

Pilot course on “Environmental labelling in circular economy”
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Nordic Swan

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The project is co-financed by the Governments of Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund. The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe.

History and development of the program

- *The Nordic Swan Ecolabel was established in 1989 by the Nordic Council of Ministers as a voluntary ecolabelling scheme for the Nordic countries (Denmark, Finland, Iceland, Norway and Sweden).*
- *In 1994 the Nordic Swan Ecolabel was also one of the founders of the Global Ecolabelling Network - the international network for ISO 14024 Type 1 ecolabels.*
- *Nordic Swan Ecolabel voluntary ecolabeling scheme is also called Nordic Ecolabel.*
- *Behind the Nordic Swan Ecolabel is the non-profit organization Nordic Ecolabelling that offers independent third-party certification and support for a wide range of goods and services.*

The reason of establishment of the scheme

- *The reason of establishment of the scheme was to help companies that want to go ahead with sustainable solutions and thereby enable consumers and professional buyers to choose environmentally best goods and services.*
- *It also encourages the development of products and services that have less of an impact on the environment and climate than similar products on the market. The Nordic Ecolabel takes into account the environmental impact of goods and services during their entire life cycle, from raw materials extraction, production, and use to waste/recycling. It places strict requirements on climate and environmental impact, and also function and quality.*
- *It is an important instrument for achieving the Nordic countries' goals for sustainable consumption and production .*

The reason of establishment of the scheme

- *The Nordic Swan Ecolabel addresses 12 of the 17 UN Sustainable Development Goals, its criteria have bearing on the 2030 Agenda, as well as e.g. Sweden's national sustainability goals and the generational goal. The Nordic Swan Ecolabel is only awarded to the best products and services. The target is not to ecolabel all products and services. It would weaken its credibility as a trustworthy ecolabel.*

Fundamental decisions about the Ecolabel

- *All fundamental decisions about the Ecolabel – including guidelines, rules for development work and criteria for usage – are made at Nordic level (the Nordic Ecolabelling Board is the decision-making body, the Nordic Ecolabelling Association is responsible for the operational coordination of the national ecolabelling organizations). The national ecolabelling organizations are responsible for the licensing of individual products using set criteria, in accordance with the requirement for certification stipulated by international standard ISO 17065 .*
- *In all Nordic countries, these scheme managing organizations are state-owned companies that operates without profit or industry interests.*
- *The Nordic Swan Ecolabel has no self-interest in existing, e.g. if there will be sustainable society in future. In fact, it already closed down product groups where the industry is managing on their own or new legislation has been implemented.*

Nordic Swan Ecolabel and changes in different industries.

- *The Nordic Swan Ecolabel have participated on changes in different industries. It has ensured that dangerous chemicals have disappeared from the printing industry, contributed to consumers to be able to find ecolabelled detergents and toilet paper in the stores and helped to get a more energy-efficient and chemical-friendly hotel industry.*
- *Actual Ecolabeling Sweden (2019) report shows that green buildings and sustainable building techniques are becoming the new norm. Just looking at the last three years shows that the number of Nordic Swan Ecolabelled houses has quadrupled in the Nordic countries. In Sweden, there are now 21740 apartments, houses and preschools being built according to our strict requirements on energy efficiency and healthy building materials.*
- *Currently, more than 25000 products and services (globally) is covered in 58 industries by 2155 licenses.*

Nordic Swan and its development (to some extent country specific)

- *Since the Nordic Swan was common initiative of few Nordic countries, the development of it could be to some extent country specific.*
- *In Sweden first criteria came in 1991. They were for batteries. In 1992 first licenses were awarded for paper and detergents. In 1996 96 % of all Swedes know about Nordic Swan Ecolabel commonly referred to as „Svanen“.*
- *In 1999 first criteria for a service were approved.*
- *In 2005 the first Nordic Swan ecolabelled house came.*
- *In 2007 the Nordic Swan Ecolabel's procurement network was formed to support companies that want to make sustainable purchases (currently 240 members).*
- *In 2010, license number 2,000 was distributed in the Nordic region.*
- *In 2015 largest advertising initiative "Save the world little by little every day" was launched.*
- *In 2017 the world's first Nordic Swan Ecolabelled funds were launched (currently 21 funds).*

