

TERMS & CONDITIONS OF THE CALL FOR SOLUTIONS OF THE “OPEN INNOVATION LAB FOR MUNICIPALITIES” PROGRAMME

CHALLENGE: How can technology help to increase the leak detection and repair irrigation systems in Sant Boi de Llobregat?

These terms & conditions regulate participation in the Call within the framework of the challenge “*How can technology help to increase the leak detection and repair in irrigation systems in Sant Boi de Llobregat?*” launched by Digital Future Society (hereinafter, “**DFS**”), a programme of the Fundació Barcelona Mobile World Capital Foundation (hereinafter, “**MWCapital**”) in collaboration with Aigües de Barcelona. Participation in this Call for Solutions implies full acceptance and compliance with these terms & conditions.

Consequently, the organizer and responsible of this Call for Solutions is Fundació Barcelona Mobile World Capital Foundation, with address in Barcelona (08039), Pau Vila Square, 1, sector 2-C, Palau de Mar building, with the CIF G-65760431.

1. Introduction

MWCapital is a non-profit entity that aims to promote the digital transformation of society, helping to improve people's lives globally. Founded and promoted by the Ministry of Economy and Business of the Government of Spain, the Generalitat de Catalunya, Barcelona City Council, Fira de Barcelona and GSMA, MWCapital also has the support of private companies such as Telefónica, Vodafone, Orange, Damm and CaixaBank. With this public and private support, MWCapital focuses its activity in four (4) areas: the acceleration of innovation through digital entrepreneurship; the transformation of the industry through digital technology; the growth of digital talent among new generations and professionals; and reflection on the impact of technology on our society.

In the framework of its initiatives, MWCapital promotes the DFS programme with the objective to build an inclusive, equitable and sustainable future in the digital era. DFS engages technology experts and social scientists to explore, experiment, and exchange knowledge in four (4) verticals: public innovation; digital trust and security; inclusion and citizen empowerment; and sustainable growth.

The DFS Think Tank is the research and deliberation body of the DFS programme, the purpose of which is to foster a greater understanding of the impact on society of digital technologies through research and discussions focused on four verticals.

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Throughout the year, the DFS transforms global reflections into local actions and creates solutions that seek to respond to the most urgent challenges of technological disruption through the DFS Lab. In this context, the “DFS Lab” is responsible for validating the recommendations of the DFS Think Tank and for identifying and testing solutions in response to the challenges defined within the four above-mentioned verticals.

Through its collaborative approach, DFS Lab launches calls to identify, share, and scale ideas and solutions that aim at overcoming social challenges.

Aigües de Barcelona is the company responsible for the management of the integral water cycle in the metropolitan area of Barcelona and has the following purpose "With the impulse of water we change the future. We work for people, making cities a better place to live in". Aigües de Barcelona is firmly committed to water, the environment and people and contributes on a daily basis to the sustainable development of the Barcelona metropolitan area and, globally, to the United Nations Sustainable Development Goals.

2. Objective

Although the hydraulic performance in Catalonia is one of the most positive, according to data from the Agrupació de Serveis d'Aigua de Catalunya (ASAC), Catalonia loses, on average, 10% of the drinking water that circulates through the leaks. In the current context of extreme drought, the minimisation of drinking water losses due to leaks is of the utmost importance and urgency, and is therefore a top priority. The municipality of Sant Boi de Llobregat is a member of the 2030 Urban Agenda and one of the objectives prioritised in this framework is the reduction of water consumption and the reduction of water consumption in general.

In Sant Boi de Llobregat several drinking water leaks have been detected in watering systems in parks and gardens and in the supply of municipal infrastructure such as public fountains, schools and sports centres. Although these are always small leaks, the high number of existing leaks and the gradual deterioration of the network mean that we have to tackle the challenge of acting as efficiently as possible.

When the network is at a shallow depth and the soil is permeable, locating the leak and repairing it is relatively simple. However, for pipes buried at great depths (between 1.5 and 2 metres) or those under impermeable soils, the location and repair is very complex and costly. More specifically, **the main problem with these leaks is usually located in pipes between 25 and 90 mm in diameter (50 mm on average) and buried between 0.5 and 2 metres deep.** It should also be borne in mind that, in most of these cases, there are no accurate plans of the layout of these pipes as they are installations that have been installed for more than 15 years.

The main cause of these leaks is the age of the cannons and their technical specifications (such as, for example, their tolerance to soil pressure). Moreover, in the context of the current drought, the irrigation system is tied up so it is expected that the number of operational problems and, above all, leakages, could increase significantly when these installations are put back into operation.

