

**REQUEST FOR QUOTATION (RFQ)**

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| UNDP BiH Zmaja od Bosne bb71 000 Sarajevo | DATE: 1 July 2021 |
| REFERENCE: **BIH/RFQ-098-21** |

Dear Sir / Madam:

We kindly request you to submit your quotation for the **“Design of a Digital Platform for Interactive Sourcing of Citizens’ Ideas on Renewal and Transformation of Public Spaces in the Municipality of Centar – Sarajevo”** as detailed in Annex 1 of this RFQ. When preparing your quotation, please be guided by the form attached hereto as Annex 2.

Quotations may be submitted before **17:00 CET on 12 July 2021** via e-mail at registry.ba@undp.org with subject **RFQ-098-21-COMPANY NAME**

It shall remain your responsibility to ensure that your quotation will reach the address above on or before the deadline. Quotations that are received by UNDP after the deadline indicated above, for whatever reason, shall not be considered for evaluation.

Please take note of the following requirements and conditions pertaining to the supply of the abovementioned service/s:

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| Exact Address/es of Delivery Location/s (identify all, if multiple) | United Nations Development Programme (UNDP)Bosnia and Herzegovinaemail: registry.ba@undp.org |
| Latest Expected Delivery Date and Time (*if delivery time exceeds this, quote may be rejected by UNDP)* | ​​☒ 2 ​months from the issuance of the Purchase Order (PO)Indicative timeframe: August – September 2021 |
| Preferred Currency of Quotation | ​​☒​ Local Currency:​ BAM​ |
| Value Added Tax on Price Quotation | ​​☒​ Must be exclusive of VAT and other applicable indirect taxes (VAT stated separately) |
| After-sales services required | ​☒​ Warranty on functional requirements for a minimum period of ​12 months​ |
| Deadline for the Submission of Quotation | 17:00 CET, 12 July, 2021​ |
| All documentations, including catalogues, instructions and operating manuals, shall be in this language | ​​☐​ English​​☒​ Others​Languages of the peoples of Bosnia and Herzegovina (Bosnian/Croatian/Serbian) |
| Documents to be submitted | ​​☒​ Duly Accomplished Form as provided in Annex 2, and in accordance with the list of requirements in Annex 1;​​☒​ Latest Business Registration Certificate;​​☒​ Latest Financial Statement;​​☒​ Written Self-Declaration of not being included in the UN Security Council 1267/1989 list, UN Procurement Division List or other UN Ineligibility List;​​☒ ​Reference list with links to the web applications developed;​​☒​ At least 3 letters of confirmation of successful contract delivery for the development of web applications of similar or higher complexity to the one outlined in TOR; *or* list of at least 3 published web-applications of relevant complexity traceable to the offeror;​​☒​ CVs for team lead/software architect, at least 1 (one) developer and 1 (one) UX designer. |
| Period of Validity of Quotes starting the Submission Date | ​​☒​ 30 daysIn exceptional circumstances, UNDP may request the Vendor to extend the validity of the Quotation beyond what has been initially indicated in this RFQ. The Proposal shall then confirm the extension in writing, without any modification whatsoever on the Quotation. |
| Partial Quotes | ​​☒​ Not permitted |
| Payment Terms | ​​☒​ Per deliverable, as follows:* Digital platform is developed as a minimum viable product allowing proof-of-concept testing of main features (50% of the contract).
* The digital platform is fully developed, tested and fully operational, as per the ToR and approved by UNDP (50% of the contract).
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| Evaluation Criteria*[check as many as applicable]*  | ​​☒​ Technical responsiveness / Full compliance to requirements and lowest price​​☒​ Comprehensiveness of after-sales services​​☒ ​Full acceptance of the PO/Contract General Terms and Conditions​​☒​ Vendor’s proven experience in development of web applications of similar complexity​​☒​ Vendor employees’ proven experience in software development of web applications (i.e., industry-recognized web applications development certificates) |
| UNDP will award to: | ​​☒​ One and only one supplier |
| Type of Contract to be Signed  | ​​☒​ Contract for Professional Services |
| Special conditions of Contract  | ​​☒​ Cancellation of PO/Contract if the delivery/completion is delayed by 30 days |
| Conditions for Release of Payment | ​​☒​ User Acceptance Testing by UNDP​​​☒​ Complete Installation on the hosting server​​☒ ​Passing all Functional and Integration Testing​​☒​ Completion of Training on Operation and Maintenance, as described in the ToR​​☒​ Written Acceptance based on full compliance with RFQ requirements |
| Annexes to this RFQ | ​​☒​ Terms of Reference (Annex 1)​​☒​ Form for Submission of Quotation (Annex 2)​​☒​ General Terms and Conditions / Special Conditions (Annex 3). Non-acceptance of the terms of the General Terms and Conditions (GTC) shall be grounds for disqualification from this procurement process. |
| Contact Person for Inquiries(Written inquiries only) | ​​Registry, UNDP in Bosnia and Herzegovina​​email: registry.ba@undp.org Any delay in UNDP’s response shall be not used as a reason for extending the deadline for submission, unless UNDP determines that such an extension is necessary and communicates a new deadline to the Bidders. |

Offer shall be reviewed based on completeness and compliance of the quotation with the minimum specifications described above and any other annexes providing details of UNDP requirements.

