10 Solutions

for Sustainability in the Real Estate and Construction Sector

Renovation Plan 2025





Thank you to the network!

The Renovation Plan for the real estate and construction sector has been produced by the experts of Green Building Council Finland (FIGBC) together with top professionals from our network. Thank you to all experts, commentators, and industry frontrunners who contributed to the writing process and provided valuable case examples.

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ntroduction to Renovation Plan	3
Reducing Product-Related Emissions	é
Solution 1: Setting Goals and Incentives for Low-Carbon Actions	7
Solution 2: From Demolition Boom to Long Lifespan	8
Solution 3: Reusing Building Products	9
Solution 4: Industrial Circulation of Construction Materials	10
Solution 5: Decarbonising Production and Carbon Capture	1
Solution 6: Adopting Low-Carbon Solutions	12
Turning Nature Impacts Positive	13
Solution 7: Setting Targets and Incentives for Nature Actions	14
Solution 8: Measuring Nature Impacts	15
Solution 9: Implementing Nature-Based Solutions in Construction Projects	16
Solution 10: Making Cities More Adaptive	17
Summary for Policy Makers	18
Summary for Business Decision-Makers	20

Renovation Plan — 10 Solutions for Sustainability in the Real Estate and Construction Sector

The built environment is a crucial sector from both climate and nature perspectives.

The renovation plan proposes ten solutions to reduce emissions and nature impacts in the sector.

The real estate and construction sector has a wide-ranging influence on how quickly and effectively Finland can respond to the challenges of the climate and biodiversity crises. At the same time as we, as a society, strive to adapt to the challenges posed by a warmer and more unpredictable climate, we should also more effectively address the underlying causes of the climate and nature crises. This means significantly reducing emissions and adverse impacts on nature.

There are already abundant opportunities within the real estate and construction sector. The sector already possesses the technology and expertise that enable the creation of environments that not only avoid harm but actively support the well-being of the climate and nature. As the sector transitions towards more sustainable practices, significant business opportunities emerge—both in Finland and internationally.

A sustainability transition will not happen on its own. The shift needs direction, targets, and concrete solutions, along with bold people and organizations to implement them. The renovation plan—10 solutions for the sustainability of the real estate and construction sector—brings together means to accelerate this transition.

The solutions are backed by extensive industry experience

The renovation plan is based on the Sustainability Status report published in autumn 2024, which examined the state of the sustainability transition in the real estate and construction sector using data. The statistics showed that the direction is right, but progress is too slow, especially in reducing product-related climate emissions and nature impacts. Key means to accelerate the transition have been gathered for this renovation plan.

The renovation plan is based on studies carried out in 2024–2025, which compiles information gathered from workshops, business interviews, the Sustainability Barometer, and the joint project on nature-based solutions by FIGBC and Sitra. A broad group of stakeholders from the real estate and construction sector participated in this work, including designers, developers, material manufacturers, and public procurers. The study brought together insights and experiences from dozens of different actors regarding barriers and drivers of the sustainability transition. The goal was to find solutions that benefit both the climate and nature, as well as business.

Ten solutions for sustainability

The renovation plan seeks solutions that reduce emissions, nature impacts, and material consumption, and are also economically viable.

The report is divided into two main sections. The first section examines solutions to reduce construction-related product emissions—those generated from the manufacturing and transportation, as well as from construction and demolition. Strengthening the circular economy plays a key role; it both reduces emissions and improves Finland's position and supply security in a world of dwindling resources. The second section focuses on the sector's nature impacts—effects on biodiversity, ecosystem functioning, and habitat quality.

In both themes, the solutions considered are not only impactful for the climate and nature but also sustainable for business. For each solution, this report lists both factors that slow down implementation and recommendations and practical best practices for speeding up progress. Many solutions already exist—what's needed now is their broad implementation and scaling.

Why Should Emissions, Nature Impacts, and Material Consumption Be Reduced?

The real estate and construction sector is vital for the functioning of society. However, the sector—buildings and construction—produces about one-third of Finland's emissions. These emissions are a key driver of the climate crisis. They need to be significantly reduced in order to mitigate global warming and biodiversity loss. The focus in reducing emissions in the sector is shifting from energy production to construction-related product emissions.

Emissions trading has significantly accelerated the reduction of emissions from energy production in recent years. However, its impact on the construction sector's product-related emissions has so far been limited, as building materials have been granted exemptions within the emissions trading system. According to current projections, these exemptions will be phased out during the 2030s, which will increase the price of emission-intensive construction products. Thus, low-carbon construction will become more economically viable.

Construction also consumes natural space and puts pressure on biodiversity. At the same time, we need nature even more to adapt to the changing weather conditions brought about by climate change, such as heatwaves and heavy rains.

The construction sector plays a significant role in Finland's overconsumption of natural resources: the sector uses approximately half of all materials consumed in the country. The consumption of virgin raw materials is also a key driver of the sector's climate and nature impacts. Both can be mitigated, for example, through a circular economy. In a world of dwindling natural resources, recycling construction materials is also important for maintaining security of supply.

Solving the climate and nature crises is important from many perspectives—including the economy: climate change is projected to cause an average global income loss of 19 percent by 2050. This estimate may rise significantly if emission reduction measures are not implemented. By placing sustainability at the core of their strategy, individual companies can also strive to ensure that they remain on the winning side economically.

Checklist for Sustainable Construction

- Preserve and Enhance Develop the existing building stock, residential environments, and urban spaces in ways that not only maintain but enhance their value, delivering added benefits for both climate and nature.
- Build to Actual Need Construct new buildings only when absolutely needed, and actively aim to improve the ecological conditions, or at the very least, minimize any negative impacts.
- Reuse and Recycle If demolition is unavoidable, recover materials and products intact and reuse them in ways that preserve or increase their value.
- Optimize and Make Responsible Choices –
 Design solutions that use the right material in
 the right place, in the right quantity, and with
 full consideration of lifecycle impacts—selecting
 options that are best for climate and nature.
- Compensate Remaining Impacts Compensate for those climate and nature impacts that cannot be prevented, minimized, or avoided through recycling.

SUSTAINABLE CONSTRUCTION HIERARCHY

Preserve and Enchance



Solutions 1 and 7: Setting Goals and Incentives for Lower Carbon and Nature Impact



10 solutions

For Sustainability in the Real Estate and Construction Sector

Reducing Product-Related Emissions

Product-related emissions for construction already account for nearly half of the real estate and construction sector's emissions in Finland. These emissions are generated from the manufacturing and transportation of construction products, as well as from construction, demolition, and waste processing.

Emissions from energy consumption have been successfully reduced, thanks to cleaner production and improved energy efficiency, and the trend looks promising. However, a similar reduction has not yet occurred in product-related emissions, which remain the sector's most significant and challenging source of emissions to manage.

The lowest emissions are associated with square metres that are not built at all

A key starting point for reducing product-related emissions is to make more efficient use of existing building stock. Emissions can be reduced both by minimizing the amount of materials used and by choosing low-emission materials. The lowest emissions result from not building at all. Renovation is less emission-intensive and more environmentally sustainable than new construction. What is built should be made with the lowest-carbon products possible.

However, financial incentives do not currently encourage this approach. It is often cheaper and easier to build new rather than to extend the life span of existing buildings or to use new materials instead of reusable ones. Those who see the use of existing buildings, low-carbon solutions, and circular materials as investments in their business future are willing to commit time and money to these solutions. Yet, such practices are not yet mainstream.

