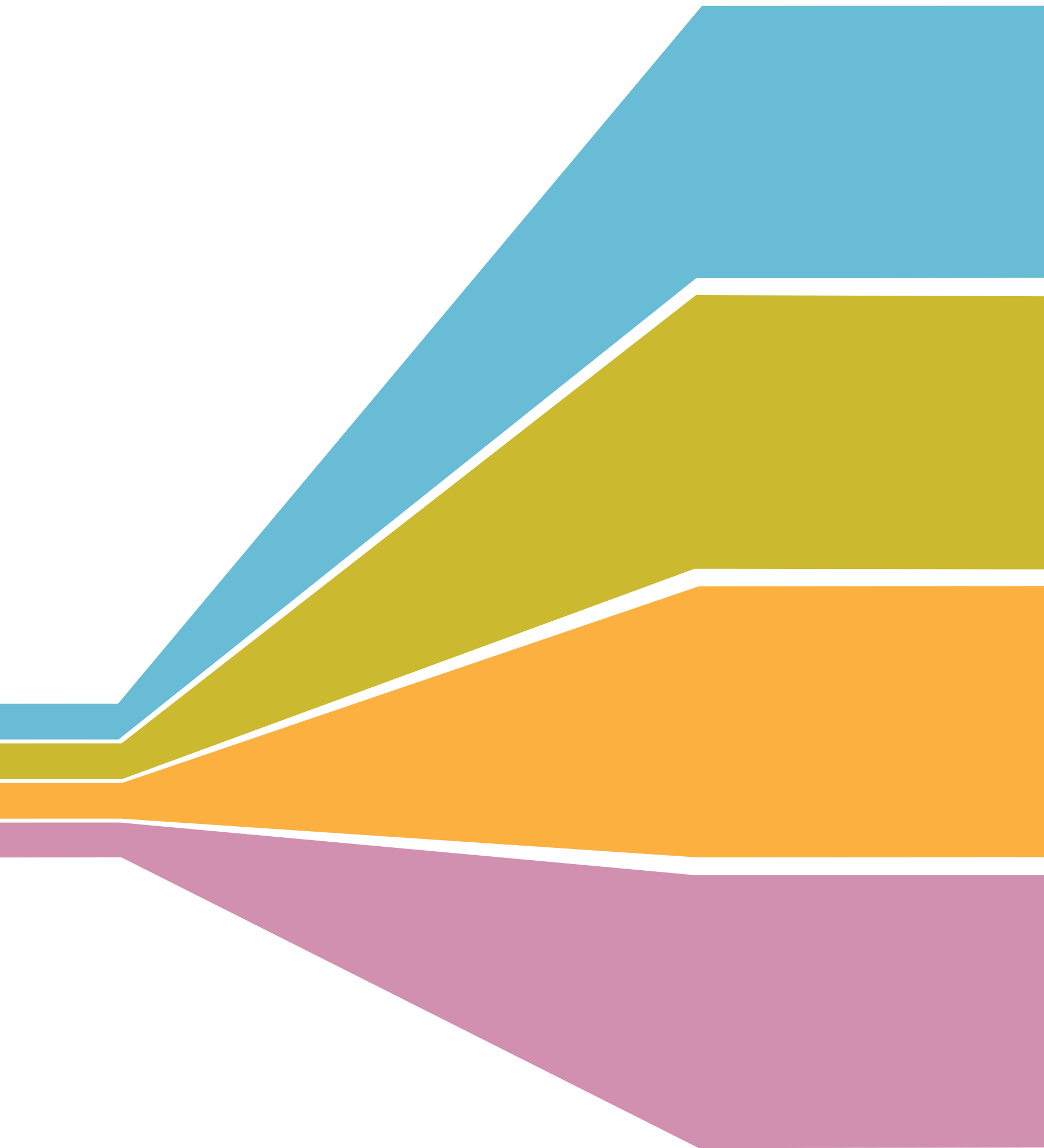




Glossary ›



Alternative Fibers

Paper pulp sources not derived from trees. Sources include: agricultural waste (wheat, flax, rice) as well as crops grown specifically for fiber, such as hemp, kanaf, and cotton.

Ancient Forest Friendly (AFF)

Paper and purchasing policies that help safeguard ancient and endangered forests. AFF paper must be manufactured with a high percentage of post-consumer recycled fiber or agricultural residue. Any virgin fiber used in the paper must be both FSC certified and assessed to ensure that it did not originate from endangered forests. Bleaching must be chlorine-free.

Backyard Composting

The controlled decomposition of organic food waste and yard trimmings in urban, suburban, and rural backyards which produces a nutrient-rich top soil. Composting is considered waste source reduction, not recycling, because the composted materials never enter the municipal waste stream.

Balanced Scorecard

A process introduced by Robert S. Kaplan and David Norton in 1992 designed to give managers tools for measuring the performance of a business from a:

- * Financial perspective,
- * Customer perspective,
- * Business process perspective, and a
- * Learning and growth perspective

Bi-Cycling

A form of multi-tasking that involves getting to work while simultaneously avoiding traffic, burning calories, and enjoying one's surroundings. Visit bicyclemuseum.com for inspiration.

Bioaccumulation

The increased concentration of a substance as it moves up a food web. For instance: mercury, a by-product of burning coal, transforms into methylmercury when it enters water. Small organisms ingest it, and are then consumed by larger organisms. Each step up the food chain results in higher toxicity and more detrimental effects on the consumer.

Biobased/bioderived material(s)

Organic materials derived primarily from contemporary living organisms (new carbon versus old fossil carbon). Many biobased materials are engineered to provide a biodegradable alternative to plastics, such as cornstarch packaging pellets or bioplastics created with vegetable oil or starch.

Biodegradable

Characteristic of a material that can be broken down into simpler substances (elements and compounds) by bacteria and fungi, changing the chemical makeup and physical appearance of materials.

Biodiversity

The range of living organisms supported by a particular ecosystem. Biodiversity includes genetic variation within species, the variety of species in an area, and the variety of habitat types within a landscape. It is of fundamental importance to the functioning of all natural and human-engineered ecosystems, and by extension to ecosystem services that nature provides to human society free of charge.

Biomass

Organic, non-fossil material that is available on a renewable basis. Biomass includes all biological organisms and their metabolic by-products, including forest and mill residues, agricultural crops and waste, wood and wood waste, animal waste, aquatic plants, and municipal and industrial waste.

Biomimicry

A discipline that studies nature's best ideas and then imitates these designs and processes to solve human problems.

Bioplastics

Plastics derived from renewable biomass sources, such as vegetable oil or cornstarch. Bioplastics are used in the creation of many modern products like tractors, water bottles, and take-away cutlery.

Biosphere

Coined in 1875 by Eduard Suess, the biosphere is that part of a planet's outer shell—including air, land, and water—within which life occurs, and which biotic processes alter or transform. From the broadest geophysiological point of view, the biosphere is the global ecological system integrating all living beings and their relationships, including their interaction with the elements of the lithosphere (rocks), hydrosphere (water), and atmosphere (air).

Blue Angel

The first environment-related certification label for products and services. A.K.A. Der Blaue Engel, it was introduced in 1978 by the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety.

Bootstrapping

A term derived from a German legend about Baron Münchhausen who pulled himself from a swamp by his own shoelaces or bootstraps. It refers to starting a business with limited capital and growing it based primarily on internally-generated profit instead of external investment.

