



Enforce
Empowering Citizens for Environmental Action

D5.1 Liaison Strategy

Deliverable 5.1: Liaison Strategy

WP5 User uptake, capacity building & policy recommendations

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Deliverable Abstract
The ENFORCE project advances environmental compliance by integrating citizen science with innovative technologies, fostering collaboration among grassroots organizations, researchers, and local governments. This deliverable, <i>D5.1 - Liaison Strategy</i>, outlines the project's strategic approach to stakeholder engagement, emphasizing alignment with local, EU and international initiatives, in context of broader objectives of the European Green Deal. It presents a structured methodology for building partnerships, promoting knowledge exchange, and expanding the project's reach, while referencing existing deliverables about strategic engagement including 'D6.5 - Dissemination and Networking Plan and Activities' and 'D6.9 - Exploitation and Activities Report - Initial'. Early achievements include representation at key international forums, such as events hosted by the Joint Research Centre (JRC), the University of Amsterdam, and the GEO Global Forum 2025. Moving forward, ENFORCE will strengthen synergies across sectors, empower communities in environmental governance, and introduce frameworks like the Data Readiness Level (DRL) to support legal standards in data use. This strategy positions ENFORCE as a collaborative, sustainable framework to drive innovation and community engagement in environmental enforcement.
Keywords
Environmental compliance, citizen science, stakeholder engagement, innovative technologies, European Green Deal, governance, sustainability, geospatial intelligence, environmental enforcement
Project Summary
Assuring environmental compliance requires a strong network of stakeholders, from citizens and researchers to governments and environmental organisations. Through creative toolkits and protocols, ENFORCE aims to tackle the frequent mismatch between the environmental data gathered by citizens and what authorities require for enforcement purposes. The project will address the challenges in data reporting coming from both the citizens side and the authorities side, in order for the obtained data to be usable for environmental enforcement. In this line, ENFORCE introduces the concept of Data Readiness Level (DRL) to assess the maturity of data to be used as evidence in environmental compliance cases. In addition, the project will capitalize on the use of geo-spatial intelligence and AI-enhanced tools, strengthening their capacities, promoting good practices and preparing an inventory on geo-spatial intelligence and AI use. The proposed solution will ensure alignment with the Green Deal Data Space to ensure trustworthy data exchange among the relevant stakeholders. The project encompasses 8 case studies that involve all relevant actors including grassroots organizations, local and regional authorities and a diverse group of experienced researchers forming a scientifically robust interdisciplinary team. The lessons learnt and evaluation results from the case studies will feed the replication guidelines that will be promoted through the ENFORCE capacity building programme and associated policy recommendations to create a multiplier effect for the adoption of citizen science data to support environmental compliance.

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Abbreviations	Meaning
AI	Artificial Intelligence
ADEME	Agence de la Transition Ecologique
ASUD	A Sud Ecologia e Cooperazione ONLUS
C3S	Copernicus Climate Change Service
DG ENV	Directorate-General for Environment
DLR	The German Aerospace Centre
DRL	Data Readiness Level
ECL	Environmental Compliance Level
ECCI	Environmental Compliance through Citizens and Innovation
EEA	European Environmental Agency
EEB	European Environmental Bureau
Eionet	European Environment Information and Observation Network
ENPE	European Network of Prosecutors for the Environment
ENVI	European Parliament Committee on the Environment, Public Health and Food Safety
EO	Earth Observation
ESA	European Space Agency
EUFJE	European Union Forum of Judges for the Environment
GDDS	Green Deal Data Space
GDPR	General Data Protection Regulation
IMPEL	Implementation and Enforcement of Environmental Law
ISPRA	Istituto Superiore per la Protezione e la Ricerca Ambientale
KER	Key Exploitable Result
PBL	Planbureau voor de Leefomgeving (PBL Netherlands Environmental Assessment Agency)
SYKE	Suomen ympäristökeskus (Finnish Environmental Institute)
UBA	German Environment Agency
WP	Work Package

Table 1. List of Abbreviations

Executive Summary

The ENFORCE project aims to strengthen environmental compliance by integrating citizen science and Earth observation (EO) technologies into local governance frameworks. At its core, ENFORCE is about empowering communities to take an active role in monitoring and enforcing environmental regulations, while ensuring that the data they generate is scientifically robust, legally sound, and operationally useful. Through its open modular federated plaza platform, the project aims to enable provenance-aware, reproducible and explainable environmental data analysis workflows. By bridging the gap between local data collection and formal regulatory requirements, ENFORCE contributes to a more transparent, participatory, and evidence-based model of environmental governance.

This deliverable, D5.1 Liaison Strategy, outlines the project's approach and progress in establishing and maintaining partnerships with a wide range of stakeholders—from grassroots organisations and academic institutions to EU initiatives and global networks. These partnerships are fundamental to ensuring the relevance, uptake, and long-term sustainability of ENFORCE's tools, concepts, and outcomes. The document is structured into three key parts:

- **Part 1** introduces the scope and objectives of the liaison strategy and its connection to other work packages within the project.
- **Part 2** details the goals, methodology, stakeholder landscape, and the Future Action Plan, outlining how ENFORCE will achieve its liaison objectives.
- **Part 3** offers concluding reflections and summarises the strategic directions and progress to date.

In the early phase of the project, ENFORCE focused primarily on its eight Case Studies, identifying their specific compliance challenges, stakeholder dynamics, and data needs. These insights have informed a tailored engagement strategy that is sensitive to local contexts while aligned with broader European environmental goals. The liaison activities conducted thus far include participation in key events (e.g. GEO Global Forum 2025), bilateral stakeholder dialogues, and the development of an internal dissemination and stakeholder mapping tool. These activities laid the groundwork for an adaptive and scalable stakeholder engagement model, central to the success of ENFORCE.

The ENFORCE liaison strategy is designed to advance four key strategic objectives, each of which is supported by concrete actions set out in the Future Action Plan:

1. Enhancing Synergies Between Initiatives:

ENFORCE will actively coordinate with related European projects by hosting joint workshops, sharing methodologies, and aligning dissemination efforts. A list of potential collaborations has already been identified and will be expanded as new opportunities emerge, with the goal of maximising collective impact and minimising duplication of efforts.

