

# **REPUBLIC OF CROATIA**

## **MINISTRY OF SCIENCE, EDUCATION, AND YOUTH**

### **UNIVERSITY OF ZAGREB FACULTY OF ORGANIZATION AND INFORMATICS**

#### **DIGITAL, INNOVATION, AND GREEN TECHNOLOGY PROJECT**

##### **TERMS OF REFERENCE**

##### **for Supervision of Works Services for the Construction of Faculty of Organization and Informatics Building “FOI 2”**

Proc.ref.no.: DIGIT-FOI-CS-A1-3

## **1. PROJECT BACKGROUND**

The Government of the Republic of Croatia and the International Bank for Reconstruction and Development (IBRD), as part of World Bank, have signed, on June 28, 2023, the Loan Agreement (Loan No. 9558-HR) in the amount of EUR 106 million for the Digital, Innovation, and Green Technology Project (DIGIT Project). The Ministry of Science, Education, and Youth (MSEY) is the authority responsible for managing the DIGIT project.

The DIGIT project will support a comprehensive structural reform of the research and innovation sector by financing interventions that will produce transformative effects on research excellence, increased productivity, and the achievement of a green, digital, and globally competitive economy.

Digital transformation refers to the integration of digital technologies to increase productivity and economic efficiency. Green transition relates to the implementation of solutions relevant to the transition towards a climate-neutral and environmentally friendly economy. Green and digital technologies and research represent a significant opportunity for growth and increased productivity within the service-oriented Croatian economy. These technologies drive markets towards less dependence on physical proximity, increased automation, and greater investment in intangible capital. Investments in digital and green technology have the potential to significantly boost Croatia's prospects.

The DIGIT Project will facilitate the digital transformation and the green transition of the economy, increase resources for applied research and experimental development, and support the efforts of the Croatian government to strengthen its institutional capacity to deliver research and innovation policies. Activities under the DIGIT Project will finance research and innovation through Sub-grant schemes, with a focus on digital and green, and will complement and enhance the effectiveness of investments and build the capacities of institutions to deliver on this agenda. The DIGIT Project will also support reforms envisaged in the National Recovery and Resilience Plan 2021-2026 (NRRP), the Croatia Smart Specialization Strategy 2021-2029 (S3), Programme Competitiveness and Cohesion 2021-2027 (PCC), and activities important for the country's accession to the Organization for Economic Co-operation and Development (OECD). The project will support the achievement of the goals defined in component C3.2 of the National Recovery and Resilience Plan (NRRP), which focuses on reforming research and innovation policies and

strengthening research and development capacities in both the research and business sectors. It will also contribute to the goals of the Smart Specialisation Strategy (S3) through the modernization of research infrastructure, enhancement of research management and technology scouting, and fostering connections between academia and industry.

The DIGIT Project will provide financial support to select projects through a Sub-grant scheme. This scheme is designed to allocate targeted funds to foster innovation and development within the framework of the project's goals through 2 components and 4 sub-components:

Component 1 of DIGIT Project provides technical assistance and financing to strengthen institutional capacities for research, development, and innovation (RDI) support, address information asymmetries for green and digital technology adoption, foster industry-science linkages, support the professionalization of research centers, and improve the research and technology infrastructure. Sub-component 1.1, Strengthening the institutional infrastructure for research and innovation policy, aims to improve the institutional capabilities and infrastructure for RDI. The activities under sub-component 1.1 will strengthen the MSEY's ability to deliver on the green and digital mandates while furthering other strategic agendas and improving research excellence. Funding for key RDI projects will address financing gaps for infrastructure, create incentives for public research organizations (ROs) to implement reforms, improve general conditions for digital and green research, and help bridge the gap between research and the business sector.

One of the Grant Beneficiary under Sub-component 1.1 is University of Zagreb Faculty of Organization and Informatics (FOI) in Varaždin. The investment will focus on the construction and equipping of a new research infrastructure facility, enabling the establishing of a modern, functionally integrated, and technologically advanced research and innovation environment in the field of information sciences and digital technologies. The newly developed research infrastructure will include dedicated research laboratories, collaborative research spaces, and supporting facilities designed to strengthen analytical, digital, and experimental capacities essential for high-quality scientific and applied research.

The new research infrastructure will be designed to enhance interdisciplinary research, foster innovation, and strengthen cooperation between the academic community, public institutions, and the business sector. Through targeted investments in construction works and advanced scientific and non-scientific equipment, the project will establish the physical and technical conditions necessary for knowledge creation, experimental development, and the application of research results in areas such as information systems, data analytics, artificial intelligence, cybersecurity, and digital transformation. These investments will create a supportive environment for strengthening Croatia's research excellence, increasing participation in national and international RDI programmes, and reinforcing the role of FOI as a key research and innovation actor at the regional and national levels.

