

## 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 D5.2

### Report on provided services related to knowledge sharing



*Inspire and make the Czech AI-driven  
Industry*



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## List of Abbreviations and Acronyms

AI	Artificial Intelligence
AQuA	All Questions Answered
B2G	Business-to-Government
CLAIRE	Confederation of Laboratories for AI Research in Europe
CTU	Czech Technical University in Prague
EDIH	European Digital Innovation Hub
KPI	Key Performance Indicator
ML	Machine Learning
SME	Small and Medium-sized Enterprise
VSB	Technical University of Ostrava (from Czech “Vysoka skola banska”)

## Executive Summary

The D5.2 Report on provided services related to knowledge sharing, prepared by the European Digital Innovation Hub at the Czech Technical University in Prague (EDIH CTU), details the EDIH CTU's efforts in fostering knowledge sharing through various services and events. It particularly focuses on the application and dissemination information on using AI and ML technologies in everyday work and processes of target groups – i.e., the public sector, SMEs and small-midcaps.

The report includes an overview of events organized and co-organized by the EDIH CTU, and where EDIH CTU team members participated as speakers, sharing insights on AI in the public sector and SMEs. Furthermore, consultations provided by the EDIH CTU team served to enlighten clients from both the public and private sectors about the possibilities of AI technologies in their praxis.

This document builds, i.a., upon the foundation set by the Deliverable *D4.1 E-learning materials*, reported in October 2023, which compiled educational resources focused on AI, offering a structured guide for enhancing AI understanding across various sectors. Deliverable D5.2 showcases EDIH CTU's pivotal role in advancing knowledge sharing through AI and ML applications in the public sector and SMEs. It outlines the synergy between our activities and the broader European innovation landscape, emphasizing the transformative impact on digital transformation.

## 1. Introduction

This report documents EDIH CTU's strategic initiatives in AI knowledge sharing during its inaugural year, highlighting our targeted approach to educating SMEs and public sector entities about AI and ML technologies' practical applications and benefits.

Essential to the EDIH CTU's strategy are its educational activities, as outlined in *Grant Agreement No 101083359* and Deliverable *D4.1 E-learning materials*. These activities encompass a broad spectrum of initiatives, ranging from organizing and participating in events aimed at disseminating knowledge, to providing tailored consultations that help integrate AI technologies into various professional practices. The overarching goal of these efforts is to facilitate the seamless integration of AI innovations into key sectors of the economy, thereby enhancing the European innovation ecosystem's competitiveness and capacity for digital transformation.

In this report, we delve into the specifics of these activities, exploring the impact and reach of the EDIH CTU's initiatives. We also examine the role of the EDIH CTU as a player in the landscape of digital innovation, emphasizing its contributions to the broader discourse of AI and ML applications in the Czech Republic. This document, therefore, not only serves as a record of the EDIH CTU's first-year accomplishments in the area of knowledge-sharing activities but also as a blueprint for future endeavours in the domain of AI-driven knowledge sharing and digital innovation.

Notwithstanding our aspirations, the EDIH CTU encountered challenges in fully realizing its knowledge-sharing tasks and KPIs, particularly in organizing diverse educational events such as conferences, webinars, workshops, and consultation days. These obstacles were largely due to considerable delays in receiving the decision from our national donor, the Ministry of Industry and Trade. The decision, issued at the end of September, meant that the EDIH CTU could only commence full operations from the beginning of October. Despite these initial nine-month-long uncertainties, our team tried to find other ways how to provide services through organizing and co-organizing a collection of training, matchmaking, and consulting activities throughout the first nine months.

Sharing information about concrete AI use cases is pivotal in demonstrating the technology's practical impact across various sectors, including public administration and SMEs. For instance, chatbots can revolutionize customer service, offering prompt and efficient responses, while AI-driven anomaly detection algorithms can enhance cybersecurity and fraud detection. In HR, AI can streamline recruitment by analysing resumes and predicting candidate suitability. Legal sectors benefit from AI in document analysis and case prediction. Architecture and design fields can use AI to optimize building layouts and energy efficiency. Additionally, AI aids healthcare through diagnostic tools, predictive analytics, and personalized treatment plans. In retail, AI enhances customer experience through personalized recommendations and inventory management. These examples showcase AI's versatility and transformative potential, underscoring the importance of knowledge sharing to fully leverage these technologies.