2. Promoting Effective Stakeholder Engagement:

A series of themed capacity-building workshops will be delivered, covering topics such as data ethics (e.g. GDPR, consent), citizen engagement strategies, and using EO data in legal and regulatory contexts. These sessions will target community actors, NGOs, and local authorities, equipping them with tools to apply EO and citizen science in practical compliance efforts. Consortium members of the project will participate in a range of events including high-profile forums such as the Living Planet Symposium (23-27 June 2025 in Vienna, Austria), Critical Legal Conference (4-6 September 2025, University of Exeter, UK), the OpenLivingLab Days (30 September – 3 October 2025, Andorra), and the ECSA 2026 Conference (2-7 March 2026, Oulu, Finland).

3. Facilitating Knowledge Transfer:

ENFORCE will deliver eight user uptake workshops and a series of capacity-building sessions covering topics such as data ethics, citizen engagement, and EO use in legal contexts. Dissemination will be supported through publications, social media, and the project website, ensuring broad access to tools, findings, and best practices. These activities are tailored to stakeholder needs and aim to maximise the adoption and impact of project innovations.

4. Fostering Long-term Collaboration:

The ENFORCE Plaza platform will provide lasting access to project tools and services through four dedicated sub-plazas focused on data certification, citizen engagement, capacity building, and analytical tools. It will serve as a hub for co-creation, knowledge sharing, and operational support beyond the project's duration. Future efforts will focus on growing the user base and strengthening partnerships across policy, academia, and industry.

1.0 Introduction

Environmental compliance plays a critical role in safeguarding ecosystems, public health, and natural resources across Europe. However, ensuring effective compliance remains a complex challenge due to varying local implementation contexts, fragmented data sources, and limited community engagement. The ENFORCE project addresses these issues by advancing an innovative framework that combines citizen science, Earth observation, and AI-enhanced tools to strengthen the quality and usability of environmental data in compliance processes. Through collaboration with grassroots organisations, researchers, and public authorities, ENFORCE empowers local communities to participate meaningfully in environmental governance, aligning its work with the broader goals of the European Green Deal, EU environmental policy, and the UN Sustainable Development Goals (SDGs).

This deliverable, D5.1 – Liaison Strategy, outlines how the ENFORCE consortium will engage with relevant organisations, networks, and initiatives to support the adoption and long-term sustainability of its tools and outcomes. The deliverable aims to define a strategic approach to stakeholder liaison, facilitating knowledge exchange, capacity building, and policy engagement that underpin the successful implementation of ENFORCE’s objectives. It also provides a roadmap for how ENFORCE will position itself within the broader landscape of EU-funded projects and environmental governance efforts.

The deliverable is primarily intended for:

- **Project partners and consortium members**, to coordinate efforts across work packages and align outreach activities with ENFORCE’s core objectives.
- **Public authorities and policy stakeholders**, who can benefit from evidence-based policy recommendations and data-driven tools to support environmental enforcement.
- **The wider scientific and practitioner community**, including NGOs, citizen groups, and EU-funded initiatives, to encourage collaboration and amplify the reach and usability of project outputs.

This liaison strategy is structured into three key parts:

- **Part 1 - Introduction (p. 8-10)**: Outlines the scope, objectives, and context of the liaison strategy, including how it relates to other ENFORCE work packages and the overall project workflow.

- **Part 2 - Liaison Strategy** (p. 11-26): Presents the goals, stakeholder landscape, methodology, and the Future Action Plan for liaison activities, structured around four strategic objectives:
 - 1) enhancing synergies between initiatives,
 - 2) promoting effective stakeholder engagement,
 - 3) facilitating knowledge transfer and sharing, and
 - 4) fostering long-term collaboration.
- **Part 3 - Conclusion** (p. 27-18): Concludes the deliverable by summarising key insights and outlining next steps for continued stakeholder engagement and strategic alignment.

By delivering a coordinated and forward-looking liaison strategy, ENFORCE ensures that the voices of communities and the power of innovative technologies are effectively channelled to support environmental compliance across Europe.

1.1 Scope and Objective of the Deliverable

The primary scope of this deliverable is to demonstrate how the ENFORCE consortium will liaise with different relevant organisations internally and externally to ensure an effective engagement and reach out to potential users. The liaison strategy will comprehensively support the alignment of ENFORCE with relevant networks, fostering synergies and promoting the project's objectives. The deliverable also lays the groundwork for building strategic relationships and ensuring that ENFORCE is well-positioned to contribute effectively to the broader goals of the European Green Deal and environmental compliance.

1.2 Relation to other Work Packages and Tasks

Figure 1 illustrates the overall workflow of the ENFORCE Work Packages (WPs) and their interrelationships. 'WP5 - User uptake & capacity building and Policy recommendation' plays a key role and is directly linked to 'WP3 – ENFORCE Plaza Tools Development', 'WP4 – Case Studies Coordination and Implementation: Living Labs setup and Co-creation and Co-design with Citizens and Stakeholders' and 'WP6 – Impact Maximization C&D&E' as it is responsible for building the capacity of ENFORCE Case Studies and ENFORCE community, disseminating success stories to the wider public and providing policy recommendations for consideration by public authorities. The conceptual frameworks developed by the data-driven roadmaps for ENFORCE developed in 'WP2 – ENFORCE methodology and Data-Driven Roadmap for Environmental Compliance through Citizens and Innovation (ECCI)' will inform the technical requirements for the environmental compliance tools developed by the case studies in WP4. The tool development workflows of WP3 and the progress of environmental compliance solutions within the case studies of WP4 will strongly

influence the liaison activities undertaken in WP5 to build capacity around key tools, increase user uptake and provide comprehensive policy recommendations. The WP5 outreach initiatives will be aligned with the impact maximisation activities related to WP6, including awareness raising, communication around the project activities, dissemination of results, networking with relevant EU-funded projects and networks, and post-project exploitation of project results. Throughout the project, the consortium will ensure that the work carried out in each work package complies with the 'ethical requirements' set out in 'WP7 – Ethics requirements'.

