Plan for Dissemination and Exploitation of Results

Main authors
Michael Magee - Natural History Museum Denmark
Franziska Stressmann - European Citizen Science Association
Joe Jubb - European Citizen Science Association
Ana Casino - CETAF
Alessandro Marchi - CETAF

Marko Lovric - CETAF

TETTRIS

Transforming European Taxonomy through Training, Research, and Innovations

Document: WP8, Deliverable.8.2

Version: v.03 **Date:** 07/07/2023

Revision:

no.	Reviewer	Status	Notes
2	Louise Hedrickx	Reviewed	
2	Carole Paleco	Reviewed	

Disclaimer: Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Research Executive Agency (REA). Neither the European Union nor the granting authority can be held responsible for them.

Document Control Information

	-		
Settings	Value		
Document Title:	Plan for Dissemination and Exploitation of Results		
Project Title (Acronyms):	TETTRIS		
Document Author(s):	Michael Magee, NHMD		
	(https://orcid.org/0009-0009-8750-815X)		
	Franziska Stressmann, ECSA		
	(https://orcid.org/0000-0003-3400-8775)		
	Joe Jubb, ECSA		
	Ana Casino, CETAF		
	https://orcid.org/0000-0002-9869-6573		
	Alessandro Marchi, CETAF		
	https://orcid.org/0000-0003-1929-0012		
	Marko Lovric, CETAF		
	https://orcid.org/0000-0002-9017-1684		
Doc. Version:	v02		
Sensitivity:	Public		
Date:	30/06/23		
	DELIVERABLE		
Deliverable title:	Plan for Dissemination and Exploitation of Results		
Deliverable n°:	D8.2 - revision		
WP responsible:	Michael Magee		
Type:	Document		
Due date of deliverable:	28/02/23 (M3)		
Actual revision date:	30/06/23 (M6)		
Deliverable status:	Review Delivered		

Document Approver(s) and Reviewer(s):

NOTE: All Approvers are required. Records of each approver must be maintained. All Reviewers in the list are considered required unless explicitly listed as Optional.

Name	Role	Institution	Action	Date
Ana Casino	Technical Coordinator	CETAF	Approval	7 July 2023
Louise Hendrickx	Internal reviewer	BGMeise	Review	20 June 2023
Carole Paleco	Internal reviewer	RBINS	Review	20 June 2023





Table of contents

Table of contents	3
Acronyms & Abbreviations	4
Summary	5
I. Introduction	6
Background of the TETTRIs project	6
Project Objectives and Outcomes	6
Definition of the PDER	8
II. Framework for Dissemination and Exploitation	9
Guiding Principles of the PDER	9
Objectives of the PDER	10
Scope of the PDER	11
III. Strategy for Dissemination and Exploitation of Results	12
Target audiences and key stakeholders	13
Key messages of TETTRIs	19
Tools and channels	20
Activities	23
Stages of the PDER	28
Rules for performing dissemination activities	29
Ethics, Gender and Diversity	29
IV. Evaluation and Monitoring	30
Key performance Indicators	30
V. Concluding remarks	32
APPENDIX	32





Acronyms & Abbreviations

3PPs Third-Party Projects

CETAF Consortium of European Taxonomic Facilities (General Secretariat)

CIB Community Implementation Board
COL Catalogue of Life (Species 2000)
CSR Corporate Social Responsibility

DEST Distributed European School of Taxonomy
DiSSCo Distributed System of Scientific Collections

EAT European Agency for Taxonomy
ECS External Communication Strategy
ECSA European Citizen Science Association
EJT European Journal of Taxonomy
GDPR General Data Protection Regulation

KPIs Key Performance Indicators
NGO Non-governmental Organization
NHMD Natural History Museum of Denmark
NHMW Naturhistorisches Museum Wien

PDER Plan for Dissemination and Exploitation of Results

RIO Research Ideas and Outcomes SAB Strategic Advisory Board

TETTRIS Transforming European Taxonomy through Training research and

Innovations

TKT Taxonomic Knowledge Transfer UGOT University of Gothenburg

WP Work Package





Summary

This present document is a deliverable of the TETTRIs project, which is funded by the European Union's Horizon Europe Programme under Grant Agreement (101081903).

This document presents the project's "Plan for Dissemination and Exploitation of Results" (PDER). Its main purpose is to strategically define the path on how to maximize the impact of the project and reach the targeted audiences during the project's lifetime and beyond.

TETTRIs aims to bring about a significant transformation in the field of taxonomy to address biodiversity changes by enhancing the capacity for taxonomic research and transferring critical scientific knowledge to key societal stakeholders. Additionally, it seeks to raise awareness among the general public about the significance of taxonomy.

This PDER is written against this background and outlines the scope, objectives, approach, targets and time frame for the communication, dissemination and exploitation activities to be implemented, as well as the key messages of the project to the intended audiences. It also provides a list of tailored key performance indicators that aim to provide a means to monitor the effectiveness of the dissemination and exploitation activities.

This PDER will serve as a living document that will be adapted to the changes and needs of the involved consortium and stakeholders. A final update of this plan will be delivered in M40 (March 2026) as planned in the Grant Agreement.





I. Introduction

Background of the TETTRIs project

Accurate taxonomic knowledge and tools are needed to understand the drivers and impact of biodiversity decline. However, the field of taxonomy is severely hampered by a continuous decrease in capacity. With TETTRIs, we envision a transformative change in the field of taxonomy to build and sustain taxonomic research capacity through increasing knowledge and developing systems. TETTRIs will achieve this aim by creating joint knowledge in reference collections, training frameworks, and with innovative tools as well as by developing centralized resources providing access to an expertise marketplace, the taxonomic knowledge platform, and career paths. The core methodology for reaching these objectives includes co-creation and co-design with citizen scientists and professionals in biodiversity hotspots.

The open-access knowledge and systems built into TETTRIs, together with citizen scientists, will accelerate the integration, utilization and expansion of taxonomy in education, governance, and multidisciplinary research. This will support the long-term relevance of taxonomy as an instrumental science, necessary to halt European and global biodiversity loss, and ensuring ecosystems and their services are preserved and sustainably restored on land, inland water and at sea. TETTRIS builds taxonomic research capacity near biodiversity hotspots by networking natural history museums and other taxonomic facilities through bottom-up co-creation between 17 partners. The consortium includes the European Citizen Science Association and several of Europe's leading natural history museums, botanic gardens and universities unified under CETAF, the leading European voice for taxonomy and systematic biology. Impact throughout the EU and beyond is secured through involvement of associated initiatives such as the Distributed System of Scientific Collections (DiSSCo) and DEST (Distributed European School of Taxonomy), partners in 3PPs, and key TETTRIs dissemination activities towards a new generation of taxonomists, citizen scientists, users in need of taxonomic knowledge, and decision-makers.

