BISON
BIODIVERSITY AND INFRASTRUCTURE SYNERGIES AND OPPORTUNITIES FOR EUROPEAN TRANSPORT NETWORKS

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no. 101006661

Deliverable D2.3

Report on Stakeholder Engagement

Due date of deliverable: 30/06/2023

Actual submission date: 30/06/2023

Project details

Project acronym	BISON
Project full title	**B**iodiversity and **I**nfrastructure **S**ynergies and **O**pportunities for European Transport **N**etwork
Grant Agreement no.	101006661
Call ID and Topic	H2020-MG-2020 / MG-2-10-2020
Project Timeframe	01/01/2021 – 30/06/2023
Duration	30 Months
Coordinator	ETHNIKO KENTRO EREVNAS KAI TECHNOLOGIKIS ANAPTYXIS (CERTH/HIT)

Document details

Title	Report on Stakeholder Engagement
Work Package	WP2
Date of the document	30/06/2023
Version of the document	v1
Responsible Partner	Charlotte Navarro (FRB)
Reviewing Partner	Yannick Autret (MTE), Ondine Deyrieux (OFB)
Status of the document	Final
Dissemination level	Public

Document history

Revision	Date	Description
01	13/04/2023	First Version
02	12/06/2023	Second Version
03	20/06/2023	Third Version
1	30/06/2023	Final Version

CONSORTIUM - LIST OF PARTNERS

Partner no.	Short name	Name	Country
1	FEHRL	FORUM OF EUROPEAN NATIONAL HIGHWAY RESEARCH LABORATORIES	Belgium
2	MTES	MINISTERE DE LA TRANSITION ECOLOGIQUE ET SOLIDAIRE	France
3	CERTH/HIT	CENTER FOR RESEARCH AND TECHNOLOGY HELLAS	Greece
4	CDV	CENTRUM DOPRAVNÍHO VÝZKUMU- TRANSPORT RESEARCH CENTER	Czech Republic
5	UGE	UNIVERSITÉ GUSTAVE EIFFEL	France
6	SPW	SERVICE PUBLIC DE WALLONIE – DIVISION MOBILITE – INFRASTRUCTURES	Belgium
7	UPGE	UNION PROFESSIONNELLE DU GENIE ECOLOGIQUE	France
8	UIC	INTERNATIONAL UNION OF RAILWAYS	France
9	CEREMA	CENTRE D'ETUDES ET D'EXPERTISE SUR LES RISQUES, L'ENVIRONNEMENT, LA MOBILITE ET L'AMENAGEMENT	France
10	Agristudio	AGRISTUDIO	Italy
11	WWF RO	WWF ROMANIA	Romania
12	UKF	FAKULTA PRÍRODNÝCH VIED - UNIVERZITA KONŠTANTÍNA FILOZOFA V NITRE	Slovak Republic
13	BMK	BUNDESMINISTERIUM FUER VERKEHR, INNOVATION UND TECHNOLOGIE	Austria
14	AMPHI	AMPHI CONSULT	Denmark
14a	FPP	FPP - WITH AMPHI CONSULT	Poland
15	FRB	FONDATION POUR LA RECHERCHE SUR LA BIODIVERSITE	France
16	UNILIM	CENTRE DE RECHERCHES INTERDISCIPLINAIRES EN DROIT DE L'ENVIRONNEMENT DE L'AMENAGEMENT ET DE L'URBANISME - EQUIPE THEMATIQUE DE L'OBSERVATOIRE DES MUTATIONS INSTITUTIONNELLES ET JURIDIQUES - UNIVERSITE DE LIMOGES	France
17	OFB	OFFICE FRANÇAIS DE LA BIODIVERSITE	France
18	BAST	BUNDESANSTALT FUER STRASSENWESEN	Germany

19	BMVI	BUNDESMINISTERIUM FUER VERKEHR UND DIGITALE INFRASTRUKTUR	Germany
20	ZARAND	ASSOCIATA ZARAND	Romania
21	UASVM-CN	UNIVERSITATEA DE STIINTE AGRICOLE SI MEDICINA VETERINARA CLUJ NAPOC	Romania
22	GDDKIA	GENERALNA DYREKCJA DROG KRJAOWYCH I AUTROSTRAD	Poland
23	STUBA	SLOVENSKA TECHNICKA UNIVERZITA V BRATISLAVE	Slovak Republic
24	MINUARTIA	MINUARTIA	Spain
25	SLU	SVERIGES LANTBRUKSUNIVERSITET	Sweden
26	AWV	BRUSSELS AREA, BELGIUM - AGENTSCHAP WEGEN EN VERKEER	Belgium
27	CAU	UNIVERSITY OF KIEL	Germany
28	UNI KASSEL	UNIVERSITY OF KASSEL	Germany
29	BfN	BUNDESAMT FÜR NATURSCHUTZ	Germany
30	ARMSA	ARMSA	Poland
31	IP	INFRAESTRUTURAS DE PORTUGAL SA	Portugal
32	MDPAT	MINISTERSTVO DOPRAVY A VÝSTAVBY SLOVENSKEJ REPUBLIKY	Slovak Republic
33	ASTRA	FEDERAL DEPARTMENT OF THE ENVIRONMENT, TRANSPORT, ENERGY AND COMMUNICATIONS - FEDERAL ROADS OFFICE	Switzerland
34	NTIC	NETIVEI ISRAEL - NATIONAL TRANSPORT INFRASTRUCTURE COMPANY LTD	Israel
35	NCA	NATURE CONSERVATION AGENCY OF THE CZECH REPUBLIC	Czech Republic
36	RWS	MINISTERIE VAN INFRASTRUCTUUR EN WATERSTAAT - MINISTRY OF INFRASTRUCTURE AND WATER MANAGEMENT	Netherlands
37	TII	TRANSPORT INFRASTRUCTURE IRELAND	Ireland
38	Egis SE	EGIS ENVIRONNEMENT	France
39	TRV	SWEDISH TRANSPORT ADMINISTRATION - TRAFIKVERKET	Sweden
40	DTES.GENCAT	DEPARTAMENT DE TERRITORI I SOSTENIBILITAT. GENERALITAT DE CATALUNYA	Spain
41	ANAS	ANAS	Italy

TABLE OF ACRONYMS

Advisory Group	AG
African Conference for Linear Infrastructure and Ecology - Endangered Wild Trust	ACLIE - EWT
Association des sociétés françaises d'autoroutes	ASFA
Association française de normalisation	AFNOR
Association Universitaire de Génie Civil	AUGC
Australasian Network for Ecology & Transportation	ANET
Biodiversa	Biodiversa
Building Infrastructure Modelling	BIM
Centre d'Ecologie Fonctionnelle et Evolutive	CEFE
Centre International de Droit Comparé de l'Environnement	CIDCE
Civil Society	CS
Community of European Railway and Infrastructure Companies	CER
Coordination and Support Action	CSA
DATA TERRA	DATA TERRA

ECOFIRST	ECOFIRST
European Energy Research Alliance	EERA
European Rail Infrastructure Managers	EIM
Fédération nationale des travaux publics	FNTP
Global Infrastructure Basel Foundation	GIB
Haropaports	Haropaports
Infrastructure and Ecology Network Europe	IENE
Infrastructure Operator	IO
Institut des Routes, des Rues et des Infrastructures pour la Mobilité	IDRRIM
International Conference on Ecology and Transportation - University California Davis	ICOET - UCD
International Union for Conservation of Nature	IUCN
Istanbul Policy Center	IPC
IUCN WCPA Connectivity Conservation Specialist Group	CLLC - IUCN WCPA-CCSG
Kheops	Kheops
Ministerio para la Transición Ecológica y el Reto Demográfico	MITECO
National Transport Infrastructure Authority	NTIA

Non-Governmental Organisation	NGO
Pôle mer-mediterranée	Pôle mer-mediterranée
Rennaissance urbaine	Rennaissance urbaine
Research and Academia	RA
Réseau de transport d'électricité	RTE
Rijkwaterstaat	RWS
Shift2Rail	S2R
Société d'études techniques et économiques	SETEC
Société nationale des chemins de fer français	SNCF
Stakeholder	SH
Sustainable Infrastructure Partnerships - UNEP	SIP - UNEP
Terni Province administration (Umbria)	TePo
Tüv Rheinland Consulting Department Research Management	TRC
Universidade de Évora	UE
Vejdirektoratet (Danish Road Directorate)	CHST
Work Package	WP
World Road Association	PIARC

World Wildlife Fund	WWF

TABLE OF FIGURES

TABLE OF TABLES

EXECUTIVE SUMMARY

This report presents an in-depth analysis of stakeholder (SH) engagement in the BISON project which is a platform supporting synergies and opportunities in biodiversity and infrastructure for the European transport network under the Horizon 2020 programme. BISON brings together a consortium of 45 European members committed to the need to make transport infrastructures more sustainable by taking biodiversity issues into account while guaranteeing their reliability and efficiency. BISON aims to integrate biodiversity into infrastructure development, including roads, railways, waterways, airports, ports and energy transmission networks.

The report highlights how and when the various stakeholders were involved in the project, including national transport infrastructure authorities (NTIA), infrastructure operators (IO), civil society (CS), professional associations and researchers (RA). A participatory methodology was adopted to ensure the inclusion of all stakeholders from the earliest stages of the project. Participation can be defined as the engagement of stakeholders through several activities intentionally created for a purpose. The design of the participatory process was carefully planned to be iterative, taking into account different points of view and including a phase of validation by the group (Carmona et al., 2013).

