Access to Research Infrastructures: Process and Modalities

Module 5 - Access process

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Module Overview

- Access services
- Access management: principles, workflows, governance and plans
- Access evaluation modes and criteria

Break

- Hands-on session for the ITINERIS Access Management Plan & Platform

What access?

ACCESS services

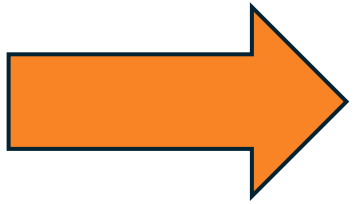
Access TO resources and services:

Digital, Scientific, Technical, Innovation, Training services

Training current RIs staff and user communities

What access?

- **Access services**:
  - Services communication
  - User attraction
  - User selection
  - User engagement
  - Access process harmonization & management



- **Access TO resources and services**:
  - Digital services
  - Scientific services
  - Technical services
  - Innovation services
  - Training services

USERS obtain access
FACILITIES provide access to services

What access?

Access services:

- Services communication
- User attraction
- User selection
- User engagement
- Access process harmonization & management

Centrally managed in a RI

Access TO resources and services:

- Digital services
- Scientific services
- Technical services
- Innovation services
- Training services

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FACILITIES provide access to services

Access services

Access services:

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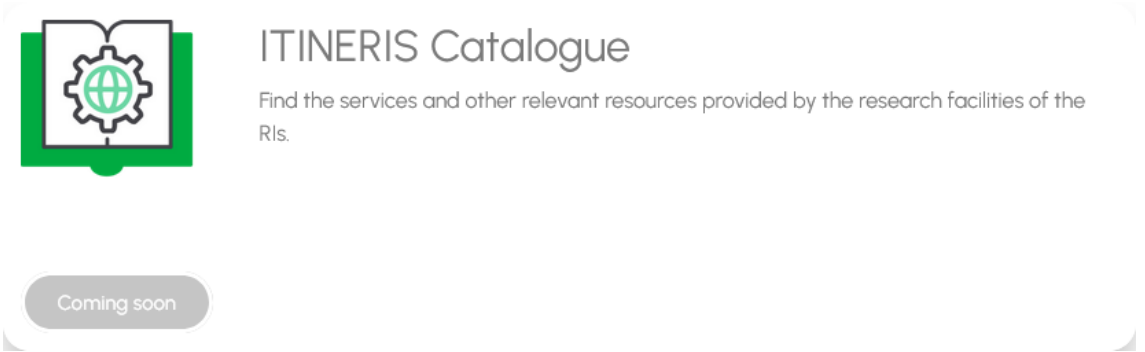
Centrally managed in a RI



Access services

Access services:

- Services communication
- **User attraction**
- User selection
- **User engagement**
- Access process harmonization & management

Centrally managed in a RI

Access services

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- **Access process harmonization & management**

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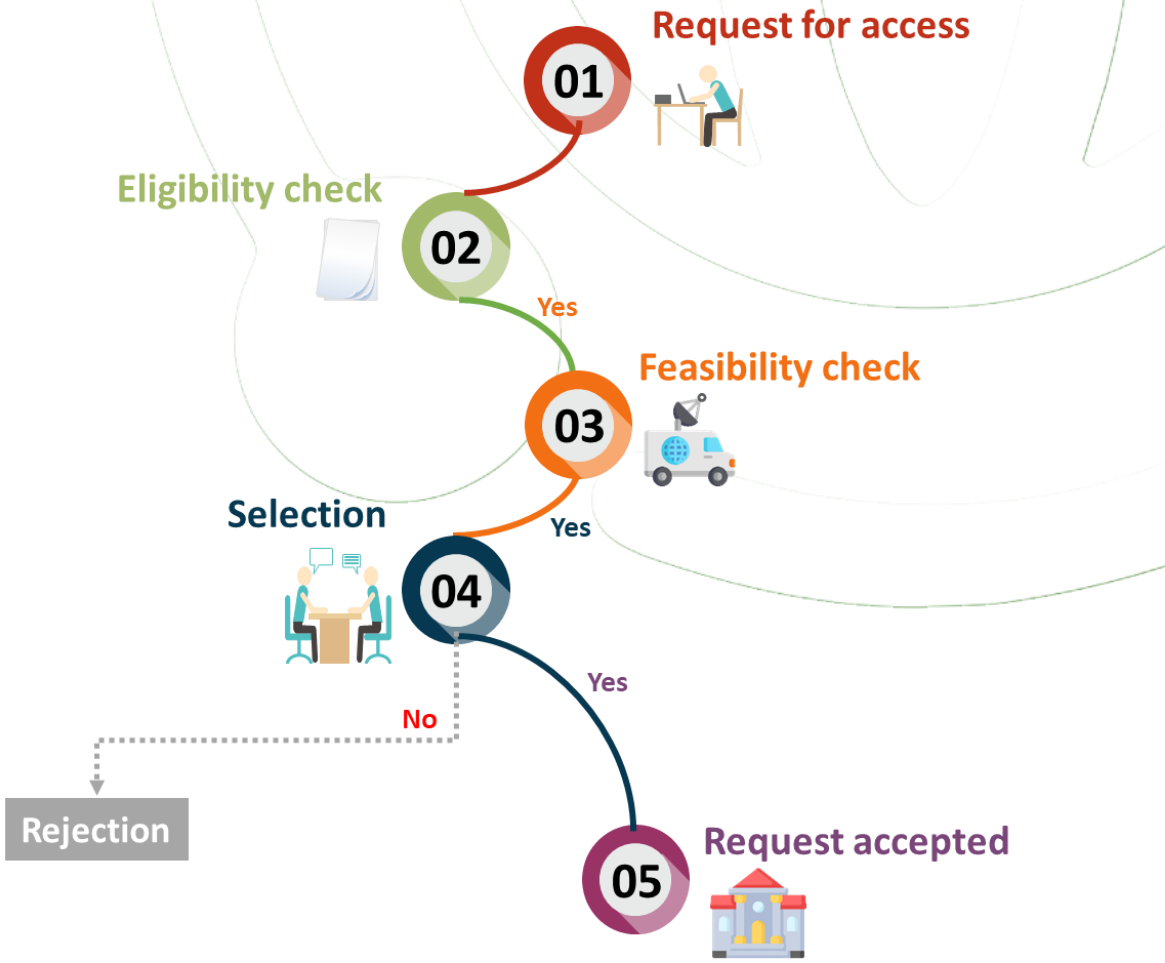


What is access management?

"Access management is the process of informing, engaging, selecting and granting Users competitive access to, interactions with and use of Research Infrastructures and their services"

(*in the* ***physical environment of Research facilities***)

What is access management

To involve users in the RIs developments and support their research

Selection based on peer-review happens any time when the requested access is competitive, based on the Facility's availability and capability

"Access management is the process of **informing, engaging, selecting** and **granting** Users **competitive access** to, interactions with and use of Research Infrastructures and their services"

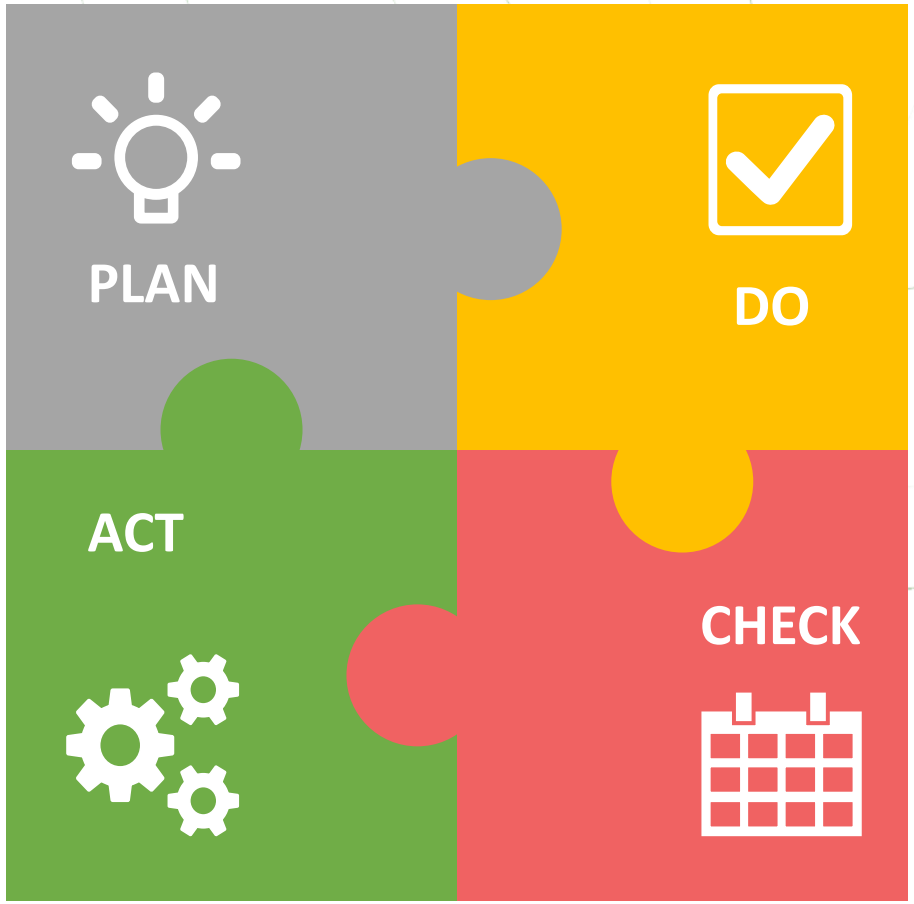
(*in the **physical environment of Research facilities***)

Do we need centralized management of the access process?

