

Sustainable Procurement

Guidelines | external Version 1.2

For sustainability reasons,
please do not print this
document!

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1. Introduction

1.1 Target group and application of the guidelines

This document is an excerpt from the Sustainable Purchasing Guidelines, which serve as a guide for purchasers and procurement coordinators working for Fraunhofer. It is intended to help them to implement legally compliant procurement processes that take environmental and social aspects into account. This external version of the guidelines is intended to provide an overview of how Fraunhofer takes sustainability criteria into account in purchasing.

The **first chapter** of the guidelines contains basic information on sustainability and shows how ecological and social criteria can be integrated into corporate procurement and the scope for action offered by procurement law and other laws and regulations.

The **second chapter** contains positive and negative decisions that are mandatory.

The **third chapter** lists and explains sustainability criteria.

1.2 Objective and guiding principle

In 2015, the United Nations adopted the 2030 Agenda, committing themselves to 17 Sustainable Development Goals (SDGs). These form the basis for shaping global economic growth in line with social and environmental development goals.

As one of the world's leading applied research organizations, Fraunhofer delivers sustainable solutions to meet society's future needs. This is not just a case of technical innovations – under the established sustainability concepts, environmental, economic and social aspects need to be considered in equal measure and always in relation to each other. This mindset is also reflected in our organizational goals, which reach beyond the challenges of the present to the lives of future generations.



Learning about the fundamentals of sustainable procurement

- Identifying with and internalizing Fraunhofer values relating to human rights and environmental protection in corporate procurement
- Developing an understanding of the scope for action within public procurement law for implementing sustainable procurement



Mandatory compliance with negative and positive decisions

- Compliance with positive decisions
- Checking whether the product/service is on the list of negatives. If...
 - **YES** the service may only be procured subject to increased diligence, with justification provided and in compliance with the positive decisions.
 - **NO** the service may be procured in compliance with the positive decisions.



Applying additional sustainability criteria

- If a sustainability criterion is relevant to the assignment and is proportionate to it, then aiming to incorporate additional sustainability criteria into the procurement documents is recommended.

With this in mind, the sustainable development goals are also key organizational goals for the Fraunhofer-Gesellschaft. Sustainable public procurement is defined as an important driver for achieving Sustainable Development Goal 12, »Responsible Consumption and Production,« as set out by the United Nations.

In line with these goals and its own mission, the Fraunhofer-Gesellschaft structures its activities to ensure that both human rights and environmental standards are upheld. Alongside our internal aspirations and goals at Fraunhofer, the German Supply Chain Act (Lieferkettensorgfaltspflichtengesetz, LkSG) and the increasing standards and expectations set by our customers mean that our purchasing department needs to incorporate effective due diligence measures into our procurement process.

The volumes of raw and auxiliary materials, products, goods and services purchased by the Fraunhofer-Gesellschaft amount to more than 1 billion euros a year. With purchasing decisions on this scale, procurement at Fraunhofer makes a real contribution to ensuring human rights and protecting the environment in large supply chains.

To ensure this, our aim must be to continue expanding our due diligence obligations in the procurement process to proactively prevent risks relating to human rights and the environment in the Fraunhofer supply chain.

»The procurement process should take into account ecological, social and economic aspects to ensure environmental protection and uphold human rights in the supply chain over the long term.«

Guiding principle for procurement at Fraunhofer

1.3 Sustainable procurement

To achieve this guiding principle, the Fraunhofer-Gesellschaft has set itself the goal of establishing a sustainable procurement process. For the FhG, this means having procurement management in place with strategies, processes and systems that are designed to ensure that the environmental and human rights risks listed below are actively and systematically managed along the supply chain. Sustainable procurement will also help the organization to meet its social responsibility while also ensuring its economic growth.

Environmental risks

- Manufacture, use or export of mercury-added products
- Production or use of persistent organic pollutants (POPs)
- Damage to the environment caused by greenhouse gas emissions in the supply chain
- Threat to biodiversity as a result of irresponsible use of resources
- Import and export of hazardous waste
- Any other act or omission to act that is directly capable of jeopardizing the environment in a particularly serious manner

Risks related to human rights

- Child labor
- Slavery in any form and forced labor
- Freedom of association violations
- Discrimination and inequality in employment
- Withholding a reasonable wage
- Contribution to harmful soil change or water and air pollution
- Unlawful expropriation and land theft
- Excessive use of force by security personnel
- Occupational health and safety violations
- Production and use of conflict chemicals and conflict minerals
- Any other act or omission to act that is directly capable of jeopardizing human rights in a particularly serious manner

These guidelines provide clarification on a number of regulations, criteria and measures that supplement the analysis of economic viability with key sustainability aspects.

2. Mandatory decisions

2.1 Positive decisions

For the purposes of these guidelines, positive decisions are regulations linked to environmental and socially acceptable procurement that the FhG must comply with according to various regulations and ordinances.

