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EXECUTIVE SUMMARY

This deliverable outlines the creation and initial deployment of the AI Matchmaking Platform – AI Nexus as a web-based matchmaking, service access and programme management tool supporting the implementation of S4AI_HUB activities. The platform has been developed to facilitate structured interaction between companies, start-ups, public sector organizations, technology providers, research institutions, investors, business support organizations and other relevant stakeholders interested in digital transformation and the application of artificial intelligence.

The AI Nexus Platform serves as a centralized online entry point for user registration, access to S4AI_HUB programmes and individual EDIH services, monitoring of the user progress, evaluation of programme phases, and AI-supported matchmaking between ecosystem actors based on structured user data, questionnaire inputs and expressed needs or offers. It enables organizations to present their needs, review available services, follow their progress through programme phases, and initiate contact with other users through a controlled and consent-based communication process.

The approach involved creating a user-oriented and accessible platform aligned with the project's networking, service delivery and stakeholder engagement needs. The system includes role-based functionalities for programme users, individual service users, evaluation committee members, investors and administrators. In this way, the platform supports both the operational delivery of S4AI_HUB services and the broader objective of strengthening cooperation within the Serbian innovation ecosystem.

While the platform represents an important step toward more systematic cooperation among ecosystem actors, its effectiveness will depend on continuous promotion, regular updating of service and user information, active use by consortium partners, and engagement of external stakeholders. This summary provides a concise overview of the deliverable's purpose, implementation logic and expected contribution to the S4AI_HUB ecosystem.

ABBREVIATIONS AND ACRONYMS

Abbreviation / Acronym	Description
AI	Artificial Intelligence
EDIH	European Digital Innovation Hub
S4AI_HUB	Serbian S3 European Digital Innovation Hub on AI
SME	Small and Medium-sized Enterprise
WP	Work Package
DMA	Digital Maturity Assessment
TBI	Test Before Invest
PU	Public
NLP	Natural Language Processing
RIS3	Research and Innovation Smart Specialisation Strategy
API	Application Programming Interface

1. BACKGROUND

This document constitutes Deliverable D2.2, “AI Matchmaking Platform”, developed under the S4AI_HUB project. As part of Work Package 2 – Innovation Ecosystem and Networking, this deliverable fulfils an important operational requirement by establishing a digital tool that supports the identification, connection and interaction of relevant stakeholders within the Serbian and European digital innovation ecosystem.

The development of the AI Matchmaking Platform – AI Nexus is directly linked to the S4AI_HUB objective of strengthening cooperation between organizations seeking digital transformation support and organizations offering technological, research, business or investment-related expertise. The platform responds to the need for more structured interaction between SMEs, start-ups, mid-caps, public sector organizations, technology providers, research institutions, business support organizations and other relevant actors.

The implementation of this platform supports the broader project goal of improving access to digital innovation services, particularly in the field of artificial intelligence. By providing an online space for presenting needs, services, competencies and cooperation opportunities, the platform contributes to the creation of a more connected and visible innovation ecosystem. It also complements other WP2 activities, including community events, bootcamps, networking actions and matchmaking services, by providing a continuous digital channel for stakeholder engagement.

2. OBJECTIVE/AIM

This deliverable has been prepared to document the establishment of AI Nexus, a web-based platform that supports matchmaking, access to S4AI_HUB services, programme management, monitoring of the user progress, questionnaire-based data collection, evaluation of programme phases and stakeholder engagement within the S4AI_HUB ecosystem. Its primary aim is to provide a structured digital mechanism for connecting organizations that need support in digital transformation and artificial intelligence with relevant technology providers, research organizations, business support institutions, investors, experts and other ecosystem actors.

Specifically, this document:

1. Outlines the purpose and role of the AI Nexus Platform as a digital tool for strengthening the innovation ecosystem, supporting networking activities and enabling structured service access within S4AI_HUB.
2. Describes the platform as a practical channel for user registration, selection between programme participation and individual EDIH services, completion of questionnaires, and access to available services.
3. Presents the platform's role in programme management, including active calls, programme phases, user progress tracking, evaluation by committee members and administrative monitoring of service delivery.
4. Explains matchmaking functionality as a mechanism for identifying potential partners, initiating contact between platform users and enabling controlled, consent-based exchange of contact information.
5. Describes the AI-supported matching logic, including the use of structured user data,

questionnaire responses and NLP functionalities to support the identification of relevant connections between complementary ecosystem actors.

3. IMPACT

The AI Nexus contributes directly to the impact of S4AI_HUB by strengthening the connection between the demand and supply sides of the digital innovation ecosystem. It provides a practical online mechanism through which organizations interested in digital transformation and AI can identify relevant partners, expertise, services and cooperation opportunities.

For SMEs, start-ups, mid-caps and public sector organizations, the platform improves access to information about available digital innovation support and makes it easier to express specific needs related to AI, digitalization, testing, training, investment readiness and technological development. This contributes to increased awareness of digital transformation opportunities and supports the first steps towards more advanced use of AI and other digital technologies.

For technology providers, research organizations, business support organizations and other ecosystem actors, the platform creates a visible channel for presenting their competencies, services and potential contribution to digital transformation processes. In this way, the platform supports better use of existing expertise and infrastructure within the S4AI_HUB consortium and the wider innovation ecosystem.

The platform also supports the broader objectives of Work Package 2 by improving networking, matchmaking and stakeholder engagement. It complements offline activities such as community events, bootcamps, business brokerage activities and dissemination actions by providing a continuous digital space for communication and cooperation. This enables a more systematic approach to identifying needs, matching relevant actors and initiating new collaborations.

The impact of the platform will be monitored through indicators such as the number of registered users, completed questionnaires, submitted service requests, initiated contact requests, accepted contact requests, matchmaking interactions, user profile entries, and collaborations initiated through the platform. These indicators will support the monitoring of platform uptake, and the assessment of how effectively AI Nexus contributes to S4AI_HUB networking and service delivery objectives.

In the long term, the AI Nexus Platform is expected to contribute to a more connected and visible innovation ecosystem, improved access to S4AI_HUB services, and increased uptake of AI-based and advanced digital solutions among target groups. Its impact will depend on continuous promotion, regular updating of platform content, active involvement of consortium partners and the participation of external stakeholders.

4. AI Nexus

AI Nexus has been established as a web-based system supporting the delivery, coordination and monitoring of S4AI_HUB services. The platform enables different categories of users to register, access relevant programmes and services, participate in calls, complete questionnaires, and use matchmaking

functionalities for establishing cooperation with other actors in the ecosystem.

