

# **From Take-Make-Dispose to a Circular Society**

Introduction of a new vision  
in six propositions

## Foreword

Imagine it is the year 3019 after Christ and you are leading an archaeology expedition on the now uninhabitable European continent, digging for traces from the beginning of the 21<sup>st</sup> century. After difficult digging through meter-thick layers derived from the last ice age, what will you find?

Most likely a huge pile of fossilized garbage: 3.5 million tonnes of waste were produced worldwide every day in 2010, by 2025 it was 7 million and at the end of the century this huge amount has again doubled. As a good archaeologist, you have already expected these garbage mountains because you know your ancestors for their wastefulness and unsustainable use of resources. But one thing still surprises you: a large part of the waste still is usable. There are mountains of e-waste with devices that had hardly been used or are only slightly damaged. The caves are full of barely worn garments and only slightly worn-out furniture. Many finds appear to be so poor and cheaply designed that you are surprised that they had even worked. You wonder why scarce and precious natural resources were used to produce something that seems to have been of so little practical value? Other-

wise, why would they had just dumped them and stack them into garbage piles instead of repairing them, passing them on or at least reclaiming the materials? What was wrong with the last millennium?

These questions do not only arise from a future perspective, they are more current than ever. How is it that the garbage mountains continue to grow and at the same time, the raw materials and natural resources — such as fossil fuels, minerals and metal ores — are dwindling worldwide and becoming increasingly scarce? Why do natural resources seem to have such a low value to us? And why do the products made of them lose their value immediately after being purchased? A key problem is the unidirectional take-make-dump logic that underlies modern systems of production and consumption and the basic assumption that nature can just be consumed.

The protagonists of the Circular Economy seem to have a pertinent answer to these issues: Material resources need to be revalued by redesigning production and consumption systems from a linear to a circular logic. Innovative business models, novel production and recycling techniques should solve the problems of resource depletion and environmentally harmful waste. But as we would argue on the following pages: This does not entirely solve the problem of false valorisation. As long as Circular Economy thinking sticks to the idea that mostly monetary value counts and economic and societal progress is mainly measured in monetary terms, the chance to transform the current system of consumption and production to a just, inclusive and solidary system will be missed. Since the problem is not only the unidirectional, inefficient and disrespectful consumption of natural resources, it is also the unidimensional definition of progress. We will present some basic ideas around a social-ecological and transformative Circular Economy Reloaded or the Circular Society. The Circular Society is intended to be a societal vision where ecosphere, technosphere and sociosphere are in balance, ruled by economic practices that serve consistently and exclusively for

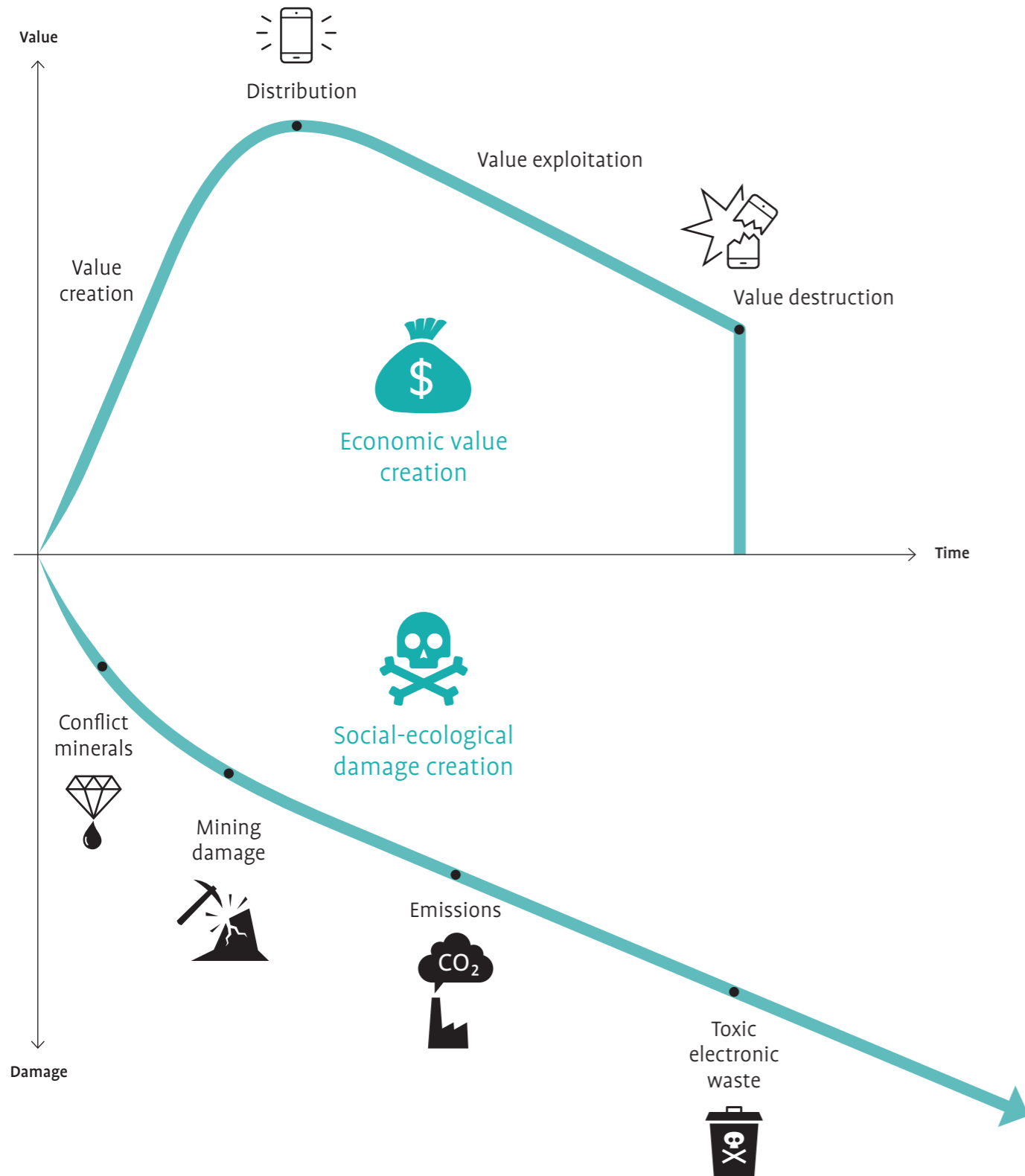
social well-being within planetary boundaries. So far, the concept of the Circular Society is only a first sketch, developed by members and associates of the research group 'Challenge Obsolescence'. The present booklet is meant as an invitation to participate in the development of a Circular Society. Feel free to circulate, comment, discuss, criticise and push discourse and action forward!

