

FINAL CONFERENCE

BIO-PLASTICS EUROPE



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



Session 4: Stakeholders Engagement and Impact



Moderator: Angela Hahn

Prospex Institute



"Stakeholders Engagement & Impact Unveiling the Significance"

Carolyn Brand
Prospex Institute
Hamburg, 23rd Jan 2024

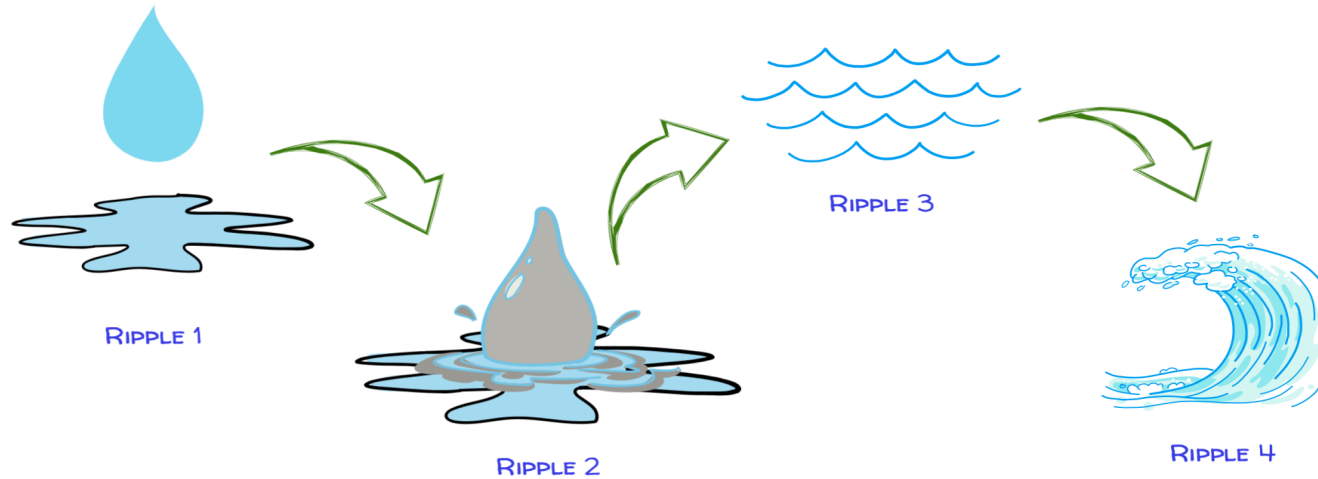
BIO-PLASTICS EUROPE



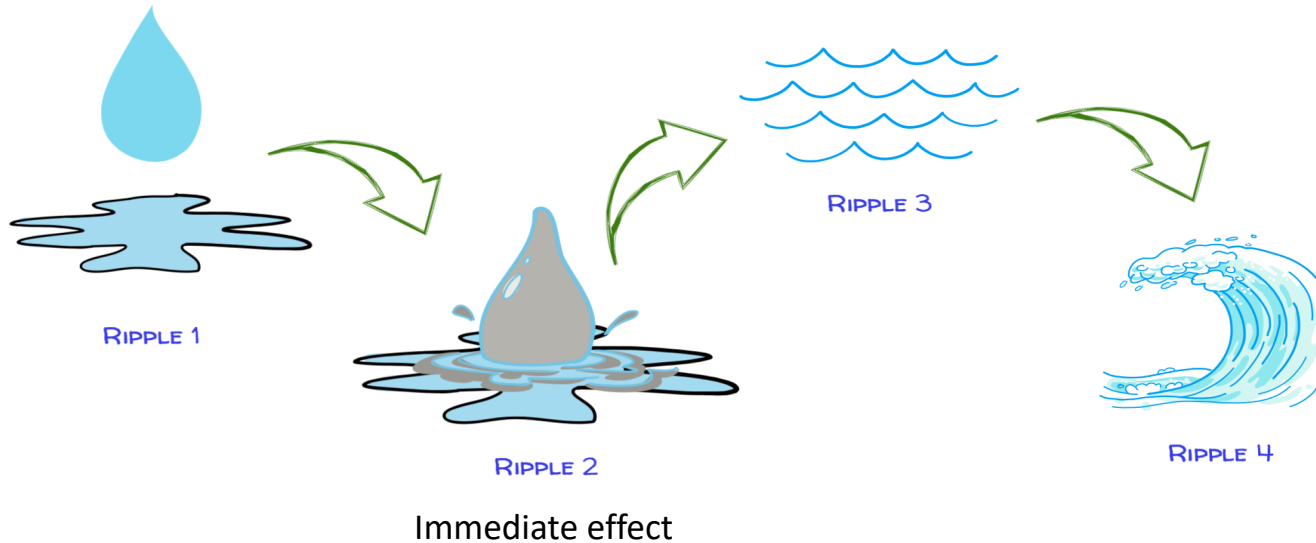
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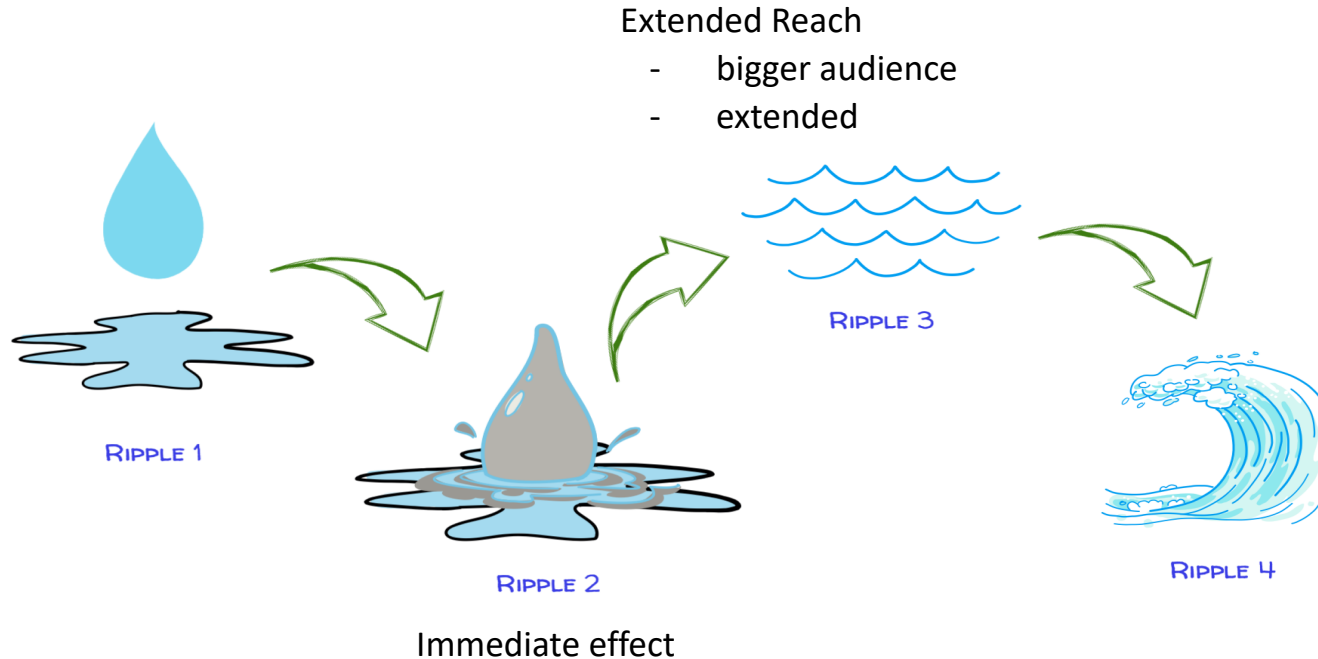
DEFINING IMPACT - Ripple Effect