Project Objectives and Outcomes

The objectives and outcomes of TETTRIs are only very briefly summarized in this section to aid the reader but are described in more detail in Section II (Results of the Survey).

In alignment with the main objective of TETTRIs, the vision for the main outcome of the project is the creation of a comprehensive Blueprint for Taxonomic Capacity Building. TETTRIs aims to achieve this with the 6 SMART (Specific, Measurable, Assignable, Realistic, Timely) Objectives shown in the table below.

Table 1. Main objectives of TETTRIs.





Objective 1 - INDEX

Create an expertise marketplace to index currently available international taxonomic data and expertise

Objective 2 - INTEGRATE

Develop an online knowledge platform for the integration of, and access to, taxonomic resources and tools

Objective 3 - PROVIDE

Formulate a roadmap for physical and digital reference collections and validate it by creating a pollinator reference collection

Objective 4 - FACILITATE

Develop a sector-specific training framework and demonstrate it by facilitating training programmes that increase professional and non-professional taxonomy expertise

Objective 5 - FOSTER

Test and validate the innovations developed with new taxonomic tools

Objective 6 - SUPPORT

Develop and secure a joint vision and action plan with academic and nonacademic stakeholders to broaden the taxonomy career path and perspectives

The Consortium has defined 9 important outcomes for TETTRIs. The first 6 expected outcomes directly reflect the objectives of the project shown above:

Outcome 1: A dynamic taxonomic knowledge marketplace for taxonomic Expertise

Outcome 2: A cross-cutting knowledge platform for linking taxonomic resources.

Outcome 3: A platform for international access to reference collections

Outcome 4: A virtual reference collection of target pollinators

Outcome 5: Training pathways that build taxonomic knowledge together with new generation taxonomists, citizen scientists, and other taxonomy-related professionals in biodiversity hotspots

Outcome 6: Innovative taxonomic tools that are implemented and validated in biodiversity hotspots

And an additional 3 expected outcomes that are fundamentally relying on an efficient, effective and targeted dissemination and exploitation strategy:

Outcome 7: Taxonomy is embedded in the multi-stakeholder ecosystem that fosters career development

Outcome 8: Increased level of information and awareness of citizen scientists in biodiversity hotspots

Outcome 9: Amplified diffusion of new taxonomic data, tools, methods, and knowledge in biodiversity hotspots

Objectives of the PDER

With the Plan for Dissemination and Exploitation of Results (PDER) we will briefly define the fundamentals of this Plan (Section I), followed by setting the strategy's framework (Section II), strategically define its building blocks (Section III), iterate





how to evaluate this defined strategy (Section IV) and conclude with a wider perspective (Section VI).

Definition of the PDER

A Plan for Dissemination and Exploitation of Project Results (PDER) is made up of three essential components which need to be defined.

It is important to differentiate between communication, dissemination and exploitation. The PDER focuses on dissemination and exploitation. Our External Communication Strategy can be found as appendix 1.

1. Communication

A strategic tool used to promote action and results to as many stakeholders as possible. This happens on the target audience tailored channels and continues throughout the project. Through a well-laid out communication strategy we can engage, attract experts, generate market demand, raise awareness of how public money is spent and show the success of European collaboration. In the context of TETTRIs' internal communication, efforts are intended to facilitate efficient exchange of information among project partners, strengthen coherence and enlighten the shared vision towards the dissemination of results. External communication aims to promote the action and its results, by providing wide ranging information to the media and the public.

2. Dissemination

The act of making project results public. Specifically targeting those who can use the results such as, scientists, nature managers, governmental agencies, industry or policy makers. Dissemination channels are open access scientific journals, conferences, platforms, databases and training activities. Dissemination should take place as soon as the action has results so that they can be maximized, and the derived knowledge can be utilized. In the context of TETTRIs, the results of the project once produced, reviewed internally, and assessed as final, will be uploaded in as many platforms and repositories as necessary to secure open and wide accessibility to the results obtained.

3. Exploitation

Whilst dissemination solely focuses on publicizing information, exploitation is oriented towards continuing development and the concrete use of results for commercial, societal or political purposes. By creating roadmaps for how expected results can be utilized by e.g., researchers, industry, or policy-makers, we can maximize the benefit the project has for innovation, society and the economy. Exploitation occurs towards the end of the project and beyond.

In TETTRIs, such a combination of components and coordination within the consortium is pivotal for sustaining the transformation of taxonomy during and beyond the project. For this reason, the PDER closely relates the external communication and the tools and brand guidelines reported in the internal communication strategy (deliverable D8.1) of the project, since communication, dissemination and exploitation play a vital role in ensuring knowledge transfer





and uptake of results of the project and form a specific project management cycle.

The PDER can be summarized as the strategic tool to the consortium that defines the approaches of communication and dissemination to create sustainable impact through suitable methods of engagement, and appropriate timely information for the project lifetime and beyond, to ensure exploitation of expected project outcomes.

II. Framework for Dissemination and Exploitation

Guiding Principles of the PDER

TETTRIs is establishing a dissemination and exploitation strategy to ensure that information is adequately transferred to the relevant target audiences and can be used beyond the life of the project. TETTRIs expects a long-term exploitation and return from the generated knowledge and systems since it aims to achieve a paradigm shift in the taxonomy capacity in Europe.

All project partners take part in dissemination and exploitation in order to foster awareness and transfer results for impact, especially in their own countries and in their own communities.

The project outcomes of TETTRIs are multidimensional and intended for a large range of stakeholders. Several overarching principles will give a coherent framework to the PDER to be as specific as necessary and as inclusive as possible:

- Transparent, FAIR and open: project outcomes will be made openly available and free of charge using FAIR principles and embracing the EU guidelines on Open Science and Responsible Research and Innovation whilst considering Intellectual Property Rights, privacy and security of persons and organizations, as well as commercialization interests.
- Adaptable and flexible: communication and dissemination tools in TETTRIs need to be flexible in order to create a responsive framework to address the variety of needs of the project and its stakeholders. At the same time the communication and dissemination strategies need to be adaptable to the various research themes and stakeholder groups, and tools and channels need to be tailored to the needs of the different end
- **Precise:** the communication and dissemination as well as exploitation will be tailored to the different stakeholders and end users using appropriate language.
- **Achievable:** objectives and goals of the PDER are implemented adequately considering the available resources.





• **Impact-oriented:** the PDER will seek to maximize impact on all stakeholders and of the project results, exploiting synergies of the partners and their networks wherever possible.

Objectives of the PDER

General objectives of the PDER

Aligned with the objectives of TETTRIs, the PDER seeks to maximize the impact of the project by raising awareness on its activities, challenges and results towards a wide audience while contributing to decision making in the context of the European Biodiversity agenda 2030 and the Green Deal to tackle the global biodiversity loss.