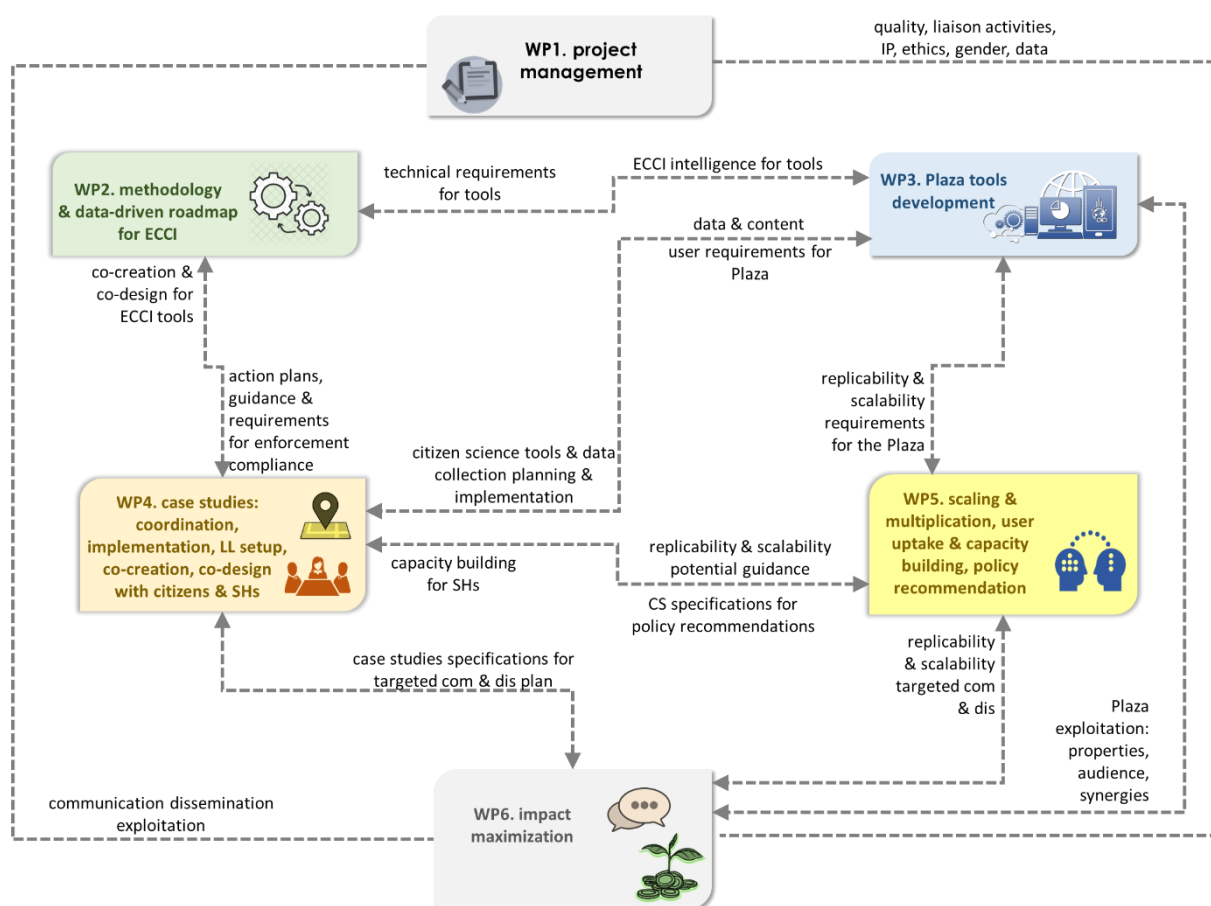


Figure 1. ENFORCE WPs Structure Workflow

2.0 Liaison Strategy

2.1 Objectives of the Project's Liaison Activities

The aim of ENFORCE outreach activities is to effectively engage with organisations relevant to ENFORCE to promote the case studies at local, national and international levels, across vertical markets and key user communities, to increase the pool of candidates for co-design, to make the case studies more globally accessible and to increase the market uptake of the case studies. The strategy ensures project partners raise awareness of emerging capabilities aligned with European Commission goals, collaborate across technical and policy domains to develop effective environmental compliance tools, and grow the ENFORCE user community through outreach and capacity building.

Outreach activities will also aim to educate and empower stakeholders outlined in section '2.3 Mapping of relevant stakeholders', enhancing their ability to contribute to environmental compliance efforts through citizen science. The aim is to support and engage with environmental agencies and institutes, inspectorates and law enforcement entities, judges and prosecutors, legislators, technology developers and providers, scientific community and academic institutions, international, European and national networks, clusters and multipliers, community & voluntary organisations, citizens, public and civil society.

Stakeholders identified within 'T5.1 Liaison & Policy Recommendations Delivery' referenced in section '2.3 Mapping of relevant stakeholders' will be engaged which include European institutions, Earth Observation focused organisations (e.g. Group on Earth Observations) and Copernicus offices, as well as thematic and sectoral offices, initiatives and projects relevant to the ENFORCE consortium. Furthermore, the ENFORCE consortium's network, which includes private and public sector, non-Earth Observation (EO) communities, as well as related initiatives such as follow-up actions after the completion of e-shape¹, HARMONIA² and the GREAT³ project is important.

As mentioned in the introduction, the liaison activities will be carried out by pursuing the following strategic objectives:

¹ <https://e-shape.eu/>

² <https://harmonia-project.eu/>

³ <https://www.great-project.eu/>

1. Enhancing Synergies Across Initiatives

The ENFORCE project will seek to establish and strengthen links with relevant EU projects, initiatives and networks, as described in section '2.2 Methodology', in order to integrate a wide range of expertise and resources for progress. Through its open modular federated plaza platform, the ENFORCE project aims to enable provenance-aware, reproducible and explainable environmental data analysis workflows. ENFORCE aims to synergise across different initiatives by aiming to align, coordinate and enrich the Green Deal Data space by adding user generated data through citizen science initiatives. ENFORCE will actively contribute to IDC's Green Deal Dataspace Initiative⁴, which originated from the GREAT EU project. This initiative enables secure data exchange and collaboration supporting European competitiveness. As IDC is a consortium member, ENFORCE will provide advice on the interfaces, data models, compliance and other elements to ensure coherence of citizen-generated data with other data from other sectors in the Green Deal Data Space (GDDS), as it proposes a methodology for progressive validation and final certification of volunteer datasets based on the Data Readiness for Environmental Compliance Levels (ECL). This approach will foster collaboration, streamline resources and amplify the impact of related initiatives, ensuring a more cohesive and effective effort towards environmental compliance.

