

# Enhancing Trust, Integrity, and Efficiency in Research through Next-Level Reproducibility Impact Pathways

# Deliverable D2.2 – Stakeholder Communication & Engagement Plan (First Update)

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Lead Beneficiary: PENSOFT

Author: Nikol Yovcheva

Reviewers: Nicki Lisa Cole, Friederike Elisabeth Kohrs



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# **Executive Summary**

The current deliverable, D2.2, provides an updated Stakeholder Communication & Engagement Plan for TIER2, building upon the foundational Dissemination, Exploitation, and Communication strategy outlined in the initial plan (D2.1). This update captures the progress made during the first two years of the project (M1-M24) and sets out the communication and engagement activities planned for the project's final year (M25-M36). A final update to the plan will be provided in M36, summarising the activities from the past twelve months and offering a closing assessment as the project concludes.

#### List of

EU - European Union

DEC - Dissemination, Exploitation, and Communication

DEIA - Diversity, Equity, Inclusion, and Accessibility

FAIR - Findable, Accessible, Interoperable, and Reusable

KO – Key Output

KPIs – Key Performance Indicators

RCT - Randomised Controlled Trial

RMP - Reproducibility Management Plan

RMD - Reproducibility Monitoring Dashboard

RN – Reproducibility Network

RPOs - Research Performing Organisations

SCEP – Stakeholder Communication and Exploitation Plan

## 1. Introduction

To maximise the short-, medium-, and long-term impact of TIER2's results, a purposefully designed Dissemination, Exploitation, and Communication (DEC) strategy was streamlined in the project's <u>Stakeholder Communication & Engagement Plan</u> (SCEP) (D2.1), submitted in M6. This plan identified TIER2's target groups ("who"), outlined the project's research outputs ("what"), specified the tools and channels to share the results ("how"), and set the timeline and Key Performance Indicators (KPIs) for DEC activities ("when") during the first two years of the project (M1-M24).

To ensure that the plan evolves as the project progresses, updates were planned for M24 and M36. Accordingly, this current update, delivered in M24, assesses the progress made on the initial DEC activities and proposes an updated implementation plan for DEC efforts in the M25-M36 period. Additionally, it provides further details on the project's Key Outputs (KOs), along with tailored exploitation strategies for maximising their impact. The final SCEP update in M36 will provide a comprehensive overview of the past twelve months, detailing the progress of planned activities and presenting a concluding evaluation as the project comes to a close.

# 2. Key Outputs

TIER2 is actively developing a diverse portfolio of KOs, aimed at advancing reproducibility across broad research communities, including life sciences, computer sciences, and social sciences. These results are scheduled for public release between July 2024 and December 2025, ensuring open access to stakeholders worldwide. Most outputs will be available through community-endorsed platforms such as OSF pages, ARGOS and the Embassy of Good Science, as well as through TIER2's website. Tailored platforms like the SCHEMA Lab website, Methods Hub and the Horizon Results Platform will also provide access to specific outputs to meet the needs of distinct user groups. All results will be released under open access principles to encourage widespread usability and adoption.

This commitment to openness is further reinforced by tailored dissemination and exploitation plans. These include leveraging existing networks, organising co-creation and community engagement events, and producing supporting documentation, as well as user-friendly tools. Collaboration and co-creation with key stakeholders ensure that resources are aligned with user needs, while integration with established frameworks promotes seamless adoption. Many results are positioned for continued use and development beyond the project's duration, with certain KOs already exploited in new EU projects like TRUSTparency. Clear timelines, target users, and detailed exploitation strategies outlined in the following sections will guide outreach and implementation efforts.

The current section showcases TIER2 partners' vision for sustaining and scaling these results. This includes fostering community engagement, user training, and ongoing development of tools and policies.