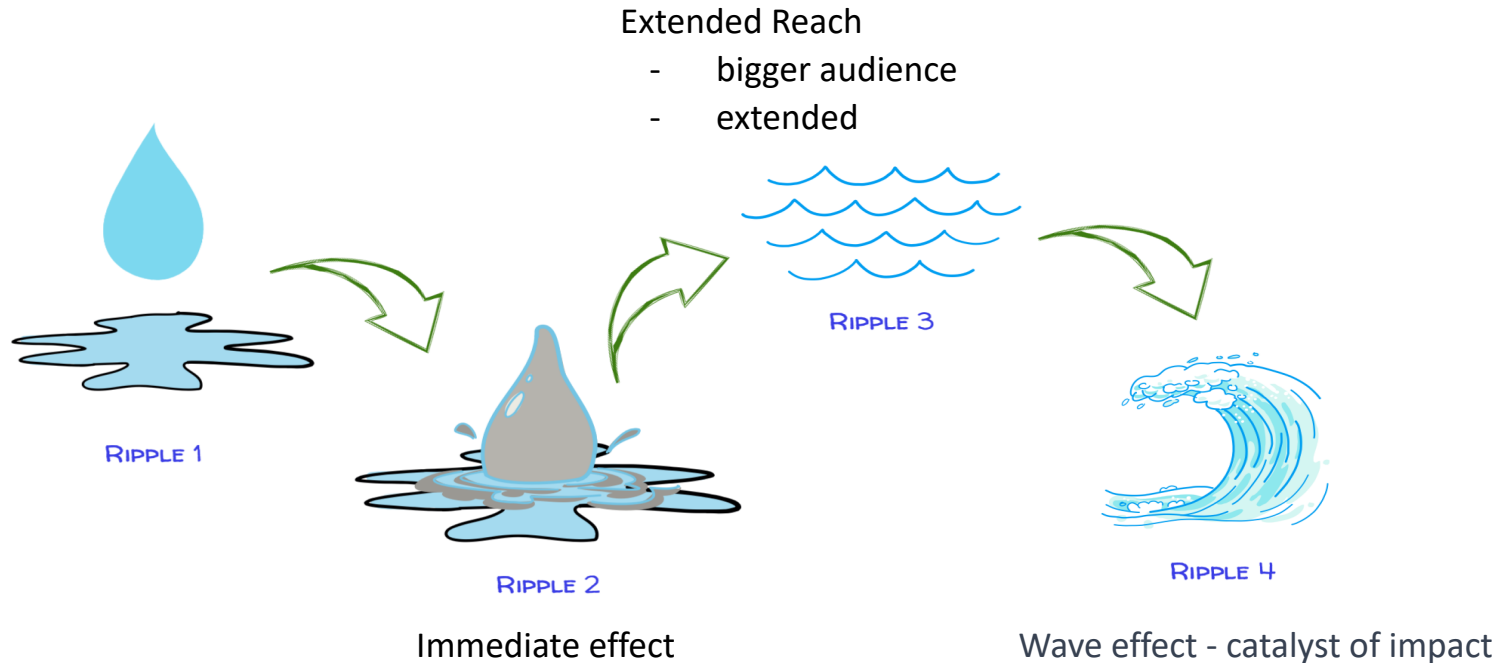
DEFINING IMPACT - Ripple Effect



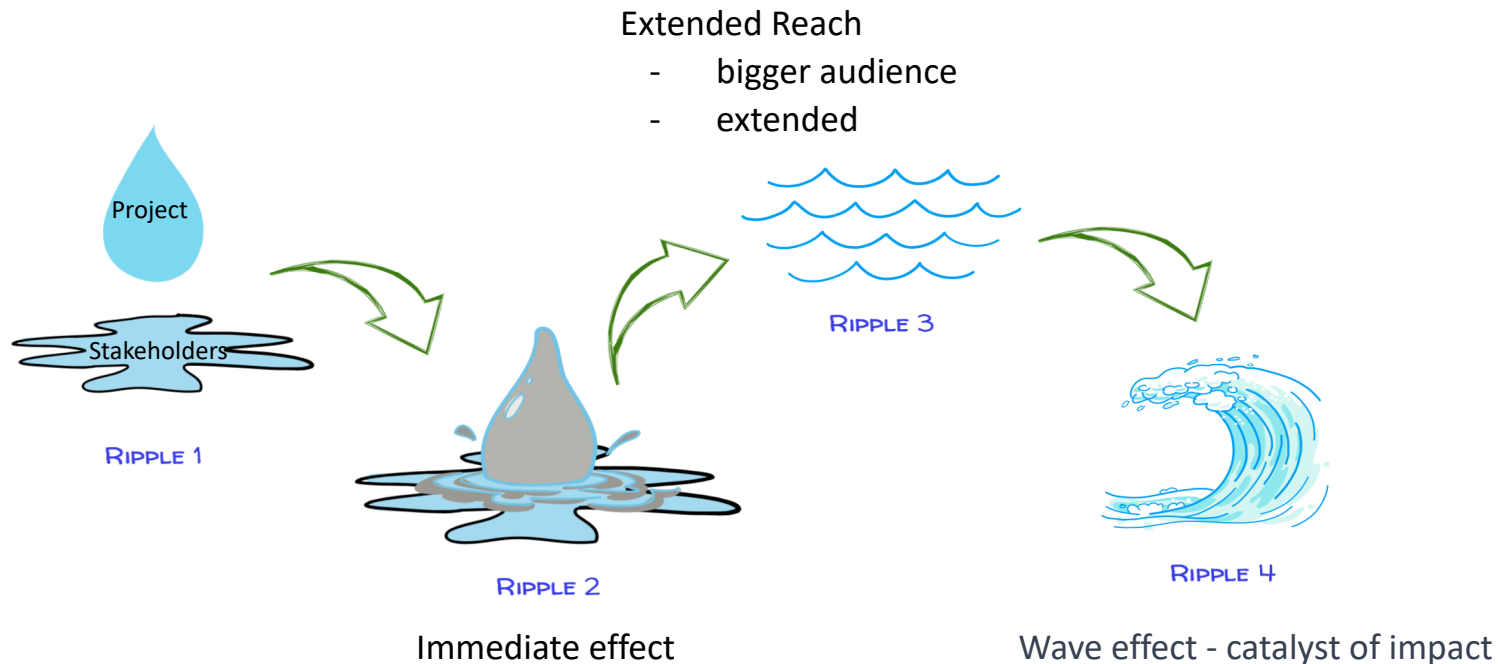
DEFINING IMPACT - Ripple Effect



DEFINING IMPACT - Ripple Effect

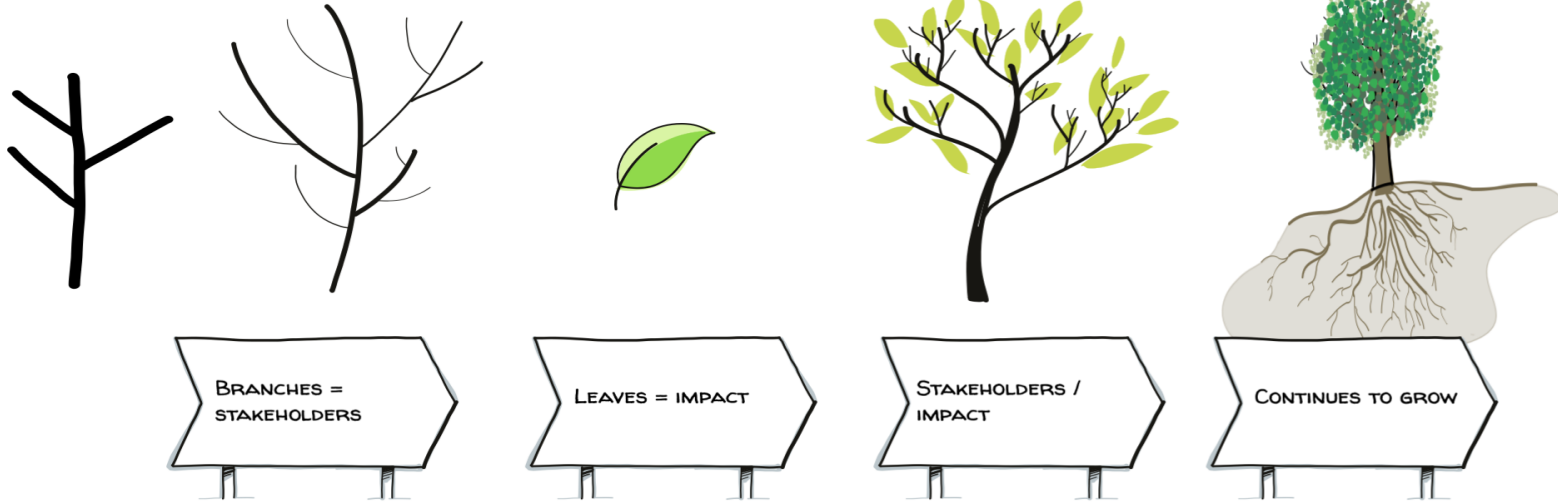


DEFINING IMPACT - Ripple Effect



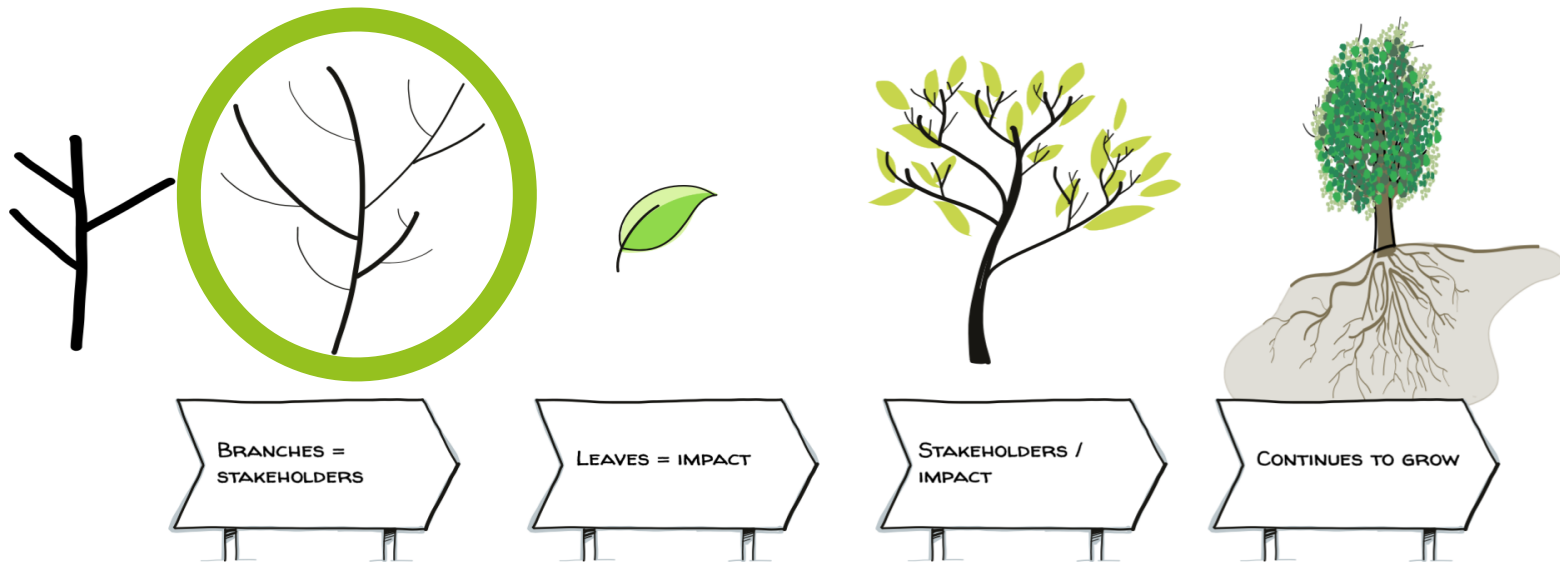
IMPORTANCE OF IMPACT

IMPACT TREE



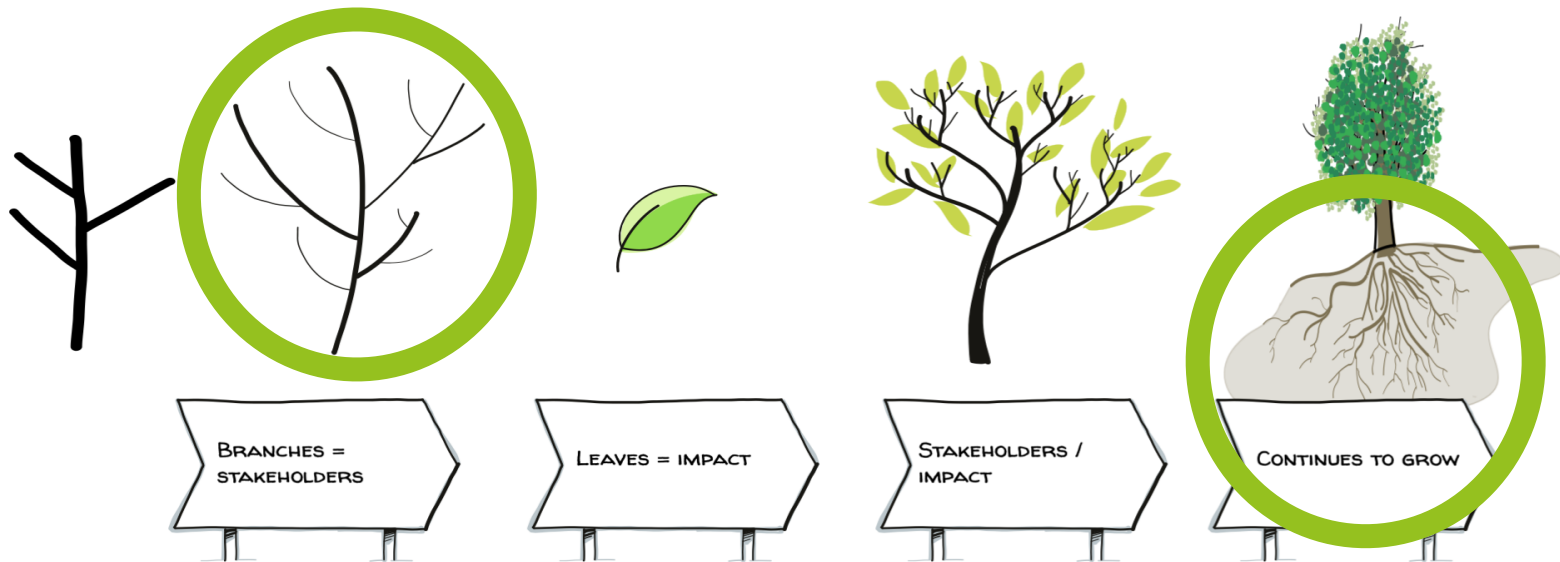
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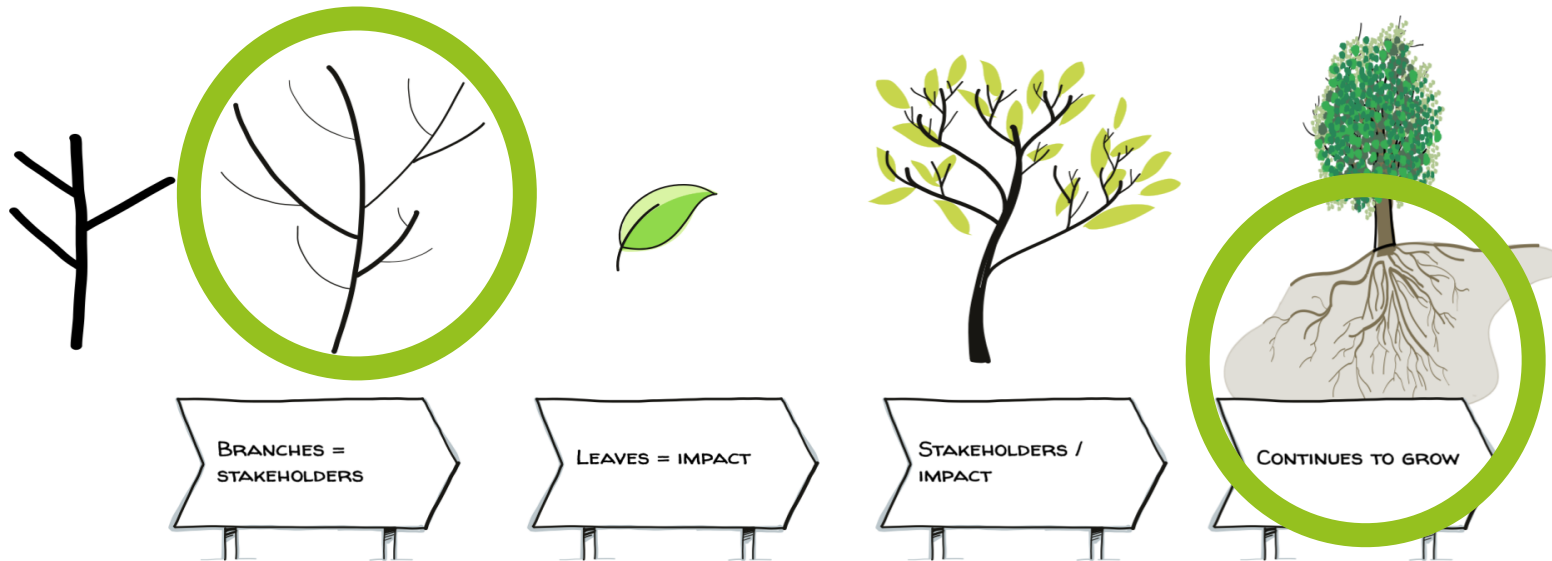
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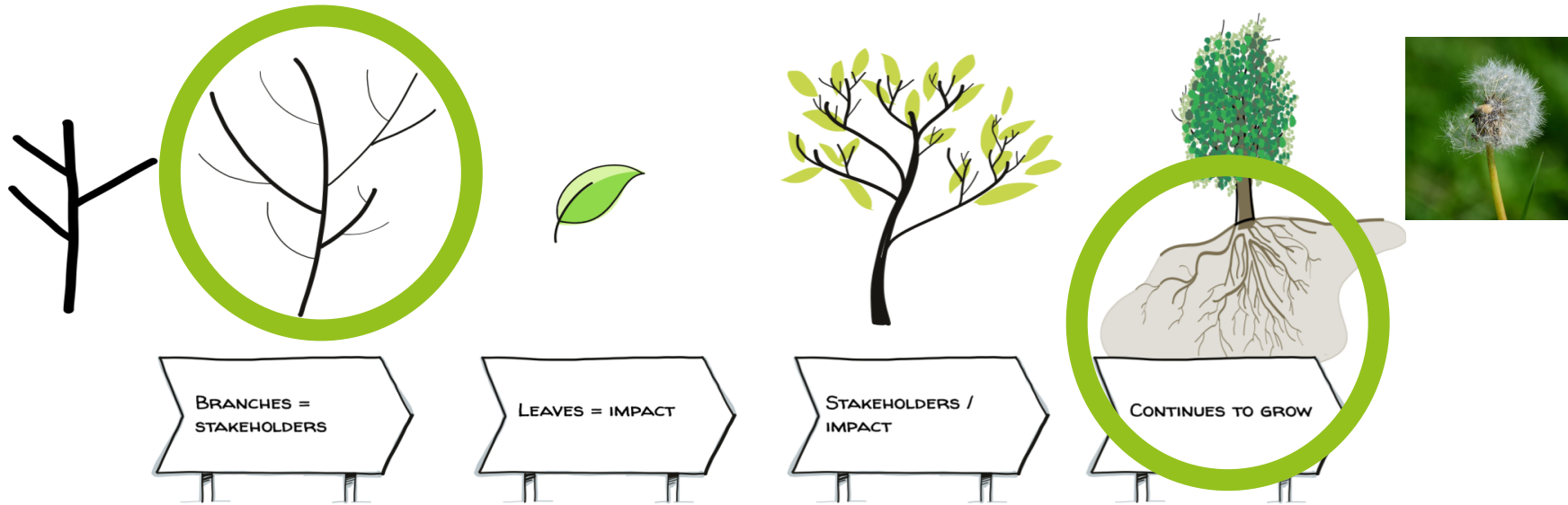
IMPORTANCE OF IMPACT

IMPACT TREE



IMPORTANCE OF IMPACT

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Stakeholder Engagement in BIO-PLASTICS EUROPE

Right

- Impact Strategy
- Strategic approach
- Stakeholders
- Timing & objectives

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- Impact Strategy
- Strategic approach
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How

- ➔ Criteria, Quotas & Individuals *
- ➔ Identify, Design & Implement

Stakeholder Engagement in BIO-PLASTICS EUROPE

Right

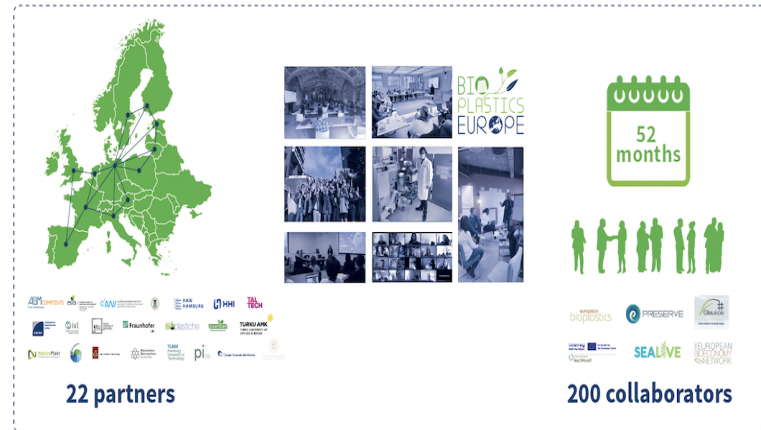
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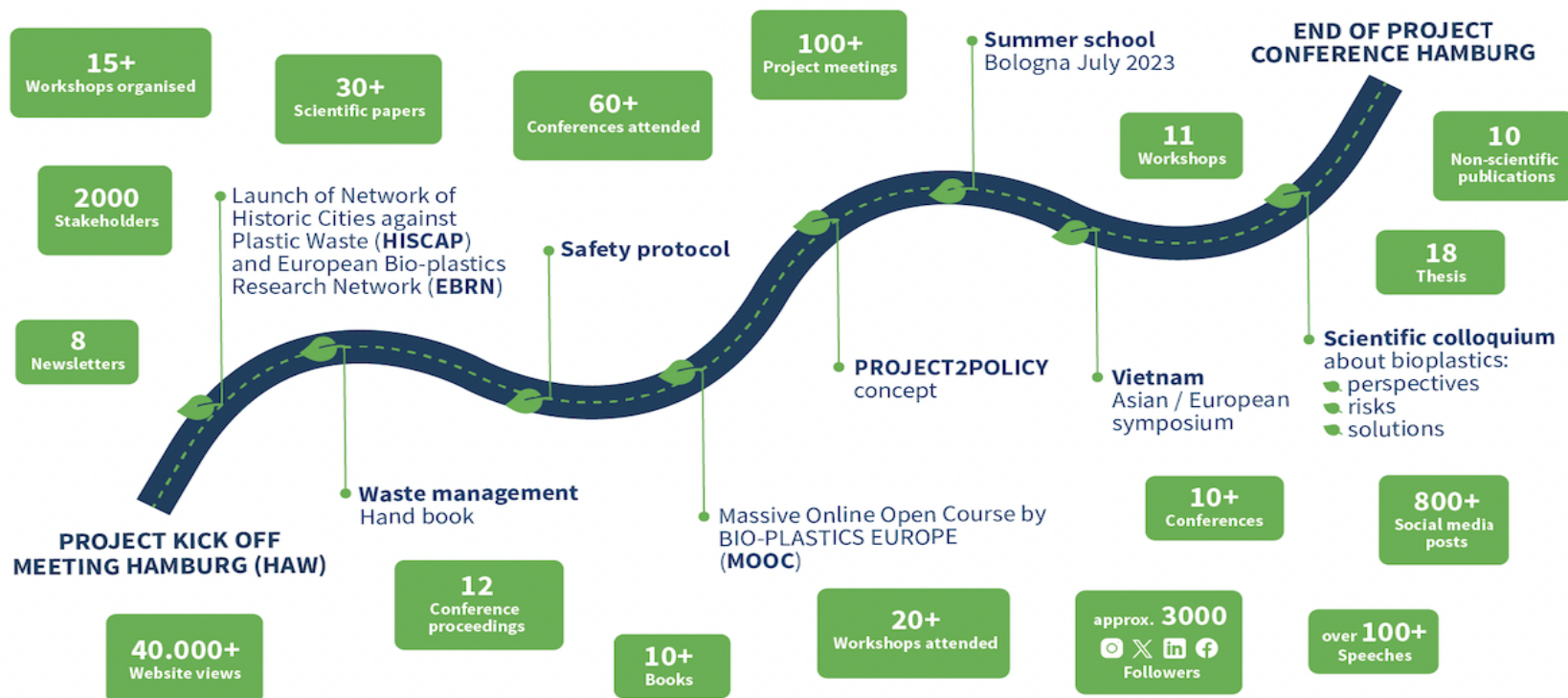
Fostering Collective Action: Empowering Stakeholders for Sustainable Solutions in the BIO-PLASTICS EUROPE Project