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# Proposition one

The current system of production and consumption creates more damage than value.



Many people consider industrial value creation during the past 200 years to be a success story: It allowed a rapid amelioration of many societal sectors including health, education and science. It has played a role in the development of democratic societies and of social security systems and led to a vast increase in material welfare and comfort for the majority of citizens, particularly in the Global North. The accumulation of electronic gadgets in many households and the apparently infinite loops of new product generations are just one manifestation of the supposing improvement of human life through increasing amount of produced objects.

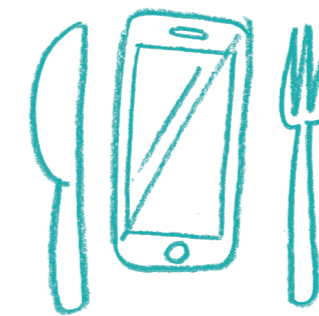
The assumed societal progress and material welfare is based on a simple assumption that nature is both, a generous donor of cheap resources for our production and consumption practices and a humble drain for its emissions and left-overs. It is further guided by a very narrow definition of value: The linear 'take-make-dump system' creates value by converting seemingly valueless nature into physical objects, that can be commercialised, globally distributed and sold. After being sold the object is constantly losing its value again until they are finally landfilled or

thermally processed to make room for a new, valuable product.

But this story has a flipside. The potentially flawed value creation in the lifecycle of an object is accompanied by a constant creation of destruction, both ecological and social. Every smartphone for example leaves a large socio-ecological footprint on the earth's surface, starting from chemical water pollution by mineral mines in Indonesia to the arduous working conditions in the Asian electronics industry to the mountains of health-damaging electronic waste in Agbogboshie, just to name a few hot spots of damage.

On the one side, we have products that rapidly become obsolete in order to generate short-term monetary added value. But these short lives create long lasting devastating social-ecological impact. The more complex a product is, the more chemical elements it contains, for example, the more disastrous is the destruction and damage. And the most alarming thing: While the chain of economic value creation presents itself very visibly, the chain of social-ecological damage is much more complex and far-reaching than humanity is yet able to understand.