#### 2.1. KO1. Conceptual Framework

- **Description**: TIER2 created a new framework for assessing reproducibility impact pathways across epistemic contexts, consolidating evidence on the uptake of reproducibility interventions and providing an inventory of existing reproducibility tools/practices across contexts.
- **Potential outcome & impact**: This enhanced theoretical/evidential basis will enable shared understanding and orientation on best practices for increasing reproducibility.
- Specific outputs associated with the KO: <u>Deliverable 3.1</u>. Two pre-prints: https://doi.org/10.31222/osf.io/ujnd9 & https://doi.org/10.31222/osf.io/entu4.
- Scale: Global
- Available via: TIER2 website & OSF page
- Publicly available by: 31.12.2025
- Further development beyond TIER2: The KO will be used in an upcoming EU project named TRUSTparency.
- **Potential users**: Research funders, publishers, research performing organisations, scholarly/learned societies, researchers and research managers/administrators.
- Exploitation by users outside TIER2: Enable systematic assessment of the redoing activities across contexts to optimise action. Enable assessment indicators. Provide ideas/inspiration to stakeholders for actions on reproducibility.
- **Potential exploitation barriers and mitigation measures**: The conceptual complexity and normative behaviour may be a challenge to exploitation or uptake. Mitigation: Userfriendly tool.
- Exploitation pathways to enhance use: Public dissemination in the research literature
  and at relevant workshops. An acknowledgement of the need to address the conceptual
  confusion is already evident.
- **DEC activities to support exploitation**: Presentations have already been delivered at conferences, and research papers are currently in the process of being published.

### 2.2.KO2. Innovative tools & practices

#### 2.2.1. Pilot 1. Decision Aid

- Description: TIER2's Decision Aid will provide clarity on the meaning, relevance, and feasibility of 'reproducibility' for researchers to aid them in identifying what type of reproducibility is relevant for their research and indicate what they must consider regarding how feasible such 'reproducibility' would be for them. The tool will be piloted with two groups of researchers (qualitative and machine learning researchers).
- Potential outcome & impact: An interactive tool that poses questions to interested parties
  (e.g., researchers or other stakeholders) about the aim of the queried redoing activity, its
  potential relevance and/or feasibility. Such a tool is a novel aid which can help draw
  attention to epistemic diversity.
- Scale: Global
- Specific outputs associated with the KO: Tool available online.
- **Available via**: Eventually on <u>TIER2 website</u> & <u>OSF page</u>. Right now: <u>https://cfaresearch.au.dk/tier2/index.php</u>.
- Publicly available by: 31.12.2025

- Further development beyond TIER2: Dependent upon the evaluation of the tool.
- Potential users: Research funders, research publishers, researchers.
- **Exploitation by users outside TIER2**: The tool can be explored by anyone who has an interest and can provide some important questions for consideration.
- Potential exploitation barriers and mitigation measures: The trade-off between complexity and usefulness may in the end be a challenge for the tool and its use. Mitigation: Adjust the tool to be as friendly as possible, whilst trying to maintain its functionality and usefulness.
- Exploitation pathways to enhance use: Get as many potentially interested stakeholders to engage with the tool and have them provide feedback so that it can be updated. Agreements have already been established with several Reproducibility Networks in Europe and contact will be made with funders and other stakeholders.
- **DEC activities to support exploitation**: Press release, a video demonstration.

#### 2.2.2. Pilot 2. Reproducibility Management Plan (RMP)

- **Description**: The Reproducibility Management Plan (RMP) Pilot aims to create a prototype of key thematic subjects and questions that will serve as the starting point to support reproducibility at the planning stage of research. Work involves defining what an RMP is, integrating it into the ARGOS service, and testing its effectiveness with feedback from the community. The pilot addresses beneficiaries and funders for its adoption.
- **Potential outcome & impact**: Integrating reproducibility considerations directly into the planning and management of research projects will lead to more streamlined and effective reproducibility practices and will strengthen the policies of public research funders.
- Scale: Global
- **Specific outputs associated with the KO**: Recommendation document from co-creation activities with researchers. RMP template.
- Available via: TIER2 website, OSF webpage & ARGOS website.
- Publicly available by: 31.12.2025
- Further development beyond TIER2: It will remain public in ARGOS and everyone will be able to use it. Collaboration is ongoing with other projects, notably OSTrails with outreach to 15 national and 8 thematic pilots, that will have the opportunity to support the realisation of some of the recommendations mentioned in the report.
- **Potential users**: Researchers, research infrastructures, research funders, research integrity officers.
- **Exploitation by users outside TIER2**: The RMP can be incorporated into existing funders and institutional Data Management Plan templates. It will remain in the ARGOS platform so everyone will be able to find and use it in their future projects.
- Potential exploitation barriers and mitigation measures: Applying reproducibility is still
  in its infancy and DMPs as they stand today are very complex to implement. If policies
  were encouraging reproducible practices, it would improve the current state. In addition,
  the evolution of platforms developing DMPs is very promising for simplifying and
  automating the steps leading to an RMP.
- Exploitation pathways to enhance use: Share widely in TIER2 researcher, funder and publisher communities. Develop training based on this knowledge. Use to develop policy

- recommendations. Open code to allow customisation by stakeholders. Make available in TIER2's Reproducibility Hub. Make available on the Horizon Results Platform.
- **DEC activities to support exploitation**: Press release. Social media. Presentation at ARGOS community call. Poster at a conference.

