

GREEN

What it is. | How it works. | And why printing has to be this way.

Motivation | *noun*

The determination to achieve a goal. Ours is green, or environmentally friendly printing. **Why?**

It's simple.

We are responsible for our environment and making sure that we hand over the planet to the next generations as unspoilt as possible. A decade or two ago, ecology was something for do-gooders, idealists and greenies. Nowadays it is a crucial consideration – also from a financial perspective. Consumers, the customers of our (and your) customers, demand environmentally friendly products. These have long since left their niche position: they are no longer a trend, but a constantly growing market. At the same time, the protection of resources and the more efficient use of energy – or sustainability, as it is so often called – can also have a positive economic impact. The old saying 'It costs a lot to look after the environment' has had its day. Thankfully. The biggest challenges we face today – climate change, energy efficiency, limited resources – cannot be dealt with through laws alone. That's why we created our little glossary about green printing. To motivate people. To offer a reference tool.* To spark people into action and to support arguments, if necessary. Enjoy flicking through these pages.

Who we are.

The Eversfrank Group represents the effective combination of highly industrial printing services, sensible multichannel solutions and profitable environmental protection. We plan, develop and produce comprehensive solutions that are faster, more transparent, more affordable and – first and foremost – greener. Our work is done by a team of more than 1,200 employees in various specialist printing companies, system companies, sales offices (Scandinavia and Benelux) and a reforestation unit.



EVERSFRANK GROUP
PRINT. MEDIA. ENVIRONMENT.

** By the way, we always welcome comments, suggestions and even criticism. Although we have done our best to research and document the facts accurately, there are some things we don't know.*

Advertising space optimisation | *noun*

Ensuring the best possible use of the paper size when producing flyers and similar materials by selecting products based on consumer data. The aim is to have less advertising space without sacrificing product sales.

Auxiliary materials | *noun*

Generally speaking, a distinction is made between raw materials (e.g. paper), consumables (printing ink) and auxiliary materials. Auxiliary materials are not directly involved in the process, or they simply support it.

Back-to-use | *noun*

This is the name of a materials cycle concept developed by Steinbeis Papier and Eversfrank. (www.stp.de)

Eversfrank notes

► *Our central calculation software selects the optimum method of production from a wide range of in-house printing options, ensuring that only a minimal amount of paper waste results from cutting, for example. This can be expanded further with the intelligent integration of data via media production systems.*

► *We aim to use all materials sparingly. For this reason, we continuously analyse consumption levels, which are indicated on resource monitors (see REACh, p 40).*

► *This integrated regional material cycle results in 5,760 tons of new, high-quality recycled magazine paper from our 7,200 tons of single-grade paper.*

B.A.U.M. | *association* | *German*

The German Environmental Management Association is abbreviated as B.A.U.M., which means 'tree'. It is the largest environmental initiative of industry in Europe, bringing together economical, ecological and social issues since 1984. Their code of ethics is compulsory for all members and states: 'We understand nature, society, the economy and each individual company as part of a global ecological system, and the balance and biological diversity of this system are crucial for the survival of all life'.

(www.baumev.de)



Biological diversity | *noun*

Biodiversity is 'the variability among living organisms from all sources including [...] terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part' (CBD).

This refers to:

- diversity within species
- diversity between species
- diversity of ecosystems
- genetic diversity

Biological diversity therefore covers more than diversity of species, although these terms are often used synonymously. Conservation and the sustainable use of biological diversity are considered fundamental to human existence.

Eversfrank notes

▶ *We became a member of B.A.U.M. on 1 January 2011, and of course we undertake to follow the code (see left).*

▶ *We are heavily involved in the Kattbek Dunes biodiversity project, a flora and fauna habitat covering around 152 hectares in Schleswig-Holstein. This sparse habitat is poor in nutrients and especially worthy of preservation because of its wet heath and matgrass.*

📍 *www.eversfrank.com and www.evers-reforest.com*

Eversfrank notes

► For many years, we have met the Blue Angel requirements for a variety of products, including magazines, brochures, leaflets and inserts. At present, we have about 15 contractual licences for product identification. We are confident that we will also meet all the new requirements of the Blue Angel for environmentally friendly printed products in 2016.

► Our afforestation projects and their actual performance in terms of carbon offsetting are validated by the Thünen Institute of Forest Ecosystems, forest inventory offices and environmental forest monitoring agencies.

① www.ti.bund.de

Blue Angel | *environmental label*

The oldest environmental label (1978) for products and services. Independent and exacting, it examines the impact on climate, resources, water, soil, air and people. Relevant in the area of printing are RAL-UZ 14 (recycled paper) and RAL-UZ 72 (printing and press paper), which are valid until 31 December 2015. After this date, more stringent requirements must be met concerning the ability to recycle all the substances and mixtures used, printer inks and coatings, emissions, waste management and energy management. (www.blauer-engel.de)



Carbon certificate | *noun*

See also → **CO₂ compensation** (p 8). Proof that (inevitable) CO₂ emissions have been compensated through investments in climate protection projects. At present there are two levels: state-controlled trade in compliance markets (see → **emissions trading**, p 14) and the voluntary market. In the latter case of voluntary offsetting, independent institutes certify the climate-protection effect of projects so that compensation is guaranteed. Companies generally use these certificates as a → **CSR** measure (p 10) to promote their image.

Carbon footprint | *noun*

See also → **CO₂ footprint** (p 9). This describes the total amount of carbon dioxide emissions caused directly or indirectly by activities such as printing a catalogue. It can be calculated for individuals, companies, organisations or events. It also serves as a decision criterion in environmentally friendly production. Based on the carbon footprint, harmful greenhouse gas emissions can be compensated (see also → **CO₂ compensation** (p 8)). This may be done by investing in forestation or other climate protection projects.

Chemicals regulation | *noun*

See also → **REACH** (p 40). Registration, Evaluation, Authorisation and Restriction of Chemicals. Europe-wide legislation on chemicals that requires the manufacturers and importers of chemicals to assume responsibility for the safe handling of their substances. This means that chemical substances may only be placed on the market after they have been registered. As downstream users, companies in the printing industry are also affected (Article 33 details information requirements for substances of very high concern (SVHCs)).

Eversfrank notes

▶ *We regularly receive an up-to-date report on the carbon footprint of all our printing houses. This calculates and documents all greenhouse gas emissions and their sources in accordance with the internationally recognized Greenhouse Gas Protocol. This information forms the basis of our climate-neutral print production.*

❶ www.ghgprotocol.org and www.eversfrank.com

▶ *We have written declarations from our suppliers that the raw materials, auxiliary materials and consumables we use do not contain any listed SVHCs in a concentration above 0.1% by mass.*

Circular economy | *noun*

A production principle whereby all the raw materials are used again in the production process (if possible) after the product life cycle. → **Back-to-use** (p 2), the opposite is a disposable economy.