2. Effective Stakeholder Engagement and Inclusion

The project will also seek to identify and engage key stakeholders, including policy makers, citizens and researchers, as identified in section '2.3 Mapping of relevant stakeholders', to ensure that a wide range of stakeholders are involved in empowering communities to play an active role in environmental governance and enforcement. By promoting a participatory approach, the project will ensure that the perspectives and needs of all relevant parties are considered, thus increasing the relevance and impact of the results, especially in terms of policy recommendations. Dissemination activities will be tailored according to the stakeholder groups involved, as outlined in section '2.4 Liaison Future Action Plan'. ENFORCE can help EU Member States to train environmental officers and investigators or to set up units capable of bringing satellite/citizen science data to court. This objective will be achieved through tasks:

- **T3.5** - ENFORCE Plaza Toolkit helping different types of users from concerned citizens to actors seeking to investigate incidents such as journalists or NGOs.
- **T4.2** - Living Labs implementation in case studies involving different actors/publics: local committees' members, residents, park users, (local)

⁴ <https://green-deal-dataspace.eu/>

authorities/governments, civil society, businesses, researchers, regulators and enforcers.

- **T5.2** - User uptake, i.e. increasing the pool of potential users, through the promotion of case studies/ thematic at sectorial, national/regional and international level; user uptake workshops with case studies representatives.
- **T5.3** - Capacity building to provide the tools/best practices methodology, resources and practical support (training sessions) that will strengthen the capacity to effectively deliver environmental compliance services; and deliverables:
 - **D3.2** ENFORCE Plaza Tools (first release) & **D3.3** ENFORCE Plaza Tools (second release).
 - **D4.4** Implementation of ECCI tool and Living Labs in all Case Studies – Initial
 - **D5.2** User uptake strategy and action plan - Initial
 - **D5.5** Capacity building report on best practices and training – Initial

In order to ensure meaningful participation, user groups will be actively involved throughout the project, thereby promoting greater adoption of the ENFORCE Plaza toolkit. Capacity building efforts will enable users to fully utilise the toolkit's features, while continuous development will increase the toolkit's effectiveness for different user groups. In addition, living labs will be implemented in case studies, incorporating stakeholder perspectives to develop holistic solutions that integrate citizen science with innovative technologies, ultimately strengthening environmental compliance.

3. Facilitating Knowledge Transfer and Sharing

ENFORCE will act as a bridge for knowledge exchange between the project consortium and external stakeholders. This will involve disseminating best practices, lessons learned, and innovative solutions, thereby maximizing the impact of ENFORCE and promoting the replicability of its results (connecting efforts with 'T6.4 – collaboration with sister projects', 'T5.1 – liaison & policy recommendations', 'T5.2 – user uptake', 'T5.3 – capacity building' and 'T4.3 – monitoring, review, validation, replicability, and upscaling'). As described in 'D6.5 - Dissemination and networking plan and activities report – Initial', an extensive range of dissemination channels and tools will be utilised to ensure results of the ENFORCE project reach the intended audiences and create meaningful impact. Dissemination activities include scientific publications, non-scientific publications, participation and organisation of events, press releases, online resources including the website, submitted deliverables and policy recommendations which make project results accessible to a broader audience.

4. Fostering Long-Term Collaboration

The project lays the foundations for sustainable partnerships by fostering ongoing collaboration between stakeholders, particularly with initiatives such as the Green Deal Data Space to integrate its solutions into wider environmental compliance ecosystems. These relationships will help ensure the long-term success of the project and the continued sharing of knowledge and resources beyond the project's completion.

Through these objectives, the Liaison Strategy will ensure that ENFORCE not only achieves its goals but also strengthens the global effort to combat environmental crime by fostering international cooperation, improving enforcement capabilities, promoting the use of innovative technologies for detection and prevention, and empowering communities to play an active role in environmental governance and enforcement.

2.2 Methodology

The ENFORCE liaison methodology has been carefully designed to build and maintain strong, collaborative relationships with key stakeholders, ensuring effective communication and alignment with project objectives. The approach is structured around a series of systematic steps; each designed to foster productive interactions and promote shared understanding. These steps provide a clear framework for engagement, enabling the project to build a solid network of support and facilitating the exchange of knowledge and expertise between partners. The methodology also prioritises adaptability, ensuring that the process remains responsive to stakeholder needs and the dynamic requirements of the project. The list below contains key methodological steps for implementing the ENFORCE Liaison Strategy:

1. Objective and Scope Definition including:
 - a. goal setting
 - b. scope of liaison activities
2. Stakeholder Mapping and Analysis including:
 - a. identification of stakeholders
 - b. prioritization of stakeholders
3. Dissemination and Network Plan and Communication Channels
 - a. develop a dissemination and network plan
 - b. establish and choose appropriate communication channels
4. Strategy implementation and Activity Types
 - a. reaching out to selected stakeholders
 - b. raising awareness about the project

- c. creating connections
- 5. Monitoring and evaluation
 - a. set metrics for success
 - b. feedback mechanisms
 - c. reporting and documentation
- 6. Sustainability and long-term impact
 - a. sustain relationship-building
 - b. policy and practice integration

Within the following section, each of the 6 methodological steps will be further elaborated, to provide details on present activities:

Step 1 Objective and Scope Definition

Firstly 1.1 Scope and Objective of the Deliverable a clear objective for the liaison activities was established as outlined in section '2.1 Objectives of the ', which includes a broad outline of the intended scope.

Step 2 Stakeholder Mapping and Analysis

Step 2 was implemented through activities in T6.1 Communication, led by the GAC. Stakeholders and networks relevant to the project were categorised. D6.1 Communication Plan and Activity Report - Initial' and section '2.3 Mapping of relevant stakeholders' outline the identified stakeholders and responsible partners. In addition, 'D6.5 Dissemination and Networking Plan and Activity Report - Initial' highlighted the importance of developing links with like-minded projects and initiatives as a crucial part of ensuring that project outcomes are used widely and beyond the project cycle.

Step 3 Dissemination and Network Plan

Building on the stakeholder mapping and analysis exercise, the GAC developed a comprehensive overview of the key elements of interest relevant to ENFORCE's main target audiences within D6.1. This plan provides a structured framework for ongoing outreach activities and targeted stakeholder engagement. As a foundational document, the Communication Plan guides the strategic direction of liaison efforts under T6.2 and facilitates stakeholder interactions under T5.1, ensuring alignment with project objectives and promoting consistent communication across all relevant groups. The ENFORCE Dissemination Tool provides information on both stakeholders already engaged and those targeted for future engagement outside the project's consortium.

As part of the stakeholder mapping exercise and the development of the communication plan, the project team has identified appropriate activities and established tailored communication channels to support effective stakeholder interaction. These channels are strategically aligned with the needs of the different stakeholder groups, ensuring clear and accessible pathways for information exchange. 'D6.5 - Dissemination and Networking Plan and Activities' also outlines a dissemination strategy and networking activities in line with the project.

