



This project is co-financed by the European Union
and the Republic of Türkiye

Technical Assistance for “A Smart Network for Technology Transfer and Commercialisation with Funnel Model (SMARTNET)”

Contract No: TR14C2.2.05-04/001

EUROPEAID/140284/IH/SER/TR

**ACCEPTANCE TEST PLAN (ATP)
AND ACCEPTANCE TEST RESULTS (ATR)**

26.06.2023

**Technical Assistance for “A Smart Network for Technology
Transfer and Commercialisation with Funnel Model
(SMARTNET)”**

Contract No: TR14C2.2.05-04/001

EUROPEAID/140284/IH/SER/TR

**ACCEPTANCE TEST PLAN (ATP)
AND ACCEPTANCE TEST RESULTS (ATR)**

26.06.2023

Document Control and Approval Sheet

Project Name	Technical Assistance for “A Smart Network for Technology Transfer and Commercialisation with Funnel Model (SMARTNET)”
Contract Number	TR14C2.2.05-04/001
Reference Number	EUROPEAID/140284/IH/SER/TR
End Recipient of Assistance	Yıldız Technical University
Contract Signed	08.03.2022
Commencement Date	25.05.2022
Duration	36 Months
Prepared By	Technical Assistance Team
Date of Document	26.06.2023
Contractor	SwanLeuco Danışmanlık AŞ Kiliçdede Mah. Kastamonu Sok. No:6 11/54 55060 İlkadım Samsun 0362 503 55 64 okan.gumus@swanleuco.com

Revision Information

Date	Revision	Notes and Changes
26.06.2023	1.0	Initial Revision

DISCLAIMER

This document has been produced with the technical assistance of the European Union under Technical Assistance for “A Smart Network for Technology Transfer and Commercialisation with Funnel Model (SMARTNET)” Project, Türkiye. Service Contract Number: “EUROPEAID/140284/IH/SER/TR”.

The contents of this publication are the sole responsibility of SwanLeuco in consortium with Evoluxer, Asturex, RRDA, StartUp Division, Inycon and can in no way taken as the view of the European Union and the Ministry of Industry and Technology of the Republic of Türkiye.

TABLE OF CONTENTS

LIST of ABBREVIATIONS.....	5
1. INTRODUCTION.....	6
2. USER ACCEPTANCE TEST PLAN	7
2.1 TEST ENVIRONMENT.....	9
2.2 TEST SCOPE	9
2.3 ACCEPTANCE CRITERIA.....	11
3. ACCEPTANCE TEST RESULTS.....	13

LIST of ABBREVIATIONS

AT	Acceptance Test
ATP	Acceptance Test Plan
ATR	Acceptance Test Results
CA	Contracting Authority
CISOP	Competitiveness and Innovation Sector Operational Programme
ERA	End Recipient of Assistance (Beneficiary)
EUD	Delegation of the European Union to Türkiye
GTU	Gebze Technical University
HD	Help Desk
HKU	Hasan Kalyoncu University
ICT	Information and Communication Technologies
IT	Information Technologies
ITU	Istanbul Technical University
KE	Key Expert
LMS	Learning Management System
MIS	Management Information System
MoIT/DoEUFP	Ministry of Industry and Technology Directorate of EU Financial Programmes
MP	Maintenance Plan
MSR	Monthly Service Report
OCU	Operation Coordination Unit
OCUD	Operation Coordination Unit Director
OS	Operating Structure
RCOP	Regional Competitiveness Operational Programme
SAP	Software Assurance (Warranty) Period
TA	Technical Assistance
TAT	Technical Assistance Team
TDZ	Technology Development Zone
ToR	Terms of Reference
TTI	Technology Transfer Intermediary
TTO	Technology Transfer Office
UAT	User Acceptance Testing
UI	User Interface
YTU	Yıldız Technical University

1. INTRODUCTION

Under Component I of the **A Smart Network for Technology Transfer and Commercialisation with Funnel Model (SMARTNET)** project, one of the primary activities is **Activity 1. Establishment of TTI Network and Development of Institutional Infrastructure** which aims to establish and operationalize **SMARTNET** by delivering training, mentoring/consulting and fundraising services to the target groups for supporting them to commercialize their technology-oriented business ideas.

