**TENDER APPLICATION IDENTIFIER: write here a short name/acronym to be used as your tender identifier throughout the Tender application forms**

Form E: Technical Offer Phase 1

AI4Cities Request for Tenders

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| **12th of January 2021** |
| The index number of the requirement: “P2.1 Methodology of the Project” was changed to: “P1.4”. |
| The index numbers of Project Team Requirements were changed from “P3” to “P2”. |
| The abbreviation for Project Management requirements was changed from “P” to “PM” to be in line with Tender Document 1. |

History of Changes

**IMPORTANT NOTICE**

* Be sure to complete all sections of this form. You can extend the boxes and use pictures and/or other visual elements if they make your Tender more understandable.
* The technical offer will be assessed based on the weighted award criteria mentioned in section 4.5 of AI4Cities Tender Document 1 - Request for Tenders.
* Tenderers will use a minimum font size of 9. Use a minimal line spacing of 1.

**Tender Identifier: write here a short name/acronym to be used as your tender identifier throughout the Tender application forms.**

### 1. General Information

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| **SELECTION OF THE LOT** |
| Indicate here whether you are applying to either **Lot 1 – Mobility** or **Lot 2 - Energy** |
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| **SUB-CHALLENGES** | | | | | | | |
| **Indicate here which sub-challenge(s) your solution is addressing.** The list of sub-challenges and their descriptions can be found in Tender Document 1, sections 1.2 and 1.3. | | | | | | | |
| Lot 1 - Mobility | | | | | | | |
|  | Mobility-as-a-Service |  | Traffic Flow Optimization |  | Optimization of Logistics |  | Wild Card |
| Lot 2 - Energy | | | | | | | |
|  | Flexible Energy Consumption |  | Energy Efficiency |  | Development of Renewable Energy |  | Wild Card |
| **List below which addressable problems areas (listed under the sub-challenges in TD1) your solution is addressing.** Notice that the addressable problem areas listed under the sub-challenges are non-exhaustive lists, so it is allowed to list also problem areas not mentioned there. | | | | | | | |
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| **EXECUTIVE SUMMARY** |
| Present a summary of your innovative solution. Explain the core of your solution, how it will reduce CO2 emissions (FR1) and what is the role of AI in it (FR2). Describe the current stage of the solution (e.g., TRL) and what is new and innovative in it (FR3). Describe what other impacts on cities and citizens the solution can have besides reducing CO2 emissions (NFR1). Use of infographics and/or pictures is encouraged.  **Note: The Executive Summary can be max 3 pages long. This summary should be the same as in Form H.** |
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### 2. Project plan and project management (P)

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| **PM1: FEASIBILITY OF THE PROJECT PLAN AND THE SCHEDULE** |
| PM1.1: Detail and demonstrate the consistency of the schedule for the execution of the contract, split into Phases 1-2-3. Include time schedule, deliverables and milestones as detailed in the Request for Tenders and the Functional Specification. |
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| PM1.2: Describe the work organization and supply chain. |
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| PM1.3: Elaborate on your approach to selecting and managing your subcontractors. |
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| PM1.4: Describe the methodology and methods used for project management, development, testing, and implementation. Include the measures to be taken with respect to risk management and quality assurance (e.g. risk assessment and risk mitigation strategy). |
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| **PM2: COMPOSITION OF THE PROJECT TEAM** |
| PM2.1: Specify the configuration (e.g. consortium) and role of each partner and/or subcontractors, if applicable. |
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| PM2.2: Demonstrate the Tenderers relevant expertise and working experience required to undertake an innovative R&D project such as AI4Cities by presenting a table of staff working on the specific contract (including for sub-contractors), indicating their years of experience and their role in performing the contract. (Short staff CVs and description of references and previous projects are to be demonstrated in Form C). |
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### 3. Functional Requirements (FR)

Please describe your approach to ensure that the AI4CITIES solution will meet the following functional requirements.

