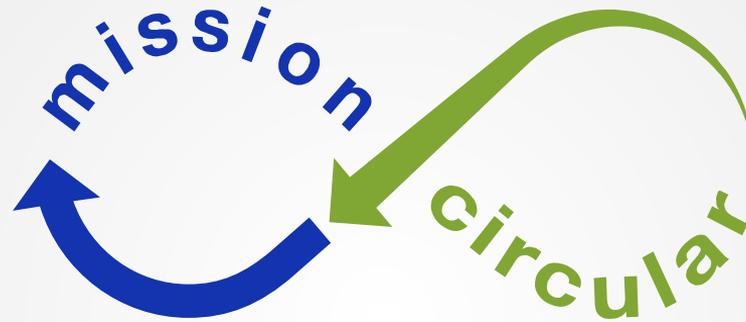


CEFLEX: an overview and design guidelines

Extra packaging for recycling workshop
13th May 2020

Liz Morrish, Workstream Consultant



Collaborating as the whole flexible packaging value chain, we aim to make all flexible packaging in Europe circular by 2025



Collaborative initiative of a European consortium of companies, organisations and associations



Representing entire value chain of flexible packaging



Designing and advancing better system solutions

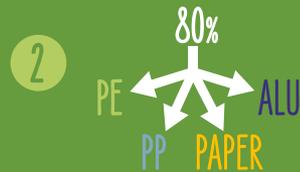


Further enhancing performance of flexible packaging in the circular economy

5 Steps to Build a Circular Economy for Flexible Packaging



1 Drive collection of ALL flexible packaging for sorting & recycling



2 Sort the suitable mono-material fractions so that they are available to be recycled



3 Redesign multi-material flexible packaging to mono-materials with existing recycling streams

4



4 Identify solutions and develop capabilities to sort/recycle the remaining fractions

5



5 End Markets for all recycled flexible packaging materials



These 5 Steps have been endorsed by the CEFLEX Stakeholders together with a set of actions needed by each part of the flexible packaging value chain



Designing for a Circular Economy Guidelines

Objective

To provide information and tools to design flexible packaging in line with the requirements of the circular economy, with positive environmental and economic benefits

Key activities

- ‘Designing for a Circular Economy’ guidelines using a phased approach
- A tool to enable the comparison of the economic and environmental lifecycle performance of different packaging formats and adopt the guidelines
- A mechanism to review, update and revalidate the guidelines

Key aspects

- To deliver a circular economy for flexible packaging then flexible packaging needs to be designed to be recyclable
- Recycling is a key part of the changes needed, with opportunities for prevention, reduction and re-use
- Recognise that flexible packaging is a very resource efficient format
 - Key role in protecting food and other products, preventing food waste and minimising use of resources
- Objective is to design to be easily sorted once collected at end of life, made available for recycling and for recycled materials to be kept in the economy and used again
- Packaging functionality should not be compromised

D4ACE guidelines aim to make flexible packaging circular by:

- Giving clarity to the value chain so flexible packaging is designed to be suitable after use for collection, sorting and recycling
- Contributing to increasing levels of recycling
- Producing higher quality recycled materials to be kept in the economy and used in sustainable end markets

Phase 1 guidelines

- Structures that can be sorted and recycled using existing industrial scale technologies and processes
- Regarded as 'designed for recyclability'
- Supported by either test data or commercial practices somewhere in Europe
- Focus on **polyolefin-based structures**

Phase 2 guidelines

- Structures that are not currently widely sorted and/or recycled
- Cannot yet be regarded as being 'designed for recyclability'
- Testing needed to better understand sortability and/or recyclability, and to determine impact of different elements of a structure

Phase 1 guidelines

- Provide advice and guidance when designing and specifying consumer flexible packaging
- Focus on polyolefin-based flexible packaging structures
- Target audience is brand owners and retailers, whilst recognising the whole value chain has a role to play
- Guidelines provide information on end of life processes
- Guidelines cover key elements of a flexible packaging structure – with specific limits where applicable
- Guidelines have been developed by, and for, the whole value chain

Guidelines provide information on end of life processes:

- Packaging disposal including emptyability
- Collection – essential step, CEFLEX calling for collection of all packaging
- Sortability – key sorting steps to show how packaging behaves in a waste sorting environment
- Recyclability – issues to consider, key steps in mechanical recycling process

Guidelines on elements of a flexible packaging structure

- **Material selection**
 - For polyolefin-based structure preference for mono-PE and mono-PP
 - Thresholds for mono-PE, mono-PP and PO mixes
 - Other polymers – PET, PVC, Nylon, biodegradable and compostable polymers
 - Paper
 - Aluminium foil
 - Barrier layers and coatings – EVOH, PVOH, AlO_x, SiO_x
 - Metallisation

Guidelines on elements of a flexible packaging structure (continued)

- Size, shape and construction
- Density
- Adhesives
- Pigments
- Additives and fillers
- Print, inks and lacquers
- Labels
- Additional features



Guidelines to be launched to CEFLEX stakeholders end May 2020

- Executive summary
- Technical report
- Visual resources
- Adoption and implementation of D4ACE guidelines by CEFLEX stakeholders

Guidelines to be launched to wider value chain from June 2020 onwards

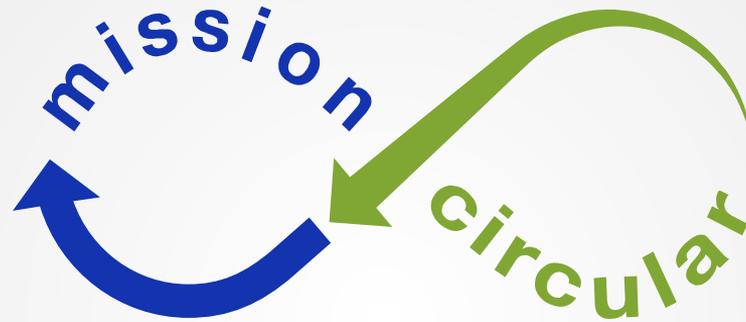
- Website
- PR and social media communications
- Webinars
- Collaboration with key industry bodies and associations

Phase 2

CEFLEX to undertake a programme of testing to better understand

- Sortability and recyclability of multi-material structures currently not widely sorted/recycled
- Impact of different elements of a flexible packaging structure on sortability and recyclability – inks, adhesives, coatings, etc.

Results of testing will be used as basis for phase 2 guidelines



Thank you for listening and please join our “Mission Circular”

Contact: Liz Morrish
liz@ceflex.eu