- Access management integrates processes into a complete system to achieve strategic and operational objectives
- Critical to achieve common objectives in a network of different, distributed RIs
- It helps the achievement of common standards/goals, lessens the work of the facilities, and guarantees the user standard, uniform process and provision levels

How we do it?

- Understand and define the processes needed to meet your objectives
- Recognize that the processes are unique to your own context
- Integrate all of the processes and their interactions into a system that utilizes risk-based thinking



What are the benefits?

- Increases accountability
- Increases awareness of process performance for more consistent results
- Better use of resources
- Improves user confidence in the organization

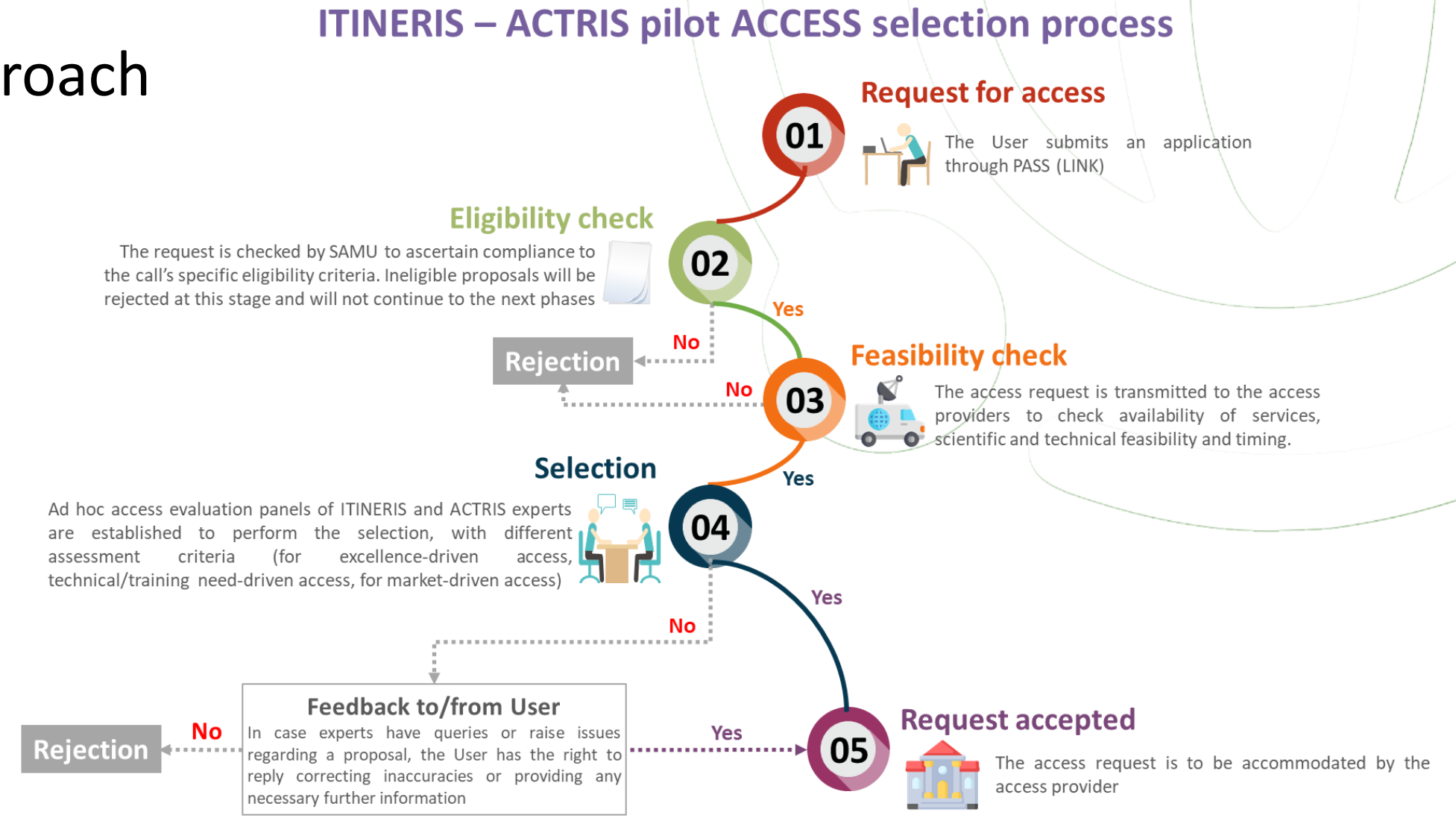
All of these add value for the organization

