

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

The International Society of Automation

A professional association that sets the standard for improving the management, safety and cyber security of modern automation and control systems

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

Waste and Resources Action Programme (WRAP)

Works with governments, businesses and communities to deliver practical solutions to improve resource efficiency

Maximises the value of waste by increasing the quantity and quality of materials collected for re-use and recycling

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

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 the 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