

29th June 2021

“Opportunities and Constraints in EU policy for Bio-based and Biodegradable Plastics”

BIO-PLASTICS EUROPE

Project coordinator: HAW Hamburg



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 860407. BIO-PLASTICS EUROPE project website: www.bioplasticseurope.eu



BIO-PLASTICS EUROPE

Developing and Implementing Sustainability-Based Solutions for Bio-Based Plastic Production and Use to Preserve Land and Sea Environmental Quality in Europe

October 2019 – September 2023



Project kicked-off in October 2019



After 1,5 years – in M18!

PARTNERSHIP



22 partners
 13 countries
 8.5 million Euros
 8.2 mill. from the EU



CONTACT INFO

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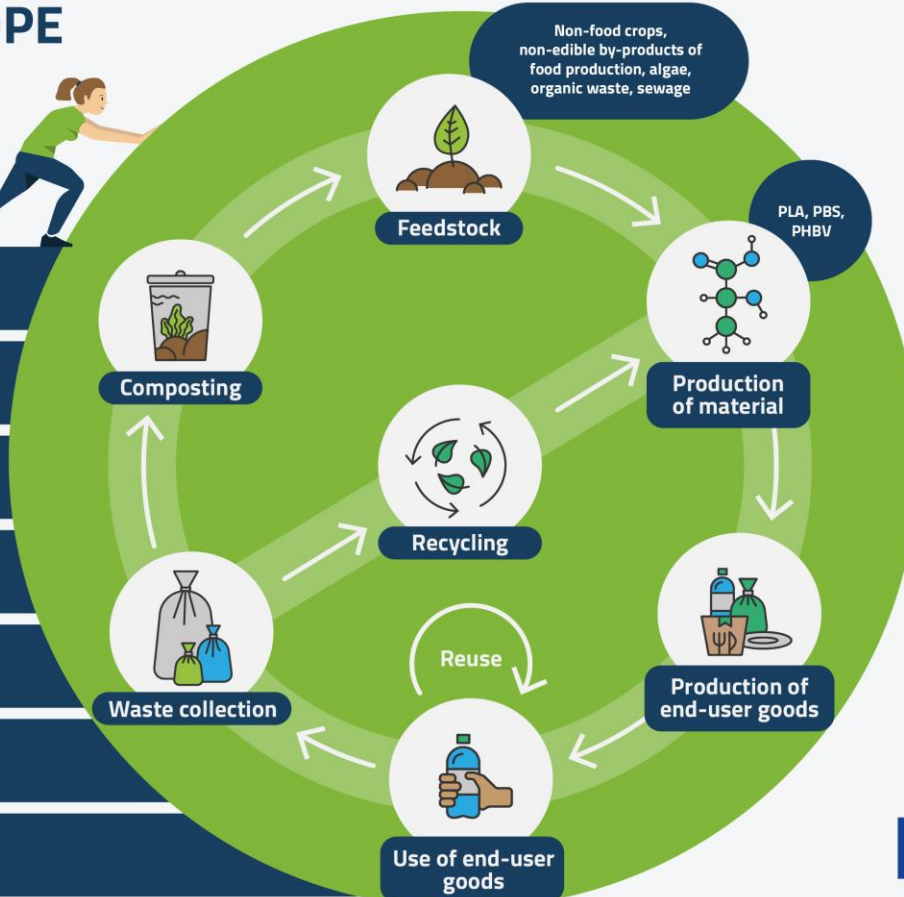


BIO-PLASTICS EUROPE

Pushes towards circular economy



- WP3 Identification and test of innovative product design
- WP4 Plastic waste collection, recycling and littering
- WP5 Prenormative research and field tests
- WP6 Health and environmental safety
- WP7 Replication, policy-making, capacity-building and upscaling
- WP8 Life cycle assessment environmental and economic
- WP9 Information, communication, and dissemination of results





EXPECTED RESULTS

FOCUS

Cutlery, Soft and Rigid Packaging,

Agricultural Mulch Film, Toys and Aquatic Materials

(Fishing Baits, Fish Crates, Geo-membrane)

● INNOVATIVE MATERIALS

to foster and encourage deployment of innovative bio-based and biodegradable materials

● STAKEHOLDERS ENGAGEMENT

to ensure strong commitment of producers, politicians, industrial and private consumers

● BUSINESS MODELS

to experiment with innovative business models by incorporating circularity and sustainability to maximize the value of materials along the entire value chain

● SAFETY PROTOCOLS

to ensure the safe use and end-of-life management on innovative bio-based plastics



WP3

The prototypes under development are:

1. BPE-SP-PBS -----
Soft Packaging
2. BPE-RP-PLA -----
Rigid Packaging +
Fish Crates
3. BPE-T-PHBV ----
Toys + Fishing Bait
4. BPE-AMF-PLA –
Agricultural mulch +
Marine Geomaterial
5. BPE-C-PLA -----
Cutlery

AGENDA

MODIFICATION OF COMPOUNDS ●⁴

BIODEGRADATION ⁽¹¹⁾

- Soil ▲²
- Sea ▲²
- River ▲¹
- Composting ▲³
- Laboratory Tests ▲³

ECOTOXICITY ⁽⁴⁾

- Biota ◆⁴

CONTROLLED CONDITIONS ⁽⁷⁾

- Structure ■³
- Stability ■²
- Recyclability ■²

WP5



SAFETY PROTOCOLS



WP6

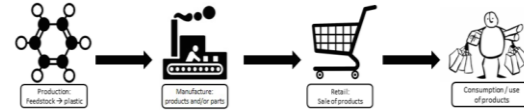
What is a safety protocol?

A **signposting document or tool** for companies to use when they are considering the introduction of a new bio-based or biodegradable product to the market.

Will **outline all their safety obligations**, based on an extensive review of **existing documents that may be relevant to bio-based and biodegradable plastic products**.

Documents include (so far); directives, regulations, standards, legislation, certification schemes.

Documents mapping



Directive 2001/95/EC of the European Parliament and of the Council of 3 December 2001 on General Product Liability

Aim:

The purpose of this Directive is to ensure that products placed on the market are safe.

Safety themes:

Chemical
Physical
Mechanical
Flammable
Hygiene
Environmental
Communication

Key points:

- Applies to any product intended for consumers (or likely not intended for them) and is supplied through a commercial channel.
- Defines a “safe product” as one that under normal (or reasonably foreseeable) conditions of use does not present any risk, or minimises risks compatible with the product’s use, considered to be acceptable and consistent with a high level of protection for the safety and health of persons.
- This takes into account;
 - the characteristics of the product, e.g. composition, packaging, assembly instructions;
 - the effect on other products, where it is reasonably foreseeable that it will be used with other products;
 - the presentation of the product, e.g. labelling, warnings and instructions for its use and disposal;
 - the categories of consumers at risk e.g. children and the elderly.
- Must conform with voluntary national standards transposing relevant EU standards.

[Go Back →](#)

Welcome to the BIO-PLASTICS EUROPE stakeholder forum!

This is a place where you as a key stakeholder can provide your input and offer feedback on matters related to the upcoming ‘safety protocol’ for bio-plastics.

The protocol is being developed as part of the BIO-PLASTICS EUROPE project, and will eventually act as a signposting document to help companies start working with bio-based and biodegradable plastics. **Scroll down** to see more information regarding our approach to creating a ‘safety protocol’.

To get started, please navigate to the **Forum** page using the tab in the menu above. All your insights will help shape the protocol, making it as useful as possible in practice and ultimately user-friendly. We thank you in advance for your input.

The information collected through the forum will be used to inform internal reports (within the Bio-Plastics Europe consortium) and in the development of the final (public) ‘safety protocol’. The information may also be used to inform academic publications as well as website/social media posts. In all cases, any information connected via the forum, and subsequently published, will be anonymised.



BIO-PLASTICS EUROPE

[Link test](#)
[readability](#)

DEEP KNOWLEDGE OF THE INDUSTRY

- From system to corporate perspective:
- current **challenges and opportunities**
 - existing **best practices** in the value chain
 - existing **cooperation models**



WP7

Compounders

The current production of bio-based plastics is mainly based on 1st generation but high investments are registered towards

- The production of bio-based plastics, 2nd generation
- The experimentation of materials for added-value applications (medical)



Converters

The use of bio-based and biodegradable and compostable plastics is:

- well-established in the EU **agricultural market**
- In the start-up phase in the EU food **packaging sector**
- Not established in the EU **aquaculture sector** (main market is Chinese-based)
- Not well-explored in the EU **toys sector**



WP5,6 & 7 are working on EU Policies

D5.4 Policy brief (M48) – public

D7.5 Summary for policy makers WHITE PAPER (M48) – conf.