This report is a deliverable of the project's Work Package (WP) 2 which overall objective is to inform about the rising challenges and issues regarding biodiversity and infrastructure and to explain the main concepts and expected outcomes of the BISON project. In addition, this WP2 is also responsible for good internal communication among partners of all WPs and with the Advisory Group (AG).

Analysis of the results shows that stakeholder engagement was essential to the success of the project. Advisory Group members played a central role in the review of deliverables and in the participation of dedicated workshops and brainstorming sessions. Infrastructure operators (IO) have shown strong commitment by sharing sustainable practices. Researchers and Academics (RA) provided scientific information and recommendations to guide decisions throughout the project, especially in the first period. National Transport Infrastructure Authority (NTIA) and the Civil Society (CS) showed a high level of engagement, especially in the second period. The report also highlights the importance of transparent communication and information exchange between all stakeholders, which fostered trust and collaboration.

In conclusion, stakeholder engagement was a key element in the success of this project. It helped to build consensus around the project's objectives, to integrate environmental and social concerns into decision-making and to ensure the long-term sustainability of the results produced within the project. This report offers valuable lessons for other similar projects seeking to engage stakeholders in projects bringing together a wide range of stakeholders who want to collaborate on a subject that requires the involvement of different disciplines.

TABLE OF CONTENTS

1. INTRODUCTION

1.1. BISON aim and objectives

As part of the last calls under Horizon 2020 (H2020), the BISON project is a platform supporting synergies and opportunities in biodiversity and infrastructure for the European transport network. BISON brings together a consortium of 45 European members committed to the need to make transport infrastructures more sustainable by taking biodiversity issues into account while guaranteeing their reliability and efficiency. BISON aims to integrate biodiversity into infrastructure development, including roads, railways, waterways, airports, ports and energy transmission networks.

As a Coordinated and Support Action (CSA), the BISON project facilitates pan-European cooperation between (i) Member States (such as governments, national research centres, infrastructure operators and civil society) which will be long-lasting and further strengthened beyond the timeline of the project; and, (ii) all forms of infrastructure (including road, railways, waterways, airports, ports or energy transport networks) by creating synergies, identifying common needs for research and innovation, and sharing good practice to avoid and mitigate impacts on biodiversity.

Whereas progress is made at the national level, there are few opportunities to exchange experience and good practices beyond borders. By providing a forum for sharing solutions and lessons learnt, as well as identifying common issues, the BISON project aims at contributing to breaking the silos between the fields of biodiversity preservation and infrastructure planning and maintenance. It also makes research and innovation more cost-efficient through the mutualisation of existing knowledge. These needs have been clearly identified as a priority by the members involved in the project.

To achieve the BISON objectives, the project built on existing experience to improve the environmental performance of European transport infrastructure and networks. Furthermore, the BISON project triggers, coordinates and supports cross-modal thinking and culture through the diversity of stakeholders working on the project, representing 16 EU and associated countries. The BISON project partners are a mix of transport and environment administrations, infrastructure managers or owners, research institutions and private companies, who will together provide cutting-edge research and practice.

1.2. Concept structure and links between the work packages

The BISON project includes five Work Packages: WP1 “Project Management”, WP2 “Communication, Dissemination and Exploitation”, while WPs 3, 4 and 5 represent the technical core part of the project activities. The first pillar of the BISON project, managed by WP3, compiled a state-of-the-art of research and practice, examining existing cross-modal practices and how they may evolve in the future through different scenarios. WP4 integrated this synthesis on emerging trends and future challenges to develop the research aspects of the SRDA in an integrated way, with all consortium members, the Advisory Group and any other relevant stakeholder. This part included a prioritisation of research initiatives in order to answer the short to long term interests as well as regional and pan-European interests. Finally, WP5 produced the deployment side of the BISON Strategic Research and Deployment Agenda (SRDA), setting the ground for the necessary actions and innovative solutions to take place, for mainstreaming Green & Grey infrastructure across the EU Member States and across the different transport modes. WP5 identified the critical topics for potential cooperation of European stakeholders in transferring good practices at policy, legislative and implementation levels.

The combined outcomes of WP4 and WP5 compose the SRDA (Strategic Research and Deployment Agenda). The Project Coordination Group oversaw the development of this output to ensure its coherence. The SRDA will be delivered to the stakeholders targeted in the project: national transport infrastructure authorities, relevant industry stakeholders, the research community as well as environmental agencies**.** The NTIA and industrial stakeholders are the "end users" of the results of the BISON project. All partners of the BISON project are responsible for disseminating the results to ensure that the product is useful, of high relevance and usable for implementation.

1.3. Objectives of Work Package 2

The Work Package (WP) 2 has for overall objective to **inform about the rising challenges and issues regarding biodiversity and infrastructure and explain the main concepts and expected outcomes of the BISON project** (external communication). In addition, this WP2 is also responsible for good internal communication among partners of all WPs and with the Advisory Group (AG).

The communication and dissemination activities shall **ensure that the project's objectives and progress are widely disseminated, generate awareness and commitment among stakeholders about the key objectives of the project and facilitate the uptake of mainstreaming solutions developed within the framework of the BISON project.**

The exploitation activities shall mobilise the infrastructure and ecology communities to work together, ensure effective networking and transfer of good practices as well as encourage long-lasting collaboration so that the project outcomes extend beyond the life of the BISON project. It shall also provide the capacity to the key actors to adopt the best practices and developed tools autonomously. The specific involvement of UIC in this WP will enhance the communication between railway operators and infrastructure managers. The consortium will be active in improving the competitiveness and safety of the rail system especially in Europe although railways do not pose a major threat as much as other means of transport as indicated in the report commissioned by the European Commission DG MOVE in May 2019.

1.4. Stakeholder engagement

The BISON project involves non-beneficiary European and international expert stakeholders for project definition, review, evaluation, dissemination and exploitation of results, through a dedicated Advisory Group (AG).

The AG works closely with all members of the consortium to provide support in reaching an increased level of stakeholder and public awareness and further roll-out of project results beyond the duration of the BISON project. Regular interactions with the AG have been organised to discuss in detail the project's main outputs, collect best practices, develop recommendations and increase buy-in of the project results by the wider stakeholder community. The BISON website was used to coordinate stakeholder consultations for the implementation of WP3, WP4 and WP5, through online questionnaires.

This report on stakeholder engagement has for aim to assess how well the project has involved stakeholders, including through its AG. First, this report presents the AG, its composition and its functions, recalling the importance of the involvement of external stakeholders to improve the uptake of the outcomes of the BISON project. Secondly, it describes how the engagement of stakeholders took place throughout the duration of the project. The criteria for representativeness and early involvement

are considered by many authors to be important requirements for the success of a participatory process (Carmona et al., 2013). Then, we will present how the commitment was monitored and evaluated to consider whether or not it has been successful.

2. THE COMPOSITION AND FUNCTIONS OF THE ADVISORY GROUP

This section presents the composition of the AG, which is a sample of the stakeholders and end-users of the results of the BISON project. This part is also describing the roles and functions expected from the AG members.

2.1. Composition of the Advisory Group

The BISON Project involves a consortium of public and private stakeholders, research centers, Non Governmental Organisations (NGOs) and professional associations and networks. This allows the project to build on knowledge from various spheres of interest, address possible conflicting positions and establish a level playing field in connecting infrastructures and biodiversity.

The consortium stakeholders is composed as follows:

- National Transport Infrastructure Authorities (NTIA)
- Infrastructure operators (IO)
- Research and academia (RA)
- Civil society (CS)

The stakeholders (SH) are the “end users” of the results of the BISON project. The identification of the user requirements is the basis for streamlining the work in the WPs. All partners of the BISON project are responsible for disseminating the results of the BISON project to make sure that the production is useful, of high relevance and possible for implementation.

The AG is composed of a sample of the SH group and other relevant actors. The AG is important to make sure the steps to be taken to support a multimodal transport approach in the BISON project will be implemented, continued and strengthened. The AG reflects the European and international “new culture of cooperation” between all involved stakeholders useful and necessary to meet the multiple challenges of transport infrastructure and biodiversity. The AG is responsible for reflecting the project’s objectives and achievements from the customer point of view. The AG is informed, consulted and involved at different time, to get the opportunity to learn and develop better policies based upon research on existing and future synergy between infrastructure and biodiversity.

The AG is involved at different time, in particular with regard to:

- the co-design of the BISON project
- the review of intermediate and final results
- the dissemination of the results
- the contribution to implementation and exploitation strategy (uptake)

These experts come from all transport modes. Members are selected based on their experiences in reference groups and expert areas which they come from. It therefore consists of experts from: National Transport Infrastructure Authorities (NTIA), Infrastructure operators (IO), Research and academia (RA) and Civil society (CS) (q.v. figure 1).
The AG represent 13 countries. The majority are organisations from the world of research (15 organisations) and civil society (8 organisations). Infrastructure operators are represented by 7 organisations, NTIAs by 4 organisations and professional associations by 2.
The French Federation of Public Works (FNTP), the Swiss Global Infrastructure Basel Foundation (GIB), the French University Association of Civil Engineering and SETE joined the AG in the first 18 months of the project. The Spanish Ministerio para la Transición Ecológica y el Reto Demográfico (MITECO) as well as the French Association Universitaire de Génie Civil (AUGC) joined the project after the beginning of the project.