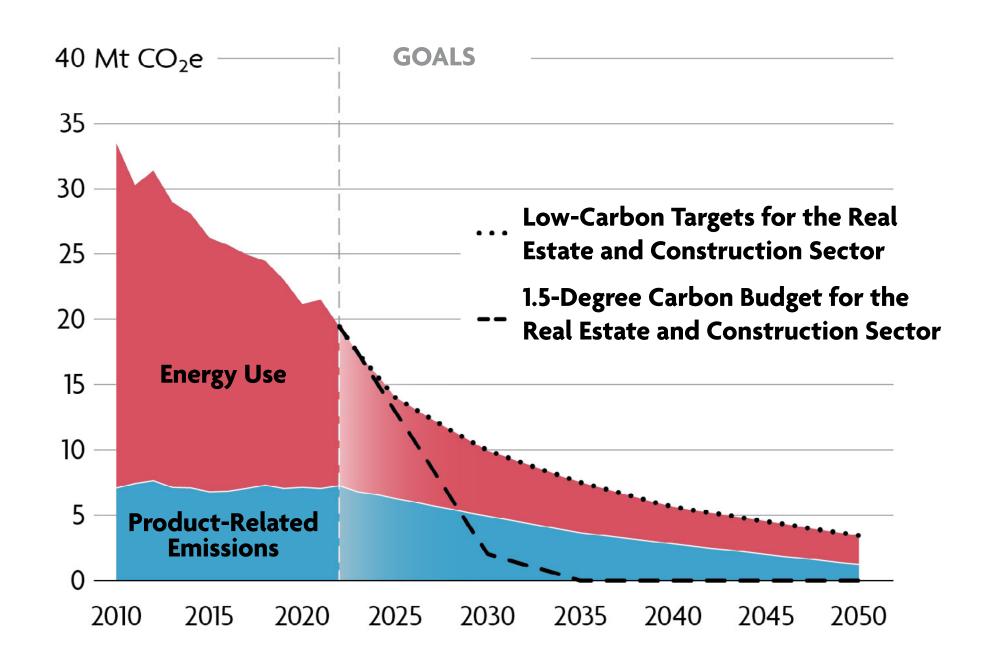
Six solutions for low-carbon future

This first part of the report covers six solutions to integrate low-carbon and circular construction materials more broadly into the everyday operations of the real estate and construction sector. If implemented, these would lower product-related emissions in the sector. The solutions also open opportunities for Finnish industry: by producing low-carbon, recyclable, and/or recycled products, it is possible to meet the growing demand for sustainable construction materials both in Finland and internationally.

- 1. Goals and incentives for low-carbon
- 2. From a demolition boom to a reuse and recycling boom
- 3. Reusing building products
- 4. Circulation of construction materials
- 5. Decarbonising production and carbon capture
- 6. Adopting low-carbon solutions

CLIMATE EMISSIONS OF THE BUILT ENVIRONMENT

Realized emissions from energy use and product-related sources for the years 2010–2022, as well as target scenarios up to 2050.



The carbon budget refers to the amount of carbon dioxide that can be emitted into the atmosphere before a 1.5°C temperature increase, as outlined in the Paris Agreement, is likely to occur. From the global carbon budget, we have calculated Finland's share and, subsequently, the allocation for the Finnish real estate and construction sector.

Image: Sustainability Status Report of the Real Estate and Construction Sector, 2024

Solution 1 Setting Goals and Incentives for Low-Carbon Actions

The means for low-carbon construction already exist but are not yet an everyday practice in the field. The role of clients, both in the public and private sector, is crucial: when low-carbon is set as a strategic goal, the means to achieve it will be found.

Low-carbon has become an increasingly important part of the operating environment in the real estate and construction sector —especially for new construction and among large companies. Many actors have already set ambitious emission reduction targets, and climate strategies or lowcarbon roadmaps guide their actions. Front-runners are also challenging their entire supply chain to operate in a low-carbon manner, accelerating the transition.

Competitive advantage from low-carbon only for front-runners or for all?

Front-runners see significant benefits in low-carbon practices: it strengthens competitive positioning,

facilitates access to financing, meets stakeholder expectations, and supports strategic development. The financial and regulatory environment is also supporting change: green finance practices and EU and national climate legislation reinforce this direction. Additionally, some cities steer development effectively through their own projects, zoning, and land allocation policies.

However, change is needed so that goals and incentives support low-carbon practices across all real estate and construction activities. The market is changing, led by front-runners and their partner networks, but everyone can learn from these examples— allowing the competitive advantage to benefit all of Finland, not just the frontrunners.

Barries to implementation:

- Many developers and projects still lack clear targets.
- Low-carbon criteria do not yet consistently guide public procurement.
- Low-carbon management in municipalities remains fragmented.
- Financial incentives are not yet focused on product-related emissions.
- The value of using low-carbon building products is not yet reflected in monetary terms.
- Carbon footprint restrictions currently apply only to part of new construction.
- Existing practices and skills can prevent the achievement of targets.
- Uncertainties in the future development of sustainability regulations.

REDUCING PRODUCT-RELATED EMISSIONS

Recommendations and Good Examples

With the actions, low-carbon efforts and circular economy can be strengthened:

A. Clear targets and carbon budgets for clients (ii) 📳

It is important for the client to set clear targets and integrate them into design guidelines, procurement criteria, contracts, and rewards.

• Several actors, such as The Foundation for Student Housing in the Helsinki Region (Hoas), NCC, and Hartela, have set lifecycle carbon footprint targets for their selfinitiated projects between 13.5–14 kgCO/m² per year.

B. Ambitious targets for public projects § 🖪

Public procurement has a major impact. When emission requirements are included in procurement criteria, design, and tendering, results will follow.

• The Turku tramway project has a 35% emission reduction target, which was incorporated into the Tramway Alliance's contract and incentive structure. The design was based on low-carbon principles, and the design criteria related to this were defined at the outset.

C. Cities' Low-Carbon Requirements for Construction Projects 📳

Cities can require low-carbon requirements, for example, in zoning or land allocation criteria.

• In Helsinki, the emission limit for residential apartment buildings is 14 kgCO/m²/year and in Turku 16.

D. Expanding the Use of Green Financing Criteria

The criteria for green financing set by banks guide some investments, but not yet the entire sector.

• Financial sector actors, such as SEB and OP, offer green loans that steer investments toward low-carbon solutions.

E. Financial value of climate risks made visible

If climate risk mitigation affected insurance prices or financing terms, it would encourage those seeking funding to opt for sustainable alternatives.

• A study by the Finnish Property Management Association compared Finnish and British property insurance coverage. Climate risks, such as flooding, are considered more comprehensicely in Britain than in Finland.

F. Taxation to support low-emission solutions



Tax incentives could increase the attractiveness of lowcarbon solutions. For example, car taxation has steered towards electric cars.

G. Stricter carbon footprint limits for all construction

The impact of carbon footprint limits on construction would improve if they were stricter and covered all types of building.

• In Denmark, industry actors are calling for tighter carbon footprint limits. The average currently in use is 7.1 kg CO/m²/year, and these will be further tightened in 2027 and 2029.

H. Turning organizational commitments into action

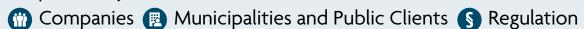
Organizations can drive change by supporting legislative amendments and educating their members

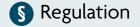
• The KIRA Climate and KIRA Growth programs support new business alliances and the development of low-carbon and circular economy solutions in the construction sector.

