

1st November 2024

## Australian Government Productivity Commission Inquiry into opportunities in the circular economy

### Measure of success

The principal issue with a measure of success is understanding what the goal is. Achieving a circular economy is a binary shift of systems; you either have one or you don't. Terms like 'more circular economy', 'become more circular' and 'circularity' do not denote the full transfer to a circular economy, but rather something like one. The simple crux of the matter is to ask the question; is the goal to achieve a circular economy and, if so, on what scale?

It is not clear that there is an intention to establish a circular economy in terms of transformation of systems. There may be some good reason for this.

A circular economy in the ideal sense would be a tremendous transformation of the production of goods and services, consumer habits, and social perception of waste. Normally, when people think of a circular economy (if they think of it at all - lack of awareness is further explored under 'Hurdles and Barriers') they are considering it on the basis of a national or global level. This can be overwhelming and confronting.

At the same time, it is not clear if we fully comprehend the rationale for circular economy in terms of waste management. If there is no circular economy then there are no 'circular economy activities', there are only waste management activities. Our perception of the need for a circular economy is underpinned by very recent (in terms of human civilisation) changes rather than substantive, ever-present ones.

The reality is that for millennia, humans have dealt with waste with relatively little impact on the environment or their own locality. Increased population and urbanisation have complicated this (think London in the 1600's) from time to time, but by and large the issues of waste have been uncomplicated in our current understanding of them.

What has changed is both the mass industrialisation of civilisation and the introduction and ready acceptance of artificial materials (such as fossil fuel based plastic). The pressures of consumption and pollution have driven us from a state of peripheral acceptance of waste, to attempting to develop a system to virtually eradicate waste altogether, and all in the space of approximately 100-200 years.

Do we want a circular economy? It's not just about recycling or redesign, but our everyday behaviours. Is it feasible to persuade people not to buy a suit that they might wear once or twice, when they could hire one for less and achieve the same result? Even if we transferred to plant-based garden compostable plastics, is it still going to be sufficient to reduce people's consumption of bottled drinks simply to reduce the overall use of materials? Would we be as bothered about methane emissions from landfill if governments (and the fossil fuel industry) had done what they should have done decades ago, and made a transition to clean, renewable energy that effectively

removed the intensive levels of greenhouse gas emissions? If we adopt nuclear energy or nuclear powered submarines, with their resultant toxic waste product, doesn't that rule out a circular economy in one swoop? Indeed, with the use of radioactive fuel by the Australian Nuclear Science and Technology Organisation (ANSTO) at Lucas Heights, it is even now the case that Australia cannot achieve a circular economy. Radioactive waste is not 'residual' if it needs to be buried underground and remains hazardous for thousands of years.

The measures of a circular economy are quite probably unsustainable on any macro scale. Even when faced with the existential crisis of climate change, governments have been unable to manage even the most minor of necessary changes on a collective basis. Even on a state by state basis within Australia, it is implausible to accept the idea that a circular economy can be achieved on that basis.

The measure of a circular economy is dependent on the sense of how much of a circular economy we are willing to accept. If we are truly not going to set out to introduce a circular economy, it would be better not to reference one at all.

Macro efforts might be virtually impossible to achieve, but micro efforts might have more chance of success. If we measure success on a highly localised basis we may find that we can produce a greater sense of measurement. This means adopting goals in line with individual, limited community or business unit implementation, and accepting that some parts of a localised area might become circular, while others, even neighbouring, are not. .

## Priority Opportunities

The opportunity for establishing a circular economy lies within the willingness to change the implementation from a mass, macro scale to a micro one. This does not remove the potential for taking measures on an industrial scale, but placing a circular economy in smaller 'units' gives much greater ability to control the measurements of success. The Ellen MacArthur Foundation gives an overview of building circular economics in neighbourhoods, bridging community involvement with the ability to set clear targets on a localised basis<sup>1</sup>.

