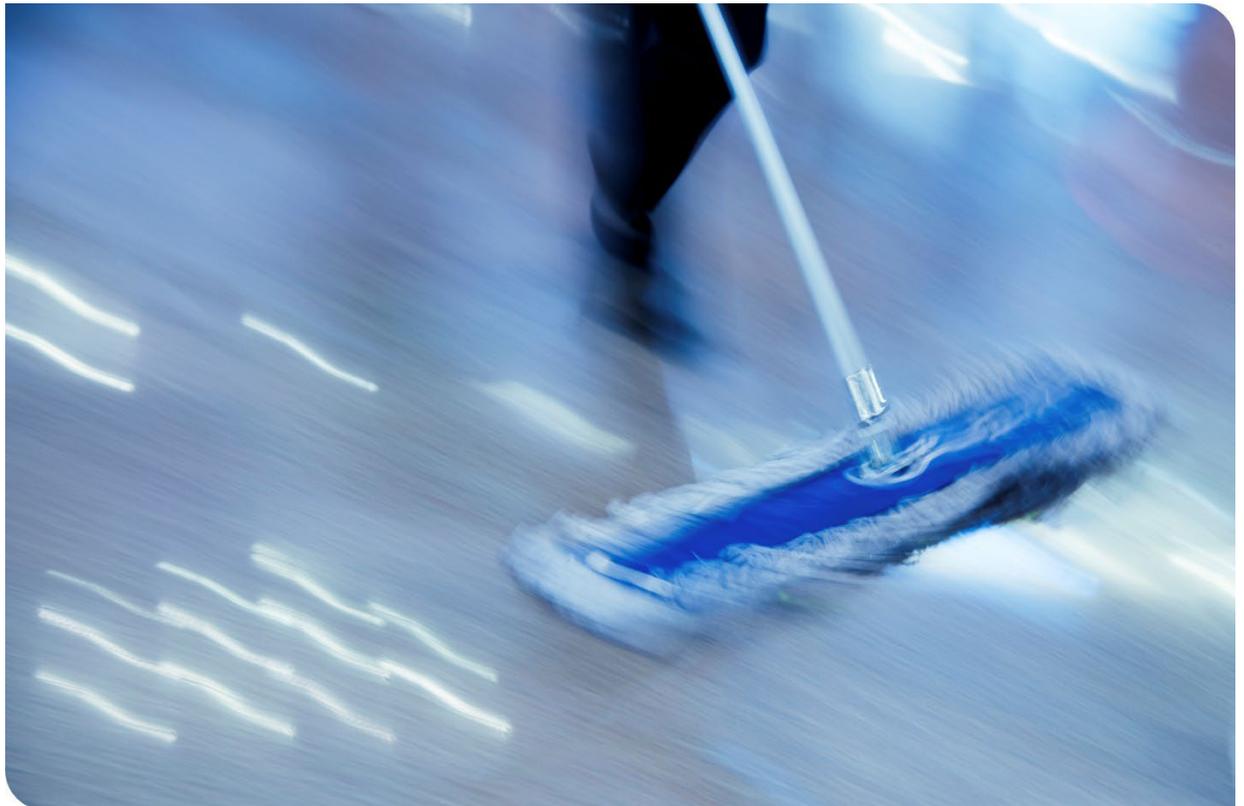


About Nordic Swan Ecolabelled
Cleaning Services



Version 3.4

Background to ecolabelling
30. November 2021

Nordic Ecolabelling



Contents

1	Summary	3
2	Basic facts about the criteria	3
3	The Nordic market	6
4	Other labels	8
5	About the criteria review/revision	9
6	Environmental impact of cleaning services	11
6.1	Life cycle	11
6.2	Consumption of materials	12
6.3	Energy consumption	12
6.4	Health and working environment	13
6.5	Waste	14
6.6	Air environment	14
6.7	Aquatic environment	14
7	Background to the requirements	15
7.1	Functional unit	17
7.2	Product group definition	17
7.3	General requirements of the applicant	18
7.4	Requirements concerning chemicals	21
7.5	Transport requirements	30
7.6	Requirement concerning bags	33
7.7	Use of ecolabelled products and services	34
7.8	Calculation of points	37
7.9	Quality	37
7.10	Ethics/working environment	40
8	Changes compared to previous generation	43

076 Cleaning Services, version 3.4, 30 November 2021

Addresses

In 1989, the Nordic Council of Ministers decided to introduce a voluntary official ecolabel, the Nordic Swan Ecolabel. The following organisations/companies hold responsibility for the official Nordic Ecolabelling system, and this responsibility is given to them by their respective country's government. For more information, see the websites:

Denmark

Ecolabelling Denmark
Danish Standards Foundation
Göteborg Plads 1, DK-2150 Nordhavn
Fischersgade 56, DK-9670 Løgstør
Tel: +45 72 300 450
info@ecolabel.dk
www.ecolabel.dk

Iceland

Ecolabelling Iceland
Umhverfisstofnun
Suðurlandsbraut 24
IS-108 Reykjavík
Tel: +354 5 91 20 00
ust@ust.is
www.svanurinn.is

This document may only be copied in its entirety and without any kind of alteration. It may be quoted from provided that Nordic Ecolabelling is stated as the source.

Norway

Ecolabelling Norway
Henrik Ibsens gate 20
NO-0255 Oslo
Tel: +47 24 14 46 00
info@svanemarket.no
www.svanemarket.no

Finland

Ecolabelling Finland
Urho Kekkosen katu 4-6 E
FI-00100 Helsinki
Tel: +358 9 61 22 50 00
joutsen@ecolabel.fi
www.ecolabel.fi

Sweden

Ecolabelling Sweden
Box 38114
SE-100 64 Stockholm
Tel: +46 8 55 55 24 00
info@svanen.se
www.svanen.se

1 Summary

Cleaning services concern many companies and employees in the Nordic region. Companies which offer ordinary cleaning and/or window cleaning can be Nordic Swan Ecolabelled. Ordinary cleaning concerns regular tasks that are necessary to keep an indoor area clean. Inspection, collection of refuse, general cleaning, floor care (including polish and wax removal) and cleaning of interior glass (such as glass walls in offices) are considered to be part of this. Inspection is where cleaning staff in principle only go through the room to check the need for cleaning and empty waste containers. Window cleaning is cleaning of window surfaces (interior and exterior).

Special cleaning (disinfection, etc.) is not included.

Requirements are made of such aspects as the constituent substances and properties of chemicals, and consumption of chemicals, bags and fuel. Use of ecolabelled products and services is encouraged. Requirements are also made of orderly operation and the use of subsuppliers.

The key differences between this generation and generation 2 of the criteria are:

- The product group has been expanded to also include window cleaning.
- The parameters for special cleaning have been adjusted, such that use of disinfectants is counted as special cleaning, and is thus not part of Nordic Swan Ecolabelled cleaning services.
- The definition of m² cleaned has been made more specific and it is now clearer that inspection is included.
- It is now specified which chemicals must be included in the consumption of chemicals.
- Requirements for both the consumption of chemicals and the proportion of ecolabelled chemicals have been tightened.
- The requirements for chemicals' properties have been updated and tightened.
- Separate requirements for spray products have been introduced.
- Transport requirements provide for several types of fuel and have also been updated.
- It is now implemented requirements for subsuppliers that are not Nordic Swan Ecolabelled.

2 Basic facts about the criteria

Products eligible for Nordic Swan Ecolabelling

Companies which offer ordinary cleaning and/or window cleaning can be Nordic Swan Ecolabelled. Ordinary cleaning concerns regular tasks that are necessary to keep an indoor area clean. Inspection, collection of refuse, general cleaning, floor care (including polish and wax removal) and cleaning of interior glass are considered to be part of this. Inspection is where cleaning staff in principle only go through the room to check the need for cleaning and empty waste containers. In this document, ordinary cleaning is called cleaning.

Cleaning may include, but is not limited to, areas such as workplaces, toilets, restaurants, hotels, schools or private homes.

Window cleaning is cleaning of window surfaces (interior and exterior).

If the company offers both ordinary cleaning (including floor care) and window cleaning, both of these services can be Nordic Swan Ecolabelled. Ordinary cleaning must always have a licence, while having a licence for window cleaning is optional. Window cleaning must meet all the obligatory requirements marked as “(W)” (all O requirements except O2, O9 and O13). Marketing of Nordic Swan Ecolabelled window cleaning can only occur if the window cleaning is included in the licence.

Special cleaning is not included in the product group. Nordic Ecolabelling considers the following types of cleaning to be special cleaning: Disinfection, stain removal on carpets, remediation work (for example mould and asbestos removal), clearing up after incidents (such as floods and fires), cleaning of ventilation ducts, cleaning of industrial production facilities (such as clean rooms, production facilities in the food and agriculture industry), façade cleaning and washing of buildings, and operating theatres. Areas that are included in a Nordic Swan Ecolabelled cleaning contract, but which require special cleaning for hygiene reasons, also count as special cleaning (e.g. kitchen areas in grocery stores), following approval by Nordic Ecolabelling.

This delineation makes it possible for cleaning targeted at private consumers, companies and the public sector to achieve Nordic Swan Ecolabelling.

An applicant cannot just Nordic Swan Ecolabel cleaning for a certain number of customers or one cleaning concept. Departments with their own accounts, such as regional departments, or other departments or divisions may, however, apply (on the understanding that these are separate economic profit centres). In such case, the name of the profit centre(s) for which the application is made must be stated on the application form.

An applicant is not prevented from also offering special cleaning or other services that are not covered by these criteria. But in such a case, these may not be marketed as part of the Nordic Swan Ecolabelled cleaning services. Only those that are included in the licence may be marketed as Nordic Swan Ecolabelled.

Justification for Nordic Swan Ecolabelling

A Nordic Swan Ecolabelled cleaning service:

- uses a large proportion of ecolabelled cleaning products
- minimizes the use of unnecessary chemicals
- minimizes environmental impact from transport
- has staff trained in both the environment and cleaning methods
- has quality system to ensure high quality cleaning

The environmentally impacted areas within cleaning services are: materials consumption, energy consumption, refuse formation, air and aquatic environment.

With regard to chemical cleaning agents, we know from the ecolabelling criteria for cleaning products that there is great variation in the adverse environmental impacts of the various cleaning agents.

Over-dosing of cleaning agents and unnecessary use of chemicals, where a microfibre cloth or ordinary water would be sufficient to deal with the problem, is also an area with potential for ensuring environmental improvements.

Refuse is an increasing environmental problem throughout the world and the cleaning industry also generates considerable amounts of refuse. In particular, the use of refuse bags has proved to account for 45% of cleaning companies' total refuse production. Consumption of refuse bags can be reduced in several ways.

The criteria document for cleaning services provides good opportunities to ensure that cleaning companies change their use of chemical cleaning agents from more to less environmentally hazardous products. An appropriate environmental level is ensured by increasing the proportion of ecolabelled products and setting requirements for products that are not ecolabelled.

The criteria for cleaning services ensure low consumption of chemicals, by making requirements of the overall consumption of chemicals per square metre of area cleaned. The criteria also ensure low fuel consumption in cleaning companies. They also ensure low refuse production with regard to bags by setting requirements of the number of bags that may be used per square metre cleaned.

No requirements are set concerning water consumption. First of all, there is very little opportunity to manage requirements concerning water. Cleaning companies tap water at their customers' premises and therefore have no immediate statistics for water consumption. In addition, a requirement concerning water consumption might entail increased use of less concentrated chemical cleaning agents, in order to save the water added. This would lead to unnecessary additional transport of water in non-concentrated chemical cleaning agents, leading to another environmental problem.

The criteria do make indirect requirements of water consumption, however, since we set requirements of the amount of chemicals that may be used per square metre. Since most chemical cleaning agents must be diluted with water, a requirement for low consumption of chemicals per square metre will also entail low consumption of water.

The criteria for cleaning services emphasise that the cleaning company's staff receive training, and that the cleaning service's customers are offered information.

So it is possible to manage cleaning services towards more sustainable development via ecolabelling criteria.

Criteria generation and validity

The first generation of the criteria for cleaning services was adopted on 17 December 2002.

Generation 2 of the criteria was adopted on 17 March 2009 and expires on 31 October 2017.

The key changes from generation 1 to 2 were the tightening of the chemical consumption requirements and the requirement for an increased proportion of ecolabelled chemicals. Other new features were requirements for Euronorm IV vehicles, ethical requirements and the possibility of scoring points by purchasing ecolabelled products or services.

Nordic Swan Ecolabelling licences

The numbers of licences by country in the Nordic region in 2008 and in December 2015 are shown in the following table. As shown, there has been a large increase in the number of licences. An important reason for this is the increased demand for ecolabelled cleaning in new invitations to tender.