#### 2.2.3. Pilot 3. Reproducible Workflows

- **Description**: The Reproducible Workflows Pilot focuses on enhancing reproducibility in life sciences and computer sciences, by adapting the SCHEMA open-source platform, using technologies like software containerisation, workflow description languages, and experiment packaging specifications to fit specific epistemic needs.
- **Potential outcome & impact**: Offering life and computer scientists an interactive tool that will serve as a virtual lab, enabling them to run computational tasks, design reproducible workflows, and share their work seamlessly with the research community.
- Scale: Global
- Specific outputs associated with the KO: <u>Milestones 5.1,5.2, 5.3</u>. <u>Poster</u> related to a proposed RO-Crate profile. <u>First version</u> of SCHEMA Virtual lab.
- Available via: TIER2 website and SCHEMA Lab website.
- Publicly available by: 31.09.2024
- Further development beyond TIER2: Features will be further developed in SCHEMA lab such as uploading RO-Crates to RO-hub for ensuring reproducibility along with other potential enhancements to optimise the user experience of the researchers that will leverage this tool.
- **Potential users**: Researchers (life scientists, computer scientists).
- **Exploitation by users outside TIER2**: The tool can be adopted by researchers globally to facilitate the use of computational workflows and improve reproducibility.
- Potential exploitation barriers and mitigation measures: Potential barriers include technical complexity and hesitation to adopt new tools, as well as challenges in integrating with existing infrastructure. To mitigate these, user-friendly interfaces are proposed, along with targeted training, and interoperable features to ensure seamless adoption and usability.
- **Exploitation pathways to enhance use**: The tool will be shared widely within TIER2 researcher communities and made openly accessible for further development.
- **DEC activities to support exploitation**: Presentation at events for researchers, social media, and conferences.

# 2.2.4. Pilot 4. Reproducibility Checklists for Computational Social Science Research

Description: This Pilot aims to provide a structure of well-defined checklists and templates
that can help review data and code reproducibility for computational social scientists. The
checklists and review templates cater for the specific needs of the three research phases,
i.e., planning and data collection, process and analysis, and finally sharing and archiving
the research resources. It results in building trust and authority in the social science
research community.

- **Potential outcome & impact**: Development of a Reproducibility Checklist for computational social science research, providing comprehensive guidelines to enhance reproducibility practices, and helping researchers systematically document and validate their workflows, data, and results to ensure transparency and replicability in their studies.
- Scale: Global
- Specific outputs associated with the KO:
  - Research outputs: A paper on computational reproducibility in social sciences submitted around the end of 2024.
  - Community engagement: A workshop will be organised presenting the checklist and reproducibility guidelines.
  - o First and second draft of the Reproducibility checklist
- Available via: OSF
- Publicly available by: 30.09.2025
- Further development beyond TIER2: A checklist is being developed to act as a guideline for researchers to contribute their methods to the Methods Hub. The official release of the Methods Hub is planned for the middle of 2025.
- Potential users: Researchers (computational social scientists).
- **Exploitation by users outside TIER2**: The checklist can be integrated into Methods Hub (a platform for computational methods in Social Sciences).
- Potential exploitation barriers and mitigation measures: Barrier: Researchers may resist adoption, perceiving the checklist as time-consuming. Mitigation: Limit mandatory items to essential reproducibility components and provide clear guidance to streamline the process, ensuring usability and effectiveness.
- Exploitation pathways to enhance use: Integration with other tools such as Methods Hub, SCHEMA lab, and Workflow Hub. Community Engagement: Organise workshops and training sessions to demonstrate the checklist's value and ease of use.
- **DEC activities to support exploitation**: Presentations at conferences and a press release.

#### 2.2.5. Pilot 5. Reproducibility Promotion Plan for Funders

- Description: The Pilot will develop a policy template with recommendations for funders to foster reproducible practices both in the research they fund (evaluation and monitoring) and their internal practices.
- **Potential outcome & impact**: The Pilot helps create a set of high-level recommendations with instructions and best practices to foster reproducibility. Funders can take elements or specific recommendations and adapt them to the needs of their funding institution.
- Scale: Global
- Specific outputs associated with the KO: <u>Full document</u> with the recommendations and their explanations and best practice examples, a one-pager summary, and a paper.
- Available via: TIER2 website, OSF page & ReproHub.
- Publicly available by: 31.12.2025
- Further development beyond TIER2: The result will be further used in future research projects.
- Potential users: Research funders.

