About Nordic Swan Ecolabel **Events**



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Contact information

In 1989, the Nordic Council of Ministers decided to introduce a voluntary official ecolabel, the Nordic Swan Ecolabel. These organisations/companies operate the Nordic Ecolabelling system on behalf of their own country's government. For more information, see the websites:

Denmark

Ecolabelling Denmark info@ecolabel.dk www.svanemaerket.dk

Finland

Ecolabelling Finland joutsen@ecolabel.fi https://joutsenmerkki.fi/

Sweden

Ecolabelling Sweden info@svanen.se www.svanen.se

Iceland

Ecolabelling Iceland svanurinn@uos.is www.svanurinn.is

Norway

Ecolabelling Norway info@svanemerket.no www.svanemerket.no

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1 What is a Nordic Swan Ecolabelled event?

An event certified with the Nordic Swan Ecolabel meets ambitious environmental requirements and has taken a holistic approach to its environmental work. The event takes an active and structured approach to reducing its consumption and optimizing operations, as well as engaging their suppliers in environmental work.

A Nordic Swan Ecolabelled event:

- Limits energy use and greenhouse gas emissions, by implementing energyefficient measures.
- Uses electricity and biofuel instead of fossil fuels.
- Reduces the climate impact from transportation.
- Uses cups with reduced environmental impact, e.g. reusable or ecolabelled cups and meets strict requirements for other disposable items.
- Ensures efficient waste management.
- Serves food with a reduced environmental footprint, including a variety of organic and vegetarian options.
- Reduces consumption in general and promotes reuse of decorations.
- Limits harmful and unwanted chemicals in general cleaning and dishwashing by using ecolabelled cleaning products.
- Involves staff and suppliers in the environmental work.

Why choose the Nordic Swan Ecolabel?

- Events may use the Nordic Swan Ecolabel trademark for marketing. The Nordic Swan Ecolabel is a very well-known and well reputed trademark in the Nordic region.
- The Nordic Swan Ecolabel is a simple way of communicating environmental focus and commitment to the customers.
- The Nordic Swan Ecolabel identifies the most important environmental impacts and thus shows how a cleaning service can cut emissions, resource consumption and waste management.
- Environmentally suitable operations prepare cleaning services for future environmental legislation.
- Nordic Ecolabelling provides businesses with guidance on the work of environmental improvements.
- The Nordic Swan Ecolabel not only covers environmental issues but also quality requirements, since the environment and quality often go hand in hand. This means that a Nordic Swan Ecolabel licence can also be seen as a mark of quality

3 Summary

The document outlines the criteria for certifying Events with the Nordic Swan Ecolabel, emphasizing environmental sustainability.

The document includes requirements for reducing environmental impact through various measures.

- Events must be professionally planned, last over a given period, arranged at one or several fixed locations, and meet specific environmental requirements.
 Events that can be ecolabelled include e.g. cultural events, business events, conferences, festivals, and political events.
- Environmental communication to staff and suppliers is important, as the event must engage suppliers and staff in environmental efforts to actively reduce consumption and optimize operations.
- Catering suppliers must fulfil strict requirements for sustainable food practices including avoiding endangered species, offering vegetarian and organic options.
 They must also avoid palm oil and reduce food waste.
- The event must use electricity from the grid, request energy-efficient equipment, promote public transport, and request more sustainable vehicles.
- Multiple waste sorting options for both staff and guest must be provided.
- All use of disposable items must be minimized.
- Strict requirements to protect natural features and mitigate impacts on local wildlife must be met.
- The event must ensure compliance with all legal requirements and fair treatment of volunteers.

3.1 Disclaimer

Background to disclaimer

Since there is a broad range of events, that might be interested in being ecolabelled, some events can be seen as too controversial and pose a risk of damaging the Nordic Swan Ecolabelling brand. Nordic Swan Ecolabelling has therefore set a disclaimer, according to which the event can be evaluated, and if a compelling reason is found, the ecolabelling application of the event can be denied.

A disclaimer is also added to ensure that an event can be ecolabelled, even if regulations from authorities are controversial to these criteria. Regulations must of course always be followed.

3.2 General requirements

Background to requirement O1 Description of the event

Nordic Ecolabelling requires a detailed description of the event to obtain an accurate picture of the happening and to assess whether the event falls within the product group definition. The information provides the basis for the right advice and guidance in the application process.

An overview of suppliers ensures that we set the right requirement to the right suppliers. If some of the service providers are already Nordic Swan Ecolabelled or offers ecolabelled products, this will make the application process easier, and several requirements may already be met.

3.3 Marketing and communication

Background to requirement O2 Marketing

O3 Communication with staff, and

O4 Communication with suppliers and exhibitoners

Information to staff, guests and suppliers regarding the ecolabelling of the events is useful to give a broad insight in the environmental aspects of the event business, and how the event works to limit the environmental impact of the event.

The event organizer must provide staff with basic information on the environmental work of the company to achieve the Nordic Swan Ecolabel.

To ensure staff engagement and compliance with the Nordic Swan Ecolabel's requirements, it is essential that staff is informed about the specific requirements set by Nordic Ecolabelling for the event regarding for the different suppliers.

The event organizer can market the event as Nordic Swan Ecolabelled, and all guests should be informed that the event has been awarded the Nordic Swan Ecolabel. Marketing and information shall be carried out after the licence is granted, in consultation with Nordic Ecolabelling.

3.4 Energy requirements

Background to requirement O5 Fossil free energy supply

Significant amount of energy is required to conduct an event, encompassing lighting, sound, heating, and other needs.¹,² Consequently, the event has a climate impact that should be minimized to the greatest extent possible.

One approach to mitigating the event's climate impact is to ensure that a minimal proportion of the energy used is derived from fossil fuels. This can be achieved by connecting to the power grid, where efforts are being made across the Nordic countries to reduce the contribution of electricity generated from fossil sources. Alternatively, if connection to the power grid is insufficient or unavailable, and local generators must be utilized, these generators can be powered by biofuel.

The energy used at the event must be fossil free and the event organizer should strive to use as much sustainable energy as possible for the event. If outdoor events require extra energy, it is advantageous to connect to the already established electricity grid. There are no

¹ Event Energy Impacts | Event Impacts outdoor events https://www.eventimpacts.com/impact-types/environmental/content/energy

² Baker J. 2022: <u>Embrace Battery Power for Eco-Friendly Outdoor Events</u> https://www.joulecase.com/blog/energy-and-carbon-impact-of-various-

specific requirements regarding the sources of energy used to generate grid electricity. If this is not an alternative, energy generators powered by batteries or biofuel HVO100, RME100, FAME100, ED95, bio propane can be used. However, the biofuels have more disadvantages than electricity, among other things related to the raw materials, and usually have a higher climate impact over the life cycle. With this requirement, Nordic Ecolabelling requires that the event avoids the use of fossil fuels for energy production.

Background to requirement O6 Energy devices and equipment

Hosting an event requires a significant amount of energy for lighting, sound, heating, and other needs.³ Consequently, events have a notable climate impact, which should be minimized as much as possible. Various smaller components consume energy at different types of events. This requirement targets some of the most common elements, which can either be eliminated or replaced with more energy-efficient alternatives.

Heating outdoor air is highly resource-intensive⁴, and Nordic Ecolabelling aim to prevent such energy usage at a Nordic Swan Ecolabelled event. With outdoor areas means spaces located outside buildings/structures/tents. Staff areas including backstage areas for artists, bench areas in for example football matches (the bench area refers to the seating area where players and coaches sit during a game when they are not actively participating. It's typically located near the playing field or court. Not seating areas for the audience.) and VIP areas for special guests, are exempt from this requirement.

To avoid unnecessary energy consumption from coolers and refrigerators, these units must be covered. They shall have lids, doors, or be kept covered with an alternative solution.

A significant number of disposable batteries are consumed when the batteries in microphones and mice are replaced each time a new person uses them on stage.⁵

Therefore, rechargeable batteries or rechargeable devices must be used at Nordic Swan Ecolabelled events. Exemption if speaker or artist bring their own equipment.

Background to requirement O7 New purchases

Significant energy is required to conduct an event, encompassing lighting, sound, heating, and other needs^{1,2}, and there are several potentials for reducing the consumption.

LED lighting is a leading energy-efficient solution widely adopted across industries, including event management. LEDs consume significantly less energy compared to older technologies like fluorescent or incandescent lighting. LED retrofits in lighting systems contribute to better luminaire efficacy and long-term sustainability. The use of LED technology also enables advanced control systems, reducing overall energy consumption at events.⁶

Laser projectors are recognized for their high energy efficiency and longevity compared to traditional lamp-based projectors. These systems are ideal for large-scale events due to their brighter images, lower maintenance, and significantly lower power consumption, making

³ 2022, A Net Zero Roadmap for the Events Industry: NZCE Roadmap2022 Full-Report-1.pdf

⁴ Propertytalk (2025, 6. January) Outdoor Heating: What's Best For The Home, Gas or Infrared?

⁵ 2022: Kulturrom: Farvel til engangsbatteriene, Oppladbare batterier - Sluttrapport (1)

⁶ Circular Economy Aspects Regarding LED Lighting Retrofit—from Case Studies to Vision (mdpi.com)

them a sustainable choice for event venues. Research on sustainable lighting and projection systems highlights their energy efficiency, longer lifespan, and lower environmental impact. ⁷

Class D amplifiers are recognized for their energy efficiency, particularly in high-demand audio settings for example events. These amplifiers can convert up to 90% of electrical energy into sound, significantly reducing energy compared to traditional Class A or Class AB amplifiers. In events where audio equipment is used extensively, Class D amplifiers reduce the energy footprint of large-scale sound systems.⁸

Background to requirement O8 Measures for reduction of energy use and carbon emissions

Significant amount of energy is required to conduct an event, encompassing lighting, sound, heating, and other needs. 1,2 Nordic Ecolabelling has listed a number of energy and CO₂ saving measures for indoor venues. Venues where main activities are outdoors, such as open festival venues, do not need to fulfil this requirement, because of limited steerability. The list also includes some measures (e.g. solar panels) that in the first instance reduce carbon emissions rather than energy consumption. There are different solutions to reduce the climate impact from events. Nordic Ecolabelling rewards several actions, and the most efficient measures give the most points. The applicant must achieve at least 3 points in the list by documenting measures they have already implemented, or plan to carry out, before the event is happening.