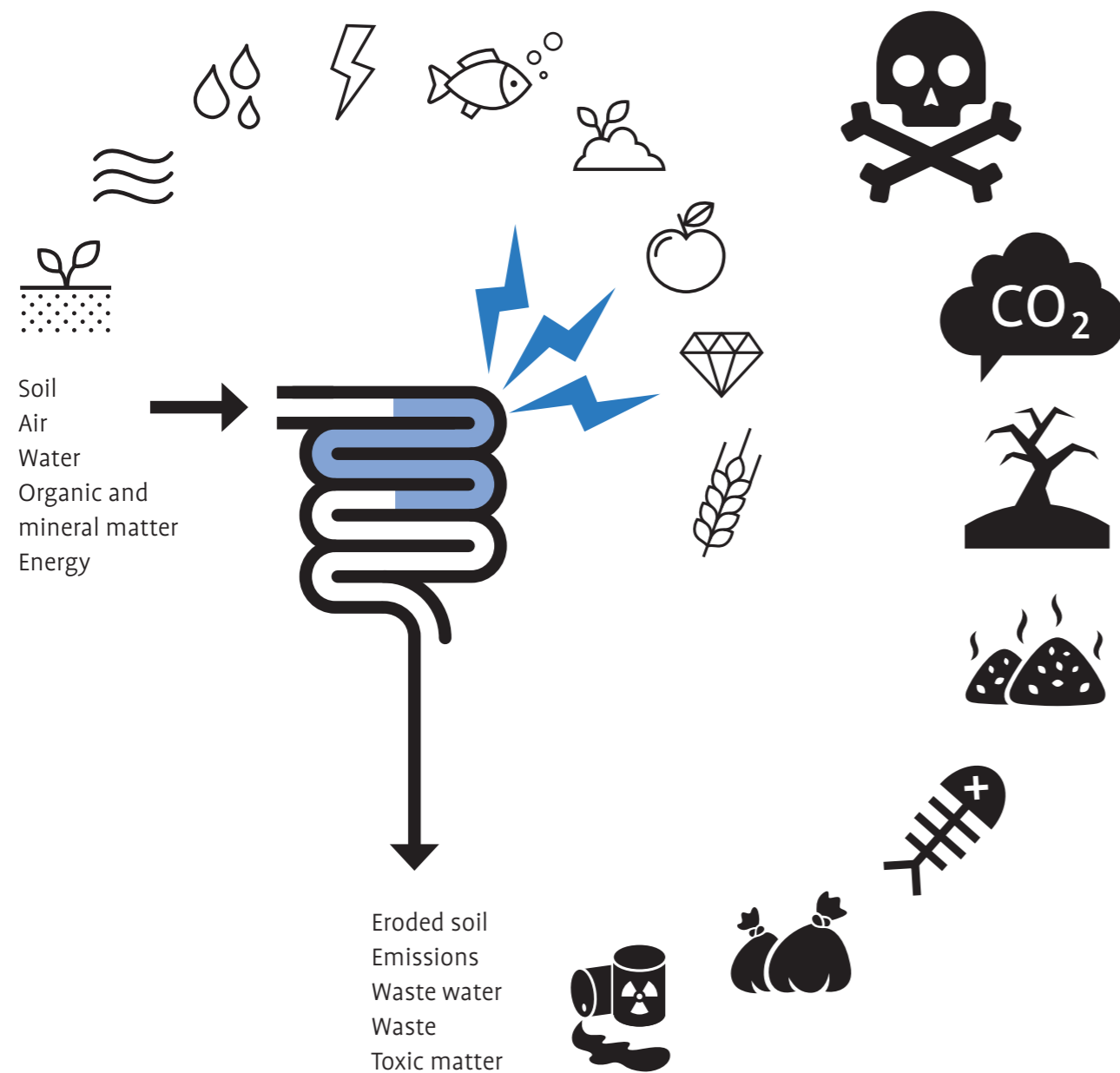
WHAT DOES VALUE REALLY MEAN?



Example for relevant literature:  
 Brand, U.; Wissen, M. (2018). The Limits to Capitalist Nature  
 Theorizing and Overcoming the Imperial Mode of Living. UK-London:  
 Rowman & Littlefield.

## Proposition two

The core of the problem: Modern market societies have evolved into a self-destructive metabolism.



“... To allow the market mechanism to be sole director of the fate of human beings and their natural environment [...] would result in the demolition of society.”

This prognosis was made by Karl Polanyi, an economist and social scientist, in 1944. It was based on a thorough investigation of the dramatic social, economic and technological changes that fostered the transformation from a feudal agrarian society to an industrialised market society in the 19<sup>th</sup> and 20<sup>th</sup> century. He observed the expansion of competitive markets that suppressed other forms of economy and transformed natural and human resources into market commodities. Fuelled by the industrialisation and the narrative of a self-regulating market, an economic sphere was created whose first function is not to increase the well-being of society but to maximize economic value. In the following decades this process was carried further by increasingly materialised and carbonised practices of production and consumption.

But this form of modernisation is at risk to devour itself. The paradoxical nature of our current situation becomes evident, if we describe the relation between the current system of consumption and production and the overarching ecosystem as a metabolism. A metabolism consists of interrelated dynamic processes and flows of matter and energy, which is life sustaining and self-regulating. The human metabolism, for example, processes food to produce energy and reproduce cells. It keeps the body in homeostasis. But

sometimes it happens that metabolic responses become self-destructive: A critically ill body provokes adaptive reactions in such an exaggerated way that a metabolic self-destruction is triggered. Similarly, the take-make-dump chains in the industrialised market society consume and transform matter in such a way, that the ecosystem's reactions are likely to destroy the whole organism.

A central cause of the current social-ecological crisis lies in the unidirectional and unidimensional logic that characterizes global systems of consumption and production today. The unidirectional, linear logic is based on the following system: resources are taken from nature, processed and used in such a way that they mostly become useless waste for ecosystems, since they can't be re-integrated in ecological cycles anymore. Artificial materials like plastic, microchips, batteries, synthetic fibre also damage – often irreversibly – ecosystems in the form of industrial emissions at the beginning and almost eternally lasting material waste at the end of their useful life. The accompanying technology-driven interferences into nature and society threaten to extract humanity of its natural livelihoods in the long-term: biodiversity loss, soil erosion, ocean acidification, and climate change... The list of threats to humanity is long. But the unidimensional focus on monetary value and monetary oriented measures of progress risks to oversee or downsize the true costs of modernisation.

