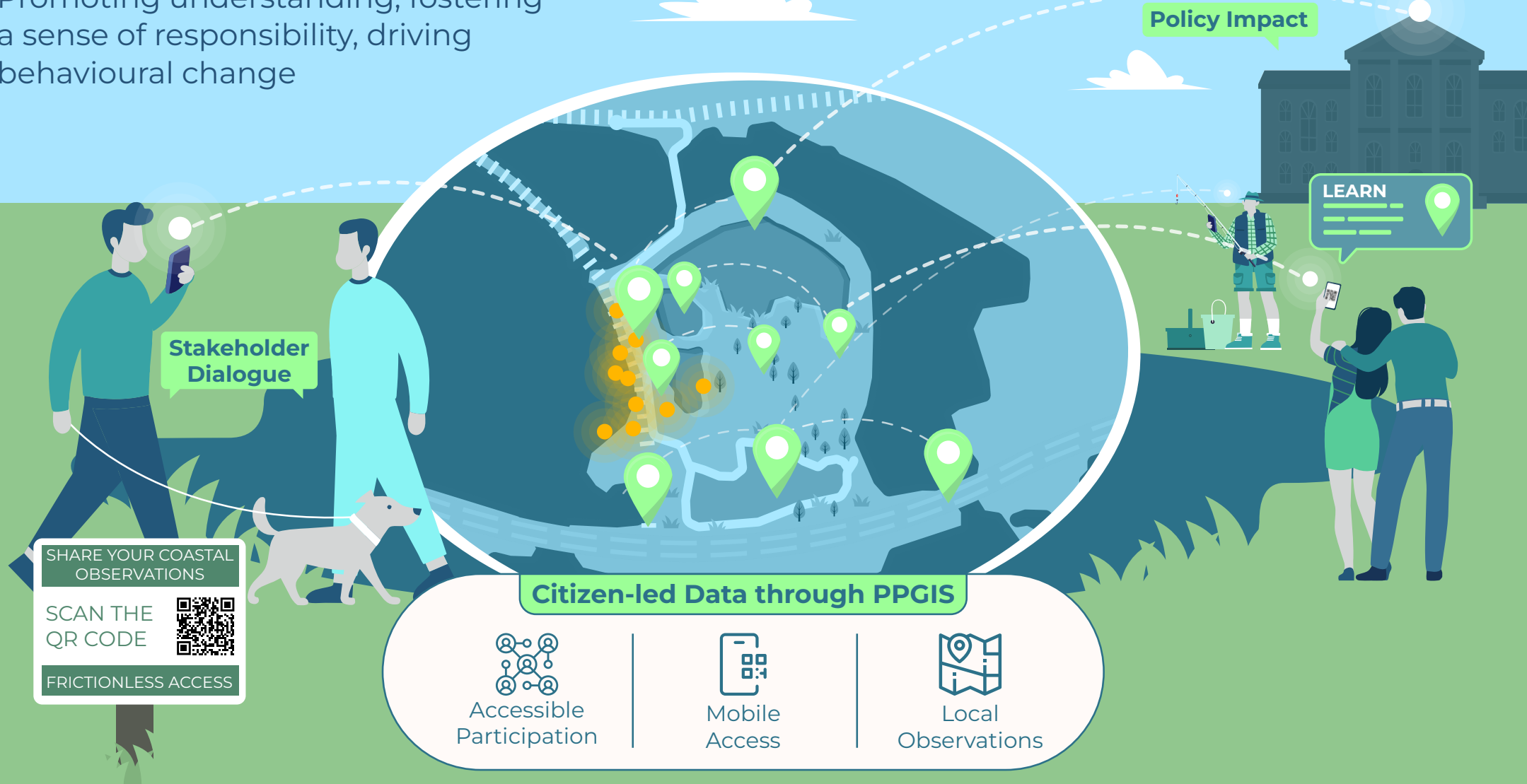


Digital Stakeholder Engagement for Local Change

Promoting understanding, fostering a sense of responsibility, driving behavioural change