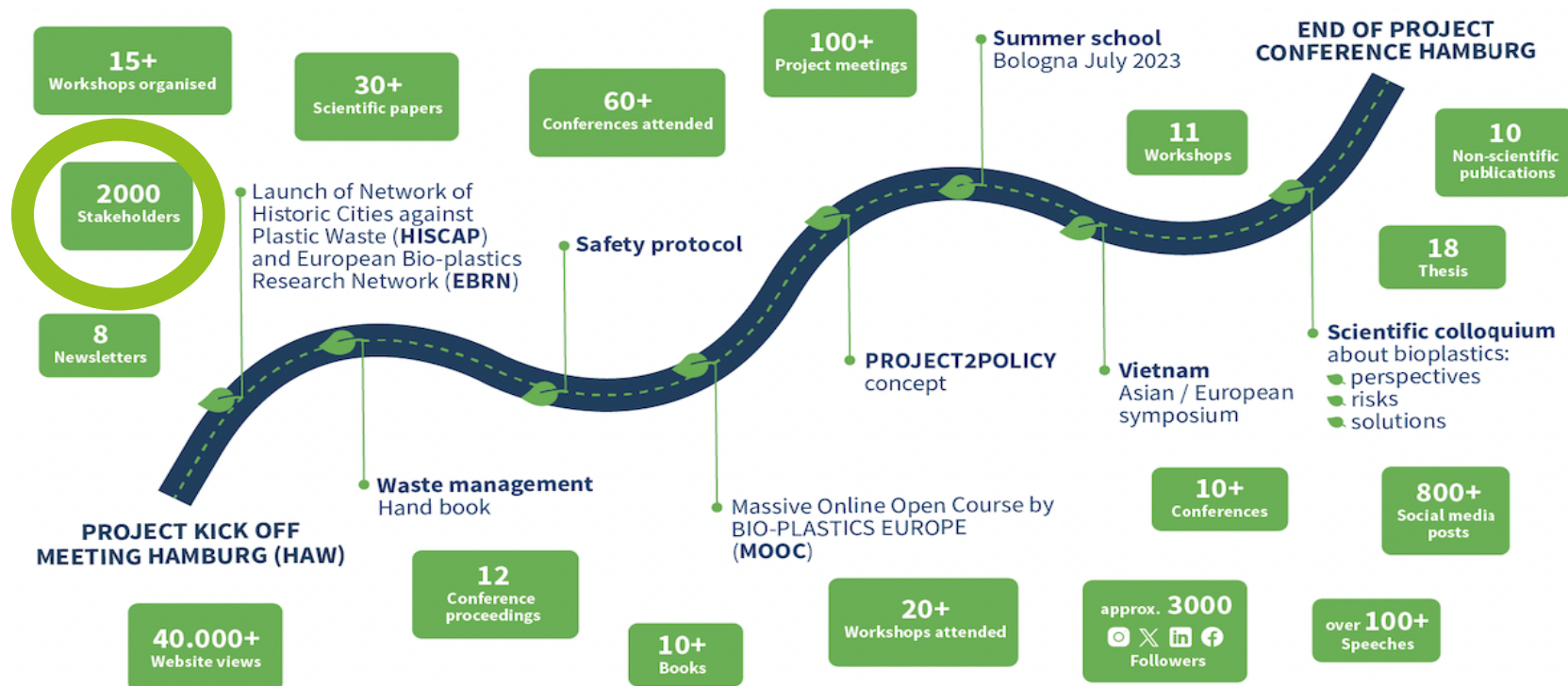
*

Gramberger, M., K. Zellmer, K. Kok and M. Metzger (2014) Stakeholder Integrated Research (STIR): A new approach tested in climate change adaptation research. Climatic Change, 128(3), 201-214.