Having in mind the importance and versatility of AI technologies, the EDIH CTU tried to cover many of them in its educational and knowledge-sharing activities during its first years of existence. Our efforts contributed significantly to the Digital Europe Programme's objectives, fostering a digitally empowered Europe.

## 2. EDIH CTU's Knowledge Sharing Services

Chapter 2 of the Deliverable D5.2 delves into the EDIH CTU's knowledge sharing services provided in 2023. These services are instrumental in disseminating AI and ML expertise.

In 2023, EDIH CTU led and collaborated on several key events such as “AI for Public Administration” and international matchmaking events (EDIH Twister series), each aimed at promoting AI use in specific sectors.

This chapter is structured into four key subchapters: 2.1 highlights the knowledge sharing events organized directly by EDIH CTU; 2.2 focuses on events co-organized with partners, showcasing collaborative efforts in knowledge dissemination; 2.3 covers the EDIH CTU's participation as speakers, where they share EDIH CTU's insights and case studies; and 2.4 discusses the EDIH CTU's consultation days, offering tailored advice to implement AI solutions effectively in various sectors.

Further information on the number of participants in each training, knowledge-sharing, and consultation activity is provided in Deliverable D1.3 Monitoring of KPIs.

### 2.1 Knowledge-Sharing Events Organized by the EDIH CTU

In 2023, the EDIH CTU organized 2 awareness-raising and education events.

- a) On 27 June 2023, the EDIH CTU held a meeting with representatives of public administration called “**Innovation Platform URBAN**”, during which project representatives informed participants about the services and specific opportunities to use AI technologies available to the EDIH CTU. Specific AI services were demonstrated and participants learned about the upcoming open call and the process of how they will be able to apply for EDIH CTU services. During the discussion, the EDIH CTU team identified the needs of the public sector representatives and later started to prepare the delivery of services with a number of them.
- b) On 1 November 2023, a knowledge-sharing and educational event “**AI for public administration**” was held with matchmaking of public administration representatives, during which information on specific use cases, and general training opportunities on AI were presented, and participants had the opportunity to exchange experiences and knowledge with colleagues from the public sector and to network with persons dealing with both the implementation and use of AI in public administration.

### 2.2 Co-organized Knowledge Sharing Events

In addition to the events that the EDIH CTU team organized independently, it also co-organized a number of other educational and matchmaking activities. These included the following events:

- a) **EDIH Twister Vol. I** – In co-operation with other Czech and German (Bavarian) EDIHs, the EDIH CTU co-organized an international matchmaking and knowledge-sharing event on 11 May 2023. The first inter-EDIH information, contact and networking event introducing the services of the EDIHs and their partners to support the digital transformation of small and medium-sized companies in the vicinity of the Czech-German border region took place at the South Bohemian Science and Technology Park in České Budějovice.