Responsibility:









Solution 2 From Demolition Boom to Long Lifespan

The development of the built environment should primarily focus on utilizing, repairing, and improving existing structures. Currently, this is not being realized.

Too many buildings are being demolished in Finland: from a climate and environmental perspective, it is more sensible to make the most efficient use of the existing building stock. The lifespan of a building can be extended through proper maintenance and energy-efficient renovations. When needs change, it may be wise convert the entire building for a new use.

Renovation should better account for the climate and nature impacts of different alternatives. Frontrunner companies are already calculating the carbon footprint of renovation projects and using the results in their decision-making, but this is not yet mainstream practice.

Large-scale changes in building use could be facilitated, for example, by easing zoning regulations and technical requirements where appropriate. The new Building Act also promises to simplify changes in use, but practical experience is still pending.

Barries to implementation:

- Climate benefits are not sufficiently reflected in costs.
- Changes in building use are difficult.
- Carbon footprint does not guide demolition or renovation decisions.
- Demolition does not incur financial costs.

REDUCING PRODUCT-RELATED EMISSIONS

Recommendations and Good Practices

These actions can help various stakeholders support longer building lifespans:

A. Financial Incentives for Extending Building Lifespans 📳 🔇

Lifespan and adaptability can be supported through tax benefits or additional building rights.

B. Easing Changes in Building Use 🐵 👚

Current regulations slow down the reuse of buildings. Streamlined permit procedures would improve the competitiveness of renovation. Section 57 § of the Building Act enables flexible changes—now practical application is needed.

• Finland has dozens of good examples of changes in building use, such as the former department store on Aleksanterinkatu in Helsinki converted into offices, and an office building in Uusikumpu, Espoo, repurposed into a school

C. Integrating Carbon Footprint Calculation a Standard Practice in Renovation (iii)

Carbon footprint calculation enables comparison between renovation and demolition-based new construction. It should be integrated into both decision-making and financing in renovation projects.

• Senate Properties and HUS Properties have adopted a practice whereby all major renovation projects include a carbon footprint calculation.

D. Obligations to Utilize Demolition Materials

Demolition processes could include requirements for material reuse or high-quality recycling.

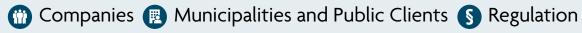
• The City of Helsinki's building ordinance provides guidance on utilizing materials generated at demolition sites either on-site or at other construction locations.

E. Highlighting the Value of Existing Buildings 🕕

Renovation needs more visibility and appreciation. Stories, aesthetics, and cultural heritage increase the appeal of sites.

• Real estate investment company Antilooppi's Siltasaari 10 renovation project gave new life to a former department store and two adjacent properties, respecting their cultural history.







Solution 3 Reusing Building **Products**

The reuse of building products is taking its first steps, and several challenges still need to be addressed. In the long term, reuse should become the default – the primary solution whenever it is technically feasible.

Reusing building products is an effective way to reduce emissions and environmental harm. At the societal level, it also helps preserve the value of national assets and improve resilience in terms of material security.

In recent years, the sector has seen several pilot projects in which building products have been dismantled and reused in new builds or renovation projects. However, mainstream practices still strongly favor the use of new products, as reuse is not yet as easy, fast, or economically competitive.

Reuse of load-bearing structures, such as concrete elements, involves significant design, dismantling, and permitting procedures, which increase risks and costs. In contrast, the reuse of individual non-loadbearing components, such as interior doors or windows, is easier and becoming more common.

From Pilots to Industrial-Scale Reuse

Currently, reuse often requires precise coordination between demolition and renovation projects. In the future, refurbishment of components for reuse could be managed by manufacturer-led take-back models or specialized operators, which would reduce scheduling constraints and coordination challenges.

Wider adoption of reuse requires changes in construction processes, procurement models, and legislation—as well as the willingness to try new approaches.

Barries to implementation:

- Construction processes do not support reuse.
- Lack of marketplaces and business models.
- Unclear responsibilities and product qualification.
- Regulations do not support reuse.

REDUCING PRODUCT-RELATED EMISSIONS

Recommendations and Good Practices

Ways different stakeholders can promote the reuse of building products:

A. Project Practices That Support Reuse (11)

Include reuse goals from the early stages of the project, in demolition planning and contracts.

• The Finnish Transport Infrastructure Agency has updated its guidelines to enable the reuse of rails removed from high-speed railway sections on slower track segments.

B. Reused Building Products on Store Shelves 👚

In the future, reused products could be available through standard sales channels or specialized providers. Product suppliers would also take responsibility for product quality, as is customary.

• Consolis Parma is preparing to introduce used and refurbished products into its selection.

C. Clarifying Responsibilities in Reuse 👚

Transferring products directly from a demolition site to another project requires new types of risk management and contract models.

• In YIT's Melkinlaituri school project, hollow-core slabs dismantled from an SRV site were tested and documented prior to reuse. Responsibilities were agreed upon with the client and designers, enabling safe reuse of materials.

D. Clarifying Qualification Requirements and Legislation 🖪 🔇

Unified, applicable guidelines are needed for product use and reliable assessment. Legislation concerning reuse is also complex and requires clarification.

• The RTS UURAKET guide provides direction for assessing the suitability and acceptability of concrete, glued laminated timber elements, and bricks. It compiles the relevant qualification requirements and offers practical tools for planning reuse in building construction projects.

E. Developing Demolition Technologies and Designing for Disassembly 🍿

New technologies are needed to dismantle old buildings intact. New buildings should be designed for future disassembly.

• The ReCreate project develops practices for dismantling, storing, and reusing load-bearing concrete elements.

F. Developing a Brand for Reused Products 👚

The aesthetics and stories of circular economy products enhance the appeal and value of buildings.

• During the demolition of the property at Aleksanterinkatu 13, a portion of the bricks was sorted and reused in the façade and interior spaces. The restaurant opened at the site was listed among the most beautiful restaurants in the Prix Versailles competition.

Solution 4 Industrial Circulation of Construction Materials

Materials generated during demolition should be reutilized more efficiently than at present. Transitioning to circular economy materials would offer lower emissions and reduced nature impacts – and at best, provide costeffective and highly processed raw materials for industrial use.

The recycling rate of construction materials remains low, and a significant portion of potentially reusable materials ends up in energy recovery or final disposal. Recycling opportunities vary considerably depending on the material:

Concrete constitutes the largest single demolition material stream by mass. Most of its currently utilized occurs in civil engineering as crushed aggregate, replacing virgin stone materials. Similarly, concrete aggregate could be replaced with crushed concrete. Higher value-added applications could include components for recycled concrete.

Steel is recycled efficiently: nearly all steel is reused, but future challenges include the availability of recycled steel and how steel can be reused as products.

Wood typically ends up in energy recovery rather than in industrial material circulation. Wood materials could be reused, for example, as raw material for particleboard or biochar.

For other materials, the situation varies depending on the type. Broader use may be limited by factors such as the availability of recycled materials, underdeveloped processing chains, or high cost levels.

Reuse opportunities were addressed in the previous solution. Accelerating more efficient material circulation requires both changes in corporate practices and clarification of regulations and financial incentives.

Barriers to implementation:

- Ambiguity in regulation.
- Cost competitiveness and labour requirements.
- Quality management and responsibility allocation in recycled materials.
- Logistical and infrastructure challenges.
- Perceptions of recycled materials.
- Uncertainty in official interpretations.

