



Funded by the  
Nordic Council  
of Ministers



# Waste prevention in the Nordics: What policies and measures are needed to prevent waste production and promote reuse?

Olli Sahimaa  
PlastLIFE Annual Seminar 2024





“

Promoting waste prevention and reuse requires a radical paradigm shift compared to traditional waste policy.

# Contents

- 1 **Introduction:** Waste prevention and reuse are needed to change the dynamics of overproduction and overconsumption
- 2 **Current state:** Review of waste prevention in Nordic governments' plans and programs
- 3 **Good practices:** Examples of effective waste prevention measures in the Nordics
- 4 **Economic instruments:** The cure for the linear economy's flaws?
- 5 **Conclusions and recommendation:** What are the key takeaways for policy-making?

1. Introduction: Waste prevention and reuse are needed to change the dynamics of overproduction and overconsumption

# The double crisis of climate change and biodiversity calls for action – Can circular economy provide effective tools?

**The Vision 2030 of the Nordic governments:** Turning the Nordic region into the most sustainable and integrated region in the world

**Project:** Waste prevention and reuse in the Nordics, 2023-2024

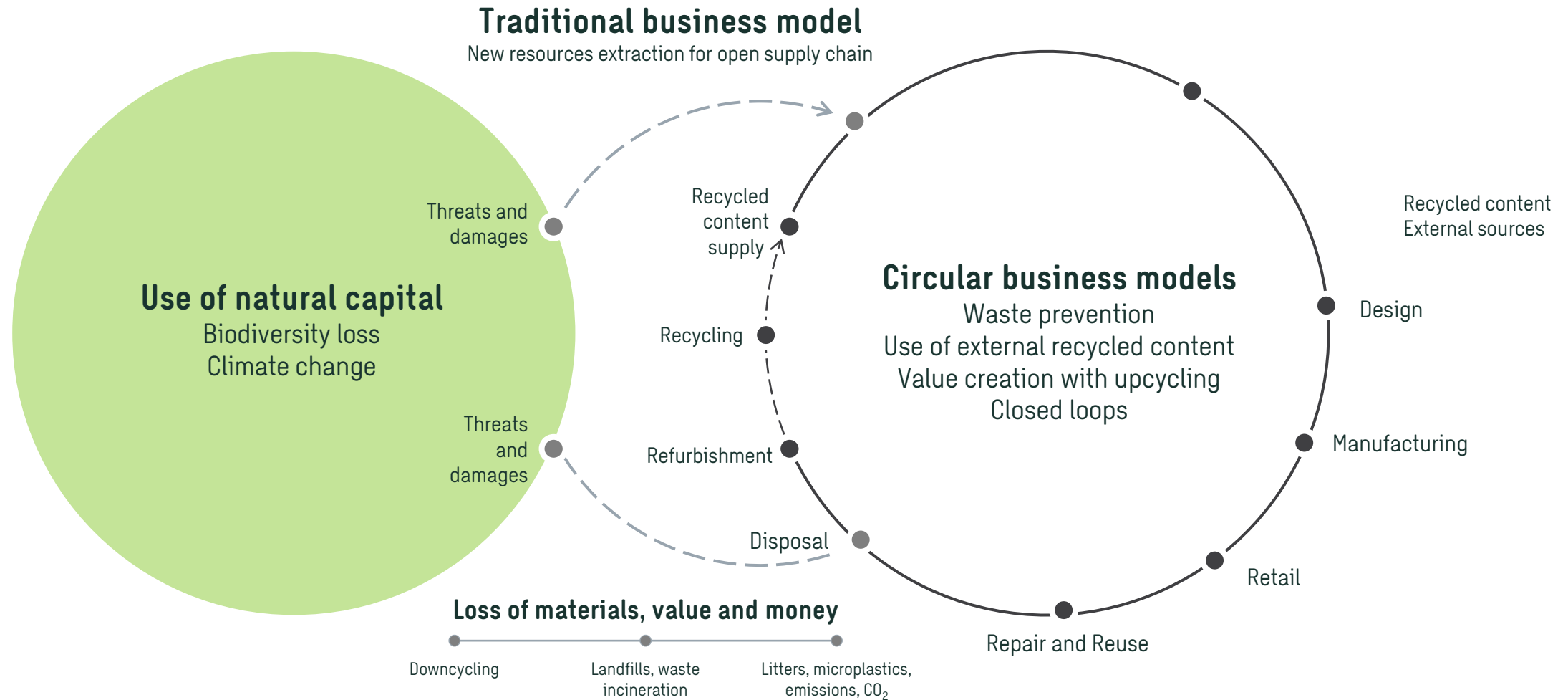
**Funded by:** Nordic Council of Ministers / Nordic Circular Economy Working Group

