

AGREEMENT BY THE GENERAL DIRECTORATE OF INNOVATION AND CITY PROMOTION APPROVING THE LAUNCH OF A PRELIMINARY MARKET CONSULTATION ENTITLED “DETECTION OF OBSTACLES AND RISKS IN PEDESTRIAN STREETS”

File Number: 145/2019/01003

Under Article 115 of Spanish Law 9/2017 of 8 November on Public Sector Contracts, which transposes into Spanish law Directives 2014/23/EU and 2014/24/EU of the European Parliament and Council of 26 February 2014, contracting entities may undertake market studies and consult economic operators that are active in the relevant market for the purpose of enabling adequate preparation of a tender and to inform these economic operators of their plans and of the criteria for participation in the tender procedure.

Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement (hereinafter, “the Directive”), which repeals Directive 2004/18/EC, highlights the key role played by public procurement in the Europe 2020 strategy, as an instrument that must be used to achieve smart, sustainable and inclusive growth while ensuring more efficient use of public funds.

For the first time, preliminary market consultations are formally provided for under Article 40 of the Directive, which empowers contracting authorities to undertake consultations before launching a procurement procedure, with the aim of preparing said procedure and informing economic operators of their plans and their procurement requirements, provided that the consultation does not have the effect of distorting competition and does not result in an infringement of the principles of non-discrimination and transparency.

For the purposes of this call for proposals, “innovation” is understood as the “implementation of a new or significantly improved product, service or process, including but not limited to production, building or construction processes, a new marketing method, or a new organizational method in business practices, workplace organization or external relations inter alia with the purpose of helping to solve societal challenges or to support the Europe 2020 strategy for smart, sustainable and inclusive growth” (Article 2(1)(22) of Directive 2014/24/EU).

In accordance with the provisions of the Agreement by the Governing Board of the City of Madrid of 8 February 2018, which amends the Agreement of 29 October 2015 on the organization and purview of the General Coordination Unit, the General Directorate for Innovation and City Promotion has competence inter alia over participation in European projects and projects aimed at fostering innovation.

Plan A, City of Madrid Air Quality and Climate Change Plan, defines in action 3, Prioritization of pedestrian mobility, a set of goals and improvement actions favouring pedestrian mobility and its coexistence with other means of transport.

On the other hand, among the objectives of the Sustainable Mobility Ordinance of October, the 5th 2018, it is worth highlighting the impact on environmental sustainability through the promotion of public transport and intermodality of collective public transport, **pedestrian and cyclist mobility**, the development of electric mobility and less polluting mobility and vehicle sharing.

Many times pedestrian traffic is hindered by temporary obstacles of very different nature that interfere with the movement of people. These include, but are not limited to, the parking of vehicles on the pavement, unauthorized occupations of public roads, crowds of people, etc... Obstacles can be detected either directly or by analyzing the behaviour of pedestrians.

The automatic detection of these incidents will allow the responsible units to act more quickly and efficiently.

Therefore, it is deemed to be of interest to launch a preliminary market consultation entitled "Detection of obstacles and risks in pedestrian streets".

Accordingly,

IT IS HEREBY DECIDED

1 CONSULTATION CALL

The preliminary market consultation entitled "Detection of obstacles and risks in pedestrian streets" is hereby launched.

Information about this consultation can be found on the website www.madrid.es/innovacion. The website is the channel of communication on which all information relating to the consultation shall be published.

2 PURPOSE

The purpose of this preliminary consultation is to encourage natural or legal persons to submit proposals that aim to meet the needs set out in Appendix I.

The aim is for the General Directorate for Innovation and City Promotion, drawing on the results of this preliminary market consultation, to have access to information on the most innovative and optimal solutions for the purpose of launching a subsequent tender procedure.

3 PARTICIPANTS

The call for proposals is open and is aimed at natural or legal persons that intend to collaborate with the General Directorate for Innovation and City Promotion by submitting proposals that describe the nature and scope of the tasks in question, how they are to be carried out and the degree of technological innovation.