2.1.1 Sustainability Standards for Suppliers of the Fraunhofer-Gesellschaft

A key due diligence obligation under the Supply Chain Act (LkSG) involves ensuring by contractual means that direct suppliers comply with the human rights and environmental

requirements set out by the FhG and address them adequately along their supply chain (section 6 IV LkSG). To this end, the **Sustainability Standards for Suppliers of the Fraunhofer-Gesellschaft** must be adopted in EVERY supplier contract by means of the referring clause below.

If a contractual document exists, it must include this clause. In all other cases, the clause must be incorporated into the procurement documents.

The Sustainability Standards for Suppliers to the Fraunhofer-Gesellschaft must be enclosed with the procurement documents and can be downloaded from the

3.1.2 Grounds for exclusion under section 22 LkSG

Section 22 LkSG sets out new facultative grounds for exclusion under section 124 GWB. These have been adopted in the »Self-declaration regarding the absence of exclusion criteria« For the construction sector, there is an updated version of form 124 from the Award and Contract Manual for Federal Government Construction Projects (Vergabe- und Vertragshandbuch für die Baumaßnahmen des Bundes, VHB). It must be ensured that the latest version of these declarations is always used. The legal consequences of a breach remain unchanged.

3.1.3 BNB certification

The German Federal Ministry of Education and Research (BMBF) has announced that large-scale construction projects making

their first appearance in the 2022 economic plan must be certified in accordance with the Silver quality level of the Assessment System for Sustainable Building (BNB). This requirement also applies retroactively to construction projects costing over 2 million euros.

For construction projects costing up to 2 million euros, construction to BNB Silver standard should be aimed for, but certification does not need to be obtained.

The certification requirement must be taken into account in the construction planning services tender.

More information

BNB – Assessment System for Sustainable Building [↗](#)

Reference clause for the Sustainability Standards for Suppliers of the Fraunhofer-Gesellschaft



The contractor undertakes, in the course of its own business activities, to comply with the Sustainability Standards for Suppliers of the Fraunhofer-Gesellschaft enclosed as an integral part of this contract.

The contractor is obliged to release the FhG from third-party claims arising from a breach of the Sustainability Standards for Suppliers of the Fraunhofer-Gesellschaft unless it proves that it is not responsible for the breach.

In the event of a breach of the Sustainability Standards for Suppliers of the Fraunhofer-Gesellschaft on the part of the contractor, the FhG is entitled to suspend the performance of the contract or to withdraw from or terminate the contract if the breach is not remedied within a reasonable set time frame. In the event of a serious, prolonged or repeated breach, it is not necessary to set a time frame. In particular, it is not necessary to set a time frame for the cases specified in section 6.2 nos. 1–3 of the Sustainability Standards for Suppliers of the Fraunhofer-Gesellschaft.















2.2 Negative decisions

To prevent and avoid serious negative environmental and social impacts of procurement by the Fraunhofer-Gesellschaft, services with significant negative impacts on the climate, human well-being or the preservation of resources must no longer be procured or, in the absence of alternatives, may only be procured with particular care.







If a service listed on the following list of negatives must be procured for research purposes, an exception might be granted. This is admissible if it can be proven that it is impossible to cover a demand that is functionally significant for the research activity to an adequate

extent and within an adequate time frame by procuring an alternative service. In such cases, this must be made clear in the form of a »declaration of non-compliance with negative decisions«. This file must be saved in Opentext together with the procurement documents.





















Negative decisions

ID	Material	Explanation	Category	Impact
NB_01	Building materials	Building materials that contain hydrochlorofluorocarbons and hydrofluorocarbons or that were manufactured using such substances.		
NB_02	PVC (polyvinyl chloride) components	PVC components, such as window profiles, roller blinds, doors, roofing and sealing sheeting, pipes, cable channels and cables, where there is no declaration from the manufacturer that the new material has been stabilized without lead or cadmium, the components have not been labeled to show that the required product characteristics have been verified and no declaration of take-back obligation has been issued by the manufacturer or the industry in question.		
NB_03	Chlorine-releasing cleaners	Chlorine-releasing cleaners, hypochlorite and dichloroisocyanurate as these contaminate wastewater.		
NB_04	Single-use products	Single-use products, such as non-refillable pens, disposable tableware and utensils for events etc. and single-use packaging, with the exception of cardboard/paper packaging, flow wrap packaging and film pouches.		
NB_05	Electrical and electronic devices	Electrical and electronic equipment containing hazardous substances that do not comply with the RoHS Directive or that are banned under this directive. In particular, the substance limits to be complied with can be found in the annex to the guidelines.		
NB_06	Paints containing heavy metals	Paint containing heavy metals, such as lead, cadmium, chromium (VI) and compounds of these, as they are particularly harmful to the environment.		
NB_07	Virgin paper or products made of virgin paper	Instead, recycling paper marked with the Blue Angel for recycled paper (DE-UZ 14a) or an equivalent quality mark should be procured.		


Legend


-  Intensive environmental risk
-  Serious environmental risk
-  Intensive social risk
-  Serious social risk
-  There are more sustainable alternatives or the risk is unacceptable. Materials in this category may only be procured in specifically justified exceptional cases.
-  The substitutability of these products and materials is very limited. When procuring these, additional diligence must be exercised, e.g., including suitable sustainability criteria in the requirements.