The quotation that complies with all of the specifications, requirements and offers the lowest price, as well as all other evaluation criteria indicated, shall be selected. Any offer that does not meet the requirements shall be rejected.

Any discrepancy between the unit price and the total price (obtained by multiplying the unit price and quantity) shall be re-computed by UNDP. The unit price shall prevail, and the total price shall be corrected. If the supplier does not accept the final price based on UNDP’s re-computation and correction of errors, its quotation will be rejected.

After UNDP has identified the lowest price offer, UNDP reserves the right to award the contract based only on the prices of the goods in the event that the transportation cost (freight and insurance) is found to be higher than UNDP’s own estimated cost if sourced from its own freight forwarder and insurance provider.

At any time during the validity of the quotation, no price variation due to escalation, inflation, fluctuation in exchange rates, or any other market factors shall be accepted by UNDP after it has received the quotation. At the time of award of Contract or Purchase Order, UNDP reserves the right to vary (increase or decrease) the quantity of services and/or goods, by up to a maximum twenty-five per cent (25%) of the total offer, without any change in the unit price or other terms and conditions.

Any Purchase Order that will be issued as a result of this RFQ shall be subject to the General Terms and Conditions attached hereto. The mere act of submission of a quotation implies that the vendor accepts without question the General Terms and Conditions of UNDP herein attached as Annex 3.

UNDP is not bound to accept any quotation, nor award a contract/Purchase Order, nor be responsible for any costs associated with a Supplier’s preparation and submission of a quotation, regardless of the outcome or the manner of conducting the selection process.

Please be advised that UNDP’s vendor protest procedure is intended to afford an opportunity to appeal for persons or firms not awarded a purchase order or contract in a competitive procurement process. In the event that you believe you have not been fairly treated, you can find detailed information about vendor protest procedures in the following link: <http://www.undp.org/procurement/protest.shtml>.

UNDP encourages every prospective Vendor to avoid and prevent conflicts of interest, by disclosing to UNDP if you, or any of your affiliates or personnel, were involved in the preparation of the requirements, design, specifications, cost estimates, and other information used in this RFQ.

UNDP implements a zero tolerance on fraud and other proscribed practices and is committed to identifying and addressing all such acts and practices against UNDP, as well as third parties involved in UNDP activities. UNDP expects its suppliers to adhere to the UN Supplier Code of Conduct found in this link :<http://www.un.org/depts/ptd/pdf/conduct_english.pdf>.

Thank you and we look forward to receiving your quotation.

Sincerely yours,

***UNDP BIH***

Date: 1 July 2021

**ANNEX 1**

**TERMS OF REFERENCE:**

**DESIGN OF A DIGITAL PLATFORM FOR INTERACTIVE SOURCING OF CITIZENS’ IDEAS ON RENEWAL AND TRANSFORMATION OF PUBLIC SPACES IN THE MUNICIPALITY OF CENTAR – SARAJEVO**

1. **BACKGROUND**

In 2020, UNDP initiated pilot efforts in the area of **future cities**, with pilot work in Sarajevo and in Banja Luka aiming to leverage technology for more resilient and people-cantered public services. Capitalising on the UNDP pilot work in the area of future cities, as well as on its knowledge and experience in the area of low-carbon and sustainable urban development, UNDP in Bosnia and Herzegovina is supporting a **pilot place-based sustainable urban transformation** inspired by the theory of the [“Urban Rooms of Sarajevo”](https://www.ba.undp.org/content/bosnia_and_herzegovina/en/home/library/publications/urban-rooms-of-sarajevo.html) research by the University of Sarajevo, as well as by new urban approaches like the [“1-minute city”](https://medium.com/slowdown-papers/35-slowdown-patterns-one-minute-city-fifteen-minute-city-5bfeeaaff01e) or the [“3 – 30 – 300 urban forestry rule”](https://twitter.com/anurbanforester/status/1362734179914575876?lang=en), and implemented through a participatory innovative experimentation within selected 5 locations in the Municipality of Centar - Sarajevo.

This intervention is implemented in partnership with the Municipality of Centar, the University of Sarajevo – Faculty of Architecture, the City of Sarajevo and UNDP. It aims to contribute to **inclusive and sustainable urban transformation in Bosnia and Herzegovina by catalysing urban action**, enhancing urban inclusive innovation and implementing a portfolio of small-scale interventions within selected urban areas.

