

BUILDING THE CIRCULAR ECONOMY FOR FLEXIBLE PACKAGING

Leading the
transformation as a
CEFLEX stakeholder



Collaborating and innovating together

The willingness - and ability - to collaborate, innovate and invest together is fundamental to achieving the circular economy in every sector. Reaching across the value chain to do more and make it happen faster is still a key ingredient for flexible packaging.

Players associated with flexible packaging in Europe are driving this transformation and have come together through the Circular Economy for Flexible Packaging (CEFLEX) project. The initiative helps them shape and deliver the actions required - all underpinned and incited by an environmental and economic business case.





From a founding group of 20 companies in 2017, CEFLEX now brings over 180 stakeholders from across the flexible packaging value chain together.

These companies and organisations represent a critical mass and show the determination to make flexible packaging circular continues to build momentum.

We hope that everyone can be part of this process – building the collective expertise, knowledge and actions to achieve #MissionCircular together.

Mission Circular

CEFLEX and its stakeholders are committed to avoiding waste and pollution by redesigning consumer flexible packaging and ensuring an appropriate collection, sorting and recycling infrastructure in all European countries.

This will enable used flexible packaging to be cost effectively collected, sorted and recycled with valuable new markets and applications created so the recycled packaging materials can be used again and again.



CEFLEX operations and ways of working

Solving the technical, environmental, and business conditions to achieve Mission Circular relies on the active participation and guidance of our stakeholders. Our stakeholders encompass the entire flexible packaging value chain, which includes various key players such as raw material producers, specialising in plastics, paper, and aluminum foil. Additionally, it involves ink, coating, and adhesive suppliers, as well as film producers and flexible packaging converters. Brand owners, retailers, waste management companies, recyclers, extended producer responsibility organisations, technology suppliers, associations, and research organisations also play vital roles in this process.



**Material
Producers**



**Film Producers
and Packaging
Converters**



**Brand Owners
and Retailers**



**Waste Collectors,
Sorters and
Recyclers**



**Flexible
packaging
ecosystem**

Stakeholders participating in CEFLEX are invited to identify as representatives in one of five value chain groups, reflecting their role in the flexible packaging value chain.

From designing to implementing the circular economy

In its first 'design phase', CEFLEX's focus was building and articulating a common roadmap and essential resources for progress. Today, the full complexity and detail of moving from a linear to a circular economy is being addressed head on.

This includes engaging with new actors and partners, such as Extended Producer Responsibility (EPR), standardisation and legislation; incorporating additional detail and scope to end market analysis; and even working to design, build and deliver a state-of-the-art sorting and recycling plant (ValueFlex) to demonstrate just how valuable flexible packaging materials are in a circular economy.

A required transformation – the 'Demand-Driven' circular economy model

As CEFLEX has moved from design to implementation, the project has increasingly used a 'demand-driven' model to illustrate, communicate and calculate the transformation required.

It skips focusing on optimising existing linear processes to favour end market pull for recycled content in clearly identified existing and significant new end markets as the trigger for the required transformation.

Based on a clear understanding of the potential to use recycled materials from flexible packaging and in which markets, we can work backwards to further clarify the required scale of mechanical and chemical recycling, sorting capacities and infrastructure – plus the collection needed to fuel it.

Design, legislation and EPR are central to enabling and incentivising the appropriate infrastructure and market mechanisms to realise a Circular Economy for Flexible Packaging.

The model helps bring additional definition to the steps, actions and information needed to achieve Mission Circular and now shapes our stakeholder-only work packages.








Work packages to support the 'Demand-Driven' circular economy model

Optimise stakeholder value from CEFLEX by choosing to participate in dedicated work packages. Colleagues from across your organisation are encouraged to bring their insights and expertise to the table.

Our refreshed work programme for 2023 onwards formalises additional areas and brings added definition to ongoing work.

Action area work packages

-  Materials & Waste Streams
-  End Markets
-  Recycling
-  Sorting
-  Collection