## **1.1. BACKGROUND**

The Faculty of Organization and Informatics Building "FOI 2" is planned to be built on the cadastral parcel no. 1348/10, cadastral municipality (k.o.) Varaždin, located at Prilaz Fausta Vrančića 3, Varaždin. The building plot is fully owned by the Faculty and was formally established as a distinct parcel during a previous building permit acquisition process in 2019. Currently, the parcel contains an older building complex previously used as a Music School, featuring a total

gross area of 3,432 m<sup>2</sup> (consisting of a 2,928 m<sup>2</sup> main building and a 504 m<sup>2</sup> auxiliary building) alongside an asphalted parking lot and basic landscaping. As part of the site preparation for the new construction, this existing structure is designated for complete removal, which is detailed comprehensively in the separate Demolition Design.

The architectural and urban design layout originates from the first-prize competition entry developed by architects Tin Sven Franić and Vanja Rister under a contest organized by the Association of Croatian Architects. Although an initial Building Permit was successfully obtained for the site on April 24, 2019, it subsequently expired before works could commence. Following the client's updated requirements, a comprehensive spatial analysis and technical reorganization were initiated to optimize working and common areas, integrate modern technological innovations, and deploy eco-friendly, financially viable solutions. Following the completion of the optimized project documentation, a new valid Building Permit was officially issued by the City of Varaždin, Administrative Department for Construction and Municipal Economy, on November 7, 2025 (KLASA: UP/I-361-03/25-01/000147, URBROJ: 2186-1-05-06/1-25-0022).

The realization of the "FOI 2" facility represents a crucial strategic expansion for the University of Zagreb's Faculty of Organization and Informatics, establishing a modern, highly sustainable educational environment to support cutting-edge research, advanced computing classrooms, and collaborative student activities.

Structurally, the facility is divided into 5 distinct dilatations designated as A, B, C, D, and T. The building is conceived in such a way that the main facilities are placed within four volumes and spatially connected by a central communication part (dilatation T, P+1). The central part is elongated in the east-west direction with entrances at both ends. It connects all facilities and outdoor spaces - the access square, courtyard, green areas, as well as the outdoor parking lot and vehicular-pedestrian access from the eastern side.

- Volume 1 (dilatation A) - Classrooms and laboratories (P+1): The north-oriented volume is intended for computer classrooms on the upper floor, while the Center for Biometrics, Forensics, and Privacy and the Artificial Intelligence Laboratory are located on the ground floor, which can function as separate units.
- Volume 2 (dilatation C) - Lecture halls / Halls (P+1): A volume inside which three smaller halls are located on the ground floor, and a larger hall on the upper floor along with spaces intended for students.
- Volume 3 (dilatation D) - Lecture rooms and seminars / Garage (P+1): A block with 4 seminar lecture rooms on the upper floor and an open covered garage on the ground floor (with 26 parking spaces) along with auxiliary rooms and storage spaces.
- Volume 4 (dilatation B) - Faculty staff wing (P+3): The space planned for individual work with students and work in laboratories contains the program-specified number of cabinets for professors and other teaching staff. Service rooms are located on the ground floor.

The total area of the construction parcel is 10,939 m<sup>2</sup>. The building features a layout with a footprint (floor plan projection) of 3,121.9 m<sup>2</sup> and a total gross building area of 5,559.2 m<sup>2</sup>. The total parking capacity across the entire site is engineered for 86 spaces, which includes 6 specialized spaces allocated for persons with disabilities and reduced mobility.

The Main Design (Glavni projekt) was completed in July 2025 under the project reference code B.P./ Z.O.P. FOI-2025 by the design company At. Ar. d.o.o., Pokornoga 6, Zagreb while the Main Designer for the Design is Tin Sven Franić, dipl. ing. arh. In compliance with Article 4 of the Croatian Building Act, the facility is legally classified under the "Group 2.b" category regarding procedural complexity. The comprehensive Main Design documentation contains the following specialized design books and annexes:

- Architectural Design;
- Architectural Design - Landscape Design;
- Civil Engineering Design - Structural Design;
- Mechanical Design - Plumbing Installations and Drainage;
- Mechanical Design - HVAC;
- Electrotechnical Design - Electrical Power and Low Voltage Installations Design;
- Electrotechnical Design - Fire Alarm System Design;
- Electrotechnical Design – Photovoltaic Power Plant;
- Architectural Design - Building Physics;
- Mechanical Design - Fire Suppression Systems;
- Civil Engineering Design - Demolition Design;
- Mechanical Design - Vertical Transport Design;
- Safety At Work Study;
- Geotechnical Study.

Successful delivery of this Assignment will secure a highly modern, energy-efficient, and structurally sound facility that advances Croatia’s higher education infrastructure and supports regional socioeconomic and scientific growth.