## Research questions:

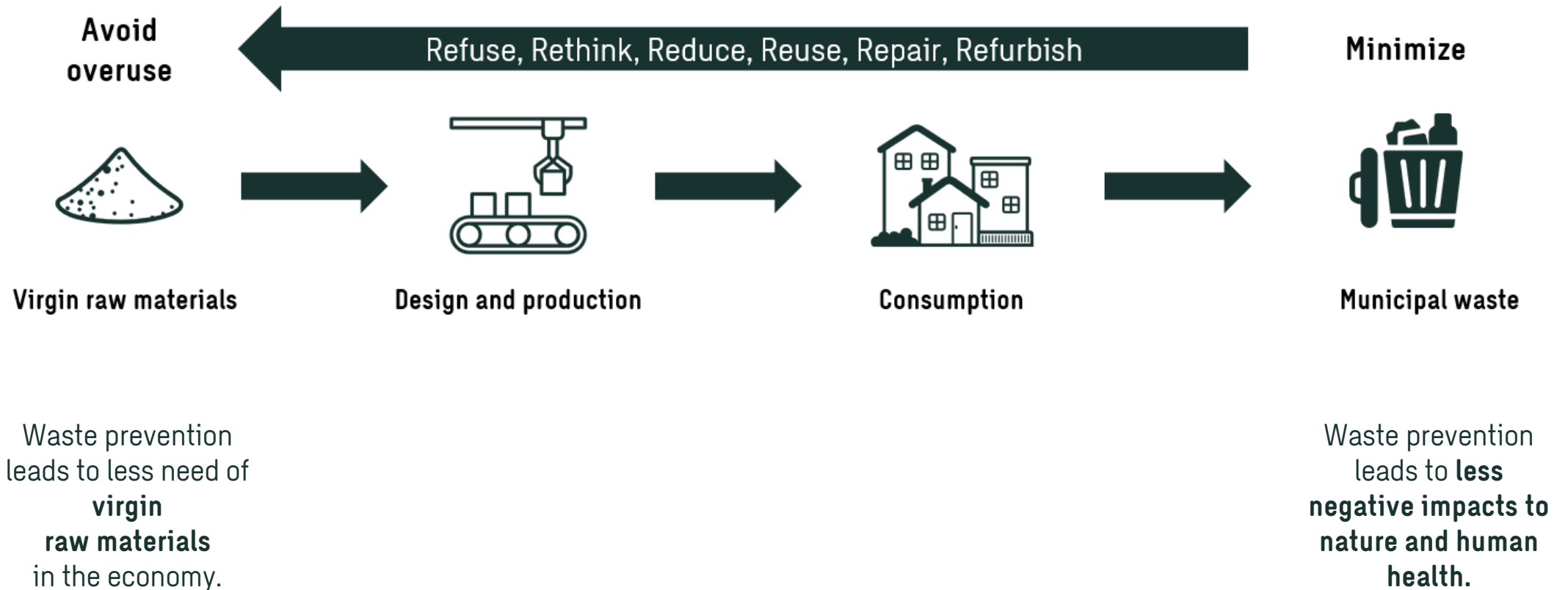
- What effective means have been used to prevent waste production in the Nordics, the United Kingdom and EU?
- What kind of steering instruments have been used and how useful would those be in the Nordics?
- What are the best practices in waste prevention based on their impacts and relevancy for the Nordic countries?



# The short answer – yes. Circular economy offers a toolbox for waste prevention and minimising environmental and climate impacts



# Significant waste prevention requires a clear shift from recycling-focused policy to covering full product lifecycles



# Setting the stage – Scope of the work

## Definition of waste prevention\*

**Waste prevention** means measures taken before a substance, material or product has become waste, that reduce:

- (a) **the quantity of waste**, including through the re-use of products or the extension of the life span of products;
- (b) **the adverse impacts** of the generated waste on the environment and human health; or
- (c) **the content of harmful substances** in materials and products.



**Geographical focus** was the whole Nordic region.

The work focused specifically on **municipal waste**.



## 2. Current state: Review of waste prevention in Nordic governments' plans and programs

# Examples of relevant recent EU regulation focusing on minimizing waste in several parts of value chain

## Single-Use Plastic (SUP) directive

The aim of this directive is **to prevent and reduce the impact of certain plastic products on the environment**, particularly the aquatic environment, and on human health. It **promotes the transition to a circular economy** using sustainable business models, products, and materials

## Eco-design for Sustainable Products Regulation (ESPR)

**Eco-design for Sustainable Products Regulation (ESPR) is the corner-stone of the Commission's approach to more environmentally sustainable and circular products.**

This regulation repeals the Eco-design Directive.

## The Plastic Bags Directive

The Plastic Bags Directive is an amendment to the Packaging and Packaging Waste Directive and was adopted to **deal with the unsustainable consumption and use of light-weight plastic carrier bags.**

## The Packaging and Packaging Waste Regulation (PPWR)

The PPWR sets out **to stop unnecessary packaging**, i.e. packaging that is designed to increase the perceived volume of the product.

# Looking at waste prevention in Nordic plans and programs: Where are we doing well and where must we do better?

All Nordic countries have addressed waste prevention to varying extent in the key governmental plans and programs.



Good development to be continued

- Raising the significance of waste prevention in policies
- Emphasising the need for improved tools, measures and monitoring for waste prevention



Need for improvement

- Extending focus of measures from recycling to reuse
- Systematic way to move towards the targets
- Fast-tracking easy (and effective) policy measures
- Testing steering instruments boldly

# Examples of waste prevention targets and actions from Nordic plans and programs

## Finnish strategic programme for the circular economy

- Maintaining Finnish consumption of primary raw materials at 2015 levels by 2035

## National waste plan of Sweden

- 20% reduction in per capita food waste between 2022 and 2025
- Phasing-out of environmental hazardous substances from material cycles

## National waste plan of Norway

- Relative decoupling of waste generation from economic growth

## Swedish circular economy strategy

- Reduction of VAT on repairs to bicycles, shoes, leather goods, clothing, and household linen from 25% to 12%

