

Textile reuse and recycling commitment

Please note that the projects in this presentation are still in progress and any information given may be subject to changes

Strategy for textile reuse and recycling

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The Waste group at IVL works with applied research within waste and beyond...

Our projects aim at a resource efficient future.



Swedish Environmental
Research Institute

Research and assignments for a sustainable future

Producing 1kg of textiles (cotton, polyester, viscose)
emits 15kg of CO₂-eq.

Reuse can save 60%

Recycling often saves 5-20%

Produ

emits

Reuse

Recyc

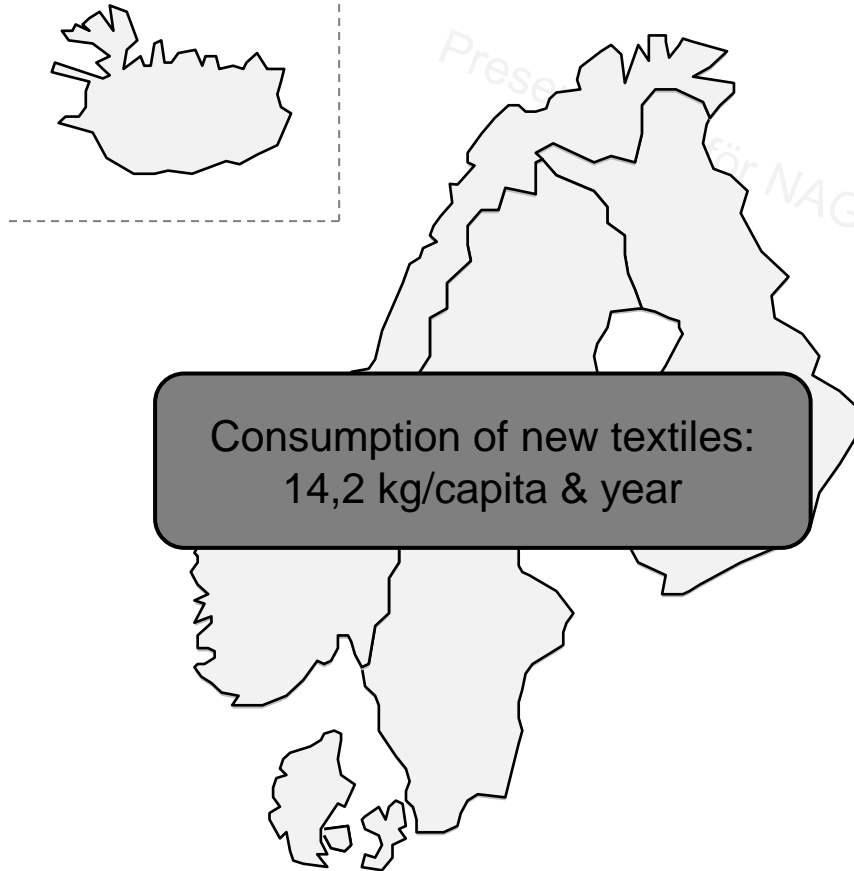


(viscose)

Strategy for textile reuse and recycling

Develop a proposal for a common Nordic strategy for improving infrastructure for collection, sorting and reuse/recycling of textiles in the Nordic region that can also represent a competitive advantage for Nordic business within the textile sector.

International market survey: Flows



Storage/ accumulation:
0,9 kg/capita & year

Collection of used textiles:
4,5 kg/capita & year

Incineration & landfill:
8,8 kg/capita & year

System	Large collection flows	Low levels of contamination	Low cost (for operator)	Suitable types of textiles collected	Easily available for the consumer
Mandatory extended producer responsibility	+++	+	+	++	++
Container collection, charity	++	+	++	++	++
Container collection, recycling company	-	+	+	++	++
Second hand, in store collection	+	++	++	+	+
Take back of own brand, resell in shop	-	++	+++	-	++
Collection of own brand polyester for chem. rec.	-	++	-	+	-
Private collections	++	+	+/-	++	++
Brand refund system	-	+++	++	+	-
Reception at recycling centers	++	+	++	+++	+
Material Bank (net service)	+	+++	+	++	---
Kerbside collection, demand driven	+	+	+	+	++
Recycling center fraction	++	++	++	++	+
Kerbside collection, regular waste collection	++	+	++	++	+++
Reception place, where people bring textiles	-	+	++	++	++
Reception at high street clothing, commercial	+	++	+	+++	++
Reception at high street clothing, charity	+	++	+	+++	++
Kerbside collection, reward demand driven	+	+++	-	+++	++
Kerbside collection of mixed dry recyclables	-	---	-	+	+++
Collection containers at offices	+	++	++	++	+

- Large collection flows
- Low levels of contamination
- Low cost (for operator)
- Suitable types of textiles collected
- Easily available for the consumer

Some conclusions:

- In store collection, ineffective
- Trading websites, small flows
- Large flows, lesser quality

“Reusable for who?”

We can solve collection, but then what?!

