D5.3 Action Plan of Transformative Change Clustering

WP 5 Dissemination, Communication and Exploitation

T 5.4 Establishing Synergies with other EU funded projects and initiatives

Authors: Maria Rosário Partidário (IST-ID), Margarida Monteiro (IST-ID), Rute Martins (IST-ID), Ana Soares (IST-ID), Chiara Bartolacci (ICONS), Claudia Crippa (ICONS)

Funded by the European Union

Technical references

Project Acronym	BioValue
Project Title	Biodiversity value in spatial policy and planning leveraging multi-level and transformative change
Project Coordinator	Maria Rosario Partidario University of Lisbon - Instituto Superior Técnico mariapartidario@tecnico.ulisboa.pt
Project Duration	July 2022 – June 2025 (36 months)
Deliverable No.	D5.3
Dissemination level*	PU
Work Package	WP 5 - Dissemination, Communication and Exploitation
Task	T 5.4 Establishing Synergies with other EU funded projects and initiatives
Lead beneficiary	IST-ID
Contributing beneficiaries	ICONS
Due date of deliverable	31 August 2023
Actual submission date	31 August 2023

* PU = Public

PP = Restricted to other programme participants (including the Commission Services)

RE = Restricted to a group specified by the consortium (including the Commission Services)

CO = Confidential, only for members of the consortium (including the Commission Services)

Funded by the European Union

v	Date	Beneficiary	Author
1.0	30/08/2023	1 (IST-ID) 2 (ICONS)	Maria Rosário Partidário (IST-ID), Rute Martins (IST-ID), Ana Soares (IST-ID), Margarida Monteiro (IST-ID), Chiara Bartolacci (ICONS), Claudia Crippa (ICONS)

Funded by the European Union

Table of contents

Technical references 2

Table of contents 4

1 BioValue Summary 6

2 Introduction 8

3 Stakeholders' Analysis of the Cluster 13

3.1 Exploitation Strategies 13

3.2 Stakeholders' domains 16

3.3 Stakeholders' groups 18

3.4 Stakeholders' mapping and prioritisation 21

High interest – high impact 22

Low interest – High impact 24

High interest – Low impact 24

Low interest – Low impact 25

3.5 Stakeholders' engagement strategy 26

Action Plan 29

Synergy areas 29

Action Plan 29

First six months of the Action Plan of Transformative Change Clustering 30

Events and Activities Foreseen in the future 32

Monitoring 33

LIST OF TABLES

Table 1. BioValue list of participants and roles. 6
Table 2. List of WP and its objectives 7
Table 3. Transformative Change for Biodiversity Cluster 9
Table 4. Exploitation strategies (Cluster-level) 15
Table 5. Stakeholder domains (Cluster level) 16
Table 6. Stakeholder domains for each Cluster project 17
Table 7. Stakeholder groups description 19
Table 8 Activities already developed/scheduled on Cluster aims 31
Table 9. Action Plan: Foreseen Activities 32

LIST OF ABBREVIATIONS and acronym definition

KERs	Key Exploitable Results
EC	European Commission
IPBES	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
KER	Key Exploitable Results
REA	Research Executive Agency
SME	small and medium enterprise
WPs	Workpackage
Zenodo	Zenodo is a research data repository harvested by the OpenAIRE portal and hosted by the CERN cloud infrastructure.

1 BioValue Summary

BioValue project aims to safeguard and increase biodiversity through transformative change in spatial policymaking, planning practices and infrastructures development, upscaling opportunities for valuing biodiversity in support of EU strategic actions on biodiversity, in particular the EU Biodiversity Strategy 2030. The BioValue interdisciplinary team consists of 8 partners, and comprises three universities, one research institute, one non-profit organisation, one small and medium enterprise (SME), and two local authorities (public bodies), representing a total of four EU Member States (Table 1).

Table 1. BioValue list of participants and roles.

Short-name	Legal name	Country	Role
IST ID	University of Lisbon - Instituto Superior Técnico	PT	Project coordinator, WP4 and WP6 lead
ICONS	Fondazione ICONS	IT	WP5 lead
AAU	Aalborg Universitet	DK	WP2 lead
UFZ	Helmholtz Zentrum für Umweltforschung Gmbh - UFZ	DE	WP3 lead
UniTrento	Universita Degli Studi di Trento	IT	WP1 lead
CMM	Municipio de Mafra	PT	Case study
CTN	Comune di Trento	IT	Case study
CoKnow	CoKnow Consulting	DE	Case study

BioValue research logic is anchored in participatory research, to strengthen the connection between science, policy and society and consider practical knowledge, particularly in the three case studies (in Portugal, Italy, and Germany). Each of the case studies brings to BioValue concrete angles that are crucial to be explored in spatial planning: the German case bring the challenges of spatial planning, in forest areas, in dealing with climate change effects; the Portuguese case will

explore the development of local spatial planning that is shifting towards safeguarding natural values for local identity preservation; and the Italian case looks into the incorporation of green/blue infrastructure in the co-management of urban development.

Table 2 presents the project six interconnected Work Packages (WPs).

Table 2. List of WP and its objectives

	WP title	WP objectives
WP1	Spatial Planning and Management Instruments (SP&MI)	To understand the transformative potential of spatial planning and management instruments (SP&MI).
WP2	Environmental Assessment Instruments (EAI)	To understand the transformative potential of environmental assessment instruments (EAI) in impacting and protecting biodiversity.
WP3	Policy and Financial Instruments	To understand the transformative potential of economic and financial instruments (E&FIs) impacting biodiversity.
WP4	Transformative Change	To explore, experiment and advance approaches for transformative change in spatial policy and planning processes to enhance biodiversity value.
WP5	Dissemination, Communication and Exploitation	To conduct targeted, effective and high-impact dissemination, exploitation and communication activities.
WP6	Management	To ensure a successful implementation of the project.

