

Glossary

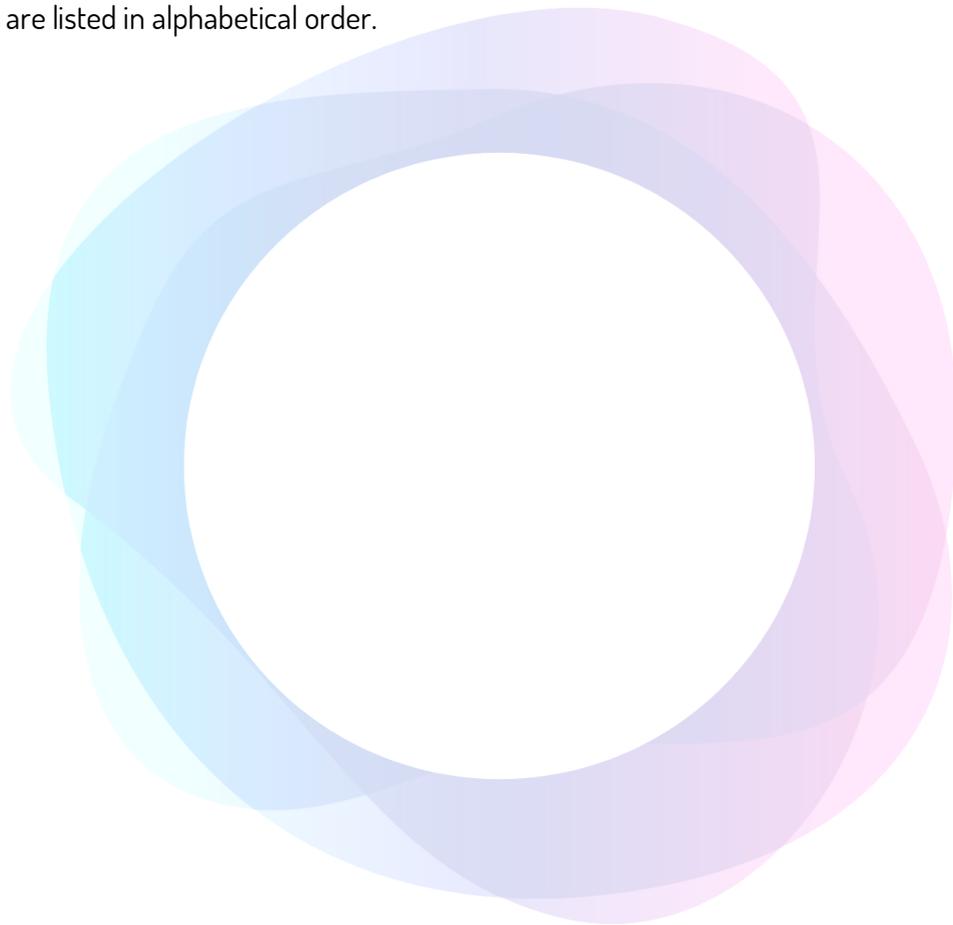
Circular Economy

Overview

This glossary contains a list of definitions of frequently used Circular Economy terms. These form the basis for understanding the sound concepts and systemic thinking techniques for understanding the interrelationships and in implementing circular applications.

The goal of this guide is to act as a support for anyone interested in the five thinking techniques and to deepen their knowledge and understanding of the vocabulary.

The terms are listed in alphabetical order.



A

-Accuracy- is the degree to which the result of a statement or piece of information conforms to the correct state.

-Adaptive System- is a system that can change given some external perturbation, and this is done in order to optimize or maintain its condition within an environment by modifying its state. Adaptation simply means the system can generate a number of different responses to a set of changes within the state of its environment.

-Agency- is the capacity to make choices based upon information and act upon those choices autonomously to affect the state of their environment.

-Agility- is the presumption to react in real-time to dynamic evolutionary processes.

-Allocation- means managing and assigning resources to various users or assets in an effective way.

-Analysis- the procedure by which we break down a complex whole into parts. Analysis helps one to understand the parts.

-Appreciative Inquiry- assumes that questions and dialogue about strengths, benefits and aspirations, can be of great value in enabling transformation. A key aspect in Appreciative Inquiry is the idea that the language we use creates our reality so it matters hugely the questions we ask

-Argumentation- a process whereby divergent ideas or opinions are brought into contact and interact with the intent of inferring a conclusive single global outcome.