When a proposal is jointly submitted by a group of people or entities, a single representative shall be identified for the purpose of communicating with the General Directorate for Innovation and City Promotion. The person designated as the representative on the preliminary market consultation submission form shall be understood to be the representative. The group of natural or legal persons submitting a joint entry shall give itself a name that shall be used to identify all documentation submitted in the preliminary consultation.

All participants may apply to take part in the consultation via a participation form, to ensure that each of the communications published on the website are also sent to them by email.

4 FUNDING

The General Directorate for Innovation and City Promotion shall not be obligated to fund or to accept any of the proposals submitted in this call.

Any costs stemming from participation in this call shall be borne by the parties concerned.

5 APPLICATION OF THE PRINCIPLES OF TRANSPARENCY, EQUAL TREATMENT AND NON-DISCRIMINATION

Under no circumstances shall participation in the call for proposals, contact with participants or the exchange of information result in infringement of the EU contractual principles of transparency, equal treatment and non-discrimination, or have the effect of restricting or limiting competition, offering advantages or granting exclusive rights.

Participation in the preliminary consultation associated with a future contract shall not convey any entitlement or preference of any sort with respect to the award of any contracts that may subsequently be entered into as a result of this consultation.

To this end, the General Directorate for Innovation and City Promotion shall take appropriate measures to ensure that said principles are upheld during this call for proposals as well as in any subsequent procurement procedure.

Participation in the preliminary market consultation constitutes acceptance of all of the conditions of transparency, upon ticking the relevant box in the form. If these conditions are not accepted, the information shall be deemed not to have been submitted.

In particular, in application of the principles of transparency, equal treatment and non-discrimination, information shall be posted on the consultation website regarding the consultation's key parameters, documentation and deliverables, as well as any clarifications requested, the answers given and a list of its participants, to ensure that all participants have access to the same information for the purpose of taking part in said consultation.

Similarly, any information exchanged in relation to this call for proposals shall be posted on the consultation website, including the proposals submitted by participants but excluding documentation designated as confidential pursuant to Section 9 on "Confidentiality".

The final preliminary market consultation report shall be published in Madrid City Council's Contractor Profile on the public sector procurement platform, as well as on the consultation website. Similarly, the consultation report containing the final results shall be included in the record of procurement proceedings and shall be accessible during the tender procedure, in the event that it is ultimately carried out.

After the consultation has ended, a Final Presentation shall be held to announce the results of the preliminary market consultation.

6 PRELIMINARY MARKET CONSULTATION PROCESS

The proposal submission period shall begin on the date that the notice of this agreement is published in Madrid City Council's Contractor Profile on the public sector procurement platform. The consultation shall also be published on the website created by Madrid City Council for this purpose.

The deadline of the call for proposals shall be 10 months from the date of its initial publication in Madrid City Council's Contractor Profile on the public sector procurement platform.

The deadline of the first phase of the consultation shall be 5 months from the date of its initial publication in Madrid City Council's Contractor Profile on the public sector procurement platform.

All proposals shall be submitted before 17:00 of the scheduled closure day.

The needs given consideration in the consultation are detailed in Appendix I, and it is these needs which must be addressed in the initial phase. Successive phases shall raise additional issues, based on analysis of the proposals from the preceding phases.

Participants in the consultation shall submit their proposals before the end of each phase, completing the form included in the resolution that announces the beginning of each phase.

After the end of each phase, depending on the proposals that have been received, the General Directorate for Innovation and City Promotion may decide either to launch a new phase or to issue a resolution bringing the preliminary consultation to an end.

If a new phase is launched, a resolution shall be published which details the specifications that have been determined based on preceding phases and includes a form outlining the issues that it hopes can be resolved in this new phase.

If it is decided to end a preliminary consultation, notice of at least one calendar month shall be given to enable all of the participants to submit their final proposals.

Extensions of phases shall be governed by the same provisions set out in Section 6 in reference to extensions of the preliminary consultation.

