

Introduction



Background

As part of the Connected River project, a wide range of experiments were carried out across six pilot areas. Each experiment is captured on a **solution card**.

Goal

Beyond documenting results, these experiment cards are meant as inspiration: not only for applying concrete solutions, but also for rethinking ways of working and collaborating.

Overview of all solution cards

While each card can be viewed individually, there is an overarching overview of all experiment cards on the next page. The overview groups the solutions by category of the solution. These categories range from platforms and sensors to new ways of working and signs or nudging.

The cards

In the “Legenda for solution cards” the different aspects of the cards are explained. These aspects include showing the problem addressed, the developed solution, key insights, and needs for implementation and scaling.

Overview all solution cards

connected river

Category of solution	Title of the solution
Sensor	Sensor detects bridge jumpers
Sensor	E. coli contamination measurement system
Sensor	Smart trash bins
Sensor	Monitoring kayak traffic
Sensor	Smart sensor and algorithm to identify skippers
Visualisation	AI prototyping
Visualisation	3D scan and digital twin
Platform	Digital communication platform for water users
Platform	Talent network and platform
Platform	Online idea validation platform
Placemaking	Alternative jumping location
Placemaking	Food delivery pickup point
Placemaking	Smart trash bins
Placemaking	Interactive Hamburg harbour tour
Placemaking	Social sauna
Nudging	Communication campaign via stickers
Nudging	Pink sign to nudge
Nudging	Riverbank signs: good waterway practice
Nudging	Riverbank signs: informational and discovery

Category of solution	Title of the solution
App	Interactive Hamburg harbour tour
Signs	Rowing route & off-area swimming rules
Signs	Signs to prevent bridge jumping
Signs	Information board for area users
monitoring and control	SmartWindow for port monitoring
monitoring and control	E-ticketing system
Collaboration	E. coli contamination measurement system
Collaboration	Talent network and platform
Collaboration	Online idea validation platform
Collaboration	New collaborative working approach
Collaboration	Creative solutions to enhance the passage
Collaboration	Voice of the water
Collaboration	Data sharing with other governments
Collaboration	Stakeholder engagement: Voting for experiments
Collaboration	3D scan and digital twin
Collaboration	Open mic for input
Collaboration	AI prototyping
Collaboration	Stakeholder engagement: give the project a territorial approach
Gamification	Serious game on IJ navigation rules

Legenda for solution cards



Insights

Summarizes the main insights gained from the project or experiment. This can include what worked well, what challenges arose, what should be done differently next time, and broader lessons that can inform future projects or approaches.

Approach

Describes the way of working or methodology that shaped how the solution was developed and tested. Highlights what this approach was about: for example, the value of short design cycles, creative or playful interventions, low-tech simplicity, interdisciplinary collaboration, or AI-supported prototyping.

Suggested next readings

Other solution cards that are relevant and recommended for further reading.

Title of the solution

Insert picture here

Pilot Area: name pilot area

Title of the solution

Problem it addresses:

Describes the problem or challenge that occurs in the pilot area.

Developed solution:

Summarizes the solution that has been created to address the problem. Explain briefly what the measure, system, or intervention does, and how it helps to solve the problem.

Main functionalities:

Describes the main features or capabilities of the experiment. Think about the technology being applied, how the system works, and what it delivers in practice

Type of solution: Indicates whether the solution is physical, digital, a way of working or a combination.

Category of solution: Places the solution in a broader category, such as sensor, signs, platform, etc.

Phase: Explain phase
Status: Ongoing vs. Stopped

Added value and how this is measured:

Explains what added value the solution provides for users, decision-makers, or the environment. Describe how this added value is monitored, evaluated, or measured (e.g., through data collection, reports, feedback, or observations).

Implementation and Scaling Up:

What is needed?

Lists the requirements for implementing the solution, such as infrastructure, equipment, funding, or permissions.

Who is needed?

Lists the stakeholders or partners necessary for implementation and scaling, such as authorities, organizations, companies, or user groups.

What are other considerations?

Describes additional factors and information that may influence or is relevant for the experiment.



Insights

- The criteria for labeling (the amount of) bridge jumpers as “risky” is still to be set. It is preferred to do this before hand. Discuss with e.g., safety and enforcement to create a supported threshold.
- Technical tools may not provide a complete picture, but they are essential for gaining insights that help guide effective actions.
- Qualitative perceptions (e.g., bridge jumping accidents) need to be backed with measurable evidence.

Approach

Several technical solutions were developed based on assumptions about the problem. Only later was asked whether interventions were truly necessary. This highlighted the approach: without data to define the problem, solutions might miss the goal. A clear, evidence-based narrative is essential to guide meaningful and targeted action.

Suggested next readings

- Signs to prevent bridge jumping
- Alternative jumping location

Sensor detects bridge jumpers



Pilot Area: Nijmegen

Sensor detects bridge jumpers

Problem it addresses:

Water users and residents talk about bridge jumpers, but how many are there, and how big is the risk of incidents?

Developed solution:

People are known to jump from bridges in this area, which has led to the assumption that incidents occur. However, the actual number of bridge jumpers and incidents is unknown. The sensor helps to better assess the situation by detecting potential jumpers. That data will help in determining whether interventions are necessary.

Main functionalities:

Privacy-safe detection of bridge jumpers using a dual-zone sensor system.

Type of solution: physical and digital

Category of solution: sensor



Phase: Pilot



Status: Ongoing



Added value and how this is measured:

The sensor provides objective data for narrative and decision-making, measured via weekly reports and AVG-compliant video footage.

Implementation and Scaling Up:

What is needed?

A power output for the sensor, sensor hardware, permission to place the sensor.

Who is needed?

The area coordinator, bridge owners, Rijkswaterstaat, sensor company.

What are other considerations?

The criteria for labeling (the amount of) bridge jumpers as "risky" is still to be set.

The weather is manually added to the weekly report from the sensor as extra factor.

For more information see other side



Insights

- Official systems are often slow. Using (local) ecosystem could fasten up the process.
- Work smart and efficiently with your ecosystem, as people are willing to contribute if they themselves get value out of it.
- Without proper management, student contributions may lack focus or added value. Ensuring they have clear roles, goals, and support will maximize their impact.

Approach

The ecosystem was initially used mainly to identify problems, but it became clear that true impact comes from engaging all participants in taking responsibility for their roles. This highlighted the approach: without clear role definition and ownership, efforts can lack direction and accountability. By embedding responsibility into the process, each participant is empowered to contribute meaningfully to both problem-solving and implementation.

Suggested next readings

- Digital communication platform for water users

E. coli contamination measurement system



Pilot Area: Nijmegen

E. coli contamination measurement system

Problem it addresses:

Health risks from swimming in contaminated water, the lack of a functional warning system for this and expensive and damaging culverts operations (caused through opening and closing because of the contaminations).

Developed solution:

A measurement system to detect E. coli, including new way of working where users within the ecosystem perform the measurements.

Main functionalities:

Daily water testing for E. coli, using a mini lab and QPCR testing method to determine contamination frequency of water.

Type of solution: physical

Category of solution: sensor and collaboration



Phase: Pilot



Status: Ongoing



Added value and how this is measured:

Better decisions on culverts use, increased swimmer safety.