The dissemination and exploitation activities addressed in this PDER are designed to ensure sustainability and increase the impact of TETTRIs by:

- informing the **broader community** and specific key actors of the outcomes achieved by the project.
- promoting the pivotal **role of taxonomy** in tackling critical societal challenges such as biodiversity decline
- driving a deep **change in perception** towards taxonomy among all relevant stakeholders.
- providing a **strategic tool** to the consortium for the coordination of dissemination and exploitation

Specific objectives of the PDER

In the light of pursuing larger impact of TETTRIs, the specific objectives of the PDER are:

- Identify the <u>target audiences</u> of the different facets of the project
- Elaborate on the results of the survey to identify the needs of target groups and stakeholders to be able to <u>focus exploitation</u> of TETTRIS results
- Identify the appropriate <u>clear messages</u> to the relevant target groups to raise awareness and increase visibility and engagement with the project
- Identify and describe the appropriate <u>tools</u>, <u>channels</u> and <u>formats</u> for the relevant target audiences
- Facilitate <u>knowledge exchange</u> among the project consortium by clustering with similar initiatives with similar aims, as well as with the stakeholder groups
- Support the exploitation and implementation of <u>TETTRIs results</u> by engaging in a two-way dialogue with stakeholders and identifying the appropriate tools and means to do so
- Assess the success of the dissemination and exploitation by identifying and monitoring a set of key performance indicators (KPIs)
- <u>Scheduling</u> dissemination and exploitation activities throughout the project's different stages and beyond its lifetime





Scope of the PDER

In order to design a complete and comprehensive dissemination and exploitation strategy for all project outcomes, <u>a survey</u> was launched and distributed to all work package leaders (WPL) in the TETTRIs project to collect information and input from their areas of expertise in relation to the expected outcomes from each of the WPs of the project. The survey was launched, and feedback gathered as a google form (See appendix nr. 4). The survey had the following objectives:

- Compile the set of project outcomes with expected key exploitable results (KERs)
- Identify channels, tools and formats for the communication, dissemination and exploitation of results.
- Identify the related targeted audiences and the expected reach.
- Identify barriers to the application of results.
- Analyze the impact and sustainability of results.

Based on the information received, the PDER will then be focused towards specific results to exploit and targeted groups to address.

Note that the survey was sent in the very early stages of the project (month 3). WP leaders will be asked to update the PDER team at a later stage.

Results of the survey

The outcomes, expected deliverables, tools, channels, stakeholders, key performance indicators (KPIs) and barriers predicted to be linked to each foreseen result obtained from the implementation of TETTRIs are detailed in Section III.

Additionally, each WP Leader was asked to predict the potential scale of dissemination and exploitation activities. The categories and responses are shown below.

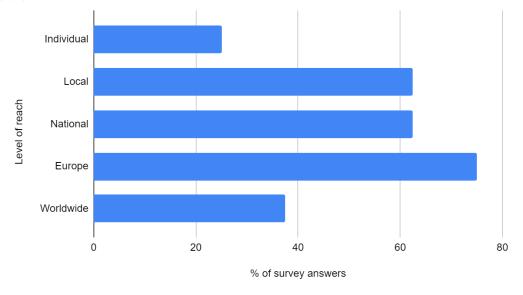


Figure 1. The expected scale of dissemination and exploitation activities.





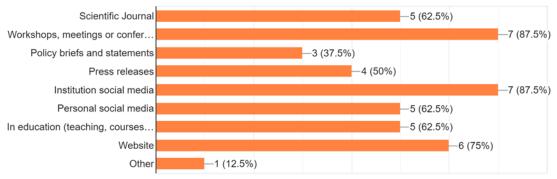


Figure 2. Expected channels to be used to disseminate project outcomes/results. Number of responses is shown along with %

III. Strategy for Dissemination and Exploitation of Results

Defining the outcomes and objectives of a project is vital for communicating and disseminating its results. With TETTRIS, we work towards a transformative change in the field of taxonomy to build and sustain taxonomic research capacity through increasing knowledge and developing systems.

This PDER is to ensure that the activities undertaken in the project are effectively disseminated and exploited, resulting in defined TETTRIs outcomes. We have the ambition to disseminate the results of the project to a wide range of defined stakeholders. Whilst all of the TETTRIs consortium partners are required to contribute to the dissemination and exploitation of project results, the overall responsibility of dissemination and exploitation of results is led by partners in WP8. Furthermore, TETTRIs has a call for 3PPs (read more at tettris.eu/3pp). These projects will help us reach multiple target audiences and key stakeholders (see below) and will allow us to engage with, for example, biodiversity hotspots.

The strategy for dissemination will be rooted in the following dimensions:

- **to whom**, for identifying the targeted groups of stakeholders and audiences;
- **what** to disseminate
- **how**, through which channels and tools the messages will be disseminated:
- **which** activities will ensure efficient dissemination and exploitation;
- timeframe and stages for implementing this strategy; and
- underpinning **rules and criteria**, including references to ethics, gender and diversity compliance.

In the following subsections the target audience, key messages, channels, tools and activities are identified as well as a timeframe.





Target audiences and key stakeholders

The need for stakeholders assessment

Disseminating project results to their maximum visibility requires the identification of all the different types of audiences in order to maximize the reach of the messages. TETTRIs will generate a wide variety of technically complex results, thus communication and dissemination and later on, full exploitation, need to be tailored to the needs and level of understanding of the potential audiences to whom a message (in the sense of objectives, achievements and /or outcomes) should be delivered. This will allow the communication strategy to be well-focused and achieve the desired impact.

Engagement of target groups in the project is crucial to assess ways of scaling the methods and tools produced. Additionally, engaging the general public and societal actors at large will increase the awareness of taxonomy to a wide range of audiences.

A careful assessment of stakeholders should take into account:

- Stakeholders' intrinsic and extrinsic motivations to develop engaging narratives
- Facilitate knowledge exchange between the project partners and stakeholders, and also between different stakeholders, as well as facilitating mutual learning processes
- Create conditions to increase policy support, and the uptake of the proposed taxonomy-related solutions by the different stakeholders
- Raise public awareness on the importance of taxonomy, especially in relation to biodiversity conservation
- Showcase the project outcomes and results to increase support by the different stakeholders, including citizens

Stakeholder mapping

The initial analysis of stakeholders relevant to the different work packages and project outcomes were identified via the partner survey. Stakeholders were categorized in a matrix according to their anticipated level of "interest" and "influence" in TETTRIs-related outcomes. This helps to identify key stakeholders who need specific attention and to develop and design the dissemination and exploitation strategies needed to achieve the relevant level of engagement. Each quadrant of figure 3 gives an indication of the level of stakeholder management that should be employed and will influence the type of engagement technique to be used. The groups and the relevant engagement techniques for each are shown in the figure below, tools to be used for engagement are shown in the left panel.