Table 1 Licences in the Nordic region

Country	No. of licences in 2008	No. of licences as of 2.12.2015
Denmark	1 (had 2 up to February 2007)	10
Norway	3	17
Sweden	9	25
Finland	1	3
Iceland	1	7
TOTAL	15	62

3 The Nordic market

The Nordic cleaning sector is characterised by a few large operators in each country, and many small companies, right down to 1-3 employees. The large companies dominate the cleaning sector, while many of the several thousand other companies are very small.

The services are often sold via invitations to tender and large contracts, in both the private and public sectors.

Since 2012, there has been a very considerable increase in the sector's use of the Nordic Swan Ecolabel, especially in Sweden, Denmark and Norway.

The sector

Table 2 presents an overview of cleaning companies in the Nordic countries in 2012. As far as Nordic Ecolabelling is aware, there have been no major changes since then and up to 2015.

Table 2 Overview of cleaning companies in the Nordic region

Country	Number of companies	Large operators
Denmark	8000	149 in SBA (Servicebranchens Arbejdsgiverforening, which is part of the Confederation of Danish Industry) and 160 in RSBA (Rengøringssekskabernes Branche- og Arbejdsgiverforening)**
Finland	4250	6 large operators
Norway	7549*	20-30 large operators
Sweden	1,880 limited liability companies with over 41,000 employees	46 large companies with over 100 employees

*prof.no.

**Feb 2012 according to SBA's and RSBA's websites.

Purchasers

The services are often sold via invitations to tender and large contracts, in both the private and public sectors. Tenders are submitted by the producers of the services, and they purchase the relevant materials (cleaning agents, chemicals, etc.) and consumables.

Market development

There is an increased tendency for larger, broader service contracts to be established in Denmark and Norway. This is due, among other things, to how customers (companies) join forces as larger entities/chains, and are thus interested in a contractor with one operator for the entire chain. This is probably a tendency that will also be seen in the other Nordic countries. This tendency can be expected to lead to increased consolidation in the overall sector.

The trends indicate greater use of microfibre, greater use of machines, more advanced polishing and a cautious approach to use of nanomaterials and agents. There is also a trend for greater use of wet wipes.

A clear majority of the companies have increased their range of services (which means that they offer other services besides cleaning) in recent years, and many of them also plan to increase their range of services in the future. This trend has been ongoing for some time, and this development is set to continue. A number of customers request several services from the same company, and many companies are interested in selling additional services to the customer. This is also one of the reasons for the growth in the sector, since several companies offer other services besides traditional cleaning.

Cleaning on average accounts for 70% of the companies' revenue. The most common services besides ordinary cleaning are floor care, catering and window cleaning. It has become more common to work as a subsupplier, but also to use subsuppliers.

Today, almost one half of the companies in the sector use subsuppliers so as to be able to offer other types of services, and many of the companies themselves are used as

subsuppliers. As the companies increase their range of services, so-called service companies are becoming more and more common.

Environment as a parameter of competition

Within the cleaning sector, many companies use environmental arguments in their marketing, but rarely as the only key argument. Quality, and to some extent price, are also important arguments. The environmental argument is nonetheless often used, especially in order to win public tenders. In Finland, on the other hand, the sector has a more hesitant view of Nordic Swan Ecolabelling of cleaning services as a competitive advantage.

Nordic Swan Ecolabelling procurement network

In recent years there has been very strong development with regard to the sector's use of the Nordic Swan Ecolabel, in the first instance due to the nationally established procurement networks for private companies which, via membership of the Nordic Swan Ecolabelling procurement network, undertake to increase the ratio of ecolabelled products and service which they procure. This has increased the motivation for a number of cleaning companies to become Nordic Swan Ecolabelled, including some of the market's largest operators. The fact that an increased number of cleaning companies have achieved Nordic Swan Ecolabelling via procurement networks has subsequently had derived effects in the market, where the competing cleaning companies have also begun to take an interest in Nordic Swan Ecolabelling. There is thus a clear expectation that the number of Nordic Swan Ecolabelled cleaning services in the Nordic region will continue to increase.

The new EU public procurement directive

Another major and potentially important factor for the further future success of the Nordic Swan Ecolabel within the sector is the new EU public procurement directive. This considerably improves opportunities for public procurement officers to stipulate Nordic Swan Ecolabelling in their invitations to tender for cleaning services. This directive has now been implemented in Denmark is expected to be adopted by Norway during 2016, which will make it possible to require Nordic Swan Ecolabelling for public procurement of services.

Stakeholders

Public procurers such as healthcare facilities, municipalities and ministries, but also large private companies, will be able to require ecolabelled cleaning services, especially via the Nordic Swan Ecolabel's procurement club.

4 Other labels

EU Ecolabel¹

EU Ecolabel has decided to develop criteria for cleaning services, but these are not yet published.

The USA's Green Seal environmental label²

In 2011, Green Seal published a version 2 of the criteria for Commercial and Institutional Cleaning Services (GS-42). The product group includes indoor cleaning of companies and

¹ <http://ec.europa.eu/environment/ecolabel/>

² <http://www.greenseal.org/>

institutions, and also cleaning and maintenance of outdoor car parks and gardens. To a great extent, Green Seal's requirements concern fixed cleaning methods and routines, with very few actual environmental requirements.

New Zealand's Environmental Choice (EC)³

In 2009, New Zealand's Environmental Choice (EC) set out criteria for cleaning services. The product group definition is very similar to the Nordic Swan Ecolabel's. As in the case of Green Seal, the number of actual requirement levels is very low, but the requirements instead concern the company's procurement policies and the routines of the cleaning company to ensure focus on the environment and health.

Sector schemes

In Sweden, SSEF (Sveriges Städentrepenörers Förbund (Swedish Association of Cleaning Contractors)) recommends that the member companies draw up their own environmental programmes. These programmes can typically include:

- Working environment and environmental policy
- Environmentally-sound cleaning agents
- More ecofriendly cleaning methods
- Sorting of waste at source and waste recycling
- Energy issues
- Knowledge of environmental issues and legislation
- Certification

There are also many cleaning companies that claim to be ecofriendly, since they use ecolabelled products.

5 About the criteria review/revision

Goals of the criteria review/revision

Nordic Ecolabelling has evaluated the criteria for cleaning services, generation 2, in 2012 and 2015. There was particular focus on our current licence holders' levels in relation to the criteria. The evaluation showed that the requirements made are relevant, while the requirement levels should be tightened.

Key areas of focus of this revision are:

- A clearer definition of "square metres cleaned"

³ <http://www.environmentalchoice.org.nz/>

- "What can be Nordic Swan Ecolabelled" - work to include window cleaning
- Upper limit to consumption of chemicals
- Ratio of ecolabelled chemistry (with triviality limit)
- Assess the weighting of the individual point requirements for more optimum environmental impact
- On using subsuppliers – ensure greater manageability

About this criteria review/revision

The revision was performed as an internal Nordic Ecolabelling project, but with ongoing external contact and anchoring.

In particular, the knowledge of our licence holders was used.

Project participants:

Caroline Karlsson and Arne Godal shared the roles of PA (Nordic product manager) and PR (Nordic product adviser)

In addition, the PS (product specialists) Sami Karelathi (Finland), Elsa Levinson (Sweden), Tove Bræin (Norway) and Jeppe Frydendal (Denmark) contributed important information and input.

6 Environmental impact of cleaning services

In overall terms, mapping of processes and materials in cleaning services would be as in figure 1.

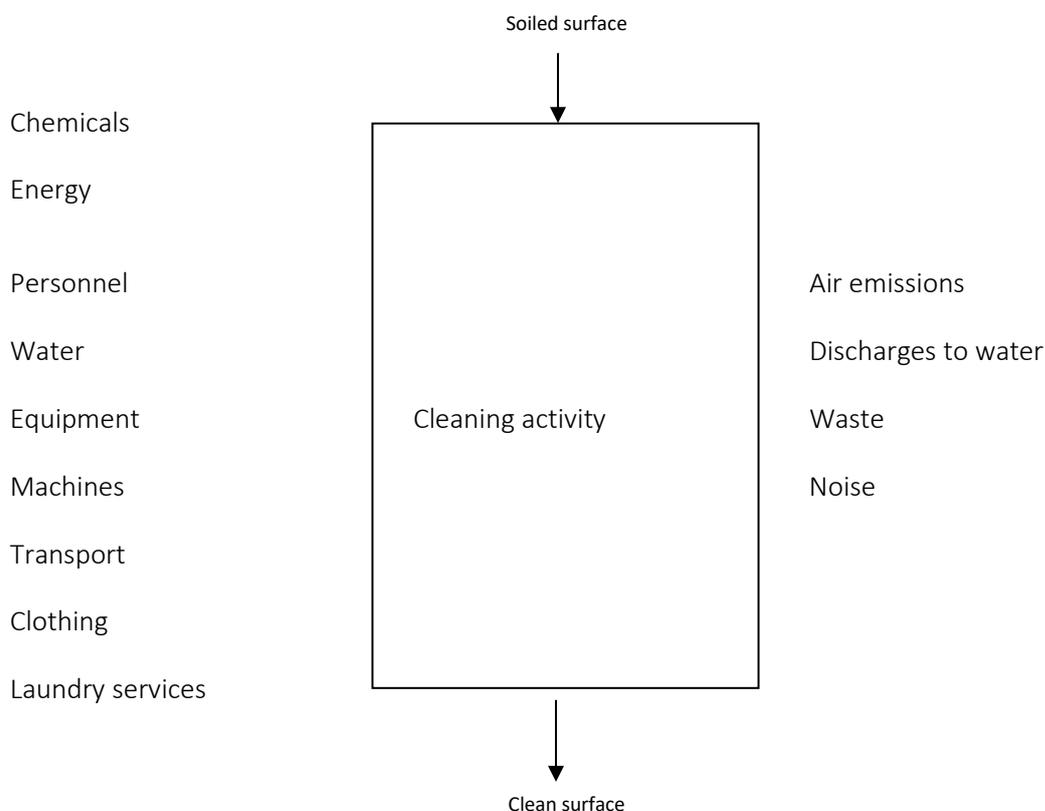


Figure 1 Processes and materials in cleaning services

To the left are all the action parameters required to perform the cleaning work. To the right are the environmental impacts due to the cleaning process, such as emissions to air of volatile organic compounds from polishing agents, discharge of chemical cleaning agents to water, waste in the form of the cleaning equipment and machines used, and noise from e.g. high-pressure cleaners.

Besides the impacts from the cleaning process, there are also impacts from all of the action parameters. This concerns the consumption of resources for e.g. staff, water and electricity. These are discharges from such processes as transport and washing. Production of e.g. electricity, equipment, machines, chemicals and clothing also entail environmental impacts.

It is difficult to say whether cleaning rooms for machines and cleaning trolleys are also an action parameter. Cleaning rooms typically contain slop sinks with cold and/or hot water, and shelves for storage of cleaning agents, cloths, mops, etc.

6.1 Life cycle

The cleaning service's life cycle is assessed in order to identify the most significant environmental and health impacts. The starting point was environmental goals and other principles described by Nordic Ecolabelling in the Environmental Philosophy (to minimise climate change, emissions of environmental toxins and hazardous compounds, etc.).

Experience from the second generation has shown that these areas are still relevant parameters as the basis for requirements.

Based on this assessment and the mapping in the previous section, the important areas in the cleaning services' life cycle are as follows:

- Consumption of materials
- Energy consumption
- Health and working environment
- Generation of waste
- Air
- Aquatic environment

6.2 Consumption of materials

The principle consumption of materials concerns consumption of water, cleaning agents including packaging, and consumption of cloths and mop yarns and the laundry thereof. Plastic bags for collection of refuse and for wastepaper baskets also constitute significant consumption of materials.

According to calculations based on results from the market survey in conjunction with the development of the criterion for version 1 (figures from 2000), 11,000 tonnes of chemicals, calculated as dry matter, are used. Converted into liquid chemicals, this is in the range of 73,000 tonnes, if the average dry matter is 15%.

In Denmark, the trade organisation for cleaning agents states that in 2000 they sold 52,000 tonnes of cleaning agents to industry and institutions. This includes all chemicals in cleaning services and moreover also industrial degreasing agents, special cleaning agents for the food industry, detergents for industrial laundries, dishwashing detergents, etc.

This means that consumption of chemicals in cleaning services accounts for approximately 30% of all industrial and institutional laundry and cleaning chemicals in the Nordic region, if the Danish consumption is one fifth of the Nordic consumption.

The market survey also showed that 2 million tonnes of water are used for cleaning in the Nordic region. See also under waste concerning consumption of plastic bags and refuse sacks, packaging, cloths and mop yarns.

Relatively few chemicals are used for window cleaning. Deionised water without addition of chemicals is often used, according to contact with the sector in the summer of 2015.

6.3 Energy consumption

The principal energy consumption consists of energy for transport, heating of cleaning water, and energy consumption for cleaning machines and washing machines. Energy consumption to heat water is less significant, however, since typically water with a temperature of approximately 20°C is used.