Bottom of the Pyramid

A term developed by Stuart Hart and C. K. Prahalad at the Center for Sustainable Enterprise and now popularized by Prahalad's book, *The Fortune at the Bottom of the Pyramid*. It refers to the poorest people in the world. These people tend to pay more for the same food, products, and borrowing than rich people and are usually underserved by markets and services. Contrary to most expectations, because of their numbers, they still represent a huge market if affordable products and services can be offered to them.

Brand

Often referred to as a promise or expectation, a brand is the collective market understanding or perspective of a company, product, or service (either from the perspective of customers, competitors, partners, or peers). A strong brand can have considerable value in the marketplace but this value is only derived in action and does not appear on a company's balance sheet as an asset in many countries, such as the US. Brand value is difficult to measure and there are few consistent approaches in measuring absolute value or change in value over time. In England, however, brands are given specific value on the balance sheet, where a consistent measure is employed.

Brand Experience

Often confused with a corporate identity or package design, a brand experience is the total interaction of customers with a company, product, service, or other offering through all senses, media, and touchpoints (such as television advertising, customer service, product use, etc.).

Capital

There are a number of related meanings in finance, accounting and economics. Capital refers to assets that can be used to create other assets. Sustainable managers recognize at least three different kinds of capital: financial (cash and other monetary instruments), natural (natural resources that can be used to create products or that provide the natural services of breathable air, drinkable water etc), and human/cultural (employees, customers, governments and almost any other human system a business operates within).

Carbon Footprint

The total amount of greenhouse gases emitted directly or indirectly through an activity or from a product, company or person, typically expressed in equivalent tons of either carbon or carbon dioxide. Methods of calculation have yet to be standardized.

Carbon Labeling

A label disclosing a product's carbon footprint. This concept is still in its early stages, with several competing labels in trial. One example: carbonfund.org offers a Carbon-Free Certified Product label that companies can use to promote their products as climate/carbon neutral.

Carbon Neutral

Carbon neutral, or carbon neutrality, refers to a net zero carbon release, brought about by balancing the amount of carbon released with the amount sequestered or offset. By extension, it describes an entity which has had its carbon dioxide emissions 1) calculated 2) reduced where possible and 3) offset through the purchase of real, verified, and additional carbon offset credits.

Carbon Offsetting

Financial investments made to 'offset' the carbon emissions of a product or process. These include the investment in technologies or practices that reduce carbon in another industry, or the gathering and sequestering of carbon through nature, such as forest restoration, tree conservation, and renewable energy projects (solar and wind farms).

Carrying Capacity

The maximum population that can be supported indefinitely by the available resources and services of a particular area, or even Earth itself. Carrying capacity evaluates not just the natural environment, but the support of social, human, and built capital as well.

Cause-Related Marketing

The association of a for-profit company with a non-profit organization or government agency, to promote the company's products or services while raising money or awareness for the non-profit or agency. Cause-related marketing is generally thought of as distinct from corporate philanthropy because the corporate dollars involved are not outright gifts to a nonprofit organization and, therefore, not tax-deductible.

Cheater Capitalism

A term coined by Randy Hayes to describe the ability for companies to exploit economic policies that insufficiently attribute externalities. As long as these external costs are not addressed by business, the economy will, ultimately, be unsustainable.

Climate Change

A significant change from one climatic condition to another. In some cases, climate change has been used synonymously with the term global warming; scientists, however, tend to use the term in the broader sense to include natural changes in climate.

Close-Loop Recycling

The practice of collecting used materials from customers for remanufacture by the same firm or industry group. Example: Interface Carpet's Flor product line, or Patagonia's Common Threads Garment Recycling.

Closed-loop Supply Chain

Ideally, a zero-waste supply chain that completely reuses, recycles, or composts all materials. However, the term can also be used to refer to corporate take-back programs, where companies that produce a good are also responsible for its disposal.

Cogeneration

Cogeneration is the simultaneous production of electrical and thermal energy from the same fuel source. For example, surplus heat from an electric generating plant can be used for industrial processes, or space and water heating purposes. Or, waste heat from an industrial process can be used to power an electric generator.

Competition

Two or more businesses seeking to serve the same customers and contribute to efficiency in the market place. When there is no competition (monopoly) then there is little incentive to produce higher quality or lower cost goods and services or to innovate technology or offerings.

Compostable

A characteristic of a product or packaging element that can biodegrade through the action of a naturally occurring microorganism. According to the American Society for Testing and Materials (ASTM), in order for a plastic to be considered compostable, it must be able to break down into carbon dioxide, water and biomass at the same rate as paper. It also needs to look like compost, should not produce any toxic material, and should be able to support plant life.

Continuous cycle

An ongoing state in which the end of one cycle is the beginning of the next. The humus created from composting, for example, becomes the food for plants to start the growing cycle again. The wastes of one process become the raw material for another.

Cooperation

The opposite of competition, cooperation is two entities working together towards a common goal. In business, there are many ways in which organizations cooperate in order to compete at more valuable and sophisticated levels. For example, many technology companies cooperate in setting and producing to standards in order to create a more viable market more quickly and compete in the products and services their offer to that market.

Coopetition

The natural balance of healthy ecosystems in which growth is based on innovations brought about by competition and markets are made viable and stable by cooperation. Both are necessary for a healthy, growing market, industry, or economy.

Cradle to Grave

The full life cycle assessment (LCA) of a product or process, from the extraction of raw materials, through manufacturing and use, to final disposal. This assessment examines the product's net environmental burden, including the consumption of raw materials and energy, emissions to air and water, and solid waste generation. Cradle to Grave can also refer to the responsibility a company takes for the entire life cycle of a product, service or program, from design to disposal or termination.

Cradle-to-Cradle

A material use cycle that seeks to eliminate waste and/or and virgin resource extraction through the creation of closed/continuous loops. Cradle-to-Cradle traces a material from the time it is extracted to the point at which it is recycled/reclaimed.

CSR (Corporate Social Responsibility)

A business outlook that acknowledges responsibilities to stakeholders not traditionally accepted, including suppliers, customers, and employees as well as local and international communities in which it operates and the natural environment. There are few accepted standards and practices so far, but a growing concern that the actions organizations take have no unintended consequences outside the business, whether driven by concern, philanthropy, or a desire for an authentic brand and public relations.

Current Solar Income

A term describing energy resources renewable and currently available. These sources include solar, wind, biomass, and water (though only in certain circumstances).

Customer Experience

The entire experience a customer has with an organization's product or service as important to the value that product, service, or brand has to the customer, as well as the relationship built between the product, service, or organization that provides it. The experience is, often, more than the features or use of the product or service and extends from the moment the customer perceives need, through the purchasing and use of the product or service, until it is disposed of (and/or replaced). The experience is also the sum total of all the time spent with the offering, the senses through which it is experienced, the emotional, conceptual, and physical triggers it creates to memories and any identity or other social contexts experienced by the buyer, user, participant, or audience.

At the deepest level, products and services can evoke meaning within customers, which can create satisfying experiences and the deepest connections and relationships to an offering or the organization who provides it.

De-inking

The chemical or mechanical extracting of inks, coatings and pigments from recycled paper so that the fibers can be used again.

Dematerialization

Reducing the total material that goes toward providing benefits to customers. May be accomplished through greater efficiency, the use of better or more appropriate materials, or by creating a service that produces the same benefit as a product.

Design

Design is a set of fields for problem-solving that uses user-centric approaches to understand user needs (as well as business, economic, environmental, social, and other requirements) to create successful solutions that solve real problems. Design is often used as a process to create real change within a system or market. Too often, Design is defined only as visual problem solving or communication because of the predominance of graphic designers. In other fields and contexts, Design might only refer to Fashion Design or Interior Design. However, a recognition of the similarities between all design disciplines shows that the larger definition for Design operates at a higher level and across many media.