Climate change | *noun*

Often used as a synonym for global warming or the → **greenhouse effect** (p 28). Today, scientists agree that man-made greenhouse gases represent 'a significant factor' in global warming. Improving energy efficiency is a central element of climate protection. Given that this often results in more products being made with the same level of energy consumption, switching to renewable energy sources is essential. Equally important are the promotion of sustainable agriculture and an end to deforestation in large forest areas.

Eversfrank notes

▶ *Together with Steinbeis Papier, we are part of an integrated regional back-to-use process in which 5,600 tons of high-quality recycled magazine paper is produced each year (see Back-to-use, p 2).*

▶ *In addition to our own efficiency improvement projects, we have been involved in a large-scale photovoltaic plant in the Dithmarschen area since 2010. Every year, this prevents approximately 390,000 kg of CO₂ emissions. We also operate a district heating network, using excess heat from production to heat to the indoor and outdoor swimming pools in Meldorf.*

Climate-neutral | *adjective*

This describes processes or activities that do not alter the balance of the atmosphere. For instance, not giving off CO₂ emissions or compensating them somewhere else with a measure to reduce the same amount of CO₂ (e.g. afforestation). → **Climate neutralisation** (*see below*).

Climate neutralisation | *noun*

This describes the compensation of unavoidable CO₂ emissions through climate protection projects at a different location that reduce the corresponding volume of greenhouse gases. It is only the total amount of greenhouse gases that dictates the overall extent of global warming, climate change and the greenhouse effect. Where they are emitted is less important.

Eversfrank notes

▶ *We believe that dressing things nicely helps nobody. With the current state of technology, printed products cannot be made without impacting the environment. In other words, 'carbon neutral printing' is not generally possible today; we can only talk of climate-neutralisation or compensating. And we offer these options to our customers in a wide range of formats (see *Forestation*, p 25, and *CO₂ compensation*, p 8).*

▶ *When it comes to neutralising CO₂ emissions, our options are not restricted to printed products. It is also possible to compensate the climate footprint with measures affecting company vehicles, travel, events, letter mail and so on.*

 www.evers-reforest.com

Eversfrank notes

CO₂ | *noun*

The chemical formula for carbon dioxide, a non-flammable acidic gas that is invisible and has no smell. It is created during the complete combustion of carbonaceous substances in the presence of sufficient oxygen and in the bodies of living beings. Carbon dioxide is converted into biomass by plants as well as some bacteria and archaea. It is the best-known greenhouse gas and largely responsible for climate change. Global CO₂ emissions amounted to 35.6 billion tonnes in 2012, representing an increase of 2.6% over 2011, which was already a record year.

(Source: Max-Planck-Gesellschaft, www.mpg.de)

CO₂ compensation | *noun*

A synonym for carbon offsetting or climate compensation. Usually an investment in projects to reduce greenhouse gases (e.g. afforestation, wind power, solar power, geothermal energy). This does not reduce the actual CO₂ emissions, but goes towards neutralising them.

▶ *We have significantly reduced CO₂ emissions over the last decade, for example by 30% at the Meldorf site. Furthermore, we have prevented indirect CO₂ emissions since 1 July 2013 by using green electricity.*
(See green electricity, p 28)

▶ *Our options for compensation: neutralisation of the emissions caused by printed products, letter mail, the company fleet, events, travel and so on through afforestation projects in Germany organised by Evers-ReForest and by investing in international projects with First Climate.*

① www.firstclimate.de
www.evers-reforest.com

CO₂ footprint | noun

See also → **carbon footprint** (p 5). Sometimes called the CO₂ balance. The principles of this calculation are set out in ISO 14044. The relatively new ISO 16759 from 17 July 2013 applies to the graphics industry – from labels and packaging to books, catalogues and newspapers. It guarantees that the CO₂ calculations used by print service providers comply with internationally recognized standards and facilitates a comparison of their printed products or productions.

Core indicator | noun

A standardised figure that is used to present the results of the environmental input/output balance of a company in order to assess its development. In → **EMAS** certification (p 13), core indicators are calculated for key areas → **environmental aspects** (p 16) such as energy efficiency, material efficiency and waste efficiency. The printed items being produced (*output*) are thus compared to the resources used (*input*). The smaller the value, the better.

Eversfrank notes

▶ *We were involved in the German mirror technical committee on the environmental compatibility of printed products as part of the DIN Standards Committee for Printing and Graphic Technology, and in the future we will have our carbon footprint calculated in accordance with ISO 16759.*

▶ *An example: Last year we reduced our core indicator for CO₂ at the Berlin site by 81.5% to 0.025. How? By switching to 100% green electricity.*

CSR | *acronym*

Short for **corporate social responsibility**. A term for the social responsibility that companies choose to accept over and above the statutory requirements. It describes an overall commitment that opens up corporate policy to social, cultural, environmental and economic aspects. CSR is an important consideration for consumers and the recruitment of new employees.

Dangerous goods | *noun*

Also known as hazardous materials – substances for transport by specially authorised vehicles only. These include compounds, mixtures and objects whose properties (physical, chemical, etc.) may be harmful for 'the general public, important common property, the life or health of humans and animals, and other things'. Examples in the printing industry include flammable solvent residues and used cleaning cloths that are spontaneously combustible.

Direct discharger | *noun*

Regulatory definition of a commercial or industrial operation that empties its 'clarified' effluent directly into a river or similar body of water and not in the public sewer system.

Eversfrank notes

▶ *'We are not alone in the world.'*
This is a maxim that shapes us and all that we do, including our purchasing and procurement policies, which define our principles of cooperation and the necessary environmental standards.

① www.eversfrank.com

▶ *We have internal and external risk prevention officers and carry out regular audits. Our employees are also trained with courses that deal with securing loads.*

▶ *We are not a direct discharger, but so-called indirect discharger. This is because we process or treat some of our wastewater from production so that it can flow back into the public sewer system. We hand over everything else to the appropriate waste management companies. (See wastewater, p 46)*

Diversity of species | *noun*

The entire variety of biological species in a natural habitat. This term is often used synonymously with → **biological diversity** (p 3), although it is only one aspect of it. There are only estimates of the total number of species around the world, and some of these vary greatly. Why is it essential to preserve them all? According to the → **rivet hypothesis** (p 42), every single species is essential to keep the ecosystem balanced.

Eco-efficiency | *noun*

A key figure for products or processes that compares the costs incurred in the manufacturing process, for instance, against the ecological impact of a product from creation to disposal. The aim is to reduce costs by saving environmental resources.