In addition to the user-facing service delivery functionalities, the AI Nexus has been designed as an AI-driven digital collaboration environment. Its matching logic is based on structured user data, questionnaire inputs, service interests, organizational profiles and expressed needs or offers. These inputs are used to support the identification of relevant connections between different ecosystem actors, including solution-providing companies, solution-seeking companies, public sector organizations, investors, Hub partners, and other stakeholders.

A key technical component of the platform is the implemented and continuously refined automatic matching engine. The purpose of this component is to analyse information provided by users in Serbian and English, identify relevant needs, competencies and interests, and support more precise recommendations between complementary actors. This is particularly important for connecting organizations seeking digital transformation support with technology providers, start-ups, research organizations, investors and other potential partners.

The platform has been developed with a bilingual structure, supporting both Serbian and English use cases. This enables local ecosystem actors to use the platform in Serbian, while also creating conditions for future cooperation with international partners, European EDIHs and other cross-border innovation actors. The bilingual approach also supports the broader S4AI_HUB objective of connecting the Serbian innovation ecosystem with the European Digital Innovation Hub network.

The matching process combines structured parameters, such as user type, sector, company size, service interest, programme participation, and questionnaire responses, with content-based analysis of user needs and solution descriptions.

The partner matching module is intended to transform questionnaire responses and profile data into comparable matching attributes, allowing the platform to identify users with similar needs, complementary offers, or relevant service interests. In this way, the platform goes beyond manual browsing by supporting automated identification of potentially relevant connections, while still allowing users to review profiles and initiate contact through the controlled communication workflow.

The platform is implemented using a Java 8 Spring backend, which supports the business logic and system stability, and an Angular-based frontend using the PrimeNG library, which provides a modern and responsive user interface (<https://ainexus.eff.bg.ac.rs>). This technical architecture enables role-based access, service catalogue management, questionnaire workflows, programme phase tracking, evaluation processes, administrative monitoring and future extension of the AI-driven matching functionalities. The screenshots below present the user-facing service and interaction modules. The AI-supported matching logic operates in the background by processing questionnaire responses, profile data and declared service interests into comparable matching attributes.

The platform is accessible through a login interface, which enables registered users to securely access the system. The login page also provides access to the registration process and password recovery functionality, ensuring that users can independently manage access to the platform.

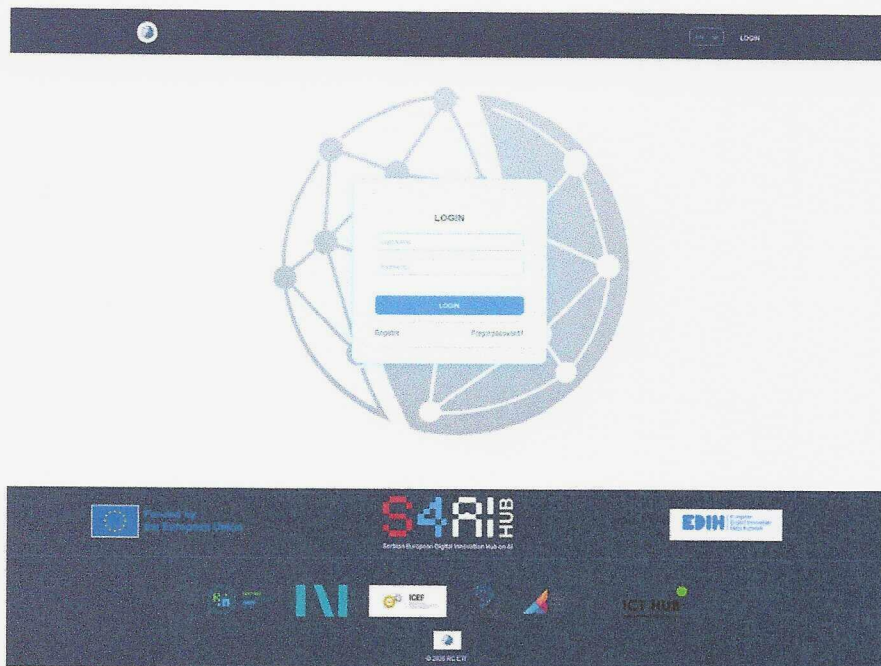


Image 1: Login screen of the AI Nexus Platform

The registration process allows users to create an account and provide basic institutional information, including username, password, institution name, tax identification number, registration number, contact person, telephone number and email address. During registration, users also select whether they wish to participate in the programmes offered through S4AI_HUB or browse and use individual EDIH services. This initial distinction enables the platform to guide users toward the appropriate service path.

