Deliverable D6.4: Recommendations for the user strategy, access management and workflows

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1 Introduction

The present document provides draft content and recommendations for the development of the ACTRIS Access Management Plan. It complements the ACTRIS access and service policy (D2.6) and is based on the Report on access rules and modalities and recommendations for ACTRIS access policy (D6.3).

The text describes the purpose, principles and main procedures for the management of the physical and remote access of users to ACTRIS services provided by the ACTRIS Central Facilities (CF) and ACTRIS National Facilities (NF).

The Access Management Plan (AMP) deals with all physical and remote access to ACTRIS, and with access on demand to specific digital services provided by the Data Centre. Virtual access to ACTRIS data and digital tools is addressed in the ACTRIS data policy and the ACTRIS data management plan, and it is not concerned in this document.

2 Definitions

The terminology used for access to ACTRIS services is included in the ACTRIS Access and Services Policy and based on the EU Charter for Access to Research Infrastructures (see section 11) and is further adapted to the ACTRIS context and needs.

“Access” means the legitimate and authorised physical, remote and virtual admission to, interactions with and use of Research Infrastructures and to services offered by Research Infrastructures to users.

“ACTRIS data” means ACTRIS data from observational National Facilities and exploratory National Facilities complying with the procedures established within ACTRIS. A more detailed definition of ACTRIS data is given in the ACTRIS data policy.

“ACTRIS tools” mean both digital and non-digital tools for data and instrument operation offered by ACTRIS to users.

“Background” means data, databases, data products and data related tools or any other intellectual property rights generated before the access activities at the Central Facilities or National Facilities started.

“Competitive access” means access to the ACTRIS Central Facility and National Facility services through a selection process via SAMU.

“Excellence-driven access mode” means access primarily depending on the scientific excellence of an application.

“FAIR principles” means guiding principles to make data Findable, Accessible, Interoperable and Re-usable.

“Free access” means free-of-charge access for Users.

“Market-driven access mode” means access defined through an agreement between the ACTRIS ERIC and the User, which may be tailored to the User needs.

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"Technical need-driven access mode" means access primarily depending on the technical needs of the User to increase the performance and quality of its research activities.

"Physical access" means physically access of Users to the services of an ACTRIS Central Facility or National Facility.

"Remote access" means access to an ACTRIS Central Facility or National Facility without Users physically visiting the facility.

"SAMU" means the Service Access Management Unit of the ACTRIS Head Office.

"Side-ground" means data, databases, data products and data related tools or any other intellectual property rights generated at the same time the access activities at the Central Facilities or National Facilities take place but which are not generated as part of the access activities.

"User" means a person, a team, or an institution from any sector, including public and private sector, making use of ACTRIS data or other ACTRIS services, including access to ACTRIS facilities.

"Virtual access" means Free access provided through communication networks.

"Wide access" means free and broadest possible access to ACTRIS data and digital services to guarantee maximum availability and visibility of the data and services provided by the Data Centre.

For other definitions see ACTRIS glossary (see Ref 2 in section 11).

3 ACTRIS user strategy

ACTRIS is a research infrastructure built and operated to support excellent research by the broad scientific community (not only the internal community). ACTRIS aims to place serving users (Public research organisations, universities and higher education organisations, international organisation; public services; private companies and businesses) at the centre of its operations and strategic development.

A thorough user strategy is to be developed and constantly updated to establish a systematic and consistent approach to involve user and provide clear and practical recommendations to ensure that service development/improvement efforts meet user expectations and fulfil their needs, and will continue to do so over the RI's lifespan. As a living strategy, it is developed as result of a cyclic process meant to find a proper combination and composition of a RI's building blocks, which are:

- Current and future user needs, which have to be analysed as a prelude to a proper service-oriented design and enhancement
- Current and future ACTRIS technical capabilities

Considering the ACTRIS mission, the evolving user needs have to be matched with the evolving capabilities.

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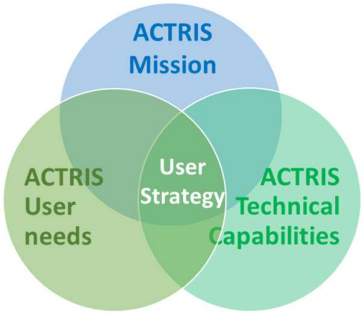

Figure 1 - ACTRIS User Strategy

The user strategy is the provision of value in terms of services, assistance, knowledge etc., which ACTRIS can offer to users, in response to their needs, based on the technical capabilities of the Central and National Facilities and in line with the overall ACTRIS mission.
The user strategy is a complex strategy made up of different components that have overall cohesion and consistency:

1. Service development strategy: services developed in response to user needs, as resulting from the user requirements analysis.
2. User engagement strategy: how to establish a close relation between ACTRIS, its facilities and the users and how to shape, feed and maintain ongoing interactions between ACTRIS and the users, working co-operatively with the users so that they have a real influence over the services that are relevant for their research. It's about earning trust of users and retain them.
3. User experience strategy: how to ensure that the overall user experience of ACTRIS (services, interactions, support, whatever) is positive, satisfactory, without pain points. It's about how to fulfil the users' goals and needs through ACTRIS work and task flows, while at the same fulfilling ACTRIS requirements and strategies.
4. User acquisition strategy, which deals with the selection and adoption of the suitable approach to on-board new users, mainly through communication, defining messages and using means to getting new users to know ACTRIS services and decide to use them for their excellent science.

The first step in the user strategy development is getting to know the users and their needs, to broaden the current understanding of the ACTRIS users, their background, expectations and research needs as a prelude to a proper user strategy and service-oriented design. The second step is matching the user demand and the technical capabilities of the Central and National Facilities. This matching happens within a specific area, which is defined by the ACTRIS mission.

ACTRIS Vision

ACTRIS is the fundamental European Research Infrastructure for short-lived atmospheric constituents increasing the excellence in Earth system observation and research, and providing information and knowledge for developing sustainable solutions to societal needs.

ACTRIS Mission

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ACTRIS shall establish, operate, and develop a pan-European distributed research infrastructure for short-lived atmospheric constituents. ACTRIS shall provide effective access for a wide user community to its resources and services, in order to facilitate high-quality Earth system research.

3.1 User needs analysis

The User needs are a cornerstone of the overall User strategy development, which should be based on a clear identification of the actual and potential user groups, their research interests, their demands and needs that evolve over time. A thorough inventory and subsequent analysis of the needs of the ACTRIS key user groups has to provide a clear roadmap for future service development and user-friendly organization of the access to services.

The periodic analysis of the user needs is a crucial activity to ensure that the development of the services and access provision system builds on a sound and up-to-date knowledge of the ACTRIS users, their background, expectations and research requirements. This will guarantee that access to ACTRIS services continues to answer user needs over the RI's lifespan thus contributing to the long-term sustainability of ACTRIS.

The user needs will be periodically investigated and analysed in a process that involves the following steps:

1. Identification of (new) user groups and uses of the need analysis
2. Description of the current service provision environment
3. Collect and identify needs through:
    - ACTRIS Science and User Forum
    - Surveys
        - Key User testimonials
        - User satisfaction (monitored after access provision)
        - Training survey
    - Group Procedures
        - Focus groups
        - Community meetings
4. Evaluate possible solutions to needs ascertained
    - Information gathered from service providers on their capability
    - State of the art of technology and science
    - For each possible solution identified analysis of:
        - Costs
        - Impact
        - Feasibility
5. Assess the importance of the needs, to establish priority based also on results at step 4
6. Report on the results and recommendations for action (communicated to ACTRIS governing bodies and decisions makers, users, and other audiences that may be relevant)

The ACTRIS Central Facilities and National Facilities interested in offering physical access, as well as the broader ACTRIS community, will be involved in the user needs analysis process with the support of the relevant ACTRIS Head Office Units (Operations Unit – OPU, Development and Relations Unit – DEVU),

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especially in steps from 4 on, to discuss and agree on criteria and modalities of matching user needs and current ACTRIS technical capabilities.

