



03. Definition

The circular economy as a 'child of its time'

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Today, the circular economy is arguably one of the most popular tools or strategies in practice and research towards achieving a more sustainable future. However, the concept itself is known for five decades already; so, how can we explain its sudden popularity? I argue that the reason for this is that *the world is de-globalizing or to put it more mildly, re-globalising*. And that *the concept of circular economy is revisited for its capacity to restructure geopolitical connections*.

In the beginning of the 1980's most -if not all- Western industries moved their production processes to countries where labour was cheaper. Only assembling, R&D and managing functions remained intact. This is arguably best illustrated by the car manufacturing companies. Fuelled by standardization, automation, cheap transport and digitalisation, the global economy opened and global production chains emerged. This led to three decades of hyper-globalization whereby the percentage of trade within the global GDP rose to 60%.

However, the 2008 crisis and a number of events like: *Brexit, Trump's America First, China's Waste Ban, Nordstream 2, and Covid* as of late, showed that *global production chains are no longer a certitude*. In a nutshell, it is becoming increasingly more uncertain that critical energy, materials or products can be acquired in time and for the

agreed deal. This led gradually to the so-called *slowbalisation*, that is now resulting in significant changes around the world, a *world that is less open, and is being restructured from a mono-bloc to a multi-bloc world*. This in turn threatens collective goals such as energy transition, climate change, the digital transition, food and feed shortages, and so on.

This is where circular economy enters the stage. The circular economy is basically a normative concept: it aims at keeping the value of materials and products as high as possible, for as long as possible. But what is often overlooked, is that *geography plays a significant role*. To make it more concrete: if a region, nation or block, such as the EU, is able to reuse the materials and products it already owns, (what we call the material or product stock), it no longer needs to import the same quantities of those materials or products from areas around the world that have become less reliable. By doing so, the EU decreases its dependency on actors it has no control over, minimizing its risks. It is therefore *no coincidence that the European Commission, being the institutional actor at the level of block, has clearly put circular economy as a strategic goal since many years*. Since then, its member states and increasingly different economic sectors are adapting to this policy goal.

The role of space and spatial planning for circular economy: the crucial role of urban industrial



Circularity for Educators

spaces in between

Most attention is currently focused on the available material stocks and whether these can or cannot be matched with the existing demand for these materials. However, *in a circular economy paradigm the relation between supply and demand is not straightforward*. In fact, if materials and products are to stay in the loop and re-enter the market after the end of their original service life, they will require remanufacturing. This is why, an increasing number of researchers argue *that what is most crucial for the circular economy are not material stocks, but space, and in particular, the space required for remanufacturing functions*.

The location of these remanufacturing functions, can differ significantly; however, the remanufacturing of critical materials and products in particular, would have to be located within the European Union, at least if the EU wishes to secure its independency as a block. Nevertheless, at this moment, we do not have all remanufacturing technologies or the functions necessary to make current linear supply chains, circular.

Space is important for circular economy for yet another reason: *the circular economy will be mostly knowledge driven and knowledge is predominantly produced within urban regions*, where a highly diverse and flexible labour force is located as well as most educational institutions. Hence, translating knowledge into practice, is more likely to happen in urban regions, where the chances of establishing synergies between colleges or universities, and the industry are stronger and more direct.

However, whereas the circular economy focuses on remanufacturing and therefore requires that industrial functions remain in close proximity to

the city, the current globalized economy and the dominant way of planning cities advocates for a model of a city that is industry-free and whose economy mostly relies on commercial activities. Consequently industrial facilities are thus still continuously pushed out of cities to relocate in favour of housing or commercial urban developments. As such the chance for a circular economy to flourish, explained in this video by emphasizing on the role of space and spatial and urban planning, is not likely to happen. Summarized: if the policy goal of the circular economy tomorrow wants to be achieved, the way we spatially plan the processes of re-globalization, and the role of urban industries discussed in the