Implementation and Scaling Up:

What is needed?

Mini lab setup, trained volunteers, clear method and follow-up plan.

Who is needed?

Municipality of Nijmegen, Rijkswaterstaat, volunteers (daily by the water).

What are other considerations?

The potential for full automation on E. coli detection is explored, this is a first pilot to see whether full automation is needed.

For more information see other side



Insights

- Temporary banners often attract more attention than permanent signs, making them effective for raising awareness and promoting new rules.
- Measuring impact is essential: Without clear ways to assess whether confusion or accidents decreased, it's hard to justify continuation or scaling.

Approach

The solution was developed and implemented quickly in response to a clear and concrete safety issue. The process showed how a solution can end up serving a different (but valuable) purpose than originally intended. This highlighted the approach: some interventions can be implemented quickly through short, action-oriented cycles without complex processes. In this case, the rowing route did achieve its original goal of helping rowers, but in a different form of guiding other area users. This unexpected outcome shows the value of experimenting in practice, as solutions can generate effects beyond their initial intent. Recognizing and embracing such side results is important, because they can uncover and address equally needs.

Suggested next readings

- Information board for area users

Rowing route & off-area swimming rules



Pilot Area: Nijmegen

Rowing route & off-area swimming rules

Problem it addresses:

Ensuring safety and preventing accidents or misunderstandings among rowers, swimmers, anglers, and other water users by clearly defining boundaries and establishing guidelines for shared water use.

Developed solution:

Clear, informative banners installed along the waterfront, showing e.g., where rowers row and where swimmers are allowed to swim.

Main functionalities:

Provides waterway use guidance.

Type of solution: physical

Category of solution: signs



Phase: Pilot



Status: Stopped



Added value and how this is measured:

These visual guides help prevent confusion and reduce the risk of accidents by making the rules and designated areas immediately visible to all water users.

Implementation and Scaling Up:

What is needed?

Banners, banner installation and a permit to do so.

Who is needed?

Bridge owners, targeted at rowers and fishers, no further specific implementation team needed.

What are other considerations?

Conversations with users of the Spiegelwaal highlighted that swimmers sometimes go outside the designated swim area and are hard to see, making it difficult for rowers to avoid them. Anglers fishing in shaded areas were also often not well visible. The experiment began with the goal of guiding rowers in one same route, however, observations showed they already followed the same route naturally. The real benefit thus turned out to be for other users: swimmers and anglers could better anticipate where rowers would be, which created more clarity and fewer dangerous situations.

For more information see other side



Insights

- Signs must be vandal-proof. People tend to steal the sign.
- Permits to install the signs could be quite hard to get, take this into account.
- Effect should be measured. Effects of this experiment are estimated low.

Approach

This approach was implemented quickly, focusing on creativity and visibility. This highlighted the approach: simple, playful solutions can be effective in capturing attention. However, the real attention could come from wider communication efforts such as (local) media or social media posts. In this case, part of the impact may have come not just from the signage itself, but from the attention it received in newspapers and public discussion.

Suggested next readings

- Sensor detects bridge jumpers

Signs to prevent bridge jumping



Pilot Area: Nijmegen

Signs to prevent bridge jumping

Problem it addresses:

Bridge jumping may occur, creating potential safety risks for both jumpers and other water users.

Developed solution:

Light-hearted, attention-grabbing texts designed to playfully discourage bridge jumping and make people think twice before jumping.

Main functionalities:

Signs informing jumpers about the dangers and illegality of jumping off bridges.

Type of solution: physical

Category of solution: signs



Phase: Pilot



Status: Stopped



Added value and how this is measured:

Raised awareness among jumpers, however, no measurable behavioral change observed. No formal monitoring in place.

Implementation and Scaling Up:

What is needed?

Clear, visible signage, strategic placement near known jumping spots, permits if signs are placed permanently.

Who is needed?

Municipality (for installation and messaging), possibly enforcement officers.

What are other considerations?

Effectiveness is unknown and could be low without enforcement or alternatives for the behavior (e.g., safe jumping spots).



Insights

- Communication doesn't need to be top-down: Peer-based reporting can be more responsive and relevant than centralized systems.
- Sustainable platforms need ownership. So, if there is interest in social coordination, clear roles and responsibilities are needed.
- Avoid building tools the ecosystem won't use.

Approach

The need for better communication emerged through direct interaction with water users in the area. It became clear that many were unaware of each other's activities, this caused frustrations. This highlighted the approach: starting with on-the-ground observations and conversations to uncover real needs, followed by quick concept development and early user validation. This allows for direct feedback and iterative improvement. When users help in shaping the solution, relevance, trust, and ownership are improved.

Suggested next readings

- Platform for innovators

Digital communication platform for water users



Pilot Area: Nijmegen

Digital communication platform for water users

Problem it addresses:

Area users are often unaware of each others' activities or issues in the area, such as events.

Developed solution:

Digital platform for peer communication among regular water users.

Main functionalities:

Area user-managed reporting/communication platform for e.g., lost and found, maintenance, other activities or events.

Type of solution: digital

Category of solution: platform



Phase: Concept Status: Ongoing



Added value and how this is measured:

Improved awareness, social control, stronger ecosystem, however, still in concept phase so no formal measurements yet.

Implementation and Scaling Up:

What is needed?

Platform development, user onboarding and engagement.

Who is needed?

End users/stakeholders from ecosystem to actually use the platform.

What are other considerations?

Platform is self-managed, not municipally owned, long-term governance uncertain.

For more information see other side



- Legal clarity is crucial: Without addressing legal and liability concerns, good ideas can't move forward.
- Qualitative insights (exploring problems) should be supplemented with quantitatively data (evidence based) to to build political and public support.
- Learn from others, look at successful examples of relatable products, such as floating water parks to learn from.

Approach

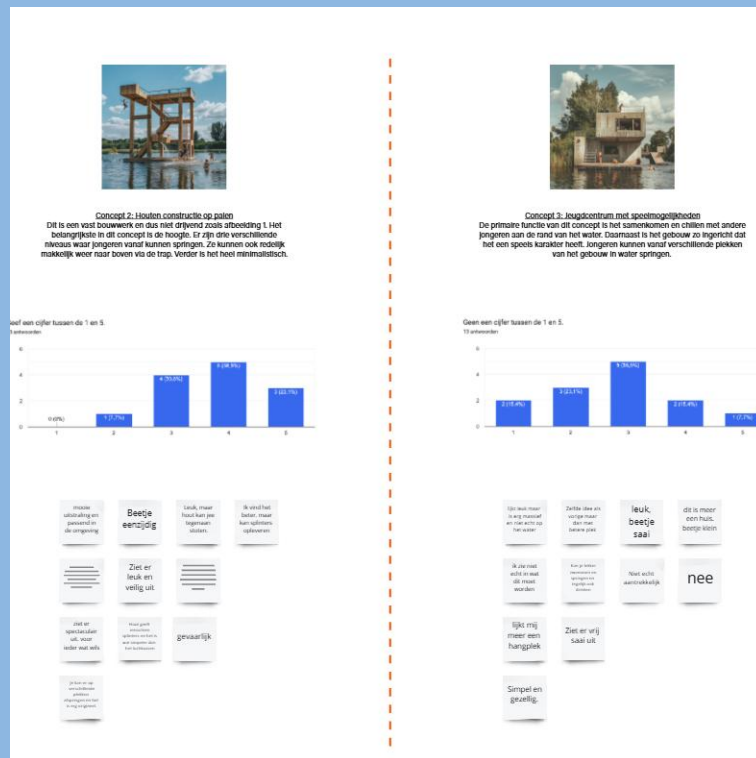
The solution was developed quickly by visualizing a safer, designated jumping spot, using technology to rapidly prototype ideas and present them early to stakeholders.