Activity A.1.1. Development of TTI Network Software Platform focuses on the design, development, and operationalisation of the **SMARTNET Artificial Intelligence Based TTI Network Software Platform (SMARTNET Platform)**.

The **Smartnet MIS Platform** is designed as a web-based Management Information System (MIS) to serve as a comprehensive commercialization automation software and AI supported management decision support system. It aims to facilitate the coordination of technology transfer and commercialization activities while enabling efficient information flow among various stakeholders within the network. The platform consists of a set of modules tailored to address specific needs and provides a robust framework for managing and streamlining key aspects of the commercialization process.

The Smartnet MIS Platform offers a range of functionalities to support the ecosystem of Technology Transfer Intermediaries (TTIs) and stakeholders involved in entrepreneurship, mentoring, investment, and intellectual property management. By leveraging integration web services, artificial intelligence, and decision support capabilities, the platform enables seamless collaboration, data exchange, and informed decision-making.

The SMARTNET Platform **Acceptance Test Plan (ATP)** outlines the comprehensive testing strategy and criteria for evaluating the Smartnet Platform's readiness for production release. This document is a vital component of our quality assurance process and serves as a guide to verify that the Smartnet Platform aligns with the specified requirements and user expectations.

The Acceptance Testing phase is a critical milestone, as it allows us to validate the platform's functionality, performance, security, and user experience, ensuring that it fulfils its intended purpose of empowering entrepreneurs, mentors, investors, and other stakeholders within the innovation ecosystem. This document will detail the scope, objectives, approach, roles, and responsibilities, as well as the test scenarios and acceptance criteria, providing a structured and systematic approach to ensure a seamless and successful deployment of the Smartnet Platform.

The primary objectives of the Acceptance Testing phase are as follows:

- a) To ensure that the SMARTNET Platform meets the specified functional, performance, and security requirements.
- b) To validate the user interface and user experience to ensure ease of use and smooth navigation throughout the SMARTNET Platform.
- c) To confirm that the SMARTNET Platform complies with data security and privacy regulations.
- d) To assess the SMARTNET platform's performance under various usage scenarios and ensure scalability.
- e) To verify the integration of the SMARTNET Platform with external systems, i.e., Me-Learning (LMS Module), Projects and Funds Portal, Esp@cenet (developed by European Union Patent Office and EU Member States) and validate external data integration points provided by the SMARTNET Platform.

- f) To validate error handling and logging mechanisms are in place throughout the SMARTNET Platform.
- g) To identify and resolve any defects or issues before the SMARTNET Platform's production release.

The **Acceptance Test Results (ATR)** section of this document presents a comprehensive overview of the outcomes and findings obtained during the Acceptance Testing phase of the Smartnet Platform serving as a formal record of the testing activities conducted to assess the SMARTNET Platform's performance against the predefined acceptance criteria and user requirements.

The Acceptance Test Results (ATR) section will highlight the test outcomes, any issues encountered, and the actions taken to address them, culminating in the ERA's sign-off to signify their satisfaction with the Smartnet Platform's performance and readiness for deployment.

2. USER ACCEPTANCE TEST PLAN

The Acceptance Testing (AT) phase for the Smartnet Platform will be conducted to assess its readiness for production deployment and to ensure that it meets the requirements and expectations of its stakeholders. This Acceptance Testing Report (ATR) provided latter in this document presents an overview of the testing process, the key findings, and the outcomes of the AT phase.

Objectives

The primary objectives of the Acceptance Testing were as follows:

1. Verify that the Smartnet Platform meets the defined acceptance criteria.
2. Evaluate the platform's performance, functionality, and usability.
3. Identify and address any defects or issues encountered during testing.
4. Assess the platform's compatibility with different browsers and devices.
5. Evaluate the user experience and the effectiveness of the accompanying documentation and training materials.