-Autopoiesis- derives from the word auto, meaning “self” and poiesis, meaning “creation or production”. Process of self-creation = autopoiesis.’ A system is termed autopoietic if the parts to the organization interact with each other in such a manner that they are continuously producing and maintaining the pattern and the elementary parts that the system.

B

-Backcasting- Prof. Walter R. Stahel outlines that: “Backcasting is the opposite of forecasting; the observer defines the results that he wants to achieve, puts himself in this future position and then analyses opportunities and risks looking back”. Backcasting can be a way to turn a future scenario into a concrete strategic foresight plan that is actionable in the present.

-Balanced Inquiry- entails investigation or a process where you gather information. For example, reasoning should be a balanced process of inquiry; it should be open-ended, and one should not know the answer before starting, thus it involves a degree of openness to uncertainty. Objective thinking implies an impartial, open and balanced inquiry; the result should express reality without our subjective modification of it.

-Behavioral economics- studies the effects of psychological, social, cognitive, and emotional factors on the economic decisions of individuals.

-Basic material- raw materials or raw materials that are used unprocessed or only slightly processed as starting material for further processing or as end product for consumption.

C

-Causality- describes a relationship that exists between two or more things where a change in one thing causes a change in another. The essence of causality is a phenomenon being dependent on some other effect.

-Causality: Linear- follows a sequential order, where a direct link between cause and effect can be drawn, with there being a clear beginning and a clear end in time, effects can then be traced back to one or a limited number of causes.

-Causality: Nonlinear- involves cyclical processes where one thing impacts another which in turn impacts the first; although this chain of events leading to feedback may be mediated through several events or over a prolonged period of time. Nonlinear causality where multiple factors affect an outcome as they work together synergistically in a networked fashion.

-Centralized management- entails a hierarchical organization where the strategy, controlling and management are concentrated at the center.

-Change- is a mechanism that is deeply rooted in complex economic theory. It is leading to ever new situations that lead to more complexity through diversification and growth.

-Chaos Theory- is the study of nonlinear dynamical systems and how a system's dynamics over time may be sensitive to initial conditions, resulting in the potential for widely divergent outcomes given only very small differences in the system's input values, thus making the future state of the system very difficult to predict.

-Circular economy- is an economic model which is deeply rooted in the understanding that our old system which was linear is not working. We can see it in climate change and other global issues that lead back to the linearity of the economy. The circular economy can be considered a tool for systemic change to transform to a sustainable way of living. The circular economy is a global economic model that progressively decouples economic growth and development from consumption and finite resources. A circular economy is grounded in the study of feedback loops within non-linear systems as exemplified by ecosystems.

-Circular value creation- represents an economic system that is restorative and regenerative. It replaces the end-of-life concept with closed loops. As a result, the material flow and energy system

are sustainable, and the climate and environmental impact must be positive. Value creation happens in cascades according to the value-hill-model.

-Circularity- property of products that all materials used in a product can be recycled several times and kept in almost closed loops.

-Clarity- is the quality of being clear, coherent and intelligible. Clarity is a universal standard of reasoning.

-Closed Change- a closed linear system can only change by generating different configurations of its internal parts.

-Club of Rome- an international scientific community with a focus on addressing the many crisis facing humanity and our planet. The Club of Rome was founded in the 1968 by like-minded people with a joint interest to study complex global problems including economic, environmental, social and political aspects. In 1972 the club released their first major report Limits to growth.

-Cognition - is the mental action or process of acquiring knowledge and understanding through thought and experience. Cognition encompasses processes such as, attention, comprehension, memory, judgment, evaluation, reasoning, decision making, problem solving, and the use of language, among others.

-Cognition Spiral- a tool to understand how identity is created. Research shows that cognitive innovation is evolving in form of a spiral which starts circulating around the center, the center is the individual. The center of the spiral marks the point of beginning for a new transformation, a new identity.

-Concepts- are the building blocks of reasoning and they need to be well built, i.e. well defined.

-Context- the circumstances that form a setting. The conditions in a specific setting.

-Cooperative Game- is one in which there can be cooperation between the players and they have the same cost. Cooperative games are an example of non-zero-sum games.

-Complexity Theory- is a set of theoretical frameworks used for modeling and analyzing complex systems within a variety of domains. Complexity theory draws upon models developed in many different areas such as computer science, ecology, physics, mathematics, and engineering. Out of these different models has emerged a core set of commonalities that over the past few decades has come to be recognized as a generic framework for studying complex systems in the abstract.