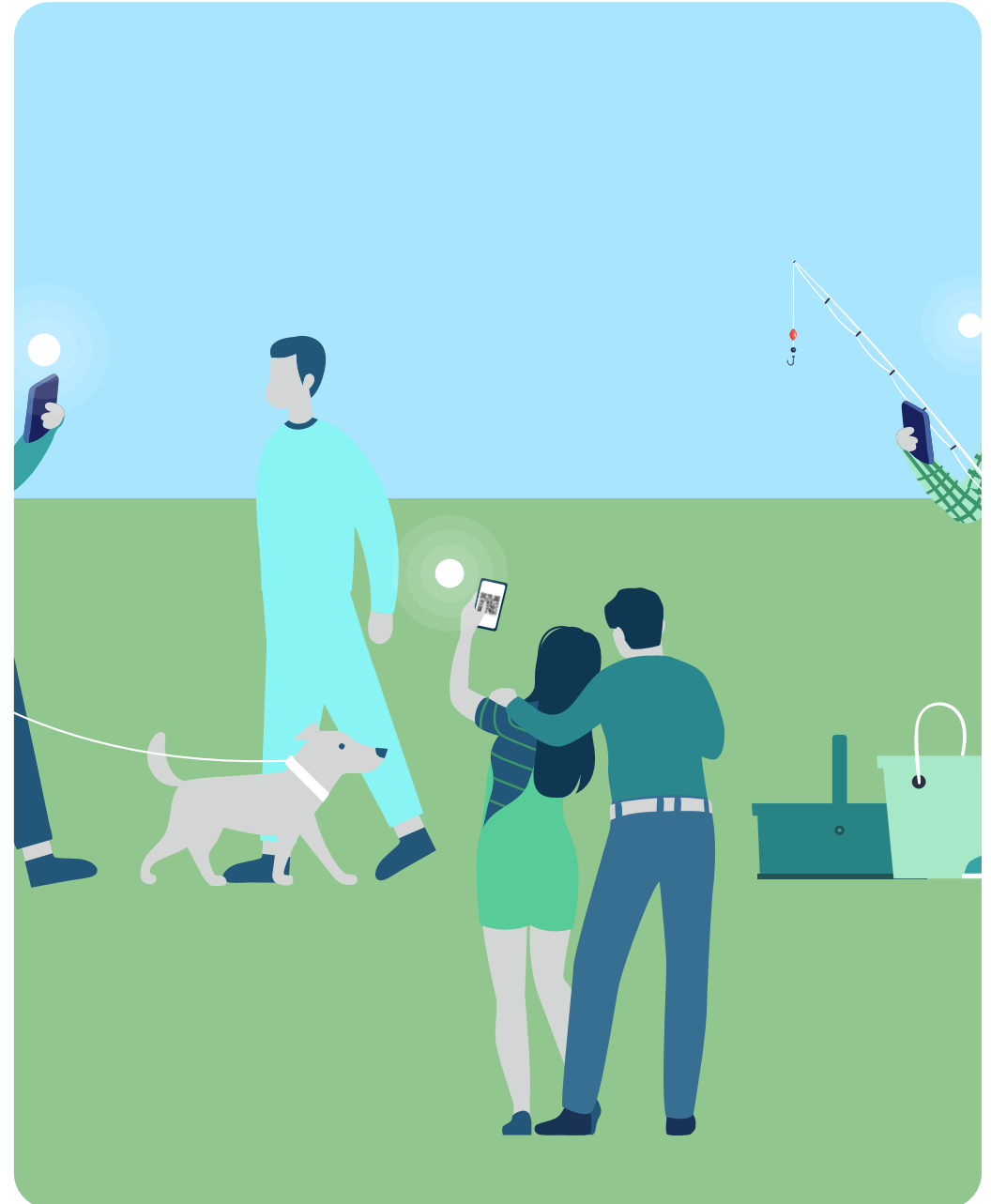


Key message

- [Maptionnaire](#) bridges the gap between science, communities, and policy to accelerate data-driven coastal action.
- Transform local citizen observations into a visual, quantitative mandate for official climate adaptation decisions.