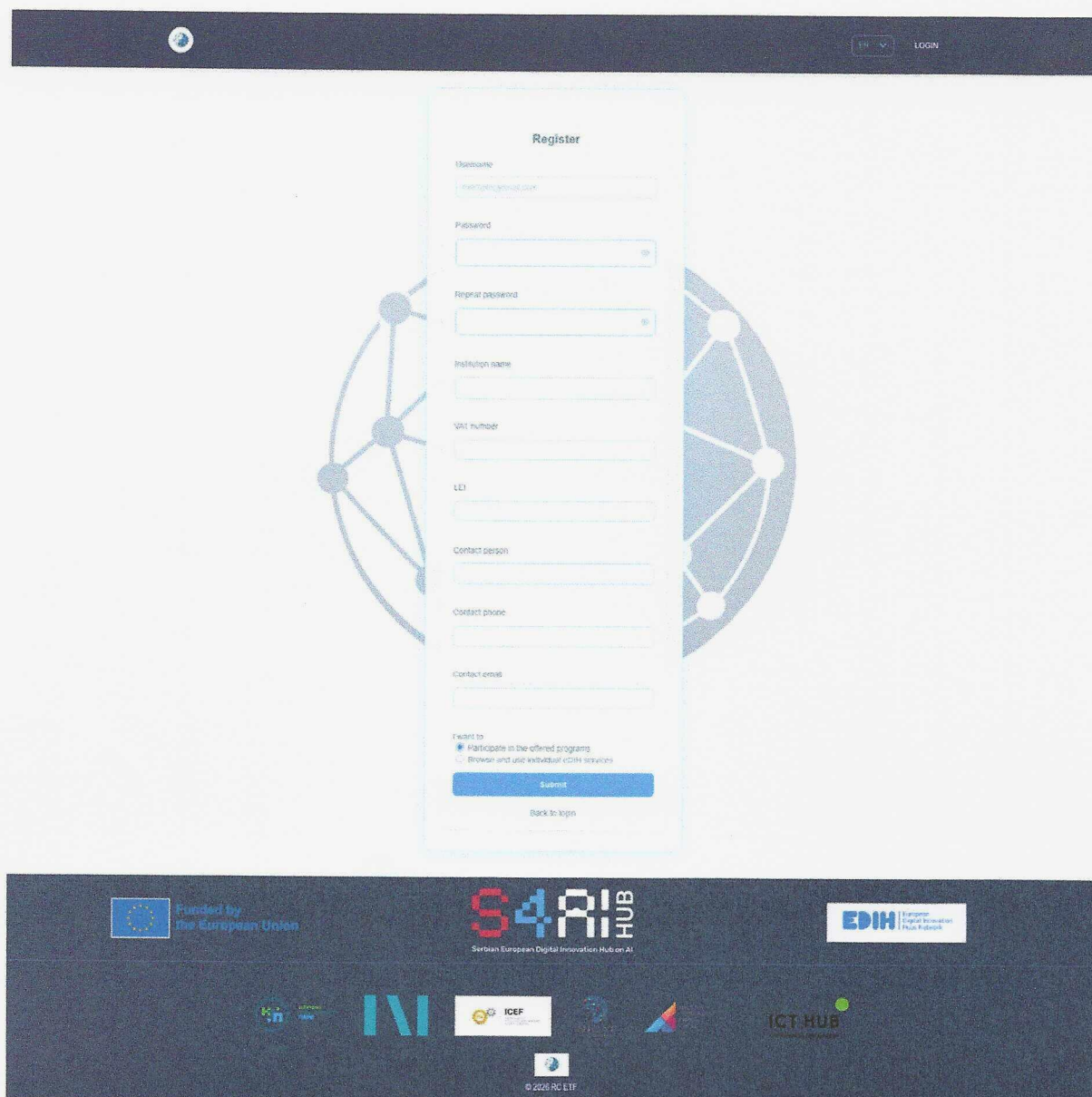


Image 2: User registration form

After registration and login, users can access the platform dashboard. For users participating in programmes, the dashboard provides an overview of active calls or programme phases. The user can see the programme status, start and end dates, current phase, and available actions such as opening and completing the required questionnaire. This supports structured participation in S4AI_HUB programmes and enables users to follow their progress through the service delivery process.

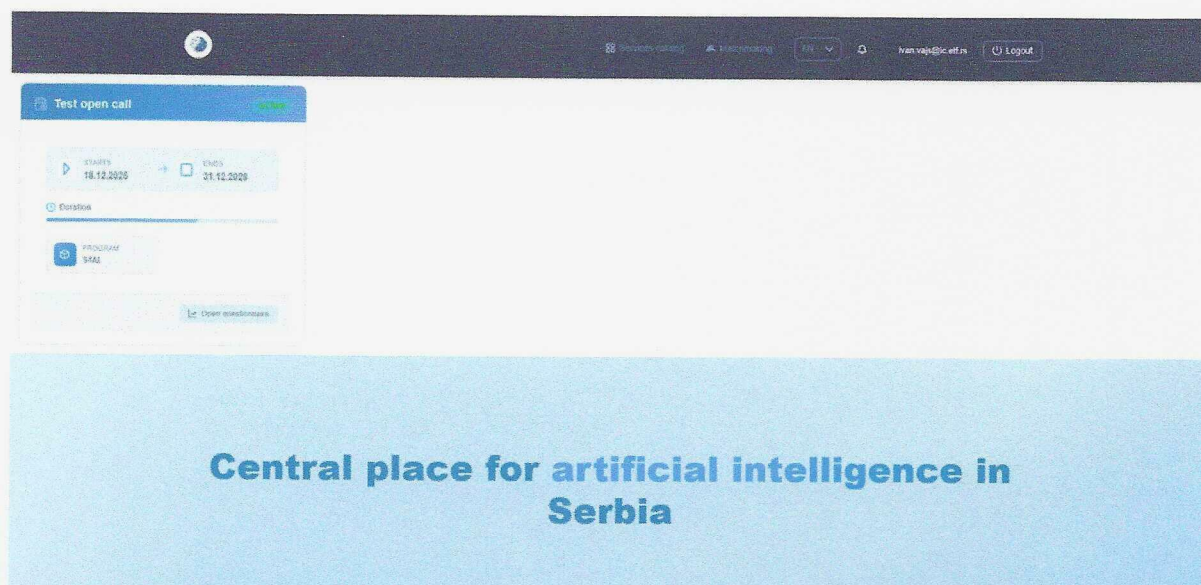


Image 3: Overview of an active programme on the user dashboard

The user profile page provides a structured overview of the user's account, contact information and progress through the relevant programme phases. Users can update their contact details and upload their logo. The progress tracker allows users to clearly understand which phases have been completed and which steps remain. This functionality supports transparency for the user and provides a clear pathway through the programme.

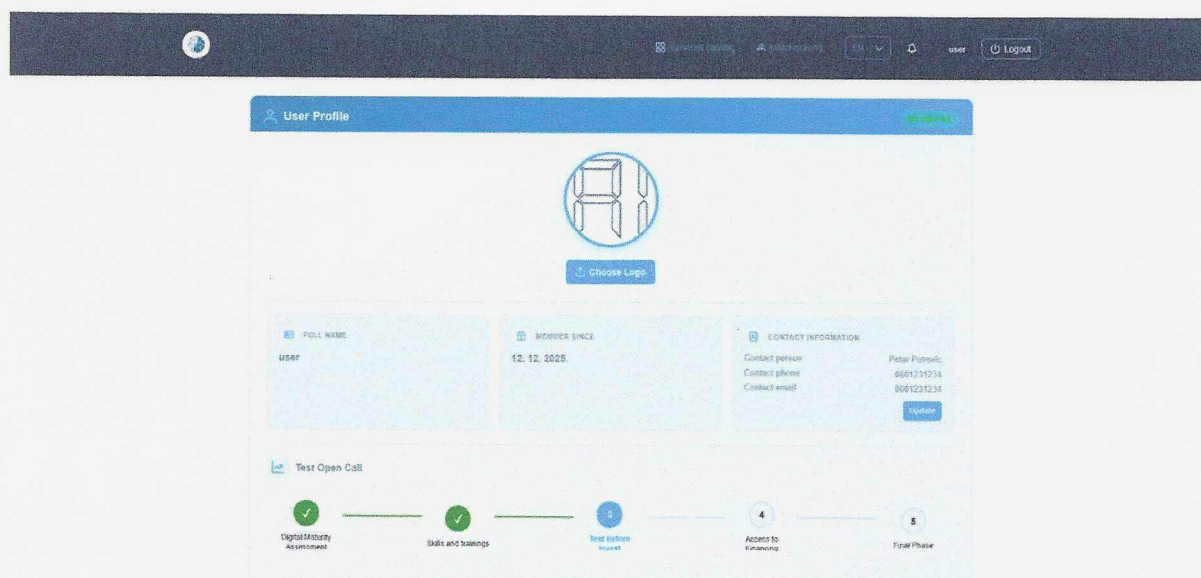


Image 4: User profile and programme progress overview

The platform also includes a catalogue of services available through S4AI_HUB. Users can review active and completed services, browse all available services, and access short descriptions, prices and

further details. This catalogue enables users to identify services relevant to their digital transformation needs, including Digital Maturity Assessment, skills and training, Test Before Invest and other forms of support.