-Collective sense-making- a conversational event where people intentionally come together for the purpose of using their varied perspectives and cognitive abilities to make sense of a problem they are collectively facing.

-Complex Systems- consist of different parts and are characterized through many connections and interdependencies between these parts. But coordination and organization become manageable to a degree because connections and interplaying mechanisms become traceable and tangible.

-Complicated System- it can be referred to as a tangible ball of string, because there are no symmetries to the pattern, thus a detailed description of the entire pattern is needed to understand it fully. Things get complicated when there is no correlation existing between many different parts.

-Communication- exchange of information between two or more elements.

-Cradle-to-Cradle- is a principle created by Prof. Dr. Michael Braungart where we separate technical and biological cycle. Moreover, the cradle-to-cradle principle is based on a conception of that consist "Everything is food". This means that a material has a function but also fills the purpose someone in the ecosystem, to function. A big aspect of the cradle-to-cradle principle is for us to re-think how we design all that we use today in our modern world.

-Critical thinking - is a form of metacognition being reflective about our thinking, questioning our worldview, taking it apart to better understand it and to ensure a baseline of quality, and developing the conceptual tools to be able to think for oneself. Critical thinking are what enable us to get beyond our own perspective to start to value and include multiple perspectives and from them start to see the broader systems we form part of. Critical thinking is about becoming aware of how our thinking shapes what we see, do, and the world we create which then feeds back to shape our thinking through an ongoing feedback loop.

-Cybernetics- is the study of control, communications and information processing within systems of all kinds, biological, mechanical and social.

D

-Debates- expose our opinions to a process for finding common ground and consensus without resorting to violence.

-Dependence- all systems operate within an environment and they are dependent upon some set of input values from that environment in order to operate successfully.

-Design for Circularity- is a holistic design approach that aims to design products stay in economic use forever and will neither harm the environment nor the users or other species. Design for Circularity takes into account the entire life cycle of products. Prof. Dr. Michael Braungart invented the principle, which differentiates between the biological and the physical cycle for consumption and investment goods, materials or fluids.

-Design for Recycling- aims to support the recovery of materials for further use. This means that the recyclability of the material used is already taken into account during design and production.

-Design Thinking- focus on challenging assumptions, being creative and envisioning desirable outcomes. Design thinking is thus an intelligent process in which the outcome of our design depends

on what we understand, desire and value. Moreover, it is agile and iterative as well as holistic in considerations of stakeholder.

-Dialectic Development- the dynamic interaction between the process of integration and differentiation that drives the evolutionary process of development within the system in a dialectic form.

-Differentiation- is the process whereby an integrated system becomes divided up into more specialized, well-defined parts. Differentiation means that the parts are performing different functions or occupying different states with respect to each other. This differentiation means that the parts can focus specifically on a limited number of functions and thus perform them more efficiently as they become more specialized.

-Digitalization- a change from analog to digital meaning the use of technologies in various regards (processes, functions etc.).

-Distributed Management- several managing actors in control of the different elements within the system and who cooperate to achieve a common goal.

-Do no harm strategy- means that we should think deeply of what we currently do, what we plan to, and how we do it. It entails a focus on critically view our actions and make sure there is no harm in the process.

-Downcycling- refers to the reprocessing of materials, although the original quality is not retained. The material segregates in quality and declines downward in a cascade of uses until it can't be used anymore and becomes waste

-Downward Causation- how the whole macro-level affects a downward cause on the formation of the parts.

-Dynamic Thinking- focus on mapping relationships and capturing interactions, interconnections, the sequence and flow of activities, and the rules of the game. Focus on issues that unfold over time instead of focusing on particular events. Captures the nature of the learning process by describing its structure instead of enumerate sets of factors that "in some way influence" the process.

E

-Eco-system thinking- the mentality of eco-system thinking includes being able to see the system, the parts and your place and function within this system.

-Economic process- meaning the activities involved in the production of goods and services.

-Economic Model- is a theoretical construct that allows us to make sense of, observe and predict an economic behavior. Moreover, it allows us to understand economic processes.

-Efficiency- means not wasting time, energy or money. Efficiency refers to a special production factor. But it does not necessarily cause positive impact. It might even drive a negative impact.

