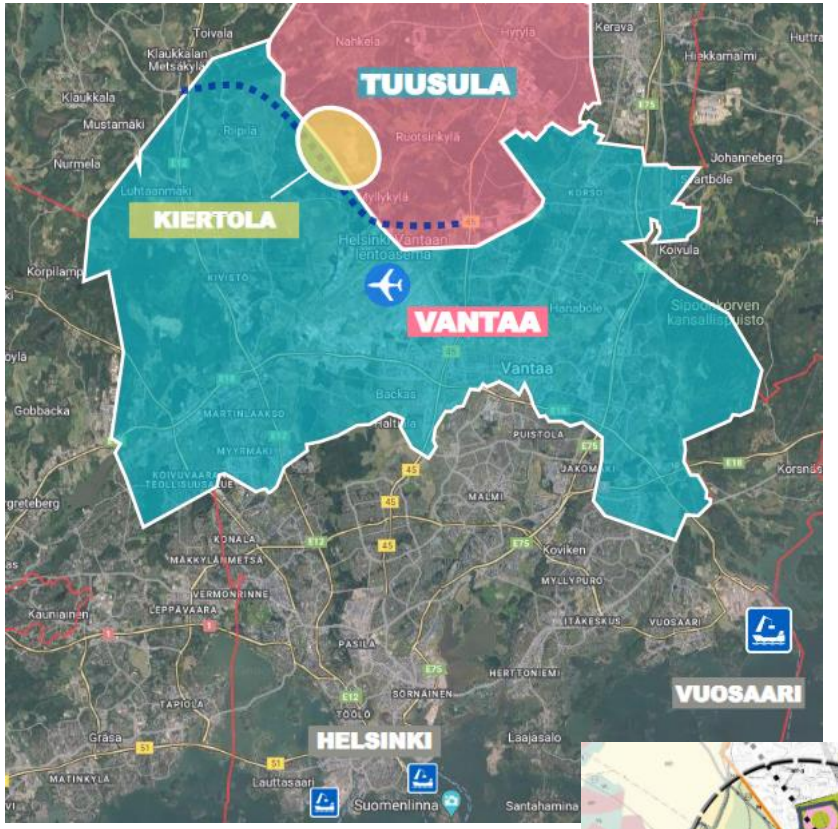
The Kiila circular economy area on the border between Tuusula and Vantaa is developing into a major regional hub that combines recycling, demolition, waste treatment, earthworks, and aggregate processing. The area has ample land reserves and potential, particularly for high-value-added operations and R&D projects.

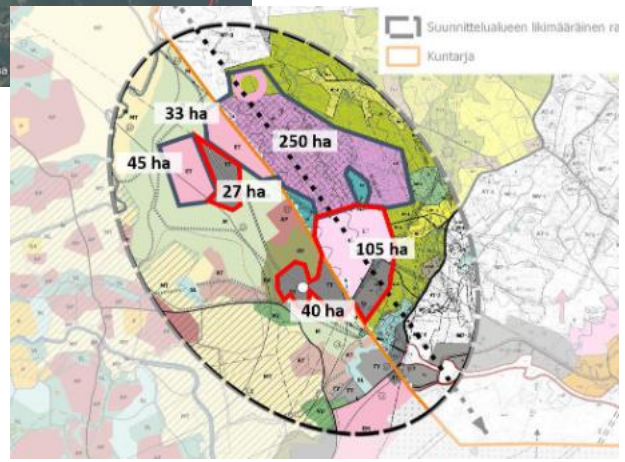
Development is slowed by fragmented administration due to municipal boundaries and complex permitting and oversight processes. In addition, the nearby residential areas require careful management of environmental impacts and open communication.