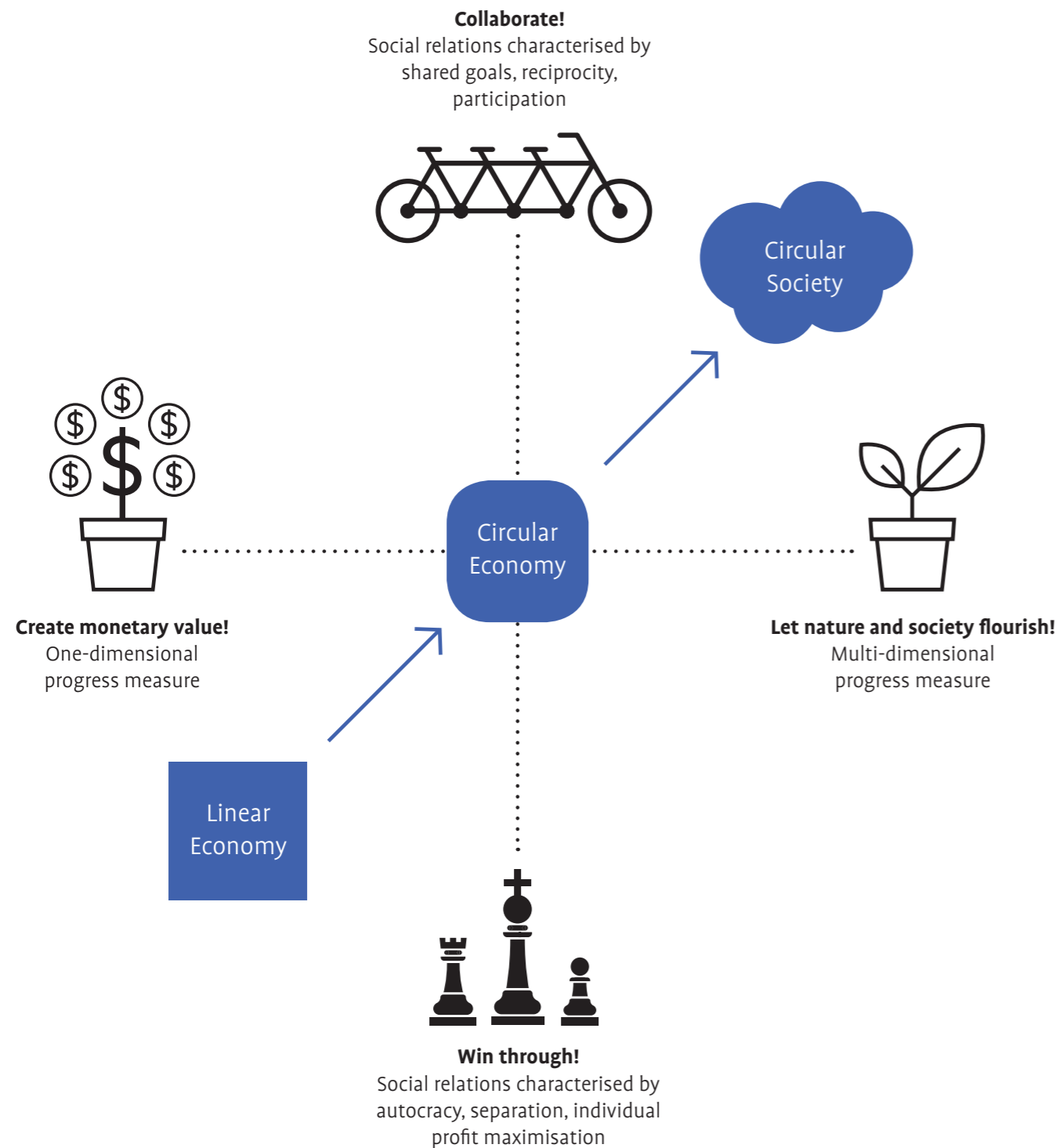


Example for relevant literature:

Polanyi, K. (1944). The Great Transformation. Foreword by Robert M. MacIver. New York: Farrar & Rinehart.

## Proposition three

The Circular Economy is a necessary but not sufficient approach for the shift to sustainable economic configurations.

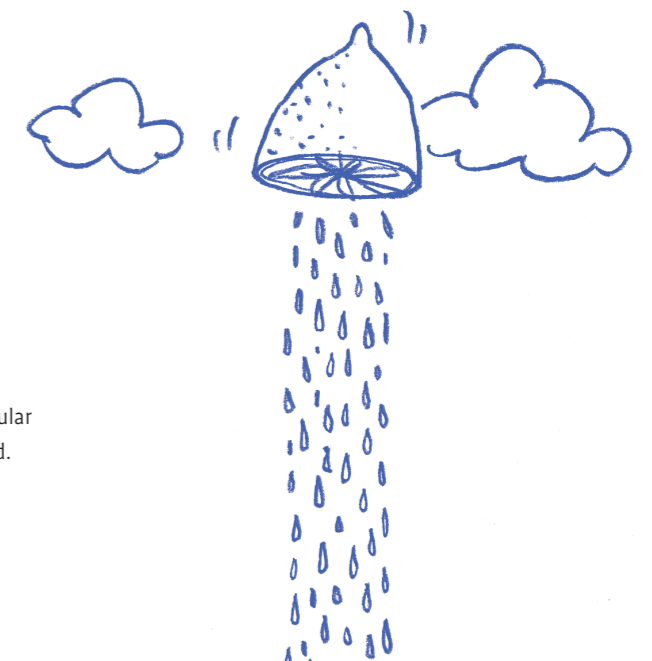


A decarbonisation and dematerialisation of the current system of consumption and production seems inevitable if livelihoods of present and future generations are to be preserved. A much-discussed concept for designing a sustainable economy is the Circular Economy. It intends the cyclical and cascading use of products and materials following the principle of circularity of ecosystems. Hence, the guiding principle of economic thinking and action should aim to keep extracted natural resources in use as long as possible and to preserve the maximum value of products through reuse and recovery strategies. Collaboratively organized forms of production and consumption are to evolve that can be realized faster and more effectively through digitalisation. The main objective of the concept is to decouple economic value creation from nature degradation.

