

transforming waste into solutions

zwaai

Innovation for Transition

In this short speech I will introduce some novelty in terms of which kind of innovation we are talking about. But you are lucky, because, I will speak about an important disruptive solution, too. Let's go step by step..

Since industrial revolution, we are living in a **Linear economy model**: where we dig things out of the ground, turn them into products that last from minutes to a few years at most, and then stick them back into the ground as landfill. This is hugely wasteful, of both resources and money. It's also terrible for the environment. Unfortunately, it is worldwide mainstream! Is it sustainable? NO!



Thanks to EU waste's directives few countries have implemented a virtuous recycling business model. The big question is not **IF** or **WHEN** we have to push transition. **The big question is HOW?** how do we change the business model of these companies so they intentionally design their products for reuse, remanufacturing, and recovery?

Next TARGET!

Cultural/mental change

Circular economy concept – waste-free growth model.

Growth that preserves the resources on which it depends may expand with no theoretical limit to the monetary value of final services that can be produced from a given physical resource input.

The future for growth is circular economics:
MORE JOBS - MORE VALUE - MORE DURABILITY - LESS ENVIRONMENT PRESSURE



CIRCULAR ECONOMY

**Circular economy concept
Waste-free growth model**

Cultural/mental change.

In a circular economy model profits, jobs and growth come not from extracting, moving, shaping, selling and dumping ever more resources, but from the work done and value created by handling resources with sufficient care that ecosystems and total natural resources actually expand, making it possible to meet human needs everywhere.

How... Industry

How...Governments

How... Societies

IT IS NOT POLITE saying what others should doing to. So I prefer to tell, first, what has been our approach to innovation. See this <http://wais.solutions/newss>



How... Industry

So WAIS technology converts 100% of SOW to fertilizer. Because it does not need any kind of additives. And it does not generate waste during the process. That is disruptive! That is a Zero-Waste technology!

Looking at the industrial sector, the activities needed to switch from linear to circular economy include work on resources, such as doing smartly more with less, doing without accumulative toxics, smart designing and systematic recycling everywhere. Envisage taking the loose ends of the linear economy (extraction and dumping) and joining them together, so the new circular economy gains a reliable feedstock of resources.



Abundant energy, arriving naturally from sun, wind and oceans would provide the thermodynamic input to run circular economy. Industry have to invest to new

How... Governments

Distinguishing linear innovation from circular:

System of INCENTIVES / DISINCENTIVES by taxation (e.g. something similar to a harmonized European VAT). And it works! If today's PV systems cost a fifth than six years ago it is thanks to an incentive scheme. So what, we have done with RES we should do with waste management and road transport. In the next future the incentive/disincentive scheme should be applied to on road transport vehicles to accelerate the Plug-in Electric Vehicles (PEV) market. Countries, like Norway, that has adopted these incentives recorded strong growth of PEV market. This is a strategic action, because on road transportation is one of most contributor to pollutants and GHG emissions. It represents more than 20% of total Carbon emission, and it is the only component between total emission that increases continually.



IPR – Individual Producer Responsibility refers to the producer's commitment to managing the **end-of-life** phase of their specific products. It should be applied the **RULE: CIRCULAR or PAY (CoP)** principle. According to CoP principle any producer of goods have to design their products in a way to be easily re-introduced in their-self or agreed partners. So that all products at the end of use will be re-addressed to the producers or their partners. Otherwise they have to Pay an additional penalty tax.

Indeed, Governments have to enhance an efficient secondary raw materials market and boosting the value of goods coming from **Circular Economy** path. On this challenge public sector plays an important role as consumer. Specific actions to implement are: 1. to eliminate the landfill from waste management; 2. start a heavy taxation to incineration and stop new construction. They should be **mandatory!** At the same time need to **change the terminology** from **Waste Management** in to **Resource Exploitation**.

How... Society

Cultural and mental changings (thinking Zero-Waste as new hystorical era). Innovation for transition (recognize that sorted waste materials are best of raw materials, innovations should be lower cost, simplier, easier and circular) **boosting *people's awareness of waste-free economy***. *Improvements to Public health, Environment, life style have to be shared by a massive information campaign. We are talking about our life, the future of our children and grand-children.*





Thank You

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