



Deliverable 3.2 AQUARIUS TA Platform

INKODE

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About this document

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1. Deliverable description

This deliverable will present the online Transnational Access Platform (TAP) for the AQUARIUS project. The following pages will describe the overall architecture and workflow of the TAP. The Final Candidate Version of the TAP will be released in October 2024, month 8 of the project.

The aim of the TAP is to manage the AQUARIUS Transnational Access (TA), both physical and remote access, in an integrated online access system. The system will handle the TA applications from Call opening to proposal submission and reporting, covering the whole chain of access provision. The Demo of the AQUARIUS TAP is available at <https://aquarius-tap.p2.inkode.org/>. When the official TAP is released (October 2024), it will be accessible via the AQUARIUS website - <https://aquarius-ri.eu/>.

2. Transnational Access Platform (TAP) overall architecture and technologies

Following the indications provided by the experts' group in preparatory meetings and deliverables, a detailed analysis has been carried out to identify the architecture of the TAP, including identification of expected users, platform functionalities and TA access workflows.

Previous experience in INTERACCESS software development (within INTERACT, INTERACT II and INTERACT III projects <https://eu-interact.org/accessing-the-arctic/tacall/>) was crucial during the workflow design. INTERACCESS project workflow was used as the base layer for developing the TAP workflow. Improving it and its functionalities through technological innovations the initial TAP workflow was reached. The final TAP workflow is still undergoing expansion with the addition of new steps.

TAP is a user-based integrated web application. The core of the backend system is based on PHP language and is implemented in the Laravel framework. Crucial development phase in the TAP is users' registration, managing and roles/permission allocation. This task was completed using Keycloak, an Open-Source identity and access management, that provides secure services for user authentication. The front-end development was carried out inside React, a free and open-source

front-end JavaScript library for building user interfaces based on components. The graphical user interface (GUI) was implemented using Patternfly, an open-source design system. The final layout details of AQUARIUS TAP were customised according to the visual identity of the AQUARIUS project.

3. TAP workflow

Since TAP is user-experience driven, it is important to identify the end users. Each user of AQUARIUS TAP can assume one or more of the following roles and consequently have permissions associated with it. All roles involved in the application workflow are described in Table 1.

Role	Actions
Administrator (a.k.a. "Editor")	Manages calls, Research Infrastructures (RI), applications, assigns roles to other users
Applicant	Manages their applications as far as concerned
Evaluator	Evaluates assigned applications
RI manager	RI's accesses
RI administrator	Helps RI Manager to reports RI's accesses
Watchdog	Evaluates assigned applications, provides evaluation summary, accesses Applicant report
Viewer	Members of the Scientific Expert Panel (SEP), can view application until recommendation phase

Table 1: Roles and permissions

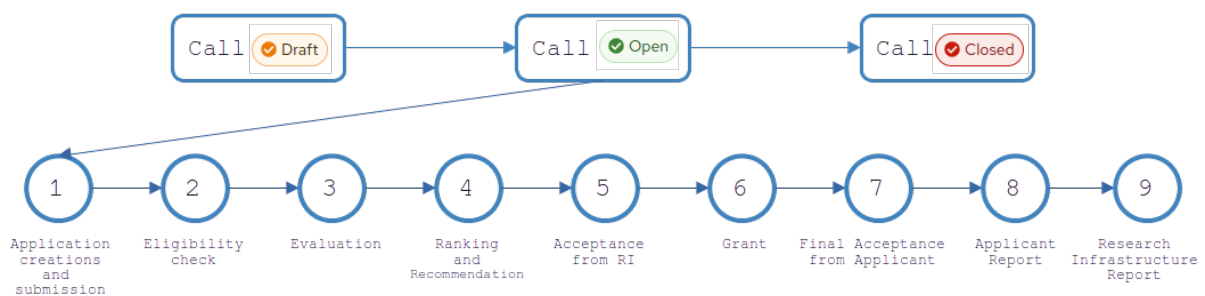


Figure 1: Application workflow. At all phases there is a dual possibility, acceptance and advancement to the next phase, or rejection and exit from the cycle. The application workflow starts when the call is open, after this point the call workflow continues separated following its own timeline.