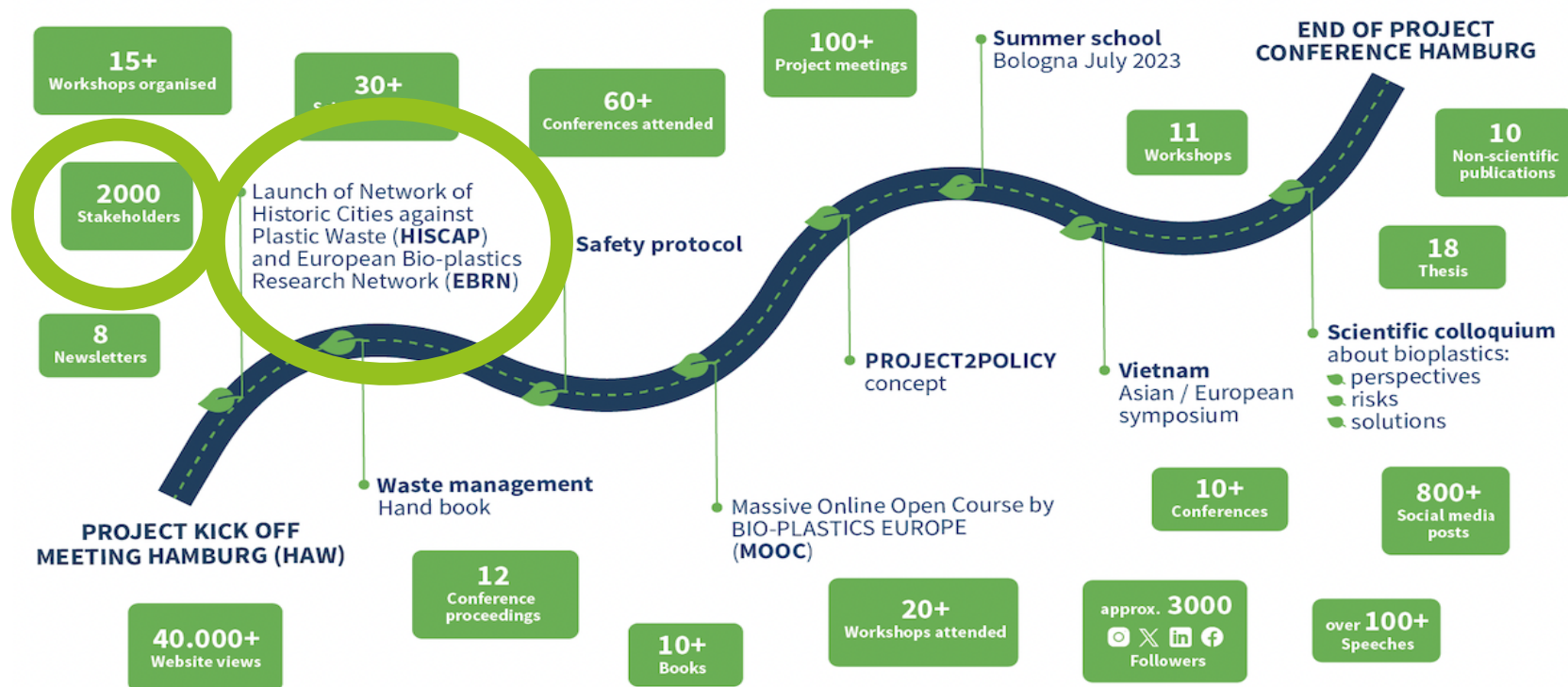
BIO-PLASTICS EUROPE IMPACT JOURNEY



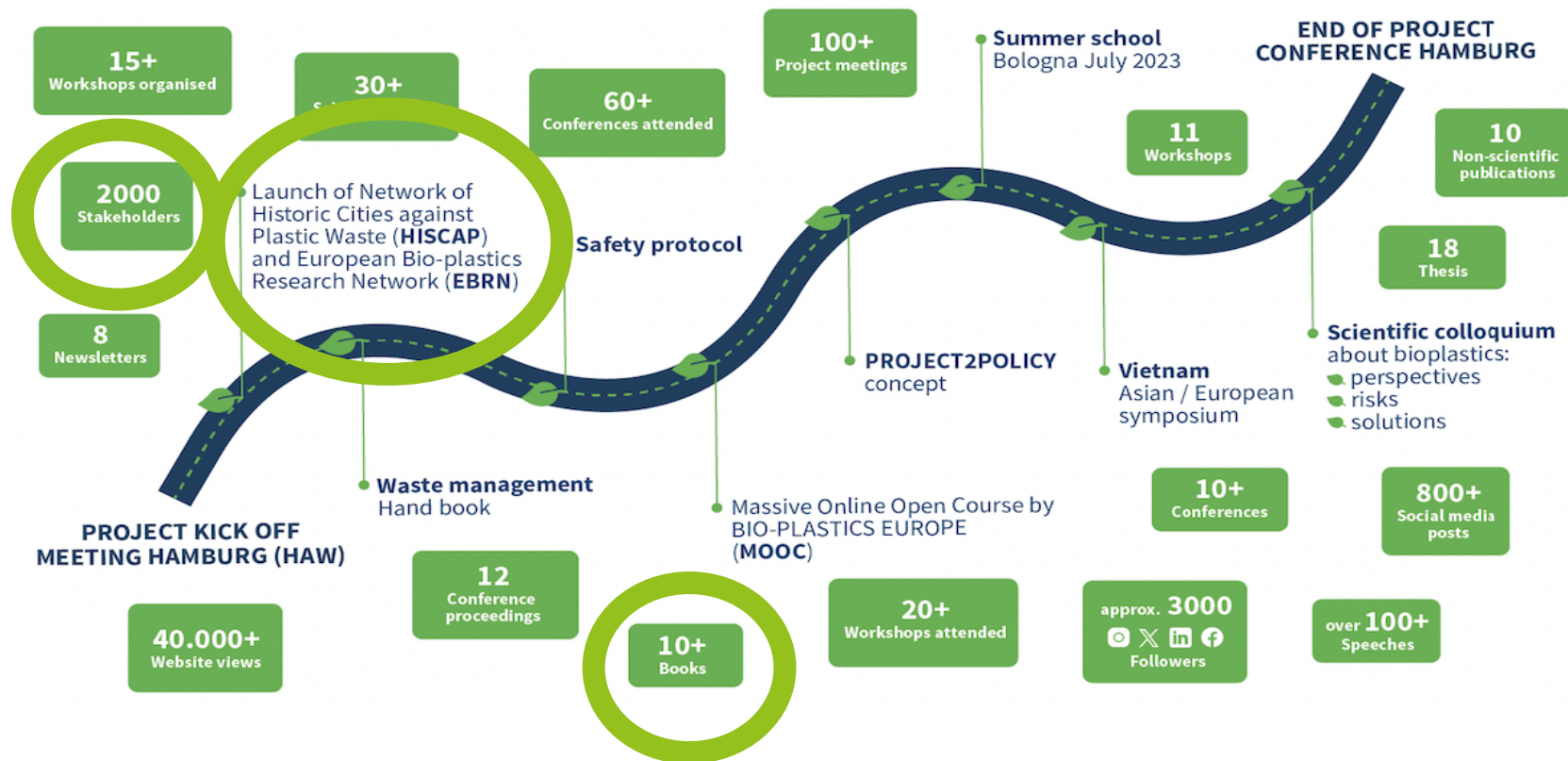
BIO-PLASTICS EUROPE IMPACT JOURNEY



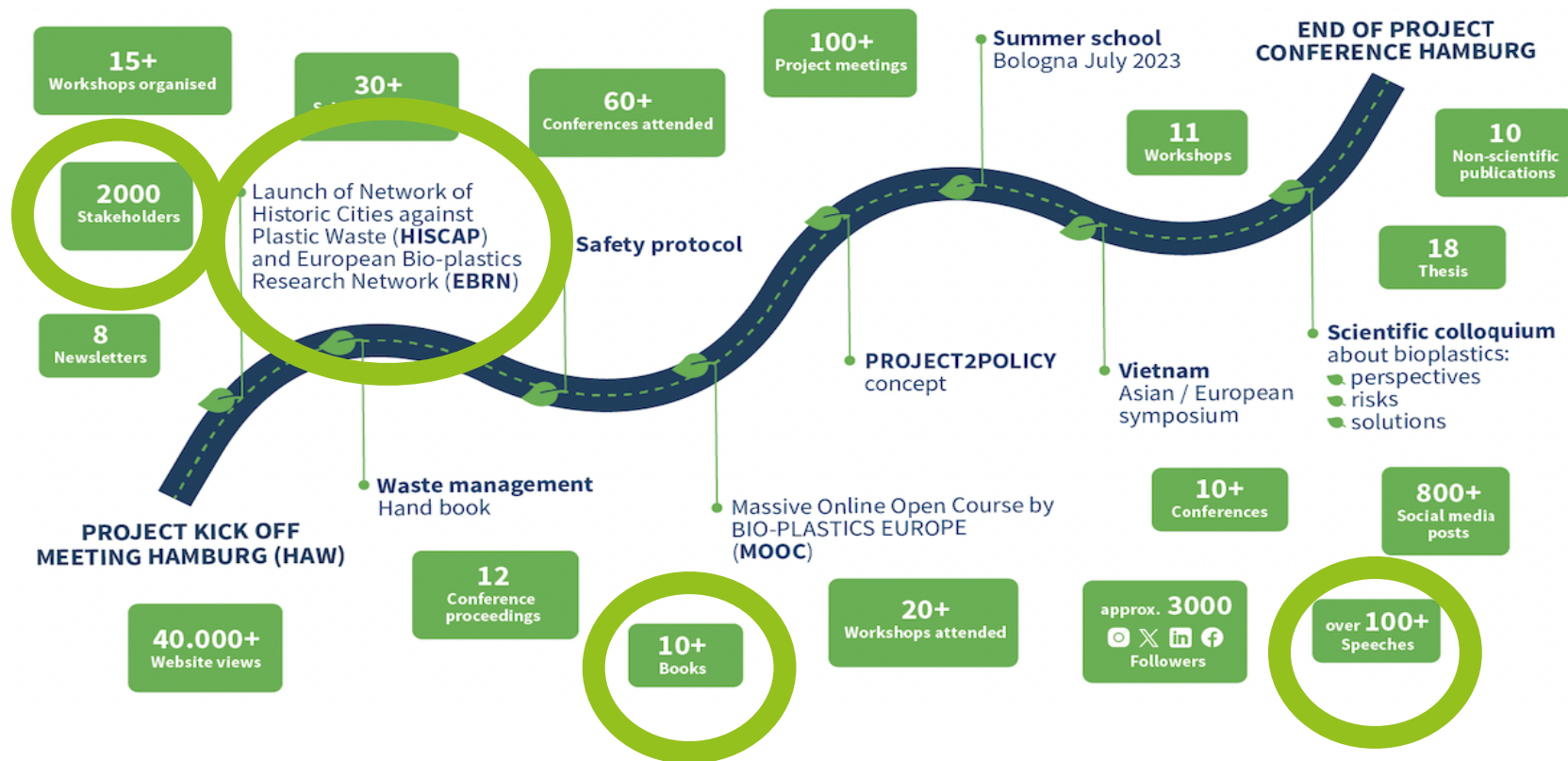
BIO-PLASTICS EUROPE IMPACT JOURNEY



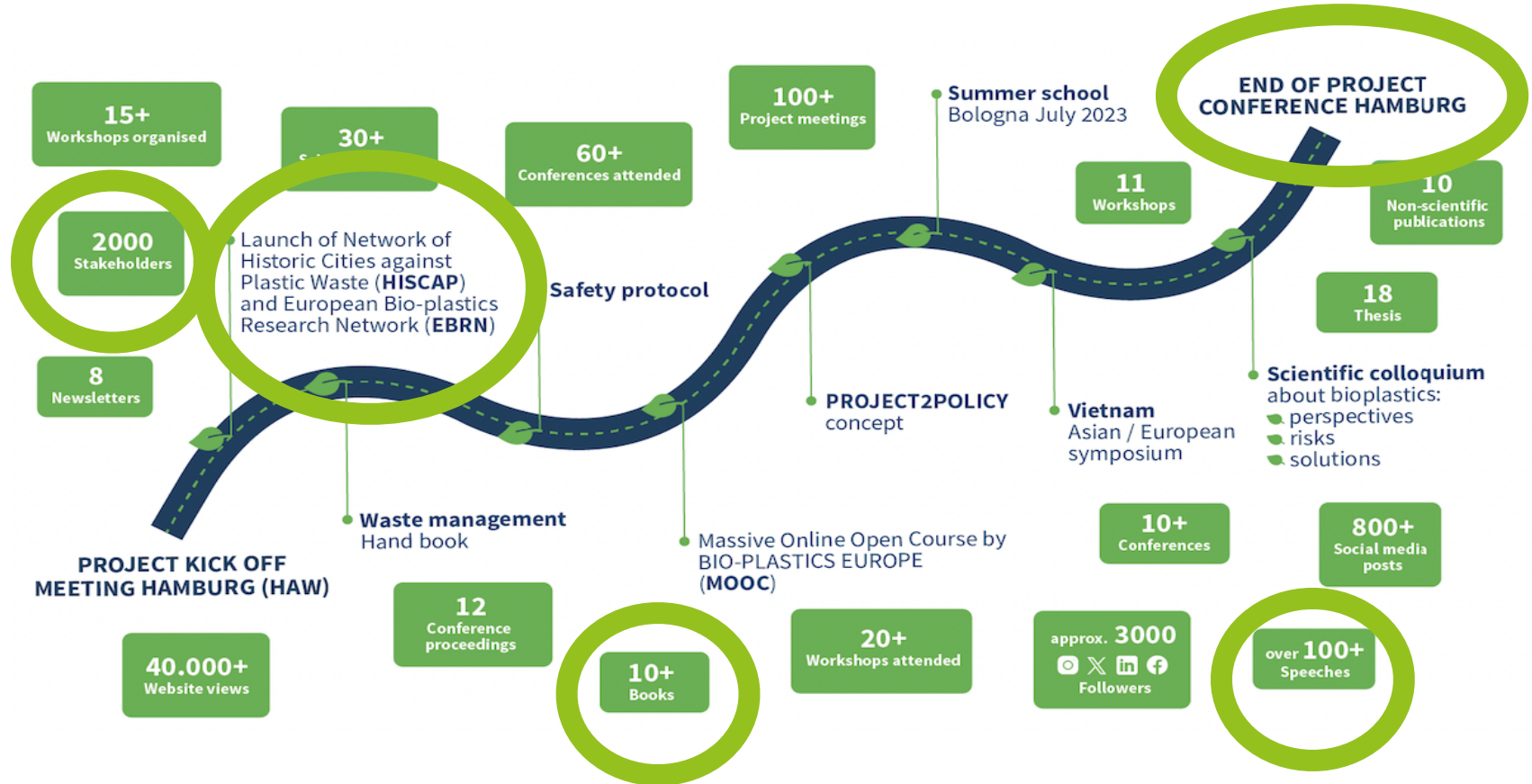
BIO-PLASTICS EUROPE IMPACT JOURNEY



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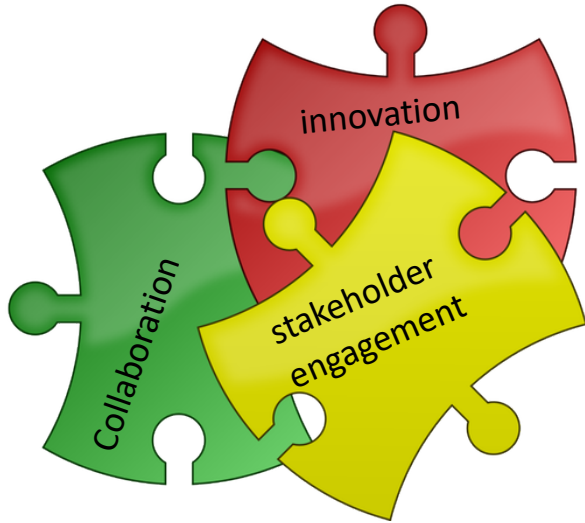
BIO-PLASTICS EUROPE IMPACT JOURNEY



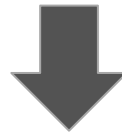
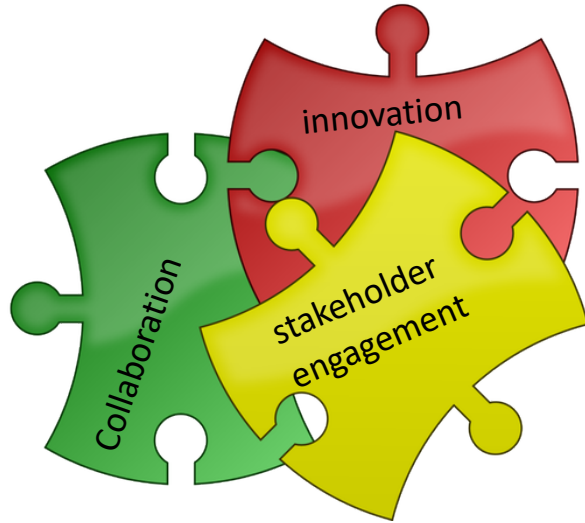
BIO-PLASTICS EUROPE IMPACT JOURNEY



KEY TAKEAWAYS

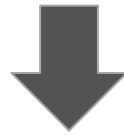
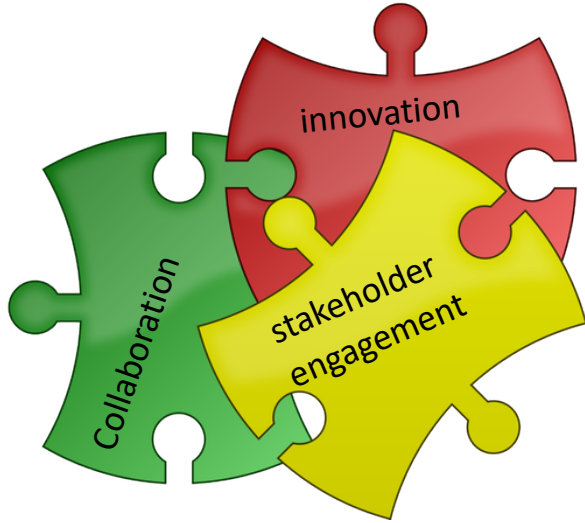


KEY TAKEAWAYS

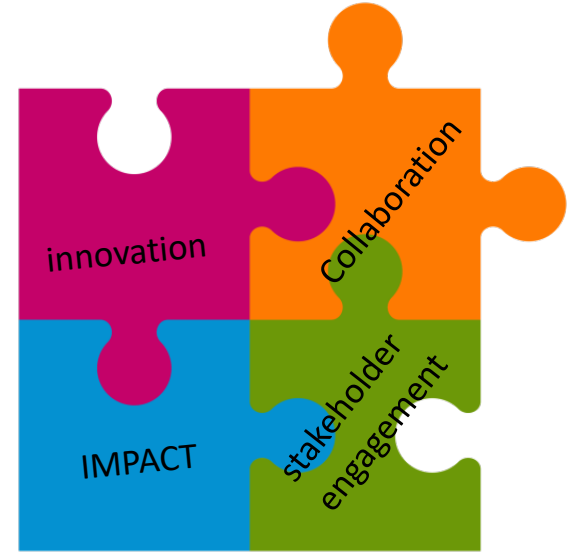


CQI* = Identify, Design & Implement

KEY TAKEAWAYS



CQI* = Identify, Design & Implement



CONTINUING THE JOURNEY



Virtual Engagement Tool



Considering disposable cutlery, how willing are you to prioritize sustainability over price and convenience in your choices?

PRICE
(1 is least, 5 is most)

1 2 3 4 5

CONVENIENCE
(1 is least, 5 is most)

1 2 3 4 5

[Back](#) [Next](#)



The aim ...

We Gain:

- Info about behaviours & preferences

We Give:

- Learnings, Info & sustainable impact (SUP cutlery)

We Create:

- Awareness & provide info on alternative sustainable solutions

The aim ...

We Gain:

- ➔ Info about behaviours & preferences

We Give:

- ➔ Learnings, Info & sustainable impact (SUP cutlery)

We Create:

- ➔ Awareness & provide info on alternative sustainable solutions

Before you go, here are a few key takeaways for you

Single-use plastic cutlery is no longer permitted in the EU.

The most effective solution is to use multiple-use biobased and/or biodegradable alternatives.



SOME SUGGESTIONS WHAT YOU CAN DO

- Opt for multiple-use cutlery whenever possible.
- When purchasing multiple-use cutlery, look for sustainability indicators.
- When ordering food delivery, let the restaurant know if you don't need disposable cutlery.
- Properly dispose of the cutlery, ensuring it is sorted correctly as waste.
- Stay informed about and support relevant sustainability initiatives.

[Back](#) [Next](#)

pi Project Initiative

Welcome to the BIO-PLASTICS EUROPE interactive experience!

This short but engaging interaction will focus on both issues and solutions concerning disposable cutlery (both single and multiple-use).

We will share some interesting facts with you, and we would appreciate your input regarding your opinions and preferences.

Each response helps shape sustainable solutions for a greener future.

With your help, we will shape insights, raise awareness, and drive change regarding the uses of sustainable cutlery.

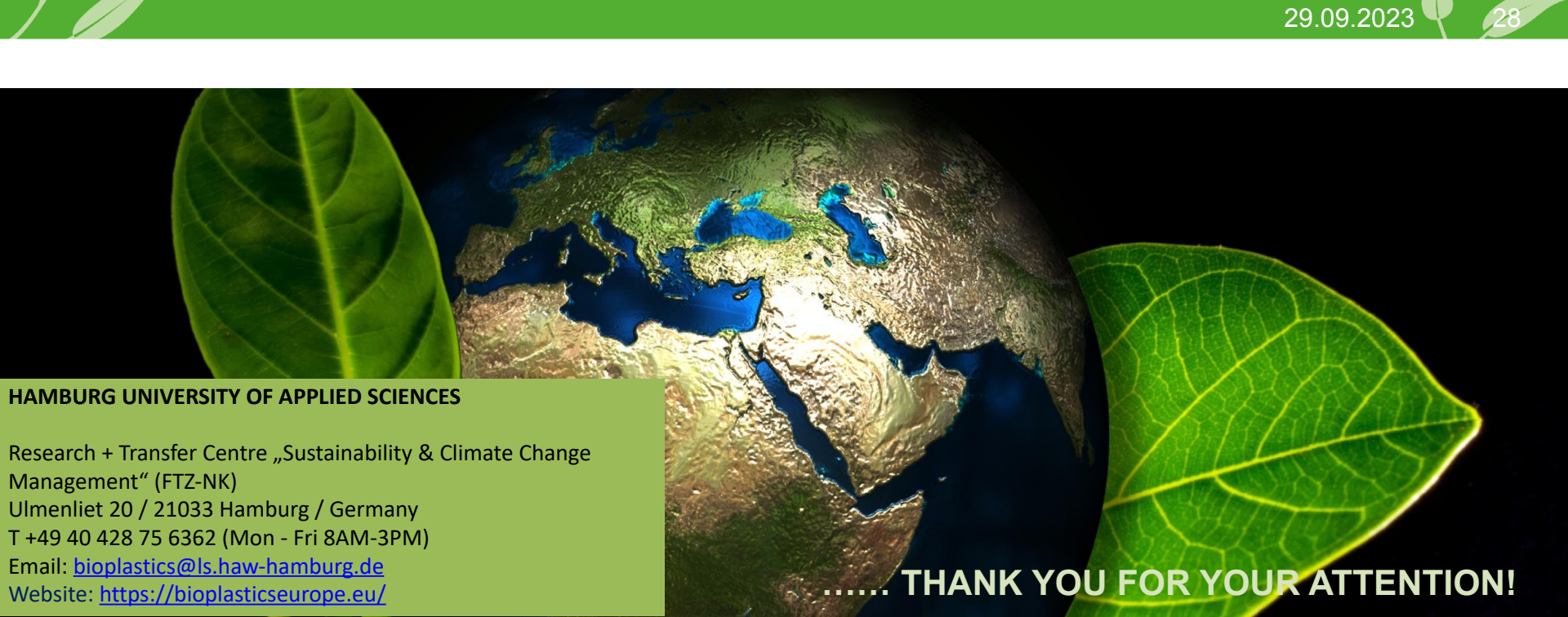
Thank you for supporting us!

[Let's start!](#)



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 800407.

Your data remains completely anonymous. The results of the survey will be freely available.



HAMBURG UNIVERSITY OF APPLIED SCIENCES

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Management“ (FTZ-NK)
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Email: bioplastics@ls.haw-hamburg.de
Website: <https://bioplasticseurope.eu/>

..... THANK YOU FOR YOUR ATTENTION!



HAW Hamburg



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Final Conference

Session 4

Stakeholder Engagement - Projects

Speaker: Dr. Jelena Barbir

HAW Hamburg

BIO-PLASTICS EUROPE



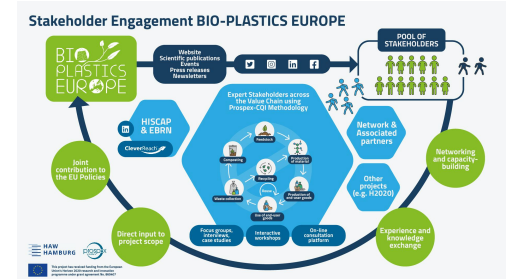
SOCIAL PROGRESS

ALL
PARTNERS

WHO?

- Scientific communities
- Policy makers
- Municipalities
- Producers and Consumers
- General public

- 1) Stakeholder engagement
- 2) Network EBRN
- 3) Network HISCAP



STAKEHOLDER ENGAGEMENT

12 ONLINE
STAKEHOLDER
PROMOTION EVENTS

September 2020 –
January 2021

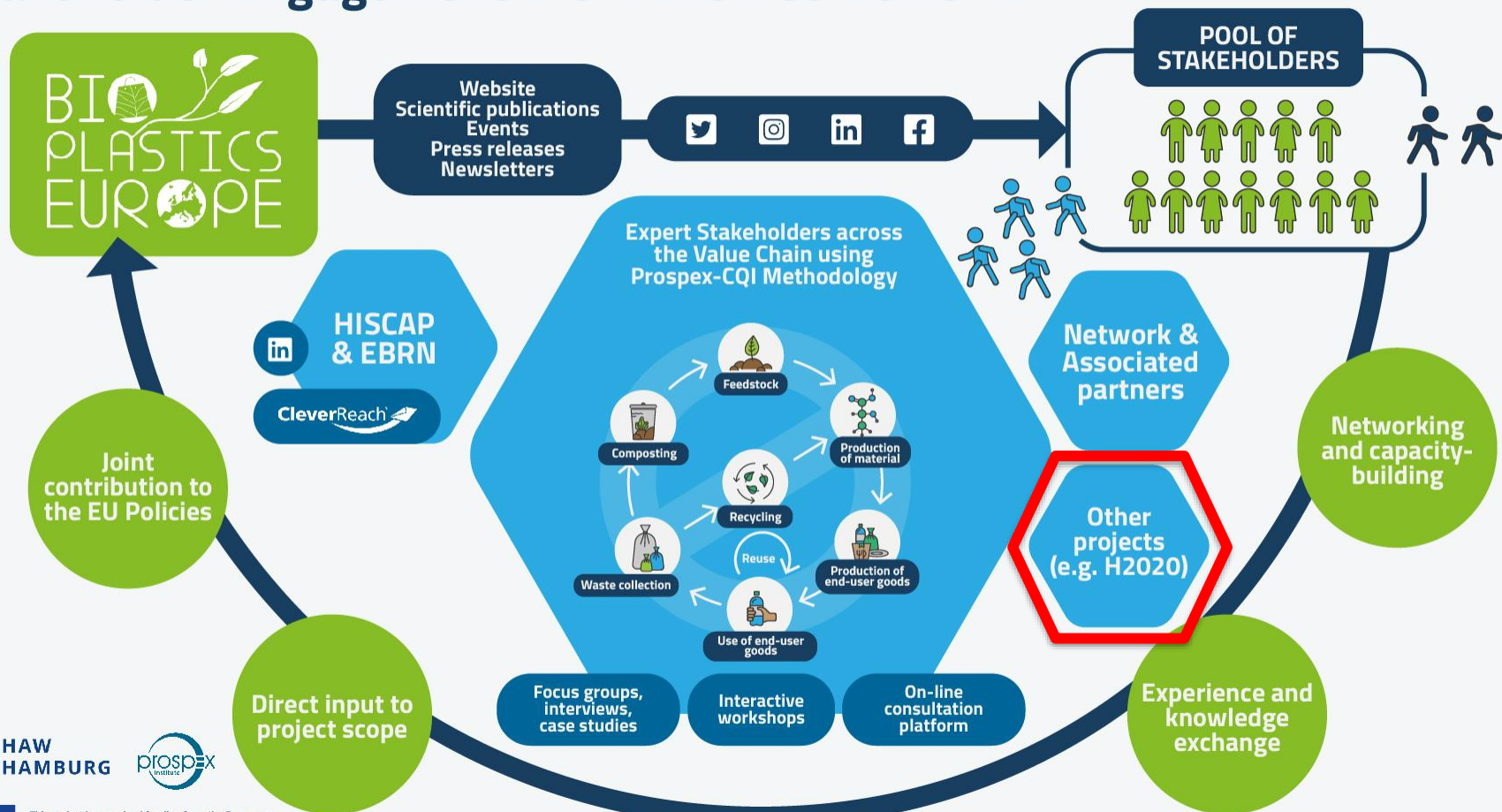
PROMOTE PROJECT
CLUSTER stakeholders
FUTURE INVOLMENT

meanwhile....STRATEGY
defined 5 levels of
engagement

Over 780 participants

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

Stakeholder Engagement BIO-PLASTICS EUROPE



Collaboration between projects.... EXAMPLE ...

FTZ-NK TEAM



OUR PROJECTS



RECC-LUM



BIO-PLASTICS EUROPE



Climate ROBUST



AFRO-AGROFARM



BALTIPLAST



BioRADAR



NACH-LABS



Peek4Health



CheMatSustain



DITTS



Europe-LAND



ShareDiMobiHub



Ukraine-MEDWASTE



Ukraine-Nature



Klima-ACT!