In preliminary market consultations which, due to their complex nature, require a long submission period, provision may be made for early closure of the call under the following circumstances:

1. If it is deemed that enough information has been collected from the proposed solutions;
2. If it is deemed that the consultation has not aroused sufficient interest in the market to warrant continuing to pursue it;
3. If it is deemed that the opportunity to tackle the challenge in question has passed, or the proposals received aren't relevant to the purpose of the consultation and it is not expected that information relevant to said purpose shall be received.

In the event of early closure provided for in point 1 of the above paragraph, i.e. that enough information has been collected, the following criteria must be met:

- A reasonable period of time has passed, which shall not be less than 3 months from the beginning of the preliminary market consultation;
- A minimum of three proposed solutions have been received from participants;
- It is deemed that the consultation has produced enough information to enable the launch of a future public procurement of innovation procedure.

Notice of the early closure of the preliminary consultation, specifying the closure date, shall be published at least 1 calendar month before the planned closure date in Madrid City Council's Contractor Profile on the public sector procurement platform, as well as on the consultation website.

The preliminary consultation may be extended beyond the published closure date when a participant requests a new deadline at least 10 calendar days before the scheduled closure date, and justifies the need for this extension. The General Directorate for Innovation and City Promotion shall evaluate the request and make a reasoned decision regarding extension of the deadline. The maximum extension granted shall be that requested by the participant.

Notice of the extension of the preliminary consultation, specifying the new closure date, shall be published in Madrid City Council's Contractor Profile on the public sector procurement platform, as well as on the consultation website.

One or more open briefings may be held during the proposal submission period, in which the need for an innovative solution to the problem identified by this government body shall be explained. Notice of the open briefing shall be posted on the consultation website at least 20 calendar days in advance, specifying the time, date and place where it is to be held.

The General Directorate for Innovation and City Promotion may convene individual briefings. To this end, an individual briefing request submission period shall commence, during which interested parties may request a meeting.

Similarly, the General Directorate for Innovation and City Promotion may convene a meeting with all interested parties that have submitted proposals in the preliminary market consultation.

Parties with an interest in the consultation may submit questions in writing by electronic means or via the consultation website. The General Directorate for Innovation and City Promotion shall publish any written queries received and the answers to the queries on the consultation website.

7 SUBMISSION OF PROPOSALS

The following types of interaction have been envisaged for the purpose of managing the market consultation, and shall be carried out via the use of a single form and various attached files:

- All parties interested in taking part in the consultation that wish to express their desire to do so must fill in the preliminary market consultation form. Information given in the form shall pertain to the participant. On an optional basis, and where

applicable, information on the other members of a group submitting a joint proposal may be included in an attached file. This step is optional, but allows communications posted on the website regarding the consultation to be sent by email to all registered participants as well.

- All parties that wish to submit questions or doubts must fill in the preliminary market consultation form and attach a list of questions that they would like to ask the General Directorate for Innovation and City Promotion. Questions and their answers shall be posted on the consultation website.
- To submit solutions, interested parties must complete the preliminary market consultation form in addition to filling in and attaching the template with the details of their proposal, as per the format provided in Appendix II.

All forms shall be available on the consultation website.

Proposals shall be submitted via the relevant electronic form, which shall be available on the website, with all the relevant attachments.

The text length limits set for the form may not be exceeded. Should it be necessary to include additional information such as text that exceeds the form limits, photographs, tables, diagrams, plans or non-textual information such as videos, this must be sent in the form of file attachments. If information is declared to be confidential, it must be contained in a file that is separate from any non-confidential information.

The General Directorate for Innovation and City Promotion reserves the right to contact participants in the consultation to clarify or collect more information on the proposals submitted.

The official language of this preliminary market consultation is Spanish and English.

To facilitate the participation of foreign legal and natural persons, consultation documents shall also be provided in English.

Participants may submit their proposals or information in either Spanish or English.

Communication with participants during the consultation process for the purpose of answering their questions shall be in Spanish and in English.

Proposals may be submitted at any time while the preliminary consultation remains open, pursuant to the provisions of Section 6. Consultations received after the deadline shall be disregarded.