Design for Disassembly

Designing a product to be dismantled for easier maintenance, repair, recovery, and reuse of components and materials.

Design for the Environment (DfE)

A product label issued by the United States EPA that allows consumers to quickly identify and choose products that can help protect the environment and are safer for families. The DfE scientific review team screens each ingredient for potential human health and environmental effects based on currently available information, EPA predictive models, and expert judgment.

Design Strategy

Like Experience Strategy, Design Strategy is more concerned with the ability of a company or organization to respond and perform well in the long term, rather than for a particular design project or goal. Design Strategy is the field and approach of developing strategic policies, usually at a high level within a company or organization, in order to better realize the ongoing creation of successful Design created for users, audiences, participants, or customers. Design Strategy is more concerned with outward market forces and how these impact an organization's ability to perform and serve its customers successfully, than with the creation of individual experiences (which would be the domain of Experience Design). It is also concerned with the internal organization, structure, culture, processes and values within an organization that allow it to successfully create experiences and respond to both market and customer needs. Ideally, there should be no difference between Experience Strategy and Design Strategy but, in practice, Design Strategy is most often performed only in a visual fields and the wider aspects of experiences are rarely addressed.

Diversity

In nature, diversity is a source of ecosystem strength since failures are unlikely to eliminate all species. Therefore, the ecosystem will recover in some form and continue. In business or investing, diversity can provide a similar source of robustness against market instability or failures. Specifically, when applied to a human context, diversity refers to a wide variety of cultures, ethnic groups, physical features (and race), socio-economic backgrounds, opinions, religious beliefs, sexuality, and gender identity.

Downcycling

The practice of recycling a material in such a way that much of its inherent value is lost. For example, recycling plastic into park benches or office paper eventually becoming pulp to mold an egg carton.

E-waste

Waste materials generated from using or discarding electronic devices (such as computers, televisions, and mobile phones). E-waste tends to be highly toxic to humans, plants, and animals and contaminate water, air (often when burned), and dirt (where dumped or spilled). E-waste is a particular problem since technological devices are superseded so quickly, causing them to be thrown-out more quickly than many other product. Few of these devices are upgradable, easily reusable, or easily separated for recycling of components or industrial nutrients.

Eco Mark

Issued by the Japan Environment Office (JEA), Eco Mark is an Environmental Labeling Program operated according to ISO standards. Every product bearing the Eco Mark has passed a strict examination and full life cycle assessment.

Eco-effectiveness

The central strategy in the cradle-to-cradle development method and seeks to create industrial systems that emulate healthy natural systems. The central principle of eco-effectiveness is that “waste equals food.” The concept was developed in response to some of the perceived limitations of eco-efficiency which critics claim only slow down the rate of environmental depletion and don’t reverse the production of unused or non-recycled waste.

Eco-Efficiency

An effort to achieve the best possible efficiency throughout the creation, use, and disposal of a product or service. Eco-Efficiency simply means ‘doing more with less’. It is not a synonym for sustainability as it considers only the environmental and economic aspects of the product without regard for the social implications.

Eco-friendly Dyes

Natural dyes such as indigo, pomegranate rind, myrobalan, lac and manjistha as well as benign chemicals like aluminium and iron are eco-friendly alternatives to the synthetic dyes and hazardous chemicals used in conventional fabric dyeing. Natural dyes are made from plants, earth clays and even insects, which translates to less harm to the ecosystem. Another eco-friendly alternative is the use of vegetable dyes on leather garments.

Eco-Labels

Any label that attempts to certify or distinguish a product or service in terms of environmental issues. The ISO 14021-14025 standards outline four different categories of eco-labels:

Type I labels are product seals licensed by governments or third party private entities based on multiple criteria regarding lifecycle impact, such as the US-based Green Seal or Sweden’s Nordic Swan.

Type I seals can vary substantially in their criteria, which may or may not be known or understood by customers.

Type II labels are informative, self-declaration seals about the environmental qualities of a product, such as “contains 75% recycled paper.”

Type III labels offer quantified product information based on a life cycle assessment. These labels are best for comparisons between products or services. There are few examples of Type III labels in use. One in development is the Reveal label.

Type IV labels are single-issue seals licensed by companies or organizations. Examples include: the Leaping Bunny (signifying no animal testing), the Good Housekeeping seal of approval, Underwriter’s Laboratories insignia, and the Forest Stewardship Council seal.

Ecological (Eco-)Indicator

A characteristic of an ecosystem that is related to, or derived from, a measure of biotic or abiotic variable, that can provide quantitative information on ecological structure and function. An indicator can contribute to a measure of integrity and environmental sustainability.

Ecological Restoration

The process of assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed.

Ecologo

Founded by the government of Canada in 1988, the EcoLogo Program is a Type I eco-label, as defined by the International Organization for Standardization (ISO), meaning it compares products/services with others in the same category, develops rigorous and scientifically relevant criteria that reflect the entire lifecycle of the product, and awards the EcoLogo to those that are verified by an independent third party as complying with the criteria.

Ecology

The relationship of living things to one another and their environment, or the study of such relationships.

Ecosystem

The complex of a community of organisms and its environment functioning as an ecological unit.

Ecotistical

A term coined by David Crawford of the Manitoba Product Stewardship Corporation, writing in GreenBiz.com referring to:

1. Characteristic of those having inflated the truthfulness about their own environmental accomplishments
2. Characteristic of having an exaggerated sense of environmental importance
3. An environmental disregard of others

Ecotourism

Engaging in responsible travel to natural areas while conserving the environment and improving the well-being of local people. Those who lead or participate in ecotourism activities strive to:

- * Minimize their impact
- * Build environmental and cultural awareness and respect
- * Provide positive experiences for both visitors and hosts
- * Provide direct financial benefits for conservation
- * Provide financial benefits and empowerment for local people
- * Raise sensitivity to host countries' political, environmental, and social climate
- * Support international human rights and labor agreements
- * Conservation of local, indigenous wildlife and culture

Elemental Chlorine Free (ECF)

The label used for virgin fiber pulps or papers that may have been bleached with chlorine compounds such as chlorine dioxide (ClO₂) as opposed to elemental chlorine (Cl₂).

Emissions Trading

An approach used by governmental regulatory agencies, private trading systems (such as the CCX), and private companies to reduce air pollution by providing economic incentives to reduce net emissions. Limits or "caps" are set and groups that foresee exceeding these caps may purchase credits from groups that have not exceeded their emissions levels.

Emotions

These are the feelings we experience and attach to events, people, products, and services. They describe our emotional attachment and understanding of people, things, and events and often form the basis of our "lifestyles." They are one point on the spectrum of meaning.

End-of-life

The terminus of a product's useful life and thus the beginning point for its reuse, recycling, or permanent disposal.

Enhanced ECF (EECF) with extended or oxygen delignification

This process removes more of the lignin from the wood before bleaching, resulting in the need for less bleach. Compared to traditional ECF, EECF saves more energy, improves the quality and reduces the quantity of mill wastewater.

Enhanced ECF (EECF) with ozone or hydrogen peroxide delignification

This version of EECF substitutes ozone or hydrogen peroxide for chlorine dioxide as a brightening agent in the initial stages of the bleaching process, further improving the quality and reducing the quantity of mill wastewater.

Entrepreneur

A person who assumes a lot of personal, financial, or business risk to pursue a market opportunity that does not yet exist.

Environment

The sum of all external conditions affecting the life, development and survival of an organism.