NACH-LABS



Peek4Health



ENVIRONMENT; SUSTAINABILITY; CC; HEALTH ...etc



Three units:

- Environment and Circular Economy
 - Climate Change and Health
 - Sustainability
- 
- 
- MSc. Jennifer Pohlman



Dr. Jelena Barbir



MSc. Franziska Wolf



MSc. Jennifer Pohlmann



OUR PROJECTS



RECC-LUM



BIO-PLASTICS EUROPE



Climate ROBUST



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Klima-ACT!



NACH-LABS



PeeK4Health

Environment and Circular Economy Unit

- **BIO-PLASTICS EUROPE (H2020)**

8.5 million Euro (2019-2024)

- **BALTIPLAST (InterregBaltic)**

4.3 million (2023-2025)

- **CheMatSustain (Horizon Europe)**

5.5 million (2024-2027)

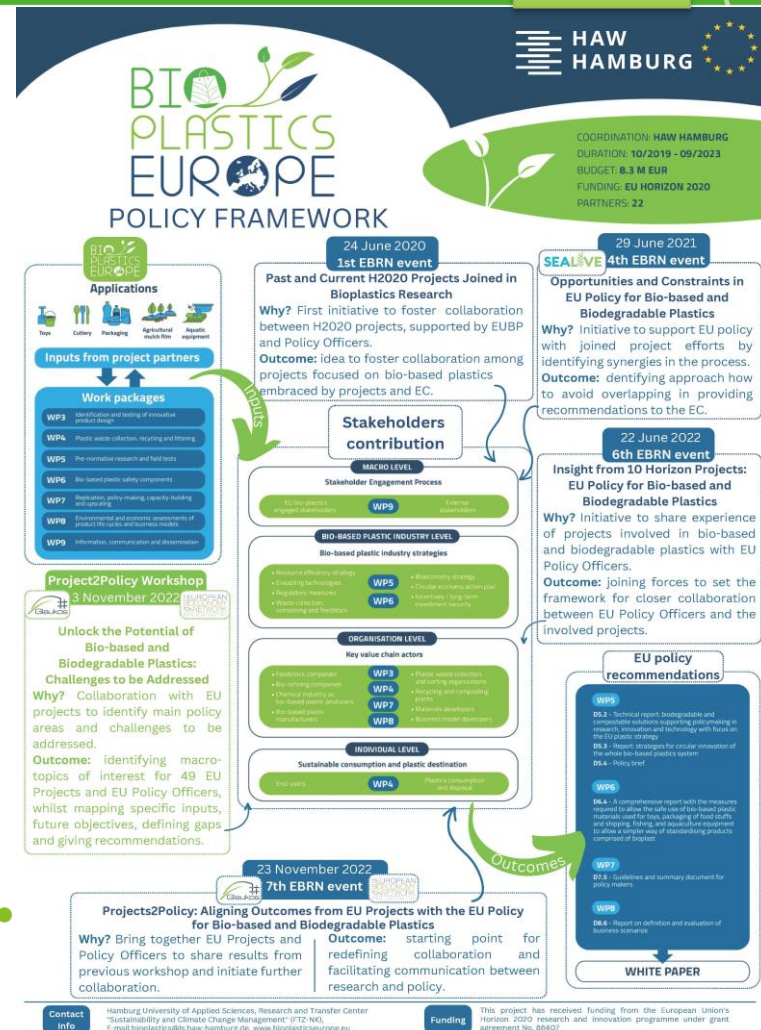
- **BIORADAR (Horizon Europe)**

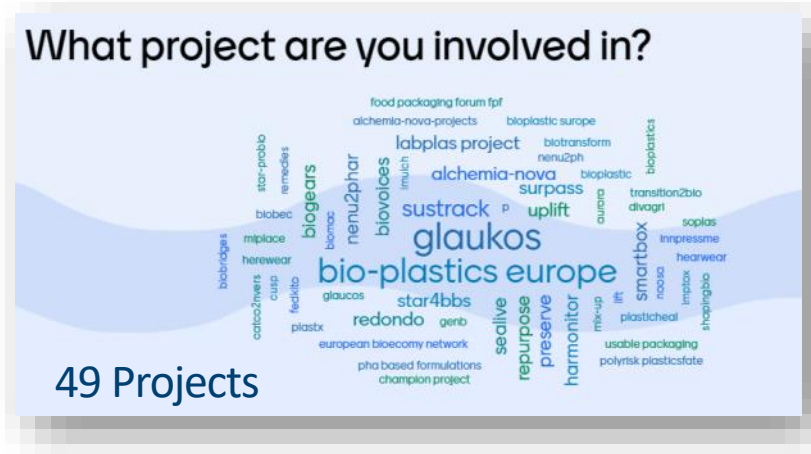
2.8 million (2023-2026)



IMPORTANT FOR POLICY

- Engage more projects
- Pose relevant questions
- Find common interest
- Talk about conclusions
- Shape recommendations together
- Try to fill in gaps (your&others projects)
- Improve efficiency
- Clarity of results





Thank you for joining us today.....

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Stakeholder Engagement

Angelo Paletta, Genc Alimehmeti

Department of Management, University of Bologna

BIO-PLASTICS EUROPE



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BOLOGNA UNIVERSITY CONTRIBUTION TO THE PROJECT

ROLE

Leader of WP7 on **replication, upscaling, policymaking and capacity building**, with 8 tasks developed and 11 partners engaged.

AIM

- Designing, testing, and validating **business strategies, models and plans** to highlight the value of **bio-based biodegradable plastic materials** (and relative end-products) in a circular and sustainable way.

GOALS

- Develop **new business models** issued on bio-based plastic products
- Document and demonstrate the benefits of the new bio-plastics economy
- Support **innovative policies, regulatory and incentive efforts** with a view to making circularity strategies replicable and scalable in different contexts, enhancing the contribution of the various players for the creation of an efficient market.



UPSCALING



Designing new business model related to bioplastics

- Documented economic analysis (report of gap and swot analysis) of the bioplastics business model



Design an "Exploitation and Business Plan" (EBP) which demonstrates the cost-benefits of bioplastics system in the New Plastic Economy

- Design of Circular strategies and sustainable business models– preliminary version
- Exploitation and Business Plan
- 39 interviews with companies from different industries and positions in the value chain

REPLICATION



Raising awareness to create a better framework for systemic innovation and uptake of results through broad stakeholder engagement

- Stakeholder engagement and cooperation models
- 7 cooperation models investigated
- 7 cases for analysis
- over 49 references

Embedding stakeholder engagement



- Identification, contacts and organization of meetings with companies to support business planning

CAPACITY BUILDING



Improving professional skills and expertise of those working and being trained to work within the blue economy and the bioeconomy by means of the execution of a set of training activities

MOOC and SUMMER SCHOOL

- 30 participants
- 2 site visits
- 4 companies – business challenges

NETWORKING



Creation of the "European Bioplastics Research Group"



Creation of the Network of Historic Cities Against Plastic Waste

POLICY MAKING



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

- Guidelines and summary document for policy makers
- 2 Focus groups: Toys and Mulch Films

INTERVIEWS

- **39 semi-structured 1h-interviews** to actors operating in the bio-based plastics value chain have been done to investigate barriers and drivers at the **corporate dimension**.
- Nvivo software has been used to codify the findings.

➤ MAIN BARRIERS

- Price of biopolymers and bio-based compounds
- Small production capacity across the globe
- High R&D costs
- Lack of dedicated regulation
- Lack of harmonized waste governance
- Confusion among end-users
- Difficulties to manage and control degradation processes in open environments

➤ MAIN DRIVERS

- Increasing awareness about the environmental impacts generated by conventional plastics

➤ MAIN SOLUTIONS

- **Collaboration along value chains**
- Training and communicative activities
- Intense R&D



COOPERATION MODELS

➤ UNIT OF ANALYSIS

- EU context
- Bio-based and biodegradable plastics sectors
- Cooperation models to intend as formal or informal process of actions between two or more actors

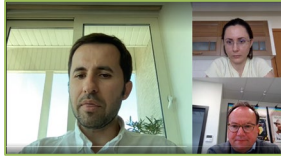
➤ PROCESS

- Literature review of existing cooperation models
- Identification and analysis of existing cooperation models operating in the bio-based and biodegradable plastics industry
- Validation through the application of the framework to key existing cooperation models:

BIOPLASTIC FEEDSTOCK ALLIANCE (**Alliance**) ;ALGRIPLAST (**Collaborative Research and Development**); SWEETWOOD PROJECT (**Project Consortium**); MATRICA (**Joint Venture**); EUROPEAN BIOPLASTICS RESEARCH NETWORK (**Network**); UPM BIOFORE - INEOS (**Strategic Partnership**); H. BILLERUDKORSNÄS – BASF (**Joint Venture**); IKEA – NESTE (**Strategic Partnership**); ALLIANCE TO END PLASTIC WASTE (**Alliance**); BIOREPACK (**Waste Consortium**);HISTORIC CITIES AGAINST PLASTIC WASTE (**Network**); EUROPEAN BIOPLASTICS (**Association**); ASSOBIOPLASTICHE (**Association**)

Mulch film producer

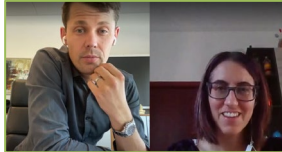
*"Technical challenges are normal, you have a new material, the material have their properties and sometimes the properties are not well suited, so **you need to adapt**".*

Packaging manufacturer

*"The important thing is **to do it in the right directions, where this type of solution makes sense**. We need to well understand what is behind. Most of them just say I want a bio- degradable material because I don't want to see any plastic waste and this is not the right approach. **You really have to think about the product and the end of life** so saying I want a bio-degradable material".*

Raw material producers

*"There are a few projects where we do work with waste management facilities but the problem is that **waste management facilities are not the end of the chain but the beginning of the chain**".*

Toys manufacturer

*"**No issues on machinability or changing production processes or the personnel**. We use the same machinery that processes the fossil-based plastics. And that's what makes the **shift very easy** as if we need to invent or invest on new factory".*

Compounders

*Some of the products we produce have this characteristic. Producing a plastic that is only **bio-based can make sense or could make sense... we need to understand in which application segment...***

ASSUMPTIONS & RESEARCH QUESTIONS

- Bio-based plastics is still a niche market today, but their demand is going to be promising in specific market segments because of many reasons (pressure of conventional plastics on the environment, increasing consumer awareness, renewability and degradability etc.).
- While the drop-ins (bio-PE, bio-PET etc.) are mainly demanded in product streams with a good recycling governance, the added value that bio-based biodegradable plastics can provide need to be investigated in their specific fields.



RQ. 1 ARE BIO-BASED PLASTICS THE FUTURE FOR THE TOY INDUSTRY?



RQ. 2 ARE BIO-BASED PLASTICS THE FUTURE FOR THE MULCH FILM INDUSTRY?



AIM

**TASK 7.6**

Categorizing and identifying relevant stakeholders. The set of participants represents a broad and balanced range of views and can make relevant contributions to the challenges identified.

Lead partner: PI

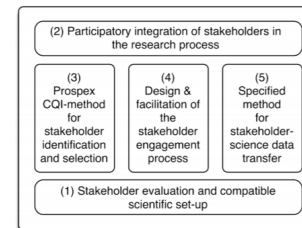
Contributing partners: all partners assigned to WP7



ACTIVITIES



1. Identifying the stakeholder categories
2. Conducting the stakeholder mapping (according to CQI methodology)
3. Selecting the participants to be invited to the focus groups
4. Running the focus groups

STIR
 Stakeholder Integrated Research

KEY FINDINGS
 Deliverable 7.6
**TOYS FOCUS GROUP**

No. 17 stakeholders (7 from Research/Academia, 7 from Production/Manufacturing, 1 from Waste Management, 1 from Supplier (raw material), 1 from Regulation/Certification, 1 from End-user and Consumer Association)

Location: Ecomondo fair (Rimini) and online via Teams

No. of sessions: No. 4 (introductory, transitioning, key, final)

No. of themes: 8

No. of questions: 11

AGRICULTURAL MULCH FILM FOCUS GROUP

No. 36 stakeholders (15 Research/Academia, 10 from Production/Manufacturing, 3 from Distributor/Sales, 3 from Farming/Trade Association, 3 from Supplier (raw material etc.), 1 from End of life/ Waste Management)

Location: Online, via Teams

No. of sessions: No. 4 (introductory, transitioning, key, final)

No. of themes: 8

No. of questions: 11



FOCUS GROUPS

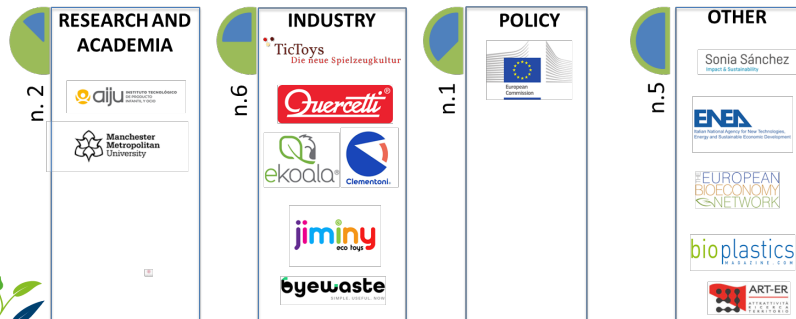
Focus groups have been performed per each industry.

Each focus group took **2h** (Sijtsema et al., 2020; ACEU 2021).

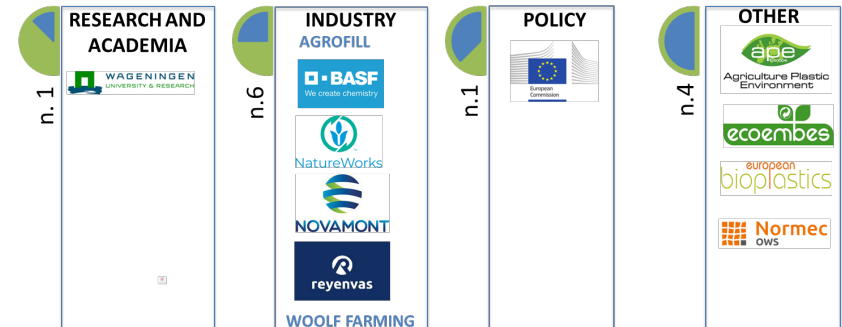
10-15 participants have been invited, a number large enough to gain a variety of perspectives and small enough not to become disorderly or fragmented (Krueger, 1994).

CQI methodology has been used to identify and map stakeholders (Gramberger et al, 2014). At least, a representative per each step of the value chain has been invited.

STAKEHOLDERS FROM THE TOYS VALUE CHAIN



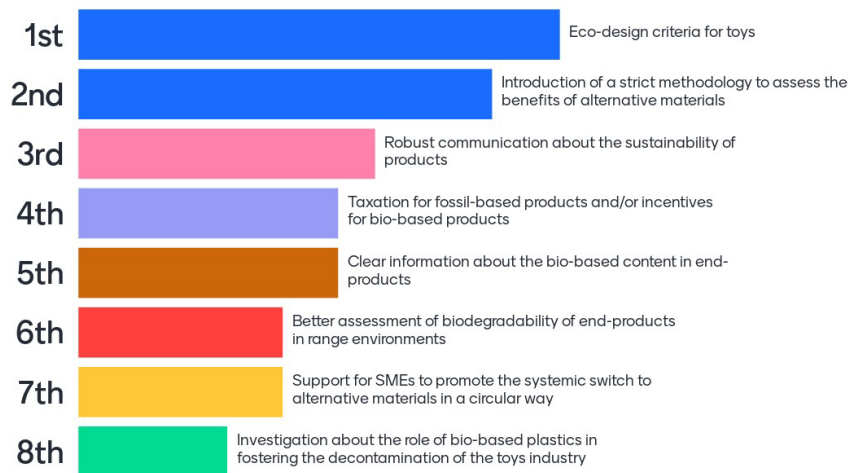
STAKEHOLDERS FROM THE MULCH FILM VALUE CHAIN



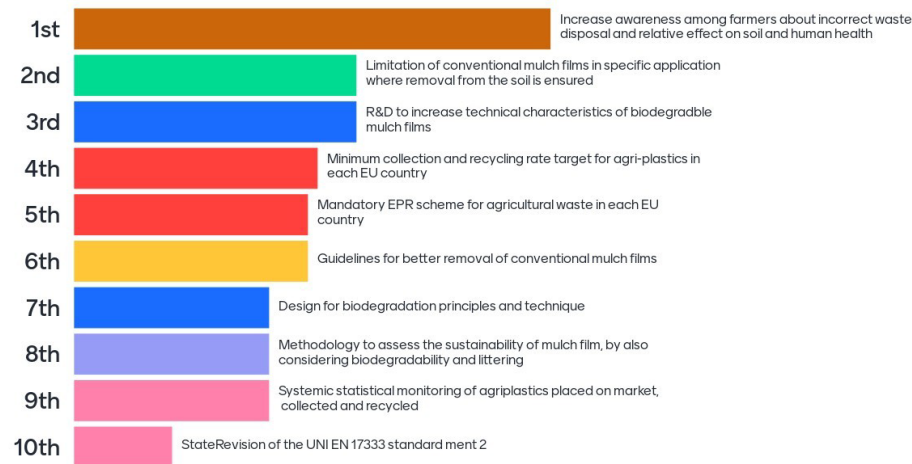
FOCUS GROUPS: PRIORITIES

- From your point of view, what needs to be prioritised to make the toy/mulch film industry more sustainable by 2050?*

TOYS INDUSTRY



MULCH FILM INDUSTRY



The findings from the focus groups make evidence of the added value that bio-based plastics can provide in the toys and mulch film industries:

- ✓ Although the **mulch film sector** is more experienced with the use of bio-based biodegradable plastics, many gaps still exist. The **total cost** needs to be better communicated to increase the farmers' demand for this material. Demands can also be pushed through **normative measures** (in terms of market bans and waste-related policies) .
- ✓ The investigation in **toys sector** reveals that bio-based plastics may provide added value in specific applications, such as sand toys and only when they are unintentionally littered in marine environments. However, standards for **biodegradability in marine environments** do not exist and the degradation needs to be better investigated. Simultaneously, **eco-design** becomes crucial to increase the potential for toys valorization at the end of their life.

