

The Circular Economy: Are We There Yet?



The circular economy has been promoted as an attractive economic destination for around four decades, but are we there yet? Clearly not. Inspired by **Walter Stahel** at the recent CIWM Scottish Resources Conference, **James Greyson** considers how to move on from journey to destination

Climate instability, volatile commodity prices, ocean dead zones, vanishing biodiversity and forests, stalling economic growth, expanding food insecurity and resource conflicts; all of these are part of the resources-to-waste pattern of linear economics. Any of these is reason enough for a new pattern. Decade after decade people talk about "spaceship economy" or "loop economy" or "cradle-to-cradle" or "circular economy" without it actually happening. What happens instead is examples of the new pattern within the old unchanged pattern.

Examples of circular economy practice are perennial and abundant. Traditions such as bottle refilling or recycling; new designs such as bio-based plastics or recyclable cars; innovative business models such as selling goods as services – all are glimpses of the potential of a circular economy. They show that circular economy can be practical, popular and profitable. They provide hope and encourage further examples.

Examples are seen as steps in a journey to a circular economy, led by awareness campaigns, targets, guidelines, action plans, indicators, labels, manifestos etc. The growing stock of examples are seen as progress in the journey. Yet should progress with circular economy be viewed instead by the quantity and quality of stocks of material value, in natural

capital and the manufactured technosphere? Or by the negative value of accumulating wastes, ecological debts and instabilities? Is the endlessly patient step-by-step approach to circular economy actually a dead end?

Planning a step-by-step journey is the default approach to circular economy, sustainable development and climate stability. The approach hasn't led to any of these goals but it's so deeply habitual that the alternative of system change has been barely discussed and never attempted over the decades. Fortunately a large-scale system change is not more complex to do than the small-scale system change of redesigning a product or business as an example of circular economy.

Circular economy examples are inspired by motives such as new business opportunities, an urge for innovation, greater resilience against future risks and eliminating needless impacts. All these motives are echoed at whole economy scale, yet the specific motives that attract different people matter less than recognising circular economy as a clear imperative. Circular economy is the same imperative whether people are focussed on ecology, economy or just their own business. Simply deciding that it must happen creates space for ideas and action on a relevant scale of ambition.

Changing The Framework

THE ACTION needed to get a system change to circular economy is a change to the "framework conditions". These are the necessary conditions to reframe a system, such as economics – they echo the design work on a circular economy example. If we can design waste out of a business or product, then we can design it out of economics. The new framework conditions don't organise everyone's choices, they prepare markets to self-organise new choices. In aggregate the patterns of new choices then preserve, rather than lose, stocks of material value such as manufactured and ecosystem resources.

A simple but effective framework condition for circular economy was researched by Walter Stahel in 1976 for the report entitled *The Potential for Substitution of Manpower for Energy*.¹ Eliminating taxation for most labour (for example by raising the tax free threshold to the average income) would substitute human creativity, know-how and effort for energy and materials. This would revitalise the economy by slashing unemployment and supporting decentralised service, caring, redesign, replanting, repair, refurbishment and remanufacturing activity.

A complementary framework condition was researched in 2006, to design waste out of material flows and expand ecosystem services.² Linear economy externalises the risk of products becoming waste in ecosystems. A functioning circular economy could account for this waste-risk with an insurance-like (non-tax) premium within product prices. The premiums provide suitable price incentives and flows of funds to redirect market decisions and to build the necessary localised capabilities.

Enacting these two framework conditions would mean circular economy was *actually* happening. Market forces and self-interest would then redirect choices and resource flows to fit the new circular paradigm more quickly than can be imagined today. Products that are prepared to be reintegrated in natural or industrial cycles will be called "precycled" and become the norm. Other goods, the "dinosaurs" of this future circular society, will cost more and be shunned by producers, importers, shoppers and investors.

Historical framework conditions – where people are expensive, resources were cheap and wastes are someone else's problem – are so deeply embedded in mental models of the economy that they can pass unchallenged. Decades of international climate talks, for example, have not yet hit upon reframing the economy as a way to phase out dependence on fossil fuels that become wastes accumulating in the atmosphere. Yet pricing waste-risk would price carbon without picking winners or creating new market distortions.

The main purpose of circular economy

framework conditions is the imperative of starting to run an economy that does not systematically lose what it needs to continue. Society should be disrupted by innovations, not precipitous unsustainability in the form of food, resource, climate or economic insecurity. Additional benefits can be foreseen, such as the social cohesiveness of high employment, decoupling of economic growth from its impacts, and even the stabilisation of prices that have risen on the tide of unsustainable resource use.

Producers will be prompted to consider, in some cases for the first time, what could happen with their goods after use. This alone will often be enough to inspire change. As a small example, a major clothing chain is selling belts with a break-out section that fails after a year. If the economy itself was designed to last, then expectations would be different and products designed to fail would no longer be taken for granted. Should a further incentive be needed, belts with double the waste-risk will pay double premiums, which makes the better belts cheaper.

The practice of circular economy is precycling; action now to prepare for resources to remain as future resources in the economy or nature. Molecules can be precycled by expanding ecosystems and stopping toxins, heavy metals and waste burning. Materials can be precycled by eco-design and preparing recycling systems. Any product or infrastructure can be precycled by preparing for re-use, remanufacture or even replacement by a service. Any household, business or region can phase out waste by precycling. Economy or planet-scale precycling can be done with the framework conditions for system change.

In light of the four decade delay, governments are evidently not poised to consider framework conditions and enact system change. If they could do it by themselves it would have happened long ago. Governments are waiting to hear that this is what they must do. But who is telling them? If you don't recognise circular economy as an imperative, then as Walter Stahel says: "...you don't have to do any of this, survival is not mandatory". If you do, then we share responsibility to make it happen for real. Let's ensure the next step on the journey to circular economy is the destination! [CIWM](#)

References

1. Walter R. Stahel and Genevieve Reday, a 1976 report to the European Commission, published 1981 as Stahel Walter R and Reday-Mulvay, Genevieve, Jobs for Tomorrow, The Potential for Substituting Manpower for Energy by Vantage Press, New York N.Y.
2. James Greyson, 2008. Systemic Economic Instruments for Energy, Climate, and Global Security. NATO Science for Peace and Security Programme. Springer, Netherlands.



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