Own electricity production: The event organizer can achieve points by producing its own energy for the operation of the venue. For example, by using solar energy via solar panels or solar cells. To achieve points, the energy must go into the operation of the venue. The requirement is relevant for the annual consumption and solar contribution, and not for the specific event. Examples of what do not score points are lamps or other small electronics that are controlled by solar cells.

Energy metering: Monitoring energy-intensive equipment will increase awareness of energy consumption. By understanding the energy usage in different areas, it becomes easier to implement energy-reducing measures. Energy intensive equipment applies to equipment that use more than 10% of the total event electricity, for example heat pumps, large refrigeration units, process electricity for areas like server rooms, etc.

Energy policy: An energy policy is highly rewarded as it requires a multiannual programme for optimising its energy efficiency which includes target values, measures and a plan for implementation (this includes heating, hot water, cooling, lighting, insulation standards etc.) and the potential for reducing energy consumption through such an ongoing focus is high.

Lighting: Automatic demand-control of lighting, as sensor control with motion sensors, is the most efficient way to save energy from lighting. To achieve points, over 90% of the venue must have demand-controlled lighting in public areas.

Ventilation: Ventilation systems in large buildings with many rooms are particularly energy intensive. It is therefore important that the ventilation system is properly controlled according to demand, depending on how many guests are on the premises. Ventilation may, for

⁷ external_content.pdf (oapen.org)

⁸ The Class D Audio Power Amplifier: A Review (mdpi.com)

example, be controlled by CO₂ sensors, or occupancy sensors. Timer controls are not as effective, so if these are used, it is particularly important to have good and detailed timer controls for the best possible effect.

Heat and cooling production: Different venues have different needs when it comes to heat/cooling consumption, depending on the age of the building, windows, location, season and number of visitors. It is desirable for a venue to have clear procedures for heating its facilities in the most efficient way possible, despite the differing circumstances.

Energy-efficient light fittings: Energy efficient light sources have significantly higher light output and longer life than other light sources.

Sound and audio equipment and video and project: See background for O7.

Own measure: The venue is rewarded with points by implementing energy-saving measures. These measures must be measurable and show a 5% reduction in total energy use. A theoretical calculation can be used as proof. Approved measures include those introduced in the past or planned to be introduced before the event.

Examples of such measures include replacing old, energy-intensive equipment like heat pumps, air conditioning units, kitchen appliances, or light fixtures, replacing old windows or adding insulation, installing a centrally controlled system for heating and ventilation, installing automatic shut-off systems for heating and air conditioning when windows are opened, etc.

3.5 Transportation and climate

Background to requirement O9 Transportation and accessability

When large numbers of people travel to an event, it results in significant environmental and climate impacts due to energy consumption, fossil fuel use, and particulate pollution, particularly when traveling individually by car.⁹,³ These impacts can be greatly reduced if participants have the option to use public or shuttle transportation to and from the event.

Ensuring that the event is accessible from the nearest main transport hub via public transport is a crucial step towards promoting sustainability and convenience.

Organizing side events and trips within a reasonable walking distance on approx. 2-3 km¹⁰ or reachable by bicycle, public transport, share-ride (e.g. order taxi), or shuttle services further enhances the event's accessibility and environmental benefits. This approach also makes the event accessible to all participants regardless of their transportation preferences or limitations.

Overall, these measures contribute to a more sustainable and efficient event.

Background to requirement O10 Public transport information

When large numbers of people travel to an event, it results in significant environmental and climate impacts due to energy consumption, fossil fuel use, and particulate pollution,

⁹ International association of event hosts, (6. January 2025) <u>Environmental Impacts - International Association of</u>
Event Hosts

¹¹ Carlier m., 2024: Share of electric cars in the fleet of Nordic countries | Statista

particularly when traveling individually by car. See requirement O9. These impacts can be greatly reduced if participants have the option to use public transportation to and from the event.

Informing all guests, staff, suppliers, and artists/speakers about the connections to public long-distance transport services to the destination city or place is essential for ensuring smooth and efficient travel arrangements. This information helps attendees plan their journeys in advance, and providing details about connections to public transportation services to the event location further enhances convenience and accessibility. It encourages the use of more sustainable transport options, thereby reducing the event's carbon footprint and promoting sustainable practices.

Highlighting the distances between public transport stops and the event venue is crucial to nudge the guests to use public transport instead of private cars.

Ensuring accessible travel options and entrances for participants with disabilities is a fundamental aspect of inclusivity. By accommodating the needs of all attendees, the event becomes more welcoming and accessible, fostering a positive and supportive environment for everyone.

Background to requirement O11 Leasing and purchase of vehicles

Fuel consumption from transports is a significant source of the climate impact of an event. To reduce emissions, it is necessary to shift to more energy-efficient transports and move away from fossil fuels. The steerability of vehicle types is greatest when new leasing contracts are established, or vehicles are purchased. Combined with the possibility of collecting a point for not using fossil fuel both for the event organizer as well as the suppliers in, this is a good way to limit the climate impact from the transportation activities form the event.

Biofuels, HVO100, RME100, FAME100, are renewable fuels and it is a good transitional solution for existing vehicles before all vehicles are converted to other engines, but when we set requirements for new purchases, we believe that they must be the most sustainable vehicles. HVO, RME, FAME have more disadvantages than electricity and gas, among other things related to the raw materials, and usually have a higher climate impact over the life cycle.

Electric cars have become increasingly available in recent years, especially among private cars and light goods vehicles. All Nordic countries have a high enough availability of electric cars for Nordic Ecolabelling to set this requirement. Depending on the country, as much as 18–90 percent of newly registered private cars are electric. 11,12

Nordic Ecolabelling considers long-term sustainable vehicles to primarily refer to electrified vehicles. However, natural gas/biogas (CNG/CBG) and hydrogen are also considered good

¹¹ Carlier m., 2024: <u>Share of electric cars in the fleet of Nordic countries | Statista</u> https://www.statista.com/statistics/1538278/fleet-share-plug-in-hybrid-battery-electric-cars-nordics/

¹² Ritcher F. 2024: Which countries sell the most electric cars? | World Economic Forum https://www.weforum.org/stories/2021/02/electric-vehicles-europe-percentage-sales/

alternatives at this moment. This is in line with the Swedish procurement agency's most advanced sustainability requirements for personal cars and light goods vehicles. 13,14

Some companies have challenges related to electric vehicle infrastructure, especially in rural areas. Nordic Ecolabel therefore allows plug-in hybrid vehicles as a solution for newly purchased and newly leased vehicles.

Both electric and biofuel-powered heavy industrial vehicles are available and offer significant environmental benefits, but each technology faces unique challenges that need to be addressed to achieve widespread adoption¹⁵, ¹⁶, which is why these vehicles are exempt from the requirement.

Background to requirement O12 Measures for reduction of CO₂ emissions

CO₂ emissions and fuel consumption from transports is a significant source of the climate impact of the event. Nordic Ecolabelling has listed different CO₂ saving measures, and reward several actions, where the most efficient measures give the most points.

The applicant must achieve at least 3 points in the list by documenting measures they have already implemented, or plan to carry out, before the event is happening.

Overall, these measures contribute to a more sustainable, accessible, event, benefiting both the guests and the environment.

Sustainable fuel, event organizer and transport service: See O11.

Discount Cooperation - Accommodation: Offering event tickets that include discounts on accommodation at Nordic Swan Ecolabelled or EU Ecolabelled hotels is a great way to promote sustainable options. By providing discounts, event organizers encourage attendees to choose these sustainable options, reducing the overall environmental impact.

Free tickets and Discount Cooperation – Public Transport: Offering free public transportation tickets can enhance the event experience while promoting sustainability and accessibility. Including discounts or free tickets on public and regional transport with event tickets is a strategy to promote the use of more sustainable transportations. This initiative not only makes it more affordable for attendees to use public transport but also helps reduce traffic congestion and carbon emissions.

Bicycle Parking: Providing fixed bicycle parking and communicating this to guests is a practical measure to support sustainable transportation. By ensuring that attendees have a secure place to park their bicycles, event organizers promote cycling as a viable and sustainable transport option.

Rewarding walking, public transport and bicycling: Supports sustainable transportation. Express entry, skip the line, free drinks etc, may be easy measures to implement to get the guests to choose more sustainable alternatives.

¹³ Hållbarhetskrav för Energi/koldioxidkrav på lätta lastbilar | Upphandlingsmyndigheten

¹⁴ <u>Hållbarhetskrav för Energi/koldioxidkrav för fordon med maximalt fyra sittplatser utöver förarplatsen |</u> Upphandlingsmyndigheten

¹⁵ Alanazi A., 2023: Electric Vehicles: Benefits, Challenges, and Potential Solutions for Widespread Adaptation

¹⁶ Reddy V. J. et al, 2024: Sustainable Vehicles for Decarbonizing the Transport Sector: A Comparison of Biofuel, Electric, Fuel Cell and Solar-Powered Vehicles

Accommodation to staff: Nordic Swan Ecolabelled and EU Ecolabelled hotels have met strict requirements, ensuring that their operations minimize negative impacts on the environment. ¹⁷ Choosing ecolabelled accommodation for event staff is a significant step towards promoting environmental sustainability. By opting for such accommodations, event organizers demonstrate a commitment to sustainability and responsible resource use.

Accommodation to guests: Informing guests about available ecolabelled accommodation options near the event destination, a maximum of 10 km¹⁸, further supports this commitment. It encourages attendees to choose more sustainable accommodations, thereby reducing the overall environmental impact of the event.

Own measure: The event organizer is rewarded with points by implementing CO2-reducing measures. These measures must be justified and approved by Nordic Ecolabelling. Approved measures include those introduced in the past or planned to be introduced before the event.