**In-depth
understanding and
actions to drive
implementation**



**Work packages
are supported
by cross cutting
analysis of
Economics and
Metrics**

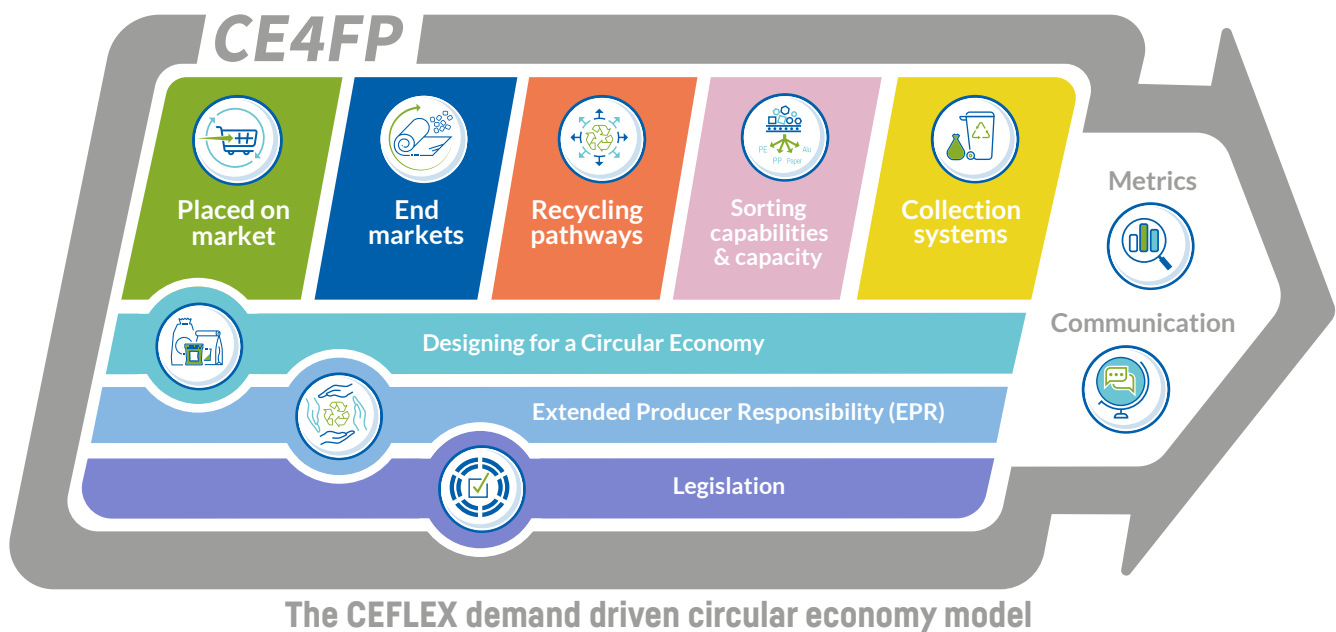
Key enabler work packages

-  Designing for a Circular Economy
-  EPR
-  Legislation
-  Communication & Collaboration



**Framework and
conditions for
success**





Levels of engagement to expect as an **ACTIVE** participant in a work package

Action area work packages on key information and infrastructure

2 x year meetings / half day workshops to:

- Share insights
- Refine / advance work with stakeholders
- Develop shareable outputs to drive progress
- Open to work package members

Ad-hoc sub-groups may provide focus and more regular collaboration on specific areas of delivery – i.e., material trials, testing etc.

Key enabler work packages

Regular scheduled meetings as assessed by work package lead on:

- Key issues (i.e., recycled content)
- Working and sub-groups (i.e., Designing for a Circular Economy guidelines Phase 2 testing programme)
- Feedback from stakeholders

Levels of participation as a CEFLEX stakeholder

INFORMED and engaged

All stakeholders have access to all our activities and finalised resources. A default level of participation does not require you to join a work package and includes:

- General Meetings
- Webinars
- News
- Regular communications
- Access to all stakeholder information and work package documentation

You do not need to do anything to select this level of engagement – it is automatic for all stakeholders.

ACTIVE in a specific area

This involves becoming a member of a work package, enabling you to attend additional meetings and sessions to be involved in delivery activities, provide feedback and help shape work programme actions.

CORE participation within a work package

Within a work package, smaller ‘core’ groups with a higher level of interest, involvement and focus on an action may choose to meet more regularly – i.e., mobilising a pilot or industrial trial to establish proof of concept. Keep in touch with work package leads and watch out for calls for interest.

Such task forces and sub-groups include:

- Dedicated design guidance sub-groups to support our Phase 2 testing programme
- Quality Recycling Process
- UN Global Treaty on Plastic Pollution

If you are highly motivated on a particular work package issue – and open to joining such sub-groups – let us know in the **Stakeholder Participation Form**.

Please note that the level of engagement you select in our work packages does not impact the level of annual CEFLEX stakeholder contribution your company/organisation makes.

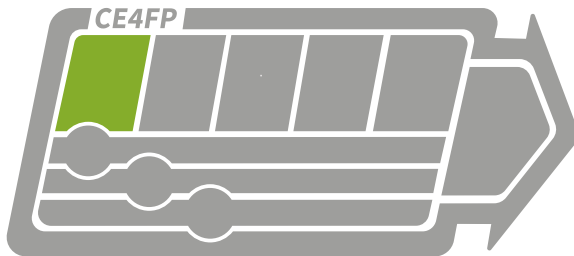
Informed

Active

Core



Markets and Waste Stream Data



GOAL

Understand the amount and type of flexible packaging placed on the European market and found in the waste stream

OBJECTIVES

- Provide key data and insights to stakeholders and for other CEFLEX work packages and activities, such as the type and scale of collection, sorting and recycling infrastructure needed in Europe
- Identify dominant and less common materials on the market and in the waste stream and, support their collection, sorting and recycling

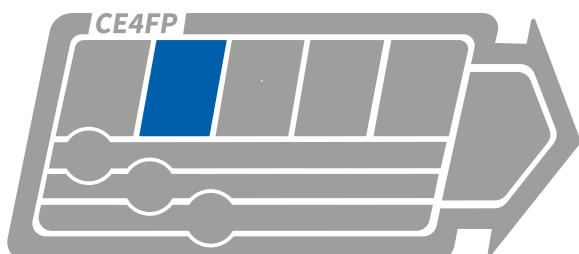
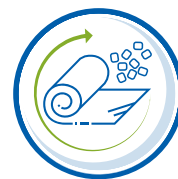
TARGET OUTPUTS