This highlighted the approach: creating tangible concepts that can be shared and refined quickly. While technology helped bring the idea to life, it also showed that solid legal and data-driven support is essential. Additionally, learning from successful examples of similar solutions in other cities can provide valuable insights on how to address challenges effectively.

Suggested next readings

- Sensor detects bridge jumpers
- AI prototyping

Alternative jumping location



Pilot Area: Nijmegen

Alternative jumping location

Problem it addresses:

Bridge jumping from unofficial locations.

Developed solution:

A design for a designated and safer jumping spot. AI is used for rapid visualization of this alternative jumping spot.

Main functionalities:

A controlled, safer location for bridge jumping. Including features such as proper water depth, clear landing zones, and safety measures to ensure a safer experience.

Type of solution: physical

Category of solution: placemaking



Phase: Concept Status: Stopped

Added value and how this is measured:

Concept was not implemented due to the fear of legal issues, so added value not measured.

Implementation and Scaling Up:

What is needed?

Legal clarity, proper data to support decisions.

Who is needed?

Designers, lawyers, local government.

What are other considerations?

Legal liability blocked implementation. Besides, problem of bridge jumpers was unclear.



For more information see other side



Insights

- Assumptions like “Do users find up-to-date information on rules and water quality valuable?” must be validated before investing further effort or resources into the solution.
- High-tech options like digital or AR boards may sound promising but are only justified if the added value is clear and significant.

Approach

This concept emerged from observing fragmented signage. However, the assumptions on the needs from area users were not validated. This highlighted the approach: the importance of working with actual user needs, especially for more expensive solutions. Not every problem requires a digital, smart, or AI-based answer; sometimes, a simple, well-executed physical solution is more appropriate and effective.

Suggested next readings

- Stakeholder engagement: Voting for experiments
- Online idea validation platform

Information board for area users



Pilot Area: Nijmegen

Information board for area users

Problem it addresses:

Presenting information to area users, as existing separate boards created unawareness, confusion and fragmented communication for swimmers, tourists, and rowers.

Developed solution:

Multiple options for Digital information board and/or AR application, eliminating the need for multiple separate boards.

Main functionalities:

Consolidates key information for swimmers, rowers, and tourists on a single board, making it easily accessible and simplifying communication. Provides real-time updates on conditions, events, and safety information.

Type of solution: physical

Category of solution: signs



Phase: Concept Status: Stopped



Added value and how this is measured:

Unsure impact, as the project stopped.

Implementation and Scaling Up:

What is needed?

Legal and regulatory checks on signage, feedback of area users to refine the included information, final design based on the above.

Who is needed?

Collaboration with local authorities (municipality, Rijkswaterstaat, province). Designers, legal experts, and area user representatives

What are other considerations?

Advanced options (like digital/AR) may not justify their cost given the limited added value. A well-designed, physical board might offer the most practical and scalable solution.

For more information see other side



Insights

- Solutions can create side effects, while solving the food delivery, garbage issues could rise. Always consider the side effect before implementation.
- You cannot give an address to an area.
- Permits to install the signs are quite hard to get.

Approach

The project was stopped because it was difficult to assign a specific address to an area like the Spiegelwaal, which led to the idea being perceived as unfeasible. However, the core concept had value, and alternative solutions such as QR codes for precise location identification could have been explored. This highlighted the approach: don't give up too quickly due to legal concerns. Instead, look for other elaborations of the solution, while keeping the same core concept.

Suggested next readings

- Smart trash bins

Food delivery pickup point



Pilot Area: Nijmegen

Food delivery pickup point

Problem it addresses:

Location challenges for food delivery, currently food is often delivered to house in the neighborhood.

Developed solution:

Address marker for food delivery services with QR code.

Main functionalities:

Helps food delivery services find users in the area.

Type of solution: physical and digital

Category of solution: placemaking



Phase: Concept Status: Stopped

Added value and how this is measured:

Is not currently measured but could be measured by a reduced number of complaints from local residents.

Implementation and Scaling Up:

What is needed?

Permission from the local authorities.

Who is needed?

Food delivery service, local authorities.

What are other considerations?

Concerns about increased waste and crowding.



For more information see other side



Insights

- The technical feasibility of smart trash bins must be carefully balanced with risks, such as potential vandalism and water damage in certain seasons.
- It's important to evaluate whether the costs of implementing smart trash bins are justified by the added value they provide in waste management.

Approach

The project was inspired by playful, reward-based models like Holle Bolle Gijs from Efteling, where a bin says "thank you" when you dispose of trash. This highlighted the approach: drawing inspiration from engaging, familiar concepts can spark innovative ideas, but it's also crucial to assess the practicality, risks, and scalability of the solution before moving forward.

Suggested next readings

- Creative solutions to enhance the passage

Smart trash bins



Pilot Area: Nijmegen

Smart trash bins

Problem it addresses:

Overflowing waste, improving area cleanliness.

Developed solution:

Trash bins that signal when they are full.

Main functionalities:

Optimize waste collection timing.

Type of solution: physical and digital

Category of solution: sensor + placemaking



Phase: Concept Status: Stopped

Added value and how this is measured:

Efficient area management.

Implementation and Scaling Up:

What is needed?

Resilient design to prevent vandalism.

Who is needed?

Municipality (area director), waste disposal service.

What are other considerations?

Possible scalability options, also for other uses.

High water should be considered, outside of the season the water rises, and everything must be removed.



For more information see other side



Insights

- Gamification could increase involvement.
- Feedback gathering remains difficult (little response), make a specific plan for this (in advance).
- Co-creation with stakeholders helps, but KPIs are still in development. Make sure that KPIs are set at an early stage, so that you can also determine 'success'.
- A digital experience doesn't replace human interaction but can support it well.
- For a physical tour, planning is a pain point. Good agreements with all parties involved must be made in advance.