3.6 Biodiversity

Background to requirement O13 Biodiversity impact assessment and mitigation plan

Biodiversity deteriorates rapidly, and changes in land use result in limited habitats, overexploitation of plants and animals, climate change, pollution and foreign, invasive species. ¹⁹, ²⁰ The UN's Sustainable Development Goal 15 deals specifically with biological diversity and states that the world must reduce the deterioration of habitats, stop the loss of biodiversity, and prevent the extinction of endangered species. ²¹

All outdoor venues need to have a plan, how to reduce and cleanup littering.

Venues which take place in outdoor areas have an impact on the local biodiversity. The venue must therefore have a plan for biodiversity protection and impact mitigation for the event which have been conducted prior to the event. Since there is a big difference in types of events and inclusion of outdoor areas, the requirements only comply to events with gardens/outdoor urban areas, outdoor venues or venues with garden areas, larger than 10000 m².

The plan shall include a description of biodiversity and habitats present on and surrounding the event site, identify potential impacts on the biodiversity and the habitats, recommendation on how to mitigate these impacts and finally description of measures which are done prior/under/after the event to mitigate damage on local biodiversity. The use of lighting and sound during the event has a negative impact on local wildlife²² and should therefore be assessed in the plan. In this context fireworks must be avoided near sensitive areas, because they pose significant risks to wildlife and pets due to loud noises and littering

¹⁷ Hotels and other accommodation, version 5. https://www.nordic-swan-ecolabel.org/criteria/hotels-and-other-accommodation-055/

¹⁸ Hooper J. 2014; A destination too far? Modelling destination accessibility and distance decay in tourism https://link.springer.com/article/10.1007/s10708-014-9536-z

¹⁹ <u>Biodiversity — European Environment Agency (europa.eu)</u>

²⁰ https://www.nordic-swan-ecolabel.org/nordic-ecolabelling/environmental-aspects/sustainable-raw-materials-biodiversity/biodiversity/

²¹ Goal 15 | Department of Economic and Social Affairs (un.org)

²² https://www.horizon-europe.gouv.fr/impact-light-and-noise-pollution-biodiversity-33217

when scattered fragments of paper, plastic and metal fall to the ground after the firework explode^[1]. Fireworks also can cause fire hazards and release harmful chemicals like potassium nitrate, strontium nitrate, and barium, causing air and water pollution. Pyrotechnic and light shows are better for the environment than fireworks because they don't involve explosive materials, minimizing fire hazards, and generate little to no waste, unlike fireworks. They also are much quieter, produce less emissions and reduce air pollution, which lowers noise pollution and stress on people and animals.

Existing biodiversity impact assessment plans done by the venue or the landowner for the specific site may be used as documentation.

3.7 Food and beverage

Background to requirement O14 Information to guests

Achieving the UN Sustainable Development Goals requires a transition to more sustainable food and farming systems that maintain ecosystems, are better adapted to climate change, and improve soil quality²³. Third-party certification of raw materials and organic farming²⁴ is therefore important for documenting more sustainable production.

To accommodate guests' wishes and needs, it is beneficial to have clear communication about what food and drinks are being served, so that guests can make their choice on an informed basis and appetite.

Background to requirement O15 Organic food, and O16 Organic beverage

Achieving the UN Sustainable Development Goals requires a transition to more sustainable food and farming systems that maintain ecosystems, are better adapted to climate change, and improve soil quality²⁵. Organic farming is one way to achieve this²⁶. Therefore, Nordic Ecolabelling is working to increase the proportion of organic food. See Nordic Ecolabelling webpage for more info²⁷.

Organic farming places an emphasis on ecological balance, local eco-cycles and ecological, economic and social sustainability over the long term²⁸. Organic methods increase biodiversity and thus help to maintain the ecosystem services on which agriculture depends²⁹. The UN's nature panel IPBES also advocates organic farming as a system for

²³ 8 UN, 'UN Sustainable Development Goals' www.FN.no/Om-FN/FNs-baerekraftsmaal (07.12.2022)

²⁴ 2 Eyhorn F, Muller A, Reganold JP, Frison E, Herren HR, Luttikholt L, Mueller A, Sanders J, Scialabba NEH, Seufert V, Smith P (2019) Sustainability in global agriculture driven by organic farming. Nature Sustainability 2:253–255. https://doi.org/10.1038/s41893-019-0266-6

²⁵ UN, 'UN Sustainable Development Goals' www.FN.no/Om-FN/FNs-baerekraftsmaal (07.12.2022)

²⁶ Eyhorn F, Muller A, Reganold JP, Frison E, Herren HR, Luttikholt L, Mueller A, Sanders J, Scialabba NEH, Seufert V, Smith P (2019) Sustainability in global agriculture driven by organic farming. Nature Sustainability 2:253–255. https://doi.org/10.1038/s41893-019-0266-6

²⁷ https://www.nordic-swan-ecolabel.org/nordic-ecolabelling/environmental-aspects/sustainable-raw-materials-biodiversity/organic-farming/

Arbenz M, Gould D, Stopes C (2016) Organic 3.0 – for truly sustainable farming and consumption, IFOAM Organics International, Bonn and SOAAN, Bonn. www.ifoam.bio/sites/default/files/organic3.0_v.2_web_0.pdf
 Dainese M et al. (2019) A global synthesis reveals biodiversity-mediated benefits for crop production. Science Advances 5(10) eaax0121. https://doi.org/10.1126/sciadv.aax0121

promoting biodiversity and ecosystem functions³⁰. The UN's climate panel IPCC points out that organic farming can contribute to sustainable land management³¹.

Sales of organic food and beverage have risen steadily in recent years across the Nordic region. However, there are major differences between the countries due to e.g., various political strategic initiatives, trends and demand, plus price versus profitability. Finland and Norway have seen a strong percentage growth in organic food in recent years but are still a long way behind Sweden and Denmark. Denmark has led the way in organic sales per person^{32,} while Sweden has led the way in switching to organic farming and is also the best in the Nordic region at public sector procurement. ³³ Catering services with a higher proportion of organic food and drink are rewarded in requirement.

Denmark has as the only Nordic country a specific legislation for organic food at large-scale kitchens and occasional events. Due to this legislation the requirement for organic food and the documentation are different for catering services in Denmark, who doesn't produce all the food at the event area.

Background to requirement O17 Vegetarian dish

Vegetarian products generally have a lower climate footprint and requires significantly less energy and land to generate the same amount of protein and energy, compared to meat production³⁴.

Agriculture and forestry account for almost a quarter of the world's greenhouse gas emissions and cause a great amount of damage to and depletion of the planet's resources. A new report³⁵ from the UN's climate panel states that we need to implement radical changes to make agriculture more sustainable. They recommend, for example, that we change how we produce food, manage land and eat. The recommendation is to switch to a more plant-based diet, which will also reduce greenhouse gas emissions. Nordic Ecolabelling wishes to see Nordic Swan Ecolabelled events offering guest vegetarian meals, as well as the catering services contributing to the demand for plant-based food.

If one catering service only serves meat or fish, this can be compensated by additionally having one catering service that only serves vegetarian food. A catering provider with

³⁰ IPBES (2019) Summary for policy makers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. https://ipbes.net/sites/default/files/inline/files/ipbes_global_assessment_report_summary_for_policymakers.pdf
³¹ IPCC (2020) Summary for policy makers. In: Climate Change and Land: an IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems. www.ipcc.ch/site/assets/uploads/sites/4/2020/02/SPM_Updated-Jan20.pdf
³² Bioforsk Report Vol. 9 Nr.139 2014 Økologisk mat i de nordiske landene - tilgang på råvarer og faktorer som påvirker omsetning av økologisk mat, 2014, HYPERLINK

[{]https://orgprints.org/id/eprint/30184/1/BIOFORSK%20RAPPORT_9_139_2014%20%C3%98kologisk%20mat%20i%20de%20nordiske%20landene.pdf}

³³ EKOMATCENTRUM MARKNADSRAPPORT Ekologiskt i offentlig sektor 2019, http://ekomatcentrum.se/wp-content/uploads/2019/06/Rapport-Marknadsrapport-EMC-2019-2.pdf

³⁴ Lagerberg-Fogelberg. 2008. På väg mot miljöanpassade kostråd- vetenskapligt underlag inför miljökonsekvensanalysen av Livsmedelsverkets kostråd. Report, 2008:9. Swedish National Food Agency, and Röös. 2012. Köttguiden 2012 – kloka val för miljö och djurvälfärd Utkast 2012-10-10. Swedish University of Agricultural Sciences (SLU).

³⁵ IPCC Special Report on Climate Change, Desertification, Land Degradation, Sustainable Land Management, Food Security, and Greenhouse gas fluxes in Terrestrial Ecosystems. 2019. Chapter 5.

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multiple outlets can meet the requirement at one outlet, if information is available at the

location indicating where a vegetarian option can be found. Note that points for additional vegetarian food is included in requirement O21 Responsible food and drink production.

Background to requirement O18 Prohibited and restricted fish and seafood

Marine ecosystems are threatened by overfishing, eutrophication, pollution and climate change. The fact that many fish stocks are overfished affects not only the individual stocks, but whole ecosystems. According to the UN's nature panel IPBES, overfishing is the key cause of diversity loss in the oceans.³⁶ This is followed by changes to land use. In freshwater, the order is reversed. To avoid use of the most endangered species of fish and shellfish and species that are produced in a not particularly eco-friendly way, Nordic Ecolabelling has drawn up a list of species that cannot be served:

Tropical prawns. These are not on the IUCN's list but must not be served because their fishing and farming causes major environmental problems, such as destruction of mangrove forests. ^{37,38} Mangrove forests are highly productive ecosystems that are home to a huge number of species of fish, shellfish and other animals. They also protect the coasts against flooding and erosion.

Species categorised as critically endangered (CR) or endangered (EN) on the red list of the International Union for Conservation of Nature (IUCN)³⁹. Several of the species are also on the OSPAR list of threatened and/or declining species. There is a ban on serving any species of shark or skate, even though not all of them are endangered, since there is a great deal of incorrect labelling.

Species categorised as critically endangered (CR) or endangered (EN) on the official red list of the country in which they are fished. Finland, Norway and Sweden have national red lists for both saltwater and freshwater fish, Denmark has a red list only for freshwater fish, and Iceland has no red list.