Step 4 Liaison Strategy Implementation

The overarching goal of the synergies and interactions throughout the project is to promote networking that fosters collaboration, information sharing, and the development of a supportive community dedicated to the use of citizen science and other innovative methods and tools for environmental compliance. This approach will ensure that we leverage the connections and relationships that ENFORCE participants have with relevant authorities, agencies and stakeholders.

Where appropriate, the project will support and cooperate with EU missions. For example, as described in "Deliverable 6.9 - Exploitation and Activities Report - Initial", the European Network of Living Labs (ENOLL) will facilitate collaboration between the ENFORCE Living Labs and the 100 Soil Health Living Labs⁵ funded under the European Commission Mission "A Soil Deal for Europe", where relevant. This alignment will ensure that the project contributes meaningfully to both European and global climate efforts.

Step 5 Monitoring and evaluation

The monitoring and evaluation of the synergies created and the prospects for future cooperation will be an ongoing process throughout the duration of the project. The ENFORCE project will establish internal Key Performance Indicators (KPIs) to evaluate the success of the liaison activities. The monitoring of these activities will include regular reporting from all consortium partners, which will enable the tracking and documentation of newly established links. Monitoring of engagement with external stakeholders to the ENFORCE project occurs through the ENFORCE Dissemination Tool, outlining stakeholders engaged throughout the project. This approach will ensure a structured and consistent assessment of the project's outreach efforts.

⁵ <https://mission-soil-platform.ec.europa.eu/living-labs>

Step 6 Sustainability and long-term impact

Creating synergies between projects and initiatives goes beyond one-off collaborations such as workshops or events. To maximise the impact of these links, synergies need to be sustained over time, creating long-term value for all involved. Step 3 will be a critical activity to ensure that connected initiatives are kept informed of the project's progress and continue to benefit from working together. By fostering ongoing engagement, synergies can evolve into lasting partnerships that drive further innovation and success. This step also requires dissemination of policy recommendations with decision-makers and policy advisors.

In context of these steps featured, Figure 2 below shows the project timeline within 4 different phases of the project, as identified by the project's Impact & Capacity Building Roadmap, to be shared within 'Deliverable D4.1 – Initial Roadmap and monitoring plan for the activities and actions at the Case Studies – Initial' from ongoing efforts related to 'T4.1 Development of action plans and monitoring framework for all the Case Studies'. The 6 indicated steps from the methodology are visualised as green bars in chronological order within the graphic, indicating the estimated timeline.

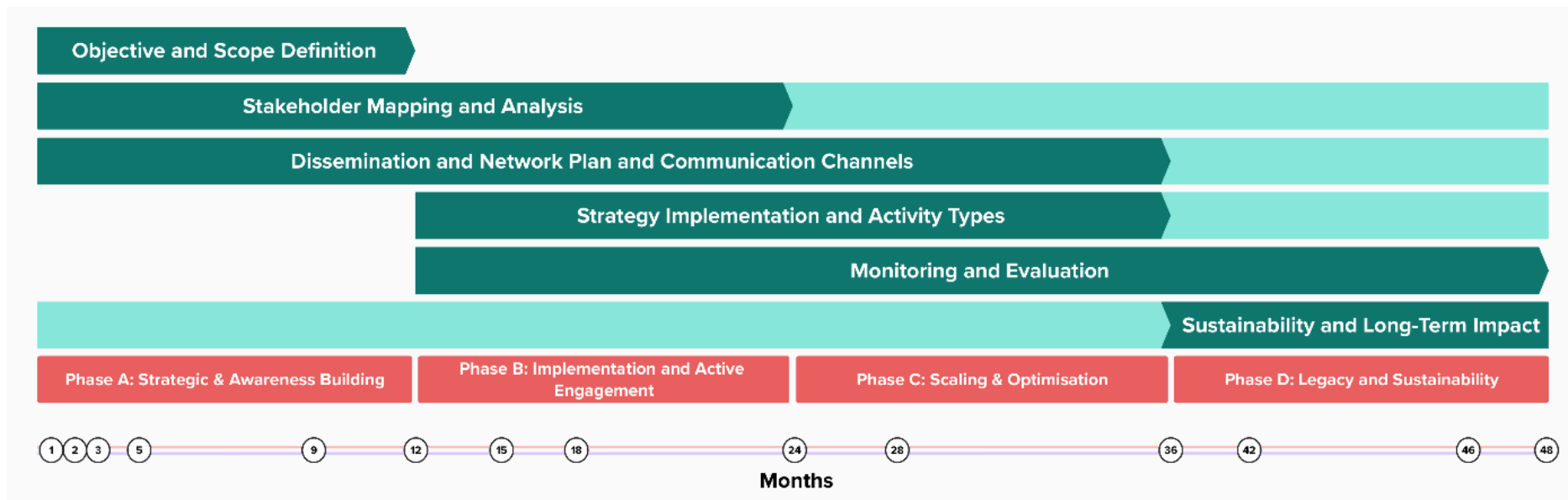


Figure 2. Liaison Activities Timeline.

2.3 Mapping of relevant stakeholders

During the initial stages of the project, the stakeholders relevant to ENFORCE were systematically mapped and categorised based on the specific types of engagement required for each group. The stakeholders targeted by ENFORCE have been described in Deliverable 'D6.5 - Dissemination and Networking Plan and Activities' Chapter 3.1 and the Grant Agreement. These stakeholders are both relevant to the project's communication and dissemination activities, and their active involvement and targeting is essential for the dissemination of the project's results. A summary is given below:

- **Environmental agencies and institutes** – this includes European agencies (European Environment Agency (EEA), European Environment Information and Observation Network (Eionet), European Environmental Bureau (EEB), ESA Climate Office, Copernicus Climate Change Service (C3S), European Commission - Directorate-General for Environment (DG ENV), Competence Centre on Participatory and Deliberative Democracy,) as well as national ones (e.g. Umweltbundesamt (UBA, Germany), Agence de la Transition Ecologique (ADEME, France), Istituto Superiore per la Protezione e la Ricerca Ambientale (ISPRA, Italy), Planbureau voor de Leefomgeving (PBL, Netherlands), Environment Agency (UK), and Suomen ympäristökeskus (SYKE, Finland)).
- **Inspectorates and law enforcement entities**, for example European Union Network for the Implementation and Enforcement of Environmental Law (IMPEL) and INTERPOL - Environmental Security Programme.
- **Judges and prosecutors**, the biggest European network being the European Union Forum of Judges for the Environment (EUFJE).
- **Legislators, especially the ones in the agencies or on committees** such as the European Parliament Committee on the Environment, Public Health and Food Safety (ENVI), European Network of Prosecutors for the Environment (ENPE), or the Environment Department of the European Commission.
- **Technology developers and providers**: including some of the biggest actors in Europe, for example Siemens AG and SAP SE (Germany), Ericsson (Sweden), Nokia (Finland), Atos SE, Dassault Systems, Thales Group, Capgemini, and Schneider Electric (France), along with Telenor Group (Norway).