Scope

The Acceptance Testing covered all major functionalities and features of the SMARTNET Platform, including but not limited to:

1. User registration and profile management
2. Entrepreneur, Mentor, and Investor matching process
3. Learning Management System (LMS) integration
4. IPR Module, including Esp@cenet search integration
5. Call management and application processing
6. Content management and publishing
7. Announcement and news dissemination
8. File management and accessibility
9. Reports, and data visualization
10. Security and access controls
11. General system responsiveness and performance

Aside SMARTNET Platform testing, the Acceptance Testing also covered the evaluation of the following non-functional aspects of the developed software by the Consultant:

- **End-to-End Functionality:** Comprehensive testing of all major functionalities and features to ensure they perform as expected.
- **User Workflows:** Testing user workflows to validate that the platform facilitates smooth and intuitive navigation.
- **Compatibility Testing:** Testing the platform's compatibility across popular browsers, devices, and operating systems.
- **Usability Evaluation:** Gathering feedback from end-users on the platform's ease of use and interface design.
- **Performance Assessment:** Assessing the platform's responsiveness and performance under varying loads and conditions.
- **Documentation Review:** Validating the accuracy and completeness of the platform's documentation and training materials.

Roles and Responsibilities

The following role and responsibilities were assigned between the Contractor and ERA for the Acceptance Testing:

1. **Acceptance Test Team:** The AT team will be responsible for executing the test cases on the SMARTNET Platform, recording observations, and providing crucial feedback; consisting of members of the Yıldız Technical University, Yıldız Technopark, Yıldız Technology Transfer Office, Project Partners, and any other relevant stakeholders.
2. **Development Team:** The development team, consisting of IT Experts will address and resolve reported defects promptly.
3. **Project Manager:** The project manager, SMARTNETTAT, specifically the KE2, will oversee the AT process, ensuring timely execution and coordination.
4. **Product Owner:** The product owner, ERA, will validate the platform's compliance with business requirements and user expectations, confirming its readiness for production release.

Exit Criteria

The exit criteria for the Smartnet Platform Acceptance Testing represent the key milestones and conditions that need to be met before the platform can be considered ready for deployment, ensuring the Smartnet Platform's readiness to be implemented and utilized effectively, meeting the expectations of all stakeholders involved. These criteria are as follows:

1. All identified test scenarios have been executed, and test results have been recorded.
2. Defects and issues have been documented, and resolution is underway or completed.
3. User feedback has been collected and reviewed for potential improvements.
4. Documentation and training materials have been validated for accuracy and completeness.
5. The SMARTNET Platform's performance and compatibility meet defined acceptance criteria.

2.1 TEST ENVIRONMENT

The Test Environment is a crucial component of the Acceptance Testing (AT) process for the SMARTNET Platform, providing a controlled and representative setting where end-users and stakeholders can assess the platform's functionality and user experience. The Test Environment closely simulates the production environment, ensuring that AT results accurately reflect the platform's behaviour under real-world conditions.

The Test Environment serves the following purposes:

1. Enable end-users and stakeholders to interact with the Smartnet Platform in a controlled and isolated setting.
2. Provide a representative environment that closely mirrors the production setup to ensure accurate testing results.
3. Facilitate the identification and resolution of defects, ensuring the platform's readiness for production deployment.
4. Evaluate the platform's performance, usability, and compatibility across various devices and browsers.

Components of the Test Environment

1. **Hardware Infrastructure:** The Test Environment includes servers, network components, and devices that replicate the production infrastructure. This infrastructure, hosted on **test-smartnet.yildiz.edu.tr**, on hardware provided by YTU is dedicated solely to AT activities and is isolated from the live environment (**smartnet.global**).
2. **Operating System:** The Test Environment operates on the same operating system as the production setup to ensure consistency in behaviour.
3. **Database:** A separate database has been set up for AT, containing a copy of the production database to ensure realistic and representative test data.
4. **Software Configuration:** The SMARTNET Platform is deployed in the Test Environment with the same software versions and configurations as intended for production.
5. **Test Data:** The Test Environment included specific representative test data to simulate various user scenarios, covering a wide range of use cases.
6. **Security Measures:** Appropriate security measures are implemented to safeguard sensitive data and ensure compliance with data protection regulations.
7. **User Access:** Test Team users have been provided with appropriate access credentials to the Test Environment, allowing them to perform AT activities.

2.2 TEST SCOPE

The Acceptance Test Scope outlines the specific features and functionalities that will be evaluated during the testing process. The scope focuses on testing user interactions, system behaviour, and overall usability to ensure a seamless and satisfying user experience.

- **User Registration and Authentication:** Verify the registration and on-boarding process for Entrepreneurs, Mentors, Investors and IPR Module Users, test the login and authentication mechanisms for different user roles.

