

Rules of participation for the AB Data Challenge: From water to impact

Below are the terms and conditions of participation in the **AB Data Challenge: From Water to Impact** (hereinafter, "**AB Data Challenge**" or "**competition**"), promoted by **Aigües de Barcelona**, Empresa Metropolitana de Gestió del Cicle Integral de l'Aigua, S.A. (hereinafter, "**Aigües de Barcelona**" or "**organization**").

1. CONTEXT AND OBJECTIVES

The **AB Data Challenge** Program is an initiative promoted by **Aigües de Barcelona** that, in collaboration with universities and research centers in Catalonia, aims to put technology at the service of society to respond, thanks to open innovation and public-private collaboration, to new contexts, needs, challenges and applications within the metropolitan area of Barcelona.

In recent years, thanks to remote reading and citizen collaboration, **Aigües de Barcelona** has collected water consumption data, remotely and in real time, from all the municipalities in the metropolitan area. This data allows users and **Aigües de Barcelona** to know their daily consumption from any location. In addition, **Aigües de Barcelona** has data from other areas, such as customers or operations, with the same innovative potential.

The **AB Data Challenge** seeks to maximize the value of this and other open data to respond to major environmental and social challenges through public-private collaboration between universities, technology centers and companies. In addition, it aims to create an ecosystem of inspiration and creativity where innovation and talent can be promoted and knowledge and experiences can be shared during the program.

2. AREAS OF IMPACT

The projects to be developed must belong to one of the areas indicated below, and the analysis and conclusions drawn from the project must make it possible to improve social and collective decision-making, solve problems in an innovative way and manage responsibly in the face of the sustainability challenges we face. The scope of the project must be defined in advance during the registration phase. From Aigües de Barcelona, four examples of possible areas are proposed, with the opportunity for participants to propose a fifth totally innovative area.

1 - Detection of anomalous consumption

Advanced data analysis techniques offer new opportunities to understand and characterize water consumption patterns. In this context, the development of new variables and innovative analytical models opens the possibility of identifying anomalous consumption behaviors more accurately. The implementation of these solutions will significantly improve the detection of situations that are out of the ordinary, facilitating more efficient management of the service and promoting a more responsible use of water resources.

2 - Impact of global changes on water consumption

Water consumption patterns are constantly evolving, influenced by multiple external factors. This challenge seeks to develop analytical models that allow us to understand how different contexts (climate change, droughts, economic fluctuations or tourist pressure) affect domestic consumption habits, as well as the behavior of large industrial and commercial customers. The aim is to anticipate trends and develop more resilient management strategies for water resources planning.

3 - Water leaks and customer experience

The efficient management of water leaks represents a fundamental challenge that has a direct impact on customer experience. Each incident has characteristics that are reflected in consumption patterns and generate different responses from users. This challenge aims to deepen the understanding of the types of leaks and their relationship with customer experience, from detection to resolution. The aim is to evolve towards a more efficient and proactive management of these incidents, improving both the conservation of water resources and user satisfaction.

4 - Prediction of incidents in smart meters

The maintenance of water meters is essential to guarantee the continuity and quality of the service. This challenge seeks to develop innovative predictive models that, through the analysis of patterns in data transmission (such as the progressive decrease in the number of readings), allow us to anticipate possible breakdowns or deterioration of the equipment. The aim is to facilitate proactive maintenance that optimizes meter management and ensures reliability in data collection.

5 - Open innovation

In addition to the challenges proposed in the program, AB Data Challenge is open to receiving and considering new proposals and initiatives presented by participants. These new ideas must be aligned with the main objectives of the competition, which are to promote innovation in the use of data, foster collaboration between different sectors and disciplines, and promote data-driven solutions to address social and environmental challenges.

3. DESCRIPTION OF THE DATA

In these areas, Aigües de Barcelona provides the opportunity to access different types of data to develop new solutions based on data analysis. These solutions should help to enhance their use and transform them into a source of interdisciplinary innovation to help improve the management of the integral water cycle.