Negative decisions *(continued)*

ID	Material	Explanation	Category	Impact
NB_08	Heating appliances	Heating appliances (except for heating required for winter construction work) and cooling appliances for use outside of enclosed spaces (e.g., gas heaters, similar electric heaters, air conditioning units)		
NB_09	Appliances for preparing hot drinks	Appliances for preparing hot drinks that use only single-portion packaging. The single-portion packaging leads to high resource consumption (mainly of plastic or aluminum), which can be avoided.		
NB_10	Wood preservatives	Wood preservatives with active substances that are not listed in annex V of the Biocidal Products Regulation (EU) No 528/2012 for product type 8 (wood preservatives).		
NB_11	Wood and wood products	Wood and wood products that cannot be proven to originate from legal and sustainable forestry (FSC or comparable proof). Tropical wood and wood from primary forests located in other zones are therefore banned.		
NB_12	Sanitary paper	Sanitary paper, e.g., toilet paper, paper towels, kitchen rolls, napkins, tissues, etc., that is not made from 100 percent recycled paper and that is not awarded the Blue Angel ecolabel for sanitary paper products made of recycled paper (DE-UZ 5).		
NB_13	Conflict minerals	Conflict minerals, such as tantalum, tungsten, gold, tin, cobalt and glimmer or products that contain these, often originate from conflict areas. Mining is often accompanied with very serious human rights violations.		
NB_14	Refrigeration and freezer appliances	Refrigeration and freezer appliances, e.g., refrigerators, ice cream cabinets and vending machines like bottle coolers and other stationary and mobile refrigeration and air conditioning equipment with halogenated refrigerants.		
NB_15	Imported agricultural products	Imported agricultural products such as coffee, tea, cocoa, rice, sugar, orange juice, flowers etc. from developing countries (see DAC list of countries German Federal Ministry for Economic Cooperation and Development (BMZ)) that are not produced under fair working conditions.		
NB_16	Mobile machinery and equipment	Mobile machinery and equipment that does not comply with EU emissions standard V pursuant to Regulation (EU) 2016/1628.		
NB_17	Multi-split/VRF air conditioning units	Multi-split/VRF air conditioning units with more than 10 kW cooling capacity (in this case, a liquid cooler can be used as an alternative).		


Legend


 Intensive environmental risk

 Serious environmental risk

 Intensive social risk

 Serious social risk







 There are more sustainable alternatives or the risk is unacceptable. Materials in this category may only be procured in specifically justified exceptional cases.

 The substitutability of these products and materials is very limited. When procuring these, additional diligence must be exercised, e.g., including suitable sustainability criteria in the requirements.

Negative decisions *(continued)*

ID	Material	Explanation	Category	Impact
NB_18	Palm oil or products	Palm oil or products containing palm oil that are not demonstrably from suppliers engaged in legal and sustainable forestry or that come from a supplier that is not a member of the RSPO or equivalent industry initiatives.	 	
NB_19	Persistent and organic pollutants	Persistent organic pollutants and goods containing these or produced using these that do not comply with the Stockholm Convention and the POPs Regulation or that are banned under these rules.		
NB_20	Plastic products	Plastic products such as plastic utensils, cosmetic cotton buds made of plastic, plastic balloon sticks, plastic stirrers, plastic plates, bowls and straws, food and drinks containers made of expanded polystyrene (Styrofoam), as these are all banned in Germany due to their high environmental impact (see Directive (EU) 2019/904 		
NB_21	Products and devices	The procurement of products and devices that contain chemicals or mixture falling under the REACH Regulation may be subject to authorization and use restrictions in individual cases. Institutions that place manufactured substances or mixtures on the market are subject to classification, labelling, notification, and information obligations.		
NB_22	Mercury	Mercury and mercury-added products or products made using mercury that do not comply with or that are banned under the Minamata Convention on Mercury.		
NB_23	Aerosols	Aerosols such as cooling spray, cleaning spray or insect spray with halogenated propellants (such as R1234ze(E)).		
NB_24	Carpets, leather, textiles, work clothes	Carpets, leather, textiles and work clothes from developing countries (see DAC list of countries German Federal Ministry for Economic Cooperation and Development) that are not produced under fair working conditions.		
NB_25	Detergents and cleaning agents, personal care products and cosmetics	Detergents and cleaning agents, personal care products and cosmetics for which there is no guarantee on the part of the supplier that they do not contain microplastics. Microplastics within the meaning of Article 2 No. 1 (6) of the Commission Decision (EU) 2017/1218 of June 23, 2017.		
NB_26	Catch-all clause	Products that cannot be placed on the market or used under the provisions of European Community law or German law for environmental or health protection reasons.		

Legend

-  Intensive environmental risk
-  Serious environmental risk
-  Intensive social risk
-  Serious social risk
-  There are more sustainable alternatives or the risk is unacceptable. Materials in this category may only be procured in specifically justified exceptional cases.
-  The substitutability of these products and materials is very limited. When procuring these, additional diligence must be exercised, e.g., including suitable sustainability criteria in the requirements.



