R&I infrastructure online platform





Disclaimer: Funded by the European Union. Views and opinions expressed are those of the author(s) only and do not necessarily reflect those of the European Union or European Research Executive Agency. Neither the European Union nor the granting authority can be held responsible for them





Content

1. Executive Summary	3
2. Objectives of the Platform	4
3. Platform Development Process	7
3.1. Definition of Requirements and Terms of Reference	7
3.2. Partner Involvement and Presentation of Functionality	9
3.3. Design and User Interface (Start Page Visuals)	12
3.4. Backend Development and Partner Data Entry Module	14
3.5. Pilot Implementation	155
3.6. Final Release and Deployment	166
Executive Summary	24





1. Executive Summary

This report outlines the creation and deployment of the **Research and Innovation Infrastructure Online Platform**, developed under **Deliverable D4.2** of **Work Package 4** (**WP4**) within the *WideAcrossEU* project. The platform serves as a centralized digital environment to **showcase the research and innovation capacities** of all consortium partner universities, supporting the broader objective of **R&I valorization** and transnational collaboration.

Accessible at https://platform.wideacrosseu.ztu.edu.ua, the platform allows external users to discover institutional R&I strengths, explore working scientific laboratories, and directly contact responsible university representatives. Each university profile is managed through a backend interface that enables partner institutions to independently update their information, ensuring content remains current and relevant.

The development process involved several key stages:

- Defining detailed **Terms of Reference** based on user stories and technical requirements;
- Engaging consortium partners through a presentation of core functionality for feedback and alignment;
- Designing a clean and accessible **frontend interface**;
- Implementing a **backend system** for decentralized content management;
- Conducting a **pilot implementation** to demonstrate platform functionality;
- Finalizing and launching the platform with **active university pages** ready for stakeholder engagement.

The platform is now fully operational and available for use by the consortium and external audiences. It contributes directly to the goals of WP4 by offering a sustainable, scalable, and user-friendly tool to **highlight institutional expertise** and facilitate cross-border cooperation in research and innovation.





2. Objectives of the Platform

The **Research and Innovation Infrastructure Platform** developed within WP4 aims to serve as a centralized digital gateway that showcases the scientific and innovation capabilities of universities participating in the project consortium. Its primary objective is to **facilitate visibility**, **collaboration**, **and valorisation** of research infrastructure by providing external stakeholders with easy access to structured and up-to-date information on laboratories, research directions, and institutional expertise across member universities.

This platform directly supports the project's goal of reinforcing the innovation ecosystem by encouraging cross-border and cross-institutional cooperation. By aggregating profiles of universities in one place, it increases the discoverability of their research strengths and fosters opportunities for partnerships, joint applications to international projects, and innovation transfer.

At the same time, the platform empowers each university to manage and update its profile independently, thereby ensuring accuracy and sustainability of content. It was designed to be **user-friendly**, requiring no registration for external visitors, and offers streamlined communication channels through embedded contact forms. The platform is also structured to evolve over time, with scalable architecture and administrative tools for continuous monitoring and improvement.

In sum, the platform serves as a practical valorisation tool that transforms institutional research assets into accessible, collaborative opportunities within and beyond the consortium.

Target Users and Expected Use Cases

The platform is structured to serve **three primary user groups**:

- 1. External Users (Visitors and Potential Partners)
- 2. University Representatives (Content Administrators)
- 3. Platform Super Admin (Partner University)

1. External Users





These users include industry representatives, research institutions, innovation intermediaries, funding bodies, and other stakeholders seeking partners or expertise for scientific cooperation. For them, the platform offers:

- **Browsing of University Profiles**: Users can explore detailed descriptions of each university's scientific areas, available laboratories, and contact persons.
- **Direct Communication**: Through a simple, non-registration-based contact form, users can reach out to relevant university representatives to initiate collaboration or request participation in research projects.
- Quick Access and Transparency: All information is accessible without logging in, facilitating openness and ease of use.

Typical use case:

A company interested in additive manufacturing explores the platform, finds a university lab working on 3D printing technologies, and uses the contact form to propose a joint research project.