In regards with value retention, both sectors are still far away from ensuring the loop closing. So, bioeconomy strategy needs to be connected with the circular ones.

AIM



TASK 7.10

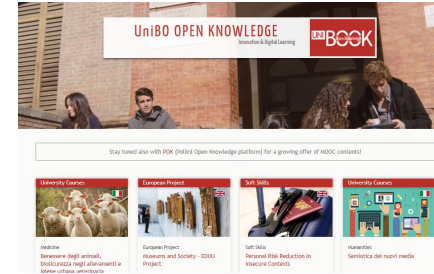
Setting up a post-graduate vocational training program with the tentative title

The new plastics economy: circular business models and sustainability.

Lead partner: UNIBO

Contributing partners: KTU, TUAS, HAW, ACIB, UPM, CNR, AWI, TALTECH, TUHH,

ECOEMBES, TICASS, ASSO BIO, IVL Fraunhofer LBF



ACTIVITIES



1. Draft the program of the **MOOC** and the **SUMMER SCHOOL**
2. Discuss and review the structure and the program with contributing partners
3. Make agreements with CESIA (University technical staff for innovative learning) and ALMACUBE (University incubator)
4. Collect expressions for interest and comments from BPE partners
5. Set up and launch the MOOC
6. Establish the summer school

KEY FINDINGS

Deliverable 7.10



BIO
PLASTICS
EUROPE

➤ MOOC

Language	English
Estimated effort	4 weeks
Elements	Lectures, videos, round tables, quiz, final assignment, forum discussion, additional materials

18 partners and University technical staff for innovative learning involved in 20 training modules

➤ SUMMER SCHOOL

Language	English
Estimated effort	5 days
Elements	Frontal classes, site visits, groups challenges, groups assignment, final speech

29 participants; 2 site visits; 4 business challenging

ABM COMPOSITE
Arctic Biomaterials



COOPERATIVA SOCIALE
la Città Verde





Thank you for your attention!

FINAL CONFERENCE

BIO-PLASTICS EUROPE



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



FINAL CONFERENCE

January 23rd, 2024

Stakeholders engagement - municipalities

Prof. Dr. Žaneta Stasiškienė

Kaunas University of Technology, Lithuania

BIO-PLASTICS EUROPE



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



The challenges of EU regulations on plastic waste management and their implications at the national and local levels in EU countries

Quality and Price of Recycled Products: A significant issue is the quality and price of recycled plastics compared to their unrecycled counterparts. Plastic processors need large quantities of recycled plastic that meet strictly controlled specifications and are competitively priced. However, the customization of plastics for different manufacturers' needs complicates the recycling process, making it costly and affecting the end product's quality.

This is a primary challenge because it directly affects the feasibility and economics of recycling operations. The demand for high-quality, cost-effective recycled plastics is crucial for the success of recycling programs



The challenges of EU regulations on plastic waste management and their implications at the national and local levels in EU countries

Lack of Local Recycling Capacity: Half of the plastic collected for recycling in the EU is exported for treatment in non-EU countries. This is due to a lack of local capacity, technology, or financial resources to treat the waste. As a result, there's a risk of increased incineration and landfilling within Europe, particularly after China restricted imports of plastic waste, which previously absorbed a significant share of EU's plastic waste exports.

This is critical because it impacts the EU's ability to manage its plastic waste sustainably. Dependency on non-EU countries for recycling increases risks of incineration and landfilling, which contradicts the EU's environmental goals



The challenges of EU regulations on plastic waste management and their implications at the national and local levels in EU countries

EU's Regulatory Solutions: To increase recycling rates, the EU has adopted new rules, including targets for recycled content in plastic bottles (25% by 2025 and 30% by 2030). The EU also proposed rules on packaging to improve design for recyclability, like clear labeling and transitioning to bio-based, biodegradable, and compostable plastics. The Green Deal aims for 55% of plastic packaging waste to be recycled by 2030. To stimulate the market for recycled plastic, measures like creating quality standards for secondary plastics, encouraging certification, introducing mandatory rules on minimum recycled content, and considering reduced VAT on recycled products have been suggested

While this is more of a response to the challenges, it's vital as it sets the framework for how plastic waste is managed. Implementing these regulations effectively at the national and local levels is key to increasing recycling rates and promoting a circular economy



The challenges of EU regulations on plastic waste management and their implications at the national and local levels in EU countries

These challenges are interconnected, and their importance can vary depending on specific national and local contexts within the EU.

However, addressing the quality and price of recycled products and increasing local recycling capacity are fundamental to the success of EU-wide plastic waste management strategies.



Bio-circular green economy model



Biotechnology R&D

- Biotechnology manufacturing R&D
- Raw materials and/or essential materials for molecular biological R&D
- Biological substance analysis and/or relevant activities



Bioenergy & Biofuels

- Electricity from biomass or steam
- Fuel from agricultural products
- Biomass briquettes and pellets



Circular Energy & Fuels

- Electricity or electricity and steam from garbage or refuse-derived fuel
- Fuel from agricultural scrap or waste



Waste & Recycling

- Waste treatment or disposal
- Recycled plastic pellets
- Recycled pulp manufacture
- Recycling and reuse of unwanted materials
- Industrial zone for environmental protection



Products from Circular Process

- Agricultural by-products or waste products
- Recycled plastic pellets
- Recycled fiber
- Products from recycled pulp



Plants & Seeds

- Economical forest plantations (excluding eucalyptus)
- Plant factories
- Breeding of plants or animals



Agriculture

- Active ingredients from natural raw materials
- Medical food or dietary supplements
- High-tech natural extracts
- Rubber products
- Traditional medicine
- Biological / organic fertilizers, biopesticides
- Animal breeding or livestock
- Food, beverages, food additives, oil or fat, starch or modified starch from plants or animals
- Smart farming
- Trading center for agricultural goods



Green Management

- Energy Service Company (ESCO)



Energy Saving Products

- Energy-saving auto parts
- High-density energy storage
- Solar cells and raw materials



Green Energy

- Electricity or electricity and steam from renewable energy



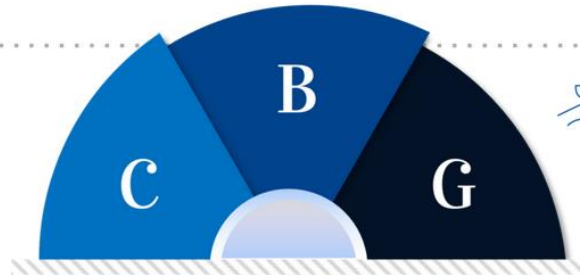
Eco-friendly Chemicals/Polymers

- Eco-friendly chemicals or polymers
- Products from eco-friendly polymers



Other Energy Saving Products

- Fuel cells
- Energy-saving home appliances



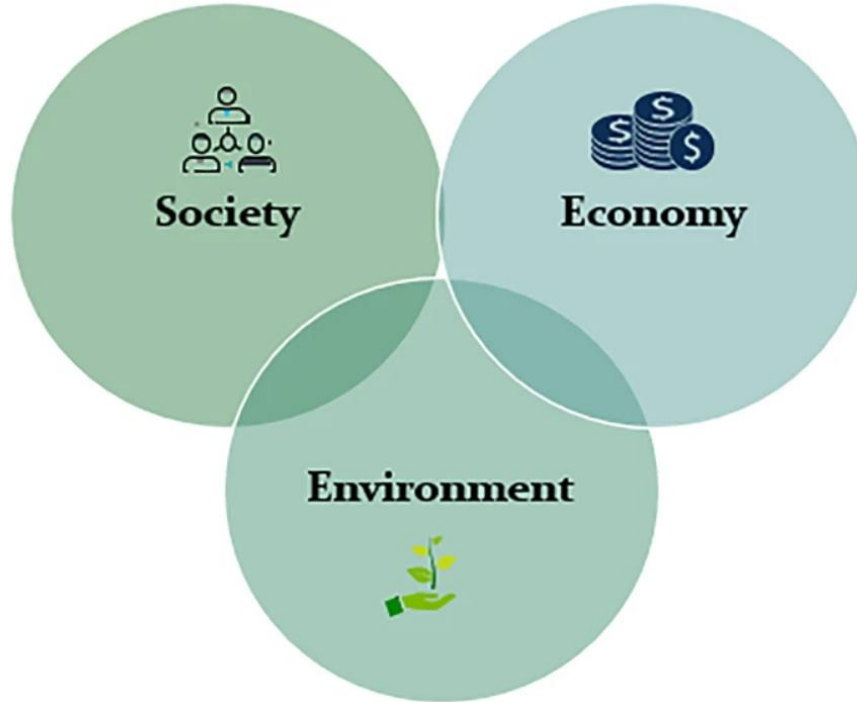
Consumer viewpoints on plastic (n.b. font size proportional to word frequency)



Stakeholder Engagement BIO-PLASTICS EUROPE



The interaction between the economy, society, and the environment



Assessment of the impacts of bio-based and biodegradable plastics (and additives) on existing waste management frameworks



Handbook on the impacts of bio-based and biodegradable plastics on existing waste management frameworks



Horizon 2020

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 860407

Key topics on bio-based and biodegradable plastics for a broad audience of decision-makers on national and regional level, business representatives, scientists and citizens

- the instruction of concepts related to bio-based and biodegradable plastic, Life Cycle Assessment and Circular Economy,
- the assessment of the impact bio-based, biodegradable and compostable plastic have on waste management technologies and systems, and
- an analysis of legal and policy frameworks.

In addition, the handbook contains Vocabulary of definitions and covers the most promising business cases from project partner countries.

Assessment of the impacts of bio-based and biodegradable plastics (and additives) on existing waste management framework

In general, the handbook addresses several critical aspects of bio-based and biodegradable plastics and their effects on waste management systems:

- **Growing Importance of Biopolymers:** The handbook recognizes the rapid growth of biopolymers in the global plastics market, driven by concerns about plastic pollution. This growth highlights the increasing importance of sustainable alternatives derived from renewable sources.
- **Circular Economy Integration:** Properly designing waste management systems for bio-based products is emphasized as a way to integrate these materials into a circular economy. This approach promotes the reuse, recycling, and recovery of bio-based waste, reducing environmental impact and resource depletion.
- **Waste Management Flexibility:** The handbook underscores the versatility of bio-based biodegradable plastics in waste management. They can be reused, mechanically or chemically recycled, organically recycled (composted), or used for energy recovery, allowing for flexible and sustainable end-of-life options.
- **Environmental Concerns:** It acknowledges the concern regarding incomplete degradation of bioplastics during waste management processes and the potential leakage into the environment. This highlights the need for improved waste management practices for these materials.
- **Behavioural Barriers:** The handbook recognizes that despite high awareness of plastic pollution issues, behaviour change can be challenging due to various barriers, including perceived convenience, lack of knowledge, and cultural habits. It emphasizes the need for interdisciplinary approaches to address these barriers effectively.

Assessment of the impacts of bio-based and biodegradable plastics (and additives) on existing waste management frameworks



Handbook on the impacts of bio-based and biodegradable plastics on existing waste management frameworks



Horizon 2020

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 860467

BIO PLASTICS
EUROPE

22.01.2024

In summary, this handbook plays a crucial role in raising awareness, providing knowledge, and promoting sustainable practices related to bio-based and biodegradable plastics. It serves as a valuable resource for stakeholders across various sectors, facilitating informed decision-making and the development of strategies to mitigate the environmental impact of plastics while advancing the circular economy.

The handbook was introduced for a wide audience, including decision-makers at national and regional levels, business representatives, scientists, and society as a whole.

We hope what it will serve as a comprehensive resource to increase awareness and understanding of bio-based and biodegradable plastics. Who wants to know more:

<https://bioplasticseurope.eu/downloads/public-deliverables>

Good practices

Deposit system;
Pay as you throw etc.

HOW DOES IT WORK?

AT HOME **AT THE RECICLOS MACHINES**

1 Register here.

2 Use your mobile to scan the bar code of a drinks can or plastic bottle.

3

4 Take your packs to the yellow container to give them a second life and scan the QR code you find there.

Collect **RECICLOS** and swap them for donations to social projects and prizes that help the environment and your community.

HOW DOES IT WORK?

AT HOME **AT THE RECICLOS MACHINES**

1 Register here.

2 Insert your drink cans and/or plastic bottles one by one. Insert the containers bottom first.

3 Wait 5 seconds for the system to detect that you have finished.

4 Get your **RECICLOS** by scanning the QR code that appears on the screen and exchange them for different rewards.

- Sustainable prizes
- Local products
- Public transport and sustainable mobility
- Environmental and social collaborative projects



Public events in Tallinn (Estonia) and Vilnius (Lithuania)

- Oct 2019 - Tallinn banned single-use plastic dishes, cutlery.
- Only compostable dishes (EN 13432) were allowed
 - June 2023 – Food and drinks may only be served in reusable containers (e.g. plates, bowls, drinking glasses, coffee cups) and use only reusable cutlery (e.g. knives, forks, spoons, chopsticks) in public events up to 30 000 visitors/day in Tallinn.
 - January 2024 – only reusables are allowed in public events in whole Estonia regardless the number of visitors.
 - Public event = an entertainment event, competition, performance, trade event or other similar gathering of people that takes place in a public place and is open to the public with or without a ticket (includes also theatres, cinemas, spas etc).



Public events in Tallinn (Estonia) and Vilnius (Lithuania)

- Youth song and dance festival – used 100% reusable cups, plates and cutlery
 - The dance festival accommodated around 10 000 spectators + performers.
 - The song festival accommodated around 70 000 spectators + performers.
- Depeche Mode (around 40 000 visitors) – used reusable cups 😊
- Weeknd (around 55 000 visitors) – used reusable cups 😊
- Ramstein (around 45 000 visitors) – used reusable cups 😞



Thank You

Contact:
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zaneta.stasiskiene@ktu.lt



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Session 5: Further Collaborations, Clustering and Networks



Moderator: Carolyn Brand
Prospex Institute



Establishing new projects relations and maintaining existing ones

Professor Walter Leal
HAW Hamburg

Part 1- Establishing New Collaborations



Part 1- Establishing New Collaborations

1. The first step is to identify suitable potential partners: it helps to look for individuals or organisations whose goals, expertise, and resources complement your own. Consider their reputation, reliability, and previous collaborative experiences.
2. New links can be set-up by attending **appropriate** conferences, seminars, and networking events. Online professional networks like LinkedIn can also be valuable in new making connections.



Establishing New Collaborations

3. Reach out with a clear, concise proposal that outlines the potential benefits of the collaboration for both parties.

Be specific about what you bring to the table, and of what you need.

4. Arrange meetings (personal/on-line) to discuss the collaboration in detail.

Partners should be prepared to listen to each other's needs and expectations and not only focus on their own. (Can they do that?)



Establishing New Collaborations



5. Once there's mutual interest, define roles, responsibilities, and contributions of each party. This should include resource allocation, timelines, and deliverables.



6. If appropriate, create a written agreement or contract that includes all the details discussed, ensuring legal and ethical considerations are addressed.



7. Trust is fundamental in any collaboration. You need to be reliable, meet your commitments, and be transparent in your communications and actions.