According to calculations based on the market survey for cleaning services on review of the criteria for version 1 (figures from 2000), approximately 100 million litres of fossil fuels are used in the Nordic region for transport in cleaning companies. Based on the calculation that fossil fuel has a density of 0.8 tonnes per cubic metre, and a calorific value of 43 GJ per tonne, this gives energy consumption of 1 billion kWh⁴.

This accounts for approximately 5% of the energy consumption for all passenger and commercial vehicles in the Nordic region. The figure is based on energy consumption in Denmark of 75 PJ for these vehicles, according to the Danish Energy Agency, and that energy consumption in the Nordic region is five times higher.

According to the survey, the energy consumption for cleaning machines and washing machines is 140 million kWh and is thus only just over 10-15% of the energy consumption for transport.

For window cleaning, the energy consumption is mainly considered to concern transport, and to a smaller extent the use of platforms and ion exchangers.

6.4 Health and working environment

Due to the large number of people engaged in cleaning, working environment conditions are a significant factor with regard to cleaning services. In overall terms, the health impacts of cleaning services can be categorised as the impact on people's health via the indoor climate, and impacts on the working environment.

Indoor climate problems may be due to the following:

- Inadequate cleaning
- Incorrect cleaning with adverse degasification and contamination with soap residues
- Risk of accidents due to slippery floors

The principal working environment impacts from cleaning work are ergonomic, psychosocial and impacts on the skin. It is typical that there is very little variation in the impact pattern.

Ergonomic impacts might be repetitive heavy lifting. Impacts on the skin are typically such substances as organic solvents, tensides (surfactants) and aromatics that can lead to problems. Water in itself also contributes to increasing the problems. Microfibre cloths can also degrease the skin and give "splinters" which affect the skin. These problems can normally be prevented by wearing gloves.

There is an overweight of female employees and the sector is known for short terms of employment.

In Denmark it is not uncommon for cleaning personnel to consist of 40-60% from another ethnic background, of whom one half cannot read Danish. The sector in the Nordic countries is also characterised by towards 90% unskilled workers, and inadequate literacy skills among immigrants.

⁴ 1 J = 2.78 10⁻⁷ kWh.

In recent years there has been strong focus on moonlighting and poor working conditions for employees in the cleaning sector. This is not a direct environmental problem, but a working environment problem and social problem that Nordic Ecolabelling wishes to tackle. This can also very well end up as an environmental problem if employees who are employed on illegal terms do not receive sufficient training to be able to perform their work correctly. Nordic Ecolabelling wishes to ensure that the companies which apply for the Nordic Swan Ecolabel are serious companies with the right approach that do not just focus on the environment, but also on the employees' working environment.

On washing windows in high buildings, correct use of platforms and safety equipment are very important.

6.5 Waste

The materials which generate the greatest amounts of waste from cleaning are mainly plastic bags, packaging from cleaning agents, and cloths and mop yarns.

According to the market survey for cleaning services in conjunction with the criteria review of version 1 (figures from 2000) plastic bags and refuse sacks account for more than 85% by weight of the volume of waste from cleaning services. Plastic bags alone account for 45%. Cloths account for approximately 5%, chemical packaging for approximately 4%, and mops also for approximately 4%.

In conjunction with the criteria review of generation 1 (figures from 2000) the total amount of plastic bags consumed in the Nordic region was calculated at 16,000 tonnes, giving total waste production of approximately 35,000 tonnes per annum.

Window cleaning is expected to account for less waste.

6.6 Air environment

There are no major emissions to air from the actual cleaning process. The most important problems here are health problems due to vapours from cleaning agents. See the section about health.

Otherwise the most significant air pollution is from transport. Internal combustion engines in cars lead to emissions of carbon dioxide (CO₂), carbon monoxide (CO), nitrogen oxides (NO_x), hydrocarbons (HC), sulphur dioxide (SO₂) and particles. Hydrocarbons comprise a large number of substances.

These substances entail global environmental problems in the form of the greenhouse effect, regional problems in the form of deforestation and over-fertilisation from acid rain and nitrogen deposits, and local damage in the form of health damage and damage to buildings. There is more to read about this in the Danish Ministry of Transport's TEMA2000 report.

Carbon dioxide emissions and thereby the greenhouse effect are directly related to fossil fuel consumption.

6.7 Aquatic environment

Virtually all chemicals from the cleaning process will end up in the aquatic environment, sooner or later. However, some chemicals will to a greater extent remain where the cleaning

took place – this e.g. applies to floor polish, but can later end up in the aquatic environment due to wear and cleaning.

Soiled cloths and mop yarns that are washed bring cleaning agents, water and dirt to the place where they are washed. Wastewater from the washing machines and laundries that are used thus accounts for part of the wastewater production.

Cleaning agents' and laundry chemicals' content of these substances thus to a greater or lesser extent constitute an ecotoxic impact on the aquatic environment.

In the first instance, Nordic Ecolabelling excludes substances and substance groups based on their classification and characteristics. But since there are substances that are not desirable and which are not clearly excluded by other requirements, they are gathered on a list of substances/raw materials that may not actively be added to the final product or the raw material.

To a great extent the same substances are excluded from Nordic Swan Ecolabelled cleaning agents (see page 25 of the Background to ecolabelling of cleaning agents, generation 5, 2013).

7 Background to the requirements

Nordic Ecolabelling sets requirements within several indicators, to cover the following areas. A mandatory requirement level is set for each indicator, and points are awarded for each indicator, with the points being added to a total number of points:

- Chemicals consumption
- Choice of chemicals
- Transport
- Proportion of ecolabelled products and services
- Window cleaning
- Bag consumption

By regulating these indicators, instead of specifying a number of mandatory measures, we to a greater extent allow the cleaning company to select the most suitable solution.

We have made the requirements of the indicators flexible by linking them up in a point system. This e.g. means that if a practitioner has many customers with heavy cleaning and thereby greater amounts of chemicals, this practitioner will receive adverse points for consumption of chemicals. On the other hand, there may be positive points for waste generation (bags), or use of many ecolabelled chemicals, and positive transport points. This means that, overall, the practitioner will not have problems with complying with the point sum requirement. To ensure that the practitioner can comply with the requirements of indicators and ensure good cleaning quality and reliable cleaning companies, the following qualitative requirements are also made:

- Training

- Follow-up on cleaning quality
- Written work instructions and chemicals information
- Ethical requirements to safeguard employees' conditions
- Subsuppliers

In general terms, the criteria are selected on the basis of assessment of the cleaning service's environmental impact through its life cycle. Other important conditions are that it must be possible to formulate clear criteria that can be documented and which give high credibility. If the Nordic authorities have legislation or specific goals or approaches in this area, this has also been taken into account.

There are also standard requirements to serve as a safety net for ecolabelling. These include the requirement of compliance with the official requirements.

Cleaning companies are often responsible for replenishing e.g. toilet paper, soap and paper towels at the customer's premises. If ecolabelled products are used in these cases, the cleaning company has an influence on further environmental benefits with regard to their services. In addition, the cleaning company will have a number of purchases that are related to the cleaning service and which can be made ecofriendly via ecolabelled products. This might e.g. be washing of mops at laundries, washing cars in ecolabelled car washing halls, and purchasing of ecolabelled workwear for cleaning personnel. If the cleaning company thinks of the environment right down to these details, Nordic Ecolabelling would like to reward this.

In recent years the cleaning sector has seen many examples of moonlighting. This presents competitive challenges for cleaning companies that do not use this illegal practice, and the employees' working conditions are very difficult to manage/control. There have also been examples of how cleaning companies have cheated employees of their salaries and of how cleaning companies make excessive requirements of the number of m² the employees can clean in the course of a working day. This leads to attrition and stress for personnel. The project group has therefore introduced some requirements that will ensure, as far as possible, that Nordic Swan Ecolabelled cleaning complies with a number of ethical guidelines.

Window cleaning

This criteria-generation also allows for ecolabelled window cleaning if the applicant wants to. Often subsuppliers are used for such tasks. This may be relatively small companies with limited resources. By Nordic Swan Ecolabelling window cleaning you ensure focus on the choice of chemicals and serious subsuppliers that comply with regulatory requirements regarding workers and tax.

As several of the point requirements are not relevant for window cleaning, combined with the fact that we have no experience from this area, only the mandatory requirements (O1-O22) are required to be fulfilled for window cleaning. The mandatory requirements O2 (square metres cleaned), O9 (floor care agents) and O13 (point calculation) are excluded though, since they are not relevant.

7.1 Functional unit

Important principles in the work of developing the criteria were to have as little administration as possible. We have therefore given weight to requirements that are easy to document in terms of the information already held by the companies. The documentation will, for example, typically be based on financial information, such as the purchased quantities of chemicals, and so on.

Weight is also given to requirements that can be measured, and that ecolabelling of cleaning services is a supplement to environmental management. We have therefore related the requirements to a functional unit, which is the number of square metres cleaned, since the norm in the sector is to calculate contracts in square metres.

Today, cleaning companies have systems that can automatically calculate the number of square metres cleaned by the cleaning company on the basis of the contracts. This must be used to calculate the "unit" applied by the requirements, i.e. "per m² cleaned".

7.2 Product group definition

What can be Nordic Swan Ecolabelled?

Companies which offer ordinary cleaning and/or window cleaning can be Nordic Swan Ecolabelled. Ordinary cleaning concerns regular tasks that are necessary to keep an indoor area clean. Inspection, collection of refuse, general cleaning, floor care (including polish and wax removal) and cleaning of interior glass are considered to be part of this. Inspection is where cleaning staff in principle only go through the room to check the need for cleaning and empty waste containers. In this document, ordinary cleaning is called cleaning.

Cleaning may include, but is not limited to, areas such as workplaces, toilets, restaurants, hotels, schools or private homes.

Window cleaning is cleaning of window surfaces (interior and exterior).

If the company offers both ordinary cleaning (including floor care) and window cleaning, both of these services can be Nordic Swan Ecolabelled. Ordinary cleaning must always have a licence, while having a licence for window cleaning is optional. Window cleaning must meet all the obligatory requirements marked as "(W)" (all O requirements except O2, O9 and O13). Marketing of Nordic Swan Ecolabelled window cleaning can only occur if the window cleaning is included in the licence.

Special cleaning is not included in the product group. Nordic Ecolabelling considers the following types of cleaning to be special cleaning: Disinfection, stain removal on carpets, remediation work (for example mould and asbestos removal), clearing up after incidents (such as floods and fires), cleaning of ventilation ducts, cleaning of industrial production facilities (such as clean rooms, production facilities in the food and agriculture industry), façade cleaning and washing of buildings, and operating theatres. Areas that are included in a Nordic Swan Ecolabelled cleaning contract, but which require special cleaning for hygiene reasons, also count as special cleaning (e.g. kitchen areas in grocery stores), following approval by Nordic Ecolabelling.

This delineation makes it possible for cleaning targeted at private consumers, companies and the public sector to achieve Nordic Swan Ecolabelling.

An applicant cannot just Nordic Swan Ecolabel cleaning for a certain number of customers or one cleaning concept. Departments with their own accounts, such as regional departments, or other departments or divisions may, however, apply (on the understanding that these are separate economic profit centres). In such case, the name of the profit centre(s) for which the application is made must be stated on the application form.

An applicant is not prevented from also offering special cleaning or other services that are not covered by these criteria. But in such a case, these may not be marketed as part of the Nordic Swan Ecolabelled cleaning services. Only those that are included in the licence may be marketed as Nordic Swan Ecolabelled.

Background to "What can be Nordic Swan Ecolabelled"

The product group comprises cleaning services, floor care (including polish and wax removal). Several relevant requirement parameters are identified for these: chemicals consumption, waste handling, transport, health and safety, and training. The stated environmental and health impacts are all relevant in relation to the environmental goals in Nordic Ecolabelling's Environmental Philosophy.

In conjunction with the development of the criteria for generation 3, the product group definition was expanded with window cleaning. There is great interest from the sector in Nordic Swan Ecolabelling of window cleaning.

Cleaning versus window cleaning: The smaller companies use very small subsuppliers for window cleaning and it will not be possible for them to force through Nordic Swan Ecolabelling for these small subsuppliers. Their larger competitors will have window cleaning in a separate, financially independent department, so that they would de facto be able to keep this area separate. Some of the large companies also use (large) subsuppliers for window cleaning. There is also a big difference between window cleaning (re environmental issues) and ordinary everyday cleaning. There is thus a need for separation of the two types of service (and for it to be possible to choose freely whether to Nordic Swan Ecolabel one, the other – or both).

Special cleaning such as disinfection (of e.g. swimming baths, saunas and hospitals) and so on is not covered by the requirements. This is among other things because the development of the EU's new biocide directive can be expected to entail that only a few biocides are approved. This is also an expensive process, and many adverse biocides will be stopped on environmental and health-related grounds.