Presentation för NAG 17-18 maj 2014 © IVL

REUSE

Semi automated sorting

- Nordic wages
- Difficult to automate
- Trade profession

RECYCLING

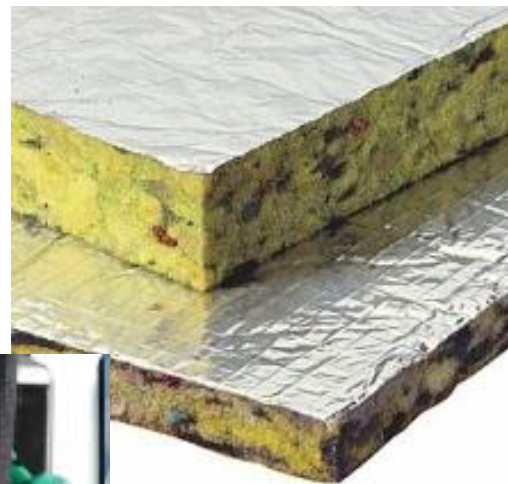
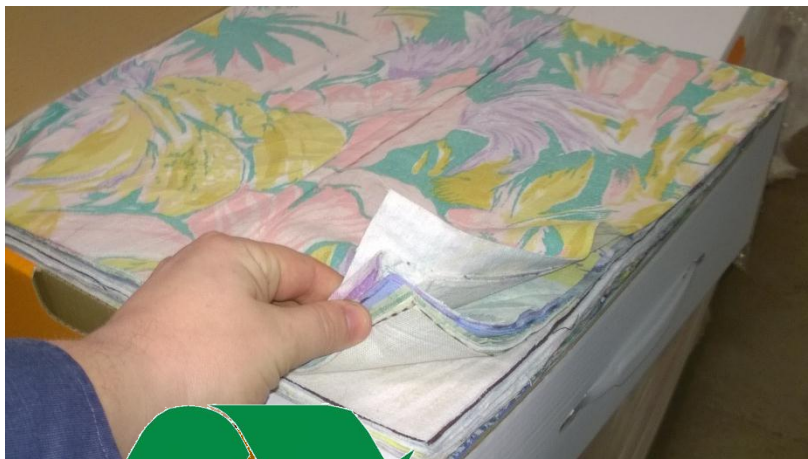
Automated sorting

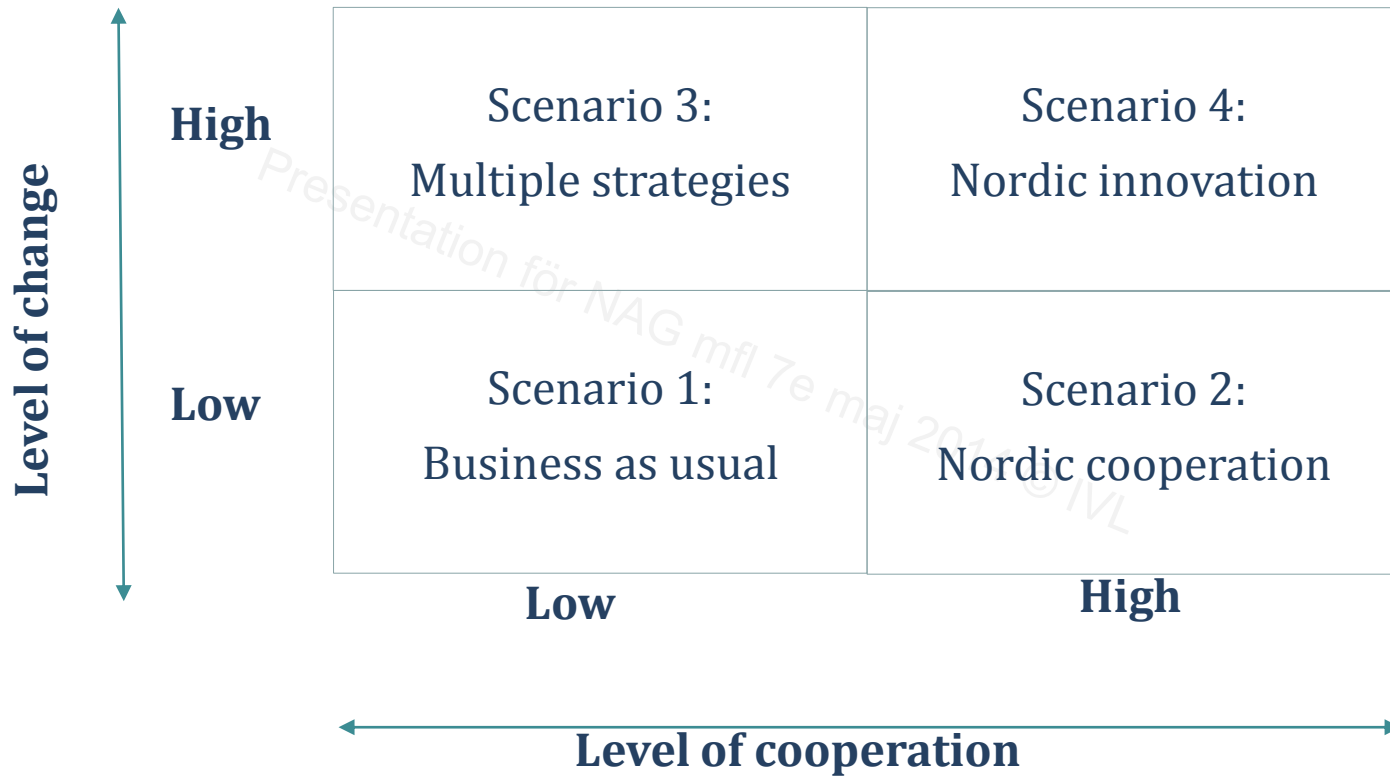
- Fibres, colours, additives
- Textiles 4 textiles
- Opportunity and risk