Access management

- Principles
- Workflows
- Organization, available tools and solutions

Access management principles

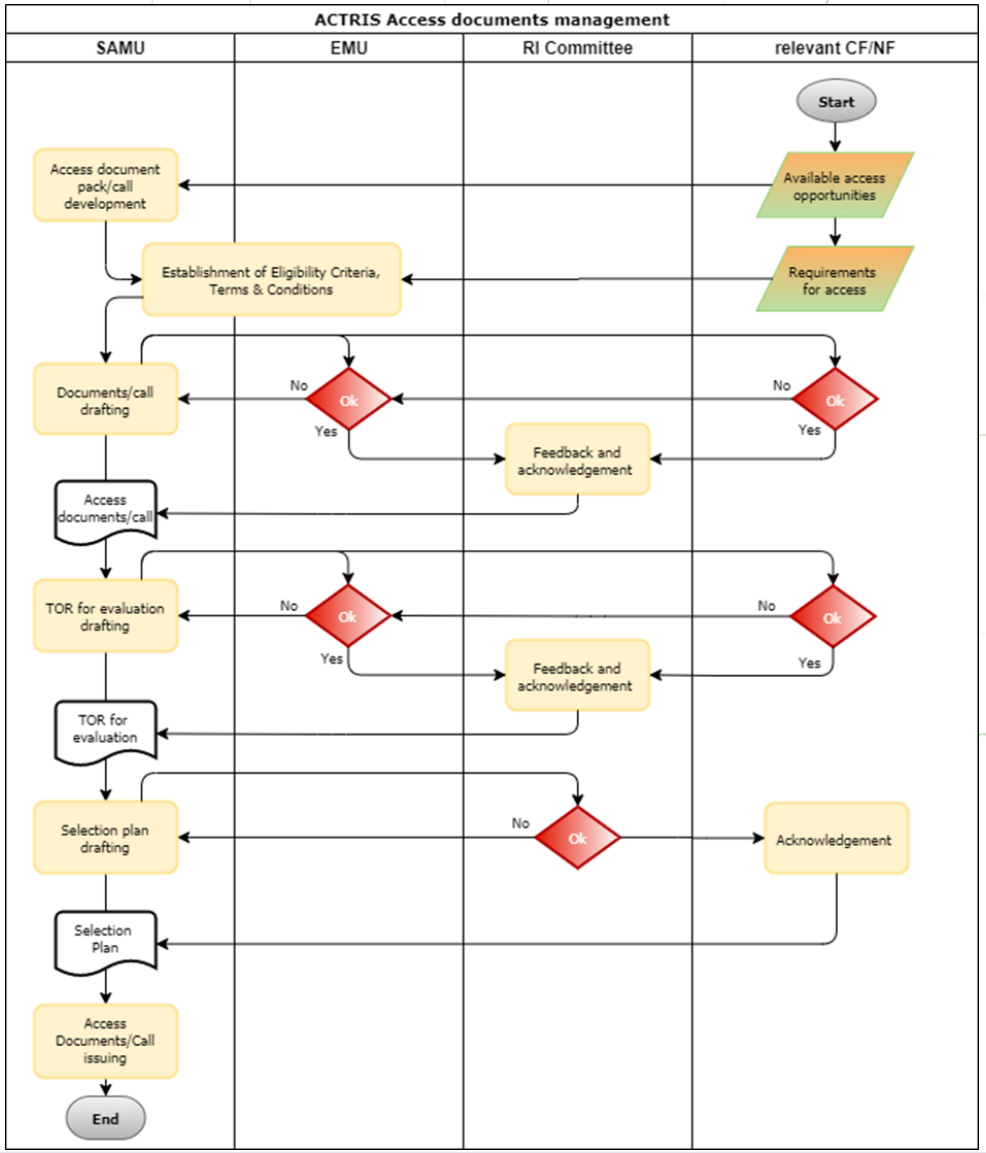
Process approach



Access management principles

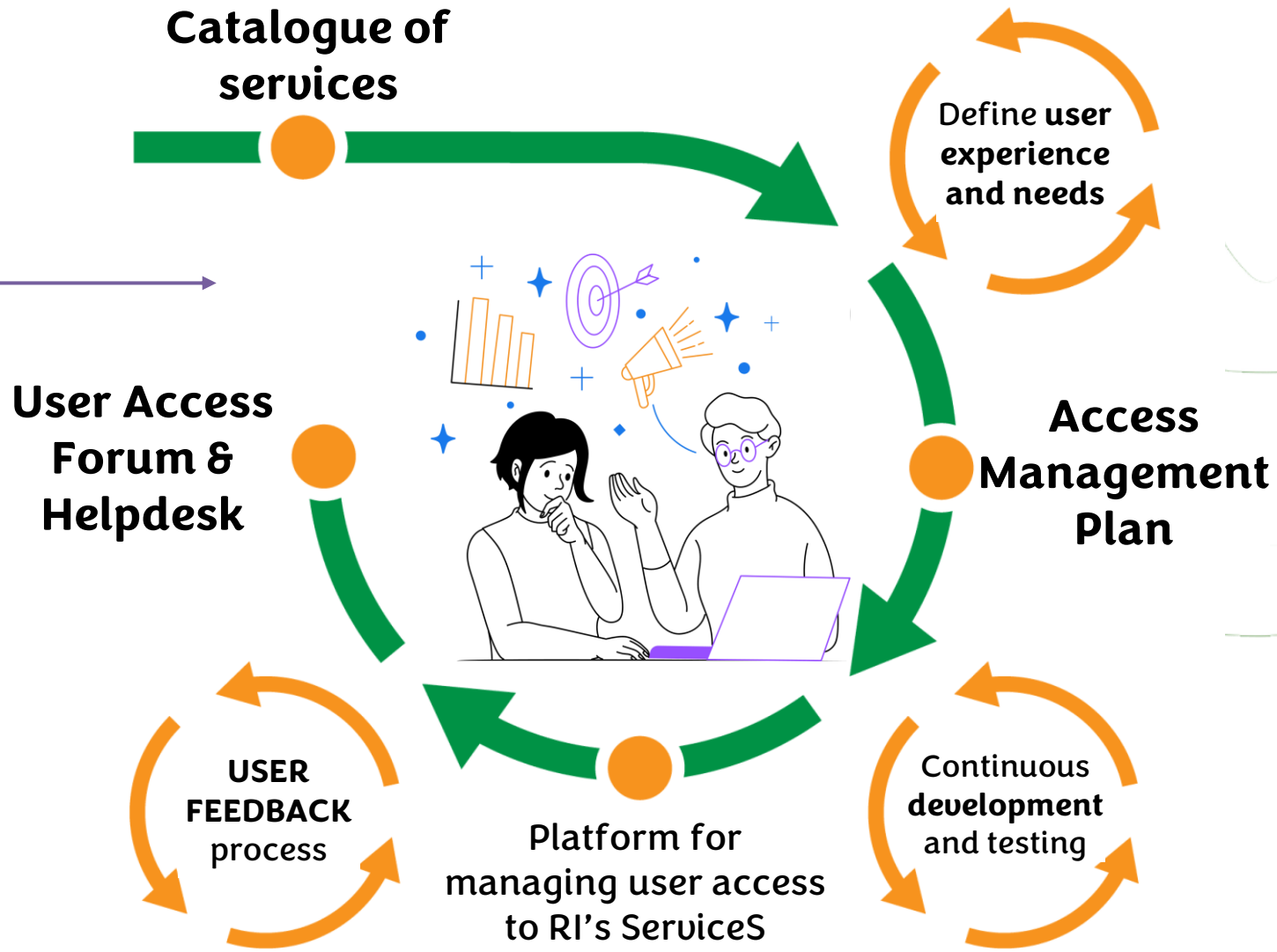
Process approach

Workflows



Access management principles

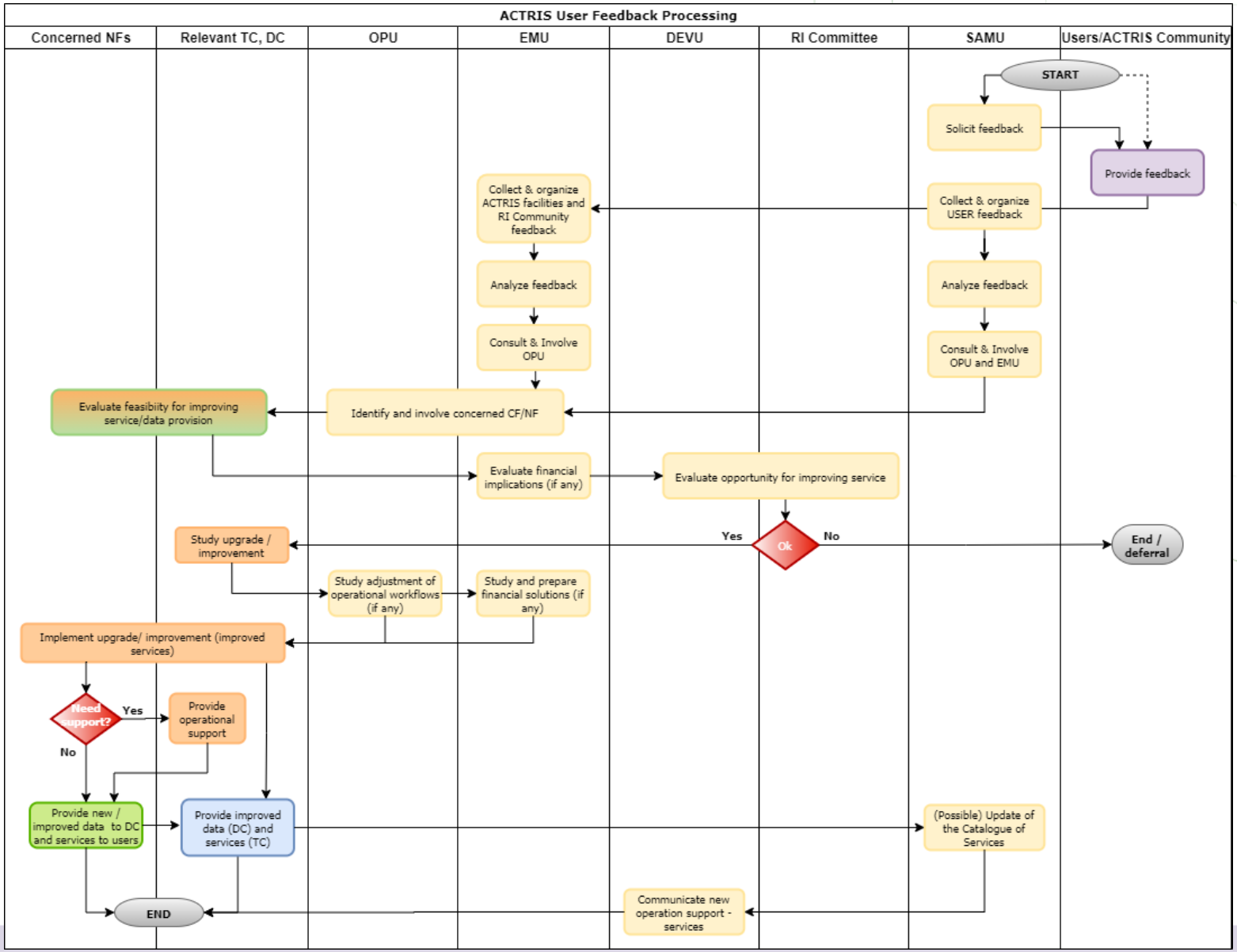
- User – centered design



Access management principles

- Continual improvement