Several proposals may be submitted by the same legal or natural person.

8 ANALYSIS OF PROPOSALS AND CONSULTATION REPORT

In pursuit of its interests, where applicable the General Directorate for Innovation and City Promotion reserves the right to convene individual participants for the purpose of giving a more detailed presentation or broadening the information provided with respect to their proposals.

The General Directorate for Innovation and City Promotion shall publish the final consultation report in Madrid City Council's Contractor Profile on the public sector procurement platform, as well as on Madrid City Council's website. The report's contents shall be compiled pursuant to Article 115(3) of the Spanish Law on Public Sector Contracts.

A Final Presentation shall also be held to announce the results of the preliminary market consultation.

9 CONFIDENTIALITY

Without prejudice to the applicable law regarding access to public information, Madrid City Council shall not disclose any information supplied by participants which they classified as confidential upon submitting their proposals.

Confidentiality encompasses, inter alia, technical or trade secrets, confidential aspects of proposals or any other information whose content may be used to distort competition.

Participants themselves shall be responsible for identifying the documents or technical or trade information that they consider to be confidential; they shall not be permitted to make a blanket statement or declare that all documentation or information is of a confidential nature. Confidentiality shall only encompass documents with restricted circulation. Under no circumstances shall it apply to documents that are publicly accessible.

In the event that a request is made to access documentation that has been declared confidential by the participant, the General Directorate for Innovation and City Promotion shall draft a duly reasoned report assessing the validity of this declaration, after hearing the participant. Should the participant express disagreement with the decision reached by the General Directorate for Innovation and City Promotion, the information with respect to which the dispute has arisen shall be deemed not to have been submitted.

The General Directorate for Innovation and City Promotion shall not disclose to other participants the full details of proposals made by participants, or any other confidential information it has communicated to them without their prior consent. The duty of confidentiality shall not prevent public disclosure of the minimum amount of proposal content required for participation in the consultation pursuant to Section 5.

Participants shall respect the confidentiality of any information that they have access to when taking part in the preliminary market consultation which the City Council has classified as confidential or which, due to its nature, must be treated as such.

This duty of confidentiality shall exist for a period of five years from the time that said information comes to be known.

10 INDEMNITY OF MADRID CITY COUNCIL FOR INFRINGEMENTS OF INTELLECTUAL PROPERTY AND CONFIDENTIALITY

Participants shall be liable to Madrid City Council and shall hold it harmless from any third-party claims associated with the proposals and the information submitted. Specifically, participants shall be liable for any infringement of intellectual property rights over the information submitted or the confidentiality thereof.

11 PATENT INFORMATION AND OTHER INDUSTRIAL OR INTELLECTUAL PROPERTY RIGHTS

Solutions and technical specifications included by participants in their proposals may refer to trademarks, types, a manufacturing process or a specific source or procedure, or to a patent or other industrial or intellectual property rights.

Participants must specify any pre-existing industrial or intellectual property rights used in the proposal which may restrict competition in the future tender phase.

12 PROTECTION OF PERSONAL DATA

In accordance with Spanish Organic Law 3/2018 of 5 December on the Protection of Personal Data and the Guarantee of Digital Rights, personal data supplied by participants shall be processed by the General Directorate for Innovation and City Promotion exclusively for the purpose of enabling contact during the preliminary market consultation process and disclosing information relating to Madrid City Council's public procurement of innovation processes. To exercise their rights of access, correction, deletion or objection to this data, participants may direct their requests to said Directorate.

Information on the protection of personal data shall be provided in the submission form.

13 PROCUREMENT PROCEDURE

After the submitted proposals and all other information have been collected in the preliminary market consultation, the General Directorate for Innovation and City Promotion may use this information to put together a possible subsequent procurement procedure in accordance with the applicable contract law.

The procurement procedure shall be open to all tenderers, regardless of whether they took part in the preliminary market consultation.