2 Introduction

Establishing Synergies with other EU funded projects and initiatives is one of the tasks of BioValue project, that seeks to continuously collaborate to create synergies and cooperate with other projects and initiatives of interest that might provide significant leveraging effect. Achieving cooperation strategies and schemes among the projects funded under the EU Horizon Europe Transformative Change for Biodiversity call (HORIZON-CL6-2022-BIODIV-01) and other EU Horizon 2020 projects is key to maximise the impact and exploitation of results of the projects, and facilitate feedback to policy, this way increasing the potential impact of transformative change for biodiversity.

BioValue is part of the Transformative Change for Biodiversity Cluster that gathers the projects funded under several calls of the Horizon Europe framework and related to Transformative Change for protecting and valuing biodiversity. The Cluster aims at identifying synergies and common areas of work among the projects, fostering the sharing of knowledge and best practices, maximising the impact on EU policies, and feeding the European biodiversity knowledge framework. Under the Cluster, projects are expected to create and provide outputs and evidence for policy makers to accelerate transformative change, giving positive impacts for biodiversity, Also, projects are recommended to give input into Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) work on transformative change and biodiversity.

The aim of this Deliverable is to outline the strategic approach of BioValue towards creating cooperative relationships resulting on a Action Plan. This will facilitate the exchange of, and access to, knowledge and the creation of joint products resulting from the cooperation, such as joint attendance and/or organisation of conferences or workshops, joint scientific publications and policy briefs, thematic guidelines, etc. In here two aspects are explored: a stakeholders analysis made for the Cluster based on the 11 project's KERs and direct contacts with project's representatives, and presented an activity plan for BioValue/Cluster lifespam.

The Transformative Change for Biodiversity Cluster is composed by 11 projects, details outlined in Table 3.

Table 3. Transformative Change for Biodiversity Cluster

Call	Projects
HORIZON-CL6-2021-BIODIV-01-15	BAMBOO - https://bamboohorizon.eu/ CLEVER - https://clever project.eu/
HORIZON-CL6-2021-BIODIV-01-16	BIONEXT - www.bionext project.eu
HORIZON-CL6-2021-BIODIV-01-17	BIOVALUE - https://biovalue-horizon.eu/
HORIZON-CL6-2021-BIODIV-01-21	SUSTAIN - https://cordis.europa.eu/project/id/101060320
HORIZON-CL6-2022-BIODIV-01-08	BIOTRAILS - https://biotrailsproject.eu/about/ RAINFOREST - www.rainforest horizon.eu TC4BE - https://cordis.europa.eu/project/id/101082057 TRANSPATH - https://transpath.eu/
HORIZON-CL6-2022-BIODIV-01-09	BIOTraCes - https://www.biotraces.eu/ PLANET4B - https://planet4b.eu/

Besides the generic commonalities, these projects share similar concepts, methods, and goals, thus making it important to gain a better understanding of each. To provide a comprehensive view of the whole cluster ecosystem, below are presented the Key Exploitable Results (KERs) of each project presented in the 1st Clustering Activity that was held in March 2023[1], and which will a better visualization of cross-project potential synergies. Descriptions have been based on the pitches presented during the first Clustering event organized by Research Executive Agency (REA) in Brussels.

BAMBOO

PROJECT AIMS	BAMBOO aims at providing comprehensive and detailed knowledge of the effects of biomass trade from land and sea on biodiversity and ecosystem services and an improved way of identifying leverage points.
PROJECT MAIN KERs	1) Novel multiregional input-output and integrated assessment models for consideration of global scenarios 2) Online tool for calculating and visualizing impacts of biomass trade flows 3) Case studies on cotton and fishmeal biomass trade flows and their biodiversity impacts

[1] 1st Cluster Event "Transformative Change for Biodiversity", Brussels, 17 March 2023.

BIONEXT

PROJECT AIMS	BIONEXT aims at producing new evidence to better understand biodiversity loss and demonstrates how biodiversity underpins every aspect of life. To secure and protect these values, transformative change will be needed.
PROJECT MAIN KERs	1) Innovative nexus modelling framework 2) Practical guidance and user-oriented BIONEXT APP decision-support tool 3) Evaluation framework to assess the quality of knowledge integration in IPBES (Nexus and Transformative change) relevant activities and contexts

BIOTraCes

PROJECT AIMS	Following BIOTraCes' four principles for transformative actions -pluralising, empowering, politicising and embedding -the project aims to contribute to a nature-positive society by developing knowledge, tools and new approaches.
PROJECT MAIN KERs	1) Inclusive and plural Theory of Change for Biodiversity 2) Development of strategies to aid transformative (i.e., integrative, adaptive, inclusive and pluralistic) governance 3) Demonstrating practices and key principles of transformative change for nature-positive societies

BIOTRAILS

PROJECT AIMS	BIOTRAILS aims inspiring and accelerating biodiversity-relevant transformative changes by: 1. Building the understanding of the complex interrelations in the Climate-Biodiversity-Society nexus and between indirect drivers of changes; 2. Co-designing interventions in policy, urban consumptions and corporate policies.
PROJECT MAIN KERs	1) Inter-sectoral policies addressing climate-change impacts, biodiversity losses and societal behavioural changes 2) Innovative practices at the corporate level for reducing the impacts of production/trade/consumption on the ecosystem quality and biodiversity 3) Urban policies – i.e., market, policy, and behavioural interventions–for mitigating the impacts on ecosystem quality and biodiversity

BioValue

PROJECT AIMS	BioValue aims at safeguarding and increasing biodiversity through transformative change in spatial policymaking, planning practices and infrastructures development, upscaling opportunities for valuing biodiversity in support of EU strategic actions on biodiversity.