The intervention will, among other, support a digital platform for online, interactive crowdsourcing of citizens’ ideas on renewal and green transformation of a number of urban “voids” in the Municipality of Centar – Sarajevo. The digital platform will be owned and hosted by the Municipality of Centar – Sarajevo and as such will become a modern tool for public consultations in the area of urban development. The Mayor is interested to use such a digital platform to give citizens and businesses a stronger voice in the transformation and regeneration of the public spaces – streets, neighbourhoods, new areas, etc.

1. **THE DIGITAL PLATFORM**

**General description**

The online platform will serve as a simple, yet **interactive digital tool to enable place-based sourcing of residents’ ideas on the functionality, outlook and purpose of urban spaces**. In addition, it will become a real-time repository of residents’ ideas and views on the urban spaces in the city. The intervention will also seek to facilitate on-spot consultations and creative interactions with citizens and businesses in 5 target locations, to solicit their ideas and visions for the transformation of the public spaces.

All inputs gathered from residents and businesses through the digital platform will be the basis for people-led planning of interventions for urban green transformation. Finally, at least one of the selected localities will be renewed based on the citizens’ ideas and serve as a demonstration of community-led sustainable urban transformation.

**Functions of the digital platform**

This digital platform will have the following main functions:

* Enable collective and structured citizens’ feedback and suggestions for renewal or development of public spaces on the territory of the Municipality of Centar – Sarajevo.
* Enable virtual re-imagining of the public space through digital designs that are based on the citizens’ ideas and suggestions.
* Enable public voting for various development scenarios for public spaces on the territory of the Municipality of Centar – Sarajevo.
* Enable translation of citizens’ ideas and suggestions into renewed and vibrant public spaces, thus ensuring a community-driven approach to urban development.

**Detailed description of the digital platform**

This simple, yet interactive and fun digital tool will enable place-based and inclusive sourcing of residents’ ideas on the functionality, outlook and purpose of the target urban spaces.

The selected service provider will work in direct cooperation with the implementation team led by UNDP and comprising architects, illustrator, urban innovators, communications specialist, as well as relevant teams from the Municipality of Centar – Sarajevo.

The digital platform will be interactive, easy to navigate and use. It will be in the languages of peoples of Bosnia and Herzegovina and will have the following main “layers”:

Layer 1: Front Space

The front space of the digital platform will display a **simple artistic map of the Municipality of Centar - Sarajevo**, depicting the main landmark sites and buildings in the municipality. In terms of visualisation, the front space of the digital platform will be inspired by the style used at the [Future Bristol](http://www.futurebristol.co.uk/scenarioy/) website. The artistic map and the needed graphic inputs will be prepared by professional illustrators and provided to the platform development team.

The Municipality of Centar – Sarajevo will use that map to indicate all the public areas which are open for ideation and feedback from the citizens. As a first pilot stage, it is envisaged that 5 locations will be embedded in the platform and subsequently opened for public ideation and consultations with citizens. The exact list of public spaces to be added on the digital platform will be provided to the successful bidder by UNDP.

The front space will also offer a **short description of the purpose of the platform** – in the form of a “word by the mayor” to motivate citizens and ensure stronger legitimacy of the public consultations tool. It will also offer short instructions on how to use and navigate through the platform.

Once citizens review the front space, they would be able to **choose the concrete location** to provide their ideas and suggestions by clicking on the map.

In order to provide ideas and suggestions, citizens need to register.

Layer 2: Location

Once the citizen registers and selects the location to provide ideas and suggestions, the digital platform will lead the user to the next layer – i.e. the relevant street, public area, etc. – which is displayed in the form of a more concrete, “zoom-in” graphic presentation of the location.

At this stage citizens can provide structured inputs on the desired **typology of the public area – based on a set of pre-defined broad set of possible and feasible options**. For example, if an old and non-functional public space is to be rehabilitated and transformed into a new public space, citizens will be able to propose their ideas in terms of the preferred typology and function of that space. These may include, but not limited to the following typologies: 1) recreation, sports and leisure space; 2) green area; 3) art and culture space; 4) car-free area; 5) social interaction space; 6) buildings; 7) parking space; 8) economic activity; 9) other….

The detailed maps for all 5 locations, as well as the structure and content of the simple survey through which citizens’ inputs are collected, will be provided to the selected proposer by an illustrator. The detailed map would be a 3D or 2D model designed in one of the mainstream urban design tools (e.g. AutoCAD, SketchUp or similar) and provided as a picture file. Alternatively, if appropriate software components which would allow loading, viewing, and “interacting” with the model (spin it around and zoom in/out) directly through the portal exists, this would be preferred to provide a better user experience.

This layer will also enable **cumulative overview of the prevailing citizen proposals** for the typology and function of the location in a simple manner. The visual illustration of this aspect will be through a real-time and up-to-date display of the cumulative choices and preferences of citizens.