Stakeholder Mapping

Divided into groups based on interest and influence.

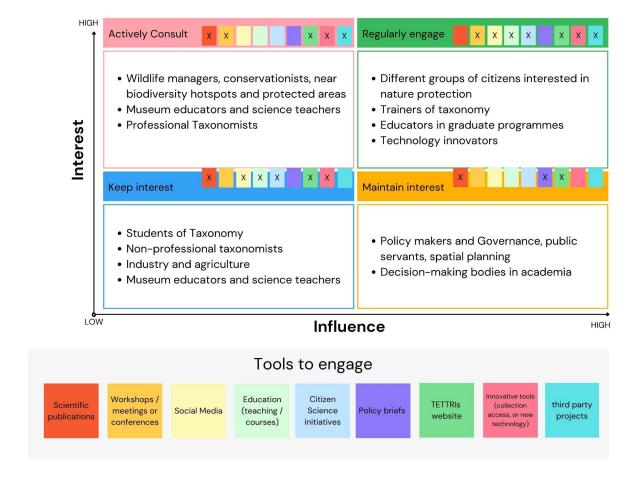


Figure 3. Stakeholder mapping

As TETTRIs is a European-wide project, this complexity requires multi-level stakeholder classification, and stakeholders were additionally grouped according to their geographical level of influence as the strategy of reaching the stakeholders also depends on their geographical scale.

- European/international- entities and organizations with influence across the whole of (and beyond) Europe. Stakeholders in this group will be particularly important to give visibility to the project's outcomes and raise awareness on the topic.
- National/regional entities, organizations or groups whose work focus is in a more specific area. The stakeholders should be engaged in a more direct manner, as they will be the ones affected first-hand or more directly by the project and its outcomes.





Methods for continued stakeholder identification and engagement

It is important to note that the initial stakeholder assessment was done at an early stage of the project and is not finite. As the project develops, new target audiences and stakeholders will be identified and included in the communication, dissemination and exploitation strategy. In fact, we strive to continue the stakeholder mapping actively throughout the project's lifetime. All partners are expected to add any potential new relevant stakeholders (and if applicable, their contacts) to a Master stakeholder database accessible to all partners. This database was initiated by Naturhistorisches Museum Wien (NHMW). All TETTRIs partners can contribute to the database. It will only be available internally (in the TETTRIs consortium Google Drive in the folder WP5) as it contains names and contact information for stakeholders.

In addition, in Task 5.1 (Landscape analysis on taxonomic expertise needs and gap analysis on academic taxonomic training) stakeholders will be further assessed throughout the project with particular interest in groups from industry, (technology and innovation, corporate social responsibility (CSR) and biodiversity), academia, policy makers, and multiplicators (multi-stakeholder environments facilitating the interaction of diverse groups of stakeholders, all with an interest in the sustainable development goals).

In order to design appropriate communication, dissemination and exploitation strategies and tools for the stakeholders identified in this task, they will be engaged with the following methods:

- surveys and qualitative interviews to understand the level of knowledge of taxonomy and company engagement with taxonomy amongst stakeholders
- stakeholder labs and workshops to understand the needs, interests and use for TETTRIs related information and outcomes. The workshops and labs will take the format of co-creating and co-design. This is particularly important because involvement in the design process increases engagement and makes it more sustainable, so that the training and results of the project are tailored to their respective needs and interests.
- new tools for stakeholder engagement, such as "participatory stations" for physical interaction with aspects of the stakeholder lab topic.

Furthermore, we will create several opportunities for civil society organizations to act as gateways between relevant research information and decision makers. Wherever possible, findings and recommendations will be summarized in factsheets or policy briefs to inform these decision makers. The existing networks of the civil society stakeholders will become helpful in order to reach a broader audience and engage important players. The co-creating and co-designing workshops will also help us understand the existing knowledge and skills as well as interest in civil society working on biodiversity, in order to integrate and complement them throughout the project, thereby helping us guide the research project.





The below list provides an overview of TETTRIs' target groups and the stakeholder engagement plan.

Data from these methods is planned to be ready by Month 12.

TETTRIs target groups and tools of engagement

Target groups for TETTRIs are detailed in the list below, including either the need or what the project should communicate to them, in which work package they will be engaged, and their scale (local, national, EU/worldwide).

Table 2. Target audiences

Target groups	Need of/aim for communication	Involvement in TETTRIs	Scale	Tools to engage
Users in need of taxonomic knowledge I: - wildlife managers/national park administrators - conservationists/nature conservation societies (near biodiversity hotspots and protected areas)	in need of knowledge for best management guidelines	WP7	local, national	-Social media -TETTRIs website -Direct outreach
Users in need of taxonomic knowledge II: Educators: - museum educators - science teachers (school level) - university teachers - nature guides - citizen science educators	in need of knowledge on taxonomy and biodiversity for transfer to students/visitors e.g. via curriculum integration/design	WP4, WP5, WP7	local	-Social media -TETTRIs website -Trainings and lectures -EU.Citizen.Science platform -EU services to disseminate projects (Horizon Dashboard, Cordis, EU innovation radar)
Users in need of taxonomic knowledge III: - Scientific community (e.g. professional taxonomists, researchers at different career levels, members of higher education institutions/research centers) - natural history museums - botanical gardens - non-professional taxonomists - private collection holders	in need for increased knowledge and capacity in order to truly define and ultimately protect/restore biodiversity, get support from the scientific community, boost the project sustainability through new methods/tools	all WP	local, national and EU	-Open access publications -Talks at conferences -Social media -TETTRIs website -Partner newsletters -Press releases -EU services to disseminate projects (Horizon Dashboard, Cordis, EU innovation radar)





Decision makers: - Policy makers & governance - regulatory agencies - public servants/administration - environmental managers (e.g. urban development, conservation, fisheries, forestry, agriculture, aquaculture, tourism) - decision making bodies in academia - nature protection agencies	in need of access to relevant knowledge and capacity in the field of taxonomy to provide policymakers with regular scientific assessments, their implications and potential future risks, as well as to put forward adaptation and mitigation options, safeguard the environment through new policies/best practice management/internation al frameworks.	WP5, WP8	Local, national, EU	-Open access publications -Social media -TETTRIs website -Policy briefs -Press releases -EU services to disseminate projects (Horizon Dashboard, Cordis, EU innovation radar)
General public:	Communication aims to increase general awareness, social acceptance, environmental stewardship, and involvement with the project (incl. generating scientific output).	WP7	local	-Talks at conferences -Social media -EU-Citizen.Science platform -Partner newsletters -Press releases -EU services to disseminate projects (Horizon Dashboard, Cordis, EU innovation radar)
Industry/agriculture: - farmers, landowners - consultancies or firms using ecosystem services - lobby organizations for this sector	in need (passive) of access to and integration of taxonomic knowledge, as activities can have vast impact on biodiversity	WP5, WP8	local, national	-Social media -TETTRIs website -Direct outreach
Technology innovators: - Biodiversity informatics experts - programmers, open source experts - molecular biologists	in need of scientific insights into innovation	WP5, WP6	local, national	-Social media -TETTRIs website -Open access publications
Decision influencers: - NGOS, CSOs	possibility of co-production of knowledge	WP5, WP8	local, national, EU	-Social media -TETTRIs website -Policy briefs -Partner newsletters -Press releases
New generation of taxonomists: - students of taxonomy (university level) - students (school level)	in need of taxonomic knowledge to potentially become future professional taxonomists. Target for graduate and training programmes.	WP4, WP5, WP7	local	-Social media -TETTRIs website -Talks at conferences -Trainings and lectures





