TERMS OF REFERENCE NO. 09-1/24

Design of training program "Introduction to Artificial Intelligence in Healthcare"

1. Background

With digitalization no longer merely a contributor to business growth but a critical precondition for continued competitiveness of corporate entities across all industries, there is growing global realization of the need to allocate greater resources to enable and expedite the processes of digital transformation, adaptation, and innovation. Nonetheless, the level of both digital awareness and uptake in Bosnia and Herzegovina remains limited with little organic demand for transformational assistance and the deployment of digital technologies. The healthcare sector represents an illustrative case study in the cost of dismissing digital enablers and innovation in general, with demand for healthcare services - in both volume and scope - growing alongside the further diminishing of available resources. At the same time, healthcare is among the most carbon-intensive industries in the world.[1] It is responsible for close to 5% of greenhouse gas emissions worldwide, largely stemming from fossil fuel combustion, exacerbating the existing public health crisis with atmospheric pollution very much contributing to the high instance of chronic diseases in Bosnia and Herzegovina.

The introduction of green and digital technologies and innovations offer both improved patient outcomes, as well as greater efficiency in operation for both public and private healthcare providers. There is, however, a pressing need to ensure that the coming digital transformation and innovation journeys are properly supported and resourced. This entails, at a minimum, a basic level of awareness of the benefits offered through both green and digital transformations as well as the skills needed to fully exploit the available opportunities. This will enable healthcare businesses and public institutions alike to make informed decisions about moving their organizations forward. In addition to this basic level of awareness and knowledge of digitalization as an enabler in healthcare, there is further need to provide interested providers with on-site support and tailor-made assistance in assessing the needs of their organizations and charting the way forward. Finally, innovations in healthcare, as in any other sector, will require the development of a supporting enabling environment that will generate new and advanced healthcare services and solutions. This will include prototype development, testing and product, and business, design.

The its4Health Digital Innovation Hub (the Hub) offers an integrated package of services, ranging from facilitating digital and green transformation of partner healthcare SMEs and public providers, through enabling the emergence of innovative products, to incubating and developing businesses around the innovations. The Hub is unique in its approach as it aims to provide significant added value to society at large through making a tangible contribution to improving the performance of the country's struggling health sector.

The Hub aims to grow into a unique country-wide platform for enhancing and enabling cooperation between businesses, public institutions, and scientific entities, helping improve the performance, and the continued resilience, of the healthcare sector in the post-pandemic setting. The establishment and inception of the Hub represent the initial steps in accelerating the adoption and diffusion of new technologies by the healthcare industry, building on the existing healthtech ecosystem in Bosnia and Herzegovina, and exploiting the opportunities presented by the coming green and digital transitions.

In order to support the uptake of digital technologies by healthcare workers the Project is commissioning a **service provider (company) to design and develop a training program on artificial intelligence for healthcare professionals**, aimed at improving the current levels of knowledge and awareness about the impact of artificial intelligence on medicine.

The project for establishing digital innovation hubs is part of the broader project EU4DigitalSME, jointly funded by the European Union and the Federal Ministry for Economic Cooperation and Development of the Federal Republic of Germany (BMZ). Setting up and supporting the development of DIH (Digital Innovation Hub) services is one of the key activities of the EU4DigitalSME project, all aimed at contributing to the development of an ecosystem for digitalization, automation, and innovation in small and medium-sized enterprises (SMEs) in Bosnia and Herzegovina.

2. Objective

The main objective of the assignment is to develop a training program that will develop both awareness and knowledge of the impact and uses of artificial intelligence in healthcare. The course, tentatively named *Introduction to Digital Healthcare* will therefore bring up core digital healthcare concepts, seeking to bring them closer to the healthcare community.

The training program will target to deepen participant understanding and awareness of the following concepts:
- What is artificial intelligence and what are the technologies that power it,
- What are the applications of artificial intelligence in the provision of healthcare?
- How can artifical intelligence improve patient outcomes,
- How is AI deployed in diagnostics and personalized medicine in particular,
- How to address challenges and manage outsized expectations with regards to deployment of artificial intelligence in medicine.