3. Sustainability criteria

This chapter contains proven instruments whose integration into the procurement documents is intended to promote more socially just and environmentally sound procurement. Not all criteria are applicable to every contract, rather they should always be selected subject to the individual contract. It is important to review whether these criteria are proportionate in addition to reviewing their link to the subject matter of the contract.

It can be assumed that the requirements are linked to the subject matter of the contract if these refer to

- the product/service (and not the entire company),
- processes relating to the production and provision of the product/service or to the disposal of the product,
- commercialization of the product/service or
- another stage in the life cycle of the product/service

even where such factors do not form part of the material substance of the subject matter of the contract.

Proportionality means that the requirements are proportionate to the contract and to the severity of the environmental and social risk that is to be expected for the product/service being procured. This means that the greater the risk that human rights or environmental standards will be seriously violated during the production, use or disposal of the service to be procured, the stricter the requirements set out in the procurement documents must be.

Including fundamental requirements and criteria relating to quality and sustainability in the service specification obliges tenderers to respect them. Tenderers who fail to meet these criteria are excluded.

So as not to restrict the number of tenderers too significantly, more ambitious requirements should be included in the award criteria, for example as part of a sustainability concept.

3.1 Circularity criteria

The transition from a linear to a circular economy is an intrinsic part of fulfilling SDG 12 »sustainable consumption and production« as part of the 2030 Agenda. To achieve this, value cycles need to replace the existing conventional and linear value chains. The circular economy is a regenerative system that minimizes the use of resources, waste production, emissions and energy waste by slowing down, reducing and closing energy, product and material cycles.

Section 45 KrWG requires the prioritization of resource-saving products that are designed to have as long a service life as possible. The following examples of possible requirements increase the service life and/or recyclability of products and,

depending on the subject matter of the contract, can be incorporated into tender specifications:

- Durable, repairable and/or recyclable product design
- Purchase of used and reprocessed goods or goods that are fully or partly made from recycled materials
- Professional maintenance service for complex machines and appliances
- Rental or lease agreements for machines and other non-consumables (product as a service).
- Obligation on the part of the manufacturer/supplier to accept returned products after their use
- Modular product design and no use of adhesive or special screws so that products can be repaired by the user
- ...

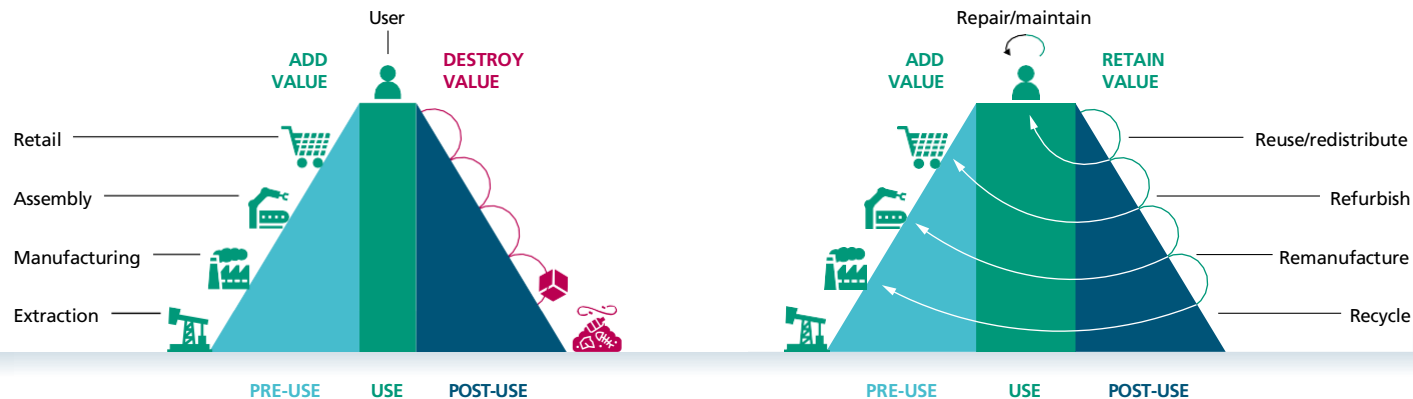
Example of durable construction: Sustainable Phone

- Sustainable Phones have a durable design and a five-year guarantee
- Modular design and easy availability of spare parts
- None of the components are glued in place, meaning that each individual part can be replaced separately using a conventional screwdriver
- For each phone sold, the same quantity of electronic waste is recycled

Example of product as a service: Leasing of a washing machine

- The product is provided to the customer as a service, meaning that the washing machine remains the property of the company
- Leasing to the customer – meaning the customer can afford a more expensive and better (more energy efficient, more durable, more repairable etc.) machine
- Professional maintenance increases the service life of the product
- After use, the company returns the product to the product cycle either by refurbishing and repairing it and leasing it to another customer (reuse), or by recycling it

Linear economy vs. circular economy



3.2 Quality marks

The transition from the linear economy Quality marks are an industry-wide tool for certifying that a product or service meets certain quality standards. They are awarded by recognized institutions to manufacturers and service providers who meet the respective quality and testing regulations. Quality marks within the meaning of public procurement law are related to the product. This must be differentiated from other company-related marks/labels or management systems such as EMAS.