4 Access to ACTRIS services

ACTRIS provides three main types of services for the users:

1. access to high quality, harmonized, and documented ACTRIS data from observational and exploratory NFs;
2. access to ACTRIS facilities, and
3. training and capacity building services for RI operators and users.

Access to ACTRIS data, data products and digital tools provided through communication networks (virtual access) is addressed in the ACTRIS Data Policy and the ACTRIS Data Management Plan, which respectively establish the principles and process for data provision.
Access to on demand services of the Data Centre related to ACTRIS data, data products, and digital tools is remote access and is dealt with here in the AMP.

Physical and remote access to ACTRIS Facilities include instrument and measurement quality assurance and quality control procedures and tools, calibration of instruments, use of state-of-the-art instrumentation and equipment for cutting-edge research and scientific experiments, instrument testing and development, inter-comparison exercises, and field campaigns to investigate atmospheric processes and interactions on the variability of short-lived atmospheric constituents.

Training services target both ACTRIS staff and ACTRIS users to ensure knowledge-sharing and best practice. Training services can be accessed virtually, remotely or physically. Training concerned in the AMP is that provided remotely and/or physically to users.

All ACTRIS services accessible by users are included in the **ACTRIS Catalogue of Services**, an online tool to provide users with wide, easy, and user-friendly access to all information on the ACTRIS services, including a description of each service, how the services can be requested, the estimated duration of the selection procedure (if any) and of the provision, the available logistic and support services, costs and fees (if any), as well as the duties and responsibilities of the users for using the facility's resources.

Access refers to the legitimate and authorised physical, remote and virtual admission to, interactions with and use of Research Infrastructures and to services offered by Research Infrastructures to Users.

ACTRIS aims at open access to ACTRIS services, following the principles set out in the Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities (2003) and the open access and open science strategy promoted by the European Commission and the ESFRI.

Access to ACTRIS services can have different attributes, types and modes. It may be Free access, Wide access or Competitive access, defined as follows:

- **Free access** means that the ACTRIS services are provided to Users free-of-charge. Although ACTRIS aims at providing free access for users, where possible, some services provided by the ACTRIS CF and NF may involve user fees.

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- **Wide access** aims at guaranteeing the broadest possible access to ACTRIS data and digital tools and to maximise their availability and visibility. Wide access is open and Free access and does not involve any selection of Users.
- **Competitive access** means that the ACTRIS Central Facility and National Facility services are not unlimited and a selection process via the Service and Access Management Unit (SAMU) is required. Competitive access concerns physical and remote access to services offered by the ACTRIS CF (TC and DC) and NF. The guidelines for competitive access are formalized in the ACTRIS access and service policy (D2.6).

4.1 Access types

ACTRIS covers the following types of access:

- **Virtual access** means free access to Users provided through communication networks; the available services or resources can be simultaneously used by an unlimited number of Users and the Users are not selected. Virtual access within ACTRIS concerns access to ACTRIS data and digital tools offered by ACTRIS through the ACTRIS DC or access to ACTRIS tools offered through a ACTRIS TC.
- **Physical access** is "hands-on" access when Users physically visit an infrastructure/facility/equipment. Physical access means access to services offered by ACTRIS through an ACTRIS CF or NF. The available services or resources are not unlimited and a competitive process is required following a defined procedure and criteria for selection of Users. Physical access within ACTRIS may concern access to ACTRIS TC, DC, observational and exploratory NF.
- **Remote access** is access to resources and services offered by ACTRIS through an ACTRIS CF or NF without Users physically visiting the infrastructure/facility. Similar to Physical access, the services or resources are not unlimited and a competitive selection is required. Remote access within ACTRIS may concern access to ACTRIS CF or NF.

4.2 Access modes

The process for selecting Users to ACTRIS services is based on access modes. The access mode regulates the conditions for the selection of Users. Access modes are part of the ACTRIS-internal access process and are not discernible to Users. Access modes may differ as a function of the service requested, and may depend on possible contractual and legal obligations, capacities, resources, membership, etc. Within ACTRIS, the following access modes apply:

- **Excellence-driven access**: the access depends on scientific excellence, originality, quality and technical and ethical feasibility of an application. The access is competitive and requires a User selection based on the ACTRIS access process and modalities
- **Technical need-driven access**: access to ACTRIS services depends on technical needs to ensure instrument quality, high performance measurements, and dissemination of good practices. The access is Competitive and requires a review process and evaluation
- **Market-driven access**: access to ACTRIS services is defined through an agreement between ACTRIS ERIC and the User; the access may be tailored to the User needs and may lead to an access

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fee that may remain confidential. This access is considered Competitive access but may not necessarily involve a peer-review.

4.3 Classification of access

Based on the attributes, types and modes detailed in previous sections, access to ACTRIS is systematized in five levels that are proposed to ease the internal management of the user requests to access ACTRIS services. Users choose the service they need. The access type and conditions, i.e. 'how' a user will actually access an ACTRIS CF or NF to receive the service, is inherent to the specific service requested and involves specific procedures and tasks according to the attributes that the specific service gives to access.

For example, access to a DC service may be wide, virtual and free (if directly available via the DC, e.g., downloading ACTRIS data) or competitive, remote and free/subject to fee (if the DC has limited capacity, e.g., archiving data related to a measurement campaign). Likewise, physical access of a user to an exploratory NF is competitive and requires a selection process based on criteria related to the scientific quality of the planned research project, whereas physical access to a TC for the calibration of an instrument is competitive the same, but requires a selection process based on criteria related to the technical needs for optimizing instrument performance and improving the quality of the research activities.

Figure 2 below presents the classification of Access levels within ACTRIS.

Level 0 highlights the fact that, while ACTRIS aims at open access to ACTRIS services, it may be that some services and data are not ready to be open for user access (for instance Level 0 data or services still to be perfected).

Levels from 1 to 5 distinguish open access based on how it is actually provided (types), conditions under which it is provided, interaction needed, how selection will be done (modes), possible charges.

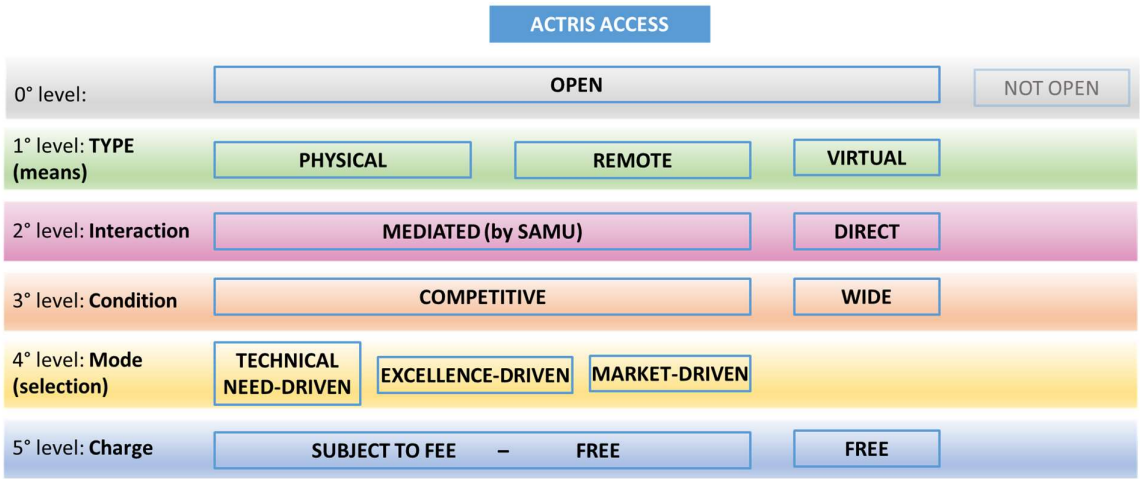

Figure 2. Access to ACTRIS - Classification

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This classification is solely meant to prepare and simplify and the access management work making the identification of the procedure to be followed and the tasks to be carried out as immediate and automatic as possible.