Eversfrank notes

▶ *Given that the IUCN Red List of Threatened Species mainly contains organisms that depend on forest environments, we launched Evers-ReForest, and we are actively involved in supporting a large fauna and flora habitat that is right on our doorstep.*

📍 www.eversfrank.com and www.evers-reforest.com

▶ *Generally speaking, we have a fairly high level of eco-efficiency because of our commitment to the environment. The back-to-use concept (p 2) achieves the best possible values in all areas, from energy and transport to water and wood.*

Eversfrank notes

► *We have certification for the eco-labels Blue Angel, Nordic Swan, FSC, PESC and the EU Flower, and we can provide these to our customers accordingly. This means that their commitment to the environment can be communicated to consumers quickly and in a credible way.*

► *We develop detailed ecological balance sheets (listing input and output) as part of our environmental statements. These are checked and approved each year by external environmental experts.*

Eco-label | *noun*

Also called environmental label. A seal or label that quickly signals to consumers that a product has been made using (more) environmentally friendly technology. Examples: → **Blue Angel** (p 4), → **EU Ecolabel** (p 23), → **Nordic Swan** (p 36), → **environmentally friendly paper** (p 19).

Ecological balance sheet | *noun*

A systematic evaluation of the environmental impact of a product throughout its life cycle (or until a defined point in processing). This also incorporates the effects of manufacture, use and disposal as well as any associated or downstream raw and auxiliary materials. The environmental impact covers the extraction of raw materials such as oil and ores as well as emissions and waste. Complete ecological balance sheets are certified according to ISO 14040.

EMAS | acronym

The Eco-Management and Audit Scheme, or the EU eco-audit. As its name suggests, this is a voluntary community programme of environmental management and audits aimed at organisations that want to improve their environmental performance. Annual environmental statements are published to present the ecological balance from operations in concrete numbers, which are checked and approved by independent environmental auditors.



EMAS Awards | award

A European prize for environmental management. Each year, the EU Commission recognises organisations that have been certified according to → **EMAS** (p 13) for outstanding environmental performance. Each edition of the award focuses on a different green topic.



Eversfrank notes

▶ In 1998, our site in Preetz became the first company in our group to receive EMAS certification. Today, almost all of our production facilities share multi-site certification. And in 2015, ABC Industriebuchbinderei will be added to the list.

▶ 2011: Evers-Druck awarded first place among German entrants in the category for large organisations and nominated for the European competition.

Emission | *noun*

The production and discharge of harmful substances. These are often in gas (e.g. CO₂, methane), liquid or powder form. However, there are also acoustic emissions (noise) as well as light and radiation. Emissions cause pollution (absorption or intake, sometimes known as 'immission'). The source of an emission is called the emitter. In the light of climate change, CO₂ emissions are probably the best known at the moment.

Emissions trading | *noun*

See also → **carbon certificates** (p 4). An environmental policy instrument for reducing CO₂ emissions. Companies that have to take part are allocated emission allowances (also called pollution rights). If a company reduces its emissions to a level below the allowance, it may sell its extra pollution rights. If the opposite is true, it has to buy a greater allowance, otherwise a penalty must be paid. Emissions trading has come under severe criticism because there is a surplus of allowances and their prices have dropped so dramatically. A regulatory reform was rejected by the European Parliament in April 2013.

► *It really goes without saying: we adhere to all the requirements of the Federal Immission Control Act. However, in many areas we also do much more. We have reduced our CO₂ emissions by 30% in the last 10 years. * Particulate emissions have been reduced by a factor of 20, bringing them far below the statutory limit of 20 mg/m³.*

** at designated sites*

► *Laws are well and good, but we believe a voluntary commitment does even more. Not because we have to, but because we want our work to cause as little environmental pollution as possible. It is a principle we have been following since the 1980s.*

① www.eversfrank.com

Energy efficiency | *noun*

A measurement of energy expenditure geared towards achieving a certain value. Greater energy efficiency usually means energy savings. This is often the result of a certified → **energy management** system (p 15) that makes processes and energy use transparent from beginning to end.

Energy management | *noun*

The systematic planning and implementation of processes within a company to save energy. This entails increasing → **energy efficiency** (p 15), reducing costs and reaching climate targets. Certified according to → **DIN EN ISO 50001** (p 31).

Eversfrank notes

▶ *For us, energy efficiency is the optimal synergy between ecology and economy – a principle we have been following for many years. Since 2003, we have increased our energy efficiency by 40%.**

** at designated sites*

▶ *Since 2012, all of our production facilities have been certified according to DIN EN ISO 50001. This leads to even greater transparency and energy efficiency as well as the better conservation of resources.*

Eversfrank notes

► *As part of the EU environmental audit (EMAS), the relevant environmental aspects in our group are identified and analysed – both the direct, which are under our control, and the indirect, which arise in connection with third parties and can be reasonably influenced by us. The assessment criteria are:*

- *Environmental impact and relevance*
- *Influence on activity and control*

► *Internal and external environmental audits are carried out each year at our EMAS-certified sites. The effectiveness of environmental management and our environmental performance is controlled, documented, assessed and validated.*

Environmental aspects | *noun*

The cause of an environmental impact. For example, the environmental aspect of energy/electricity has an effect on greenhouse gas emissions.

Environmental assessment | *noun*

A regular survey of environmentally relevant activities in production and an inspection of regulatory compliance.

→ **Environmental audit** (*see below*).

Environmental audit | *noun*

See → **EMAS** (p 13), → **ISO 14001** (p 31).

Environmental Business Award | *award*

In German: Umweltpreis der Wirtschaft. This award has been presented each year since 1984 by the Society for the Study and Support of Economy in Schleswig-Holstein (SIFG). The aim is to communicate to the public that companies are aware of their shared responsibility for an unspoilt environment and take action to promote the protection of nature and the environment.



Studien- und Fördergesellschaft
der Schleswig-Holsteinischen
Wirtschaft e.V.

Environmental certification | *noun*

The regular inspection, evaluation and approval of measures carried out by a company with respect to environmental protection/ → **environmental management** (p 19) and the results. → **EMAS** (p 13), → **ISO 14001** (p 31).

Environmental factors | *noun*

Describes the environmental influence on an organism. Such factors may be biotic (e.g. predator) or abiotic (climate, stress).

Eversfrank notes

▶ *In 2010, our Meldorf site received this prize for its various activities in environmental protection and the conservation of resources, including the planting of mixed deciduous forests.*

▶ *Our first production site received EMAS certification in 1998. Today, almost every printing facility in the Eversfrank Group holds the same certification.*

▶ *Our central environmental policy is designed to minimise environmental impact or to avoid it altogether if possible (see Environmental policy, p 20, and environmental statement, p 22).*

Eversfrank notes

▶ *With respect to all laws, regulations and instructions, we believe that each and every person in our group must contribute to environmental protection. It therefore goes without saying that all employees have access to the content of the environmental handbook. How else could it work?*

▶ *Naturally, we are able to demonstrate environmental impact in accordance with legal requirements.*

▶ *In our production operations, quantifiable data is regularly collected, analysed and summarised as environmental indicators. This makes it possible to detect notable developments and changes at an early stage and to take countermeasures if necessary.*

Environmental handbook | *noun*

An essential element of environmental management. It documents environmental protection strategies, procedures and organisations as well as the environmental impact and the associated measures. It is completed with work and process instructions. It also affects neighbouring areas such as controlling instruments and information systems.