- **Exploitation by users outside TIER2**: Funders and funding institutions can use the recommendations from the tool to start fostering reproducibility in the research they fund.
- Potential exploitation barriers and mitigation measures: Potential barriers include money and time conflicts within funding organisations for implementing the recommendations. However, an upcoming questionnaire will be distributed to funders to investigate how to mitigate this.
- **Exploitation pathways to enhance use**: Send to relevant contacts from the TIER2 stakeholder list created by CHARITE and host a funders webinar.
- **DEC activities to support exploitation**: Press release, one-pager, webinar for funders.

#### 2.2.6. Pilot 6. Reproducibility Monitoring Dashboard

- Description: The Reproducibility Monitoring Dashboard (RMD) Pilot aims to develop tools
  that enable funding agencies to track and monitor the reusability of research artefacts
  across various projects, programs, topics, and disciplines. This auto-generated dashboard
  assesses the impacts of policies related to data and code sharing. Furthermore, essential
  requirements are being established to make the dashboard user-friendly for publishers.
- **Potential outcome & impact**: The RMD provides insights necessary to make informed decisions, allocate resources more effectively, and enhance transparency and accountability in funded projects.
- Scale: Global
- Specific outputs associated with the KO: Handbook describing the building blocks of the dashboard.
- Available via: TIER2 website, OSF page, OpenAIRE & ReproHub.
- Publicly available by: 31.12.2025
- Further development beyond TIER2: Potential to be used for further projects and collaborations.
- **Potential users**: Research performing organisations, research funders, research publishers, researchers.
- Exploitation by users outside TIER2: Funders can use the RMD for monitoring and
  assessing the impact and reusability of research artefacts. RPOs can use it to showcase
  the impact and reusability of their research for increased funding and collaborations.
  Publishers can use it to identify undocumented or partially documented research artefacts
  in scientific manuscripts. Researchers can use it to access well-documented, more cited
  and reused research artefacts in specific fields.
- Exploitation pathways to enhance use: Send to relevant contacts from OpenAIRE MONITOR Community and TIER2's stakeholder list created by CHARITE for further uptake. Share widely in TIER2 researcher, funder & publisher communities. Make available in TIER2's Reproducibility Hub.
- **DEC activities to support exploitation**: Press release, webinar.

#### 2.2.7. Pilot 7. Editorial Workflows to Increase Data Sharing

 Description: This pilot aims to evaluate the effectiveness of an intervention to increase sharing of research data in a randomised controlled trial (RCT). The intervention was developed co-creatively with publishers and is intended to be low effort and easy to

- integrate into existing editorial workflows. It provides information for authors to enable and motivate them to share their research data in trusted repositories.
- Potential outcome & impact: This pilot provides guidance for publishers on how to adapt
  editorial workflows if they aim to increase data sharing rates within their journals. If
  implemented broadly it has the potential to achieve better data availability across different
  disciplines and areas of research.
- Scale: Global
- Specific outputs associated with the KO: RCT protocol including intervention text, evaluation results regarding the effectiveness of the intervention for increasing data sharing rates.
- Available via: OSF page
- **Publicly available by**: 30.10.2024 (evaluation results by 31.12.2025)
- Further development beyond TIER2: The intervention can be adapted by anyone interested, e.g., to cater to the needs of publishers and journals in specific disciplines or areas of research.
- Potential users: Publishers.
- Exploitation by users outside TIER2: Publishers can quite easily integrate this intervention into their own workflows to increase ability and motivation in authors to share their research data.
- Potential exploitation barriers and mitigation measures: Since the intervention was
  designed to be low effort for publishers, it might not achieve the desired effect in increasing
  data sharing rates (e.g., since it is not combined with any further enforcement). Evaluation
  results will be informative on what can be expected from adapting the editorial workflow in
  such a way.
- **Exploitation pathways to enhance use**: Publisher representatives were already involved in developing the intervention. Once results are available, they will be updated and shared with the broader TIER2 publisher community. Evaluation results will also be presented in a paper, published as a preprint and submitted to a peer-reviewed journal.
- **DEC activities to support exploitation**: Press release, journal article.