Joint work on EU Policies
Collaboration
Stakeholder engagement



June 2020 – as speaker

“Past and Current H2020 projects joining forces”

March 2021 – ROUND TABLE

April 2021 – written agreement about collaboration

Future joint work on EU policies and standardisation



AIM

**TASK 7.5**

Supporting the European strategy for plastics in a circular economy perspective by collaborating with policy-makers on innovative regulatory toward the New Plastic Economy

Lead partner: UNIBO;

Contributing partners: all partners assigned to WP7

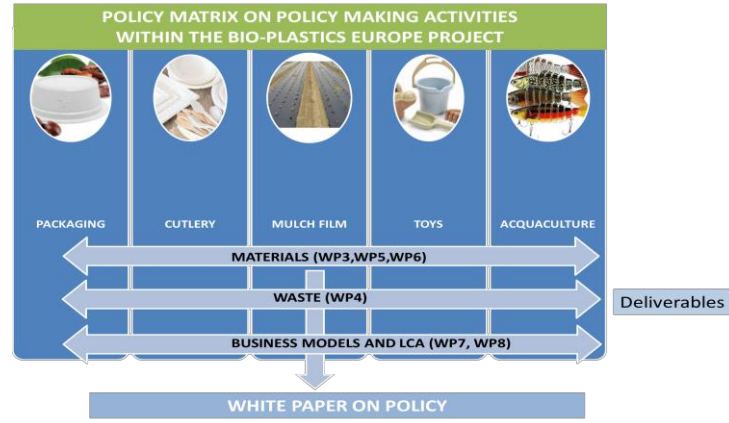


ACTIVITIES

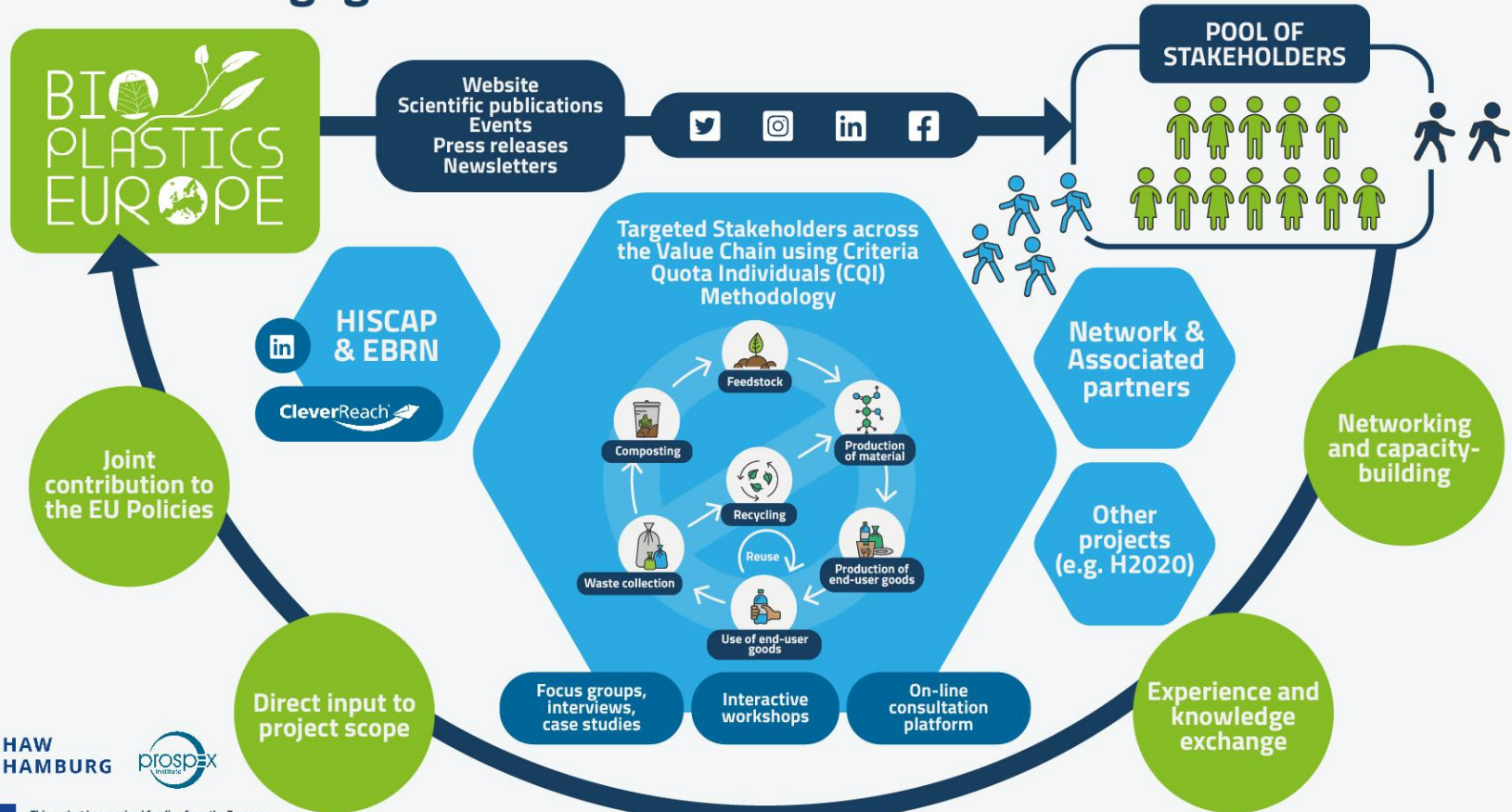


Setting up of a **control room** to harmonize the project work on policy making that is distributed among different tasks.

P.S. The policy making activities related to WP7 will start in M24.



Stakeholder Engagement BIO-PLASTICS EUROPE



STAKEHOLDER ENGAGEMENT

12 ONLINE
STAKEHOLDER
PROMOTION EVENTS

September 2020 –
January 2021

PROMOTE PROJECT
CLUSTER stakeholders
FUTURE INVOLMENT

PROTOCOL
defined 5 engagement
categories

Over 780 participants

- 30% companies
- 70% Research institution and public services

NETWORKS

3 events held
4th EBRN event
29th June

3 events held
4th HISCAP event
12th October



BIO PLASTICS EUROPE

SUSTAINABLE SOLUTIONS FOR
BIO-BASED PLASTICS ON LAND AND SEA

**EUROPEAN BIOPLASTICS
RESEARCH NETWORK**

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 868007

LinkedIn: over 450 members
Preparing events
Foster communication
Share experience

LinkedIn HISCAP
Official 55 members
Connect cities
Preparing events
Exchange experience
Offer solutions



SUSTAINABLE SOLUTIONS FOR
BIO-BASED PLASTICS ON LAND AND SEA

**HISTORIC CITIES AGAINST
PLASTIC WASTE**

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BIO-PLASTICS EUROPE**THANK YOU FOR YOUR ATTENTION!****HAMBURG UNIVERSITY OF APPLIED SCIENCES**

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**HAW Hamburg****Horizon 2020**



Strategies of circular **E**conomy and **A**dvanced bio-based solutions
to keep our **L**ands and seas **a**l**I**VE from plastics contamination

Scoping EU policies and their interaction with bio-based plastics

BPE and SEALIVE webinar 29 June 2021

Dr Andrew Farmer

Institute for European Environmental Policy



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Introduction



- Focus here is on plastics that are bio-based and biodegradable
- Terminology is important:
 - “bio”, biodegradable, compostable – where, what conditions, etc.?
 - Managed end-of-life of materials: reuse, recycle, industrial composting, home composting
 - Unmanaged end of life: degradation in soil, marine, etc.
- Presentation is focused on EU policies (but non-EU is important)
- It describes how we are asking policy questions relevant to bio-based and biodegradable plastics
- It does NOT make recommendations for policy change – but does set out some issues that need to be taken into account