On the one hand, remote reading data corresponding to the years 2022, 2023 and 2024 are available, without it being possible to reassign them to any specific supply. These data come from the municipalities in the metropolitan area with the most remote reading meters and are aggregated according to the type of consumption (domestic, industrial and commercial), type of economic activity and location (census sections, postal codes, districts and neighborhoods).

On the other hand, participants will have access to various data sets that may include, among others, information related to the operation of smart meters. These datasets can contain technical device data, event and incident logs, as well as information related to customer experience. The availability and specific details of the data will be communicated to the

participants once the contest has begun. As with remote reading, this data does not include any information that allows it to be reassigned to any customer.

In addition, Aigües de Barcelona encourages the cross-referencing of the data provided with open external data and statistics that the participants consider appropriate to give added value to the proposed solutions.

4. PARTICIPANTS

The **AB Data Challenge** is aimed at all those who believe in data science as a potential source of innovation, and who want to generate and discover new uses with the tools at their disposal. Both people with previous knowledge of data analysis and programming, as well as those who contribute innovative ideas for the resolution of the proposed challenges, with *ad hoc* solutions or adapting ideas from other sectors to this area, can participate.

It is not essential to have a previous team or project to participate in the **AB Data Challenge**, but it is recommended. In the following points of these rules of participation, the process of registration and selection of projects is detailed.

Participation will be individual or in teams of a maximum of 5 people who identify with any of the profiles mentioned in section 4.1 and comply with the provisions of these participation rules. In addition, the teams can be made up of people from different profiles or from different centers or institutions, thus encouraging their collaborative participation.

Participants must provide their own technical resources to carry out the project: electronic devices (computers, mobile phones, etc.) or any other *software* or *hardware* material that is necessary for its development.

It is essential that all the winners (and most of the team members) are present during the awards ceremony.

The winners will be announced at the final event of the **AB Data Challenge**, and their names will be published, at least, on the contest website: <https://www.abdatachallenge.cat>

4.1. The profiles that can participate in this AB Data Challenge are:

- Students in the training cycle, university degree, university master's degree or doctorate are assigned to any branch of knowledge: arts and humanities, health sciences, social and legal sciences, engineering and architecture.
- Teaching or research team: teaching staff and research staff (PDI) in the field of the different specialties of the university.

4.2. Maximum number of participating projects

- A maximum of 15 projects **can participate in the AB Data Challenge**.
- The project can be developed individually or by forming teams of a maximum of five people.

4.3. Conditions of participation

- Registration is completely free.
- The minimum age of participants is 18 years old.
- Participants must be enrolled in training cycles, universities or research centers in the autonomous territory of Catalonia.
- Only one project per participant/team will be accepted. If there are multiple registrations, only the most recent registration will be accepted.
- Participants can only be part of one team.
- If any registered participant is unable to participate in the AB Data Challenge, this must be communicated within a period of no less than 72 hours prior to the start of the competition.
- Participation in the contest automatically implies acceptance of these rules.

5. PHASES AND CALENDARS

The **AB Data Challenge** consists of the following phases:

5.1. Initial registration

All participants in the AB Data Challenge, including the different members who form a team, must complete the initial registration form (Form 1) enabled on the <https://www.abdatachallenge.cat/website>.

Form 1:

- Name and surname
- University of research center
- Email
- Password
- Basic information on the protection of personal data and acceptance of the privacy policy
- Request for consent for the use of image rights, as well as for the sending of information on activities
- Information and acceptance of the rules of participation

Once registered, the Aigües de Barcelona team will validate the data entered and notify you, by email, of the credentials (username and password), which will give access to the registration of the project (Form 2) enabled on the competition website.

The initial registration period is from **September 15 to October 19**.

5.2. Registration of the project

A representative of each team must fill in Form 2, which includes information on all the members of the team, as well as all the relevant information to present the project proposal that will be carried out in the AB Data Challenge. To complete the registration process, the representative of each project may attach a video presentation of a maximum of 3 minutes.

Your video can't have more metadata associated with it than is strictly necessary for participation. These are the title of the video, author and date of creation, that is, unnecessary metadata should be avoided in the video, such as, for example, location data, GPS, Wi-Fi, MAC address, signal strength or similar.