Environmental impact assessment | *noun*

Acronym: EIA. The examination of projects (e.g. construction) in advance to determine and assess the possible direct and indirect environmental impact. The results are called an environmental impact study.

Environmental indicators | *noun*

These quantify the environmental impact of a company in figures. They are used to assess the effectiveness of the existing environmental management system.

Environmentally friendly paper | *noun*

See → **paper certification** (p 36), → **Blue Angel** (p 4),
→ **EU Ecolabel** (p 23), → **FSC** (p 26), → **PEFC** (p 38),
→ **Nordic Swan** (p 36), → **recycled paper** (p 40).

Environmental management | *noun*

A synonym for → **green management** (p 30). Describes planning and processes whose implementation and monitoring contribute towards environmental protection at a company. Specifications here are DIN EN ISO 14001 and the EMAS regulation.

Environmental manager | *noun*

Also called an environmental management officer (EMO). Responsible for implementing the environmental management program. According to → **ISO 14001** (p 31) and → **EMAS** (p 13), companies are required to employ an EMO. Such people have defined tasks, responsibilities, and authority in the environmental management system. They report to top-level management.

▶ *Our environmental management systems, which we introduced under EMAS and ISO 14001, have received several awards for quality and effectiveness.*

▶ *There is a designated environmental management officer for every printing house location. The main environmental manager is Hauke Klinck. If you have any 'green' questions, he would be pleased to answer them.*

Eversfrank notes

► *In our environmental policy, we have clearly stated that we aim to continuously improve our environmental performance. That is why we introduced a long-term environmental management system such as EMAS with its annual inspection by independent auditors back in the late 1990s.*

► *The principles of our environmental policy are enshrined in our environmental statement and form the basis for all activities. Also required for EMAS certification in this respect:*

- *Promotion of environmental awareness*
- *Assessment of environmental compatibility*
- *Comprehensive communications*
- *Specification of corporate environmental targets*
- *Conscientious use of resources*
- *Involvement of employees*
- *Continuous success monitoring*
- *Benchmarking*

Environmental performance | *noun*

This refers to the (measurable) results of all the activity at a company towards environmental protection.

→ **Environmental policy** (p 20).

Environmental policy | *noun*

The entirety of political measures geared towards protecting the environment. These began in the 1970s as a result of environmental and anti-nuclear campaigning. In 1974, policy became institutionalised with the establishment of the Environmental Protection Agency. Environmental associations (non-governmental organisations) play a crucial role here, as they think beyond the departmental boundaries of the political world and speak out about problems and deficits. The term 'environmental policy' is now used to describe the ecological principles of a company.

Environmental protection act | *noun*

A popular term for environmental law. In Germany, this manifests itself in numerous laws and regulations, such as the Environmental Impact Assessment Act (UVPG), the Federal Building Code (BauGB) and the Federal Immission Control Act (BImSchG). For years, scientists and lawyers have been demanding a summary in the form of an environmental code that makes it easier to reconcile individual rules.

Environmental standard | *noun*

A standard limit or guideline used in laws, regulations and similar specifications.

Eversfrank notes

▶ *It goes without saying that we comply with all the legal requirements. Our voluntary efforts extend much further than this. This is a result of both our individual environmental policy and our corporate philosophy. On the other hand, this is the only right approach in the light of global warming (see also EMAS, p 13, forestation, p 25, CO₂ compensation, p 8).*

▶ *To date, there have been no consistent environmental standards in the printing industry. We are involved in a work group to develop an ISO standard for this specific industry (ISO 14076 'Carbon footprint of products'). Here it is important to define the requirements for measuring the CO₂ balance in the creation of printed products. Product category rules for printed products (ISO 14025) should also be used.*

Eversfrank notes

► *Since the 1997/98 financial year, we have regularly published our environmental statements, detailing our commitment for the benefit of customers, suppliers, employees and interested parties with complete transparency. This is a form of motivation on the one hand, but it is also evidence of the synergy between ecology and economy.*

Environmental statement | *noun*

An annual publication about the environmental activity of companies or corporations. This must be produced as per the EU Eco-Management and Audit Scheme (EMAS) regulation. It includes:

- A description of the company's activities
- An assessment of all the relevant environmental issues related to the activities
- An environmental balance – a summary of information about pollutant emissions, waste production, the consumption of raw materials, energy and water, and other key environmental aspects
- A presentation of environmental performance (findings of the environmental balance sheets) based on → **core indicators** (p. 9).
- Other factors affecting environmental protection
- A presentation of environmental policy, the environmental programme, aims and the environmental management system
- The deadline for submission of the next environmental statement
- The name of the authorised environmental auditor

EU Ecolabel | *eco-label*

Also called the EU environmental label or the EU Flower. Awarded to products and services. The criteria for printed products were defined in August 2012: only paper with the EU Ecolabel may be used, which is characterised by low energy consumption among other things. The requirements for printing companies concern chemicals, emissions, waste, wastewater, energy use and so on.



EU Flower | *eco-label*

→ **EU Ecolabel** (*see above*).

Evers-ReForest | *forestry company*

In 2009, we launched a project to compensate greenhouse gas emissions that remains unique in the printing industry. The afforestation of mixed deciduous forests in Schleswig-Holstein helps to compensate the CO₂ emissions caused by the creation of printed products. This is validation by the → **Thünen Institute** (p 44), the Federal Research Institute for Rural Areas, Forestry and Fisheries.



Eversfrank notes

▶ *We were one of the first European printing companies to create printed products with the EU Ecolabel (licences DE/028/001 and DE/028/002) – a demanding and comprehensive seal. In late 2014, Eversfrank Preetz received EU Flower certification.*

▶ *We have planted 175,000 trees for over 40 customers to date. Last year alone, we compensate more than 3,500 tons of CO₂. The 200,000th tree will enter the ground later this financial year.*

📄 www.evers-reforest.com

► For all our printing houses, an annual emission report is produced that includes details of the carbon footprint. Although we do not calculate a separate water footprint, we have reduced water consumption by 95% by switching from cooling tower technology.*

* at designated sites

► Printing means paper – and that is usually made from wood. It follows that we have a large responsibility for the forest. For us, this is reason enough to drive recycling and to support sustainable forestry – to say nothing of Evers-ReForest, an initiative we launched in 2009 for afforestation projects in North Germany. (See also FSC, p 26, PEFC, p 38, forestation, p 25, Evers-ReForest, p 23)

Footprint | noun

A measurement of how human activity impacts the environment. See also → **CO₂ footprint** (p 9) or → **carbon footprint** (p 5). There is also a water footprint for direct and indirect water consumption. The ecological footprint refers to how much of the planet's surface is needed to sustain one person's lifestyle and standard of living. This includes the space used to produce clothing, food and energy as well as recycling, waste disposal and CO₂ compensating. Dimension: hectares per capita per year:

- An EU citizen has an eco-footprint of 4.1
- A Latin American has an eco-footprint of 2.7

(Source: Wikipedia)

Forest | noun

A complex ecosystem. It contains an enormous variety of plants and animals as well as trees. After oceans (and humans), forests are a key driver of climate. They are the main producers of oxygen and play an important role in the effective reduction of carbon dioxide. A distinction is made between jungles, working forests (natural and non-natural environments) and plantations. Worldwide, only seven extensive primeval forests remain, but these are being decimated by deforestation at an alarming rate: every two seconds, we lose a section of rainforest of the size of a football pitch. About one-fifth of all greenhouse gases in the atmosphere are caused by this destruction. Indonesia and Brazil are thus the world's largest CO₂ emitters.

