

## Deliverable 6.2: Recommendations for access cost model and access pricing schemes related to access services

### Establishing the principles for funding access to ACTRIS services towards a physical access funding framework

Authors: Sabine Philippin, Jean-Francois Doussin, Paolo Laj, Matilde Oliveri, Ariane Dubost, Carmela Cornacchia, Giuseppe Gargano, Rosa Maria Petracca Altieri

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## 1. About this document

The aim of this document is to provide recommendations for the access cost model and access pricing schemes as part of the overall process to develop an ACTRIS access funding strategy related to the provision of services to users. It addresses the relevance and requirements for implementing access to ACTRIS facility services, particularly those provided by the National Facilities, and presents a set of principles for funding physical and remote access to ACTRIS observational and exploratory platforms.

ACTRIS aims at operating an access program to the ACTRIS Central Facilities and National Facilities in its operational phase from 2025 onwards. An appropriate access cost model and pricing scheme will be developed during ACTRIS implementation phase (2020-2024) with specific emphasis on physical and remote access to the ACTRIS services. The overall objective of the access strategy is to ensure the long-term sustainability and flexibility of access to the services, and in particular to those provided by the ACTRIS observational and exploratory platforms.

The ACTRIS funding framework for physical access was discussed within the ACTRIS community during various meetings, including the ACTRIS PPP Community meeting (Rome, May 2019), the 3<sup>rd</sup> Annual EUROCHAMP-2020 meeting (Kuopio, October 2019), and the ACTRIS PPP Final meeting (Helsinki, November 2019). It was furthermore introduced and discussed with the Interim ACTRIS Council at the 8<sup>th</sup> IAC meeting (De Bilt, June 2019) and the 9<sup>th</sup> IAC meeting (Warsaw, November 2019).

The document is structured as follows:

- Section 2: Scope of the ACTRIS service provision and its relevance;
- Section 3: Requirements for implementing access to ACTRIS National Facility services and recommendations for ensuring the sustainability of access including aspects related to access costs and access funding sources;
- Section 4: Principles for funding access to ACTRIS National Facilities.

## 2. Scope of ACTRIS service provision and relevance

**The goal of ACTRIS is to provide a large variety of high-quality services in the area of atmospheric sciences, including tailored services, to a wide range of users and needs, for scientific, technological and innovation-oriented usage.**

The overall aim of ACTRIS is to provide open and easy access to resources and services to a broad user community world-wide to conduct excellent research, foster innovation and provide high-quality information for society to tackle societal challenges related to air quality, climate change and health. ACTRIS services to users comprise data services, research services, technical services, innovation services, and training services, as follows:

- **Data services** include access to ACTRIS data, products provided by ACTRIS National Facilities complying with ACTRIS standards and procedures, and access to ACTRIS digital tools such as tailored codes and software for the processing and visualization of ACTRIS data, production of ACTRIS data products for data analysis and research, data archiving and curation of data from campaigns and dedicated research projects and initiatives.

- **Research services** include access to and use of instrumented observational and exploratory platforms for the realization of scientific experiments under ambient or controlled conditions supporting collaborative research and scientific excellence.
- **Technical services** include access to ACTRIS technology for instrument calibration, testing and intercomparisons, and the provision of quality assurance and quality control measurement procedures and tools.
- **Innovation services** include access to technological developments and new measurement techniques and methodologies and tailored and user-specific services related to technological innovation.
- **Training services** include access of instrument operators, users from new regions worldwide, and young scientists to ACTRIS facilities for best practice, knowledge sharing and transfer.

Furthermore, **general services** are provided to users via a single-entry point for support to access services and overall assistance.

ACTRIS is one of the few distributed Research Infrastructures (RI) in the environmental domain that provides all types of access (see also figure 1), including:

Virtual access, which is open access to users to ACTRIS data and digital or other ACTRIS tools;

Physical and remote access, which is open access to services offered by the ACTRIS Central Facilities (CF) or National Facilities (NF) with or without users physically accessing the facility. Physical and remote access is considered competitive access, which is enabled through a selection process via the SAMU (Service Access Management Unit).