We should also consider that there are three broad categories of settings - domestic, commercial and complex. Each one needs a comprehensive representation, and flexibility to include the variations that exist.

Domestic - any household, or residential setting that is not of an institutional kind (e.g. a care home). Domestic would also include shared accommodation, itinerant or travelling communities, such as van life or camper vans, or less conventional options such as living on boats. It would also include collected sources, such as multiple households in a street.

Commercial - any commercial business, operation or service unit, whether they be public, private or voluntary/civil society based. Working from home and home run businesses, would be separate from domestic considerations (i.e. the business unit could be a circular economy, but the household might not be, or vice versa).

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<sup>1</sup> [Circular neighbourhoods](#), accessed 1 November 2024

Complex - an exception to the commercial category are elements like defence, health and problematic industries. A good example of a problematic industry is, ironically, wind power because turbines as yet cannot be 100% recycled, redesigned or reused. Defence and health often get an exemption to the idea of circular economy, because of pressures of materials or national security. However, there is no logical reason why these should be unable to adapt and change to a circular economy model on a unit basis.

Exploring these opportunities creates another opportunity - investment in education and research. A circular economy does not happen in the abstract, and it is not simply a case of regulating behaviour. It is also ideological, foregoing historical practice and habit in favour of a new system of working. The way to build this is through education, ingraining the circular economy as a distinct module of learning in schools, colleges and universities.

## Hurdles and Barriers

A major barrier to building a circular economy, whether it be macro top down or micro bottom up, is the lack of public awareness. Circular economy does not convey an understanding in its name of the connection to waste management. Zero waste has a better definition in name, but similarly does not convey the *scale* of the system.

Breaking down circular economy principles into their practical outputs, such as recycling or reuse, does lead to better identification. Indeed, on that basis, public support for those initiatives is probably higher, because they are more familiar with the terms and concepts.

The education element of circular economy does not simply extend to a name though. Even if one was to break down the individual components of a circular economy, the way that people might understand the interconnected relationship between them, the economic and social implications, and the changes in behaviours required, would need a widespread program of building awareness.

This is not simply a public education campaign for adults today, but ingraining the concepts in school. A quick search of the Australian curriculum found only hazy references to circular economy in terms of teaching, and many references to global economy. However, a search for recycling found clearer reference to the concepts of product design. If circular economy is the name to sit with, and there is to be ingrained education as common knowledge, this attitude at an educational level needs to change.

Another hurdle is the compilation of economic reticence for change. It is difficult to convey a sense of industrial scale change to a set of businesses and workers (and their communities) that a particular line of production must end to make way for another. It is this very issue that has given rise to the term 'fair transition' in the context of job change from fossil fuel energy to renewable.

Any centre that employs people in, say, some form of plastics manufacture or packaging production, may be alarmed at the prospect that there could be significant changes made to their business. Workers and communities may become worried by the implications of this change. Business organisations might worry about implications for retailers of linear based goods such as clothing stores.

And this says nothing about the reaction of consumers to the nature of change. They themselves may be hesitant to conform or alter their behaviours on an apparent whim of government policy works. Othering is an observable phenomenon, and for many consumers it is not unreasonable to predict they may expect the change to apply to others, and not themselves on an individual basis.

Political barriers also exist, where the ideological aspects of regulation (a key requirement for any notion of circular economy) might be set aside for other considerations. For example, some chemical processes to manage processing plastic in recycling are potentially highly polluting, so the chemical companies involved might seek to have quality control regulations lifted. Processes akin to incineration would be hindered with lifting of air quality provisions.

The removal of plastic itself would also represent a further threat to the fossil fuel industry. The International Energy Agency identified that plastics and other petrochemicals would become the largest driver of oil demand, making up over 50% by 2050. We have seen significant action by fossil fuel lobbyists to curb the transition from fossil fuels to renewables. We will see the same behaviour here.

