CIRC-PACK is composed of a multi-disciplinary consortium of 22 partners from seven European countries, integrating non-profit organisations, municipalities, research organisations, large companies and SMEs.

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ABOUT THE PROJECT

CIRC-PACK (Towards circular economy in the plastic packaging value chain) is a three-year, EU-funded project that aims to develop a more sustainable plastics sector. This means less dependence on fossil fuels and a more efficient, competitive and integrated value chain for the circular economy of the future.

DECOUPLING PLASTICS FROM FOSSIL FUELS

CIRC-PACK is producing breakthrough biodegradable plastics using alternative bio-based raw materials.

INNOVATIVE DESIGNS

CIRC-PACK is developing smart eco-design packaging features, adapted for bio-based materials. This means better collection and recycling of multilayer and multi-material packaging.

‘CLOSING THE LOOP’!

CIRC-PACK aims to play its part in an ‘after-use’ plastics economy, with CIRC-PACK project innovations also potentially applicable in other sectors.

PLASTIC PACKAGING AND THE CIRCULAR ECONOMY

Plastic is a hugely important material in society and industry. However, the vast majority of plastic is derived from fossil fuels, and it is often only used once before disposal – known as ‘single-use plastic’. Large volumes still pollute our oceans, end up as waste in landfills, and litter the streets of our towns and cities.

Functional replacements for the plastics used in certain applications can alleviate society’s dependence on fossil fuels. Ensuring that these can be effectively sorted and recycled after use is an essential step in ‘closing the loop’ of plastic use in a circular economy.

Transitioning to a circular economy is essential if we want to achieve a sustainable society, notably in urban areas and major population centres. By keeping products and materials in the value chain for longer, and recovering these products at the end of their lifetime for additional use, the material needs of societies can be met while achieving real economic and environmental benefits for all.

THE CIRC-PACK APPROACH

The project has three demo cases; part of an integrated approach to improving the plastics value chain:

DEMO CASE A: PLASTICS FROM RENEWABLE RESOURCES

Produce new bio-based polyesters with enhanced properties using renewable resources.

DEMO CASE B: ECO-FRIENDLY PACKAGING DESIGNS

Improve the recyclability of multilayer and multi-material packaging through smart eco-design.

DEMO CASE C: ENHANCED SORTING AND RECYCLING

Enhance the quality of recovered materials by improving existing sorting and recycling processes, and with new monitoring systems and technologies.