

A photograph of three women riding bicycles on a city street. The woman in the foreground is wearing a black top and shorts, riding a light blue bicycle. The woman in the middle is wearing a white top and black shorts, riding a black bicycle. The woman in the background is wearing a grey jacket and black shorts, riding a blue bicycle. They are riding on a paved road with a white dashed line. In the background, there are modern buildings with glass facades and a traditional building with a red roof. The sky is overcast.

# The Nordic Ecolabel Requirements on chemicals in plastic

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# Agenda

- Introduction to ecolabelling
- NSEs requirements
  - Material requirements
  - Chemical requirements
- Requirements on chemicals in plastics
- Requirements on chemicals in recycled plastics
  - Ongoing project
- Summary

A photograph of a field of tall, dry grasses, possibly a meadow or prairie, with a soft, warm light in the background. A large, solid green circle is overlaid on the left side of the image, containing the title text.

# Introduction to Ecolabelling Sweden

# The official Nordic ecolabel

- Works on behalf of the Swedish Government
- Responsible for the Nordic Swan Ecolabel and the EU Ecolabel
- Run independently on a non-profit basis
- The Swedish part of Nordic Ecolabelling
- Third-party Type 1 label (ISO 14024)
- GEN membership
- 97% of brand awareness in Sweden



# Short facts, Ecolabelling Sweden



FOUNDED YEAR

1989

164  
EU ECOLABEL LICENCES  
IN THE NORDICS



48  
EU ECOLABEL LICENCES  
IN SWEDEN



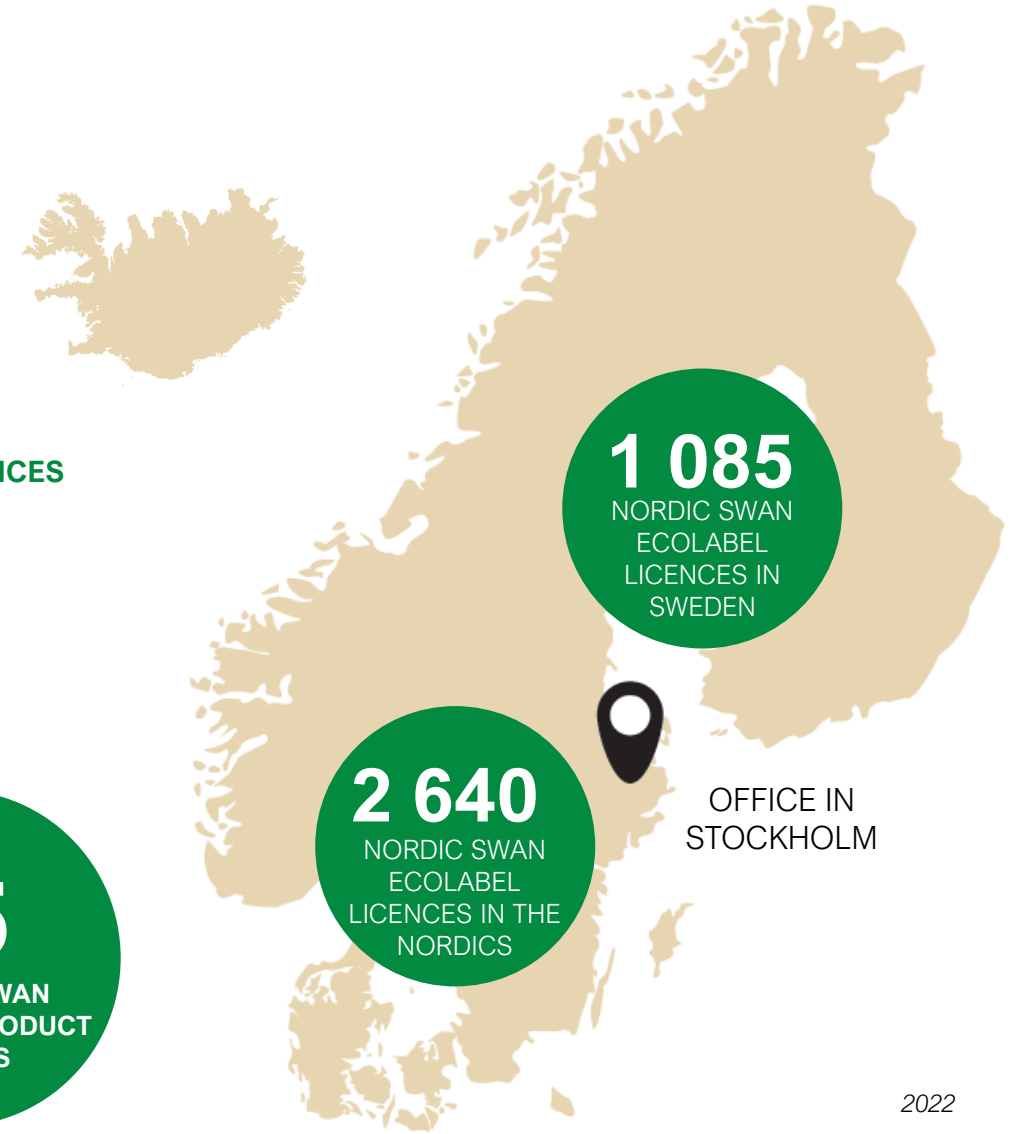
98

EMPLOYEES



24  
EU ECOLABEL  
PRODUCT GROUPS

55  
NORDIC SWAN  
ECOLABEL PRODUCT  
GROUPS



1 085  
NORDIC SWAN  
ECOLABEL  
LICENCES IN  
SWEDEN

2 640  
NORDIC SWAN  
ECOLABEL  
LICENCES IN THE  
NORDICS



OFFICE IN  
STOCKHOLM

2022

# A trusted ecolabel

Independent



Lifecycle and holistic perspective



Requirements tightened





Criteria  
development

# RPS

## Relevance

What are the environmental problems and how extensive are they?

