Glossary of sustainability related terms

The Industry of paints and printing inks has always been an enabler of sustainable solutions.

To facilitate communication and coordinate efficient actions towards the development of sustainable products, it is important to start by speaking the same language.

This glossary of sustainability related terms aims at clarifying the vocabulary often used when discussing sustainability, and is based on International and European standards.

The sources are always mentioned for the reader to be able to get additional information when needed.

"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs" Brundtland report - 1987

May 2017
## CEPE Glossary of sustainability related terms

<table>
<thead>
<tr>
<th>Term &amp; Definition</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Acidification potential</strong> - Examples are: Sulphur dioxide (SO2), Nitrogen oxides (NOx), Ammonia (NH3). Acid depositions have negative impacts on natural ecosystems and the man-made environment incl. buildings. The main sources for emissions of acidifying substances are agriculture and fossil fuel combustion used for electricity production, heating and transport.</td>
<td>European Commission Platform on Life Cycle Thinking¹</td>
</tr>
<tr>
<td><strong>Bio-based Products/Material</strong> - products fabricated from alternative agriculture materials or forestry materials or both.</td>
<td>ASTM D6866 / 2012</td>
</tr>
<tr>
<td><strong>Bio-based content</strong>: The amount of carbon, hydrogen, nitrogen and oxygen in the material or product originated from biomass as percentage of the weight</td>
<td>Association Chimie du Végétal</td>
</tr>
<tr>
<td><strong>Carbon footprint (CF)</strong> - also named carbon profile - is the overall amount of carbon dioxide (CO2) and other greenhouse gas (GHG) emissions (e.g. methane, laughing gas, etc.)[converted into CO2-equivalents] associated with a product, along its life cycle (including supply-chain, use, end-of-life)</td>
<td>European Commission Platform on Life Cycle Thinking</td>
</tr>
<tr>
<td><strong>Carbon dioxide equivalent</strong> - A metric measure used to compare the emissions from various greenhouse gases based upon their Climate change potential (CCP). The carbon dioxide equivalent for other emissions is derived by multiplying the amount of the emission by the associated CCP factor, e.g. [x kg gas] * [y CCP-factor of the gas]. For example, the CCP100-factor for Methane is 21 and for nitrous oxide 310. This means that emissions of 1 kg of methane and nitrous oxide are equivalent to emissions of 21 and 310 kg of carbon dioxide, respectively.</td>
<td>European Commission Platform on Life Cycle Thinking</td>
</tr>
</tbody>
</table>

CEPE Glossary of sustainability related terms

**Climate change potential** (CCP) - Changes in the global, average surface-air temperature and subsequent change of various climate parameters and their effects such as storm frequency and intensity, rainfall intensity and frequency of floodings etc. Climate change is caused by the greenhouse effect which is induced by emission of greenhouse gases into the air.

**Compostable (or biodegradable)** - A characteristic of a product, packaging or associated component that allows it under certain conditions to biodegrade, disintegrate, not have a negative effect to the compost process and with low level of heavy metals, generating a relatively homogeneous and stable humus-like substance.

**Corporate Social Responsibility (CSR)** - the overall contribution of business to sustainable development

**Degradable** - A characteristic of a product or packaging that, with respect to specific conditions, allows it to break down to a specific extent within a given time. *NOTE Degradability is a function of susceptibility to changes in chemical structure. Consequent changes in physical and mechanical properties lead to the disintegration of the product or material.*

**Depletion of abiotic resources** - Consumption of non-renewable resources, such as zinc ore and crude oil, thereby lowering their availability for future generations.

**Designed for disassembly** - A characteristic of a product’s design that enables the product to be taken apart at the end of its useful life in such a way that allows components and parts to be reused, recycled, recovered for energy or, in some other way, diverted from the waste stream.

---

2 sustainable development innovation brief, issue1 feb.2007
3 http://lct.jrc.ec.europa.eu/glossary
**Ecodesign / Design for Environment (DfE)** - the integration of environmental aspects into product design with the aim of improving the environmental performance of the product and process throughout its whole life cycle. This includes reducing resource consumption as well as emissions and waste.