Environmental Design

Environmental Design is the field of developing physical, spatial environments (interiors and/or exteriors) to solve a particular need or create a specific experience. The field of Environmental Design could include Architecture, Urban Planning, Landscape Design, Interior Design, Exhibit Design and, sometimes, Event Design.

Environmental Footprint

The impact on the environment by any individual, company or other entity as it performs an activity or process. A carbon footprint is an assessment of air impact only, whereas a full environmental footprint includes the assessment of water and soil.

Environmental Impact

Any change to the environment, good or bad, that wholly or partially results from industrial/manufacturing activities, products, services, land usage, or natural events. Energy consumption, greenhouse gas (CO₂-eq) production, toxicity and natural resources depletion are some of the key environmental impact areas.

Environmental Justice

A term referring to inequalities in use and access to environmental resources, such as clean air and water and healthy living conditions. Economic disparities or geographic access often reserve clean and healthy environments for wealthier peoples, giving poorer people less access to clean resources or healthy living conditions. Environmental Justice proponents seek to create more equal access or distribution of resources or halt or lower the impact humans have on environmental services, particularly in areas inhabited by poor or disenfranchised people.

Environmental Product Declaration (EPD)

Qualified environmental data for a product with preset categories of parameters based on ISO 14040 standards. Key components are: Product life cycle analysis, Product Criteria Rules (PCRs), Standardized (ISO 14025/TR) and LCA based tools to communicate the environmental performance of a product or system.

Equator Principles

Developed in 2002 by a group of banks, these guidelines are a framework for addressing environmental and social risks in project financing. The purpose of the principles is to screen projects for adverse environmental or human affects in order to safeguard communities and natural habitats. Financial institutions who sign-on to the principles agree not to finance projects that fail to meet these screens. These principles classify projects into three categories depending on these effects and the need to address them.

More information: www.equator-principles.com

Ethical Fashion

An approach to the design, sourcing and manufacture of clothing which is both socially and environmentally responsible. Sustainable fashion – using more environmentally-friendly materials and methods in clothing production – is part of this larger trend.

Ethonomics

According to FastCompany:

“The end of the modern financial system as we know it has cleared the way for an era of ethical economics, or “Ethonomics.” We live in a world that’s resource-constrained but ingenuity-rich.

So an upstart generation of entrepreneurs-and innovators within the world’s biggest companies-are founding businesses that are good for the world as well as the bottom line. They are practicing social change through urban revitalization, sustainable agriculture, green IT, alternative energy and online community-powered investing.

Any business that claims to be truly sustainable and innovative should be increasingly efficient with energy and natural resources, transparent and accountable, and good on balance for people and other living things.

Ethonomics is a hybrid of technology, design, and social responsibility, and at Fast Company we believe it is the future of business. But we’re not breathless cheerleaders for every daisy-splashed widget that comes down the pike. We have a skeptical eye out for greenwashing by large and small companies alike, and are impatient with lofty claims that stray too far from the marketplace or from Main Street.

Our duty is to keep it honest; our promise to our audience is to keep our coverage clear-eyed and entertaining. In the reality-based world of ethonomics, good results are more important than good intentions.”

Experience

The sensation of interaction with a product, service, or event, through all of our senses, over time, and on both physical and cognitive levels. The boundaries of an experience can be expansive and include the sensorial, the symbolic, the temporal, and the meaningful.

Experience Design

Experience Design is an approach to creating successful experiences for people in any medium. This approach includes consideration and design in all 3 spatial dimensions, over time, all 5 common senses, and interactivity, as well as customer value, personal meaning, and emotional context. Experience Design is not merely the design of Web pages or other interactive media or on-screen digital content. Designed experiences can be in any medium, including spatial/environmental installations, print products, hard products, services, broadcast images and sounds, live performances and events, digital and online media.

Experience Strategy

Experience Strategy is the field and approach of developing strategic policies, usually at a high level within a company or organization, in order to better realize the ongoing creation of successful experiences created for users, audiences, participants, or customers. Experience Strategy is more concerned with outward market forces and how these impact an organization's ability to perform and serve its customers successfully, than with the creation of individual experiences (which would be the domain of Experience Design). It is also concerned with the internal organization, structure, culture, processes and values within an organization that allow it to successfully create experiences and respond to both market and customer needs.

Extraction

The point at which a material is gathered for use. This term mostly refers to virgin materials, but can also apply to some end-of-life resource recovery processes.

Fair Labor | Ethical Trade

A movement that seeks equity and transparency for all international trade producers and partners. Drivers of this movement, like the Fair Labor Association (FLA) and the Ethical Trading Initiative (ETI), seek to create lasting solutions to exploitative labor practices. The Fairtrade Labeling Organizations International (FLO) has a certification program for fair labor products. (add links to the words, no sourcing)

Fair Trade

A system of trade in which workers receive living wages and employment opportunities for the goods they produce. This system serves as an alternative approach to conventional international trade for producers who are typically economically disadvantaged artisans and farmers from developing countries. The producers partner with international organizations that help them build their skills to market and

sell goods such as crafts, and agricultural products such as coffee and chocolate.

For commodities, farmers receive a stable, minimum price. In addition, there are several other criteria to satisfy:

- * Forced labor and exploitative child labor are not allowed
- * Buyers and producers trade under direct long-term relationships
- * Producers have access to financial and technical assistance
- * Sustainable production techniques are encouraged
- * Working conditions are healthy and safe
- * Equal employment opportunities are provided for all
- * All aspects of trade and production are open to public accountability

Goods can be certified as Fair Trade by organizations like the Fair Trade Labelling Organization (FLO) which has affiliates in seventeen countries.

International Federation for Alternative Trade (IFAT)

A fair trade networking agency whose 9 standards apply to all Fair Trade Organizations whether they are importers or retailers, exporters, producer societies or support organizations

Fairtrade Certified

Fairtrade is an alternative approach to conventional trade and is based on a partnership between producers and consumers. The Fairtrade Labeling Organizations International (FLO) sets the standards for the mark, coordinate Fairtrade labeling at an international level, and helps producers gain the certification.

Federal Trade Commission's Environmental Guides

The Federal Trade Commission (FTC) seeks to prevent deception and unfairness in the marketplace. The Guides indicate how the Commission will apply Section 5 of the FTC Act, which prohibits unfair or deceptive acts or practices, to environmental marketing claims. In short, FTC law requires that environmental claims be substantiated.

Fossil Fuel

Carbon-based fuels, such as coal, oil and gas, that were formed over millions of years through the decay, burial and compaction of rotting vegetation on land, and of marine organisms on the sea floor. Burning fossil fuels is a major source of greenhouse gases in the atmosphere.

Freecycling

The giving away or donating of unwanted items, particularly when said items are posted on freecycle.org. Originally referred to as ‘hand-me-downs’ by disgruntled younger siblings.

FSC (Forest Stewardship Council) Certified

An independent nonprofit organization devoted to encouraging the responsible management of the world’s forests. Products carrying the FSC label are independently certified to assure that the forests they come from are managed to meet the social, economic, and ecological needs of present and future generations.

Fuel, Current Solar Income

A term used to describe the use of an energy source that is renewable and currently available. These sources include solar, wind, biomass, and water (only in certain circumstances).

Garbage

Anything that costs less to dispose of than it’s worth commercially. In many cases, these materials are the same being handled by manufacturers in the production of goods but because of supply chains, technology, and often subsidized capture and transportation industries, recyclable materials are often worth less than virgin materials. In addition, this includes only traditional financial costs and not social or environmental costs and benefits. As these costs are accounted for or offset, more material now considered garbage can become viable alternatives to virgin material.