-Effectiveness- refers to more than one element in the system. Within the system the cause of effectiveness can be described as useful, suitable, convenient, advisable, and even efficient. It causes positive impact on the system's environment. An effective strategy avoids negative rebound effects!

-Ego-system thinking- a self-entered view of the world where we see parts and draw a few connections between them.

-Elements of reasoning - are a list of factors that are designed to make people aware of the different factors involved in the process of reasoning. (includes: Purpose, Problem Solving, Assumptions, Point of View, Information, Concepts, Inference, & Implications).

-Elements- are parts, which can be anything for example the organs in your body.

-Elephant Story- a tool to becoming more aware of the system in which the elephant illustrates how each person only sees one part of it from their perspective leading to an absence of understanding the whole.

-Emergence- describes a universal process of becoming or creation. Emergence is a process whereby novel features and properties emerge when we put elementary parts together as they interact and self-organize to create new patterns of organization. Emergence can be understood as a form of nonlinear pattern formation. Where synergies between elementary parts give rise to self-organization and the formation of a distinct pattern, that creates new, emergent levels of organization, that are driven by an evolutionary dynamic.

-End-Of-Life- describes the last phase in the product cycle in the linear economy, when the product is disposed as waste of after use and consumption. In a circular economy there is no end of life, but an end of use, the aim is to create endless phases of use and expand each phase of usage.

-Envisioning- is the use of a systematic process to think about the future. It includes framing and forming possible scenarios based on signals and trends from the past and the present to gain insight into the best actions to take today.

-Events- the observable actions and phenomena.

-Evolution- is a process of adaptation that operates on the macro-level of a system. Adaptation is the capacity to generate a response to some change within the environment. Evolution is this same process but operating on the macro scale, i.e. on the level of a population of agents. Here again, it is the capacity for the system to respond to changes within its environment.

F

-Feedback loops- describe a relationship of interdependence over time, meaning what happens now is going to affect what happens in the future. Moreover, feedback loop can be defined as a channel or pathway formed by an 'effect' returning to its 'cause,' and generating either more or less of the same effect.

-Fossil raw material- raw materials that originate from primary extraction or production and belong to the fossil carbon sources (crude oil, natural gas, coal). Generally fossil raw materials endanger the climate, because carbon is emitted to the climate.

G

-Game Theory- is the study of the interactions between adaptive agents. Game theory studies the strategic interaction between agents engaged in relations of cooperation and conflict.

-The Golden Circle- self-efficiency can be realized if the purpose is clear. The concept of Golden Circle by Simon Sinek describes this effect. The Why - the purpose, How- the process, What- the result.

H

-Hierarchy/Systems hierarchy- describes the emergent pattern of organization where smaller subsystems form part of larger systems which in turn form part of larger supra-systems.

-Holistic perspective- refers to the whole system or environment as the most appropriate frame of reference for understanding something.

-Holism- means that we are thinking about things in reference to the whole that they form part of. Refers to any approach that emphasizes the whole, rather than the constituent parts of a system.

-Homo Circularis- understand themselves as fellow creatures, as earthlings. Homo Circularis recognize and use technology as a tool. Homo Circularis, who also narrates himself individually, but also sees himself as a social collective interacting with his fellow creatures. Homo Circularis will always ask themselves the question of what is really important. The Homo Circularis makes himself more and more the steward of everything what offers him a basis of life: of things, of nature, of people. He will use possessions, but they will no longer matter to him. Homo Circularis have to adapt quickly to new environments, so their only option is rapid lifelong learning. Homo Circularis is emotionally intelligent. What will Homo Circularis look for if they want to survive? They are looking for development opportunities. These result from social, ecological and economic opportunities, offers of help and use options. So, opportunities are what matter. Homo Circularis will look for them. We will

see that Homo Circularis in their quest for the good life, will act as stewards and yet do what Homo Sapiens have always done: Love, learn, teach, and act quickly for survival. To prove themselves resilient.

-Homeostasis- it is the state of a system in which variables are regulated so that internal conditions remain stable and relatively constant, despite changes within the system's environment.

I

-The Iceberg Model- is a model used in systems change to illustrate the various levels of abstraction to a situation or organization. Just like with an iceberg, a large percentage of what is going on in our world is hidden from view and the Iceberg Model tries to make this explicit by depicting it as a series of layers that sit beneath the everyday observable world.

-Impact/Positive impact- means effect, consequence, implication, weight and force. Stop developments that are bad.

