

## Deliverable 10.4: Updated plan of exploitation and dissemination of the results

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## 1. Executive summary

This document is a deliverable of the ACTRIS IMP project, funded under the European Union's Horizon 2020 research and innovation programme under grant agreement No 871115. The aim of this document is to provide a strategic approach to create a Plan for Dissemination and Exploitation of Results on dissemination, communication and exploitation tailored for the freshly established the ACTRIS ERIC. As the ACTRIS IMP project comes to an end, the ACTRIS ERIC needs to leverage the lessons learnt during the ACTRIS IMP project and scale its communication and dissemination actions up to the next level.

The objective of this document is to define processes to assess the success of the implementation of communication, dissemination and exploitation activities (e.g. number of publications, size of the audience reached, number of visits on the website, feedback received from audiences at conferences, etc.) and draft a plan to be handed out to the ACTRIS ERIC. While communication and dissemination activities were the most common activities during the ACTRIS IMP project, these related processes have been tested, revised and reported, exploitation activities and their impacts are expected to gear up during the next 5 years of ACTRIS ERIC. Hence, in this document, the focus is on the processes to gear up ACTRIS's strategy of exploitations and dissemination of results.

In particular this document will focus on:

- Outlining the methodology that will be used to identify ACTRIS' exploitable outputs (or Key Exploitable Outputs);
- Identifying relevant (target/end) users, suitable transfer activities, and IP management;
- Identifying framework conditions and other factors influencing exploitation of the ACTRIS' outputs;
- Identifying measures to ensure ACTRIS' longevity and legacy.

The document is drafted by the Finnish Meteorological Institute (WP10 leader) with inputs from all WP10 partners.

## 2. Communication, Dissemination and Exploitation Strategy

### 2.1 Definitions of key concepts

The foundation of the ACTRIS Plan for Dissemination and Exploitation of Results (PEDR) is the knowledge management process which has been implemented from the start of the ACTRIS IMP project and informs about communication, dissemination, and exploitation.

Within the ACTRIS IMP project framework, ACTRIS' PEDR has identified and implemented activities that distinguish between communication, dissemination, and exploitation, in line with the EC definitions included below:

**Communication** is a strategically planned process that starts at the outset of the project and continues throughout its entire lifetime. It is aimed at consolidating and expanding the ACTRIS community and promoting ACTRIS and its results. It requires strategic and targeted measures for communicating about (i) ACTRIS and (ii) results to a multitude of audiences, including the media and the public and possibly engaging in a two-way exchange. ACTRIS IMP beneficiaries and their teams need to communicate their findings clearly to decision-makers, industry partners, or other stakeholders who can leverage the results for practical applications. This communication may involve disseminating reports, publishing articles, presenting at conferences, or engaging in collaborative discussions.

**Dissemination** is the public disclosure of the project results by any appropriate means (other than resulting from protection or exploiting the results), including scientific publication in any medium. It is the process of promotion and awareness-raising right from the beginning of a project. It makes research results known to various stakeholder groups (e.g., research peers, industry and other commercial actors, professional organisations, policymakers) in a targeted way, enabling them to use the results in their own work. Activities used for dissemination purposes are, for example, target content on ACTRIS webpages, press releases, publications, and attendance at events.

**Exploitation of results** refers to the intentional and strategic use of the outcomes obtained from research, experiments, or projects. It involves extracting value or practical benefits from the findings, often in a commercial or applied context.

As the ACTRIS IMP project comes to an end, ACTRIS ERIC shall solidify its focus towards capturing and demonstrating its added value and impacts to stakeholders via:

**Knowledge transfer** refers to the process of sharing or disseminating information, skills, or expertise from one individual or entity to another. It involves the transmission of knowledge from a source to a receiver. The primary goal of knowledge transfer is to ensure that information, skills, or expertise are effectively conveyed to the recipient, enabling them to understand and apply the knowledge in their context. The emphasis is on clear and effective communication to facilitate the understanding and absorption of information by the recipient.

**Knowledge exploitation** involves using existing knowledge or information for practical purposes, often to gain a competitive advantage, create value, or solve problems. The main goal of knowledge exploitation is to leverage existing knowledge assets to achieve specific outcomes, such as improving processes, making informed decisions, or fostering innovation. While communication is still a crucial aspect of knowledge exploitation, the focus shifts towards applying and utilizing the acquired knowledge to derive tangible benefits.