2. University Representatives

Each university in the consortium is assigned a designated administrator who manages its institutional profile. Their responsibilities and functionalities include:

- **Profile Management**: Updating general descriptions, research areas, laboratory details, and uploading visual materials (images).
- **Application Tracking**: Logging of submitted research project applications via structured forms.
- **Visitor Insight**: Access to site visit statistics to monitor interest in their institution.

Typical use case:

A university admin logs into the backend panel, updates recent achievements in renewable energy research, uploads a picture showcasing the lab, and responds to a received contact request from an international SME.

3. Super Admin





Partner University serves as the technical and content supervisor of the platform. As the super admin, it holds overarching control to ensure proper functioning and content consistency:

- **Initial Setup and Access Control**: Creating profiles with placeholder data and assigning admin credentials.
- **Platform Oversight**: Monitoring activity, managing permissions, and analyzing aggregated data such as traffic and visitor origin.

Typical use case:

The super admin prepares a progress report by exporting site analytics and ensures that each university has updated its profile in time for a consortium meeting.





3. Platform Development Process

The development of the Research and Innovation Infrastructure Platform was carried out in a structured and iterative manner, following a multi-stage process that ensured alignment with the needs of all consortium partners. From the initial definition of requirements to the pilot deployment and final release, the process was grounded in continuous consultation, feedback loops, and validation of both technical and functional components. This approach allowed the development team to build a platform that not only meets the project's objectives for R&I valorization, but also provides a sustainable and user-friendly tool for long-term use by consortium members and external stakeholders. The following subsections describe each key stage of the platform's development in detail.

3.1. Definition of Requirements and Terms of Reference

The development of the Research and Innovation Infrastructure Platform began with a detailed **requirements-gathering process** that aimed to align technical functionality with the strategic goals of WP4 and the broader project objectives. This foundational stage resulted in a comprehensive **Terms of Reference (ToR)** document, which served as the blueprint for the entire platform development cycle.

The Terms of Reference were informed by a user-centered design approach, integrating input from potential users across the consortium, including university administrators, IT specialists, and academic staff. The resulting ToR was structured around three main user roles: **External Users**, **University Representatives (Admins)**, and the **Super Admin**.

Key User Stories Captured in the ToR:

- External Users expressed the need for open access to university profiles, laboratory descriptions, and scientific directions without requiring registration. Their goal was to easily identify potential partners for collaborative research and to reach out via a built-in contact form.
- University Representatives needed a straightforward way to edit and manage their institution's profile, including uploading text, images. They also required e-mail notification features to stay informed about inquiries and a mechanism to track research project submissions.
- The **Super Admin** role was established to coordinate platform-wide management. This included **creating initial profiles**, **assigning admin credentials**, and **monitoring**





analytics related to platform usage and user activity.

Functional Requirements Defined:

The ToR specified the development of:

- A **public-facing interface** where external users can browse and interact with university profiles.
- A **backend interface** for university representatives to manage content.
- An administrative dashboard for the super admin to control access and view analytics.
- A **contact form system** integrated into each university profile, with automatic email routing and confirmation.
- A form for logging submitted applications to track research participation.
- A **site analytics module** to monitor traffic volume and geographic distribution of visitors.

Non-Functional and Technical Requirements:

To ensure scalability and performance, the platform was required to be:

- **Responsive** and optimized for both desktop and mobile devices.
- **Secure**, with encrypted form submissions and data access protocols.
- Scalable, with the ability to adapt and scale without performance degradation.
- **Visually intuitive**, using clean design principles to accommodate users with varying levels of digital literacy.

Finally, the ToR established **acceptance criteria** that ensured the platform would be fully accessible to external users, allow real-time profile editing by authorized admins, and generate automatic notifications and analytics for performance monitoring.





This rigorous and structured requirements phase helped ensure that all stakeholders' expectations were captured early on, guiding the smooth development of a practical and user-friendly platform.

3.2. Partner Involvement and Presentation of Functionality

Engagement with project partners was an integral component of the platform development process, ensuring that the final product would reflect the needs and expectations of all consortium members. Following the formulation of the Terms of Reference, the development team organized a **dedicated presentation session** to introduce the proposed functionality and gather feedback.