# 2.2.8. Pilot 8. An Editorial Reference Handbook for Reproducibility and FAIRness

- Description: The Handbook aims to
  - o operationalise the agreed checks, as part of an ideal internal journal manuscript submission workflow, also via the support of FAIRsharing;
  - have journals integrate the concepts and values of the Handbook into their policies and workflows;
  - o assist journals with the implementation of open data-sharing policies;
  - o ultimately make research articles more reproducible and FAIR (Findable, Accessible, Interoperable, and Reusable).
- **Potential outcome & impact**: The Handbook contributes towards a common understanding of what is required by scholarly journals and publishers to assist reproducibility and FAIRness in practice.
- Scale: Global

- Specific outputs associated with the KO: <u>Two-pager overview</u> of Handbook and Intervention and a paper as a work in progress.
- Available via: Handbook website.
- Publicly available by: 31.07.2024
- **Further development beyond TIER2**: The Handbook will potentially be further developed in future research projects.
- **Potential users**: The Handbook targets in-house editorial staff managing the manuscripts, but also benefits reviewers and authors by making the fundamental checks and the requirements transparent and understandable to them.
- **Exploitation by users outside TIER2**: Services and tools providers can make use of these fundamental checks and the requirements to better assist the publishers.
- Potential exploitation barriers and mitigation measures: The intervention will also collect information on barriers and challenges, such as internal approval process and time vs value.
- **Exploitation pathways to enhance use**: Journals and publishers can use the workflow to enforce open data-sharing policies and improve existing methodologies.
- **DEC activities to support exploitation**: Press release, <u>two-pager</u>, promotional video, presentation to events for/by publishers.

#### 2.3. KO3. Increased capacity

#### 2.3.1. The Reproducibility Hub

- **Description**: A sustainable, open knowledge base of results, methodologies, and interventions related to reproducibility.
- **Potential outcome & impact**: Community engaging platform, that compiles important information, documents, and tools in one place and can be updated with up-to-date information in the future.
- Scale: Global
- **Specific outputs associated with the KO**: Completed Reproducibility Hub with all expected outputs available online.
- Available via: ReproHub.
- **Publicly available by**: 31.12.2025. Uploading to the Reproducibility Hub has continuously been ongoing since December 2024.
- Further development beyond TIER2: Additional and new information/tools can be uploaded after TIER2.
- **Potential users**: Researchers, research funders, research managers/administrators, research publishers, research integrity officers, and research performing institutions.
- **Exploitation by users outside TIER2**: Any stakeholder can explore the Reproducibility Hub and look for information that is tailored to them. They will have access to the research outputs from TIER2 and the pilots, and a hyperlink to the training.
- Potential exploitation barriers and mitigation measures: Potential barrier: Limited engagement on the Embassy of Good Science, which may limit the reach of the Reproducibility Hub. To mitigate that, the Hub will be promoted at international events, shared with TIER2's stakeholder community, and linked to the project website.

- **Exploitation pathways to enhance use**: Advertise the Reproducibility Hub through media and share with TIER2 stakeholder lists.
- DEC activities to support exploitation: Press releases, social media.

#### 2.3.2. Co-creation events

- **Description**: Engaging researchers, publishers, and funders to strengthen their skills and expertise via outreach and co-creation events.
- Potential outcome & impact: Community building and collaborative creation of tools and
  policies that are valuable and useful to the respective stakeholder groups involved in the
  co-creation.
- Scale: Global with a focus on Europe.
- Specific outputs associated with the KO: Creation of a co-creation event handbook tailored to higher-level stakeholder groups identified in T2.1. Consortium-wide needs-assessment questionnaire. Event guide and one-pager on Reproducibility Hackathons.
   Collection of resources to foster Diversity, Equity, Inclusion, and Accessibility (DEIA) in co-creation events.
- Available via: TIER2 website, OSF page.
- Publicly available by: Ongoing. Open events are posted on the TIER2 website and disseminated via LinkedIn & other social media platforms. For closed events, email invitations are sent.
- Further development beyond TIER2: Potential to be used in future European projects.
- Potential users: Researchers, research performing organisations, research managers/administrators.
- **Exploitation by users outside TIER2**: Stakeholder groups can use the guides and collection of resources to plan and conduct their own co-creation activities.
- Potential exploitation barriers and mitigation measures: Potential Barrier: lack of
  continued awareness of resources in existence after the project finishes or resources
  becoming obsolete/outdated after the project ends. Mitigation: Resources are periodically
  shared and promoted during the project and actively distributed to relevant stakeholder
  communities. This approach aims to encourage stakeholders to adopt, use, and update
  the resources to ensure their continued relevance and utility beyond the project's
  conclusion.
- Exploitation pathways to enhance use: Share guides and collection of resources with sister projects iRISE and OSIRIS; Share widely in TIER2 researcher communities; Make guides available on TIER2's ReproHub; Further develop community engagement in another project; Combine, broaden, and strengthen community engagement across sister projects iRISE and OSIRIS.
- DEC activities to support exploitation: Social media.