Policy work in SEALIVE



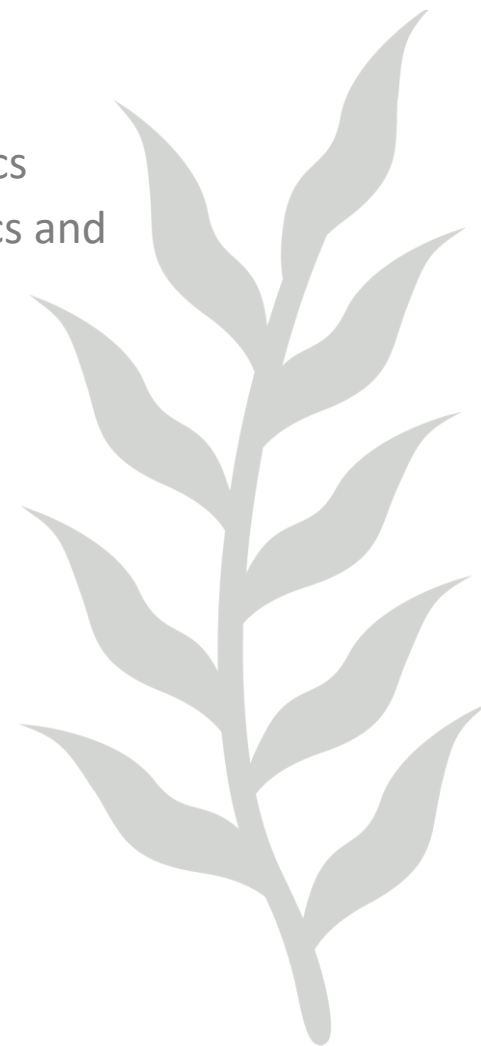
- Analysis of policies relevant to bio-based and biodegradable plastics – will lead to recommendations in 2024
- Specific consideration to the individual materials and products explored within SEALIVE
- Team – IEEP, ISOTECH and AKTI
- Will involve discussion with stakeholders – so let us know if you are interested!
- Covering wide range of EU policies
 - Waste and Circular Economy, including plastics strategy
 - Potentially affecting production of bio-based plastics/plastics
 - Affecting the design and quality of products
 - Relating to potential impacts of plastics/bio-based plastics in the environment, e.g. marine, water, air
 - Potentially affecting the use of products, e.g. fisheries, agriculture
 - Potentially affecting wider policies, e.g. trade, competition



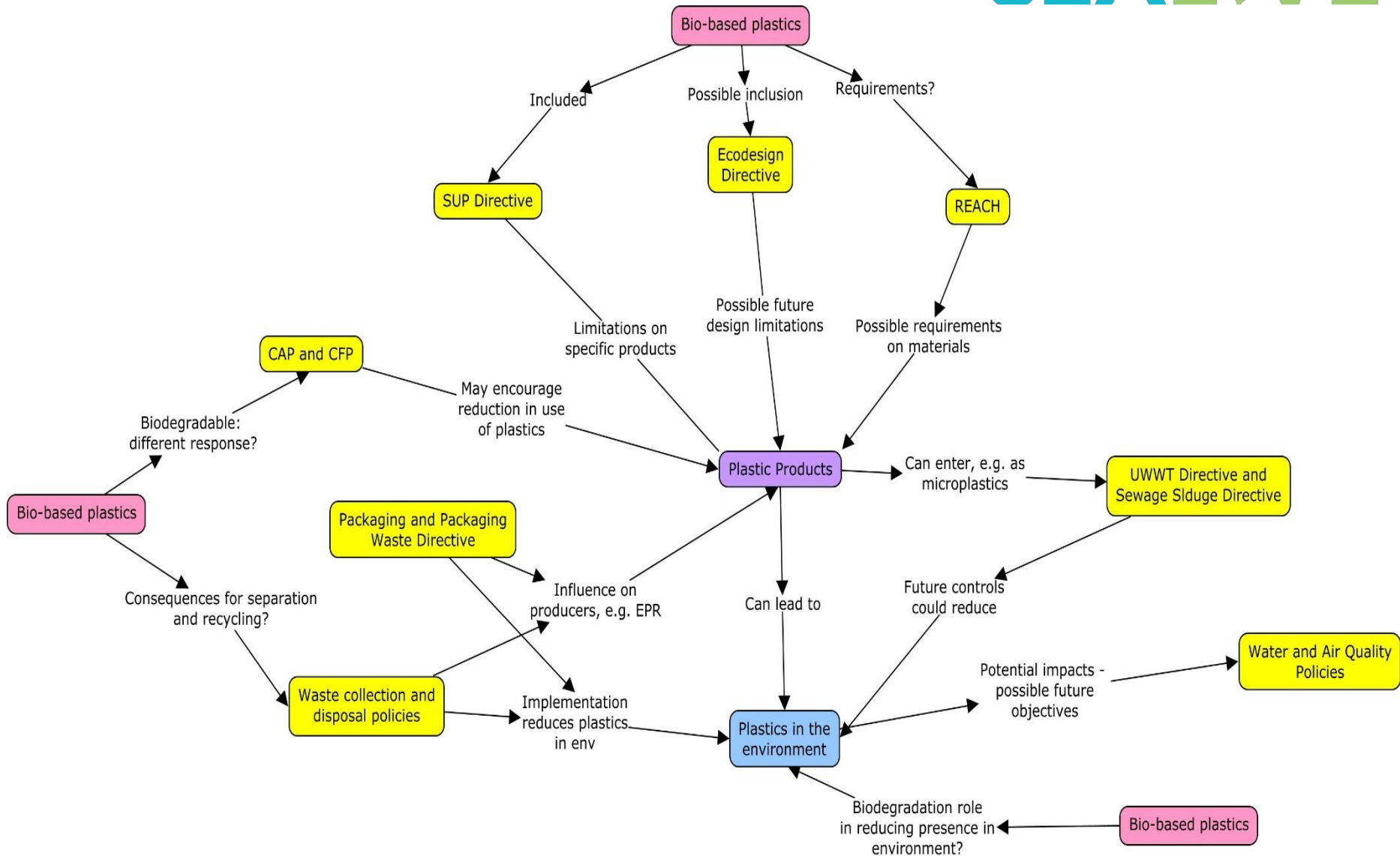
Policy scoping



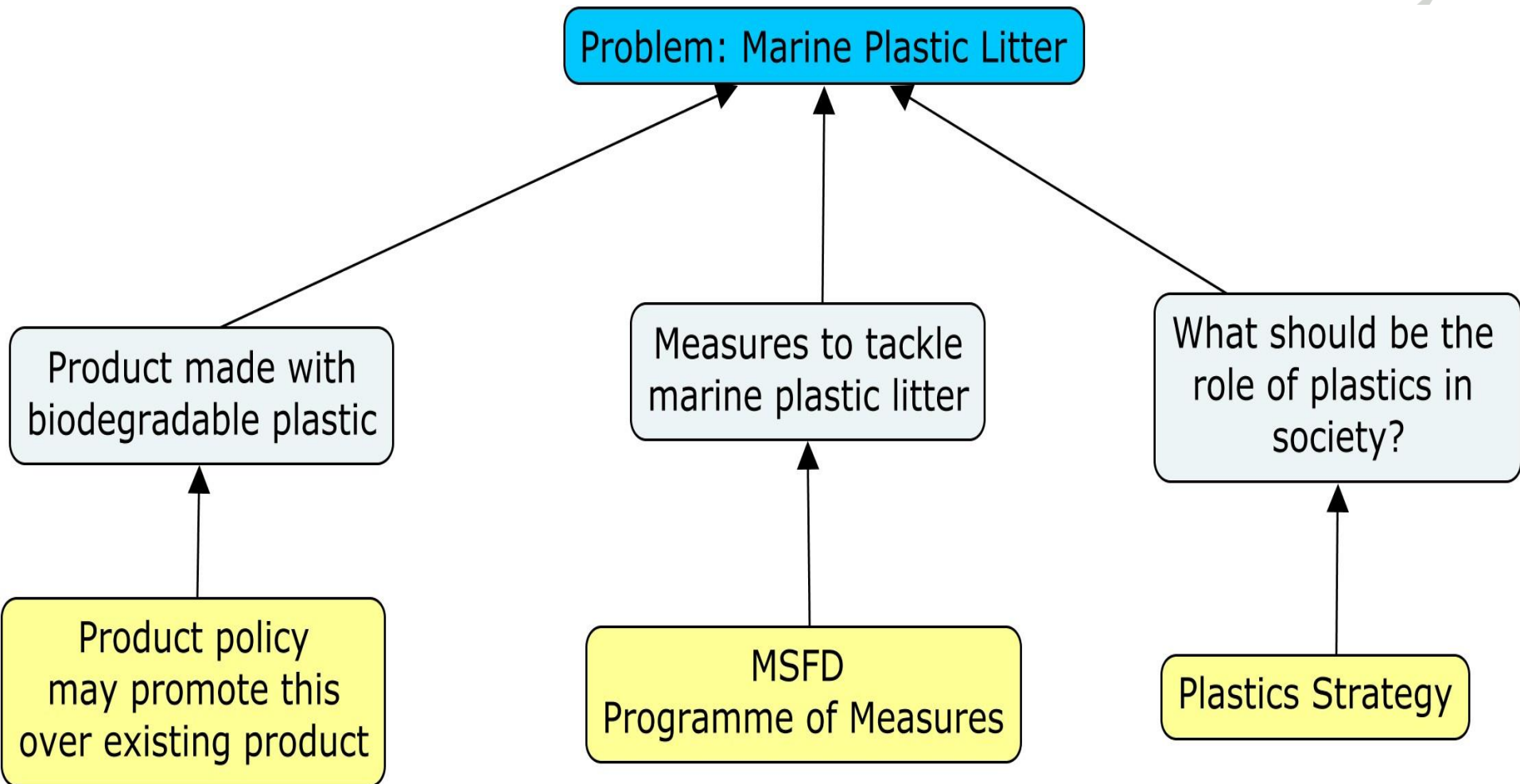
- Starting with individual policies:
 - What they say currently about bio-based plastics and plastics
 - Given broader objectives, what they might say about plastics and bio-based plastics
- But policies do not act in isolation:
 - Need to think about how different waste policies interact
 - Then how they interact with product and circular economy policies
 - Then wider ambient environmental objectives, etc.
- This builds up a maps of different potential interactions



