



“MAN MUST FIND HIS PLACE
IN A CYCLICAL ECOLOGICAL SYSTEM
WHICH IS CAPABLE OF CONTINUOUS
REPRODUCTION OF MATERIAL FORM
EVEN THOUGH IT CANNOT ESCAPE
HAVING INPUTS OF ENERGY.”
‘THE ECONOMICS OF THE COMING SPACESHIP EARTH’
KENNETH E. BOULDING (1966)

A CIRCULAR ECONOMY

“Unlike the traditional linear economic model based on a ‘take-make-consume-throw away’ pattern, a circular economy is based on sharing, leasing, reuse, repair, refurbishment and recycling, in an (almost) closed loop, where products and the materials they contain are highly valued. In practice, it implies reducing waste to a minimum.”

‘Closing the Loop: New Circular Economy Package’, Briefing to European Parliament (Jan 2016)

The European Commission, European Central Bank as well as several major banks, corporations and other institutions are advocating a shift from a linear to a Circular Economy. The Ellen MacArthur Foundation, the leading champion, “works with business, government and academia to build a framework for an economy that is restorative and regenerative by design.”

The European focus is primarily on design for a **closed production cycle**—thinking of waste as a resource so as to minimise waste and the demand for resources. We propose to use this narrative and build on these ideas to describe how we might produce a human settlement that is restorative and regenerative by design.

A water source is the primary requirement for the development of any city, so how might we build our settlement around a closed **water cycle**? The **carbon cycle** would require that the city absorbs as much carbon as it releases. More generally, in market terms, **a closed cycle reflects the matching of supply with demand so there is no waste and the conversion of waste into a resource.**

Our demand for water, food, energy and living spaces is finite and determinable, so if we fix the population of each settlement, it is possible to determine demand and then supply this locally.

Furthermore, rather than just planning for growth, our aim is also to plan for decay, death and regeneration—the entire **life**

cycle. With respect to food systems, this means, for example, composting agricultural waste to improve the soil or using it to create biofuels.

From an architectural perspective it means designing spaces suitable for different life stages and different household structures—for children, singles, young couples, families, the middle aged and the elderly. We are planning also not just for changes within a life cycle but also for generational change and movement.

All of these Circular Economy ideas taken together describe a more **holistic or systems thinking approach to city planning.**