Placed on
market data

Multi-country
compositional analysis



End Markets



GOAL

Identify and evaluate the end markets and applications for recycled materials from flexible packaging

OBJECTIVES

- Evaluate and assess packaging and non-packaging end markets and applications; plus, the amount and types of recyclate currently used in them
- Identify challenges, opportunities and showcase end markets for recycled materials to accelerate their uptake
- Understand overall demand for recycled content and estimate future potential for mechanically and chemically recycled flexible packaging materials

TARGET OUTPUTS

Market and
application showcases

End market factsheets

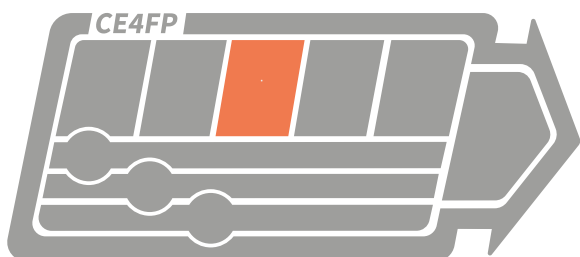


Recycling, sorting and collection - a connected vision with specific needs

Recycling, sorting and collection is the engine-room of much of CEFLEX's work. Together, these work packages aim to translate expertise and knowledge into guidance to implement a Circular Economy for Flexible Packaging. The three work packages operate in close collaboration; but with sufficient detail to merit their own work packages. They benefit from support of a dedicated economist, academic partners and stakeholders to build an ambitious yet feasible set of actions to achieve our Mission Circular vision.



Recycling



GOAL

Recommend recycling infrastructure for full circularity of flexible packaging, including capacities and technologies in Europe

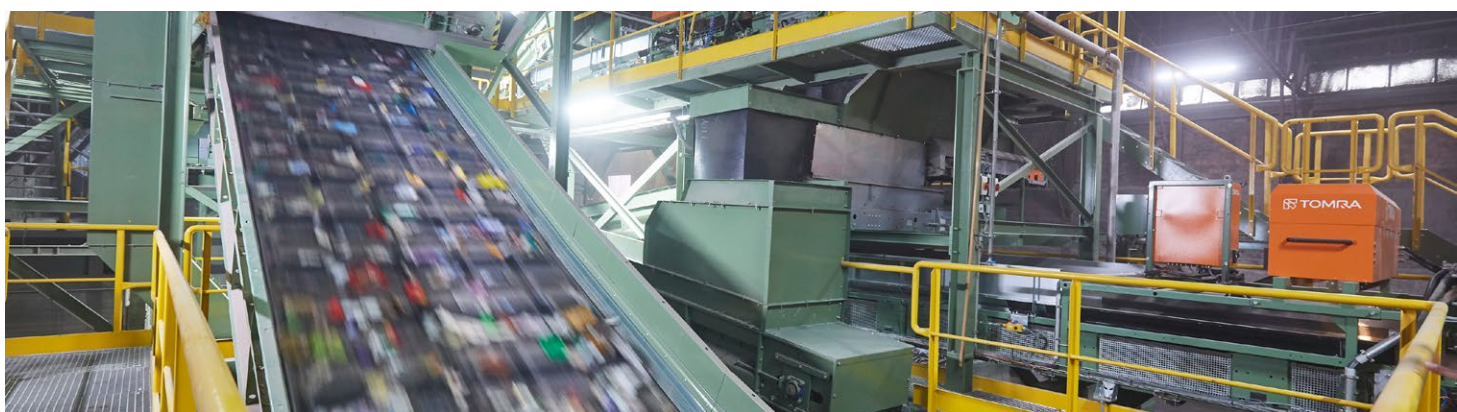
OBJECTIVES

- Quantify possible capacity scenarios for Mechanical (MR), Physical (PR) and Chemical Recycling (CR) driven by end market demand
- Trial and demonstrate the impact of designing for a circular economy guidelines, new and novel technologies and flagship ValueFlex project

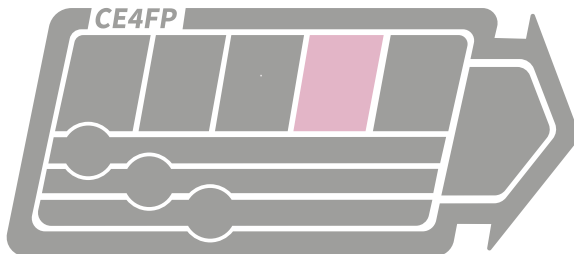
TARGET OUTPUTS

Recycling capacity, business model and technology pathways

Quality recycling and EU recycling strategy recommendations



Sorting



GOAL

Recommend sorting infrastructure for full circularity of flexible packaging, including capacities and technologies in Europe and at country level