-In-casting- is trying to get inside a forecast, asking what is a day in the life of a person in that world like.

-Inference- is the logical set of connections that take us from one place (the premise) to another (the conclusion), without inference there is no reasoning.

-Interdependence- is a type of connection or relation between elements. Interdependence is one of the central concepts within systems theory.

-Integrative level- is a pattern of organization emerging on pre-existing phenomena of a lower level. The concept of integrative levels is used to describe how synergies and emergence give rise to successively higher levels of organization.

-Integration- is the process whereby diverse elements become combined or synthesized into a whole system.

L

-Levels of abstraction- in order to bring the visible above the surface and the invisible below into cause-effect relationships, we need a certain level of abstraction. Abstracting is a skill that we can learn when we think and enable each other to look beyond the obvious. Abstraction means removing successive layers of detail from a representation in order to capture only the essential features that are generic to all entities of that kind and independent of their specific form.

-Linear economy- model cradle-to-grave. Take-make-waste.

-Livelihood- means to ensure basic necessities for life and survival.

-Logic- is the system or set of principles underlying the arrangement and behavior of elements in a system. Any integrated and ordered set of interrelationships between entities that is intelligible.

M

-Mass balance approach- method to determine the proportion of defossilized materials in the final product.

-Mental Models/Conceptual Models- can be understood as a framework that is formed by “paradigms”, meaning ideas of how things should be. They include beliefs, attitudes, morals, expectations, values or culture which form and allow structures to continue functioning.

-Mechanistic paradigm- the traditional paradigm taken within modern science, and by extension the modern world. In this paradigm the universe is seen to be comparable to a big mechanical clock. Moreover, within this paradigm, we can understand and know this whole machine of the universe by understanding all of the parts and the simple linear interactions between those parts.

-Micro-Macro dynamic- as soon as we have emergence and hierarchical structure we have a new dynamic between the different levels of the system. The components must differentiate their states to perform the various structural and functional roles required to process the resource on the macro-level. This need for the higher level to constrain and control the lower levels in order to enable higher-level processes creates a complex dynamic between the micro and macro levels, as they become interdependent.

N

-Narratives- is a form of presenting a situation or understanding connected events that foster and reflect a specific standpoint, view or value. Mark Currie outlines that: “In more academic contexts, there has been a recognition that narrative is central to the representation of identity, in personal memory and self-representation or in the collective identities of groups based in regions, nations, race or gender.”

-Non-zero-sum- each interaction can add or subtract value from the system and be non-zero in sum.

-Non-cooperative game- is one where an element of competition exists and there are limited mechanisms for creating institutions for cooperation.

O

-Objectivity- refers to facts that can be generalized and includes reasoning according to a set of logical and objective standards.

-Open economy- entails that the economy is dynamic and moving. It can't be considered as isolated, but rather other systems are involved and flow into and out of the economic system. It is an open economy with open borders.

-Open change- a view that systems are open within the context of their environment, thereby can change with respect to the changes within their environment. This leads to the idea of adaptation and evolution, where changes in the environment feedback to affect the system which must then adapt to those changes.

P

-Paradigm - is a model, perspective, or set of assumptions that form a worldview underlying the theories and methodology of a particular domain.

-Pattern- we can understand a pattern to be any form of correlation between the states of elements within a system. The robustness of the pattern is a function of the number of relations and the strength of the correlations between the elements.

-Planetary Boundaries- entails a focus on the Earth system and processes which contain environmental boundaries. The boundaries tell us that there are limits to what the system can take and limits to the Earth system to be able to provide a safe operating space for humans. Today, based on Earth-system science there are 9 key Earth System processes with a sets of safe boundaries for human activities.

-Precision- by clarifying and defining the terms and concepts we are using we can say precisely what we mean.

-Processes - is a way of interpreting events in terms of the processes of change that create them. It focuses on the nonlinear dynamics of change over time that create certain patterns out of which events emerge. Process involves considering phenomena dynamically; concerning movement, activity, events, change and temporal evolution.

-Prisoner's Dilemma- is a classic two player game that is often used to present the core dilemma at the heart of non-cooperative games. The prisoner's dilemma thus has a single equilibrium: where both players choose to defect. Thus, without means to support cooperation both will likely defect resulting in the worst outcome for both.

R

-Raw materials turnaround - refers to the transition from a linear economic system based primarily on fossil raw materials to an economic system in which material cycles are closed and raw materials are saved or replaced by renewable raw materials. The aim is to recycle emissions-relevant carbon and its compounds as far as possible in order to end the use of fossil raw materials in the long term.