These activities require several steps including identifying exploitation mechanisms and activities. It includes the identification of end-users to ensure impact and uptake of the results. Leveraging the experience collected during the ACTRIS IMP project, ACTRIS ERIC will integrate diverse activities to enhance the dissemination and exploitation strategy, maximize the expected impact and demonstrate its added values to stakeholders. The geographic coverage of the ACTRIS also provides the foundation for a

much broader engagement, and ultimately for the basis upon which to work towards the long-term sustainability of the research infrastructure.

## 2.2 Phases marking the PEDR during and beyond ACTRIS IMP

During the ACTRIS IMP project, the planning and execution of the project exploitation and dissemination activities required a schedule closely aligned with key project deliverables and milestones. At this scope, the project was organized around 3 phases:

1. **Initial awareness phase** (Month 1-12) to ensure the project is known to relevant stakeholders and the public in general. In this phase, the focus was placed on the project website and different communication and dissemination materials, including the project graphical identity (i.e., project logo, branding guidelines, templates for project documents and presentations). In this phase, stakeholders were mapped and a project stakeholder database was built to optimize targeted communication and dissemination. This work was developed in Task 10.1 and resulted in the assessment of the internal communication performance (ACTRIS IMP Milestone 10.1) and the revised communication plan of ACTRIS (ACTRIS IMP Deliverable 10.1).
2. **Targeted dissemination phase** (Month 10-48) has been designed to encourage a better understanding of the project results leading to greater engagement of external stakeholders and better future uptake of the project outcomes. To do so, dissemination activities extended beyond presenting the project results to include success stories showing how value is created out of ACTRIS. In this phase, the website has been enriched with new content, published new dissemination material brochure and ACTRIS has been presented to the target audiences through scientific publications and participation in conferences and workshops. Assessment conducted in ACTRIS IMP Milestone 10.2, ACTRIS IMP Deliverable 10.2 and ACTRIS IMP Deliverable 10.3 were considered crucial at this stage to monitor and reorientate the strategy if necessary. An example of presentation of the results, built within the ACTRIS IMP project, is the ACTRIS Innovation Offer Portfolio (ACTRIS IMP Deliverable 9.4), a strategic communication tool to showcase the distinctive innovation offer of ACTRIS and to facilitate the interaction with the private sector.
3. **Presentation of results** (Month 42-48): this has represented the period just prior to the end of the project when the project has reached its most significant outcomes. This phase represents a more active period in the whole Plan for the Exploitation and Dissemination of the Results, matching with the finalization of the project and the publications of the final project results. It is in this perspective that this document focuses on the exploitation of these results by outlining the actions required to fulfil ACTRIS potential in line with the cornerstones of the ACTRIS strategy on scientific added value, impact, attractiveness and relevance (ACTRIS IMP Deliverable 3.4).
4. **Beyond ACTRIS IMP (2024-)** The PEDR shall include a Knowledge Transfer and Exploitation Plan, defining customized transfer activities for the (target/end) user and contribute to maximizing the impact and legacy of ACTRIS beyond the ACTRIS IMP project and on a large range of stakeholders. It shall enable a matching between the demand for innovation coming from the private sector and the technological offer deriving from ACTRIS. It will aim at increasing the interest of the

private sector towards ACTRIS as an innovation platform and promote actions and tools for an effective technology and knowledge transfer. A recommended approach to developing the Knowledge Transfer and Exploitation Plan is presented in the next chapter.

### 3. Knowledge management, transfer, and exploitation of the results

Based on the experiences collected during the ACTRIS IMP project, a recommended approach to developing the Knowledge Transfer and Exploitation Plan for ACTRIS ERIC is presented in this chapter.

#### 3.1 Key concepts

**Knowledge Management** is the process of identifying, capturing, organising, analysing, and protecting and sharing knowledge to ensure its availability to be transferred effectively to specific and relevant users.

