

EDIH Czech Technical University in Prague

EDIH CTU

European Digital Innovation Hub in the Czech Republic in the field of
Artificial Intelligence (AI) and Machine Learning (ML)

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Deliverable D3.5

Lessons Learned from the 1st Round of Open Calls

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*Inspire and make the Czech AI-driven
Industry*



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List of Abbreviations and Acronyms

AI	Artificial Intelligence
CTU	Czech Technical University in Prague
EDIH	European Digital Innovation Hub
ML	Machine Learning
MoIT	Ministry of Industry and Trade
PSO	Public Sector Organization
SME	Small and Medium-sized Enterprise
TRL	Technology Readiness Level

Executive Summary

Purpose of the Document

The Deliverable *D3.5 Lessons Learned from the First Round of Open Calls* serves to describe and communicate the key insights, outcomes, and observations from the EDIH CTU project implementation, mainly to evaluate internally the first round of open calls that was active from October 2023 to February 2024. It is intended to provide a comprehensive overview of what worked well, what challenges were encountered, and what improvements can be made for future initiatives.

Scope of the Evaluation

The scope of this evaluation encompasses the first round of open calls of the EDIH CTU project, from the initial assumptions and planning stages to the final execution and feedback collection. The evaluation also addresses the project's alignment with its overarching vision and identifies any discrepancies between expected and actual outcomes.

Methodology

The data gathering and analysis for this document involved a combination of quantitative and qualitative methods. We collected data through direct observations, data and document reports, ensuring a complete view of the open call progress. This was supplemented by structured interviews with project team members, service providers, and clients to gain deeper insights into their experiences. The analysis focused on identifying patterns, inconsistencies, and areas for improvement, providing a solid foundation for the conclusions and recommendations outlined in this document.

1. Introduction

1.1 Overview of the document contents

Yes. We had assumptions. Yes. We met reality.

The planned opening day for the first round of open calls was in September 2023. However, until the end of September, the national donor has not provided a valid decision on co-financing project activities.

For the SMEs, we have been dependent on the decision of the national donor – the Ministry of Industry and Trade (MoIT). Their decision was issued on 25 September 2024 and it brought some hinders to all EDIHs in the Czech Republic – e.g., suddenly, there were unclear conditions as for the VAT calculations, we were forced to serve Czech SMEs only, and there was a discrepancy as regards the size of the SMEs the Czech EDIHs could serve.

This document discusses the details we have learned during this period. Some lessons learned and recommendations stemming from the first round of the open call have already been mentioned in Deliverable *D3.4 Evaluation Report of Open Calls* (submitted in March 2024), Chapters 6 and 7 specifically.

1.2 Assumptions

Initially, we believed that certain actions would yield expected results. Our primary assumptions were:

- We would publish a library of services according to the Grant Agreement, expecting high demand and long queues of prospective business clients who would search for our services.
- Such a library will be updated, but most of our technologies has already been incorporated in it.

1.3 Reality

Contrary to our assumptions, the actual outcomes revealed significant gaps and challenges:

- There was no queue at the testbed.
- A shortage of service providers arose because not all faculties that committed to the project joined.
- From the viewpoint of a customer/client, service descriptions were insufficient and lacked clarity.
- A lack of services at the required Technology Readiness Level (TRL) of 7-9 forced us to use services at TRL 6.
- The development and research services took considerably more time (and money) than anticipated, as customizing existing algorithms for clients required much more extensive work.
- Internal projects were perceived similarly to national grant projects, affecting collaboration dynamics.
- There was a misunderstanding of the project's vision, which focused on supporting SMEs and public services.
- Overestimation of AI capabilities by all parties slowed down the creation of functional projects.
- The consortium's internal resources were stretched thin.

- Clients often had vague ideas about their requirements, rarely arriving with well-prepared data, clear expectations, or desired outputs. This led to extended consultative preparatory phases with these clients.
- The actual work hours required for each service were significantly higher than estimated, resulting in fewer delivered services, though we maintained quality within the given budget.
- There was higher demand for chatbots and less for industrial technologies.

1.4 Project Vision

Our long-term vision involves establishing a department that will gradually take over the administrative and commercial processes from specialized departments:

- Accounting processes are covered.
- Project management processes are covered.

Next steps: converge EDIH CTU to a business development unit.

1.5 Strategy

To achieve our vision, we implemented the following strategies:

- Improved Visibility.
- Knowledge-sharing events, conferences, workshops, and information campaigns helped increase visibility.
- Creating service group queues.
- Feedback processes (see also D4.3 *Service portfolio evaluation and optimization*, Chapter 4 specifically).
- Enhanced external and internal feedback mechanisms.
- Improvement in the quality of documents at the open call's entry point.