#### 2.3.3. New Reproducibility Networks

 Description: Empowering three new national Reproducibility Networks (RNs) in Widening Participation countries.

- **Potential outcome & impact**: RNs serve as national hubs advocating for rigorous, open, and high-quality research. Establishing RNs in "Widening Participation" countries offers peer-led support and strengthens the local research communities.
- Scale: Europe-focused
- Specific outputs associated with the KO: Consortia in Ukraine, Georgia, and Serbia each received an award to establish an RN in their country. The establishment meeting for Ukrainian RN was scheduled for November 2024, for Georgian RN in December 2024, Serbian RN in the Summer of 2025.
- Available via: <u>TIER2 website</u> and individual RN websites which are currently under development.
- **Publicly available by**: Call 1 opened on 13.06.2023. Call 2 opened on 05.02.2024. The results of the winners were posted on 31.10.2023 and 10.09.2024, respectively.
- Further development beyond TIER2: The experience and know-how gained can be used to organise awards for the creation of new Reproducibility Networks in future projects. This approach will help build connections in often-overlooked regions, enhancing collaboration and research impact. Additionally, the relationships established with awarded networks can support dissemination and exploitation in similar future projects, providing deeper insights into research ecosystems and reproducibility/Open Science practices in Horizon Europe Widening Participation countries. Future collaborations could extend the reach and disseminate project work to underserved regions.
- **Potential users**: Researchers, research performing organisations, research managers/administrators, research funders, research integrity officers, research publishers, and research funders.
- **Exploitation by users outside TIER2**: The establishment of 3 RNs in European Widening Participation countries, through seed funding provided by the TIER2 award, is beneficial to stakeholder groups already outside the project.
- Potential exploitation barriers and mitigation measures: Potential barrier: Newly established RNs are not sustainable due to lack of experience. Mitigation: connecting newly established and already existing RNs for guidance and expertise sharing.
- Exploitation pathways to enhance use: Connect to already established RNs as TIER2 has built extensive connections to European RNs; Share widely with relevant contacts from TIER2's stakeholder list created by CHARITE for further uptake.
- **DEC activities to support exploitation**: Press releases, newsletter, social media.

### 2.4. KO4. Policy roadmap

- **Description**: TIER2 will create a stakeholder roadmap on priorities for future reproducibility, including practical policy and implementation recommendations, guidelines and briefs for research funders, institutions, policymakers, research administrators, integrity officers, publishers, and researchers in Europe and beyond.
- Potential outcome & impact: Creating future reproducibility scenarios will provide direction and momentum to unite stakeholders in sustainable efforts to address issues of reproducibility for the long term.
- Scale: Global but tailored to Europe.

- **Specific outputs associated with the KO**: Deliverables D4.1, D4.3, D5.1-D5.3; papers enclosed in D3.1; outcome of co-creation efforts in T3.2.
- Available via: TIER2 website, OSF page.
- Publicly available by: 31.12.2025
- Further development beyond TIER2: Potential to be used in future European projects.
- Potential users: Research funders, research performing organisations, research funders, research managers/administrators, research integrity officers, research publishers and researchers.
- **Exploitation by users outside TIER2**: All stakeholder groups can use the parts relevant to them from the roadmap to guide their actions and policy focus.
- Potential exploitation barriers and mitigation measures: Potential barrier: results not relevant to the specific domain. Mitigation: co-creative efforts that include many relevant stakeholders and domains.
- Exploitation pathways to enhance use: Send to relevant contacts from TIER2's stakeholder list created by CHARITE for further uptake; Share widely in TIER2 researcher, funder, and publisher communities; Use to develop new standards for best practices in the field; Further develop in another project; Make available in TIER2's Reproducibility Hub.
- **DEC activities to support exploitation**: Press release, one-pager infographic, promotional video.