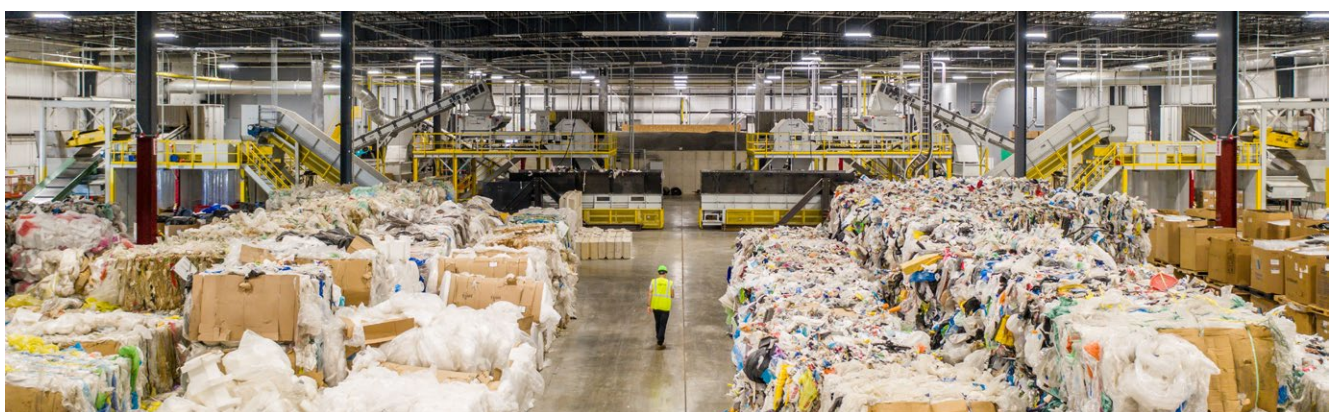
OBJECTIVES

- Define realistic sorting facility standards and the capabilities using 'Designing for a Circular Economy' guideline (D4ACE) trials
- Provide sorting scenarios and recommendations for flexible packaging

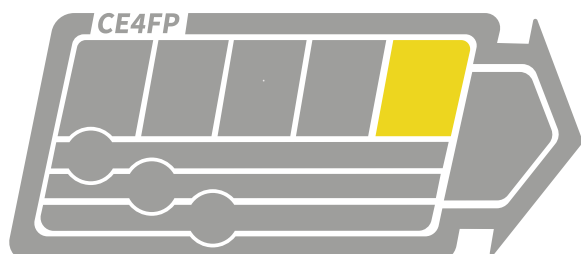
TARGET OUTPUTS

Optimal sorting standards, capabilities and scenarios

Quality recycling and EU recycling strategy recommendations



Collection



GOAL

Assessing the impact of all flexible packaging being targeted for collection and recommending the collection infrastructure necessary to achieve full circularity

OBJECTIVES

- Support countries – and various stakeholders working to deliver it - reach a maximum recycling rate
- Assess the impact of all flexible packaging being targeted for separate collection and opportunities for flexible packaging missed by separate collection to be captured from the residual waste fraction

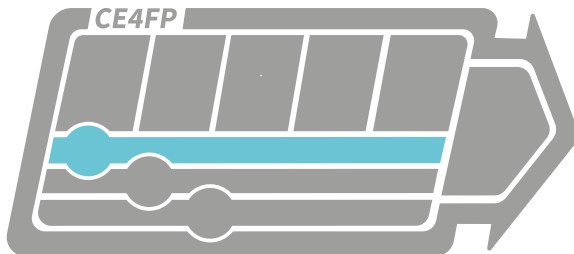
TARGET OUTPUTS

Collection best practices
and assessments

Potential recovery of flexibles
from residual waste



Designing for a Circular Economy (D4ACE)



GOAL

Facilitate the design of consumer flexible packaging to support its circularity - including sortability and recyclability - enabling the value chain to make the right design decisions

OBJECTIVES

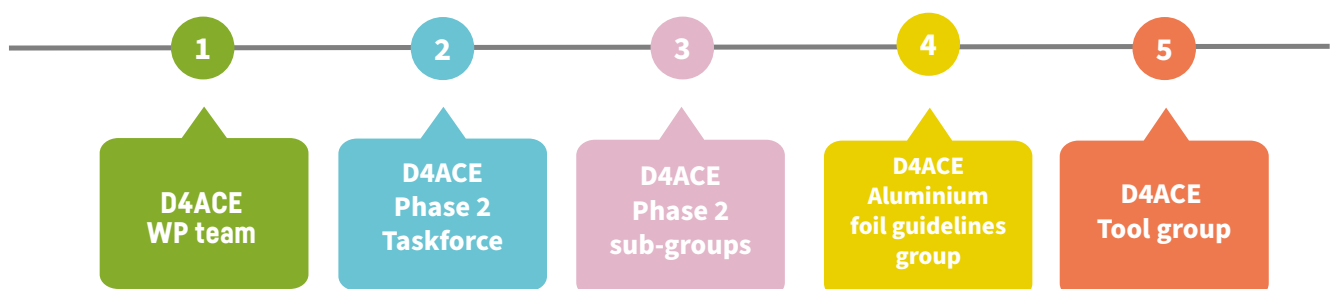
- Support the value chain meet their commitments and make clear design decisions with robust, independent, data-driven guidance
- Increase the proportion of flexible packaging placed on the market that can be collected, sorted and recycled with a suite of D4ACE guidelines
- Boost the quantity and quality of recycled materials captured from flexible packaging

