

THE CIRCULAR ECONOMY: ARE YOU READY FOR CHANGE?

WHAT IS THE CIRCULAR ECONOMY?

- An alternative to the traditional linear economy model of make-use-dispose
- At the end of their service lives, products and materials are recovered and regenerated

ADVANTAGES:

- Keeps resources in use for as long as possible
- Minimises material waste and energy losses
- Improves the environmental impact of manufacturing
- Reduces the risks of obsolescence

IMPLICATIONS FOR OEMS

- Original equipment manufacturers (OEMs) need to rethink business models
- The delivery of a purchased service rather than a standalone product
- Backed by greater technical support to guarantee ongoing provision

IN PRACTICE

Axion Consulting

Developed a process to separate and recover the high-value platinum and polymer materials from fuel cell membrane electrode assemblies.

The recovered polymer can be blended with virgin polymer without compromising the fuel cell's performance.

GAMBICA

The UK trade body for automation, control, instrumentation and laboratory technology in the UK.

Offers support for manufacturers who want to comply with the circular economy.

The Royal Society for the encouragement of Arts, Manufactures and Commerce (RSA)

In 2005, the RSA unveiled a 7 metre tall sculpture titled WEEE Man on London's South bank, made from 3.3 tonnes of electrical goods - the average amount of electrical waste one UK individual creates in a lifetime.

Report: Designing for a circular economy

European Commission

Established a framework to set mandatory ecological requirements for energy-using and energy-related products sold in the European Union.

Ecodesign Directive covers more than 40 products groups, including boilers, light bulbs and industrial fridges.

Ecodesign Directive ensures manufacturers of energy-using products reduce energy consumption and the environmental impact of products at the design stage.

SUPPORTING DIRECTIVES

The Waste Electrical and Electronic Equipment Directive (WEEE)

Sets collection, recycling and recovery targets for electrical goods.

Restricts the material content of new electronic equipment placed on the market by European manufacturers.

Restriction of Hazardous Substances Directive (RoHS)

Part of a legislative initiative to solve the problem of huge amounts of toxic electronic waste.

Restricts the use of six hazardous materials in the manufacture of electronic and electrical equipment:

- lead (Pb)
- cadmium (Cd)
- mercury (Hg)
- hexavalent chromium (Cr6+)
- polybrominated biphenyls (PBB)
- polybrominated diphenyl ethers (PBDE)

To find out more about how obsolete components fit into the circular economy and to understand the benefits of sourcing obsolete, get in touch with EU Automation on www.euautomation.com/uk