During this session, partners were provided with a structured **visual walkthrough** of the planned platform, as captured in the presentation materials "R&I WIDEAcrossEU". The presentation highlighted the main features intended for each user role (external users, university admins, and super admin), as well as the structure of the user interface and backend workflows. It also emphasized the value of the platform in enhancing institutional visibility and supporting matchmaking between universities and external stakeholders.

Key components showcased to partners included:

- The overall **landing page layout**, including navigation elements such as the "Find Partner," "Contact," and "About" sections.
- The structure of a **university profile page**, with editable blocks for institutional descriptions, scientific research areas, and working laboratories.
- The **contact form mechanism**, designed for external users to directly reach out to universities without the need for registration.
- The admin panel's functionality, including real-time updates and project submission logging.





A centralized platform to showcase research and innovation infrastructure across consortium universities

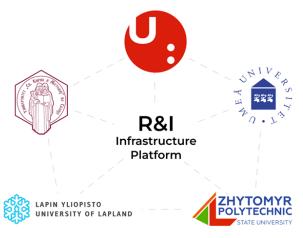


Figure 1. Slide 2 form "Overview of the Platform"

User Roles and Their Benefits:



External VisitorsFind research partners and contact universities



University Admin
Update their profiles, showcase projects, and receive inquiries



(Zhytomyr Polytechnic)
Manage profiles, monitor platform
usage, and ensure smooth
operations

Super Admin

Figure 2. Slide 3 form "Overview of the Platform"





Platform Features

External Visitors Features

- · University Profiles: Display:
 - · General description of the university
 - · Areas of scientific research
 - · Working scientific laboratories
 - · Contact information of the responsible person

University Admin Features

- · Page Editor (Constructor):
 - Editable text fields for general description, research areas, and laboratories.
 - Option to upload images or embed video links.
 - Changes are auto-saved and displayed in realtime
- · Notifications:
 - Email notification for each new contact form submission.

· Contact Form:

- · Simple input fields: Name, Email, Message.
- Automatically forward messages to the responsible person's email and platform account.
- · Confirmation email sent to the sender.

Project Submitted Application Form:

- · Dropdown to select research program.
- · Text field for application title.
- Stored in a "Submitted Applications" section visible to the super admin.

Figure 3. Slide 4 form "Overview of the Platform"

Step-by-Step User Walkthrough

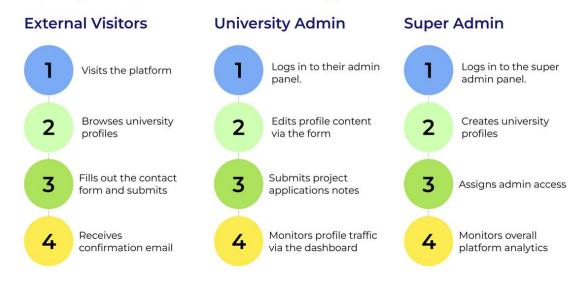


Figure 4. Slide 5 form "Overview of the Platform"

This presentation was critical not only for collecting feedback but also for **gaining alignment and approval** from all partners before proceeding to full-scale development. Adjustments to certain interface elements and wording were incorporated based on comments received during and after the review. The collaborative nature of this stage helped foster a shared sense of ownership and ensured that all partners could contribute to and benefit from the final product.





3.3. Design and User Interface (Start Page Visuals)

The platform's design was deliberately developed to balance clarity, functionality, and visual appeal, with a user interface that would be accessible across various devices and user skill levels. The homepage serves as a gateway to the broader research infrastructure of the consortium, guiding users intuitively to explore, connect, and collaborate.