After the login each user has access to different sections in the TAP according to their role, their permission and their authorization level.

An example is shown in figure 2: the sidebar in the menu is different for each user.

- a) user is not logged: the sidebar shows only the public information such as open calls and policy.
- b) the editor has full access through the platform and can manage all aspects from infrastructure to TAP settings using the Admin panel.
- c) applicants have access to public pages and to their own application section, where they can perform the application and keep being updated on the application status during all stages from submission, through evaluation, until final grant or rejection.
- d) evaluator has a dedicated section in the sidebar where their evaluations (done and to do) are collected.
- e) RI manager and RI administrator have access to administration page for their research infrastructure where they can manage the research infrastructure information and also applications/funded projects, and budget related to applications for their infrastructure.
- f) watchdog has the list of applications where they must provide an evaluations review.
- g) viewer has a view of the list of applications they can view in order to be prepared for SEP meeting.

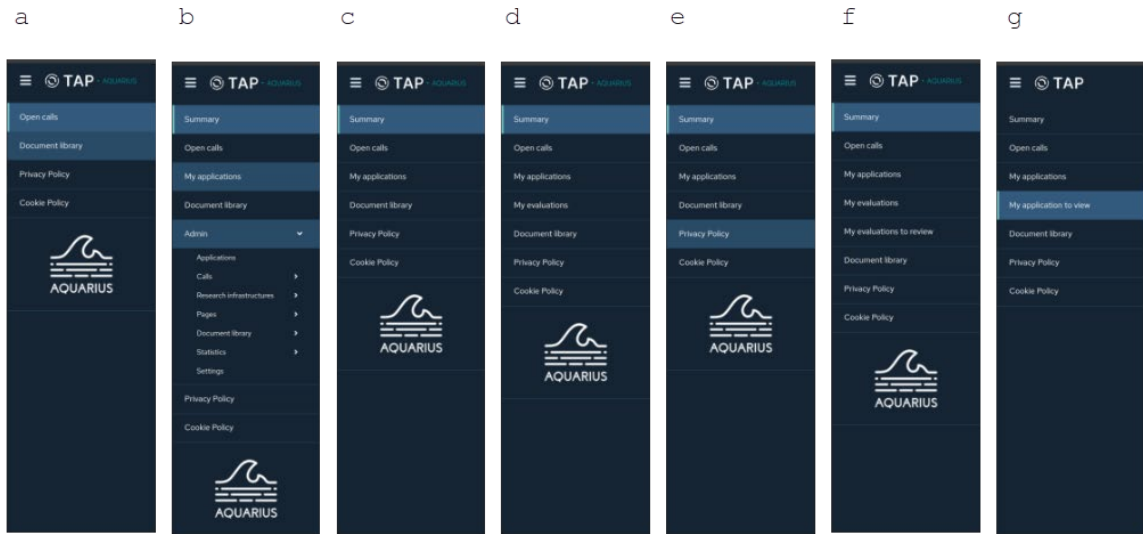
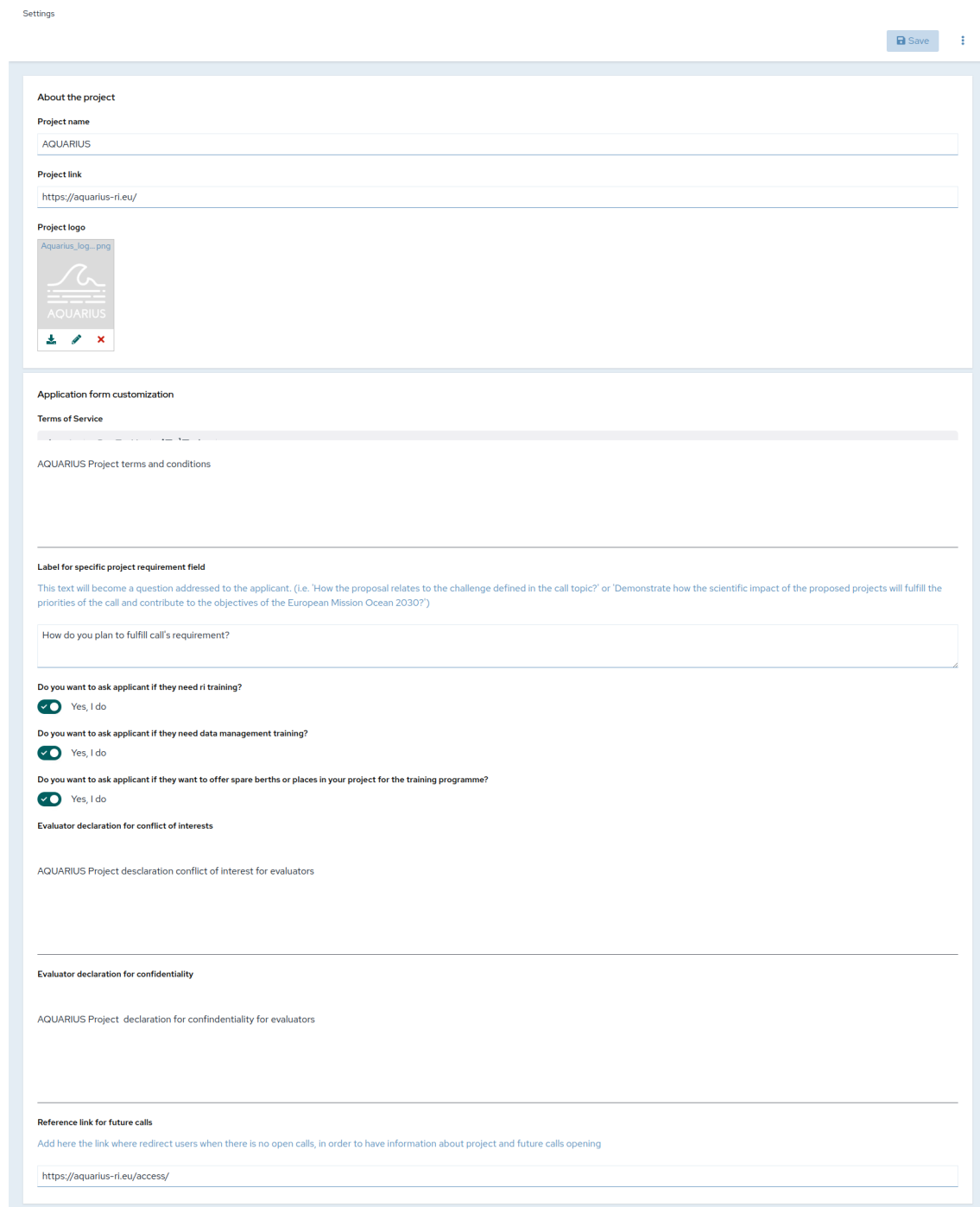


Figure 2: Different users' menus in TAP

4. Interface overview

4.1 TAP Settings

The Settings section (figure 3) is only available to the editor, who can customise various aspects of TAP here, from adding a project logo to selecting which fields are visible or not in the application and evaluation forms.