Global Warming

A term for the gradual, average increase of temperature of the Earth’s atmosphere and oceans. Local temperatures around the world, however, may increase or decrease in varying amounts. Global warming is accelerated by the greenhouse gases expelled into the atmosphere from human industry.

Globalization

The worldwide integration of products, services, employment, people, cultures, markets, and economies and the compression of both time and distance that often accompanies it. Globalization often refers specifically to the growing economic interdependence of countries worldwide through increasing cross-border transactions in goods and services, free flow of international capital, and more rapid and widespread diffusion of technology.

Globalization is often confused with commercialization, where multinational organizations exert global control over markets, workers, and customers. Globalization, in itself, is not necessarily a bad thing. Global interdependence, for example, can be a key ingredient to peaceful understanding and interaction between disparate cultures and communities.

Governance

The systems and processes of management that govern an organization’s behavior and conduct. Governance covers accountability, auditing, transparency (openness), reporting and disclosure, responsibilities and representation of various stakeholders (including shareholders, board of directors, advisory boards, employees, etc.) as well as charters, by-laws, and policies document the rights and responsibilities of all parties. Governance often includes strategy, risk management, and compensation, benefits, and evaluation of senior management. There is growing inclusion of governance issues within international certification systems, such as the GRI.

Grandma

A beloved family member who may never have heard of sustainability but whose demonstrated expertise in freecycling, organic victory garden cultivation, Cradle-to-Cradle household maintenance, and goodwill towards all makes her an excellent role model for the cause.

Graphic Design

Graphic Design is an older term for the field of Visual Design. This term refers specifically to the use of graphic media (such as color, symbol, and type) to communicate a style or expression. In practice, however, Visual Design is a better term since most Graphic Designers are skilled in more than this narrow scope of visuals and graphic elements are only a subset of the possible visual components applicable to visual expression.

Green

A common metaphor referring to environmental association based on the shared secondary color of many plants. It is often used to associate products, organizations, political parties, or policies with environmental sensitivity.

Green Design

The design of products, services, buildings, or experiences that are sensitive to environmental issues and achieve greater efficiency and effectiveness in terms of energy and materials.

Green Seal

An independent non-profit organization dedicated to safeguarding the environment and transforming the marketplace by promoting the manufacture, purchase and use of environmentally responsible products and services. Green Seal sets standards, monitors advertising claims and certifies products made with postconsumer waste.

Green-collar Jobs

Jobs created by investments and sustainable practices. Many skilled and unskilled jobs traditionally referred to as “blue-collar” jobs may be created and supported through the expansion of incentives and demand for sustainable building and installation of sustainable systems (such as solar panels, “green” remodeling, and gray-water systems) in the residential, commercial, and government markets. These “green-collar” jobs may employ those who are often left-out of the tech boom cycles or do not have the skills, experience, or education to work in “white-collar” jobs. Championed by Van Jones, the founder of the Ella Baker Center for Human Rights in Oakland, California, “green-collar” jobs fill a variety of community and individual needs with rewarding, well-paying work that is sustainable and local (and aren’t easily outsourced overseas).

Green-e

The United States’ leading independent consumer protection program for the sale of renewable energy and greenhouse gas reductions in the retail market. The Green-e logo means that the product has been certified by an independent third party to meet strict consumer-protection and environmental standards.

Greenhouse Gas (GHG)

A gas, such as carbon dioxide or methane, which contributes to potential climate change.

Greenwashing

The act of misleading consumers regarding the environmental practices of a company or the environmental benefits of a product or service.

Grüner Punkt/Green Dot

The license symbol for a European network of industry-funded systems for recycling the packaging materials of consumer goods. ‘The Green Dot’ indicates that the manufacturer is obliged to abide by the regulations that the license imposes. Manufacturers must design to minimize material use while making recovery easy.

Once packages have served their purpose, manufacturers, vendors, and importers are required to take them back, arrange for eco-friendly recovery, and document the procedures involved.

Hazardous Air Pollutant (HAP)

Any air pollutant listed or pursuant to section 112(b) of the Clean Air Act. There are 189 regulated toxic chemicals on this list, including asbestos, beryllium, mercury, benzene, coke oven emissions, radionuclides, and vinyl chloride.

Human Capital

One of at least four forms of capital used by people, organizations, corporations, and governments, to build and maintain their livelihoods. Human Capital is the sum total of knowledge, experience, “good will,” intellectual property, and labor available to an organization or society. While many organizations value their people, many do not manage or measure human capital in sustainable terms.

Human toxicity

Referring to the human safety of a product or ingredient: the level at which the human body cannot expel a metabolized harmful substance.

Industrial Composting

Similar to backyard composting but requiring industrial-scale processes such as higher heats and more controlled conditions, which allow for a greater variety of inputs, including: meat, bones, fats, bioplastics, and food service paper-products.

Industrial Design

Industrial Design is the field of developing physical solutions to meet a particular need. These physical solutions might include products, vehicles, machinery, and even environments.

Industrial Ecology

The interconnection of multiple disciplines to minimize environmental impacts. The fields of study in industrial ecology are: Systems analysis, Industrial metabolism, flow of materials and energy and their transformation, and closed-loop systems.

Industrial Estates

According to the United Nations Environment Programme, “a large tract of land, subdivided and developed for the use of several companies in close proximity to use simultaneously, with a shared infrastructure.” Other terms for these include, industrial parks, industrial zones, export processing zones, business parks, industrial development zones, and eco-industrial parks. All industrial estates share two common characteristics: co-location of firms and a coordinated management structure.

Information Architecture

Information Architecture is a field and approach to designing clear, understandable communications by giving care to structure, context, and presentation of data and information. There is no difference between the two terms. Some designers refer to information Architecture as concerning “high-level” issues and Information Design as concerning “low-level” or visual issues but it is not possible to separate the two in developing clear communications, regardless of medium.

Information Design

Information Design is a field and approach to designing clear, understandable communications by giving care to structure, context, and presentation of data and information. As a field, its principles relate to all communications products and experiences, regardless of medium (print, broadcast, digital, online, etc.). Information Design is, primarily, concerned with clarity (instead of simplicity) and understanding. More...

Innovation

The goal of many organizations who seek to differentiate their offerings by finding new and more valuable solutions that others have not. Most organizations who seek to innovate, do so as a separate, occasional function by a designated subset of employees or consultants. However, true innovation requires cultural change throughout the organization to sustain as well as participation by as many stakeholders as possible. Ultimately, innovation can be a source of transformation for a company that can increase effectiveness of all operations and processes but requires understanding and value placed on its products as well as a tolerance for change.

Integrated Bottom Line

A process, described by Theo Furgusson, for integrating financial, environmental, and social costs and benefits into a unified measure of business activity. Conventional objectives of profitability, competitive advantage, efficiency, and economic growth are judged successful by their compatibility with

biodiversity, ecological sustainability, equity, community support, and maximized well-being for a variety of stakeholders. An Integrated bottom line differs from a Triple bottom line in that all measures are combined into one balance sheet and income statement (instead of separated in three, different ones). For example, short-term, sustainable resource use is encouraged to maximize efficiency because it is factored into accounts payable. Ecosystem restoration is entered as long-term debt. Market forces are tempered by distribution equity and social forces are elevated through premiums placed on human capital. Business plans can be redesigned so that qualitative outcomes have equal or greater measure to quantitative goals.

Interaction

Interaction is a response experience in which both actor and reactor are engaged in a mutually affecting experience. This means that the system is comprised of two interactive partners. In the case of interactive media, one partner may only be mildly interactive (such as a computer) and only programmatically so. While most of the computer actor’s actions are the result of predetermined programming, if the variations are ample enough, it can be said that this actor is interactive (making it an interactor). Mostly, two humans (being inherently interactive) will create an interactive system or experience simply by conversing.