## Plastic roadmap for Finland

- Green deal: replacing plastic disposable portion packs with reusable or plastic-free alternatives
- Public authorities will discontinue the use of disposable plastic-containing containers at public events and in public spaces
- Reducing unnecessary packaging for building products



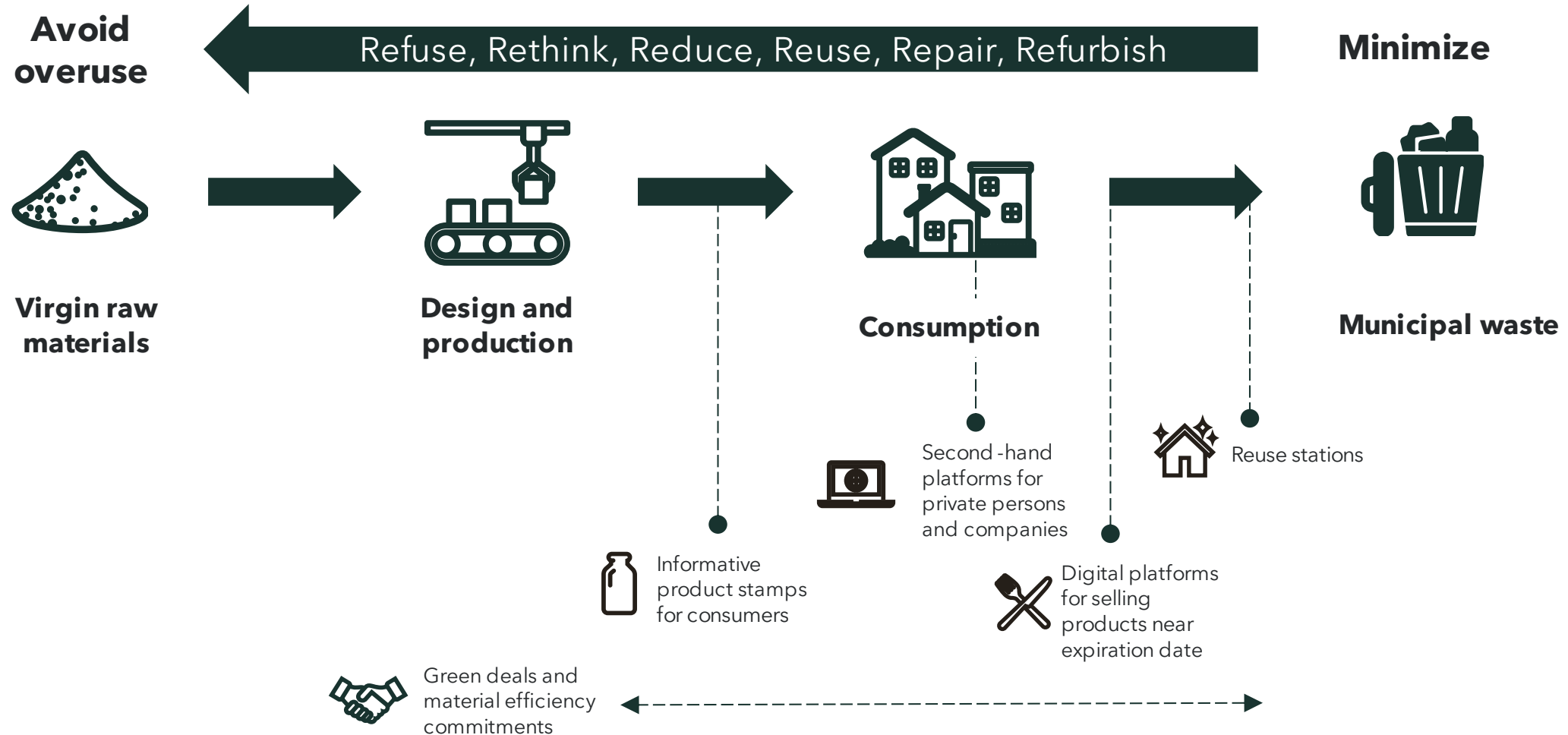
### 3. Good practices: Examples of effective waste prevention measures in the Nordics

# The waste prevention measures were categorised into five different groups

| Type of measure                               | Description                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Regulatory</b>                             | Waste prevention measures that actors are obliged to implement by law, including bans, restrictions and other requirements or obligations                                                                                                                                                                                                                              |
| <b>Economic</b>                               | Tax regulations, subsidies, the introduction of fees and other waste management operations that make 'waste-light' products or services become more competitive, incl. green public procurement.                                                                                                                                                                       |
| <b>Voluntary</b>                              | Actions taken by both governmental and non-governmental stakeholders that are not legally binding/obligatory, as well as voluntary agreements among stakeholders that do not necessarily require a political decision-making process but rather require negotiations. Research and pilot initiatives, establishment of reuse centres and networks, and other projects. |
| <b>Informative</b>                            | Communication campaigns, educational and training activities, and awareness-raising materials for consumers, businesses or other target audiences.                                                                                                                                                                                                                     |
| <b>Extended Producer Responsibility (EPR)</b> | Establishment of EPR schemes, whether legally binding at EU level or voluntary, as well as activities that affect the core strategy and operation of the EPR schemes.                                                                                                                                                                                                  |

Source: European Environment Agency 2023. Tracking waste prevention progress — A narrative-based waste prevention monitoring framework at the EU level. EEA Report 02/2023. [Tracking waste prevention progress — European Environment Agency \(europa.eu\)](#)

# Nordic experts assessed that effective and feasible "low-hanging fruits" could be leveraged more broadly in the Nordics



# There are existing “low-hanging fruits” to be scaled - but mostly based on voluntary commitment



## Green deals and material efficiency commitments

Commitments made by industry, industry organisations and municipalities aiming to enhance resource efficiency, sustainability and decrease environmental impacts in value chains.