Layer 3: Micro-details within the location

Going one level “deeper” into the selected location, the citizen will be able to see the same online map of the location, but with some additional **“points of interest” marked on the map** (indicated through numbers or other identifiers). Thus, the map will point the attention of the citizen on concrete elements and areas within the location (e.g. buildings, street, green area, etc.) and solicit concrete ideas on urban infrastructure, activities and content.

The citizens’ suggestions will be collected through a close-choice menu around several questions for each “point of interest” within the location. The content and structure for the questionnaire for each of the 5 pilot locations will be provided by the architects. The set of questions / options to choose from will be designed in a manner to inspire ideas and suggest new urban content and infrastructure, which will ensure greener, sustainable, and more liveable urban environment. The ideas for each of the location will be inspired by the following main broad “menu” and customised to each locality, accordingly:

* **urban renewal and regeneration of public infrastructure** (access for persons with physical disabilities and visual impairments), new buildings, buildings' facades, lighting redesign, parking displacement, etc.;
* **decarbonization**: actions and campaigns, green infrastructure, nature-based solutions (gardens, trees, green fences, green facades, green rooftops, small-scale urban composting sites, urban beehives and urban farms, etc.);
* **car-free streets**;
* **mobile urban equipment** (benches, lounge areas, deck chairs and lounge furnishings, plants in pots, bicycle parking spots, "walking trees", sunscreens, etc.);
* **arts and culture**: art, music, literature and creative installations, outdoor exhibitions, street festivals, open-air cinemas, outdoor dance events, murals, etc.;
* **sports and recreation:** (street chess, darts), fun, play areas for kids and urban playscapes, recreation sites and relaxation areas, pavement coloring, etc.;
* **economic activity**: street economy, street markets, cafes, etc.;
* **science and learning**: open-air urban libraries, learning spaces and actions, knowledge fairs, star observatory, etc.;
* **technology**: low-cost "hacks" and technology that improves urban living; urban digital games; open innovation challenges and hackathons, etc.;
* **wellbeing**: actions that will contribute to urban wellbeing and identity;
* **social actions**: events which bring the community together (workshops, discussions, campaigns, etc.);
* other innovative ideas not in the list.

This layer will also enable **cumulative and visually appealing presentation of citizens’ inputs and ideas**, based on the structured inputs for each of the “points of interest”.

Layer 4: Re-imagine the location

Once citizens’ ideas and suggestions for a selected location are solicited, professionals will work on transforming the collective inputs into 3 viable scenarios for transformation for one of the 5 pilot locations. These will be added on the digital platform. Then, the platform should **enable popular vote for the virtual design options** – as a way to ensure wide citizen consultations and engagement of residents in reshaping public areas. The scenario which collects most citizens’ votes will be considered as the option for further detailed design and implementation.

The platform will use the **“now” and “future” approach** to presenting the designs, where the outlook / graphic map presented at Layer 2 is used to illustrate “now” and the virtual designs are used to illustrate plausible and people-suggested futures of the urban space.

In addition, complementary to the digital platform, it is envisioned to enable **virtual / augmented reality presentations of the options** for the public spaces, enabling more vibrant and real-life experience for citizens in re-imagining the public spaces of the future. This may be an alternative digitally supported approach to receive real-time feedback from citizens, especially the elderly, which might not be in favour of using the digital web platform. On the other hand, as elderly citizens have more time and interest in using public urban spaces than average citizens, urban planners could use virtual reality models to clearly understand what design features would motivate senior citizens to visit, socialize or exercise in an urban space from the future. The service provider will ensure the inclusion of any virtual/augmented reality recorded location walk-through is adequately presented on the platform. The walkthrough would be recorded in a typical video format. The service provider will also serve as a technical advisor and provide capacity development for urban planners in turning 3D models from urban planning design tools into virtual reality scenes that can be run on generic virtual reality devices.

The service provider will provide **on-the spot training and coaching for municipal administration teams** that will use the platform in the future, so as to ensure the sustainability of the digital tool.

1. **LOCATION OF SERVICES**

The digital platform will be hosted in a public cloud environment. The users of the system are located in Sarajevo, but also possibly throughout Bosnia and Herzegovina and worldwide (diaspora which might be interested in the public consultations). If the pilot is successful, the digital tool should be scalable to other interested local governments country-wide.

1. **USER GROUPS AND FUNCTIONAL REQUIREMENTS**

**User groups**

The digital platform is intended for the general public, as it is envisaged as an open virtual space that can support citizens from all ages and professional background to participate in collective ideation and public consultations that aim to source citizens’ inputs on the desired transformation of public spaces in the Municipality of Centar – Sarajevo.