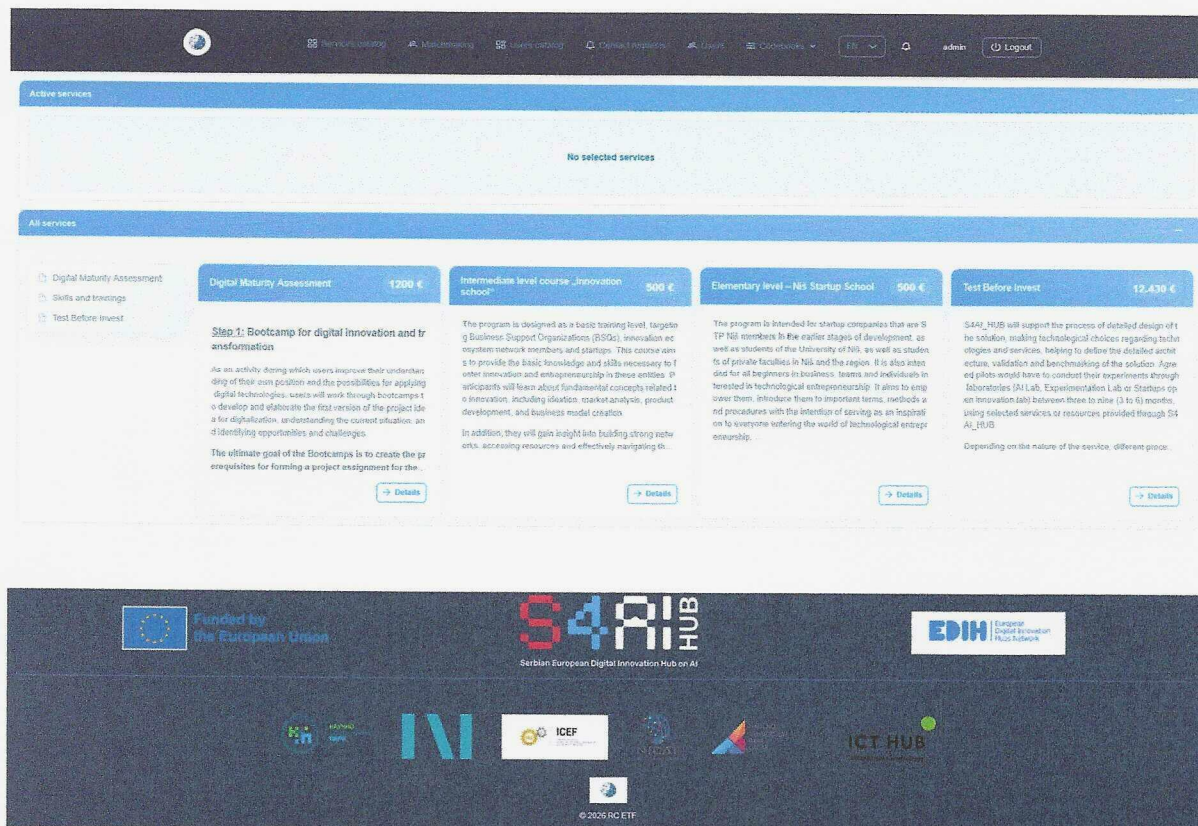


Image 5: Catalogue of available S4AI_HUB services

Each service has a dedicated details page where users can find more information about the purpose, content, and expected benefits of the service. This enables users to make informed decisions before applying for a service and supports the visibility of the S4AI_HUB service portfolio.

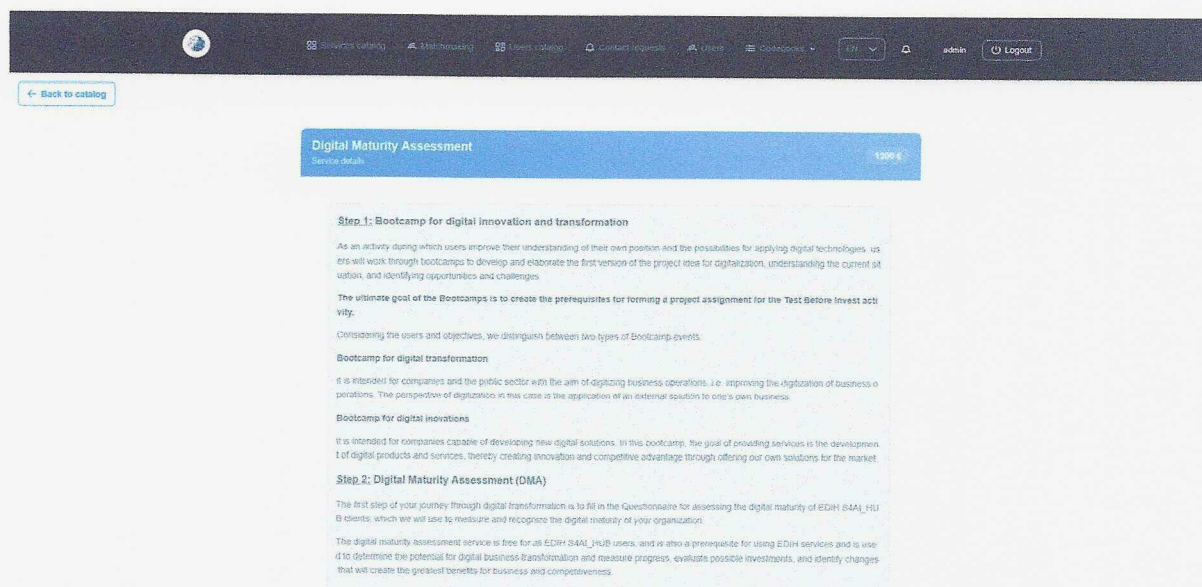


Image 6: Detailed service description page

For selected services, users complete a service request questionnaire. The questionnaire collects relevant information about the organization, contact person, company size, sector, region and other data needed to assess the user's needs and eligibility. This functionality supports the collection of structured information and enables more efficient service planning and evaluation.