Funded by the European Union

PROJECT MAIN KERs	1) Analytical framework for biodiversity transformative change in spatial policy and planning 2) A set of tools for spatial planning transformations 3) Guidelines on the pathways to include these tools in spatial planning

CLEVER

PROJECT AIMS	CLEVER aims at identifying new leverage points for sustainable transformation informed by a novel holistic approach to quantifying biodiversity and other impacts of trade in major raw and processed non-food biomass. The main focus is on the value chain of soybean and forest products linking producers in countries such as Brazil, Cameroon, and Gabon to intermediate and final consumers in the EU.
PROJECT MAIN KERs	1) Better understanding of the (direct and indirect) drivers of biodiversity loss and leverage points for transformative change in biodiversity conservation 2) Understanding of the impact of non-food biomass supply chain actors and trade on biodiversity 3) Recommendations for the design and implementation of policies and strategies

PLANET4B

PROJECT AIMS	PLANET4B aims to design transformative pathways through understanding how intersectionality, norms, values and behaviour are implicated in biodiversity-relevant decision-making. The project's transdisciplinary methodology will draw from a range of behavioural and deliberative methods to help bridge a gap between knowledge of people and biodiversity and effective decision-making in 11 case studies across Europe and the globe.
PROJECT MAIN KERs	1) Applied knowledge gained from 11 place-based and sectoral case studies on how transformations can be enabled by policy design and participatory engagement 2) Recommendations for EU and international policies about how behavioural and intersectionality insights can aid policymaking and how biodiversity can be further prioritized. 3) Improved understanding of the inter-relationship between human behaviour, transdisciplinary knowledge and intersectionality, and their relevance for transformative change.

RAIN FOREST

PROJECT AIMS	RAINFOREST aims at enabling, upscaling and accelerating transformative change to reduce biodiversity impacts of major food and biomass value chains. Together with stakeholders, it will co-develop and evaluate just and viable transformative change pathways and interventions
PROJECT MAIN KERs	1) Quantified biodiversity scenarios based on choices made with respect to diets, food processing, crop choice, intensification of production, protected areas 2) Online calculator for biodiversity impacts of kitchen recipes

Funded by the European Union

	3) Concrete and actionable recommendations for transformative change for consumers, producers, investors, and policymakers

SUSTAIN

PROJECT AIMS	SUSTAIN aims at strengthening understanding and awareness of how all economic activities depend on and impact biodiversity, in order to transform the business and finance sectors' approach to decision-making regarding nature.
PROJECT MAIN KERs	1) Knowledge base on impacts and dependencies of economic activities on biodiversity and ecosystem services 2) Methods to reduce biodiversity and ecosystem service-related risks and increase opportunities through innovative research and modelling techniques 3) Toolbox for business and financial institutions to understand, assess, and monitor impacts and dependencies on biodiversity

TC FOR BE
TRANSFORMATIVE CHANGE FOR BIODIVERSITY & EQUITY

PROJECT AIMS	TC4BE aims at supporting transdisciplinary research to co-generate transformative change pathways for telecoupled agro-food systems and territories. It engages diverse stakeholders and explores plural perspectives within the EU and partner countries of Cameroon, Colombia, and Kenya, including EU and national policymakers and local communities.
PROJECT MAIN KERs	1) Conceptual contributions on transformative change processes and levers in relation to food systems/territories and biodiversity hotspots 2) Co-generated, situated knowledge on transformative change pathways for biodiversity and equity in cross-scale contexts, drawing on plural perspectives contributing to mobilization for action. 3) Contribution to researchers' and other stakeholders' capacity on transdisciplinary approaches and learning processes in relation to transformative change

Transformative Pathways

PROJECT AIMS	The aim of TRANFORMATIVE PATHWAYS is to use inclusive deliberative processes that identify leverage points and associated interventions for triggering, enabling and accelerating diverse transformative pathways towards biodiversity-positive and climate-proofed societies, with sensitivity to social-cultural contexts and rights.
PROJECT MAIN KERs	1) Roadmap for science-policy-practitioner labs to support the design of inclusive and deliberative co-production 2) Transformative Navigation Toolkit for setting up science-policy-practitioner labs, and identifying, accelerating and navigating transformative pathways 3) Toolbox of Transformative Interventions for sustainable extraction, production and consumption

3 Stakeholders' Analysis of the Cluster

Understanding Cluster projects' KERs, as introduced above, represented the starting point to identify the stakeholder groups. A stakeholder analysis here included aims to clarify and categorize different stakeholder groups and identify the level of interest and impact each stakeholder may have on the applications of results during and after the project's end.
Through a prioritization process of the identified stakeholders, this report offers a comprehensive framework for dissemination and exploitation activities, also exploring possible roles the various stakeholders may play.

3.1 Exploitation Strategies

The exploitation strategies identified hereafter describe the possible pathways to further use, apply and ensure the sustainability of the results produced by the Cluster projects. The list was created by ICONS according to the analysis of the type of outcomes generated by the projects. Considering the nature of the projects, the attention was focused on non-commercial exploitation strategies and dissemination, while considering also commercial strategies related mainly to the provision of services, such as consultancy or advisory that can steam from the knowledge, expertise, and models generated by the Cluster projects.

The main strategies identified across Cluster projects are the following:

- **Development or improvement of open-access tools and resources**
  Project results are used to develop new resources, toolkits, guidelines, databases or improve existing ones and make them available to various stakeholders, such as researchers, practitioners, or the general public. The aim is to help them replicate, adapt, or advance the approach.
- **Further basic or applied research (through contract or research projects)**
  Research results are utilized by partner organizations for additional research activities, either internally or as background, to be integrated into new collaborative research initiatives.

- **Knowledge transfer**

  The knowledge, expertise, information, or skills gained during the project are shared by partners with external actors.
- **Advocacy towards policymakers**

  The project's research, findings, and recommendations are leveraged to influence the formulation and implementation of policies and shape decisions and regulations at different levels.
- **Academic exploitation (launch of new courses, PhD thesis, publications)**

  Research findings and outcomes are used for various academic purposes, such as publishing research papers, developing new courses, or contributing to educational materials and resources. The knowledge generated will be protected through scientific publication and copyright.
- **Dissemination and communication**

  The project's findings, insights, and outcomes are systematically shared with a wide audience to effectively convey the project's achievements and knowledge to relevant stakeholders, including policymakers, industry professionals, researchers, and the general public. Through various channels and approaches, this strategy seeks to maximize the impact of the project's results and facilitate their adoption and implementation in real-world contexts.
- **Development or improvement of a consultancy or other commercial services**
  - Direct commercialization of a new service: direct utilization of the developed services in the market for commercial purposes. Newly developed services are offered directly to potential customers or end-users with the intention of generating revenue.
  - New application/use case of an existing service: finding and implementing innovative ways to utilize the service in different contexts or for addressing additional needs, expanding its value proposition and market potential.