For the purpose of this system development, UNDP defines two main user groups:

* **Administrator/s** – to add and maintain the overall content on the platform, add detailed maps and questionnaires for public consultations, administer citizens’ inputs, administer popular voting processes through the platform, as well as administer the overall system users and settings. At the beginning, UNDP will serve as Administrator, until the system is gradually handed-over to the Municipality of Centar – Sarajevo.
* **People/general public** – to share ideas and suggestions on proposed urban spaces for public consultations, indicate preference to other suggestions and ideas, participate in public voting organised at the platform, respond to the structured questionnaires for each location. The citizens will be able to share information from the digital platform to social media.
1. **ADDITIONAL FUNCTIONAL AND NON-FUNCTIONAL REQUIREMENTS**

This section lists key requirements that the system must support. These represent the high-level requirements stack to enable potential service providers to understand the scope of the expected product. Following the agile software development practice, detailed requirements will be elicited, by analysing the high-level requirements, on a just in time basis. The service provider **must submit mock-ups of the main forms of the digital platform proposal**, as part of their offer, as a proof that they understand the requirements and the expected scope of work.

High-level requirements list:

* The system should provide a registration process, which would allow to map the new user interested to participate in the public consultations platform. This should enable demographic, gender, age and social representation insights when generating report on users.
* The digital platform will consist of a main page and 3 other “layers” (web-spaces) that present the general and detailed graphic/map overview of 5 target locations and enable citizens voting on viable virtual scenarios for the re-imagined urban space.
* The platform will enable content management features that would allow publishing of maps, structured questionnaires, photos, videos, 2D and 3D models, AR, VR walk-through video recordings.
* The platform should enable expanding of its functions – e.g. towards neighbourhood-level ideations or municipality-wide contest among streets/neighbourhoods, etc. interactive approaches for inclusive urban development.
* Although designed to serve the need of participatory redesign of selected urban spaces in Municipality of Centar, Sarajevo, the platform should allow running an unlimited number of urban space(s) redesign public consultations in other cities as well.
* Ownership and future use of the platform will be entitled to UNDP.
* **Layer 1: Front Space:** presents an artistic map of the municipality, with easy-to-identify locations opened for public consultations through reaction of the micro-location once the user goes through the map, or by “pulsing” indication on the location. The platform should enable visibility of the deadline for submitting ideas and inputs by citizens for each location, as relevant. This space will have a short description of the tool in the form of “word by the mayor” and a photo of the mayor. At this space users will be able to register.
* **Layer 2: Location:** “zoom-in” graphic presentation of the location, which will include a simple, close-choice questionnaire to capture citizens’ ideas on the typology of the public space. Not all public spaces will be subject to consultations at Layer 2, as this layer offers the opportunity to ideate on the future typology of a public space and will be applicable only for urban spaces which have undefined typology and function. This layer should contain: 1) the title of the location, 2) the general map of the location; 3) a question with a menu of options to choose the typology of the space; 4) visual presentation of the cumulative choices and preferences of citizens for the location (e.g., in the form of a chart with ranking types of choices). The inputs and ideas for each of the target location will remain visible on the digital platform, as a repository of ideas after closing the public consultations.
* **Layer 3: Micro-details within the location:** going one level “deeper” into the selected location, the citizen will be able to see the same online map of the location, but with some additional **“points of interest”** marked on the map, inviting concrete structured ideas and suggestions. This layer should contain: 1) the title of the location, 2) the detailed map of the location with indicated “points of interest”; 3) a set of questions with a menu of options to choose an answer for each of the micro “points of interest” within the space; 4) visual presentation of the cumulative choices and ideas proposed by citizens for the location. The inputs and ideas for each of the target location will remain visible on the digital platform, as a repository of ideas after closing the public consultations.
* **Layer 4: Re-imagine the location:** The platform will use the **“now” and “future” approach** to presenting the designs and engaging citizens to vote for their preferred option. This layer should contain: 1) the title of the location, 2) the “now” visual presentation displaying the general map of the location”; 3) the “future” 3D scenarios for the location for which citizens can vote, with a real-time display of the numbers of votes per scenario; 4) information on the timeline/deadline for the voting; 5) linkage of the personal vote with social media. To complement the “static” 3D designs, it is envisioned to enable **virtual / augmented reality presentations of the options** for the future public spaces, enabling more vibrant and real-life experience for citizens in re-imagining the public spaces of the future.