The dissemination of ecolabels in the Nordic countries = success

- *The Nordic Swan label was reported to be recognized by more than 90 % of the consumers in Sweden and slightly less in Norway, Finland and Denmark and much less (about 50 %) in Iceland . Currently, the Nordic Ecolabeling (2018) report informs that 89 % of all people in the Nordics recognize the Nordic Swan Ecolabel as a brand and that 72 % of Nordic consumers think that the Nordic Swan Ecolabel makes it easier for them to make environmentally friendly choices. Ecolabeling Sweden (2019) reports presents that 97 % of all people in Sweden recognize the Nordic Swan Ecolabel as a brand.*

Nordic Swan and sustainable consumption

- *According to Bjorner (2002) study the Nordic Swan label has had a significant effect on Danish consumers' brand choices for toilet paper and detergents, corresponding to a willingness to pay for the certified environmental label of 10 – 17 % of price of the labelled products.*
- *More recent Nordic Ecolabeling (2018) report, based on survey executed in 2018, presents that 1 out of 4 people in Nordic countries thinks more ecolabelled products would make the greatest difference in promoting sustainable consumption. It also presents that 1 out of 3 say they chose sustainable marked products and services to support responsible brands. As it stated further, 75 % of Nordic consumers find it to be of vital importance that labelling schemes are objective and independent .*
- *According to Nordic Swan Ecometer (2019) realized in Sweden, 1 of 2 people say that sustainability has increased at their workplace over time. It has also shown, that on the question „Does your employer has a sincere desire to work more sustainably? “ 44 % of people answered „yes“, 16 % „no“ and 40 % „don't know“, while the young were the most skeptical (only 24 % answered „yes“). Furthermore, it shows that 1 of 3 people say their employer's sustainability work consists of empty words and that they miss action.*

Source: Bjorner, T.B., Hansen, L.G., Russel, C.S. (2002), Nordic Ecolabeling (2018a), Ecolabeling Sweden (2019)

The Nordic Swan Ecolabel and new initiatives

- *The Nordic Swan Ecolabel is part of the new initiative (ModUpp 2020) and some of the most renowned third-party labels in Sweden. This initiative calls on decision-makers and purchasers in the public sector to use third-party certifications for the environment and social sustainability to shift to a more modern approach towards public procurement.*

Requirements and methodology of impact assessment - criteria structure

- *In the Nordic Swan Ecolabel scheme the environmental impact through the product's life cycle is analyzed and forms the basis for defining a limited number of requirements for the most important environmental issues ("hotspots").*
- *According to Nordic Ecolabeling (2019) report Nordic Swan Ecolabel sets strict criteria for resource consumption and waste, effect on climate, use of chemicals, and biodiversity. Key factors in this work include the choice of raw materials, use of hazardous chemicals, use of energy and resources, emissions to all kind of recipients, health aspects, noise and waste treatment associated with production, transport and final disposal.*
- *The product's lifespan and whether it can be repaired are also important, as is the extent to which it can be reused and recycled.*
- *Environmental principles, such as the precautionary and substitution principles are also included in the development of criteria. The environmental priorities are based upon the Nordic Ecolabel's RPS (relevance, potential, steerability) analysis tool.*
- *Products featuring the Nordic Ecolabel should also be characterized by good quality and functionality, so usually requirements regarding these factors are included.*
- *In addition to environmental criteria, sustainability criteria are gradually being added.*
- *The stringency of the environmental requirements is high, adaptable to technical advancements and related to the Nordic countries' official environmental regulations.*

Source: The Nordic Council of Ministers (2014), Nordic Ecolabeling (2019)

The purpose and validity of the criteria

- *The purpose of the criteria is to identify the most environmentally sound products on the Nordic market. The target is that a maximum of one third of the products available in the Nordic Region meet the criteria at the point in time when the criteria are adopted. The criteria are valid for a maximum of five years. The requirements are evaluated at least every third year. Licenses are time-limited and companies must apply again to create sustainable development.*