The following table gives an overview of the exploitation strategies selected by each Cluster project.

Table 4. Exploitation strategies (Cluster-level)

	BAMBOO	BIONEXT	BIOTraCes	BIOTRAILS	BioValue	CLEVER	PLANET4B	RAINFOREST	SUSTAIN	TC4BE	TRANSPATH
Consultancy or other commercial services											
Open-access tools and resources											
Further basic or applied research											
Knowledge transfer											
Advocacy towards policymakers											
Academic exploitation											
Dissemination and communication											

From the insights collected, it clearly emerges that the most relevant exploitation strategies are meant to widespread the Cluster projects' results and maximise their use to create and sustain transformative change. Making the knowledge, expertise and resources produced by Cluster projects available - and understandable - to stakeholders is surely one of the most effective pathways, through dissemination and communication, knowledge transfer, open access resources and consultancy services. Another clear intention is to further advance this body of knowledge and expertise through further research and academic activities as well as by supporting changes in policy making and decision-making.

Identifying common exploitation intentions starting from this table could be strategic to design and plan joint activities at the Cluster level, maximizing the reach and engagement of stakeholders to maximize the projects' impact and enhance the replication and sustainability of results towards real and effective transformative change.

3.2 Stakeholders' domains

This section lists the domains to which the stakeholder groups involved in the Cluster projects belong to. To the domains preliminarily identified by ICONS, others were added by Cluster projects' representatives in direct contacts. The complete list is presented hereafter.

Table 5. Stakeholder domains (Cluster level)

Stakeholder domains
Engineering and technology
Health
Retail and Trade
Finance and Business
Agri-Food
Water management
Climate
Energy
Transport
Tourism
Construction

It's interesting how several Cluster projects' representatives indicated "biodiversity" as a domain itself in the comment section of the questionnaire. We acknowledge that these answers stress the urgency to recognize the centrality of biodiversity and consider it as a proper domain that is relevant at both social and economic levels. However, for the purpose of this analysis, biodiversity is not considered one of the domains involved in Cluster projects. Indeed, it represents the overarching subject, let's say the main perspective considering which this stakeholder analysis is carried out. Hence, these domains represent the main sectors that are impacted or influenced by transformative change practices, knowledge and tools produced by the Cluster to protect, enhance, and value biodiversity.

The following Table represents the stakeholder domains related to each project.

Table 6. Stakeholder domains for each Cluster project

	BAMBOO	BIONEXT	BIOTraCes	BIOTRAILS	BioValue	CLEVER	PLANET4B	RAINFOREST	SUSTAIN	TC4BE	TRANSPATH
Health		■									
Retail and Trade	■			■		■		■			■
Finance and Business	■	■					■	■	■		■
Agri-Food	■	■	■	■	■	■	■	■		■	■
Water management		■	■		■						
Climate		■	■	■			■				
Energy		■			■						
Transport		■			■						
Tourism	■	■			■			■			
Construction		■			■						

For this analysis, the most relevant consideration is, first, the heterogeneity of domains that can impact and can be impacted by the Cluster as a whole. The 11 projects together involve a total of 10 domains. Being transformative change defined as a systemic change in society, the collaboration and heterogeneity of domains that is at the basis of the Transformative Change Cluster perfectly reflects this.

Secondly, the table also visualizes the domains that are cross-cutting to the single projects. These are particularly relevant from the Cluster point of view, as they represent possible areas of intersection and collaboration among the projects, that could be leveraged through dedicated joint dissemination and exploitation activities aimed at reaching out and engaging the stakeholders operating in these sectors. The domains that are relevant for most of the projects are:

- **Agri-food** domain, that is relevant for all the Cluster projects (SUSTAIN involves businesses and industries across sectors)

- **Finance and Business** domain that is actually cross-sectoral and implies the development of tools and models to assess biodiversity's financial and economic impact as well as guidelines for implementing and assessing transformative change initiatives.
- **Retail and Trade** domain that implies assessing the impact of trade of different goods via land or sea on biodiversity and accelerating the transformative change in the value-chain of different goods, especially food.

These domains represent the sectors and environments in which the stakeholders that are relevant to the Cluster projects operate. Therefore, the stakeholder groups identified in the following paragraphs need to be contextualized and positioned within these domains, with particular attention to the cross-cutting ones.

3.3 Stakeholders' groups

The results of this step of the analysis give a comprehensive vision of all the possible stakeholders operating in the domains identified.

The stakeholder groups that were preliminarily identified by ICONS based on the Cluster projects' main KERs and the related exploitation strategies are presented in the following Table. The list was validated and integrated by Cluster projects' representatives. The description of each group presents general categories of stakeholders composing them and also gives an overall view of the possible roles they can play in relation to the exploitation of the projects' results.

The identified stakeholder groups were 10 in total, allowing for a cross-cutting analysis that could encompass the heterogeneous projects composing the Cluster. This analysis can help the Cluster to act as a whole and design its strategy towards the maximization of its overall impact on society to protect and enhance biodiversity.

Table 7. Stakeholder groups description

Stakeholder groups	Stakeholders	Description of their stake in the Cluster projects
Researchers & Academia	• Research Institutions/centers • Universities • R&D departments of industrial players	They advance science, pioneer new tools and solutions, and power new markets and industries. These stakeholders can also be crucial in exploring practical solutions to protect and enhance biodiversity in different sectors.
EU and International platforms & initiatives	• Private/public partnerships • Other EU-funded projects • Other EU, Forums, Associations, Networks, and membership organizations • EU and international platforms	They address pressing challenges related to biodiversity through research and innovation. They operate at the European or international level, focusing on sharing existing knowledge, expertise and tools to find innovative solutions.
Service Providers	• Professionals and practitioners • Private and public consulting organizations and agencies operating in the identified domains	They can offer services or advise on a variety of biodiversity issues, including the development and implementation of policies and actions that reduce the impacts of human activities and industrial processes. They can use Cluster results and tools to develop new services, decision-making processes and practices to value biodiversity for relevant industrial sectors or public authorities.
Large enterprises, Start-ups & SMEs	• Industries operating in the identified domains • Sectoral associations • Industry partnerships	They refer to stakeholders operating in various industrial sectors that can be interested and can impact the solutions developed in the Cluster projects (see previous paragraph).
Primary sector operators	Individuals, organizations and associations operating in agriculture, forestry, fishing and other activities that have an impact or are impacted by biodiversity.	These actors have a direct impact on biodiversity, and, in turn, their activities can also depend on biodiversity preservation. Cluster projects may seek to engage with them to identify and address challenges in the supply chain.
Financial bodies and investors	• Public and private investors and funding organizations • Finance platforms	They ensure the sustainability and replicability of transformative change initiatives and actions proposed by the Cluster projects. They can benefit from Cluster knowledge of new standards and policies to invest in solutions contributing