The screenshot shows the 'Settings' page in the AQUARIUS platform. At the top right, there is a 'Save' button and a menu icon. The page is divided into several sections:

- About the project:**
 - Project name:** AQUARIUS
 - Project link:** <https://aquarius-ri.eu/>
 - Project logo:** A preview of the AQUARIUS logo with a small upload, edit, and delete interface.
- Application form customization:**
 - Terms of Service:** AQUARIUS Project terms and conditions
 - Label for specific project requirement field:** This text will become a question addressed to the applicant. (i.e. 'How the proposal relates to the challenge defined in the call topic?' or 'Demonstrate how the scientific impact of the proposed projects will fulfill the priorities of the call and contribute to the objectives of the European Mission Ocean 2030?')
 - How do you plan to fulfill call's requirement?
 - Do you want to ask applicant if they need ri training?** Yes, I do
 - Do you want to ask applicant if they need data management training?** Yes, I do
 - Do you want to ask applicant if they want to offer spare berths or places in your project for the training programme?** Yes, I do
 - Evaluator declaration for conflict of interests:** AQUARIUS Project desclaration conflict of interest for evaluators
 - Evaluator declaration for confidentiality:** AQUARIUS Project declaration for confidentiality for evaluators
 - Reference link for future calls:** Add here the link where redirect users when there is no open calls, in order to have information about project and future calls opening
 - <https://aquarius-ri.eu/access/>

Figure 3. Settings page.

4.2 Document library

The 'Document library' is a section visible to everyone and editable by editors. This section can be very resourceful since it allows editors to not only provide instruction to applicants, evaluators and infrastructure managers but also support the uploads of templates and important documents.

Document library > Create Document

Save

General information

Title

The title is required.

Summary

↶ ↷ | **B** *I* U | ☰ ☷ ☹ ☺

Content

Tags

Status and availability

Status

Is this document public?

 No

Documents

+

Figure 4: Document library, new document creation interface

4.3 Call management

The editor manages and drafts the Calls. During the Call's creation the administrator has full control over every aspect of the Call from the opening to the deadlines. The Call can have three different stages: draft (visible only to the editor), open (accessible to everyone) and closed (visible again only to the editors).

Each Call can have its specific available period or periods, typology of access, list of research infrastructure involved in the call and eligibility conditions.

The editor possesses the ability to apply changes to the form even after the call is published (open).

Calls > Update Call

Draft Save

General information

Title *
AQUARIUS Transnational Access TEST Call for summer 2024

Description and eligibility conditions

The call is for Transnational Access to all 3 research stations offering Transnational Access in AQUARIUS including both physical and remote access.

Available research infrastructures
Sudurnes Scienc... x Sermilki Researc... x Faroe Islands Nat... x Choose from the list x

Countries NOT allowed to apply
Choose from the list

Deadlines

Evaluation deadline * 2024-07-19

Research infrastructure manager acceptance deadline * 2024-07-20

Applicant acceptance deadline * 2024-07-22

Applicant report deadline * in - 3 + days from starting reporting

Send research infrastructure manager report reminder

Status and opening period

Status *
Draft x

Opening date *
2024-07-17

Closing date *
2024-07-18

Access

Physical Access Allowed * True

Remote Access Allowed * True

Define start date for access
Select the period during which the proposed projects for his call must be carried out.
2024-07-22

Define end date for access
2025-12-31

Acceptance agreement *
agreement.pdf

Figure 5: Call creation page. Visible only to editors

TAP AQUARIUS

editor@inkode

Summary

Open calls

My applications

Document library

Admin

- Applications
- Calls
 - List
 - Create
- Research infrastructures
- Pages
- Document library
- Settings

Privacy Policy

Cookie Policy

AQUARIUS

Calls

Q → Status

Add call

Open	AQUARIUS Transnational Access TEST Call for summer 2024 Opens on July 17, 2024	expire in about 9 hours July 18, 2024 23:59:59 CEST	<input type="button" value="More"/>
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Figure 6: Call list view. Visible only to editors

4.4 Research infrastructure management

The Editors create the infrastructures page. After creation the research infrastructure manager and the research infrastructure administrator(s) update and manage the page for their own research infrastructure.

The 'Costs and budget' section is the only one that cannot be modified by anyone but editors.