Kiila's next steps include joint environmental measurements, refining planning solutions, and establishing a clear role as part of the Uusimaa circular economy network. Kiila's Kiertola illustrates how a regional circular economy area can develop into a cross-sectoral ecosystem when responsibilities, resources, and cooperation structures are in place.

https://www.vantaa.fi/fi/asuminen-ja-rakentaminen/kaavoitus/yleiskaavoitus/kiilan-kiertotalousalue

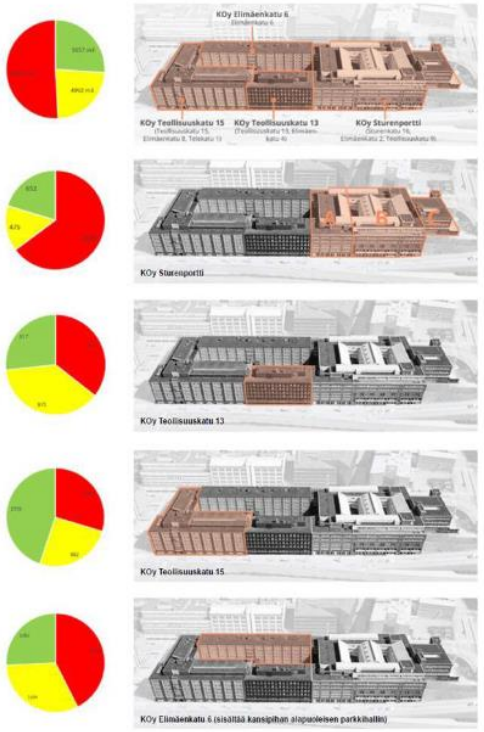
https://www.instagram.com/p/DGU3MIXIeLX/

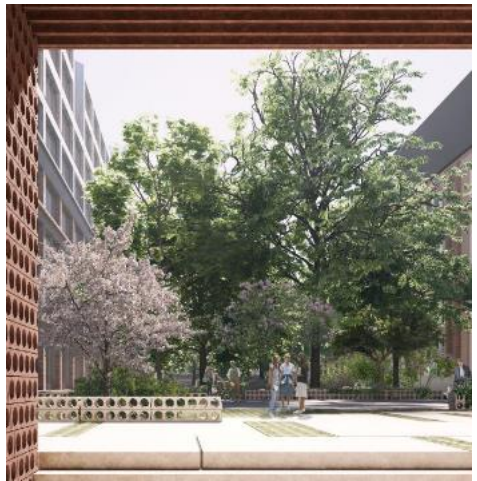




Images: Municipality of Tuusula, 3.2.2026 presentation

Examples of the circular economy in Uusimaa at various planning levels II





Neighborhood-level planning solution: Vallila Circular Economy Block

A circular economy district is being planned for Vallila in Helsinki, which will serve as a pilot project for resource-efficient urban development. The project combines housing, work, and leisure and primarily utilizes the existing building stock by preserving valuable building components and recycling materials for reuse. The block's green coverage will be increased, and green infrastructure will be integrated into the circulation of materials, water, and nutrients. The project demonstrates how the circular economy can be implemented at the neighborhood level in collaboration with the city, the construction company, and experts, combining low-carbon practices, the quality of the urban landscape, and the historical environment.

https://www.yit.fi/en/vallila

Images: YIT and City of Helsinki

Examples of the circular economy in Uusimaa at various planning levels II

Material Innovation: Low-Carbon Concrete

Carbonaid's concrete technology, based on rock mineralization, reduces carbon dioxide emissions from cement production by transforming concrete elements into carbon sinks. The solution produces more sustainable concrete, and the concrete curing system can be implemented in both new and existing production facilities without major structural changes. The operating model demonstrates that the construction industry can transition toward low-emission and climate-positive production.
https://carbonaide.com/

Images: Carbonaide 3.2.2026 presentation

The Need for Ecosystem Development to Support the Transition to a Circular Economy

Circular economy value chains transcend industry boundaries and require close collaboration between businesses, the public sector, the research community, and consumers. However, fragmented information, responsibilities, and material flows slow down the development and scaling of innovations.

The transition to a circular economy requires ecosystem development: shared goals, collaboration platforms, shared information, and piloting and testing environments. These can help create new business models, reduce the use of natural resources, and develop solutions with higher added value.

Success requires long-term coordination, resources, and actors who maintain collaboration and coordinate information, data, and material flows. Without stable funding and clear responsibilities, networks easily fragment, preventing important pilot projects and regional solutions from moving forward. The Uusimaa Circular Economy Valley serves as a regional hub that supports this transition by bringing stakeholders together around key material flows.