•	ournalists, science ournalists)	Communication will aim to have a wide, multi-stakeholder reach & visibility, reference point for policy makers	WP8	local, national	-Social media -TETTRIs website -Partner newsletters -Press releases
	elated projects with synergy	Coordinate dissemination activities in order to maximize their impact, increase sustainability of the project	WP7, WP8	Local, national, EU	-Social media -TETTRIs website -External communication strategy -Partner newsletters -Press releases -EU services to disseminate projects (Horizon Dashboard, Cordis, EU innovation radar)

The tools, channels, formats and messages to engage the identified stakeholders are detailed in the sections below.

Key messages of TETTRIs

Clear and concise messages are key for the successful communication of the project. We will develop an overall message for the vision of the project. The TETTRIs taglines are,, "Name it to save it." and "We cannot protect what we don't know." A tagline message like this is aimed to spark, intrigue and immediately communicate the importance of TETTRIs, and can be used to communicate to all target groups.

In addition to this overall message, there is a need to further refine our messaging when segmenting our target audiences. Key messages to be communicated to different stakeholders in the TETTRIs project:

For researchers:

- TETTRIs is advancing the state of the art in European taxonomy research through innovative approaches, widespread, multidisciplinary collaboration, and the development of new tools and methodologies.
- TETTRIs will help researchers to provide tools and improve expertise Europe-wide by training future scientists and citizen scientists.
- TETTRIs is providing opportunities for training early-career researchers to develop new skills and expertise, and to collaborate with other researchers and contribute to the advancement of the field.





• TETTRIs is working towards the digitiization and accessibility of reference collections, facilitating research and access to knowledge.

For policymakers:

- TETTRIs is demonstrating the need for more taxonomic knowledge and resources to better understand and ultimately counteract the drivers and mechanisms of biodiversity decline.
- TETTRIs supports evidence-based policy actions to tackle biodiversity loss.
- TETTRIs showcases the need of capacity building to foster taxonomy as the most important tool to further our understanding of biodiversity and support biodiversity monitoring.
- TETTRIs is helping to bridge the gap between research and policy, by producing outputs that are actionable, relevant, and informed by a range of stakeholders.

For industry:

• TETTRIs is developing new tools, methods, and approaches that have practical applications for industry, including in areas such as biodiversity conservation, environmental impact assessment, natural resource management and reference collections.

For local practitioners and non-professional taxonomists:

• TETTRIs will distribute a total of 1.8 million euros in cascade grants to 3PPs that can contribute to translate research findings into practical applications for biodiversity understanding and monitoring. The call for 3PPs can be found at tettris.eu/3pp.

For the general public:

- TETTRIs is helping protect biodiversity, since taxonomy expertise is pivotal for preventing biodiversity loss.
- TETTRIs is advancing our understanding of European biodiversity and helping to promote conservation and sustainable use of natural resources.
- TETTRIs is developing innovative tools and methods that can be used by citizens to contribute to biodiversity monitoring, conservation, and research.
- TETTRIs is contributing to the development of scientific literacy by providing accessible, relevant, and up-to-date information on the latest research findings and innovations in European taxonomy.

Tools and channels

Tools for reaching stakeholders for dissemination and exploitation purposes are listed below.





Tool: Open Access Publications

Targeted audience: Scientists, policymakers, non-professional taxonomists

The project results will be shared via relevant peer-reviewed scientific journals. Special reference is made to the community endorsed European Journal of Taxonomy (EJT). If the impact of the scientific journal is similar, preference will be given to open access (direct free online access by the publisher). A RIO (Research Ideas and Outcomes) Collection for TETTRIS will allocate all relevant project work and results.

Tool: Talks at conferences Target audience: the scientific community

All project partners are encouraged to participate in relevant conferences and, where possible, present the TETTRIs project. Our target is a TETTRIs relevant interaction at three conferences per year.

Tool: TETTRIs flyers

Target audience: Multiple target audiences

Flyers will be made in Work Package 8 by month 9 and will be made available to TETTRIs partners so they can be distributed at events and conferences.

Tool: Social media

Targeted audiences: All stakeholders

Partners will communicate on TETTRIs to wider audiences through social platforms such as Twitter, Facebook, LinkedIn and Instagram. They will communicate TETTRIs progress, conference attendances, and publications to get valuable insights from external audiences. As influencers and educators in their fields, they will be able to reach public, scientific, economic, and regulatory stakeholders.

Social media pages for the project are created and used to report progress as well as to reach the relevant stakeholders. Partner institutions are asked to share TETTRIs social media outputs and disseminate them through their own channels.

Tool: Project Website Targeted audience: All stakeholders

The TETTRIs project site has been published in D8.1 and will be technically maintained by CETAF (tettris.eu) and updated by the communication team led by WP8 Leader and supported by the TETTRIs Communications Assistant, with the collaboration of CETAF and and the European Citizen Science Association (ECSA) and WP8 partners. It contains all essential information regarding the project's objectives and outcomes. The website serves as the foundation of TETTRIs' communication, exploitation, and dissemination plans. It will present the consortium members, provide links to relevant websites and social media accounts, announce important events and training, embed a repository of open access publications and their abstracts, include the communication material, store content on project activities, and link to the 3PP portal.





Tool: EU-Citizen.Science

Targeted audiences: Citizen Scientists and interested citizens

EU-Citizen. Science is an online platform for sharing knowledge, tools, training and resources for/on citizen science for/to the community. TETTRIs results pertaining to these stakeholders will be communicated here to engage and empower this diverse group of users to reach out to their respective networks and further increase impact.

Tool: EU Services to support dissemination and exploitation of Horizon Europe funded projects

Targeted audiences: all the previously indicated

Horizon Dashboard: is an interactive reporting platform allowing the user to discover and filter Horizon projects and data. TETTRIs will use the platform to identify related projects in the field of biodiversity and taxonomy and to contact these projects to create synergies, knowledge transfer and strengthen European networks.