Nordic Swan Ecolabel can “nudge” companies to operate more circular (an example)

- *As mentioned in Ecolabeling Sweden (2019) report Nordic Swan Ecolabel can “nudge” companies to operate more circular. For example, its requirements for packaging and paper, as well as some construction products, demand that the product has to be made partly from recycled raw material. In renovation (services) criteria of Nordic Swan Ecolabel one of focus areas is recycling and reuse, and there are requirements for an assessment and plan for reuse of materials, as well as for waste management. This is crucial to ensure a resource-efficient renovation, in line with circular thinking.*

Table 1: Nordic Swan Ecolabel product groups

Alternative dry cleaning	Industrial cleaning and degreasing agents
Baby products with textiles	Investment funds and investment products
Candles	Laundry detergents and stain removers
Car and boat care products	Laundry detergents for professional use
Chemical building products	Liquid and gaseous fuels
Cleaning agents for use in the food industry	Machines for parks and gardens
Cleaning of liquid damaged electronics	Office and hobby supplies
Cleaning products	Outdoor furniture and playground equipment
Cleaning services	Packaging for liquid foods
Closed Toilet Systems	Photographic developments services
Coffee service	Primary batteries
Compost bins	Printing companies, printed matter, envelopes and other converted paper products
Computers	Rechargeable batteries and portable chargers
Construction and facade panels	Remanufactured OEM Toner Cartridges
Copy and printing paper	Renovation
Cosmetic products	Sanitary Products
De-icers	Ski wax
Dishwasher detergents and rinsing agents	Small houses, apartment buildings and buildings for schools and pre-schools
Dishwasher detergents for professional use	Solid Biofuel Boilers
Disposable bags, tubes and accessories for health care	Solid fuels and firefighting products
Disposables for food	Stoves
Durable/resistant wood for outdoor use	Supplies for microfiber based cleaning
Floor coverings	Textile services
Furniture and fitments	Textiles, hides/skins and leather
Grease-proof Paper	Tissue paper
Grocery Stores	Toys
Hand Dishwashing Detergents	Transport wash installations
Heat pumps	TV and Projectors
Hotels, Restaurants and Conference Facilities	White Goods
Imaging equipment	Windows and exterior doors
Indoor paints and varnishes	

- *The Nordic Swan Ecolabel is covering several hundred product types, which are grouped in more than 60 different product groups .*

Source: Nordic Swan Ecolabel (2020d)

The certification process from the applicant view

- *The certification process could be divided from the applicant view on three steps:*
- *Fulfillment of application form and delivering other associated declarations (if required). In this step it is possible to apply for several products at the same time, but if products are produced at different places, they usually require individual certifications.*
- *Within 3 weeks the national ecolabeling organization (NEO) provide status of the application, inform about need of more documentation or change something related to the product to meet requirement of the Nordic Swan Ecolabel. When all the documentation is in order, NEO will contact applicant and they make an appointment for an inspection visit. If the production in reality is in line with documentation, technical review of the application is initiated.*
- *When the application passes the technical review and administrative details are handled, the certification is granted. From this time applicant could use Nordic Swan Ecolabel on its products (or in relation with its services). Usually the certification process lasts 2 to 6 months.*

Documentation - showing that the requirements are fulfilled

- *The application consists of an application form and documentation showing that the requirements are fulfilled. Each requirement is marked with the letter O (obligatory requirement) and a number (see Table 3). All requirements must be fulfilled to be awarded a license. All information submitted to Nordic Ecolabelling is treated confidentially.*
- *A license can cover multiple products within the same product group. As a main rule, a license covers one production site. Normally a Nordic Swan Ecolabeling license is valid worldwide. However, for certain product groups there is an option to apply for a license for a single Nordic Country. Typically for services license is for each country where the applicant operates.*
- *To obtain a license to carry the Nordic Swan Ecolabel, the applicant must fulfil the requirements of the pertinent criteria. Criteria documents of each product group encompass a wide range of requirements. According to different criteria applied for each of group of products the Table 2 shows the requirements applied for three selected products (groups of products).*