- **Dashboard and User Profile:** Test the visibility and accuracy of user-specific information and menu items on the main menu and dashboard, validate the functionality of updating user profiles and settings.
- **Profile Entry and Completion:** Test the process of filling profile information for Entrepreneurs, Mentors, and Investors, verify the functionality, suitability and completeness of the forms. Also, verify the IPR Module Institutional Profile entry.
- **Entrepreneur and Mentor Matching:** Test the process of matching Entrepreneurs with suitable Mentors, verify the accuracy and relevance of match results based on predefined criteria.
- **Call Management:** Validate the creation and management of calls for Entrepreneurs and Mentors, test the process of application submission and evaluation.
- **Announcement/Notification System:** Test the delivery and display of announcements/notifications to relevant users, validate the functionality of notifying users about important events and actions.
- **Content Management:** Test the creation, editing, and deletion of pages and announcements on the public web portal, verify the functionality of uploading and accessing files and documents.
- **Integration Testing:** Test the integrations and Single-Sign-On (SSO) transitions to the Learning Management System (Me-Learning) and Projects and Funds Portal, verify the Esp@cenet search API integration is functional.
- **Compatibility Testing:** Test the platform's compatibility with different browsers, devices, and operating systems.

Exclusions from AT Test Scope

While the Acceptance Testing (AT) for the SMARTNET Platform focuses on thoroughly evaluating the platform's features and functionalities to ensure its readiness for production deployment, there are certain aspects and functionalities that fall outside the scope of AT testing.

The following aspects were excluded from the Acceptance Test Scope:

- **Backend System Testing:** The AT testing phase primarily focuses on testing the SMARTNET Platform's front-end functionalities and user interactions. Testing of backend systems, databases, and server-side processes is considered out of scope for AT. This testing was already conducted during the earlier stages (Alpha and Beta) of testing.
- **Performance Testing and Load Testing:** While the AT phase involves testing the SMARTNET Platform's performance under normal user scenarios, comprehensive performance testing and load testing are excluded from AT. These tests were conducted separately to evaluate the platform's scalability and performance under heavy user loads.
- **Security Penetration Testing:** AT focuses on user-related scenarios and interactions on the SMARTNET Platform, but security penetration testing to identify potential vulnerabilities and security threats is not included in the AT scope. Security testing, including penetration testing, has been conducted and reported on following the beta- testing phase.
- **Cross-Platform Testing:** The AT testing primarily focuses on specific user scenarios and interactions within the targeted environment provided by the YTU IT Department. Cross-platform testing (testing the platform on different operating systems) are considered out of scope for AT as it was not a requirement.

- **Network and Connectivity Testing:** The AT scope excludes testing network configurations, connectivity, and performance-related to network infrastructure that has been provided by the YTU IT Department.
- **Automated Testing:** While automated testing is an efficient method to conduct repetitive and regression testing, AT focuses on manual testing conducted by end-users and stakeholders.

2.3 ACCEPTANCE CRITERIA

The **Definition of Acceptance**, i.e., the Acceptance Criteria for the SMARTNET Platform, serves as a set of criteria that must be met for the SMARTNET Platform to be considered acceptable and ready for production deployment outlining the specific conditions, functionalities, and performance expectations that the platform needs to fulfil before being approved for use.

1. Functional Requirements

- All core functionalities of the SMARTNET Platform, as outlined in the project requirements, must be fully implemented and operational.
- Each user role, including Entrepreneurs, Mentors, Investors, IPR Module Users, and Administrators, should have access to the designated features and permissions.
- The user registration/on-boarding process must successfully allow new users to register and access the platform with functionality in line with their appropriate user roles.

2. User Interface and User Experience:

- The SMARTNET Platform's user interface (UI) should be intuitive, user-friendly, and visually appealing.
- Navigation through menus and sections should be smooth, and all links and buttons must lead to the intended pages and functionalities.
- The platform should be responsive and compatible with various devices, including desktops, tablets, and mobile phones.

3. Integration and Connectivity:

- Integration with the Learning Management Module (Me-Learning), Projects and Funds Portal should be seamless, ensuring data exchange and functionality without errors.
- External APIs and web services must be functional, reliable, and well-documented for easy integration with future systems.