* **Public consultations process:** once a public consultation or collective ideation is opened to the public, citizens can submit their ideas and inputs. The crowd sourcing of the ideas will be done at two levels. Firstly, at Layer 2 (general outlook of the target location), citizens would be able to provide their inputs and suggestions for the desired **typology of the public space** through a structured and simple closed-choice question (which has possible answers to select from, or the option to add “other” idea). The content for the question will be provided to the web developers by the architects. The information from the citizens’ inputs at this stage will be aggregated and displayed through a dynamic chart / graph or other form, which ranks the collective citizen preferences accumulated through the questions (e.g. serves like a real-time “pulse” of the collective civic vision for the preferred typology of the public space). Once registered, citizens can subscribe and follow developments and news for a specific urban area and be notified by the system via e-mail. Then, at Layer 3 of the digital tool, citizens will, based on a detailed map of the location with “points of interest”, be able to provide their concrete ideas and suggestions **(e.g. for physical reconstructions, green infrastructure, new social, cultural or economic function of the space, urban equipment, greening actions, car-less street, etc.)** for a specific micro-zone within the area (e.g. a building, a parking, a street, etc.) through a guided set of simple closed-choice questions, also developed by the architects and urbanists. The answers to the questions will be limited to 2 words, with the option to add additional suggestions/ideas (also with a limited number of words) as well. The system should compile all the structured inputs provided by citizens and be able to display the emerging collective concrete ideas for a micro-location through interactive formats. The solution should enable sharing of inputs and ideas from the citizens at their social networks, to support wider outreach of the process and motivate other citizens to join the ideation. The inputs from citizens at this stage of the public consultations are not scattered and unsystematic but can be processed and transformed into architectural designs. The duration of the public consultations for a location will be determined by the municipality; yet it is envisaged that the consultations for the 5 pilot locations at the digital platform will be opened for at least 30 days. Once the public consultations for a given location are closed, this should be adequately displayed/visualized at the front page of the digital platform, as well as interested registered participants in the public consultations should be notified by e-mail. Then, the representatives from the Municipality of Centar – Sarajevo, together with the initiative implementation team and other relevant professionals, will review the collected inputs for each location and will initiate the design of 3 plausible architectural designs for 1 of the pilot locations, where the inputs from the community will be translated into at least **3 future scenarios**. The Municipality of Centar – Sarajevo and the implementing team will decide on the demo location where the architectural scenarios will be developed. Once the scenarios are ready, they will be presented at the digital platform – as a “sub-window” of layer 3. The visual presentation of that **stage/layer 4** will be organized based on the principle “now” and “future” outlook, where “now” will be the detailed map of the public space used for the public consultations and the “future” will be the (up to 3) 3D architectural scenarios for that space generated based on the citizens’ ideas, but respecting aesthetic, professional and spatial principles and rules, and embracing the “green as an imperative” feature. In addition, it is envisioned to enable **virtual / augmented reality presentations of the 3 scenarios for the public space**, enabling more vibrant and real-life experience for citizens in re-imagining the public spaces of the future. This would be implemented by leveraging advanced features of mainstream architectural design software tools (e.g. AutoCAD, SketchUp, etc.), which are able to transfer the architectural designs into any VR/AR device, allowing people to view and interact with those future models and experience the thrill of virtual reality. **The selected service provider will purchase and ensure 5 VR / AR devices to be used as a visualisation tool alongside the digital platform. The service provider will also offer capacity development for urban planners in turning 3D models from urban planning design tools into virtual reality scenes that can be run on generic virtual reality devices.** The service provider is expected to support the testing of the VR / AR devises with at least 15 citizens – predominantly senior citizens, children, and others. At this stage, citizens will be invited to vote for the most preferred scenario published at the digital platform. The system should allow voting only by registered users who can vote only once for a preferred scenario (through a “like” or “love” or “applaud” action. At this stage, the system will also enable sharing of the preferred scenario of citizens’ social media (Facebook, Instagram, etc.), to expand the outreach of the process and engage as many citizens as possible. The scenario that collects highest number of votes will be turned into a detailed design and implemented. Information about the winning scenario will be published at the platform and registered and interested users will be notified via e-mail. The system should also enable business intelligence for the Municipality of Centar as organiser of the public consultations – i.e. the total number of participants in the public consultations, collective info on the age, gender, social status of participants, number of ideas submitted per location, number of citizens who have used VR/AR to re-imagine the public space.
1. **TECHNICAL REQUIREMENTS**

**Technologies and the hosting platform**

The system shall be hosted in the public cloud. Technologies used must allow for all requested features to be implemented as well as to support future scalability and a potential increase in the number of users. The service provider shall provide a web hosting service (at the AWS, Microsoft Azure, Google Cloud or equivalent international or domestic cloud service provider), domain registration (for the .ba domain), DNS settings configuration and all other services related to the web hosting for the system for the period of system development and during the warranty period.

The system should be developed as a custom-made software. Solution proposals based on customization of open-source CMS systems like Wordpress, or Joomla are not acceptable.

The front-end of the system should be developed using one of the commonly used front-end component libraries (e.g. Bootstrap (preferred), Pure etc.) to achieve simple and clean design, which easily accommodates users of different IT skills.