**Knowledge Transfer** encompasses the comprehensive process of transferring knowledge from its sources to specific potential users, with a primary focus on aligning research efforts with the broader needs of both society and industry. Knowledge Transfer involves a variety of activities aimed at capturing and conveying knowledge, skills, and competencies from those who generate them to individuals who will leverage them to produce valuable outcomes, thereby maximizing their impact. These activities may encompass both commercial and non-commercial endeavours, such as research collaborations, licensing, the creation of spin-offs, researcher mobility, and the dissemination of publications. The ultimate objective of successful Knowledge Transfer is to apply and influence knowledge on targeted groups, generating significant impact in both the short and long term across academia, industry, and society. In this document we draft a methodology that focuses on capturing all the project's 'Knowledge Outputs' and, through a series of collections and prioritisation, identifying the 'Key Exploitable Results'.

**Knowledge Outputs** refer to a unit of knowledge produced through a scientific project or service. This extends beyond just groundbreaking discoveries, encompassing new methodologies, processes, adaptations, insights, and alternative applications of existing know-how or knowledge. These knowledge outputs are commonly cited as a segment within a published paper, often surfacing three to five years after the approach is initially pioneered in a research project.

**Key Exploitable Results** refer to the concrete or abstract outcomes of an action, such as data, knowledge, and information, regardless of their form or nature. These results are identified as high-priority elements for exploitation activities. The process of distinguishing Key Exploitable Results from Knowledge Outputs is outlined in Section 3.4. It's crucial to emphasize that ACTRIS does not imply any value judgment between Knowledge Outputs and Key Exploitable Results. Instead, the idea is to utilize this differentiation to prioritize knowledge that directly impacts ACTRIS or is most readily transferable. By concentrating on the identification and transfer of Key Exploitable Results, especially those assessed with potential applications and impacts, ACTRIS can expedite their progress, leading to a quicker impact on external target and end-users.

**End-user(s)** are the individual(s) who are identified as being in a position where they could feasibly apply a given unit of Knowledge (Knowledge Output/Key Exploitable Result) and by so doing create the desired eventual impact of that knowledge. The Knowledge Outputs/Key Exploitable Results may need to evolve in order to reach the end-user.

**Target User** refers to an individual (organizations should be minimized for precision) whose role positions them as a potential intermediary essential for the progression of a Knowledge Output or Key Exploitable Result toward an identified end-user and eventual impact. These individuals possess a distinct mandate or responsibilities directly pertinent to the specific Knowledge Output/Key Exploitable Result under consideration. It's crucial to note that Target Users go beyond being mere potential knowledge users; rather, they are individuals whose application of the knowledge is likely to propel it along the Knowledge Transfer pathway.

**Knowledge Transfer and Exploitation Plan** is a systematically analyzed, step-by-step strategy designed to attain the identified eventual impact of a piece of knowledge, irrespective of whether this impact is attainable in the short, medium, or long term. Within ACTRIS, such plan is applicable to all evaluated Key Exploitable Results. The Knowledge Transfer Plan pinpoints the end-user with the potential to generate the desired eventual impact and delineates a precise sequence of transfer activities to intermediate target users. This offers a practical plan for reaching these users and facilitating the transfer of knowledge.

**Impacts** represent the ultimate outcome resulting from the application of knowledge, be it a Knowledge Output or Key Exploitable Result. It denotes a comprehensive improvement in a situation, whether for the scientific community, or society, although it may also be specific to industry. Eventual impacts may manifest as the adoption of newly developed technologies, products, or innovations identified and refined within ACTRIS, or as a shift in established protocols.

### 3.2 Knowledge management and transfer for ACTRIS

The Knowledge Management and Knowledge Transfer Strategy shall be implemented in ACTRIS via a regular collection of Knowledge Outputs and Key Exploitable Results, e.g., via questionnaires and interviews with partners that are responsible for developing the knowledge units and annual reporting of ACTRIS Central Facilities. The collected and analysed results will be assessed based on criteria related to their innovation capacity, relevance to the sector and adherence to the ACTRIS strategy on scientific value, impacts, attractiveness and relevance ([ACTRIS IMP Deliverable 3.4](#)) and expected impacts by stakeholders. It grants partners the necessary assurance to foster transparency in their findings, facilitating the swift identification of opportunities for exploitation within the project. The primary goal is to secure the quickest pathway for new knowledge to reach points where it can contribute values and generate impacts.