Examples of different policy interactions



Policy dialogue not at the same scale



Importance of robust standards



- Policies concerning use of bio-based plastics in products, etc., assume some environmental outcome
- But there are many different materials – different polymers, combinations and additives
- We need to know clearly how each final material will behave:
 - In specific environments – open soil, marine, compost (industrial, home), etc.
 - In different structures (block, film, etc.)
- European standards are important to ensure clarity for policy makers, manufacturers, consumers, waste sector, etc.
- SEALIVE has specific research in this area – testing materials



Accounting for policy failure



- It is essential to consider policy failure
- One can design the “perfect” product, consumer label, waste collection system, etc. But if it is not implemented, what is the consequence?
- Waste management in EU has a long history of implementation problems:
 - Failure by Member States to deliver
 - Failure by individuals to play their part
 - Intervention by organised crime (moving from waste to “secondary materials”)
- Two different questions:
 - What is the role of biodegradable plastics to help solve plastic pollution?
 - What is the role of biodegradable plastics in reducing the problem of plastic leakage to the environment in spite of other policies?



Waste Hierarchy

- Cornerstone of EU policy since 2008
- Every effort (on product design, materials, management) should aim to implement it
- Litter is not bottom of the hierarchy – it is a failure
- There are messages that biodegradable plastics are not a solution to littering – the waste hierarchy is. But littering is unmanaged waste.
- Maybe ask about reducing the impacts of littering alongside solving the problem
- Reduce impact of material? Switch from plastic, less impactful plastics?



When partial implementation matters



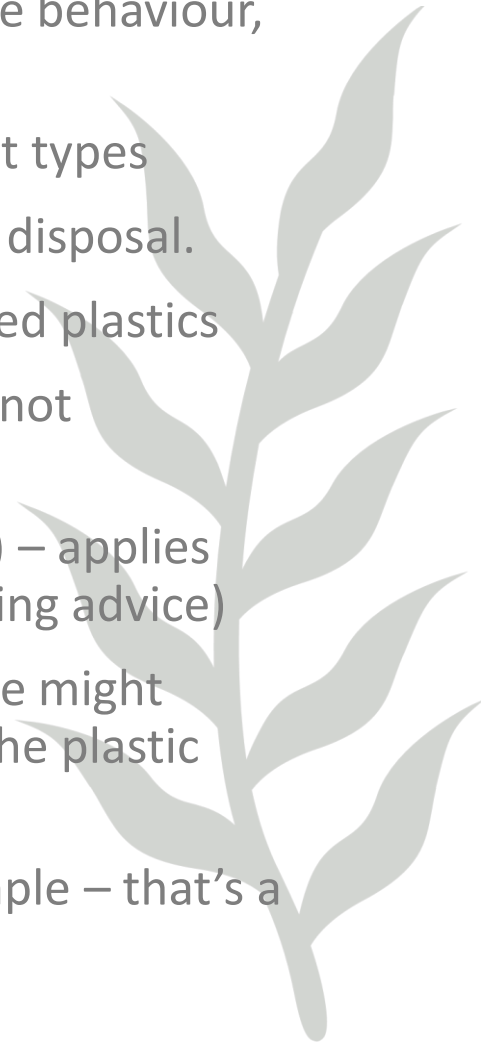
- Partial implementation always matters in that it does not deliver goals
- But it might pose additional problems with regard to new plastics
- Example 1: To reduce marine plastic litter Member States could be required to periodically clean beaches
 - If poorly implemented, this is bad, but some implementation is better than none.
- Example 2: A compostable, non-recyclable plastic is used in a product with clear consumer end-of-life instructions.
 - If consumers don't implement this, is this worse than not having the policy? (hence importance of research on waste separation, etc.)



Reliance on consumer behaviour



- Information to consumers can be a powerful tool to change behaviour, make choices for environmentally better products, etc.
- Several EU instruments use this – with labelling of different types
- Products/packaging also inform consumers of appropriate disposal.
- Discussion on similar information regarding use of bio-based plastics
- How complex can information be? – plastic items that are not recyclable, are recyclable, are compostable, etc.
- Already issues for recyclability (depends on local situation) – applies also to compostability (local advice may contradict packaging advice)
- Some suggestion that labelling something as biodegradable might increase littering – but how much is that compared to all the plastic currently littered?
- Social science suggests a need to keep communication simple – that's a challenge!



Considerations beyond the EU



- Policy recommendations have implications beyond the EU
 - E.g. ongoing commitment of BASEL Convention to explore measures to address plastic waste/litter, etc.
- Products, packaging, marine litter, etc., all move in/out of EU
 - E.g. China 2020 plastics policies promoting bio-based and biodegradable plastics in some packaging and other uses – what does this mean for trade, production, etc.?
- The best solution(s) for marine plastic litter in the EU may or may not be the same elsewhere – different markets, consumer behaviour, waste infrastructure, etc.
- Options that are marginally useful in the EU may offer wider benefits elsewhere
- Options that seem positive for the EU might not work so well elsewhere
- SEALIVE is examining this



Conclusions

- Policy considerations for bio-based plastics in the EU are complex
- Difference between whether they solve a problem or reduce a problem
- Ideally policy needs to take account of wider marine litter, plastic, circular economy, etc., policies (still developing)
- Chicken and egg where policies interact
- No regrets policies preferred
- Need to improve policy implementation
- Need to consider the potential complexity of consumer messaging and its consequences
- But do need business certainty



SEALIVE



Strategies of circular **E**conomy and **A**dvanced bio-based solutions
to keep our **L**ands and seas **a**l**I**VE from plastics contamination

Thank you

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Strategies of circular **E**conomy and **A**dvanced bio-based solutions
to keep our **L**ands and seas **a**l**I**VE from plastics contamination

Accelerating the circular economy through EU research projects – insights from SEALIVE projects