Examples of circular economy ecosystems in Helsinki-Uusimaa

Ecosystem: ARKI135 Circular Economy Hub is a circular economy hub opened in Arabianranta, Helsinki, that brings together companies and industry players to accelerate circular economy business. The hub serves as a meeting place for companies, a showroom, and a collaborative space where expertise is shared, networks are built, and growth based on the circular economy is accelerated. The hub's operations were launched and are being developed by the Arabia Circular Economy Hub project, led by Business Helsinki and the innovation company Forum Virium Helsinki.

https://arki135.fi/en/

Ecosystem Pilot: The Building Parts Bank is an open marketplace for reselling used building components, designed specifically for use by businesses and municipalities. The initiative is operated by Spolia Design Oy, while the Helsinki-Uusimaa Regional Council coordinates the collaboration and supports the launch of this market-based initiative. The Building Parts Bank aims to simultaneously increase both the demand for and supply of reused materials, as well as help municipalities promote the circular economy through, for example, procurement criteria, design, and land transfer terms.

Lessons from the group on the circular economy

Best practices and tips

- The realization of the circular economy requires broad systemic change, cross-sectoral collaboration, and pilot projects and test environments.
- Facilitators and meeting places are needed to foster cross-sectoral collaboration. Regional coordination between municipality borders supports inter-municipal cooperation.
- The spatial requirements of the circular economy should be identified as early as the planning stage. Space is needed, for example, for material processing, intermediate storage, and logistics.
- Actors in circular economy areas should engage in open dialogue with nearby residents
- Industrial symbioses should be promoted by locating mutually beneficial activities in close proximity, allowing by-products and energy to be utilized more efficiently
- Municipalities can promote the circular economy, for example, by launching pilot projects and incorporating circular economy criteria into procurement and land transfer terms

Things to Avoid and Challenges

The circular economy is an umbrella term for a wide range of activities. Viewing it solely as waste management or recycling limits its potential for development.

The development of the circular economy is hindered by existing path dependencies.

Without long-term coordination and funding, networks and pilot projects remain isolated and fail to scale into sustainable operating models.

The circular economy must compete with other forms of land use. Anticipating its space requirements is therefore a key prerequisite for the success of the green transition. Circular economy processes, such as material sorting, storage, pre-processing, repair, and remanufacturing, require space.

The environmental impacts of circular economy areas may scare local residents, so early and open interaction and information sharing is important

IV: Nature, environment and natural resources

Lessons from the group regarding nature, environment and natural resources

Best practices and tips

Remember the definition of the green transition: A green and clean transition is an essential shift toward an ecologically sustainable economy and vitality. (Definition by the Helsinki-Uusimaa Regional Council, see p. 7)

It is important to aim for multiple benefits and highlight the many advantages of green spaces: while supporting biodiversity, we often also support carbon sequestration, adaptation to climate change, and the recreational use of nature.

Mitigation hierarchy: avoid, mitigate, and only as a last resort, compensate for the harms.

Keep the bigger picture in mind: the overall benefit.

Assess the overall impacts of projects across different timeframes: to what extent do they reduce total emissions and other environmental harms relative to the impacts they cause, and where do these impacts occur. This requires a systematic analysis that distinguishes between global benefits and local harms, as well as how they are distributed among different stakeholders.

Things to Avoid and Challenges

- The loss and fragmentation of habitats are the main causes of the endangerment of species and habitat types.
- Nature knows no municipal boundaries. It is important to identify regional and trans-regional impacts on nature. The role of regional plans or other regional planning in preserving green corridors and core natural areas is essential.
- A key challenge is to reconcile climate change mitigation with halting the loss of nature. This requires a systematic review that takes into account both global benefits and local drawbacks, their timeframes, and the distribution of impacts among different stakeholders.
- From a nature conservation perspective, the land-use impacts of the green transition are no different from other similar impacts.