1.6 Action Plan

To address the challenges and implement our strategy, we outlined the following action steps:

- Select a showcase service.
- Produce video tutorials for providers, including step-by-step guides on how to approach the process.
- Group services into 4-5 categories (e.g., what services use NLP, what services are based on digital image processing, etc.).
- Launch a marketing campaign with live interviews featuring existing projects and showcasing in the press.
- Review drafts of documents prepared for internal service providers and for clients.
- Update the website.
- Set up better web traffic measurement.
- Revise internal capacity among service providers with direct contacts.
- Assess the cost-performance ratio and measure value for money to ensure services meet expected standards.

2. Project Context and Objectives

2.1 Background Information on the Project

The project was initiated to create a comprehensive ecosystem for small and medium-sized enterprises (SMEs) and public service organization (PSOs) to access and leverage advanced technologies, particularly in the fields of artificial intelligence and machine learning. This effort emerged from a broader initiative by the Digital Transformation Accelerator to foster collaboration between research institutions and industry, with a specific focus on the Czech Republic. The project's foundation rests on the idea of providing SMEs and PSOs with access to technology, expertise, and resources that would otherwise be out of reach, thus encouraging innovation and competitiveness.

2.2 Objectives for the First Period

During the first period, the primary objective was to establish a strong framework for delivering services to SMEs and public sector entities. This involved setting up a testbed, developing a service catalogue, and forming, organizing, and formalizing partnerships with various faculties and institutions of the Czech Technical University in Prague (CTU). The initial objectives also included defining clear communication channels, implementing project management processes, and initiating the first round of open call to engage SMEs and PSOs. A key focus was on ensuring the seamless integration of project activities to support project outcomes towards business clients.

2.3 Expected Outcomes

The expected outcomes for the first period included a functional testbed with a defined range of services, and a clear roadmap for future expansion. Outcomes comprised the establishment of key partnerships, update of a service catalogue, and the successful launch of initial projects with SMEs and PSOs. The project aimed to demonstrate the value of collaboration between academia and industry, leading to a measurable impact on innovation and the regional economy. Additionally, the project anticipated creating a scalable model that could be replicated in other regions or sectors.



3. Implementation of the First round of open calls

3.1 Description of the Open Call Process

The first round of open call was designed to attract SMEs and PSOs interested in accessing advanced technology services and expertise. The process involved public announcements, detailed documentation of available services, and clear guidelines for participation (all published on the www.edihctu.eu website, open call announcements were also published on the EDIH CTU LinkedIn).

Applicants were required to submit proposals outlining their project needs, goals, and expected outcomes. A structured evaluation process was established to ensure transparency, with criteria focusing on innovation potential, feasibility, and alignment with the project's objectives. The open call process aimed to identify projects that could benefit from the testbed's resources and individual internal service provider expertise.

Guidelines and relevant project documents can be found in *Deliverable D3.3 Guidelines for Open Calls including evaluation and monitoring* and on the EDIH CTU website www.edihctu.eu.

3.2 Stakeholder Involvement and Response

Stakeholder involvement was a critical component of the open call process. The project's consortium engaged with key partners, including academic institutions and industry associations, to promote the open calls and encourage participation.

Workshops, webinars, and informational sessions were conducted to inform stakeholders about the project's goals and the benefits of participating in the open calls. The response from stakeholders was generally positive, with many expressing interests in the collaborative opportunities offered by the project. This engagement helped to establish a strong foundation for future interactions and partnerships.

Details about the consultations and information sessions were published also in Deliverables *D5.2 Report on provided services related to knowledge sharing* (in December 2023) and *D4.3 Service portfolio evaluation and optimisation* (in January 2024).

3.3 Overview of Submissions Received

The first round of open calls attracted a diverse range of submissions from SMEs and PSOs across various industries. The proposals varied in scope and complexity, reflecting the wide array of needs and interests among the participants. Most submissions focused on artificial intelligence and machine learning applications, with a noticeable demand for chatbot technology. Other submissions explored industrial technologies and process automation. Despite the volume of submissions, a key challenge was the inconsistency in the quality of proposals, with some requiring additional support to meet the project's requirements. Overall, the response to the first round of open calls indicated a promising start, but also highlighted areas for improvement in terms of communication and support for applicants.

Details about the first round of open calls have been provided in Deliverable *D3.4 Evaluation Report of Open Calls* issued in March 2024.

4. Lessons Learned

4.1 Challenges Encountered and How They Were Addressed

The project faced several challenges during the first round of open calls, requiring adaptive solutions and flexibility. Some lessons learned and recommendations stemming from the first round of the open call have already been mentioned in Deliverable *D3.4 Evaluation Report of Open Calls* (submitted in March 2024), in Chapters 6 and 7 specifically.

One significant challenge was the shortage of service providers, as not all CTU faculties that had committed to the project were able to actively participate. This issue was addressed by encouraging CTU faculties to engage using good practice examples and by creating a special working group aimed at proactively identifying and addressing administrative obstacles.

Another challenge was the inconsistency in service descriptions, which led to misunderstandings and misalignment of expectations. To resolve this, the team developed clearer guidelines and templates for service descriptions. These were validated at public presentation for SMEs and PSOs.

