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Challenge:

How could we ensure the good condition of bus shelters and stops and speed up their maintenance?

Sub-challenges:

- How could we **optimize the inspection time of bus shelters** to ensure defects are repaired or cleaned as quickly as possible?
- How could we **train a system to proactively provide information** about the condition of bus shelters and stops across the Bizkaibus network?
- How could we ensure that the solution **reviews the entire bus shelter** (all its sides)?
- How could we implement a **technology that can be easily and quickly scaled** across the entire Bizkaibus stop network?

Context:

Bizkaibus is one of the largest public transport networks in the country, with around 110 lines and 2,500 different stops, including 850 owned shelters. This represents a significant challenge in maintaining the service in optimal conditions.

One of the critical points in this regard is the upkeep of bus shelters.

Most stops have shelters, for which it is necessary to:

- Ensure they are kept in an adequate state of cleanliness.
- Check that they do not have physical damage caused by weather or vandalism, among other factors.
- Know which advertisements are displayed on various panels.
- Know what information is being provided at each shelter and whether it is correct.

To meet these needs, several reporting mechanisms are in place. Primarily, a person is responsible for traveling through the different stops, visually inspecting the condition of each shelter and surrounding area. This process typically takes 7 weeks to review the entire shelter network. Additionally, reports may also come from other services, such as personnel updating advertisements or those responsible for cleaning the shelters.

Combining the different reports results in an action plan to address the various issues.



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Through this challenge, the goal is to introduce innovative technology that speeds up the detection (data collection) process regarding the condition of each bus shelter.

However, there are several sub-challenges arising from Bizkaibus' specific characteristics compared to other public transport systems.

On one hand, as previously mentioned, Bizkaibus has a very extensive network of lines and stops. It is necessary to ensure that the proposed solution can be integrated with the Bizkaibus system while guaranteeing easy scalability. Technologies with high implementation or maintenance costs will be difficult to scale and integrate into current workflows.

On the other hand, it is important to consider technologies capable of reviewing an entire shelter. These structures have four sides. A vision camera integrated into buses might miss one of the sides. Although many shelters have transparent or translucent walls that allow visibility from one side to the other, this is not always the case.

All this represents an additional challenge for the proposed solution. While the pilot could be carried out on a limited number of lines, the project should be designed with the goal of integrating into the entire Bizkaibus network.

Objectives:

- Reduce maintenance time for the various shelters.
- Correctly identify the deterioration status of a shelter across all its sides.
- Implement a technology that is easy to use in a pilot and easily scalable across the rest of the Bizkaibus lines.
- Ensure data collection is easy for the service to manage, enabling automated processes and predictive deterioration logic in future phases.

General technical requirements:

The following technical requirements will be valued:

- **Technological maturity level:** TRL $\geq$ 7, solution validated in a real operational environment and currently in an advanced stage of development.
- **Security and privacy:** The solution must comply with the National Security Scheme (ENS in spanish) or, alternatively, justify the adoption of equivalent measures. It must also ensure the protection of personal data, the traceability of operations, and provide auditing

mechanisms that guarantee control and integrity of information.

- **Integration and interoperability:** The solution must allow, when necessary, integration with existing systems through the exposure and consumption of APIs or standardsbased web services. It must also ensure interoperability between systems and data, enabling efficient, secure, and consistent information exchange.
- **Scalability:** The architecture must be scalable, allowing capacity, performance, and resources to be increased flexibly according to service needs, without affecting system availability or performance.
- **Accessibility:** Compliance with the accessibility regulations applicable to the public sector, ensuring that all functionalities can be used by people with disabilities and by users with different levels of digital literacy, in accordance with established standards and legal requirements.
- **Simplicity:** An agile, simple, and minimally intrusive solution that does not create additional workload for internal personnel.
- **Multilingual:** Mandatory support for Spanish and/or Basque (Euskera).
- **The solution must be fully responsive.**

Specific technical requirements:

The following aspects will be valued:

- **Full traceability:** minimum evidence logging, including date/time, location, type of deterioration, and resolution status, to facilitate monitoring, auditing, and subsequent analysis of the historical record.
- **Linkage to the network and inventory:** the solution must associate each incident/status with the corresponding stop/shelter and must be compatible with the geographic stop information managed within the service ecosystem.

Process and Key Dates:

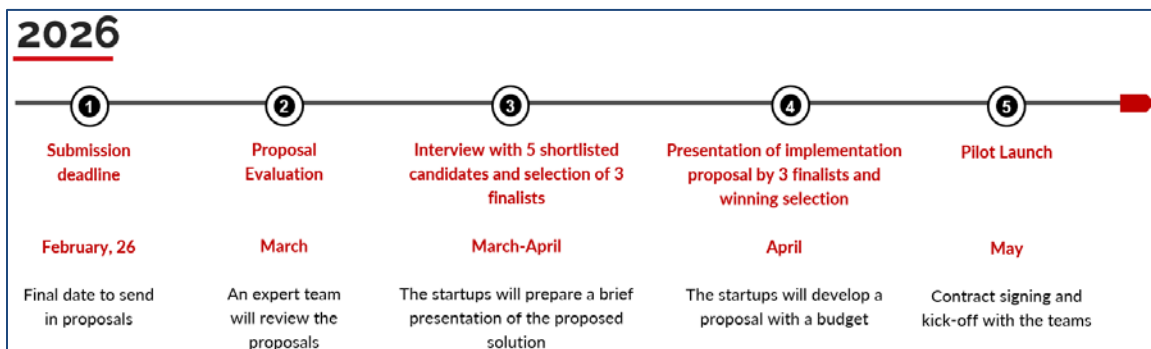
Deadline to submit proposals: **26/02/2026**.

The selection process consists of the following steps:

1. Selection of **up to five candidate** companies based on the relevance and suitability of their solution to the challenge presented.

2. Interviews will be conducted with the five companies to learn about their operations and distinctive value.
3. Three companies will be chosen as finalists.
4. In-person presentation of the pilot proposal by the three finalists.
5. Selection of the winning company and solution.

The pilot to implement the winning solution will begin in **May 2026** and will last between five and six months:



What do you gain access to?

1. The opportunity to carry out a **5 to 6-month pilot**, remunerated up to a maximum of **€35,000**, through the signing of a private contract with corporation [Teknei](#)
2. Access to an 8-week Acceleration Programme by Beaz at [B Accelerator Tower](#), which offers support in the following areas:
 - Training
 - Mentoring
 - Networking
 - Financial advice