- b) **C-STTS** – On 7-8 June 2023, the EDIH CTU co-organized the biggest Czech and Slovak Technology Summit in Mikulov. The main focus of the networking and knowledge-sharing event was on the fields of artificial intelligence, cyber security, and EDIH services. Participants got the most up-to-date practical information on the given topics. An integral part of the event was also a specialized workshop organized by EDIH CTU where participants could learn details about AI-based EDIH CTU's services and discuss with EDIH CTU representatives their needs and possibilities of implementing AI technologies in their daily work routines.
- c) **EDIH Twister Vol. II** – In co-operation with other Czech and Slovak EDIHs, the EDIH CTU co-organized the second international matchmaking and knowledge-sharing event on 20 June 2023. This inter-EDIH information, contact and networking event introducing the services of the EDIHs and their partners to support the digital transformation of small and medium-sized companies from the Czech and Slovak Republics took place at the Slovak University of Technology in Bratislava.
- d) **EDIH Twister Vol. III** – The third inter-EDIH Twister was co-organized by Czech and German (Sachsen) EDIHs on 21 September 2023. As in previous EDIH Twister events, it aimed to serve as an information, contact and networking event introducing the services of the Czech and Sachsen EDIHs to all companies participating in the event.
- e) **AI Happy Hours** – On 17 October 2023, together with our colleagues from the DIH4AI project, the Czech Institute of Informatics, Robotics and Cybernetics at the Czech Technical University (CIIRC CTU), the National Centre for Industry 4.0, and the AI Matters project, we participated in an informal meeting of representatives of small and medium-sized enterprises at the premises of CIIRC CTU. A wide range of technologies, concrete use cases, and various success stories showed participants that the road to innovation did not have to be long or thorny. Speakers presented how can be AI technologies transferred into production and how can SMEs get financial help through various national and international projects, such as the EDIH CTU.
- f) **LIFMAT 2023** – On 24 and 25 October 2023, the EDIH CTU helped to organize LIFMAT 2023, a unique conference that brought together experts in the field of digital technology, innovations, and lifestyle management. It was a two-day event packed with lectures, workshops, an interactive exhibition, a hackathon, expert speed dating, and other interesting agendas. At the event, EDIH CTU representatives introduced the AI technologies available to the healthcare sector and informed participants about other AI technology transfer and funding opportunities. In the exhibition part, they then introduced the EDIH CTU project to the interested visitors at the booth.
- g) **EDIH Twister Vol. IV** – The last inter-EDIH information, contact and networking event introducing the services of the Czech and Polish EDIHs and their partners to support the digital transformation of small and medium-sized companies in the Czech-Polish border region took place at the National Supercomputing Centre IT4Innovations at the VSB – Technical University of Ostrava. The aim was to introduce the participants to the possibilities of using AI technologies
- h) **CLAIRE x EDIH AQuA** – The last knowledge-sharing event of 2023 that the EDIH CTU co-organized in co-operation with the Confederation of Laboratories for Artificial Intelligence Research in Europe (CLAIRE), sustain.brussels, DIHNAMEC,

AI5Production, and EDIH Saarland took place on 18 December 2023. The focus of the CLAIRE x EDIH AQuA session on sustainable AI was to explore the strategies employed by EDIHs in addressing green deal issues. This involves the incorporation of sustainability considerations into services designed to assist organisations and companies grappling with digital transformations. In addition, the webinar discussed the influence of AI, data, and robotics technologies on sustainability matters, emphasising their potential contribution to achieving sustainable development goals. During the session, all panellists imparted insights into their experiences and shared best practices related to integrating sustainability into the development and deployment processes of their services. This encompassed various aspects from policy to innovation workshops, during training or when providing access to test infrastructures and developing financial services.

### 2.3 EDIH CTU's Knowledge-sharing as Speakers

In addition to organizing or co-organizing a number of seminars, workshops, and conferences, representatives of EDIH CTU participated in several events as speakers to share their experience with AI technologies and their implementation in the practice of companies and public sector organizations. These activities included:

- a) **Forum of smart solutions for cities** (15 June 2023), where there were connected municipalities and innovative Czech start-ups with B2G solutions not only for cities. EDIH CTU presented its services and financing options at this meeting.
- b) **Smart Business Festival** (31 October 2023) – this event offered SMEs an overview of examples of good practice and offered cooperation with a focus on the transition to the data economy and the best possible use of data as a commodity for the successful digital transformation of a company or organization. This information, presentation, and networking event was focused on sharing news about projects and activities to support the development of the digital economy and society and new technological and business approaches in the business of Czech SMEs. This year's programme featured new services of EDIHs in the Czech Republic and neighbouring countries, specific success stories of cooperation with SMEs from their practice and current activities and projects of Czech and foreign organisations to support the digital transformation of the private and public sectors.
- c) **7<sup>th</sup> Entrepreneur Forum of the Usti Region** (9 November 2023) – in the session "Digitalization", the EDIH CTU presented the possibilities of using AI technologies by SMEs.
- d) **Innovation Company of the Zlín Region** (21 November 2023) - during the gala evening of the "Innovation Company of the Zlín Region", SMEs and public administration representatives had the chance to learn more about the EDIH CTU services and the possibilities of financing these AI-based technologies from the EDIH CTU project.