It would be a major task to expand the product group with all types of special cleaning, while the environmental benefit might be relatively small. This is among other things because the range of chemicals used for special cleaning is very broad, and would require considerably expanded knowledge. Most of the cleaning which takes place lies within the "ordinary cleaning" definition, so that the work of obtaining licences within this cleaning area will yield far higher environmental gains for the resources used.

7.3 General requirements of the applicant

01 Description of the company and service (W)

The applicant must describe its company of cleaning services delivered, in accordance with Appendix 1. Also the use of subsuppliers must be described.

With "subsuppliers" means the service provider of cleaning services (external company who deliver services directly to the applicant's customers on behalf of the applicant and the applicant's risk and expense). See also requirement O21 for subsuppliers.

- Describe the company of cleaning services delivered and required to be Nordic Swan Ecolabelled, in accordance with Appendix 1.

Background to requirement O1 Description of company and service

The background to this requirement is, from the start, to have an overview of the company's activities and use of subsuppliers.

See also own requirements of subsuppliers that are not Nordic Swan Ecolabelled.

O2 Square metres cleaned

The applicant must calculate the number of square metres of floor area cleaned in one year. *Square metres cleaned is the surface which is cleaned in accordance with the product group definition.*

Window cleaning is exempt from requirement O2.

There are two alternative ways of calculating the number of square metres cleaned:

1) Based on details of cleaning frequency and square metres in the contracts. See the calculation example in Appendix 2.

2) Based on the number of production hours/FTEs:

Number of m² in one year = number of FTEs x 330,000 m²

Number of FTEs is multiplied by a template value for FTEs (a full-time employee is estimated to clean 330,000 m² per year).

- Report on the calculation of the number of square metres of floor area cleaned in the course of a year.

For alternative 1:

- Overview (spreadsheet) of all customers showing the number of square metres cleaned per week or per month, and multiplied up for one year.

 Contracts stating the number of square metres are checked during inspection visits.

For alternative 2:

- Overview of employees showing the ratio of an FTE they work.

Background to requirement O2 Square metres cleaned

Definition of square metres cleaned

Requirement O2 and the calculation of square metres cleaned are central to the criteria for cleaning services. Viewed from an LCA perspective, it is important to calculate the environmental impact in a functional unit which relates to the service. It is therefore appropriate to use "m² cleaned" as this unit. The other requirements are related to this, which makes it possible to guarantee a low environmental impact per "functional unit".

Nordic Ecolabelling is aware that m²-based cleaning is not optimum as there is a difference between e.g. deep cleaning, ordinary cleaning, floor care or vacuuming of carpets, and inspection, when cleaning staff in principle just go through the room to check that everything is OK, and empty waste containers.

Nordic Ecolabelling has identified two challenges relating to "m² cleaned" as the functional unit:

- The risk that, for the same type of cleaning task, varying numbers of m² cleaned are reported (some may e.g. report both inspection and actual cleaning, and others only actual cleaning).
- The variation in consumption of chemicals between the different cleaning activities.

In order to resolve the first challenge and to ensure the Nordic Swan Ecolabel's credibility, it is important to have a clear definition of "m² cleaned". This has therefore been clarified in this generation of the criteria.

In order to handle the second challenge, during the evaluation of generation 2 it was discussed how far the requirement should differentiate between the total number of m² (for the bag and fuel requirements) and "actual m² cleaned" (for the chemicals requirement). Ideally, the actual m² cleaned/washed should be applied to the chemical requirement. To arrive at the "actual m² cleaned" the square metres of inspection and vacuuming of mats, which are the main activities for which chemicals are not used, should be deducted from the total number of square metres.

Setting this differentiated requirement would require a lot of work being applied to the applications, however. Many licence holders find it difficult enough to compile the number of m² cleaned. Companies that use the alternative "number of FTE" to calculate m² will face further difficulties.

To examine what is possible in practice, the sector was contacted during the revision. Based on Nordic Ecolabelling's wish for simple criteria and the licence holders' feedback, there is no wish to differentiate the requirement.

The number of square metres cleaned can never be a completely exact functional unit, and the difficulty in differentiating m² is not proportional to the environmental benefit achieved. A uniform "m² cleaned" is the most appropriate unit we have, and a measurement which most operators in the sector know and measure by.

Calculation of the number of square metres cleaned

All of the environmental requirements for cleaning services (apart from an alternative requirement for fuel) are calculated using the "per m²" unit. It is therefore important that the number of square metres cleaned is calculated on a correct basis.

The primary method for the company to find the number of m² cleaned is set as the calculation of m² cleaned via calculation of areas and cleaning frequency (alternative 1). Many cleaning companies have invested in a planning system to which customers' floorplans can be added, with details of the frequency at which the various areas are cleaned. This programme can, relatively simply, give the cleaning company key figures for the number of m² they clean.

We also have the alternative of finding a representative figure for per m², if we only have statements of the number of FTEs delivered in the cleaning service (alternative 2).

Background to the template value for the calculation of the number of m² cleaned

Experience shows that there have only been a few cases (for individual customers within a licence) with a need to use the conversion factor from working time to m² (alternative 2).

In generation 2 of the criteria for Cleaning Services, it was assumed that an FTE represented 1,700 hours and that a cleaner could clean 175m²/hour, so that one FTE was equivalent to 297,500 m². Nordic Ecolabelling has been criticised for this assumption by major private cleaning companies, who believed that this was set too low. They believe that an FTE is more than 1,700 hours (in Norway approximately 1,950 hours per FTE is used) and that a cleaning assistant can manage much more than 175 m²/hour. However, this very much depends on what is being cleaned. For large, open surfaces, far more than 175 m²/hour can be covered, but for many small rooms, offices with a lot of furniture, or private homes, fewer m²/hour will be covered. A sub-goal of the revision of generation 3 of the criteria was to revise the template value.

In total, ten licence holders, from among all Nordic countries, have provided us with data to revise the template value. The result spans between 300,000 and 500,000 m² per full-time employee and year. The median value is 348,955 m²/FTE. To ensure that the template value continues to be lower than the average, to give a worst case in the absence of more detailed information, Nordic Ecolabelling has updated the template value to 330,000 m²/FTE.

Window cleaning

A conclusion from the evaluation of the criteria for Cleaning Services, generation 2, was that it is particularly important to have a clear definition of "m² cleaned" if the product group is to be expanded with window cleaning. After speaking to several licence holders and window cleaning companies during the revision process for version 3, it emerged that the contract is not based on square metres, but rather on the number of windows or panes. There are thus no details of the number of square metres cleaned. The project team therefore decided not to proceed with the number of square meters cleaned for window cleaning. Window cleaning is exempt from requirement O2.

7.4 Requirements concerning chemicals

Chemicals are all chemical products for cleaning, floor care and window cleaning, see table in Appendix 3. Textile detergents to wash and treat mops and cloths (both internal laundering and at external laundries) are also included. For chemicals that are not ecolabelled, Nordic Ecolabelling must be provided with information on classification (O7) and constituent substances (O8 and O9). This documentation may be received directly and confidentially from the chemical manufacturer (see Appendix 4). Based on this documentation, Nordic Ecolabelling will be able to notify the licence applicant of whether requirements O7, O8 and O9 are complied with.

Cleaning companies that consume less than 25 microlitres chemicals/m² area cleaned under O5 are exempted from requirements O6 and P2. The intention behind this is that companies which use very few chemicals should not be "punished" due to the chemical requirement. Without this exemption, a company using some non-ecolabelled products, but no other chemicals, would not fulfil the requirement. Another company that uses the same amount and type of products, and many ecolabelled chemicals, would fulfil the requirement.

Ecolabelled, in this context, means chemical products that carry the Nordic Swan Ecolabel, the EU Ecolabel or the Bra Miljöval (Good Environmental Choice) label.

O3 Information about chemicals (W)

Attach an updated list of chemicals that are in current use. State the name, manufacturer and function of the chemicals.

Safety data sheet and user information must be available where the chemicals are used.

- Procurement list for chemicals that are in current use. State the name, manufacturer and function of the chemicals. Appendix 5 or spreadsheet can be used.
- The product's safety data sheet in accordance with Appendix II of REACH (Regulation 1907/2006/EC) and supplier's instructions for use shall be available where the chemicals are used. Checked during inspection visits.

Background to requirement O3 Information about chemicals

An updated list of chemicals that are in current use, with the name, manufacturer and function of the chemicals, is necessary for Nordic Ecolabelling should be able to verify whether the applicant meet the requirements concerning chemicals. Safety data sheets ensure that it is known what to do in the event of occupational accidents and show the product's classification.

O4 Correct dosing (W)

To ensure correct dosing, all employees must have dosing devices or measuring cups available, where cleaning takes place. In addition, companies that wash cloths and mops themselves must use dosing cups when laundering these. This must be part of the company's procedures.

- Copies of procedures to show compliance with the requirement.
- Checked during inspection visits.

Background to requirement O4 Correct dosing

One of the greatest environmental impacts on using chemical cleaning agents is the over-dosing of chemicals. This is often because the person in question does not have correct measuring/dosing equipment and they wish to be sure that they do not dose too low. By requiring dosing devices/measuring cups to be made available to cleaning staff, Nordic Ecolabelling is preventing over-dosing, as far as possible.

O5 Consumption of chemicals (W*)

Consumption of chemicals exceeding 400 microlitres/m² is not permitted.

*The volume of chemicals for window cleaning is not included in chemicals consumption, but stated separately.

Consumption is calculated on the basis of the total volume of cleaning agent used (including water in the product). Textile detergent for washing of mops and cloths (both for internal laundering and at external laundries) must also be included. For textile detergent in powder form 1 g must be counted as 5 ml to calculate the consumption of chemicals.

See Appendix 3 for examples of the cleaning agents included. Chemicals for special cleaning purposes can be excluded from the calculation.

Chemicals which are handled by the cleaning company for the customer, without this being directly related to the cleaning service, such as filling of dishwasher detergent in the customer's dishwashers, filling of hand washing-up liquid for the customer's use, or handwash in toilets, is not included.

1 litre = 1,000,000 microlitres. 1 microlitre = 0.000.001 litre.

- Purchasing statistics from all chemical suppliers. Enter the name of the chemical and the quantity purchased annually.
- State the volume of chemicals used for window cleaning, separately from other consumption of chemicals.

On using external laundries for washing of cloths and mops, the following must be documented, in order to calculate the total consumption of chemicals:

- Confirmation from the laundry of the volume of textile detergent used per kg of mops and cloths. Alternatively, the template value of 11 ml/kg can be used.
- A confirmation or invoice from the laundry showing the number of kg of mops and cloths that are laundered per year.
- Calculation of consumption of chemicals in accordance with the requirement per m². Appendix 6 or spreadsheet can be used.

Background to requirement O5 Consumption of chemicals

Consumption of chemicals has been selected as one of the indicators included to reduce ecotoxic substances, improve the working environment and set targets to reduce consumption of resources.

Together with transport, consumption of chemicals is perhaps the most significant environmental impact from cleaning services. This concerns cleaning agents, textile detergents and floor polish. Reducing consumption of chemicals, and thereby water, will also reduce the working environment impact of repeated heavy lifting.

There is great variation in the consumption of chemicals, depending on the cleaning tasks involved.

Methods for dry cleaning using microfibre mops or cloths use less chemicals during actual cleaning, but they are not "chemical-free" methods, since chemicals are used to wash mops and cloths after use (10-40 % of the total consumption, is the experience from licensing). Use of deionised water (also called "active water") is another way to reduce the use of chemicals.

In isolated terms, the degree of soiling has a great influence on the amount of chemicals used. In overall terms, however, the degree of soiling is less significant, the more different customers the cleaning firms have.

The requirement has not been completely clear with regard to whether external laundries' chemicals consumption should be included. As the environment is affected, whether laundering takes place internally or externally, external consumption of chemicals must also be included. The requirement is therefore clarified.

On using external laundries, the chemicals which they use to wash the applicant's mops and cloths are included. The alternative to using the laundry's data is to use a conservative template value (11 ml/kg) based on experience from the licensing of textile detergents for professional use. Textile detergent in powder form must be multiplied by four to calculate the consumption of chemicals. This is to compensate for the water content of liquid products, so that the consumption of chemicals, whether in liquid or powder form, is comparable.

The threshold value for chemicals consumption is tightened from 640 to 400 microlitres/m² after a review of licences given as from 2012. There is great variation in the data, but the new threshold value should definitely be realistic on the basis of licence data. A few have consumption below 100 microlitres/m².

The volume of chemicals used for cleaning windows is only set as an information requirement. This is because this is the first time window cleaning is included in the criteria. In addition, it has proved difficult to relate the consumption to a specific unit. "Square metres

cleaned" is not suitable in this case, since cleaning companies do not use this unit for their tasks.