Fraunhofer may ask tenderers to present quality marks or fulfill individual requirements of particular quality marks (see section 34 III VgV/section 24 III UVgO). Presenting a quality mark serves as proof that a delivery or service meets the technical requirements set out in the description of services. As well as in the service specification, quality marks may also be required within the framework of award criteria or performance conditions. Basic requirements can be included in the service specification to compel tenderers to meet those requirements. In order to maintain proportionality and so as not to restrict the number of tenderers too significantly, more ambitious quality marks should be included, e.g., incorporated as award criteria, as part of a sustainability concept.

If quality marks are used for verification purposes, the quality marks must meet the

following requirements (see section 34 II VgV/section 24 II UVgO):

- All quality mark requirements must be suitable for defining the characteristics of the service and linked to the subject matter of the contract pursuant to section 31 III VgV (this is only stipulated in section 34 II VgV and is therefore not a requirement for procurements below the threshold)
- Quality mark requirements are based on objectively verifiable and non-discriminatory criteria
- The quality mark was developed in an open and transparent procedure in which all interested parties could participate.
- The quality mark is accessible to all undertakings concerned.
- The requirements were specified by a third party on which the company applying for the quality mark could not exert a decisive influence.

Equivalent quality marks are permitted insofar as it can be proven that the requirements for awarding the quality mark are of equal value.

Using quality marks for verification purposes is ideal for the contracting authority because the competent public bodies and institutions deal with verifying the standards required by the quality mark, so the Fraunhofer-Gesellschaft does not incur any verification costs.

Examples focusing on environmental sustainability



EU Ecolabel [↗](#)

The EU Ecolabel is a label for products that are exceptional in terms of their environmental sustainability and low health impact. Products that are often certified include mattresses, lights, wall paint, varnishes, paper, and household and electrical appliances.



Blue Angel [↗](#)

The Blue Angel is a German environmental mark for products and services that are particularly environmentally friendly. It exists for a number of product categories, including electronic devices, paper and print products, solar collectors, construction products, detergents and cleaning agents and communication technology.



EU Organic Label [↗](#)

The European organic logo is an EU-wide binding label shown on products that are made organically in accordance with EU law and meet the requirements of the EU Organic Regulation as a minimum.



FSC [↗](#)

In the case of FSC Chain-of-Custody certification, the timber flow is traced across the supply chain, from the forest to the end customer. It certifies products made from 100% FSC-certified wood as well as products containing wood from other sources, in which case the proportion of FSC-certified wood is stated as a percentage.

Examples that focus on fair trade, human rights and working conditions



Fairtrade [↗](#)

Fairtrade is an ethical and social certification system. The logo is shown on goods, products, companies and multi-stakeholder initiatives that originate from or conduct fair trade. Certified products are produced in compliance with set social and ecological criteria.



XertifiX [↗](#)

The XertifiX quality label is awarded to natural stone from India, China or Vietnam if it is produced under working conditions that meet XertifiX standards. The association is an NGO that campaigns for better working conditions and environmental protection in the Asian stone sector.



Global Organic Textile Standard (GOTS) [↗](#)

The aim of the standard is to define strict requirements for the social and environmental conditions along the entire textile supply chain for textiles and clothing manufactured with organically produced raw materials.



More information

German Environment Agency (UBA) educational notes [↗](#)

Standards comparison tool [↗](#)

You can find a list of the quality marks that meet the conditions of section 34 II VgV using the Sustainability Compass Standard Comparison Tool from the Competence Center for Sustainable Procurement (KNB).

3.3 Management systems

Management systems offer a systematic methodology for operational environmental protection and occupational health and safety. They are designed to define and clarify internal processes and responsibilities in such a way that environmental or social opportunities and risks can be identified at an early stage, meaning that appropriate action can be taken to ensure that all activities are environmentally friendly and socially responsible.

Under public procurement law, management systems are primarily used to provide evidence of the technical and professional ability of a tenderer to implement environmental and social measures during the manufacturing of products and performance of services and construction works.

Section 46 III VgV – Technical and professional ability

Under public procurement law, this suitability criterion for technical and professional ability is only permitted insofar as the

performance of the tendered contract justifies such a requirement.

Section 49 II VgV – Certification of compliance with quality assurance and environmental management standards

If the public contracting authority requires the submission of certificates drawn up by independent bodies attesting that applicants or tenderers comply with certain environmental management systems or standards, it must refer to

- either the Eco-Management and Audit Scheme (EMAS) of the European Union; or
- (...) recognized environmental management systems; or
- other environmental management standards that are based on the relevant European or international standards and that are certified by accredited bodies.

Equivalent management systems are permitted insofar as it can be proven that the requirements of the management system are of equal value.