**Eco-label** (Type I environmental labelling) programme - voluntary, multiple-criteria-based third party programme that awards a licence which authorizes the use of environmental labels on products indicating overall environmental preferability of a product within a particular product category based on life cycle considerations.

**Environmental aspect** - Element of an organisation’s activities or products that can interact with the environment.

**Environmental claim** - statement, symbol or graphic that indicates an environmental aspect of a product, a component or packaging.

**Environmental claim verification** - Confirmation of the validity of an environmental claim using specific predetermined criteria and procedures with assurance of data reliability.

**Environmental impact** - any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organization's activities or products.

**Environmental Product Declaration** (EPD, Type III environmental declaration) - Environmental declaration (claim which indicates the environmental aspects of a product or service) providing quantified environmental data using predetermined parameters and, where relevant, additional environmental information.
Explanatory statement - Any explanation which is needed or given so that an environmental claim can be properly understood by a purchaser, potential purchaser or user of the goods or service.

Extended life product - A product designed to provide prolonged use, based on either improved durability or an upgradability feature, that results in reduced resource use or reduced waste.

Global-warming potential (GWP) is a relative measure of how much heat a greenhouse gas traps in the atmosphere. It compares the amount of heat trapped by a certain mass of the gas in question to the amount of heat trapped by a similar mass of carbon dioxide. A GWP is calculated over a specific time interval, commonly 20, 100 or 500 years. GWP is expressed as a factor of carbon dioxide (whose GWP is standardized to 1). For example, the 20 year GWP of methane is 72, which means that if the same mass of methane and carbon dioxide were introduced into the atmosphere, that methane will trap 72 times more heat than the carbon dioxide over the next 20 years.

Green Public Procurement - Public procurement for a better environment” as “a process whereby public authorities seek to procure goods, services and works with a reduced environmental impact throughout their life cycle when compared to goods, services and works with the same primary function that would otherwise be procured.

Green washing - the deceptive use of environmental marketing in order to promote a misleading perception that a company’s policies or products are more environmentally sustainable than they actually are.

Human toxicity potential (HTP) - The degree to which a chemical substance elicits a deleterious or adverse effect upon the biological system of human exposed to the substance over a designated time period.

---

4 http://lct.jrc.ec.europa.eu/glossary
### CEPE Glossary of sustainability related terms

**Land use** - Impact category related to use (occupation) and conversion (transformation) of land area by product-related activities such as agriculture, roads, housing, mining etc. Land occupation considers the effects of the land use, the amount of area involved and the duration of its occupation (quality-changes multiplied with area and duration). Land transformation considers the extent of changes in land properties and the area affected (quality changes multiplied with the area).

**Life cycle** - Consecutive and interlinked stages of a product system, from raw material acquisition or generation of natural resources to final disposal.

**Life Cycle Assessment**—Process of compilation and evaluation of the inputs, outputs and the potential environmental impacts of a product system throughout its life cycle.

**Life Cycle Inventory (LCI)** - The phase of life cycle assessment involving the compilation and quantification of inputs and outputs for a given product system throughout its life cycle.

**Natural / Substances which occur in nature** - A naturally occurring substance as such, unprocessed or processed only by manual, mechanical or gravitational means, by dissolution in water, by flotation, by extraction with water, by steam distillation or by heating solely to remove water, or which is extracted from air by any means.

**Ozone depletion potential (ODP)** - The integrated change in total stratospheric ozone per unit mass emission of a specific compound, relative to the integrated change in the total ozone per unit mass of a reference emission (e.g. CFC-11).

**Packaging** - Material that is used to protect or contain a product during transportation, storage, marketing or use.

---

5 http://lct.jrc.ec.europa.eu/glossary
**CEPE Glossary of sustainability related terms**

**Post-consumer material** - Material generated by households or by commercial, industrial and institutional facilities in their role as end-users of the goods or service which can no longer be used for its intended purpose. This includes returns of material from the distribution chain.

ISO 14021:2016(E)

**Pre-consumer material** - Material diverted from the waste stream during a manufacturing process. Excluded is reutilization of materials such as rework, regrind or scrap generated in a process and capable of being reclaimed within the same process that generated it.

ISO 14021:2016(E)

**Product** - Any goods or service.

ISO 14021:2016(E)

**Product category rules** (PCR) - Set of specific rules, requirements and guidelines for developing Type III environmental declarations for one or more product categories (group of products that can fulfil equivalent functions).