University of Zagreb Faculty of Organization and Informatics (the Client) as a Grant Beneficiary within the scope of the DIGIT Project received funds which are intended for eligible payments under the Contract for providing Supervision of Works Services for Construction of the Faculty of Organization and Informatics Building “FOI 2”.

## **2. SERVICES OBJECTIVE**

The Consultant’s assignment is to provide comprehensive, professional construction supervision services for the construction of the “FOI 2” Faculty Building in Varaždin. The selected Consultant will ensure that all civil, structural, mechanical, electrical, and demolition works are performed in compliance with the approved Main Design, Croatian construction legislation, applicable EU norms, and World Bank safety and environmental guidelines.

The works contract shall be implemented according to World Bank Procurement Regulations and provided contract template from the *Standard Bidding Document for Small Works (ANNEX 3)* prepared by the Client. Prior to start of provision of Services, the Client shall appoint the Project Manager - a person responsible for monitoring the execution of the works and administering the Contract (see definition of Project Manager in the General Conditions of Contract provided in the *Standard Bidding Document for Small Works*).

Supervision of works consists of professional construction supervision according to the Construction Act (OG 155/25), Act on Activities in Physical Planning and Civil Works (OG 78/15, 118/18, 110/19) and any relevant subsidiary legislation. Supervision of works also consists of ensuring the fulfilment of Contractor's contractual obligations to the Client.

### **3. SCOPE OF SERVICES AND TASKS**

According to the Construction Act, duties and responsibilities of the Supervision Engineer are:

- To supervise construction works to ensure full compliance with the Building Permit, the Main Design, the Building Act, special regulations, and professional codes of practice / rules of the profession;
- To verify whether the Contractor and the responsible person managing the construction works or specific technical works meet the requirements prescribed by specific legislation;
- To verify whether the setting-out (staking-out) of the building has been performed by an authorized geodetic engineer / licensed land surveyor;
- To supervise the implementation of control testing of specific parts of the building, i.e., the verification of compliance with the essential requirements for the building and/or other requirements, carried out in accordance with the conditions specified in the Main Design, special regulations, or the design audit report; and if necessary, order the execution of additional control testing to verify or prove compliance with the essential requirements for the building and/or other requirements through an independent authorized entity that did not participate in the issuance of documents and evidence under Article 22, paragraph 1, item 4 of the Construction Act;
- To be present at the construction site during the execution of works that are the subject of their professional construction supervision, and to certify the Construction Logbook (Site Diary) using a qualified electronic signature;
- To immediately notify the Client of any defects or irregularities identified in the Main Design, Detail Design, or during construction, and to inform both the Client and the building inspection (as well as other relevant inspection authorities) of the corrective measures taken;
- To compile the Final Supervision Report on the construction of the building and certify it with a qualified electronic signature.
- To determine the method for rectifying defects and irregularities in the construction of the building if in the performance of professional construction supervision, specifically if:
  - the compliance or quality of the installed structures, materials, products, equipment, and/or plants is not proven by the documentation specified in paragraph 1, item 4 of Article 25 of the Construction Act;
  - the Contractor or the responsible person managing the construction or specific technical works does not meet the requirements prescribed by the act regulating the professions and activities of spatial planning and construction;
  - the setting-out (staking-out) of the building was not performed by an authorized geodetic engineer / licensed land surveyor.

The scope of the supervision services under this contract in addition to legal obligations includes the following:

- Consultant is responsible for supervision of all works related to the technical protection system. This includes, but is not limited to, the supervision of video surveillance, access control, and anti-burglary systems as defined in the separate and confidential Project of Technical Protection, which forms a special part of the Main Design. The Consultant shall sign a separate non-disclosure agreement to commit to maintenance of confidentiality of any information related the technical protection system.
- Financial Monitoring, Quantity Surveying and Variations
  - Admeasurement Control & Verification i.e. execute mandatory, regular joint measurements of executed works on-site with the Contractor; systematically verify and certify the construction book;
  - Review, verify, and certify Contractor's monthly statements and issue payment certificates in accordance with the contract unit prices, actual verified quantities, other defined payment procedures;
  - Process Variation orders i.e. evaluate, calculate, and prepare detailed technical-financial justifications for any unforeseen, subsequent, or additional works (Variations) including Value Engineering proposals by the Contractor; ensure Variation orders are issued to the Contractor with written formal approval of the Project Manager, in compliance with the established contractual procedures;
  - Process Compensation Events i.e. evaluate and provide written opinion to the Project Manager on all Compensation Events that can arise during executing of the Works;
  - Review and verify any price adjustment of the contract price for the construction works;
  - Maintain a continuously updated project cash-flow forecast, monitoring the spending of funds by purpose, dynamics, and cumulative amount to prevent budget overruns.
- Schedule and Progress Management
  - Review Contractor's program of works and any later update of the program and provide written opinion on the program to the Project Manager identifying any critical issues, inconsistencies, errors and possible hidden activities delays etc.;
  - Continuously monitor the progress of works against the approved Contractor program and identify any critical path delays or logistics problems;
  - Demand, review, and/or propose Contractor's remedial programs in the event of any unjustified delays, ensuring appropriate acceleration measures are deployed;
  - Conduct regular control of the on-site Contractor's personnel and equipment, verifying the qualification structure of personnel and the capacity/appropriateness of construction machinery and specialized equipment.
- Quality Assurance, Material Approvals and Technical Compliance