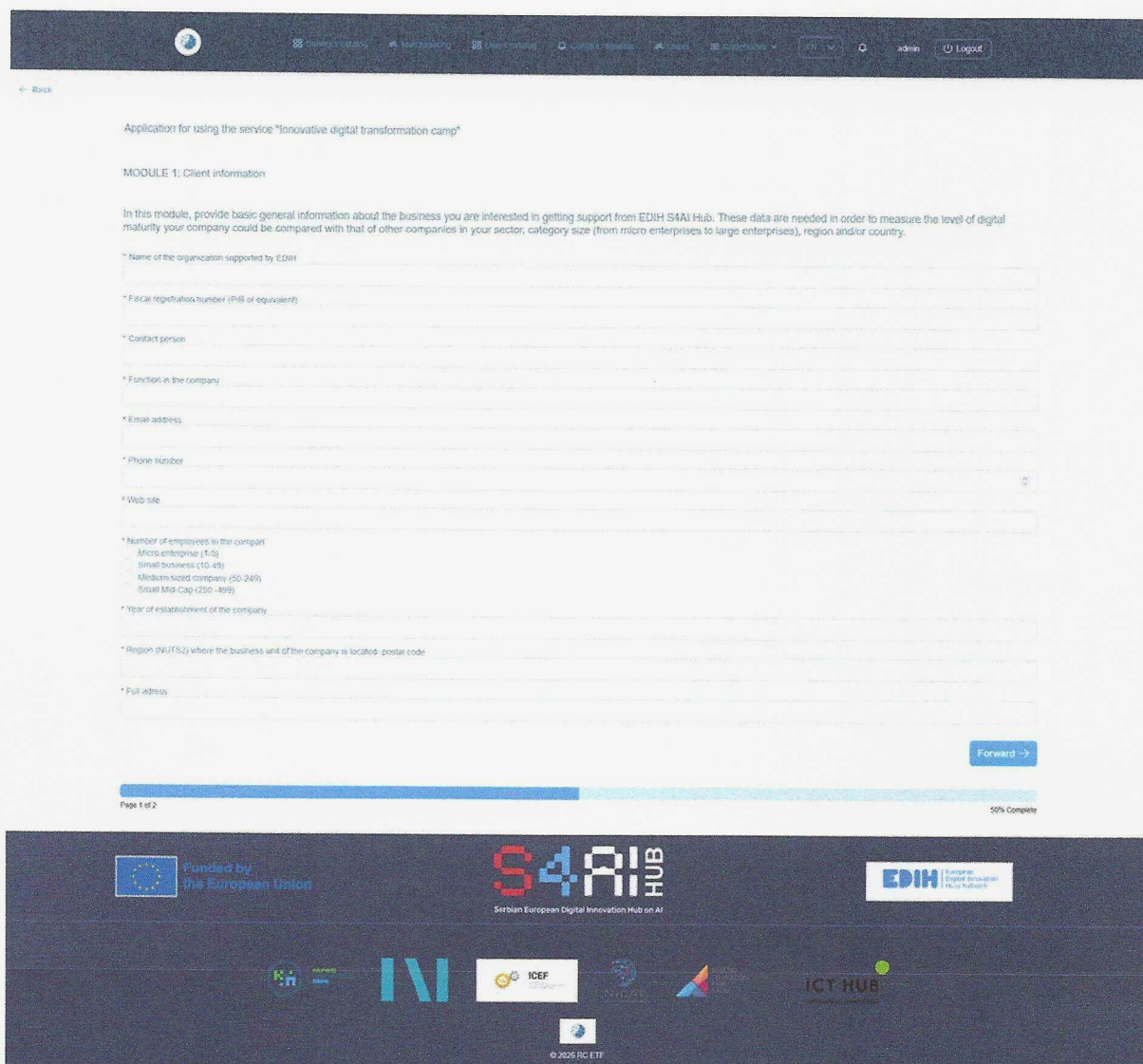


Image 7: Service request questionnaire

The central functionality of the platform is matchmaking. The matchmaking section enables users to browse other registered users and apply filters such as company size and sector. This supports the identification of relevant organizations, potential partners and users with similar or complementary interests. In addition to structured matching based on user information, the platform enables users to search freely and initiate contact independently.

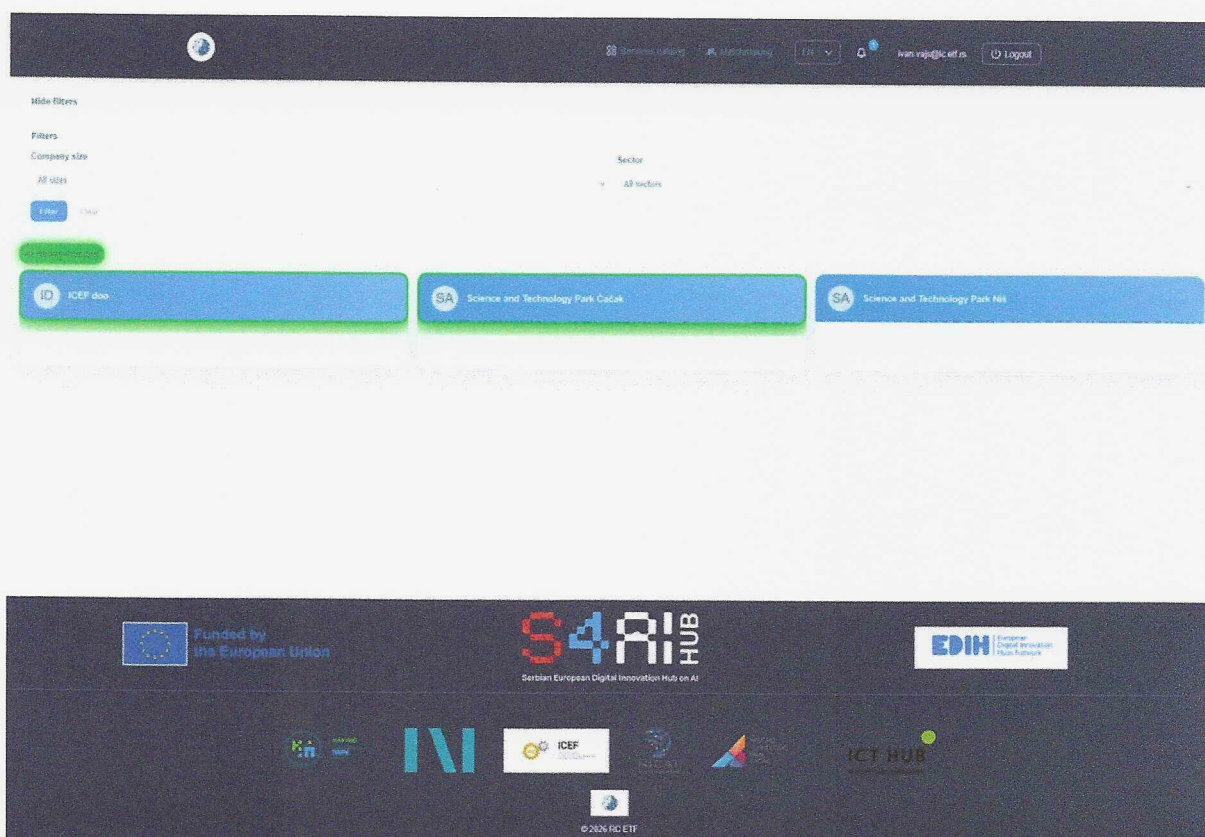


Image 8: Matchmaking functionality with filtering options

The user catalogue provides a broader overview of organizations registered on the platform. This improves the visibility of ecosystem actors and supports the creation of new connections among SMEs, start-ups, technology providers, public sector organizations, research institutions, investors and other stakeholders.