Form 2: Team data

- Team name
- Number of members
- Representative's email
- Team members:
 - Name and surname
 - Email
 - Professional profile (student, researcher or teacher)
 - Studies/course or field of research
- Summary of the project:
 - Project title
 - Description of the idea: background, problem or need to be solved, solution provided, target market, business model, etc.
 - Objective of the project
 - Project status
 - Area where you want to impact
 - Results/benefits that the project can bring
- Project details:
 - Motivation is why you believe your project should be selected.
 - Video presentation of the project of a maximum of three minutes explaining the project proposal (optional).

The registration period is from **September 15 to October 19**.

5.2.1. Selection of projects

Based on all the registrations received, **Aigües de Barcelona** will select a maximum of 15 projects to participate in the **AB Data Challenge**. The **selection criteria** are detailed in point **5.2.2.** of these rules of participation.

The 15 selected projects will be notified on **October 24** by email, with an invitation to the *kick-off event* that will start the contest on **October 28**.

People who have not been selected will also receive an email from the organization.

5.2.2. Project selection criteria

To select the participating projects, the following points will be assessed and the 15 best valued will be chosen.

- (50%) Innovation, unique characteristics that highlight the project proposal.
- (50%) Functionality, usefulness and usability of the project proposal.

5.3. **Kick-off: start of the contest**

The scheduled date for the *kick-off* of this **AB Data Challenge** is **October 28th**.

The projects selected to participate in the AB Data Challenge will receive the call by email, as well as the details and format of the conference.

5.4. **Project deliverables**

Participants will have **from October 28 to December 21** to develop and prototype their projects according to the chosen field. The content and format are specified in point 6.1 of these rules.

Once the submission has been made, the 15 projects will be subject to an initial evaluation were, according to the criteria specified in point 6.2 of these participation rules, 6 projects will be selected. The selected projects will be notified on **January 20** by email, so that they can prepare the live presentation with the final jury. Discarded projects will also receive email notifications.

5.5. **Pitch Day: final event and award ceremony**

The **AB Data Challenge** will close with an event that will take place in person on **January 28th**. At this event, the six final projects that have been selected will be presented live, for subsequent evaluation by the jury.

The projects selected to participate in *Pitch Day* will receive the call by email, as well as the details of the day.

During this event, the winning projects of the AB Data Challenge will be announced.

The organization reserves the right to modify the calendars of the *kick-off*, development and *Pitch Day events* of the AB Data Challenge. In case of modification, the changes will be informed by email and the <https://www.abdatachallenge.cat> website. **Aigües de Barcelona** recommends that participants visit the website in case there is any change in the schedules or the development of the AB Data Challenge.

6. PROJECTS

The selected projects that are submitted to the competition will be delivered electronically through the email abdatachallenge@aiguesdebarcelona.cat. The deadline for submitting project deliverables is **21 December**. Projects that have been carried out in teams must be submitted by their representative under the name of the group created, and therefore, the deliverables may not contain, under any circumstances, the names of the participants or any other personal data.

6.1. **Deliverables**

Projects must be presented using a *notebook* interspersing text, code and graphics, as necessary. The length of the content is not limited, but complete documentation is expected that considers the following points:

- Explanation of the characteristics of the project presented with all the data used that allow the evaluation according to point 6.2 of these rules.
- It will be validated that the code of the submitted project is executed correctly with the original set of data presented, and therefore, that these are not subject to any modification.
- The packages and versions used must be mentioned. You can only make use of tools that are available to everyone, i.e., no paid services or free limited-time trials.
- The source of the open data must be included if it is used.
- The expected execution time for each notebook must be indicated. This point will be useful for the jury when allocating time and resources for review and, in any case, **cannot exceed 6 hours**.

In addition to the delivery of the *notebook*, each group must prepare a video of twenty minutes maximum where they explain their project and the final results obtained. In addition, this video must include the execution of the entire code and a justification of the innovation and value provided by the project.