- Monitor and control quality of works (visual inspection, control, and review of documentation by which the Contractor proves quality in terms of test results and test frequency, presence when taking samples for testing, taking measures to eliminate defects);
- Establish, maintain and manage an approval process for all construction materials, products, equipment, and systems; verify that technical data sheets, declarations of performance, and certificates etc. fully comply with the Main and Detail Design specifications;
- Establish, maintain and manage the communication platform for submission of requests for information and responses by all participants in the construction project;
- Interpretation of ambiguities in the Designs, independent resolution of individual technical details that do not have impact on quality, cost or planned completion of works and only where such interpretation does not alter the design intent and does not require amendment of the design documentation;
- Coordinate resolution of ambiguities, design discrepancies, or specific execution details in a timely manner with the Design Supervision Team and Project Manager for any other issues that have impact on cost or planned completion of works or require change of Design documentation;
- Control of data entry in the construction log, control and certification of construction book, proof of quantities, various reports and analyses, arranging documentation on the construction site for technical inspection, participation in Taking Over of the Works and other legal and other tasks if and when authorized by the Client.
- Environmental, Social, Health and Safety (ESHS) aspects and other Special Coordination
  - Perform supervision in line with relevant national environmental and social legislation and specific Environmental and Social Management Plan (ESMP) for the project, hence with World Bank Environmental and Social Policies, Environmental, Health and Safety Guidelines and Good International Industry Practice;
  - Monitor ESMP implementation and submit regular (monthly) E&S compliance reports to Client and Project Manager;
  - Receive and promptly communicate any concerns or grievances to Project Grievance Redress Mechanism (GRM), coordinating direct communication between concerned parties and Client GRM specialist, and supporting additional document/evidence collection as needed;
  - Fully perform the duties of the Health & Safety Coordinator during the construction phase (hrv. tzv. koordinator II zaštite na radu) in compliance with the Croatian Act on Occupational Safety; continuously review, enforce, and approve the site-specific Health & Safety Plan when necessary;
  - Supervise the demolition phase i.e. removal and dismantling of the pre-existing building, track and audit the Contractor's waste consignment notes to guarantee all

demolition waste is disposed of via certified legal operators, aligning with World Bank Environmental Safeguards and national regulations;

- In accordance with the Special Conditions issued by the Conservation Department in Varaždin, the Consultant will be responsible for overseeing and coordinating mandatory, continuous archaeological supervision and potential protective archaeological excavations during all excavation and earthmoving phases of construction;

Project Manager may delegate to the Consultant any task arising from the General and Particular Conditions of the works contract, especially obligations and rights from the following clauses:

- Personnel and Equipment;
- Insurance;
- The Works to Be Completed by the Intended Completion Date;
- Approval by the Project Manager;
- Program;
- Delays Ordered by the Project Manager;
- Management Meetings;
- Early Warning;
- Identifying Defects;
- Tests;
- Correction of Defects;
- Uncorrected Defects;
- Variations;
- Payment Certificates;
- Compensation Events;
- Final Account.

Project Manager may also delegate any other task or obligation arising from any other clause of the General and Particular Conditions of Contract, not stated above.

Supervising Engineers are obliged to comply with the Regulation on the manner of conducting professional construction supervision, form, conditions and manner of keeping the construction log and the content of the final report of Supervising Engineer (OG 131/2021).

### **3.1. PHASES OF THE ASSIGNMENT**

All tasks will be performed in compliance with the requirements of Croatian legislation and in accordance with the obligations of this Contract.

Prior to start of the Assignment, Consultant shall develop the Procedures Manual – a document which presents methodology of Consultant's work, containing form templates, elaborated procedures, reporting plan, quality control plan and any other obligation that arises during execution of works. When preparing the Procedures Manual, Consultant shall comply with relevant legislative framework as well as the obligations arising from this ToR and General and Particular Conditions of the works contract.

The Assignment consists of three phases with following specific tasks for each phase:

### **3.1.1. Preparation phase**

Preparation phase implies the period between conclusion of this Contract and the Start Date (Commencement of Works).