V The Green Transition in Industry and Industrial Clusters

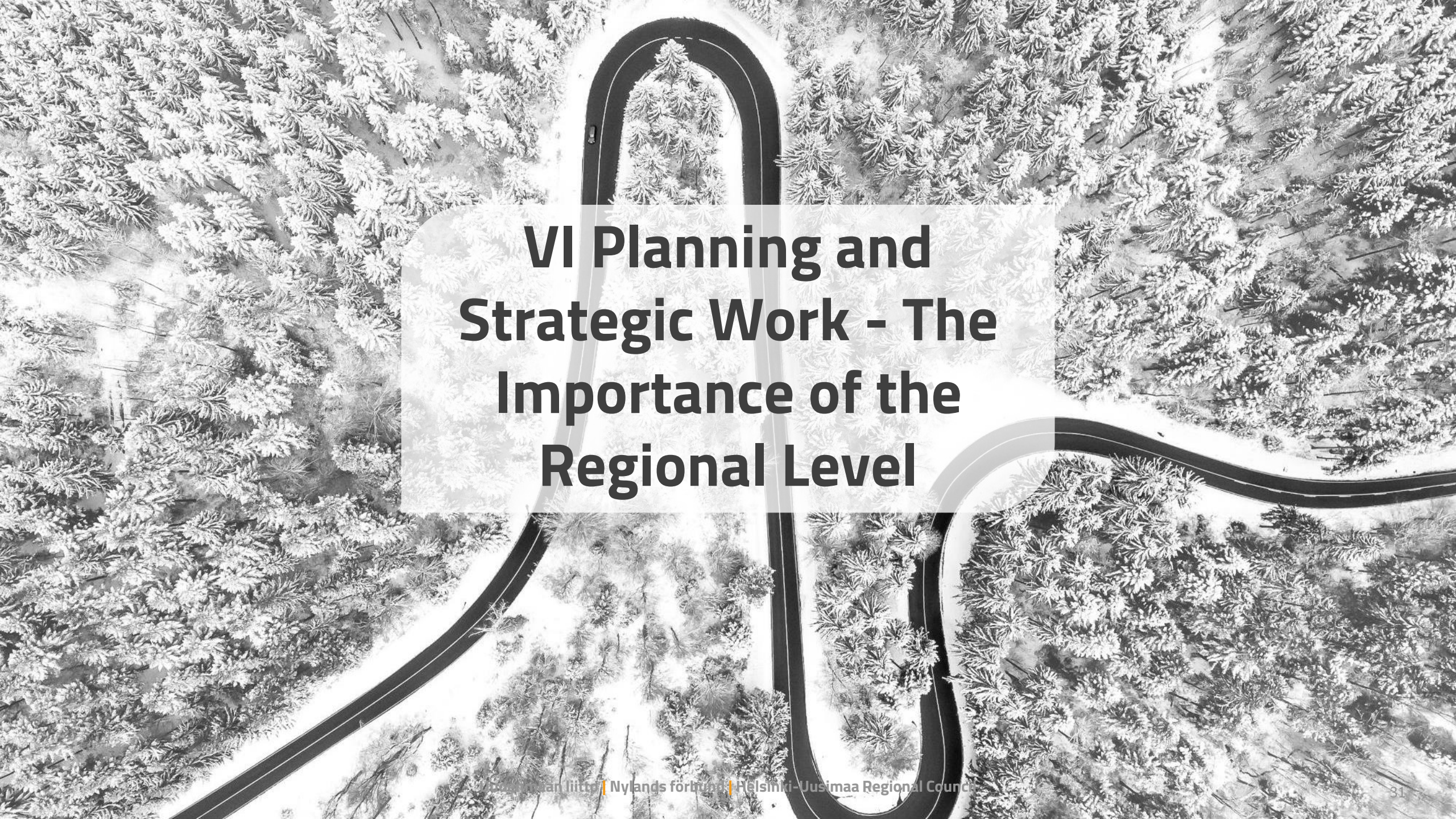
Lessons learned from the group regarding the green transition in industry and support for industrial clusters

Best practices and tips

- In addition to economic conditions and the goals of the green transition, incentives are needed to guide businesses toward the green transition.
- Businesses must benefit from the green transition. That is why it is also important to promote the creation of demand and markets.
- The conditions for the emergence of green transition clusters and ecosystems are created, for example, by ensuring that the region has functional infrastructure, expertise, financing, and cooperation structures that enable the development and scaling of solutions.
- To develop ecosystems, networks and groups are needed that help actors in the region find each other and meet around various pilot projects, challenges, and life cycle issues.
- Interaction with the local community at an early stage is important.
- The commitment of the municipality and companies to the green transition should be supported in the long term and with various tools, such as linking project development to the municipality's climate policy and establishing a green transition fund.
- It is worth supporting the emergence of clusters with an industrial park approach, for example by arranging a common development coordinator for the area.
- The importance of municipal decision-making resources for the progress of projects must be recognized.