Policy relevance

- **EU Mission Ocean & Waters**
- **UN Decade on Ecosystem Restoration**
- **UN Sustainable Development Goals (SDGs):** Specifically **SDG 13** (Climate Action), **SDG 14** (Life Below Water), and **SDG 11** (Sustainable Cities and Communities).
- **National Adaptation Plans (NAPs):** The primary national framework for identifying medium- and long-term adaptation needs and implementing strategies to address them.
- **Integrated Coastal Zone Management (ICZM) Strategy**



What is the challenge

Effective coastal management is currently hampered by a fragmentation between scientific research, civic engagement, and policy implementation. While researchers often lack the dedicated institutional channels necessary to translate their findings into community-led impact, there remains an untapped potential for citizen science to bolster large-scale data collection. This gap is mirrored at the local level, where residents observe environmental degradation firsthand but lack the technical literacy to identify underlying drivers or actionable mitigation strategies. Consequently, public officials face a significant “information-action” gap; without a clear mechanism to gauge public consensus or demonstrate the efficacy of proposed interventions, decisive legislative action remains stalled.

An innovative solution

[Maptionnaire](#) is an online Public Participation Geographic Information System (PPGIS) platform where scientists and activists can create engagement tools that stakeholders can access on any smartphone/tablet/desktop. There is no fixed template, instead the tool can always be tailored to fit the local context. Scientists can explain the local issues and solutions with photos, video clips, maps and text. They can ask the stakeholders for their observations (citizen science), opinions, prioritisations and concerns. To view and participate, the stakeholder just needs to

access a QR code or link, so the tool can be made widely available in different contexts.

For example, stakeholders can be asked to map where they have observed changes or where they would direct action. They can be introduced to potential solutions like Nature-based Solutions (NbS) in a visual, accessible language. The public can also give their input on different topics and be asked to indicate their support for different solutions.

The benefits the solution produces

- The local community understands the issues that affect their coastline and what could be done to enact change
- The local community starts observing the signs of the problem themselves and becomes active in enacting change
- Local officials can gauge the level of support for different solutions
- Facilitates discussion between different, opposed stakeholder groups on solutions

Where could also be applied to?

Area characteristics

In settings where there is a significant gap between scientific and local knowledge of challenges and solutions

In settings where there is a need for official policy changes and/or action

In settings where solutions are opposed by some stakeholders

Intention for applying the solution

To bridge the data gap between scientists and the local community. Can be used to simultaneously translate more abstract scientific knowledge to the local context, and to gather observational data for the scientists.

To provide public officials with a quantitative "mandate for action" by visualising public consensus.

To provide a joint information basis, and to gather different opinions and concerns for further discussion and mediation.

How developed is the solution

SRL 9: Implementation level

The solution is proven, scaled, and being used in real-world professional/social contexts. [Maptionnaire](#) is solution is fully commercialized, compliant with relevant regulations (like GDPR), and successfully implemented in its final environment.

What do you need to have in place:

- **Project steering group:** A multidisciplinary core team responsible for the end-to-end management of the initiative. This group serves as a “knowledge broker,” possessing the specialized expertise required to translate complex scientific and policy frameworks into accessible, high-impact communication. Their mandate includes the technical design of the PPGIS instruments, data management, and the execution of a comprehensive dissemination strategy.
- **Strategic local partnerships:** Engagement of established local networks, such as NGOs, community leaders, and activist organizations, to leverage existing social capital. Recognizing that effective participation cannot be achieved through remote intervention, these partners provide the “last-mile” connectivity. They identify optimal communication channels and provide the cultural context necessary to ensure high response rates and meaningful stakeholder representation.
- **Institutional alignment and administrative endorsement:** Securing formal “buy-in” from local government and public officials to authorize and legitimate the engagement process. While officials may not be required to lead the day-to-day operations, their institutional endorsement is a prerequisite for utilizing public dissemination channels (e.g., official websites, public notice boards) and ensures that the survey results are integrated into formal decision-making pipelines.

Who is this relevant to?

- Local officials;
- Research groups;
- NGOs;
- Civic organisations.