During the Preparation phase Consultant shall:

- Establish a functional organization of experts in the supervision team and enable instant mobilization of staff to engage in the implementation of Contract which includes also official appointing Supervising Engineers by works disciplines;
- Assess the conditions on the construction site and warn the Client of potential risks in the execution of works;
- Support the Client in the process of giving the Contractor right of access to, and possession of, all parts of the construction site within the time period defined in the works contract (including production of As-Is Minutes/Report) and introduce the Contractor into works;
- Assist the Client in reviewing and approving all necessary certificates, guarantees, insurance policies, etc. for the start of construction works;
- Review Contractor's program (including any revision thereof) and determine initial time and financial plan provided by the Contractor;
- Monitor and control the preparation of administrative deliverables of the Contractor.

### **3.1.2. Execution phase**

Execution phase implies the period between Start Date and issuing of the Certificate of Completion.

During the Execution phase Consultant shall:

- Supervise the implementation of the Contractor's activities, and ensure their compliance with terms and conditions of the works contract, quality requirements and the general scope of the project, from the conclusion of the works contract, execution of works to the implementation of Tests, issuance of Certificate of Completion and Taking Over of the Works;
- Supervise the preparation and timely delivery of Contractor's deliverables;
- Carry out professional supervision over all activities of the Contractor in accordance with the applicable regulations of the Republic of Croatia;
- Carry out coordination and administration of the works contract;
- Initiate, lead and coordinate weekly on-site progress meetings and prepare and issue minutes of these meetings in a timely manner and ensure that all issues are resolved quickly;
- Monitor the progress of works and timely inform the Client about all risks and issues that may arise and affect the achievement of project objectives;
- Monthly verification of calculation of quantities and certification of Contractor's monthly statements of the estimated value of the work executed;

- Perform all activities and tasks as defined within the Scope of Services in this paragraph 3 of the Terms of Reference;
- Participate in implementation of tests and control the installation of significant materials and equipment;
- Continuous daily presence on the construction site and construction monitoring, conduct daily inspections of construction site to check the quality of work and ensure the implementation of Safety at Work measures;
- Approve materials nominated by the Contractor for installation;
- Propose possible adaptations of the Designs (if needed in collaboration with the designer) and alternative technical solutions to the Client, which may become necessary or useful during or after the execution of works;
- Advise the Client on possible ways to reduce project costs, reduce execution time or improve the quality of works, review any Variation proposed by the Contractor and advise the Client in the decision-making process for Variations (quantity review, quality suggestions, unit prices review, alignment with project documents etc);
- Prepare reports as defined in chapter 4 of this ToR, prepare all reports in accordance with the applicable legislation of the Republic of Croatia and prepare all prescribed reports for technical inspection and participate in the technical inspection procedure;
- Supervise the execution of any works Variations i.e. unforeseen and subsequent works during construction;
- Participate accordingly during Identifying defects;
- Organize and conduct photo documentation of construction progress.
- Have at their disposal a person who will perform the duties of Safety at Work Coordinator in accordance with the Safety at Work Act (OG 71/14, 118/14, 154/14, 94/18, 96/18) and any relevant subsidiary legislation.

### **3.1.3. Completion phase**

Completion phase corresponds to the period from issuing Taking-Over Certificate for Works until approval of Final Payment Certificate. During this phase the Consultant is required to perform following sub-tasks:

- Review and approve As-Built Design documentation;
- Review, verify, and approve comprehensive technical close-out documentation submitted by the Contractor, including but not limited to: Operation and Maintenance manuals, equipment guarantee/warranty certificates, factory and on-site test certificates, and equipment commissioning records required for the official Technical Inspection (hrv. Tehnički pregled) and formal asset handover. Compile and hand over to the Client a systematically organized, indexed, and archived digital and physical repository of all verified close-out documentation, attests, and certificates, enabling the Client to properly log, track, and maintain the facility's records;
- Supervise completion of any work outstanding on the Date of Completion;
- Supervise remediation of any identified defects;
- Participate in any administrative activities regarding Defects after Taking-Over;

- Review and approve Final Account/Final Payment Certificate, Taking Over of the Works, technical inspection and in the procedure of obtaining usage permits;

#### **4. SUBMISSION AND TIME SCHEDULE FOR DELIVERABLES, CONTRACT DURATION, AND REPORTING REQUIREMENTS**

After the conclusion of works contract, the Consultant shall review all existing relevant documentation and develop Inception Report with appropriate material discussing special problems, risks, and opportunities. Inception report shall include description of monitoring and controlling processes of the works execution, but also definition of monthly reports content.

Results of monitoring and controlling activities shall be included in Monthly Reports which shall be developed in accordance with the defined scope within Inception Report. Submitted reports will be reviewed by the Client and approved or returned for revision and/or resubmission. Monthly Reports shall be submitted through the e-mail in appropriate format (.docx, .xls, .pdf).

The Consultant also shall develop any other Specific Reports according to the Client's requirements whose content will be determined and agreed between the Consultant and the Client, as well as submission deadline.

At the end of the consultancy service engagement the Consultant shall develop Final Report which shall include project summary, project execution analysis, cost analysis, list of verified as-built designs, verified results of Tests conducted, Reports on commissioning of various mechanical and electrical components of works and other as needed.

