

Cradle to Cradle: Nonpolluting product design

Manmade products always have been developed and designed in order to fulfill their tasks. The waste disposal some centuries ago was a secondary topic, most of the materials which were used were biodegradable and harmless to the environment. With the industrialization more and more plastic and other harmful ingredients were introduced in our daily life. Still today the disposal and thus the treatment of those materials is a serious topic. Even with the “Reduce – Reuse – Recycle” philosophy, this so called Cradle-to-Grave principle will always cause waste that is burned or deposited with a risk of harming the environment.

Cradle-to-Cradle is a concept that tries to rethink the way of producing and designing goods. The goal is to reuse every part of a product after its life: Waste becomes a resource for new products. Therefore, the product design is held simple, so that the single components can be removed easily.

An important part of the Cradle-to-Cradle principle are the two resource cycles: The biological and the technological cycle. The biological resource cycle includes compostable materials that are not harmful for health or environment. Thereby they can be used as nutrient for new organic life after their use. An example would be a t-shirt made out of biodegradable fibers.

Materials like metals, that are primary resources which are limited in their occurrence, belong to the technological cycle. The idea is that products which contain such materials are designed in a way that those relevant parts can be reused as secondary resources.

The main difference between those two circles is the way of using the product: A product which is consumed should be designed for the biological cycle, a product which is used must be integrated in the technological cycle. A combination of both is a way to produce goods without generating waste.

There are already products on the market that follow the principle of Cradle-to-Cradle: Puma developed a shoe that is completely biodegradable within six months.

(Sources: www.c2cplatform.tw, www.c2c-ev.de; Access on 17th November 2016)