		to biodiversity protection and enhancement.
Public authorities and policymakers	• Local Authorities • National Governments • Supranational institutions • Science-policy bodies at the International and European level	They play a key role in building a supportive framework to drive transformative change to protect and enhance biodiversity at different levels. They can influence Cluster projects by establishing favourable regulations and global standards, providing incentives for implementing new projects, supporting national implementation measures, and investing in research in related areas.
Civil Society and NGOs	• Non-governmental organizations (NGOs) • Social enterprises • Advocacy groups and interest groups	They play a significant role in supporting transformative change practices. They can work to advance the Cluster projects' interests, advocate for policy changes, and promote biodiversity.
Local communities	Individuals and other stakeholders from areas directly involved in the projects (i.e., demo sites, case studies)	They play an active role in the Cluster projects' development and have direct and short-term interests in the results, in terms of their application and upscale. Their engagement is essential for the projects' success and their experience needs to be considered for sustainability and replication strategies.
EU General public and media	• Journalists and local/international media • European citizens • The broad European and international public	Media have the influential reach and ability to disseminate information and play a crucial role in spreading awareness and knowledge about biodiversity loss. Journalists have the power to amplify the message, inform the public, and foster a broader understanding of the potential benefits and advancements in the implementation of transformative change practices. On the other side, the general public has a vested interest in biodiversity preservation, in terms of security of food, housing and access to biodiversity, for example.

3.4 Stakeholders' mapping and prioritisation

Sstakeholders' interest and impact vary across Cluster projects and their different results. However, having an overall Cluster perspective is crucial to prioritize the heterogeneous and numerous groups of stakeholders and design a more effective strategy for Cluster dissemination and exploitation activities.

In the following map, the assessments carried out at the project level were visually combined to show an overall representation that prioritizes Cluster stakeholders based on their expected level of interest and impact.

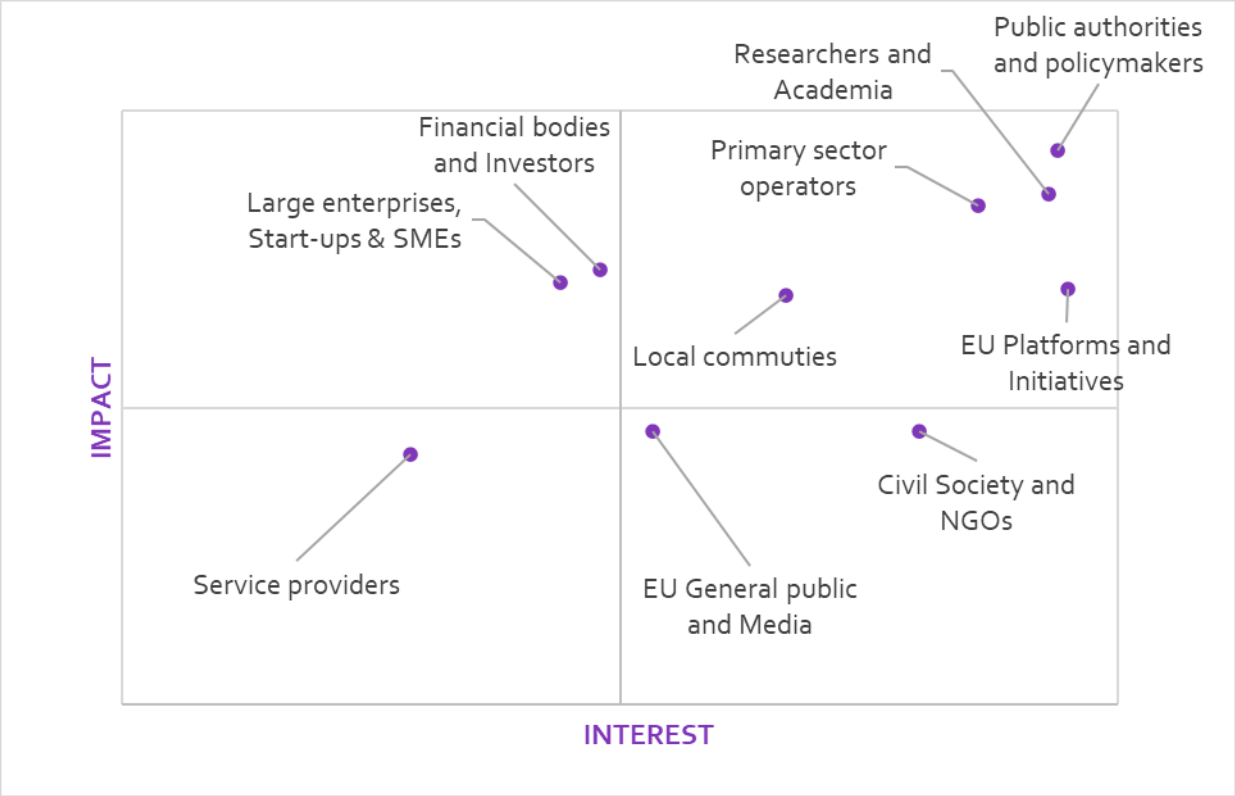

Figure 1. Stakeholder map at the Cluster level

The key findings from the stakeholders' mapping are presented in the four upcoming sections, one for each quadrant of the matrix.