The web-based part of the platform must be compatible with the latest W3C standards and able to run on any of the mainstream browsers – Edge, Chrome, Mozilla and Safari on all mainstream computers. The system frontend (only publicly accessible pages and where possible) should be developed in responsive design to automatically resize, rearrange elements, shrink, or enlarge a website to make it look good on all devices (desktops, tablets, and phones). The exact scope of responsive design will be agreed over the system development phase.

**Visual outlook**

The digital platform's visual outlook should have an artistic graphic design and visual identity. The set of maps and elements of the platform will be provided by an illustrator recruited by UNDP for this purpose. Ultimately, the platform should have visually appealing, playful yet professional outlook, which enables:

* enjoyable and fun user experience,
* minimalism
* hand-drawn elements
* bold typography
* 3D elements
* shadows, layers, and floating elements

**Language Requirements**

The digital platform will be developed in the languages of peoples of Bosnia and Herzegovina (Bosnian / Croatian / Serbian) supporting both Latin and Cyrillic scripts. The system should provide easy language switching for content editing. If the content is available only in one language/script, it will be displayed in the available form regardless of the language selection.

**The form of deliverables**

The platform should be delivered in digital form – installed at the hosting site provided by the service provider, and in the form of the first backup of the installation on memory media, which enables simple restore of the application.

To avoid vendor lock-in in system development, the contracted bidder is obliged to hand-over a full source code of the system, following the end of the warranty period, including source code and licenses of 3rd party software components used, if any. The source code shall be delivered in digital form – through code repository such as GitHub or on CD/DVD media.

The technical documentation is submitted to UNDP upon completion of the assignment in digital form (Microsoft Word document).

All progress reports and user acceptance reports will be signed and delivered electronically.

**Warranty**

Warranty shall be no less than 12 (twelve) months. During this period, the Contractor will provide error correction and small systems fine-tuning without any additional charges. During this period, the response time shall not exceed 24-72 hours, based on the priority, and an issue-tracking tool shall be provided to the UNDP team to support easy issue reporting and tracking.

**Acceptance Criteria**

The acceptance plan will be developed jointly by UNDP and the service provider within 2 weeks of contract signing. All acceptances by UNDP will be given in writing, after full design, testing and setting in function of the digital platform.

**Testing Infrastructure**

The service provider shall be responsible for hosting the test and production site until the end of the warranty period. The first version of the testing platform must be provided to UNDP as of the end of the second iteration. UNDP, together with the Municipality of Centar – Sarajevo, will test the system features as they are developed and report issues (bugs, tasks, new features) by opening an issue via an issue-tracking tool. The issue-tracking tool will be used for communication between UNDP and the service provider in order to clarify any misunderstanding over the purpose and scope of work.

**Security requirements**

Application must be designed in a way that data security is ensured throughout all processes, data structures and methods of access. Backend data and web-application must be protected from unauthorized access.

1. **PROJECT MANAGEMENT REQUIREMENTS**

**General Considerations**

UNDP will designate a focal point for overall communication and interaction with the service provider. In addition to UNDP team, the service provider will interact with the relevant representatives from the Municipality of Centar, the team of architects, illustrators, PR & Communications specialists engaged in the process.

The service provider shall ensure software development in one- or two-week long iterations starting with previous iteration review and planning for the upcoming iteration. The weekly (or biweekly) status report will not be limited to software development only, but shall include and cover all activities which are to be carried out by the Service Provider.

All working days will be with reference to the UNDP calendar.

**Service Provider’s Project Team**

Detailed CVs of all team members with experience relevant to the assignment shall be submitted in the offer and at least for:

* Team Lead/Software architect
* Senior Developer
* UX/IU Expert

The team and/or each team member once identified shall be dedicated to the project and will not be changed unless requested by UNDP at their and/or with UNDP's written consent.

**Project Phases and Deliverables**

|  |  |  |
| --- | --- | --- |
| **Phase** | **Deliverable** | **Timeline** |
| Phase 1: Main features of the digital platform developed, to allow proof-of-concept testing | Digital platform is developed as a minimum viable product allowing proof-of-concept testing of main features | Early September 2021 |
| Phase 2: Finalisation of the digital platform | The digital platform is fully developed, tested and fully operational, as per the ToR and approved by UNDP | End-September 2021 |

**Details on the phases and deliverables**

**Preparatory actions** – the service provider is to conduct business/system analysis and provide for review (one week after contract signed):

1. Detailed conceptual model of the system
2. Proposed system workflows
3. Detailed scope of work

**Agile software development** in a one- to two-week long iterations (to be completed by the end of September 2021)

1. Iteration starts with a meeting of UNDP and Service provider teams where presentation of system features developed in the previous iteration and product backlog refinement for the upcoming iteration will occur;
2. collaboration on feature development continues throughout the week through online issue tracking tool.

**System testing, acceptance and migration to production** (continuous integration and deployment)

1. System features developed, tested and closed after review by the UNDP project manager;
2. System modules and data migrated to production following the UNDP project manager release decision.