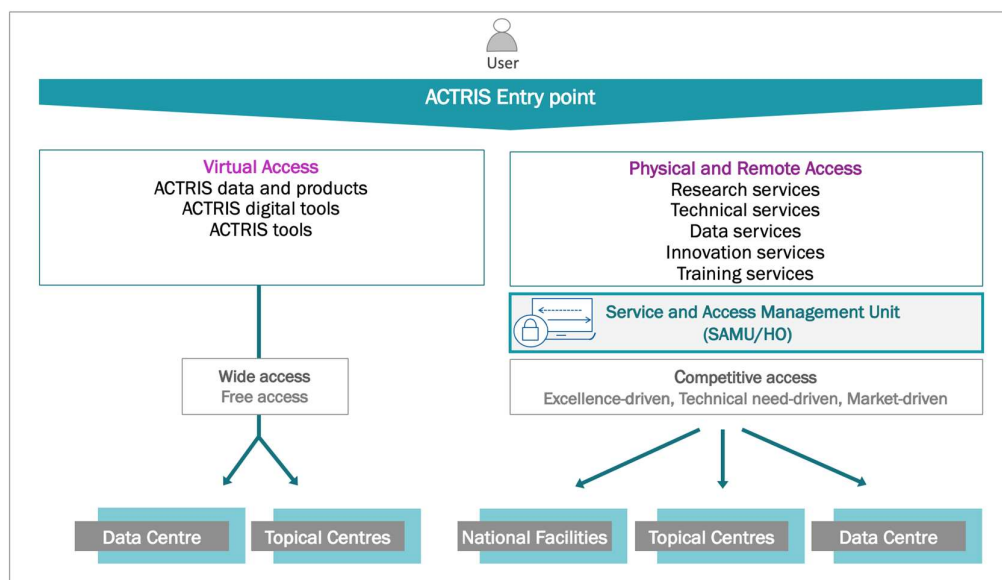


Figure 1. Overview of virtual, physical and remote access provided to user via a single entry point at SAMU (ACTRIS Head Office) to ACTRIS services (data, research, technical, innovation, training services) by the ACTRIS Central facilities (Data Centre and Topical Centres) and ACTRIS National Facilities (Observational and Exploratory platforms).

The guidelines and principles of access to ACTRIS data and services are defined in the ACTRIS data policy and ACTRIS access and service policy, both approved by the ACTRIS Interim Council (5th IAC meeting, Lyon, October 25-26, 2018).

Access to ACTRIS services is foreseen to be provided to all ACTRIS facilities (figure 2):

**Access to Central Facility services** concerns access to both Topical Centres and to the Data Centre and covers:

- Virtual access to ACTRIS data and digital tools generated with sophisticated assurance and quality control standards;
- Physical and remote access to technical services, innovation services, training and user-specific tailored services.

**Access to National Facility services** concerns access to both Observational Platforms and Exploratory Platforms and covers:

- Physical and remote access to instrumented platforms;
- Physical and remote access to training services and capacity building;
- Physical and remote access to user-specific tailored services.

The services provided by the Central Facilities through virtual, physical and remote access are addressed in the funding model, whereas the services provided by the National Facilities through physical and remote access are not addressed in the funding model (figure 2). Details on the funding model are described in the ACTRIS Internal Financial Rules (see section 6). The funding model considers the operations of the ACTRIS Central Facilities which are partially financed by the hosting countries, and partially by the countries' membership contributions to ACTRIS ERIC. The operation of the National Facilities or the access to services provided by the National Facilities is not included in the ACTRIS funding model.