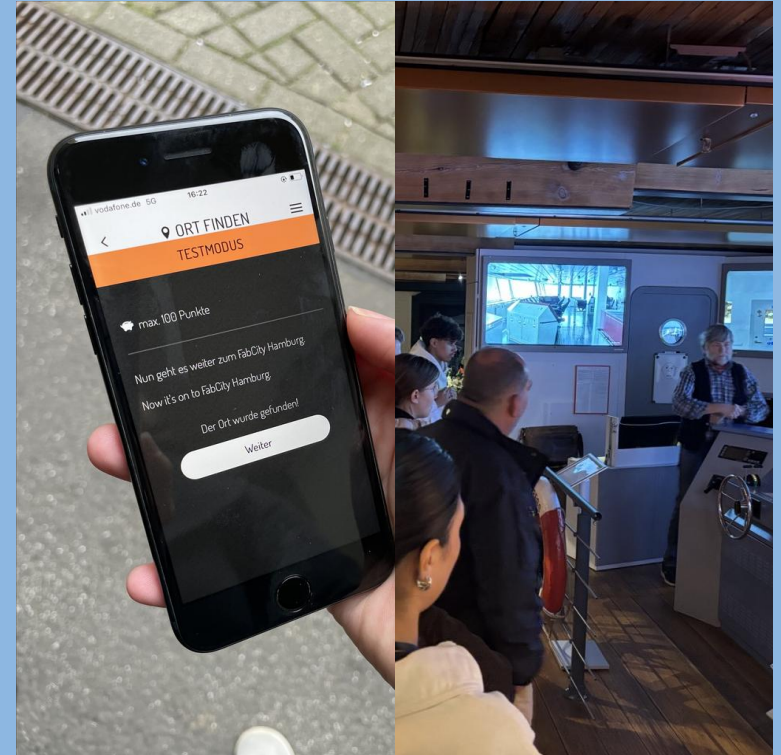
Approach

The project is already a minable viable product (MVP), This highlighted the approach: gamifying the experience to boost involvement and engagement. It also showed that a digital solution doesn't replace the value of face-to-face interaction. Additionally, without clear KPIs from the start, it's difficult to measure 'success' or potential for scaling. For the business model and further scaling, tools like Business Model Cards and scale-up canvas are used to gather inspiration.

Suggested next readings

- Talent network and platform

Interactive Hamburg harbour tour



Pilot Area: Hamburg

Interactive Hamburg harbour tour

Problem it addresses:

Lack of awareness and appeal of port jobs among youth, mismatch between job openings and perceptions.

Developed solution:

An interactive scavenger hunt app (Discovery Hamburg) to connect young talent with maritime/logistics careers.

Main functionalities:

Guided harbor tour via app, GPS-based tasks, storytelling, career info, and company insights.

Type of solution: digital and way of working

Category of solution: app + placemaking



Phase: MVP



Status: Ongoing



Added value and how this is measured:

Gamification increases engagement, companies save time by not organizing full tours and recruiting young talent. Limited feedback is collected post-tour, but there is worked on defining KPIs (e.g. job applications).

Implementation and Scaling Up:

What is needed?

App access, mobile phones, flexible scheduling, content updates, and some coordination (logistics are a pain point).

Who is needed?

Local companies, recruiters, young talents, education partners, coordinators.

What are other considerations?

Scalability is possible to other port cities but depends on having many attractions close together. Clear business model still needed.

For more information see other side



Insights

- Existing technologies can be effectively reused in new contexts.
- Organizations with 24/7 operations are reluctant to pilot unless the use case is clearly defined and the added value is concrete.
- Cross-domain inspiration accelerates innovation, look beyond your own sector.

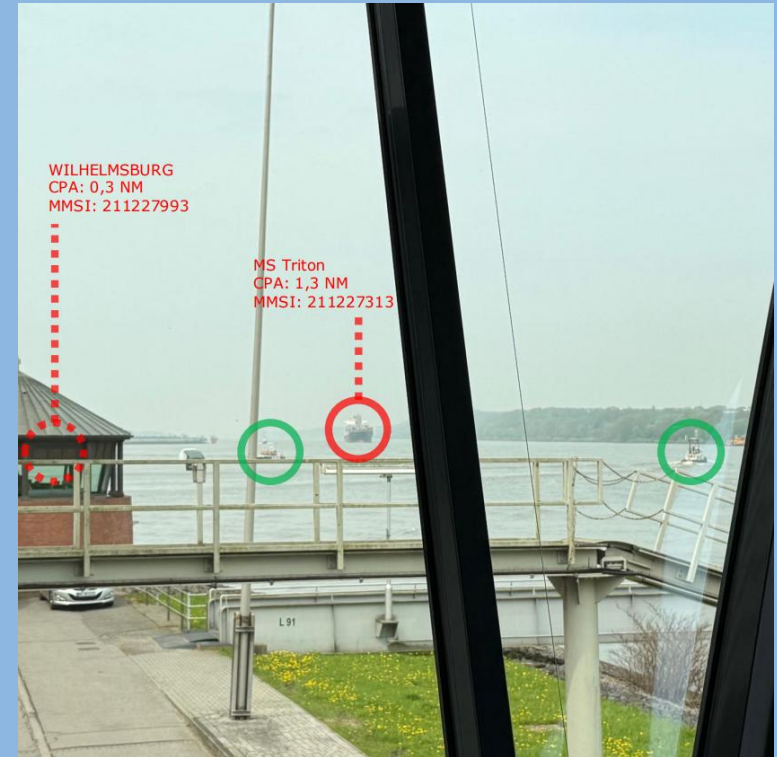
Approach

This concept emerged by recognizing that an existing solution, developed for ship bridges, could be applied in a port coordination setting. This highlighted the approach: repurposing proven technologies in new contexts. Instead of starting from scratch, explore innovations from other (related) industries and adapt them where needed. Site visits, startups, and open conversations with companies helped in this process.

Suggested next readings

- Talent network and platform

SmartWindow for port monitoring



Pilot Area: Hamburg

SmartWindow for port monitoring

Problem it addresses:

Supporting (water) traffic coordination and improving situational awareness in low-visibility or complex environments.

Developed solution:

Digital interface (originally for ship bridges) showing navigational data via augmented reality.

Main functionalities:

Displays vessel names, speed, night vision enhancements, projection system for control room.

Type of solution: digital

Category of solution: monitoring and control



Phase: Concept Status: Ongoing

Added value and how this is measured:

More intuitive understanding of vessel movements and risks. Measurement not further specified.

Implementation and Scaling Up:

What is needed?

Hardware (projector), AIS, radar data integration. Testing brightness for daytime use. The technology readiness level is around 5, further maturing needed.

Who is needed?

Startup developers, port authorities, IT teams, operational staff.

What are other considerations?

Operators hesitant to pilot due to 24/7 workload.



For more information see other side



Insights

- In-person meetups are essential for building trust, connection, and engagement within the community.
- Bring together the right people (e.g., HR, innovators, young talent), you don't have to solve everything yourself and a community could help with this.
- Test which existing digital tools best support the community's needs, sometimes the simplest ones, like email in this case (!), work best.
- The value for innovators, HR, and young professionals must be clearly defined and continuously reinforced to keep the network relevant.

Approach

*Various tools were tested such as LinkedIn, custom apps, and other digital platforms. There was often initial engagement, but interest quickly dropped. Simple tools like email and physical meetups proved most effective over time. **This highlighted the approach:** start with small steps (e.g., a first informal meetup) and known formats, test what sustains engagement, and stay close to user needs. Let the community shape the form, not the other way around.*

Suggested next readings

- Online idea validation platform

Talent network and platform



Pilot Area: Hamburg

Talent network and platform

Problem it addresses:

Understanding current challenges in an area from multiple perspectives, with multi perspective input and quickly validating ideas and solutions for these challenges.