User feedback processing workflow



Access management organization

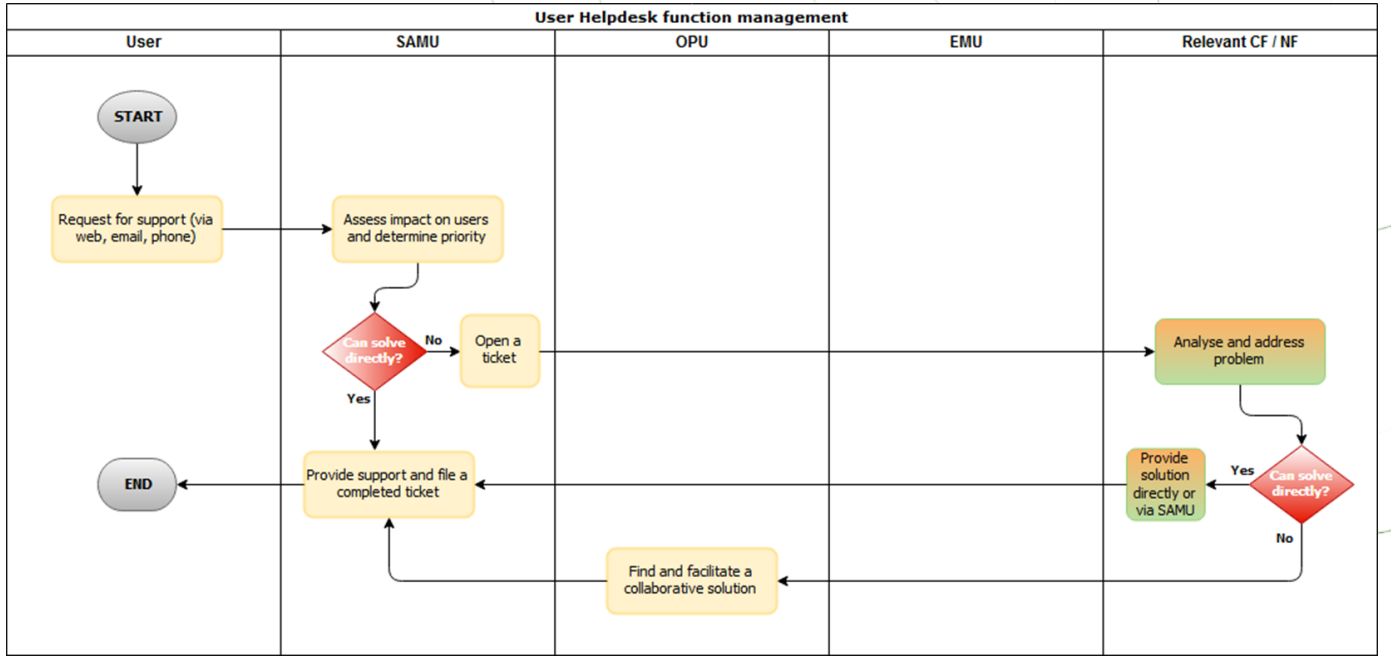
Centralized management

- Support structure

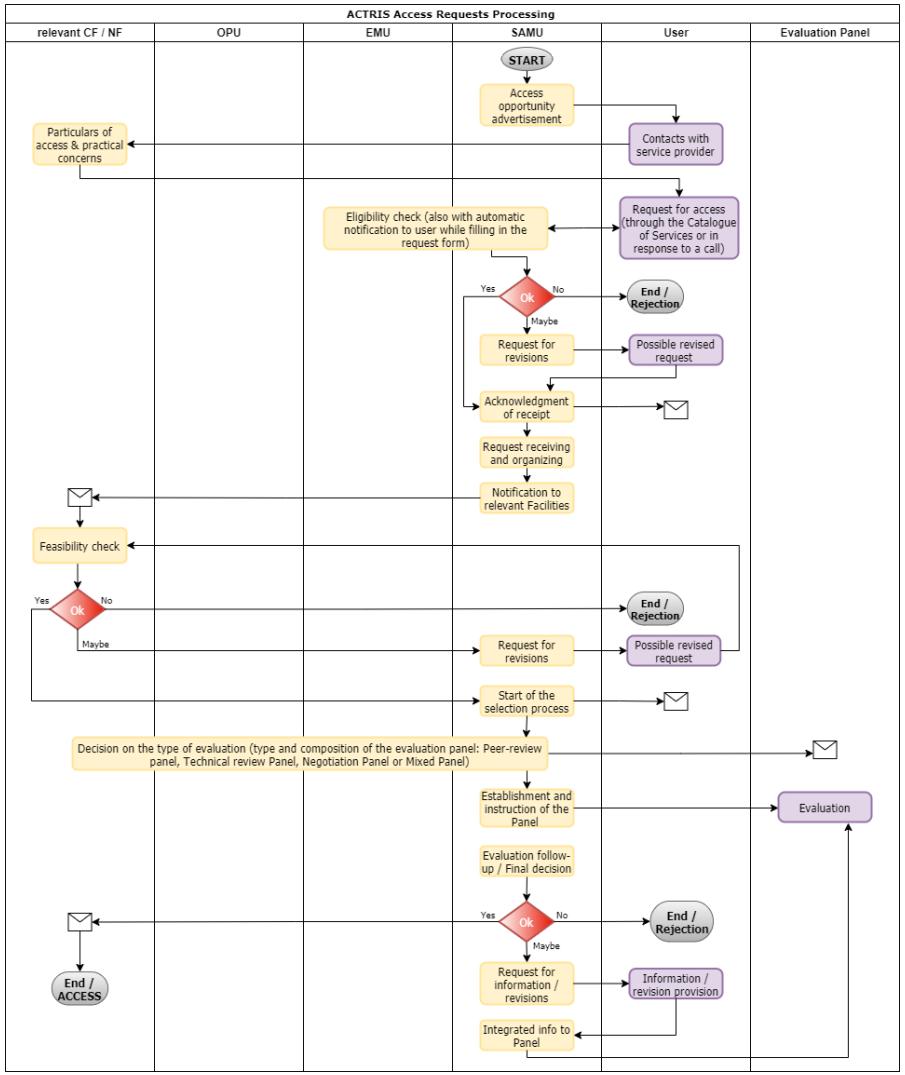
- Single point of entry

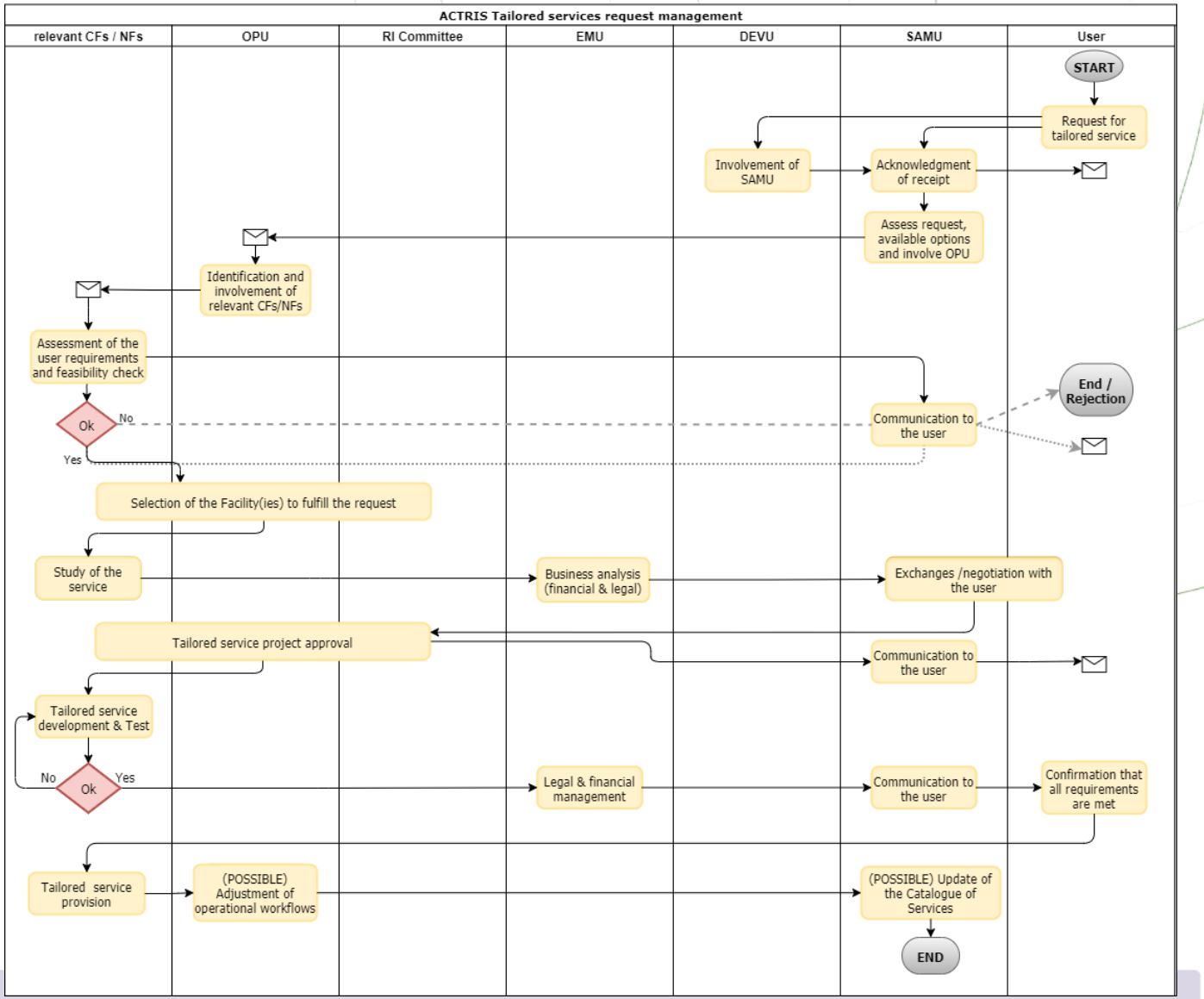
Some processes to design/implement

- User helpdesk function
- User feedback processing
- Access requests processing
  - *Access types*
  - *Access modes*
  - *Evaluation criteria*