Finally, the six projects notified and selected to move on to the last phase of the AB Data Challenge must prepare a presentation of no more than **8 minutes** explaining the project. The presentation used during the *Pitch Day* must be sent to the email address of the competition organizers: abdatachallenge@aiguesdebarcelona.cat. The deadline for submitting the submission is **27 January**.

6.2. Project evaluation criteria

The jury will apply the criteria mentioned below to evaluate the deliveries contributed by the participants and select the finalist projects and the winners of this AB Data Challenge.

The 15 projects that compete in the AB Data Challenge will be evaluated according to the first three criteria indicated below, in accordance with the deliveries submitted (deliverables mentioned in point 6.1 of these rules). Subsequently, the six best-rated projects will continue with the final evaluation of the *Pitch Day*, which will be carried out based on the fourth criterion according to the presentation of the project. In this way, the winners of this AB Data Challenge will be the projects that, at the end of the competition, have obtained the highest scores.

The criteria and percentages of this evaluation are as follows:

- Implementation and scalability (30%)
- Adaptation and impact in the proposed field (30%)
- Originality and innovation (20%)
- Final presentation (20%)

6.3. Exclusion criteria

The work to be completed may be excluded by the jury from the competition according to the following criteria:

- Late filing.
- Failure to comply with the conditions of the Participation Rules.
- Duplicity.
- Non-delivery or incomplete delivery of deliverables.

- Any other criterion that the jury, always in a motivated manner, deems appropriate.

The evaluation criteria are subject to change or updates until the start day of the AB Data Challenge, when they will be presented during the introductory day to be held on **October 28**.

7. JURY

The composition of the jury will be displayed on the AB Data Challenge website: <https://www.abdatachallenge.cat/>.

7.1. Jury for the selection of initial and finalist projects

A jury made up of four representatives of Aigües de Barcelona and Cetaqua will select the 15 projects participating in the AB Data Challenge. This same jury will evaluate and select the following 6 projects that will participate in and make the presentation during *Pitch Day*.

7.2. Jury of the final event

This jury will be responsible for choosing the winning projects of the AB Data Challenge during *Pitch Day* that will take place on **January 28**. It will be made up of 5-7 experts with recognized experience in the water sector, technological innovation, communication and science.

8. PRIZE

In accordance with the criteria established and evaluated by the jury, **Aigües de Barcelona** will award these prizes to the winning individuals or teams selected in the first three positions:

- 1st position: €6,000¹
- 2nd position: €4,000¹
- 3rd position: €2,000¹

The winners will be announced during the event on **January 28, 2026** and can be published on Aigües de Barcelona's websites and social networks. At the award ceremony, the attendance of most of the members of the team will be essential.

Unless otherwise communicated, the prize will be distributed proportionally among the participants of each awarded project. The AB Data Challenge organization is not responsible for possible disputes between team members in relation to the prize.

The prizes may be void by decision of the final jury of the AB Data Challenge.

¹ Net amount, once the corresponding legal withholdings have been applied, in accordance with current tax legislation.

After the event on **28 January**, the participants in the teams will receive an email informing them of the documents necessary to deliver the corresponding prize.

9. QUERIES AND SUGGESTIONS

To resolve any doubts or make any suggestions, you can contact the organization: abdatachallenge@aiguesdebarcelona.cat.

In addition, on the contest website, a forum will be set up where the organizers will answer all the questions that the 15 participating projects may have throughout the AB Data Challenge: <https://www.abdatachallenge.cat/forums/>. **Aigües de Barcelona** will not be responsible for any statements made by participants within the framework of the AB Data Challenge.

10. GENERAL CONDITIONS

The submission of an idea and project to the **AB Data Challenge** implies full and unconditional acceptance of the terms and conditions expressed in these terms and conditions of participation, as well as the interpretation made by **Aigües de Barcelona**.

Therefore, participants undertake to attend/participate in the **AB Data Challenge** if selected, to make a public presentation of their project, to participate in the presentations and informal discussions with stakeholders, and to comply with all the rules of the AB Data Challenge.