Research infrastructures > Update Research infrastructure Save

General information

Research Infrastructure Name * Faroe Islands Nature Investigation **Research Infrastructure short name *** FINI

Country * Faroe Islands

Research infrastructure type * Experimental Facility (land, freshwater & marine)

Owner name Manager Bernhard **Owner contact Email** manager.bernhard@example.com

Description
The Faroe Islands Nature Investigation (FINI) belongs to Jarðfeingi (Faroese Geological Survey) and partners. FINI comprises a number of monitoring sites in the Faroe Islands. The 18 islands form a self-governing country under the sovereignty of the Kingdom of Denmark. The total area is approximately 1400 km2 and has a population of almost 54.000 people (2020). The

Website
https://jff.fo/

Installation name	Installation number TA	Installation number RA
FINI	- 1 +	- 1 +

Administration

Infrastructure Manager * Manager Bernhard

Infrastructure Administrator
Administrator Ho... Choose from the list

Agreement

Access

1 Periods Empty + Add

1. Physical Access -

1. Remote Access ⋮

1. Starting date *
2024-07-01

1. Ending date *
2026-07-31

Costs and budgets

Grant Agreement usage cost budget * 10,000.00 € **Grant Agreement other cost budget *** 2,000.00 €

Has actual cost? Yes

Has unit cost pre-set? Yes

Type of unit cost * Day

Cost per unit * 90.00 €

Figure 7: Research infrastructure creation page

The research infrastructure manager can only see their research infrastructure(s) unlike the editors who can see all research infrastructures in the admin/ research infrastructure list (figure 8).

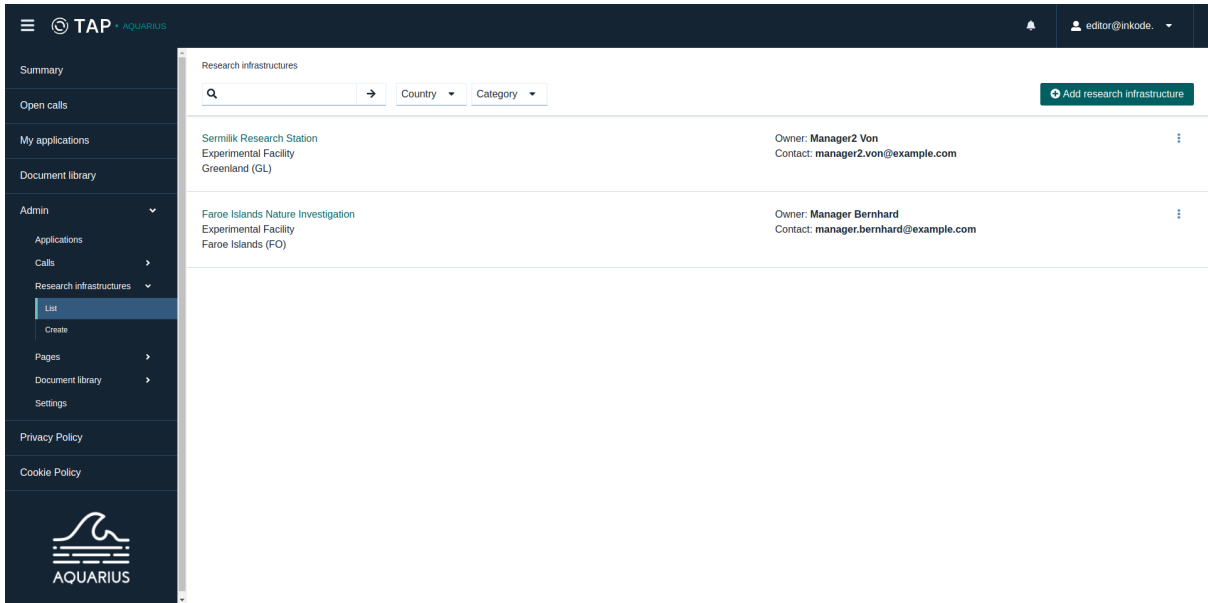


Figure 8. Research infrastructure list

4.5 Application form

When the call is open, the applicant can open an application form and fill in every field (mandatory and/or optional).