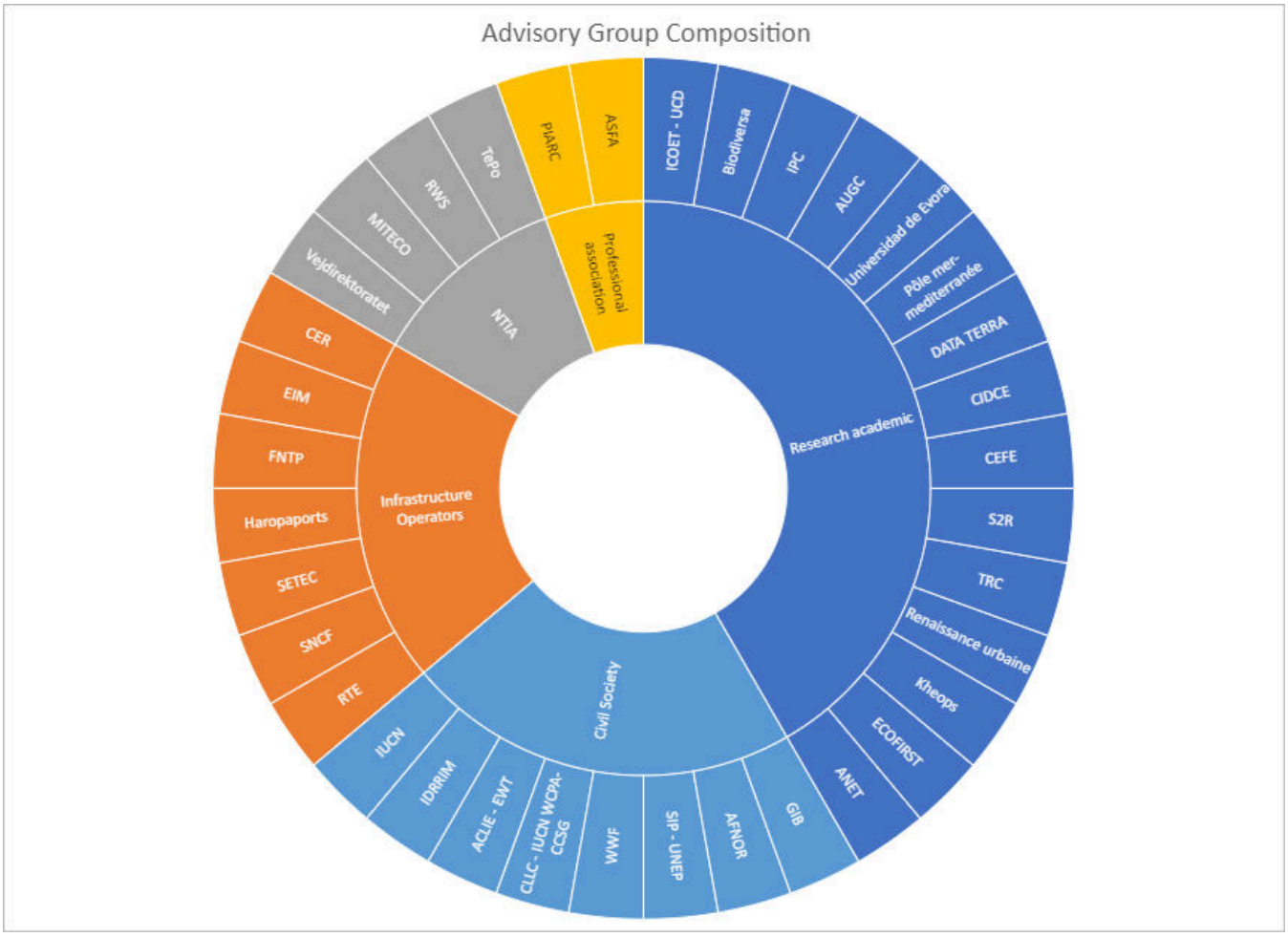

Figure 1: Advisory Group composition

The AG members underline that its composition allow to collect contributions from a variety of actors. The adoption of multidisciplinary research related to the current state of knowledge is a key element of this project.

2.2. Levels of engagement of the Advisory Group

The SH have been informed, consulted and involved at different times, to provide an opportunity to learn and devise more effective policies. This is based on research and existing and future synergies between infrastructure and biodiversity. The AG assembles a balanced team of representatives of all relevant stakeholders, comprising all transport modes (including roads, railways, waterways, ports, airports and energy networks). This mechanism is a novelty for many organisations participating in the consortium, and it was anticipated through improving multi-stakeholder collaboration. This is an added key value for mainstreaming biodiversity - even beyond the scope of the project.

The AG and wider SH audience were managed in the framework of WP2 by the French Foundation for Research on Biodiversity (FRB), whose core expertise is interfacing science, policy and practitioners following the guidance from Durham et al., 2014. Key aspects on how and when to inform, consult and involve stakeholders in the project include:

● The identification of levels of engagement knowing they are likely to vary (inform, consult, involve) (cf. table below). This depends on knowledge of the field, experience and availability. Relevant stakeholders were provided with options regarding their role in this engagement (q.v. table 1);

● Stakeholders assisting in the early development of the project were involved at inception, whereas those involved with disseminating were mainly involved at a later stage. Consequently, stakeholders were expected to consider their contributions and roles within the project (cf. figure 2).

Table 1: Description of the different levels of engagement of the BISON Advisory Group members and stakeholders (adapted from Durham, E. et. Al, 2014)

Level of engagement	Description
Inform	The communication with the stakeholders is one-way. The project shares information or delivers the outcomes to the stakeholders during the project (intermediate results) and at the end (e.g. state-of the-art, SRDA)
Consult	This middle level of engagement is designed to meet the needs of stakeholders. They provide opinions and information on research, good practice and experiences needed for WP3 and WP4.
Involve	In this level of engagement, the stakeholders are fully engaged, and can provide resources, data and reviewers.

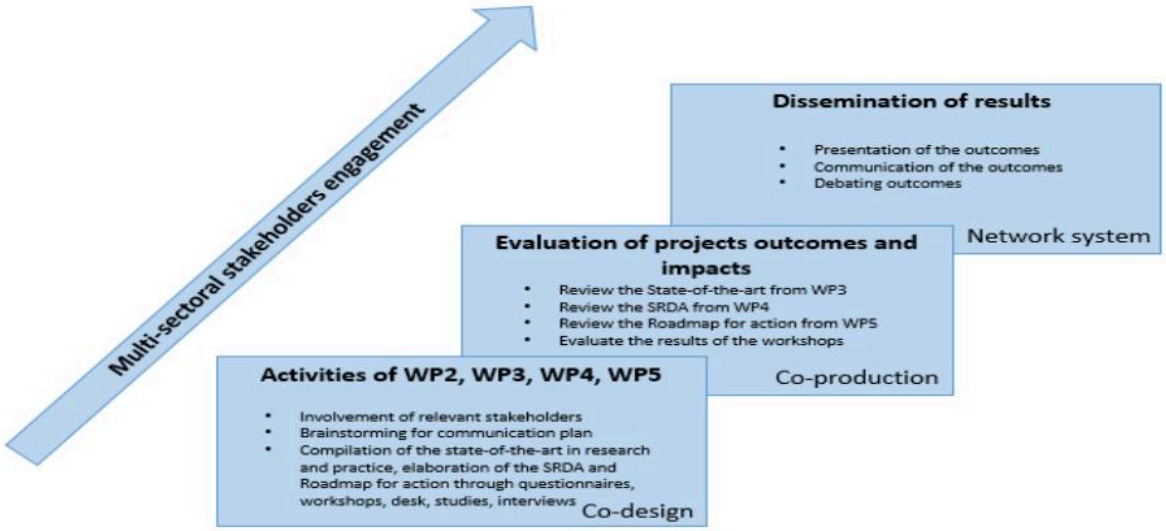

Figure 2: Multi-stakeholder's engagement throughout the project from conception to dissemination of results (adapted from Durham E. et al, 2014)

The results of the workshops and deliverables produced throughout the project have been evaluated by the stakeholders, with an emphasis on their scientific bodies where relevant (for example, IENE Scientific and Expert Committee). The Strategic Research and Deployment Agenda (SRDA) will also be presented to a wider stakeholder audience. The collaboration with stakeholders for the activities of WP3, WP4 and WP5 has been undertaken through questionnaires, workshops and interviews with the most appropriate experts within the consortium, the AG.

2.3. Reasons for joining the Advisory Group

The importance of stakeholder participation in decision-making is being highlighted more and more in project management. The scientific literature identifies three major justifications for stakeholder involvement that is of interest for the BISON project (Carmona et al., 2013):

- Democratic rationale: the public should be involved in decisions that affect them. In the BISON project, the recommendations and the tools provided will directly have an impact on the stakeholders targeted.

- Substantive rationale: citizens can provide scientists with their specialised knowledge, for better understanding of facts and values. This is particularly true in the field of transport infrastructure, where not all modes are treated in the same way in the scientific literature. Feedback and the sharing of experience are key here to being as relevant as possible.

- Pragmatic rationale: an involved and educated public is more likely to support implementation of resulting policies. It is important that the solutions provided by the BISON project are understood and appropriated.

It is essential to recall the reasons why the members of the AG wish to invest in the role of advisor throughout the BISON project (table 2). This is because not only does the BISON project benefit from their involvement, but the members of this group benefit from their involvement in the project. While the stakeholder participation process will help consortium members to better understand stakeholder perceptions and reactions (Roberts et al., 2021), there are many reasons why AG members want to be part of the AG that should be underlined.