Key design principles included:

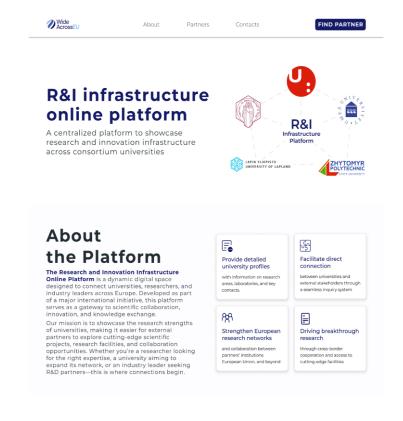
- A **clean and modern layout**, using modular blocks for consistent navigation and information display.
- **Immediate access** to core functions "Find Partner," "About," and "Contact" without requiring user registration.
- A visual introduction to the platform's purpose with a call-to-action: "Use R&I Infrastructure Online Platform Now!" encouraging exploration based on scientific domains and laboratory capabilities.
- Each university profile includes clearly labeled sections: About the University, Areas of Scientific Research, Scientific Laboratories, and Contact Information.
- A universal contact form allows users to send inquiries directly to the responsible person at a university, with minimal input required.

The visual identity is cohesive across the site, incorporating the project's branding, EU funding disclaimers, and a neutral colour palette designed for accessibility. Screenshots from the presentation (see figure above) illustrate the homepage and example university profile layouts, highlighting both the frontend design and user journey.

By ensuring both aesthetic quality and intuitive interaction, the platform achieves its aim of being a **friendly and professional tool** for cross-institutional engagement in research and innovation.







About the Partners

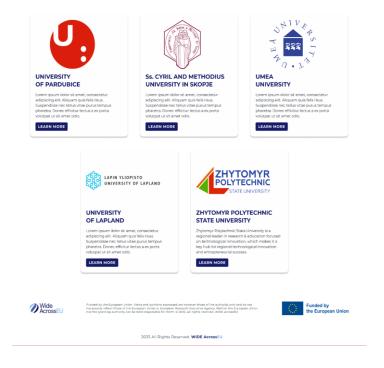


Figure 5. Design and User Interface (Start Page Visuals)





3.4. Backend Development and Partner Data Entry Module

To support decentralized content management and ensure long-term sustainability, the platform includes a **dedicated backend interface** that allows each partner university to independently manage and update their institutional profile. This admin panel was developed with a strong focus on simplicity, usability, and multilingual adaptability to accommodate a diverse range of users across the consortium.

The backend system is accessible via a secure login, with each university selecting its institution from a **drop-down list** during the initial setup. This ensures that only authorized representatives can edit the relevant profile.

Key Features of the Admin Panel:

1. Institutional Description

Admins are prompted to provide a narrative text describing their university's research and innovation (R&I) profile, including strategic priorities and institutional strengths.

2. Visual Identity

Universities can upload a **representative image** that visually reflects their institution's innovation focus. This image is displayed prominently on the public profile page.

3. Contact Information

A section is provided to enter the **name and email address** of the responsible person, ensuring that external users can easily reach out to the appropriate contact.

4. Scientific Research Areas

Universities list their **key scientific domains**, with the ability to:

- Add each area individually.
- Provide a **brief description** and link it to specific **research projects**.
- Use the "Add another scientific area" function to expand entries dynamically.

5. Scientific Laboratories

This section allows detailed entries for each active lab:





- Lab name and short description.
- Upload of lab-specific images.
- Listing of **equipment and devices** available in the lab.
- Flexible addition of multiple labs using the "Add another laboratory" button.

All inputs are stored in real time and reflected immediately on the corresponding public-facing university page, ensuring a **smooth, no-code experience** for administrators. Changes made through the admin panel require no technical background, making it easy for R&I officers or faculty appointees to maintain current and relevant content.

A **training video** and illustrated manual were developed to support onboarding, demonstrating the process of logging in, editing content, and saving updates. These materials were distributed to all consortium partners, and follow-up consultations were made available during the pilot phase.

The backend system successfully balances autonomy and consistency — giving universities control over their profiles while maintaining a unified format and visual coherence across the platform. It also lays the groundwork for **scalability**, as additional institutions can easily be added to the system using the same administrative framework.

3.5. Pilot Implementation

To validate the platform's structure, functionality, and user experience before releasing it consortium-wide, a **pilot implementation** was conducted. This pilot served both as a technical test case and a practical demonstration of how a fully completed university profile should look and function within the platform ecosystem.

Partners populated its profiles with actual data, covering all functional blocks of the admin panel. This included:

- A comprehensive **description of the university's R&I**, institutional priorities, and key achievements.
- A **representative visual** showcasing the university's identity and research environment.
- Structured entries for **scientific research areas**, each accompanied by brief descriptions and related project information.