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/po

Cordis: is the collating platform for EU projects since 1990. TETTRIS will use Cordis to research the results of relevant projects in the field to avoid duplication of research efforts, and to publicize and promote TETTRIS' own activities and results.

https://cordis.europa.eu/projects

EU innovation radar: is a platform that allows citizens, policy makers and business professionals to discover innovative outputs of EU funded projects, and facilitate these persons to seek out innovators who are receiving EU funding in the early project days. For TETTRIs this platform would allow for example technology companies to contact TETTRIs partners, and in turn could be used to identify interesting initiatives for the 3PPs.

https://www.innoradar.eu/

Tool: External Communication Strategy

Target audience: Consortium members, external stakeholders, and the 3PP applicants.

An internal and external communication strategy has been published, which include guidelines to describe and measure communication activities. See appendix for the External Communication Strategy.

Tool: Partner internal newsletters and press releases Target Audience: Wide ranging

We encourage partners to refer to TETTRIs as much as possible in their newsletter and relevant communication material. Our communications assistant will draft





press releases for particularly relevant topics to be tailored by any partners to their audiences.

Tool: Policy Briefs

Target audience: Policy makers

Access to relevant taxonomic knowledge, data and expertise within governance structures is limited, while interaction between taxonomists and policy makers remains insufficient. By publishing policy briefs, increased awareness for the need of taxonomic research and its potential impact in policy making will be highlighted. During the lifetime of TETTRIs, two policy briefs will be produced (M18 and M40) in order to showcase concrete examples in which the research and innovation coming from the project can support informed and evidence-based policy making on the EU level, particularly in relation to the goals of the 2030 Biodiversity Strategy.

Specific topics for those two Policy Briefs are:

- The cascade mechanisms foreseen for 3PPs, as it is one of the novelties integrated by TETTRIs and will support specific recommendations on how to improve actions on site and engagement with direct practitioners.
- Novel career paths outlined in WP5. These are due at the same time as the ECSA conference in Vienna and the two could be integrated.
- The involvement of community science in collecting taxonomic data and the identification of funding streams.
- The roadmap towards the EAT may provide important guidelines and envisage pathways to be translated into actionable policies that could support capacity building in taxonomy for the future.

Tool: Trainings and lectures

Target audience: the next generation of taxonomists

As experts in the field, all partners are encouraged to host training in taxonomy, where relevant. Particular focus on training will be given in WP4, WP7, and WP8.

Training can be in person with interest groups, or via new digital tools in taxonomy such as Arter.dk and iNaturalist. At NHMD a traveling lab will be established to be able to set up stations around Denmark for short-term training purposes.

Activities

Dissemination

Stakeholder engagement activities are listed below and divided into categories based on the major goal. At this early stage in the project, the PDER has (already?) a strong focus on dissemination activities. In month 40, the PDER will be updated giving more weight to exploitation of results.

To gather advice and guidance for implementation:





Engaging with the CIB: The Community Implementation Board (CIB) is composed of 10 individuals who represent key institutes and organizations throughout all societal sectors that are relevant to TETTRIs and its partnership. They ensure a holistic understanding of taxonomy across the project and provide advice on how to better and most efficiently implement the envisaged cascade mechanism for knowledge transfer (3PPs). This TETTRIs Advisory Body will be used to multiply our dissemination reach and impact. An annual meeting with the two advisory boards, CIB and the Strategic Advisory Body (SAB).

To facilitate engagement in taxonomy-related actions:

Knowledge transfer events using House of Nature (NHMD), pop-up exhibitions (DK) & digital taxonomy communities: Events such as workshops, BioBlitzes and digital communities established on biodiversity platforms (i.e., Arter.dk) planned as part of the citizen engagement model will foster the dissemination of projects and tools developed under TETTRIs. At NHMD these TETTRIs focused events take place each season in the function room, "House of Nature."

In Task 5.1 NHMW will host three interactive workshops targeting stakeholders in industry. The aim of the workshops is to map the landscape for career pathways in taxonomy.

To foster taxonomy:

Taxonomic Recognition Day is an annual event starting in 2023. It will draw attention to the field of taxonomy through coordinated, international events inviting the public to learn and contribute to taxonomy. The date chosen is May 23rd. This is the day after The International Day for Biological Diversity (22nd) and is also the birthday of Carl Linneaus.

Taxonomic Knowledge Transfer (TKT) mechanisms. Integration, connectivity, transfer and capacity building have been detected as key challenges in the taxonomic field. TKT initiatives will be conducted that bridge taxonomic interest groups with experts in both physical and digital form.

Marketplace for taxonomic capacity will be defined in WP3. A pilot implementation for a taxonomic e-services and resources marketplace will be delivered in Month 24 and a guide for marketing of indexed taxonomic expertise in month 36.

To raise awareness and present results of the project:

Consortium members will attend conferences linked to their field of expertise and where scientific, industrial, regulatory and public representatives are in attendance. In general, conferences are an excellent platform for networking and meeting an array of representatives from various target groups to whom the results of this project are of interest and by whom impacts can be maximized.

Participation with posters, presentations, workshops, letters or symposia, in conferences and meetings organized by:

- partners (such as CETAF and ECSA General Assemblies)





- major stakeholders (as GBIF, TDWG and SPNHC)
- other related interested groups (Neobiotta, Conference on Mediterranean Ecosystems (ecologists))
- Annual meeting of Biodiversity Information Standards (Biodiversity Informaticians)
- Alliance for Biodiversity (Research infrastructures) WP2 is organizing a symposium for TDWG2023.

Disseminating early findings (with posters, symposia and workshops) will help build scientific evidence and accelerate research. Especially in cases where these findings prompt other researchers in the field to share experiences, data and/or findings for mutual benefit. We aim to harmonize the use of tools, methods, and services, and share our protocols for developing training, reference collections and innovative methods.

CETAF is making a poster for TDWG2023 containing the red list for taxonomies and in relation to WP6.

To transfer recommendations and results:

Policy briefs will be presented to the relevant stakeholders. Policy brief 1 will have a focus on novel career paths for taxonomists and targeted towards industry and investment firms. Policy briefs will be brought to members of the EU Parliament and Commission.

Opportunities will be taken to engage with policy makers through workshops, roundtable or via communication activities.

Consortium meetings and general assemblies Target audience: CETAF and ECSA members, researchers and partners

TETTRIs needs support from CETAF and ECSA member institutes that are not a direct beneficiary to TETTRIs. To acquire their input and collaboration, the project will be a topic of discussion during meetings at CETAF and ECSA and discussed in relevant workgroups. T.5.1 plans to develop a participatory station at deck 50 in NHMW together with stakeholders as a tool for further engagement activities.