TARGET OUTPUTS

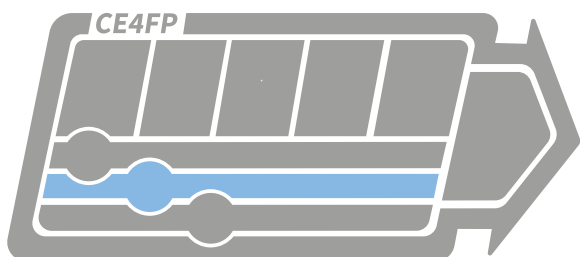
Design guidance for all types of flexible packaging

Resources, tools and testing to support adoption

Includes sub-groups on CEFLEX's extensive Phase 2 testing programme, aluminium foil guidelines and more:



EPR



GOAL

Increase the circularity of flexible packaging at a national level through collaboration with PROs (Packaging Recovery Organisations) and other key stakeholders

OBJECTIVES

- Build strong working partnerships with national PROs and other stakeholders to develop optimal solutions to accelerate circularity for flexible packaging
- Identify insights, data and information CEFLEX can provide to support EPR and national decision-making
- Assist informed development of national collection systems, sorting capability and recycling infrastructure to deliver material circularity

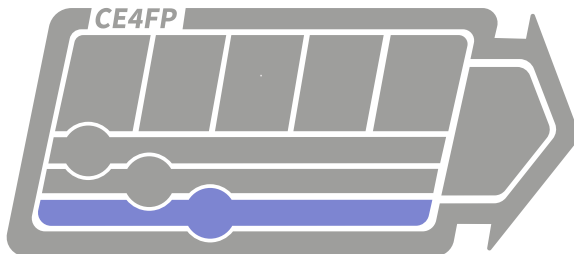
TARGET OUTPUTS

EPR webinars and seminars

Key areas of focus and assistance to priority countries



Legislation



GOAL

A supportive legislative framework for accelerating achievement of CEFLEX's #MissionCircular

OBJECTIVES

- A level playing field which incentivises companies to design flexible packaging for circularity, without being put at a competitive disadvantage
- Legally-binding measures that help to overcome barriers to collection, sorting and recycling of used flexible packaging

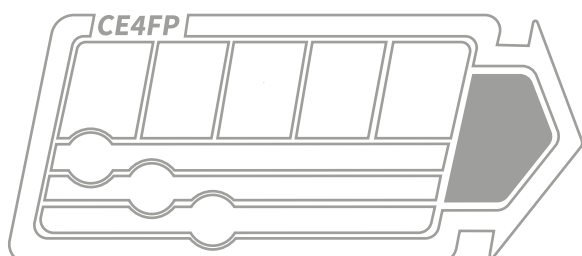
TARGET OUTPUTS

Legislative analysis
and intelligence

Advocacy and collaboration
(positions, face-to-face meetings, ...)



Communication & Collaboration



GOAL

- Boosting knowledge and inspiring action to make MissionCircular a reality
- Building high awareness and credibility for CEFLEX vision and deliverables

OBJECTIVES

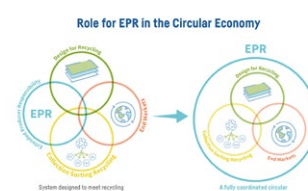
- Unpack key deliverables, insights and results from work packages and support their uptake and adoption
- Engage with stakeholders, wider-industry, other material sectors and beyond and collaborate with regular partners in events, media, industry and advocacy
- Work with stakeholder communication professionals to shape CEFLEX external communications strategy and give extra impact

TARGET OUTPUTS

Insightful, multimedia content exploring key results

Stakeholder-only and external events, webinars & partnerships

WP	Substrate	Material	Process	Product
WP1	Substrate	Material	Process	Product
WP2	Substrate	Material	Process	Product
WP3	Substrate	Material	Process	Product
WP4	Substrate	Material	Process	Product
WP5	Substrate	Material	Process	Product
WP6	Substrate	Material	Process	Product
WP7	Substrate	Material	Process	Product
WP8	Substrate	Material	Process	Product
WP9	Substrate	Material	Process	Product
WP10	Substrate	Material	Process	Product