Forestation | *noun*

Planting or seeding trees to restore a woodland area (reforestation) or to create a new one (afforestation). One of the aims is to increase biological diversity. It also captures and stores CO₂, helping to reduce the greenhouse effect.

Fossil fuel | *noun*

Energy sources such as crude oil, natural gas, lignite, coal and peat that consist of decomposed plant and animal matter, or in other words organic carbon compounds. When these substances are burned in the presence of oxygen, carbon dioxide is released (as well as nitrogen oxide, soot and dust). For this reason, they are the main cause of the greenhouse effect and climate change according to the Intergovernmental Panel on Climate Change. Moreover, their supply is finite. A study presented by the Energy Watch Group on 25 March 2013, states that 'it is quite likely that in 2030 world oil production will have declined by 40 percent compared to 2012'.

→ **Renewable energy** (p 42).

Eversfrank notes

▶ *Since 2009, we have compensated CO₂ emissions due to printing production, company vehicles, postage and many other things by afforesting areas in Schleswig-Holstein as part of the Evers-ReForest project.*

 www.evers-reforest.com

▶ *Our current electricity supply represents a mixture of power from different energy sources. By the middle of 2012, our CO₂ emissions were thus at a level of 235 g/kWh. As a result of the energy transition, they have since increased to 338 g/kWh (compensation of nuclear electricity using coal power plants). The average CO₂ emissions in Germany are 503 g/kWh. (Source: BDEW, November 2012)*

Eversfrank notes

► *FrischLuftPost is an Evers-ReForest project that makes an unambiguous contribution to climate protection. It is simple and convenient: the stamps are ordered online and then just have to be affixed to the envelope.*

① www.evers-reforest.com

► *We want our customers to be in a position to promote the responsible use of global forest resources – in social, environmental and economic terms – with as little effort as possible. That is why we have multi-site FSC certification and offer printed products of a corresponding standard.*

FrischLuftPost | noun

A method of offsetting CO₂: The FrischLuftPost (FreshAirMail) stamp compensates greenhouse gas emissions caused by sending mail. The system is based on CO₂ calculations by recognized institutes. FrischLuftPost supports afforestation projects in Schleswig-Holstein.



FSC® | paper certification

Short for Forest Stewardship Council®.

An international not-for-profit organization that certifies sustainable forestry. It carries out checks from the cultivation of raw materials to paper processing in the printing company. Every company involved in trading and processing must be FSC-certified in order for brochures and other materials to receive the FSC label. Furthermore, the origin of the wood must always be documented. There are various labels: 100% FSC. FSC Mix. FSC Recycling.



Das Zeichen für
verantwortungsvolle
Waldwirtschaft

GHG Protocol | *noun*

Short for the **Greenhouse Gas Protocol Corporate Standard**: recommendations by the World Resources Institute (WRI) concerning the balancing of greenhouse gases by companies. The standard defines basic principles such as relevance, completeness, consistency, transparency and accuracy. It is based on the methods used for financial reporting. A particularly important aspect is the division of emissions into three 'scopes'. Scope 1 records all the emissions caused by combustion in a company's own equipment and systems. Scope 2 deals with emissions associated with purchased energy (e.g. electricity and district heating). Scope 3 covers emissions connected to services provided by third parties and purchased up-front services. Together with ISO standards, these scopes are crucial when determining the → **carbon footprint** (p 5). This is especially true for companies not subject to the Emissions Trading Act, as they still face hardly any legal requirements.

Green | *adjective*

One of the primary colours. It represents nature, youth, life and hope. It has also provided the name for the environmental movement around the world and the environmental party in various countries. Green stands for ecology and environmental protection. Given the importance of → **LOHAS** (p 33), a growing group of consumers whose behaviour is linked to sustainability, being 'green' is now a differentiating feature for products and services.

▶ *The carbon footprints of our sites are measured based on the GHG Protocol and also include Scope 3 with the emissions caused by up-front and other services.*

▶ *For us, 'green' is an aspect of quality, a criterion that guides our work and a firmly anchored principle. That is why we are involved in the DIN committee on the environmental compatibility of printed products, for instance. And we are taking part in efforts to create an ISO norm concerning uniform standards for measuring and calculating the CO₂ balance in specific industries.*

Eversfrank notes

► *In recent years, it was not possible for us to use nothing but green electricity because of availability, pricing and competition. Things have since changed. On 1 July 2013, the entire Eversfrank Group began working with green electricity from 100% renewable sources (see fossil fuel, p 25).*

► *Considering these problems, there is no discussion with us about environmental protection or environmentally friendly printing. Our goal remains to avoid emissions and to offset as much as possible.*

Green electricity | *noun*

Also called renewable electricity. This refers to electricity obtained from renewable energy sources such as wind, solar and water. The definition is not binding in Germany. The German Renewable Energy Federation (BEE) considers anything to be 'green electricity' if at least half of it comes from renewable energy sources.

Greenhouse effect | *noun*

Global warming due to CO₂, methane and so on. See also → **climate change** (p 6). The two-degree target of international climate policy (limiting global warming to two degrees) is at serious risk due to the uncertain development of global climate change, rising energy demand and the slow implementation of related reduction commitments to date. Fatih Birol, chief economist at the International Energy Agency (IEA) has stated that "it is practically impossible to manage the emission reductions associated with the two-degree target."

Greenhouse gas | *noun*

Gases in the atmosphere that affect radiation, contributing to the → **greenhouse effect** (p 28). The Kyoto Protocol defines greenhouse gases as → **CO₂** (p 8), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), sulphur hexafluoride (SF₆) and nitrogen trifluoride (NF₃). In everyday speech, people usually mean CO₂.

Greenie | *noun*

Something between an 'eco-warrior' and a 'hippy', to use the slang expressions – essentially a person with a sense of environmental responsibility. Until a few years ago, such people were dismissed as idealistic do-gooders who knifed their own socks. Today, being green has become a differentiating feature for companies, products and services. → **LOHAS** (p 33).