Part 2- Maintaining Existing Collaborations



1. Keep lines of communication open.

Regular meetings, updates, and reports can help ensure that everyone is on the same page and opportunities may be taken advantage of.



2. Address conflicts or misunderstandings promptly and constructively.

Focus on finding a solution that works for all parties.



3. Be prepared and ready to adjust roles, goals, and methods as the project / cooperation evolves. Flexibility can be a key in overcoming unforeseen challenges.



Maintaining Existing Collaborations

4. Acknowledge the contributions of all parties involved. Celebrating milestones and successes can foster a positive working relationship.

5. Regular evaluation of the collaboration's progress may provide constructive feedback. This can help in identifying areas for improvement and in reinforcing strengths.



Part 3- Tools and Best Practices



Part 3- Tools and Best Practices

1. Project Management Tools: Tools such as Trello, Asana, or Monday.com may help in project tracking and communication.

2. Shared Documents and Platforms: Platforms like Google Drive or Microsoft Teams may help in easy sharing and in collaboration on documents.



Tools and Best Practices

3. Regular Check-ins: Schedule periodic check-ins to discuss progress, challenges, and next steps.

4. Cultural Sensitivity: We need to be aware of and respectful towards the cultural differences that might exist between partners, especially in international collaborations.





Conclusions

- Successful collaborations are based on the appreciation of mutual benefits and clear communication.
- New or existing collaborations are also based on trust.
- Whether establishing new projects or maintaining existing ones, a proactive, organised, and respectful approach is important.

THANK YOU!

E-mail: walter.leal2@haw-hamburg.de



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CrowdHelix

COLLABORATION INTELLIGENCE

The CrowdHelix methodology for clustering, knowledge sharing and open Innovation

BIO-PLASTICS EUROPE Final Conference
23rd January 2024 in Hamburg, Germany

Session 5: Further Collaborations, Clustering and Networks

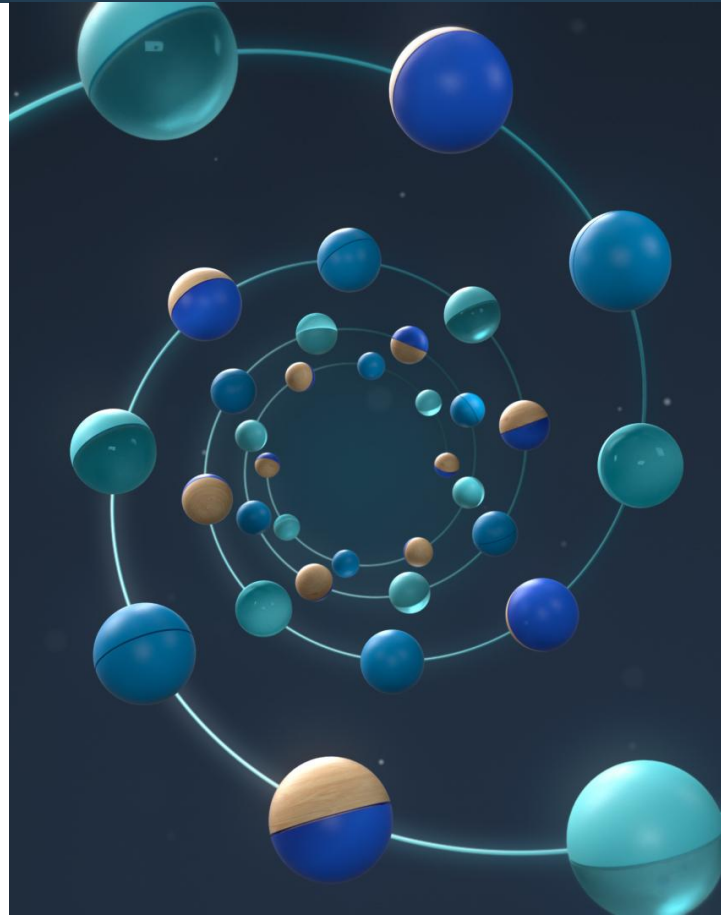
Valeria Pulieri
Impact Acceleration Manager - CrowdHelix

WHO WE ARE

Crowdhelix is a **value chain building company** working in the area of the **impact acceleration** through networking and open innovation services.

We are impact acceleration partner in more than **30 EU-funded** projects in different research and innovation domains.

Our open innovation platform is a **proprietary software** that provides connections to a diverse community of RTOs (research and technology organisations), SMEs, start-ups, public institutions, associations, corporations and investors.

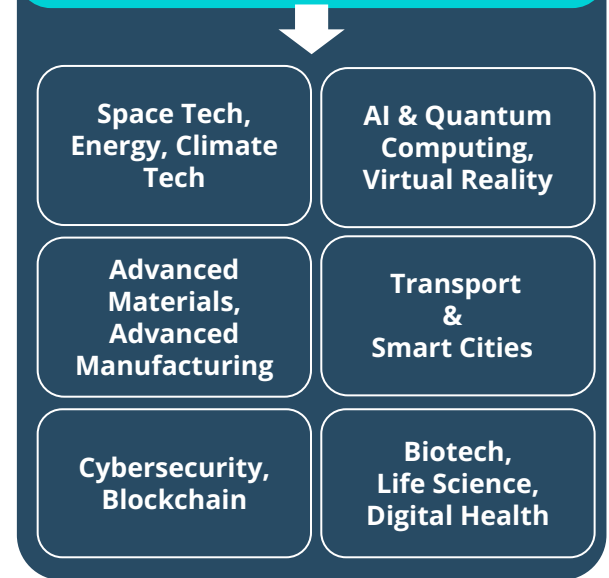
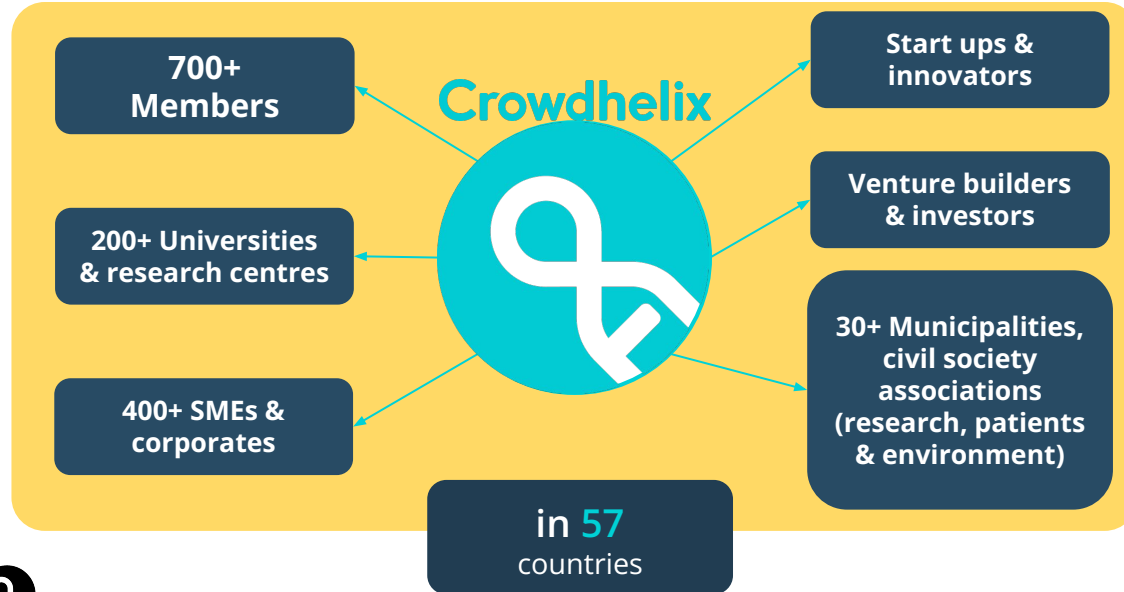


Crowdhelix VALUE CHAIN connector

More than
16,200
pioneering projects

Potential connections
in excess of
500,000

Over
+14,000
individual experts among



When you join the Crowdhelix platform you join an outstanding group of research & technology organisations and, university members

[illegible]

Corporate Members

A selection of our corporate members, providing you with a strong foundation for research and innovation



SME Members

The Crowdhelix platform is open to small and medium size companies with the desire to succeed in competitive, international R&I programmes



Impact Accelerator partner in +30 EU-funded projects

Health, MedTech,
Pharma

CRUCIAL

A-TANGO

InTouch

TARA

PRIME 2

EIC: Pathfinder
Open, Challenges,
Transition

TOUCHLESS^{ai}

PAT4CGT

GH2

bioPURE

LASERBLOOD
EIC PATHFINDER
European
Innovation
Council

Circular Economy

ReSoURCE

DiCiM

RAMINA

CREDIT

Materials,
Manufacturing &
Industry

5GT



REFORM



PRESERVE

imat

Energy

ASTEP

GH2

DR-RISE

Impact Accelerator partner in +30 EU-funded projects

Agriculture, Aquaculture & Food



ERADICATING MICRONUTRIENT DEFICIENCIES

Research and Education



Society and Culture



Urban & Rural Development



Environment



Empower students as the agents of change

The Crowdhelix Team 2024

An Experienced International Team from 10 Countries



Abdul Rahim
Chair of the Board



Alan Drumm
Science Communications
Manager



Alex Lliburn
Machine Learning
Engineer



Andreea Petrea
Communication
& Events Manager



Andrew Salomon
Science Communications
Officer



Azusa Tanaka
Japan Ambassador



Ben Calnan
Head of Engineering



Bianca Vasile-Pitis
Innovation Network
Administrator



Burcu Kiper
Impact Acceleration
Manager



Caíque de Carvalho
Impact Acceleration Manager



Cals Jurgens
Head of Membership
Development



Chris Long
Project Finance Manager



Daniel James Gadd
Senior Full-Stack Developer



Emer Murphy
Science Communications
Officer



Dr. Estefania Ledesma
Proposal Impact Partner



Evangelos Koulis
Impact Acceleration Manager



Fiona Wilks
Finance Manager



George Jeffery
Product Manager



Joana Soares
Impact Acceleration Manager



Jorge Pérez Barrio
Proposal Impact Partner



Dr. Karen Galvin
Impact Acceleration Manager



Katie Moffat
Senior Graphic Designer



Prof. Kurt Deketelaere
Widening Excellence
Ambassador



Dr. Magdalena Tyndyk
Managing Director (Ireland)



Laura Arnold
Marketing Manager



Marco Lopes
Impact Acceleration Manager



Martin Scott
Innovation Advisor



Michael Browne
Chief Executive Officer



Michelle McGinty
Software Engineer



Nedyalko Krastev
Junior Full-Stack Developer



Oreolorun Olu-Ipinlaye
Machine Learning Engineer



Ozan Korkut
Design Lead



Rebecca Manville
Chief Marketing Officer



Paul McKenna
Head of Membership Operations



Rusty Nash
Chief Technology Officer



Ryan Bustard
Digital Marketing Analyst



Ryan Holder
Software Engineer



Prof. Sir Eric Thomas
Higher Education
Ambassador



Dr. Styliani Petroudi
Impact Acceleration
Manager



Susan Robson
Chief Financial Officer



Thais Soares
Impact Acceleration Manager



Thomas Ryan
Video & Content Creator



Dr. Valeria Pulieri
Impact Acceleration Manager



Burcak Cullu
Global Network Manager



Oliver Hall
Global Commercial Development

The Crowdhelix Ecosystem

Crowdhelix works in and for complex "ecosystems" where we interact with different users and organisations, and therefore with different needs that require different approaches and services over time.

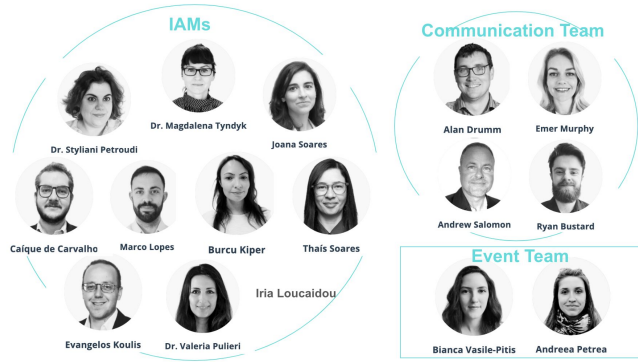
Crowdhelix Platform



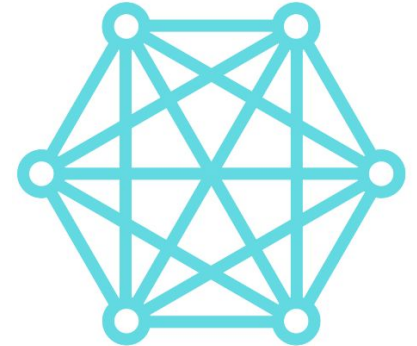
Training & Events



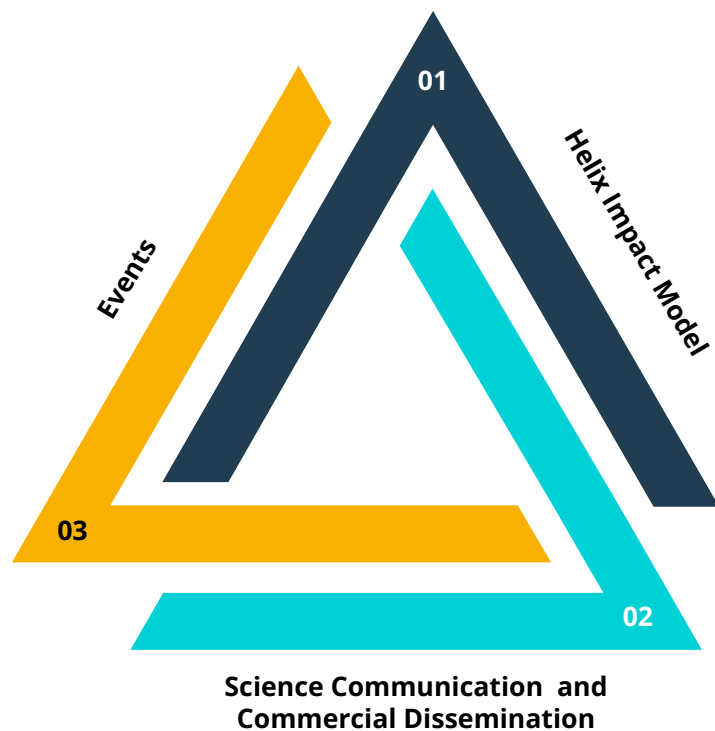
Impact Team



Clustering



Impact Acceleration Approach



01

Helix Impact Model

Stakeholder analysis, Matchmaking and clustering, profiling and connecting innovation to global end-users using recommender engine

02

Science Communication and Commercial Dissemination

Social media, website, videos, open webinars, newsletters, tech update announcements, public relations, events