Examples focusing on the environment



Eco Management and Audit Scheme (EMAS) [↗](#)

EMAS is the acronym for the Eco-Management and Audit Scheme. Participating companies use this tool to collect and analyze important core indicators of corporate environmental protection and to create an environmental program with the aim of systematically improving energy and material efficiency and reducing damaging effects on the environment, energy consumption and environmental risks.

EMAS Register [↗](#)

Companies that have successfully completed an EMAS audit can then be recorded in the EMAS Register. This register can be searched by region, industry, organization name or location.

More information

[German Environment Agency \(UBA\) educational notes on EMAS in public procurement \[↗\]\(#\)](#)



ISO 14001 environmental management system [↗](#)

The international standard ISO 14001 specifies a range of requirements that must be fulfilled by a company's environmental management system in order to improve their environmental performance, comply with legal and other obligations and compliance requirements and achieve their environmental goals. In order to become certified as ISO 14001 compliant, the company must investigate, assess, communicate on and document certain environmental issues.



Examples with a focus on working conditions and human rights



Management system for security, health, and occupational health and safety pursuant to ISO 45001 [↗](#)

ISO 45001 is intended to promote behavior-oriented workplace safety (occupational health and safety) in businesses. This allows businesses to ensure that they are familiar with the key regulations for workplace safety and that they apply them safely.



Management system for social responsibility pursuant to SA 8000 [↗](#)

SA 8000 is an international standard that certifies whether a monitoring process adheres to the ILO Core Labour Standards on the basis of the ISO standards.



3.4 Energy efficiency

In general, energy efficiency describes the relationship between a specific use case – for example, to generate light or heat – and the amount of energy it uses. The less energy a product or service uses, the more energy efficient it is. Energy efficiency and the reduction of overall energy requirements should be expedited – this is because CO₂ and other harmful substances are released during manufacturing and energy use, and these can pollute the air, climate, water and earth.

Three different approaches, which can either be used alone or combined during procurement, can be used to require a high degree of energy efficiency for the products or services being procured:

(1) Energy efficiency classes

The General Administrative Directive on the Procurement of Energy-Efficient Services (Allgemeine Verwaltungsvorschrift zur Beschaffung energieeffizienter Leistungen, AVV-EnEff), which entered into force on May 27, 2020, requires German federal government departments to procure solely those products with the energy consumption label under EU Regulation that have the highest possible energy efficiency class. Currently, EU regulation requires 15 different product groups to have this type of **energy consumption label** [↗](#), e.g., electronic devices and lamps.

The AVV-EnEff requires the Fraunhofer-Gesellschaft to demand a high, or the best, energy efficiency class in the service specification when procuring products with an energy consumption label.

(2) Technical specifications

For products or services that do not have this label, technical specifications and energy efficiency criteria can be incorporated in the product requirements in the service specification or, for example, as part of a sustainability concept in the award criteria. Fundamental requirements could be enforced by including these in the service specifications under product requirements or technical requirements. In order to maintain proportionality and so as not to restrict the number of tenderers too significantly, more ambitious requirements could be included on an optional basis, e.g., incorporated as award criteria, as part of a sustainability concept.

Examples of technical specifications:

- Energy-saving mode/energy-saving functionality
- Stand-by mode
- Automatic switch-off
- Integration of multiple functions into one device
- Avoiding unnecessary additional functionalities in technical devices
- Warning systems for open refrigerator doors
- ...

The following pages list energy efficiency criteria for technical specifications of several product categories as a guide for public procurement:

■ Energy efficiency criteria of the Federal Energy Efficiency Center (BfEE) [↗](#)

■ European Commission: Energy-efficient products [↗](#)

(3) Product certifications

For products and services, particularly those that do not have an energy efficiency

label and for which technical specifications cannot be requested, the public contracting authority may demand product certifications and quality marks from the tenderer.

More information

BfEE – energy-efficient building [↗](#)

Examples of product certifications



Energy Star [↗](#)

Energy Star is an internationally recognized label for energy-efficient devices. It is a good guide, particularly when purchasing appliances that do not yet have an EU energy consumption label.



Blue Angel [↗](#)