Reports shall be written in Croatian language and each report (Inception Report, Monthly Reports, Specific Reports, Final Report) shall have one page summary in English language. All reports shall be submitted through e-mail in appropriate format (.docx, .xls, .pdf). Any other deliverable shall be written and submitted in Croatian.

During the Assignment, Consultant shall prepare and submit appropriate deliverables to the Client for approval. All deliverables shall be submitted through the e-mail in appropriate format (.docx, .xls, .pdf).

Time schedule for deliverables is as follows (days listed below are calendar days):

<b>No.</b>	<b>Deliverable</b>	<b>Delivery deadline</b>	<b>Timeline for approval</b>
1.	Inception Report (including As-Is Minutes/ Report)	14 days after commencement of Services	7 days after submission
2.	Procedures Manual	14 days after commencement of Services	7 days after submission
3.	Monthly Report	7 days after the end of the reporting period	7 days after submission

No.	Deliverable	Delivery deadline	Timeline for approval
4.	Minutes of coordination meetings	The following day	The following day
5.	Specific Report according to Client's requirements	as agreed during implementation	7 days after submission
6.	Final Report	14 days before the end of services	14 days after submission

Consultant shall ensure completion of services on time and without any delay. Also, all deliverables prepared in connection with the services shall immediately upon completion be submitted to the Client for its review and approval. The Client will review and approve or return deliverables for revision and/or resubmission within previously defined period in the table or any other period defined by the Client upon receiving each of the deliverables.

In the Contract, the Consultant shall assign all intellectual property rights of its work to the Client, including intellectual property rights of any deliverable which Client finds unacceptable and for which it refuses payment.

The estimated period for providing the services is twenty (20) months after Commencement of Services (i.e., one (1) month prior commencement of works, eighteen (18) months of construction works and one (1) month after completion of works) but in any case, the Assignment ends one month after the completion of the works, i.e., issuing of Certificate on Completion. The start of services is expected in September 2026.

## **5. CONSULTANT'S MINIMUM QUALIFICATION AND EXPERIENCE**

The Consultant shall be a single consulting firm or an association of firms in the form of a Joint Venture (JV) or sub-consultancy, legally registered and authorized to provide construction supervision services in accordance with the applicable regulations of the Republic of Croatia (or eligible to attain such authorization through cross-border recognition before contract signing).

The Consultant shall demonstrate experience through the following criteria, whereby the submitted project references may combine and fulfil multiple requirements simultaneously (i.e., a single project reference that meets both the financial requirement and the gross area requirement will be considered towards both criteria):

- proven general experience in supervision of construction works for the last ten (10) years;
- proven specific experience in supervision of construction or reconstruction works for at least three (3) construction projects in the last seven (7) years for investments of at least

EUR 14 million (without VAT); projects including supervision over the construction or reconstruction works of non-residential buildings<sup>1</sup> are considered more relevant;

- proven specific experience in supervision of construction or reconstruction works for at least three (3) construction projects in the last seven (7) years for facilities/buildings of at least total gross area of 5.500 m<sup>2</sup>; projects including supervision over the construction or reconstruction works of non-residential buildings<sup>1</sup> are considered more relevant;
- experience in supervision of construction works for educational facilities/buildings (public or private) in the last seven (7) years is considered as an advantage;
- due to applicable legal framework of this project, the Consultant (joint venture leader or member in case of association) shall have experience with providing supervision of construction works in Croatia and within European directives legal framework and metric system;
- experience with FIDIC construction contracts or World Bank provided General Conditions of Contract for Works is an advantage.

The credibility of mentioned experience shall be presented in a list of project references within last seven (7) years with description of services provided (including information on contract value, contracting entity/client, project location/country, period of providing the services, value of investment, percentage carried out by consultant in case of association of firms or subcontracting and main activities) and accompanied by certificates of orderly fulfilment of the contracts verified by other party from such contracts.

The Consultant shall have the organizational capacity (it is expected that the Consultant shall have at least ten (10) employees/sub-contracted experts for performing activities under this service) to perform this service as well as available appropriate skills among staff. It is expected that the Consultant will submit relevant information on their organizational capacity in their Expression of Interest.

Consultants may associate with other firms to enhance their qualifications but should indicate clearly whether the association is in the form of a joint venture and/or a sub-consultancy. In the case of a joint venture, all the partners in the joint venture shall be jointly and severally liable for the entire contract, if selected. If the formation of an association is proposed, the rationale for, and benefits to the assignment of, the arrangement should be explained (outline proposed management coordination of the arrangement, including the role of each firm). Joint venture qualification parameters will be considered as a sum of individual qualifications of joint venture members. In case of joint venture only the experience of lead Consultant firm and joint venture members is considered for evaluation of Expressions of Interest.