The telemetry system, which has been in operation for two years in the municipality, has led to a considerable improvement in the pre-localisation of leaks, but there is currently no effective system for locating them and thus being able to repair them. Various tests have also been carried out using tracer gas. Experience has shown that the main limitation of this system is that it can only detect the larger fires and not the secondary or smaller ones.

The aim is to be much more efficient in drinking water consumption, in order to achieve a reduction at municipal and domestic level through non-invasive leak detection and repair. Technological solutions could therefore focus on:

- Interior repair of the pipe without civil works
- Application in small distribution networks, water mains or internal equipment networks, in drinking water pipes and with a variety of diameters (25-90mm and more commonly 40mm and 50mm)

In this sense, the challenge aims to seek innovative technological solutions that allow leak detection and repair in a preventive and non-invasive way in Sant Boi de Llobregat. In this way, the aim is to facilitate the location and repair of leaks, increase the use of water and reduce the cost of consumption.

This call seeks to achieve its objectives by selecting one (1) winning proposal that will lead to the launch of a collaboration. Specifically, within the action framework of this collaboration, **it will promote the realization of a pilot project where both the technology and its impact in the real context of the municipality of Sant Boi de Llobregat will be validated.**

The current Call for Solutions seeks proposals that bring different perspectives and experiences from organisations that can contribute to solving the described challenge. It especially looks for collaborations across the different sectors and fields that are already tackling the described challenge.

Thus, this call will be governed by these terms and conditions, which, by the simple fact of applying, as established in section “7. How to participate” shall be known and accepted without reservation by the participants.

3. What is offered by DFS Lab?

The winning proposal will benefit from:

- A. Preparation of the partnership.** MWCcapital will be in charge of bringing together the different stakeholders in a collaborative effort to enable the implementation of the winning proposal.
- B. Project execution.** MWCcapital will co-lead, in collaboration with Aigües de Barcelona, the project execution by assuring the coordination among all partners and defining the project calendar, its objectives, and key milestones.
- C. Project funding.** The winning proposal will receive financial support, which will be assessed on a case-by-case basis. The winning proposal will be responsible for providing at least 20% of the project's total budget. Financial support will only be available for activities and aspects directly related to the implementation of the pilot project and it cannot include personnel, travelling and diet costs. MWCcapital may fund the winning proposal up to a maximum of €25,000 excluding VAT.
- D. Testing ground.** The winning proposal will be delivered as a pilot validated in a real-life context, coordinated by MWCcapital, Aigües de Barcelona and Sant Boi de Llobregat city council.
- E. Communication and dissemination.** MWCcapital will coordinate the communication activities throughout the project's life cycle, highlighting the major goals and positioning the project in the field.

4. Key dates

Submissions can be made from the 14th of May 2024 until the 9th of July 2024 at 12:00 PM (CET).

Participants must complete their application by registering and submitting information through the online form available.

The winner will be announced in October 2024.

MWCcapital reserves the right to extend the deadline for the submission of proposals.

5. Language of participation

This is an international Call for Solutions so submissions should be made in English. However, submissions in Catalan & Spanish will also be accepted.

6. Eligibility criteria

Participation in the Call is voluntary, free, and open to any legal organisation, without any restrictions based on size or geographical location.

In addition to this, submitted proposals need to comply with the following three (3) criteria:

- To respond to the challenge launched by this Call for Solutions.
- Deliver concrete and measurable results and be prepared for the implementation of the pilot project.
- The technological elements of the proposed solution must also be ready for the implementation of the pilot project (Technology Readiness Level > 6).

Participants must complete their proposals by registering and submitting information through the online form available.

Proposals received or attempted to be formalised after the closing date of the Call, and those that do not include the requested characteristics and requirements will be considered null and void and, consequently, will not be evaluated.

The organisation reserves the right to eliminate, without prior notice, any participants who manifest, through acts or omissions, fraudulent or abusive behaviour or behaviour contrary to the law, the rights of third parties and/or good faith, as well as to eliminate any participants who carry out fraudulent actions aimed at obtaining a higher score or altering the results of the Call in any way, whether in their favour or not; as well as to consider null and void those proposals that it considers inappropriate for the image of the MWC Capital and Aigües de Barcelona brand.

The data provided by participants when registering for this Call must be true so that those participants whose data are incorrect, or incomplete will lose any option to participate in the challenge.

7. How to participate

The submission process is divided into three (3) rounds of evaluation. Only proposals that meet the eligibility criteria described in the previous section will be considered for evaluation.

All applications received will be analysed in the same way.

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a. Round one - Evaluation of all eligible proposals

Participants can submit their proposals by filling in the submission form on the DFS Lab webpage [here](#).