It can be for the relevance of their current work, because they are deeply involved in the topics of infrastructure and biodiversity and it is therefore useful for their professional activity. For example, the Association française de normalisation (AFNOR) is in line with standardization projects on biodiversity and is in charge of the international technical committee on biodiversity (ISO/TC 331).

Some members of the AG have shown interest in following the progress that Europe is making on addressing safeguards for biodiversity from linear infrastructure regionally. Some members pays particular attention to new emerging trends related to climate change and the relation between biodiversity development and infrastructure. These are topics addressed by the BISON project.

Joining the AG is also a way for members to remain consistent with their own objectives and thus to strengthen their actions by becoming part of a network that shares the same objectives. This is the case of the Institut des Routes, des Rues et des Infrastructures pour la Mobilité (IDRRIM), that federates all the stakeholders in the field of transport infrastructures and in particular road infrastructures. The objectives of the BISON project are in line with some of their objectives and that is why they have contributed to it.

Some members of the AG wish to be involved in the AG because they have identified interesting production that could directly feed their reflection for future work. For example, the BISON project identifies and describes good practices and new technologies, including nature-based solutions to integrate biodiversity into transport with a strong focus on the infrastructures.

One reason of joining the AG is also because the members are already part of important network addressing similar topics, such as the Infrastructure and Ecology Network Europe (IENE) and/or collaborative work on various projects. For example WWF-Central and Eastern Europe is leading projects in the Danube-Carpathian region and shares common interest in the improvement of the transport-ecology interrelations.

Table 2: Stakeholder and Advisory Group identification, categorisation, noting the reasons for engagement and identifying potential stakeholder benefits realised from engaging

Stakeholder	**Category (e.g. NGO, general public, government department)**	**Reasons to involve the stakeholder(s)**	**Why the stakeholder may want to be involved (benefits)**
Stakeholders "end users"	**NTIA** **RA** **CS** **IO**	Exterior influence and interest for the project Provide information about their practices and data	Opportunity to develop better policies based upon scientific knowledge Better transparency of decisions made They will be informed of the inputs Interest in using the new project inputs
Advisory Group (Independent)	**NTIA** **RA** **CS** **IO**	Exterior influence and interest for the project Involve in the implementation of all WPs Better access to available data Strengthen science-policy-operators interface and ensure relevance of the project inputs Consulted for the results to be adapted and uptake by the wide community of users Sharing technical expertise and potential contribution of resources to project	Possibility of networking with potential new partners through the engagement process Improving efficiency of operations Publicity and Corporate Social Responsibility opportunities Lower engagement time and resources than Beneficiaries as they intervene in the co-conception of outputs They will be informed of the inputs Interest in using the new project inputs

3. HOW THE ENGAGEMENT OF STAKEHOLDERS TOOK PLACE THROUGHOUT THE DURATION OF THE PROJECT

The engagement of stakeholders took place throughout the duration of the project and throughout different type of activities. First, through conventional events, such as the launch meeting of the project, or mid-term seminars. Secondly, through an online questionnaire at the very beginning of the project to assess their knowledge on the topic of mainstreaming biodiversity with infrastructure, on policy and technical aspects. Finally, the WP and Tasks leaders identified several activities linked to their deliverables were the AG members could engage effectively.

3.1. Advisory Group participation

We have asked the AG to answer an online questionnaire in which they could assess their engagement in the AG of the BISON project and the engagement process in general. 16% of the members who took part in the evaluation acknowledged that they had been involved throughout the duration of the project (q.v. figure 3). The AG members showed that they were mostly involved on an ad hoc basis in certain activities, such as filling in questionnaires or forms (23%), and taking part in events such as mid-term seminars, brainstorming sessions, workshops (23%). To a lesser but still significant extent, they were hired on an ad hoc basis to proofread deliverables or parts of deliverables (16%) and to contribute to communication and dissemination activities (13%).

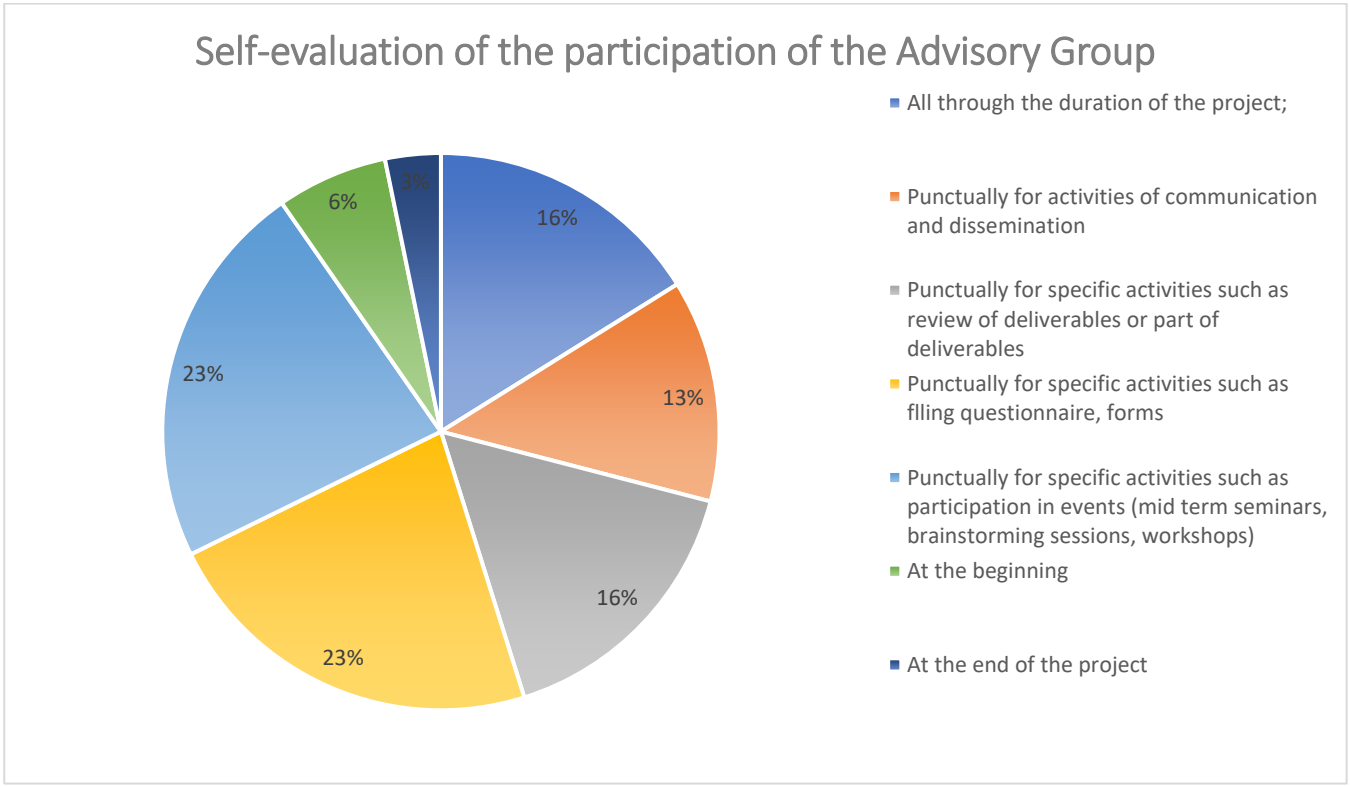

Figure 3: Self-evaluation of the participation of the Advisory Group

3.2. Roadmap for stakeholder engagement

At the very beginning of the project, AG members were invited to complete the roadmap of activities and events with their events coming for the period 2021-2023 (q.v. table 3). A complete template of roadmap can be found in appendix 1. The completion allowed to enrich the roadmap of events. Providing a clear view of the timing of the process to the stakeholders is key for the success of engagement (Rivero et al., 2016).

Table 3: Roadmap of activities sent to be filled by the BISON Advisory Group

What?	**WP in charge**	**When?** *(indicative date)*	**How?**	**Level of engagement**
Communication strategy	WP2	Throughout the duration of the project	Dissemination of BISON information	*Inform, consult or involve*
Online Handbook 'Good practice mainstreaming biodiversity in transport'	WP3	July 2022	Review of the draft handbook	*Inform, consult or involve*
1st draft of the research part of the SRDA	WP4	September 2022	Review of the 1st draft	*Inform, consult or involve*
Presentation and discussion of the map contents preliminary proposed criteria and indicators and state of analysis	WP5	September 2022	Review of the map contents	*Inform, consult or involve*
The future: plausible scenarios, relevant EU funding sources and proposals for future cross-thematic funding	WP5	September 2022	Validation of future scenarios and allocation of relevant innovation solutions	*Inform, consult or involve*
1st draft of mapping potential funding of EU Funding instruments	WP5	September 2022	Review of the 1st draft	*Inform, consult or involve*
From future scenarios to the agenda with AG endorsement	WP5	September 2022	Review of the scenarios integration into the SRDA	*Inform, consult or involve*

AG members were invited to indicate to FRB which steps they were interested in and at which level of engagement (inform/consult/involve) they wanted to be involved. This work helped WP2 to gather the information on a single table to facilitate the solicitation when needed.

For level of engagement, “No” significate that the AG members do not want to be engaged; “Informed” significate that the communication is one-way. We discourage AG members to choose this level as it is not very interesting for the project; “Consulted” significate that at this level the AG can express their needs. The AG members provide opinions, information, good practices and experiences; “Involved”, in this level of engagement, the AG members are fully engaged, can provide resources, data, reviewers.