Things to Avoid and Challenges

- We must critically assess whether a project genuinely contributes to the green transition—for example, whether it reduces climate emissions from current levels or improves the state of the environment compared to current methods.
- Energy consumption should not only be allowed to grow; it should also be curbed.
- Promoting the green transition in industry requires a more active industrial policy at the regional, national, and EU levels.
- The slow progress of the green transition is a challenge, especially in reducing fossil fuels.



VI Planning and Strategic Work - The Importance of the Regional Level

Lessons from the group regarding regional-level tools and their importance in relation to the green transition

Best practices and tips

- It is important for municipalities to commit to the green transition. In this context, it is particularly important to consider the interests of the region as a whole.
- Involving politicians in the processes and facilitating knowledge-based management as a resource for decision-making is more important than ever
- At the regional level, it is advisable to develop an overarching strategy for the green transition (e.g., a regional program and/or plan) to which both municipal and project stakeholders can commit. This will help anchor individual projects and their impacts within a broader regional green transition framework.
- In regional cooperation, the green transition can be advanced through various tools, including regional planning, voluntary municipal cooperation, conceptualizing system-level frameworks (like energy networks), shared strategies, disseminating expertise and learning together, as well as investments that are vital for economy and have an impact across municipal boundaries
- Remember the multiple benefits: green transition measures simultaneously support climate change mitigation, biodiversity, regional vitality, security of supply, and residents' well-being.

Things to Avoid and Challenges

- Polarization and a lack of resources can erode commitment to shared plans. For example, a region's shared green transition goals may be undermined by a lack of municipal resources or competition among municipalities.

Case: the VISION plan for an innovative green transition

3 The Helsinki-Uusimaa region plays a key role in the green transition

Helsinki-Uusimaa is one of Finland's most important regions; due to its population growth, higher education, business clusters, and international appeal, it plays a significant role in the broader green transition. The region is easily accessible both geographically and in terms of transportation. On the other hand, the region also faces challenges, particularly regarding the region's rapid growth, dense structure, and the preservation and restoration of green spaces. As Finland's largest metropolitan area and a densely populated and built-up region, Helsinki-Uusimaa faces significant coordination needs, particularly regarding land use, as so many functions compete for the same land area.

The green transition requires a shared vision for the development of the Helsinki-Uusimaa region. In this diverse region, the needs of small municipalities and large cities, businesses, and residents must be taken into account, and the green transition must be guided in such a way that it does not lead to regional segregation or divide the population into winners and losers. In densely built-up urban areas, space must be found for green transition projects, and these must be coordinated amid the pressures of environmental conservation and population growth. On the other hand, small municipalities must attract new investments and address the service needs and environmental challenges these investments bring.

In particular, the resources of small municipalities, which face conflicting pressures from large green transition projects, must be supported both through concrete investments in infrastructure development and through expertise and know-how in areas such as interaction and communication. The ball is now in the government's court, and clear action is expected to implement significant green transition investments in Finland.

On the other hand, too much regional equalization is also not good. We must collectively be able to prioritize green transition projects in the best locations so that the benefits are fully realized and the disadvantages are minimized.

This requires regional-level analysis and coordination to identify the best locations for various activities, such as solar energy, green industry, or data centers. The best locations should be coordinated through joint regional-level planning and marketing, so that everyone benefits.

Helsinki-Uusimaa Region in Finland

4 Finally– this is just the beginning

Some excerpts from a lecture mapping the future of the green transition

Challenges to the progress of the green transition:

1. **The green transition has turned into a geopolitical competition.**
   The transition is no longer just about climate policy, but part of the industrial and security strategies of major powers. EU regulation is erratic and lacks predictability, which weakens our position in global competition.
2. **Finland is not structurally prepared for the new industrial era.**
   The green transition means a return to energy- and space-intensive production, but land use, permitting processes, and expertise still rely on a post-industrial service society.
3. **Local acceptance determines whether projects are implemented.**
   In the future, projects will face increasing opposition if communication and interaction fail and the impacts are perceived as unfair—trust is a critical bottleneck.