The above topics are illustrative and the Service provider will be abole to suggest modifications to the training terms if reference if sufficient justification is provided.
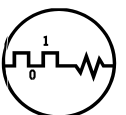
3. Scope of work

The consultancy assignment will consist of the following tasks and activities:

Task 1. Deliver training program outline
At this stage, the Service provider will be asked to provide an outline of the training program that will contain the roadmap for the training with a recommended set of training topics to be covered, learning objectives, structure of the training and modes of delivery, among other considerations. The outline will also identify the training target group in terms of any prerequisite knowledge, skills or abilities, having in mind the overall objective of the exercise. The outline will also provide the recommended duration for each of the training modules. The outline will be provided to the project team for review, feedback and ultimate endorsement.

Task 2. Develop training material
Once the training outline has been approved by the project team, the Service provider will design and develop the training program in the form of a multi-modular presentation with accompanying text. The design of the program will ensure that it is interactive and properly paced in terms of the volume of data that is conveyed to the participants. Learning material, such as case studies and handouts, will also be included, making use of real-world scenarios as much as possible, ideally from the Western Balkans region to make the material relatable. The program will need to be transferrable into an online learning environment in order to boost dissemination opportunities.

The program will also contain a section on how to assess and evaluate knowledge of prospective participants, ideally using the Kirkpatrick's Evaluation Model. Once completed, the training material will be submitted to the Project Team for review. Any and all changes and modifications proposed will need to be integrated prior to the endorsement of the training program.

Task 3. Deliver mock training
The Service provider will be expected to deliver a mock training to the project team for validation purposes. This will entail going through all the training material in real-time and receiving feedback on the content and pacing of the training material.

4. Language of the program

The training must be delivered exclusively in one of the official languages of Bosnia and Herzegovina.
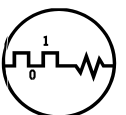
4.Minimum Eligibility and Qualification Criteria

Eligibility and Qualification will be evaluated on Pass/Fail basis.

Subject	Criteria	Document Submission requirement
ELIGIBILITY		
Legal Status	Vendor is a legally registered entity.	Corporate registration
Individual Profile	Bidder information	Company Profile, which should not exceed 5 (five) pages, including printed brochures and product catalogues relevant to the goods/services being procured
QUALIFICATION		
Previous Experience	Minimum 3 contracts of similar nature and complexity implemented over the last 5 years.	Contracts /client statements on satisfactory performance/other relevant documents confirming delivery of results
Financial Standing	Sound financial standing with no outstanding taxation liabilities.	Income statement and balance sheet for the year 2022 and 2023 and/or other relevant documents demonstrating current soundness of financial standing
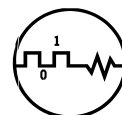
5. Deliverables and Payment Schedule

The Hub expects the assignment to be fully completed by 31 May. The payment will be made in full within 30 days of acceptance of training program and endorsement of mock training delivery (and upon receipt of invoice).

6. Submission Deadline

All interested candidates are to submit their bids to this call from **22. 04. 2024., to 30. 04. 2024., 23:59 PM**. All bids are to be submitted electronically to the following email address: *info@ssst.edu.ba*, with the subject note: *Design of Training Program Digital Journey into Healthcare, no. 09-1/24 Call for Bid Submission.*

Financial Proposal Form – 09-1/24

Name of Bidder:	[Insert Name of Bidder]	Date:	Select date

The Bidder is required to prepare the Financial Proposal following the below format and submit with the Technical. Any Financial information provided in the Technical Proposal shall lead to Bidder's disqualification.

The Financial Proposal should align with the requirements in the Terms of Reference and the Bidder's

Technical Proposal.

Currency of the proposal: [Insert Currency

Table 1: Summary of Overall Prices

	Amount(s)
Professional Fees (from Table 2)	
Other Costs (from Table 3)	
Total Amount of Financial Proposal	

Table 2: Breakdown of Professional Fees

Name	Position	Fee Rate	No. of Days/months/ hours	Total Amount
		A	B	C=A+B
In-Country				
Home Based				
Subtotal Professional Fees:				
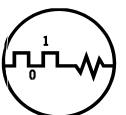
Table 3: Breakdown of Other Costs

Description	UOM	Quantity	Unit Price	Total Amount
International flights	Trip			
Subsistence allowance	Day			
Miscellaneous travel expenses	Trip			
Local transportation costs	Lump Sum			
Out-of-Pocket Expenses				
Other Costs: (please specify)				
			Subtotal Other Costs:	

Table 4: Breakdown of Price per Deliverable/Activity

Deliverable/ Activity description	Time (person days)	Professional Fees	Other Costs	Total
Deliverable 1				
Deliverable 2				
Deliverable 3				
…..				

Signature of authorized person:

Stamp (only for legal entities):