ACTRIS Head Office will monitor knowledge generated and carry out regular collection rounds. All outputs collected will be analysed, with support from all ACTRIS Central Facilities, to identify Key Exploitable Results with potential for market uptake and to determine any Intellectual Property protection requirements. At this stage timing shall be carefully considered, as knowledge cannot be protected, in

terms of registered intellectual property, after it has been presented or made open access in any way. Adopting this approach is crucial to sidestep unforeseen delays or hurdles associated with confidentiality or competition. For the identified Key Exploitable Results, Knowledge Management and Transfer Plans will be created, detailing customised transfer activities for the target and end-user(s). This tailored approach enhances the probability of 1) successful transfer and exploitation of Key Exploitable Results, ensuring their application; 2) heightened potential for impact resulting from the transfer; and 3) the ability to measure and demonstrate the impact of the transfer.

A regular review session may be scheduled during the ACTRIS General Assembly meeting, and involving the ACTRIS Scientific and Innovation Advisory Board, to evaluate the outcomes produced by each component of ACTRIS. All partners will be prompted to safeguard any knowledge with potential commercial applications. Surveys will be distributed to assess the knowledge generated and gather opinions on the proposed exploitation plan, including methods to protect the knowledge.

An internal special workshop shall be organized to deal with exploitation and the protection of results. During the workshop, Key Exploitable Results shall be showcased and presented to the consortium (webinar/one-day seminar), outlining the actions required to fulfil their market potential. These outcomes shall also be included in the next version of the ACTRIS PEDR elaborated by ACTRIS ERIC.

The Knowledge Management and Transfer methodology consists of the following three overall phases and is further described in detail below:

- Phase 1: Collect and Understand
- Phase 2: Validate and Analyse
- Phase 3: Transfer and Exploit

### 3.3 Knowledge management and transfer: Phase 1 – Collect and understand

Successful Knowledge Transfer hinges on the meticulous identification and description of Knowledge Outputs to ensure the provision of comprehensive information for effective transfer (Figure 1). Quality control measures will be implemented to ensure that the Knowledge Outputs are intelligible to individuals, including those who may not possess expertise in the relevant disciplines. All partners shall be obliged to treat information from fellow partners as confidential, unless explicitly stated otherwise, refraining from disclosing it to external parties unless the information is publicly available. It is crucial for all beneficiaries to recognize that Knowledge Outputs encompass not only the ultimate results of research but also constitute a part of the methodology leading to the final result, potentially innovating the entire research area.

This phase is designed to comprehend the positioning of a Knowledge Outputs, facilitating more efficient and impactful Knowledge Transfer activities. The objective is to elucidate how the Knowledge Outputs can benefit various target and end-users. This step involves identifying potential applications, target and end-users, and the eventual impact of a Knowledge Output. Knowledge Outputs will be compiled using a



Knowledge Output Questionnaire. The gathered knowledge will undergo periodic review by ACTRIS ERIC leadership, and relevant partners will be requested to provide updates as necessary. An overview of the Knowledge Outputs will be available internally, allowing partners to advise the ACTRIS ERIC Head Office if a specific Knowledge Outputs/ Key Exploitable Results requires updating.

### Knowledge Transfer Strategy – STEP 1: Collect & Understand

Goal: Capturing Knowledge Outputs via internal periodical questionnaire

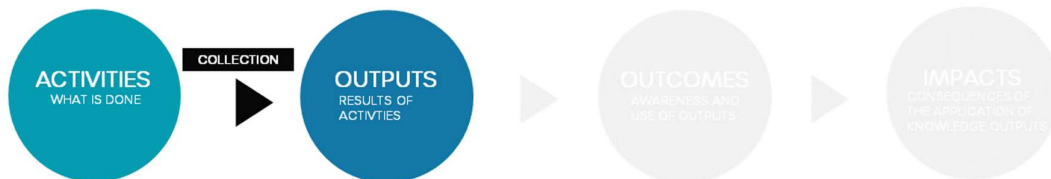


Figure 1. Phase 1 of the Knowledge Transfer Strategy. The goal of this phase is to capture Knowledge Outputs, created by ACTRIS activities, via periodic reporting.