Miriam Gallur, SEALIVE Project Coordinator,
miriam.gallur@itene.com



Key Project Information

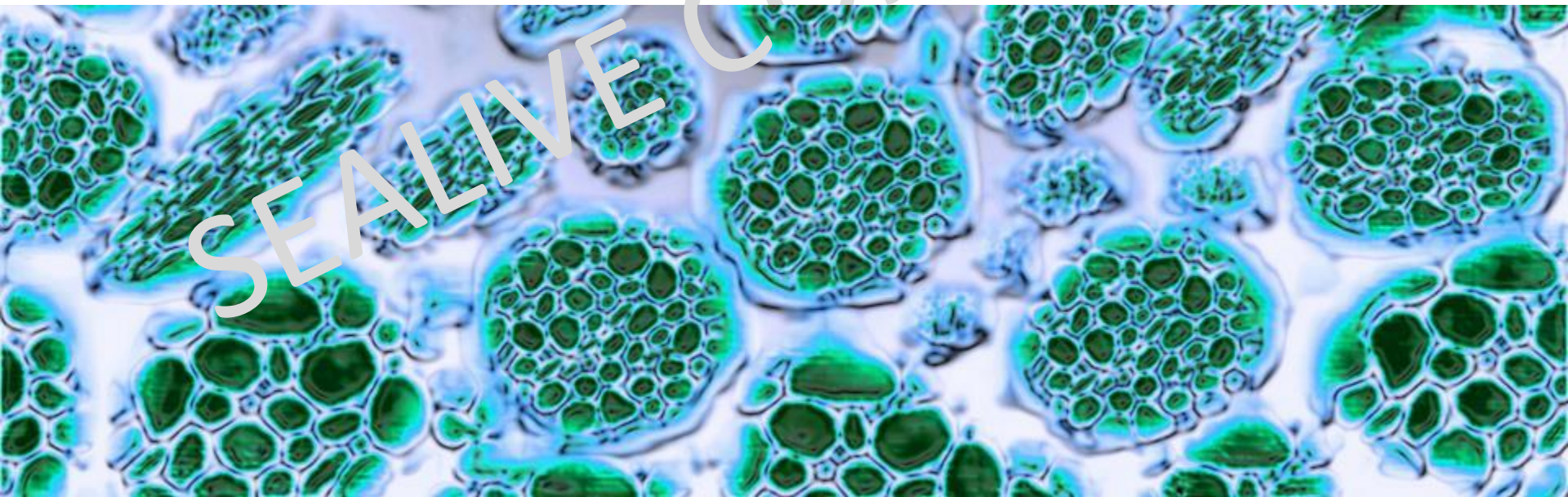


- **PROJECT TITLE:** Strategies of circular Economy and Advanced bio-based solutions to keep our Lands and seas alive from plastics contamination
- **PROJECT ACRONYM:** SEALIVE
- **GRANT AGREEMENT:** 862910
- **PROGRAMME:** European Union Horizon 2020
- **COORDINATOR:** Instituto Tecnológico del Embalaje, Transporte y Logística (ITENE), Spain
- **CONSORTIUM:** 24 partners + 5 linked third parties in 13 countries
- **TYPE OF ACTION:** Innovation Action (IA)
- **TOPIC:** Sustainable solutions for bio-based plastics on land and sea (CE-BG-06-2019)
- **TOTAL BUDGET:** €10.26 million
- **DURATION:** October 2019 - September 2023 (48 Months)



Overall Objective

To develop *innovative and sustainable business models* to put in the market *advanced bioplastics solutions by combining new biopolymers sources* with *cutting-edge processing technologies and* contributing to the **circular economy** with cohesive strategies involving **design for circularity techniques**.



Project partners



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SEALIVE objectives



BUSINESS MODELS AND CIRCULAR ECONOMY STRATEGIES

Advanced bio-
based materials

SEALIVE

Innovative processing
technology

Innovative End
of Life solutions

DEMONSTRATION OF LAND AND SEA APPLICATIONS

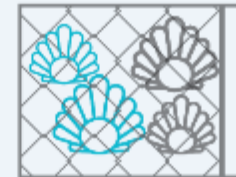
Recyclable
food packaging



Biodegradable
flexible food film



Biodegradable
deep-frozen film



Biodegradable
oyster
mesh-bag

Compostable
mulching film



Single
use
plastic
cutlery



Reusable
& recyclable
fishing net



Reusable &
recyclable
fish crate

POLICY MAKING AND NEW STANDARDISATION PROPOSALS

icons © FlatIcon



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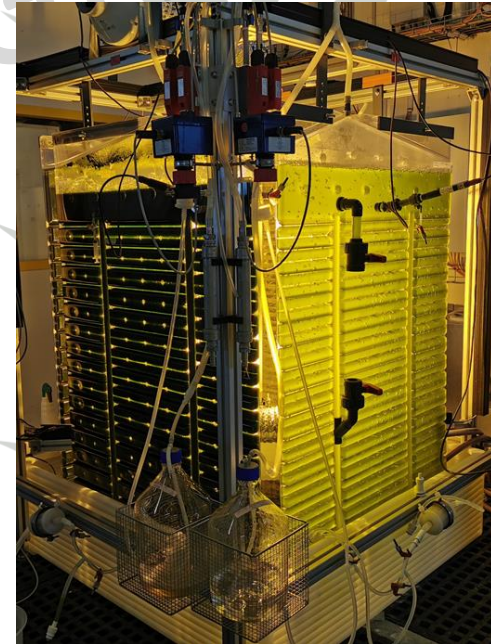
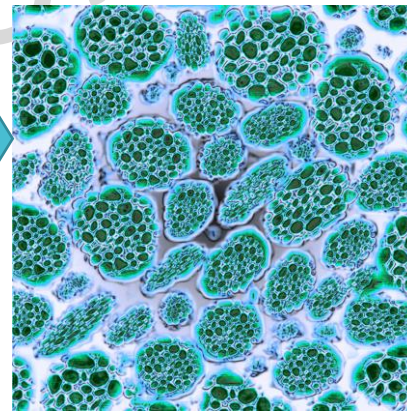
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Raw Materials Highlights

Sustainable biomass resulting from the conversion of photosynthetic aquatic biomass (micro-algae), organic waste (agricultural by-products and waste water) to produce PHAs, starch and additives.



photosynthetic aquatic biomass & organic waste

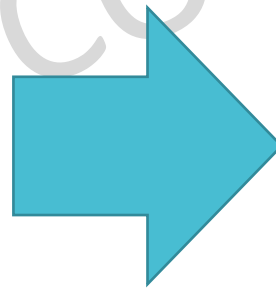


New raw biopolymers ready to upscale



Adapting Processing Technologies

- Innovative materials formulation and designed additives to improve mechanical, barrier, thermal, requirements compared to current bioplastics solutions.
- High performing processing technologies to reach market demands.



Latest technologies to produced improved bioplastics ready to use in the market



Recycling by Design Thinking

Effective management of the EoL:

- by developing high end-sorting technologies to avoid cross-contamination of bioplastics: NIR detectors, natural polymer markers.
- Adapting current pre-normative standards and assuring safety and security of environment



*Fluorescence markers
from natural pigments*



*Soil and Marine biodegradation
new standards*



Policies & Standardization: A “must”



1. Implement pre-normative studies to foster **standardisation of biodegradable solutions**
2. Promote the use of the new solutions by the **plastics industry, public authorities and citizens**
3. Support the development of **European and global bioplastics frameworks** for policy makers:
 - **Informed policymaking** and contributions to support the European Plastic Strategy and biodegradability standards
 - **Enhanced cooperation** between bio-based plastic stakeholders, increased market transparency and shared knowledge for a stronger blue bioeconomy



SEALIVE Validation in real environments



D1. Demonstration in Spain (URBASER)



1. NIR detection system to test separation of polymers
2. Demonstration and validation of the biodegradability standards of rigid and flexible packaging in composting

D2. Demonstration in Belgium (OWS)



1. Real-life composting process of mulching films produced by POL according to 16929

D3. Demonstration on the Mediterranean Sea (ISOTECH)



1. Fishing nets evaluation in the waters of Cyprus to ensure that their biodegradable nature does not negatively affect their functionality and durability.

D4. Demonstration in Patagonian Sea (IBERCONSA)



1. Fishing nets developed by CIT will be validated in the Patagonian sea. The validation will be carried out in a smaller wetfish shrimp trawler

D5. Demonstration in Atlantic Ocean (SEABIRD)



1. Oyster mesh bags to test the functionality of the bio-based oyster mesh bag and also its biodegradability properties

D6. Demonstration on the Celtic Sea region (INTRIGO)



1. Fishing crates developed by SP-Berner will be distributed by the manufacturer to a selection of local users and trialed in Irish ports to test the functionality of their biodegradable design.