Finally, there needs to be acknowledgement of the significant pressures on regional, rural and country communities that would inhibit any movement to a circular economy. Costs are higher because of greater distance to move goods, and deliver services. Smaller communities may be more vulnerable to economic changes, especially where there is only one or two large employer businesses. Waste management processes using large scale industrial sites, which we are more likely to see in urban areas, are impractical for regional communities. Without accounting for these pressures, it will not be viable to deliver substantive change. However, the benefit of adopting a micro approach would be to play to the strengths of smaller communities, who would stand to benefit significantly from circularity that would reduce costs.

## What does government need to do

The principle action the government needs to take is to decide whether it is truly committed to a circular economy as one is understood. This means setting a clear idea of what a circular economy would look like in practice, and the ways and means to achieve this. If the vision is anything short of this - increased circularity, more circular economy etc. - it would be better to be up-front from the outset.

Commitment includes a recognition that particular policies, such as nuclear submarines, provide an inconvenient imposition on any model of circularity. It is asinine to declare a circular economy policy, only to define all the exceptions from the rule. Be committed, or commit to something else.

Match regulatory change on industry to incentives on smaller units of either domestic households or small business. This is a micro approach to circular economy, compelling wider change, but prioritising sustainable change that unit by unit seems insignificant, but by accumulation resolves gaps that industry change cannot fill.

This is a slower approach, but it is more sustainable. Mass industrial shifts will, in the short and medium term, deliver greater progress, but in the longer term they will hit a buffer of progress. It is paradoxical; the more an industry shifts towards circular economy, the more difficult it will be to

become truly circular. For some, it may be logically impossible (think fossil fuel companies abandoning fossil fuel based plastic production).

On the other hand, once a smaller unit achieves circularity it has completed its goal; there is no further progress to a circular economy. Instead, efforts are focused on maintaining it.

The maintenance is another aspect of planning that is needed; the government cannot simply consider the prospect of winning a 100m sprint, if the cost is losing the marathon. This includes means of promoting maintenance of the circular economy to prevent slipping back to non-circular systems. If there are smaller units operating a circular economy side by side with those not operating circularity, the ones with the circular economy need to be assured that they are not at a disadvantage because of it.

Supporting localised circular economies could be enhanced through the use of community-led economic programs. Models such as the Cleveland Model<sup>2</sup>, or the Preston Model<sup>3</sup>, provide opportunity for both encouraging economic sustainability, and giving a sense of ownership to local communities.

## Conclusion

This submission has clearly not delved into an in depth exploration of case studies or statistical research; that type of detail can and will come from others. Rather, this submission seeks to challenge the notion of sincerity on the part of the government. Going further, it also aims to offer a critical question for proponents of a circular economy; is your vision for a circular economy practical in outcome, not simply abstract idealism?

Large scale regulatory reform, like mandated packaging targets or banning single use plastics for example, are not bad policy ideas. However, they can exist in a world without a circular economy.

Certain processes, most notably nuclear, provide a very real practical barrier to a holistic development of a circular economy in its purest form. Examining the exceptions to the rule, and how many might be stomached by circular economy advocates, is a reasonable consideration.

This doesn't mean don't approach a circular economy. Rather, it means developing a set of systems that acknowledges the very real challenges and limitations that may lie ahead. Face up to the public discussions and debates that will be needed, and the political forces that would oppose both covertly and overtly a transition to circularity. Plan for what happens after individual industries, business, communities and households achieve circularity, especially when other units continue to function on a more linear waste management model.

Focusing on achievable localised, micro goals may well deliver more than larger, more nebulous macro goals of mass industry and infrastructure. Being more flexible to help communities achieve change could yield as much as any mass regulatory shift, and both of these need to complement.

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<sup>2</sup> [The Cleveland Model - Atlas of the Future — Atlas of the Future](#)

<sup>3</sup> [What is Preston Model? - Preston City Council](#)

When trying to deliver a circular economy on a national scale, remember that the means of doing so is, ironically, think local.

Faithfully,

Jack Davenport

Tasmania