Figure 3 reports a tree-like graph or model of decisions and their possible consequences, in which each node represents a point of deliberation and decision where attributes or features are systematically checked to determine a final category.

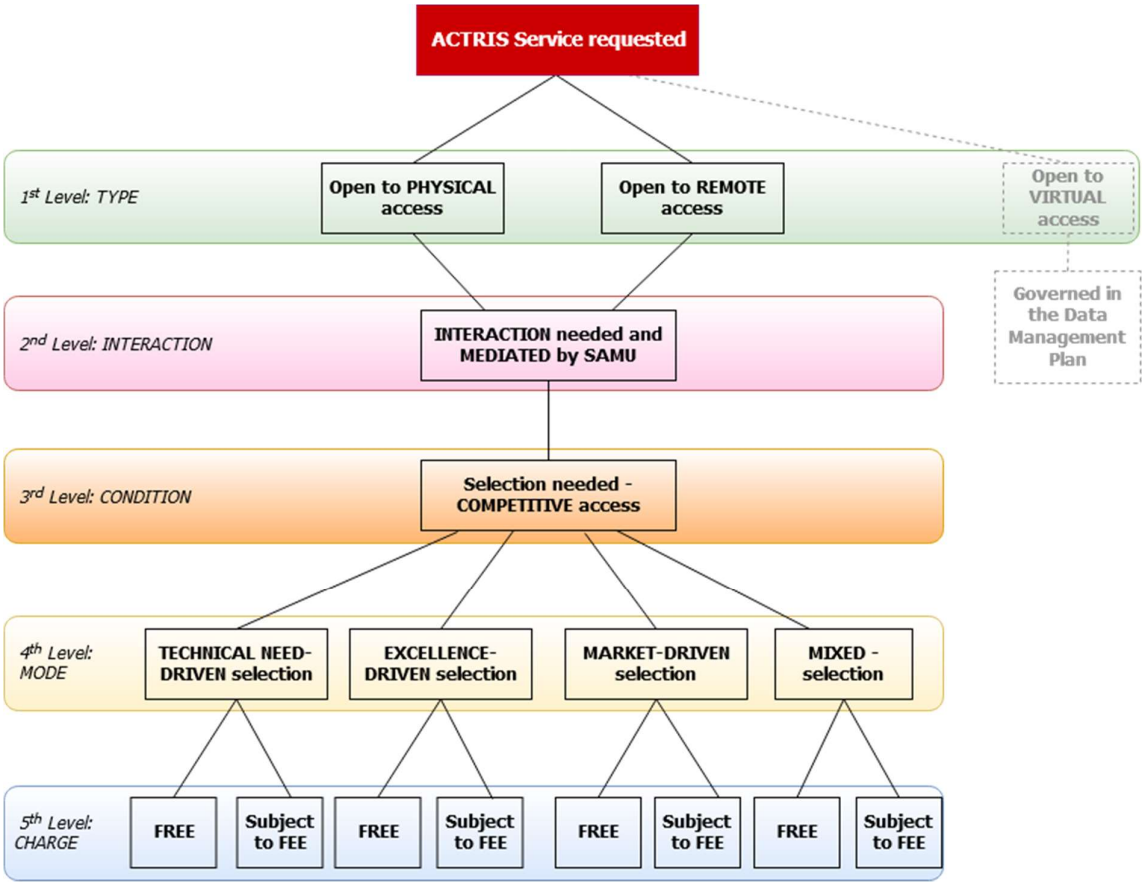

Figure 3. Access to ACTRIS – Decision Tree

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Figure 4Error! Reference source not found. below offers just an example of application of the model of decisions producing a possible path, among the many that are possible, to identify the suitable access procedure to be started.

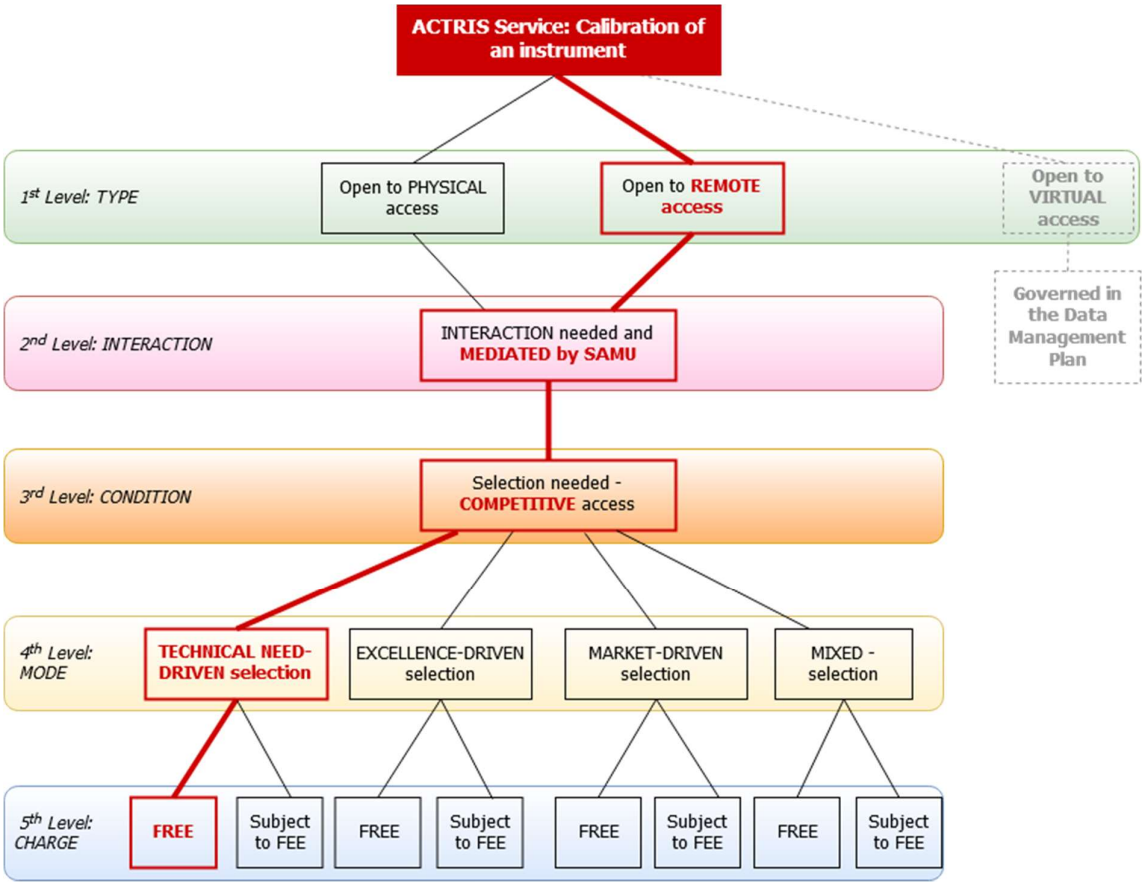

Figure 4 - Example of identification of the suitable access procedure (Decision Tree)

5 Access management planning

Sound access management is crucial for a RI to fulfill its mission and enable the broad scientific community to conduct excellent research. This is particularly true and critical in a distributed research infrastructure such as ACTRIS, in which access to a range of different resources, data and services is provided by a series of National and Central Facilities (these latter also made up of units with different locations) distributed in several countries.

ACTRIS needs to guarantee the user a homogeneous access process, which means that while the content of the access is certainly different depending on the particular service and the provider facilities, the process to grant access must be standard, harmonized and access provision levels must be as uniform as possible.