Eversfrank notes

▶ *We have stated that our goal is to avoid greenhouse gases or to reduce them as far as possible. This only applies to our CO₂ emissions. Other greenhouse gases such as methane, nitrous oxide, hydrofluorocarbons and sulphur hexafluoride are present in negligible quantities. All of our production facilities use 100% green electricity.*

▶ *We have to confess that we would never describe ourselves as 'greenies'. In some respects this would be too much: printing companies are highly technical industrial companies, after all. But in other respects, such a nickname would not be enough. We also stand out for our quality, innovations and social commitment. But if it helps to promote green printing, then we really are 'greenies'. We're happy to be seen like that.*

Green management | *noun*

A synonym for → **environmental management** (p 19).

Greenwashing | *noun*

Using PR or advertising to convey an environmentally friendly image without the necessary substantial basis for such a claim. There is also the phenomenon of 'bluwashing', which describes a similar kind of image with respect to social responsibility.

Immissions | *noun*

Based on the Latin for 'sending in'. The effect of an → **emission** (p 14) (production and discharge), or in other words absorption or intake. Immissions can be gas, particulate, heat, light or noise.

▶ *If you think that this glossary is also just advertising, we recommend taking a look at our environmental statements. Our environmental manager Hauke Klinck would also welcome a discussion.*

▶ *We adhere to all the legal requirements of the Federal Immission Control Act, which controls our printing houses – guaranteed. In a number of areas, our performance is far below the mandatory limits (see emissions, p 14).*

ISO 14001 | *noun*

International Organization for Standardization. A global network of national standards bodies. DIN EN ISO 14001 is the international standard for environmental management. Certification is on a voluntary basis, geared towards the continuous improvement of environmental performance. However, compiling and publishing an environmental statement is not required, unlike for → **EMAS** (p 13).

ISO 50001 | *noun*

International Organization for Standardization. A global network of national standards bodies. DIN EN ISO 50001 is the international standard for systematic energy management. This certification came into effect on 24 April 2012. Participation is voluntary. It makes energy flows transparent and provides a basis for the continuous improvement of → **energy efficiency** (p 15).

Eversfrank notes

▶ *Most of our printing sites have EMAS certification, which includes ISO 14001. Accordingly, we regularly publish environmental statements that are checked and approved by independent experts.*

▶ *Our production sites have been certified according to ISO 50001 since June 2012. For us, this is another important step towards improving energy efficiency even more consistently. And since the summer of 2014, the same has applied to our industrial bookbinding business.*

Isopropanol | *noun*

Also called isopropyl alcohol or shortened to IPA. A water-soluble, flammable and volatile solvent with a flash point of 12°C. It is required in offset printing for the dampening solution film (up to 15%). However, changes to the technical equipment and the use of substitute substances can reduce the IPA concentration to a minimum or avoid it altogether, which is also recommended in the interest of occupational safety and for cost reasons.

Klimaschutz-Unternehmen | *initiative | German*

This translates as 'Climate Protection Companies' – a project by the Federal Environment Ministry, the Federal Ministry for Economic Affairs and Energy and the Association of German Chambers of Commerce and Industry (DIHK). It is a network of German companies that stands out for innovative measures in climate protection and energy efficiency that go beyond the legal requirements. The criteria for entry are strict and ambitious. The jury includes representatives from the Federal Ministry for the Environment, the Federal Ministry for Economic Affairs and Energy, Economy, the German Energy Agency (dena), DIHK and EMAS in Brussels (www.klimaschutzunternehmen.de).



Eversfrank notes

► *Over the last ten years, we have continuously reduced the use of IPA – by 70%. * This is good, but we want to go further. Reducing or avoiding IPA is one of our stated environmental goals, and we are determined to pursue it.*

** at designated sites*

► *In 2012, our site in Meldorf became the 19th member of this initiative for excellence – and we are more than a little proud of this.*

LOHAS | *acronym*

Lifestyles of health and sustainability. A demographic group of people who place particular importance on health, the environment and principles of social importance and sustainability. This is considered to be a very heterogeneous target group with an above-average income on the whole. LOHAS customers include people who use organic food shops and buy fair trade products, possibly enjoying outdoor holidays, nature trips and so on.

Material efficiency | *noun*

The ratio of output (products made) to input (the material used) and the associated emissions and waste. This is determined using life cycle assessment (LCA) methods.



ZUKUNFTSprogramm
Wirtschaft

Investition in Ihre Zukunft

Eversfrank notes

▶ *We can 'do green'. That is why we make it easy for our customers to present a credible approach to environmental management that enhances their image, be it with carbon compensating, the EU Flower, FSC, PESC, Nordic Swan or Blue Angel. Other options are forest sponsorship and FrischLuffPost.*

 www.eversfrank.com

▶ *In January 2011, we launched a project to increase material efficiency. This in-house development of online process control that encompasses all areas gives us the transparency we need to save more paper, energy, ink and CO₂ emissions. For example, at the Meldorf site we are now able to reduce paper use by as much as almost 400,000 kg and bring down CO₂ emissions by 590,000 kg. This unique system in the printing industry was supported by an environmental innovation programme organised by the state of Schleswig-Holstein.*

Eversfrank notes

► *For sheet-fed printing we use inks with a very low level of mineral oils, currently less than 1%. We are working intensively on the use of mineral oil-free inks for web offset printing, and we can promise you now that, bearing in mind the additional costs that arise, they can be used with no loss of quality.*

► *As part of a study on this topic by the Consumer Association of North Rhine-Westphalia, we wanted to find out exactly where we stand with our products. The result of a voluntary sample analysis in a DIN EN ISO/IEC 17025 testing laboratory was that with MosH and MoaH at a level of between 100 and 1,000 mg/kg, our printed products were among those with the lowest concentration of mineral oils, especially in comparison to the competition.*

Mineral oil-free ink | *noun*

A series of 100% mineral oil-free inks that are primarily used for printing food packaging. They contain easily biodegradable vegetable oils that can be removed from waste paper without residue when recycled. At present they are much more expensive than mineral oil inks, and their shelf life is limited.

Mineral oil ink | *noun*

Mineral oils are the most important solvents in conventional printing inks. However, they are insoluble in water and poorly biodegradable – and mineral oil is in any case a limited resource. At present, these inks are standard around the world in web offset printing. Be that as it may, there are problems when recycling such printed products: they contain hydrocarbons (MosH, MoaH), which means they cannot be used in food packaging, for example, and they ‘contaminate’ other paper when they are mixed.

MoaH | *acronym*

Stands for 'Mineral oil aromatic Hydrocarbons'. Similar to MoshH, these play an important role in issues surrounding the migration of chemical substances in printed products.

Modular environmental protection | *noun*

A tool for implementing individual environmental strategies in companies. This describes a range of different ecological services that can be purchased separately.

MoshH | *acronym*

Stands for 'Mineral oil saturated Hydrocarbons' (see MoaH). Documented analysis shows that mineral oil inks used for newspapers, brochures and similar publications have a MoshH value ranging from about 100 to 3,000 mg/kg (parts per million). There are no regulatory limits at present, but guidance values in the low mg/kg range.