Developed solution:

A talent network supported by both physical meetups and a digital platform. Developed for amongst others young professionals, HR people and innovators. It enhances discussion, ideation, and problem-solving around real-world challenges. The platform provides meet and discuss challenges and opportunities.

Main functionalities:

Meetups, career discovery, knowledge exchange, communication.

Type of solution: digital and way of working

Category of solution: platform + collaboration



Phase: Concept Status: Ongoing



Added value and how this is measured:

Community building and challenge-solving are fostered with .g., matching of innovators and HR and connecting young talent and innovation.

Implementation and Scaling Up:

What is needed?

Event platform, talent network, talent network/ecosystem.

Who is needed?

Talent e.g., young professionals, innovators, HR, students, companies, institutions and a community manager.

What are other considerations?

Invest in maintaining an active and engaged community by focusing on community management. Identify participants needs and goals and ensure those are effectively met.

For more information see other side



Insights

- Sometimes the simplest tool works better than fancy platforms.
- Online validation can be fast and effective, especially in early phases, organize this.
- People respond more often when they see personal relevance or value.
- Don't assume Slack, LinkedIn or Email will work just because they are widely used, test what suits your audience.
- Validation doesn't need to be heavy or over-organized; informal, direct outreach could work.

Approach

This approach started by experimenting with multiple platforms to collect feedback. Email, paired with a simple PDF, worked best. This highlighted the approach: known low-tech solutions can beat fancy (AI) tools, especially when tailored to the context. Try things out quickly, then continue on what works. Keep the process lightweight. Build structure around that simplicity, like assigning responsibilities, to scale it effectively.

Suggested next readings

- Talent network and platform

Online idea validation platform



Pilot Area: Hamburg

Online idea validation platform

Problem it addresses:

Asking for feedback in the development process often takes a long time and only a few people respond. Organizing more sessions does not always ensure enough response.

Developed solution:

Using email to validate ideas with users and stakeholders.

Main functionalities:

Platform to share ideas and ask for feedback

Type of solution: digital and way of working

Category of solution: platform + collaboration



Phase: MVP



Status: Ongoing



Added value and how this is measured:

Receive feedback on new concepts quickly and more often in the process. Qualitative measuring: participants are responding quickly.

Implementation and Scaling Up:

What is needed?

Tried platforms like Slack, LinkedIn, and email for communication and ideation feedback. Used email and PDF with private feedback, LinkedIn and Slack were not effective.

Who is needed?

Innovation team and an active group of diverse stakeholders

What are other considerations?

Create a governance around the email procedure, who is responsible?



Insights

- Permitting can slow things down, especially with asset owners (e.g., bridges), so invest in early in this process.
- If you collect data, make sure to get maximum value out of it by sharing it with those who can use it (e.g., kayak rentals, ecologists, planners).

Approach

This project shows that simple data helps in convincing a story. This highlighted the approach: Rather than debating assumptions, real-time, data offers objective insights to guide decisions. By starting with concrete, measurable information (like kayak counts), discussions become more focused, and facts based.

Suggested next readings

- Communication campaign via stickers
- Sensor detects bridge jumpers

Monitoring kayak traffic



Pilot Area: Kleine Nete

Monitoring kayak traffic

Problem it addresses:

Need for reliable data on kayak usage to assess ecological impact and policy relevance.

Developed solution:

Sensor-based system to count the number of kayaks and their timing/location.

Main functionalities:

AI-analyzed sensor images for counting kayaks, no personal data collected, only numbers and time/location.

Type of solution: physical and digital

Category of solution: sensor



Phase: Pilot



Status: Ongoing

Added value and how this is measured:

Provides monthly data shared with stakeholders (e.g. rental companies), helps determine intensity and potential ecological disturbance.

Implementation and Scaling Up:

What is needed?

Sensors, AI tool, permission to install hardware, and financial resources.

Who is needed?

Municipality, kayak rental companies, waterway authorities.

What are other considerations?

Permission process is complex (e.g. different owners per bridge), ecological effects depend on intensity.



For more information see other side



Insights

- Multistakeholder sessions created real value: more clarity, fewer untrue assumptions, and less noise than with bilateral talks.
- The persona technique was especially valuable in shifting perspectives and building empathy.

Approach

The process began with actively listening to all partners, creating space for direct conversations rather than relying on intermediaries. This helped reduce misunderstandings and built mutual trust early on. This highlighted the approach: The persona technique, having participants write from the perspective of others, helped generate empathy and uncover overlooked insights. This helped in creating a shared dream. Beginning with stakeholder alignment is necessary sometimes.

Suggested next readings

- New collaborative working approach

E-ticketing system



Pilot Area: Kleine Nete

E-ticketing system

Problem it addresses:

Kayaking can harm ecologically valuable plants, therefore better control of visitor flow is needed.

Developed solution:

Digital system where kayakers buy a ticket, allowing usage tracking and limits.

Main functionalities:

Limits kayak traffic in specific areas or times to protect submerged vegetation.

Type of solution: digital and way of working

Category of solution: monitoring and control



Phase: Pilot



Status: Ongoing



Added value and how this is measured:

Can restrict water traffic to needed levels, potential for automated re-routing if one route is full.

Implementation and Scaling Up:

What is needed?

Technical integration, rules, conformant agreements, and possibly a navigation regulation.

Who is needed?

Kayak rental companies, waterway and nature authorities, developers.

What are other considerations?

Tickets must be easy to obtain (mobile-friendly). Besides, the current "gentlemen's agreements" lacks enforceability, a formal regulation is needed.

For more information see other side



Insights

- A strong relationship with and amongst stakeholders (e.g., kayak rental companies) is key. Plan regular check-ins, also outside peak season and when things do go well.
- Via-via communication caused friction, direct dialogue works better.
- Listening to all stakeholders builds trust.
- Several working approaches exist, such as LEGO serious play and the persona technique.

Approach

This new collaborative working approach fosters alignment between stakeholders, similar to the way of working for the e-tickiting system. This highlighted the approach: focusing on stakeholder alignment. Amongst others LEGO Serious Play was used to co-create a shared vision. Through four mini stories, participants explored challenges and possible solutions together. This hands-on method helped and stimulated discussion around future roles and cooperation.

Suggested next readings

- E-ticketing system

New collaborative working approach



Pilot Area: Kleine Nete

New collaborative working approach

Problem it addresses:

Distrust and friction among stakeholders due to past experiences.

Developed solution:

A new way of working together after a difficult history.

Main functionalities:

Inclusive listening, persona writing, and building shared vision through LEGO workshops.

Type of solution: physical and way of working

Category of solution: collaboration



Phase: Pilot



Status: Ongoing

Added value and how this is measured:

Created more mutual understanding and shared ownership of the process.

Implementation and Scaling Up:

What is needed?

Inclusive facilitation, tools like persona writing and LEGO-based vision building.

Who is needed?

All relevant stakeholders and an experienced facilitator.

What are other considerations?

n.a.



For more information see other side



Insights

- Uniform messaging is important ,“do it consistently”.
- Engaging rental companies early ensures better adoption and voluntary participation.
- Visual simplicity and waterproof durability are key for sticker effectiveness.