4.2 Successes and Strengths of the Project During This Period

Despite the challenges, the project achieved several notable successes during the first period. The engagement with stakeholders was a key strength, with positive responses from both SMEs and PSOs. The project's focus on knowledge sharing through workshops and informational sessions significantly contributed to its success, enhancing visibility and attracting quality submissions during the first round of open calls. The improved presentation of our testbed with a defined range of services was another major accomplishment, providing a foundation for future projects.

4.3 Recommendations for Future Open Calls

Based on the lessons learned, several recommendations were identified to improve future open calls. Many of them were already defined in *D3.4 Evaluation Report of Open Calls*. Apart from those mentioned in D3.4, here are our other ideas how to improve the impact of our open calls:

- Enhancing the support for applicants during the proposal preparation phase is crucial, as many applications lack clarity and detailed plans. Providing additional resources, such as renewed and adapted templates and workshops, will help address this issue.
- Improving communication and collaboration among project stakeholders can reduce internal resource conflicts and ensure smoother operations.
- Finally, a more structured feedback mechanism for open call participants will enhance the quality of submissions and lead to better outcomes.

Implementing these recommendations will contribute to a more efficient and effective open call process in the future.

5. Future Outlook and Next Steps

5.1 Objectives for the Next Period

For the upcoming period, the project has set several key short-term objectives to build on the momentum from the first round of open calls.

One critical objective is to focus on better explanation of the range of services offered, addressing the service portfolio. Additionally, the project aims to increase stakeholder engagement through targeted outreach and collaboration with project stakeholders, namely industry associations. This includes hosting more knowledge-sharing events and workshops to foster deeper connections with SMEs and public sector entities.

Improving the quality of open call submissions is another short-term objective, with a focus on providing better support and guidance to applicants.

The next key milestone is the successful implementation of the second round of open calls, with a focus on improved quality and greater participation.

5.2 Mitigation Strategy in Detail

The following table lists the identified challenges and their respective mitigation strategies.

ID	Challenge	Mitigation
1	There was no queue at the testbed.	We will lower the threshold by implementing an AI Transformation Academy focused on explaining where in industry AI/ML based technologies CAN be used and where these technologies are VIABLE and FEASIBLE. Improving our market strategy will also be beneficial for attracting more clients.
2	A shortage of service providers arose because not all faculties that committed to the project joined.	Open a series of calls with faculty representatives to regularly update commitments and responsibilities to ensure participation.
3	Service descriptions were insufficient and lacked clarity.	An update set of service descriptions was developed to improve clarity in communication between clients and service providers.
4	The implementation services took considerably more working hours than anticipated, as customizing existing algorithms for clients required extensive work based on different client context.	We decided to develop a modular approach to customization, allowing for reusability of existing components. We will also enhance pre-project planning to better scope the efforts required.
5	Internal projects were perceived similarly to national grant projects, affecting collaboration dynamics.	We decided to regularly communicate the project's objectives and impacts through news, meetings, and workshops to ensure alignment with the vision.

ID	Challenge	Mitigation
6	There was a misunderstanding of the project's mission, which focuses on supporting SMEs and public services.	We decided to regularly communicate the project's objectives and impacts through news, meetings, and workshops to ensure alignment with the vision.
7	Overestimation of AI capabilities by all parties slowed down the creation of functional service delivery.	We will lower the threshold by implementing an AI Transformation Academy focused on explaining where in industry AI/ML based technologies CAN be used and where these technologies are VIABLE and FEASIBLE.
8	Clients often had vague ideas about their requirements, rarely arriving with well-prepared data, clear expectations, or desired outputs. This led to extended consultative preparatory phases with these clients.	We will intensify the communications and consultation phase and explain facts about AI deployment through AI Transformation Academy focused on explaining where in industry AI/ML based technologies CAN be used and where these technologies are VIABLE and FEASIBLE.
9	The actual work hours required for each service were significantly higher than estimated in the original project plan, resulting in fewer delivered services, though we maintained quality and quantity within the given budget.	This led us to choose a different methodology for the next call that will better deliver a proper estimation of our services in terms of project size (in hours).
10	There was higher demand for chatbots and less for industrial technologies.	We will lower the threshold by implementing an AI Transformation Academy focused on explaining where in industry AI/ML based technologies CAN be used and where these technologies are VIABLE and FEASIBLE.

6. Conclusion

The initial round of open call has highlighted several critical areas for improvement while simultaneously affirming the project's core strategy and its long-term objectives. The insights and lessons learned gained from this phase are invaluable, guiding necessary adjustments to not only meet but surpass the expectations of all stakeholders involved.

Looking ahead, these lessons will steer the project towards more effective and impactful implementation, thus increasing its contribution to technological advancement and regional economic competitiveness. This dedication to continual learning and adaptation is crucial for the enduring success of the project, which aims to empower SMEs and PSOs with technological solutions.