## Informative product stamps for consumers

Aiming to help the consumer to understand that some foods and drinks still can be ok after the expiration date.



## Digital platforms for selling products near expiration date

Aiming at minimizing waste of food and commodity sectors.



## Second-hand platforms for private persons and companies

Providing marketplaces for selling products for reuse.



## Reuse stations

Municipalities can provide reuse stations for used items, that are not damaged. It can be free to pick up items from these stations

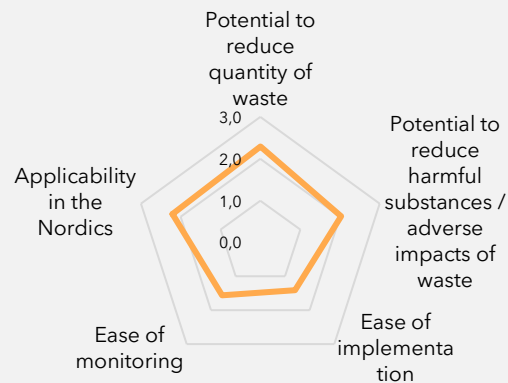


# The scaling of some effective good practices was assessed to be more challenging

## Concrete ecological requirements for public procurement

In Berlin, concrete ecological requirement criteria are made binding for the procurement of various products, construction, and services. For example, in the case of products for IT equipment, among other things, the availability of spare parts and the possibility of repairing them or expanding their performance with replaceable components and expansion interfaces must be guaranteed even several years after production has ceased.

### Expert evaluations about effectiveness and feasibility



There was general agreement among experts that public procurement holds significant potential but should rely on factors like Life Cycle Assessment (LCA) to avoid greenwashing. Respondents emphasised the need for clear, prioritised criteria to address environmental concerns effectively, especially when climate, environment, and nature objectives may conflict. Many also highlighted the importance of environmental factors being given sufficient weight, even when monetary considerations are involved.



### Consumer movements against food waste

For example, non-profit organisations working with local supermarkets to collect and distribute food products that are close to their expiry date to citizens in need free of charge.



### Reduced VAT for repairing services

In Sweden, VAT for repairing services on bicycles, shoes, leather products, clothes and textiles was lowered to 12% from the general level of 25% in 2017. In 2022 it was further lowered to 6%. 1st of April 2023 the VAT-level was changed back to 12% again.



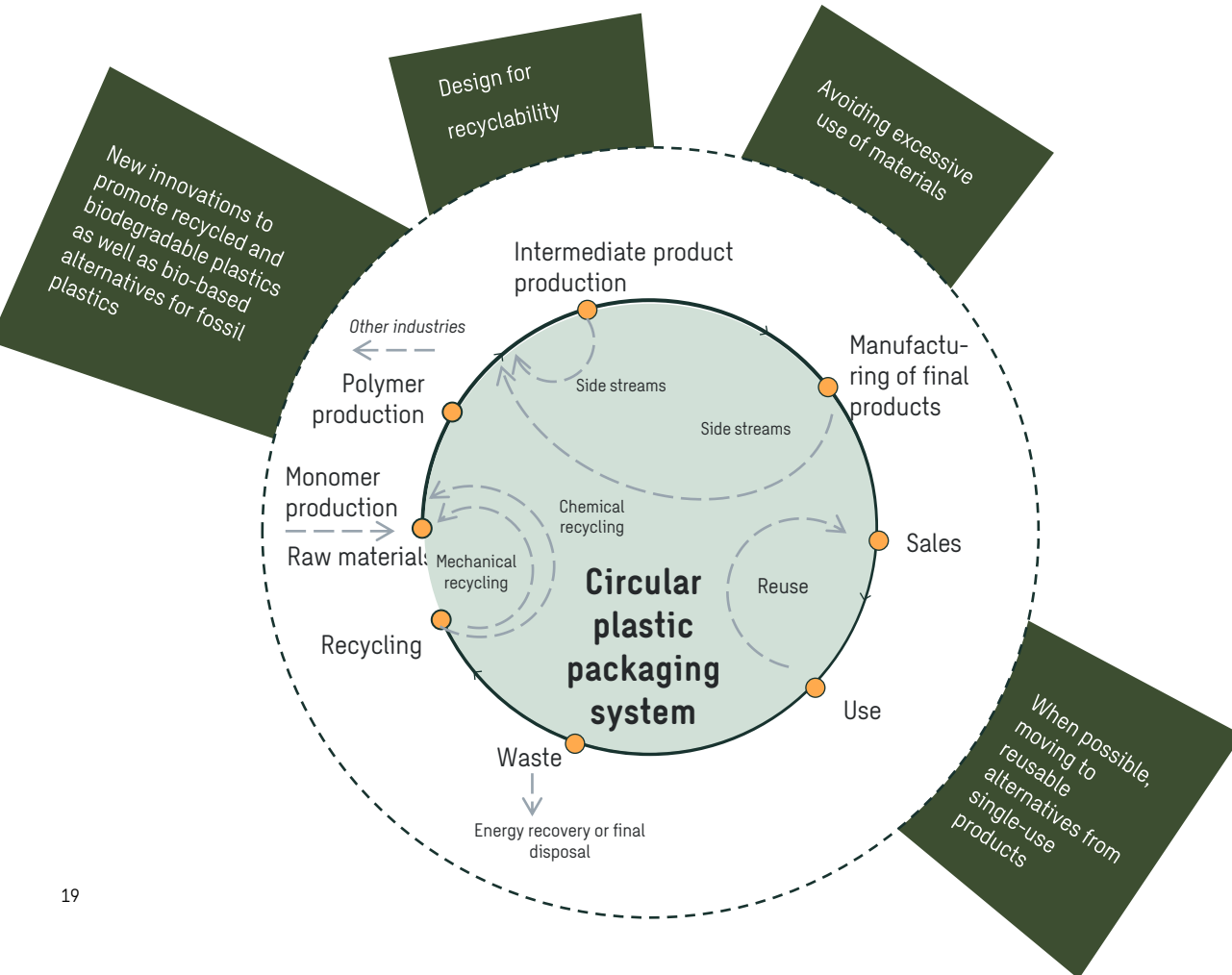
### Weight-based pay-as-you-throw (PAYT) pricing