**Technical documentation** (to be delivered at the end of software development process) that will contain, at minimum:

1. System functional model – Description of all system modules that explains the purpose of all system functionalities with basic description of input/output parameters.
2. System architecture/design – Detailed description of all application layers with the following elements:
3. *Database:*
4. Description of all entities (tables) and associated attributes,
5. Description of all relations between entities,
6. Description of all existent constraints on entities,
7. Description of all functions (procedures) defined in the database,
8. Description of all views, triggers and schemes.
9. *Application layer (3-layered architecture with data access, business logic and presentation layer)*

1. Description of basic elements and functionalities for each layer,

1. Description of interfaces between layers.
2. Technical specification of the system – Detailed description of all application elements with the following elements:
	1. *List of all defined classes (including methods and class attributes with type of data and their access specifiers),*
	2. *Detailed description of every system function/method with precisely defined input and output parameters and their description, and all limitations of function, if any;*
	3. *Description of any third-party elements used, with explanation of their functionalities and description of purpose and manner of use.*

**User documentation** (to be delivered at the end of software development process)

1. One-page web manual for the system use developed for all identified user groups

**Training** (to be delivered at the end of software development process to the UNDP and the Municipality of Centar)

**Maintenance and support** (twelve months period, following official acceptance of the system by the UNDP)

1. The maintenance and support in the warranty period must be provided in an efficient manner and without delays. The maintenance refers to elimination of system defects, support in the form of consultations, assistance, troubleshooting and advice on the use of the system. All necessary corrections of system defects during the warranty period will be done free of charge.
2. The service provider shall provide maintenance through the following channels: on-line issue tracker system, b) e-mail and c) phone line available during working hours of the UNDP.

Online issue tracker (e.g. Atlassian JIRA, Team Foundation Server, Redmine, IBM EWM...) will be the main channel of communication between UNDP and Service provider team. The issue tracking tool will provide effective management over reported issues (bugs, tasks, new features requests) and tracking of their resolution according to the priority. Service provider shall provide appropriate number of licenses for the UNDP team and support them in using the system.

**ANNEX 2**

**FORM FOR SUBMITTING SUPPLIER’S QUOTATION**

***(This Form must be submitted only using the Supplier’s Official Letterhead/Stationery)***

We, the undersigned, hereby accept in full the UNDP General Terms and Conditions, and hereby offer to supply the items listed below in conformity with the specification and requirements of UNDP as per RFQ Reference **No. RFQ-098-21**

**TABLE 1: Offer to Supply Services Compliant with Terms of Reference**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Item No.**  | **Description/Specification of Services** | **Quantity** | **Latest Delivery Date** | **Unit Price**  | **Total Price per Item**  |
| 1.  | Solution sitemap and website mock-up co-designed and agreed with the UNDP team | 1  |   |   |   |
| 2.  | Digital platform for inclusive urban development public consultations including 5 locations developed as per the ToR, tested, set in function and approved by UNDP. | 1  |   |   |   |
|   | **Total without VAT** |   |
|  | **VAT** |  |
|   | **Total Final and All-Inclusive Price Quotation**  |   |

**TABLE 2: Estimated Staff Costs/Other costs**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Staff Role**  | **Unit of Measure**  | **Quantity**  | **Unit Price**  | **Total Price per Item**  |
| Team Lead/Business Analyst  | days  |   |   |   |
| Senior Developer  | days  |   |   |   |
| UX/IU Expert  | days  |   |   |   |
| *Other expertise, as needed* |  |  |  |  |
| *Other costs, as applicable* |   |   |   |   |
| **Total Final and All-Inclusive Price Quotation (should be same as in table 1).**  |   |

**TABLE 3: Offer to Comply with Other Conditions and Related Requirements**

| **Other Information pertaining to our Quotation are as follows:** | **Your Responses**  |
| --- | --- |
| ***Yes, we will comply***  | ***No, we cannot comply***  | ***If you cannot comply, pls. indicate counter proposal***  |
| All Functional, Technical and Non-Technical requirements as outlined in Terms of Reference  |   |   |   |
| Delivery Date |   |   |   |
| Training on Operations and Maintenance |   |   |   |
| Minimum twelve (12) months warranty on system functional specifications. |   |   |   |
| Minimum twelve (12) months of technical support within the scope of the Terms of Reference. |   |   |   |
| All Provisions of the UNDP General Terms and Conditions |   |   |   |

All other information that we have not provided automatically implies our full compliance with the requirements, terms and conditions of the RFQ.

*[Name and Signature of the Supplier’s Authorized Person]*

*[Designation]*

*[Date]*

**ANNEX 3**

**General Terms and Conditions**

General Terms and Conditions / Special Conditions Link: [English version](https://popp.undp.org/_Layouts/15/POPPOpenDoc.aspx?ID=POPP-11-2493)