# 3. Key Performance Indicators – M1-M24

As promised in D2.1, Table 2 presents the progress achieved for each of the KPIs related to TIER2's dissemination, communication, and exploitation activities during the project's first two years (M1-M24). This table offers a high-level overview of the activities, allowing TIER2's communication partner, PENSOFT, to identify underperforming areas that need improvement, as well as particularly successful activities that should be continued in the project's final twelve months. Detailed information on each dissemination and communication activity undertaken by TIER2 partners is available in the Continuous reporting module on the Funding and Tenders Portal, under the following four dedicated tabs: Publications, Dissemination Activities, Communication Activities, and Datasets.

**Table 2.** KPIs progress of the TIER2 dissemination, exploitation and communication activities for M1-M24. \*D – Dissemination; E – Exploitation; C – Communication

Туре	Tool: Target(s)	24-Month KPI	24-Month Progress	
C,D	Promotional Materials: All	>500 total stickers, brochures, flyers distributed (downloaded or inperson)	579 stickers, posters, brochures (downloaded or in-person)	
C,D,E Project website:		News items: 25; Total visits > 1000; Geographical distribution: Europe & beyond	News items: 85; Total visits > 17.903; Geographical distribution: 52 countries from Europe & beyond	

Туре	Tool: Target(s)	24-Month KPI	24-Month Progress
D,E	Reproducibility Hub: All except general public	>250 monthly visits	The ReproHub official launch was postponed for the final project year to ensure most TIER2 results are available and can be published on the project page on the Embassy, thus giving users access to valuable content on the Hub and not a sparsely populated page.
С	Social Media: All	Total Posts: >150; Total Reposts: >250; Followers: >300/year (Twitter), >150/year (LinkedIn) Impressions: >15000/year	Total Posts: 343; Total Reposts: 227; Followers: 135 (X/2023); 346 (X/2024); 82 (LinkedIn/2023); 291 (LinkedIn/204); Impressions: 55707 (2023); 87951 (2024)
C,D,E	Newsletter: All	4 newsletters distributed	3 external and 5 internal newsletters distributed
D	Collaboration with relevant initiatives and projects: Researchers, Reproducibility networks, RPOs, RI	>4 joint events, workshops, seminars or co-creation activities with other projects and relevant initiatives	30 joint publications, events, blog posts or videos
C,D	Press Releases: All	>4 Press releases in EurekAlert! and AlphaGalileo >4 external PRs	4 Press releases in EurekAlert! and AlphaGalileo; 4 external PRs in BIHealth, Pensoft Blog, Ufuk Avrupa and Oxford e-Research Centre
C,D,E	Policy Briefs: Researchers, Funders, Publishers, Reproducibility Networks, RI, RPos, Research administrators, Research Integrity officers	>2 policy briefs distributed to relevant stakeholders	1 policy brief 'Reproducibility and Epistemic Diversity'
C,D,E	Scientific	>7 publications (at least submitted or in review)	13 publications

Туре	Tool: Target(s)	24-Month KPI	24-Month Progress
D,E	Co-creation workshops and events: Researchers, Publishers, Funders, Research integrity officers, Research administrators	>15 co-creation workshops with stakeholders; >3 Reprohack events >500 researchers, funders & publishers engaged	10 co-creation workshops with stakeholders; 1 ReproHack; 325 researchers, funders & publishers engaged
D,E	Horizon Results Tools	To be decided for M24 deliverable update	1 publication in Open Research Europe
C,D	External conferences & Public Outreach Events: All	>20 conferences / workshop participations >6 public outreach events	37 dissemination events
C,D	Podcasts: All	To be decided for M24 deliverable update	
C,D	Infographics: >1 infographic >25 downloads >50 physical copies printed and distributed		1 infographic illustrating results from D4.1* *created in December 2024 which is why no other metrics are provided

TIER2 has demonstrated strong performance across most of its dissemination and engagement metrics, particularly in areas of digital outreach, international events, academic publishing, and collaborative activities. The project website exceeded expectations, with over 17000 visits and 85 news items, establishing it as a key hub for project visibility. Similarly, the release of 13 publication and preprints, well above the target of 7, highlights significant academic contributions. Furthermore, TIER2 partners attended over 30 international events to expand the reach of their results, organised numerous co-creation events with stakeholder communities, and supported the establishment of three new national Reproducibility Networks (RNs). Collaborative activities, including a joint publication and six joint events with other EU projects, such as iRISE and OSIRIS, further strengthened TIER2's role in fostering partnerships and knowledge exchange.