Interaction Design

Interaction Design is a field and approach to designing interactive experiences. These could be in any medium (such as live events or performances, products, services, etc.) and not only digital media. Interactive experiences, necessarily, require time as an organizing principle (though not exclusively) and Interactive Design is concerned with a user, customer, audience, or participant’s experience flow through time. Interactivity should not be confused with animation in which objects may move on a screen. Interactivity is concerned with being part of the action of a system or performance and not merely watching the action passively. More...

Interactor

A term for an interactive participant in an interactive experience. Other terms could include: user, participant, actor, audience.

ISO 14000

ISO 14000 is a set of stringent environmental management standards, created by the International Organization for Standardization (ISO), which certify products and companies that meet specific processes and practice criteria. It serves as a tool to enable organizations of any size to identify and control the environmental impact of their activities, products, or services; to improve their environmental performance continually; and to implement a systematic approach to setting environmental objectives and targets, achieving them, and demonstrating that they have been achieved.

Keystone Species

A species so critical to an ecosystem that its removal could potentially destroy the entire system. A good example of this are Blue Jays, which plant acorns that give rise to oak forests. Without Blue Jays, oak forests are not naturally replenished and without the forests, all other species in the ecosystem cannot survive. It is important to consider keystone species when making any decisions that could affect the natural environment. A small impact on keystone species could cause major disruption for the whole ecosystem.

Kyoto Protocol

An agreement developed by and for industrial nations in 1997 at the United Nations Framework Convention on Climate Change (UNFCCC) in Kyoto, Japan, to reduce their emissions of greenhouse gases by at least 5% below 1990 levels by 2012. The Kyoto Protocol was adopted in 2005 without the US ratifying it. Currently, the EU expects to achieve the goals two years early, in 2010. Over 200 US cities have decided to meet the Kyoto Protocols on their own.

Landfill

A highly ironic environment: land which we would prefer not to fill and whose convenience depends on it being as far from our backyards as possible. See earth911.com to avoid filling.

LEED

A registered system of rating existing and new buildings, interiors, and other components based on environmental effectiveness. The LEED checklist integrates over 60 different criteria and results in certification at 4 levels: Certified, Silver, Gold, and Platinum. More information: www.usgbc.org

Life Cycle Analysis (LCA)

An examination, like an audit, of the total impact of a product or service's manufacturing, use, and disposal in terms of material and energy. There are few standards yet in measuring and assessing these impacts but a Life Cycle Analysis is usually wider in scope than similar assessments, such as the Environmental Risk Assessment (ERA) and the Substance Flow Analysis (SFA). This includes an analysis and inventory of all parts, materials, and energy, and their impacts in the manufacturing of a product but usually doesn't include social impacts.

Life Cycle Assessment (LCA)

A set of procedures put in place to assess the environmental aspects and potential impact directly associated with a product, process, or service system throughout its life cycle. Includes 1) Compiling an inventory of relevant energy and material inputs and environmental releases 2) Evaluating their potential environmental impacts associated with the identified inputs and releases 3) Interpreting the results to help you make more informed decisions.

Life Cycle Inventory (LCI)

A cradle to grave inventory and quantification of the total inputs and outputs that occur during the life cycle of the product and package; LCI forms the basis of any LCA study.

Lifecycle (of a Product)

All stages of a product's development, from extraction of fuel for power to production, marketing, use, and disposal.

Marketing

The process of understanding people and markets in order to provide better products and services and differentiate offerings. Marketing consists of both the “inhale” (customer and market research aimed at understanding needs, desires, and cultural contexts as well as competitors), and the “exhale” (the creating of messaging to effectively communicate offerings in appropriate ways). Too often, marketers only focus on the “exhale,” concentrating on messaging, sales, advertising, PR, and promotion. This often creates ineffective communications that don’t relate to customer needs, wants, or contexts. These are also distinct activities and disciplines in their own rights.

Common marketing processes include:

- * Market and Customer Research
- * Environmental Analysis
- * Competitive Analysis
- * Market Segmentation
- * Positioning

Marketing should always seek to understand what people need and value in order to inform business strategy about what should be made, not merely how it should be promoted. In this way, organizations can better satisfy true customer needs in meaningful ways. When customers are truly satisfied, they are more likely to form lasting, loyal relationships with the organizations and brands that provide these solutions. They may also, likely, be more satisfied while consuming less.

Meaning

Meaning is a distinct level of cognitive significance that represents how people understand the world around them—literally, the reality they construct in their minds that explains the world they experience. Meaning is the deepest level of this understanding and is distinct from Values, Emotions, and functional or financial benefits:

- * Meaning (our sense of reality)
- * Values (our sense of identity)
- * Emotions
- * Value (our sense of what something is “worth,” financial benefits)
- * Features (functional benefits)

Meaning

The deepest level of significance at which an organization’s products, services, or experiences can touch a customer. “Meanings” are the ultimate ideals that explain the significance of our lives. Recently, marketing theory has integrated meaning into corporate strategic development. Meaningful experiences evoke these ultimate ideals in a measurable amount of time, and make them real for us. These experiences are the essential ingredients of a fulfilling existence. Meaningful experiences create the most lasting and deepest connections with others, products, services, and the companies that provide them. Meaningful experiences are often more valued than other offerings and can pre-empt the success of other offerings in the market.

Millennium Ecosystem Assessment

A UN-funded study of the state of ecosystem services around the world. It is the most extensive and accurate study of its kind. Launched in 2001 and completed in March 2005, the Millennium Ecosystem Assessment reports on habitat status, fishing, coral reefs, forests, water use, atmospheric carbon and temperature, weather, land use, and population.

More than 1300 scientists from 95 countries synthesized research, data, and models from a variety of sources to develop a set of 15 report as well as scenarios.

Accelerating changes humans have made to the ecosystem are creating high risks for people and businesses as well as some opportunities.

Mobius Loop A.K.A Chasing Arrows

The common nickname for the recycling symbol. The three arrows represent the main steps in the process: 1) the collection and separation of recyclable materials; 2) the manufacturing of these materials into new products; 3) the purchase and use of these recycled products.

Monstrous Hybrid

A term coined by Michael Braungart and William McDonough for a product, component, or material that combines both technical and organic nutrients (such as recyclable paper and poly-vinyl-chloride) in a way that cannot be easily separated, thereby rendering it unable to be recycled or reused by either system. Most monstrous hybrids can only be thrown out and contribute to the waste stream and cannot be reused.

Muda

A Japanese word for waste especially through poorly organized systems. Organizations seeking economic, manufacturing, and human efficiency seek to design and/or replace systems to eliminate muda.

Natural

The FDA describes natural ingredients as those that are “extracted directly from plants or animal products as opposed to being produced synthetically.” The Natural Products Association (NPA) is working to address the use of the word for personal care products through its certification program. For more info: naturalingredient.org | fsis.usda.gov | npainfo.org

Natural Capital

One of at least four forms of capital used by people, organizations, corporations, and governments, to build and maintain their livelihoods. Natural Capital includes all forms of resources from the environment, including minerals, water, air, sunlight, heat, plants, animals, and other organic matter. Sustainable organizations seek to maximize their effectiveness and efficiency in using natural capital as well as practice policies that sustain the quality and quantity of natural capital sources in the future.

Natural Step™

A trademarked, science-based framework to help organizations and communities understand and become more sustainable. It is also an international organization that provides consulting and education services around this framework.