Additional support to work packages

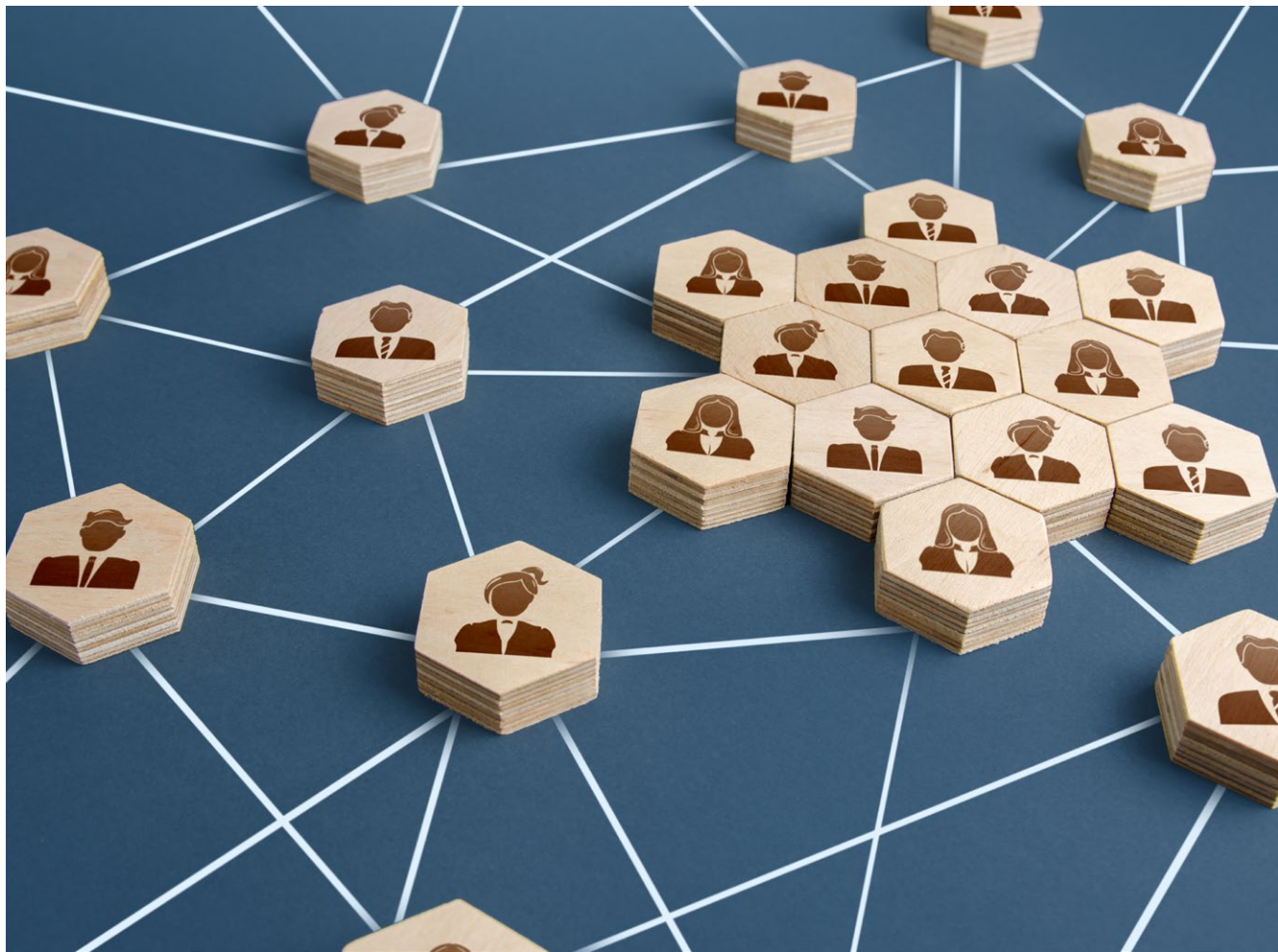
Principally working directly with the CEFLEX team and not work packages, opportunities for stakeholders to support and benefit from our economics and metrics actions may also exist. Look out for webinars on specific topics and ad-hoc calls for collaboration.

Economics

Within the CEFLEX team, consultants also call upon an in-house economist to provide timely, robust analysis to support the aims their work packages. They also help build the business case for material circularity and drive the CEFLEX material flow model – or models based on it – in PROs and other organisations.

Metrics

To track and target actions across the value chain to better identify what needs to happen where, CEFLEX attempts to monitor pragmatic and value-added indicators of progress. The aims: show proof of progress or critical areas needing attention to decision-makers and industry; and support stakeholders and work packages with relevant data points supplementing existing open-source metrics.



Design Check

An assessment tool to help designers, customers and suppliers optimise and accelerate sustainable design

With more urgency than ever before to ensure flexible packaging is optimised for collection, sorting and recycling – and producing higher quality recycled materials – a ‘Design Check’ tool gives valuable guidance on design and specification.

CEFLEX teamed up with recyclability experts **Recyda** to provide an easy-to-use online service which allows users to check if a packaging design or specification adheres to CEFLEX’s ‘Designing for a Circular Economy’ (D4ACE) guidelines. Either to check an existing package, facilitate the R&D and design process, engage with other parts of the value chain or prepare for recyclability testing.

Assessment covers all parts of the guidelines, including their sortability and recyclability principles. It indicates if a specification or design is compatible, of limited compatibility or not compatible - and users are also able to undertake assessments for multiple specifications or designs.

The tool will be revised to reflect guidelines updates based on the extensive sorting and recycling testing programme and new Designing for a Circular Economy areas, such as flexible packaging containing aluminium foil.

Composition

Enter information about the materials and elements in your flexible packaging structure or flexible film material.

Flexible Packaging structure (optional):

MATERIAL	UNIT	THICKNESS	WEIGHT	WEIGHT %	RECYCLABILITY	REMARKS
		0.02 g/m²	0.28 g			
		0.05 g/m²	0.23 g			
		0.10 g/m²	0.33 g			

Recent Packaging Assessments

Assessment Name	Created by	Created on	Updated on	Updated by
pack 1	Liz Morris	2023-04-25	updated 3 months ago	
test	Liz Morris	2023-03-22	updated 3 months ago	
tailors test	Liz Morris	2023-03-09	updated 6 months ago	
go test	Liz Morris	2023-02-21	updated 9 months ago	
test	Liz Morris	2023-02-21	updated 9 months ago	

About

CEFLEX's Designing for a Circular Economy guidelines provide information on practical advice on making sustainable design choices for flexible packaging recyclability. This includes providing limits for specific materials and elements used in flexible packaging to maximise sortability and recyclability.