REDUCING PRODUCT-RELATED EMISSIONS

Recommendations and Good Practices

Here's how companies and regulation can accelerate the industrial reuse of construction materials:

A. Legislation to promote the use of recycled materials 📳 🚺

Current regulation treats recycled materials as exceptions. Clearer conditions are needed for the use of demolition materials in various applications.

• The "End-of-Waste" regulation for concrete has accelerated the use of crushed concrete in civil engineering.

B. Making the use of recycled materials economically attractive S

There are no cost penalties for using virgin natural resources, nor is recycling financially supported. For example, tax incentives and increased waste fees are ways to influence cost structures.

• The expiration of emission trading exemptions granted for construction materials in the 2030s may increase the price of virgin raw materials and enhance the attractiveness of recycled materials.

C. Identification and utilization of recycled raw materials 🚻

Industrial reuse requires knowledge of the properties of recycled materials and sufficiently large volumes.

- Knauf recycles clean gypsum board waste collected from construction sites to produce new boards.
- Finnfoam collects plastic insulation waste from construction sites and hardware stores and uses it in the manufacturing of new products.

D. Logistics in order 🍿



Production can be initiated through bilateral agreements. Large-scale operations require distribution infrastructure, storage, and logistics.

• YIT and L&T have improved waste management at construction sites by enhancing source separation, which has increased recycling rates and enabled reuse of waste materials.

E. Building a positive brand for the circular economy (iii)

The perception of recycled materials is unclear or negative, which limits their use.

• In the Jätkäsaari circular economy block project, a circular economy tile containing 40% recycled material was developed. Branding around the product strengthened the acceptance and visibility of circular economy solutions.

F. Standardized practices for infrastructure construction (iii)

Recycled materials in civil engineering require consistent guidelines and cooperation with authorities.

• The concrete crushing concept developed in Finland and the UUMA guidelines enable the use of recycled materials in selected civil engineering structures under nationally agreed conditions.

Solution 5 Decarbonising Production and Carbon Capture

Decarbonising the production of building materials often requires substantial investments in production infrastructure. There are also significant opportunities in carbon dioxide capture. A predictable regulatory environment and long-term demand for low-carbon construction products are key to driving progress.

Decarbonising most of the production...

Scaling up low-carbon production requires significant and sustained investments, particularly in the manufacturing of materials such as cement and steel. In these sectors, the transition cannot be achieved solely through small or incremental improvements; instead, entirely new production solutions and major changes to manufacturing processes are often necessary. The realization of such investments depends on the predictability of regulation and clarity of market demand.

Although wood-based products are frequently highlighted as central materials for low-carbon construction, no single material can meet all

construction needs alone. Sustainable construction often requires hybrid materials that combine the strengths of different materials.

...and capturing the remaining carbon dioxide

Alongside low-carbon production, carbon capture (CC), utilization (CCU), and storage (CCS) have emerged as key methods for reducing industrial emissions. Manufacturing facilities for construction products offer promising opportunities for applying these technologies. However, a national strategy and viable business models are still lacking.

Barriers to Implementation:

- There is a lack of willingness to invest in low-carbon production.
- Absence of industrial subsidies and long-term outlooks.
- The phase-out of emission allowances poses challenges for domestic industry.
- Business models and a national framework for carbon capture are missing.

REDUCING PRODUCT-RELATED EMISSIONS

Recommendations and Good Practices

The following measures can help companies, public procurement organizations, and regulators promote low-carbon production of building materials and carbon dioxide capture:

A. Purchase Commitments and Usage Requirements for Low-Carbon Products 🖪 👚

Long-term purchase commitments and usage obligations reduce market risk and support investment.

• The First Movers Coalition is a business-led initiative where private actors commit to purchasing new lowcarbon products to accelerate their market entry.

B. Long-Term and Predictable Regulation to Support Investments §

Predictable regulation enables industrial and construction sector investments in low-emission solutions.

• Skanska has highlighted that understanding the development of emissions trading has been a key driver for its low-carbon investments.

C. Investment Support for Production Targeted at the Domestic Market §

Production of low-carbon materials for the domestic market requires investment support for carbon capture technologies and circular economy solutions. Without such support, there is a risk of increased import dependency and weakened competitiveness of domestic industry.

• The European Investment Bank's InvestEU and ELENA funding instruments have been utilized in numerous projects across Europe, and their use in Finland could be expanded to support low-carbon construction investments.

D. National Framework for Carbon Capture and Utilization § 👚

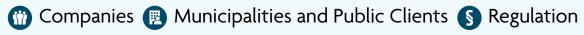
The deployment of carbon capture technologies requires a national plan, logistics, and allocation of responsibilities. Finland has the potential to take a leading role in this area, but currently many other European countries are ahead in development.

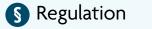
• Norway's Longship project demonstrates how to support the development of carbon capture and storage across the entire value chain—from capture to transport and permanent storage. This government-led initiative creates the conditions for commercialization and broader adoption of the technology.

E. Increase Business-Led Collaboration in Research, Development, and Innovation (RDI) for Material Development 👚

Collaboration between companies, research institutions, and financiers enables piloting and deployment of new materials.

• In recent years, several research projects in Finland have focused on developing carbon capture technologies — for example, XAMK's BEHI, VTT's Carbonaide, and CO2ncrete.





Solution 6 Adopting Low-Carbon Solutions

Construction-related emissions can be reduced both by minimizing the quantity of materials used and by choosing low-emission materials. Favoring low-carbon materials requires changes in procurement, design, and scheduling.

Emissions can be reduced by lowering the quantity of materials used and by selecting low-emission alternatives.

Emissions = mass × emission factor.

Material quantities can be reduced by utilizing existing structures and optimizing the use of new materials. The money saved can be redirected to low-carbon materials without increasing total costs.

From Chicken-and-Egg Debate to **Continuous Learning**

In the case of low-carbon materials, the industry faces a chicken-and-egg problem: clients and developers feel that low-carbon products are hard to obtain, difficult to use, or too expensive. Manufacturers, on the other hand, report that production capacity exists, but demand is too low to justify investments.

In a rapidly changing market, the overall picture is fragmented. Practical experience with, for example, low-carbon concrete on construction sites has grown quickly, and new products and emission classifications have entered the market. However. knowledge in the field has not kept pace, leading to caution and outdated assumptions.

Accelerating the adoption of low-carbon products requires not only development of product supply and manufacturing but also raising the requirements and competence levels of clients.

Barriers to Implementation:

- Low-carbon products are more expensive than conventional solutions.
- Construction processes and procurement practices do not support the use of new solutions.
- Information about products is insufficient.
- Clients perceive the availability of low-carbon products as limited and inconsistent.
- Products are seen as high-risk, and competence is not updated to support their use.

REDUCING PRODUCT-RELATED EMISSIONS

Recommendations and Good Practices

Companies play a key role in mainstreaming low-carbon products and solutions in the industry:

A. Reduce Material Use and Costs (iii)



Designers can reduce emissions during the planning phase by optimizing material quantities and structures or by using prefabricated products. This also lowers costs.

• Constitutilized takt production and prefabrication in a façade renovation project in Turku, which accelerated the schedule, reduced waste, and brought cost savings.

B. Development of Emission Classifications, **Product Comparison Data, and Usage Guidelines**



Product manufacturers can support clients make lowcarbon choices by providing clear product information as well as design and usage instructions. Emission classifications assist in this.

• The website vähähiilinenbetoni.fi offers designers and clients clear classifications and availability data for various concrete products.