So far the Circular Economy approach has mainly been conceptualized as an ecological modernisation project of the economy to increase natural resource efficiency. Circular business model development, supply chain management, circular product design and the adoption of new digital technologies are primarily considered as enablers for economic renewal processes toward more ecologically sustainable ways of living, manufacturing, and consuming. But progress measures are still mainly focused on creating monetary value. Circular Economy thinking so far

strives to overcome resource scarcity and environmental crises but sticks to the current economic value creation system.

The majority of Circular Economy concepts do not address the risk of system-wide rebound effects through following the growth paradigm and mostly neglect issues of social exploitation within current supply chains. They neither address the unequal distribution of the created value and wealth in the world nor the competition-oriented strive to monopolize power over resources and markets. While the distinct focus of Circular Economy concepts is to solve the ecosystem damage of current systems of production and consumption, their social damage remains a blind spot. Thus, greater efforts are needed for a transition towards solidary, inclusive and open societies that flourish within planetary boundaries. In addition to the strategies and patterns of the Circular Economy already discussed, we need solutions that proactively broaden the definition of value to a multidimensional and holistic construct, where society and nature flourish in balance. Therefore, the transition is not mere a question of new business models or consumer choices, but requires a fundamental reorientation and reorganisation of practices and processes in all areas of life – from nutrition, mobility, energy use to work models and housing concepts. This is why we need a Circular Economy reloaded, or a ‘Circular Society’.



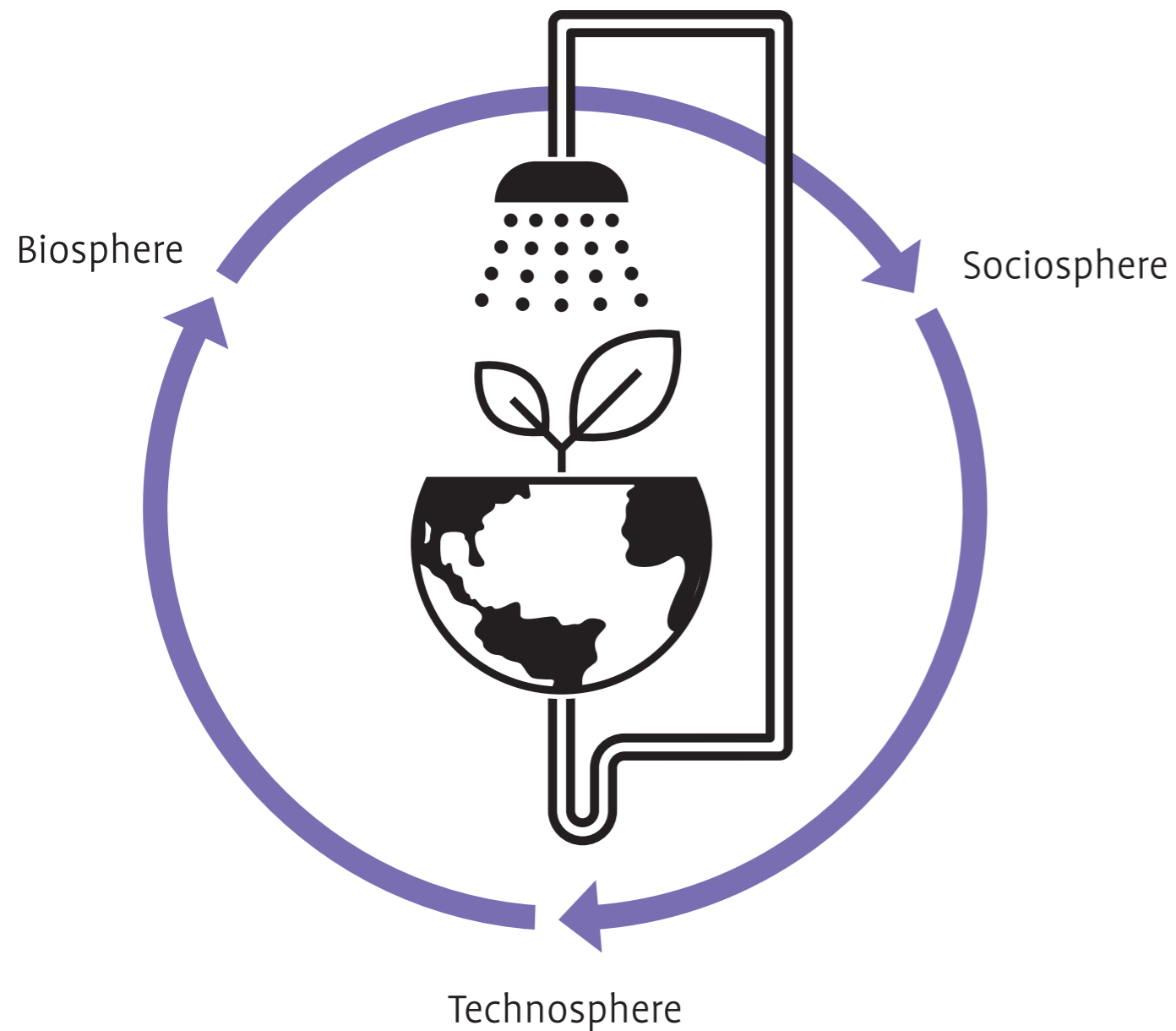
Example for relevant literature:

Hobson, K.; Lynch, N. (2016). Diversifying and de-growing the circular economy: Radical social transformation in a resource-scarce world. *Futures* 82, 15–25.



