

4D - Renewable resources: role of the circular economy in helping

MacArthur's foundation representative started by defining what the linear economy was: 'take-make and dispose' through process, in which waste is observed all along.

Recycling procedures more appear as "downcycling", which is the process of converting waste materials into new materials or products of lesser quality and reduced functionality. This process consumes a lot of energy, sometimes more than to produce the original goods.

Today's situation and trends: the solution can't only be downcycling. The new model assumes that waste is food, that biological and technical stuff must be treated differently. It also states that prices must reveal full costs of production, transportation, pollution etc.

The aim would be to use sustainable energy as an input, but also as a fuel during the whole process. Then biological products could be directly consumed. On the other hand, technical products could be rent, lease or upcycled. This would allow almost every good to be reinvested in production, as they would be biological, or of better quality. This circular industry is basically the way nature proceeds, which should be a model for human activity.

Rapanui is a "sustainable fashion company of clothing". Its two founders, **Mart & Rob DRAKE-NIGHT** spot the problems of fashion industry regarding the environment. To answer this, they mapped the supply chain of the industry, and tried to apply sustainability to every step of the later.

The main topics were sustainable textiles, people wellbeing and ethic, carbon reduction.

The object (manufacturing t-shirts) fits with their aim, as fashion is an influential medium with the power to change buyer's behavior. Rapanui thinks that change must be funded by demand.

That's why they worked a lot on communication, mainly through their website that advocates transparency. Also, tips to consume less energy while washing tee shirts are written on the neck tag and buttons: "Wash cool, hang dry". Indeed 80% of a t-shirt impact occurs post purchase. In addition Rapanui instituted the principle of deposit to their products.

Arturo PASQUEL presented the company while trying to focus on some elements of the green trend.

Vestas Wind Systems A/S is a Danish manufacturer, seller, installer, and servicer of wind turbines. It is the largest in the world, operates manufacturing plants in Europe, India, China, Australia and United States, and employs more than 20,000 people globally. Vestas has installed over 41,000 wind turbines for a capacity of just under 40 GW in 63 countries on five continents. In 2011, Vestas wind turbines generate enough electricity to provide for 21 million people.

80% of the turbines are recyclable, and the company tries to take back used engines, in order to transform them into new turbines.