Table 2: Nordic Swan criteria for selected products

Product (product group)	Laundry detergents	Tissue paper	TV
Criterion (group of criteria) 1	Meet strict requirements concerning environmentally hazardous chemicals, including requirements on ecotoxicity and biodegradability	Made of fibers from sustainable forestry and/or recovered fiber and has been produced with low levels of emissions to air and water.	Low energy consumption
Criterion (group of criteria) 2	Meet strict health related requirements concerning chemicals that pose a health hazard, including complete ban on CMR classified substances and various specifically problematic substances such as SVHCs and suspected endocrine disruptors	Energy consumption during production is low and limits are placed on the use of chemicals hazardous to health and the environment, both during production and in the paper product itself.	Do not contain harmful flame retardants.
Criterion (group of criteria) 3	Promote increased use of sustainable renewable raw materials	Resources have been used efficiently and environmentally suitable production methods have been employed.	Free of mercury and contains a minimal amount of environmentally hazardous and harmful chemicals
Criterion (group of criteria) 4	Are concentrated	Only raw materials of the highest quality in environmental terms may be used.	Easy to recycle
Criterion (group of criteria) 5	Are efficient at 30 °C (coloursafe and delicates) and 40 °C (white wash)		
Criterion (group of criteria) 6	Have a packaging that contains recycled materials and is designed for circular economy		

Source: Nordic Ecolabeling (2020a), (2020b), (2018b)

Table 3: Nordic Swan Ecolabel requirements for TV

		Requirements
O1	Specific requirement for Televisions	All products shall have a hard or soft on-off switch
O2	Passive Standby for Televisions	The product shall meet the requirements for power consumption in standby and off mode according to current Ecodesign regulation (EC) No 642/2009.
O3	Energy efficiency for Televisions	The product shall meet the requirement for Energy Efficiency Class A+ in the current Energy Labelling Regulations (EU) No 1062/2010, with updates, for all screen sizes.
O5	Flame retardants in plastic and rubber parts	E.g. The flame retardants HBCDD, TCEP and high chlorinated short chain and high chlorinated medium chain chloro paraffins must not be added.
O6	Chlorine-based plastics	Plastic parts >25g must not contain chlorinated polymers
O7	Phthalates in the external power cable	The external power cable delivered with the product must not contain following substances: DEHP,
O8	Mercury content in background light in LCD displays and projector lamp	The background light in the TV-screen must not have any mercury (Hg) content. The lamp for projectors cannot contain mercury (Hg).
O9	Declaration of nitrogen trifluoride (NF3) and sulphur hexafluoride (SF6) emission during LCD production	The LCD panel must be produced in such a way that the greenhouse gases NF3 and SF6, if part of the production process, are abated by a system that is an integrated part of the production process. It is the responsibility of the manufacturing company to ensure that the abatement system is installed, operated and maintained in accordance with the manufacturers (of the abatement system) specifications. The manufacturer of the LCD shall declare the amount of NF3 and SF6 purchased in relation to amount of LCD (m2) produced over one year.

Source: Nordic Ecolabeling (2020b)

Table 3: Nordic Swan Ecolabel requirements for TV

O11	Dismantling	<p>The manufacturer shall demonstrate that the product can be easily dismantled by professionally trained recyclers, using the tools usually available to them, for the purpose of:</p> <ul style="list-style-type: none"> • undertaking of repairs and replacements of worn-out parts • upgrading older or obsolete parts • separating parts and materials, ultimately for re-cycling <p>To facilitate the dismantling:</p> <ul style="list-style-type: none"> • Fixtures within the products shall allow for this disassembly, e.g. screws, snap-fixes, especially of parts containing hazardous substances. • Plastic parts shall be of one polymer or be of compatible polymers for re-cycling and have the relevant ISO11469 marking if >25g in mass. Exception is made for extruded plastic materials and for light emitters in flat screens. • Metal inlays that cannot be separated shall not be used. • Data on the nature and amount of hazardous substances in the television will be gathered in accordance with the directive of classification, packaging and labelling of dangerous substances (67/548/EEC) and directive 2006/121/EEC about changes in directive 67/548/EC.
O12	Re-cycled material in packaging	<p>When cardboard boxes are used, they shall be made of at least 50 % post-consumer re-cycled material. Only primary packaging, as defined in Directive 94/62/EC, is subject to the requirement</p>
O13	Requirements regarding life-time extension	<p>The manufacturer shall offer a commercial guarantee to ensure that the product will function for at least two years. This guarantee shall be valid from the date of delivery to the customer.</p> <p>The availability of compatible electronic replacement parts shall be guaranteed for seven years from the time that production ceases.</p> <p>This shall be written in the electronic and/or printed product fact sheet</p>