Chemicals that are used by subsuppliers:

- If the subsupplier uses the applicant's chemicals (which the applicant has purchased) - the volume of chemicals shall be included
- If the subsupplier is Nordic Swan Ecolabelled and uses its own chemicals - the volume of chemicals shall not be included (as for Textile services and use of subsuppliers)
- If the subsupplier is not Nordic Swan Ecolabelled and uses its own chemicals, the volume of chemicals shall not be included - but, as in the criteria for Textile services, the chemicals must fulfil the requirements on hazard classification and substances.

In this way, a relatively large "environmental control" is achieved, without being overly bureaucratic.

P1 Consumption of chemicals*

Consumption of less than 150 microlitres of chemicals/m² area cleaned: 5 p

Consumption of between 151-200 microlitres of chemicals/m² area cleaned: 4 p

Consumption of between 201-250 microlitres of chemicals/m² area cleaned: 3 p

Consumption of between 251-300 microlitres of chemicals/m² area cleaned: 2 p

Consumption of between 301-350 microlitres of chemicals/m² area cleaned: 1 p

For an explanation of the calculation, see O5 Consumption of chemicals.

**The volume of chemicals used for window cleaning is not included among the other chemical consumption, but is reported separately.*

- ☒ See O5 Consumption of chemicals.

Background to requirement P1 Consumption of chemicals

The point requirement has been tightened in line with the mandatory requirement, O5 Consumption of chemicals.

O6 Proportion of ecolabelled chemicals (W)

Minimum 80 % of the chemical products used for cleaning must be ecolabelled.

Sealers, floor polish, floor wax and removal products for these are exempted from the requirement.

Minimum 80 % of all window-cleaning agents must be ecolabelled.

An ecolabelled chemical product is licensed under the Nordic Swan Ecolabel, the EU Ecolabel or Good Environmental Choice (the Swedish Society for Nature Conservation's ecolabel).

Consumption is calculated on the basis of the total volume of cleaning agent used (including water in the product). Textile detergent for washing of mops and cloths (both for internal laundering and at external laundries) must also be included. For textile detergent in powder form 1 g must be counted as 5 ml to calculate the consumption of chemicals.

The ratio is calculated as % by volume of the total volume of chemicals used per year.

See examples of the products viewed by Nordic Ecolabelling as chemicals in Appendix 3. Chemicals for special cleaning may be excluded from the calculation.

- ☒ Calculation of the proportion of ecolabelled chemical products in accordance with the requirement. Appendix 6 or spreadsheet can be used.

Background to requirement O6 Proportion of ecolabelled chemicals

As previously stated, chemicals are significant to cleaning companies' environmental impact. Ratio of ecolabelled chemicals has been selected as one of the indicators included in the point sum requirement on the basis of Nordic Ecolabelling's aim to reduce ecotoxic substances in the aquatic environment.

A large proportion of the chemicals used in the sector can be ecolabelled under the ecolabelling systems in the Nordic region (such as the Nordic Swan Ecolabel, the EU Ecolabel or Good Environmental Choice). The ratio of ecolabelled cleaning agents provides good opportunities to pick an ecofriendly solution. In addition, the requirements of non-ecolabelled chemicals are relatively limited compared to the requirements made of ecolabelled chemicals, so that it is important to have a certain ratio of ecolabelled products.

The requirement is easy to document, since chemicals suppliers can provide lists of the chemicals that are ecolabelled, and the amounts purchased.

Experience with this requirement shows that companies that apply for Nordic Swan Ecolabelling typically cut down the amounts of the various products they use, and significantly increase the ratio of ecolabelled products. Data collected for the evaluation shows that the mean value for the Nordic Swan Ecolabelled companies is 87% (the evaluation's data collection from 2014). The requirement is therefore tightened from today's 50 % to 80 %.

Textile detergent for washing mops and cloths is only counted for internal laundering. This is because the licensee has no steerability over which detergents are used by external laundries.

Sealers, floor polish, floor wax and removal products for these are exempted from the requirement. This is because the criteria for the Nordic Swan Ecolabelling of floor care products are being dropped in 2017, which means that there will be no Nordic Swan Ecolabelled alternatives available.

P2 Ecolabelled chemicals

If the ratio of ecolabelled chemicals is 96-100 % by volume: 3 points

If the ratio of ecolabelled chemicals is 90-95 % by volume: 2 points

If the ratio of ecolabelled chemicals is 84-89 % by volume: 1 point

See O6 Proportion of ecolabelled chemicals.

Background to requirement P2 Ecolabelled chemicals

In generation 2 of the criteria, this requirement gave up to 5 points. As the mandatory threshold value has been raised, there is no scope to differentiate the points in the same way. The requirement still has a high RPS and we wish to stimulate sales of Nordic Swan Ecolabelled cleaning agents. Therefore relatively high points should be given (maximum 3 points)

O7 Non-ecolabelled chemicals, hazard classification (W)

Chemicals that are not ecolabelled must not be subject to classification as stated in the following table. Chemicals included in wet-wipes and chemicals added to mops (soap cartridges delivered in wet mops) are also subject to this requirement. Chemicals to wash mops and cloths (both internal laundering and at external laundries are also included¹.

CLP Regulation 1272/2008		
Hazard statement	Hazard category	Hazard code
Hazardous to the aquatic environment	Aquatic Acute 1 Aquatic Chronic 1-4	H400, H410, H411, H412****, H413
Acute toxicity	Acute Tox 1-4	H300, H310, H330, H301, H311, H331, H302*, H312*, H332*
Specific target organ toxicity, single or repeated exposure	STOT SE 1-2 STOT SE 3 (solely applies for spray products) STOT RE 1-2	H370, H371 H372, H373 H335 (solely applies to spray products**)
Eye damage	Eye Dam.1 (solely applies for spray products)	H318 (solely applies to spray products**)
Aspiration hazard	Asp. Tox. 1	H304
Respiratory/ skin sensitisation	Resp. Sens. 1, 1A or 1B Skin Sens. 1, 1A or 1B	H334 H317 or EUH208 "Contains 'name of the sensitizing substance'. May cause an allergic reaction."***
Carcinogenic	Carc. 1A or 1B Carc. 2	H350 H351
Mutagenic	Muta. 1A or 1B Muta. 2	H340 H341
Toxic to reproduction	Repr. 1A or 1B Repr. 2 Lact.	H360 H361 H362

Please note that the manufacturer of the raw material/product is responsible for the classification.

¹For washing at Nordic Swan Ecolabelled laundries, documentation of the chemicals used is not necessary.

*Professional products may be labelled H302, H312 and H332 if the packaging is designed so that the user is not in contact with the product.

**Spray bottles or equivalent equipment with nozzles that do not form a cloud of spray may be labelled H335 and H318.

***Textile detergents that are labelled H334, H317 or labelled with EUH 208 and the clause "Contains (name of the sensitising substance). May cause an allergic reaction" due to enzyme content is exempted. It is assumed, however, that enzymes are encapsulated or in a slurry.

****Textile detergents with hydrogen peroxide (CAS-no. 7722-84-1) are exempted from H412, if dosing is done via an automatic dosing system.

Duly completed and signed declaration, Appendix 4.

The product's safety data sheet in accordance with Appendix II of REACH (Regulation 1907/2006/EC).

- ☒ If the product is labelled H302, H312 or H332 a description of the packaging's design must be enclosed.
- ☒ Declaration from the cleaning company that products classified as H318 and H335 are not to be used in spray bottles in either diluted or undiluted form (see Appendix 5).

Background to requirement O7 Non-ecolabelled chemicals, hazard classification

Use of chemicals is of great significance to the environmental impact of cleaning services. Requirements of non-ecolabelled chemical products are selected on the basis of Nordic Ecolabelling's objective to reduce ecotoxic substances in the aquatic environment, and in order to safeguard the working environment. The table in requirement O7 (Non-ecolabelled chemicals, hazard classification) is updated in accordance with the CLP regulation and harmonised with the requirements for Nordic Swan Ecolabelling of Cleaning Agents. The requirement has been tightened from version 2.5 by the introduction of a prohibition of substances which are labelled EUH 208 "Contains" (name of the sensitising substance) May cause an allergic reaction". In addition, spray products classified as H335 (STOT SE category 3) or H318 (Serious eye damage, category 1) are excluded. It is specified that the requirement is also to apply to chemicals added to mops at laundries (e.g. as a cartridge which releases soap during use).

In generation 2 the requirement has not been completely clear with regard to whether external laundries' chemicals consumption should be included. As the environment is affected whether laundering takes place internally or externally, external consumption of chemicals must also be included. The requirement is therefore clarified.

O8 Non-ecolabelled chemicals, substances that may not be included (W)

For chemicals that are not ecolabelled, the following constituent substances may not be included. Chemicals included in wet-wipes and chemicals added to mops (soap cartridges delivered in wet mops) are also subject to this requirement. Chemicals to wash mops and cloths (both internal laundering and at external laundries) are also included¹.

- Reactive chlorine compounds, such as sodium hypochlorite.
- Chlorinated organic compounds
- Alkylphenol ethoxylates (APEO) and/or alkylphenol derivatives (APD)
- Linear alkylbenzene sulphonates (LAS)
- EDTA* and its salts
- DTPA
- Nanomaterials/particles**
- Poly- and perfluorinated alkylated substances (PFAS)***
- Methylidibromo glutaronitrile (MG)
- Optical brighteners
- Nitromusk and polycyclic musk compounds
- Substances considered to be potential endocrine disruptors in category 1 or 2 on the EU's priority list of substances that are to be investigated further for endocrine disruptive effects. The full list can be found at http://ec.europa.eu/environment/chemicals/endocrine/pdf/final_report_2007.pdf (Appendix L, page 238 ff.)
- Substances evaluated by the EU to be PBT (Persistent, bioaccumulable and toxic) or vPvB (very persistent and very bioaccumulable), in accordance with the criteria in Appendix XIII in REACH, and substances that have not been assessed yet, but fulfil these criteria.
- Substances on the Candidate List: <http://echa.europa.eu/candidate-list-table>

- Substances classified as CMR (categories 1 and 2) in accordance with CLP.

The requirements in the criteria document and accompanying appendices apply to all ingoing substances in the product. Impurities are not regarded as ingoing substances and are exempt from the requirements.

Ingoing substances and impurities are defined below, unless stated otherwise in the requirements

Ingoing substances: all substances in the product, including additives (e.g. preservatives and stabilisers) in the raw materials. Substances known to be released from ingoing substances (e.g. formaldehyde, arylamine, in situ-generated preservatives) are also regarded as ingoing substances.

Impurities: residuals, pollutants, contaminants etc. from production, incl. production of raw materials that remain in the raw material/ingredient and/or in the in the product in concentrations less than 100 ppm (0,0100 w-%, 100 mg/kg) in the product.

Impurities in the raw materials exceeding concentrations of 1,0 % are always regarded as ingoing substances, regardless of the concentration in the product.

Examples of impurities are residues of the following: residues or reagents incl. residues of monomers, catalysts, by-products, scavengers, and detergents for production equipment and carry-over from other or previous production lines.

¹For washing at Nordic Swan Ecolabelled laundries, documentation of the chemicals used is not necessary.

**Solid soap products (such as e.g. soap flakes) may be included with a maximum overall content of up to 0.06% EDTA and phosphonates.*

***Nanomaterial/particles are defined in accordance with the European Commission's definition of nanomaterial dated 18 October 2011 as "a natural, incidental or purposely manufactured material containing particles, in an unbound state or as an aggregate or as an agglomerate and where, for at least 50% of the particles in the number size distribution, one or more external dimensions is in the size range 1–100 nm." Examples include ZnO, TiO₂, SiO₂, Ag and Iaponite with particles of nanosize in concentrations above 50%. Polymer emulsions are not considered to be a nanomaterial.*

****Sealers, floor polish and floor wax are exempted. See requirement O9 for these product types.*

- Duly completed and signed declaration, Appendix 4.

Background to requirement O8 Non-ecolabelled chemicals, substances that may not be included

The substances that may not be included now generally correspond to equivalent requirements in Nordic Swan Ecolabelling of Cleaning Agents, with the exception of the definitions of constituent substances and nanomaterials, which have been updated. The reasons for the individual substances' exclusion can be seen in the background document to Nordic Swan Ecolabelled Cleaning Agents.

O9 Content of fluorosurfactants and silicone surfactants in sealers, floor polish and floor wax

Fluorosurfactants in sealers, floor polish and floor wax

Fluorosurfactants may only be included in amounts equivalent to 0.025% w/w in sealers, floor polish and floor wax.

The constituent fluorosurfactants' fluorinated carbon chain length must be less than or equivalent to 5.

Condition: If the product contains silicone surfactants, fluorosurfactants may not be included in the product.

- Declaration from the producer concerning the amount of fluorosurfactants in the product, showing that the concentration does not exceed 0.025% w/w (see Appendix 4).
- Declaration from the producer showing that the fluorosurfactants' carbon chain length is less than or equivalent to 5 (see Appendix 4).