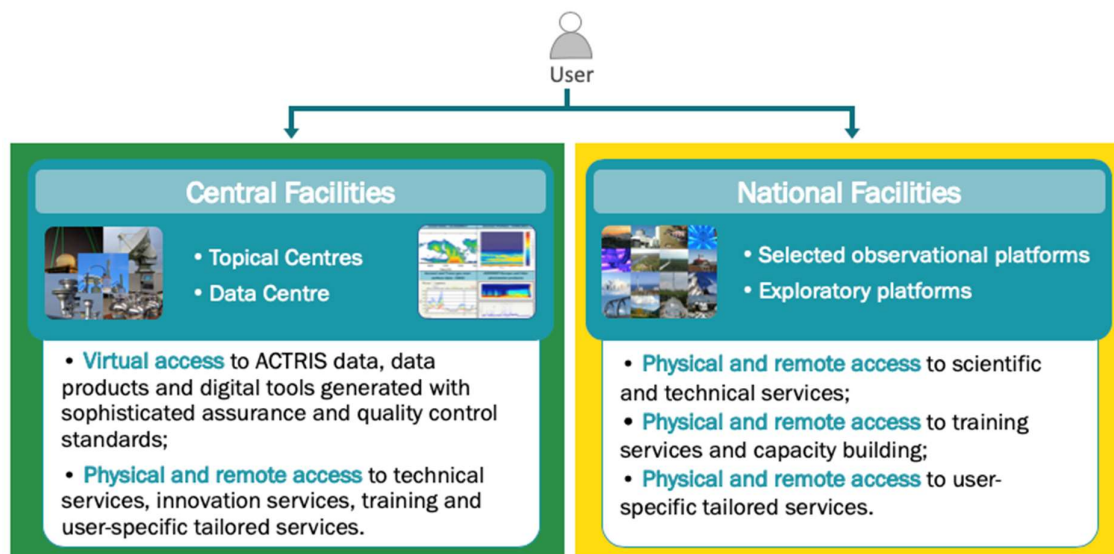


Figure 2. ACTRIS service provision and funding: access to services provided by the Central Facilities (green) are included in the funding model, while those provided by the National Facilities are not included (yellow).

Physical and remote access to ACTRIS National Facilities plays a major role in the ACTRIS access strategy. Physical and remote access is provided to instrumented platforms under both ambient conditions (at fixed ground-based stations or mobile platforms) or under controlled conditions (at atmospheric simulation chambers or laboratory platforms). In addition to training and tailored services, physical access in particular comprises hands-on user access to state-of-the-art instrumentation that follow recommended ACTRIS operation standards for:

- the realization of scientific experiments and campaigns, and of well-characterized experiments on specific atmospheric components,
- the investigation of particular atmospheric processes,
- the testing, intercomparison and calibration of instruments, and
- the development of new observation techniques and exploration of instrument synergies.

The provision of physical and remote access to ACTRIS National Facilities may induce costs for cover the services. These access costs may be significant and may vary as a function of the platform and the quantity of access provided. Physical access to dedicated National Facilities can only be offered if the related access costs can be covered. Therefore, a thorough analysis of the access costs will be essential to determine the value of the National Facilities' services to users and form the basis for developing an adequate ACTRIS funding scheme for physical access.

**Although physical and remote access are essential activities within ACTRIS, the scope of the funding model does not comprise the provision of access of users to National Facility services. Therefore, an access strategy needs to be developed that particularly addresses the funding issues related to the physical and remote access to National Facility services.**

### 3. Conditions for implementing access to ACTRIS National Facilities' services

The implementation of access to ACTRIS services requires the development of an appropriate access framework that allows on the one hand ensuring the fulfillment of a number of intrinsic requirements, and on the other hand ensuring the sustainability of access, based on a suitable funding mechanism while considering the available financial sources.

#### 3.1 Requirements for access

A successful and performant RI provides services, resources and tools in line with the demands and needs of its user communities. The ACTRIS user strategy aims at taking into account the user dimension and identifying the potential gaps between the **user needs** (current and future) and its services offered. Although the user needs are to be considered, the provision of access is made within the limits of the **facilities' capacities**. ACTRIS National Facilities should demonstrate that they have the required capabilities and resources for providing physical and remote access. The ACTRIS access strategy should allow the facilitation of an **efficient and effective access process** to respond to and integrate the evolving user needs towards service-oriented RI operations, taking into account the needs not only of the relevant scientific communities but the society at large.

ACTRIS requires appropriate policy documents to ensure successful access of users to data and services: the **ACTRIS data policy** and **ACTRIS access and service policy** provide the general principles for the use of and access of users to ACTRIS services. Furthermore, essential for the implementation of access is the development of a **Data Management Plan (DMP)** – describing the management of data and data products and entire data lifecycle – and an **Access Management Plan (AMP)** – describing the management of the access process including access rules, procedures and workflows.

To improve the visibility of available ACTRIS services, ACTRIS will require to develop a **catalogue of services** that allows users to easily find all relevant information about the available services and access details (location availability, modalities, costs, etc.). The catalogue of services should be on-line and interactive and regularly updated, and help guiding the users in their quest for the needed services.

Assessing the performance of the ACTRIS access and service provision requires a continuous monitoring system, which is essential to ensure its efficiency and effectiveness towards the uses. The **monitoring of the access** should be based on a set of key performance indicators (KPI) that allow evaluating the service provision in both quantitative and qualitative manner, following the objectives and strategies of ACTRIS. The references for the user requirements, policy documents and management plans, as well as access KPIs are given in section 6. Figure 3 illustrates the conditions for a successful implementation of access services within ACTRIS.