This tool allows you to enter information about your flexible packaging specification and to check if it adheres to CEFLEX's Designing for a Circular Economy guidelines.

This tool can be used to assess complete flexible packaging structures or designs as well as flexible films. The tool will assess the information entered against the Phase 1 Designing for a Circular Economy guidelines for polyolefin-based flexible packaging.

Assessment Results:

- pack 1:** Incompatible with PE and PP mechanical recycling according to the D4ACE guidelines.
- test:** Compatible with PP mechanical recycling according to the D4ACE guidelines.

Consult and use the tool: guidelines.ceflex.eu

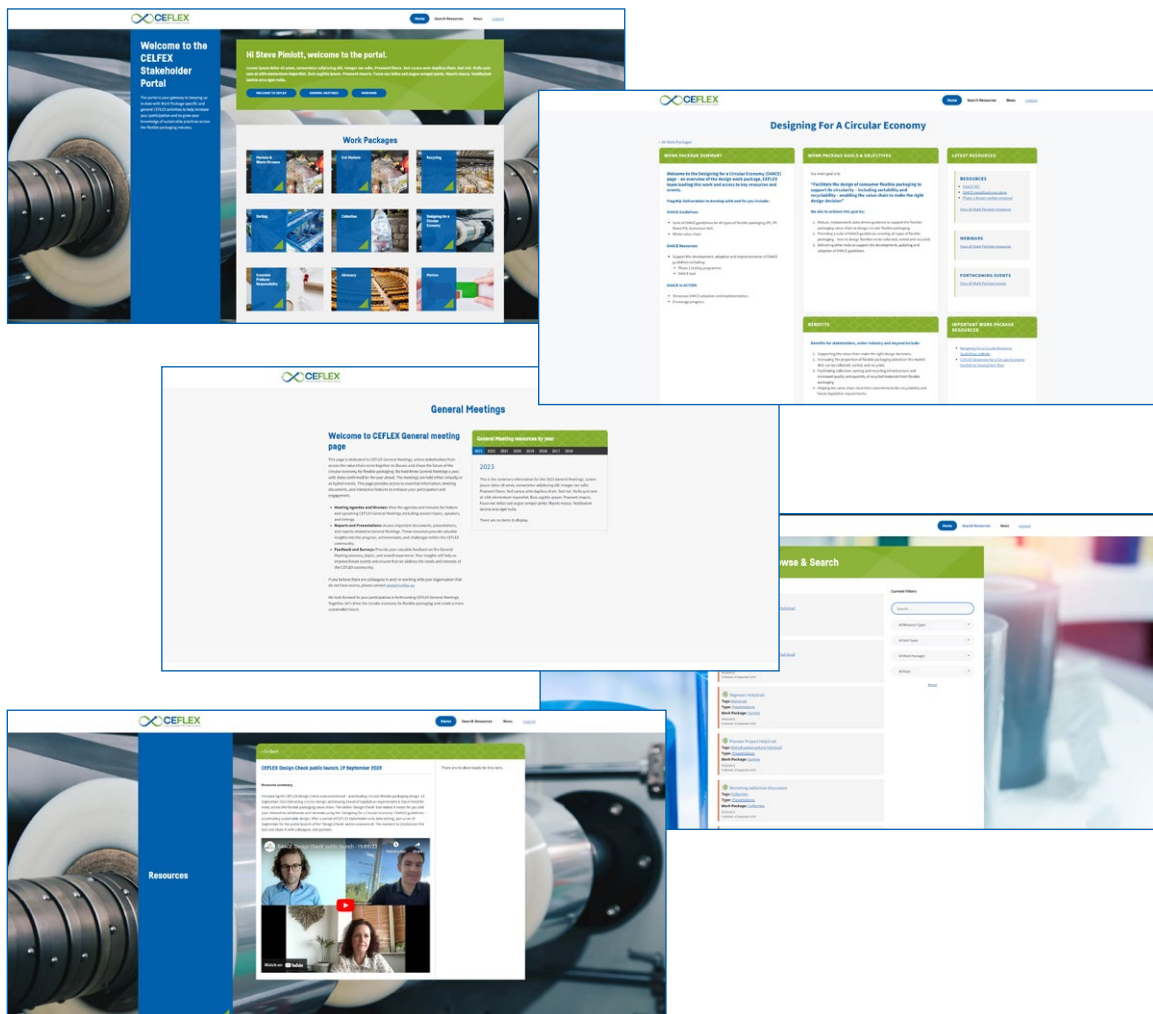
Regular insights and information

Building understanding and sharing information with the wider value chain is key to meeting our mission. A number of stakeholder-exclusive and public channels aim to explore the issues at different levels of detail. These include:

- In-depth stakeholder exclusive webinars
- Mission Circular newsletter
- LinkedIn, twitter channels posting regular updates
- News, interviews and content exploring major insights

CEFLEX also recently developed a refreshed **stakeholder portal** to make information and resources easily accessible.

This web-based platform is a gateway to keeping up to date with work package specific and general CEFLEX activities to help increase your participation and value gained from the initiative.