C. Consider New Materials and Their Scheduling Requirements in Design 🍿

Low-carbon solutions require proactive planning and collaboration. Product characteristics and delivery times must be considered early. Competence must be strengthened.

• For example, Skanska, City of Vantaa, and SATO have trained their staff or partners on low-carbon solutions.

D. Highlight Low-Carbon Alternatives to Decision-Makers (iii)

- Designers and contractors can actively propose lowcarbon solutions to clients.
- Designers and implementers such as A-Insinöörit and Skanska have actively brought low-carbon solutions to the attention of decision-makers during project preparation and selection.

E. Funding for Piloting and Adoption of New Solutions § 👚

Funding programs and subsidies help scale low-carbon solutions into practice.

• Kiilto has established Kiilto Ventures, through which it invests in sustainable construction innovations and supports the adoption of new solutions.

F. Promote the Adoption of New Solutions in Projects (iii)

Project contract models should more strongly support the adoption of new solutions.

• Throughout the development phase of the Turku tramway project, opportunities to reduce construction-related emissions are continuously identified.



Turning Nature Impacts Positive

The nature impacts of the real estate and construction sector are still largely overlooked, but they are rapidly emerging as a central theme. While many actors already address emissions reductions systematically, the understanding and management of nature impacts is only in its early stages.

The industry is beginning to recognize that biodiversity is not merely an environmental issue—it is directly linked to the attractiveness and livability of areas, climate adaptation, human health and well-being, and urban resilience. Nature, or the lack of it, is also reflected in the appeal of buildings, which in turn affects the value of the property.

At the same time, the EU Biodiversity Strategy, land use regulations, and increasing expectations from financiers and clients are putting pressure on the construction sector to integrate nature into decision-making.

Responding to this need requires new kinds of expertise but also opens up new business opportunities.

From Individual Sites to the Entire Value Chain

The assessment of companies' nature impacts can be divided into two levels: by assessing on one hand the nature impacts across the value chain, such as the harm caused by the production and procurement of construction materials, and on the other hand, by evaluating local nature actions at the site or property level.

In material production, significant efforts are needed to reduce nature-related harm—for example, by mitigating or compensating for the impacts of raw material sourcing and by decarbonising production. The use of recycled materials is also an important way to reduce nature-related harm.

In new construction, local nature impacts can be addressed through preliminary studies, smart design solutions, building placement, site operations, and by preserving and enhancing local vegetation. The resilience of existing properties to extreme weather events and local nature values can be developed simultaneously—for example, by improving the functionality and vegetation of yard areas to withstand heavy rainfall and heatwaves, and to prevent flooding.

This section covers the following solutions:

- 7. Setting targets and incentives for nature actions
- 8. Measuring nature impacts
- 9. Implementing nature-based solutions in construction projects
- 10. Making cities more adaptive



Solution 7 Setting Clear Targets and Incentives for Nature Actions

At the societal level, the importance of nature—both for climate adaptation and public health—is already being quantified in monetary terms. In the real estate sector, however, the shift from nature-negative practices to nature-positive ones still requires clarification in terms of corporate targets and incentives.

Nature's role in climate adaptation is well recognized at the societal level. Urban nature promotes mental health, cardiovascular and respiratory health, and can reduce healthcare costs by hundreds of millions of euros annually. Enhancing nature in cities thus creates ecological, social, and economic value. Many cities and municipalities have already taken action: nature targets are included in strategies, zoning plans, and land allocation conditions.

Recognizing Nature's Value in Business

Nature should also be seen as valuable capital in real estate and construction business—not merely as a cost item in a supporting role. For example, preserving vegetation on a plot may reduce the

number of sellable square meters, but it increases livability and the value of the built square meters.

At the property level, nature clearly creates value, which front-runner companies are already recognizing. Companies are developing biodiversity strategies, setting their own nature-related targets, and updating design and property management guidelines.

Regulatory changes, such as the EU's Nature Restoration Law and the development of nature value markets, are creating new incentives. Companies that have already begun practicing nature-conscious practices gain a competitive advantage.

Barriers to Implementation:

- Organizations lack nature-related targets.
- Nature targets are exceptions in projects—not the norm.
- Regulation and financing do not yet provide sufficient guidance.
- Nature is not consistently integrated into land use planning.
- Nature-based solutions benefit society, but costs are concentrated on property owners.
- The value of nature is not reflected in investment or cost calculations.

Recommendations and Good Practices

These measures can strengthen nature positivity.

A. Models for Companies to Set Nature Targets (iii)



Company-specific nature targets can serve as a management tool, making the consideration of nature a visible, measurable, and improvable part of operations. To support these targets, operational models can be developed for example in property maintenance, design guidelines, or procurement criteria.

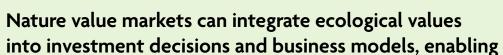
• The goal of Senate Properties' nature roadmap is to ensure no net loss of nature across the group's own areas. The City of Vantaa also aims to be nature-positive by the year 2030.

B. Quantitative and Qualitative Targets for Projects

Both construction and infrastructure projects should include clear quantitative and qualitative nature targets. The simplest targets may concern for example the preservation and consideration of existing trees or other natural features on site. Other possibilities include target values for the green factor or ecological compensation measures.

• The Turku Tramway Alliance project also includes a biodiversity-supporting objective, which was incorporated into the Tramway Alliance's contract and incentive structure. During the implementation planning phase, the number of nature value hectares potentially at risk along the route was calculated, and decisions were made on measures to prevent or compensate for ecological impacts—for example, through restoration or compensating.

C. Utilizing Nature Value Markets (5)



companies to take nature-positive actions.

• The Marketta project by the Ministry of the Environment is developing a voluntary nature value market.

D. National Regulation to Set Minimum Standards for Nature Work (ii) (§

As practical experience accumulates and calculation methods become standardized (see Solution 8), legislation can set minimum requirements for nature assessments, biodiversity preservation, and ecological compensation.

E. Nature Criteria for Green Financing (iii) §



Currently, financing often requires that projects do not cause significant harm to nature. In the future, actions that restore or enhance nature could become independently financeable business activities.

• Environmental certification systems such as BREEAM and LEED encourage nature-based solutions—green roofs and stormwater management systems, for example, can earn points and increase project value.

F. Consistency in Land Use Planning



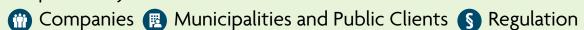
Unlike climate impact regulations for buildings, there is no binding legislation at the building level for nature-related objectives. Municipalities play a key role: nature objectives should be included in zoning regulations and land allocation conditions. Binding minimum requirements for green coverage could function similarly to carbon footprint thresholds.

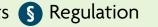
• The City of Vantaa utilizes a green efficiency indicator as a tool in zoning and, moving forward, in area development. Zoning plans and land allocation conditions include, for example, requirements for preserving green spaces and using permeable surface materials.

Responsibility:









Solution 8 Measuring Nature Impacts

The nature footprint of infrastructure and buildings results from activities both at the construction site and throughout the value chain. Although comprehensive nature footprint calculation is still under development, it is expected to become a standard part of planning and decision-making in the future.

In urban and regional zoning, the assessment of nature impacts is already a routine practice. The quantity and quality of urban nature are currently evaluated in several cities using green efficiency calculation tools. Ecological criteria for guiding public procurement are also being planned.

However, when it comes to infrastructure. buildings, and the building products used in them, nature impact calculation is still in its early stages. Although no standardized metric exists yet, some pioneering actors have already begun calculating their nature footprints.