Weight-based PAYT (Pay-As-You-Throw) is a waste management system that charges individuals or businesses based on the weight of their waste. It involves the use of specially designed waste containers or weighing bins to determine the weight of the waste, and fees are applied based on a predetermined rate per unit of weight.

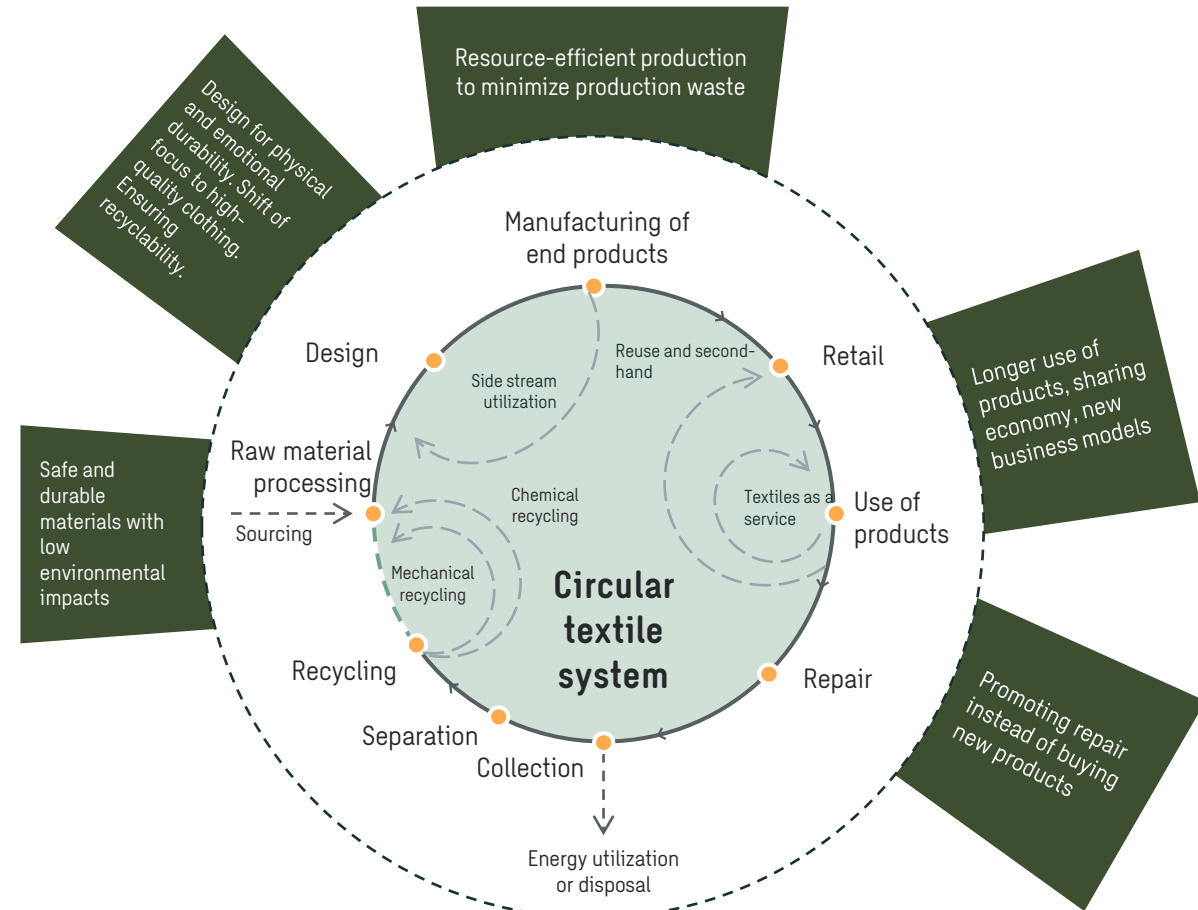
# 4. Economic instruments: The cure for the linear economy's flaws?