- **Scientific community and academic institutions**, specifically European Scientific Advisory Board on Climate Change, Institute for European Environmental Policy (IEEP), European Network of Environmental Research Organizations (ENERO), Partnership for European Environmental Research (PEER), JPI Climate (Joint Programming Initiative - Connecting Climate Knowledge for Europe), European Topic Centre on Climate Change Impacts, Vulnerability, and Adaptation (ETC/CCA), and the European Climate Research Alliance (ECRA).
- **International, European and national networks, clusters and multipliers**: these include European Network of the Heads of Environment Protection Agencies (EPA Network), ENCORE - Environmental Conference of the Regions of Europe, Climate-KIC, EUROPARC Federation, BiodivERsA, European Sustainable Development Network (ESDN), and Interreg Europe.
- **NGOs/community & voluntary organisations/citizens/public/civil society**, e.g., Climate Action Network (CAN) Europe, European Climate Foundation (ECF), Transparency International (TI), Amnesty International Europe, Access Info Europe, Open knowledge Foundation (OKF), Greenpeace Europe, European Civic Forum (ECF), and European Citizen Action Service (ECAS).
- **European Projects and International Initiatives**: While additional projects may be identified over time, a selection of currently identified projects to be engaged throughout the initiative is listed below: *Destination Earth*⁶, *MoRe4nature*⁷, the *European Open Science Cloud*⁸, *4Growth*⁹, *CERBERUS*¹⁰, *Nostradamus*¹¹, *Soil-X-Change*¹², *FoSSNet*¹³, *BBioNets*¹⁴, *BOOST4BIOEAST*¹⁵, *PRUDENT*¹⁶, *ForestAgriGreenNudge*¹⁷.

⁶ <https://destination-earth.eu/>

⁷ <https://www.more4nature.eu/>

⁸ https://research-and-innovation.ec.europa.eu/strategy/strategy-research-and-innovation/our-digital-future/open-science/european-open-science-cloud-eosc_en

⁹ <https://4growth-project.eu/>

¹⁰ <https://cerberusproject.eu/>

¹¹ <https://nostradamus-project.eu/>

¹² <https://soil-x-change.eu/>

¹³ <https://fossnet.eu/>

¹⁴ <https://bbionets.eu/>

¹⁵ <https://bioeast.eu/>

¹⁶ <https://prudent-project.eu/>

¹⁷ <https://greennudge.eu/>

2.4 Liaison Future Action Plan

The ENFORCE Liaison Future Action Plan focuses on the following strategic objectives:

- To increase synergies between initiatives by sharing lessons learned;
- To educate communities about opportunities to improve environmental compliance through citizen science and innovative technologies, such as Earth observation;
- To expand the user base;
- To foster long-term collaboration.

The following section provides details on future liaison activities to achieve the vision of the ENFORCE project, outlining action plans under each strategic objective:

1. Enhancing Synergies Across Initiatives

One of the key aspects of liaison activities is to identify and exploit the synergies and similarities in the objectives and actions of projects and initiatives. Through discussions with several European projects, the consortium will ensure that their efforts are aligned and that coherence is ensured in achieving common objectives. This approach encourages collaboration, minimises duplication and maximises the impact of collective action. By leveraging complementary strengths and sharing best practices, the consortium aims to increase the overall effectiveness and sustainability of results, ultimately contributing to the broader objectives of European initiatives. As discussed within Step 2 Stakeholder Mapping and Analysis of section 2.2 Methodology, a list of projects has been identified for collaboration, though this does not preclude working with additional projects in the future, in order to achieve key objectives of the project.

2. Stakeholder Engagement and Inclusion

Stakeholder engagement remains a key priority for ENFORCE. Consortium members have been already participating in key events, including the GEO Global Forum 2025¹⁸, where an ENFORCE e-poster was showcased within the EuroGEO booth and leaflets provided through the EARSC booth. We are planning to continue our communication and engagement efforts at future events and forums, showcasing project developments and engaging with relevant stakeholders to seize collaboration opportunities. Further events can be found within the ENFORCE Dissemination Tool, although the following are upcoming:

- **Living Planet Symposium (23 June – 27 June in Vienna, Austria)**¹⁹: As a consortium partner, EARSC will have a booth at the event, where they will promote

¹⁸ <https://earthobservations.org/about-us/events/geo-global-forum-2025>

¹⁹ <https://lps25.esa.int/>

ENFORCE activities by engaging with relevant stakeholders from the public and private sectors.

- **OpenLivingLab Days (OLLD) conference (30 September – 3 October 2025 in Andorra)²⁰:** As an ENFORCE consortium partner and co-organiser of the event, ENoLL will be attending and promoting the ENFORCE project.
- **Critical Legal Conference (4-6 September 2025 at the University of Exeter, UK)²¹:** As the University of Exeter in the United Kingdom is a project partner, plans are in place to submit a proposal for a workshop showcasing the progress of ENFORCE in enhancing environmental compliance through the integration of citizen science and innovative technologies at the conference on 4-6 September.
- **European Week of Cities and Regions (13-15 October 2025 in Brussels, Belgium)²²:** ENFORCE plans to attend the event to meet key figures, particularly from the European Commission, and to showcase its efforts to link local environmental data with regulatory frameworks and to foster collaboration between grassroots organisations, researchers and local authorities.
- **European Citizen Science Association (ECSA) 2026 Conference (2-7 March 2026 in Oulu, Finland)²³:** As a consortium member of the ENFORCE project, ECSA's periodic conference is of importance for ENFORCE. The consortium plans to feature the project at the ECSA 2026 conference in Oulu, highlighting innovative citizen science methods for environmental compliance.