- Detailed profiles of several **working scientific laboratories**, including images, descriptions, and lists of available equipment and devices.
- Up-to-date **contact information** for the responsible university administrator.

The pilot also functioned as a **quality assurance step**, enabling the development team to test:

- Data input workflows and their appearance on the frontend.
- Responsiveness across desktop and mobile devices.
- Functionality of dynamic elements (e.g., the "Add another" buttons).
- Effectiveness of the contact form and email notification system.
- Real-time update behaviour across different user roles.

Feedback from internal testers during the pilot phase was used to refine visual elements, adjust input field wording for clarity, and improve performance. This ensured that the platform would be intuitive and fully functional when distributed to all consortium members.

Ultimately, the pilot implementation helped **de-risk the launch** of the full platform and provided a clear, replicable model for partners to follow as they began populating their own university profiles.

3.6. Final Release and Deployment

Following the successful pilot implementation and validation, the platform entered its **final stage of development** – full release and deployment. All core functionalities were finalized, thoroughly tested, and implemented across the system. This marked the transition from a prototype to a fully operational digital tool available for consortium-wide use.

The platform, now live and accessible at https://platform.wideacrosseu.ztu.edu.ua, includes **ready-to-use pages for each partner university**. These institutional profiles are structured to transparently present their research and innovation infrastructure, allowing external users to:

• View each university's R&I,





- Explore working scientific laboratories and research domains,
- Contact responsible persons directly through integrated forms.

The interface is fully responsive, multilingual-ready, and optimized for smooth navigation across both desktop and mobile devices. Key sections such as "Find Partner," "About," and "Contact" make it easy for visitors to browse and connect with consortium institutions.

Each university has been provided with secure admin access and supporting documentation to manage own content. Profiles can now be independently updated by authorized representatives in real time, ensuring that information remains current and institution-specific.

The final release of the platform represents a major milestone in WP4's R&I valorisation strategy. It provides a **functional**, **attractive**, **and collaborative digital environment** that enhances the visibility of academic research infrastructure and facilitates new partnerships across sectors and borders.

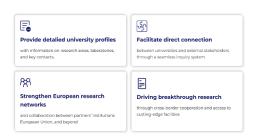






About the Platform

The Research and Innovation Infrastructure Online Platform is a dynamic digital space designed to connect universities, researchers, and industry leaders across Europe. Developed as part of a major international initiative, this platform serves as a gateway to scientific collaboration, innovation, and knowledge exchange. Our mission is to showcase the research strengths of universities, making it easier for external partners to explore cutting-edge scientific projects, research facilities, and collaboration opportunities. Whether you're a researcher looking for the right expertise, a university aiming to expand its network, or an industry leader seeking R&O partners—this is where connections beein.



About the Partners

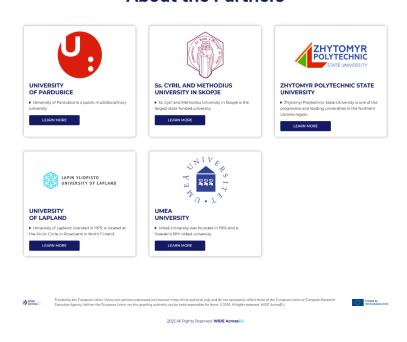


Figure 6. Main Page of the Platform







About UNIVERSITY OF PARDUBICE

University of Pardubice is a public multidisciplinary university building on more than 773-year-long tradition, which has 7 faculties, offering more than 200 bachelor, master and doctoral study programmes focused on natural, technical, social and economic sciences, arts and health studies. University has almost 7000 students, more than 700 academic and research staff members and 500 other employees. Each year the University velocomes more than 500 international students from all over the world.

The University of Pardubice has an excellent management system. Research support office covers Rid, educational and development activities, works with all types of funds and programmes, supports he knowledge transfer and IPR issues. Perfect research teams with big potential in fields of Health sciences, Information Sciences, Craphic Arts and Protocophysics, Badd Systems, Navigation Systems and Signal Processing Technics and Material Sciences.