# Creating systemic impact: policy targets for circular plastics and textiles systems vary to some extent

Policy targets for circular plastics packaging system



Policy targets for circular textile system



# Looking at the economic instruments: scope of the case study

Targeted fees for fast fashion

Reducing the production, import and sale of unsustainable textile items

VAT reduction for second-hand trade and repair services

Encouraging consumers, and businesses, to prolong the use phase of items, by VAT differentiation, voucher systems or other similar tools.

R&D funding for developing new circular business models

Helping the markets to develop viable business models decoupled from material use (such as second-hand trade, renting, or shared ownership models)





# Looking at the economic instruments: targeted fees for fast fashion

## Targeted fees for fast fashion

France's proposed legislative initiative no. 2129, passed in March 2024 presents targeted fees for fast-fashion products. **The initiative can be seen as a form of environmental taxes/fees aimed at mitigating the negative impacts associated with the fast-fashion industry.**

### Advertising ban and duty to inform:

- The bill bans advertising for fast fashion from January 2025, with penalties for breaches.
- Fast fashion businesses must also display messages next to the price, encouraging e.g. moderate consumption, repair and recycling.
- **Companies concerned about these actions are defined through the number of new products introduced to the market.**

### Environmental penalty and bonus system:

- **France has had an extended producer responsibility (EPR) system for textiles since 2007.**
- **The new penalty system can be seen as an adjustment for the existing EPR system**
- Companies falling short of established sustainability benchmarks face a gradual levy that starts at 5€ per item in 2025, increasing to 7€ by 2026 and 10 € by 2030.
- Eco-friendly companies may receive bonuses, and a portion of the penalties will also be used to finance collection and recycling infrastructures in non-EU countries.
- The sustainability benchmarks for the products will be based on the French Product Environmental Footprint (PEF) system, which is currently being finalized.



# Looking at the economic instruments: VAT reduction for second-hand trade and repair services

## VAT reduction for second-hand trade and repair services

VAT (Value Added Tax) is a consumption tax imposed on goods and services, and governments may lower VAT rates on specific services to support more sustainable consumption and to employment in repair sector. The aim is to reduce environmental impact by encouraging the reuse of existing textiles and lowering the demand for resource-intensive production processes used in manufacturing new textiles.

- VAT reduction to repair services refers to a decrease in the rate of VAT applied to certain types of repair or maintenance services.
- VAT reduction to second-hand trade refers to the application of varying tax rates on new versus second-hand textile products to encourage sustainable practices and promote circular economy principles.



# Looking at the economic instruments: R&D funding for developing new circular business models

## R&D funding for developing new circular business models

During the past ten years, the Nordic countries have made significant programmatic efforts to target public innovation funding to the development of circular business models, e.g. Business Finland Bio and Circular Finland program, Sweden's strategic innovation program RE:SOURCE and Innovation Norway funds. The rationale of targeting public R&D funds into the development, testing and piloting of new circular business models, is to accelerate market-based activity where value creation is detached from the use of (virgin) resources.

- **Product-as-a-Service Models** for the textile sector include e.g. rental of professional and consumer clothing, In professional clothing there are functional market-based solutions in place (e.g. Lindström in Finland). On the consumer markets, companies have faced more struggle with surviving.
- **Product life extension** is supported by e.g. second-hand trade, with a several online businesses functioning in the markets.
- Some bigger companies have implemented own **take-back-and-reuse models**.
- Design for longevity focuses on timeless designs, robust materials, and modular construction for easy repair.



# Implementing the economic policies: why, who and how?

| Economic steering instrument           | Targeted fees for fast fashion                                                                                                                                                                                                                                                                                 | VAT reduction for second-hand trade and repair services                                                                                                                                                                                            | R&D funding for developing new circular business models                                                                                                                                                                                                                                                       |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Why should this be implemented?</b> | To reduce the production, import and sale of unsustainable textile items. This economic instrument would rather <b>directly target overconsumption and overproduction</b> . The fees would demonstrate through political guidance that fast fashion is not considered to be sound.                             | To encourage prolonging the use phase of textile items and make purchasing second-hand products more attractive.                                                                                                                                   | To accelerate market-based activity where <b>value creation is detached from the use of (virgin) resources</b> .                                                                                                                                                                                              |
| <b>Who can implement this?</b>         | Government and the administrative sector of the finance departments in collaboration with environmental department in charge of extended producer responsibility.                                                                                                                                              | Government and the administrative sector of the finance departments.                                                                                                                                                                               | Government and public innovation & business funding agencies, possibly together with private investors.                                                                                                                                                                                                       |
| <b>Who will benefit?</b>               | Companies whose products receive high ratings in the ranking system gain a competitive advantage and even direct financial bonuses compared to those ranked lower, who will have to pay eco-fees for their products.                                                                                           | Consumers can benefit from more affordable repair services, leading to lower costs for maintaining textiles instead of buying new items.<br><br>Second-hand and repair businesses can see increased demand.                                        | Companies engaged in developing circular business will benefit from opportunities for <b>new innovations, increased competitiveness and risk reduction</b> .                                                                                                                                                  |
| <b>Obstacles for implementation</b>    | <b>Defining what constitutes "fast fashion" can be complex.</b> This ambiguity may complicate the application of fees. Free riders (actors who do not register as part of the system) might also be a problem.<br><br>Moreover, there is concern that low-income consumers may be disproportionately affected. | There are no major obstacles, but previous research suggests that <b>VAT differentiation may have a limited impact on waste prevention</b> . It remains uncertain whether, or to what extent second-hand purchases actually replace new purchases. | The biggest drawback is <b>the uncertainty of results and impacts</b> i.e., the instrument does not provide any direct impacts on waste prevention, and possible results occur only in the longer run. Even good business ideas might not survive scaling after the initial phase, limiting long-term impact. |
| <b>How can it be done?</b>             | The first step is to <b>gather insights from the French example</b> and consider how similar fees could be implemented locally in the Nordic countries as part of extended producer responsibility for textiles.                                                                                               | This instrument <b>could be relatively easily applied</b> in Nordic countries. Several EU countries, including Sweden, have already reduced VAT on repair services or second-hand products.                                                        | There are already established national and regional development programs as well as public innovation and business funding agencies that support businesses' R&D activities. Requires targeting of funds towards these topics.                                                                                |