-Reason - the capacity to think, understand and form judgments through a process of inference that is guided by some form of logic.

-Rebound effect- the economist William Stanley Jevon is the man behind the Jevon paradox that concerns rebound-effect. The Jevon paradox tells that increased technological development which contribute to increase the resource/energy efficiency in society contributes to result in an increase rather than an decrease in the consumption of the resource in question, thus this is referred to as a rebound-effect, thus meaning an unexpected outcome that comes to affect the whole system. For example, an external factor comes to impact the system in an unexpected manner.

-Recyclability- ability of a product or its components to allow collection, sorting and separation of product materials for subsequent recycling. Properties that facilitate recycling include, for example, grade purity or ease of separation of the materials used.

-Recyclate- raw materials that result from recycling processes. According to DIN EN ISO 14021, a distinction is made in waste recycling between post-consumer waste and pre-consumer waste (also production waste or post-industrial waste). Accordingly, "post-industrial recyclates" (PIR) can be differentiated from "post-consumer recyclates" (PCR).

-Recycled raw materials- covers all raw materials that have undergone the process of reprocessing. This includes mechanical recycling processes as well as chemical recycling processes.

-Reductionism- the practice of analyzing and describing a complex phenomenon in terms of elementary parts that exist on a simpler or more fundamental level.

-Regulation- entails a control system or mechanism.

-Relations- emphasizes how connections, interdependencies and context shape the component parts of the system and not so much vice versa; which is the more traditional assumption. When looking at the world through a relational view we search for how interdependencies and networks of connections shape the properties and behavior of the parts. Relations may be defined as either dependent, co-dependent, independent or interdependent.

-Renewable raw materials - organic raw materials that are not used as food or animal feed, but are used as materials for other use. These materials are renewable by nature.

-Requisite Variety- a system with sufficient internal variety to represent the possible changes within its environment is said to have requisite variety. When a system has requisite variety, then it can be said to have control over itself within that particular environment and be sustainable.

-Resilience- typically understood as the capacity of a system to be aware and maintain functionality given some alteration or unexpected risks. Moreover, resilience is about allowing for changes while looking at the system's ability to endure despite these changes and continue to develop.

-RESOLVE-Principle- is an abbreviation, explaining the principle for decoupling the growth of our economies from resource use. RE – Reduce, Regenerate, Reuse, Refurbish, Recycle, S – Share, O – Optimize, L – Loop, V – Virtualize, E – Exchange.

-Resonance- entails a relationship between two or more elements in which all benefits, meaning that all the elements in the system stimulate each other mutually.

-Robustness- the tendency of a system to remain close to its equilibrium state, despite disturbances, is termed robustness.

S

-Scenarios- are co-created narratives about the different ways that the future may unfold and present alternative futures that together capture the most relevant uncertainties and driving factors.

-Scenario planning- is a structured way for organizations to think about the future by creating a set of scenarios based upon current trends. The way we do scenario planning is we explore in a rigorous way the forces that are shaping the future, by studying current and past data for indicators to derive trends.

-Self-efficacy- meaning belief in one's capacity and ability to exercise control over one's own behavior, motivation and social environment. Belief in one's ability and capacity in general.

-Simple System- only consist of a few elements. These elements can offer only a number of limited connections which are linear. Cause and effect are clearly traceable through feedback loops. One thing is directly causing another thing.

-Social Dilemma- is characterized by two properties: The social payoff to each individual for defecting behavior is higher than the payoff for cooperative behavior, regardless of what the other group members do, yet all individuals in the group receive a lower payoff if all defect than if all cooperate. At their core, social dilemmas are situations in which self-interest is at odds with collective interests and they can be found in many situations of interdependence; from resource management to relationship development, to international politics, public goods provision and business management.

-Standards of Reasoning- universal intellectual standards are standards that should be applied to thinking whenever one is interested in checking the quality of reasoning about a problem, issue, or situation. (include: Clarity, Accuracy, Precision, Relevance, Depth, Breadth, Logic and Fairness)

-Static view- sees events as generated by linear cause and effect relations between a system's component parts.

-Structural changes- a change to the whole structure of a system

-Subjectivity- refers to opinion, taste, and perspective, relative to a particular person or context. Refers too reasoning without standards thus only relies on our own experience.