The form can be saved at different stages and reviewed before final submission.

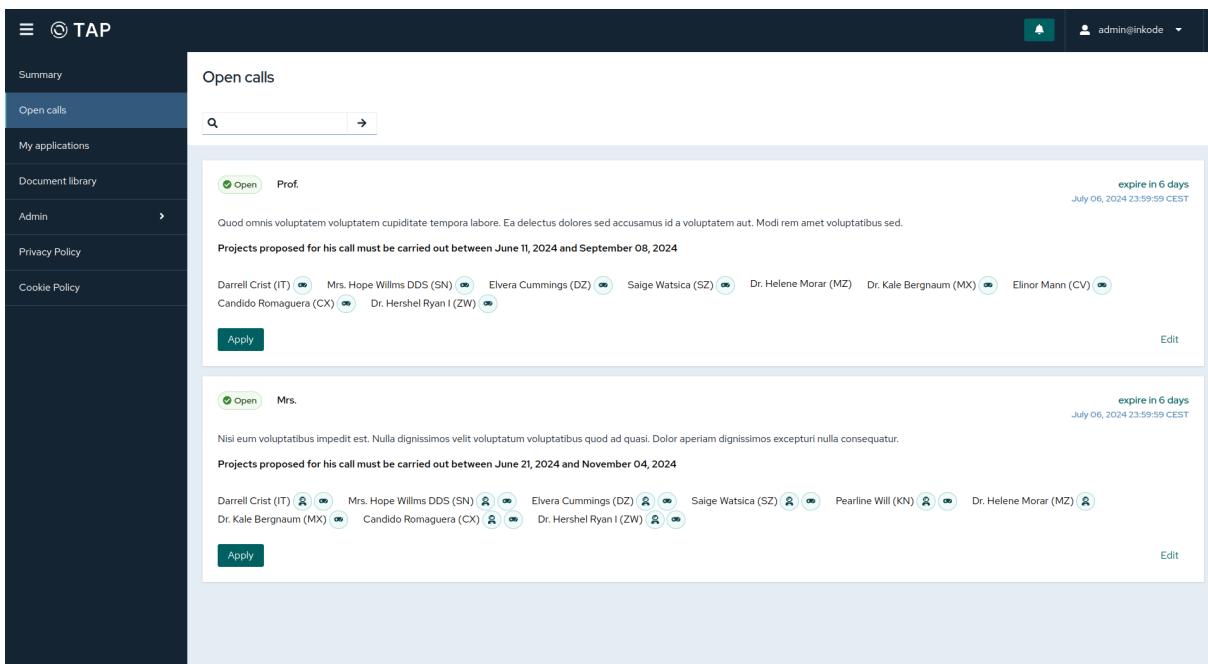


Figure 9: Open Call list view. Visible to everyone.