Despite these successes, there is still room for growth in some areas. Although the ReproHub has already been created on the <a href="Embassy website">Embassy website</a>, the decision was made to officially promote it once more TIER2 results were available to be linked there. This approach ensures that users find a truly populated webpage with relevant content to maximise its usefulness. Additionally, one policy brief was produced instead of the planned two, primarily because the majority of TIER2's results were expected later in the project timeline. Therefore, more time was needed for TIER2's research to advance sufficiently to generate well-informed policy recommendations. However, topics for policy briefs in the final stage have already been identified, and the remaining briefs will be produced accordingly.

# 4. Key Performance Indicators - M25-M36

As the project enters its final year, activities for M25-M36 are primarily focused on the dissemination and exploitation of results, in contrast to M1-M24, which emphasised raising awareness of the project and building its stakeholder network. Accordingly, new KPIs have been identified to track how stakeholders engage with TIER2's dissemination activities. Table 3 outlines the KPIs planned for completion by M36 to ensure that project results are maximally accessible to stakeholders and that TIER2 partners have fully leveraged their opportunities for exploitation. These KPIs were developed based on feedback gathered through a consortium-wide survey.

Given the difference in time periods (the current stage covers 12 months, whereas the first stage spanned 24 months), some KPIs may appear lower than in the first stage. However, they are simply adjusted to reflect the shorter timeframe. Additionally, some KPIs have been revised to better align with the distinct focus of this stage of the project. For example, rather than focusing on the geographical distribution of website visitors, user actions will be measured, which offer a more precise gauge of engagement with the project's results. Similarly, instead of tracking post impressions on social media, user interactions with the posts will be analysed to better understand their impact.

Table 3. KPIs for the TIER2 dissemination, exploitation and communication activities for M25-

*M*36. \*D – Dissemination; E – Exploitation; C – Communication

Туре	Tool: Target(s)	36-Month KPI
C,D	Promotional Materials: All	Promotional materials developed in the previous stage focused on raising awareness; the emphasis now shifts to results-driven outputs, such as policy briefs. Partners will continue to utilise TIER2 materials at conferences, while new promotional materials could be produced if needed to highlight new achievements.
C,D,E	Project website: All	News items: ≥25; Total visits ≥12000; Actions/visit ≥3
D,E	Reproducibility Hub: All except general public	≥30 TIER2 results available
C,D	Social Media: All	Total Posts: ≥200; Total Reposts: ≥200; New followers: ≥200; Interactions/post: ≥5; Website traffic: ≥800
C,D,E	Newsletter: All	3 external & 4 internal newsletters; Click-to- open-ratio: ≥25%
D,E	Collaboration with relevant initiatives and projects: Researchers, Reproducibility networks, RPOs, RI	1 final conference with OSIRIS and iRISE; ≥2 other joint events or activities ≥1 joint publication
C,D	Press Releases: All	≥2 Press releases in EurekAlert! and AlphaGalileo; ≥2000 views/press release
C,D,E	Policy Briefs: Researchers, Funders, Publishers, Reproducibility Networks, RI, RPos, Research administrators, Research Integrity officers	≥2 policy briefs distributed to relevant

C,D,E	Scientific Publications: All except general public	≥8 publications (at least submitted or in review)
D,E	Co-creation workshops and events: Researchers, Publishers, Funders, Research integrity officers, Research administrators	≥6 co-creation workshops with stakeholders; ≥1 Reprohack events ≥100 researchers, funders & publishers engaged
D,E	Horizon Results Tools	≥3 results on the Horizon Results Platform ≥1 CORDIS news item
D,E	External conferences & Public Outreach Events: All	≥10 dissemination events
D,E	Animation video: All	1 animation video presenting TIER2's results ≥150 views*  *The number of views achieved by M36 depends on when the video is produced.
C,D	Infographics: All	≥2 infographic ≥200 downloaded & distributed
D,E	OSF page: Researchers, Reproducibility Networks, RI, RPos, Research administrators	≥150 monthly visits
D,E	TIER2 summary document: All	≥150 downloads
D,E	Training activities:	Self-paced online modules via Moodle platform*: 5 Participants enrolled within 3 months*: 50 Completion rate/module within 3 months: 40% *The courses will be rolled out for the last 3 months of the projects

# 5. Outlook

The current D2.2 outlines the progress of TIER2's Dissemination, Exploitation, and Communication activities for M1-M24 and based on this progress, identifies key activities for the final year of the project (M25-M36). These activities will be revisited in the final plan update in M36 to assess their performance and provide a comprehensive overview of the project's status and outlook as it nears completion.