Approach

Instead of placing signs along the river, information and reminders are integrated directly onto the equipment kayakers use. This ensures that the necessary guidance is always at hand, providing continuous and subtle nudges throughout the activity without relying on users to seek out separate messages. This highlighted the approach: embedding key information directly in the user’s immediate environment to encourage ongoing, effortless behavioral nudges rather than one-time reasoning or distant signage.

Suggested next readings

- Banner for nudging
- Riverbank signs: good waterway practice
- Riverbank signs: informational and discovery

Communication campaign via stickers



Pilot Area: Kleine Nete

Communication campaign via stickers

Problem it addresses:

Encouraging kayakers to dispose of waste properly and take personal responsibility.

Developed solution:

Stickers placed on waterproof barrels used by kayakers to promote waste disposal behavior.

Main functionalities:

“10 commandments” style reminders stuck on the gear, free for rental companies to distribute.

Type of solution: physical

Category of solution: nudging



Phase: Prototype Status: Ongoing

Added value and how this is measured:

Sticker design in progress, seems more useful than more bins or other ideas but not monitored.

Implementation and Scaling Up:

What is needed?

Sticker design, production, and voluntary distribution via rental companies.

Who is needed?

Kayak rental companies, designers

What are other considerations?

Consistency in sticker placement and messaging across different rental locations to reinforce behavior.



For more information see other side



Insights

- Physical prototyping was too early, feedback could've been collected from drawings instead of already producing banners.
- Visual communication is more effective than text. Take international visitors into account when using text.
- Used design thinking: interviews, personas, physical brainstorm, then prototype.

Approach

The process focused on learning, measuring, and then building. Early stages prioritized gathering insights through interviews and co-creation exercises before moving to physical prototypes. This helped avoid costly missteps and ensured the solution was rooted in real user needs and behaviors. This highlighted the approach: learn, measure, and then build, not the other way around! Prioritize learning about the problem, measure the learnings (quantify) and then build. For the building yield, go for the absolute minimum viable product to collect feedback.

Suggested next readings

- Banner for nudging

Pink sign to nudge



Pilot Area: Amsterdam

Pink sign to nudge

Problem it addresses:

Unsafe situations due to recreational boats on the IJ, near-accidents were captured on camera.

Developed solution:

A pink sign to positively persuade recreations skippers to redirect them taking a safer route.

Main functionalities:

Shows skippers there's an alternative to the IJ, uses color and positive tone to nudge behavior.

Type of solution: physical

Category of solution: nudging



Phase: Pilot



Status: Ongoing



Added value and how this is measured:

Fewer recreational boats on the IJ, measured with RFID data of boats to see if boaters took alternative route.

Implementation and Scaling Up:

What is needed?

Pink signs or banners, banners preferred due to easier regulation.

Who is needed?

Administrator.

What are other considerations?

Signs were difficult to implement due to legal issues, switching to banners was easier.



Insights

- Long-term value could lie in engaging the public early, do not design without the public engagement. Early involvement may reduce problems later.
- Public partners are more skilled at designing than Rijkswaterstaat, this could help with the process.

Approach

The approach focused on generating creative concepts through interdisciplinary collaboration, rather than starting from technical constraints. By involving artists, designers, and behavioral experts early on, the team was able to explore unconventional ways. This highlighted the approach: using creative, participatory exploration to identify innovative and creative solutions. This is especially useful where conventional communication fails. Also integrating public engagement from the start to ensure relevance and acceptance. Learnings should be captured (e.g., in a decision tree) to fully optimize efficiency.

Suggested next readings

- Voice of the water

Creative solutions to enhance the passage



Pilot Area: Amsterdam

Creative solutions to enhance the passage

Problem it addresses:

Need to better inform skippers to reduce dangerous situations in the Oosterdokdoorgang.

Developed solution:

Set of, more out of the box ideas and concepts to inform and guide recreational skippers more effectively.

Main functionalities:

Playful and intuitive interventions, such as a frog figure as a recognizable mascot, and a screen that lights up in different colors to visually indicate the safest route through the passage. The combination of physical and digital cues aims to create a more engaging and guiding experience.

Type of solution: physical, digital and way of working

Category of solution: collaboration



Phase: Concepts Status: Stopped



Added value and how this is measured:

The process led to a clear overview of what information works and what doesn't. A visual decision tree (based on user conversations) helped shift the focus from abstract and dry rules to intuitive, situation-based guidance. While not formally measured, the approach helped to communicate information better.

Implementation and Scaling Up:

What is needed?

Further development of the concepts, technical testing in the field, and stakeholder feedback.

Who is needed?

Creative partners (e.g. Waag), broader involvement beyond only managers.

What are other considerations?

The project was stopped for now, as priorities shifted elsewhere. However, some elements such as the communication decision tree were implemented.



Insights

- Tech is not always reliable, sensors and algorithms must be validated manually. Each location is different, so no plug-and-play solution.
- Start legal and IT processes early, to prevent stagnation later in the project.

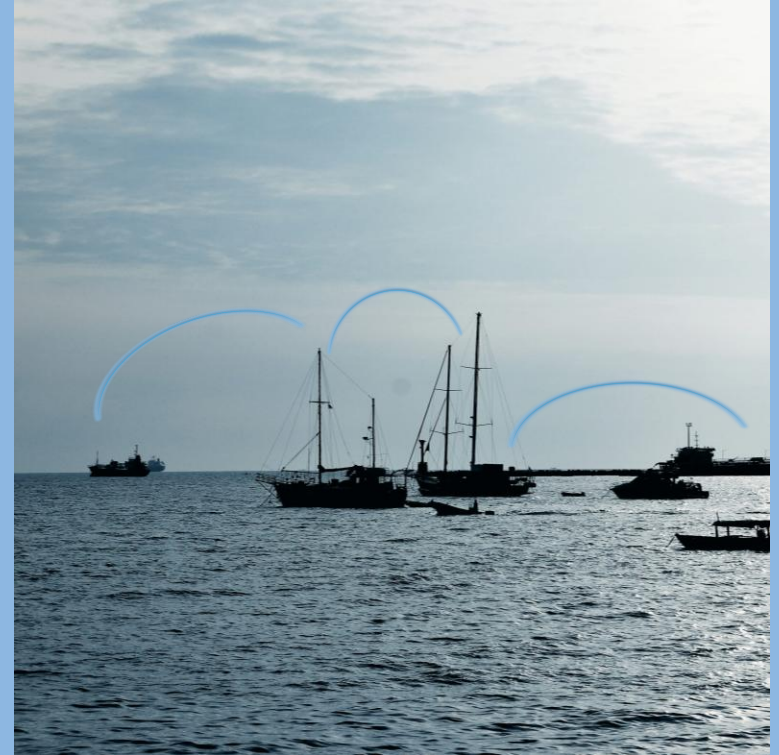
Approach

Prototyping was done with an external partner to test fast without internal IT delays. Legal steps like DPIA were handled early. Real-world testing allowed for quick learning and adjustments. This highlighted the approach: work lean with external partners, test early in the field, and handle legal aspects up front to keep momentum.

Suggested next readings

- Data sharing with other governments
- SmartWindow for port monitoring

Smart sensor and algorithm to identify skippers



Pilot Area: Amsterdam

Smart sensor and algorithm to identify skippers

Problem it addresses:

Understanding and validating the impact of interventions with data.