-Sustainable development goals (SDGs)- define the societal global aims and values to create livelihoods for the people on planet Earth. With the SDGs value has been given an ecologic, a social and an economic dimension.

-Symbiosis- means a mutually beneficial relationship between two or more organisms.

-Synergies- is an interaction or coordination between two or more elements or organizations to produce a combined effect greater, or less, than the sum of their separate effects.

-Synergy Positive- is a constructive interaction between elements whereby they work together in some fashion to create a combined organization that is greater than a simple summation of the effects in isolation.

-Synergy Negative- a destructive interaction between two or more elements where the parts work in a counteractive fashion to dampen down or destroy the effects of each other.

-Synthesis- means the combination of components or elements to form a connected whole. Meaning combining constituent elements into a single or unified entity. Synthesis helps to understand the whole of a system.

-System- a configuration of parts connected by a web of interdependent relationships.

-Systematic- the premise that through a careful and holistic inquiry we can derive the order to things; that there is a logic to the way the world works and we are trying to understand this. Systematic is everything we do that follows a certain structure. In a systematic, the boundaries and rules of the system have already been established. This makes it possible to apply and repeat a process. If you proceed systematically for the things, you do or think, you proceed in the same way.

-Systemic- refers to something that affects a whole system. For example climate change, a disease, corruption, racism and so on. These phenomena affect the whole system and is thereby referred to systemic.

-Systems paradigm- is characterized as being holistic, meaning that it always refers to the whole system or environment as the most appropriate frame of reference for understanding something.

Systems paradigm is focused on understanding the world in terms of constant change and is process orientated in nature.

-Systems Theory- represents the core set of ideas at the heart of systems thinking constituting this paradigm. Systems theory has been defined as an approach that attempts to balance holistic and analytical reasoning. Systems theory goes more into detail of the understanding the parts in relation to the whole and nonlinear feedback loops of interdependence.

T

-Transformation- entails a process of a change in to a new state or function.

U

-Upward Causation- seeing higher-level phenomena as being caused by lower-level entities.

V

-Value- is defined to the regard that something is held to deserve, its usefulness, its importance or worth.

-Vision- an idea of how the future can take shape. An imagination of the future.

-VUCA World- the term “VUCA” is made-up out of a necessary that we need new words to describe our economy. VUCA describes our economy as: volatile, uncertain, complex, and ambiguous.