## Proposition four

A transformative and holistic vision of a Circular Economy is needed: The Circular Society.



If the Circular Economy continues to be conceived merely as technological and business innovation and does not question the unidimensional focus on economic value creation, its transformative potential to reach an economy that primarily serve the people – and indeed all people – is ignored. There are already many examples of good practices and a number of political, economic and civic actors who promote circular thinking and action that are also oriented towards social sustainability. Nevertheless, the ideology of a perpetual economic and individual progress and growth remains the mainstream mantra. What can a socio-ecological Circular Economy look like and how can the principle idea of the Circular Economy better support and fuel a ‘great transformation to sustainability’?

A way to go can be to recollect some of the occasionally forgotten roots of the Circular Economy movement. Circular thinking originally meant

1. to adopt a system perspective that considers the complex ways in which nature, society and technology are interdependently interacting on a local, regional and global level;
2. to aim for closed loops and organise production and consumption practices in circular flows that imitates the ‘eco-logic’ of ecological systems;
3. to create a resilient production and consump-

tion metabolism taking the need for regeneration of natural capital into account.

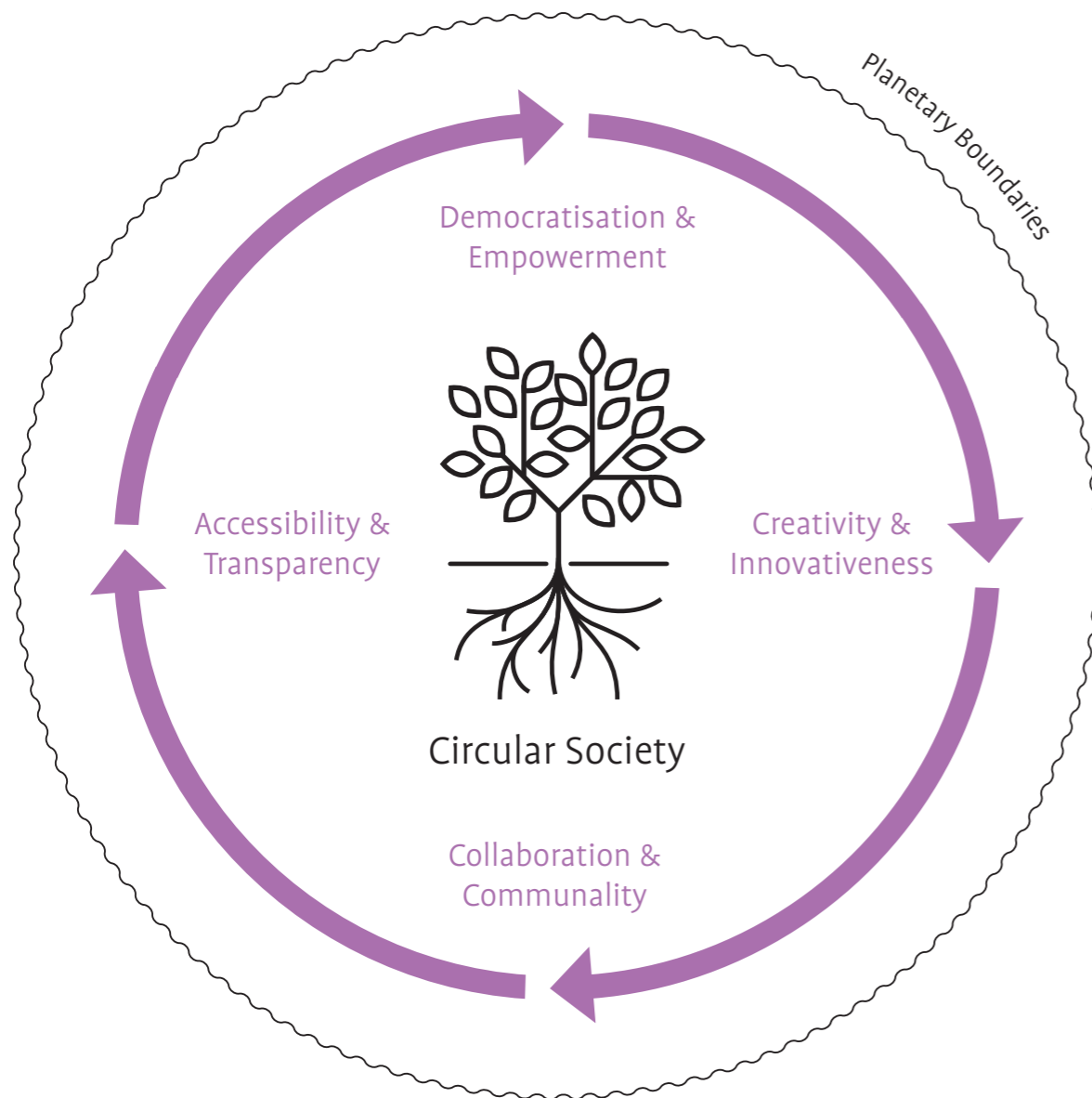
These ideas need to be more closely linked to social sustainability and the principle of intra- and intergenerational social justice. Thus, biosphere, technosphere and sociosphere need to be harmonised to create a resilient and sustainable metabolism, which we call the Circular Society.