More information: www.naturalstep.com

Negawatt

The saving of a megawatt of power by reducing consumption or increasing efficiency.

Non-renewable

Resources that exist in a fixed amount and cannot be replenished on a human time scale. Non-renewable sources of energy are typically divided into two types: fossil fuels (oil, natural gas, coal) and nuclear fuels (uranium)

Optimization

To maximize resource and material efficiency. For example: 1) Designing a product or package to fit the most possible units per case or carton; 2) Calculating the best possible load balance and number of case units carried by a shipping pallet; 3) Planning for the best possible materials use per press sheet

Organic

In regards to food (both plant and animal) and other agricultural products (such as cotton), a term describing the absence of pesticides, hormones, synthetic fertilizers and other toxic materials in cultivation. In some countries, “organic” has a legal definition. For example, in the USA, it is defined in the Organic Food Production Act of 1990 and refers to food and products that are at least 95% free of toxic and synthetic materials as described in the USDA National Organic Program.

Organic Clothing

Clothing made from materials that are grown or raised without the use of pesticides, herbicides or other chemicals.

Ozone-Depleting Substance (ODS)

A family of man-made compounds that includes, but is not limited to: chlorofluorocarbons (CFCs); bromofluorocarbons (halons); methyl chloroform; carbon tetrachloride; methyl bromide; and hydrochlorofluorocarbons (HCFCs).

Patient Capital

Investment strategies that provide social and environmental returns in addition to financial returns with an emphasis on returns over the long-term. While a longer investment horizon and/or a smaller financial return may be inherent in individual patient capital investments, neither of these conditions are required of patient capital investments.

Permaculture

A contraction of “permanent agriculture,” coined in 1978 by Australian ecologists Bill Mollison and David Holmgren. Permaculture is an approach to developing ecological human habitats and food production systems that use land sustainably and build communities that harmoniously integrate dwellings and agriculture in regard to climate, annual and perennial plants, animals, soils, and water use. Permaculture focuses not on the separate elements, but on their relationships and how they are placed in the landscape.

Photodegradable

Characteristic of a material that will break down into small pieces if left uncovered in sunlight. FTC Green Guidelines.

Post-Consumer Waste (PCW)

Materials or finished products, particularly paper and plastic, that have served their intended use and have been diverted or recovered from the waste stream. Post-consumer fiber materials include recyclables collected in commercial and residential recycling programs, such as office paper, cardboard, newsprint and packaging materials. Recovered office paper waste makes up the majority of postconsumer fiber content used in recycled copy and printing papers.

Pre-Consumer Waste

Material diverted from the waste stream during a manufacturing process. Pre-consumer waste does not include materials generated in a process that are capable of being reclaimed within that process, such as rework, regrind or scrap.

Process Chlorine Free (PCF) Certified

In addition to being made without chlorine compounds, PCF Certified paper products must contain at least 30% post-consumer content, and the mill must detail all post-consumer content sources. Certified by the Chlorine Free Products Association.

Processed Chlorine Free (PCF)

The label used for pulps or papers containing post-consumer recycled fiber that has been processed without the use of any additional chlorine or chlorine compounds. If these papers also contain a percentage of virgin fiber, the virgin fiber must have been processed without the use of any chlorine or chlorine compounds.

Product Design

A sub-field of Industrial Design, Product Design is a field that uses various processes to develop physical solutions to specific needs. Products might make use of electronics but are not required to. They may be mass produced, custom-made, or customized.

Production Artist

The person most likely to be saddled with the logistical responsibilities of putting sustainable communication design on paper. An unsung hero of design firms and art departments everywhere, production designers are easily identified by their Xacto scars, Tums addictions, and general enthusiasm for file-naming conventions.

Recyclable

As defined by the EPA, a product or package that can be collected, separated or otherwise recovered from the solid waste stream for reuse. ‘Recyclable’ is one of the few sustainability terms formally enforced by the FTC on product packaging and advertising.

Recycle

Recycling is the process of reclaiming materials from used products or materials from their manufacturing and using them in the manufacturing of new products. It is different from Reuse, where products are not destroyed and remanufactured but cleaned and repaired to be used again, also known as remanufacturing. Another strategy to use resources more efficiently includes reducing the use of materials needed for product and process manufacturing, also known as dematerialization. Many products are now marked with a variety of recycling symbols meant to help consumers and waste managers in separating recycled products and materials.

Not all materials and products can be recycled, however. Those designed for disassembly or made from one material are the easiest. Even when used materials and products are recycled, often there is no economically viable market for these materials and they are either disposed of with other waste or stored in warehouses for future uses.

Recycled Content

The proportion, by mass, of pre- and post-consumer recycled material in a product or packaging. Some companies count only post-consumer content as recycled.

Recycling, Closing the Loop

The remanufacturing of a material into a product of similar type and value, without significant loss of performance. For example: cereal boxes being repulped and made into 100% PCW cereal boxes.

Reduce

One of the most sustainable strategies is simply to reduce the amount of energy and materials we use and, thus, are required to be manufactured. This reduction has an exponential effect as it further reduces packaging, recycling, transportation, cleaning, disposal, and a host of other costs.

Renewable

Any material or energy that can be replenished in full without loss or degradation in quality.

Renewable energy

Energy obtained from sources that are inexhaustible, unlike fossil fuels which are finite. Renewable energy sources include: biomass, geothermal, wind, photovoltaic and solar thermal energy.

Renewable Resources

A resource that can be replenished at a rate equal to or greater than its rate of depletion. Examples of renewable resources include trees, crops, and vegetable-based products.

Reusable

The ability of a product or packaging to accomplish multiple trips, rotations, or uses within its life cycle.

Reuse

Often, the most sustainable option is to reuse materials and objects already manufactured, either for their original or new purposes, rather than recycle them into other products. This decreases further energy and materials use in recreating them into a new form.

Sensorial Design

Sensorial Design is a term used to include the presentation of an experience in all senses. For example, Visual Design only covers visual expression and presentation to the visual sense. Audio Design includes the creation of music, sound effects, and vocals to communicate and entertain in the aural sense (hearing). Likewise, all of the other human senses (touch, smell, taste, etc.) are elements of an experience that can be designed.

Service Design

Service Design is the field concerned with the development of services to meet specific needs. These services may make use of different communication media (including online, telephone, in-person, etc.), may or may not be automated, and may or may not use products as part of the service experience. A service usually includes a Service Ecology that allows the service operate successfully.

Service Ecology

A Service Ecology is a system of interactions and actors that, together, create a sustainable and successful service. Service Ecologies often include several companies or organizations that specialize in delivering one part of the total service. These may or may not be distinct to the user of the service. Successful Service Ecologies must realistically allow each company or organization to create and realize value for their part in the service in order for the Ecology to be both successful (from a user perspective) and sustainable (from a system perspective).

Service Economy

An economy which places increased value on delivery and receipt of services for economic benefit and growth than the acquisition and consumption of products and materials. This shift away from an economy of products can place greater emphasis on relationships and can promote resource productivity (if the service provider maintains responsibility for the means of providing that service).

Slacktivism

A form of activism focused on delivering the highest satisfaction from the least amount of effort, giving those who participate the illusion of having a meaningful impact on the world without demanding anything more than joining a Facebook group.

Slow Money

A concept under development by Woody Tasch, Chairman of Investors' Circle. Inspired by the mission of the Slow Food Movement, Tasch considers that "fast" money investments (such as venture capital) is expected to return a profit quickly but is rarely invested long enough to create sustainable ventures. This is especially true of early-stage companies in some industries (such as biotech, high tech, and food development) which often require longer time frames to generate competitive returns. Slow money is invested with an understanding of the natural dynamics of these businesses and investors set their expectations of financial return around these processes.