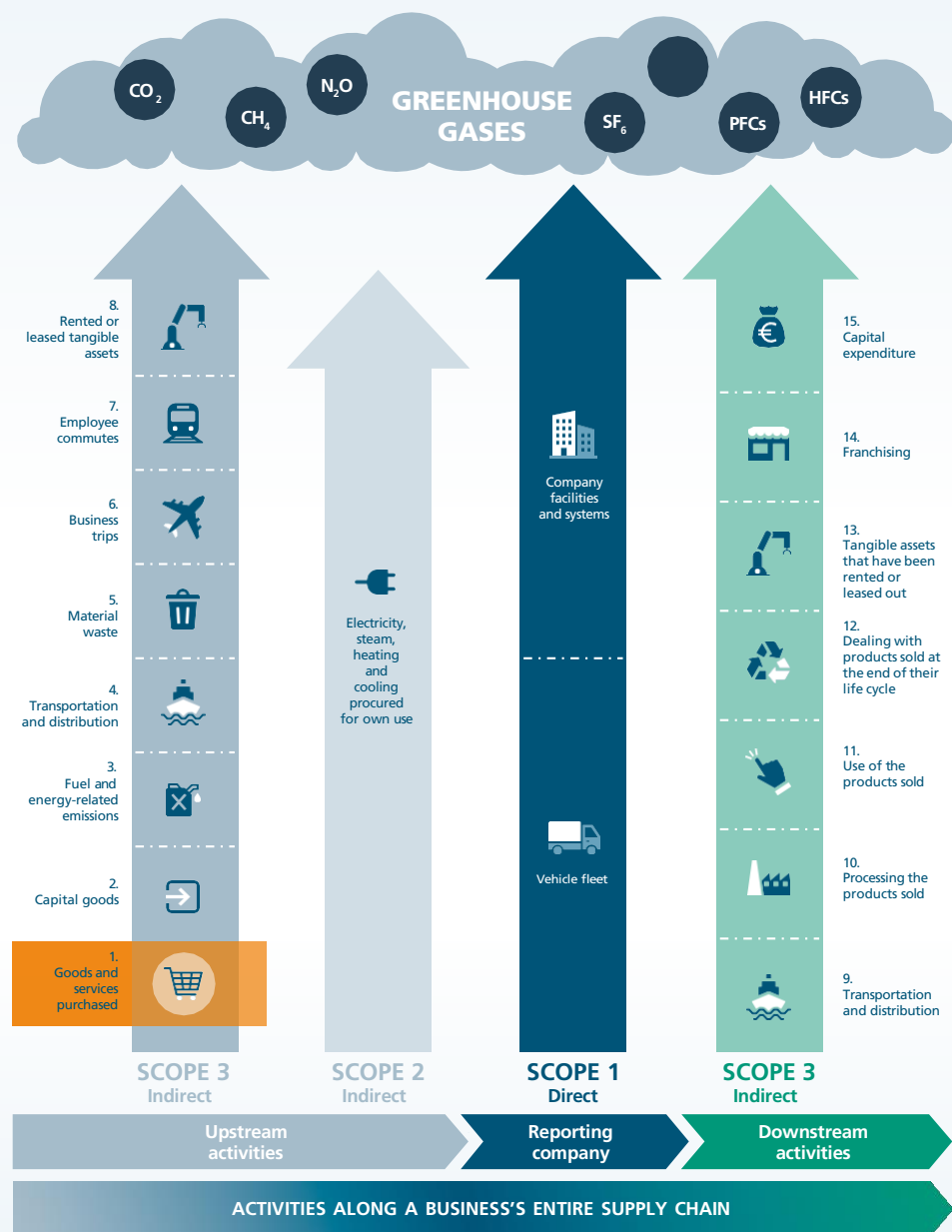
The Blue Angel environmental label assesses environmental, health and consumer protection criteria as well as the energy efficiency of a variety of products.



EU Ecolabel [↗](#)

The EU Ecolabel is used to label products that are especially environmentally friendly and energy efficient. ECAT is a database that lists products with this label.

Greenhouse gas emissions along the supply chain under the Greenhouse Gas Protocol



3.5 Carbon footprint

Reaching the 1.5 degree goal to minimize the risks and impact of climate change is only possible by significantly reducing emissions. In a business, emissions are caused by various different processes. The Greenhouse Gas Protocol, an internationally recognized standard for self-measurement and self-reporting of greenhouse gas emissions, divides these emissions into three scopes.

Scope 1 covers all emissions directly caused by the operation of the business's own equipment, e.g., by burning fuel for oil heating, using coolants or running company vehicles.

Scope 2 includes all indirect emissions caused by generating any additional purchased energy (such as electricity).

All other emissions fall under scope 3. They are produced upstream or downstream of the supply chain, for example through the use of products or services, office materials, events, business trips, employee commutes or waste disposal. Scope 3.1 emissions cover emissions from the procurement of goods and services. The measures that can be taken by purchasing departments to reduce scope 3.1 emissions are discussed below.

(1) Product carbon footprint

Ideally, the quantity of greenhouse gases emitted when a product is produced or a service is provided would be taken into account when evaluating tenders. One

metric for this is the product carbon footprint (PCF), which includes total greenhouse gas emissions caused by a product at different phases of its life cycle. A low(er) PCF would be viewed (more) positively.

Please note that there are various ways to calculate the PCF. To make it easier to compare the PCFs of different tenderers, it is advisable to specify the calculation method and review period (over the total product life cycle, cradle to gate etc.) in the procurement documents.

However, a survey of 70 suppliers carried out by Fraunhofer Corporate Procurement showed that most suppliers are not currently able to calculate their PCF (due to a lack of data, capacity, expertise etc.) or do not wish to disclose it. Making it mandatory to specify the PCF could therefore severely restrict competition. However, it is expected to become mandatory for businesses to provide this information in the near future, which should make it easier to request it.