Nature impacts can also be assessed through their components—for example, by evaluating land use changes caused by construction, greenhouse

gas emissions, and the use of natural resources. The solutions presented in this report (Solutions 1–6) are often also effective in reducing nature footprints.

Good Practices Can Begin Immediately

Even though calculation methods are still evolving, assessment and mitigate adverse impacts are already possible. Low-carbon measures often help reduce nature-related harm as well. For example, using recycled raw materials or reused products in construction reduces both emissions and nature impacts. Renovation and infill development in turn, help reduce pressure for harmful land use changes. Identifying and minimizing local nature impacts in projects is also essential.

Barriers to Implementation:

- Nature impacts across the value chain cannot yet be fully assessed or measured.
- Lifecycle assessment expertise is limited to carbon calculations.
- The quality of nature at the construction site and lifecycle benefits are often overlooked.

Recommendations and Good Practices

A. Standardize and Harmonize Nature Impact Assessment Practices 👚

Nature impact assessment is already possible using existing tools, which can be support in decision-making across different planning stages. Calculations can provide data on nature impacts both at the value chain level and at the construction site, either for short-term analysis or across the full lifecycle.

• Sponda has piloted biodiversity metrics in its projects. Ramboll has applied biodiversity metrics, for example, in collaboration with the Nordic real estate investor CapMan, as well as in projects within the Saikka residential fair area in Lempäälä. These metrics enable the analysis of nature-related impacts and the measurement of changes in biodiversity resulting from implemented actions.

B. Integrate Quantitative Nature Metrics into Project Management 🖪 🍿

To support project goal-setting, user-friendly metrics are needed. Emerging tools support comparison and targetsetting. Green factor calculators are already widely used by municipalities.

• Green factor calculators are widely used by municipalities to guide the planning of green areas. For example, the City of Vantaa utilizes green efficiency in land use planning, and Skanska has piloted the tool in its projects.

C. Pilot and Improve Incomplete Practices 🍿



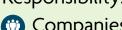
Practical pilots of new nature impact assessments provide valuable insights, and learning can begin immediately. Carbon calculation is a good starting point from which assessments can be expanded to other components.

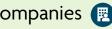
- In a project led by Granlund, methods for calculating the nature footprint of buildings and products were developed through LCA-based assessments of example sites.
- At the University of Jyväskylä, nature footprint assessment for construction is being developed as part of a doctoral dissertation in collaboration with SRV and other companies.

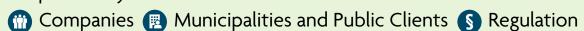
Nature Value Markets =

Nature value markets create financial incentives for conservation and restoration. At their core is the idea that ecosystem services—such as clean air, water resources, and biodiversity have economic value that markets can recognize and price. The role of the government is to set criteria for nature value units, establish a verification system, enable registration, and ensure permanence.

Source: ym.fi







Solution 9 Implementing Nature-**Based Solutions in Construction** Projects

In construction projects, the undeveloped portion of the site—its natural features and potential—is often given little attention, as decisions are dominated by the number of buildable square meters. Nature-based solutions could generate significant added value, but their application is still in its early stages.

Nature-based solutions in the built environment can help reduce flood risk, sequester carbon, cool urban areas, and improve livability. These solutions may include preserving and planting trees, installing green walls and roofs, "rewilding" green areas, using permeable paving stones instead of asphalt, or creating visually appealing rain gardens to manage stormwater on site.

Smart Design Enables Savings and Adaptation

For nature-based solutions to become more widespread, they must be included in project objectives and integrated into implementation and maintenance.

Design should focus on minimizing ecological harm, enhancing nature values, and supporting climate

adaptation—for example, by preserving trees, avoiding unnecessary earthworks, and adding new green structures.

Implementation requires clear responsibilities and expertise throughout the entire process, from planning to property maintenance.

Preserving Nature Can Also Save Money

The benefits of strengthening biodiversity and adapting to climate change directly affect the everyday lives of people in the surrounding area. However, the costs are borne by the construction project. Therefore, it is important to make these benefits visible—including in financial terms. At the same time, many nature-based solutions can be highly cost-effective — such as simply preserving existing natural features.

Barriers to Implementation:

- Nature-based solutions are not well known or recognized in projects.
- Significant variation in clients' nature-related expertise.
- Investments that benefit nature may not be immediately profitable.
- Project goals do not always carry through to implementation.

Recommendations and Good Practices

A. Build Organizational Competenc (ii)

Competence enables organizations to effectively set and implement nature-related goals. For example, ecological data gathered during zoning should be transferred to construction projects through guidance and collaboration.

• At SATO, biodiversity is integrated into staff sustainability training. The goal is to ensure that everyone has sufficient understanding of biodiversityrelated issues relevant to their own work role.

B. Provide More Information on the Benefits and Costs of Different Solutions (iii)

Nature-based solutions support sustainability, livability, and property value.

• The Urban Nature Atlas mapping service compiles various implemented nature-based solutions from around the world to support project planning.

C. Highlight the Value of Nature Actions Through Improved Communication and Marketing 🍿

Nature actions can be implemented at both project and city levels. Making the benefits tangible for different stakeholders helps make these solutions desirable.

• The City of Helsinki has used surveys and workshops to gather residents' views on nature management and to increase the acceptability of proposed solutions.

D. Integrate Nature-Based Solutions into All Phases of the Construction Process (iii)

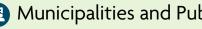
As knowledge and expertise around nature-based solutions grow, it becomes easier to integrate them into every phase of the construction process — from planning to long-term maintenance. For example, building and maintaining a green roof requires different skills and budgeting than installing a metal roof.

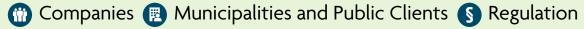
- Skanska uses biodiversity tools on its construction sites to assess and enhance positive impacts on
- HOAS uses a yard design checklist and map-based ecological data to incorporate nature considerations already in project planning.

E. Promote Awareness of Compensation and

Biodiversity in construction can be strengthened by developing models for ecological compensation and restoration. These approaches enable offsetting ecological harm in cases where it cannot be fully avoided.

• The City of Vantaa initiated Finland's first ecological compensation in a zoning project. The nature impact is offset by restoring commercial forest in Sotunki's Palokallio.





Solution 10 Making Cities More Adaptive

Diverse urban nature supports climate change adaptation – among many other benefits. The greatest impact is achieved when nature is strengthened systematically at both the city and property levels.

Urban nature plays a multifaceted role in climate adaptation and in enhancing the attractiveness of areas. Diverse ecosystems are more resilient and healthier for residents than concrete or asphaltdominated environments.

Green areas can reduce flood risk, trees can mitigate the effects of heatwaves, and pleasant local environment can increase the appeal of a neighbourhood. From a property owner's perspective, the area's adaptability and livability also influence property value retention and risk management.

Planning Pays Off at Both City and Property Levels

The benefits of urban nature are most effectively realized through systematic efforts to strengthen it. City organizations play a key role in coordinating this work, developing comprehensive plans, and managing green areas owned by the city.

For real estate and construction sector actors, planning also yields the greatest benefits. As described in Solution 9, selecting nature-based solutions for new construction and renovation projects can generate multiple advantages. For existing properties, a climate risk assessment can be conducted, followed by the creation of an adaptation plan.

The required actions may be relatively small—such as converting lawns into meadows or increasing tree cover—but in areas with high flood risk, more substantial changes may be needed. From a financial perspective, proactive adaptation is far more cost-effective than repairing damage after it occurs.