Fish and shellfish may in some cases come from sustainable fisheries or farms. For these species to be served, their sustainable production must be documented. They must therefore be certified with standards that meet Nordic Ecolabelling's Guidelines for assessing sustainability labelling of fish and shellfish e Appendix 4. Nordic Ecolabelling currently approves the MSC standard, but not ASC.

An exception is made in Iceland for traditional serving of the shark species Somniosus microcephalus and the skate species Dipturus batis/Raja batis and Raja amblyraja radiata, because these are traditional dishes served on one day of the year. The shark is served in February and the skate on 23 December. In total, 8 tonnes of the shark species, 145 tonnes of the skate species Raja batis and 614 tonnes of the species Raja amblyraja radiata are caught each year.⁴⁰

³⁶ IPBES (2019) Summary for policymakers of the global assessment report on biodiversity and ecosystem services. www.ipbes.net/global-assessment-report-biodiversity-ecosystem-services (15.08.2019)

³⁷ Thomas N, Lucas R, Bunting P, Hardy A, Rosenqvist A, Simard M (2017) Distribution and drivers of global mangrove forest change, 1996–2010. PLoSONE 12(6): e0179302. https://doi.org/10.1371/journal.pone.0179302 ³⁸ Richards DR, Friess DA (2016) Rates and drivers of mangrove deforestation in Southeast Asia, 2000–2012. PNAS 113(2):344–349. https://doi.org/10.1073/pnas.1510272113

³⁹ https://www.iucnredlist.org/

⁴⁰ Statistics Iceland: https://statice.is/statistics/business-sectors/fisheries/catch/

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Background to requirement O19 Certified coffee, and tea

The cultivation and production of coffee and tea has a huge effect the environment and nature. E.g., coffee is ranked as number five on the list of the most climate-impacting raw materials in our food system per kg, after steak, chocolate, and lamb, among other things. Coffee is also number six on the list of raw materials that require the most farmland⁴¹. In addition, coffee production is one of the leading (7–8) reasons for deforestation worldwide⁴², and therefore regulated by the EU deforestation regulation⁴³.

Achieving the UN Sustainable Development Goals requires a transition to more sustainable food and farming systems that maintain ecosystems, are better adapted to climate change, and improve soil quality⁴⁴. Third-party certification of raw materials and organic farming⁴⁵ is therefore important for documenting more sustainable production. There are several different certification schemes for coffee and tea, each of which focuses on one or more factors during the cultivation and production of the raw materials. Some impose a ban on synthetic pesticides and fertilisers, and/or have requirements concerning the introduction of sustainable agricultural practices, working conditions, procedures, monitoring, improvements, prices, and so on.

Nordic Ecolabelling promotes organic labelling, as such labelling schemes prohibit synthetic pesticides and fertilisers, and organic farming practices increase biodiversity. Rainforest Alliance and Fairtrade standards are not as strict in their environmental requirements as the organic labelling schemes. However, since coffee is a special commodity in terms of production locations and climate and social challenges, we also support the Rainforest Alliance and Fairtrade certification schemes, which contribute positively to the improvement of the coffee industry in general via several important social and environmental requirements. Organic labelling refers to the labelling schemes that mainly drive production in the desired direction from an environmental perspective.

Nordic Ecolabelling wishes to set an exemption from the requirement concerning certification if coffee and tea is purchased through direct trade. Direct trade involves purchasing raw materials directly from the farmer/coffee farm. The purchaser must ensure the traceability of the raw materials back to the farmer. By trading directly with the farmers, the purchaser can help to ensure that social and environmental conditions are controlled, managed and taken care of by the farmers.

The certification requirement is set to 80% to ensure flexibility. If the catering service serves 100 % certified, this will be rewarded with a point in.

Nordic Ecolabelling often get question about how the requirements ensure fulfilment of the EU Regulation on Deforestation-free Products (EUDR) legislation. Nordic Ecolabelling is closely following the implementation of the EUDR legislation and the different certification

⁴¹ PLATFORM ON SUSTAINABLE FINANCE: TECHNICAL WORKING GROUP PART B – Annex: Technical Screening Criteria, March 2022

⁴² Wedeux B, Schulmeister-Oldenhove A (2021): STEPPING UP? THE CONTINUING IMPACT OF EU CONSUMPTION ON NATURE WORLDWIDE

⁴³ https://green-business.ec.europa.eu/deforestation-regulation-implementation en

⁴⁴ 8 UN, 'UN Sustainable Development Goals' www.FN.no/Om-FN/FNs-baerekraftsmaal (07.12.2022)

⁴⁵ 2 Eyhorn F, Muller A, Reganold JP, Frison E, Herren HR, Luttikholt L, Mueller A, Sanders J, Scialabba NEH, Seufert V, Smith P (2019) Sustainability in global agriculture driven by organic farming. Nature Sustainability 2:253–255. https://doi.org/10.1038/s41893-019-0266-6

schemes work in adapting their standards to secure EUDR alignment. Since implementation of the legislation is not yet fully in place, Nordic Ecolabelling has not yet decided on how or even if we are to require compliance with the law at all. Certification schemes could be used as an important tool in the risk assessment procedure of EUDR, but certification alone does not ensure compliance with the EUDR legislation.

Background to requirement O20 Palm oil in frying oil

Different products have different effects, and Nordic Ecolabelling has a particular focus on palm oil. The establishment of palm oil plantations is one of the main causes of rainforest destruction, which threatens the living conditions of indigenous people, plants and animals. The rainforests are particular important for biodiversity, since they are the most species-rich ecosystems on the planet. Cutting down rainforest is also a serious threat to Earth's climate. Other environmental problems relating to palm oil are the use of toxic substances in production, air pollution when burning native forest, soil erosion and sedimentation in rivers and watercourses, and discharges of wastewater from the palm oil mills. Palm oil production is also associated with social issues, including the risk of workers' rights being violated.

Frying oil is a product that food services often use in large quantities. To reduce the use of palm oil, Nordic Ecolabelling prohibits the content of palm oil in frying oil.

Nordic Ecolabelling has assessed the Roundtable on Sustainable Palm Oil's (RSPO) standard for sustainable palm oil production and judges that it does currently not fully satisfy our requirements concerning sustainability standards, since it does not give sufficient protection to biological areas and biodiversity. Nordic Ecolabelling therefore wishes to set as strict a requirement as possible concerning palm oil, where there are alternatives to its use.

Background to requirement O21 Responsible food and drink production

Production of food and beverage is a significant source of the climate and biodiversity impact of the event. Nordic Ecolabelling has listed different reducing measures, and reward several actions, where the most efficient measures give the most points.

The applicant must achieve at least 3 points in the list by documenting measures they have already implemented, or plan to carry out, before the event is happening.

Overall, these measures contribute to a more sustainable, event, benefiting both the quests and the environment. Every event is different and there are several ways to work with sustainable food and beverage. Points are awarded according to the size/impact of the initiative.

Locally produced food: Several environmental factors support the promotion of locally produced food in the Nordic region, although not all of them apply to all production in every Nordic country. Much of the region's biodiversity can be found on farmland. Local food production helps to maintain the cultural landscape and to increase the diversity of wild species, habitats and cultivated plants⁴⁶, as well as it contributes to shorter transportation distances. Ecosystem services are retained, and the farming becomes more robust. Sales to

⁴⁶ Charlotte Lagerberg Fogelberg, På Väg Mot Miljöanpassade Kostråd. Vetenskapligt Underlag Inför Miljökonsekvensanalysen Av Livsmedelsverkets Kostråd (Swedish National Food Agency) .

local markets can encourage farmers to produce a greater variety of crops⁴⁷. With fruit and vegetables, particularly potatoes and other root vegetables, transport accounts for a large proportion of the environmental impact over their life cycle. Use of local, seasonal produce means that less energy is used, and greenhouse gas emissions are lower⁴⁸. When it comes to meat, transport makes up only a small part of the overall environmental impact, but the Nordic region and Europe generally have low carbon emissions per kilo of protein produced, compared with other regions⁴⁹.

Vegetarian dish: See O17.

Fish: Marine ecosystems are threatened by overfishing, eutrophication, pollution and climate change. The fact that many fish stocks are overfished affects not only the individual stocks, but whole ecosystems. According to the UN's nature panel IPBES, overfishing is the key cause of biodiversity loss in the oceans. ⁵⁰ Organic and MSC certified fish and seafood as well as government approved labels such as "Naturskånsom" are all label schemes that support methods for environmentally sustainable fishing.

MSC-labelled fish: See O18.

Organic Food: See O15 and O16.

Coffee and tea: See O19.

GMO: Genetically modified organisms (GMO) are a much-debated topic and many countries have banned the cultivation of GM crops. The themes of the debate include food safety, land use, lack of scientific knowledge about the effects of GM crops under local agricultural/forestry conditions and the risk of negative impacts on health and the environment. Nordic Ecolabelling applies the precautionary principle and bases its decisions on regulations that take a holistic approach to GMO. This means that sustainability, ethics and social benefit are weighed up together with health and the environment. Nordic Ecolabelling is not, in principle, against gene technology and GMO, but is concerned about the consequences of genetically modified plants, animals and microorganisms spreading in nature⁵¹.

3.8 Resource efficiency

Background to requirement O22 Waste sorting for guests

A well-planned event may generate less waste. The event organizer shall plan the event with a goal to minimize waste, and waste sorting of the generated fractions is crucial as it helps

⁴⁷ Johanna Björklund and others, 'Local Selling as a Driving Force for Increased On-Farm Biodiversity', Journal of Sustainable Agriculture, 33.8 (2009), 885–902 .

⁴⁸ Valérie Masson-Delmotte and others, Climate Change and Land. An IPCC Special Report on Climate Change, Desertification, Land Degradation, Sustainable Land Management, Food Security, and Greenhouse Gas Fluxes in Terrestrial Ecosystems (IPCC, 2019)

⁴⁹ P.J. Gerber and others, Tackling Climate Change through Livestock. A Global Assessment of Emissions and Mitigation Opportunities (Food and Agriculture Organization of the United Nations (FAO), 2013).