Naturverdier på kart

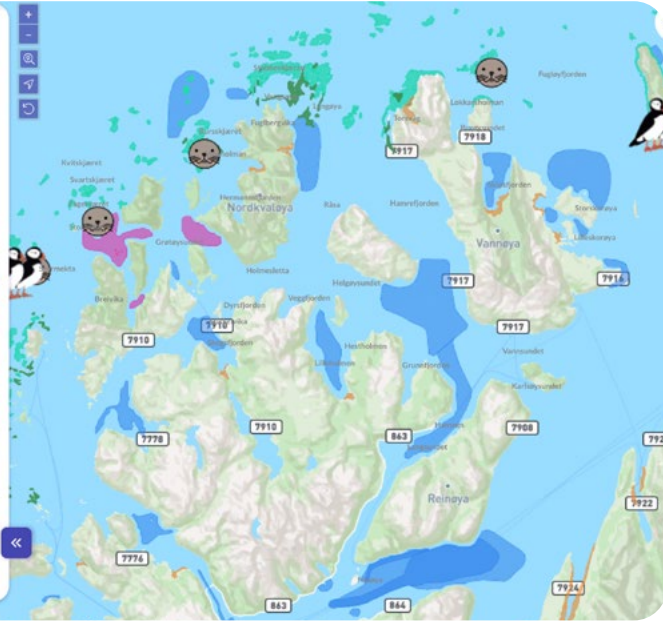
Karlsøy kommune skal i gang med kartlegging av viktige naturverdier. Med naturverdier mener vi natur som er viktig å ta vare på.

Her presenterer vi et interaktivt kart med eksisterende data over naturområder som forvaltningen ser på som viktige. Bruk litt tid på å se og bli kjent med kartet. Du kan zoomme inn og ut på kartet til de områdene du er interessert i. Du kan se på tegnforklaringen under, og trykke på tegnene på kartet for å få frem mer informasjon.

Hvor ønsker du å ta vare på kystnaturen for fremtiden? Klikk på den blå boksen under og legg inn en markør på kartet der du mener det er viktige naturverdier. Etter at du lagt inn en markør på kartet vil du kunne beskrive hvorfor området er viktig. Du kan legge inn så mange markører du ønsker.

Dette området har viktige naturverdier ?

- Store sjøfuglkolonier
- Korallrev
- Viktige områder for sel
- Gyteområder for fisk
- Bløtbunn og undervannssenger
- Skjellsandforekomster
- Større kamskjellforekomster
- Større tareskogforekomster



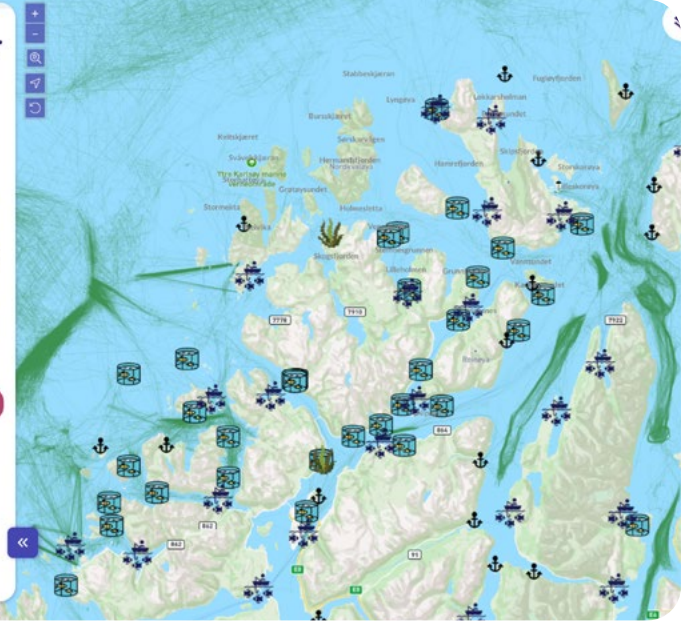
Menneskelige aktiviteter på kart

Her presenterer vi et interaktivt kart med eksisterende data over noen aktiviteter som kan påvirke naturverdiene. Bruk litt tid på å se og bli kjent med kartet. Du kan zoomme inn og ut på kartet til de områdene du er interessert i. Du kan se på tegnforklaringen under, og trykke på tegnene på kartet for å få frem mer informasjon.