Silicone surfactants in sealers, floor polish and floor wax

Silicone surfactants may only be included in amounts equivalent to 0.25% w/w in sealers, floor polish and floor wax.

Condition: If the product contains fluorosurfactants, silicone surfactants may not be included in the product.

- Declaration from the producer concerning the amount of silicone surfactants in the product, showing that the concentration does not exceed 0.25% w/w (see Appendix 4).

Background to requirement O9 Content of fluorosurfactants and silicone surfactants in sealers, floor polish and floor wax

The criteria for the Nordic Swan Ecolabelling of floor care products have been withdrawn and will lapse as of 30 June 2017. This is because an evaluation of this product group has shown that it is not possible to find environmental good alternatives. The most problematic constituent substances include fluorosurfactants which are environmental toxins. Silicone surfactants also have negative environmental characteristics. Since it appears to be difficult to make sealers and floor polish without using fluorosurfactants, there is a requirement on the maximum permitted amount of fluorosurfactants and silicone surfactants in the criteria for Cleaning services. The level of the requirement is taken from the criteria for the Nordic Swan Ecolabelling of floor care products, generation 4. At the same time, the carbon chain length is also restricted, in order to avoid the fluorosurfactants with the greatest negative environmental impact.

Nordic Swan Ecolabelled floor care agents are deemed to ecolabelled up to and including 30 June 2017. Thereafter they will be included in the category of "non-ecolabelled chemical products",

O10 Perfume and preservatives in aerosol former spray products (W)

Aerosol former spray products containing perfumes and/or allergenic preservatives classified H317 or H334 is not allowed for manual use. This may include "ready to use" products and products transferred to the spray bottle/trigger spray bottle by the cleaning firm.

- Description of procedures and equipment to show compliance with the requirement.
- The list of chemicals that are in current use must mark which products are sprays or are refilled to spray bottles (see Appendix 5).

Background to requirement O10 Perfume and preservatives in aerosol former spray products

The background to this requirement comes from the report "Cleaning sprays, chemicals, asthma and COPD" ([Bakke JV. Nilsen S. Renholdssprayer, kjemikalier, astma og kols. Allergi i Praksis 2014; 3](#)) which has shown that persons who have worked with cleaning for more than

one year are at significantly greater risk of developing asthma and COPD than the rest of the population.

An overview from 2006 (Steinar K. Nilsen, cand. real (PhD), senior researcher, SINTEF Byggeforsk) showed that cleaning work increases the risk of asthma for professional cleaners and other occupations that are involved in cleaning work.

To reduce this risk for the employees of a company offering Nordic Swan Ecolabelled cleaning services, we have prohibited the use of perfumes and sensitising preservatives in products used in spray bottles by the employees.

Perfume and allergenic preservatives may not be included in current requirements of spray products in Nordic Swan Ecolabelled Cleaning Agents (K9 e) for perfume and requirement K5 for preservatives. Other cleaning agents are not subject to equivalent limitations.

To ensure that products transferred to spray bottles/trigger spray bottles by the cleaning company itself do not contain perfume or allergenic preservatives either, a procedure to ensure this is required to be drawn up (e.g. by always checking the safety data sheet or product information sheet for the relevant products).

7.5 Transport requirements

If the applicant does not have vehicles that are used in conjunction with cleaning, the transport requirement will lapse.

O11 Purchase of vehicles (W)

Newly purchased and newly leased vehicles must comply with the latest applicable Euronorm (Euroclass) at the time of purchase. This applies as from the application for the Nordic Swan Ecolabelling licence.

The requirement concerns the applicant's own and leased passenger vehicles, commercial vehicles and other vehicles that are driven in relation to cleaning and window cleaning services. Vehicles used by supervisors, operations managers, cleaning assistants, planners, inspectors, etc. as part of their work are thus subject to the requirement.

New vehicles will always comply with the current applicable Euronorm.

Electric vehicles, bicycles and other types of vehicle for which there is no Euronorm are not subject to the requirement.

- Procurement procedures to ensure that newly acquired and newly leased vehicles fulfil the current applicable Euronorm (Euroclass).

Background to requirement O11 Purchase of vehicles

For a cleaning service, steerability over vehicles is greatest when new leasing contracts are established, or vehicles are purchased. By requiring that compliance with the current applicable Euronorm must be ensured when purchasing/leasing vehicles, relevant environmental requirements will be set for the vehicles used. Combined with the point opportunity to have low fuel consumption, this is a good way to handle the environmental impact from the transport activities of cleaning companies.

The alternatives of fuel use and fuel consumption are direct requirements to ensure low CO₂ emissions. Requirements for Euronorm IV do not include requirements for CO₂ reduction, but

they do include requirements for the reduction of other (also relevant) substances from vehicles that are harmful to health and the environment (CO, NO_x and HC. Also particles and SO₂ for diesel vehicles). The three indicators therefore relate to various environmental problems, and thus cannot immediately be equated. The requirement concerning the ratio of Euronorm vehicles as a separate obligatory requirement has therefore been omitted.

Cleaning companies to a greater extent also use other types of vehicles than those that are subject to Euronorms, and similarly certain vehicles (e.g. motorcycles and mopeds) do not have as many versions of Euronorms as there are for passenger and commercial vehicles and lorries. Euronorm 5 for motorcycles, for example, does not enter into force until 2020/2021, and Euronorm 5 for passenger vehicles is not comparable, since this stipulated the requirements applying to new passenger vehicles up to September 2014, when Euronorm 6 came into force.

In cases where cleaning takes place on an internal basis, within the public sector or in private companies, there are no vehicles specifically for cleaning. The requirement concerning transport under own auspices therefore lapses.

O12 Maximum consumption of fuel for transport (W)

The requirement can be fulfilled in two ways (for window cleaning only A can be used):

A) The total consumption of fuel for transport may not exceed 9.0 l petrol/100 km
or

B) The total consumption of fuel for transport may not exceed 0.75 ml petrol/m²

The requirement covers all vehicles used by supervisors, operations managers, cleaning assistants, planners and inspectors in conjunction with cleaning. Vehicles with a lift that are used for window cleaning are exempt from the requirement.

If other types of fuel than petrol are used, their energy content is converted to the equivalent energy content in litres of petrol, as follows:

- number of litres of diesel x 1,1

- number of litres of biodiesel = number of litres of petrol

- number of litres of bioethanol x 0.6

- number of kg of hydrogen x 3.6

- number of kWh electricity x 0.2

Nordic Ecolabelling can approve conversion factors based on lower calorific value for other types of fuel (e.g. gas), if these can be documented.

If private cars are used, and travel expenses are paid at a per kilometre rate, the calculation may be performed as follows: either use a factor of 11 litres petrol per 100 km – or use the car's own stated fuel consumption under EU standard EEC 1999/100 multiplied by 1.5.

A) Consumption in l (petrol/diesel)/100 km: Calculation of the total annual consumption of fuel for transport per 100 km driven. General data from the car manufacturer concerning the vehicle's fuel economy is not sufficient.

B) Consumption in ml/m²: Calculation of the total annual consumption of fuel for transport per m² cleaned.

Documentation for the consumption of fuel and the number of kilometers driven is checked during inspection visits.

Background to requirement O12 Maximum consumption of fuel for transport

Together with consumption of chemicals, petrol and diesel consumption account for the most significant environmental impacts from cleaning services. Transport indicators are set up on the basis of Nordic Ecolabelling's aim to reduce energy consumption and reduce airborne environmental pollution.

There is great variation in fuel consumption, depending on whether we drive in urban areas, or over long distances. Therefore two alternatives are given for measurement of consumption: either per 100 km driven, or per m² cleaned.

In a few cases, a high level of private vehicles are used for work purposes, where employees are compensated for actual mileage and not fuel consumption. In such cases, there is not only little steerability for the company, nor is it possible to establish the actual fuel consumption. The value of 11 litres petrol per 100 km can be assumed to be a conservative figure. Alternatively, the base figure used may be the car's EU combined fuel consumption x 1.5. The reason for multiplying by a factor is that the fuel consumption measured in EU tests is lower than the actual consumption for normal transport. In a recent statement from ICCT (ICCT, 2015) it was shown that there is 40% higher consumption in reality, and that the difference between tests and reality has increased historically over time, so that a factor of 1.5 is used to ensure that it is at the higher end and that it is not an immediate calculation advantage to drive passenger vehicles.

The conversion factor chosen for electric cars is lower than the actual conversion to fuel used by the power station would imply. The background to the lower conversion factor is that electric cars also have other benefits, including the fact that health-damaging substances are not emitted at street level, and so exposure to harmful substances is significantly less than for traditional modes of transport. Nordic Ecolabelling thus wishes to promote the use of electric cars.

If bikes are used for transport, this will contribute positively to the accounts - regardless of the choice of method of calculation.

Point requirements P3 and P4

The applicant must only use one of the requirements, P3 or P4, depending on whether requirement O12 has been documented via alternative A or B (for window cleaning only P3 can be used). The applicant can only use points from one of them for the overall point total.

P3 Fuel economy

Fuel consumption for transport below 5.0 l/100 km: 5 p

Fuel consumption for transport between 5.0-5.9 l/100 km: 4 p

Fuel consumption for transport between 6.0-6.9 l/100 km: 3 p

Fuel consumption for transport between 7.0-7.9 l/100 km: 2 p

Fuel consumption for transport between 8.0-8.5 l/100 km: 1 p

Calculation as in requirement O12 Maximum consumption of fuel for transport.

P4 Fuel consumption for transport

Fuel consumption for transport below 0.15 ml/m²: 5 p

Fuel consumption for transport between 0.15-0.29 ml/m²: 4 p

Fuel consumption for transport between 0.30-0.44 ml/m²: 3 p

Fuel consumption for transport between 0.45-0.59 ml/m²: 2 p

Fuel consumption for transport between 0.60-0.70 ml/m²: 1 p

☒ Calculation as in requirement O12 Maximum consumption of fuel for transport.

Background to requirements P3 Fuel economy and P4 Fuel consumption for transport

See requirement O12 Maximum consumption of fuel for transport.

7.6 Requirement concerning bags

P5 Bags

The applicant must calculate the number of bags used for refuse bins and wastepaper baskets in milligrammes (mg) per number of square metres (m²) cleaned during the year. The point distribution is as follows:

Consumption of less than 40 mg bags/m²: 5 p

Consumption of between 40-79 mg bags/m²: 4 p

Consumption of between 80-119 mg bags/m²: 3 p

Consumption of between 120-159 mg bags/m²: 2 p

Consumption of between 160-200 mg bags/m²: 1 p

Refuse sacks for cleaning trolleys and sanitary bags are not included.

If the applicant only has details of the number of rolls used, the weight can be calculated on the basis of an average number of bags per roll.

If the applicant has plastic bags and lacks details of the weight of a bag, a weight of 10 grammes per plastic bag can be used.

If the applicant has one or several customers where the responsibility for emptying refuse bins is not part of the cleaning service, or the cleaning company does not have a say in which bags the customer uses (they only empty the refuse bins) the consumption of waste bags for this customer must not be included. However, the number of m² cleaned at this customer must also be deducted from the calculation of the consumption of refuse bags.

☒ Calculation of the annual consumption of bags in milligrammes per square metre cleaned.

Background to requirement P5 Bags

The investigation concerning the development of the criteria for generation 1 showed that in 85% of cases the waste volume from cleaning services came from refuse bags, and refuse sacks and plastic bags alone accounted for 45%. The other fractions were much smaller. The project group has no reason to believe that this waste distribution has changed in the cleaning sector, so that it is still highly relevant to make this requirement for refuse bags.

The operator can influence the consumption of bags by not emptying wastepaper baskets if there is very little waste, using smaller or thinner bags in waste bins, or not putting waste bags in wastepaper baskets that are solely used for paper. On the other hand, the consumption of refuse sacks depends on the waste that is produced at the customer.

Nordic Ecolabelling has experienced how the requirement has changed environment. One licence holder has switched to thinner refuse bags and other licence holders have reduced the consumption of bags, merely by announcing that they were now keeping track of

consumption of e.g. plastic bags. This avoids waste for the customer and makes cleaning assistants more aware that this environmental parameter is also measured.

Many of our licence holders clean for customers that use a large number of refuse bins for which thin/small bags are used, but which cannot be designated as wastepaper baskets. This might be fixed-mounted waste bins at schools in playrooms, café areas in fitness centres, and so on. These are places where waste bins are not used to dispose of paper (wastepaper baskets). In the investigation for the development of criteria for version 1, the bags were divided into refuse sacks and refuse bags, and not whether the bags were placed in wastepaper baskets or other smaller waste bins. Nordic Ecolabelling believes, however, and therefore clearly writes, that in all cases this concerns thin waste bags. This also applies to bags used in schoolyards, toilets, fitness centres, etc.