Engaging with the CEFLEX community and beyond

General meetings

The CEFLEX community typically meets three times a year, through a combination of face to face and online meetings. All stakeholder contacts are invited to hear updates from the CEFLEX team on key activities, panel discussions on key challenges, external speakers, opportunities to meet other stakeholders and to network. In the case of face to face meetings, each stakeholder organisation is requested to attend with no more than two persons to keep the meeting productive, operational and manageable.

Value chain meetings

Value chain meetings convened and led by the respective CEFLEX steering committee members, assess progress and fine tune the steps required to achieve our #MissionCircular. They may meet in person or virtually during a year as required.

Work package meetings

The work package lead and stakeholder team agree on a frequency of meetings and their agenda together and as appropriate to achieve target deliverables. Meetings may be in-person or virtual. Smaller groups with a higher level of dedication and focus on an action may choose to meet more regularly – such as mobilising a pilot or industrial trial to establish proof of concept and determine a clear business as well as environmental case.

External conferences and events

CEFLEX actively works to build understanding and alignment through external conferences, exhibitions, including partnerships. These include, for instance, building alliances with fellow material sectors striving to achieve circularity, or engaging more with retail, policy and technical audiences.

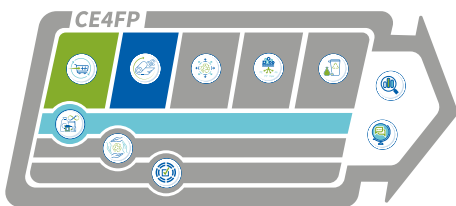
All meetings, whether in-person or online convened by CEFLEX apply the '[Chatham House Rule](#)', stating that participants are free to use the information received but neither the identity or affiliation of the speakers or participants may be revealed. CEFLEX's Governance Agreement also details a strict anti-trust statement and guidelines.

Key contacts and teams



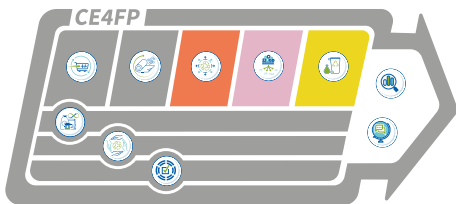
Project Coordinator:
Graham Houlder, graham@ceflex.eu

Project administration:
Liz Treadwell, liz.treadwell@ceflex.eu



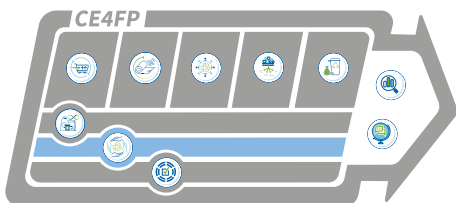
Materials & Waste Streams, End Markets, Design

Lead: **Liz Morrish**, liz@ceflex.eu
Supported by: Haulwen Nicholas, Dennis Bankmann, James Marshall



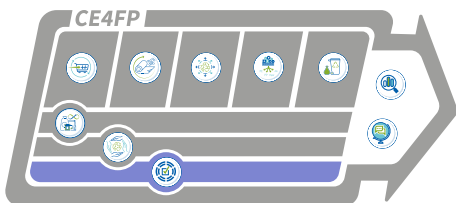
Recycling, Sorting & Collection

Lead: **Dana Mosora**, dana@ceflex.eu
Supported by: Matt Georges, Michael Scriba, Dennis Bankmann, Mike Jefferson



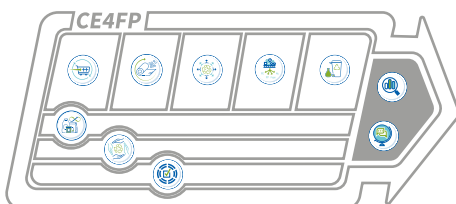
EPR designed and funded for circularity

Lead: **Mike Jefferson**, mike.jefferson@ceflex.eu
Supported by: Graham Houlder, Louis Lindenberg, Michael Scriba, Marius Tent



Supportive legislative framework

Lead: **Fiona Durie**, fiona.Durie@ceflex.eu
Supported by: Niki Sfakianou, Alec Walker-Love, Graham Houlder



Communication and Collaboration

Lead: **Alec Walker-Love**, alec@ceflex.eu
Supported by the CEFLEX team



CEFLEX Steering Committee

Each part of the value chain nominates and elects a chosen representative to the CEFLEX Steering Committee. Votes are cast by the principal contact of each stakeholder and positions are for a 2-year term.

CEFLEX is extremely grateful for the outstanding contribution of their time and expertise.

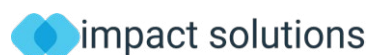
2024-2025 Steering Committee

1	Material Producers		Karlheinz Hausmann Dow
2	Film Producers and Packaging Converters		Gerald Rebitzer (CHAIR) Amcor
3	Brand Owners and Retailers		Dominika Maruszak PepsiCo
4	Waste Collectors, Sorters and Recyclers		Mike Baxter Berry Global
5	Flexible packaging ecosystem		Clemens Kitzberger Erema
6	Project Co-ordination		Graham Houlder CEFLEX

Additional partners of note

In addition to the CEFLEX team and stakeholders, we are privileged to regularly work with several partners on specific projects

These include:





ceflex.eu

 @MissionCircular