03

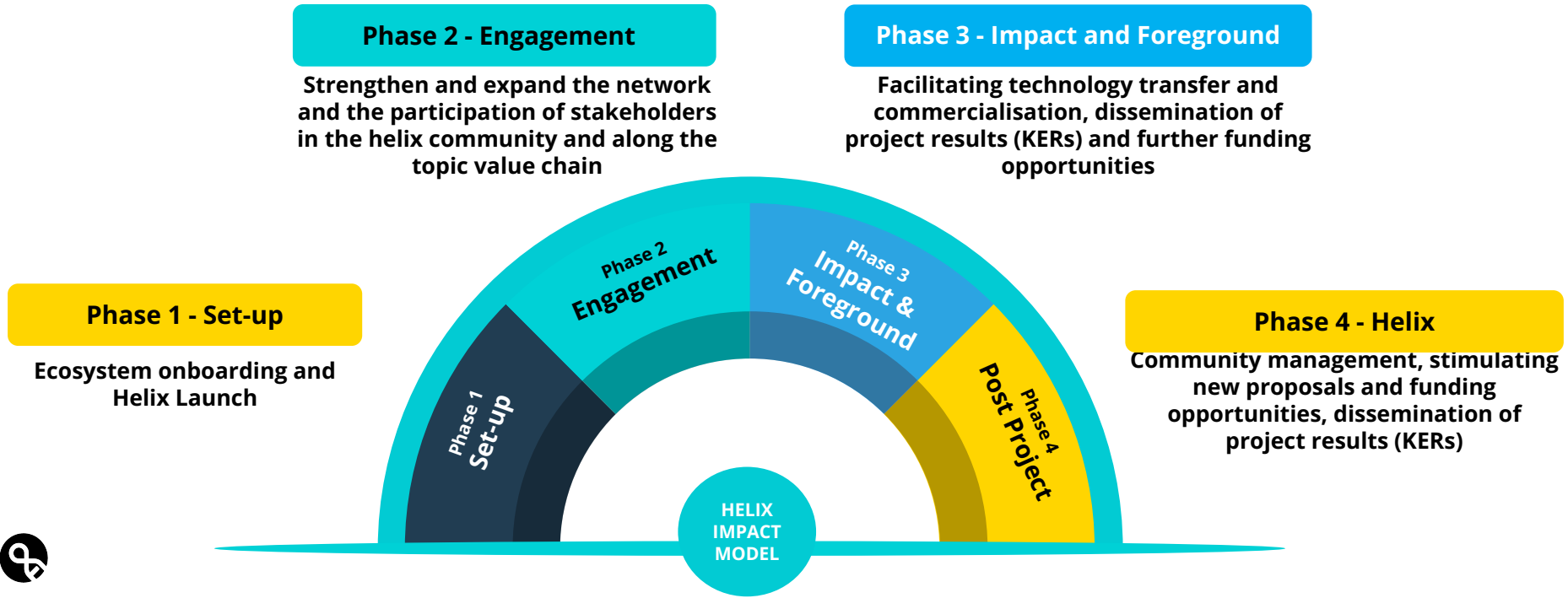
Events

Knowledge sharing and impact events

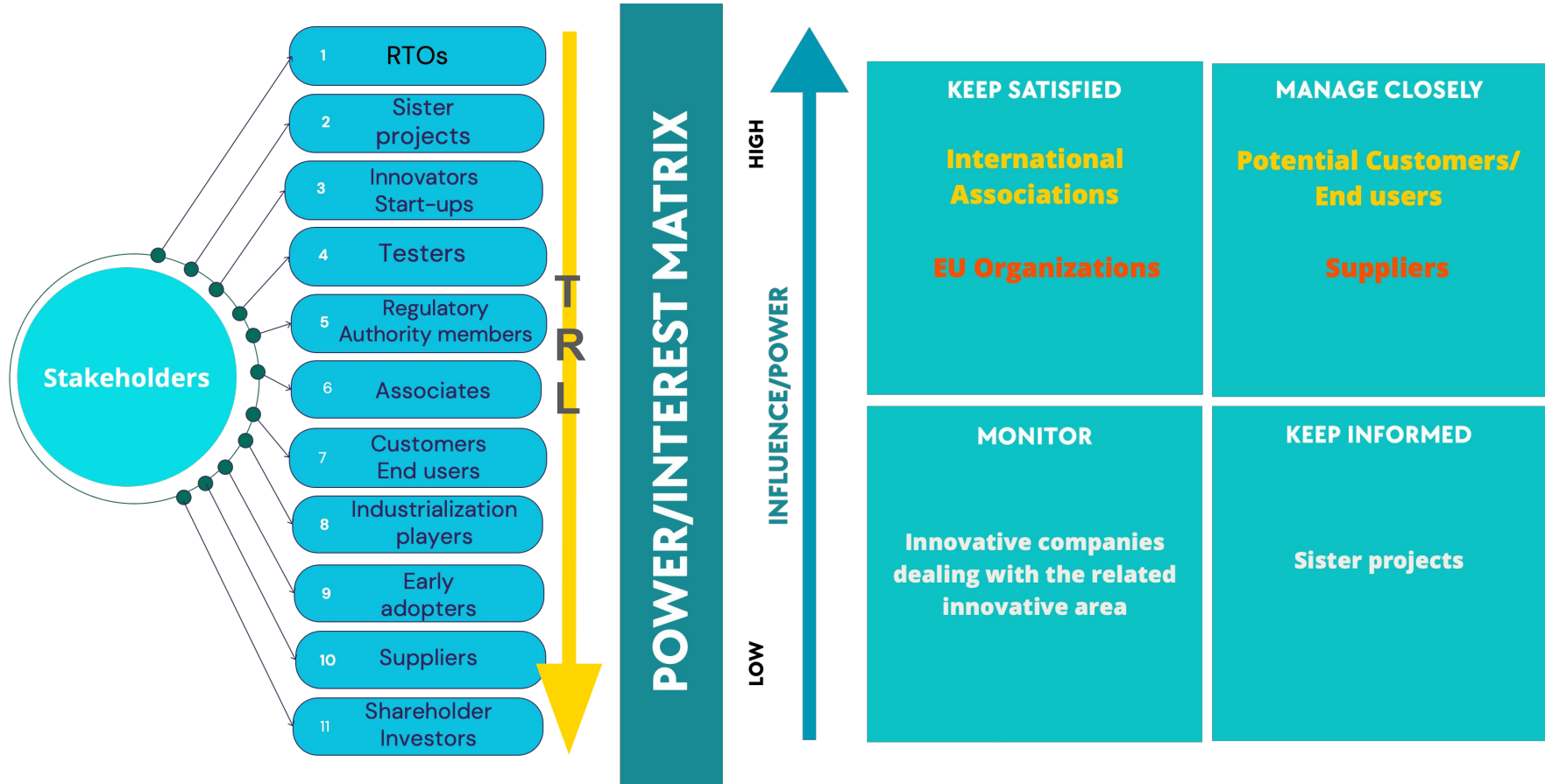


Helix Impact Model

The Helix Impact Model is a distinctive approach to creating impact through a unique combination of our **digital infrastructure** and **human-powered services**.



Value chain and stakeholders



Crowdhelix A deeper look at the platform

Matchmaking technology

Core benefits of our Open Innovation platform

- Results feature
- Match-making technology based on machine learning

1

Funding

2

Connecting

3

Community
Building

4

Intellectual
property portfolios

5

Matching to
industry challenges

6

Matching users
to global funding

7

Machine learning
for collaborations

Connecting You Globally Via Our Helix Communities

What is a Helix?

An international community or collaboration group on the CrowdHelix platform

In your business sphere

Connections are directly relevant to your business needs and potential

Thematic

CrowdHelix currently hosts 50 thematic Helixes including the below



Engage with and invest in Key Exploitable Results (KERs) from EU Funded Projects

Helix Communities are more than ecosystems designed to build pre-award collaborative partnerships - They also exist to drive impact and promote EU Funded KERs to relevant stakeholders as they emerge

Maastricht University
in Health, Vascular



Improving microstructural integrity, interstitial fluid, and blood microcirculation images from multi-b-value diffusion MRI using physics-informed neural networks in cerebrovascular disease

 **CRUCIAL** 

TRL  **Technology validated in lab**

Using multi-b-value diffusion-weighted MRI, several biological diffusion components can be estimated that characterize the brain tissue, such as th...

 **Funded by the European Union** 

[Read more](#)

 [Edit](#)

Ca' Foscari University of Venice
in Health, Smart Medtech, Cell & Gene Therapy



Dynamics of a "Healthy" Viable Microbiome to Prevent Diseases

 **internal funds** 

Background - Research at Ca Foscari Venice University is focused on understanding what constitutes a "healthy" microbiome in terms of composition,...

[Read more](#)

 [Edit](#)



Crowdhelix Our role in open innovation

**Triggers new collaborations
& knowledge transfer**



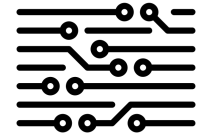
**20+ events & training
delivered annually**

**Showcasing the results of
research & innovation**



**Wiring connections for more
funding & market opportunities**

**Facilitates tech transfer
& exploitation**



**Driving the spin-out
process of innovation**

**Promotion of cross-disciplinary and interconnection
of facilities, laboratories, talents and expertise globally**



Our success stories



"I am delighted to confirm that Coca-Cola Europacific Partners (CCEP) has recently invested in new carbon capture technologies with Rovira i Virgili University in Spain. I would like to thank Crowdhelix for acting as a gateway to academic excellence across Europe to facilitate this outcome."

**Coca Cola Europacific
Partners, February 2023**



"Many thanks to Crowdhelix for their contribution to the recently funded DICIM Horizon Europe project. This call was part of the Digital Industry and space cluster and will focus on Digitalised Value Management for Unlocking the potential of the Circular Manufacturing Systems with Integrated Digital Solutions. The project is led by Masaryk University and is made up of an international consortium of excellent organisations, including several members of Crowdhelix. The project officially kicked off on the 1st of January, 2023 and we look forward to delivering it over the coming 4 years."

**Lidia Parrilla Benítez, MSc
R&D Project Manager / Engineering**



Our success stories

The Materials Helix Event



Materials Helix Event

Wed, 22 Nov, 12:00

- Presentation and matchmaking for **8 upcoming calls**
- Clustering session “**Materials Innovation for Circular Economy**” with 4 other projects
- Poster presentation
- Creation of new consortia



Training and Events

Helix Events



Building the economic framework for Nature-based Solution

Tue, 26 Sept, 11:00 CEST



Printed Electronics - Helix Community Launch

Thu, 21 Sept, 11:00 CEST



Citizen Science and Artificial Intelligence Technologies

Mon, 9 Oct, 14:00 CEST

Training Events



Crafting Compelling Project Applications

Thu, 18 Jan, 11:00 CET



ERC-2024 Calls - An in-depth analysis

Thu, 7 Sept, 10:00 CEST

Training and Events

Knowledge sharing Events



Materials Helix Event

Wed, 22 Nov, 12:00



The future of bio-based packaging

Mon, 11 Dec, 13:00

Networking Events



Annual Crowdhelix RTO & Corporate Members' Event

Thu, 12 Jan, 13:00

COMING SOON! GLOBAL FUNDING ACCESS

BIG news!

In 2024, Crowdhelix is on the threshold of opening funding access to our members beyond Horizon Europe and will soon be providing access to major global grant & funding partners, through our newly innovated and proprietary global AI funding aggregator

These will include the world's largest public and private funders such as the National Institutes of Health (NIH), Bill & Melinda Gates, XPrize, and many Corporate Open Innovation Programmes



FIND YOUR PERFECT MATCH in 2024

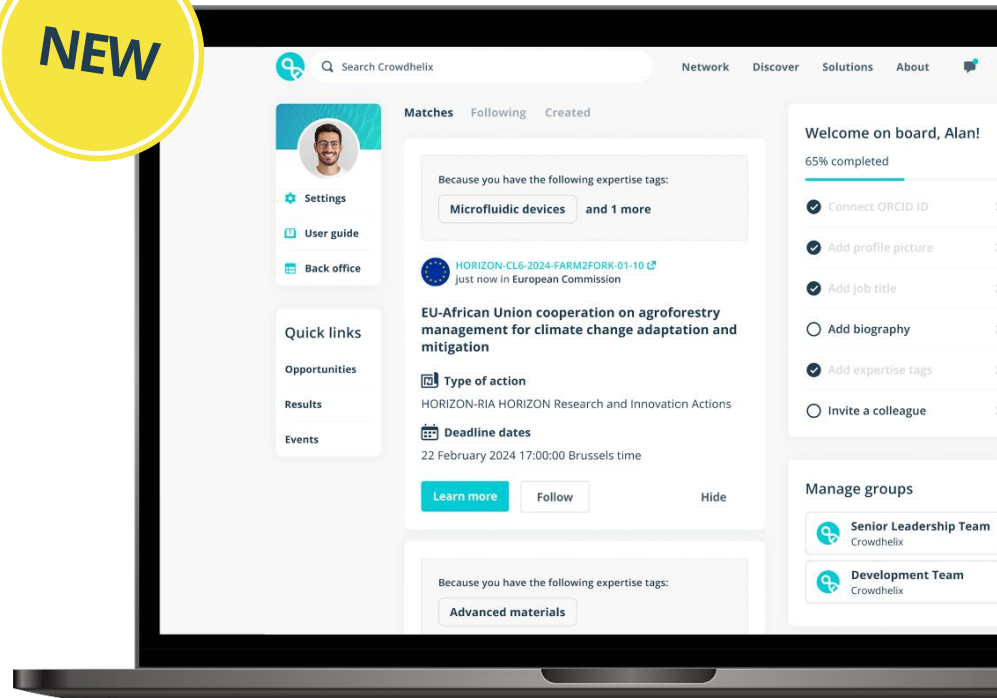
Introducing our NEW Call-Matching feature!

CrowdHelix will soon be able to automatically match your profile to Horizon Europe funding calls thanks to our innovative AI 'Recommender Engine'

Save the hassle of manually identifying relevant and matched funding with this latest automation

The relevant funding programmes will be brought to you!

Simply add your expertise to your profile, groups and organisation, and the platform will specifically match you to Horizon Europe Calls



Contact us



Michael Browne

CEO

michael@crowdhelix.com

General Queries

hello@crowdhelix.com



Cais Jurgens

Head of Membership Development

cais.jurgens@crowdhelix.com

Proposal Queries

proposals@crowdhelix.com



Dr Valeria Pulieri

Impact Acceleration Manager

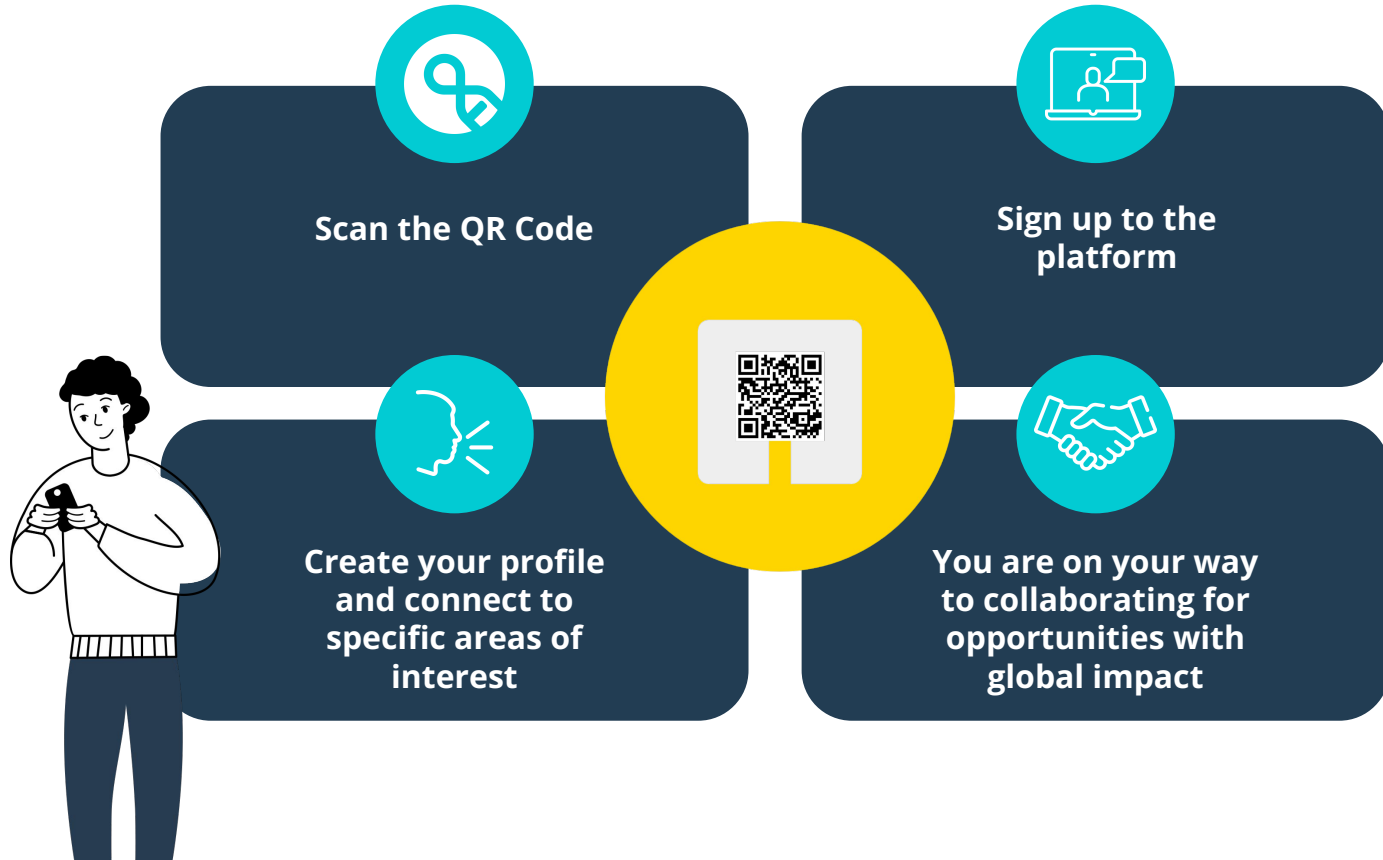
valeria.pulieri@crowdhelix.com

Platform Queries

support@crowdhelix.com



Crowdhelix How to join our platform





Thank you

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ROUND TABLE

Pathways Forward: Shaping the Future of Bio-Based Plastics in Europe

Moderator



Carolyn Brand,
ProspeX Institute



Vo Quoc Thao Nguyen,
International Sustainability
Academy



Simon Gölden,
Fraunhofer LBF



Miriam Gallur,
ITENE



Walter Leal,
HAW Hamburg



Valeria Pulieri,
Crowdhelix



Hasso von Pogrell,
European Bioplastics e. V.

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