Failure to comply with these rules or the lack of veracity of the statements and guarantees made by the participants will lead to exclusion from the AB Data Challenge and the loss of the prizes or distinctions that have been granted. **Aigües de Barcelona** reserves the right to disqualify any project that, in its opinion, violates the procedures and rules of the competition, and its decisions will be final and binding.

Likewise, participants must accept the jury's decisions regarding the selection of the final projects and the winners of the AB Data Challenge. The organization reserves the right to introduce changes in the mechanics or operation of the AB Data Challenge at any time or to end the event early if necessary for a just cause, without any liability being derived. If this is the case, these changes will be duly communicated. Aigües de Barcelona will do everything possible to prevent any change from harming some participants compared to others.

These rules constitute a single agreement between **Aigües de Barcelona** and the participants of the AB Data Challenge.

All rights to the **AB Data Challenge** are owned by **Aigües de Barcelona**.

For the purposes of any dispute that may arise regarding the interpretation or application of these rules, the applicable law is Spanish. Both the organization and the participants in this **AB Data Challenge** expressly submit to the jurisdiction and competence of the courts and tribunals of the city of Barcelona, expressly waiving any other jurisdiction that may correspond to them.

10.1. About the awards

No alternative prizes will be offered if the winners decide to decline the prizes. These prizes are personal and non-transferable and may be subject to modifications or changes beyond the control of the organization of the event.

11. PRIVACY POLICY

Aigües de Barcelona, Empresa Metropolitana de Gestió del Cicle Integral de l'Aigua, S.A. (hereinafter, "**Aigües de Barcelona**"), with CIF A66098435 and registered office at Carrer del General Batet, number 1-7, 08028 Barcelona, is responsible for the processing of the personal data provided by the participants in their registration, as well as the personal data derived from their participation in the AB Data Challenge, who will use them to process the registration, the admission of the candidacy, if applicable, the management of participation and the selection of the winning teams of the AB Data Challenge.

Participants can exercise their data protection rights, as well as obtain additional information on the processing of their personal data in the [privacy policy](#) below.

12. IMAGE RIGHTS

Aigües de Barcelona will ask people who register to participate in the AB Data Challenge for express authorization to capture and disseminate their image during their participation in the AB Data Challenge, under the terms indicated in the authorization document for the use of the image, which can be accessed through [the following link](#). Acceptance of the terms of the document is optional.

Some of the activities and sessions of the AB Data Challenge can be done *online* through the Google Meet platform, during which the use of the camera is voluntary and will be remembered at the beginning of each session. If any of the sessions must be recorded, attendees will be informed in advance, so that they can deactivate the camera, if they wish.

13. CONFIDENTIALITY AND INTELLECTUAL PROPERTY LECTUAL AND INDUSTRIAL

13.1. Confidentiality

All information or data (and especially, but not limited to, the aggregate remote reading data referred to in section 1 of these Rules), documentation, passwords, *software*, training material and techniques made directly or indirectly available to participants in the AB Data Challenge by **Aigües de Barcelona** they will be treated confidentially and for the exclusive purposes of developing the project to be presented in the AB Data Challenge, and may not be made known or transmitted in any way to third parties by the participant, either totally or partially, or exploited or used in any way by said participant or

on his behalf. Any other use of the information or data, documentation, etc. that the participant wishes to make must be expressly authorized in writing in advance by Aigües de Barcelona. The participant undertakes, once the contest has ended, to securely delete and destroy all the information and data provided by **Aigües de Barcelona** from its equipment and management and email tools, as well as that which is on paper, guaranteeing its permanent destruction.

All materials submitted by participants must be appropriate for public dissemination. They may not include confidential information that participants do not wish to make public, or they must expressly communicate it to the organization to avoid its disclosure.

13.2. Intellectual and industrial property

The participants guarantee, with full indemnity for the organization, that the authorship of the projects presented legitimately belongs to them in accordance with the law, that they are not a copy or total or partial modification of any other, and that they do not violate any intellectual or industrial property right, duty of secrecy or confidentiality agreement.

Participants must not use any material protected by copyright, trademark or other intellectual property right without the express permission of the owner of the copyright, trademark or other intellectual property right. Participants are solely responsible for any damage resulting from the infringement of copyright, trademark or other intellectual property rights, or any other damage resulting from such publication.