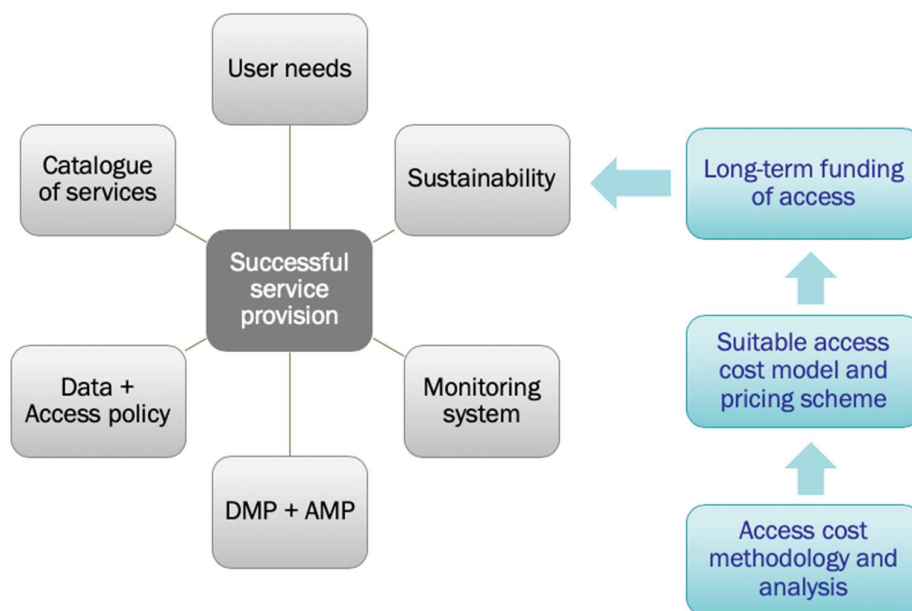


Figure 3. Requirements for implementing the provision of services within ACTRIS. The condition of sustainability implies a thorough analysis of the access costs and the development of an access cost model and pricing scheme to ensure long-term access funding.

### 3.2 Ensuring the sustainability of access

A robust funding framework ensures a RI's long-term perspective. The sustainability of access within ACTRIS requires an access funding strategy that is tailored to its specific needs. It should be based on a



suitable funding mechanism that secures the funding for covering the resources for access provision. Access costs need to be properly analyzed and based on an access cost methodology that allows estimating all relevant costs required for access provision and develop a suitable access pricing scheme. An appropriate access cost model should be developed that takes into account the pertinent fraction of access costs based on the available funding sources.

### 3.2.1 Access costs, access cost model and pricing scheme

**Access costs** comprise the direct and indirect costs incurred by the ACTRIS Central Facilities and National Facilities for the provision of access to ACTRIS services. To obtain the full value of each service, the calculation of access costs should be based on a **full cost methodology** covering both investment and operating costs. Full cost calculations should include all relevant cost elements that are directly linked to the ACTRIS access provision. These **direct costs** must incur in direct relationship with the RI operations and may comprise the following cost categories:

- Buildings and space of the facilities directly used for RI operation,
- Equipment,
- Personnel,
- Consumables, equipment maintenance and repair,
- Utilities (energy, water, ...),
- Facility management (insurance, security, quality control and certification).

Other access costs that incur but are not directly attributable to the RI operations costs may be covered by **indirect costs**, e.g., rental, lease or depreciation of buildings and space not directly used for RI operation, legal fees, office equipment, general and other horizontal services (communication, cleaning, human resources, audit, accounting, general facilities management and consumables, energy, water, etc.).

Access costs are comprised of fixed and variable cost. **Fixed access costs** are those costs that occur on a regular basis and do not vary if the amount of access changes (e.g., costs of buildings, utilities, certain personnel costs, etc.). On the contrary, **variable access costs** vary when the provision of services changes. The variable costs are not affected by the level of fixed costs.

Furthermore, the costs of each service are based on a defined unit of access, which must be established when calculating access costs. The unit of access may vary among the ACTRIS facilities and services.

A suitable ACTRIS **access cost model** will have to be developed to account for the costs of its service provision. Although the full costs of a service should always be identified (and users should be made aware of the full cost of a service provided), an access cost model may provide different options on how access costs are taken into account. Details on the access cost analysis and methodology are described in the corresponding reference document (see section 6).