4. Data Security and Privacy:

- User data, including personal information and business-related data, must be securely stored and protected from unauthorized access.
- The SMARTNET Platform should adhere to data privacy regulations and ensure users have control over their data and consent to its use.

5. Performance and Scalability:

- The SMARTNET Platform must exhibit high performance and responsiveness, even under short bursts of moderately-high user loads.

- b) Platform's ability to perform and handle concurrent users should be without performance degradation.

6. Error Handling and Logging:

- a) The SMARTNET Platform should have comprehensive error handling mechanisms to prevent data loss.
- b) Logging functionalities must be implemented to track system events, errors, and user activities for troubleshooting and auditing purposes.

7. Testing and Quality Assurance:

- a) All AT test cases and scenarios should be executed, and issues identified during testing should be addressed and resolved.
- b) The platform should undergo thorough quality assurance to ensure compliance with requirements and design specifications.

3. ACCEPTANCE TEST RESULTS

The Acceptance Testing (AT) for the SMARTNET Platform has been successfully completed, and we, the undersigned stakeholders and AT team members, hereby provide our formal sign-off for the AT phase. This sign-off indicates that we have thoroughly tested and evaluated the SMARTNET Platform against the defined acceptance criteria and are satisfied with its performance and readiness for production deployment.

Key AT Findings and Results:

During the AT process, we diligently executed the test cases and scenarios, identifying and reporting any defects and issues encountered. The AT team meticulously reviewed the test results and collaborated with the development team to address and resolve the reported defects promptly.

The AT phase also included rigorous testing of various functionalities, user interactions, and data processing, which allowed us to gain valuable insights into the platform's behaviour and performance under real-world scenarios.

Acceptance Criteria Met:

We have diligently assessed the SMARTNET Platform against the pre-defined acceptance criteria, and we confirm that all the specified criteria have been successfully met. The SMARTNET Platform demonstrates its capability to deliver the intended functionalities, meet user requirements, and operate seamlessly.

Overall Platform Performance:

Throughout the AT, the SMARTNET Platform has showcased robust performance and stability. Critical areas, such as system responsiveness, data integrity, and security measures, have been thoroughly evaluated, resulting in satisfactory outcomes.

User Experience:

The user experience of the SMARTNET Platform has been carefully examined, and we find it to be intuitive, user-friendly, and aligned with the needs of our stakeholders. Navigating the platform and executing tasks have proven to be straightforward, facilitating smooth interactions.

System Compatibility:

The SMARTNET Platform has been tested across various browsers, devices, and operating systems, and it has demonstrated compatibility without any significant issues. Users can access and utilize the platform seamlessly on their preferred devices.

Documentation and Training:

The accompanying documentation, including user guides, manuals, and instructional materials, has been reviewed and deemed comprehensive and helpful. Additionally, the training material provided to end-users was found to be effective, enabling them to utilize the platform efficiently.

AT Sign-Off Confirmation:

With the successful completion of the Acceptance Testing (AT), we, the stakeholders, are confident that the SMARTNET Platform meets our requirements and is prepared for production release. As such, we hereby provide our formal sign-off, approving the platform's readiness for deployment.

We express our gratitude to the AT team for their dedication and meticulous efforts in executing the testing process. Their contributions have been instrumental in ensuring the SMARTNET Platform's quality and performance.

We look forward to the next phase of the SMARTNET Platform's journey as it transitions to production, where it will empower entrepreneurs, mentors, investors, and stakeholders alike to realize their goals and aspirations.

Signed by:

[Date]

Prof. Zeynep IŞIK
Head of OCU

[Date]

Mehmet Mete YILMAZ
SMARTNET Project ERA Coordinator

[Date]

Ömer Ertuğrul MERAL
OCU Member

[Date]

Ufuk BATUM
SMARTNET Project Team Leader (KE1)

[Date]

Emre Ege SMEKAL
SMARTNET Project IT Key Expert (KE2)

[Date]

Okan GÜMÜŞ
SMARTNET Project Director, SwanLeuco Danışmanlık A.Ş. (Contractor)

The contents of this publication are the sole responsibility of SwanLeuco in consortium with Evoluxer, Asturex, RRDA, StartUp Division, Inycon and can in no way taken as the view of the European Union and the Ministry of Industry and Technology of the Republic of Türkiye.