Sorting is not one single issue

Textile to textile recycling doesn't exist

Presentation för Alva 7e maj 2014 © IVL





Textile reuse and recycling commitment

The aim of the project is to develop a common quality requirement system for textile collection, reuse and recycling companies based on a voluntary commitment system organized by a Nordic body or by national bodies, [...].

The commitment can be a quality tool for stakeholders to make improvements in their activities and the total value chain, and reduce problems with unserious market players.

The regulation around collection is unclear in all Nordic countries

There is a need for action on cracking down on questionable collection.

54 – 80%

[...] properly controlled in order to be effective.



Market

Quality

Consumer



Code of conduct



Voluntary commitment



Certification and
system operation

Certifying organisation

Nordic?

National?

Voluntary Commitment

Importers,
producers &
retailers

Municipalities
and waste
companies

Code of conduct

Socially beneficial
collectors

Other collectors

The goals of the commitment are to:

- Eliminate the illegal collection, export and trading of post-consumer textiles
- Enable legitimate actors to collect, sort, reuse and recycle textiles in cooperation with producers, importers and authorities.
- Increase transparency on the fate of collected textiles and the purpose of the collection and increase public confidence in collecting organisations
- Within ten years double the share of post-consumer textiles that are collected separately in the Nordic region compared to 2012

The goals of the commitment are to (continued):

- Strive towards a ten year goal of at least 50% of collected textiles are reused (either in Nordic countries or abroad) and 90% of the total is reused or where reuse not possible, recycled. Aim towards closed loop recycling rather than downcycling.
- Reduce the overall global environmental impact caused by the consumption of textiles in Nordic countries
- Ensure good working conditions for employees of all actors within the collection to reuse/recycling value chain
- Ensure that all actors comply with third party verified social code of conducts

Importers and producers of textile

They may cooperate directly with signatories and market the opportunity to support a specific collector of textiles. Importers and producers may perform collection, sorting, reuse and recycling in accordance with the code of conduct.



They shall actively and transparently communicate the commitment in stores, websites or via other communication channels as a legitimate way for consumers to discard used textiles.

Code of conduct

All statements in the code of conduct stated as “shall” shall be verifiable during certification or recertification. (C2.1)

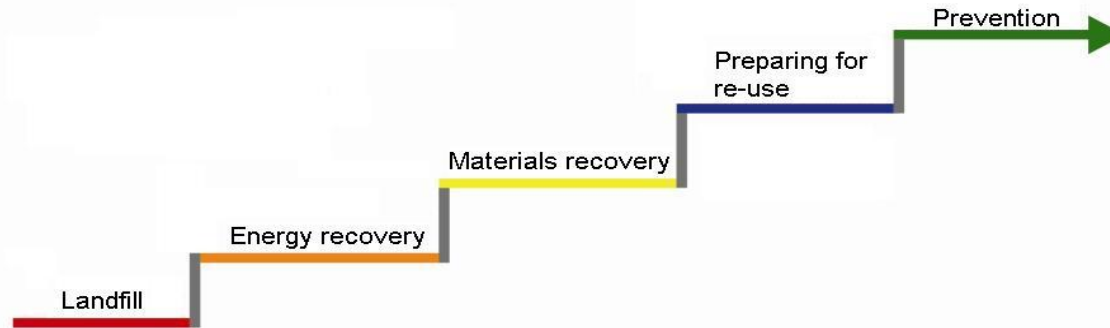
Traceability of textiles shall be possible until end users being either private customers or recycled products. (C2.2)

All collected textiles shall be documented with weight or volume and source of origin. (C2.5)



At least 50% of collected textiles shall be reused either by charity reuse, domestic sales or by export to an organization guaranteeing a sufficient level of reuse. (C8.2)

At least 90% of collected textiles shall either be reused or used as input for recycling. The recycling should have a material efficiency of at least 60%. Recycling of textiles not suitable for reuse shall be according to best available technique. (C8.3)



Either criteria 1 or 2 must be fulfilled for all actors **claiming social benefit**.

A socially beneficial actor shall (for at least six of the following criteria): (C9.1)

1. Mainly reinvest profits in own or similar enterprises
2. Be non-profit
3. Have as main purpose to integrate people with large difficulties getting and/or staying employed
4. Create partnership for coworkers through ownership, contracts or in other documented ways (e.g. membership)
5. Be structurally independent from the public sector
6. Be certified as having charity status
7. Mainly be operated by volunteers
8. Have clear and transparent economic accounting
9. Protect human equity and equal rights

Thank you for your attention!

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