In this round, all eligible proposals will be evaluated by a panel of judges consisting of DFS Lab members.

The maximum score for this round is **50 points**, in accordance with the criteria set out below:

- **Degree of relevance:** how relevant is the proposal in responding to the problem posed **(8 points)**
- **Benefits:** dimension of the benefits and improvements (social, economic and /or environmental) that would be generated by the implementation of the proposed solution in the Sant Boi de Llobregat **(8 points)**
- **Degree of innovation:** how innovative and disruptive the solution is in relation to what already exists in the market **(6 points)**
- **TRL - (Technology Readiness Level):** how mature the solution is and its readiness to be piloted in a real-world context **(3 points)**
- **Scalability:** the possibility of scaling the proposal in other contexts, public spaces or other municipalities in the Barcelona metropolitan area **(5 points)**
- **Feasibility of the implementation:** how feasible is the implementation of the proposed pilot project in Sant Boi de Llobregat from a technical perspective **(8 points)**
- **Readiness for implementation:** how many months it takes to get the solution up and running. **(6 points)**
- **Previous experience in similar projects:** indicate the level of demonstrable experience in the field of water management and irrigation **(3 points)**
- **Partnership:** the existence and/or necessity of partners and/or counterparts for the successful implementation of the pilot project **(3 points)**

b. Round two - Evaluation of the (maximum) twelve proposals with the highest scores

Of the total number of proposals received, (maximum) the ten (10) proposals with the highest score in the first round will go through to the second round and be considered semi-finalist proposals.

Semi-finalist proposals must submit additional information between 19th July 2024 and 24th of September 2024. This information will focus on the implementation plan of the pilot project, the budget, and the proposal's sustainability, among others. Based on this additional information, MWCcapital will conduct a new evaluation round. The semi-finalist proposals will be re-evaluated in this second round by the DFS team and experts from Aigües de Barcelona.

The maximum score for this phase is **50 points**, in accordance with the criteria set out below:

- **Context of the pilot:** level of relevance and adaptation of the context of the pilot to the Sant Joan Despí municipality **(6 points)**.
- **Level of detail of the pilot project:** level of detail and clarity in the description of the pilot project's objectives, tasks, and timeline **(3 points)**
- **Feasibility of the pilot project planning:** how feasible is the implementation of the pilot project based on the proposed planning **(6 points)**
- **Technical feasibility of the pilot project implementation and needs:** how feasible is the implementation of the pilot project based on technical needs and requirements **(8 points)**
- **Physical infrastructure:** Level and / or amount of physical infrastructure required (to install) to implement the solution **(3 points)**.
- **Evaluation of results:** Pilot's results measurement plan **(3 points)**.
- **Economic feasibility of the pilot project:** how feasible is the implementation of the pilot project from an economic perspective, budgetary needs, and available resources. **(6 points)**
- **Co-funding:** the percentage of the applicant's contribution to the pilot project budget **(3 points)**
- **Sustainability:** clarity and feasibility of the sustainability of the solution beyond the pilot project **(6 points)**
- **Team profile and experience:** matching the team and its experience to the pilot project's needs **(3 points)**
- **Team organisation and responsibilities:** adequacy of the organisational structure and distribution of responsibilities among the team for the correct implementation of the proposed pilot project **(3 points)**

c. Round three - Selection of the winners

The six (6) proposals that have obtained the best score in the first and second round together will be considered as finalists. A jury made up of experts from MWCcapital, Aigües de

Barcelona and Sant Boi de Llobregat City Council, and other external experts will evaluate the finalist proposals based on all the information provided in the first and second rounds.

Finally, a meeting, called Pitch Day, will be held online where the six (6) finalists will present a summary of their proposals (five minutes) and answer the questions of the jury (ten minutes). At the end of all the presentations, the same day, the jury will select one (1) proposal as the winner of the Call, which will end up resulting in one (1) future collaboration to carry out the corresponding pilot.

To select the six (6) proposals to be considered finalists, if several proposals obtain the same score in the final evaluation, the tie-breaking criterion will be the number of women included in the management team.

Each of the criteria will be assessed on 0 to 3, 4, 5, 6 or 8 points during the different evaluation phases.

Once the third round has been closed, the winning project will be informed of this circumstance and, to be considered confirmed, it will have to sign a participation agreement in which it will have to make a binding commitment to participate actively in the programme, under the conditions established in these rules, and to ensure that no circumstances have changed.

8. Intellectual property and communication of results

The intellectual and/or industrial property of the projects submitted shall belong to the participants who have submitted them.