⁵⁰ IPBES (2019) Summary for policymakers of the global assessment report on biodiversity and ecosystem services. <u>www.ipbes.net/global-assessment-report-biodiversity-ecosystem-services</u> (15.08.2019)

⁵¹ https://www.nordic-swan-ecolabel.org/nordic-ecolabelling/environmental-aspects/sustainable-raw-materials-biodiversity/gmo/

reduce resource consumption by enabling the recycling of materials. The waste sorting system in the Nordic countries is highly efficient and well-established. EU's Waste Framework Directive "sets the basic concepts and definitions related to waste management, including definitions of waste, recycling and recovery" Prevention is the highest level in the hierarchy. Nordic Ecolabelling therefore requires that the event shall be planned to minimize waste generation and ensure material recycling of the fractions that arises. At least four waste fractions must be available for the event, unless the waste reduction plan shows that fewer waste fractions are sufficient. The sorting options must be clearly visible in several places and sufficient frequency of emptying the bins must be ensured. The aim is to plan the event well to prevent waste, and encourage/nudge guest to sort correctly, to ensure the highest possible degree of recycling.

Background to requirement O23 Waste sorting for staff suppliers and cleaning services

Waste will typically be generated both before, during and after the event, and sorting is crucial as it helps reduce resource consumption by enabling the recycling of materials. Nordic Ecolabelling sets strict requirements for the availability of waste sorting fractions to staff, suppliers and cleaning services to ensure that the companies focus on recycling. Sorting fractions available shall be based on an internal analysis of the generated waste types. The aim is to encourage correct sorting of the fractions that are generated, to ensure the highest possible degree of recycling and reuse.

There are considerable national, and regional differences in the fractions that the different waste management contractors accept.

Background to requirement O24 Serving in restaurants with seating

Events with restaurants in separate areas with seating, where guests don't take away the food have good alternatives to the use of disposable items in serving situations⁵³, and Nordic Ecolabelling therefore requires all tableware to be reusable and does not permit selected small single portion items. The aim of the requirement is to reduce the consumption of disposable items and save resources as disposable items are often unnecessary, and often only used a few minutes. The ban on individual portions of butter, ketchup etc. is in line with the objectives of the recently published Packaging and Packaging Waste Regulation (PPWR)⁵⁴ and preparing actors for future legislation. According to the Article 25 in the PPWR, single use plastic packaging for condiments, preserves, sauces, coffee creamer, sugar in HORECA sector shall be restricted from January 2030 (Annex V).

Background to requirement O25 Serving of take away

Nordic Ecolabelling wishes to promote use of reusables in serving of beverages and food for take away because reusable systems often show environmental benefits over single-use

⁵² Waste Framework Directive - European Commission

⁵³ Sinkko, T., Amadei, A., Venturelli, S., Ardente, F. 2024; Exploring the environmental performance of alternative food packaging products in the European Union, Life cycle impacts of single-use and multiple-use packaging <u>JRC136771_01.pdf</u>

⁵⁴ Regulation - EU - 2025/40 - EN - EUR-Lex

systems⁵⁵. Environmental impact of reusables is mainly related to number of rotations, transport, production and end-of life⁵⁶. Reusables are currently evolving on the market, due to the reuse and refill obligations set in the recently published Packaging and Packaging Waste Regulation (PPWR). By setting requirements for reusables, Nordic Ecolabelling prepares licensees for future legislation.

The use of reusables cups is not the best option for every event, due to the limited number of market players who distribute and wash reusables. Logistical challenges may arise, and the environmental benefits diminish with increased transport distances. Life-cycle analysis comparing single-use contra multiple use is not always unambiguous⁵⁷. Nordic Ecolabelling therefore permits disposable items made of selected raw materials, and allows the use of rPET when serving beverages, bio-based plastic that can be recycled in current recycling systems, Nordic Swan Ecolabelled cups and bottles/cans in deposit return systems. PET is made from raw materials like oil and natural gas, which are non-renewable resources. rPET is produced by recycling PET products and reduces the need for new raw materials. The production of rPET generally requires less energy compared to producing new PET from raw materials.⁵⁸

Products made of bio-based plastics that can be recycled in current recycling systems in Nordics are permitted. Bioplastics like PLA, which can be compostable or degradable, cannot always be recycled with current recycling systems. EN 13432 ensures that packaging products can break down under industrial composting conditions. Therefore, composting facilities must have controlled temperature, humidity, and air supply to ensure effective composting of these materials. PLA is allowed to use if it is broken down under industrial composting conditions, and if the event organizer have an agreement with a partner to reuse the compost for soil improvement. This is required because in some cases PLA causes issues with existing recycling processes degrading the quality of the recycled plastic. Most biogas facilities do not want bioplastics in their systems because they cause problems and end up being sorted out of the process as reject. There are a few industrial compost facilities that can handle these products, but not enough to cover the Nordic market. PLA can be recycled, but only through specialized processes, and there are some challenges associated with it. So, to be allowed to use in an ecolabelled event it alternatively must be documented that it can be recycled in a closed loop.⁵⁹

For both bio-based and compostable packaging, requirements are set in the PPWR. Commission will study technical and environmental performance of bio-based plastics in the future (Article 8). For compostable packaging there are principles and compostable is restricted to certain product types such as tea bags etc. (Article 9). According to Article 9, the use of packaging from biodegradable materials shall be designed for material recycling in accordance with Article 6, without affecting the recyclability of other waste streams, by 12

⁵⁵ European Commission: Directorate-General for Environment, Gionfra, S., Pollitt, H., Stenning, J., Fazekas, D. et al., *Links between production, the environment and environmental policy*, Publications Office,

⁵⁶ Resuable vs single-use packaging – A review of environmental impacts" Coelho M. P, et al 2020. Reloop Platform & Zero Waste. Europe.zwe_reloop_report_reusable-vs-single-use-packaging-a-review-of-environmental-impact_en.pdf.pdf_v2.pdf

⁵⁷ Sinkko, T., Amadei, A., Venturelli, S., Ardente, F. 2024; Exploring the environmental performance of alternative food packaging products in the European Union, Life cycle impacts of single-use and multiple-use packaging JRC136771 01.pdf

⁵⁸ Understanding the Differences Between PET& rPET Plastic

⁵⁹ Is PLA Actually Recyclable? - greenprint

February 2028. Nordic Ecolabelling is following delegated acts in the PPWR and reserve the right to change the requirement for PLA when delegated acts are validated. An appropriate transition period would be granted.

When serving food, use of reusable tableware, Nordic Swan Ecolabelled products, and tableware made from renewable sources such as paper, cardboard, bagasse and palm leaves etc is allowed. There are many suitable products available on the market for serving food made of renewable materials.

The event organizer shall have routines for ensuring a collection system, securing collection, reuse and recycling of all the different take away packaging materials.

There are several exceptions to the requirement to make it practically feasible for an event. Lids used on prepacked food and beverages *e.g.* a salat bowl are exempted, as also small cups under 25 ml. Selection of rPET products are limited in this size. Plastic may also be used in cardboard/paper products as a laminate or plastic windows, for example in a baguette bag as a film. In such cases the plastic will still be sorted and sent for incineration, as the situation is today. Products with plastic windows are, however, relevant for use where the food should be visible.

Single-use plastic plates, single-use plastic cutlery, plastic straws, plastic stirrers, plastic balloon sticks, cups and containers for food and drinks made of expanded polystyrene (EPS), all products made of oxo-degradable plastic are banned due to EU rules on single-use plastics⁶⁰, and are therefore not mentioned in the requirement. The EU Directive on the reduction of the impact of certain plastic products on the environment entered into force on 3 July 2021, and the requirement concerning cutlery, drinking straws, cocktail sticks and toothpicks in plastic is governed by the directive (Article 5, part B of the Annex).

Background to requirement O26 Decorations, giveaways and confetti

Nordic Ecolabelling sets strict requirements to decoration, giveaways and confetti, because single use products and disposable items are used for a very short period of time, and production of these items consumes valuable resources and energy, exacerbating their environmental footprint. Decorations that must be reused or upcycled includes floral arrangements (besides cut flowers), tablecloths, decorative pieces, LED candles and furniture. Other decorations must be reused, upcycled or recycled.

Plastic confetti used outside is nearly impossible to clean up completely. For outdoor events this problem is increased since it often ends up in waterways, where it can be ingested by marine life.

To reduce the environmental impact, it is important to consider more sustainable alternatives. For instance, reusable products can significantly cut down on waste and carbon emission. Biodegradable confetti made from materials like paper or dried leaves offers a festive option without the environmental harm that metal and plastics do.

Background to requirement O27 Food waste

Food waste that is fit for human consumption is a significant problem all over the world, with around a third of all the food produced ending up in the bin.⁶¹ Food waste presents a

⁶⁰ EU restrictions on certain single-use plastics - European Commission

⁶¹ Food and Agriculture Organization of the United Nations, FOA: http://www.fao.org/savefood/resources/keyfindings/en/

challenge to the climate and the environment, commercial profitability and social ethics. Food waste has moved further into the spotlight in recent years, and relevance and potential are high, with medium steerability, all depending on the type of food being served.

Food waste is ethically indefensible, bad for the environment and makes little financial sense for business. The aim of reducing food waste is incorporated in the UN Sustainable Development Goals (SDG), with Goal 12.3 expressing a target to halve food waste per person by 2030. All the Nordic countries are committed to this target. Food waste is already a priority theme in the catering service industry. Nordic Ecolabelling therefore requires a food waste reduction policy.

Background to requirement O28 Purchase of printed matter and tissue paper

Nordic Ecolabelling requires that the event organizer is purchasing ecolabelled products for printed matter. This is only relevant for the products the event organizer is responsible of the purchase for. The event organizer has less steerability for posters and handouts, that are delivered by for example artists, exhibitors or sponsors.

All toilet paper, kitchen rolls and paper towels, used at the event shall be ecolabelled, as these have a lower environmental impact compared with non-ecolabelled purchases.⁶²

That is why we require that event organizer, venue, supplier for hygiene stations, and portable toilets shall provide the event with ecolabelled tissue paper.