Developed solution:

Sensor system and algorithm to detect boat type, direction, and behavior.

Main functionalities:

Recognizes recreational skippers, movement, and boat type using AI/visual learning.

Type of solution: digital

Category of solution: sensor



Phase: Pilot



Status: Ongoing



Added value and how this is measured:

Quantifies behavioural patterns, supports experimental evaluation. Provides objective, real-time data to track changes and assess impact. Helps compare scenarios before and after an intervention.

Implementation and Scaling Up:

What is needed?

Hardware placement, permissions (e.g. for cameras), Data Protection Impact Assessment (DPIA).

Who is needed?

PortPay (hardware & sensor management), also legal support for privacy compliance.

What are other considerations?

The system is not integrated within Rijkswaterstaat due to security concerns. This limits integration and long-term use unless addressed.



Insights

- The setting matters: offering the game at the right moment (not just before departure according to research) increases relevance and engagement.
- Students bring fresh (and cheap) perspectives.
- Process differs between student groups. Universities tend to deliver clear outcomes but less insight into the process, which helps with broadening and defining results. Hogeschool students are more useful for in-depth exploration.

Approach

The project was developed in collaboration with students from different institutions. The focus was on rapid prototyping, testing directly with target users, and iterating based on feedback. Early versions were tested in physical form to explore engagement and comprehension. The shift to digital aims to improve scalability and ease of use. This highlighted the approach: using co-creation with students and real-world testing to quickly develop and refine solutions. For effective scaling, the prototype needs to be reconsidered, especially to ensure the digital version fits into rental processes and is easy to use.

Suggested next readings

- Voice of the water

Serious game on IJ navigation rules



Pilot Area: Amsterdam

Serious game on IJ navigation rules

Problem it addresses:

Ensures recreational skippers understand rules before entering busy waterways.

Developed solution:

A serious game teaching skippers correct behavior before going onto the IJ.

Main functionalities:

Explains IJ navigation rules in an interactive format.

Type of solution: physical

Category of solution: gamification



Phase: Pilot



Status: Ongoing



Added value and how this is measured:

The game makes abstract rules more accessible and memorable through play. Initial testing shows users understand and retain key rules better. Usability is evaluated through feedback at boat rental locations where the game is tested.

Implementation and Scaling Up:

What is needed?

Game (physical version completed), digital version in development.

Who is needed?

Game developers (for digital version), rental companies (for distribution), and communication specialists (for outreach).

What are other considerations?

Physical format was less practical, digital version may improve usability.



Insights

- Concept is too far from production to be actionable. Needs a clearer link to current implementation efforts.
- Misalignment of goals (money vs. experimentation) blocked collaboration with SAIL. Even when past collaboration worked, current terms must match needs.
- Conceptual projects require early discussion about expectations, timelines, and intended outcomes to avoid misalignment.

Approach

The project used a reflective and artistic approach to broaden the perspective on water management. By focusing on voices not typically included, like houseboat residents. This challenged standard stakeholder assumptions. The process was exploratory, aimed at shifting internal mindsets rather than delivering a direct product. This highlighted the approach: using artistic and conceptual tools to surface overlooked perspectives, while recognizing the need to connect these insights to implementation frameworks for impact.

Suggested next readings

- Serious game on IJ navigation rules

Connected
River

Interreg
North Sea



Co-funded by
the European Union

Voice of the water



Pilot Area: Amsterdam

Voice of the water

Problem it addresses:

Lack of inclusion of broader ecosystem stakeholders in area management.

Developed solution:

A book aiming to include the perspectives of often forgotten stakeholders like houseboat residents.

Main functionalities:

Conceptual product to expand the idea of who belongs to the ecosystem beyond skippers.

Type of solution: physical and way of working

Category of solution: collaboration



Phase: MVP



Status: Ongoing

Added value and how this is measured:

Raises awareness internally about overlooked perspectives but lacks concrete tools or indicators to measure impact. Also, too conceptual at this stage, translation to Rijkswaterstaat practice is missing.

Implementation and Scaling Up:

What is needed?

A clearer link between the concept and the organization way of working. Possibly a follow-up phase translating insights into usable formats (e.g. guidelines, workshops).

Who is needed?

Managers, communication teams, and external facilitators skilled in e.g., workshops.

What are other considerations?

The project needs a clear use case or application moment to connect with existing programs.



For more information see other side



Insights

- Management buy-in is key to foster the data sharing.
- Knowing what data is available is hard, keep that in mind.
- High-level desire for data but actually getting this data is difficult.

Approach

The project focused on fast, clear data sharing processes to get relevant data. It used this shared data to validate experiments and support decisions. Collaboration with data owners should be iterative to solve issues and clarify roles. The goal was to keep data secure while making it easy to use. This highlighted the approach: creating simple, efficient data workflows for quick, data-driven decisions.

Suggested next readings

- Stakeholder engagement: give the project a territorial approach

Data sharing with other governments



Pilot Area: Amsterdam

Data sharing with other governments

Problem it addresses:

Need for shared data access to improve decision-making, planning and efficiency.

Developed solution:

Accessing and using data from other government parties (e.g. Digital Canal).

Main functionalities:

Used existing data (e.g. vignettes) to validate experiments and understand crowding.

Type of solution: digital and way of working

Category of solution: collaboration



Phase: Pilot



Status: Ongoing



Added value and how this is measured:

Enabled validation of experiments: Provided real data to support decisions and improve accuracy of crowding models.

Implementation and Scaling Up:

What is needed?

Streamlined processes for data access, clear agreements on sharing protocols, and technical integration.

Who is needed?

Other government entities, internal management, data managers, legal advisors, and IT teams.

What are other considerations?

Data access is complex and slow, organizational hurdles exist.



Insights

- Creating four future visions of the waterway helped activate and mobilize stakeholders, in this way the solutions starts to 'live'.
- Visual methods (reaction cards, maps, moodboards) are effective for co-creating and validating interventions.
- Drawing with local knowledge to avoid one-size-fits-all solutions.

Approach

The project relied on visual methods (reaction cards, maps, moodboards) to co-create and validate interventions with stakeholders. Creating four future visions helped engage and activate stakeholders. These tools made abstract ideas tangible and encouraged active participation. This process showed that early and ongoing engagement with local users is key to developing interventions that truly resonate and 'live' in their environment. This highlighted the approach: using visual, participatory methods to bring stakeholders on board early, turning concepts into tangible and visible prototypes.

Suggested next readings

- Riverbank signs: informational and discovery
- Communication campaign via stickers.

Riverbank signs: good waterway practice



Pilot Area: Lille

Riverbank signs: good waterway practice

Problem it addresses:

People want to enjoy the river but there is a lack of awareness of non-professional users on how to behave e.g., in front of large vessels, people are often unaware about or forget rules, also addresses biodiversity disturbance (e.g. people approaching ducklings).

Developed solution:

Prototypes of signs placed at key locations on the river to raise awareness of good waterway practices and create a safe environment for all.

Main functionalities:

Inform waterway users what to do. Signs address specific messages for different type of waterway users (good reflexes, where to go, caution in shared areas).