By submitting to the Call, participants authorise MWCcapital to use the name of the organisation and/or first and last names of the individuals involved, a summary of their proposal or essential or basic references to it and the photos and biographies provided in any promotional material of the initiative.

MWCcapital reserves the right to disseminate the different phases, events, or milestones during the Call and to communicate the results of the Call through any media (internet, media, television, radio, etc.) with prior knowledge of the participants.

Thus, the participants who take part in the Call, by this fact, transfer to MWCcapital the rights to use the images, voice, audio, and video, as well as the names and explanations of their projects, in any

media and under any support or format, for the sole purposes of promotion, dissemination and development of the project.

This transfer is made with the right of transfer to third parties, without geographical or temporal limitation and free of charge.

9. Limitation of liability

MWCapital reserves the right to reject any proposal or withdraw a place in the Call if a participant breaches these rules or in the event of a potential conflict of interest. If a participant withdraws or is withdrawn from the Call during the evaluation rounds, MWCapital may select a new participant to replace it but is not obliged to do so.

MWCapital will not be responsible for or reimburse any costs incurred in submitting materials or information in accordance with the Call, including evaluation, response, follow-up, negotiation, or any other costs incurred to comply with the requirements of the Call, in conjunction with the implementation of the proposal.

Participants must have access to the internet, as the Call can only be accessed via online means. Participants must provide an e-mail address and a valid contact number which will be used to request any additional information needed and to communicate the results.

In applying for the Call, participants:

- They are responsible for the authorship and originality of the projects submitted and for the copyright and other intellectual or industrial property rights on any material, product and/or computer programmes or software (whether in printed or machine format).
- They guarantee that they do not infringe any third-party rights, be they industrial, intellectual, or other property rights.
- Acknowledge that they are also the holders, or legitimate assignees, of the full ownership of the supports of any kind, including, by way of example and without limitation, the documentation, and any analogue, magnetic and/or digital supports or materials on which the object of the project is materialised and fixed, totally, or partially.
- They guarantee that they own the intellectual and/or industrial property rights related to the ideas they submit to this call and all creations, databases, tools, methodologies, processes, technologies, know-how, software, and products in general.

The results of the evaluations of each round are final and binding. MWCapital and, where applicable, the collaborating entities, are exempt from any liability, sanction, claim or demand or civil,

commercial, criminal, and administrative proceedings, including compensation of any kind or nature and from any expenses (including lawyers' and solicitors' fees expressly). The decision of the jury members during the three (3) rounds of evaluation is final, and MWCcapital will not enter into any discussion on the outcome.

10. Personal data protection

The personal data provided in the framework of this call and the updates of the same will be processed by MWCcapital under the provisions of this clause.

MWCcapital will only communicate data when strictly necessary. In any case, the data will be treated with a level of protection under the applicable rules on Data Protection and will not be subject to automated decisions.

If personal data of third parties are provided, MWCcapital is guaranteed that they have been informed before their inclusion of the points contained in this clause, being personally liable to MWCcapital for any damages that may arise in the case of contravention.

Participants may at any time, under the terms established in current legislation, exercise their rights of access, rectification, deletion of data, request that their processing be limited or opposed, as well as request the portability of their data by writing to the address Plaça Pau Vila, number 1, Sector 2-C, 08039, Barcelona, or to the e-mail address lopd@mobileworldcapital.com clearly indicating the right they wish to exercise and enclosing their National Identity Card or similar identification document that proves their identity. A complaint may also be lodged with the Spanish Data Protection Agency.

11. Invalidity of clauses and consultation and resolution of doubts

If any section of these rules is declared, totally or partially, null or ineffective, such nullity or ineffectiveness will only affect this provision or part of it that is null or ineffective, subsisting in all the rest of the rules and having this provision or the part of it that is affected by not being included, except that, in case of being essential for these rules, it would have to affect them integrally.

In this way, any situation not resolved in these rules will be raised directly with MWCcapital, as the organiser of this challenge, which will dictate the solution to the incident raised, which will at all times be binding on the established rules and will be communicated in writing to the participant affected.

For any questions or doubts related to the objective of the Call or the presentation of the participation, interested parties may contact MWCcapital through the following e-mail address: challenge@mobileworldcapital.com.

12. Applicable law and jurisdiction

The law applicable to this call for applications shall be Spanish law.

By submitting a proposal, participants irrevocably accept the jurisdiction of the Courts of Barcelona for any dispute or litigation that may arise in relation to these rules.

13. Language of this terms and conditions

These terms and conditions may be consulted in three languages, Spanish, Catalan and English, although the Spanish version will prevail over the others in the event of any controversy.

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