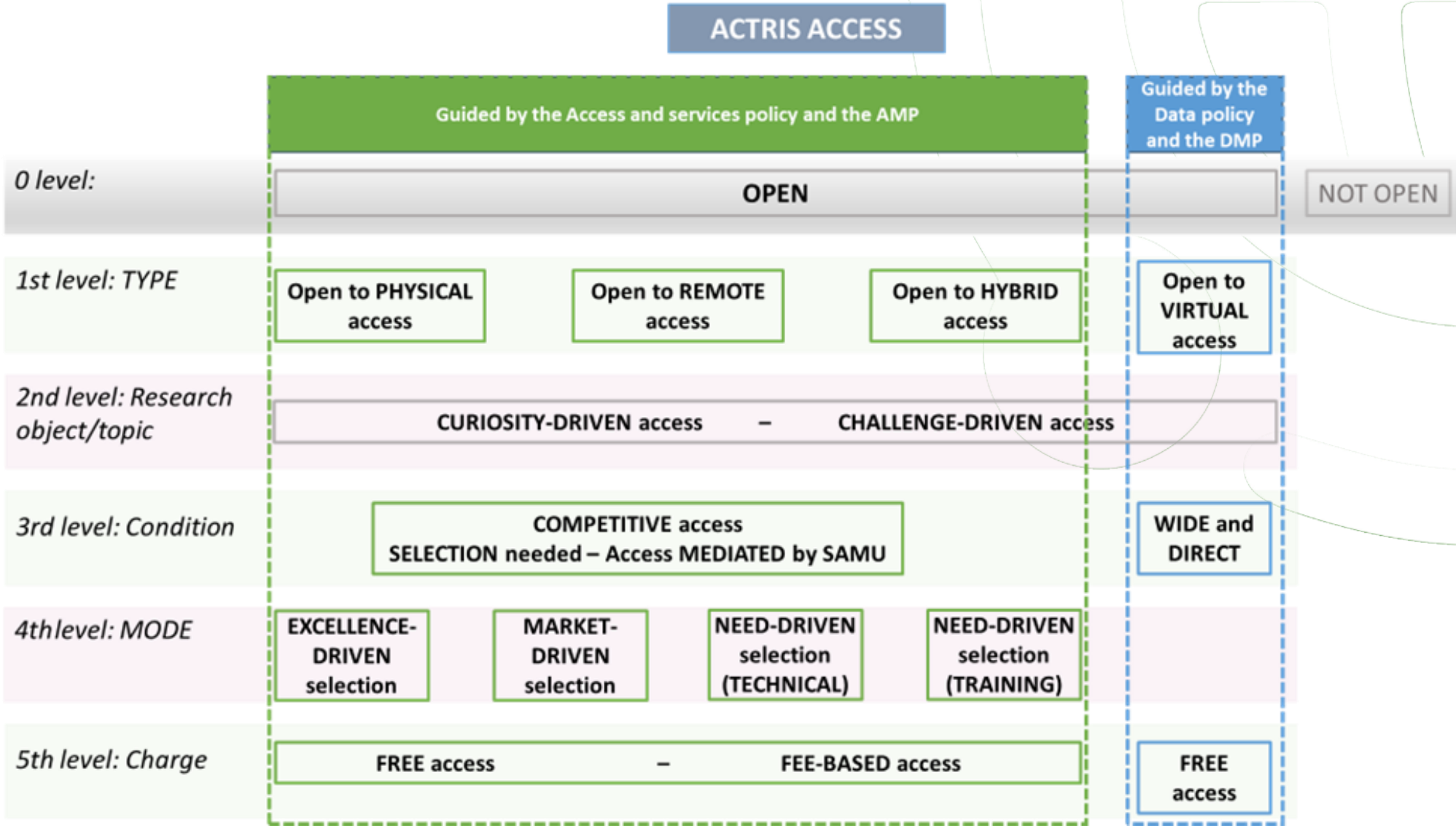


Access Request Processing workflow



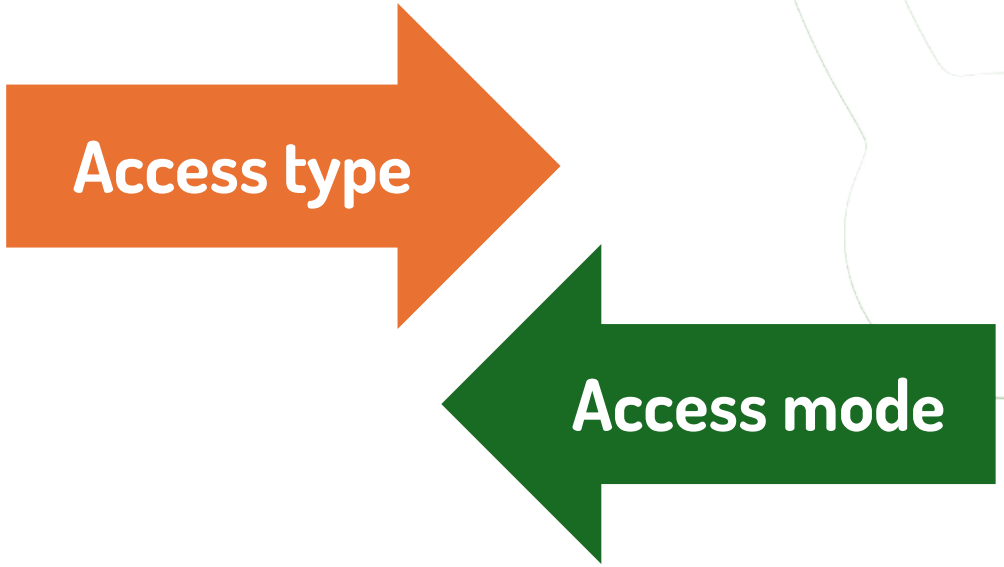


Classification of Access



Access type and access mode

How do users access the services?



What are the conditions for access to the services?

Access MODES

Definition of (different) selection criteria

- Excellence-driven access

The excellence-driven Access mode is exclusively dependent on the scientific excellence, originality, quality and technical and ethical feasibility of an application evaluated through peer review conducted by internal or external experts. It enables Users to get access to the best facilities, resources and services wherever located. This Access mode enables collaborative research and technological development efforts across geographical and disciplinary boundaries.

- Need driven access*

NEW: when access is required to meet specific needs of users, for instance technical needs to guarantee quality assurance and high instrument performance (e.g. calibration, comparison and combination with other instruments or RIs), or training needs to expand knowledge and expertise.

- Market-driven access

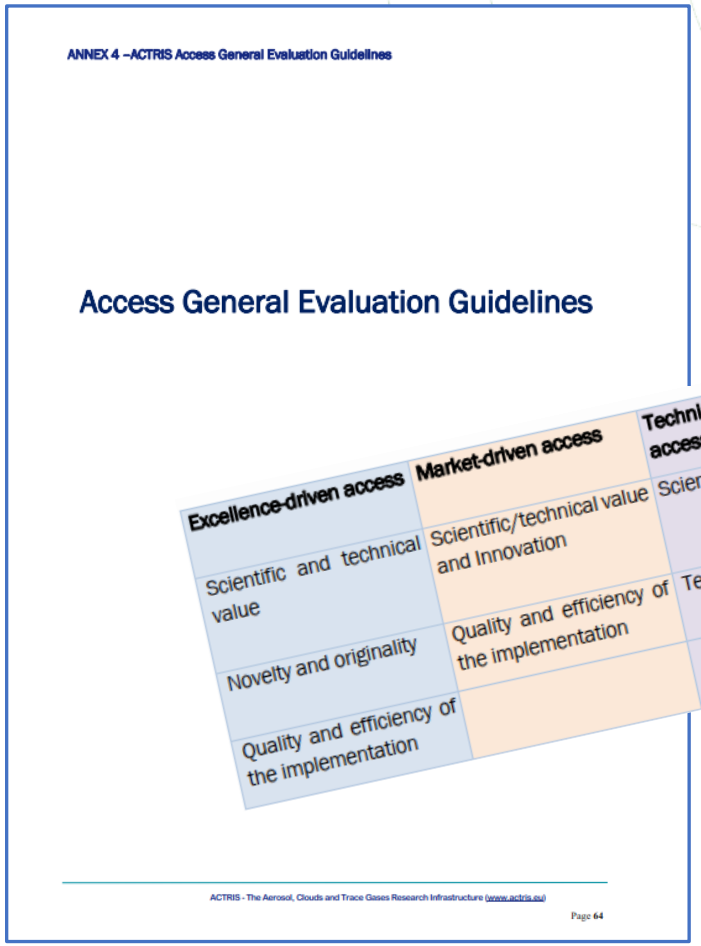
The market-driven Access mode applies when Access is defined through an agreement between the User and the Research Infrastructure that will lead to a fee for the Access and that may remain confidential.

- Wide access

The wide Access mode guarantees the broadest possible Access to scientific data and digital services provided by the Research Infrastructure to Users wherever they are based. Research Infrastructures adopting this mode maximise availability and visibility of the data and services provided.

Selection criteria

- Excellence-driven access
- Technical need-driven access
- Market-driven access
- Training need-driven access
- Prioritization criteria



ANNEX 4 –ACTRIS Access General Evaluation Guidelines

Access General Evaluation Guidelines

Excellence-driven access	Market-driven access	Technical need-driven access	Training need-driven access
Scientific and technical value	Scientific/technical value and Innovation	Scientific relevance	Scientific / learning objectives and motivation
Novelty and originality	Quality and efficiency of the implementation	Technical need	Qualification of the applicant
Quality and efficiency of the implementation			

ACTRIS - The Aerosol, Clouds and Trace Gases Research Infrastructure (www.actris.eu)

Page 64

Criteria for Excellence-driven access

Criterion	Explanation
1 - Scientific and technical value	
a) Scientific and technical quality	Clarity and pertinence of the scientific objectives. Appropriateness and rationale of the proposed scientific work. Degree to which it is based on sound scientific and technical principles.
b) Impact on science	Degree to which results and the new knowledge are useful and may significantly impact the academic community, exploring creative, original, or potentially transformative concepts. Potential of the research project to go beyond the state of the art and open new scientific, technological or scholarly horizons.
c) X-disciplinarity	Degree to which the proposed work identifies and builds/enables X-disciplinary developments beyond atmospheric science. Are there any research projects in Europe or internationally related to the proposal? Are possible synergies and interactions described?
2 - Novelty and innovation	
a) Use of new technology, methodology, or innovative approaches in data interpretation	Degree to which the proposed work makes use of new technologies, methodologies or explores innovative measurement / data evaluation approaches.
b) Potential for seeding links with industry and innovation	Degree to which the proposed work shows potential for industrial applications, for contributing to new technology development, for prototype testing.
c) Novel or unconventional access approaches	Degree to which the TNA request proposes novel forms of access (combinations of remote and physical access; simultaneous, hybrid or sequential access to multiple facilities; use of facilities for novel purposes).
3 -Quality and efficiency of the implementation	
a) Quality of the workplan and dissemination plan	Quality and effectiveness of the work plan. Feasibility of the approach and activities to be developed. Recipients of dissemination clearly identified (stakeholders that could uptake and make use of results) and activities carefully planned.
b) Scientific qualification/ track-record of the user group	Research track-record, professional background, references, capabilities and experience of the user group leader and members. Degree to which the group presents a balanced participation of experienced and non-experienced users, who have the chance to learn from the others and be trained.