The requirement is based on consumption of bags for waste bins and wastepaper baskets, since this is the largest waste fraction, and this fraction can be improved by the operator. The Nordic Ecolabelling Board stipulated that the requirement would apply to all bags and not just plastic bags, since this might be perceived as discrimination against certain materials, and there were actually some parties that used paper bags rather than plastic.

A weak aspect of this requirement is that there is very great variation between the operators. The reason may be that some operators have many customers with offices, and thereby more wastepaper baskets.

Nordic Ecolabelling has also found that some cleaning companies, especially home help services, do not have any control of the refuse bags used by their customers. They solely handle emptying the customer's waste bins, while the customers themselves buy the bags. In these cases, the consumption of refuse bags must not be included in the requirement. This also means, however, that the area cleaned for customers where the cleaning company has no control of the refuse bag type/consumption must not be included in the requirement.

Before the consultation proposal for generation 3 was issued, it was investigated within the sector whether refuse sacks could be included. All of the cleaning companies contacted before were against the inclusion of refuse sacks. It was pointed out that there is no controllability here – the customers' refuse has to be disposed of regularly, no matter how full the sacks are. There is no control of the customer's refuse sorting system either.

Requirement level

The requirement is divided into five points interval (compared with four in generation 2) based on input during the hearing. Less distance between the steps make it more motivating to try to score points.

7.7 Use of ecolabelled products and services

P6 Purchase of ecolabelled products and services

Use of ecolabelled products and services gives points as stated in the table below. Ecolabelled means products (goods and services) that carry the Nordic Swan Ecolabel, the EU Ecolabel or the Good Environmental Choice (the Swedish Society for Nature Conservation's ecolabel). For workwear, GOTS is also included as an ecolabel. A maximum of 6 points can be achieved for this point requirement.

Point score requirements for products and services	Point conditions	Points	Documentation (% share of purchasing volume specified in the relevant unit (cost, quantity, litres, kg))
At least 90% of absorbent paper (kitchen paper rolls/household paper, paper towels and toilet paper) at the customers is ecolabelled.	Applies when the company is responsible for the purchase and replenishing of absorbent paper at the customers.	1 p	Overview of the cleaning company's purchases of ecolabelled absorbent paper (state supplier, and if ecolabelled: what type and licence number). Calculation of the proportion of ecolabelled absorbents in relation to the total amount of absorbent paper delivered to customers by the cleaning company.
At least 50% of the cloth hand towel rolls at the customers are ecolabelled.	Applies when the cleaning company is responsible for handling cloth hand towel rolls at the customers.	1 p	Overview of the cleaning company's handling of ecolabelled cloth hand towel rolls (state supplier, and if ecolabelled: what type and licence number). Calculation of the proportion of ecolabelled cloth hand towel rolls in relation to the total amount of cloth hand towel rolls delivered to customers by the cleaning company.
90% of the soap at customers' toilets is ecolabelled.	Applies when the company is responsible for the purchase and replenishing of soap at the customers.	1 p	Overview of the cleaning company's purchases of ecolabelled soap (state supplier, and if ecolabelled: what type and licence number). Calculation of the proportion of ecolabelled soap in relation to the total amount of soap delivered to customers by the cleaning company.

Point score requirements for products and services	Point conditions	Points	Documentation (% share of purchasing volume specified in the relevant unit (cost, quantity, litres, kg))
At least 50% of the workwear purchased for personnel who clean is ecolabelled.		1 p	Overview of the cleaning company's purchases of ecolabelled workwear (state supplier, and if ecolabelled: what type and licence number). Calculation of the proportion of ecolabelled workwear in relation to the total amount of workwear purchased.
At least 90% of the cloths and mops used at the customers are ecolabelled. At least 50% of the cloths and mops used at the customers are ecolabelled.		2 p 1 p	Overview of the cleaning company's purchases of ecolabelled cloths and mops (state supplier, and if ecolabelled: what type and licence number). Calculation of the proportion of ecolabelled cloths and mops in relation to the total amount of cloths and mops purchased.
At least 50% of car washes take place in ecolabelled vehicle wash installations.	Applies to washing of the cleaning company's car fleet.	2 p	Overview of the cleaning company's purchases of ecolabelled vehicle wash installations (state supplier, and if ecolabelled: what type and licence number). Calculation of the proportion of ecolabelled vehicle wash installations in relation to the total amount of vehicle wash installations purchased.
100% of the laundry service Minimum 75% of the laundry service Minimum 50% of the laundry service	External laundry services which are purchased must be ecolabelled.	3 p 2 p 1 p	Overview of the cleaning company's purchases of ecolabelled laundry service (state supplier, and if ecolabelled: what type and licence number). Calculation of the proportion of ecolabelled laundry service in relation to the total amount of laundry service purchased.
Minimum 50% ecolabelled products and services within other product groups*		1 p	Overview of the cleaning company's purchases of another ecolabelled product or service (state supplier, and if ecolabelled: what type and licence number). Calculation of the proportion of ecolabelled products and services in relation to the total amount purchased.

*It is not possible to get points in P6 for ecolabelled chemical cleaning agents, which receive points in P2.

Background to requirement P6 Purchase of ecolabelled products and services

Cleaning companies are often responsible for replenishing e.g. toilet paper, soap and paper towels at the customer's premises. If ecolabelled products are used in these cases, the cleaning company has an influence on further environmental benefits with regard to their services. It must be noted that the requirement concerning the ratio of ecolabelled products must only be calculated on the basis of purchases for the customers for which they have a real responsibility and opportunity to influence the purchase. If the customer does not wish the cleaning company to have an influence on the procurement of various products, the cleaning company will not be held to account for this customer's purchases.

In addition, the cleaning company will have numerous purchases that are related to the cleaning service and which can be made ecofriendly via ecolabelled products. If the cleaning company thinks of the environment right down to these details, Nordic Ecolabelling would like to reward this.

The point requirement for ecolabelled products and service is reworded in this version. The proportions and opportunities to get points for use of Nordic Swan Ecolabelled products and services in generation 2 is assessed to have been a little distorted in terms of the areas that are most relevant for cleaning services in environmental terms. Nordic Ecolabelling therefore assesses there to be a need to adjust the weighting of the various requirements' points, with focus on the requirements considered to be more important than others. For example, Nordic Swan Ecolabelled laundries are weighted higher, since washing mops constitutes a large proportion of the environmental impact of the cleaning services' consumption of chemicals. Car washing should be retained, while printed matter presents a minimum environmental impact in this context and is included in "Minimum 50% ecolabelled products and services within other product groups are ecolabelled."

7.8 Calculation of points

O13 Calculation of points

The cleaning company must achieve minimum 14 points with transport and 11 points without.

Cleaning companies that consume less than 25 microlitres chemicals/m² area cleaned under O5 must achieve minimum 13 points with transport and 10 points without.

The table below gives a summary of the areas in which points can be scored.

Point score requirements	Number of points scored	Maximum points achievable
Consumption of chemicals		5 points
Proportion of ecolabelled chemicals		3 points
Transport (fuel consumption/fuel economy)		5 points
Bags		5 points
Use of ecolabelled products and services		6 points
Total		24 points

Calculation of points in accordance with the table.

Background to requirement O13 Calculation of points

In generation 3, the required minimum number of points is approximately 60% of the maximum achievable points - at the same level as in generation 2. Points for ecolabelled chemicals are rather lower than for generation 2, because the equivalent mandatory requirement has been tightened considerably. On the other hand, more points are given for the use of ecolabelled products and services.

7.9 Quality

O14 System to follow up on cleaning quality (W)

The cleaning company must have a system for the monitoring of cleaning quality which gives objective and reproducible results. Objectivity and reproducibility can be achieved, for example, if the customer and cleaning company have agreed on the quality level and how the result is to be assessed. As a minimum, the cleaning company must prepare the following (in writing):

- Management and control procedures. The procedure must contain information confirming: how the quality of the work is agreed, how follow-up of the results is carried out, that quality checks are carried out on all objects, who carries out the controls checks and what reporting system is used.

- Procedures for drawing up inspection reports.

If the cleaning company has a system for evaluation of cleaning quality in accordance with the Nordic standard INSTA800 "Cleaning quality – Measurement system for evaluation of cleaning quality", this requirement will be fulfilled.

Procedures and any forms used in conjunction with quality control.

Background to requirement O14 System to follow up on cleaning quality

It is not possible to set absolute requirements for the quality of cleaning, as it must be up to the customer and the cleaning company to agree on the quality, since different customers will have different requirements. Like other products and services for which Nordic Ecolabelling sets requirements, Nordic Swan Ecolabelled cleaning services also depend on the best possible quality assurance. Certain minimum requirements have therefore been drawn up, including for a system to follow up on the agreed quality of cleaning.

There is a Nordic framework standard for quality control systems and a standardised Nordic system for the measurement and inspection of the agreed cleaning quality – INSTA 800. INSTA800 is more detailed and as such complies with the European standard. The latter is EN 13549 (2001) "Cleaning services – Basic requirements and recommendations for quality measuring systems".

Use of INSTA 800 is increasing, especially at hospitals. A guide to the standard can be purchased from e.g. www.ds.dk. Nordic Ecolabelling does not require use of this standard, since it is not yet so widely used. On the other hand, a control system must be established that is equivalent to those used by many of the forward-looking companies in the sector.

O15 Written work instructions (W)

The applicant must prepare written work instructions. These must cover the tasks that are included in the cleaning service.

There must be work instructions, which can e.g. include the information specified below, for the most common cleaning tasks. The instructions must be drawn up so as not to prevent variation in the work:

- Description: brief description of the work task (such as cleaning of corridors, cleaning of toilets, etc.)
- Frequency: how often the task is to be performed (e.g. daily, weekly, annually, etc.) or the agreed quality must be achieved
- Object cleaned: which surfaces in the room are to be cleaned (e.g. floor, walls, fixtures, etc.)
- Current methods: description of methods and relevant equipment, machines and chemicals (several alternatives may be relevant and the employee chooses depending on e.g. degree of soiling)

If the applicant has a certified environmental management system (ISO or EMAS) which covers the cleaning that is to be ecolabelled, the requirement may be fulfilled by this system.

Written work instructions.

If the applicant has a certified environmental management system, a copy of the certificate is submitted, as well as a copy of the sections of the system which concern work instructions.

Background to requirement O15 Written work instructions

In order to perform cleaning of the agreed quality and with the right handling of chemicals and machines, it is important that cleaning personnel have written instructions for the performance of the work and information about chemicals which they can use.

This information and these instructions must contribute as well as possible to the performance of cleaning in compliance with the ecolabelling requirements.

O16 Procedures in the event of changes, non-conformities and claims (W)

The cleaning company must ensure via procedures or instructions that:

- In the event of planned changes that affect the requirements of the Nordic Swan Ecolabel, the contact person must notify Nordic Ecolabelling in writing before the changes are implemented. This may relate, for example, to a change of chemicals or cleaning methods.
- In the event of unforeseen non-conformities that affect how the ecolabelling requirements are fulfilled, the contact person must immediately notify Nordic Ecolabelling in writing.
- There is a system for handling claims and complaints.

- Copy of procedures in the event of planned changes, unforeseen non-conformities and claims.

Background to requirement O16 Procedures in the event of changes, non-conformities and claims

By ensuring that the cleaning company has a quality management system that can handle complaints, non-conformances and information to Nordic Ecolabelling in conjunction with changes, Nordic Ecolabelling assures that the company always makes sure that their ongoing changes/improvements in the company are in accordance with the Nordic Swan Ecolabelling requirements.

O17 Maintaining the licence (W)

The cleaning company must ensure continued compliance with the requirements during an annual audit of its business.

Nordic Ecolabelling's checks on a cleaning company may include an examination of all the requirements above or just a selection. This may involve a site visit or a request for documentation to be provided.

- Procedure for maintaining the licence.

Background to requirement O17 Maintaining the licence

To ensure that, while it has a licence, the cleaning company complies with the requirements of the Nordic Swan Ecolabel, a procedure must be in place for maintaining the licence. Nordic Ecolabelling's checks on a cleaning company may include an examination of all the requirements above or just a selection. This may involve a site visit or a request for documentation to be provided.

7.10 Ethics/working environment

O18 Regulatory requirements (W)

The cleaning company must ensure compliance with statutory requirements, including regulations concerning the working environment, as well as hygiene, health and safety. Failure to comply with this requirement may result in Nordic Ecolabelling revoking the licence.

Signed application form

O19 Training of personnel (W)

The cleaning company must have a plan for training its personnel on the basis of the following key topics:

- Information on cleaning agents, methods, equipment and machines.
- Information on health, safety and the environment.
- Training in ecofriendly driving for relevant personnel, such as inspectors, operations managers and cleaning assistants with a lot of daily driving between customers.
- Information on waste handling.

The training plan must state an objective for when the training must be completed, and the personnel groups that are to undergo training. The plan for training of new employees must state how soon after their employment the training is to take place.

There must also be a brief description of the nature of the training.