Aktiviteten på kartet er noen mulige trusler for naturverdiene. Vi ønsker å vite hva du ser på som de viktigste truslene. Klikk på den røde boksen og legg inn en markør på kartet der du mener det er mulige trusler. Etter at du lagt inn markøren på kartet vil du kunne beskrive trusselen mot naturverdiene. Du kan legge inn så mange markører du ønsker, og det trenger ikke være de samme som de aktivitetene som allerede er på kartet.

Mulige trusler ?

- Fiskeoppdrett
- Tareoppdrett
- Turistfiskebedrift
- Havn
- Fiskeaktivitet: fartøyspor av norske båter



Composition changes (e.g. fine sand by pebbles)



you observed beach composition changes on the beach recently?

s. I think so

x/I'm not sure (move to the next page)

click the squares on the map to indicate the area.

choose one or several squares. If you have observed this erosion sign in several places, you can also move to other places on the map.

Show the map

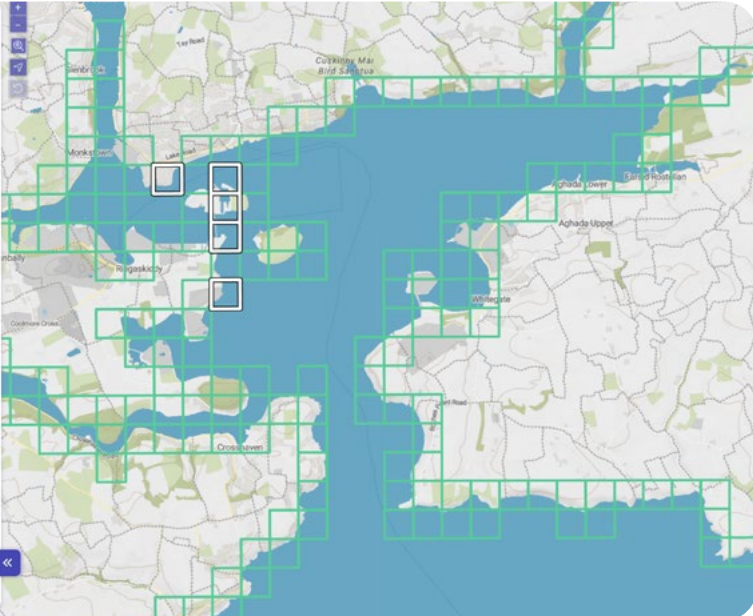


imagem satélite)

Ampliação rápida das áreas:

- Aveiro
- Figueira da Foz
- Nazaré-São Martinho do Porto-Peniche

- Melhorias ambientais
- Desafios ambientais remanescentes
- Melhorias socioculturais
- Desafios socioculturais remanescentes
- Melhorias económicas €
- Desafios económicos remanescentes
- Quer apenas visualizar o mapa? Clique aqui!

3/5





Key components of implementation:

Content plan:

A clear thematic plan that aligns overarching project goals with hyper-local environmental realities. This involves identifying specific **target demographics** (e.g., fishermen, local children, beachgoers) and determining **the input and data needed from them**. This phase also includes the curation of a set of images and other visuals such as video clips that can be used.

Technical implementation:

Maptionnaire does not require coding, but the implementation team should have **foundational digital competency** (equivalent to CMS management or professional blogging). GIS knowledge is not required but is helpful.

Stakeholder validation:

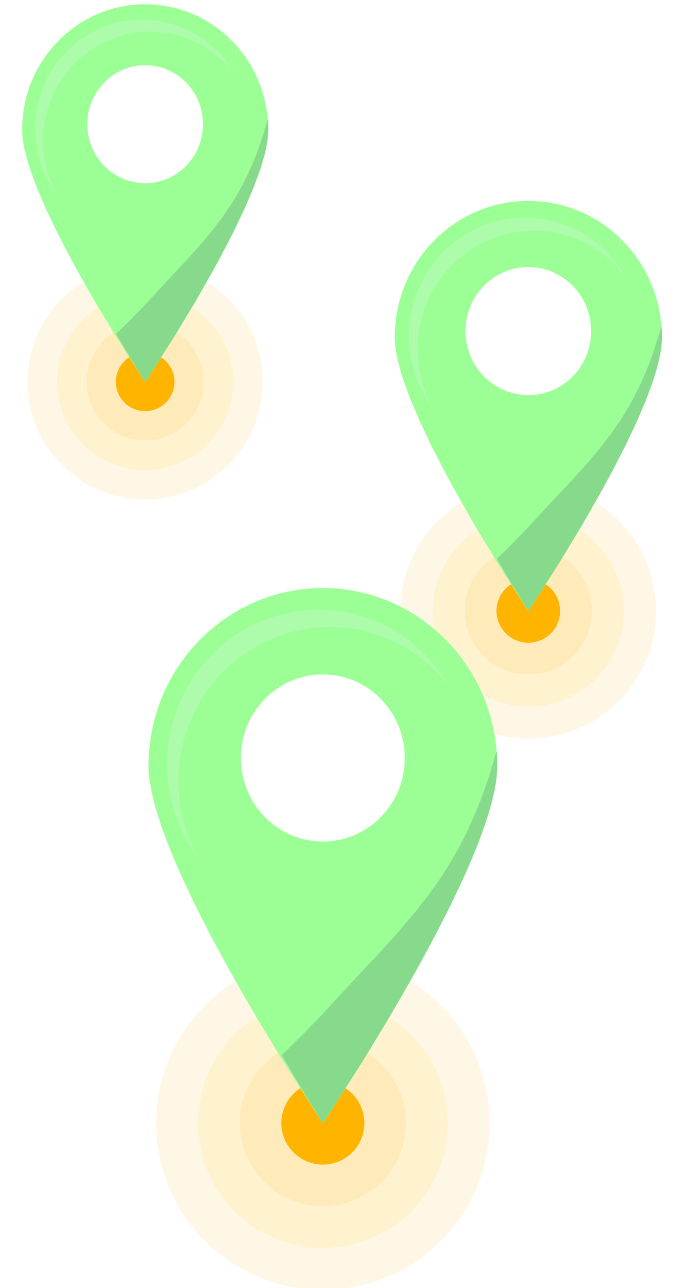
There should be a mandatory “pilot phase” where a prototype of the tool is stress-tested by a representative stakeholder focus group. Feedback from this phase is used to perform **iterative refinements**, ensuring the final tool is culturally and technically “fit-for-purpose” before the full-scale launch.

Integrated dissemination strategy:

The early-stage identification of high-impact communication channels tailored to diverse stakeholder timelines. This proactive approach accounts for long-lead-time institutional calendars (such as academic curricula or municipal budget cycles) and ensures that the project secures the necessary physical and digital “real estate” (e.g., QR placements in public spaces or features in local newsletters) to maximize participation rates.

Analytics, reporting, and feedback loops:

A structured framework for data synthesis, impact evaluation, and “closing the loop.” This includes a predefined plan for who will perform the spatial and statistical analysis and how these findings will be reported back to both the policy-makers and the participants. This transparent communication of results is critical for building long-term trust and demonstrating the tangible influence of citizen input on final decisions.



Monitoring your success

What to monitor

What to monitor?

Participant/visitor numbers to the tool

How often the tool is accessed, through which links (e.g. different dissemination channels), how many complete

Diversity of participants

Through demographic data volunteered by participants (e.g. age), use of tool in different languages, through different links. Needs to be compared with other statistical information about the composition of the community.

Impact and quality of data collected

Volume of citizen-contributed spatial data (points/polygons) usable for scientific modeling.
Number of official policy briefs or municipal decisions that formally cite the Maptionnaire results.

The challenges you may encounter

List two challenges per activity area that people may encounter implementing the solution elements

Activity

Challenge 1

Challenge 2

Dissemination and outreach

Difficulty identifying effective outreach channels due to schedule misalignments and networking bottlenecks.

Low participant interest and the "digital divide" hindering access to marginalized or remote communities.

Project initiation

Complexities in the initial organizational stages, specifically regarding the penetration of established local networks.

Official/institutional stakeholders and established actors having concerns regarding potential friction or conflict between interest groups emerging from the use of the tool





Key Contact who to talk to about your application idea

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Asta Hiippala

asta@maptionnaire.com

Further information

- Maptionnaire A-AAGORA APP: <https://app.maptionnaire.com/p/agora>
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Blueprint
Digital Stakeholder
Engagement for
Local Change

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