The idea of a Circular Society aims to establish a participatory, communitarian, solidary and circular consumption and production system. In a Circular Society, human practices of economic activity, production and consumption are re-embedded into biological material cycles (biosphere); technical material cycles (technosphere) are slowed down and closed. Both spheres need to be linked with the sociosphere, i.e. the sphere of society and culture with its values, norms and orientations and the human pursuit of meaning, community, self-efficacy and quality of life and make it to its core. This means to apply a holistic view of the human as a social being, who is dependent on both, culture and nature and seeks closeness, communality and a decent life. The new mantra of a Circular Society is: Economic actions serve consistently and exclusively for social well-being within planetary boundaries.



## Proposition five

The political economy of a Circular Society is inclusive and participatory; it provides space for communality and social innovativeness within planetary boundaries.

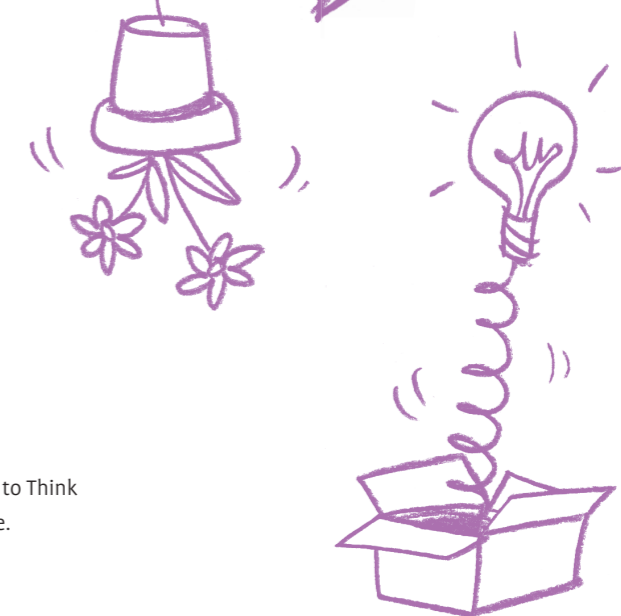


The Circular Society still is a sketchy idea. The term and the conceptual ideas behind it are supposed to push the discourse on Circular Economy further and embed it more thoroughly in research and action for social-ecological transformation. A core idea is to replace prevalent principles and meanings of economic practice by alternative narratives, which are rooted in current discourses on social sustainability, sustainable development, social justice and solidary quality of life. The following principles are proposed to form the core of the 'Circular Society mantra':

Accessibility and transparency are seen as central prerequisites for participation in the social and economic practices of a Circular Society. These include both access to natural resources and land or housing, as well as to education and health services and consumption and production processes. Knowledge is not monopolised but accessible and can be shared; political and economic action is subject to the duty of transparency. Democratisation and empowerment should create unconditional opportunities for participation and engagement in political, economic and cultural processes. Participation opportunities are linked with strategies for activation, capability boosting and empowerment. Production processes are supposed to be accessible and participatory allowing consumers to co-create the satisfiers to their

needs. These prerequisites can foster communality, collaboration and solidary practices. The guiding principles for social relations in a Circular Society are communication, collaboration, social trust and reciprocity. Nature and culture are jointly managed as 'commons' that is, as a common heritage, and it is negotiated on an equal basis, which economic, political or cultural action can be regarded as adequate against the background of intra- and inter-generational justice. Social innovativeness and creativity can thrive well on this fertile ground. Experimental and creative spaces are provided to try out different, local solutions to sustainability challenges and to foster the emergence of political, economic and cultural innovations. The experimental spaces enable people to experience self-efficacy and thus the ability to proactively face new challenges.

The open source movement, solidary economy, commons-based peer production, collaborative consumption, micro-energy cooperatives, eco-villages and co-housing projects... There is a growing number of cases where the aforementioned principles are put into practice. But instead of copying these good practices, the conditions need to be provided to enable locally adapted innovative practices to pop up everywhere, like plants on a fertile ground.