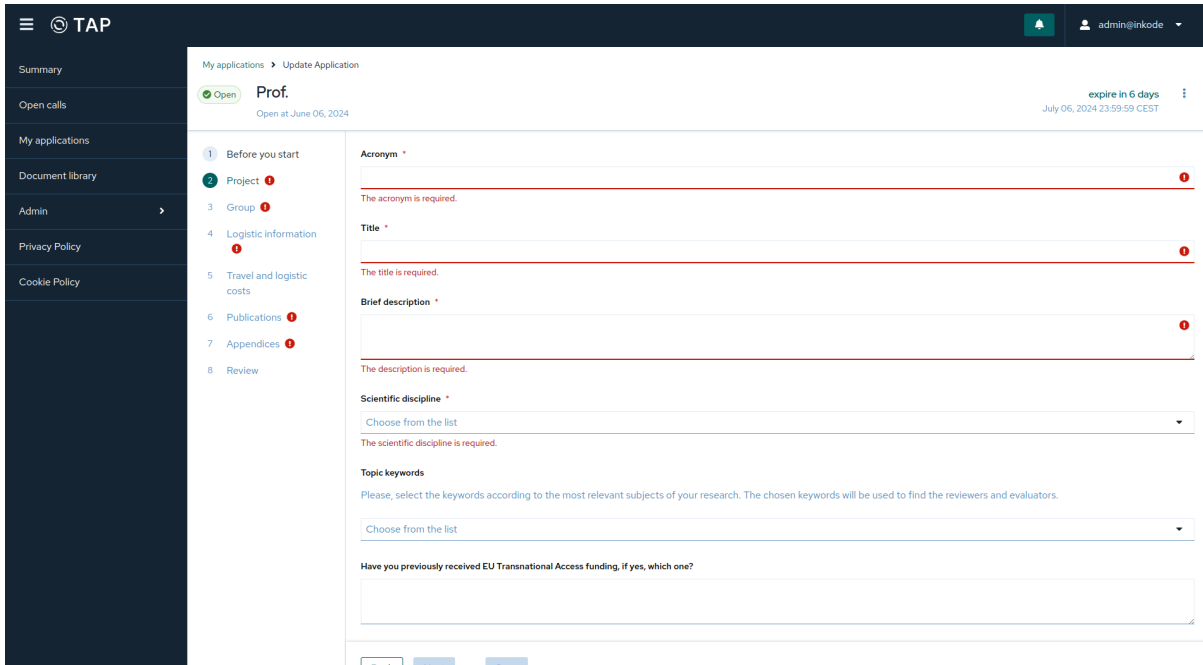


Figure 10: Application form in second step of application workflow: project step.

4.6 Evaluation interface

The evaluation phase is currently under development. This section will be updated when the evaluation process will be tested and consolidated.