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<sup>1</sup> non-residential buildings are buildings which have no residential area or that area is less than 50% of the total usable floor area of a residential building. For purposes of evaluation of this requirement non-residential buildings are following buildings from the National Classification of Building Types: 121 Hotels and similar buildings, 122 Office buildings, 123 Wholesale and retail stores, 126 Buildings for cultural arts and entertainment, education, hospitals and other buildings for health care, according to the National Classification of Building Types - NKVG 12. 2001 - Methodological Instructions, no. 41, ISBN 953-6667-33-0. 2002 D28

## 6. TEAM COMPOSITION AND MINIMUM QUALIFICATION AND EXPERIENCE OF EXPERTS

Key experts must have sufficient competences, the staffing should comprise the skills and qualifications listed in this section, to fulfil the stated outputs and objectives.

Key experts may be from any of the joint venture members or subcontractors (or engaged otherwise by the lead company).

It is expected that the core team shall comprise of following key experts who meet following listed qualification criteria:

### **Position K-1: Chief Supervising Engineer**

A person responsible for integrity and mutual compliance of professional supervision of works and is respectively obligated to prepare a final report. Professional construction supervision in the capacity of a responsible person (Supervising Engineer and Chief Supervising Engineer) within the tasks of his profession may be performed by a certified architect or a certified engineer in accordance with a special law governing association in the chamber.

The expert proposed for the Chief Supervising Engineer position shall have following experience:

#### *General Qualifications*

- university degree in civil engineering or architecture;
- minimum ten (10) years of general professional experience in civil engineering/architecture/construction management;

#### *Adequacy for the Assignment*

- minimum seven (7) years' experience in supervising construction projects;
- experience as chief supervising civil engineer on construction projects, for at least three (3) projects with investments of more than 14 million EUR. At least two projects should be related to supervision over the construction or reconstruction works of non-residential buildings<sup>2</sup>;
- experience as chief supervising civil engineer on construction projects, for at least three (3) projects in size larger than 5.500 m<sup>2</sup>. Experience in educational construction projects is an advantage;

#### *Experience in the Region and Language*

- experience with providing supervising service within European directives legal framework and metric system is mandatory;
- knowledge of building codes, standards, and regulations applicable in Croatia is mandatory;

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<sup>2</sup> non-residential buildings are buildings which have no residential area or that area is less than 50% of the total usable floor area of a residential building. For purposes of evaluation of this requirement non-residential buildings are following buildings from the National Classification of Building Types: 121 Hotels and similar buildings, 122 Office buildings, 123 Wholesale and retail stores, 126 Buildings for cultural arts and entertainment, education, hospitals and other buildings for health care, according to the National Classification of Building Types - NKVG 12. 2001 - Methodological Instructions, no. 41, ISBN 953-6667-33-0. 2002 D28

- spoken and written communication skills in Croatian are mandatory.

### **Position K-2: Construction Supervising Engineer**

The Consultant shall appoint the Construction Supervising Engineer. Professional construction supervision in the capacity of a responsible person (Supervising Engineer) within the tasks of his profession may be performed by a certified architect or a certified engineer in accordance with a special law governing association in the chamber.

The expert proposed for the Construction Supervising Engineer position shall have following experience:

#### *General Qualifications*

- university degree in civil engineering or architecture;
- minimum seven (7) years of general professional experience in civil engineering/architecture/construction management;

#### *Adequacy for the Assignment*

- minimum five (5) years' experience in supervising construction projects;
- experience as supervising civil engineer on construction projects, for at least three (3) projects with investments of more than 14 million EUR. At least one project should be related to supervision over the construction or reconstruction works of non-residential buildings<sup>3</sup>;
- experience as supervising civil engineer on construction projects, for at least three (3) projects in size larger than 5.500 m<sup>2</sup>. Experience in educational construction projects is an advantage;

#### *Experience in the Region and Language*

- experience with providing supervising service within European directives legal framework and metric system is mandatory;
- knowledge of building codes, standards, and regulations applicable in Croatia is mandatory;
- spoken and written communication skills in Croatian are mandatory.

### **Position K-3: Mechanical Engineering Supervisor 1**

#### *General Qualifications*

- university degree in mechanical engineering;
- minimum seven (7) years of professional experience in the related field;

#### *Adequacy for the Assignment*

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<sup>3</sup> non-residential buildings are buildings which have no residential area or that area is less than 50% of the total usable floor area of a residential building. For purposes of evaluation of this requirement non-residential buildings are following buildings from the National Classification of Building Types: 121 Hotels and similar buildings, 122 Office buildings, 123 Wholesale and retail stores, 126 Buildings for cultural arts and entertainment, education, hospitals and other buildings for health care, according to the National Classification of Building Types - NKVG 12. 2001 - Methodological Instructions, no. 41, ISBN 953-6667-33-0. 2002 D28

- at least five (5) years of professional experience in mechanical engineering of public buildings (in the design role, or supervision role or on the side of the Contractor during construction);
- experience as mechanical engineering supervisor on construction projects, for at least three (3) projects in size larger than 5.500 m<sup>2</sup>;

*Experience in the Region and Language*

- experience with providing services in his related field within European directives legal framework and metric system is mandatory;
- spoken and written communication skills in Croatian are mandatory.