# Implementing the economic policies: why, who and how?

| Economic steering instrument           | Targeted fees for fast fashion                                                                                                                                                                                                                                                                                 | VAT reduction for second-hand trade and repair services                                                                                                                                                                                            | R&D funding for developing new circular business models                                                                                                                                                                                                                                                       |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Why should this be implemented?</b> | To reduce the production, import and sale of unsustainable textile items. This economic instrument would rather <b>directly target overconsumption and overproduction</b> . The fees would demonstrate through political guidance that fast fashion is not considered to be sound.                             | <b>To encourage prolonging the use phase of textile items and make purchasing second-hand products more attractive.</b>                                                                                                                            | To accelerate market-based activity where <b>value creation is detached from the use of (virgin) resources</b> .                                                                                                                                                                                              |
| <b>Who can implement this?</b>         | Government and the administrative sector of the finance departments in collaboration with environmental department in charge of extended producer responsibility.                                                                                                                                              | Government and the administrative sector of the finance departments.                                                                                                                                                                               | Government and public innovation & business funding agencies, possibly together with private investors.                                                                                                                                                                                                       |
| <b>Who will benefit?</b>               | Companies whose products receive high ratings in the ranking system gain a competitive advantage and even direct financial bonuses compared to those ranked lower, who will have to pay eco-fees for their products.                                                                                           | Consumers can benefit from more affordable repair services, leading to lower costs for maintaining textiles instead of buying new items.<br><br>Second-hand and repair businesses can see increased demand.                                        | Companies engaged in developing circular business will benefit from opportunities for <b>new innovations, increased competitiveness and risk reduction</b> .                                                                                                                                                  |
| <b>Obstacles for implementation</b>    | <b>Defining what constitutes "fast fashion" can be complex.</b> This ambiguity may complicate the application of fees. Free riders (actors who do not register as part of the system) might also be a problem.<br><br>Moreover, there is concern that low-income consumers may be disproportionately affected. | There are no major obstacles, but previous research suggests that <b>VAT differentiation may have a limited impact on waste prevention</b> . It remains uncertain whether, or to what extent second-hand purchases actually replace new purchases. | The biggest drawback is <b>the uncertainty of results and impacts</b> i.e., the instrument does not provide any direct impacts on waste prevention, and possible results occur only in the longer run. Even good business ideas might not survive scaling after the initial phase, limiting long-term impact. |
| <b>How can it be done?</b>             | The first step is to <b>gather insights from the French example</b> and consider how similar fees could be implemented locally in the Nordic countries as part of extended producer responsibility for textiles.                                                                                               | This instrument <b>could be relatively easily applied</b> in Nordic countries. Several EU countries, including Sweden, have already reduced VAT on repair services or second-hand products.                                                        | There are already established national and regional development programs as well as public innovation and business funding agencies that support businesses' R&D activities. Requires targeting of funds towards these topics.                                                                                |

# Implementing the economic policies: why, who and how?

| Economic steering instrument           | Targeted fees for fast fashion                                                                                                                                                                                                                                                                                 | VAT reduction for second-hand trade and repair services                                                                                                                                                                                            | R&D funding for developing new circular business models                                                                                                                                                                                                                                                       |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Why should this be implemented?</b> | To reduce the production, import and sale of unsustainable textile items. This economic instrument would rather <b>directly target overconsumption and overproduction</b> . The fees would demonstrate through political guidance that fast fashion is not considered to be sound.                             | To encourage prolonging the use phase of textile items and make purchasing second-hand products more attractive.                                                                                                                                   | To accelerate market-based activity where <b>value creation is detached from the use of (virgin) resources</b> .                                                                                                                                                                                              |
| <b>Who can implement this?</b>         | Government and the administrative sector of the finance departments in collaboration with environmental department in charge of extended producer responsibility.                                                                                                                                              | Government and the administrative sector of the finance departments.                                                                                                                                                                               | Government and public innovation & business funding agencies, possibly together with private investors.                                                                                                                                                                                                       |
| <b>Who will benefit?</b>               | Companies whose products receive high ratings in the ranking system gain a competitive advantage and even direct financial bonuses compared to those ranked lower, who will have to pay eco-fees for their products.                                                                                           | Consumers can benefit from more affordable repair services, leading to lower costs for maintaining textiles instead of buying new items.<br><br>Second-hand and repair businesses can see increased demand.                                        | Companies engaged in developing circular business will benefit from opportunities for <b>new innovations, increased competitiveness and risk reduction</b> .                                                                                                                                                  |
| <b>Obstacles for implementation</b>    | <b>Defining what constitutes "fast fashion" can be complex.</b> This ambiguity may complicate the application of fees. Free riders (actors who do not register as part of the system) might also be a problem.<br><br>Moreover, there is concern that low-income consumers may be disproportionately affected. | There are no major obstacles, but previous research suggests that <b>VAT differentiation may have a limited impact on waste prevention</b> . It remains uncertain whether, or to what extent second-hand purchases actually replace new purchases. | The biggest drawback is <b>the uncertainty of results and impacts</b> i.e., the instrument does not provide any direct impacts on waste prevention, and possible results occur only in the longer run. Even good business ideas might not survive scaling after the initial phase, limiting long-term impact. |
| <b>How can it be done?</b>             | The first step is to <b>gather insights from the French example</b> and consider how similar fees could be implemented locally in the Nordic countries as part of extended producer responsibility for textiles.                                                                                               | This instrument <b>could be relatively easily applied</b> in Nordic countries. Several EU countries, including Sweden, have already reduced VAT on repair services or second-hand products.                                                        | There are already established national and regional development programs as well as public innovation and business funding agencies that support businesses' R&D activities. Requires targeting of funds towards these topics.                                                                                |