The ACTRIS cost models for physical and remote access should ensure that the access costs are secured, with the fixed costs expected to be covered by the National Facilities' hosting institutions, and a significant fraction of the variable costs possibly to be covered in a sustainable way via other potential funding sources.



An **access pricing scheme** defines how potential fees will be charged to users, ranging from free-of-charge access to paid access including user fees that cover partial or full costs. While user or service fees based on full costs may be envisaged in certain cases (e.g., to users from the private sector for proprietary research), the costs charged to users from the public sector – being mostly academic users – are often handled in a more flexible way with predominantly free-of-charge access for users from RI member countries. User or service fees should only be considered in very limited and specific cases, as illustrated in Figure 4. The user fees charged may furthermore depend on the availability of co-funding from the users (e.g., via research grants or specific collaboration agreements).

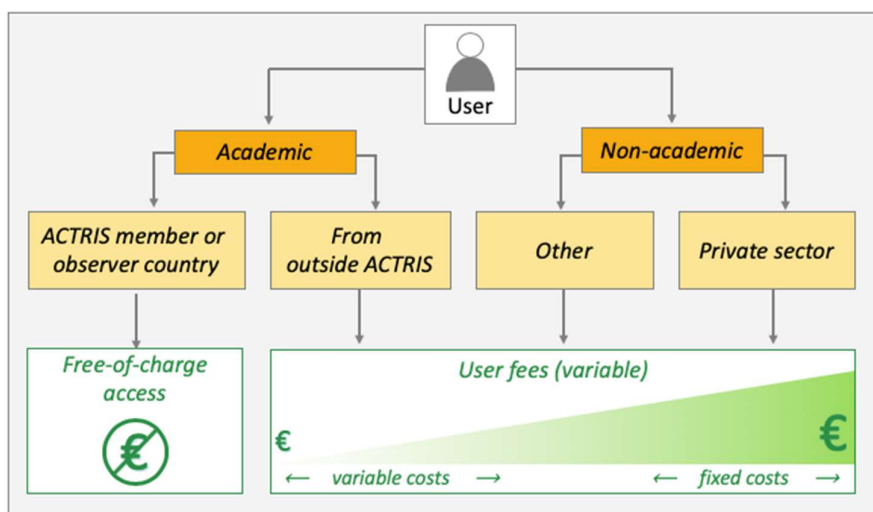


Figure 4: Schematic example of how user fees may be considered in an access pricing scheme. Academic and non-academic (or commercial rates) may apply, as a function of the user category and origin. Academic users from within the RI are expected to have mostly free-of-charge access, whereas users from outside the RI may qualify for preferential academic rates with limited user fees, and users from the private sector may be charged for the full costs of access (both variable and fixed costs).

The predominant funding mechanism within ACTRIS should target free-of-charge access, although potential user fees may apply for specific users (e.g., private sector users), for specific user origins (e.g., users from non ACTRIS member/observer countries) or for specific services (e.g., user-specific, tailored services). The pricing scheme that ACTRIS may adopt should be transparent and consider clear rules for user rates to be charged. The ACTRIS access funding scheme should consider the benefits of being ACTRIS member or observer.

To ensure sustainability, an access funding strategy must be agreed within ACTRIS and with its stakeholders that allows implementing an access programme that supports physical and remote access to ACTRIS National Facilities in the long term with secured funding, especially for distinct facilities where the variable fraction of the access cost may be significant. The potential access funding sources are presented in the following.

### 3.2.2 Funding sources

There are several potential sources for funding access costs, and in particular physical and remote access to National Facilities. They are presented in the following from a general RI (and not from a specific ACTRIS) point of view and are structured into the following four categories: national/regional funding, EU funding, RI funding, other funding.

#### (1) National and regional funding

The construction and operation costs of National Facilities in distributed RIs are mostly covered by national and regional sources, although the level of national vs regional funding may vary from country to country. National and regional funding is mainly provided by public bodies and Ministries and may also include institutional funding, dependent on the countries' strategies. In-kind contributions may account for a substantial fraction of the national and regional funding. The financial programming and operation of the research facilities is often aligned with national strategies for research, scientific programs and national roadmaps (if available). Regions may furthermore allocate funding in the frame of the structural funds (see also EU funding below). *⇒ National and regional funding is a fundamental source for funding physical and remote access, covering the operation of the research facilities to which access is provided and, at least, the fixed fraction of the access costs.*