High interest – high impact

Public authorities and policymakers

Public authorities and policymakers hold particular relevance in driving the exploitation of the knowledge, guidelines and tools developed by Cluster projects. They wield a considerable level of impact by establishing policies to sustain transformative change to protect and enact biodiversity, across specific domains and geographical areas. Of course, the interest may vary, therefore, an essential component in this context is the development of a tailored engagement strategies.

While supranational institutions have a major impact on policy change, local and national governments play a crucial role in its implementation. Supranational institutions act as enablers, as they can create a favourable regulatory environment for protecting and enhancing biodiversity, by facilitating the harmonization of regulations, standards, and policies across different jurisdictions, creating a conducive environment for transformative change. National and local governments can provide financial support, tax incentives, or subsidies to promote the implementation of transformative change actions.

They are also impactful in the dissemination of project's results, as they can provide important channels for knowledge dissemination and influence the adoption and integration of the results into relevant policies and regulations related to biodiversity.

Researchers and Academia

Researchers and Academia play vital roles in the further research and development of Cluster projects' results. Their interest and impact levels are therefore among the highest and they can serve both as research partners and enablers. They are both impacted by and interested in the Cluster outcomes, actively engaging in academic, scientific, and research exploitation.

Their expertise, insights, and data gathered through their activities are instrumental in the further development and replication of the results, particularly for the results involving models, tools, and guidelines. They also serve as active players in maximizing the academic potential of the results by offering new courses, delivering publications, and fostering collaborative opportunities. This collaborative dynamic contributes to the advancement of knowledge within the academic community.

Primary sector operators

Biodiversity greatly impacts and is impacted by the activities directly linked to natural resources management and deployment.

Primary sector operators, such as farmers, can play a pivotal role in protecting and enhancing biodiversity by adopting transformative change practices that minimize environmental impact and contribute to the conservation of species and ecosystems. These operators have a direct interest in maintaining biodiversity as it supports long-term resource availability, enhances ecosystem services, and promotes their own economic stability.

Their collaboration can lead to win-win outcomes, as they can provide valuable inputs, lessons learned, and real-world application perspectives, contributing to the practical implementation and replications of the results. Their engagement and use of projects' results can also significantly influence acceptance in their domains and value chains and drive widespread implementation.

EU and international Platforms and Initiatives

EU and international Platforms and Initiatives demonstrate both high impact and interest in the projects' results, as they foster knowledge transfer and sharing among different domains and actors.

They allow for a systemic approach to transformative change for biodiversity, through the integration with existing tools and resources. Moreover, their diverse composition and range of expertise enable them to actively contribute to the expansion of knowledge about transformative change for biodiversity in various fields.

They can act as partners or supporters, as they can provide valuable inputs, resources, and collaborative efforts in the further development and replication of tools, models, databases and knowledge produced by the Cluster projects.

Their engagement helps drive the advancement and application of the results in different sectors and domains, making available open-access tools and resources to different actors.

Local communities

Local communities involved in the Cluster projects act as co-developers and primary end-users of their results, therefore their role is crucial for their acceptance and application at the local level, even if they can initially have a lower interest due to scientific complexities.

Therefore, to ensure their engagement and support, targeted communication efforts are essential. By effectively communicating the project's results and benefits of biodiversity, the media can bridge the knowledge gap and raise awareness among these stakeholders.
The individual perspective is crucial to enact transformative change actions that imply a change of individual behaviours. The increased understanding can lead to greater acceptance and adoption of the project's innovations, positively impacting their replication outside the areas directly involved in the Cluster projects. Finally, their feedback and inputs are crucial to this process.

Low interest – High impact

Financial bodies and investors, as well as large enterprises, start-ups & SMEs, have an important role to play in protecting and enhancing biodiversity due to their significant influence on resource allocation, innovation, and economic activities. Therefore, their impact on projects' results is high, while their interest could be lower, due to short-term contingencies and priorities.
However, they can sustain transformative change for protecting biodiversity while also safeguarding long-term business interests and economic stability. Therefore, their interest needs to be stimulated and their exigencies and priorities need to be considered while pursuing transformative change.
Financial institutions can drive change by incorporating environmental criteria into investment decisions, channeling funds towards transformative change initiatives and projects that benefit biodiversity. **Large enterprises** possess the resources to implement transformative change practices resulting from the Cluster projects in their operations, reducing ecological footprints and promoting responsible sourcing. **Start-ups and SMEs** can fuel transformative change processes through innovative technologies and practices that minimize environmental impact.

High interest – Low impact

Civil society and NGOs

Considering the nature and aims of the Cluster, Civil society and NGOs can be relevant in the implementation and uptake of the project's results. Some NGOs, associations and other non-profit organizations have a clear interest in protecting biodiversity, that represent their mission or one of their core values. Moreover, besides their interest, they also might displace an indirect level of

impact due to their ability to mobilize public awareness, advocacy efforts, and specialized expertise. They play a role also in advocating for policy changes, conducting research, implementing conservation projects, and fostering community engagement to ensure the preservation and sustainable management of ecosystems and species.

The EU general public and media

The EU general public and media have a growing interest in the environmental cause and awareness about the importance of preserving biodiversity and the risks linked to its loss is gradually increasing, too.

In this sense, even if EU media do not have a direct and high impact on Cluster projects, they do play a role in communicating and disseminating Cluster projects' results as well as highlighting biodiversity-related issues and success stories to effectively shape public perception and generate interest among different stakeholders. By effectively communicating the project's achievements and future potential implications, the media facilitates knowledge transfer and exchange, bridging the gap between scientific research and the wider society.

Keeping the general public informed about biodiversity is crucial, as it can lead to long-term mobilization and increased political will towards the need to put in place transformative change.

Low interest – Low impact

From the mapping, it emerges that **Service providers** do not have a high interest in or impact on the Transformation Change for Biodiversity Cluster. In agreement with this result, also the development or improvement of consultancy or other commercial services as possible exploitation strategy was taken into account by just one project of the Cluster (BIONEXT). This is linked to the fact that the Cluster mainly aims at making the knowledge and resources produced available to stakeholders, with no commercial intentions.