Communication and Dissemination



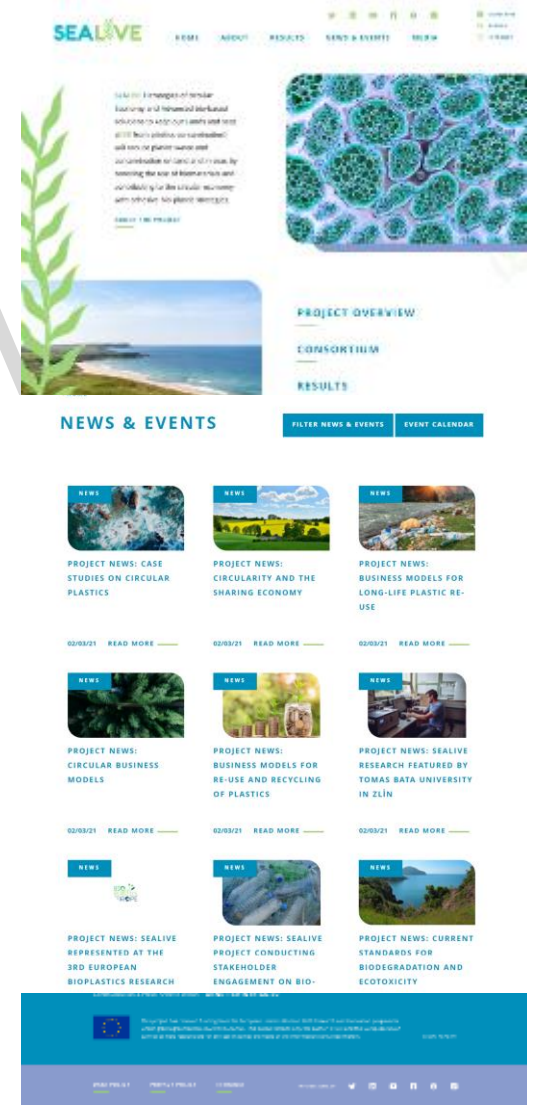
SEALIVE News

Developing biobased, circular economy alternatives to tackle plastic pollution on land and seas.

SUBSCRIBE

Visit [SEALIVE.EU](https://sealive.eu) to read project news!

 **VISIT SEALIVE.EU**



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Communication and Dissemination **SEALIVE**



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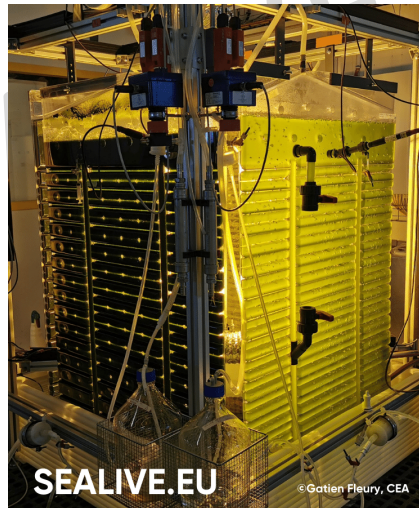


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SEALIVE

Project News:

Engineering new bio-polymer pl

SEALIVE partners have been k
developing formulas for new
advanced bio-plastics using dif
microalgae strains.

Find out more at SEALIVE.EU



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SEALIVE

Every year, approximately 12 million tonnes of plastic waste ends up in our oceans. Our vision is to reduce plastic waste by boosting the use of biomaterials

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SEALIVE

SEALIVE partners are working to develop bio-based, biodegradable fishing nets.

Follow SEALIVE for more project news!



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Upcoming Events



- **Policy focused roundtable,**
Autumn 2021
(tbc)

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SEALIVE



Strategies of circular **E**conomy and **A**dvanced bio-based solutions
to keep our **L**ands and seas **a**lIVE from plastics contamination

Thank you

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**Facilitating stakeholder
contribution to EU policies
through engagement in bio-based
plastics research projects**

Jill Adams, Prospex Institute

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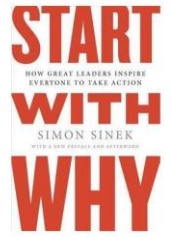
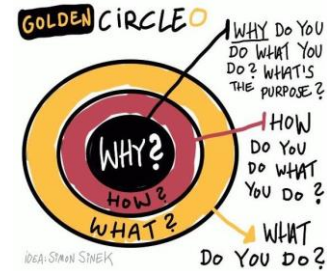


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Starting with the Why

- Responsibility and legitimacy of EU funded research projects
- “ ...We, as a scientific community, recognize the benefits of, and urgent need for, outreach, advocacy and public engagement activities to stimulate a public dialogue about the impacts and solutions of future plastics, and to examine material selection choices using a life cycle approach ..” *White Paper, Science to Enable Sustainable Plastics (2020)*
- The essential role that policy & regulation will need to play to close the gap in the market’s willingness to pay the cost of bio based and biodegradable plastics



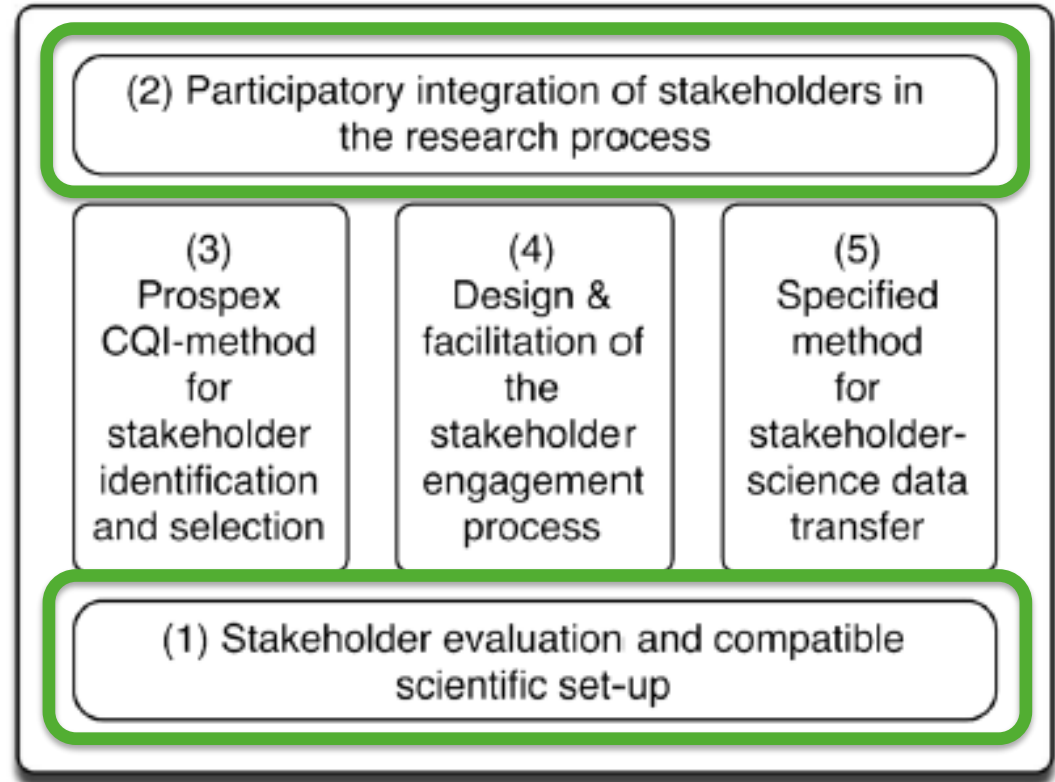
The Challenges

1. Integrating stakeholder engagement with the research
2. Representation & legitimacy of the stakeholders
3. Stakeholder (and Zoom) fatigue