Source: Nordic Ecolabeling (2020b)

Costs of participation in the program

- *According to the fee regulation the applicants and holders of the Nordic Swan license, could be faced by different fees (Table 4).*
- *Application fees are payable by the applicant in conjunction with application. Fee for on-site inspection is applied when multiple on-site inspections are necessary*
- *Following the award of a license, the applicant must pay a license fee.*
- *The license fee is payable annually for the right to use the ecolabel in the Nordic market. It is based on the turnover of the Nordic Swan ecolabelled product. Nordic Ecolabelling charges also a fee for sales outside the Nordic countries if it exceeds a certain level.*
- *Nordic Ecolabelling can charge a fee for the inspection of raw materials for Nordic Swan ecolabelled products and for listing inspected raw materials.*

Table 4: Costs of certification by Nordic Swam

	Denmark	Finland	Iceland	Norway	Sweden
Application fee (first)	3 000 EUR + VAT			3 000 EUR + VAT	30 000 SEK + VAT
Renewal of license	1 500 EUR + VAT			1 500 EUR + VAT	15 000 SEK + VAT
Annual license fee for Nordic countries	0,3 % of turnover + VAT per year			0,3 % of turnover + VAT per year	0,3 % of turnover + VAT per year (0,05 % if > 30 mil. EUR)
Min./Max annual fee for the Nordic countries	2 000 EUR / different or no max. fee (e.g. 85 000 EUR) + VAT per year			2 000 EUR / different or no max. fee (e.g. 85 000 EUR) + VAT per year	2 000 EUR / different or no max. fee (e.g. 85 000 EUR) + VAT per year
Annual license fee outside the Nordic countries	2 000 EUR + VAT per year			2 000 EUR + VAT per year	2 000 EUR + VAT per year
Extension of license	e.g. 4 - 8 hours: 750 EUR + VAT *			e.g. 4 - 8 hours: 750 EUR + VAT *	e.g. 4 - 8 hours: 750 EUR + VAT *
Fee for on-site inspection	500 EUR + VAT per visit			500 EUR + VAT per visit	500 EUR + VAT per visit
Remarks: VAT = Value Added Tax These numbers are valid in general (or specifically for TV) but doesn't include all specific cases !!! *charged according to how long it takes to deal with the matter					

Source: Ecolabelling Denmark (2017), Ecolabelling Norway (2020), Ecolabelling Sweden (2020)

Case study – Ballograf (Sweden)

- Ballograf is a Swedish producer of pens and was established in 1945. Since the change of owners in 2005 Ballograf decided to put an increased focus on the environmental impact and awareness of the company. The company sensed an increased interest for environmentally friendly products within their business and decided to design and produce a Swan labeled pen, which was not on the market at the time. The development of the pen was a challenge as the “body” of the pen must be produced mostly of cardboard, each ends of the pen had to be made from recyclable plastic and the ink container also needed to be made from recyclable plastic and contain environmentally friendly ink. This had implications for their subcontractors as they had to develop a new type of ink, and for Ballograf as they among other things had to buy a new mould for casting the pens. In total, the development took 1.5 years. The largest impact of the Swan Label for Ballograf has been the strengthened environmental profile of the company and the signal which they can send to their customers. The company believes that the Swan Label has improved the brand of the company and that it is easier to build a brand among customers. Furthermore, the fact that the pen is the first of its kind to be Swan labelled has created some degree of attention. The company finds that it is easier to get the new pen advertised in catalogues and product magazines as the product is new and a first of its kind. The Swan Label has been also part of an increased focus on the chemicals used in the production – especially with regards to ink.*