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Access management planning within ACTRIS is meant to define rules, processes, roles and workflows so to meet the need for operational effectiveness in an infrastructure that is geographically dispersed. It is useful to simplify the work for the involved RI staff and to earn the trust of potential users also thanks to a clear accountability even in presence of multiple national providers. Clear accountabilities, internally and towards the users, can be achieved when tasks and work is clearly planned and focused around the roles rather than the position in the organization.

Access management planning in the initial stages of the implementation will allow ACTRIS to organize processes, tools, interactions and activities to be effective and successful in providing services during the operations phase. The Access Management Plan (AMP) shall design a management system that is also suitable for the RI to anticipate changes, collect user needs and feedback in order to modify services or procedures accordingly.

Access management planning within ACTRIS needs to be a continuous process, based on the constant evaluation of the performance to re-think the system and plan for continuous improvements. This is crucial for ACTRIS to continue to serve science and users at his best.

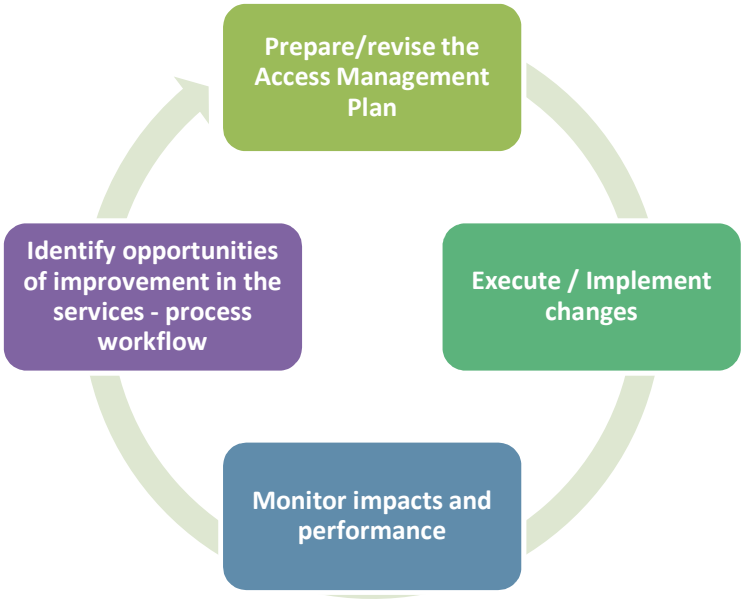

Figure 5 - Access management planning as continuous process

The AMP will be a living document that builds on monitoring and review to learn from observation of the impacts of access management, adapt the management actions (and services) accordingly and adjust to changes.

6 Access management principles

Access management within ACTRIS is organized conforming to the following principles:

1. **Process Approach**:

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   a. All activities and requirements to grant access and provide the services are defined, communicated and improved based on the needs and feedback from people and parties involved.
   b. Roles and responsibilities are clearly defined.

2. **User-centered approach**:
   a. The provision of access and services shall be aligned to user needs, to be periodically ascertained through specific analyses as well as by processing the feedback received.
   b. Services are delivered in a defined quality sufficient to satisfy the identified user requirements.

3. **Continual Improvement**: Services and access management processes shall be continually improved, based on:
   a. the feedback solicited and received from users and stakeholders, and
   b. continual monitoring of the process performance and effectiveness.

7 Organizational principles

The basic principles to organize the access management are established following the recommendations included in the ESFRI Roadmap for the distributed research infrastructures like ACTRIS, and are:

- Centralized management
- Single point of access for all users,
- Support structure dedicated to optimize the access of users for the proposed research

Those principles, in ACTRIS, are embodied in the Service and Access Management Unit of the Head Office which will be in charge of organizing and managing the access to the entire RI.

7.1 Centralized management

Centralized management implies the existence of formal management structures that coordinate and monitor a distributed organization from a central point. Applied to research infrastructures and to access, the principle entails that all activities involving the provision of access to all facilities in a distributed research infrastructure are concentrated to a specific location and organized from there. In the case of ACTRIS, this location is the Head Office. Centralized access management ensures resource and process optimization, reduction of the time, cost and complexity associated with access management while providing for compliance and consistency across all the RI's components.

7.2 Single point of access

A single point of access describes an access process where all services share a single set of contact information and all access requests are channelled through a single entry.
Following the indications from ESFRI (Public Roadmap Guide 2021[1]) no entry to ACTRIS is to be channelled outside the single interface that will connect users to ACTRIS.

[1] "*A distributed RI need to ….. have a unique access policy and provide for a single point of access for all users with a support structure dedicated to optimize the access for the proposed research*"

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As **Figure 6** below shows, user access to ACTRIS will be through a single ACTRIS User Access Interface, managed by the HO that will enable users to access ACTRIS with access provided via two pathways:

i) Via the Access – DC for the virtual, wide and free access to ACTRIS data and digital tools (DC/TC), which are provided with no interaction/intervention from the Service and Access Management Unit of the Head Office (SAMU)
ii) Via the SAMU - HO for the Physical and Remote access to ACTRIS services provided by the TCs, the NFs or to specific digital services of the DC. Physical and remote access is competitive because of the services of the ACTRIS Central and National Facilities are not unlimited and are provided within the limits of the facilities' capacities, requiring a selection process via the SAMU.

The DC has the full responsibility to provide virtual access through communication networks with no intervention from SAMU. SAMU is only responsible for the centralized management of the user requests for physical or remote access and for coordinating the service provision. The responsibility of SAMU also includes the management and processing of access request to specific on demand services of the DC, which are not directly accessible through communication networks and require an intervention from the DC experts.

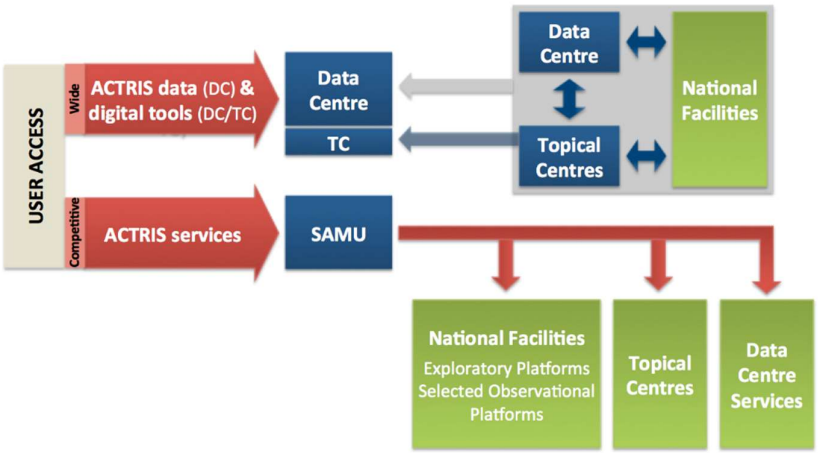

Figure 6 - User access to ACTRIS

With such system in place, all access requests to data and services will be channelled through the unique general web interface from which users can access multiple applications, such as specific web interfaces (Data portal accessible through the Access – DC unit, Facilities' portals and web pages) and new applications (Catalogue of Services, Helpdesk, Forum, etc.) that will be integrated and/or developed ad hoc to support and exchange with users.

7.3 Support structure

The existence of a unique support structure is a requirement for distributed research infrastructures, along with the single point of access, as per the recommendations of ESFRI. Both are what differentiates a RI from a network of cooperating facilities.

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A specific support function is to be implemented within ACTRIS and operated for any user enquires, providing day-to-day support and information to users willing or admitted accessing ACTRIS whenever they have any questions or issues with about ACTRIS services. The Helpdesk will take the users through problem-solving process related to any ACTRIS services, following up with users to ensure the issue has been resolved and soliciting feedback.

The Helpdesk centrally managed by the HO/SAMU is the single support structure that acts as a facilitator and coordinator of the entire end-user support process, being directly responsible for providing general information and support related to the Catalogue of Services, the access process (applications, Terms of Reference, preliminary checks, evaluation), the access platform and for all support requests that are not related to science and do not need specific, technical know-how.