At the beginning of the project, it was suggested that each AG member prepares one slide to share their experience on the topic of mainstreaming biodiversity infrastructure to share with the Work Packages. They could therefore benefit from AG experience.

3.3. Several meetings with the Advisory Group

3.3.1. Meetings with the Advisory Group

The project launch meeting with the AG was organised by FRB and held on March 16th, 2021. It has been the opportunity for each participant to get to know better the objectives and content of the BISON project. 36 participants from the AG members participated in this meeting.

The topics discussed between AG members and the Work Package leaders concerned the best format to communicate to networks and or communities. They also discussed the main roadblocks hindering the adoption of existing measures to minimize the impact of infrastructures on biodiversity and the key research fields to be explored. Finally, they exchanged on the international on-going activities to support the work of the BISON project.

AG members were invited to indicate to FRB which steps of the BISON project they are particularly interested in and at which level of engagement they want to be involved. The different levels of engagement announced by the AG members (inform, consult, involve) allowed FRB to draw a roadmap with a detailed timeline and targeted actions on specific tasks to engage with stakeholders.

A second meeting of the AG was organised on 23 November 2021. The lower attendance (16 members of the AG), did not prevent the great success of the meeting, that generated interesting exchanges between BISON project members and stakeholders. This included discussions on emerging trends in the field of research on infrastructure and biodiversity (cf. WP3) and on the use of Building Infrastructure Modelling (BIM) and digitalisation in infrastructure projects, to better consider biodiversity issues (cf. WP3). This led to the organization of several dedicated online exchanges between stakeholders and BISON project members, brainstorming sessions described below.

3.3.2. The first mid-term seminar

The first mid-point seminar was held from 7 to 9 June in Puteaux, France. It was organised by FRB, with the support of FEHRL and MTES (q.v. photos in appendix 2). Members of the consortium and AG members were able to meet in person for the first time of the project. The General Assembly was held on 7 June. It was the opportunity to present the work in the first half of 2022. On 8 and 9 June, four workshops were organised to progress on several WPs, allowing the consortium as a whole and members of the AG to provide input on:

- Gaps and barriers as part of the work of WP3, for the implementation of best practices in biodiversity mainstreaming in the infrastructure sector;
- Scenario building as part of the work of WP5, to develop hypotheses for biodiversity mainstreaming in the infrastructure sector;
- Capacity-building platform as part of the work of WP2, to identify user needs for the development of this deliverable;

3.3.3. The second mid-term seminar

The second mid-term seminar was organised back-to-back with the IENE International Conference from 19 to 24 September in Cluj-Napoca, Romania. In total 150 persons participated in-person and 126 online. The Book of Abstracts is available via this link: https://www.researchgate.net/publication/367655535_Connecting_people_connecting_landscapes_-_IENE_2022_Conference_Abstract_Book

The participation of stakeholders and AG allow them to contribute to the work ongoing within the BISON project. 16 members of the AG could participate in-person or online to the following workshops to provide their inputs:

- Future to actions: Prospective scenarios concerning mainstreaming biodiversity into transport infrastructures organised by UPGE and CERTH (WP5)
- Identification of gaps and barriers to mainstream biodiversity in transport infrastructure organised by Minuartia, HIT/CERTH and CEREMA (WP3)
- Recommendations towards the integration of the EU Strategy on Green Infrastructures (EU SGI) into the national policy and legislation systems of EU Member States, regarding transport infrastructure development organised by CERTH and Université de Limoges (WP3)
- Relevance and prioritization of research actions for biodiversity-friendly transport infrastructures in Europe organised by UGE, CDV, UKF, OFB and AMPHI (WP3)
- Priorities to overcome fragmentation effects caused by European Transport Infrastructure – content and use of the European Defragmentation Map organised by University of Kassel, BfN, Kiel University (WP5)

3.3.4. The BISON final seminar

The BISON Final conference was held from 5 to 9 June 2023 in Strasbourg, France and was organised by the MTE and OFB with the support of FRB. 19 members of the AG participated to the event and contributed with their comments and views, especially during a special event dedicated to stakeholder engagement on June 7 organised in collaboration with the Sustainable Infrastructure Partnership (SIP-UNEP). The participants could exchange on different topics such as the means to reach symbiosis between infrastructures and biodiversity, research and innovation as drivers for transformative changes, the role of private investments shaping the incorporation of biodiversity into infrastructure and the role of the community of learners developed by the SIP-UNEP.

3.4. Completion and dissemination of questionnaires

The completion and dissemination of the BISON questionnaire on opportunities and synergies for mainstreaming biodiversity on transportation infrastructure to achieve the goals of the EU Strategy on Green Infrastructure and the EU Biodiversity Strategy for 2030 was held online. The questionnaire was available on the project's website.

FRB contributed to the drafting of the questionnaire, thinking in particular of the stakeholders who are its recipients. The AG members were mobilised to answer the questionnaire and distribute it widely. All members of the consortium were also asked to answer it and disseminate it. The deadline was on 7 July 2021, with late submissions possible in order to complete the representativeness (in terms of type of infrastructure, type of organisation, and European sub-regions) of the contributions received until October 2021.
Work Package 4 treated the first answers received, and FRB presented a first analysis of the coverage of the diversity of stakeholders in the responses to the questionnaire during the project's General Assembly on 25 June 2021. In the middle of July, the others WPs started to analyse the results of the questionnaire.

154 persons answered to the questionnaire, representing 28 countries of which 6 are outside Europe (Australia, Asia, Middle East, America).
The country with the most responses is France (44 persons, 28.6% of all answers). This is followed by Slovakia (16 persons, 11.4%) and Spain (15, 10.7%). 11 countries have only one answering person (figure 5 below).

3.5. The Brainstorming sessions and workshops

Brainstorming session formats have proved ideal for discussing concepts in depth. Indeed, it is common for approaches to be varied around the same concept, such as the social dimension or the digitalisation of infrastructures. Some authors stress the need to integrate these discussions around concepts into stakeholder participation processes so that people share or at least have an exhaustive view of what a concept can embody (Roberts et al., 2021).

3.5.1. Brainstorming on social dimension

A brainstorming session on 22 February 2022 was dedicated to the integration of the social dimension in projects working on infrastructure and biodiversity. Nine participants discussed on the different approaches used in the report “Research and innovation needs expressed by stakeholders” and in the chapter on social dimensions of the “Report on future trends and emerging topics”.

According to the members of the consortium, the exchanges were fruitful. It was important to have a cross-section of experts but perhaps discussions on the social dimension lagged somewhat behind the reflections already underway. Nevertheless the choice of members was appropriate and this has resulted in a document that is more in line with scientific knowledge.

3.5.2. Brainstorming session on BIM and digitalisation of infrastructure

A brainstorming session on 15 February 2022 was dedicated to “BIM & digitalisation of infrastructure”. Twelve participants shared their views on the management of the GIS/BIM/DT[1] continuum, the transferability of BIM processes to the entire GIS/BIM/DT continuum, to the infrastructure life cycle, to all business lines, the regulatory implications (GDPR, data accessibility, file instruction/monitoring) and on the public policies on data and software.

3.5.3. Status of national policy, legislation and implementation tools and recommendations for the integration of the European Union Strategy for Green Infrastructure into transport infrastructure development

A workshop on 23 May 2022 was dedicated to the preparation of the report on Status of national policy, legislation and implementation tools and recommendations for the integration of the EU SGI into transport infrastructure development. Twenty-two participants exchanged on the main issues to be considered and potential improvements in biodiversity and infrastructure regulations, such as the need to take better into account the “ordinary biodiversity” in national law.

3.5.4. Recommendations towards the integration of the EU Strategy on Green Infrastructure workshop

Recommendations towards the integration of the EU Strategy on Green Infrastructure workshop was held on 26 October 2022. It was accompanied with a specific task which consist of prioritizing 50

[1] Process including Geographical Information System (GIS), Building Information Modeling (BIM) and Digital Twin (DT)

recommendations in an excel table. This set of recommendations is based on:

- The outcomes of the work in the existing level of integration of the provisions set by the EU SGI by the transport policy and legislative framework of the EU Member States
- The policy recommendations from Interreg projects of TRANSGREEN, ConnectGREEN, and SaveGREEN connected with the Carpathian Convention;
- The OECD report on mainstreaming biodiversity in infrastructure development;
- The Declarations of IENE International Conferences of 2012, 2018, and 2022;
- The Global Strategy for Ecologically Sustainable Transport and other Linear Infrastructure and
- The Gaps and Barriers (G&B) derived from the BISON WP3 workshop at IENE 2022 International Conference in Romania.

10 members of the AG provided very valuable comments on the table of prioritization of recommendations for the integration of the EU Strategy on Green Infrastructure. The recommendations concerned Policy and strategy documents at the international and national policy level, Planification at the national level, Law and legal instruments, Regional strategies and instruments, and the monitoring.

3.5.5. Transferability of processes, tools, and key points on mainstreaming biodiversity and ecological connectivity

The workshop on “the transferability of processes, tools, and key points on mainstreaming biodiversity and ecological connectivity during transport infrastructure development across different transport modes” was held on 14 February 2023. The aim of the workshop was to discuss the progress made within WP 5, subtask 5.2.2, and the remaining challenges for finalizing the transferability tool focusing on the following aspects:

- Impacts on biodiversity caused by terrestrial transport and transferability to other transport modes
- Mitigation measures designed to reduce the impacts on biodiversity specific to terrestrial transport and transferability to other transport modes
- Processes, tools and barriers through all life cycles of terrestrial transport and transferability to other transport modes

3.6. Consultation

3.6.1. Strategic Research Agenda

In February 2023, AG members were involved in prioritizing and commenting on a list of 110 research action (RA) proposals within WP4 work for the elaboration of a Strategic research action programme (SRA). 5 members of the AG participated to this consultation. In addition to their level of expertise, to get

a completely fresh look at the proposals, only people who up to this point of the SRA development had not been involved at all in the process were invited to contribute. They were asked to express their opinion on the relevance of each RA (strong, weak or null), on the research effort needed to achieve the RA (high, medium or low) and on the urgency to address the RA (high, medium or low). Their contributions have helped to improve and strengthen the list: confirming proposals, eliminating proposals outside the scope of research and development activities, merging proposals and improving the wording of proposals.