Through participation in such events, ENFORCE will strengthen partnerships, raise awareness, build internal capacity and ensure that its outputs are effectively integrated into wider policy and industry frameworks. Nevertheless, as part of the efforts of T5.1, partners will reach out directly to numerous key stakeholders, such as policy makers to conduct consultations shaping the policy recommendations to be delivered by the project. The outreach strategy is closely linked to and builds on the ENFORCE dissemination strategy developed under 'D6.5 - Dissemination and Networking Plan and Activities', which outlines actionable steps tailored to relevant stakeholder groups. Liaison activities will ensure the achievement of Key Exploitable Results (KER) in the context of the Key Exploitation Pathways conceptualised in Table 2, developed for D6.5, which represent core project innovations and outcomes that will be widely adopted and disseminated.

²⁰ <https://openlivinglabdays.com/>

²¹ <https://sites.exeter.ac.uk/clc2025/>

²² https://commission.europa.eu/news/european-week-regions-and-cities-2025-call-applications-open-2025-04-10_en

²³ <https://www.ecsa.ngo/conferences/>

KER Title	Key Exploitation Pathway
Co-creation Methodology for Future Uptake (KER1)	Reference methodological handbook for the co-creation journey supporting the development of Living Labs, including tips, tools, and practical experiences by ENFORCE.
Data Certification Pathway (KER2)	Reference method to evaluate environmental compliance by linking legal data quality requirements with validation and certification tools and technologies. ENFORCE will test the Environmental Compliance Data Readiness Level (EC-DRL) through case studies, with the ambition for EC-DRL to become a future reference for environmental compliance maturity, similar to how TRL is used for technological maturity.
Data Space Compliance Tools (KER3)	Standard-compliant, open-source data connector implementation for integrating platforms with citizen science and external data sources. Includes tools for citizen data certification (CSIC, 52N), contributes to citizen science data standards for the Green Deal Data Space (IDC), enhances SLG Data Space-compliant platform, and is leveraged by 8 pilots.
ENFORCE Plaza Tools (KER4)	Upscaling of existing AI tools to TRL5 to support target applications. Open-source coding of AI models for reuse and reproducibility by other researchers. Leveraged by pilots and extensive evaluation, with potential for commercialization of specific applications (SLG).
Pilot Demonstrators (KER5)	Showcases of ENFORCE innovations, including both technological and social innovations.
User Uptake, Capacity Building, and Policy Recommendations (KER6)	Case studies will engage multipliers and communities of practice. Focused on user uptake and capacity building among current and potential users. Will identify best practices in co-creation and provide guidelines for broader application beyond the immediate project community.

Table 2. Overview of Key Exploitable Results

These represent core innovations and outcomes that have the potential to be widely adopted and are key results to be disseminated, which the liaison strategy considers ensuring stakeholders are appropriately engaged to progress. The strategy advances the key exploitable results through targeted dissemination activities to the stakeholder groups identified in the stakeholder mapping exercise shown in '2.3 Mapping of relevant stakeholders'. The dissemination matrix in Table 3 conceptualises an approach to achieving KERs through the

tailored engagement of target stakeholder groups through different channels, communicating key messages with the aim of bridging the gap between local environmental data and regulatory requirements. This approach fosters collaboration between grassroots organisations, researchers and local governments to holistically improve environmental compliance activities by integrating citizen science and innovative technologies.

KER	Main target group(s)	Main channels	Months	Key message
KER1	Environmental agencies and institutes, Inspectorates and law enforcement entities, Judges and prosecutors, Legislators, Scientific community and academic institutions, International/European/national networks, NGOs/community & voluntary organisations/citizens/public/civil society	ENFORCE, Workshops, External events, Online tools, Scientific publications	M19–M48	This methodology is a practical resource to empower stakeholders with tools and insights for implementing effective co-creation processes, fostering innovation, and driving impactful outcomes. It provides actionable guidance to support decision-making, enhance collaboration, and develop participatory solutions while enabling the empowerment of citizens in shaping policies and innovations.
KER2	Environmental agencies and institutes, Inspectorates and law enforcement entities, Legislators, Technology developers and providers, Scientific community and academic institutions, NGOs/community & voluntary organisations/citizens/public/civil society	ENFORCE, Workshops, External events, Online tools, Scientific publications, Press Office	M25–M48	Integrating this certification into their work enhances confidence in compliance processes, simplifies decision-making, and establishes a consistent framework for assessing environmental maturity. Its ambition to become the benchmark for compliance maturity offers stakeholders a forward-looking

				standard to strengthen their practices and stay ahead in regulatory and environmental accountability.
KER3	Environmental agencies and institutes, Legislators, Technology developers and providers, Scientific community and academic institutions, NGOs/community & voluntary organisations/citizens/public/civil society	ENFORCE, Workshops, External events, Online tools, Scientific publications, Press Office	M25–M48	By adopting these tools, stakeholders can enhance data certification processes, improve interoperability, and contribute to shaping standards for citizen science data integration. Leveraged by multiple pilots, this approach provides a scalable and reliable framework for advancing data-driven environmental and societal initiatives.
KER4	Environmental agencies and institutes, Legislators, Technology developers and providers, Scientific community and academic institutions, NGOs/community & voluntary organisations/citizens/public/civil society	External events, Online tools, Non-scientific publications	M13–M48	A single platform for stakeholders interested in environmental compliance, offering extensively evaluated AI tools to enhance scalability and innovation. By integrating these tools, stakeholders can leverage solutions to improve performance while contributing to cutting-edge advancements and creating opportunities for impactful and sustainable outcomes.
KER5	Environmental agencies and institutes, Inspectorates and law enforcement entities, Legislators,	ENFORCE, Workshops, Online tools	M13–M48	Pilot demonstrators will showcase the technological and social innovations developed in ENFORCE, providing

	NGOs/community & voluntary organisations/citizens/public/civil society			real-world applications of the project's results. By engaging with these demonstrators, stakeholders can experience firsthand the impact of the innovations and explore their potential for broader implementation.
KER6	Environmental agencies and institutes, Inspectorates and law enforcement entities, Judges and prosecutors, Legislators, Scientific community and academic institutions, International/European/national networks, NGOs/community & voluntary organisations/citizens/public/civil society	ENFORCE, Workshops, External events, Online tools, Scientific publications, Non-scientific publications	M13–M48	This initiative empowers stakeholders to adopt best practices in co-creation and build their capacity for implementing innovative solutions. By engaging with the project's guidelines and case studies, they can enhance their processes, improve decision-making, and contribute to broader environmental and societal objectives.