Eversfrank notes

▶ *See mineral oil ink, p 34.*

▶ *In addition to our standards (100% green electricity, various ISO and EMAS certification, carbon footprints and waste prevention), we offer four other environmental modules: paper certification, product certification, printing ink and climate neutralisation.*

▶ *See mineral oil ink, p 34.*

Eversfrank notes

► *Our printed products may be awarded the Nordic Swan label.*

► *Our production processes are designed in line with the requirements of certification bodies, which means that products may feature the corresponding labels (e.g. FSC, PEFC and Nordic Swan).*

Nordic Swan | *product identification*

A Scandinavian environmental label for paper and other products. It evaluates the whole life cycle, including energy consumption, water consumption and emissions. Compliance with the criteria is independently checked and transparently documented. Environmentally friendly production and waste reduction are essential. Such approaches give consumers a guarantee that the products they hold in their hands are as environmentally friendly as possible (including printed product).



Paper certification | *noun*

See also → **product identification** (p 39). A signal and a guarantee for consumers and users that a type of paper is produced and processed according to defined criteria. The documentation must be complete, transparent and easy to trace. See → **FSC** (p 26), → **PEFC** (p 38), → **Nordic Swan** (p 36).

Paper format optimisation | *noun*

Printing machines are not designed for every format there is. This results in greater paper consumption due to the poor use of space. Savings can be achieved by optimising the allocation of the machine and the printed material.

Paper waste | *noun*

Incorrect or damaged prints that can no longer be used. It may enter the recycling loop as waste paper. Paper waste is created during the set-up process and is otherwise mostly due to faults with equipment and systems. This can be avoided by optimising processes. The term 'waste paper' might also be used figuratively to describe pointless printed material.

Eversfrank notes

▶ *With our various production sites, we have access to a wide range of printing machines, so we can optimise the way desired formats or printed products are paired to the technology. For less paper waste!*

▶ *Of course, we try to minimise the production of paper waste (see material efficiency, p 33). Additionally, we have always carefully separated printed and unprinted paper waste so that it can be recycled (using DIRECTrecycling, see recycling) and sent to paper mills, mainly in the local region. No middle men, no unnecessary detours an no long journeys.*

Eversfrank notes

► *We have multi-site PEFC certification for all of our locations, which means that our printed products can feature this independent seal.*

► *We offer our customers comprehensive advice about the benefits of all types of paper – especially from an environmental perspective. They always make their own decisions.*

► *2009: winner in the category 'Environmental Company of the Year'. 2011: Print and Media Gold award presented to Karsten Evers for lifetime achievement. 2011: winner in the category 'Environmental Company of the Year' (Evers-ReForest). 2014: winner in the category 'Social Print Project of the Year'. ⓘ www.eversfrank.com*

PEFC™ | *paper certification*

See also → **FSC** (p 26). Programme for the Endorsement of Forest Certification. A transparent and independent system for ensuring sustainable forest management, including paper production. It also allows smaller forestry companies to receive an environmental label.



Primary fibre | *noun*

Fresh fibre from raw plant materials that is used to produce new paper. The opposite is waste paper – used (printed) paper or → **paper waste** (p 37) – which is processed as recycled paper.

Print and Media Award | *award*

Since 2005, the trade magazine Druck & Medien ('Print and Media') has presented high-profile industry awards each year in 22 categories. These are in recognition of exceptional products and services from individuals or companies. The jury consists of renowned experts, who are independent and unbiased.



PrintStars | award

Innovation Awards of the German Printing Industry. Recognises cutting-edge printed products in 25 categories.



Product identification | noun

See also → **paper certification** (p 36). In addition to the certified process chain, this considers other parameters of production, which are documented and validated according to the requirements. This concerns the use of energy, emissions, the volume of waste and wastewater, chemicals and the use of materials. → **Nordic Swan** (p 36), → **EU Ecolabel** (p 23), → **Blue Angel** (p 4).

Eversfrank notes

▶ *Our illustrated book about Evers-ReForest Landschafts- und Naturfotografie-Wettbewerb ('Landscape and Natural Photography Competition') earned us a finalist position in the 2012 PrintStars awards, where it was considered for the special 'Green Printing' prize.*

▶ *Our production processes and materials meet the requirements of the certifying bodies, which means that products may feature the corresponding labels (e.g. Nordic Swan, EU Ecolabel and Blue Angel).*

Eversfrank notes

► *Our ISO 12647 certification is much more than a guarantee for the high quality of our printed products. The significant elimination of errors and fewer interruptions to production results in less time spend correcting systems, less paper waste, lower energy consumption and, ultimately, lower production costs.*

► *If you want to know all the details, we would be pleased to send you our REACh confirmation.*

► *Different customers have different preferences, so the proportion of production that uses recycled paper varies in our printing houses. We believe the more, the better – and that is one reason why we produced this glossary.*

Quality assurance | *noun*

A range of activities and processes (standardised or voluntary) to ensure that a product or service reaches a specified level of quality. For printed materials, this is the Process Standard Offset (PSO), certified with ISO 12647-2.

REACh | *acronym*

Registration, Evaluation, Authorisation and Restriction of Chemicals. Europe-wide legislation on chemicals. → **Chemicals regulation** (p 5).

Recycled paper | *noun*

Refers to paper made from waste paper, see also → **paper waste** (p 37). The proportion of recycled paper must be at least 51% in order to receive the corresponding eco-label, such as the → **Blue Angel** (p 4). Recycled paper that does not have its ink removed (de-inking) is a grey shade and may be called 'environmentally friendly paper'.

Recycling | *noun*

The process by which waste products are made usable again and transformed into recycled materials. This existed back in ancient Rome: excrement was sold as fertiliser to farmers around towns and cities. The Recycling and Waste Management Act governs activity in Germany today. In the printing industry, this mainly concerns waste paper and chemicals such as detergents. The opposite to recycling is a throw-away mentality.

Reducing wastage | *noun*

The act of reaching precisely the right target audience in the media. This might be done by drawing on consumer information when designing printed products on media production systems or by customising products and parts of products. The result is a smaller print run and lower consumption of paper, ink and energy.