3.6.2. Good Practices

The AG members were contacted in the framework of the WP3 of the BISON project, in order to contribute to the identification of existing and future synergies between Infrastructure and Biodiversity, by identifying and describing current good practices and new technologies including nature-based solutions to be deployed to mainstream biodiversity in existing and future transport infrastructures. The AG members were asked to validate the Good Practices related to mainstreaming of Infrastructure and Biodiversity. This consultation took the form of an online survey whish was open from 31 March 2023 to April 5, 2023.

3.7. Review of deliverables

The AG members were invited to review parts of the future Online handbook 'Good practice for mainstreaming biodiversity on transport', especially chapter 1 on “General Concepts”, chapter 2 on "the Life cycle phase of infrastructure, chapter 3 on the mitigation hierarchy " and chapter 5, section 8, on "Invasive alien species". The diversity of the AG profiles allows to target the members who could best review theses chapters, according to their expertise.

4. HOW THE COMMITMENT WAS MONITORED AND EVALUATED TO CONSIDER WHETHER OR NOT IT HAS BEEN SUCCESSFUL

Evaluating the effectiveness of the engagement undertaken shows stakeholders how their participation has contributed to the project. In this process of evaluation we used a formative evaluation to enable consortium members and stakeholders to learn from the engagement process in order to better engage in the future. This evaluation is participatory and uses qualitative methods such as a questionnaire (see appendix 3) and interviews to describe and illustrate why and how the engagement process worked. The purpose of the evaluation helps to influence the design of the evaluation.

The evaluation process will enable to determine:

- The success of the engagement. Have the targets been met?
- The process of engagement. Were the methods used appropriately? What lessons can be learned for the future?
- The impact of the process on stakeholders and on the project. Were there any unexpected results?

4.1. Possible indicators to assess the process of engagement

The qualitative methods used in the evaluation will allow us to consider the perceptions of stakeholders and consortium members on the engagement process and its outcomes. Here we propose indicators agreed upon with stakeholders.

Table 4: Indicators to assess the purposes of engagement

GOALS/PURPOSE OF ENGAGEMENT	POSSIBLE INDICATORS	HOW TO OBTAIN DATA	IMPORTANT ASSUMPTIONS
To better inform stakeholders and the general public.	Increased understanding and awareness	Questionnaires and interviews with participants after the process.	That both awareness and willingness to engage, are as a result of the engagement activity, rather than any other factors
	Willingness to participate in the future, take actions in favour of mainstreaming biodiversity and infrastructure, use the capacity-building platform	Questionnaires and interviews with participants after the process.	That both awareness and willingness to engage, are as a result of the engagement activity, rather than any other factors
To ensure that the project fulfils a multimodal approach	Reviewing of deliverables to make sure all transport modes are taken into account	Questionnaires and interviews with participants after the process. Feedback from technical WP leaders after Advisory Group consultation	The multimodal approach is ensured by the Advisory Group members representing the different transport modes
To facilitate the uptakes of the project.	Dissemination of the outcomes of the BISON project for future actions in different networks	Questionnaires and interviews with participants after the process.	Advisory Group members are part of different networks involved in operational activities and/or decision making

4.2. The results of the stakeholder engagement process

A questionnaire (see appendix 3) has been sent to the AG members two months before the end of the project to start the assessment of the stakeholder engagement process. It is important to note that the evaluation therefore took place while the project was not finished. Nevertheless, it was impossible to do otherwise given the final date of the project and the need to write this report. It is likely that perceptions of the engagement process will change somewhat at the end of the project, however, for this deliverable, we consider that these changes may not be significant and will not bias our conclusions.

Among the 35 members of the AG, 14 members answered the questionnaire. Here are the main results of the consultation.

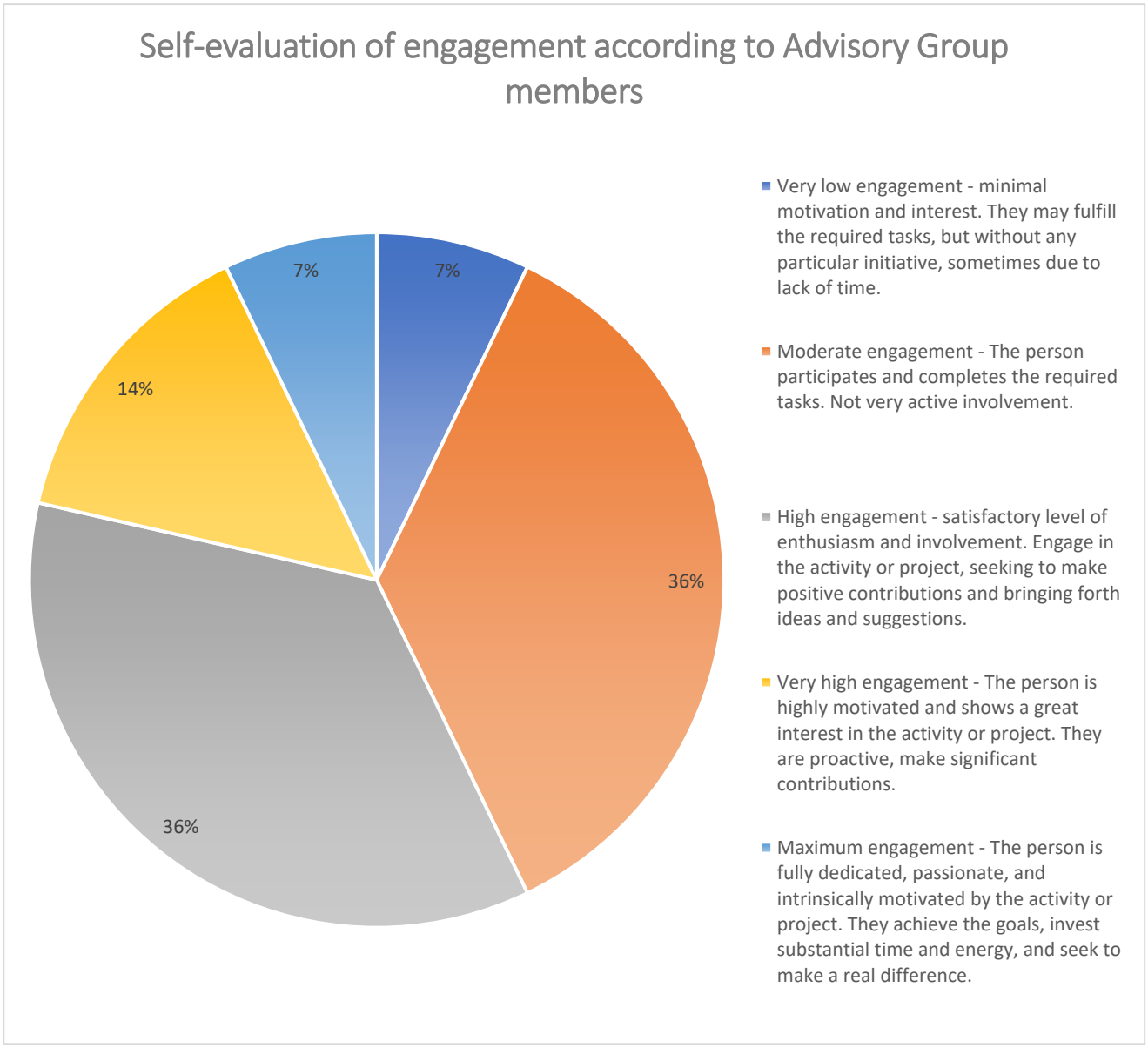

Figure 4: Self-evaluation of engagement according to Advisory Group members

According to the participation of the stakeholders in the different activities, it was possible to draw a table to assess the engagement of stakeholders at the middle of the project and at the end.

Table 5: Table representing the engagement of Advisory Group members according to their level of engagement in September 2022

	Civil Society	Infrastructure Operators	NTIA	Professional Association	Research academics	TOTAL
Involve	3	3	1	1	5	**13**
Consult	1	0	0	0	1	**2**
Inform	2	4	2	1	9	**18**
Total	**6**	**7**	**3**	**2**	**15**	**33**

Table 6: Table representing the engagement of Advisory Group members according to their level of engagement in May 2023

	Civil Society	Infrastructure operators	NTIA	Professional association	Research academia	Total
Involve	6	2	2	1	3	**14**
Consult	1	3	2	0	5	**11**
Inform	0	2	0	1	7	**10**
Total	**7**	**7**	**4**	**2**	**15**	**35**

Between September 2022 and May 2023, two new members joint the AG. This could be possible because of the flexibility in the constitution of this group to enable new organisations to become involved in a project that interests them and for the members of the consortium to benefit from their review, opinions, etc.