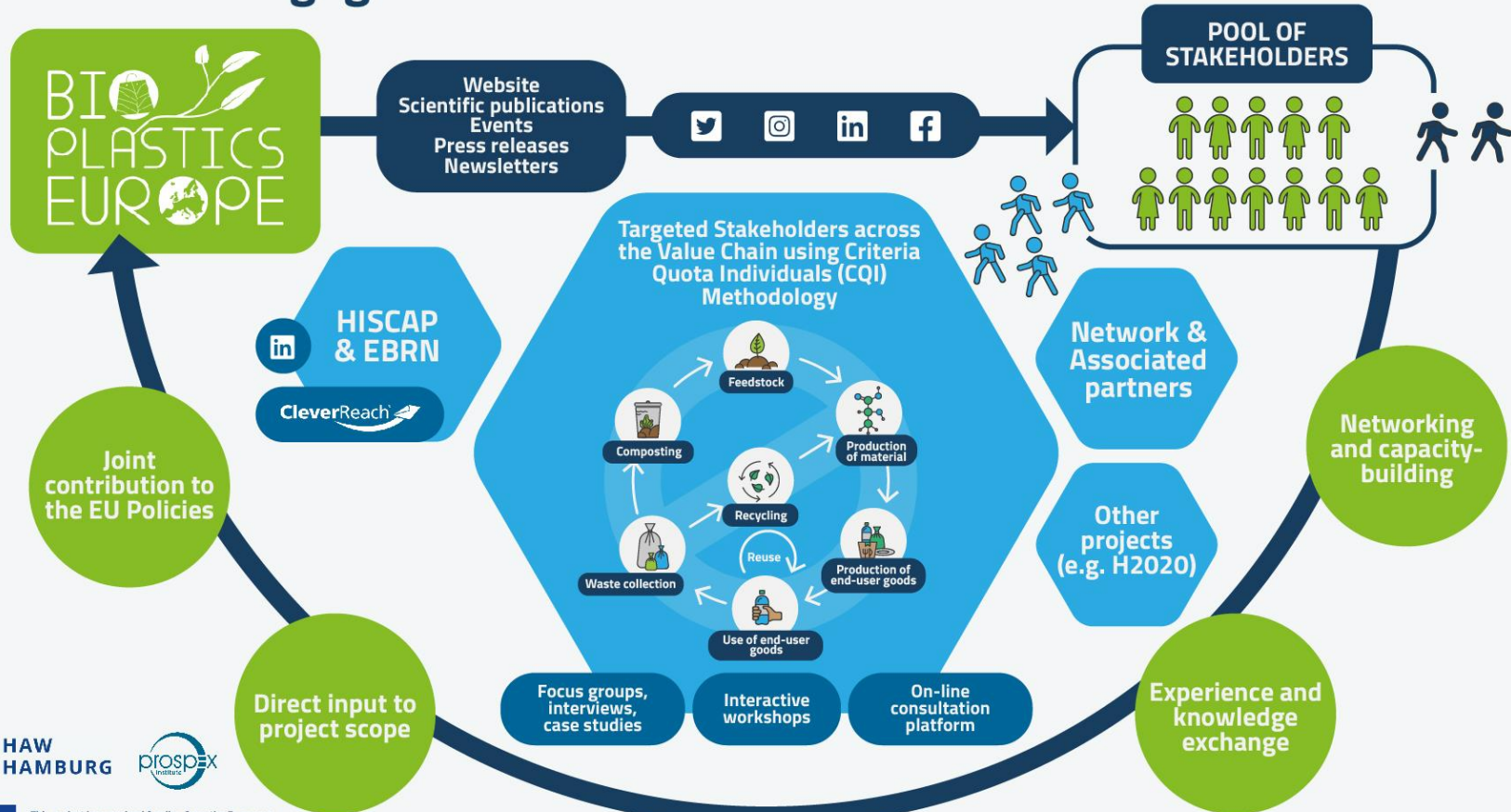


Stakeholder Integrated Research (STIR)

Gramberger et al. 2014

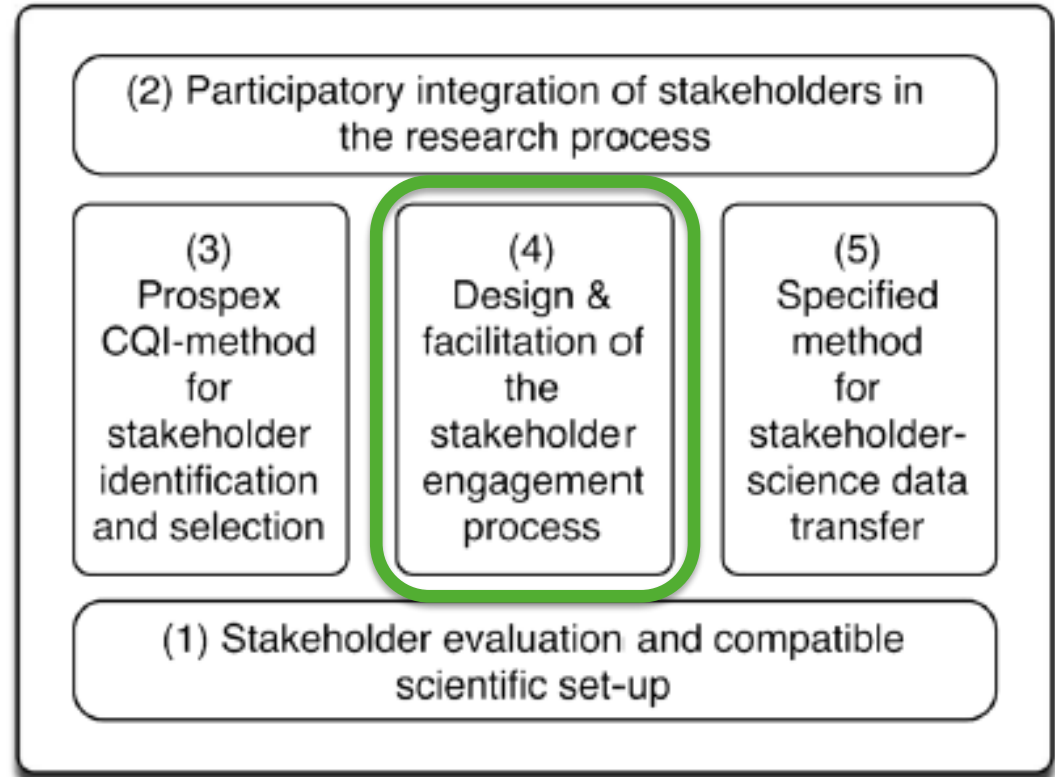


Stakeholder Engagement BIO-PLASTICS EUROPE



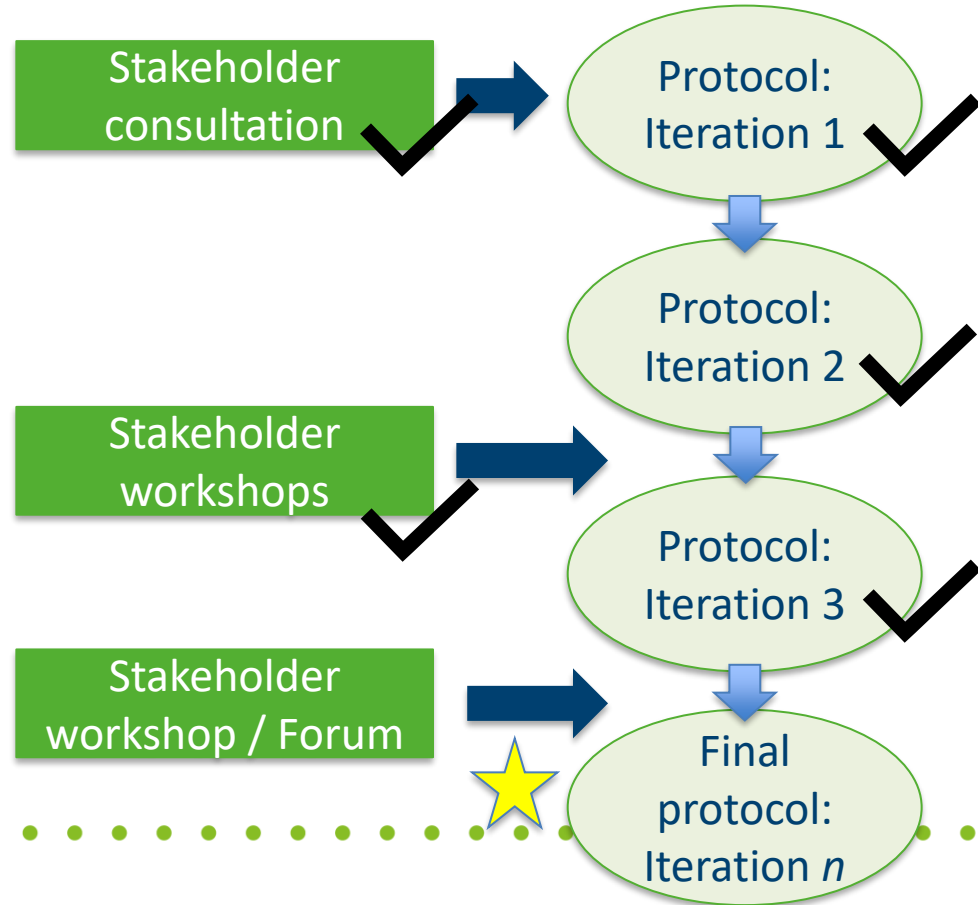
Stakeholder Integrated Research (STIR)

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WP6: Safety Protocol

- Initial mapping of key safety documents – basis on the safety protocol
- Mapping of external experts / stakeholders: CQI methodology
- Design & moderation of stakeholder workshops and other engagement platforms to collect requirements, concerns, comments and critique.
- Map and react to stakeholder issues, challenges and opportunities to inform the development of the protocol.