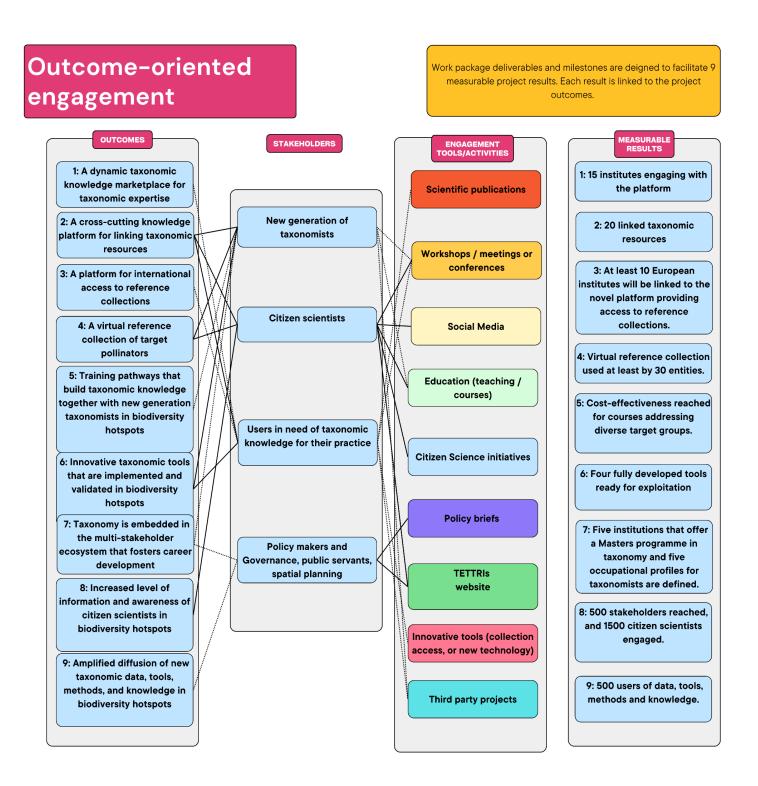
Project Conference: When bringing the TETTRIs project to a close in the fourth and final year, CETAF will organize an international conference that will bring together the expertise of their vast network, other institutions outside CETAF and international organizations relevant to taxonomy and taxonomic expertise and knowledge as well as involved stakeholders. Additional valuable knowledge contributions from the members of the TETTRIs Advisory bodies, both the CIB and the Strategic Advisory Board (SAB) will be included. This Conference will look into the future, will strengthen connections and set the bases to further exploit the TETTRIs outcomes.

Stakeholder engagement must be goal oriented. The diagram below maps how tools and activities are related to outcomes and stakeholders.





Diagram 1. Linking outcome oriented engagement activities with stakeholders and measurable results.







Exploitation

Biodiversity will be threatened beyond the TETTRIs project and the necessary capacity building in taxonomy will still remain as an instrumental need to facilitate biodiversity monitoring and tackle biodiversity loss, therefore the results and impact of TETTRIs need to be sustainable in the long-term. Exploitation of results is a mechanism whereby the transformation of taxonomy and the enlargement of its use in Europe continues beyond 2026.

Transfer of knowledge: A key component to empowering stakeholders for dissemination and exploitation is the transfer of (Open Access) knowledge which constitutes sustainable implementation of knowledge into existing and new systems (such as COL and DiSSCo), and targeted communication efforts of these results to stakeholders identified within the PDER. The University of Gothenburg (UGOT) will develop a sustainability plan to structure implementation of the created knowledge into existing (governance) networks and secure long-term impact of project results.

Methods include the creation of:

- 1) a Taxonomic Knowledge Transfer forum (TKT), in collaboration with Academia, ECSA and other supporting non-governmental organizations (NGOs). At NHMD interest groups will be united with in person events and forums. Associations will be connected to experts through in person events or on digital platforms such as arter.dk and iNaturalist. Larger scale events will be made in collaboration with ECSA, and UGOT. How these larger TKT initiatives look still needs to be defined.
- 2) A novel model for citizen science engagement will be developed as the main knowledge transfer mechanism at local or National levels via the guidance of the EU-wide TKT forum. This bottom-up model will involve specialists and amateur naturalists in engaging the broader public and promoting new tools and projects developed in TETTRIs, and in co-creating museum attractive resources (as pop-up exhibitions and events). The engagement model will be developed and piloted in Denmark and adapted for at least two other European countries with different societal structures/cultures. New ways of involving and engaging citizen scientists in the process will be tested, including establishing a physical free-for-use and open space "the House of Nature" located at NHMD where target audiences can unite and co-created activities can be launched, e.g., pop-up exhibitions on taxonomic groups or local findings, events sharing new findings from field or science, and open microphone gatherings. Events led by citizen scientists will also be held in the field (Bio Blitzes) in hotspots and protected areas, and on-line biodiversity platforms will be used to provide digital spaces for sharing biodiversity findings and connecting with expert taxonomists (i.e., Arter.dk, iNaturalist).
- 3) Methods of knowledge transfer proven successful will be translated so that methodologies can be adopted in other countries.

Boost capacity building in taxonomy:





For that, the recognition of the added value of taxonomy is pivotal:

1) Promoting the Taxonomy Recognition Day which is an iterative annual rotating event to promote strategic opportunities for taxonomists in Academia, Local and regional Governments, Institutions and Industries to address the current shortage of experts in the field. It will link to similar initiatives outside Europe (e.g., International Biodiversity Day) to reach out globally and maximize impact. The date chosen has been May 23rd, the day after Biodiversity Day. May 23rd is also the birthdate of Carl Linneaus. All project partners will be encouraged to mark this with social media posting, and, if possible, a Bioblitz. This method was chosen as it has the potential to reach a wide audience as well as foster collaboration between institutions.

Furthermore, the need to streamline the role taxonomy plays in tackling biodiversity loss starts and continues through literate social actors with the support and engagement of academia, which implies:

- 2) Setting the pathway to create a solid European Agency for Taxonomy (EAT)
- 3) Creating adequate training platforms to tool-up scientists and citizens in this domain.

Exploitation of developed tools and training: Several tools and training will be developed and validated during TETTRIS, which can be exploited following their validation. Especially training related to the tools developed for non-professional use offer a highly specific value proposition that can be (commercially) exploited on the (non- academic) market. It is the responsibility of the IP owners to develop tools and methods towards the market.

Collaboration with synergistic partners: In addition to exploitation of the outcomes from the TETTRIs project, the consortium will also proactively approach consortia working on similar or synergistic projects to broaden the impact of the project outcomes. A direct collaboration is envisioned for projects from the HORIZON-CL6-2021-BIODIV-01-02 topic, to generate data required for reference collections.