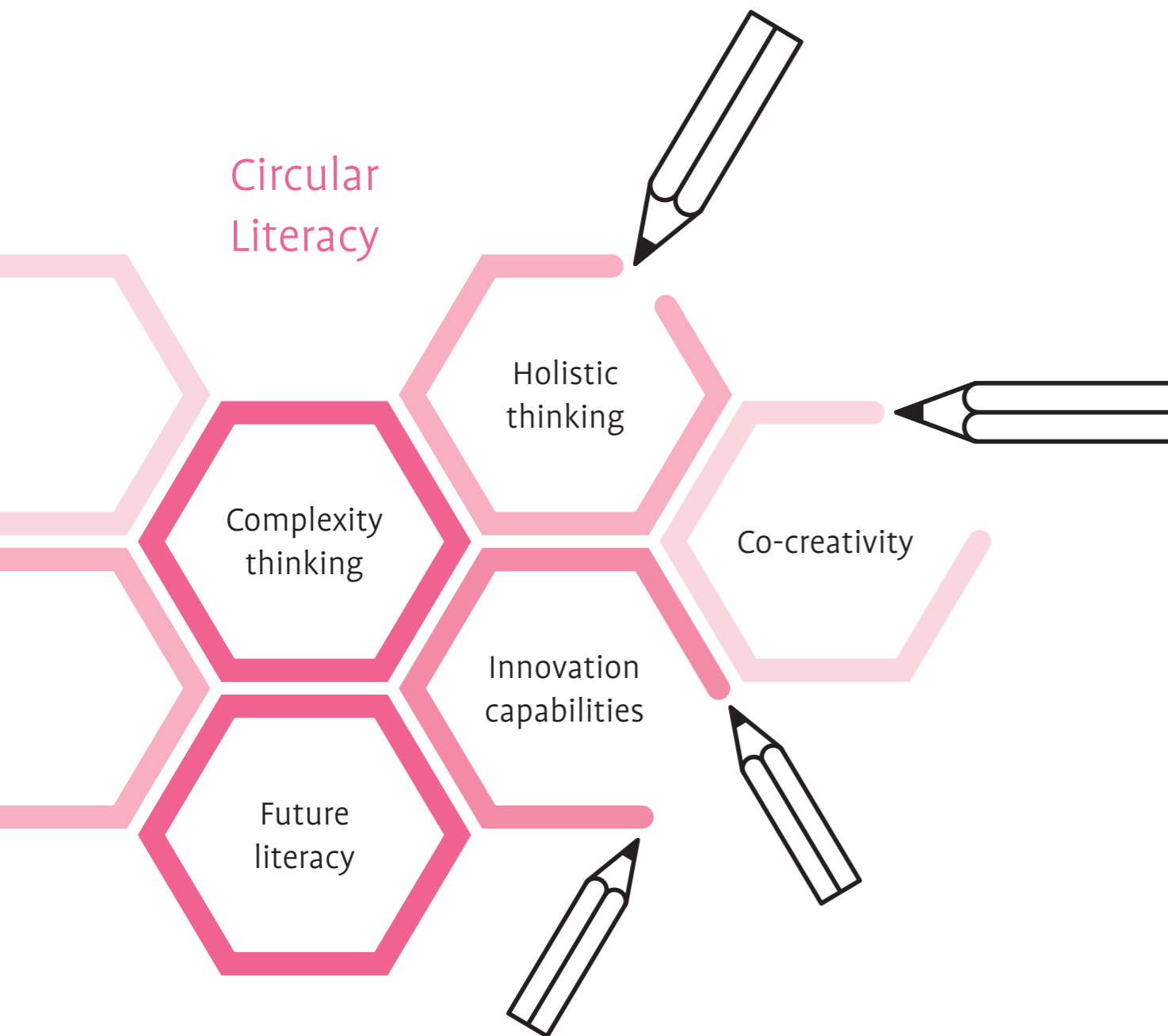


Example for relevant literature:

Raworth, K. (2017). Doughnut Economics. Seven Ways to Think Like a 21<sup>st</sup>-Century Economist. London: Random House.

## Proposition six

The transition to a Circular Society needs an immense boosting of transformative capabilities and particularly: Circular Literacy.



The pathway to a Circular Society is full of pre-requisites. The establishment of a participatory, communitarian, solidary and circular consumption and production system cannot only drastically reduce the consumption of materials and the resulting emissions. It is also associated with much less material wealth and individual material property. It is likely that the considered 'normal' levels of comfort, the status gains through material possessions and the seemingly endless consumption options is reduced to a significant extent. It also means a considerable loss of power for those who benefit excessively from today's linear economic structures, while other, previous niche players are becoming more important, such as cooperatives for self-production, circular enterprises, commons-based producers and sharing communities. Although a Circular Society is meant to establish the structural preconditions for an equal distribution of wealth to reach a 'solidary quality of life' for everyone, it won't meet the lifestyles of those who currently benefit from unequal distribution, which are, for instance, the middle and upper classes of the Global North. The major challenge is to find a mode of discussion and negotiating at eye level about how the challenge of transformation can be undertaken collaboratively.

The transformation to a Circular Society does also require a massive boost of knowledge and literacy. This literacy does not only relate to 'system knowledge' about how the current metabolism of consumption and production within natural systems functions or dysfunctions. It also requires 'target knowledge' about what the transformation is aiming at, this means visions,

narratives and scenarios for future developments. But the most crucial knowledge is 'transformation knowledge' about how the journey from the current state to the desirable future can be undertaken. It is not enough to compose a specific recipe that only needs to be upscaled and diffused. It means to have the capabilities to undertake a vast amount of experiments. It means to initiate loops of reciprocal learning between different stakeholder groups, and to develop local communities and circular networks of close collaboration in order to find locally applicable but globally connected solutions. To describe the knowledge and capabilities needed for a Circular Society we propose the term 'Circular Literacy'.

Circular Literacy refers to the ability to understand and respect natural cycles and material flows. This includes holistic, systemic thinking, the ability to penetrate complexity and deal with it and the capability to co-create and co-operate inter- and transdisciplinary and across cultures and 'social borders'. Circular Literacy effectively forms the bridge between human beings and nature: it forms the basis for the embedding of human action in the biosphere and to find creative solutions for circulation of the technosphere. Circular literacy creates the conditions to participate in the Circular Society and to promote forms of proactive participation and co-creation within production and consumption systems. Circular Society and Circular Literacy are meant to be open concepts. The evolution and particularly practical implementation of these ideas are supposed to be a co-creative process. This process starts now.



Example for relevant literature:  
WBGU, 2011, World in Transition – A Social Contract for Sustainability, Flagship Report.  
<http://www.wbgu.de/en/flagship-reports/fr-2011-a-social-contract/>





### **Imprint**

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