Smug Alert

The alert issued when the cloud of arrogance emitted by affluent, environmentally conscious populations (particularly those with a high concentration of hybrid car drivers) threatens to eclipse their well-meaning efforts.

SROI (Social Return on Investment)

SROI is an approach to understanding and managing the impacts of a project, organisation or policy. It is based on stakeholders and puts financial value on the important impacts identified by stakeholders that do not have market values.

Stakeholder

Any person or group who has an interest (a stake) in an organization, a community, or design project.

Supply Chain

A network of individuals or organizations that performs the functions of procurement of materials; transformation of these material into intermediate and finished products; and distribution of these finished products to customers.

Sustainability

Meeting the economic, ecological and social needs of the day without impairing the chances or development of future generations. (UN-Conference, Rio de Janeiro, 1992)

Sustainable Design

The process of developing products, services, and organizations that comply with the principles of economic, social, and ecological sustainability. There are many principles of sustainable design, including a customer-centric approach, dematerialization, transmaterialization, and biomimicry.

Sweat stains

The repellent and indelible mark left on a brand's reputation when it is found to use sweatshop labor in the manufacture of its goods.

Systems Thinking

An approach to problem solving that assumes the individual problem is part of a much larger system, and with that in mind, endeavors a solution that does not create further problems down the road. This approach is particularly important in complex systems where we do not always understand the inter-connection between parts. Systems Thinking methodologies include: The Natural Step, Cradle-to -Cradle, The Living Principles, Okala, and o2's 5Rs.

Take-back

Take-back is part of extended producer responsibility, a pledge by manufacturers to accept responsibility for a product's life cycle, including "end-of-life" management schemes.

Technical Nutrient

Made of highly stable materials which can be used again and again, technical nutrients are designed to be retrieved and re-used within the closed-loop cycle of sustainable manufacturing.

Thermohaline Conveyor

A global water circulation system driven by water temperature and salt-density that distributes water between the Earth's oceans. Warmer water closer to the ocean's surface travels from the northern Pacific Ocean, south through the Indian Ocean (where it is joined by more warm water), around the southern tip of Africa, and up to the northern Atlantic Ocean. At this point, the water cools and sinks toward the bottom of the ocean and travels back via the same path.

The thermohaline conveyor is responsible for bringing warmer, more temperate climate to most of Europe and has a profound effect on global climate.

In the past, when this system has slowed or stopped, the results were ice ages throughout Europe. Concern is rising that global climate change is again slowing this conveyor system and endangering ecosystems and economies in the EU.

Tipping Point

A way of looking at the way change happens in the world, put forth by Malcolm Gladwell in his bestselling book, *The Tipping Point*. The book contends that ideas, behaviors, messages, and products spread through society similar to disease, and that societal changes are like epidemics: a tiny force can cause enormous shifts. The "tipping point" is the moment in an epidemic when a virus reaches "critical mass."

Totally Chlorine Free (TCF)

The label used for pulps or papers that have been bleached without the use of chlorine or chlorine compounds. TCF refers only to paper with 100% virgin content.

Totally Chlorine Free (TCF) Certified

The label used for 100% virgin paper that has been made without the use of chlorine compounds. TCF Certified products must produce a chain of custody for all virgin fiber, the mill must have no current or pending violations, and the mill cannot use old-growth forest for any of their virgin pulp. Certified by the Chlorine Free Products Association.

Tragedy of the Commons

A term used to illustrate the conflict between individual interests and the common good, based on the assumption that when individuals use a public good, they do not consider the impact - or externalities - of their use on the good itself; as a result, public resources become overexploited. The term was popularized by Garrett Hardin in his 1968 Science article "The Tragedy of the Commons," which used a hypothetical example of English Commons, shared plots of grassland used by all livestock farmers in a village. In this hypothetical, each farmer keeps adding more livestock to graze on the Commons, because it costs him nothing to do so. In a few years, the soil is depleted by overgrazing, the Commons becomes unusable, and the village perishes.

Transmaterialization

The process of satisfying the benefits of a product with a service. Often, services can offer the same activities to customers as some products. Transmaterialization requires the rethinking of business goals and objectives in order to envision new market opportunities. However, some customer sectors may not be ready or willing to accept new solutions (such as services where they once bought products).

An approach to reducing the use of natural resources, while

maintaining economic growth, by replacing products with services (which are inherently less resource intensive). This alternative approach to wealth creation requires a radical shift in our economic orientation, rather than looking to produce more, we must look for ways to improve the consumer's experience. This makes labor a more important input than other resources.

Transparency

An organization's disclosure of their environmental, economic, and social impacts in an effort to assure all players are working toward long-term sustainability goals. Corporate Social Responsibility (CSR) reports are often the delivery mechanism.

Triple Bottom Line

An expanded baseline for measuring performance, adding social and environmental dimensions to the traditional monetary benchmark. Triple bottom line, or TBL, is often expressed through examples: People Planet, Profit; or Ecology, Economy, Equality.

Upcycling

The remanufacturing of a material into a different product with a different material-use cycle. For example: a PET bottle made into fibers for high performance polyester clothing, which itself can be recycled.

User Experience

The overall experience, in general or specifics, a user, customer, or audience member has with a product, service, or event. In the Usability field, this experience is usually defined in terms of ease-of-use. However, the experience encompasses more than merely function and flow, but the understanding compiled through all of the senses.

Values

These are the significant beliefs we hold about how ourselves and others should behave in the world. They govern our judgments and understandings about our own and others' identities. They are one point on the spectrum of meaning.

Vegetable-Based / Soy-Based Ink

Ink that contains varying amounts of oil from annual crops, such as soy and citrus, to replace petroleum, making it lower in volatile organic compounds (VOCs). The American Soybean Association has developed standards for soybean content in soy inks and the appropriate use of the Soy Seal or "Printed with Soy Ink" logo.

Visual Design

Visual Design is the field of developing visual materials to create an experience. Visual Design spans the fields of Graphic Design, Illustration, Typography, Layout, Color Theory, Iconography, Signage, Photography, etc. and any medium, including online, broadcast, print, outdoor, etc. Visual Design is concerned with the elements of visual expression and style. It is often an integral step in Information Design and other communication design disciplines.

Volatile Organic Compound (VOC)

Carbon-containing compounds that evaporate into the air (with a few exceptions). VOCs contribute to the formation of smog and/or may themselves be toxic. VOCs often have an odor. Typical liquids that release VOCs include gasoline, diesel, pesticides, cleaning supplies, glues, and solvents used in paints.

Waste = Food

A principle of natural systems that eliminates the concept of waste. In this design strategy, all materials are viewed as continuously valuable, circulating in closed loops of production, use, and recycling.

Waste-to-Energy

The practice of processing waste products to generate steam, heat, or electricity. See also Energy Recovery.

Water Footprint

The total volume of freshwater used to produce the goods and services consumed by an individual, community, or business. The water footprint is a geographically explicit indicator, not only showing volumes of water use and pollution, but also the locations.

Zero Waste

The goal of developing products and services, managing their use and deployment, and creating recycling systems and markets in order to eliminate the volume and toxicity of waste and materials and conserve and recover all resources. Implementing zero waste eliminates all discharges to land, water, or air that may be a threat to planetary, human, animal or plant health. Many cities and states already have set zero-waste goals. For example, San Francisco and other cities have set a goal to create zero waste by 2020. More information: www.zerowaste.ca.gov



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