Small Actions, Big Impact

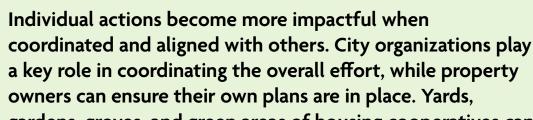
It is important for property owners to recognize the significance of their role: the impact of small actions is amplified when implemented across multiple sites simultaneously. To mainstream these solutions, systematic planning, increased competence, and changes in budgeting practices are needed.

Barriers to Implementation:

- Expertise is unevenly distributed, and information does not always flow from planning to implementation and maintenance.
- The significance of individual actions may remain unclear.
- Long-term funding for maintenance can be challenging.

Recommendations and Good Practices

A. Develop City- and Property-Level Plans 🗯 🖪



gardens, groves, and green areas of housing cooperatives can together form important ecological networks—supporting, for example, climate adaptation.

• SATO, Y-Säätiö, and the City of Tampere are developing yard design and green area maintenance practices to support biodiversity. Residents are actively informed about the reasons behind changes to increase public acceptance.

B. Strengthen Maintenance Expertise and Planning



Maintenance practices can help areas adapt to climate change and enhance biodiversity. Property maintenance teams need more knowledge of nature-based solutions. Maintenance plans and contracts should also be developed accordingly.

- In Vantaa, collaboration between urban planners and environmental experts has been concretely reflected in the provisions of the building ordinance, which support the consi deration of nature from planning to implementation.
- In the Longinoja area of Helsinki, the GreeninCities project is developing nature-based solutions to safeguard biodiversity and support climate change adaptation.

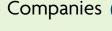
C. Restructure Maintenance Funding

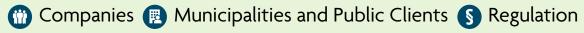


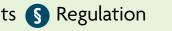
Maintenance practices that support urban biodiversity can also reduce overall maintenance costs. However, the transition may require initial investments, such as design costs and implementation measures.

• The Green Services Programme in Tampere includes cost assessments for maintaining open green areas, such as landscape fields and meadows.









Business Decision-Maker: How to Build Sustainable Business and Competitive Advantage

The real estate and construction sector plays a key role in mitigating climate change and safeguarding biodiversity. The industry consumes vast amounts of materials, is responsible for one-third of Finland's emissions, and causes significant environmental harm. At the same time, it holds the solutions: expertise, technology, and the ability to make a broad impact.

The sustainability transition brings new business opportunities: frontrunners have already gained a head start. Choosing sustainability as a strategic priority ensures profitability and successful business operations also in the future.

The Renovation Plan Presents 10 Solutions for Sustainability

Each solution includes several recommendations for companies in the real estate and construction sector, which are described in more detail in the chapters of this report.

Reducing Product-Related Emissions

1. Clear Targets and Incentives for Low-Carbon Construction

- The means for low-carbon construction already exist, but they are not yet part of everyday industry practice.
- The role of clients is crucial—both in the public and private sectors: when low-carbon construction is a strategic goal, the means to achieve it will be found.
- Sustainability goals at the company level are most effectively realized when tied to financial incentives.

2. From Demolition Boom to Long Lifespan

- The starting point should be to utilize, repair, and develop existing structures as a priority. Currently, this is not being implemented.
- For example, repurposing buildings and assessing climate impacts in renovation projects are ways to support this shift.

3. Reuse of Building Products

- The reuse of building products is in its early stages, and challenges remain to be solved.
- In the long term, reuse should become the default—used as the primary solution whenever technically feasible.
- At the company level, change again begins with setting strategic goals: aiming to ensure that all usable materials are circulated as efficiently as possible.

4. Industrial Circulation of Construction Materials

- Materials generated during demolition should be reused more effectively than they currently are. Transitioning to circular economy materials would reduce emissions and nature impacts—and at best, provide affordable, highly processed raw materials for industrial needs.
- In building product manufacturing, this shift requires development of business processes but lays the foundation for sustainable business in the future.

5. Decarbonising Production and Carbon Capture

- Decarbonising the production of construction materials often requires significant investment in production facilities.
- Carbon capture also holds great potential—from a business perspective, even globally.
- A predictable regulatory environment and long-term demand for low-carbon building products are key to progress.
- Large-scale purchasers of building products can reduce their own emissions and support production investments through purchasing commitments.

6. Aploying Low-Carbon Solutions

- Construction emissions can be reduced by both minimizing the amount of materials used and choosing low-emission materials.
- Favoring low-carbon materials requires changes in procurement, design, and scheduling.
- This ensures cost-efficiency in the future, as the prices of high-emission building products rise due to changes in emissions trading.



Green Building Council Finland is a non-profit association of sustainable built environment. Our members represent the entire built environment, throughout the value chain and life cycle. Together with our members, we to lead the change of sustainable development in the real estate and construction industry. Join our network.

Business Decision-Maker: How to Build Sustainable Business and Competitive Advantage

Turning Nature Impacts Positive

7. Clear Targets and Incentives for Nature Actions

- At the societal level, the importance of nature—for climate adaptation and public health, for example—is already being measured in monetary terms.
- In the real estate sector, shifting from harmful practices to nature-positive ones still requires clarification of both company goals and incentives.
- Leading companies are now taking initiative by setting their own nature targets and independently reducing negative impacts. Regulation and city-level goals are steering in the same direction.

8. Measuring Nature Impacts

- The nature footprint of infrastructure and buildings is formed both at the construction site and throughout the value chain.
- Although comprehensive calculation methods for nature footprints are still under development, they are expected to become a standard part of planning and decision-making in the future.

9. Nature-Based Solutions in Construction Projects

- In construction projects, the undeveloped portion of a site – nature and the opportunities it offers – often receives little attention, as decisions are typically driven by the number of permitted building square metres.
- Nature-based solutions could generate significant added value, but their use is still in its infancy.
- This may require changes in processes and development of expertise.

10. Making Cities more Adaptive

- Urban nature helps cities adapt to climate change.
- Property owners can contribute to nature-positive actions and at the same time ensure that the value of properties is preserved in adaptable, pleasant, and safe environments.

Business Decision-Maker

- At Minimum, Do This

Sustainable and successful business begins with decisions made by company leadership.

- **Take Strategic Initiative:** Sustainable solutions are investments in the company's future—they can lead to cost savings, strengthen competitive positioning, and facilitate access to financing.
- **Set Clear Targets:** Incorporate low-carbon practices, circular economy principles, nature-positive actions, and climate adaptation into goals at both organizational and project levels. Link these targets to financial incentives.
- **Invest in Competence:** New requirements and tools demand new types of expertise across the organization—from design to maintenance.



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Policy-maker: Accelerating the Sustainability Transition Benefits All of Finland

The sustainability transition in the real estate and construction sector serves the public interest It is the responsibility of policy-makers to ensure that legislation, taxation, and public procurement steer the sector toward solutions that are most sustainable from a societal perspective.

By accelerating positive change in the real estate and construction sector, society stands to gain significant benefits—economically, in terms of emissions reduction, public health, and competitiveness in the tightening global race for materials.

Currently, however, incentives do not sufficiently support the sector's sustainability transition. For example, climate mitigation and adaptation measures, or circular economy practices, are still perceived by many property owners primarily as costs—without short-term benefits or incentives.