Work in Progress on the Safety Protocol

	Chemical	Physical	Mechanical	Electrical	Flammable	Hygiene
Non-product Group specific	Reg (EC) 1907/2006 (REACH) (Annex XI) Reg (EC) 1907/2006 (REACH) (Annex VI)	Reg (EC) 1907/2006 (REACH) (Annex XI) Reg (EC) 1907/2006 (REACH) (Annex XI) Reg (EC) 1907/2006 (REACH) (Annex XI)			Reg (EC) 1907/2006 (REACH) (Annex II.2) Reg (EC) 1907/2006 (REACH) (Annex II.2)	
Product Group specific	EN 12518 (Chemical contact resistance) EN 12518 (Chemical contact resistance) EN 12518 (Chemical contact resistance) EN 12518 (Chemical contact resistance) EN 12518 (Chemical contact resistance)	EN 12518 (Chemical contact resistance) EN 12518 (Chemical contact resistance) EN 12518 (Chemical contact resistance)	EN 12518 (Chemical contact resistance) EN 12518 (Chemical contact resistance) EN 12518 (Chemical contact resistance) EN 12518 (Chemical contact resistance)		EN 12518 (Chemical contact resistance)	EN 12518 (Chemical contact resistance)
Non-product Group specific	EN 12518 (Chemical contact resistance) EN 12518 (Chemical contact resistance) EN 12518 (Chemical contact resistance) EN 12518 (Chemical contact resistance)	EN 12518 (Chemical contact resistance) EN 12518 (Chemical contact resistance) EN 12518 (Chemical contact resistance)	EN 12518 (Chemical contact resistance) EN 12518 (Chemical contact resistance) EN 12518 (Chemical contact resistance) EN 12518 (Chemical contact resistance)		EN 12518 (Chemical contact resistance)	EN 12518 (Chemical contact resistance)
Product Group specific	EN 12518 (Chemical contact resistance) EN 12518 (Chemical contact resistance) EN 12518 (Chemical contact resistance) EN 12518 (Chemical contact resistance)	EN 12518 (Chemical contact resistance) EN 12518 (Chemical contact resistance) EN 12518 (Chemical contact resistance)	EN 12518 (Chemical contact resistance) EN 12518 (Chemical contact resistance) EN 12518 (Chemical contact resistance) EN 12518 (Chemical contact resistance)		EN 12518 (Chemical contact resistance)	EN 12518 (Chemical contact resistance)

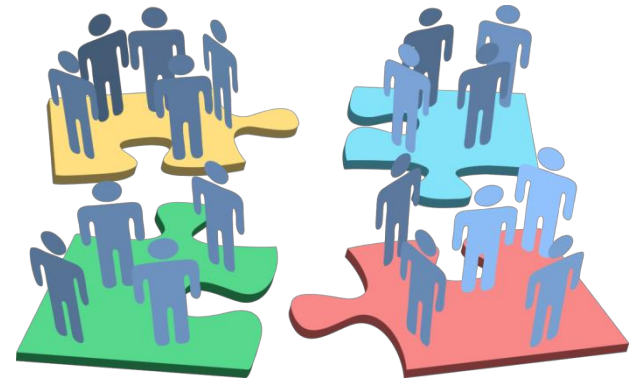
Key Info

- Regulation / Law
- Directive
- Standard
- Other
- Solid boundary line indicates European prevalence (e.g. published by the EC, EU member states or MS)
- Dashed boundary line indicates international prevalence (e.g. published by ISO)
- Dotted boundary line indicates non-European prevalence (e.g. published in the USA, Canada, China, India, etc.)
- (BB) Product type: Bio-based plastics
- (BC) Product type: Biodegradable plastics
- (1) Product group 1: Trays
- (2) Product group 2: Food packaging
- (3) Product group 3: Outdoor safety
- (4) Product group 4: Agricultural outdoor film
- (5) Product group 5: Aquaculture / Marine products



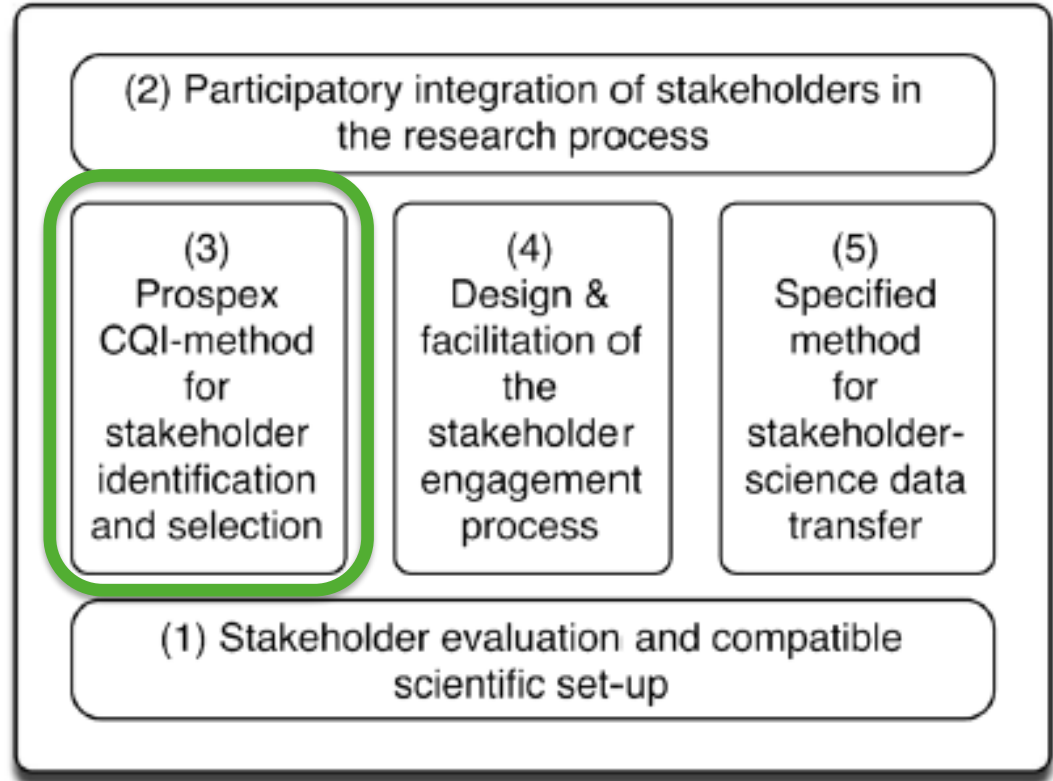
The Challenges

1. Integrating stakeholder engagement with the research
2. **Representation & legitimacy of the stakeholders**
3. Stakeholder (and Zoom) fatigue

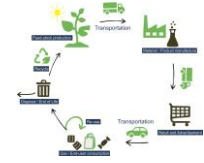


Stakeholder Integrated Research (STIR)

Gramberger et al. 2014



Prospex-CQI in WP6



Criteria: Defining a set of criteria and categories for stakeholder groups that are or could either be affecting the topic, be affected by it, or both;

Quota: Setting specific minimum quotas for all categories;

Individuals: Identifying individuals that fit the categories, with the overall selection fitting the quotas set.



200+ stakeholders mapped.

25 stakeholders registered for 1st workshops

17 stakeholders registered for 2nd workshop



The Challenges

1. Integrating stakeholder engagement with the research
2. Representation & legitimacy of the stakeholders
3. **Stakeholder (and Zoom) fatigue**



Stakeholder (and Zoom) Fatigue

- Design of integrated, participatory process which build commitment
- Engagement between events as well as during
- Planning of events within the project and between projects to reduce stakeholder burden
- Smart digital interactions: balance F2F with on-line, leverage on-line collaboration tools & platforms

Thank You!

- Prospex Institute is a non-for-profit, internationally active organization based in Belgium
- Our goal: ***Enable & promote the participation of citizens and stakeholders in societally relevant processes of decision-making, dialogue and development***
- Among our activities:
 - Being part of **international, national, regional and other initiatives and programmes**
 - Being part of **European research & innovation projects** in many domains
 - In projects often responsible for **stakeholder engagement (work package leadership)**, including citizen engagement and advanced processes for foresight, value chain engagement, etc.