Criteria for Market-driven access

Criterion	Explanation
	1 - Scientific/Technical value and Innovation
a) Scientific and technical quality	Is the proposed work based on a sound knowledge of the state of the art? Is the realization of the proposed solution/work realistic, considering the available knowledge, technical resources and expertise?
b) Likelihood of developing a new successful technology/product	The extent to which the proposed project will lead to new/improved products, processes or services with clear market potential.
c) Market potential (Anticipated benefits of the proposed work in comparison to current commercial and emerging technologies)	Is the solution a significant improvement over previous/other ongoing alternatives? Has it some potential to change the dynamic of the market and possibly to address a societal challenge?
	2 - Quality and efficiency of the implementation
a) Quality of the work and exploitation plan	Appropriateness and rationale of the proposed scientific work. Does the proposed work include a credible path to deliver the (innovative) solution to the market? (i.e. adequacy of plans for commercialization and utilization of the proposed solution). Is there a clear future strategy for knowledge management and protection (IP strategy)?
b) References, capabilities and experience of the user group/company	Technical/scientific knowledge and experience of the team. Company profile and track-record.
c) Novel or unconventional access approaches	Degree to which the TNA request proposes novel forms of access (combinations of remote and physical access; simultaneous, hybrid or sequential access to multiple facilities; use of facilities for novel purposes)

Criteria for Technical need-driven access

Criterion	Explanation
	1- Scientific relevance
a) Relevance of the instrument	Measurement needs served by the instrument and/or geographical pertinence.
b) Interest to the scientific community	Degree to which the requested service is useful to meet the quality expectations of a particular science community and/or end-users for the exploitation of data.
c) Availability and use of data (Dissemination plan)	Are the plans for a high-level exploitation of the instrument adequate? Is there any plan to make data and measurements supported by the instrument openly available through deposition in trusted repositories?
	2 - Technical need
a) Frequency of the technical need	Is the requested service scheduled, required or recommended to continue ensure quality measurements?
b) Training for the staff using the instrument	Is training for the staff planned? Are proposals for such training innovative (i.e., remote training while the service occurs, etc.)?
c) References and experience of the user group	Research/measurements track-record and professional background

Criteria for Training need-driven access

Criterion	Explanation
	1 - Scientific/learning objectives and motivation
a) Relevance of the scientific and training objectives	Appropriateness, motivation, and completeness of the objectives of the proposed training.
b) Relevance of the training for the user current/future position	Degree to which the training is needed/useful and may have a significant impact on the applicants' career path. Would the applicants utilize the knowledge and expertise gained regularly? What are the plans for exploiting the knowledge and skills acquired?
c) Relevance of the training for the belonging organization (multiplier effect of the training)	Degree to which the training is needed/useful for the operations/developments of the organization the users belong to. Degree to which the applicant could be counted on to further disseminate the knowledge and expertise gained (train the trainer).
	2 - Quality of the applicant
a) Academic achievement	Evidence from CV or references of higher degrees, publications, honors, awards and scholarships, research experience. Knowledge and expertise
b) Research potential	Applicant's ability to conduct independent research and contribute to the field. This can be evaluated based on their research interests, previous research experience, and any publications or conference presentations.

Scoring - example

Criterion	Explanation	Score / Points available	Weight
	1 - Scientific and technical value	**30**	**55.6%**
a) Scientific and technical quality	Clarity and pertinence of the scientific objectives. Appropriateness and rationale of the proposed scientific work. Degree to which it is based on sound scientific and technical principles.	0-10	19%
b) Impact on science	Degree to which results and the new knowledge is useful and may have a significant impact on the academic community, exploring creative, original, or potentially transformative concepts. Potential of the research project to go beyond the state of the art and open new scientific, technological or scholarly horizons.	0-10	19%
c) X-disciplinarity	Degree to which the proposed work identifies and builds/enables X-disciplinary developments beyond atmospheric science. Are there any research projects in Europe or internationally related with the proposal? Are possible synergies and interactions described?	0-10	19%
	2 - Novelty and innovation	**15**	**27.8%**
a) Use of new technology, methodology, or innovative approaches in data interpretation	Degree to which the proposed work makes use of new technologies, methodologies or explores innovative measurement / data evaluation approaches.	0-5	9%
b) Potential for seeding links with industry and innovation	Degree to which the proposed work shows potential for industrial applications, for contributing to new technology development, for prototype testing.	0-5	9%
c) Novel or unconventional access approaches	Degree to which the TNA request proposes novel forms of access (combinations of remote and physical access; simultaneous, hybrid or sequential access to multiple facilities; use of facilities for novel purposes).	0-5	9%
	3 -Quality and efficiency of the implementation	**6**	**11%**
a) Quality of the workplan and dissemination plan	Quality and effectiveness of the work plan. Feasibility of the approach and activities to be developed. Recipients of dissemination clearly identified (stakeholders that could uptake and make use of results) and activities carefully planned.	0-3	6%
b) Scientific qualification / track-record of the user group	Research track-record, professional background, references, capabilities and experience of the user group leader and members. Degree to which the group presents a balanced participation of experienced and non-experienced users, who have the chance to learn from the others and be trained.	0-3	6%

Scores	Performance indicator				
10	Outstanding				
9	Excellent				
8	Very good				
7	Good				
6	Sufficient				
5	Average	5	Excellent		
4	Fair	4	Very Good		
3	Weak	3	Good	3	Excellent
2	Low	2	Fair	2	Good
1	Poor	1	Poor	1	Sufficient
0	Inadequate	0	Inadequate	0	Inadequate

BONUS points to be added (by SAMU) to the average scores obtained after review	**MAX** **3**	**Weight**
a) For Gender empowerment	1	**5.6%**
b) For collaboration and access to new Users	1	
c) For involvement of students / young scientists	1	

RANKING				
Max scores available:		**54**		
accepted	**A**	**Excellent**	A+	**51.x-54**
			A	**48.x-51**
			A-	**45.x-48**
accepted	**B**	**Good**	B+	**42.x-45**
			B	**39.x-42**
			B-	**36.x-39**
accepted or rejected, for discussion	**C**	**Average**	C+	**33.x-36**
			C	**30.x-33**
			C-	**27.x-30**
rejected	**D**	**Poor**	D	**<27**
(or for revision)	**E**	**Rejected or not eligible**	E	

Prioritization Criteria

#	Prioritization criteria	Excellence-driven	Technical need-driven	Market-driven	Training need-driven
1	Collaboration and access to new Users, considering in particular: a.users who have not previously used the installation and are working in countries where no equivalent research infrastructure exists b.users from new/relevant regions or from less-favoured regions c.users from non-academic / non-atmospheric domains.	X	X	X	X
2	Gender balance	X	X	X	X
3	Novel or unconventional access approaches	X	X	X	
4	X-disciplinarity	X			X
5	Involvement of students / young scientists	X	X		X
6	Potential for seeding links with industry and innovation	X			X
7	Likelihood of developing a new successful technology/product with market potential			X	

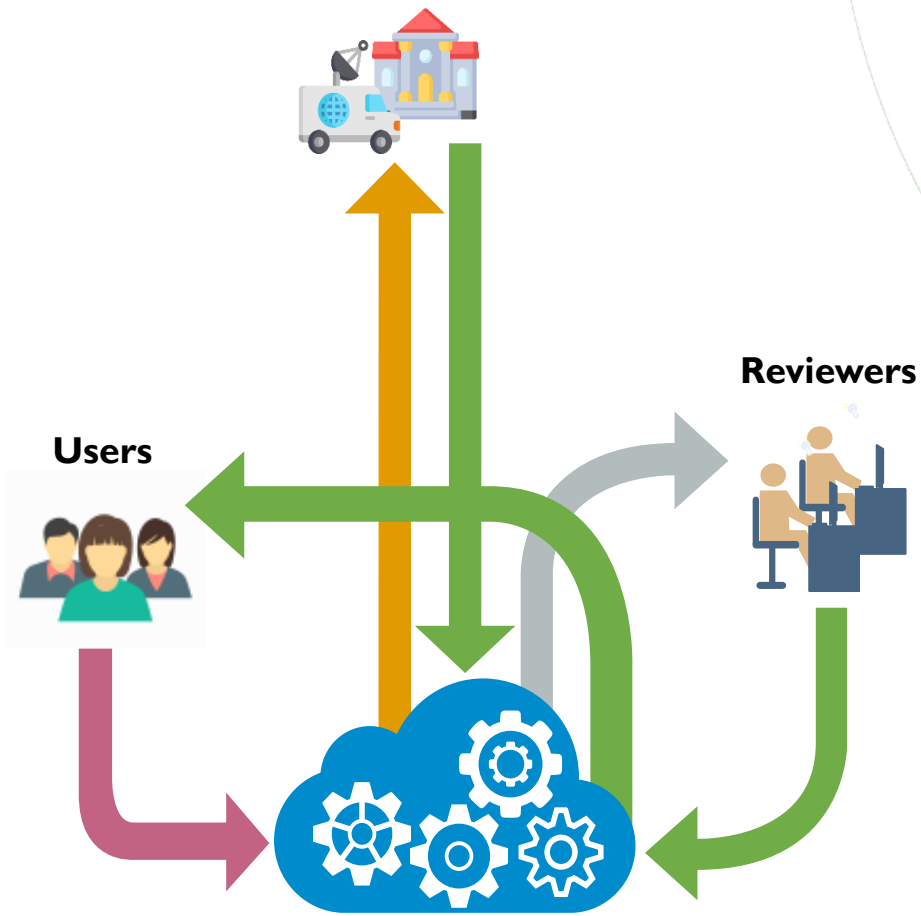
How do we manage the processes?