The TCs are the second main actor of the entire end-user support process, being responsible to handle and solve all support requests that are directly received by users during access or transferred to them by the Helpdesk/SAMU for proper solution.

8 SAMU structure and functions

The principles for access management and organization presented in sections 6 and 7 are embodied, in ACTRIS, in the Service and Access Management Unit (SAMU) of the Head Office, which provides the organizational entity for consolidating the governance of access to the entire RI and for addressing the users evolving needs.

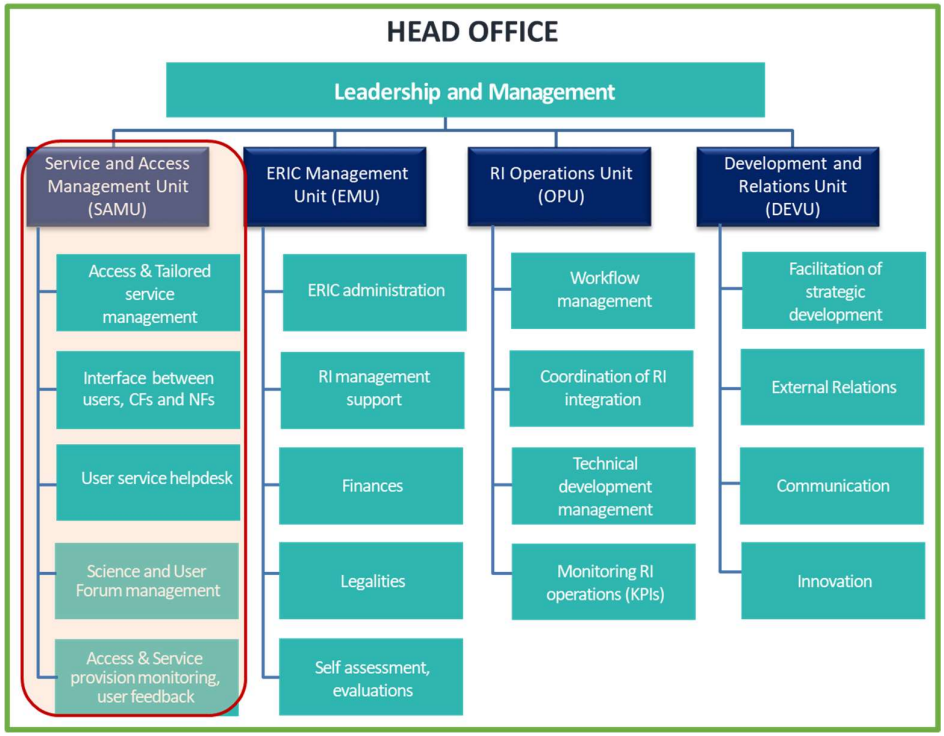

Figure 7 - SAMU within the ACTRIS Head Office organization

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SAMU mission is to improve the effectiveness, efficiency and quality of delivering ACTRIS services to the users, considering the distributed nature of the RI. The Unit operates to win the challenge of implementing well-organized management of access to services that are geographically distributed, balancing the need for centralized control and process consistency with the necessity to allow freedom and differences in the actual access provision, which is the result of the distributed nature of the RIs and of the variety of ACTRIS components providing different services to different users.

8.1 Activities

SAMU provides a central point of focus within the ACTRIS organization to drive efficiency and effectiveness in access management to ensure that users receive consistent access/service experiences, regardless of which Facilities are involved in service provision.

8.1.1 Access and tailored service management

Main tasks under this crucial function are:

a. Updates of the **Access Management Plan**,
b. Analysis of the **user needs** and periodic updates,
c. Development and periodic updates/upgrades of the **ACTRIS Catalogue of Services** → online tool to provide users with wide, easy, and user-friendly access to all information on the ACTRIS services including: a description of each service, how the services can be requested, the estimated duration of the selection procedure (if any) and of the provision, the available logistic and support services, costs and fees (if any), standard average level of service the users can reasonably expect from the facility they have access to, as well as the duties and responsibilities of the users for using the facility's resources. The Catalogue of Services is integrated in and accessible from the single interface and unique entry point for users (ACTRIS access management platform).
d. Implementation, test and periodic updates/upgrades of the **Access Management Platform** → a service provision platform is to be studied, designed and set up to organize the central management of the access for the entire RI. Based on a set of architectural building blocks made up of cloud services arranged in a tailored implementation pattern, the platform consents full control of each step of the access process (from the application, management, pre-screening for technical feasibility, review and selection, approval, support to access, and monitoring/reporting) as well as optimized management of facilities' availabilities.

When the access system will be up and running, the activities that will be carried out to concretely provide access will be:

e. The access document pack management → elaboration of all the relevant documents the users need to know, abide by and follow to apply for access to ACTRIS. This is done in cooperation with the relevant CF and the other HO Units.
f. The access Eligibility check → proposals are examined to ascertain they satisfy the appropriate conditions set out for the access in the specific call or service page in the Catalogue of Services.
g. The coordination of the access Feasibility check by TCs and DC → proposals are checked to ascertain whether they fit within the Facility's capabilities and can be dealt with successfully.

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h. The establishment of the Selection panels → once the request is found feasible by the service providers, a suitable selection panel is established. The decision on the type of selection, as well as the type and composition of the selection panel (Peer-review panel, Technical review Panel, Negotiation Panel or Mixed Panel) is taken in cooperation between SAMU, other HO Units and the concerned CF.
i. Coordination of the Evaluation by the selection panels → SAMU takes care of assisting, facilitating and coordinating the work of the selection panels, while maintaining contacts with the users until the end of the process and the communication of the evaluation outcomes.

8.1.2 Interface between users, CFs and NFs

SAMU will be at the centre of the relationship between users and ACTRIS and it will ensure the smoothness and fairness of all interactions with the CFs/NFs, supporting both sides so that each takes advantages of the relation. Core implementation activities in this regard will be the establishment of proper tools and procedures to put the user strategy into practice so to earn trust and awareness of users as well as to enable ACTRIS to derive input for continuous improvements and self-renewing from constant user interactions.

8.1.3 User service helpdesk

Based on the procedures designed in the Access Management Plan, a specific support function is established and operated for any user enquires, providing day-to-day support and information to users willing or admitted to access ACTRIS whenever they have any questions or issues with about ACTRIS services. The Helpdesk will walk users through problem-solving process related to any ACTRIS services, following up with users to ensure the issue has been resolved and soliciting feedback.

8.1.4 Implementation of the Science and User Forum

The Forum is an online application integrated in and accessible from the unique ACTRIS User Access Interface, where researchers interested in ACTRIS services and resources can exchange and discuss their needs and expectations regarding the services. The Forum is foreseen to be a major communication channel between users and ACTRIS Facilities, providing an organized framework for discussion and exchange, and also serving as platform for fostering collaboration between different user communities to stimulate synergies that will increase the scientific and economic impact of ACTRIS.

8.1.5 Monitoring access and service provision

The monitoring activities carried out by SAMU will corroborate the **user-driven approach** of ACTRIS, providing the ACTRIS Facilities and governing bodies with helpful information to consent an evaluation of the ACTRIS services from the perspective of those who make effectively use of them. Performance data on the quantity and quality of ACTRIS service provision, expressed as KPIs, will be reported on an annual basis, allowing to identify areas of enhancement so to consent the ACTRIS Facilities and governance bodies to consider/plan actions to improve service provision, develop further services and advance the user strategy.
Main tasks are:

- Collection of the access metrics → measurements of the KPI on the users (e.g., number of users, names, origin, affiliation), on the quantity_and quality of access provided, type of services

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requested, selection procedures and results (including information on the impact of scientific outcomes acknowledging the use of the ACTRIS Facilities (publications, patents, etc.)