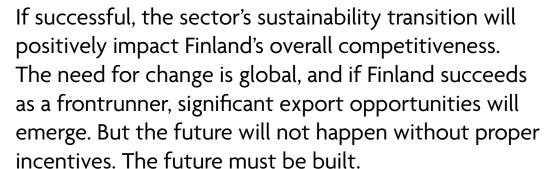
Change must be supported—it cannot be left solely to individual actors within the industry.

Effective Incentives, Tangible Benefits for Society

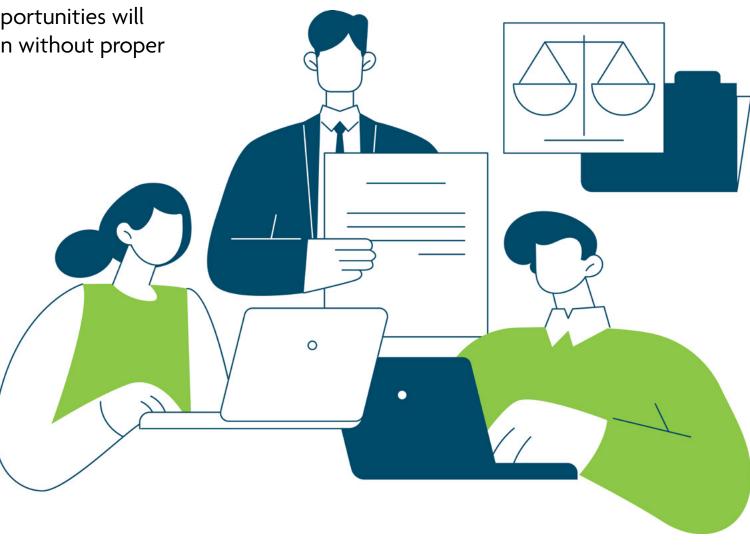
Public policy can support change by introducing tax incentives or by setting direction through public demand. Public sector actors play a major role as owners, financiers, and creators of demand.

In addition to incentives and public demand, there is a need for predictable and gradually tightening regulation that encourages companies to invest in low-emission solutions, circular economy practices, and naturepositive actions.

Overall, policy must enable the sustainable renewal of the real estate and construction sector—while safeguarding the quality of living environments, adaptability, and security of supply in Finland.







Government Action: Aligning Goals and Incentives

1. Taxation as an Incentive

Tax policy can be used to encourage climate mitigation, adaptation, and efficient material use in the built environment.

- Low-carbon construction, circular economy solutions, renovation, and climate adaptation measures for properties could be supported through taxation in a manner similar to how car taxation has promoted the adoption of electric cars.
- The potential of tax incentives should be explored, including international examples.
- For instance, tax relief for recycled materials or increased waste fees could steer the industry toward circular practices and reduce the use of virgin natural resources.

2. Strengthening Legislative Guidance

At the national level, there is a need to strengthen guidance for low-carbon practices, circular economy, and nature-positive actions.

- Climate declarations and carbon footprint thresholds can serve as effective tools for steering low-carbon construction. Their impact would improve if thresholds were tightened and applied comprehensively—not only to new construction but also to renovation and infrastructure projects.
- Once nature impact assessment methods become standardized, legislation can set minimum requirements for, for example, conducting environmental assessments, nature conservation, and the use of ecological compensation.
- Circular economy legislation must also be clarified to facilitate the reuse of building products and the utilization of building materials.

3. Public Demand and Ownership Steering as Leverage

The state plays a multifaceted role: in addition to taxation and legislation, the government influences the market as a significant owner and financier. Public demand can significantly accelerate market transformation.

- Ownership steering by the state can have rapid and powerful effects on both property portfolios and infrastructure projects.
- State funding policies can influence measures related to the government-supported housing stock.
- The use of ecological criteria in public procurement should be accelerated.
- The public sector could also explore the use of purchasing commitments for low-carbon products which in turn could drive the industrial investments needed for low-carbon production.

4. National Strategy for Industrial Investment and Carbon Capture

Low-carbon production, circular economy, and carbon capture offer global export opportunities and are part of national security of supply. Can Finland take the lead as a pioneer?

- Industrial investment subsidies should be reformed to support production investments in low-carbon materials and carbon capture—even when targeted at domestic markets.
- A national plan is needed for carbon capture and its use in construction materials.

5. Updating the Skills of an Engineering Nation

More expertise is needed in low-carbon construction, circular economy, and nature-positive actions.

- These competence needs must be addressed in both degree programs and continuing education.
- Information is also needed on new regulatory measures, such as nature value markets and ecological criteria in public procurement.



Cities and Municipalities Have a Strong Steering Role

Cities and municipalities have many compelling reasons to actively promote the sustainability transition of the built environment. For example, climate change adaptation, efficient material circulation, the health benefits of nature, and supporting sustainable real estate and construction business in the region all generate economic value. The role of cities and municipalities in advancing the transition is also multifaceted.

Zoning and land allocation can effectively steer even the private market; municipal projects and procurement can generate public demand; and property taxation or other measures can be used to provide financial incentives for sustainability actions. Efficient internal processes can support both the extension of building lifespans and the circular economy. Cities and municipalities also serve as development platforms for new practices. A sustainable future is built at the municipal level.

1. Zoning and Land Allocation as Steering Tools

Zoning and land allocation are effective means to guide construction toward low-carbon solutions, circular economy practices, and nature-positive outcomes. These processes can include requirements related to material reuse, carbon footprint, nature benefits, and preservation of green infrastructure.

- Municipalities can require concrete assessments of carbon reduction and nature impacts, and encourage best practices.
- Municipalities may also set stricter carbon thresholds than those at the national level.
- For nature targets, binding minimum requirements can be set—for example, for green coverage.
- In demolition projects, cities can provide guidance on how to reuse materials either on-site or at other construction locations.

2. Public Projects and Procurement as Leverage

The role of cities' and municipalities' own projects is significant. When public procurement and practices set an example, they not only increase demand for sustainable solutions but also set a direction for private sector actors.

- Emission and circular economy requirements, as well as nature targets, should be integrated into procurement criteria, design, and tendering processes. The renewal of ecological criteria in public procurement provides a foundation for this.
- Cities and municipalities can also explore purchasing commitments for low-carbon products, which may accelerate investments in sustainable production.

3. Exploring Financial Incentives

Cities and municipalities should also examine whether they can create financial incentives for sustainability actions.

• For example, could climate adaptation measures, improvements in building lifespan and flexibility be encouraged through property tax benefits or additional building rights?

4. Streamlining Internal Processes

Cities and municipalities should develop their internal processes, for example, in approving changes in building use and the acceptance of reusable construction products

• New legislation has been introduced to facilitate these processes, along with guidance from pilot projects (e.g. RECreate, UURAKET).

5. Cities as Development Platforms and Coordinators

Cities and municipalities also play a key role as platforms for innovation, coordinators of action, and facilitators of knowledge sharing.

- Municipalities can promote circular economy markets by providing space for pilot projects and material banks that support reuse.
- Their coordinating role is especially important for climate adaptation. Municipal plans for biodiversity and climate adaptation bring together all actors in the built environment.
- Municipal nature expertise could be more widely utilized in construction projects. Cities and municipalities can also share knowledge on practices related to nature restoration and ecological compensation.

Sustainable future is built at the municipal level.



Do you have questions about a sustainable built environment? Or would you like to discuss the goals or the means to make your municipality climate- and nature-smart? Contact us.

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Read more in the background report

The background report of the Renovation Plan provides a more detailed description of all recommendations and presents dozens of additional good practice examples. The report also includes suggestions for further reading.

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