

Interreg Warsaw on-line 3 Oct 9.15 am

Keynote by Walter R Stahel

The roles public procurement can play in the circular economy

Circular economy and sustainability have the same vision of a society which balances economic, environmental and social needs, and both are based on a caring attitude.

Both apply to stocks of natural, human, cultural, manufactured and financial capital.

And both are human concepts and both are in our stewardship. They are not sent from heaven, we have to create them or they will not be.

They differ in that sustainability is more qualitative, based on values such as the SDGs, while the circular economy is more quantitative, driven by economics, innovation and competitiveness.

I shall not talk about consumable resources, such as food, energy and drinking water which are single use goods and for which reduction and waste prevention is the best strategy.

My focus is on manufactured objects, where the owner-user is in control to maintain value and utility, function and performance of objects

by keeping infrastructure and buildings in good repair, and

by extending the service life of goods through reuse, repair, refill, re-programme and remanufacture—what I call the era of ‘R’ of the circular economy—which

- creates skilled jobs locally, substitutes labour-intensive service activities for energy and material intensive manufacturing activities,
- reduces waste volumes and resource extraction, and
- preserves the water and energy consumed and CO₂ emitted in manufacturing, which is embodied in the materials and objects as long as they are used.

Recovering atoms and molecules—what I call the era of ‘D’—for de-linking material mixes , it maintains the stock of material resources for reuse in production but has to accept the principle of the 2nd law of thermodynamics.

The importance of public procurement comes from the fact that in industrialised countries, approximately one third of GDP is directly influenced by public procurement and by public subsidies.

Public procurement and its specifications can thus pull THE MARKET into a desired direction.

One option is to procure objects with long-life warranties, for which there is a local repair infrastructure of skills and spare parts, or which you can return to the producer for money or at no cost.

Another option is to buy preowned (used) or **refilled** (toner cartridges, soap dispensers) or **remanufactured as good as new** objects. But public procurement authorities have to make a much bigger effort to buy these.

Another option is to create markets for innovative goods.

An example from the 1990's is a tender by the US EPA for refrigerators with absurdly high energy efficiency, which industry said was technically not feasible. When the EPA specified that whoever could produce such a refrigerator would be the preferred supplier to all US government agencies for a period of ten years, it took a few months to produce it.

Public procurement authorities have a fundamental choice which is often ignored: to purchase objects

or to purchase the functional services which these objects offer

The latter business models includes total life cycle costs.

You all know and have used short term charter services of taxis and hotel rooms, busses, ships and shipping containers.

You have rented apartments, office space and temporary office containers, you have bought tickets to travel by airplane, train and public transport.

All these examples are part of the performance economy selling you guaranteed function, not objects.

But it goes much further: Public procurement authorities can exercise an innovation pull:

NASA's decision to buy space transports services led to the creation of a dozen start-ups including SpaceX with its first-ever reusable rockets and crew and cargo capsules, Odyssey Moon, and several other innovative newcomers.

EPA fridges,

There are also push innovation by industry:

Interface 20 year carpet lease,

Philips pay for light (Thomas Rau)

Textile leasing of uniforms, OP sterile textiles, work clothing,

Leasing of construction equipment, Michelin tyre use by the mile, Rolls-Royce jet engines - power by the hour,

Infrastructure projects financed by Private Finance Initiatives, Eurotunnel, Pont de Millau, toll bridges in many countries Incheon airport access bridge,

What are the drivers behind this Performance Economy?

For the user known total costs per time unit, high flexibility in use, all risks carried by lessor

Problems will increase with straight purchases through the rising complexity of technical systems - smart goods / IOT: hardware versus software liability. You can avoid these problems by buying functional performance, not objects.

We the people – and that includes public procurement authorities - are the Circular Economy.

We are in the driver seat to make it happen !

Thank you for listening

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09:51, 02.09.2020