Source: Kjeldsen, U.B., Wied, M., Lange, P., Tofteng, M., Lindgaard, K. (2014)

References:

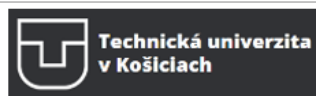
- Bjorner, T.B., Hansen, L.G., Russel, C.S. (2002). Environmental labelling and consumers' choice – An empirical analysis of the effect of the Nordic Swan, Working Paper No. 02-W03, Vanderbilt University, Nashville, USA, 2002, pp. 1-53
- Ecolabelling Denmark (2017) Product group: TV and Projectors (Online). Available at: <https://www.ecolabel.dk/en/product-groups/show-product-group?produktgruppeid=071&projektgruppe=Svanen#tab:fees> [Accessed: July 4, 2020]
- Ecolabelling Norway (2020) Fees Nordic Swan Ecolabel (Online). Available at: https://www.svanemerket.no/PageFiles/17162/20170927_Fees_Nordic_Swan_Ecolabel.pdf [Accessed: July 4, 2020]
- Ecolabeling Sweden (2019). Strategies for sustainable business development: The report
- Ecolabelling Sweden (2020) TV and Projectors 071 (Online). Available at: <https://www.svanen.se/en/how-to-apply/criteria-application/tv-and-projectors-071/> [Accessed: July 4, 2020].
- Kjeldsen, U.B., Wied, M., Lange, P., Tofteng, M., Lindgaard, K. (2014) The Nordic Swan and companies, TemaNord, 2014, <https://www.diva-portal.org/smash/get/diva2:715465/FULLTEXT02.pdf>
- Leire, Ch., Thidell, A. (2005). Product-related environmental information to guide consumer purchases e a review and analysis of research on perceptions, understanding and use among Nordic consumers, Journal of Cleaner Production 13(2005) pp.1061-1070
- Miljømerking (2017) TVer og projektorer (Online). Available at: <https://www.svanemerket.no/svanens-krav/elektrisk-og-elektronisk/TV-projektor/> [Accessed: July 4, 2020]
- Nordic Ecolabeling (2016). Regulation for the Nordic Ecolabeling of Products, 2016
- Nordic Ecolabeling (2017): Fee Regulation of Nordic Ecolabeling, 2017
- Nordic Ecolabeling (2018a). Sustainable consumerism in the Nordic region: The report
- Nordic Ecolabelling (2018b). Criteria document - Tissue paper - version 5.8, 2018;
- Nordic Ecolabelling (2020a). Criteria document - Laundry detergents and stain removers - version 8.0, 2020;
- Nordic Ecolabeling (2020b) Criteria document - TV and Projectors - version 5.8, 2020
- Nordic Swan Ecolabel (2020a). The Nordic Swan (Online). Available at: www.nordic-ecolabel.org/the-nordic-swan-ecolabel/ [Accessed: July 1, 2020].
- Nordic Swan Ecolabel (2020b). The history of the Nordic Swan Ecolabel (Online). Available at: <https://www.svanen.se/en/tasks-of-nordic-swan-ecolabel/history-of-nordic-swan-ecolabel/> [Accessed: July 1, 2020]
- Nordic Swan Ecolabel (2020c). Why choose ecolabelling? (Online). Available at: www.nordic-ecolabel.org/why-choose-ecolabelling/ [Accessed: July 1, 2020]
- Nordic Swan Ecolabel (2020d). Product groups (Online). Available at: <https://www.nordic-ecolabel.org/product-groups/> [Accessed: July 2, 2020].
- Nordic Swan Ecolabel (2020e). Certification. Available on: <https://www.nordic-ecolabel.org/certification/apply> [Accessed: July 3, 2020].
- The Nordic Council of Ministers (2014). Goals and Principles for the Nordic Ecolabel (the Swan), 2014

Thank you for attention



Project website: <https://ecolabelling.prz.edu.pl/en/>

The International Visegrad Fund website: <https://www.visegradfund.org/>



ECOLABELLING project
Innovations in circular economy – environmental labels and declarations