Nordic Ecolabelling's environmental requirements for tissue paper, including napkins and kitchen towels, cover everything from forestry and the choice of raw materials to low energy consumption and low carbon emissions, emissions to air and water and control of the use of chemicals and eutrophying and acidifying substances such as sulphur and nitrogen oxides. Labelling only with the PEFC or FSC logo is not sufficient, however, as these labels only cover the forest raw material. Paper labelled with the Nordic Swan Ecolabel, or the EU Ecolabel ensures that, as well as the forest raw material being sustainable, the manufacturing process has low emissions to air and water. It is manufactured with efficient energy use and a limited amount of chemicals. "Tissue paper" in this requirement includes toilet paper, kitchen rolls and paper towels. In Finland ecolabelled towel rolls are commonly used instead of paper towels.

Background to requirement O29 Measures for resource efficiency

The use of resources at an event has a significant climate impact. Nordic Ecolabelling has listed different reducing measures, and reward actions, where the most efficient measures give the most points.

The applicant must achieve at least 2 points in the list by documenting measures they have already implemented, or plan to carry out, before the event is happening.

Overall, these measures contribute to a more sustainable, event, benefiting both the guests and the environment.

Banners, carpet and walls: By reusing these materials, prevents them from ending up in landfills, significantly reducing the amount of waste generated. Reusing means less demand

⁶² https://environment.ec.europa.eu/topics/circular-economy/eu-ecolabel/about-eu-ecolabel en

03 June 2025

for new raw materials, which reduces the environmental impact of manufacturing new items. It supports the principles of a circular economy.

Ecolabelled napkins and kitchen towels: See background to the Nordic Ecolabelling criteria "Tissue Paper and Tissue Products".

Gifts and medals: Using materials for gifts and medals such as wood, cardboard, recycled materials, reflects a growing commitment to environmental responsibility. This approach helps reduce waste, lower carbon footprints, and promote the use of renewable resources. Upcycled products are items created by transforming waste materials, byproducts, or unwanted items into new products of higher quality or value. This process aims to give new life to materials that would otherwise be discarded and minimizes the need for new raw materials.

Flowers: Fair Trade certified flowers ensures that the products are ethically sourced, supporting fair wages and safe working conditions for farmers. Also locally produced flowers and totally avoiding cut flowers will give point, because the environmental impact flower production and transportation.

The cultivation of cut flowers typically involves the use of pesticides and fertilizers, which can contaminate soil and water sources. ⁶³ This is the reason why the use of "no flowers" is rewarded. Additionally, many flowers are grown in regions with scarce water resources. ⁶⁴ In addition, the transportation of cut flowers, often over long distances, results in significant carbon emissions.

Instead of cut flowers, reusable artificial flowers, potted plants or locally grown flowers can be a more sustainable choice, as they often require fewer resources and have a longer lifespan.

No giveaways: Not providing giveaways at events reduces waste and minimizes environmental impact by decreasing the production, transportation, and disposal of materials, thereby lowering the event's overall carbon footprint.

Different size of meal portions: Offering food portions in different sizes helps reduce food waste and the environmental impact of catering services. By allowing guests to choose portion sizes that match their appetite, less food is discarded, which saves resources and lowers the carbon footprint associated with food production and disposal.

Tap water: Water bottled off-site has a significantly larger climate and environmental footprint compared with the same amount of water from the tap. Tap water ensures savings on materials for packaging and bottles, plus energy and emissions from production and transport. The water supply in the Nordic region is safe, fresh and pleasant, so it is basically unnecessary to buy bottled water, if tap water is available for all guest at the event. Tap water shall be available for all participants throughout the event and guest and suppliers must be clearly informed about the location.

⁶³ <u>Center for Agriculture, Food, and the Environment</u>: Soil Fertility for Field-Grown Cut Flowers; <u>Greenhouse & Floriculture</u>: Soil Fertility for Field-Grown Cut Flowers | Center for Agriculture, Food, and the Environment at UMass Amherst

⁶⁴ Gelaye Y. 2022; The status and natural impact of floriculture production in Ethiopia: a systematic review: <u>The status and natural impact of floriculture production in Ethiopia: a systematic review | Environmental Science and Pollution Research</u>

Reuse of water: Using a rainwater tank or reuse water from sinks or showers for toilet flushing helps reduce the consumption of municipal water. Additionally, it can lead to lower water bills and support sustainable water management.

Own measure: The event organizer is rewarded with points by implementing resource efficiency measures. These measures must be justified and approved by Nordic Ecolabelling. Approved measures include those introduced in the past or planned to be introduced before the event.

3.9 Cleaning products

Background to requirement O30 Ecolabelled cleaning products

Chemical consumption has an influence on the environmental impact of the event. A large amount of chemicals is used when cleaning up after the event, particularly events with large catering services/restaurants and associated with dishwashing. The environmental impact can be reduced by using ecolabelled chemicals that contain minimal amounts of undesirable ingoing substances, and by dosing correctly. The requirements concerning cleaning products therefore focus on general cleaning and dishwashing.

Background to requirement O31 Prohibited products

"Chemical-free cleaning" has become more popular in recent years, and ozone water is one of many competitors. The idea of producing ozone in water become popular in 2010 in the Nordic countries. Ozonized water is produced by infusing water with ozone gas. Ozone itself is a toxic gas and dangerous to humans even at low concentrations. According to the adopted opinion from the European "Committee for Risk Assessment", RAC, the following harmonized classifications should apply to ozone⁶⁵: Muta. 2 H341 Suspected of causing genetic defects, and Carc. 2 H351 suspected of causing cancer, Acute Tox 2 H330 fatal if inhaled, STOT SE 2 H370 causes damage to organs, STOT RE 1 H372 causes damage to organs through prolonged and repeated exposure, Aquatic Acute 1 H400 very toxic to aquatic life, Aquatic Chronic 1 H410 very toxic to aquatic life with long lasting effects, and Ox. Gas 1 H270 may cause or intensify fire, oxidiser.

The Finnish Institute for Health and Welfare (THL) does not recommend the use of ozone water produced at home from household water and have several concerns about the use.⁶⁶

Nordic Swan Ecolabelling has decided to ban the use of ozone water at events, due to the health issues of ozone, which are evident from the classifications. It is a concern that occupational exposure limit values can be exceeded when the product is produced, in addition to the gas's high reactivity and possible harmful reaction products.

Organic and reactive chlorine compounds, such as sodium hypochlorite, are ingredients used in disinfectant and antibacterial products. The ingredients may be toxic or lead to the formation of toxic non-degradable bio accumulative substances. Based on this, Nordic Ecolabelling has decided to ban these ingredients in disinfectants.

⁶⁵ RAC Opinion proposing harmonised classification and labelling at EU level of ozone, March 2023: https://echa.europa.eu/documents/10162/e0d136d8-50af-00b6-2795-1207b902072f

⁶⁶ Käykö otsonivesi pintojen tai ihon desinfiointiin? THL, 2023

Electrochemically activated water (ECA water) is often marketed as harmless and consisting only of water and salt. This does not imply accuracy. The product is produced at the user's site by sending electricity through the salt water, which causes the formation of hypochlorite. ECA water can also increase the use of disinfectants in areas where there is no real need for disinfection, which can contribute to the development of resistance in microorganisms. Nordic Ecolabelling therefore does not allow the use of ECA water at Nordic Swan Ecolabelled events.

Background to requirement O32 Water, toilets, and hygiene stations

Nordic Ecolabelling requires that toilets and hygiene stations comply with specific environmental standards because it is crucial for promoting sustainability and hygiene at events. Using ecolabelled cleaning products for toilets guarantees that the cleaning process minimizes harmful environmental impacts.

Similarly, providing ecolabelled hand soap at hygiene stations ensures that attendees use products that are environmentally friendly and effective. Allowing hand disinfectant is to secure good hygiene, particularly important in maintaining health standards.

Requiring that 100% of purchased toilet paper and paper towels be ecolabelled further supports sustainable practices.

Using portable toilets with vacuum flushing options or those with a maximum consumption rate of 4 litres water per flush is an effective way to conserve water. These toilets are designed to use minimal water while maintaining hygiene standards, contributing to water conservation efforts.

Finally, reusing water pipes connecting all water stations at the event promotes resource efficiency. This applies to e.g. drinking water, catering suppliers, portable toilets and hygiene stations connected to the water network or water tanks after the event. This practice reduces waste and supports a circular economy, where materials are reused and recycled whenever possible.

3.10 Legal obligations and working conditions

Background to requirement O33 Legal obligations

The event producer applying for the Nordic Swan Ecolabel for an event must meet all requirements set by the authority and comply with all laws applicable to the relevant event.

For example, the organizer must comply with all laws and regulations relating to construction, safety, fire protection and hygiene. The event must not endanger human life and health, and safety must be ensured. The event must not lead to a disturbance of public peace, order and security. National requirements for working conditions and working environment must be met. Nordic Ecolabelling requires a declaration from the organizer to ensure that they have assumed this responsibility.

Background to requirement O34 Volunteer working conditions

Using volunteers in events is very common and plays a crucial role in the success of many types of events. By implementing and adhering to fair principles, organizations can create a supportive and rewarding environment for volunteers, ensuring their contributions are meaningful and impactful.

3.11 Licence maintenance

The purpose of the licence maintenance is to ensure that fundamental quality assurance is dealt with appropriately.

Background to requirement O35 Customer complaints

Nordic Ecolabelling requires that your company has implemented a customer complaint handling system. To document your company's customer complaint handling, you must upload your company's routine describing these activities. The routine should be dated and signed and will normally be a part of your company's quality management system.

If your company does not have a routine for customer complaint handling, it is possible to upload a description of how your company perform these activities. During the on-site visit, Nordic Ecolabelling will check that the customer complaint handling is implemented in your company as described. The customer complaints archive will also be checked during the visit.

4 Environmental impact of Events

The relevant environmental impacts found in the life cycle of Events are set out in a MECO scheme below. A MECO describes the key areas that have impact on the environment and health throughout the life cycle of the product – including consumption of materials/resources (M), energy (E), chemicals (C) and other impact areas (O).