Planned training can be shorter for persons who have already undergone cleaning training, or have practical cleaning experience.

The recommendations from EFCI and UNI-Europe concerning training topics can be used. See Appendix 7.

Training plan.

Background to requirement O19 Training of personnel

Nordic Ecolabelling considers training to be very important in order to e.g. handle chemicals on a safe, healthy and environmentally responsible basis.

Education and training are also important to eliminate the general perception that cleaning is unskilled work. Marie Aurell from Linköping University in Sweden has researched into work and identity within the cleaning sector. Important aspects of work and identity are ethical, cultural and service-related. These aspects are discussed in an article by Marja Aulanko, in which she shows how cleaning is far more than technical performance.

The criteria's examples of training have been prepared on the basis of a technical memo from Ecolabelling Denmark, in which a number of existing training programmes were assessed. The memo concerns training under AMU (Arbejdsmarkedsuddannelserne in Denmark), PRYL (Projekt Yrkesbevis Lokalvårdere in Sweden) and EFCL/Uni-Europa (European Federation of Cleaning Industries/EU Trade Union).

Ecodriving is also included in the requirements of the content of training. Ecodriving is training in driving with the best possible fuel economy, and surveys show that this can ensure a reduction of fuel consumption of 5-10%.

It is important to point out that using temps does not prevent licence holders from ensuring that these employees also have a suitable level of training, enabling them to fulfil the ecolabelling requirements, and ensuring them a good working environment.

O20 Ethical requirements (W)

The applicant must comply with the following:

- Be registered for VAT and employer tax purposes and (in Finland) be "förskottssuppbörsregistrerade"
- The cleaning company may not be in arrears with payment of taxes and duties
- The company's own employees must be ensured pay (including special services), working hours and other terms of employment that are no less favourable than those which the social partners have agreed for equivalent work within the service area in question.

Such terms and conditions are often set out in a collective bargaining agreement entered into by the relevant unions and employers in the country in question, and apply across the whole of the country (natural geographic catchment area for employees in the country)*.

- The cleaning company's accounts must be approved by an auditor
- Hold liability insurance
- All employees must have visible name tags or company cards/personal cards, so that the customer can see who is performing the service, and so that employees can identify themselves with valid ID documents. In Norway an HMS card is required, and in Sweden, Service ID or ID 06.

** Note that in Norway all suppliers and sub-suppliers of cleaning services must be entered on a register of approved cleaning businesses.*

If the cleaning company does not follow recommendations and decisions imposed by competent bodies, such as the labour court, industrial arbitration, or consumer complaints body, Nordic Ecolabelling can withdraw the licence.

See Appendix 8 Documentation for Ethical requirements.

Background to requirement O18 Regulatory requirements and O20 Ethical requirements

In recent years, there has been frequent media debate in the Nordic countries concerning cleaning companies that use moonlighting and do not comply with working environment regulations. Applicants and potential applicants have also expressed their frustration with the unequal competition with companies that base their services on moonlighting employees, and as a consequence significantly lower prices. Nordic Ecolabelling assesses that it is not sufficient to refer to national legislation in the criteria document, but that the Nordic Swan Ecolabel must set requirements that help to ensure that only cleaning companies with serious, sustainable working conditions achieve Nordic Swan Ecolabelling.

O21 Requirements for sub-suppliers (W)

A) Sub-suppliers who provide a complete service (workforce, chemicals, etc) must meet one of the following requirements:

1. The sub-supplier is a Nordic Swan Ecolabelled cleaning service.
2. The sub-supplier meet Nordic Swan Ecolabel's ethical requirement O20*. The chemicals used by the sub-supplier in delivering the Nordic Swan Ecolabelled service must meet requirements O7, O8 and O9.

This proportion may comprise a maximum of 15% of the applicant's sales.

The licensee must specify in the contract with the customer which objects will be cleaned by non-Nordic Swan Ecolabelled sub-suppliers.

If sub-supplier is Nordic Swan Ecolabelled, state name and licence number. Otherwise see Appendix 9.

Calculation of the proportion of the applicant's sales that are accounted for by sub-suppliers.

- ☒ Procedure to ensure that the licensee specifies in the contract with the customer which objects will be cleaned by non-Nordic Swan Ecolabelled subsuppliers.

B) Subsuppliers who only provide the workforce must meet one of the following requirements:

1. The subsupplier is a Nordic Swan Ecolabelled cleaning service.

2. The subsupplier is covered by the applicant's training programme (O19). Square metres (O2) that are delivered to the Nordic Swan Ecolabelled service and associated transport (O12), use of chemicals (O5 and O6) and bags (P5) are included in the applicant's own calculations. The subsupplier must comply with the following ethical requirements*:

- Cleaning must be performed by the subsupplier's own personnel. The subsupplier may not hire another subsupplier.
- Be registered for VAT and employer tax purposes and (in Finland) be "förskottssuppbörsregistrede".
- The cleaning company may not be in arrears with payment of taxes and duties.
- All employees must have visible name tags or company cards/personal cards, so that the customer can see who is performing the service, and so that employees can identify themselves with valid ID documents. In Norway an HMS card is required, and in Sweden, Service ID or ID 06.

**Note that in Norway all suppliers and subsuppliers of cleaning services must be entered on a register of approved cleaning businesses.*

- ☒ If subsupplier is Nordic Swan Ecolabelled, state name and licence number. Otherwise see Appendix 10.

Background to requirement O21 Requirements for subsuppliers

According to a survey by Service Entreprenörerna Almega in Sweden, nearly half the companies use subsuppliers. More than four out of ten companies themselves work as subsuppliers. To ensure that non-Nordic Swan Ecolabelled subsuppliers are also at the professional end of the market, certain minimum requirements are set.

Subsuppliers are used in different ways and for different reasons across the Nordic countries. In order to cover the whole of the Nordic region and at the same time be meaningful, a distinction is drawn between the different types of subsuppliers.

O22 Documentation of Nordic Swan Ecolabelling requirements (W)

All documents concerning the Nordic Swan Ecolabelling licence must be available at the licence holder.

- 🔍 Checked during inspection visits.

8 Changes compared to previous generation

Here is a list of the key changes from generation 2 to 3:

Requirement in g2	Requirement title	What has happened?	Reason for change	Requirement in g3
What can be Nordic Swan Eco-labelled		Window cleaning included. Disinfection excluded	Interest from the sector in window cleaning Disinfection: several exceptions, part of the total volume, new biocide directive.	=
	Description of company	New requirement (partly included in O16 in g2)	Important to have an early overview of companies and subsuppliers.	O1
O1	Square metres cleaned	Reworked	More clear, ensure equal treatment, template value adjusted.	O2
O2	Information about chemicals	Amended	Ensure that further purchasing continues to adhere to the requirements.	O3
O3	Correct dosing	Unchanged		O4
O4	Consumption of chemicals	Tightened	Requirement too weak versus licence data. Chemicals for external cleaning of mops clearly included.	O5
P1	Consumption of chemicals	Tightened	Based on change in O requirement.	P1
O5	Other ecolabelled chemicals	Tightened	Requirement too weak versus licence data.	O6
O6	Non-ecolabelled chemical products, hazard classification	Updated	Equivalent to requirement for Cleaning Agents.	O7
O7	Non-ecolabelled chemical products, substances that may not be included	Updated	Equivalent to requirement for Cleaning Agents.	O8
	Sealant, floor polish, floor wax – content of fluorosurfactants and silicone surfactants	New	Need after removal of criteria for floorcare products.	O9
P2	Ecolabelled chemicals	Tightened	Adjusted for new O requirements.	P2
P3	Concentrated products	Deleted	Difficult to document. Same effect achieved via requirements of chemicals consumption.	
	Perfume and preservatives in products using spray bottles	New req.	Known working environment problem.	O10
O8	Purchase of vehicles	Reworked	Changed to new purchases.	O11
Requirement in g2	Requirement title	What has happened?	Reason for change	Requirement in g3
O9	Maximum consumption of fuel for transport	Updated	Possibility for applicants to document use of various types of fuel.	O12
P4	Fuel consumption for transport	Amended	"80% customers < 200 m ² " removed – not used in licence.	P4
P5	Fuel economy	Unchanged		P3
P6	Bags	Updated d	More points intervals.	P5
P7	Waste sorting	Deleted	Internal sorting at company – low RPS.	

P8	Purchase of ecolabelled products	Combined Amended	Some removed, some added after RPS assessment.	P6
P9	Purchase of ecolabelled services			
	Window cleaning	New req.	Introduction of window cleaning after interest from the sector in window cleaning.	Must fulfil all O-requirements except O2, O9 and O13)
Chapter 6	Calculation of points	Updated, now O requirements	Minimum score same % share as before.	O13
O10	System to follow up on cleaning quality	Unchanged		O14
O11	Written work instructions	Unchanged		O15
O12	Customer information	Deleted	No RPS. All easily fulfil the requirement.	
O13	Official requirements	Unchanged		O18
O14	Ethical requirements	Reworked	Subsuppliers moved to separate requirement.	O20
O15	Training of personnel	Amended	As before – but requirement of "more than 30% temps removed" - subsuppliers moved to an own. requirement	O19
O16	Procedures in the event of changes, non-conformities and claims	Amended	As before – but description of the organisation moved to O1.	O16
	Requirements for subsuppliers and temp agencies that are not Nordic Swan Ecolabelled - ethical requirements	New - partly	Combined requirements included in other requirements + some new.	O21
O17	Maintaining the licence	Adjusted slightly	Text about ISO/EMAS removed – as the requirement must be fulfilled in all circumstances.	O17
O18	Documentation of Nordic Swan Ecolabelling requirements	Unchanged		O22
O19	Marketing	Removed 17.11.14		

9 References

Cleaning sprays, chemicals, asthma and COPD
(<http://www.naaf.no/Documents/1.%20Allergi%20i%20Praksis/3%20-%2014/AA%203%2014%20Renholdssprayer,%20kjemikalier,%20astma%20og%20kols.pdf>)
recent Nordic research (Jan Vilhelm Bakke, PhD, consultant at the Norwegian Labour Inspection Authority/First amanuensis at NTNU)

Arbete och identitet – om hur städare blir städare (Work and identity - On how cleaners become cleaners), Marie Aurell, Tema Teknik och social förändring, Linköpings University in Sweden, 2001.

Background document to Miljøvejledning for rengøringservice (Environmental guide for cleaning service), Environmental Protection Agency in Denmark, August 1999.

Cleaning Industry – European social dialogue, EFCI (European Federation of Cleaning Industries) and UNI-Europa (European regional organisation of Union Network International), 2001.

Cleaning Manual, SSTL the Finnish Association of Cleaning Technology, Publication 1:8, 1998.

COPERT III Computer program to calculate emissions from road transport – Methodology and emission factors (Version 2.1), European Environment Agency, November 2000.

Proposal for training plan for Nordic Ecolabelled cleaning services, Jakob Zeuthen, Nordic Ecolabelling Secretariat in Denmark, 10 October 2001.

Preliminary study – Ecolabelling of cleaning services, Nordic Ecolabelling, 2 February 2000.

Market survey – Assistance for preparing ecolabelling criteria for cleaning services, Norges Byggeforskningsinstitutt Byggforsk (SINTEF Building and Infrastructure), 20-12-2001.

Environmental philosophy, 16 June 2000, Nordic Ecolabelling.

Renhold – høgre utdanning (Cleaning - higher training), Christopher Magnus, Yrkeslitteratur as, Oslo 1996.

Service is more than a technical performance, Marja Aulanko, Hauswirtschaft und Wissenschaft, 49th edition, volume 1, 1st quarter 2001, pp. 18-23

Städteknisk Ordlista (technical cleaning glossary), TNC (Terminologisentrum) and SRTF (Sveriges Rengöringstekniska Förbund), SRTF, Box 2133, S-176 02 Järfälla, Sweden (kansli@srft.se).

Renholdsnytt, Søkelys på hudplager, 2016.

TEMA2000 – Et værktøj til at beregne transporters energiforbrug og emissioner i Danmark (A tool to calculate transporters' energy consumption and emissions in Denmark), Ministry of Transport in Denmark, May 2000.

The Swedish National Road and Transport Research Institute, Magnus Lenner, SAE 980682.

Tool for working environment assessment of cleaning services, AMI report 52, National Research Centre for the Working Environment in Denmark, April 2000.

Information from Statistics Denmark

www.sba.dk

www.rsba.dk

www.ssef.se

www.bilviden.dk

www.fstyr.dk/

www.hvorlangtpaaliteren.dk

www.ecodrive.org

www.horesta.dk

www.almega.se/serviceentreprenörerna

Ulrich Lopdrup, Danish Road Safety and Transport Agency, technical vehicle department

Kent D Sørensen and Lone Lundholm, Skat Indsats

The 3F trade union, department for private service companies

Matilde Unge, project manager for cleaning services, Svenska Miljöstyrningsrådet