Participants are also responsible for ensuring that the ideas presented are not offensive, denigrating or incite violence, racism or violate fundamental rights and public freedoms, and that they do not imply an intrusion into the personal or family privacy of natural persons, nor a violation of the right to honor of third parties, respecting in any case the rules of coexistence and code of ethics of clause 13 of these rules.

Participants accept the dissemination and communication of their projects by Aigües de Barcelona.

The participants will maintain the authorship of their projects and grant Aigües de Barcelona a free license to use it for its internal use and within its own activities, without territorial or temporal limitations, including the faculty of evolution, modification or transformation. To this end, participants must make available to Aigües de Barcelona the source code, mathematical models, algorithms or other developments that are part of their proposal. If participants wish to market their idea or development, they must offer it on a preferential basis to Aigües de Barcelona. In this case, the participants and Aigües de Barcelona will negotiate the conditions and terms to carry out, in the event of an agreement, the commercialization or transfer of all the rights to operate the project to Aigües de Barcelona exclusively. If no financial agreement is reached, Aigües de Barcelona will maintain a non-exclusive and free user license for the development for the maximum period established by law.

Likewise, the development of the application projects or any evolution, modification or transformation of the results carried out by Aigües de Barcelona will be the exclusive property of Aigües de Barcelona, which will exercise all intellectual and/or industrial property rights over said developments.

14. RULES OF COEXISTENCE

Participants undertake to comply with the following rules of coexistence:

- Only those innovative projects that are directly related to the areas proposed in point 2 will be valid.
- The content of the deliverables may not contain references or content that is sexually explicit or suggestive, violent or derogatory towards ethnic, racial, gender, religious, professional or age, profane or pornographic groups.
- The project with which you participate may not promote illegal medicines or firearms (or the use of any of the above), or any activity that may be unsafe or dangerous, or with political messages.
- The project may not be obscene or offensive, nor support any form of hatred or hate groups, nor make derogatory comments about **Aigües de Barcelona** or its services, or about other people, companies or related products.
- The project in which you participate may not contain trademarks or logos that are owned by others or advertise or promote brands or products of any kind.
- The project may not contain copyrighted materials owned by third parties (including photographs, sculptures, paintings and other works of art or images published on websites or on television, films or other media) without the express permission of the rights holder, which the organization may request.
- The project may not contain materials that include names, images, photographs or other evidence to identify any person, without the written permission of the people concerned, which the organization may request.
- The project with which you participate may not violate in any case the national laws in force.

15. CALL OF DUTY

Participants must always hold Aigües de Barcelona harmless from claims by third parties. In this case, they must be held responsible for them and must fully assume any cost or burden that may arise in favor of third parties because of actions, claims or conflicts arising from the breach of the obligations established in these rules.

Aigües de Barcelona is not responsible for possible fortuitous eventualities that may affect the development of the AB Data Challenge. Likewise, **Aigües de Barcelona** is not responsible under any circumstances for errors in the provision of services by any other person or entity whose participation is necessary for the development of the AB Data Challenge. **Aigües de Barcelona** does not grant any guarantee as to the condition, suitability, accuracy, correctness, completeness, completeness or performance of the information or data, documentation, passwords, *software*, training material and techniques made directly or indirectly available to participants and, therefore, is not responsible in any case for the use that may be made of them.

Aigües de Barcelona reserves the right to adopt all appropriate measures to avoid any conduct that it suspects has the purpose or effect of any attempt to act in fraud of this **AB Data Challenge**, in breach of its rules or to the detriment of other participants. The first and immediate consequence will be the exclusion of the participant and the loss of any right to the prize that they may have obtained, without prejudice to other legal actions that may be appropriate, including corresponding compensation for damages.

Finally, **Aigües de Barcelona** reserves the right to exclude participants in the event of contributing or uploading material that contains viruses, worms or any other computer code intended – or suitable – to damage, interfere with, intercept or violate the security of any system, information or data. All the above is without prejudice to any corresponding legal actions