Nordic Ecolabelling sets requirements concerning the topics and processes in the life cycle that have a high environmental impact – also called hotspots. Based on the MECO analysis, an RPS tool is used to identify where ecolabelling can have the greatest effect. R represents the environmental relevance. P is the potential to reduce the environmental impact and S is the steerability on how compliance with a requirement can be documented and followed up. The criteria contain requirements in those areas in the life cycle that have been found to have high RPS, since there is potential to achieve positive environmental gains.

Table 1 MECO scheme

	Raw material	Production	Use	End of life	Transport
Material	Food & drinks: Typical serving per person [14]: Protein: 170-225 g Vegetables: 85-115 g Starch: 115-170 g Salad: 60-85 g Bread: 1-2 slices Dessert: 1 portion Drinks: 2-3 units. Construction items per person [10]: Aluminium truss etc.: 2-5 kg Plastics (cups, chairs): 0.1-0.5 kg PVC banners: 0.05-0.2 kg Modular/re-usable systems cut material demand by 30 45 % in case studies Other per person [15]: Paper: 0.15 kg (UK festival median).		Consumables (cups, textiles, cutlery) 0.2-0.5 kg per person. Single use scenarios rise to 0.5-1 kg per person [9],[10].	Waste generated per person [13].: Food 0.1-0.3 kg Single use items & packaging: 0.3-0.7 kg Residual (unsorted) share: 60-70 % at European festivals.	Freighted materials on site per person 10-15 kg pp [9] Local sourcing trims freight mass up to 30 % [3].
Energy	Food production intensities (CO ₂ e) [2]: Beef: 48-68 kg Pork: 4.4-4.6 kg Poultry: 3.0-4.8 kg Cheese: 1.6-5.4 kg Milk 0.6-4.7 kg Material energies (MJ per kg) [1]: Paper: 5-7 MJ kg Plastics: 70-95 MJ kg Aluminium: 180-250 MJ kg virgin Textiles: 50-80 MJ kg Softwood 8-12 MJ kg	LED fixtures & modular stages cut infrastructure electricity up to 50 % [10].	Electricity 2-10 kwh per m²/day HVAC: 5-15 kWh per 100 guests. Diesel CO ₂ factor 2.68 kg l. Virtual / hybrid formats avoid 80- 92 % of CO ₂ relative to onsite conferences [12].	Plastic incineration: 30 - 40 MJ kg organic waste – low net energy; Electronic waste requires specialised plants [6][9].	Passenger transport: Flights: 0.12- 0.20 kg CO ₂ pkm[8]; Cars (single): 0.12-0.18 kg; Train: 0.011- 0.04 kg. Venue location & timing dominate travel footprint [12].
Chemicals	Agricultural inputs (fertiliser, pesticides); plastic additives (BPA, phthalates); coatings & inks; flame retardants [3][10].	Paint/adhesive VOCs 100-500 g/L ¹ within Directive limits [4].	Cleaning agents (chlorine, phosphates, ethanol). Generator exhaust adds NOx & PM [5].	PVC incineration releases HCI & dioxins; E waste holds heavy metals, strict sorting needed [6].	Diesel freight emits NOx & PM; electric fleets cut local pollutants [8].
Other	Water footprint: • Beef: 15400 L/kg • Cheese: 5 000 L kg ¹ [11]. Land use change: deforestation for feed & grazing.	Site set up may seal soil & disturb wildlife; fossil machinery adds local emissions [10].	Light, sound & crowding stress fauna; micro plastics from textiles & disposables.	Poor clean up multiplies litter; donation & re use schemes halve residual waste in case studies [10].	Traffic congestion & grid load (EV charging). Choice of venue with renewables and public transport options lowers impact [12].

- 1. Ecoinvent v3.8 life-cycle inventory for materials & energy.
- 2. Den Store Klimadatabase (2024) GHG intensities for foods.
- 3. Nordic Swan Ecolabel criteria & background documents (2023).
- 4. EU VOC Directive 2004/42/EC solvent emission limits.
- 5. Joule Case (2022) "Energy & Carbon Impact of Outdoor Events".
- 6. EEA Technical Report 13/2024 "Waste Incineration".
- 7. DEFRA conversion factors 2024 diesel & rail emissions.
- 8. European Environment Agency "Transport and Environment Report 2024" CO₂ per p-km.
- 9. Holmstedt L. (2012) Way Out West LCA case study.
- 10. Reusable-cups & modular-stage LCA (Glastonbury 2020) and similar festival reports.
- 11. Mekonnen & Hoekstra (2012) "Water Footprint of Farm Animals".
- 12. Atescan-Yuksek et al. (2024) "LCA-Based Framework for Impact of Location & Timing" (ResearchGate).
- 13. Green Events Europe (2019) "Waste Streams & Sorting at Festivals".
- 14. International Caterers Association (2023) "Standard Portion Guide".
- 15. WRAP (2018) "Environmental Impact of UK Events Material Flow Baseline".

Table 2 RPS scheme for events

Overall priority	Area and assessment of R, P, S (high, medium or low)	Comments
	R: high P: high S: medium	Relevance: Energy use and CO_2 emissions are high in events. Electricity use was estimated to be 28% of the total CO_2 emissions in the example from a study ÜBER LEBENSKUNST. The overall energy use and CO_2 emissions of events consist of multiple smaller parts and compiled together can constitute a large share on the overall environmental impact of the event.
		Potential to decrease the climate impact is also considered high, as shown in the example from ÜBER LEBENSKUNST ⁶⁷ , where the event could decrease the emissions by 40% by transport related measures.
нен		Steerability of energy use and CO ₂ emissions is considered to medium and depends on the type of event and the event producer's possibility to lower the impact. The event organizer can directly influence the energy use of their own equipment for audio playback, lighting, streaming, batteries/generators etc. ⁶⁸ It is also possible to indirectly impact the energy use by choice of venue, location of the event, accommodation.
Ī		Venues – Some venues are very energy efficient, but the possibilities to use only energy efficient venues can be limited because of limited availability. There is for example not so many big venues that are suitable for thousands of visitors. It is however to some degree possible to impact the extra energy need caused by the event and it is also possible to follow up the energy use by specified energy reports from the venues.
		Location/transports - The choice of a venue for an event has a noticeable impact on the total transport emissions of the event, because of the relation to existing infrastructure. It is important that the venue can be reached by public transport or transportation arranged by the event, and that guests are informed about public transportation possibilities.
		Accommodation – The event producer has good possibilities to choose energy efficient staff-accommodation, for example by using ecolabelled hotels. Also, the visitors can be nudged to choose more environmentally friendly accommodation alternatives.

⁶⁷ Umweltbilanz von ÜBER LEBENSKUNST, Mottschall et al. 2012

⁶⁸ Klimabilanzen in Kulturinstitutionen. Dokumentation des Pilotprojekts und Arbeitsmaterialien, Völckers & Haß 2021

Food – There is fair possibilities to serve food and drinks with less energy demand and CO2 emissions, for example avoid bottled water. The steerability is good especially for food served **Disposables** Relevance of reducing the environmental impact from disposable items in events is high and the use of disposables is not in line with circular economy. To be able to eat and drink in R: high events either in bigger venues or outside in a festival area, disposable items are widely used. P: high Disposable items create a large amount of waste, naturally depending on the amount of S: medium people and their need for food during the event, so the relevance highly increases with the size of the event. Potential to decrease the use of disposables is high. Some venues can easily use washable cups and cutlery if the area of eating and drinking is determined, and the items can be collected for washing up. In bigger events and venues where people are walking around with their food and drinks, disposable items are commonly used. Pant cups/mugs is one of several solutions to lower the environmental impact. Steerability to reduce the use of disposables is considered medium. At some venues there is high possibilities to use no disposables, but on other venues there are more challenges. For example, bottled water causes a lot of waste, which in most events in the Nordics could be avoided by providing easy access to tap water and encouraging visitors to bring their own fillable water bottles. There are, however, local/national rules which might restrict possibilities to bring own bottles to the venue. If disposables cannot be avoided, there is still potential for improvement in using ecolabelled disposables. However, the willingness of the venue owner to reduce the impact of disposables is crucial, and the event producer can have reduced possibility to impact. Waste Effective waste management helps protect the environment by reducing pollution. Relevance of waste management and waste reduction is considered be high. This is especially R: high highlighted in events where the need for disposable items is big. The organizing of events P: high also generates large amounts of waste⁶⁹. S: medium Potential of reducing the waste is high in the Nordics, since it is possible to reduce quantities of waste, and by sorting the waste for recycling. For example, introducing pant system for reusable items can replace disposables. Steerability is medium, since the event organizer can have reduced opportunities to impact how the waste sorting is managed in a rented venue. In cases with better control possibility, the steerability can be high. Accommodation Relevance of the impact from accommodation is high. Events move a large amount of people and many need to stay over in the city of the event for a night or more depending on duration R: high of the event. The accommodation of a large number of people has big environmental impact. P: high Potential for improvements is good. 70 There is many options on how to make the S: medium accommodation more environmentally friendly, as can be studied in the background of NSE's (Nordic Swan Ecolabel) criteria for hotel services. A big tour can have more than 50 000 visitors and it would give a big positive impact if even a part of them could be directed to stay in ecolabelled accommodation. Steerability of the accommodation is medium. Staff accommodation: Since the organizer oversees choosing accommodation for own staff, the steerability is good. In the bigger cities is usually ecolabelled accommodation available. In some cases, the steerability is weaker since the location of the events limits the options for accommodation. Guest accommodation: The steerability of guest accommodation is generally lower but can be nudged by information at the ticket purchase. For example, the event organizer can recommend ecolabelled accommodation around the event, or have discounts for them etc. In events where the organizer also provides some accommodation for the visitors, for example festivals with tent accommodation areas, the possibility to impact the waste sorting, recycling, energy use, water use etc. is bigger and can be well managed with good planning. The Austrian ecolabel has chosen not to include tent areas to events criteria, due to low steerability. This is done in these Nordic Swan Ecolabel criteria as well.