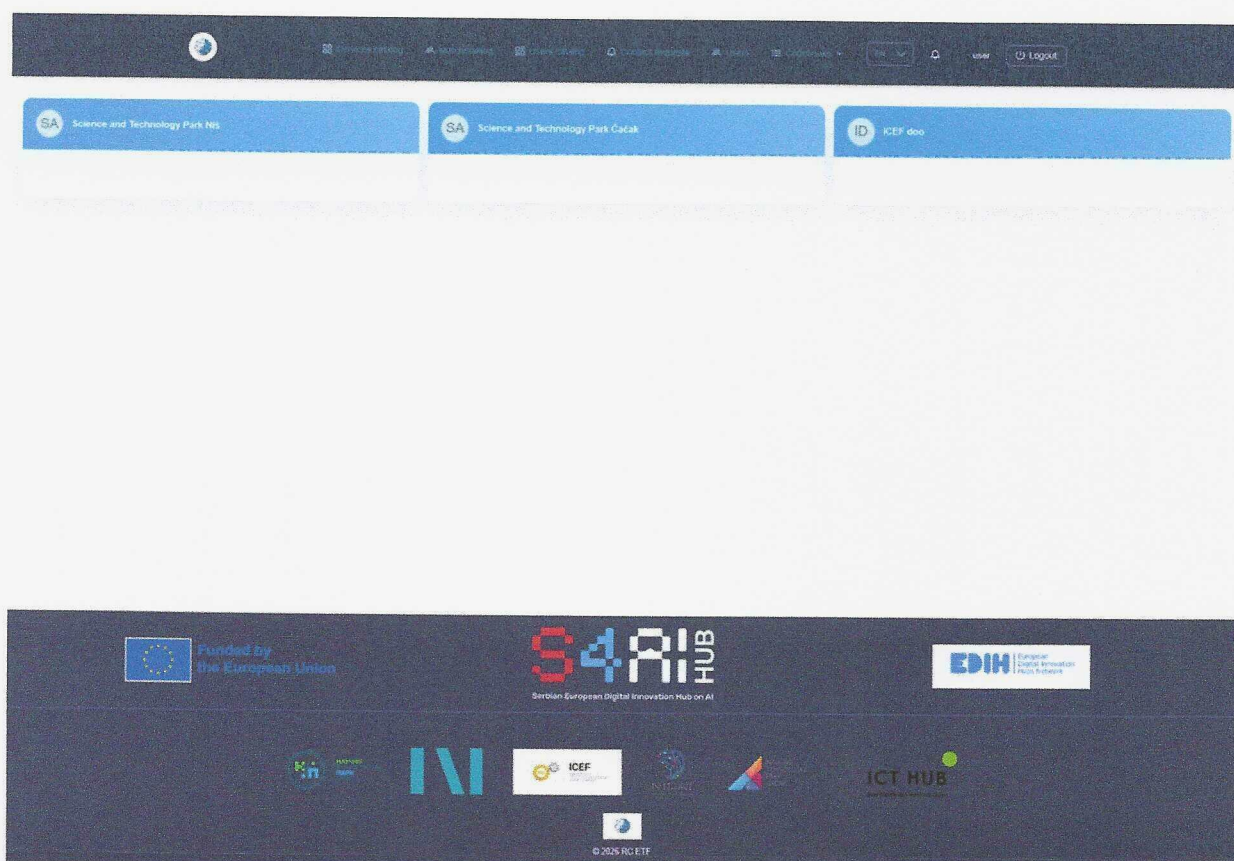


Image 9: User catalogue overview

When a user opens another user's profile, the platform enables contact to be initiated through the "Start contact" functionality. Until a contact request is accepted, detailed contact information and certain profile details remain hidden. This controlled visibility approach supports user privacy and ensures that contact information is shared only after mutual confirmation.