- Collection of the user feedback and processing (input to OPU, DEVU, EMU, CFs and NFs)→ specific channels and user feedback components (for instance emails, online reviews and surveys, etc.) are set up to collect user needs, remarks, comments and suggestions as a way to go beyond analytics, engage directly and continuously with users, measure and improve their satisfaction. Feedback received is organized in like categories, and reports and recommendations are prepared and transferred to other HO units and to CF and NFs to serve as input for a continuous improvement of access and services, ongoing management process and quality assurance.
- Access KPIs & Service Provision Activity report → data on KPIs and feedback from users collected over specific periods is analysed, organized and reported using also visual representations of the data that help extracting valuable information at a glance and identifying potential strengths, weaknesses, trends, and possible areas for improvement.

9 Access workflow & Interactions

The pages that follow report some initial workflows that can be prefigured for the main activities of SAMU.

Figure 8 below details **Error! Reference source not found.**the sequence of steps involved in the access document pack management (point e., page 16) .

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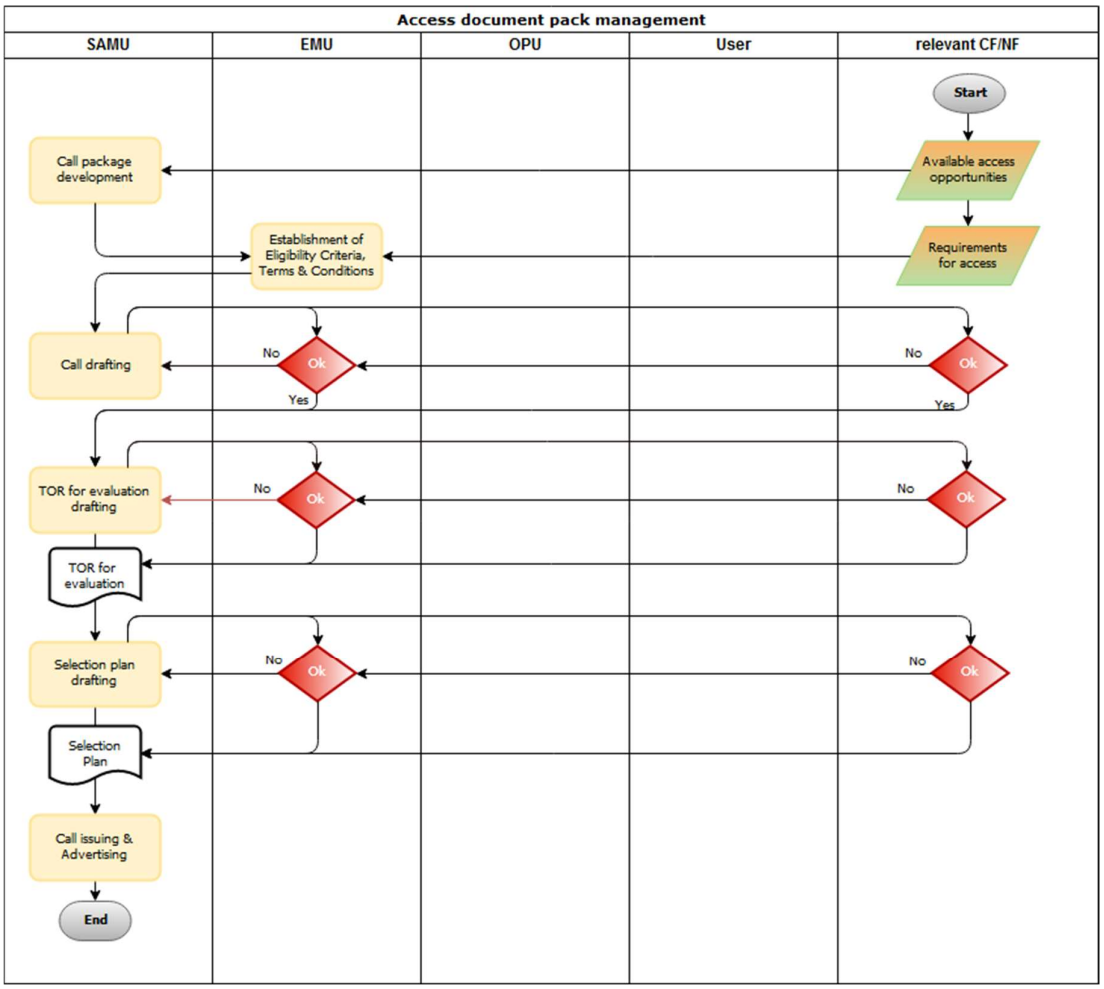

Figure 8 - Access document pack management Workflow

Figure 9 presents the complete workflow for the evaluation of the access requests, from the eligibility check through the feasibility check, to the establishment of the suitable selection panel and the coordination of the panel's works (points from f. to i.).

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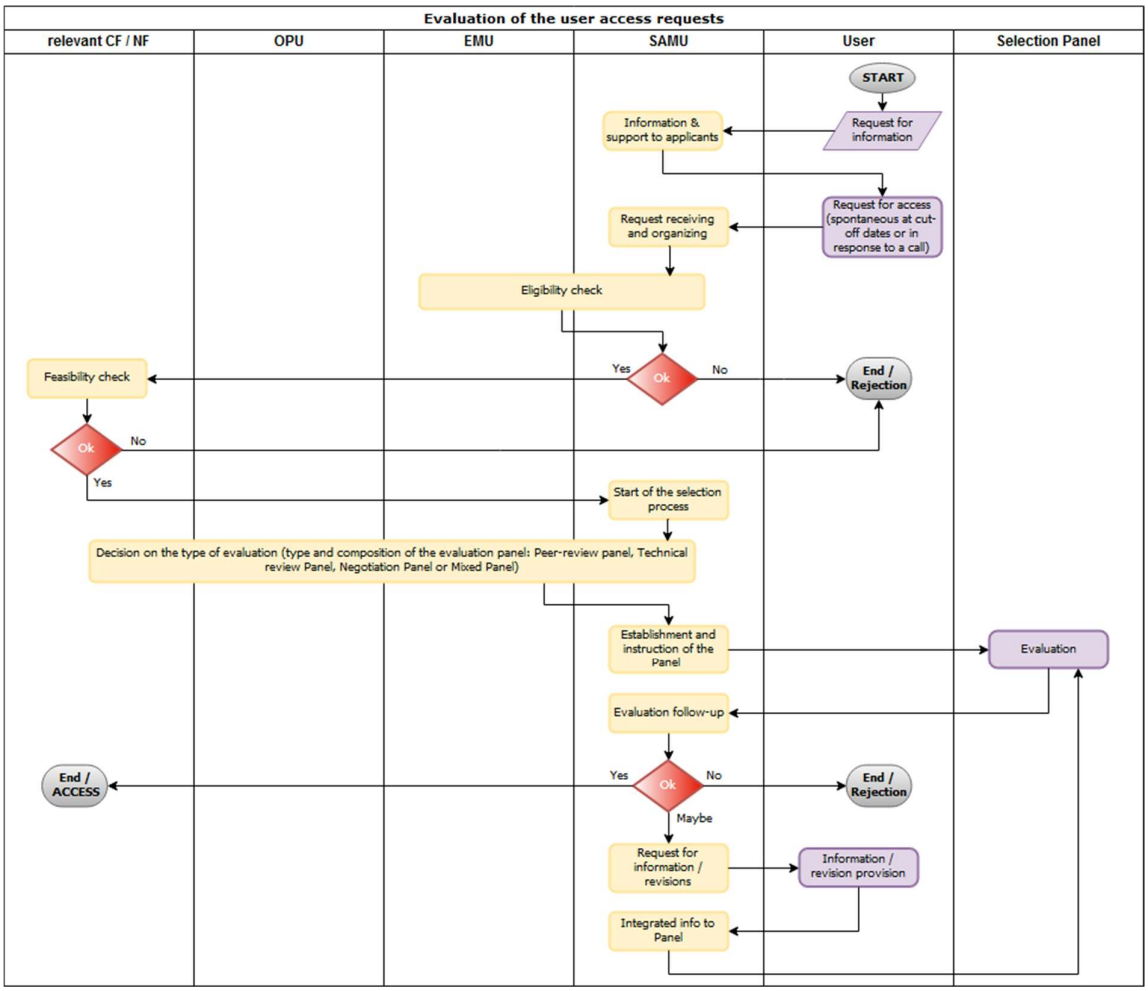

Figure 9 - Evaluation of the user access requests Workflow

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The complete workflow and interactions involved in the management of requests for tailored services are described in **Figure 10**.