Eversfrank notes

▶ *Waste prevention and maximum recycling is what we do. With DIRECTrecycling, an independent broker for waste that does not require supervision, we have direct access to paper mills and plastic recyclers – right on our doorstep.*

❶ www.directrecycling.de

▶ *We offer automated media productions, multichannel media productions and one-to-one concepts. Their potential savings (money, time and resources) means they perfectly combine ecological and economical aspects.*

❶ www.comosoft.de or
www.eversfrank.com

Eversfrank notes

► *We have continuously increased the share of renewable energy in our electricity supply over recent years. At 26.5%, it used to be well above the national average (21.0% in 2012: BDEW, November 2012). Since 1 July 2013, the share has been 100%.*

► *Protecting biological diversity is also part of our commitment to the environment. We are actively involved in a project to preserve a fauna and flora habitat in the Kattbek Dunes.*

① www.evers-reforest.com

► *For all the relevant sites, we create a report detailing the use of solvents or VOCs in accordance with legal requirements. This creates clear and traceable documentation that we comply with all the limits.*

Renewable energy | *noun*

Also called alternative energy. Sources of energy or energy carriers that are either inexhaustible or renew themselves relatively quickly: water, wind, solar, geothermal, biogas, wood pellets, etc. Considered to be the central pillar of the energy transition together with higher energy efficiency. The opposite is fossil fuels such as oil, coal and gas.

→ **Fossil fuel** (p 25).

Rivet hypothesis | *noun*

A model used to illustrate the importance of species diversity. 'Every rivet on an aircraft fuselage helps to hold it together and prevent a crash. Similarly, every species is more or less important in terms of maintaining an ecosystem.' See → **diversity of species** (p 11) and → **biological diversity** (p 3).

Solvents | *noun*

Substances that dilute or dissolve gases, liquids or solids without a chemical reaction between the two substances. As part of the licensing requirements for printing facilities, volatile organic compounds and the mineral oils from printing ink are classified as solvents. This concerns inks for gravure, flexo and screen printing as well as the oils in offset printing inks (see → **MoA** and → **MOSH**, p 35). On top of this, there are detergents and → **isopropanol** (p 32), → **VOC** (p 45).

Species conservation | *noun*

This describes efforts to preserve animals, plants and so on. In addition to initiatives such as the Washington Convention (Convention on International Trade in Endangered Species of Wild Flora and Fauna) and the Convention on Biological Diversity (protection, management and recovery of species, genes and habitats), there is the principle sustainable nature use – one example being producing paper from sustainable forests.

→ **FSC** (p 26), → **PEFC** (p 38).

Sustainability | *noun*

Originally this referred to an enduring effect – constancy, permanency or lastingness. Its use in environmental language originated in forestry (cutting down no more trees than the number that could grow back). Since then, it has become an elastic word with many definitions. The most common use refers to the combination of ecology, economy and social justice to maintain the system intact for future generations.

Eversfrank notes

▶ *We offer our customers a range of certified, environmentally friendly paper on principle. And we have designed our company processes so that the use of paper is transparent and documented in each phase.*

▶ *As a family company that has existed for over 100 years, sustainability is part of what we do. Nevertheless, we place great importance on ensuring that everyone in the group is aware of their responsibility for the environment, from top executives to interns.*

① www.eversfrank.com

Thermal management | *noun*

Measures to improve energy-efficiency and the continuous conservation of resources. This is enforced by numerous regulations and laws in Germany, including the Energy Saving Act (EnEG), the Energy Saving Ordinance (EnEV), the Renewable Energy Heat Act (EEWärmeG) and the Combined Heat and Power Act (KWKG).

Thünen Institute | *research institute*

Full name: Johann Heinrich von Thünen Institute, Federal Research Institute for Rural Areas, Forestry and Fisheries. Part of the Federal Ministry of Food, Agriculture and Consumer Protection. It develops concepts for sustainable, ecologically compatible and competitive sectors of the economy in agriculture, food supply, forestry, timber, marine fishing and aquaculture. The Institute has scientific autonomy in the fulfilment of its tasks. (www.fi.bund.de)



Eversfrank notes

▶ A comprehensive thermal management system at the higher level is a continuous process. In recent years, we have reduced relative total energy use by around 40% (at the designated site) by using heat recovery technology at almost every source of heat.

▶ Our afforestation projects with Evers-ReForest to compensate greenhouse gases were validated by the Thünen Institute.

① www.evers-reforest.com

TI | *acronym*

Short for Technical Instruction. A general administrative regulation that sets out the legal requirements of environmental legislation in practice. It forms the basis of approval and orders from the competent authorities.

There are two key TIs:

- TI Noise
- TI Air

VOC | *acronym*

Volatile Organic Compounds include petrol and other fuels, such as benzene. They contribute to phenomena such as summer smog (an elevated concentration of ozone in the lower atmosphere). The printing industry is a VOC emitter due to the use of volatile cleaning agents and detergents as well as isopropanol, which is often used in offset printing.

Eversfrank notes

▶ *Within the framework of the Federal Immission Control Act (BImSchG), both TI Air and TI Noise are relevant for us. The measurements and limits specified in these documents are regularly checked by external independent institutes and experts – and of course we adhere to them.*

▶ *We create an annual VOC and solvent management report for our printing houses in accordance with the regulation on the limitation of volatile organic compounds emissions in the use of organic solvents in certain systems (31st version of BImSchV). This ensures that we not only adhere to the limits, but remain well below them in some cases.*

Eversfrank notes

Waste | *noun*

Bureaucratic language for garbage: 'all movable objects that the owner wants to or has to dispose of' (German Recycling and Waste Management Act). A distinction is made between waste that can be recycled and non-recyclable waste, also referred to as 'waste for disposal'. The term does not apply to substances that are discharged into the water system, sewage treatment plants and so on.

Wastewater | *noun*

Water that is contaminated through use. It exists in various forms:

- Grey water, for example from showers and baths, that can be used to treat industrial water.
- Black water: domestic wastewater (consisting of brown water and yellow water from toilets).
- Rainwater: surface run-off from paved surfaces. Such water is collected in the sewer system, transported to treatment plants for handling and finally discharged into bodies of water (receiving waters).

► *Waste prevention is an absolute must for us, immediately followed by the separation of materials for recycling. For example, the relative proportion of waste for disposal has been reduced by over 30% in recent years at designated sites (see paper waste, p 37, and recycling, p 41).*

► *We are what is known as an 'indirect discharger' (see also direct discharger, p 10). In other words, our wastewater is treated until it can be discharged into the public sewer system. Production wastewater that cannot enter the sewer system is collected and handed over to an approved waste disposal company.*

Water-polluting substances | *noun*

This refers in particular to chemicals that contaminate water or that cause an 'adverse change' to its properties. In principle, all substances are deemed to be water-polluting unless otherwise classified. In the printing industry, one example is isopropanol. There are three categories, from slightly hazardous to extremely hazardous for water.

Eversfrank notes

▶ *Our group-wide procurement guidelines require suppliers to provide environmentally friendly consumables and auxiliary materials wherever possible. We demand proof that they meet the criteria of Nordic Swan, the EU Ecolabel and Blue Angel.*

Imprint

▶ **Concept and text**

Barbara Kohlhas

📄 www.ko-ma.org

▶ **Production**

Eversfrank Group

▶ Printed on 100% recycled paper with the Blue Angel. The greenhouse gas emissions caused by the production of this glossary have been compensated by the planting of mixed deciduous forests in Schleswig-Holstein.

📄 www.evers-reforest.com

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