#### (2) EU funding

Since its sixth Framework Programme, the EU has set up a research framework to provide particular funding to RIs. Under Horizon 2020, a range of instruments have offered funding to facilitate and support the construction, implementation and operation of RIs: INFRADEV for the development and long-term sustainability of new pan-European RIs, INFRAIA for integrating and opening RIs of European interest, INFRAINNOV to foster the RIs' innovation potential, INFRASUPP to support innovation, human resources, policy and international cooperation, EINFRA focusing on e-infrastructures, INFRAEOSC to implement the European open science cloud and INFRAEDI to support the creating of the European data infrastructure. *⇒ EU funding, and in particular the INFRAIA instruments, have been fundamental for developing and funding activities related to transnational access (TNA), especially important for physical and remote access. The TNA program has been extremely successful, also in order to structure and harmonize the procedures to facilitate and provide efficient access to distributed RIs' facilities and resources.*

Furthermore, the European Structural and Investment Funds (ESIF) and European Regional Development Funds (ERDF) have played a substantial role for supporting RI investments and building research and innovation capacities, often across borders, towards development and implementation of national and regional research centres, often realized as synergy between national funding, H2020 funding and ESIF. Regions are furthermore encouraged to develop smart specialisation strategies prior to receiving ESIF funding for project in the area of innovation. ESIF funding is a catalyst for RI funding (both from public and private sector) as it provides funding opportunities to RIs and encourages co-financing from the national budgets which allows the construction, implementation and upgrading of the national facilities to which physical and remote access is provided.

Finally, H2020 provides grants to research and innovation projects promoting excellent science. Other H2020 projects, such as Marie Skłodowska-Curie Actions, are further potential co-financing options. *⇒*

Different kind of users from both public and private sector can benefit from H2020 grants to (co)-finance world-class research enabled by RI services (e.g., research projects carried out via access to instrumented RI platforms) by supporting expenses related to travel, accommodation, consumables for experiments, etc.

### **(3) RI funding**

Operation costs for joint RI activities are partly funded by the hosting organizations in the RI member/observer countries in charge of the activities (via in-kind and cash contributions), and partly funded by the countries' membership contributions (via cash contributions). In distributed RIs, the joint activities concern costs of the central hub and European-level/central services – RI coordination, governance, joint operations – and principally consider all relevant costs for the running of the RI activities (personnel, consumables, equipment upgrading, utilities, ...). The operation costs of the national nodes, however, are generally funded through national budgets, but often do not cover the costs incurred by the national facilities for providing access, such as physical access to instrumental platforms. ⇒ To ensure a sustainable funding of access to services provided by national facilities, a coordinated RI access programme – based on membership contributions – may be essential to allow free-of-charge physical and remote access to users, at least to those users coming from RI member/observer countries.

### **(4) Other funding**

Other funding sources may be available to cover costs of physical and remote access to RI services. Such funding may be implemented, for example, via user fees or funding from private sector users.

- **User fees**

RIs aim at fostering excellent science by providing data, resources and services to wide user communities. In case of specific services (e.g., tailored services) or specific users (e.g., users from outside RI member/observer countries or private sector users), user fees may be charged. However, the principal benchmark for selecting users should be scientifically-oriented rather than financially-driven. Possible user fees should be based on transparent pricing policies. ⇒ User fees may fully or partially cover the access costs incurred by the national facilities for providing services.

- **Private sector funding**

The involvement of the private sector is not limited to supplying equipment and consumables. The private sector may also benefit from the RI as a user of (often tailored) services and concern, e.g., instrument testing, instrument comparisons or joint developments. RI relationships with the private sector encourage technological development, knowledge transfer and promote innovation. Frequently, private sector users are charged for access to proprietary research and industrial/commercial exploitation of the RI resources and services. ⇒ The private sector may substantially or fully cover the access costs incurred by the national facilities for providing services.

### **Benefits and drawbacks of access funding sources towards long-term sustainability**

ACTRIS will have to explore all possible pathways to make optimum use of the available funding sources for access provision. Efficient funding is key to ensure high quality services in the long term, aligned with user needs. To date, the majority of environmental RIs do not consider systematic funding related to physical and remote access in their business model. Financing of physical and remote access has mostly

relied on EU funding, in particular via INFRAIA TNA, which only guarantees access funding on a short-term basis. The possible benefits and drawbacks related to the above described funding sources are listed in Table 1. In essence, only a synergy of available funding sources towards an appropriate access funding scheme may ensure the balance between a user-aligned service offer and the funding of the necessary access costs. The combination of different funding sources may allow covering the full access costs. It must be considered, however, that different funding sources have different timing, rules and conditions, thus, requiring a synergy and coordination of the financial flows. Nevertheless, RI funding is to be highlighted, to envisage implementation of a dedicated and coordinated physical access programme that may prove indispensable for long-term financial sustainability for access.