## Potential

What opportunities are there for environmental improvements?

## Steerability

Can the Nordic Swan Ecolabel do something about the environmental problems?



# The main environmental challenges



Biodiversity and raw materials



Circular economy and resource efficiency



Energy and climate



Hazardous chemicals

# Requirements on plastics

- NE may set the following requirements on plastics and/or products containing plastics:
  - Packaging requirements (design for reuse and recycling).
  - Plastic recyclability
  - Additives used in plastics
  - PVC forbid or restriction of use
- Share of recycled plastic in product (pre/post-consumer according to ISO 14021)
- Recycled plastic traceability
- Feedstock and traceability of bio-based/bio-attributed plastics
- Biodegradable plastics (only in dishwasher detergents).
- Plastic composites forbid or restriction of use
- Microplastics forbid (intentionally added)

# Requirements on chemicals

- NE chemical requirements promote substitution of hazardous substances by excluding or restricting them ahead of legislation and to a wider extent than the legislation requires.
- The requirements are developed from a life-cycle approach and based on the [precautionary principle](#).
- This means that Nordic Ecolabelling exclude or limit both [incoming substances](#) that are proven to be harmful and those that are suspected to be.
- Typical example are:
  - CMR substances requirement
  - Substances or category of substances prohibited.
  - Biodegradability and toxicity requirements
  - Emission/migration requirements



# Requirements on chemicals in plastics

# Requirements on chemicals in plastics (intentionally added)

- Exclusion of additives classified as CMR, sensitisers, toxic to organs and hazardous to aquatic environment according to CLP regulation (with some exemptions). For instance, in sanitary products, furnitures, toys and products to healthcare.
- Exclusion or restriction of use of heavy metals (specific limit values). For instance in construction products, paper- and textile based products, toys, etc...
- Exclusion or restriction of use of specific substance/category of substances, such as PBB/PBDE, PFAS, endocrine disruptors, phthalates, SVHC, organotins, etc...in the product groups named above.



# Requirements on chemicals in recycled plastics



# Requirements on chemicals in recycled plastics (impurities)

- Requirements on chemical in recycled plastics already exist:
  - in toys and food contact packaging (following and going further than EU legislations)
  - in furniture and construction products and textile/sanitary products (following knowledge from the industry, e.g., testing for legacy chemicals such as phthalates, halogenated flame retardants, etc...).
- NE wishes to set as strict requirements on recycled plastics as on virgin plastics. However, steerability differs. In most of the cases, it will be difficult for the product manufacturer to know the purity of the purchased recycled plastics.
- NE defines impurities as residues at concentrations level < 100 or 1000 ppm depending on the product.
- A project is ongoing to create a guide on how to develop requirements for unwanted substances in recycled plastics.

# Project – first results

- Test institutes can carry a lot of different test programs. The producer/recycling company need to know if their product meet the requirements of various legislation (REACH, FCM, Cosmetics, RoHS...). Sometimes they also want to know what impurities are included in the fraction.
- Many initiatives are underway. For instance, testing institutes are developing new methods to test faster and more substances at a time, while KEMI/Naturvårdsverket are writing reports.
- NE has been told that it may be difficult and too early to try to set requirements on impurities in recycled plastic.



# Project – first results

- The project group decided to focus on going through existing legislation and checking which substances are regulated today.
- Some examples:
  - Cadmium, Lead, Mercury, hexavalent Chromium, Tri-substituted Organostannic compounds, PAHs, Phthalates, PBB/PBDE restricted by REACH.
  - PBDE, SCCP, some PFAS restricted by POP.
  - BPA and some mineral oils restricted by French regulations
- The collected limit values from the different legislations could be used as a start to develop requirements. NE can then apply its limit values and its expertise in setting requirements on chemicals.
- Both content and migration limit values could be looked at depending on their relevance in the product group (type of exposition)

# Summary

- NE is a third-party Type 1 Ecolabel (ISO 14024)
- NE requirements are based on a life cycle perspective. NE sets comprehensive requirements on both virgin and recycled plastic materials.
- NE sets strict requirement on chemical intentionally added and impurities in both chemical products and materials. In the case of plastics, this applies mostly to additives in virgin plastics and legacy chemicals in recycled plastics.
- A project mapping legacy chemicals found in different product area and involving various organisations is ongoing. The first results show that it is a complex topic.
- They also show that the legislations in place could be used as a start to develop requirements restricting the content/migration of hazardous substances in recycled plastic included in NE certified products.
- Project will most likely become a recurrent task. Monitoring is needed in the long run



Thank you!