Previously

Providers

Users

Reviewers



Access management team

NOW

PASS platform for access management

- Service Request
- Automatic Eligibility check
- Feasibility check by providers → CF/ NF
- Evaluation / negotiation by expert panels
- Award

Some examples of access management tools used in the RIs

ARIA by Instruct

ARIA is a collection of cloud services provided by Instruct to research infrastructures, facilities and user communities within structural biology and related fields. ARIA is free to anyone who is in an Instruct member country, and can be set up and tailored to your exact needs within a few hours.

The ARIA cloud service can be customised and tailored to your needs, including restyling of any aspect listed below to merge seamlessly into place. Below is a list of some of the key features provided by ARIA that can be simply and effectively customised to your requirements.

Access Management

Full proposal submission and administration system that allows you to simply manage user submissions pre-award and post-award. Full granular control over each step of submission, management, review, approval, post-approval and reporting are available to all users.

Simply configurable
Configuring your own forms for users, reviewers, moderators and post-award review is super simple. We have a huge number of field types available, but if you need something a bit more custom, no problem!

Your branding matters
The entire service can be styled and customised to fit seamlessly with your existing branding. A custom theme can be developed just for you.

Manage workflows
You can easily configure your own management workflow. Want to pre-screen submissions for technical feasibility, no problem. Scientific review by panel or by individual submission, simple.

Reporting & statistics
Define custom reporting metrics for access as well as in-built templates such as H2020 formatted reports.

Full-fledged messaging
Integrated messaging system with anonymised contact, administrative control and configurable, spam-free, email notifications.

Instant notifications
Automated notifications and reminders designed for simple one-click actions to maximise efficiency.

Reach your users
Client relationship management package to target your users with full HTML email

Many more features
More information about additional features to list here.

Facility Management

With ARIA managing access and scheduling within your facility can be done quickly and easily. We can also facilitate a submission system specific to you which can be fed directly into the single-point scheduling system.

Remote or visit access
Each of your platforms within your facility can be configured as either remote or visit access, with individual configurable workflows. Checkpoints can be created and customised for remote access or visits can be scheduled and managed with the user.

Quick start-up
Using ARIA you can get your facility management running quickly and easily. With no need to setup or install any software you can be ready for access the same day.

Calendar overview
Simple but powerful tools are available to quickly schedule and manage your facility to maximise output and streamline access.

User training & permissions
Highly configurable booking permissions intrinsically linked with machine training and access.

Simple notifications
Email notifications of booking confirmations and changes to keep users in the loop.

Many more features
More information about additional features will be added soon.

Community Hubs

Your community can be hosted within ARIA allowing you to configure your own hub of activity, with news, events, jobs and forums to engage with your users.

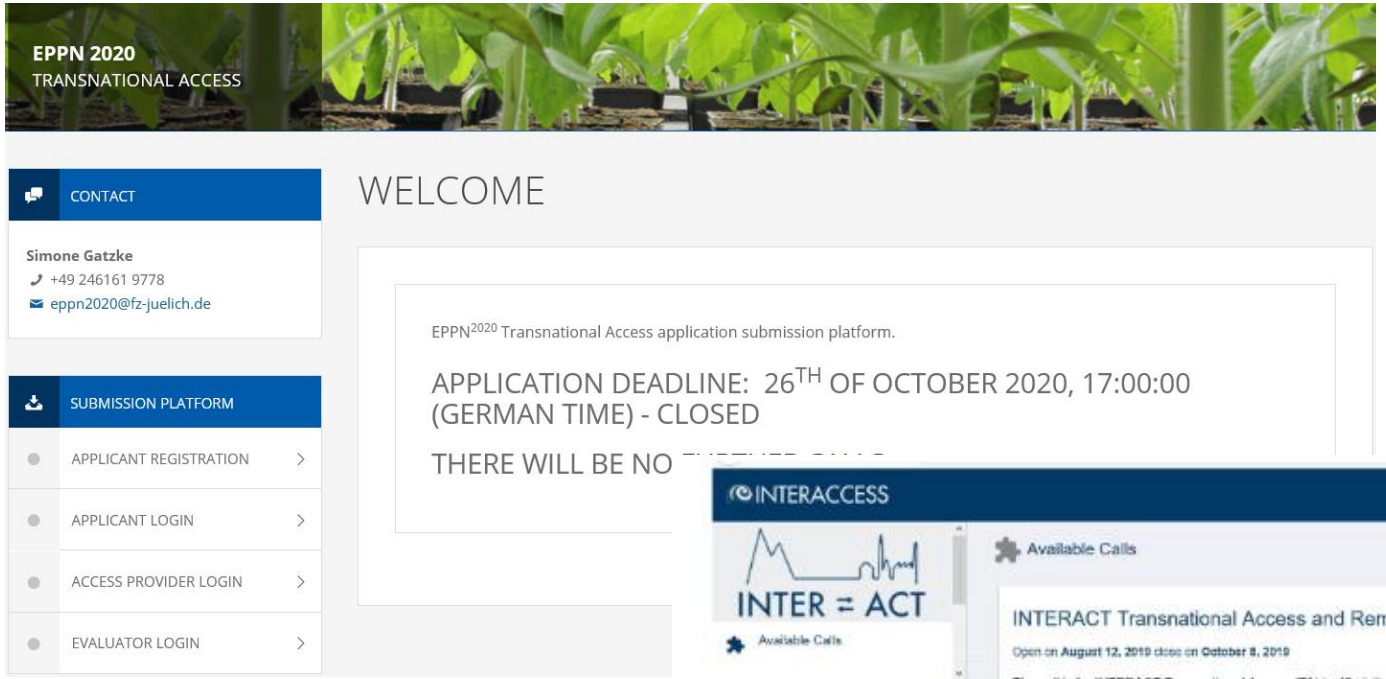
Integrated forums
Enhance your user engagement using customisable forums integrated to your community hub and controlled access varying to public to internal to a subset of your users.

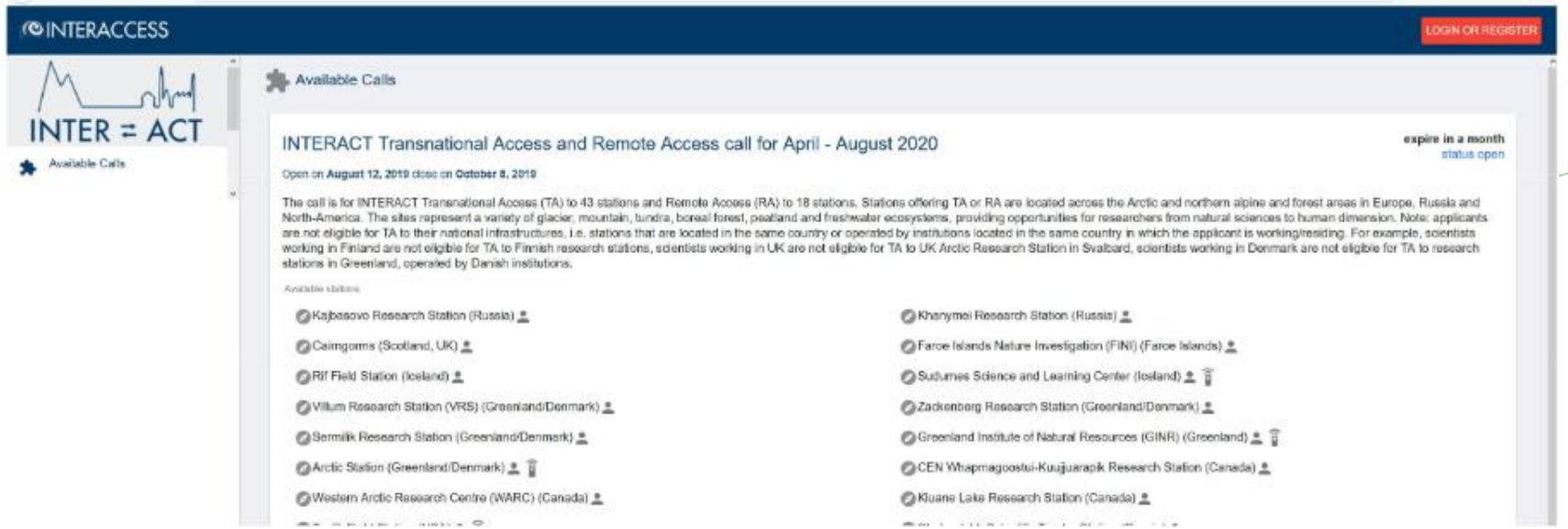
News and events
Keep your community up to date with specific targeted news and events that will be incorporated into the global ARIA feeds.