Preliminary market consultations shall be used by the contracting authority to plan the tender procedure as well throughout said procedure, provided that this does not have the effect of distorting competition or infringing the principles of non-discrimination and transparency.

The purpose of the contract shall not be defined in such a specific and restricted manner that only one of the parties consulted can meet its technical specifications; the outcome must be described in general terms and requirements, or with abstract formulas, and under no circumstances shall consultations afford an advantage for participating companies with respect to award of the contract.

Participation in the consultation does not preclude subsequent involvement in any procurement procedure that may be carried out.

The official language of the possible subsequent tender procedure shall be Spanish.

Appendix I. Issues addressed in the preliminary consultation entitled “Detection of obstacles and risks in pedestrian streets”

1 Background

Plan A¹, City of Madrid Air Quality and Climate Change Plan, defines in action 3, Prioritization of pedestrian mobility, a set of goals and improvement actions favouring pedestrian mobility and its coexistence with other means of transport.

On the other hand, among the objectives of the Sustainable Mobility Ordinance of October, the 5th 2018, it is worth highlighting the impact on environmental sustainability through the promotion of public transport and intermodality of collective public transport, **pedestrian and cyclist mobility**, the development of electric mobility and less polluting mobility and vehicle sharing.

Prioritising pedestrian itineraries means adapting spaces to ease transit by acting on infrastructure, such as the elimination of architectural barriers and topographical irregularities.

However, many times, pedestrian traffic is subject to a variety of road safety risks or is hampered by temporary obstacles of a very diverse nature that interfere with the movement of people or with the interaction between vehicles and people. These include, but are not limited to, double-row parking next to pedestrian crossings with or without traffic lights (which reduces visibility and therefore facilitates collisions), parking of vehicles on the pavement (traditionally with a special impact of motorcycles but more recently with the incorporation of a significant number of bicycles and electric scooters), unauthorized occupations of public roads, crowds of people in front of a pedestrian crossing with traffic lights, and so on. Obstacles can be detected either directly or by analysing the behaviour of pedestrians.

The solution to these incidents in pedestrian traffic requires in some cases the intervention of the Madrid City Council agents and its effectiveness is conditioned by the ability to detect such problems. The automatic detection of these incidents will allow the responsible units to act more quickly and efficiently. Obstacles can be detected either directly or by analyzing the behaviour of pedestrians.

¹ Plan A, City of Madrid Air Quality and Climate Change Plan. https://www.madrid.es/UnidadesDescentralizadas/Sostenibilidad/CalidadAire/Ficheros/PlanAire_yCC_092017.pdf

2 Needs

The purpose of this preliminary market consultation, grounded in the provisions of Article 115 of Spanish Law 9/2017 of November the 8th on Public Sector Contracts, which transposes into Spanish law Directives 2014/23/EU and 2014/24/EU of the European Parliament and Council of 26 February 2014, is to request information from the market regarding possible solutions to the need of “Digital image processing for mobility applications”. This shall enable adequate preparation of the tender and planning of the procurement procedure. It also aims to inform economic operators of the relevant plans and of the criteria that must be met in order to submit a tender in any possible future procurement procedure.

2.1 General objective

The objective of the consultation is to explore possible solutions for the early and automatic detection of temporary or permanent obstacles on pedestrian itineraries in order to trigger a corrective action to be taken by Madrid City Council agents.

2.2 Specific objectives of the consultation

Participants in the consultation shall answer the following questions relating to the subject of the consultation.

Participants may include additional descriptions of the solutions they propose for the purpose of the consultation that are not foreseen in the following questions, giving a reasoned justification for their inclusion.

Specific objective 1.- Technological equipment for the detection of obstacles and risks

The participant will detail the specifications of the equipment and elements to be installed in the public domain that it proposes for the realization of the object of the preliminary consultation of the market. The most relevant data of the equipment (cameras, sensors, telephones and other intelligent mobile devices, etc., according to the case) will be detailed: technical information, installation of the same, registered information, conservation needs, durability, etc.

A criterion will be given for the approximate dimensioning of the quantity of sensors necessary equipment.