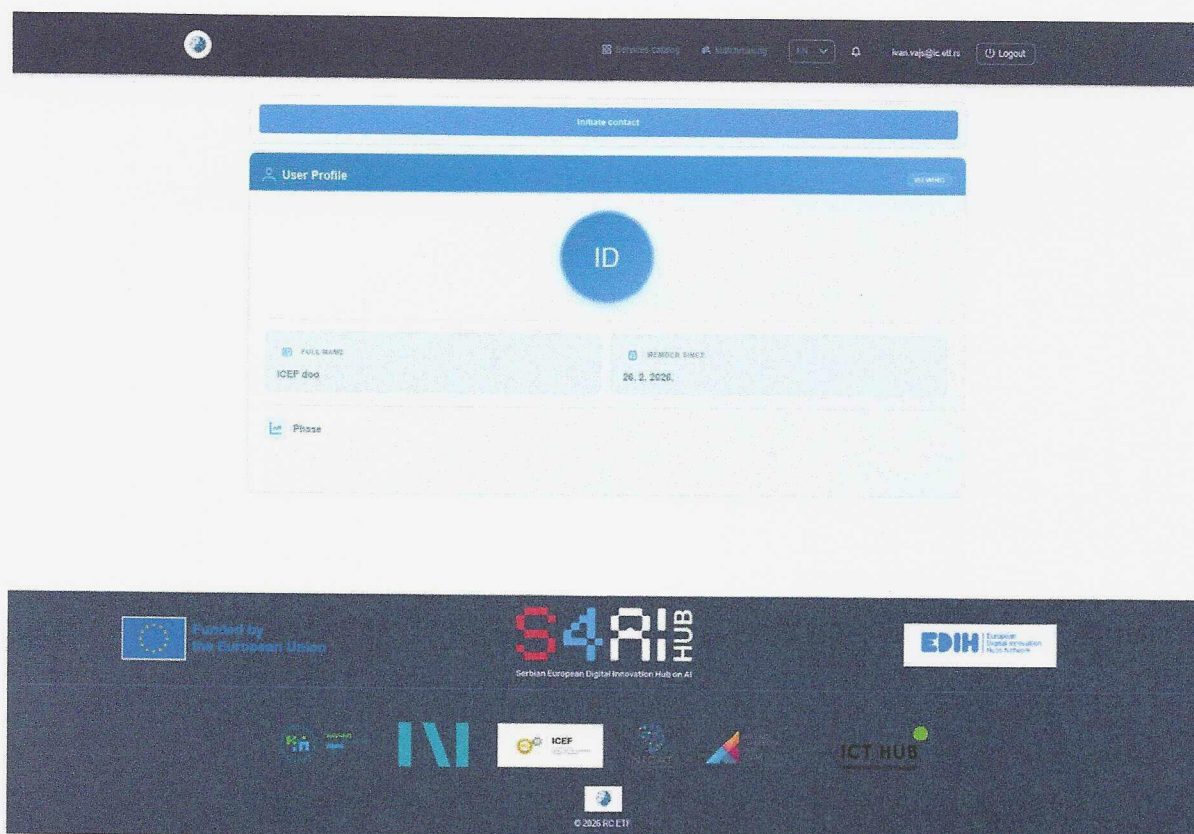


Image 10: External user profile with contact initiation functionality

When a contact request is sent, the selected user receives a notification. The user can accept or reject the request. If the request is accepted, both users are notified and contact information becomes available on their profiles. This functionality enables transparent, consent-based communication between platform users.

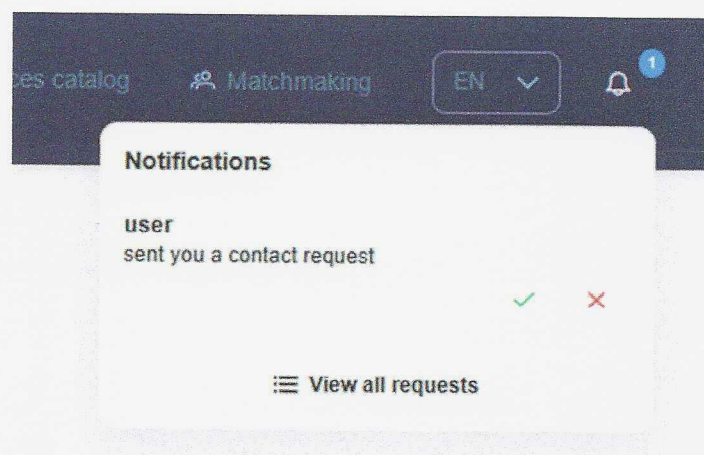


Image 11: Contact request notification

The platform also supports the work of evaluation committee members and administrators. Committee members can review completed questionnaires, inspect user submissions, and enter evaluation results for the programme phases assigned to them. This enables structured assessment of users and supports decision-making during the implementation of S4AI_HUB calls and programmes.

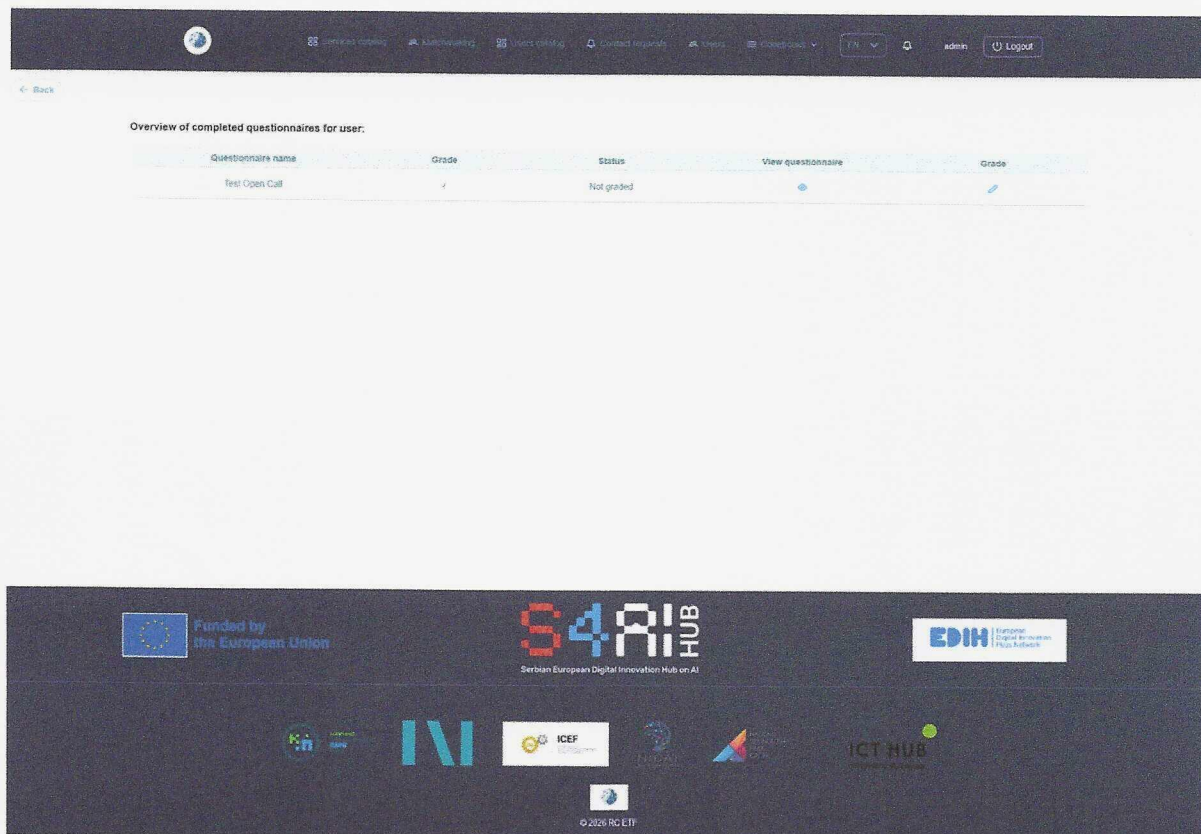


Image 12: Overview of completed questionnaires submitted by users

Committee members and administrators can open completed questionnaires and review the answers submitted by users. This ensures that evaluation is based on structured information collected through the platform and supports transparent documentation of the assessment process.

Application for using the service "Innovative digital transformation camp"

MODULE 1: Client information

In this module, provide basic general information about the business you are interested in getting support from EDIH S4AI Hub. These data are needed in order to measure the level of digital maturity your company could be compared with that of other companies in your sector, category size (from micro enterprises to large enterprises), region and/or country.