However, service providers can leverage the knowledge and resources made available by Cluster projects to advance or develop their own services; they can also offer their specialized expertise, resources, and tools to further advance projects' results.

Moreover, by including projects' results when offering counselling or other services to their clients, they can contribute to systemic transformative change that supports ecosystem resilience and enhances biodiversity.

3.5 Stakeholders' engagement strategy

The analysis conducted until this point is useful to identify areas or actions to ensure stakeholder engagement and a higher impact of the Transformative Change for Biodiversity Cluster. The analysis presented in this last step was consolidated and integrated by the representative of the projects, which identified the most successful activities to engage with projects' stakeholders.

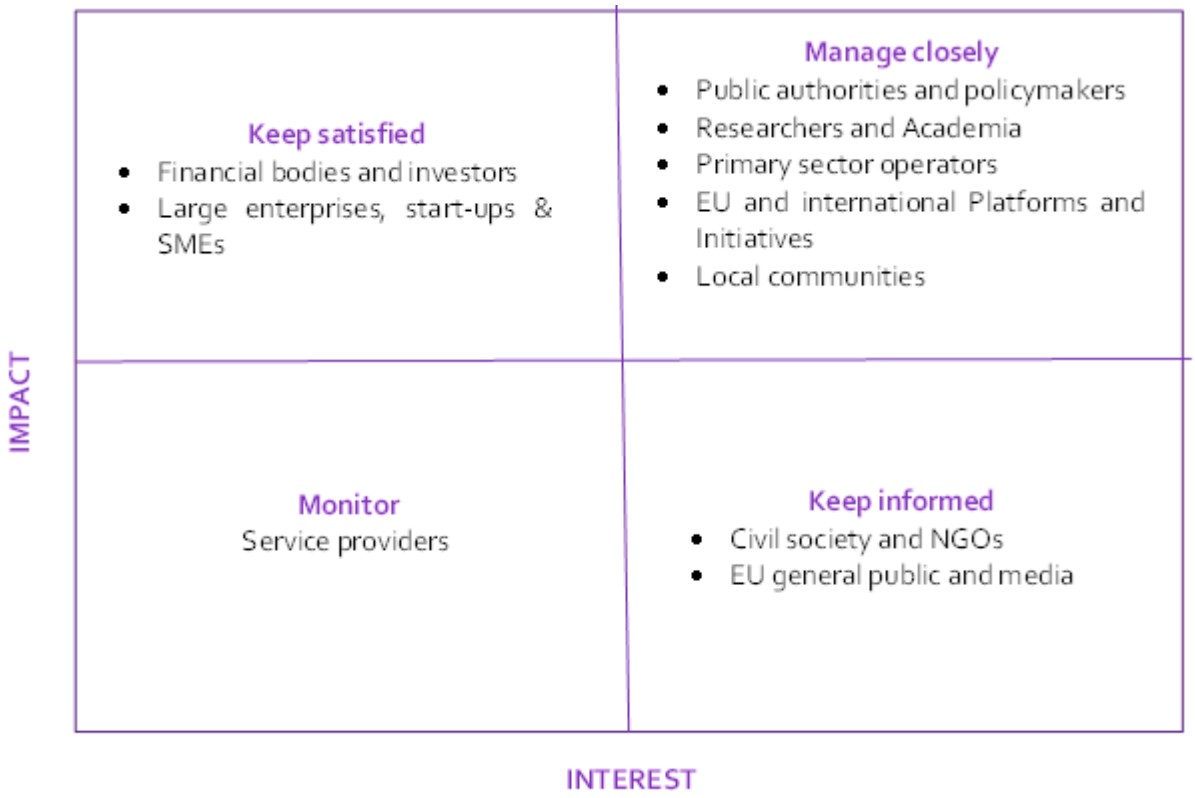

Figure 2. Stakeholder engagement actions according to prioritization

The focus of the last step is on the high interest – high impact category, that should be managed closely. Initiatives that emerged to be the most effective in the engagement with stakeholders are mainly related to three strategies:

- **Direct dialogue and contact to inform and raise awareness about biodiversity and support transformative change**
    - Discussion and informative events around topics that are relevant to stakeholders
    - Dialogue to foster mutual understanding and mutual learning

  - Direct contact with stakeholders at the local and national levels through activities such as meetings, visits, exchanges
  - Communication and dissemination activities targeted to specific stakeholders on different channels

- **Activities to foster knowledge transfer and policy advocacy**
  - Workshops with local communities, putting attention on marginalized voices' involvement
  - Thematic and focus groups
  - Capacity building dedicated to the different stakeholders to put in practice transformative change practices for valuing biodiversity
  - Policy support tools, guidelines, and resources
  - Science brokerage of the projects' results
  - Participation in existing networks, initiatives, partnerships and forums

- **Co-development activities to ensure direct participation**
  - Co-development of project results to ensure they are actionable and ready to be exploited
  - Engagement activities throughout the entire project life-cycle
  - Feedback collection to ensure useability of the results and relevance of recommendations.

As regards the stakeholders falling in the other quadrants of the matrix:

- Financial bodies and investors as well as large enterprises, start-ups & SMEs should be involved in activities to better understand their needs and meet their interests. Indeed, understanding how to co-design (win-win) transformative change actions ensure to gain their support for the development of Cluster activities.

- Civil society, NGOs, EU general public and media should be kept informed with dedicated communication activities and made aware of the positive impacts Cluster projects have on the whole society.
- Service providers, having a low interest and impact on the Cluster, should be monitored to keep track of emerging needs and opportunities to make use of projects' results.

Action Plan

Synergy areas

In the 1st Cluster Event, organized by the European Research Executive Agency (REA), three thematic groups (synergy areas) were formed in which the different projects are, afterwards, co-working on a set of topics. The groups cover the fields of Transformative Change for Biodiversity, Planetary Boundaries, Doughnut Economy, Environmental Footprints, and Degrowth. The concepts approached by each of the groups are of a cross-cutting nature and relevant to the 11 projects in this cluster. In particular they are:

1. Towards a nature positive society: the Biodiversity Nexus.
2. Production, consumption, and global trade, including Business and Financing.
3. Values, norms, justice and societal agency to accelerate transformation for biodiversity.