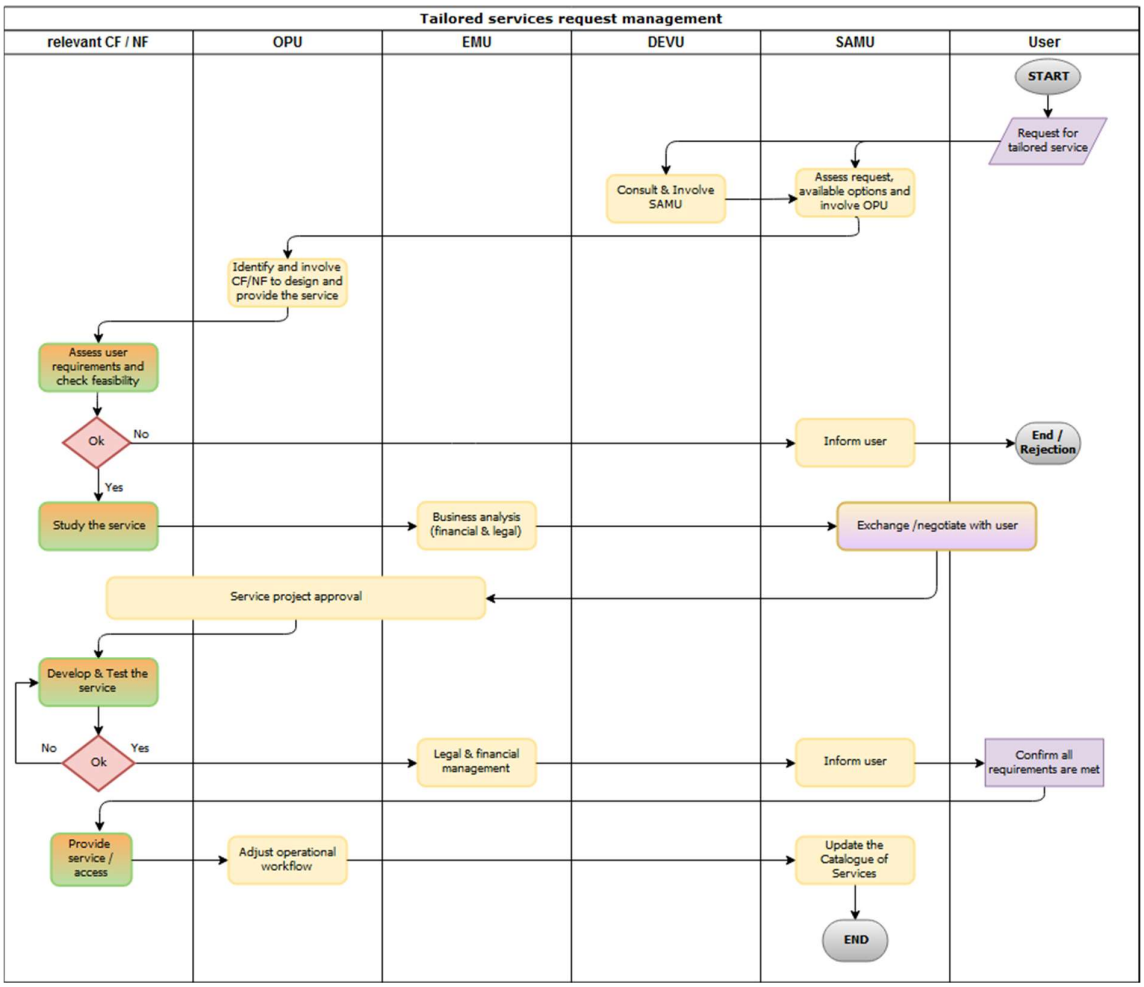

Figure 10 - Tailored services request management Workflow

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Figure 11 below illustrates the workflow for the helpdesk function.

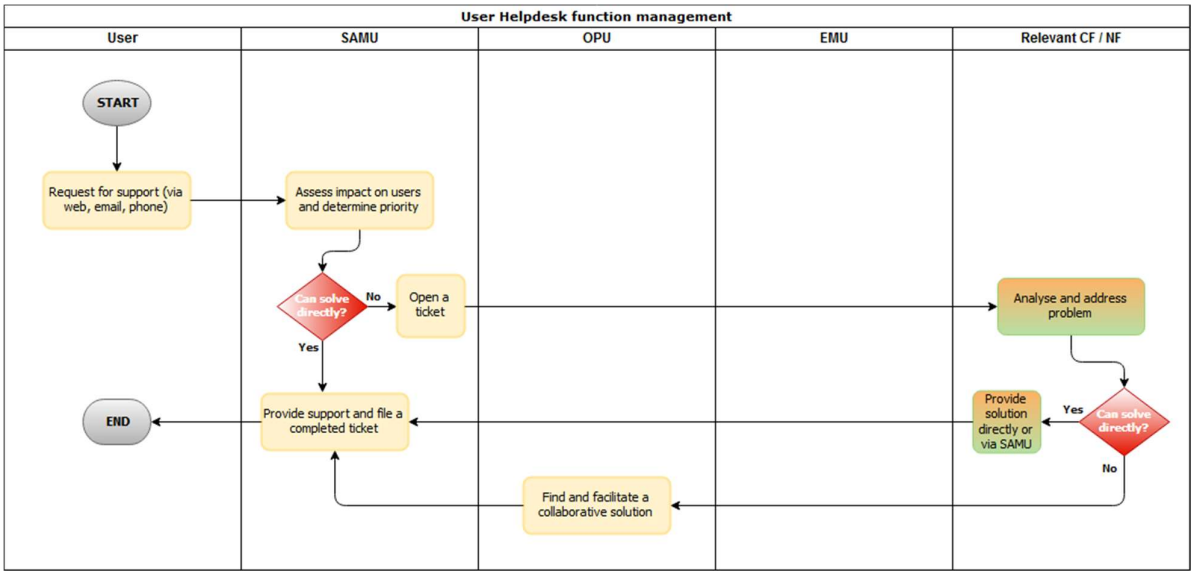

Figure 11 - User Helpdesk function management Workflow

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Figure 12 below illustrates the workflow for the user feedback processing for continuous improvement of services.