ISO 14025:2006

**Product Environmental Footprint** (PEF) - Multi-criteria measure of the environmental performance of a good or service throughout its life cycle.

European Commission Environmental Footprint Guide - draft 2

**Product Footprint Category Rules** (PFCR) - PFCRs can complement general methodological guidance for Product Environmental Footprint studies by providing further specification at the product level. PFCRs can thus make important contributions to increased reproducibility and consistency in Product Environmental Footprint studies.

European Commission Environmental Footprint Guide – draft 2

**Qualified environmental claim** - An environmental claim which is accompanied by an explanatory statement that describes the limits of the claim.

ISO 14021:2016(E)
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Recovered energy</strong></td>
<td>A characteristic of goods or service that has been made using energy recovered from material or energy that would have been disposed of as waste but instead has been collected through managed processes.</td>
<td>ISO 14021:2016(E)</td>
</tr>
<tr>
<td><strong>Recovered [reclaimed] material</strong></td>
<td>Material that would have otherwise been disposed of as waste or used for energy recovery, but has instead been collected and recovered [reclaimed] as a material input, in lieu of new primary material, for a recycling or a manufacturing process.</td>
<td>ISO 14021:2016(E)</td>
</tr>
<tr>
<td><strong>Recyclable</strong></td>
<td>A characteristic of a product, packaging or associated component that can be diverted from the waste stream through available processes and programs and can be collected, processed and returned to use in the form of raw materials or products.</td>
<td>ISO 14021:2016(E)</td>
</tr>
<tr>
<td><strong>Recycled content</strong></td>
<td>Proportion, by mass, of recycled material in goods or packaging. Only pre-consumer and post-consumer materials shall be considered as recycled content.</td>
<td>ISO 14021:2016(E)</td>
</tr>
<tr>
<td><strong>Recycled material</strong></td>
<td>Material that has been reprocessed from recovered [reclaimed] material by means of a manufacturing process and made into a final product or into a component for incorporation into goods or services.</td>
<td>ISO 14021:2016(E)</td>
</tr>
<tr>
<td><strong>Reduced energy consumption</strong></td>
<td>Reduction in the amount of energy associated with the use of goods or services performing the function for which it was conceived when compared with the energy used by other goods or services performing an equivalent function.</td>
<td>ISO 14021:2016(E)</td>
</tr>
<tr>
<td><strong>Reduced resource use</strong></td>
<td>A reduction in the amount of material, energy or water used to produce or distribute goods, services or packaging or specified associated component.</td>
<td>ISO 14021:2016(E)</td>
</tr>
</tbody>
</table>
**Reduced water consumption** - Reduction in the consumption of water associated with the use of goods or services performing the function for which it was conceived when compared with the amount of water used by other goods or services performing an equivalent function.

**Refillable** - A characteristic of goods or packaging that can be filled with the same or similar goods more than once, in its original form and without additional processing except for specified requirements such as cleaning or washing.

**Renewable resource** – a resource that is grown, naturally replenished, or cleansed at a rate which exceeds depletion of the usable supply of that resource.

**Reusable** - A characteristic of goods or packaging that has been conceived and designed to accomplish within its life cycle a certain number of trips, rotations or uses for the same purpose for which it was conceived.

**Sustainability** - Sustainability is based on a simple principle: Everything that we need for our survival and well-being depends, either directly or indirectly, on our natural environment. Sustainability creates and maintains the conditions under which humans and nature can exist in productive harmony, that permit fulfilling the social, economic and other requirements of present and future generations. Sustainability is important to making sure that we have and will continue to have, the water, materials, and resources to protect human health and our environment.

**Sustainable chemistry** – The design, manufacture and use of efficient, effective, safe and more environmentally benign chemical products and processes.
**Terrestrial and aquatic eutrophication potential (EP)** - Excessive enrichment of water and continental surfaces with nutrients, and the associated adverse biological effects.

**Waste** - anything for which the generator or holder has no further use and which is discarded or is released to the environment.

**Waste reduction** - Reduction in the quantity (mass) of material entering the waste stream as a result of a change in the goods, process or packaging.