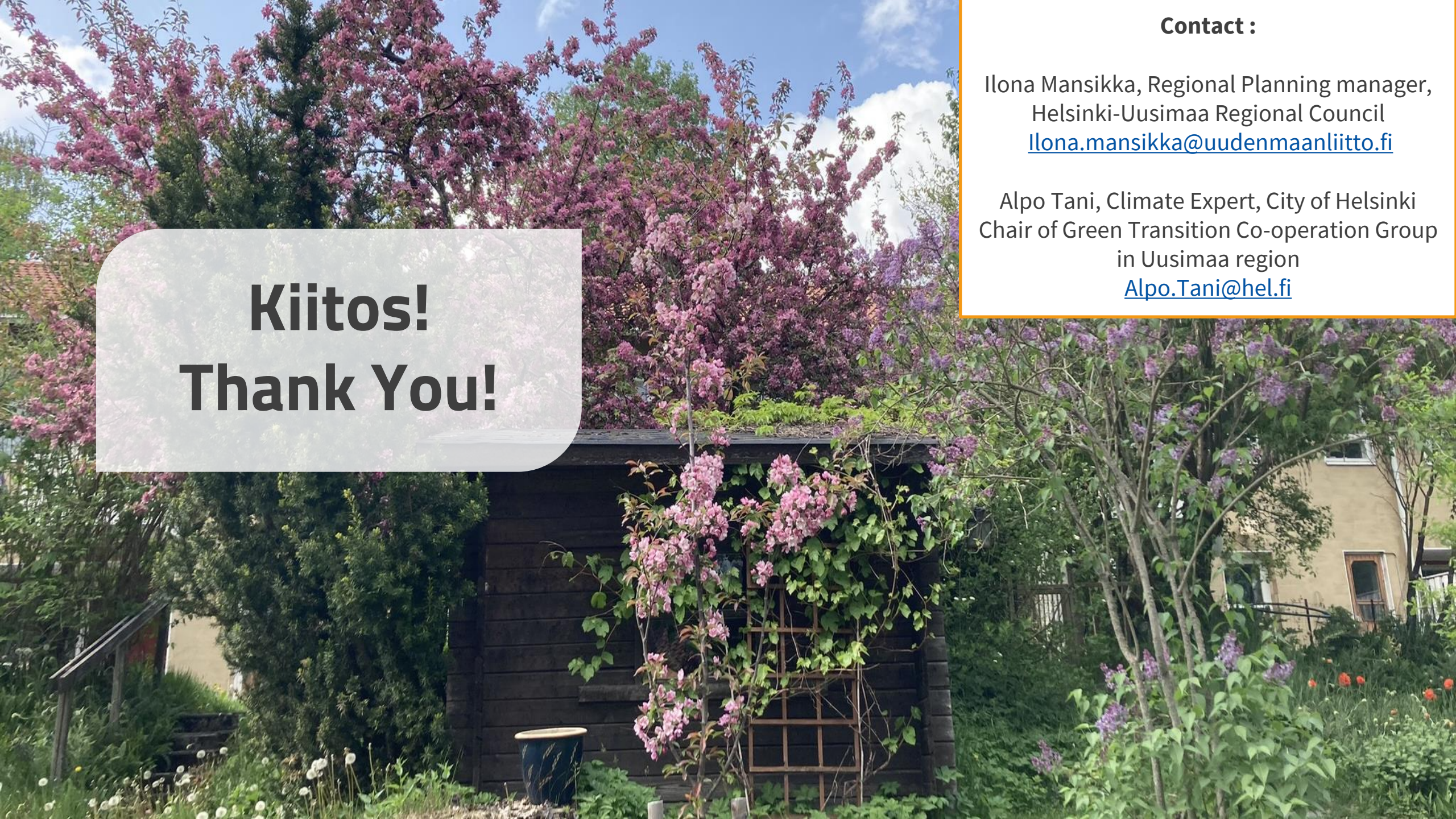
Possible solutions:

1. **Link the green transition more closely to security of supply and resilience.**
   In the future, the green transition should be justified increasingly on the grounds of energy self-sufficiency and security, which can boost political acceptance and speed up decision-making.

2. Build a controlled new industrial base in Finland.
A clear investment strategy, up-to-date legislation, and active guidance are needed to ensure that industrial green transition projects are located sensibly and support regional development.

3. Turn local acceptance into a competitive advantage.
Early engagement, open communication, and a fair distribution of benefits may determine which regions succeed in attracting investment in the future.

(Source: Tuomas Raivio 2026, Executive in Residence, Aalto University. Excerpts from a lecture mapping the future of the green transition .)



Kiitos!
Thank You!

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