# What can we learn from the analysis of the three economic instruments?

**Economic instruments are rarely significant enough, when analysed in isolation, but do earn their place in an effective policy mix.**

1

**Bans and fees have the highest potential of pure economic effects.** Increasing the cost of new products has the most straightforward impact for limiting resource exploitation and reducing waste.

2

**Economic instruments should be measured against their long-term potential to change market and cultural barriers that sustain linear economy.** Lessons from other sectors (such as the tobacco industry) demonstrate that even considerable price increases will not alone necessarily change consumer habits.

3

**Economic incentives for technology and competence development needed for circular transformation should not be overlooked.** R&D funds, while providing unclear indications on direct short-term impacts on the markets, are an important building brick in creating the needed competencies.

5. Conclusions and  
recommendation: What are the key  
takeaways for policy-making?

# Making radical improvements in waste prevention requires a comprehensive and well-designed policy-mix

## Where are we?



Waste prevention is prioritized in the Nordic national waste plans, but **we lack systematic, strong measures to implement the policy targets**. However, there is already a rich array of informative and voluntary measures for waste prevention in the Nordics, and good practices to be scaled.

## What do we need?



**Stronger policy instruments are necessary.** Regulatory and economic measures like taxes, fees and bans are imperative to accelerate the systemic transition to a circular economy.



**Informative and voluntary measures are needed to support a change of mindset.** The Nordic governments can do more in leveraging the existing examples and support their scaling across the region.

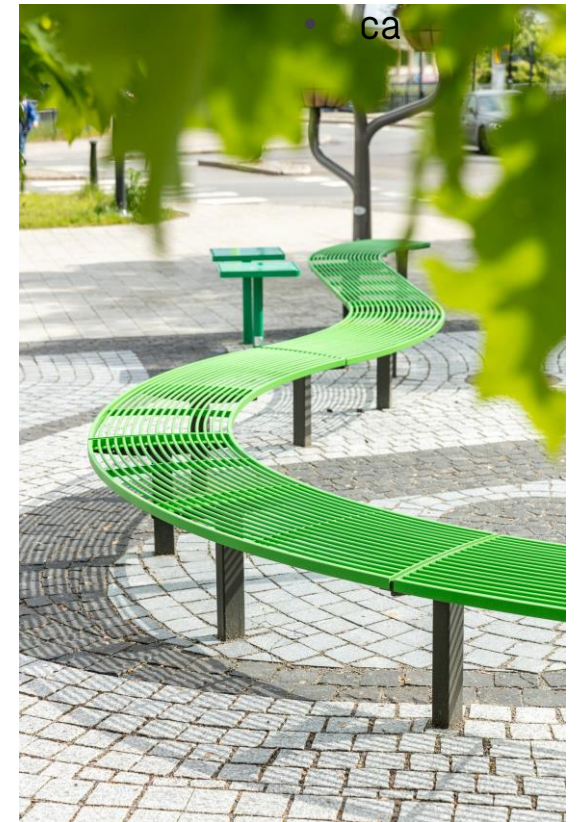
“

Achieving systemic change for a circular economy necessitates policy measures and steering instruments that target the entire product value chain rather than focusing solely on the end-of-life stage.



# Pathway to waste prevention: How to drive a significant shift in the Nordics by combining policy tools?

1. **Revise the strategies.** Review what waste prevention actions are there already in the national waste policies and how these are monitored and evaluated for impact. Assess what targets and measures for production-consumption phase waste prevention should be strengthened.
2. **Aim high, start with easy steps.** Choose measures that are both effective and easy to implement.
3. **Anticipate and make the change.** Engage private-public collaboration between countries on regulative input, interpretation and implementation, share best practices.
4. **Design a feasible toolbox.** Choose economic tools targeted at making unsustainable production and consumption less attractive, support circular business models, and make sustainable consumer choices more attractive. Drive extended producer responsibility systems to more strongly support waste prevention.
5. **Provide consistent messages.** Keep in mind that information steering is essential for behavioural change, and economic tools are strong signals of political will.



GET IN TOUCH WITH US

# Transforming society together



Olli Sahimaa

Leading Consultant

+358 50 466 5463

[olli.sahimaa@sweco.fi](mailto:olli.sahimaa@sweco.fi)