### 2.4 EDIH CTU's Consultation days

Organizing consultations for SMEs and the public sector is vital for the successful digitalization and implementation of AI-based technologies. These consultations provide tailored guidance, addressing specific challenges and opportunities unique to each organization. They facilitate a deeper understanding of AI's capabilities, ensuring a more effective and efficient integration

of these technologies into various operational processes. This personalized approach not only accelerates digital transformation but also empowers organizations to harness AI for innovation, improved services, and enhanced decision-making, thereby contributing to their competitive edge and public service efficiency.

- a) **Consultation day in Zlín** (22 November 2023) – based on the previous arrangement, the EDIH CTU organized a consultation day for SMEs and representatives of the public administration in the Zlín Region. The EDIH CTU representatives answered questions from 6 SMEs and 2 public administration organizations and provided information on AI-based technologies and their practical use in various areas of work.
  
- b) **Other consultation sessions** – whenever EDIH CTU receives a request for a consultation, the team arranges a meeting and explains, how the EDIH CTU works, what services it offers and how such services and technologies can help both the public and private sectors in elevating their work and field of expertise. Consultations have been already used by, e.g., Prague City Hall, Ministry of Finance, ICEE, Direct People etc.

### 3. Other Knowledge-Sharing Activities of the EDIH CTU

The EDIH CTU website offers a comprehensive list of educational services and activities in the field of AI technologies, crucial for organizations navigating digital transformation. This list is consistently updated, ensuring the latest resources and information are readily available. It is important to note that not all educational and knowledge-sharing activities published on the website <https://www.edihctu.eu/sluzby/> are prepared solely by the EDIH CTU. The hub efficiently promotes a variety of available and mostly free information and educational sources. This approach allows for a diverse range of learning opportunities, catering to different needs and advancing AI understanding and application in practical scenarios.

## 4. Impact and Outcomes of the EDIH CTU's Knowledge Sharing Services

As we reflect on the first year, EDIH CTU's commitment to AI and ML knowledge sharing has laid a foundation for ongoing digital transformation in key sectors. Looking ahead, we aim to deepen our impact, fostering a culture of innovation and learning in the digital era.

The initiatives and knowledge-sharing events orchestrated by the EDIH CTU have substantially influenced participants' understanding of AI technologies in both SMEs and the public sector. These events, ranging from conferences to workshops, seminars, and consultation days, have facilitated a comprehensive exchange of ideas, best practices, and technological insights. The positive outcomes of these events include:

- **Enhanced Knowledge Base:** Participants have gained a deeper understanding of AI technologies, including their practical applications and potential challenges. This knowledge transfer is vital for entities venturing into digital transformation.
- **Skill Development:** Hands-on workshops and seminars have provided practical skills necessary for implementing AI solutions effectively, thus, equipping attendees with the tools to drive AI-based innovation within their organizations.
- **Networking and Matchmaking Opportunities:** These events have offered invaluable networking platforms, allowing attendees to connect with experts, industry leaders, and peers. Such connections are crucial for collaborative innovation and staying abreast of industry trends.
- **Informed Decision-Making:** The insights garnered from these events have enabled more informed decision-making within organizations, particularly in strategizing AI integration in various operational processes.
- **Catalysing Innovation:** Through these knowledge-sharing initiatives, the EDIH CTU has played an appreciable role in catalysing innovation within the SME sector and public administration, promoting the adoption of AI technologies for enhanced efficiency and service delivery.

Overall, EDIH CTU's services have been instrumental in fostering a culture of continuous learning and adaptation, crucial in the rapidly evolving field of AI technology.

## 5. Conclusion

Deliverable D5.2 comprehensively documents the EDIH CTU's first year, highlighting its significant efforts in knowledge sharing and AI education for SMEs and the public sector. Despite operational delays, the EDIH CTU demonstrated resilience and adaptability, successfully organizing and participating in various educational and knowledge-sharing events. These initiatives not only enhanced participants' understanding of AI technologies but also fostered skill development, networking, and innovation. The report underscores the transformative potential of AI across sectors, validating the importance of continuous learning in the digital age. It stands as both a testament to EDIH CTU's achievements and a guiding framework for future AI-driven educational endeavours, contributing to the overarching digital transformation landscape.