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| **FR1: CO2 EMISSION REDUCTION** |
| The solution has potential to reduce CO2 emissions in the city where it’s deployed. |
| Must haves |
| FR1.1: Describe how the solution reduces CO2 emissions in the field of mobility and/or energy. The description should also answer the following questions:   * In which smart city domain the solution reduces CO2 emissions? * Does the solution reduce CO2 emission directly or indirectly? * What makes the solution attractive for users? |
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| FR1.2: Explain your methodology for measuring the emission reduction. |
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| Nice to have |
| F1.3: Provide an estimation of how much the solution reduces CO2 emissions including a detailed description of what that estimation is based on. Also estimate, are the emission reductions likely to remain stable over time, or are they likely to decrease or increase? |
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| **FR2: USE OF AI** |
| The solution is supposed to use real AI that provides added value to the solution. By “real” is meant that the AI is autonomous and adaptive. |
| Must haves |
| FR2.1: Provide a general description of the AI that the solution uses. The description should answer at least the following questions:   * What type of AI the solution uses? * What function does the AI serve in the solution? |
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| FR2.2: Give a description of the level of autonomy of the AI. |
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| FR2.3: Give a description of the level of adaptivity of the AI. Explain how the solution can improve its performance by learning from experience. |
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| FR2.4: Describe how the AI provides added value for the solution. |
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| FR2.5: Describe how the solution is following the guidelines of trustworthy AI and how the AI can be audited by independent third parties (For more about trustworthy AI, see e.g.: <https://ec.europa.eu/digital-single-market/en/news/assessment-list-trustworthy-artificial-intelligence-altai-self-assessment>.) |
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| Data Needs (Not a requirement) |
| List what kinds of data the solution requires to function. **Notice, that this is not a requirement and will not be evaluated.** This is purely for informational purposes so the cities can try to make necessary data available.  You can also indicate here in which buyers group cities you wish to pilot the solution in Phase 3. This will not guarantee that the solution will be piloted in those cities if it advances to Phase 3, but it can be taken into account in the selection of piloting locations. |
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| FR3: TECHNICAL INNOVATIVENESS |
| The AI4Cities Pre-Commercial Procurement is specifically aimed to push innovation in the field of AI applications that reduce emissions in cities and applicable stakeholders. The proposed solution can build on existing technologies or applications, but has to go *beyond* the current State of the Art. |
| Must have |
| FR3.1: Describe how the solution encompasses novel technologies or applications and/or apply to novel user cases? The description should answer at least the following questions:   * What technologies and/or applications the solution is built on? * How does the solution go beyond the State of the Art? |
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### 4. Non-Functional Requirements (NFR)

Please describe your approach to ensure that the AI4CITIES solution will meet the following non-functional requirements.

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| **NFR 1: IMPACTS ON CITY AND CITIZENS** |
| It is important to assess a solution's impact on cities or society. Creating AI solutions that reduce CO2 emissions in the fields of energy and mobility can bring additional benefits (or risks) to cities and their citizens (e.g. economic benefits, data for city management or other environmental benefits like better air quality). |
| Must haves |
| NFR1.1: Provide an assessment of solutions other benefits (beyond CO2 emission reductions) that the solution provides for cities and their citizens including an explanation of how the solution provides them. |
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| NFR1.2: Describe how negative side effects and/or risks coming with the solution (if any) are addressed. |
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| **NFR 2: DISRUPTIVENESS** |
| To what extent the solution could represent a shift in the market, creating room for new economic development. |
| Nice to have |
| NFR 2.1 Describe how the solution changes the status quo in business or market |
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### 5. Commercial Feasibility

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| **CF 5: COMMERCIAL FEASIBILITY** |
| Present **a business and commercialization plan** that explains the proposed approach to commercially exploit the results of the PCP and to bring a viable product or service to market. The business plan is expected to include the following:   * The business model * Target market and key customers * An indicative investment- and exploitation plan * Roadmap / Future Plan * Risk assessment and risk mitigation strategy   With the business plan there should also be **an initial market analysis**. The market analysis should include:   * Preliminary assessment of the market potential of the solution in both the pilot regions as well as on an European scale * A brief analysis on the competition   Lastly, describe the added value of the AI4Cities solution compared to the current state-of-the-art on the market. |
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### 6. Declaration of Pre-Existing Rights (IPR)

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| **5 DECLARATION OF PRE-EXISTING RIGHTS (IPR)** | |
| Provide a list of the pre-existing rights (Background) relevant to the Tenderer's proposed solution, in order to allow IPR dependencies to be assessed. A final list will have to be provided and will be agreed on within 30 days following the awarding of the Framework Agreement, see PCP time schedule in appendix 5 of the Request for Tenders. | |
| Does this Tender involve ethical issues? If YES, include an ethics self-assessment, with explanations how the issues will be addressed. | YES / NO |
| Does this Tender involve activities or results that may raise security issues and/or EU-classified information as background or results? If YES, explain how these issues will be addressed. | YES / NO |

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| I, the undersigned, being the authorised signatory of the Tenderer\**,* hereby declare that I, or my company, provided accurate information | |
| Name of Lead Tenderer |  |
| Name of Authorised Signatory |  |
| Function |  |
| Signature |  |
| Date |  |
| Stamp, if available |  |

*\*in case of a consortium, this Tender Form should be signed by the Lead Tenderer*