More information

[Discussion paper on methods of calculation and their advantages and disadvantages by Global Compact](#)

[PAIA algorithm for calculating the emission and energy impact of IT products](#)

(2) Climate certificates

Until then, an alternative would be to use climate certificates that relate either directly to the product or service or to the entire company. These can be listed in the service specifications and the award criteria as part of a sustainability concept. A case-by-case assessment must be carried out in this situation.

3.6 Multi-stakeholder initiatives

Multi-stakeholder initiatives, also called sectoral initiatives, are generally groups that are made up of multiple interested parties such as universities, non-profit organizations or companies, and that voluntarily serve a non-profit purpose. These associations generally have a specific aim, such as promoting human rights or improving working conditions in a specific industry, that they pursue by voluntarily committing to upholding predetermined policies and principles.

If a tenderer is involved in the trade, production, use or disposal of goods that entail high environmental and human rights risks, their involvement or membership in a relevant sectoral initiative could lead to a (more) positive evaluation because they are taking measures to minimize these risks.

The membership of a provider in a relevant initiative can be incorporated as an award criterion as part of a tender's sustainability concept. As this could be considered a more ambitious requirement, it is not recommended that you incorporate this requirement in the service specifications or cite it as an exclusion criterion in order to maintain proportionality and so as not to restrict the number of tenderers too significantly. The proportionality must be assessed in relation to the order.

Examples of climate certificates

PAS 2060 – Certified by:

- [GUTcert AFNOR Group](#)
- [CARBON TRUST](#)
- [TÜV SÜD](#)

[International Organization for Standardization – ISO](#)

Examples of multi-stakeholder initiatives



[World Fair Trade Organisation \(WFTO\)](#)

The WFTO is a global association for certifying businesses. To become a member of the WFTO, a business must demonstrate that it treats human rights and the protection of the environment as priorities in its activities.



[Fair Labour Association \(FLA\)](#)

FLA is a multi-stakeholder initiative. The FLA behavioral code specifies labor standards aimed at bringing about humane working conditions at factories and on farms. The FLA principles define important practices at a company level to ensure safe and sustainable supply chains.



[Fair Wear Foundation](#)

The Fair Wear Foundation (FWF) is funded by trade unions, non-government organizations and trade and manufacturer organizations and has around 80 members. It aims to improve working conditions in companies in the textiles industry across the globe.



[Accord on Fire and Building Safety](#)

An agreement to improve fire and building safety in the textile industry in Bangladesh following the disaster in 2013. The participating businesses have committed to take measures to improve these issues.



[Zukunft.naturstein](#)

As a partner of the German Natural Stone Association (DNV), zukunft.naturstein (Future of Natural Stone) is committed to promoting the use of carbon-neutral natural stone as a building material in the construction industry.

3.7 Packaging

Typically, shipping packaging is intended to protect against damage, damp and theft. Because manufacturing, using and disposing of shipping packaging can be harmful to the environment, packaging should be kept to a minimum. It is therefore imperative to avoid using unnecessarily elaborate, large and multi-fold packaging. Reusable packaging usually has the best performance from an environmental protection standpoint.

In the case of delivery orders, packaging requirements can be included in the service specifications, the award criteria or the performance conditions, as far as this is possible and appropriate. The following requirements can be specified individually or in combination. Alternatively, the award criteria may require a sustainable packaging

concept containing a number of relevant packaging requirements.

(1) General specifications

- Shipping packaging must be kept to the minimum necessary
- Lighter packaging is preferable because it takes less energy to transport
- Empty space inside packaging should be avoided

(2) Material use specifications

- Packaging made from recycled material/post-consumer plastics is preferable
- Composite packaging should be avoided because it is more difficult to recycle
- The packaging material should not consist of virgin or bleached cardboard
- Cardboard transport packaging must be made from at least 80 percent (bulk) recycled material

Example of reusable transport packaging: Corrugated cardboard pallet

Corrugated cardboard pallets are more environmentally friendly than conventional Euro-pallets. Thanks to their weight, the pallets save on transport and storage costs. They are also 100% recyclable and FSC certified. The pallets are available in different sizes and designs.

- The packaging must be made from at least 80 percent renewable resources (e.g., wood, hemp or other grass-, reed- or tree-based components). Wood must come from legal and sustainable forestry
 - If films are used, they must be made from transparent polyethylene (PE)
 - Polyvinyl chloride (PVC) must not be used
 - The packaging material must be recyclable
 - Product packaging and products/appliances that can no longer be used must be taken back by the supplier (and recycled or reused)
 - Refillable systems must be offered (for cleaning agents, for example)
 - Proof of the points required for a tender must be provided in the form of a manufacturer/tenderer statement.
- (3) Reuse specifications**
- A reuse system must be in place for the packaging

Example of reusable packaging: Refillable containers

For many everyday office products, refillable containers are available as an alternative to single-use containers. Examples include toner cartridges, pens or standard personal care product containers. This not only significantly reduces packaging waste, but also leads to a reduction in pollutant emissions. These products also have Blue Angel certification in many cases.



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