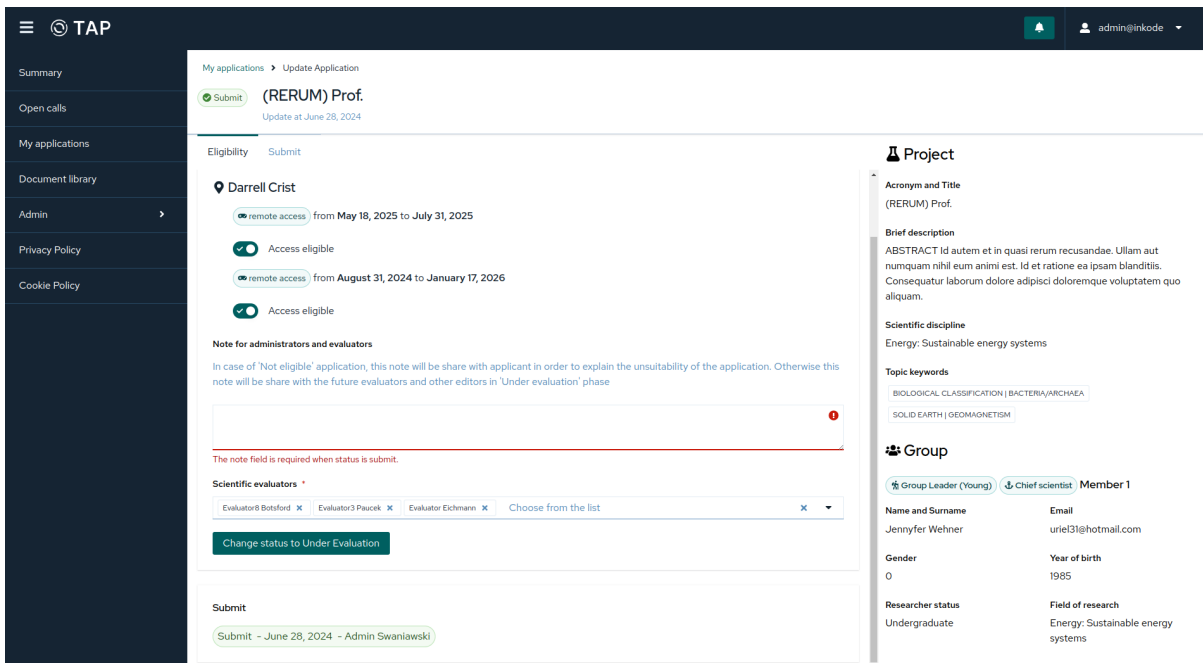


Figure 11: Preview of Evaluation interface

An overview of all features present in the evaluation section are listed below:

- Applicant eligibility: the editor can perform an early eligibility check before the evaluation in order to reassure the adequacy of each member or overall application. In this step the editor assigns roles to evaluators, watchdogs and viewers for this application.
- Evaluation interface: the evaluators have access to the full application where they can provide scores for each evaluation criteria and a justification to motivate the scores.
- Watchdog interface: interface where the watchdog has access to the full application and evaluations provided by evaluators and where they can provide a review of evaluations.
- Applicant Ranking: This section inside the platform will be displayed as a graph, containing all the applications for the call. This is a useful tool for a general overview of all applications. In this section, the SEP, represented by the editor, may make a recommendation for the application in question.
- RI manager final decision: an interface where RI manager can accept or reject the recommended applications for their infrastructure(s).
- Formal application grant: interface for editors to grant or reject the application.
- Applicant final acceptance: the applicant can accept or reject the grant in this interface, in order to accept the grant, the applicant needs to provide, by uploading them, all required signed documents.
- Reporting: In this section, along with the other project information, access, requested units, costs and scientific report are reported by the applicant. The scientific report will be reviewed by the watchdog, all other logistics' information will be reviewed by the research infrastructure manager.

5. State of the art and future development

In July 2024 (month 5 of the project) the *TAP Alpha Release* with the Applicant Interface demo was published. A testing phase will follow along with continuous development and enhancement in order to publish a *Release Candidate* in October 2024.

The next step will be Milestone 5 in the AQUARIUS project: Transnational Access Platform Established in time for the first Call opening in November 2024.

It is planned to release the second version of this deliverable in Autumn 2024 after the Candidate release.

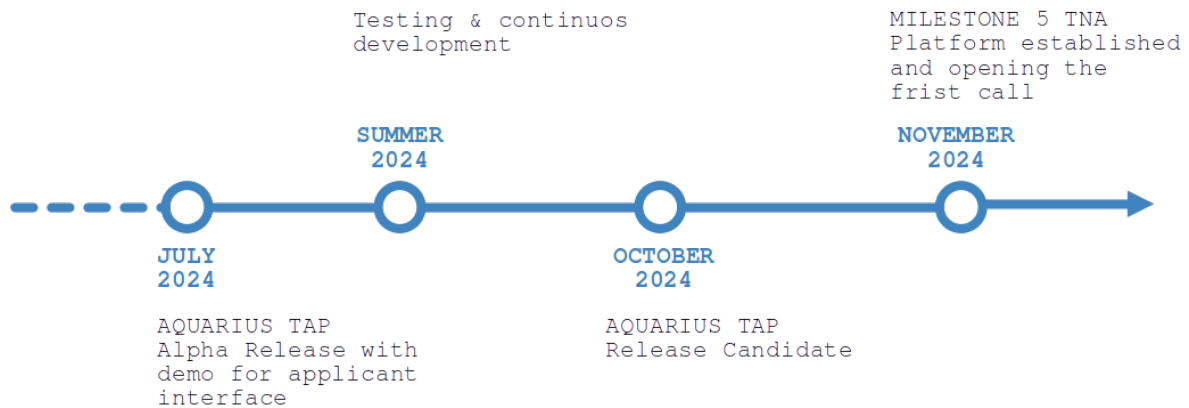


Figure 12: Future development timeline.