Ad-hoc call management
Setup specific calls with bespoke application forms and peer review systems targeted towards your user community.

Integrated ARIA identity management
Cutting edge integration to high-quality identity services allowing your users to authenticate exactly as they prefer.

Some examples of tools used in the RIs

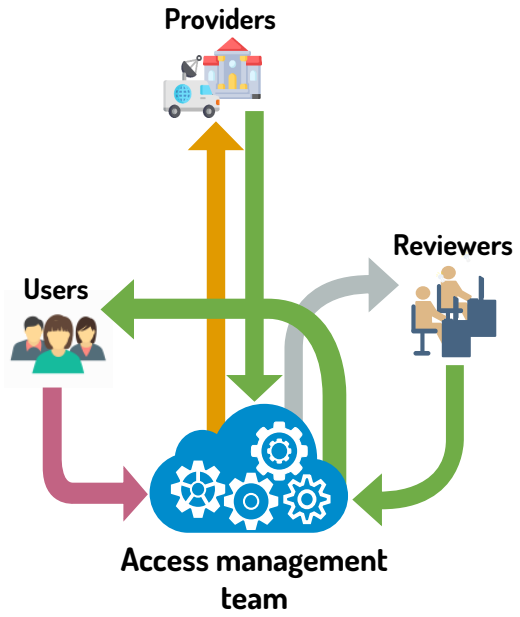




Things to mind when deciding the tool

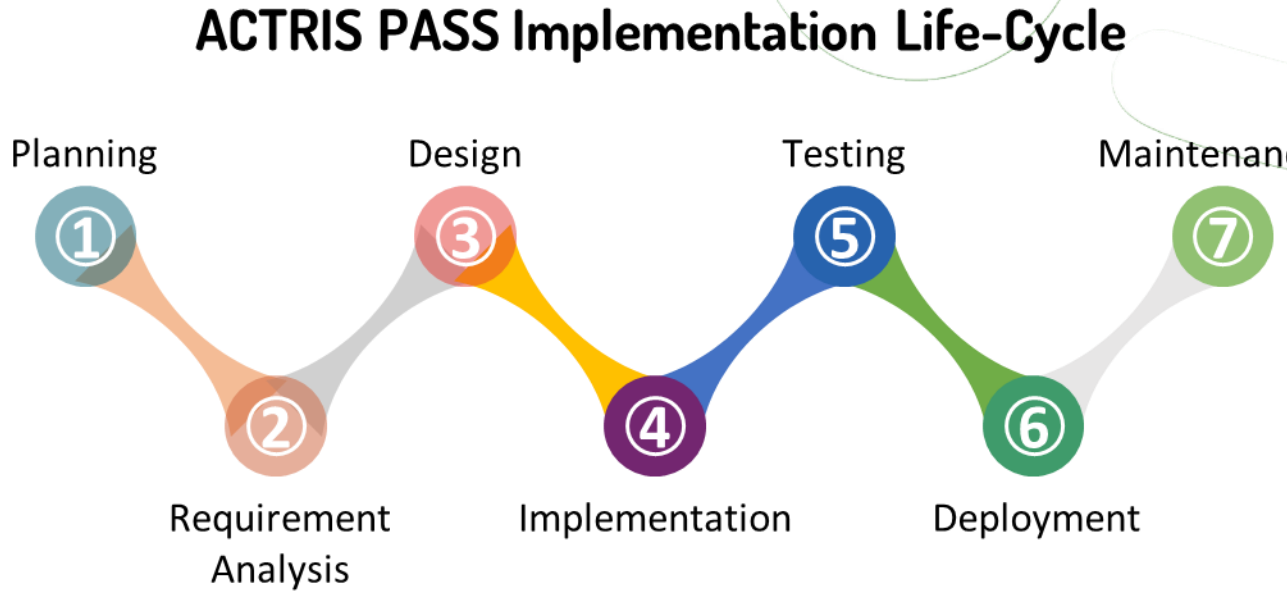
- Flexibility to define and tailor repeatable processes
- Macro-level views to monitor progress
- Integrations with other apps
- Analytics and reporting features

Our case: ACTRIS PASS



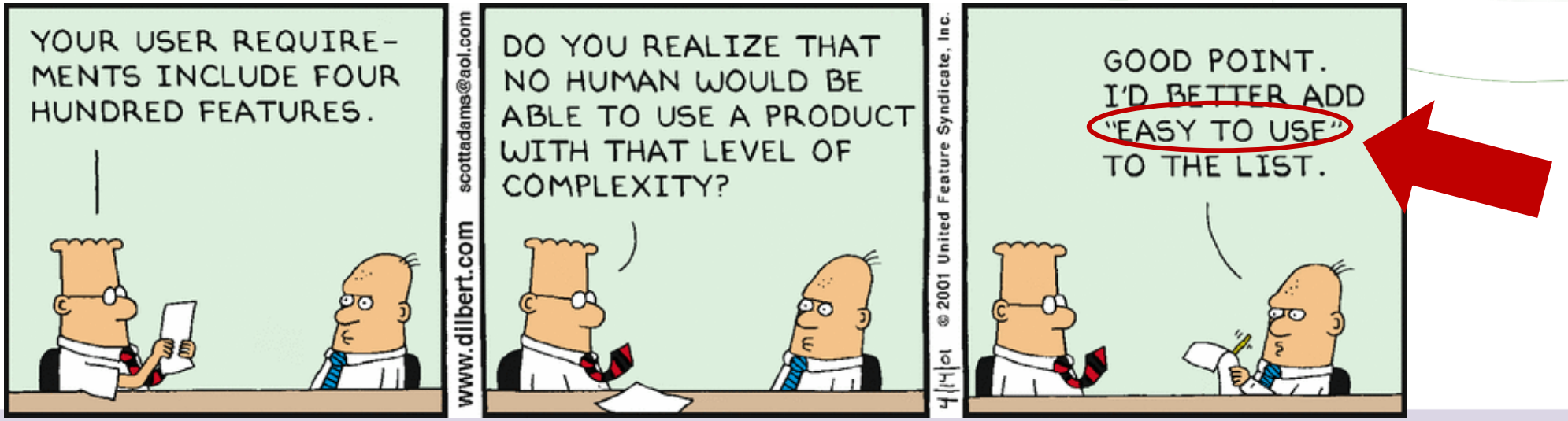
Studied to:

- Automatize, as much as possible, the workflows established for the management of access
- Connect all access actors involved in the various processes related to service provision
- Streamline reporting of access management results and impact



Requirements for an access management platform

- Business requirements → those of the organization that needs a software solution.
- User requirements → what different groups of users need and wish to perform.
- Functional requirements → functions or behaviors that a system needs to perform.
- Non-functional requirements → properties or characteristics that a system should have, describing how the system should perform its assigned functions



Business requirements

- Functions and processes → Optimizing the management of the physical and remote access process streamlining the administrative tasks and communications in all step of the selection
- Integration → the platform needs to be fully integrated with the organization systems/website. It also has to be seamlessly integrated with the other applications for users, for instance the Catalogue of Services, the User Forum and the Helpdesk for physical and remote access.
- Security and privacy → Ensuring data and communications security, compliance with GDPR regulation and the like regulations.

User requirements

Platform users	Reasons to use the Platform	Requirements
USERS	Request services Be informed on the application status Exchange with service provider during request submission and after selection for possible adjustments	Easy, user-friendly submission system Easy reaching to access management unit and Helpdesk Easy reaching to providers
Access management Unit	Manage user submissions Manage workflows (for each step of the access provision process) Monitor access provision Be informed and oversee the exchanges between users and providers during request submission and after selection	Easy configuration of specific forms for users, reviewers, moderators Easy control of applications Automated notifications and reminders Facilities' Calendar overview Easy definition of custom reporting metrics for access
FACILITY PROVIDERS	Be informed on access requests Perform the feasibility check Be informed on the review process Exchange with user during request submission and after selection	Easy scheduling of remote access or visits Set availability of services
EVALUATORS & REVIEWERS	Being thoroughly informed and updated on the access process and the terms of the selection Being involved only when necessary Carry out the evaluation according to established terms and timelines	Easy procedure to be granted access to the applications and online evaluation forms. Easy, user-friendly filling in of online evaluation forms Easy reaching to Access management unit and other evaluators

Quality requirements

- Usability
- Interoperability
- Modifiability
- Security

HANDS-ON EXERCISE

DEFINITION OF SERVICES

Build an harmonised AF → Instructions

Total time: 40 minutes

Background: In this exercise, you have to build an application form for a user request to access a service (you can choose one of those described in the previous exercise).

Tips: Select a type of service and the relevant access mode to work with. Then put yourself into the reviewer's and provider's shoes: which information do they need to understand the user idea and the activities to perform during access?

Your task is to produce a concise form with all the relevant information the users have to provide to make the reviewers grasp the value and potential of their proposal and evaluate it against the established criteria.

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Minimal info:

- About the applicant
- About the visit
- About the activities

THANKS!

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