**Position K-4: Electrical Engineering Supervisor 1**

*General Qualifications*

- university degree in electrical engineering;
- minimum seven (7) years of professional experience in the related field;

*Adequacy for the Assignment*

- at least five (5) years of professional experience in electrical engineering (in the design role, or supervision role or on the side of the Contractor during construction);
- experience as electrical engineering supervisor on construction projects, for at least three (3) in size larger than 5.500 m<sup>2</sup>;

*Experience in the Region and Language*

- experience with providing services in his related field within European directives legal framework and metric system is mandatory;
- spoken and written communication skills in Croatian are mandatory.

Following experts are considered non-key experts and must meet listed qualification/experience criteria:

- i. Surveying Supervising Engineer** shall have:
  - university degree in geodetic sciences;
  - at least seven (7) years of performing professional geodetic work;
  - at least five (5) years of performing professional geodetic work for construction purposes.
- ii. Geotechnical Supervising Engineer** shall have:
  - university degree in geotechnical sciences;
  - at least seven (7) years of performing professional geotechnical work;
  - at least five (5) years of performing professional geotechnical work for construction purposes.
- iii. Environmental Specialist** shall have:
  - university degree in environmental engineering or science, biology or relevant technical or natural sciences;

- at least five (5) years of experience in environmental safeguards, environmental assessments, and similar.
- iv. Coordinator for Health and Safety at Work during Construction Works** (*hrv. koordinator II zaštite na radu*) shall have:
- university degree in relevant field such as architecture, engineering, construction management, or a related field;
  - certificate of completed expert exam for the coordinator for health and safety at work;
  - at least five (5) years of professional experience in construction.
- v. Technical Protection Works Supervising Engineer shall have:**
- university degree in technical field;
  - at least seven (7) years of performing professional work in his technical field;
  - at least five (5) years of performing professional work as Technical Protection Works Supervising Engineer;
  - has the permission for performing the services of security guard technician as required by the Private Security Act”
- vi. Administrator shall have:**
- university degree in civil engineering, construction management, business administration or a related field;
  - at least five (5) years of professional experience in the construction administration;
  - proficiency in Microsoft Office and project management software.

In addition to the minimal required project staff defined above, the Consultant shall assess and provide other supporting and administrative staff. These additional and non-key experts will not be evaluated, however, upon Commencement of services, the Consultant shall nominate such experts and obtain the Client’s approval before their engagement.

Consultant will be responsible for the execution of all tasks under this ToR.

Chief Supervising Engineer is required to be present in project implementation at least 60% of time. Presence in Contract implementation implies presence on construction sites, participation in meetings and remote work.

Chief Supervising Engineer is required to be present on construction sites at least two (2) times per week. Chief Supervising Engineer is also required to participate in all of the meetings during Contract implementation.

Construction Supervising Engineer is required to be present in project implementation at least 90% of time. Presence in Contract implementation implies presence on construction sites and participation in meetings. Construction Supervising Engineer is required to be present on the construction site daily.

## **7. INPUT DOCUMENTS AND SUPPORT TO BE PROVIDED BY THE CLIENT**

Input documents provided by the Client is Main Design for Faculty of Organization and Informatics Building “FOI 2” (ANNEX 1), Building Permit for Faculty of Organization and Informatics Building “FOI 2” (ANNEX 2) and Template of works contract (ANNEX 3).

The Consultant shall return to the Client all documents if any received from the Client following the completion of the Services to be performed.

The Client shall be responsible for the coordination of all Contract activities. The Client shall appoint Contract Coordinator, who will have the overall responsibility for implementation of activities. The Consultant shall report to the Contract Coordinator.

The Client shall appoint Construction Project Manager. Construction Project management services shall be provided by independent consultant. Construction Project Manager shall be appointed by the Client by a particular determination letter.

## **8. OFFICIAL LANGUAGE**

The language for communication and for project deliverables shall be Croatian. Reports shall be written in Croatian language and each report (Inception Report, Monthly Report, Specific Reports, Final Report) shall have one-page summary in the English language.

## **9. LIST OF ANNEXES**

All of the Annexes are due to their size attached to this ToR as separate files.

**ANNEX 1 – Main Design**

**ANNEX 2 – Building Permit and Accompanying Documents**

**ANNEX 3 – Template of contract for construction works**

- Available at: <https://pubdocs.worldbank.org/en/679291616012282325/SPD-RequestforBids-SMALLWORKS-OneEnvelope-March-2021.docx>