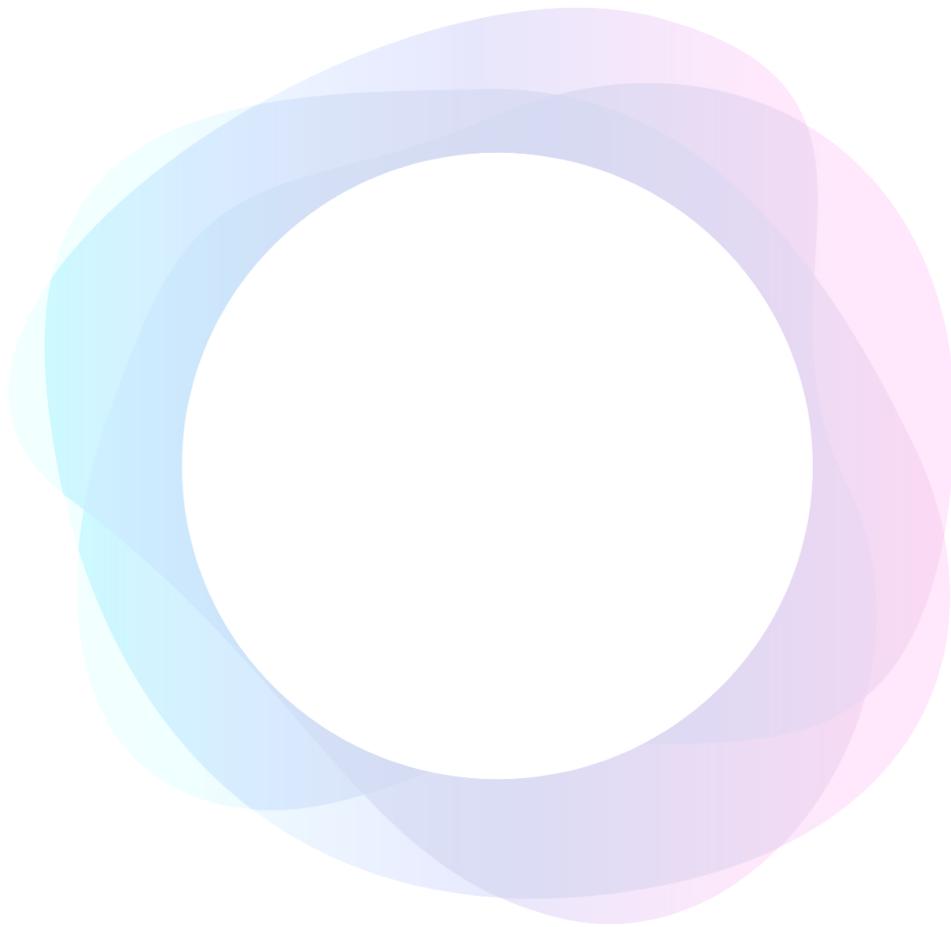
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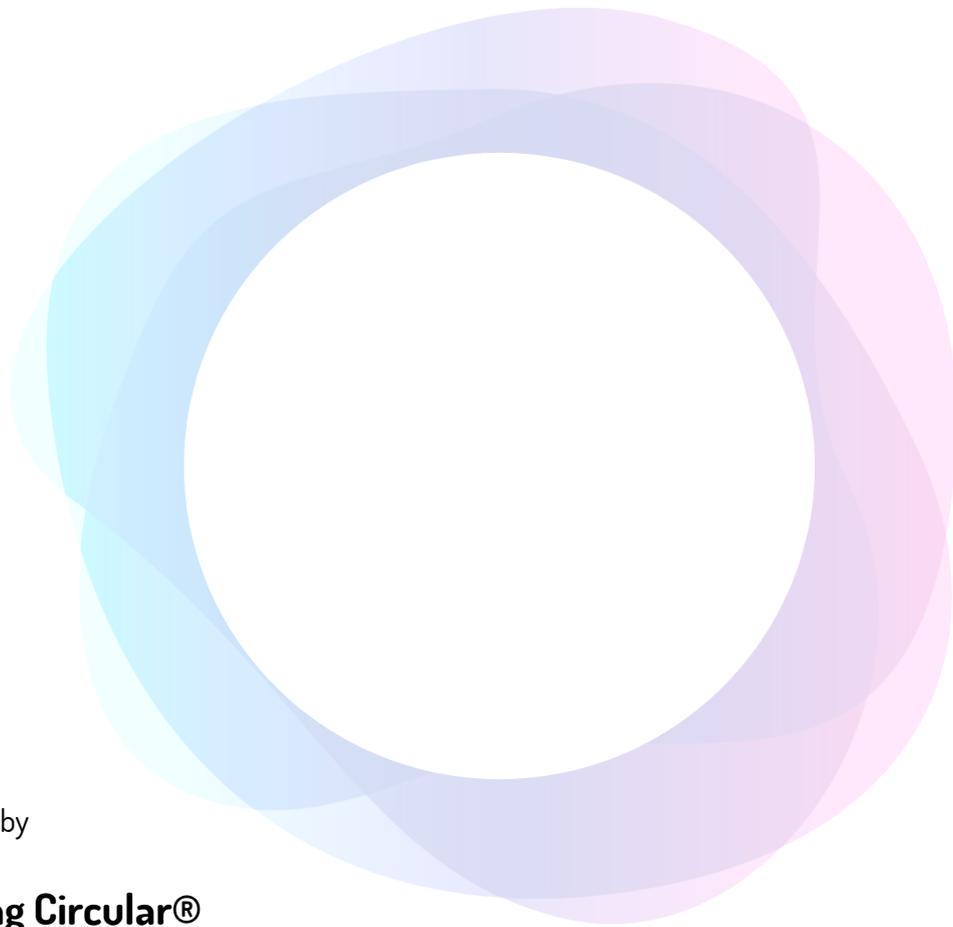
-Waste hierarchy- is a method and model that is used to guide and rank decisions related to waste management and this cover both the individual and organizational level. The hierarchy consists out of 5 steps that are ranked with number 1 being the most important one to consider before climbing up higher in the hierarchy: 1. Prevention (Reducing waste at the source), 2. Reuse of materials, 3. Recycling, 4. Recovery, 5. Landfilling.

-The whole- the system including all its parts and connections.

Z

-Zero-sum game- is a strictly competitive game, cooperation will add no value.





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