### 3.4 Knowledge management and Transfer: Phase 2 –Validate and Analyse

Upon comprehension and evaluation of intellectual property considerations, Knowledge Outputs shall undergo an internal process that entails a comprehensive examination of their applicability and readiness for transfer. This investigation aims to identify any factors that might influence the transfer potential of the Knowledge Outputs, including confidentiality, competition, and Intellectual Property Rights, ultimately impacting the uptake and influence of the knowledge. Subsequently, Knowledge Outputs are prioritized, and those deemed to have the potential for impact proceed to the next step. Assessing the Technology Readiness Level (TRL) could inform the development of an appropriate pathway, where Knowledge Output requires further research, validation or scale-up.

An integral component of the ACTRIS knowledge management and transfer methodology involves identifying applications, potential impacts, and respective end-users for each Knowledge Output assessed as having high potential application and impact (Figure 2). Prioritizing high-potential Knowledge Outputs and profiling target and end-users provide valuable data for shaping successful Knowledge Transfer Plans. This prioritization does not signify a ranking of importance but serves as a guide for ACTRIS to pinpoint where to concentrate transfer and exploitation efforts. For the prioritized Knowledge Outputs, expert groups strive to identify potential target users whose application of the knowledge would facilitate its transfer toward eventual impact.

### Knowledge Transfer Strategy – STEP 2: Analyze & Validate

Goal: The collected Knowledge Outputs are reviewed and assessed for potential application and impact

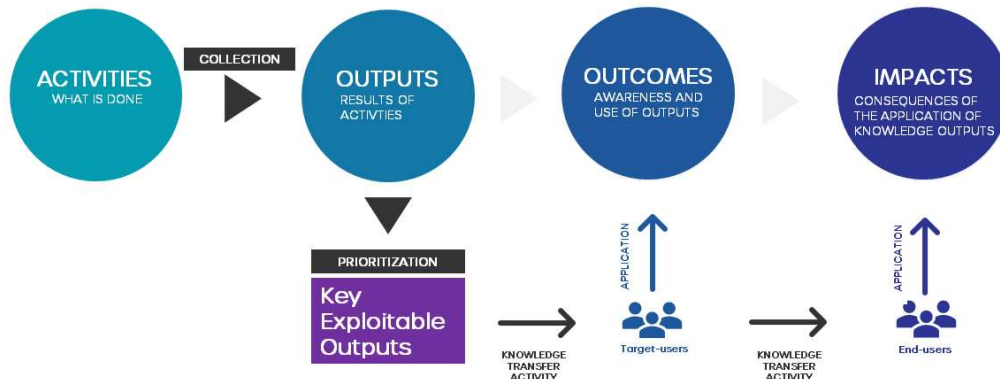


Figure 2. Phase 2 of the Knowledge Transfer Strategy. The goal is to review and assess the Knowledge Outputs collected in Phase 1 and connect them with potential applications and impacts.

Validated Knowledge Outputs designated as priorities for the project transition to the third phase, where they are reclassified as Key Exploitable Results. Any Knowledge Output not designated as a Key Exploitable Result undergoes periodic review, and those remaining serve as evidence of impactful research for, e.g., annual reporting. The identification of target users in the analysis stage is pivotal for establishing the groundwork for transfer and exploitation plans in the third phase. The activities in this phase may also uncover potential stakeholders worth engaging with, even in cases where the knowledge may not yet be ready for transfer.

### 3.5 Knowledge management and Transfer: Phase 3 – Transfer and Exploit

Phase 3 centres on executing and documenting Knowledge Transfer activities, concurrently assessing the impact of both the activity and the utilization of the knowledge by the user(s) (Figure 3).

A Knowledge Transfer Plan shall be crafted for each Key Exploitable Result. The development of an efficient, tailored Knowledge Transfer Plan, aligned with the specific needs and capacities of the target and end-users (outlined in Phase 2), enhances the likelihood of successful transfer, leading to adoption and application. Success hinges on a thorough understanding of the target and end-users, forming the foundation for the Knowledge Transfer Plan 's design. The Knowledge Transfer Plan involves multiple steps and can take various routes to achieve its eventual impact, representing the culmination of numerous Knowledge Transfer activities.

### Knowledge Transfer Strategy – STEP 3: Transfer & Exploit

Goal: Carry out and report on Knowledge Transfer activities while evaluating both the Knowledge Transfer activity and the application of the Knowledge Output by users.