* Name of the organization supported by EDIH
ICEF

* Fiscal registration number (PIB or equivalent)
RS-104355708

* Contact person
Petar Petrovic

* Function in the company
Program manager

* Email address
petar.petrovic@icef.bg.ac.rs

* Phone number
0112218805

* Web site
https://www.icef.bg.ac.rs/

* Number of employees in the company
☒ Micro enterprise (1-9)
☐ Small business (10-49)
☐ Medium-sized company (50-249)
☐ Small Mid-Cap (250-499)

* Year of establishment of the company
2006

* Region (NUTS2) where the business unit of the company is located - postal code
10000000

* Full address
Bulevar Kralja Aleksandra 73

Forward →

Page 1 of 2 50% Complete



Image 13: Review of a completed questionnaire

The evaluation functionality allows authorized users to enter a descriptive assessment, numerical score, and decision on whether the user has successfully completed a specific phase. This supports transparent progression through programme phases and enables the administrator to assign users to the appropriate next step in the service delivery process.

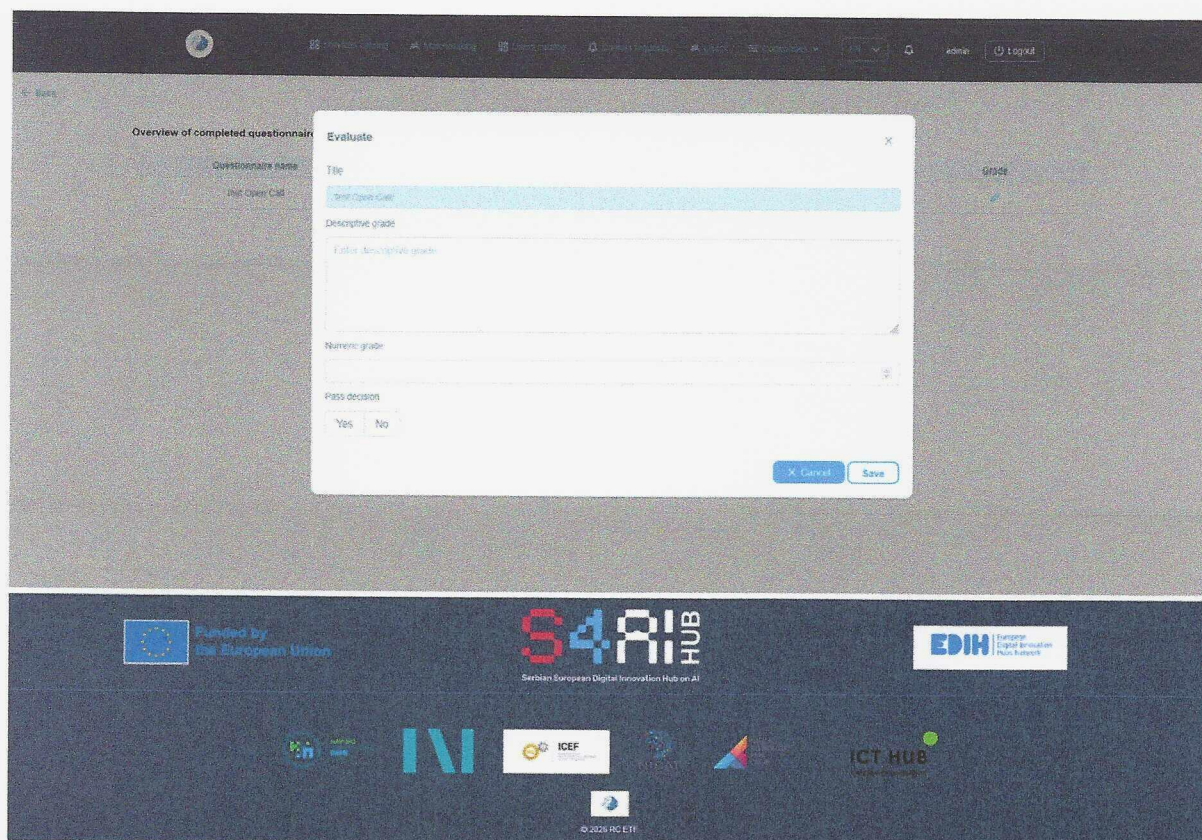


Image 14: Evaluation and decision form

The administrator has a central role in managing the platform. The administrator manages users and their roles, creates programmes, calls, call phases and services, assigns committee members to specific phases, reviews platform activity and monitors interactions initiated through the matchmaking functionality. This provides the necessary operational control for the delivery of S4AI_HUB services.

Through these functionalities, the AI Nexus supports the operational delivery of S4AI_HUB services by combining registration, service access, programme management, questionnaires, evaluation support, matchmaking, user catalogue visibility, and interaction monitoring in a single digital environment. The platform therefore provides a practical tool for connecting organizations, supporting service delivery, and strengthening the innovation ecosystem around artificial intelligence and digital transformation.

5. CONCLUSIONS

This work was undertaken to establish a functional and structured digital platform that supports matchmaking, service access, programme management and stakeholder interaction within the S4AI_HUB ecosystem. Given the complexity of the project and the diversity of target groups, including SMEs, start-ups, mid-caps, public sector organizations, technology providers, research institutions, investors and business support organizations, a centralized online platform was necessary to support efficient coordination and service delivery.

The primary challenge was to create a platform that could serve multiple user groups while maintaining a clear and user-friendly structure. The objective was not only to enable matchmaking between organizations, but also to support registration, access to individual EDIH services, participation in structured programmes, completion of questionnaires, evaluation of programme phases, and controlled communication between users.

To achieve this, the platform was developed with role-based functionalities for different types of users, including programme participants, individual service users, evaluation committee members, investors, and administrators. Each role has access to functionalities relevant to its purpose, which supports clear responsibilities, structured workflows, and transparent service delivery.

The documented version of the AI Nexus Platform establishes the core functionalities required to address the initial need for a digital mechanism that connects ecosystem actors and supports the operational delivery of S4AI_HUB services. The platform enables users to register, access services, follow programme progress, complete questionnaires, review available opportunities and initiate contact with other users through a controlled matchmaking process.

The platform contributes to the overall implementation of S4AI_HUB by:

- providing a centralized entry point for users interested in S4AI_HUB services;
- supporting structured access to programmes and individual EDIH services;
- enabling questionnaire-based collection of information needed for service delivery and evaluation;
- facilitating matchmaking and communication between relevant ecosystem actors;
- supporting the work of evaluation committees through review, scoring, and decision-making functionalities;
- enabling administrators to manage users, roles, services, programmes, calls, and interactions.

The implemented functionalities indicate that the platform provides the necessary foundation for service delivery and ecosystem networking. It improves visibility of available services, supports traceability of user progress, and creates a structured environment for cooperation.

The selected implementation approach was to develop a flexible, role-based, and scalable platform that can support both current project needs and future expansion of S4AI_HUB activities. The current version provides a foundation for matchmaking and service delivery, while allowing further improvements as new services, programmes and stakeholder needs emerge.