Two typical scenarios will be considered for the sizing of the proposal:

- Pedestrian scenario (Eg. Fuencarral street). Theoretical measures for its calculation are: street length, 500 meters and street width, 15 meters.
- Mixed pedestrian and traffic scenario (Eg. Gran Vía street). Theoretical measures for its calculation are: street length 1,000 meters and total width, 40 meters (10 meters each sidewalk and 20 meters of roadway), with or without parking strip..

An estimated valuation of the two previous scenarios will be presented.

Specific objective 2.- Information processing

The proposed solution will be described at the level of architecture, processing modules, algorithms used, system operation, integration with traffic light regulation systems and traffic control centres, data analysis and publication of "open data". In relation to the operation, the information presented to the operator for the assessment of the possible incident shall be indicated. The processing and communication requirements for the proposed system shall be indicated.

In the event that the capture of video, images or any other data subject to protection is necessary, the participant shall indicate the mechanisms he envisages for the protection of the information in accordance with current regulations.

A dimensioning and estimation of costs will be carried out for the scenarios proposed in specific objective 1.

Specific objective 3.- Planning of the implementation

A planning and implementation timeframe will be indicated in the two proposed scenarios.

3 Indicators

Participant shall provide for all proposals the following indicators.

3.1 Minimum size of detected objects

The minimum dimensions of the objects that can be detected by the system as obstacles or risks will be defined, as well as the shapes and colors or contrasts necessary for this.

3.2 Definition of obstacle and risk

Indicate whether the assignment of an object detected as an obstacle or a situation identified as a risk is customizable in the system and, if so, which parameters are allowed.

3.3 Obstacle and risk detection time

The detection time of obstacles and risks shall be indicated by application of the algorithm in 90% of cases. This time shall be evaluated as the time elapsing from the appearance of a physical obstacle or road risk to the presentation of an alarm in the operation console.

3.4 Reliability of the solution

The participant shall indicate the reliability of the proposed solution by means of quantitative indicators. For example:

- Percentage of false positives.
- Learning capacity of the system

3.5 Maturity of the solution

The degree of maturity of the solution shall be indicated.

If the system has been implemented in a real operating environment, the solution shall be described in detail. All the technical information necessary for the description of the real project - sensors, architecture, communications, detection time, reliability, etc. - shall be included.

Appendix II. Proposal submission form

Consultation information	
File number	145/2019/01003
Name of consultation	Detection of obstacles and risks in pedestrian streets
General proposal information	
Name of proposal	
Acronym (max. 10 characters)	
Version (number)	
Description of proposal	
Brief summary of proposed solution (max. 2,500 characters)	
Estimated duration of implementation of the suggested proposal (months)	
Estimated cost of developing the proposed solution (euros)	
Benefits offered by the proposed solution (max. 850 characters)	
Innovative elements (new technologies delivered and innovative solutions) or expected R&D results. Indicate the specific elements that differentiate your proposal from the goods and services already available in the market (max. 850 characters)	
Technology needed to implement your proposal (max. 850 characters)	The prerequisites for the development of the proposal will be included in this section.
Current readiness level of the proposed solution (if technology readiness is known, indicate TRL)	The degree of maturity and its availability will be indicated. If there are implementations of the proposed solution, the descriptive information of the real case and a list of references will be included in this point.
R&D results expected be produced (max. 850 characters)	

Indicate the regulations and laws associated with the need described.	
List of documentation provided	
Name of file	Description/Confidentiality

Any information provided in this form shall be public.

Any information provided in supplementary files which is not designated as confidential pursuant to the provisions of Section 9 shall be public.

COMPULSORY DECLARATIONS

- The General Directorate for Innovation and City Promotion is hereby authorized to make use of proposal contents solely and exclusively for the purpose of their possible inclusion in the specifications of a potential future tender procedure.
- The transparency conditions set out in Section 5 are expressly accepted. In the event that these conditions are not accepted, the form shall be deemed not to have been submitted and the information contained therein shall not be taken into account in the preliminary market consultation.