*Table 1: Benefits and drawbacks of access funding sources*

Funding source	Benefit	Drawback
National and regional funding	<ul style="list-style-type: none"> <li>+ Visibility, international cooperation</li> <li>+ Long-term leverage effect and socio-economic impact</li> </ul>	<ul style="list-style-type: none"> <li>- Mobilizes substantial resources</li> <li>- Cost vs benefit? Motivation to provide access via RI?</li> </ul>
EU funding	<ul style="list-style-type: none"> <li>+ Free access to users</li> <li>+ Access is fully user-driven and equally open to all users</li> <li>+ Additional funding for user mobility</li> </ul>	<ul style="list-style-type: none"> <li>- Project-based funding (competitive, not systematic)</li> <li>- Short-term funding</li> <li>- High administrative effort</li> </ul>
RI funding	<ul style="list-style-type: none"> <li>+ Coordinated and harmonized service provision (physical access programme)</li> <li>+ Support to long-term sustainability of access provision and aligned with RI user strategy</li> <li>+ Free access for users from at least RI member countries</li> </ul>	<ul style="list-style-type: none"> <li>- NF services are geographically distributed and not at EU level</li> <li>- Agreement among RI members</li> <li>- Potential contribution via membership fee</li> </ul>
Other funding	<ul style="list-style-type: none"> <li>+ Additional funding to cover variable costs of services (and/or full costs in case of private sector funding)</li> <li>+ Towards service-oriented access: user-specific and tailored services</li> <li>+ Some access costs recovery</li> </ul>	<ul style="list-style-type: none"> <li>- Small fraction of users concerned</li> <li>- Creating and maintaining attractiveness</li> <li>- For private sector users: IP rights must be respected, specific publishing policies</li> </ul>

#### 4. Principles for funding access to ACTRIS National Facilities

Based on the ACTRIS service provision and its relevance, the requirements for implementing physical and remote access to ACTRIS National Facilities, and the need to ensure the sustainability of access, the following principles for access and funding should be considered and discussed:

- ACTRIS should aim at offering a **large variety of services** via all types of access – virtual, physical and remote – to a **wide user community world-wide**.
- The ACTRIS access funding framework should follow the principles of **open** and **fair access**. ACTRIS should prioritize **free-of-charge access** for users (where possible).
- Access should be **flexible** to allow agile adjustments in order to optimize the service provision to the evolving user needs.
- The access funding scheme should be **sustainable** to ensure that access to RI services and resources is supported in the long term and with secured funding while taking into account the capacities and needs of the ACTRIS facilities.
- Access should be **attractive** for all stakeholders. The ACTRIS access funding framework should envisage a coherent and coordinated approach where all stakeholders contribute to a fair level with optimal cost-benefit and incentives for all stakeholders involved:
  - for ACTRIS, to provide the tools and resources to support the excellence in Earth system observation and research, and to provide information and knowledge for developing sustainable solutions to societal needs;
  - for ACTRIS users, to benefit from efficient and effective services according to their needs and via a convenient and user-friendly catalogue of services, and to benefit from easy and affordable access to ACTRIS services;
  - for the ACTRIS funders, to provide added value for research, innovation, and society through efficient use of the RI resources.
- An **access cost model**, based on a clear and transparent cost methodology, should be developed to allow calculating the full access costs to ACTRIS services:
  - an adequate planning and use of the available funding sources should allow covering the costs for access to ACTRIS services and contributing to the financial sustainability of ACTRIS;
  - a straightforward access costs model should be developed that, for example, may base the calculation of the access costs on fixed unit costs per service per facility offered (unit access cost principle);
  - ACTRIS ERIC funding should aim at covering a considerable fraction of the access costs incurred for the ACTRIS service provision, notably the variable access costs;
  - The ACTRIS access funding scheme should consider the benefits of being ACTRIS member or observer which should not have any additional costs to access the ACTRIS services that are already funded by ACTRIS ERIC.
- An **access pricing scheme** based on user fees should be developed:
  - The pricing scheme should be transparent and consider clear rules for user rates to be charged;
  - Free-of-charge access is recommended, where possible;

- User fees may be considered for specific users (e.g., private sector users), specific user origins (e.g., users from non ACTRIS member or observer countries) or for specific services (e.g., user-specific services, tailored services).
- A **coordinated access programme** should be implemented in the ACTRIS operational phase, with a systematic priority for physical access, to be reflected and integrated in the ACTRIS business model.