In May 2023, the members involved were more civil society actors who were able to set aside more time to review the deliverables in particular. Research actors were less involved, but they had already made a substantial commitment during the first part of the project. These actors were consulted to a greater extent, which increased the number of members of the AG at the "Consult" level. NTIA showed more interest in the project during the second half (q.v. figure 5).

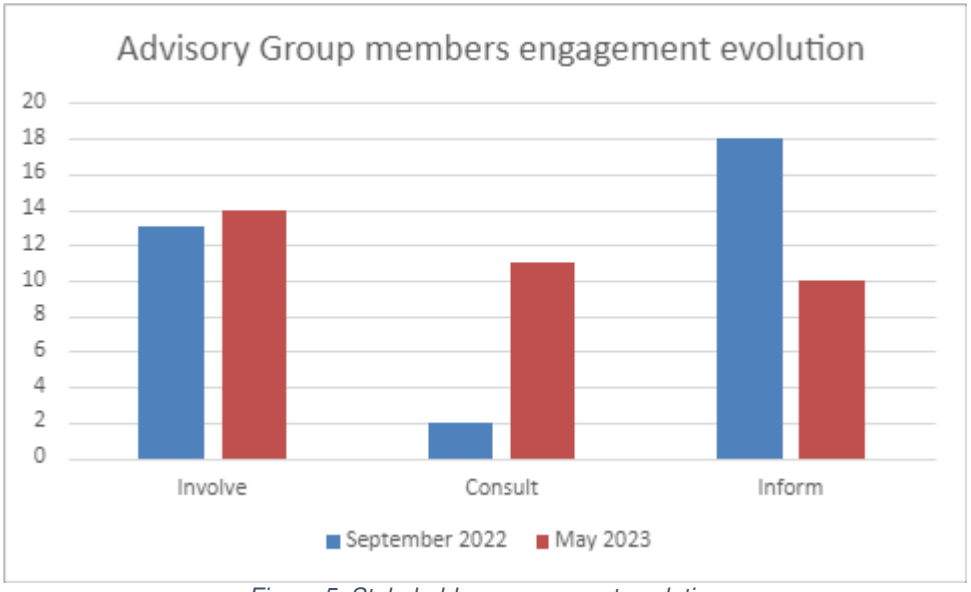

Figure 5: Stakeholder engagement evolution

Table 7: Table representing the engagement of Advisory Group members with names according to their level of engagement in May 2023

	CS	IO	NTIA	Professional association	Research academia
Involve	ACLIE IUCN SIP-UNEP GIB WWF AFNOR	SNCF RTE	Vejdirektoratet MITECO	PIARC	Renaissance urbaine DATA TERRA Shift2Rail
Consult	IDRRIM	FNTP CER EIM	TePo Rijkwaterstaat		Kheops Universidad de Evora ECOFIRST Biodiversa TRC
Inform		Haropaport SETEC		ASFA	CEFE CIDCE Pôle mer-med AUGC IPC ICOET EERA

4.2.1. About the methods used to engage stakeholders

The AG members experienced a variety of methods to contribute to the BISON project. Among these methods we can cite: online workshops, questionnaires, mid-term seminars, brainstorming sessions, sending of deliverables to proofread, presentations, sending of a roadmap to fill out, e-mails exchanges. It is important to note that due to the COVID situation, the majority of engagement methods were virtual. The members of the AG agree that the methods used have been adapted to this situation.

4.2.2. The strengths

We have consulted the AG members to identify the strengths of the process of stakeholder engagement. From their perception, the activities were not taking too much time and the AG members could express their point of view and approaches freely. The time given to respond to consultations was also considered appropriate. The reminders sent out for contributions were useful and well done.

They knew easily what was expected from them thanks to a good internal communication. Especially, the roadmap of activities was really a useful tool for them to project the time they will provide to the BISON project. Besides, the three levels of engagement proposed (informal, consult, involve), were a way for them to quantify their engagement.

They also underline the perseverance of the coordinating team and the active sharing of knowledge and information. The events in which they were invited were organised well.

4.2.3. The difficulties

The process of engaging stakeholders and AG members in particular has suffered from a lack of time on the part of some of these stakeholders to participate actively in the proposed activities. For some members, it is particularly difficult to allocate time because they recognise that the subject of biodiversity in relation to infrastructure is not yet a priority within their institution, although it is a subject that is growing in importance. Because of this lack of time, the commitment of the AG members has sometimes been sporadic.

Some AG members joined the group rather late in the project because they had not been identified at the outset. This could be a weakness. A formal invitation to the heads of national public departments could have helped to identify focal points more easily.

It must be acknowledged that it is sometimes difficult to consult AG members several times on the same deliverable because there is a structured review process which does not allow for double consultation. These double consultations could lead to greater ownership of the deliverables.

Finally, it has to be recognised that the commitment process is spread over three years, which represents a lot of time, and that it is sometimes difficult for AG members to stay focused on the project.

4.2.4. Impacts of the stakeholder engagement process

One of the major impacts of the stakeholder engagement process is the networking that has been made possible at European level between a variety of players who often lack a forum for exchange.

Also, the views and ideas of stakeholders were included in the BISON project results, giving it a certain relevance in terms of up-to-date information.

Feedback from AG members tells us that the BISON project has a significant impact because it has reached an audience some of whom knew little about how to integrate biodiversity into infrastructure projects.

The members of the AG, who had less opportunity to take an interest in the subject of infrastructure and biodiversity, acknowledged that they were more aware of the subject. The project and the meetings also enabled the participants to find out about activities underway in other countries on the subject of infrastructure and biodiversity.

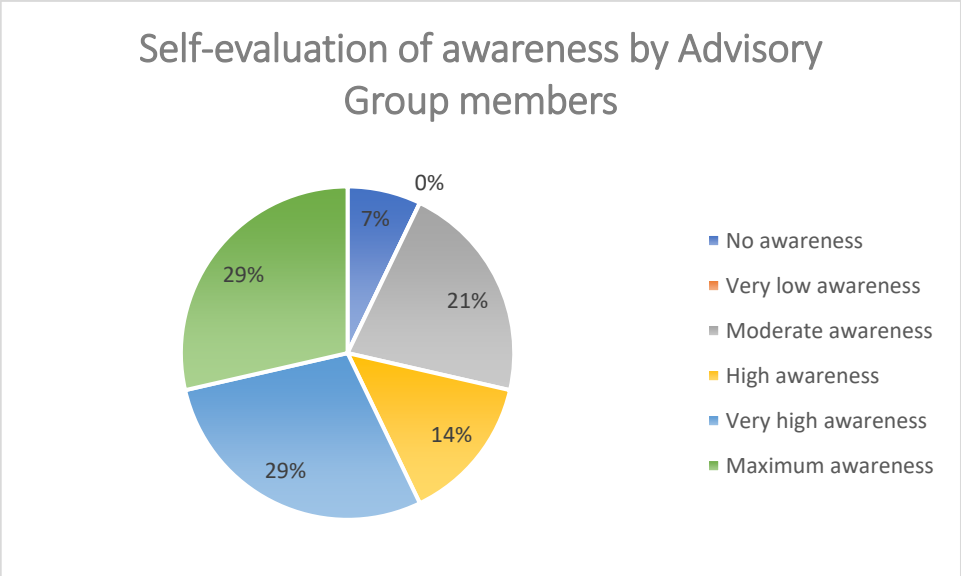

Figure 6: Self-evaluation of awareness by Advisory Group members

More precisely, of the respondents to the questionnaire, almost a third consider that they are as aware as possible, i.e. that they have a complete and in-depth understanding of the subject (q.v. figure 6). These are often people who have previously been involved in European projects or people who are currently actively working on the subject. This is the case of AFNOR in France, which is taking an increasingly serious look at the subject of ecological connectivity. A technical report will be developed on this subject to scan existing initiatives and identify which aspects could be standardised. At international level, the IUCN CCSG Transport Working Group (TWG) set up in 2017 is currently developing relevant projects in Asia, Latin America and Africa in connection with the development of transport infrastructures.

A third feel they have a very high level of knowledge of the subject with an advanced understanding of the nuances and complexity of the subject. These people are capable of critical analysis of problems and can formulate innovative solutions. Often these are institutions that have been working in the field of infrastructure and biodiversity for a long time, such as WWF.

A fifth of respondents consider that they have a moderate level of awareness, i.e. they still lack an in-depth global view of the subject but recognise its importance. These people still need to be made aware of the subject to really transfer the knowledge to their network. It is important to underline that they have acquired knowledge during the BISON project.

4.2.5. Multimodal approach

The AG members were mobilised to ensure that the project takes a multimodal approach, that is why the AG members represent such diversity of transport mode. The BISON project has shown that certain modes of transport such as rail and road were better studied in the past, so there are more scientific bibliographical references and grey literature, but also feedback on operators' practices in these modes of transport. Nevertheless, the BISON project has also revealed that the expectations and proposals of stakeholders concern all modes of transport without distinction. As the issues are the same, there is a real opportunity to work jointly on the different modes of transport (roads, rail, energy, waterways, ports, airports). Members of the AG provided feedback and information related to their transport mode where relevant to the BISON project.

4.2.6. Uptakes of the project outputs by stakeholders

One of the activities of the AG is the dissemination of the project to ensure the project results is useful, of high relevance and usable for implementation. Members of the AG project have announced that the project's conclusions will have an impact on their work. In concrete terms, we will see the expression of this ownership in the development of ISO/TC 331 standards, for example or in the WWF-CEE Strategic plan which is working in the topic. For AG members, the Strategic Research and Deployment Agenda will also be a tool to engage in further Research and Innovation on the topic. For others, the Handbook on good practices is well identified to be promoted in their network. Some members have already acknowledged that the organisation of the second mid-term seminar in parallel with the IENE2022 international conference in Romania has had an impact on the region. The uptake of the project can be assessed more accurately after the project has ended.