Areas of scientific research



Figure 7. University of Pardubice – Page of the Platform







Areas of scientific research

Research Area 3 Research Area 2 Research Area 1 Scientific laboratories Contact us Laboratory 3 Laboratory 2 Laboratory 1 Laboratory 3 Laboratory 1 Laboratory 3 Laboratory 5 Laboratory 5

Figure 8. Ss. Cyril and Methodius University in Skopje – Page of the Platform







About ZHYTOMYR POLYTECHNIC STATE UNIVERSITY

Injuriestics in the Northern Discrimination of the Work of the Total Conference and Mafferent American Conference of the Northern Discrimination of the No



Areas of scientific research

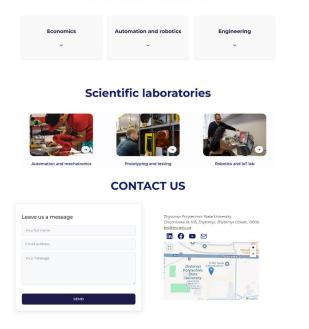


Figure 9. Zhytomyr Polytechnic State University – Page of the Platform





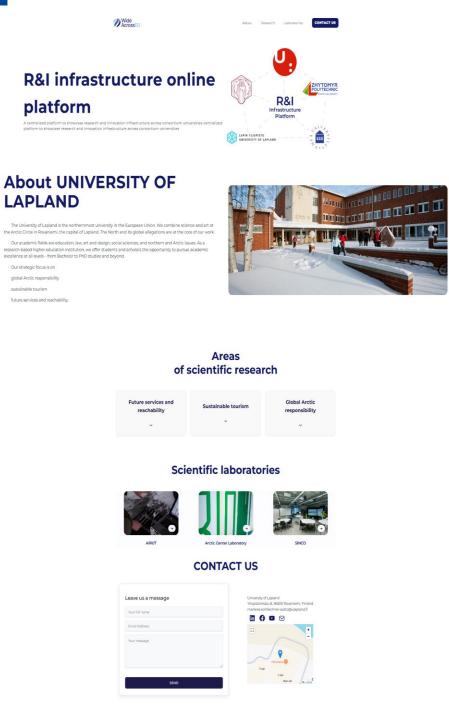


Figure 10. University of Lapland – Page of the Platform





Funded by the European Union



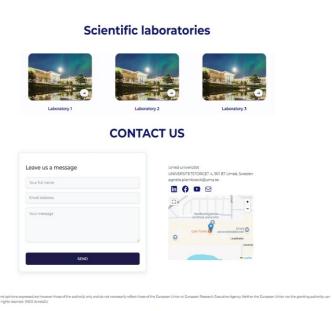


Figure 10. Umea University – Page of the Platform





Executive Summary

This report presents the development and deployment of the **Research and Innovation Infrastructure Online Platform** created under **Deliverable D4.2** of **Work Package 4 (WP4)** of the WIDEAcrossEU project. The platform is a strategic digital tool designed to **enhance visibility, accessibility, and collaboration** around research and innovation infrastructure within the consortium of partner universities.

The primary objective of the platform is to provide a **centralized space** where external stakeholders – including academic institutions, industry representatives, and innovation actors – can easily discover and connect with universities based on their research focus, working laboratories, and expertise. The platform also supports internal valorisation efforts by allowing each institution to maintain and update their own profile through a dedicated backend interface.

Development of the platform followed a structured and collaborative process:

- It began with the **definition of requirements and Terms of Reference**, shaped around real user needs from both external users and internal administrators.
- A **functionality presentation** was held for project partners to ensure alignment and collect feedback prior to implementation.
- A clean and intuitive **user interface** was designed for maximum accessibility and engagement.
- A fully functional **admin panel** was developed to allow universities to independently manage and update their institutional data.
- The system was **piloted**, serving as a demonstration and quality assurance step.
- Finally, the **platform was launched**, with all university pages active and accessible at https://platform.wideacrosseu.ztu.edu.ua.

The platform stands as a **tangible result of WP4's R&I valorisation efforts**, enabling long-term utility and sustainability beyond the duration of the project. It actively supports the European goal of fostering transnational collaboration in research and innovation by making institutional assets visible and approachable on a unified platform.