## 5. Conclusions and next steps

This document provides recommendations for developing a suitable ACTRIS access strategy and funding mechanisms. In particular, it describes the requirements for implementing access to services provided by the ACTRIS National Facilities, and it recommends the basic principles for funding physical and remote access to ACTRIS observational and exploratory platforms to ensure that access will be sustainable in the long-term.

During the upcoming implementation phase, the activities related to the implementation and funding of access to ACTRIS services will proceed and will involve the following steps:

- Confirmation of ACTRIS facilities, in particular the National Facilities, intending to provide access to their platforms and services. This process will take place and is linked to the labelling process of the National Facilities and is expected to start in 2021.
- Calculation of the access costs of the ACTRIS facilities intending to provide physical access, based on a consolidated access cost methodology.
- Development of an ACTRIS access cost model and pricing scheme.

The implementation of virtual, physical and remote access to users will furthermore be tested as part of a transnational access pilot programme as part of the ACTRIS Implementation project (ACTRIS IMP, 2020-2023). ACTRIS aims at operating an access program to the ACTRIS Central Facilities and National Facilities in its operational phase from 2025 onwards.

## 6. Reference documents

1. ACTRIS glossary  
<https://www.actris.eu/About/ACTRIS/ACTRISglossary.aspx>
2. ACTRIS Internal Financial Rules (ACTRIS PPP - Deliverable 3.2)  
[https://www.actris.eu/Portals/46/Documentation/ACTRIS%20PPP/Deliverables/Public/WP3\\_D3.1M24.pdf?ver=2019-01-31-213136-083](https://www.actris.eu/Portals/46/Documentation/ACTRIS%20PPP/Deliverables/Public/WP3_D3.1M24.pdf?ver=2019-01-31-213136-083)
3. ACTRIS data policy (ACTRIS PPP - Deliverable 2.3)  
[https://www.actris.eu/Portals/46/Documentation/ACTRIS%20PPP/Deliverables/Public/WP2\\_D2.3M30.pdf?ver=2018-10-29-152439-550](https://www.actris.eu/Portals/46/Documentation/ACTRIS%20PPP/Deliverables/Public/WP2_D2.3M30.pdf?ver=2018-10-29-152439-550)
4. ACTRIS access and service policy (ACTRIS PPP - Deliverable 2.6)  
[https://www.actris.eu/Portals/46/Documentation/ACTRIS%20PPP/Deliverables/Public/WP2\\_D2.6M32.pdf?ver=2018-10-29-152442-467](https://www.actris.eu/Portals/46/Documentation/ACTRIS%20PPP/Deliverables/Public/WP2_D2.6M32.pdf?ver=2018-10-29-152442-467)

5. Data Management Plan (ACTRIS PPP - Deliverable 4.2)  
[https://www.actris.eu/Portals/46/Documentation/ACTRIS%20PPP/Deliverables/Public/ACTRIS%20PP\\_WP4\\_D4.2\\_ACTRIS%20data%20management%20plan\\_27nov2019.pdf?ver=2019-11-29-120927-617](https://www.actris.eu/Portals/46/Documentation/ACTRIS%20PPP/Deliverables/Public/ACTRIS%20PP_WP4_D4.2_ACTRIS%20data%20management%20plan_27nov2019.pdf?ver=2019-11-29-120927-617)
6. Access Management Plan (ACTRIS PPP - Deliverable 6.4: Recommendations for the user strategy, access management and workflows), Document to be found:  
[https://www.actris.eu/Documentation/ACTRISPPP\(2017-2019\)/Deliverables.aspx](https://www.actris.eu/Documentation/ACTRISPPP(2017-2019)/Deliverables.aspx)
7. User requirements (ACTRIS PPP – Milestone 23),
8. Access key performance indicators (ACTRIS PPP – Milestone 26),
9. Access cost analysis (ACTRIS PPP - Milestone 25),