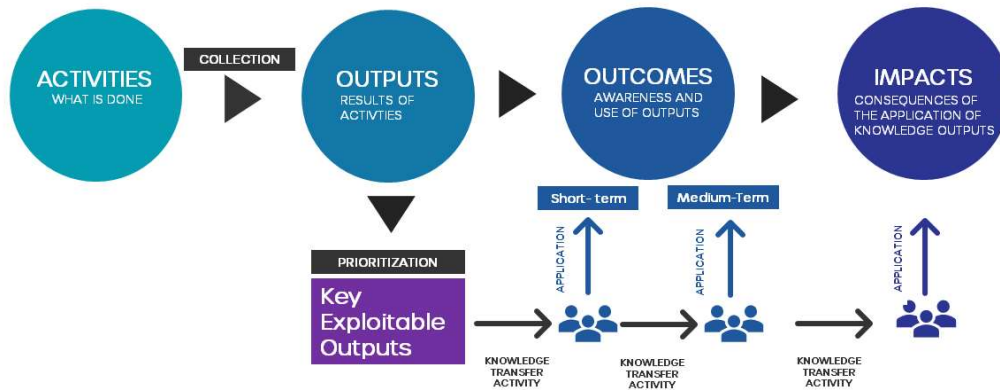


Figure 3. Phase 3 of the Knowledge Transfer Strategy. The goal is to track and evaluate the activities transferring knowledge to target users and end users as well as the uptake of knowledge by users.

This phase identifies the individual partner within ACTRIS best suited to execute the transfer, aiming to articulate how the impact of ACTRIS's Key Exploitable Results will be assessed. The efforts in this phase serve not only to accurately report the comprehensive impact of ACTRIS to stakeholders but also to assist all partners in executing exploitation activities. While not every Knowledge Transfer Plan may be feasibly executed during the first years of ACTRIS ERIC, the clear plans provided by the knowledge management methodology contribute to understanding how exploitation actions within ACTRIS contribute to the overall impact, aligning with ACTRIS's innovation and societal goals.

## 4. Final remarks

This document serves as a pivotal deliverable stemming from the end of the ACTRIS IMP project, a venture supported by the European Union's Horizon 2020 research and innovation programme. Its primary purpose is to chart a strategic course for the ACTRIS ERIC, based on the comprehensive ACTRIS IMP documentation on dissemination and exploitation of project's results. As the ACTRIS IMP project concludes, the imperative is clear – to harness the invaluable insights acquired during this journey and elevate the communication and dissemination initiatives for the ACTRIS ERIC.

The document brings attention towards key aspects, including the methodology for identifying ACTRIS' exploitable outputs, the identification of pertinent end users, transfer activities, and intellectual property management. Moreover, it emphasizes discerning framework conditions and other variables that might influence the exploitation of ACTRIS' outputs. A forward-looking perspective is embodied in the identification of measures aimed at ensuring the longevity and legacy of ACTRIS. It wisely recognizes the versatility of knowledge outputs, acknowledging that the same piece of information can be leveraged for

scientific, policy, or commercial purposes. This necessitates a tailored approach aimed at diverse target and end users, each with its unique implications and requirements, especially in terms of effective Intellectual Property Rights management.

As ACTRIS moves towards becoming fully operational in 2025, during the next two years this preliminary version of the ACTRIS Plan for Dissemination and Exploitation of the Results shall include:

- detailed steps and roles of the ACTRIS internal community involved in knowledge creation and transfer activities
- updated stakeholder mapping and relevant value propositions
- clear and distinct processes between knowledge transfer steps for scientific, policy, and commercial exploitation.

## References

[ACTRIS IMP Deliverable 3.4](#)

ACTRIS IMP Deliverable 9.4 (document not yet ready at the time of submission, can be found at <https://www.actris.eu/how-are-we-funded/actris-imp-documents>)

ACTRIS IMP [Milestone 9.5](#)

ACTRIS IMP [Milestone 10.1](#)

ACTRIS IMP [Deliverable 10.1](#)

ACTRIS IMP [Milestone 10.2](#)

ACTRIS IMP [Deliverable 10.2](#)

ACTRIS IMP [Deliverable 10.3](#)