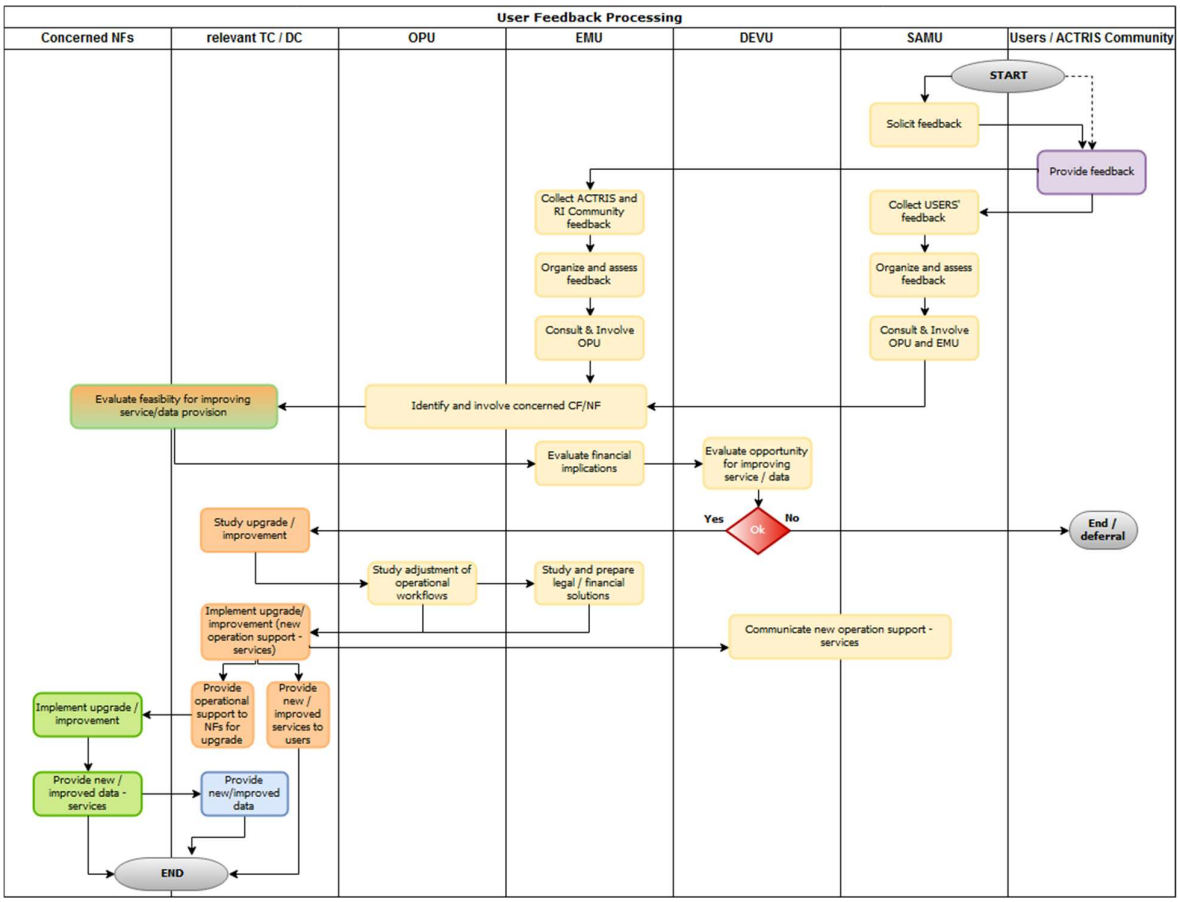

Figure 12 - User feedback processing Workflow

10 Recommendations for further AMP contents and outline proposal

A management plan is a formal planning tool that aims to design the future operations of an entity/organization, improving its effectiveness and efficiency. It guides all aspects of the operation, administration and functioning of the organization identifying the main actors involved in the various processes, who the users/clients are, what services are on offer, how and why.

The establishment of a management plan to govern a matter so complex as access in a distributed research infrastructure is recommended to implement efficient service provision, as well as to supervise the functioning of the RI during the access process. The ACTRIS Access Management Plan (AMP) shall provide clear direction and to include all aspects of the processes, plans, roles and responsibilities regarding the provision of access to services and support to ACTRIS users.

The AMP shall establish the regulatory framework with the guiding principles of the management and processes in order to efficiently govern the access to all ACTRIS facilities providing access to services. It describes in detail how the ACTRIS access policy is implemented within the RI.

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The AMP is to be updated every three years during the operation phase to guarantee that all procedures, rules and documents stay efficient and follow developments in the ACTRIS day-to-day operations.

As regards the recommended content, sections 2 to 10 of this document provide a draft text for the first part of the AMP, which defines the basic process for the user strategy implementation and clearly describes object, modes and terms of the access provision, organizational and management principles as well as mission, essential structure and functions of the SAMU.

The following is a list of further sections in the Access Management Plan whose contents will be developed, detailed, revised and agreed upon in the course of the ACTRIS Implementation project.

1. Access process
    - 1.1. Access documents preparation
        (Call Text, Terms of access, Guidelines for applicants, Template for applications, Statement of Compliance with (relevant TCs) Access Requirements)
    - 1.2. Access opportunities advertising and opening
    - 1.3. Applications
        - 1.3.1. Spontaneous applications (at cut-off dates)
        - 1.3.2. Applications in response to a call
        - 1.3.3. Applications processing
            - *1.3.3.1. Eligibility check*
            - *1.3.3.2. Feasibility check (with relevant TCs)*
            - *1.3.3.3. Establishment of the selection panel*
                (Roster of Experts, TOR, assessment tools & guidelines)
    - 1.4. Selection
        - 1.4.1. Excellence-driven access mode
            - *1.4.1.1. Assessment criteria*
            - *1.4.1.2. Peer-review panel*
            - *1.4.1.3. Process and tentative timeline*
        - 1.4.2. Technical need-driven access mode
            - *1.4.2.1. Assessment criteria*
            - *1.4.2.2. Selection panel*
            - *1.4.2.3. Process and timeline*
        - 1.4.3. Market-driven access mode
            - *1.4.3.1. Assessment criteria*
            - *1.4.3.2. Negotiation panel*
            - *1.4.3.3. Process and timeline*
    - 1.5. Selection outcomes and feedback
        - 1.5.1. Applicant right to reply
        - 1.5.2. Notification of decision
    - 1.6. Access provision
        - 1.6.1. Role and responsibility of access providers
        - 1.6.2. Role and responsibility of users
        - 1.6.3. On-site support

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1.7. Monitoring of access
1.7.1. Monitoring process and tools
1.7.2. Access reports (confirmation of access, technical and scientific access reports, …)

2. Communication, outreach and user interaction
2.1. Communication Plan for access
2.2. ACTRIS Science and User forum
2.3. ACTRIS User Helpdesk

3. Roles and responsibilities (RACI matrix)

Map of the activities listed to roles, indicating the accountabilities and responsibilities

4. Tools used

Tools used to run the access management, like for example the ARIA cloud services to manage access, facilities etc.

5. Effort and resources

FTEs, servers, licenses, etc.

6. Dependences

Other services that support the access management: HO OPU – DEVU Units, CF / Units leaders, etc. architecture diagrammed to indicate relationships.

7. Risks

Identification of risks and drawing up of mitigation plans if the risk materializes.

8. KPIs and performance monitoring
9. Annex and Templates
9.1. Call Text template
9.2. Terms of access template
9.3. Guidelines for applicants' template
9.4. Template for applications
9.5. User's Statement of Compliance with Facility's Access Requirements template
9.6. Assessment template
9.7. Guidelines and TORs for reviewers (Templates)
9.8. ……

11 References

Ref. 1: ACTRIS Access and Service Policy (ACTRIS PPP Deliverable D2.6)

Ref. 2: ACTRIS Glossary

Ref. 3: ACTRIS Data Policy (ACTRIS PPP Deliverable D2.3)

Ref. 4: ACTRIS Report on access rules and modalities and recommendations for ACTRIS access policy (ACTRIS PPP Deliverable D6.3)

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Ref. 5: European Commission (2016), European Charter for Access to Research Infrastructures: Principles and guidelines for access and related services. Publications Office of the European Union, 2015. ISBN: 978-92-79-45600-8, doi: 10.2777/524573, KI-04-15-085-EN-N.

Ref. 6: European Commission (2017), Guidelines to the Rules on Open Access to Scientific Publications and Open Access to Research Data in Horizon 2020, EC, V3.2

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Ref. 9: ESFRI (2017), Long-Term Sustainability of Research Infrastructures, ESFRI Scripta Volume II

Ref. 10: ESFRI Roadmap 2021 Public Guide

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Ref. 12: OECD (2007), OECD Principles and Guidelines for Access to Research Data from Public Funding, OECD Publishing, Paris, https://doi.org/10.1787/9789264034020-en-fr.

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