⁶⁹ Klimabilanzen in Kulturinstitutionen. Dokumentation des Pilotprojekts und Arbeitsmaterialien, Völckers & Haß 2021

⁷⁰ How sustainable are sustainability conferences? – Comprehensive Life Cycle Assessment of an international conference series in Europe, Neugebauer et al. 2020

	Food (venue restaurants) R: high P: high S: low Food (backstage) R: high P: high S: medium Food (outdoor events) R: high P: high S: medium	The food aspects served at events needs to be divided in the food that is offered by the venue restaurants and the food that is served in the backstage for the staff and the performers. If food is served at outdoor events, where there are no permanent restaurants, this will lower steerability in RPS. In bigger events most of the guests stay in a hotel or other accommodation that also offers some food, that's why it is important to also investigate the accommodation of guests and staff. The RPS of food is documented in Nordic Swan Ecolabel criteria for restaurants. Here a short summary of R and P: Relevance: The environmental burden of food is considerable and well documented. For example, the more meat in the diet, the bigger impact. Therefore, it is good for environment to promote vegetarian food. Typically, food serving is not the focus for event producers, but food gets more important if the event that last longer than a few hours, then visitors need something to eat and drink. During longer events like festivals, food becomes even more important since people might eat multiple meals a day in the event area. Also, drinks play a significant role in most events. Potential: Ecological food and food based on vegetarian ingredients has a smaller environmental impact than meat and, to a lesser extent, fish ⁷¹ . ⁷² Also, aspects as avoidance of bottled water and minimizing food waste are significant. Food waste is described in detail below. Steerability for food is highly dependent on the type of the event and what possibilities the event producer has to promote environmentally better food and food services. Possible sponsors might lower the steerability, if they only allow sell certain products/drinks etc. to be
		sold. Steerability (venue restaurants) In venues that hosts permanent restaurants, the possibility to influence them is quite low. The restaurants usually have contracts with the venue, and this limits the steerability. To get the restaurants to lower their ecological footprint is a long process, but ecolabelling of events might over time influence also the restaurants to improvements. There is a possibility to promote ecolabelled restaurants by giving points, and the event producer can then suggest that the venues get their restaurants ecolabelled. Steerability (backstage) The event producer has usually good possibilities to choose the food offered for the staff and the performers backstage. Some limitations can be set due to demands of artists etc. It is even possible in many cases to offer only vegetarian food in the backstage. Steerability (outdoor event) Some festivals want to profile themself to be more sustainable, and this can be done for example by offering visitors only vegetarian food.
MEDIUM	Venue R: high P: medium S: medium	Relevance, potential: These aspects are described in the Nordic Swan Ecolabel criteria for restaurants, conference centres and hotels. The R and P is high to medium, depending on the type of event. In additional to traditional environmental aspects, also social aspects and working conditions need be considered. Steerability: Some venues can already be certified by Nordic Swan Ecolabel if they are connected to a hotel, restaurant, or a conference centre. In these cases, they could be nudged towards applying for their own ecolabel. The S might decrease depending on the event: for example, there is overall only a few big enough venues to host a big event, so there is not much to choose from – but also these venues can be nudged to improve some aspects in their environmental performance.
2	Transport (goods transport) R: high P: medium S: low	Relevance for transports related to events can be considered high, the direct emissions from vehicles being the main source of the environmental impact. According to the ÜBER LEBENSKUNST study, more than 50% of the total CO ₂ emissions were related to transports. The transports can be divided into transport of goods, staff and visitors. Potential for lowering the environmental effects of transports differs according to the type of event but can on average be considered medium high. Environmentally better vehicles can be used for goods and equipment's. Personnel and visitors can be nudged to use public

⁷¹ How sustainable are sustainability conferences? – Comprehensive Life Cycle Assessment of an international conference series in Europe, Neugebauer et al. 2020

⁷² Umweltbilanz von ÜBER LEBENSKUNST, Mottschall et al. 2012

transports and avoid flights, if possible. If the event is organized as a tour in different parts of Transport (staff) the country, this will to some extent lower the need of visitor transportations. R: high Steerability for lowering the transportation impact varies from low to medium, depending on the type of transport. P: medium S: medium Goods transport: The event producer has some steerability to influence the equipment and goods transport by choosing the service provider based on their environmental performance. It however seems, that the options for improvements are limited. Also, sometimes the **Transport** performers have their own transportation, of which the event producer cannot influence. If the (visitors) whole tour or series of events is solely organized by one organization, the event producer has R: high more power over all the transport than if the performers come to the event as part of their P: medium separately scheduled tours. S: low Staff transport: Staff transport can be more easily influenced by the event organizer for example by providing the staff free public transport to the event site or at least encouraging the use of public transporting case of no existing public transport, busses to the event can be organized for the staff before and after the shifts. Biking could also be encouraged both with the staff coming to work and moving inside the event area, if the area is bigger, by arranging designated bike parks that are free and making car parking in the area cost more. Visitor transport: That can be more easily influenced by the event organizer for example by instructing on the use of public transport or even providing free public transport to the event site with the purchase of the event ticket. In case of no existing public transport, busses to the event can be organized as part of the event and accessible with the ticket. Biking could also be encouraged. $\bar{^{73}},^{74}$ Food waste Relevance: Food waste presents a challenge to the climate and the environment, commercial profitability, and social ethics. Food waste has moved further into the spotlight in recent R: high years, and relevance is high. P: medium Potential: the potential to decrease the impact of food in events is medium S: low Steerability: the steerability to decrease food waste in events is often low. This is however depending on the type of event and type of food provided. The events are often one-time happenings in the one place, where the amount of food needed can be predicted from the amount of sold tickets. Also, the portion sizes can be determined by the type of the event. For example, in shorter events there might be need for smaller snacks, whereas all-day events the need for whole meals increases. On a music festival people might not have the time or want to sit down for a big meal, hence fast food is popular. It is hard to influence people's leftovers in this type of "takeaway" situations. Optimizing the portion sizes and the food options are some means to lower the food waste, as well as selling remaining dishes cheaper after hours Consumables Relevance and Potential: Please check the Nordic Swan Ecolabel criteria background⁷⁵ for respective consumable product. The relevance is medium since consumables are not focus R: medium on events. Consumption of large quantities of consumables creates high relevance. The P: high potential is high since there are often many ecolabelled products on the market. S: medium Steerability: It is in many cases easy for the venue to choose for example ecolabelled tissue paper. However, these decisions are often not directly in the hands of the event producer, hence the steerability is medium. The venue can for example have long contracts with the provider of consumables, and it might not be possible to do changes on short notice. There are also big variations across different type of events. Outdoor events might have less consumables than indoor events, but the use of disposables can be higher (see above Disposables). Chemicals / Relevance and Potential: Please check the Nordic Swan Ecolabel criteria for chemicals and cleaning cleaning service. The relevance is medium since chemicals and cleaning are not focus on events. The potential is also set medium, but the type of event determines the possibilities to R: medium lower the environmental impact. The supply of ecolabelled cleaning products on the market is P: medium S: medium Steerability: On the outdoor events the daily cleaning usually cleaning of portable toilets and possibly serving areas/tables if there is a serving area for eating. In many cases the cleaning happens after the event. The venues usually have their own cleaning, so the steerability is only medium. In best cases, the event producer can impact the venue to get an ecolabelled

⁷³ Umweltbilanz von ÜBER LEBENSKUNST, Mottschall et al. 2012

⁷⁴ Klimabilanzen in Kulturinstitutionen. Dokumentation des Pilotprojekts und Arbeitsmaterialien, Völckers & Haß 2021

⁷⁵ https://www.nordic-swan-ecolabel.org/criteria/

		cleaning service or at least use ecolabelled cleaning chemicals. The event producer can	
	control how the cleaning is done in their own office.		
	Ecolabelled products/ merchandises, handouts R: medium P: low S: low	Relevance and Potential: The relevance is medium since merchandises and handouts seldom are main focus in events. There are however many products related to the events, that in theory could get an ecolabel, but the actual possibility to access them is not good. The highest potential to lower the environmental impact is often to avoid merchandises and handouts. Steerability: Merchandises as T-shirts, hoodies and tote bags could be ecolabelled but the actual acceleballed entires in the markets are not that many. There could also for example he same	
		ecolabelled options in the markets are not that many. There could also for example be some ecolabelled furniture used in the venues or even at outdoor events, but it is not custom to make new furniture purchases for an event. Event producers can possibly be encouraged to reuse more materials - like wristbands, nametags etc.	
		Printed paper products that could be easily ecolabelled, even if these are nowadays more seldom used. Some posters or timetables etc are still handed out in festivals. Also, for many conferences at least some number of printed products and notebooks etc are still relevant and used ⁷⁶ . Possible sponsors can further lower the steerability if they demand merchandises which does not fulfil environmental criteria. The external artists might also bring their own production to the event.	
_	Water use	Relevance and Potential: Please check the Nordic Swan Ecolabel criteria for restaurants and hotels.	
ГОМ	R: medium P: low S: low	There are variations across different venues, but relevance is medium. The potential is low, because there are few means to lower the water consumption.	
		Steerability: The steerability is low since the event producer seldom can influence the existing water fixtures in the venues.	
	Chemicals / dishwashing R: Medium P: High S: Medium	Relevance and Potential: Please check the Nordic Swan Ecolabel criteria for dishwashing agents. The relevance and steerability is medium, since dishwashing is usually done only in venues that have permanent restaurants. Potential is high as ecolabelled products are widely available. In many outdoor events, disposable products are used, and focus should be set on minimizing the disposables.	
	3. Medium	Steerability: If there is dishwashing at the event, it is easy to choose ecolabelled dishwashing chemicals, but as this is often not the case, the steerability is set to low.	
	External laundry R: medium P: low S: low	Relevance and Potential: Please check the Nordic Swan Ecolabel criteria for textile service. The relevance is medium since there is staff related to events that might have workwear, use cloths, or have promotional shirts or hats on that need to be washed and there are many ecolabelled laundry available.	
		Steerability: Access to ecolabelled laundry services may be limited in certain areas or to certain firms. Also, the staff is often consisted of many separate operators, each one doing small amounts of laundry. In many cases it is difficult to steer the laundry to be delivered to a laundry with lower environmental impact.	

⁷⁶ How sustainable are sustainability conferences? – Comprehensive Life Cycle Assessment of an international conference series in Europe, Neugebauer et al. 2020