The groups organize the work of the Cluster to reach the stated Cluster objectives. It is expected that following Cluster meetings will use these groups to discuss, organize and coordinate works.

Action Plan

As mentioned before, the Cluster aims at identifying synergies and common areas of work among the projects, fostering the sharing of knowledge and best practices, maximising the impact on EU policies, and feeding the European biodiversity knowledge framework. Under the Cluster, projects are expected:

- To create and provide outputs and evidence for policy makers to accelerate transformative change, giving positive impacts for biodiversity;
- To recommend and give input into IPBES work on transformative change and biodiversity.

The following sections present the plan to establish synergies and cooperate with the projects of the Cluster, aiming at the above objective. Are presented foressen activities, as well as those already happening, and the monitoring of the plan to its successful implementation.

First six months of the Action Plan of Transformative Change Clustering

Within the first 6 months virtual meetings were established and emails were exchanged of the working group that BioValue takes part of (*towards a nature positive society*) and projects of the cluster namely BIONEXT, BIOAGORA and CircHive, to identify shared synergies between projects to inform the creation of a joint working plan to maximize collaboration between Horizon Europe projects in the working group.

To understand relevant stakeholders and their potential role for transformative change in valuing biodiversity, BioValue lead a first Stakeholder Analysis of the cluster projects (presentedn in section 3).

Regarding communication activities, BioValue planned joint communication activities that can be implemented togheter. The cross-project collaboration considers all communication through social media channels (e.g., Twitter, LinkedIn, Facebook, Instagram). All information related to forthcoming events will be shared through Twitter and LinkedIn channels, which are the main social media platforms used for the project dissemination. Retweeting and tagging of sister projects is essential to maximise the outreach to the broader network community. For the time being within BioValue, all project partner organizations are encouraged to "follow" each of the related projects and initiatives through social media. The goal of this is to create a 'network of networks' for impact maximisation across projects.

Besides the official EU Cluster on European projects on transformative change, BioValue is also collaborating with other projects dealing with biodiversity, ecosystem services, data, and networks. Table below shares ongoing activities already developed/scheduled on Cluster aims.

Table 8 Activities already developed/scheduled on Cluster aims

Project	*Type of coopetarion*	*Type of activity*
SELINA Horizon Europe Project	SELINA looks for examples of good practices and invites other projects to participate on project meetings to exchange ideas / experiences	SELINA has been invited to share their work in BioValue annual meeting in September 2023
Network Nature Horizon 2020 project	Focuses on nature-based solutions related to water, food security, climate adaptation. They have the capacity to generate networks of practice along with mobility of researchers	BioValue has participated in NetworkNature Annual Event- Enabling transformation through and for nature-based solutions, Brussels on 8th June 2023
Eklipse	The project developed an App called Magics, that includes different methods to synthesize information on biodiversity, as well as a decision tree for the most suitable methodology	EU EKLIPSE mechanism is used to generate impact beyond the relational spaces, fostering an upscaling process, where other stakeholders and communities can tap into the knowledge co-created locally and the pool of participating researchers can be extended beyond BioValue boundaries.
BioAgora	This project targets more the policy side of biodiversity and has established a good collaboration network at the science-policy interface.	BioValue and BioAgora were designed as the leading projects to fuel clustering activities for the 1st six months of the Transformative Cluster activities

Events and Activities Foreseen in the future

Table 9. Action Plan: Foreseen Activities

Event & Activity	*Type of activity*	*Date & Place*[2]	***State***
Meetings	Meetings between the project's cluster. Bilateral and multi-project meetings	Ongoing	Meetings to be schedule with project's representatives to identify synergies.
Cluster Meetings	Presential/online meetings promoted by REA	tbc	tbc
Analysis on Biodiversity Nexus	Analyse the links between biodiversity, water, food, energy, transport, climate and health	April-September 2023 Online, direct contacts	Joint work between BioValue and BioAgora
Knowledge brokerage in Consortium Meeting	Session in BioValue Consortium Meeting to share knowledge and experiences.	September 2023 Trento, Italy	Joint session between BioValue and Selina
Impact Dialogue WP1	Online session about spatial planning and management instruments	December 2023 Online	Identify relevant Cluster projects based on the stakeholders analysis for participation. Identify and invite one of the projects to share knoweldge (do a presentation) on the session.
Impact Dialogue WP2	Online session about environmental assessment instruments	March 2024 Online	Identify relevant Cluster projects based on the stakeholders analysis for participation. Identify and invite one of the projects to share knoweldge (do a presentation) on the session.

[2] Tbc: to be confirmed

Event & Activity	*Type of activity*	*Date & Place*[2]	***State***
Impact Dialogue WP3	Online session about economic and financial instruments	June 2024 Online	Identify relevant Cluster projects based on the stakeholders analysis for participation. Identify and invite one of the projects to share knoweldge (do a presentation) on the session.
Impact Dialogue WP4	Online session about transformative change for valuing biodiversity	October 2024 Online	Identify relevant projects from the cluster based on the stakeholders analysis for participation. Identify and invite one of the projects to share knoweldge (do a presentation) on the session.
Collaborative media communications	Joint communications through social media channels	On demand	Identify relevant forthcoming events of specific projects. Identify relevant knowledge to jointly share
Joint scientific papers and communications	Knowledge share in scientific-related products	On demand	Identify relevant Cluster projects based on their KERs and case studies.
Cluster Project's Final Conferences	Conference	tbc	BioValue to express interest in participate.
BioValue Final Conference	Conference	June 2025 tbc	Invite all the Cluster projects to participate and share knowledge (poster/workshop session – tbc) in the conference.

Monitoring

BioValue will closely monitor the achievement of the action plan, acknowledging that is an open-ended plan subject to changes. Progress on clustering activities, of which BioValue takes part, will be mapped and shared both though social media channels, Zenodo (for joint productions) as well as in BioValue targeted deliverables.