During the final conference in June 2023, an online consultation was held to assess the project management and external communication. One of the last questions was about the further dissemination of the project (q.v. figure 7). All the participants, online and in-person indicated that they will plan to disseminate the project either nationally or at the international level after the end of the project.

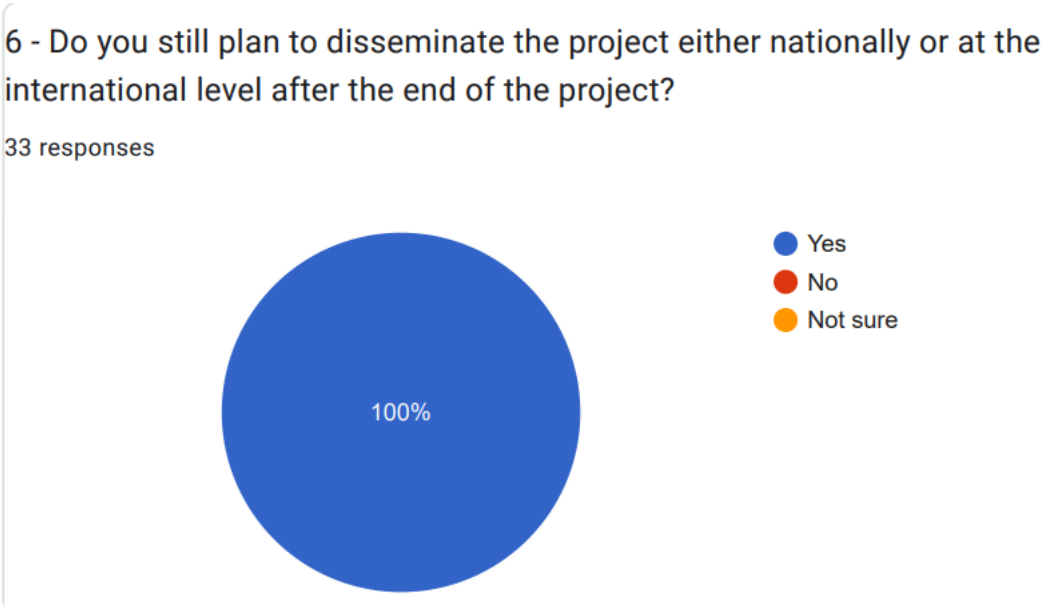

Figure 7: Answer of the participants of the BISON final conference on the project's dissemination

5. CONCLUSIONS

This report highlights the crucial importance of stakeholder engagement in a three-year project on transport infrastructure and biodiversity. Thanks to their active participation, stakeholders contributed to the success of the project by merging the interests of transport infrastructure development with those of biodiversity conservation.

National transport authorities, infrastructure operators, civil society, professional associations and researchers all played a key role in contributing their knowledge, perspectives and concerns. Their

collaboration has enabled consortium members to make informed decisions, learn about sustainable practices and highlight initiatives ongoing related to biodiversity.

Stakeholder engagement also fostered transparency, mutual trust and open communication throughout the project. The concerns and interests of all parties were taken into account. Among the practical lessons we can learn from implementing the participatory process is the importance of selecting a representative group of stakeholders and establishing a good relationship with them. Despite their interest in the process and the models being developed, it is sometimes difficult to maintain the number of participants over a long period, particularly when they are busy policy-makers (Carmona et al., 2013). Particular attention needs to be paid to choosing the right timing and period, which should allow sufficient time for debate and for stakeholders to understand and participate in the development of the project outcomes.

This report highlights the importance of promoting the active participation of stakeholders from the earliest stages of a project and involving them throughout. It highlights the benefits of a participatory approach, which integrates different perspectives and ensures the sustainability of the results produced.

In conclusion, the engagement of stakeholders in this project has demonstrated that it is possible to reconcile the development of transport infrastructure with the preservation of biodiversity. This report provides valuable lessons for other similar initiatives, highlighting the importance of collaboration and of considering the diverse interests of stakeholders to achieve balanced and sustainable solutions.

6. ACKNOWLEDGMENTS

Our warmest thanks go to the AG and to all the participants and contributors to the AG's awareness-raising activities, for the initiative they have shown in proposing various forms of mobilisation.

7. REFERENCES

Carmona, G., Varela-Ortega, C., & Bromley, J. (2013). Participatory modelling to support decision making in water management under uncertainty : Two comparative case studies in the Guadiana river basin, Spain. *Journal of Environmental Management*, *128*, 400-412. https://doi.org/10.1016/j.jenvman.2013.05.019

Durham, E., Baker, H., Smith, M., Moore, E., & Morgan, V. (2014). *The BiodivERsA Stakeholder Engagement Handbook* (BiodivERsA, p. 108). https://www.biodiversa.org/705/download

Rivero, C., Mendoza, G., Contreras servin, C., Algara-Siller, M., & Mas, J. (2016). Local perception regarding to the environmental assessment and loss of forest resources in the Huasteca region of San Luis Potosi, Mexico. *Madera Bosques*, *22*, 71-93.

Roberts, M., Byg, A., Faccioli, M., Novo, P., & Kyle, C. (2021). Stakeholder perceptions of public good provision from agriculture and implications for governance mechanism design. *Journal of Environmental Planning and Management*, *64*(2), 289-307. https://doi.org/10.1080/09640568.2020.1763274

Appendix 1 : Roadmap for BISON Advisory Group (template)

Roadmap for BISON Advisory Group

Organisation:
Contact person:

Key events and synergies between BISON and the infrastructure & biodiversity community

Please fill in here the key events bringing your community together where it can be of interest to communicate or mobilize them around the BISON project

Key events 2023

Who?	**What?**	**When ?**
BISON project	Project final seminar	June 2023

My inputs to BISON deliverables

Please indicate here which project activities/deliverables are of particular interest for your organisation and what kind of support/advice you can provide.
You can edit the column "How" depending on your interests and capacities.
For level of engagement, please indicate:

- *NO*
- ***INFORMED** : the communication is one-way. Not very interesting;*
- ***CONSULTED** : this level is designed to meet the need of the Advisory Group members. The AG members provide opinions, information, good practices and experiences;*
- ***INVOLVED** : in this level of engagement, the Advisory Group members are fully engaged, can provide resources, data, reviewers.*

What?	**WP in charge**	**When?** *(indicative date)*	**How?**	**Level of engagement**
Communication strategy	WP2	Throughout the duration of the project	Dissemination of BISON information	
Online Handbook 'Good practice mainstreaming biodiversity in transport'	WP3	July 2022	Review of the draft handbook	
1st draft of the research part of the SRDA	WP4	September 2022	Review of the 1st draft	
Presentation and discussion of the map contents preliminary proposed criteria and indicators and state of analysis	WP5	September 2022	Review of the map contents	
The future: plausible scenarios, relevant EU funding sources and proposals for future cross-thematic funding	WP5	September 2022	Validation of future scenarios and	

			allocation of relevant innovation solutions	
1st draft of mapping potential funding of EU Funding instruments	WP5	September 2022	Review of the 1st draft	
From future scenarios to the agenda with AG endorsement	WP5	September 2022	Review of the scenarios integration into the SRDA	

Appendix 2: Photos of the first mi-term seminar held in June 2022, in Paris, with BISON consortium members and Advisory Group members

Appendix 3: Questionnaires to assess the stakeholder engagement

Stakeholder Engagement Assessment - WP and Task leaders perspective

In the framework of the work on stakeholder engagement (WP2), I would like you to answer the following questionnaire, as Advisory Group of the BISON Project.

As you know, the BISON PROJECT involves non-beneficiary European and international expert stakeholders for project definition, review, evaluation, dissemination and exploitation of results, through a dedicated Advisory Group. The aim of the questionnaire is to collect your feedback regarding your

involvement throughout the duration of the BISON project.

The duration to answer is estimated to be 20 minutes and will help us to assess whether or not the process of the engagement has been successful.

Thank you in advance for your time,

Best regards,
Charlotte Navarro
FRB-WP2 Leader

- *What is your name?*
- *What is your email address?*
- *Why did you get involved with the BISON project?*
- *At what stage were you involved in the project?*
- *Which methods of stakeholder engagement did you experience?*
- *Were the methods selected appropriate?*
- *What worked well in the engagement process and why?*
- *What did not work well in the engagement process and why? What was done to overcome these difficulties?*
- *What was the impact of stakeholder engagement?*
- *Were there areas of conflict in the project and how well did stakeholder engagement overcome this?*
- *How would you assess your engagement as an Advisory Group member?*
- *Please, explain your answer.*
- *How do you evaluate your awareness of the topic of mainstreaming biodiversity with infrastructure, as an Advisory Group member?*
- *"Please, explain your answer."*
- *How do you assess your willingness as an Advisory Group member to engage in actions?*
- *"Please, explain your answer."*
- *Do you consider that, as a member of the Advisory Group, you have ensured that the project takes a multimodal approach to transport?*
- *Will your engagement have effects on your activities that will last beyond the life of the project?*
- *Will you, as an Advisory Group member, contribute to the further deployment of the project results beyond the duration of the BISON PROJECT? Why or why not?*
- *What do you think should have been done differently to improve outcomes of engagement process?*
- *Would you agree to be contacted for an interview on this topic?*
- *Do you have any comments?*