Table 3. Strategic Dissemination Matrix

3. Facilitating Knowledge Transfer and Sharing

ENFORCE will prioritise knowledge dissemination to maximise its impact. Social media platforms, particularly LinkedIn, will remain an important channel for engaging with audiences and sharing project progress. The project website will continue to serve as a hub for publications, news updates and contact details, providing insights into best practice use cases of citizen science and innovative technologies for environmental compliance. Workshops and public events will also ensure a continuous exchange of knowledge, allowing different stakeholders to benefit from the project's findings. Through close collaboration with several projects, best practices, guidelines and methodologies will be shared to benefit a wider ecosystem of stakeholders.

As discussed in section "2.1 Objectives of the ", dissemination will play a key role in sharing the project's knowledge and results with the wider public through scientific publications, non-scientific publications, participation in and organisation of events, press

releases, online resources including the website, submitted deliverables and policy recommendations. Knowledge transfer and sharing activities will be tailored to the stakeholder groups as outlined in the dissemination matrix in Table 3.

The ENFORCE consortium brings partners together through various project initiatives aimed at capacity building and promoting user uptake, with engagement of external stakeholders also playing a critical role. For instance, internal workshops are organised by case study partners, providing training on a range of relevant topics, which to date have included a legal workshop on 13 December clarifying the legal context of case studies within the project. Throughout the project, 8 physical user uptake workshops will be organised (1 for each case study), gathering case study representatives and the community of users interested in the service to support market and geographic expansion, to ensure a level of uptake through:

- 1) Level 1 – interaction
- 2) Level 2 – testing of the service
- 3) Level 3 – integration of the service into the user’s operational workflow

Furthermore, capacity building workshops are scheduled to occur throughout the project, with the aim of sharing information about best practices, methodologies, resources, and practical support to strengthen the capacity to deliver environmental compliance services. These workshops occasionally lead to the invitation of relevant external stakeholders as well. Delivered workshops have covered the use of Earth observation, the ethics of working with citizen scientists, and how to build trust. Planned capacity building workshops include:

- **GDPR & Privacy** on topics related to data sharing, how to make data publicly accessible and free, prior and informed consent
- **How to Engage with Local Government: Incentive** on how to successfully collaborate with governmental bodies and identifying areas of concern to help authorities
- **How to Engage with Local Government:** on how to use data for legal actions through litigation and steering policy decisions for example.
- **Citizen Participation** on how to keep citizens engaged to ensure that citizens collect data, that is valuable to the project.
- **Living Labs and Citizen Science** elaborating living labs, citizen science and the difference between the two.

Some of these activities will be open to broader network to facilitate engagement of external stakeholders.

4. Fostering Long-Term Collaboration

The ongoing development of the ENFORCE platform is a cornerstone of the project's long-term collaborative strategy. As indicated in the grant agreement, the ENFORCE Plaza will host sub-plazas, including:

- **Data Plaza:** Delivering a data certification pathway that will introduce environmental compliance data readiness level (EC-DRL) concept.
- **Citizens' Plaza:** engaging the stakeholders in Living Labs to co-create sustainable mechanisms to increase ECCL.
- **Knowledge Plaza** providing tools and services for the replication and upscaling of the ENFORCE tools through a capacity building program as well as tools to access success stories and support legal guidance; and
- **Tools Plaza**, encompassing the data collection, analysis and visualization tools supporting data provenance and explainable AI.

The platform will provide access to solutions and services developed during the project, while offering a comprehensive database to address user needs beyond the specific scope of ENFORCE. Future activities will focus on broadening the platform's user base, engaging new stakeholders and fostering sustainable collaboration between policy makers, industry leaders and academic institutions in context of key exploitable results outlined in Table 2 and Table 3.

3.0 Conclusion

The ENFORCE liaison strategy has been designed to achieve four key objectives, which aim to strengthen the project's capacity to deliver impactful and sustainable solutions to improve environmental compliance by integrating citizen science with innovative technologies:

- enhancing synergies between initiatives,
- promoting effective stakeholder engagement,
- facilitating knowledge transfer and
- fostering long-term collaboration.

Through a comprehensive methodology, the project will build a dynamic network of collaborators, implement tailored engagement strategies for diverse stakeholders, and lay the foundation for long-term partnerships and collaborate closely with other work packages, especially, WP2, WP3, WP4 and by leveraging multiple synergies, from partnerships with EU-funded projects and international networks, to collaborations with policy makers, industry stakeholders and local communities, while empowering citizens to actively participate in environmental compliance, ENFORCE has become a robust framework for knowledge and resource sharing. WP6. ENFORCE leverages synergies with EU-funded initiatives, international networks, policymakers, industry, and local communities to foster active citizen participation in environmental compliance. This approach has created a strong framework for knowledge and resource sharing. The liaison strategy will continue to promote meaningful collaboration, supporting ENFORCE's vision of a future where citizen science, innovative technologies, and interdisciplinary efforts drive environmental compliance and align with the European Green Deal. By leveraging multiple synergies, from partnerships with EU-funded projects and international networks, to collaborations with policy makers, industry stakeholders and local communities, while empowering citizens to actively participate in environmental compliance, ENFORCE has become a robust framework for knowledge and resource sharing.

The Liaison Future Action Plan outlines a roadmap for ENFORCE to maximise its contribution through enhanced collaboration, stakeholder engagement and knowledge sharing. These efforts will ensure that the project continues to support the EU's vision that national authorities promote, control, and enforce compliance with EU environmental law in an effective manner, through strong cooperation with European networks of environmental enforcement practitioners. To achieve this, the project will continue delivering on KERs outlined in Table 2 by actively engaging target stakeholder groups using the tailored methods identified in Table 3.

Participation in relevant events, as detailed in the Liaison Future Action Plan and supported by the dissemination tool, will further extend the project's reach and visibility. Internally, the project will run case study workshops, capacity-building sessions, and user uptake workshops to foster deeper understanding and application of its solutions. Dedicated webinars will support increased adoption of these case study solutions among users.

Finally, by strengthening synergies with relevant networks, stakeholders, and related initiatives, the project will reinforce its role as a catalyst for collaboration and long-term impact in the field of environmental compliance. These efforts will ensure that the project continues to support the EU's vision that national authorities promote, control and enforce compliance with EU environmental law in an effective manner, through strong cooperation with European networks of environmental enforcement practitioners.



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