Stages of the PDER

The dissemination activities aim to share the project's research findings, training activities, and innovative solutions with a wide range of stakeholders. This occurs throughout the project when results are delivered and approved. While the exploitation activities aim to identify opportunities and strategies for policy reform and sustainability of the project's outputs.

During the first three months of the project the internal communications strategy was delivered, and the social media pages as well as the website were published. The external communications strategy is also published.

The PDER was developed and delivered in month M3 of the project lifetime, and further fine tuned until month M6, when the first revision is published. Communication about the TETTRIs project continues throughout the first year.





Project results, especially the results of 3PP will be disseminated in year two. In year four, the PDER is updated with a particular focus on the strategy for exploiting project results and the dissemination of recommendations and next steps.

A content calendar with all planned communication and dissemination activities can be found in the appendix. This document will be updated throughout the project when new activities or initiatives are proposed.

Rules for performing dissemination activities

Dissemination of results in the TETTRIs project is governed by a set of rules and guidelines to ensure that the dissemination is effective, ethical, and compliant with the project's objectives and principles.

The dissemination activities should consider inclusive, ethical and legal matters, including issues of data privacy, intellectual property rights, and commercial confidentiality.

To ensure compliance with these rules, the project relies on the advice and guidance of an Ethics Advisor and the co-championship in gender and diversity.

TETTRIs beneficiaries are committed to promote the project and its results by providing targeted information to multiple audiences (including the media and the public) in their own surrounding environment, in a strategic, coherent and effective manner following the coordination framework established by the PDER.

Ethics, Gender and Diversity

Ethics behavior transcends any regulation and will be encouraged across the project activities. To that end, dissemination of the CETAF Principles for Responsible Research and innovation will be widely disseminated. Moreover, critical ethics compliance will be ensured when dealing with sensitive data and for protecting personal privacy (GDPR) and intellectual rights (IPR), whenever applicable. Special attention will be given in the implementation of the 3PPs where data will be transferred and accountability in ethics compliance shall be taken by third parties. The Ethics framework to be elaborated by the Ethics Advisor will articulate references and therefore compliance aspects to be considered by the parties.

Encouraging diversity in education and specifically in Science, Technology, Engineering and Mathematics (STEM) is imperative for a more diverse and inclusive contribution in research and this also holds true in the field of taxonomy. Furthermore, a gender balanced approach will be kept throughout the project and in the deployment of all types of actions to ensure all are duly represented.





The gender and diversity dimensions will be addressed within the following activities:

- Those dimensions were fully considered when establishing the external advisory bodies (SAB and CIB) to ensure the largest mixture of perspectives.
- As part of the method to build a marketplace for taxonomic services and expertise (WP3), TETTRIS will develop automatic mapping methods of taxonomic expertise where gender balance is transversal and will report and recommend improvements to address any gender biases.
- Gender aspects will also be considered in the establishment of training formats and in the composition of the network of trainers (both WP4).
- The stakeholder process for integration of taxonomy into society will specifically address the challenges for women in the development of novel career paths, and also the agreements with universities will include the aim for gender balance in higher education (WP5).
- The 3PP specifically encourages the application by and inclusion of women in the project as the concrete capacity-building activities are a strong lever to reach and gain diversity for the science of taxonomy. The success will be monitored in the evaluation of the 3PP (WP7).

IV. Evaluation and Monitoring

Key performance Indicators

There is a need to introduce Key Performance Indicators for monitoring the success of the project. The KPI's below are focused on stakeholder engagement and project outcomes.

The monitoring of the activities is impact-focused with the aim to:

- Enlarge engaged users' communities
- Improve awareness and trust
- Drive towards innovative tools and data availability
- Enhance synergy monitoring
- Sustain long-lasting cooperation

Tools to Monitor performance include:





1) Website traffic

Data collection using website analytics reports using tools such as Google Analytics - EXPECTED KPI - yearly +15% in traffic

2) Social media engagement

Data collection using regular monitoring of social media platforms (Twitter, Facebook, LinkedIn) - EXPECTED KPI - Twitter: a total of 600 followers and at least 500 tweets / Facebook: 300 followers and at least 250 posts / LinkedIn a total of 500 followers with at least 250 posts. The platforms may change according to the international situation in order to grant the best impact possible.

3) Conference attendance

Data collection using tracking of TETTRIs participation in conferences and events. EXPECTED KPI: TETTRIs project should be quoted in at least 15 conference/external events by its representatives in the project's lifetime.

- 4) TETTRIs quoted in partner's website: a page in their respective website should be dedicated to TETTRIs in every single official website of the 17 Partners.
- 5) Press Releases: 3 Press releases are expected in the project's lifetime
- 6) Policy-Brief: 2 Policy Briefs are expected in M18 and M40
- 7) Scientific Publications: 2 publications per year (or a total of 6) are expected to use TETTRIs outcomes
- 8) There are several physical and digital events such as courses, labs, round tables (RTs) and workshops (WSs) to be organized. Attendance will be noted at these events.
 - From T3.1 2 live or 3 digital WSs about the expertise marketplace
 - From T5.1 (+T5.2 T5.3 and T4.1 and 4.2) 3 Stakeholders labs. The 1st in month 5 at Deck50 at NHMW brought together stakeholders from across the disciplines of art, science and policy. The 2nd stakeholder lab is to be in month 11 and will target industry stakeholders. The 3rd lab will be in connection with the ECSA conference in Vienna in April 2024 and will focus on policy makers.
 - From T6.3 1 Workshop on Molecular tools for species identification, 1 Round Table
 - From WP8, NHMD Attendance at the TKT workshops.
 - ECSA Conference in April 2024
 - From WP4 DEST workshops and courses





V. Concluding remarks

In conclusion, the dissemination and exploitation of results are critical components of the TETTRIs project. Through the plan outlined above, we aim to reach a targeted group of stakeholders with the key messages and applicable results of the project. By leveraging a variety of communication channels, such as publications, events, and digital platforms, we aim to maximize the impact of our research and training activities and contribute to the transformation of taxonomy in Europe.

It is recognized that effective dissemination and exploitation require ongoing evaluation and adaptation. Reactions of content communicated and disseminated will be monitored over the next 37 months and the official PDER will be adapted accordingly in month M40.

Through effective collaboration with expert partners, TETTRIs objectives are achievable and are in good standing to deliver lasting benefits to the field of taxonomy.





APPENDIX

ID	Reference or Related Document	Source or Link/Location			
1	External Communications Strategy	W WP8, D8.2 External Communication Str			
2	Project Visual Identity D8.1	■ 03.TETTRIs D8.1.InternalCOMStrategy.d			
3	Partner survey	■ Information necessary to complete T.8.2			
4	Project folder	Shared Google drive <u>LINK</u>			
5	Communication and Dissemination content calendar	<u>Content Calendar</u>			