Type of solution: physical

Category of solution: nudging



Phase: Prototype



Status: Ongoing



Added value and how this is measured:

Raises awareness in a visual and localized way. Co-designed and validated with stakeholders and evaluated by stakeholders and users via feedback from the field (during the experimental phase from August to September).

Implementation and Scaling Up:

What is needed?

Permits for sign placement, understanding local behavior and challenges, specific visual testing, design software.

Who is needed?

Local partners (municipality, VNF, users), riverbank residents, stakeholders involved in workshops, coordinator, inhabitants, tourists, sign makers and installation teams.

What are other considerations?

Some issues are area-specific, not all signs should be permanent (they may blend into the environment), signs need to match the area's spatial and visual logic.

For more information see other side



Insights

- People are more likely to engage with signs that invite curiosity rather than simply inform.
- Co-creation with local partners helps ensure tone and content feel authentic.
- Standardized signs often get ignored: custom, place-based design works better.

Approach

The project would benefit from a more participatory, engaging and visual design process. This helps to ensure the signs resonate with the context and encourage real engagement. This highlighted the approach: to be effective, informational nudges should be co-created with local users and tested visually in context, ensuring the content, tone, and placement fit the environment and spark curiosity.

Suggested next readings

- Riverbank signs: good waterway practice
- Communication campaign via stickers

Riverbank signs: informational and discovery



Pilot Area: Lille

Riverbank signs: informational and discovery

Problem it addresses:

Concentration of activities and people in a single area, limited public awareness of the riverbank environment and missed opportunities for informal learning or discovery. Many people pass through the area without understanding what they're seeing or its significance.

Developed solution:

Signs placed on the riverbanks to invite people to explore and inform them about what to expect within 5 to 20 minutes walking distance.

Main functionalities:

Increase awareness of the waterway as an economic, natural, cultural, sporting and historical space.

Type of solution: physical

Category of solution: nudging



Phase: Prototype Status: Ongoing



Added value and how this is measured:

The signs are intended to encourage people to pause, look around, and connect with the location. Effectiveness should be assessed through informal feedback and user interaction on-site. Also surveys or QR codes for feedback are placed on the signs.

Implementation and Scaling Up:

What is needed?

Design and placement of signs. Input from local experts to ensure content is relevant and accurate. Permits for signs, installation teams, design software

Who is needed?

Designers, local historians or ecologists (for content), municipalities (for permits), and local communities (for validation).

What are other considerations?

Content should be engaging but brief, and possibly multilingual to reach a wider audience.



Insights

- Vision alignment is powerful when tied to other developments.
- Proactive thinking can help prevent negative downstream effects.
- Without early involvement, waterway interests are easily sidelined. Framing water as an asset (not constraint) helps shift the narrative.

Approach

So far, collaboration has been exploratory. There is potential to formalize the process by consistently linking waterway projects to urban planning efforts. Visual tools and future scenarios could help communicate long-term impacts more clearly and engage non-expert stakeholders. This highlighted the approach: integrate waterway perspectives early in spatial planning, using visual and narrative tools to support cross-sector collaboration and long-term alignment.

Suggested next readings

- 3D scan and digital twin

Stakeholder engagement: give the project a territorial approach



Pilot Area: Lille

Stakeholder engagement: give the project a territorial approach

Problem it addresses:

Avoid working in silos : project can easily lose commitment if the same challenges are duplicated and there are no results or follow-up. They often lack a clear understanding of an area's potential. Better communication and visual tools can improve involvement and decision-making.

Developed solution:

Effort to link with broader urban development plans to understand and mitigate the potential future impact on waterways. For example, anticipating the impact of new infrastructure like an additional lock sluice that could increase boat traffic.

Main functionalities:

Raises awareness of future developments that may affect traffic place of activities on the waterway, the quietness & well-being, or the biodiversity on the waterways.

Type of solution: way of working

Category of solution: collaboration



Phase: Pilot



Status: Ongoing



Added value and how this is measured:

Bringing waterway interests into urban planning helps avoid problems later. It ensures future developments consider boat traffic, safety, and livability. Value becomes visible when waterways are included in early planning documents or decisions. It helps to build a common vision.

Implementation and Scaling Up:

What is needed?

Coordination and integration with urban planning departments, forward-looking scenario planning. Shared vision documents, cross-department meetings.

Who is needed?

Coordinator, facilitator, urban planners, project leaders, area managers, and local policymakers.

What are other considerations?

Strong vision-linking strategy can improve readiness and mitigate potential challenges.

For more information see other side



Insights

- Letting stakeholders decide increases buy-in.
- It can speed up implementation, but expectations must be managed. Not every idea can win, so it's key to value and preserve unused ideas.

Approach

This approach builds on transparency and shared decision-making. Instead of top-down selection, stakeholders are invited to shape direction through voting. This improves commitment and helps align priorities early in the process. This highlighted the approach: use democratic selection to focus efforts and increase ownership: let those involved help decide what moves forward.

Suggested next readings

- Online idea validation platform

Stakeholder engagement: Voting for experiments



Pilot Area: Lille

Stakeholder engagement: Voting for experiments

Problem it addresses:

Multiple expectations for a limited space, time and budget. Need to focus efforts and resources on the most supported/impactful idea.

Developed solution:

Stakeholders were invited to vote for one future vision of the waterway (four possibilities) and on their level of commitment to the implementation of the experiment (5-level scale: inform – contribute to the content - provide locations/emplacements - co-manage experiment - co-finance).

Main functionalities:

Democratic prioritization of interventions based on perceived impact.

Type of solution: way of working

Category of solution: collaboration



Phase: Pilot



Status: Ongoing



Added value and how this is measured:

Stakeholder support creates ownership and alignment. It helps create ownership and ensures resources go to ideas with broad support. Evaluated through the mobilization of stakeholders during the project and their feedback (design and experimentation phases).

Implementation and Scaling Up:

What is needed?

Voting and selection mechanism among stakeholders, posters, voting accessories (stickers).

Who is needed?

Stakeholders, facilitator.

What are other considerations?

Unchosen ideas can still be valuable for future phases or locations. Be transparent about what happens with ideas that are not selected.



Insights

- Temporary, small-scale projects can successfully activate underused spaces and attract new users.
- Co-ownership and shared responsibility help ensure implementation and continuity.
- A structured process (e.g. the Double Diamond) helped move from ideas to action.
- Test-before-invest works: starting small builds support and lowers risk.

Approach

Rather than starting with a full-scale solution, a small, tangible intervention was used to generate interest and momentum. The project combined local initiative, experimentation, and clear visual presence to re-activate space and spark imagination. This highlighted the approach: start small and co-owned. Use temporary interventions to test ideas, engage the community, and shape long-term visions based on real use and feedback.

Suggested next readings

- Open mic for input

Social sauna



Pilot Area: Vordingborg

Social sauna

Problem it addresses:

The area lacked activity and suffered from a negative spiral, goal was to activate the area and showcase its potential.

Developed solution:

A temporary social sauna at Vordingborg Harbour as a proof-of-concept for a permanent harbour bath facility.

Main functionalities:

Creates a meeting place, tests user interest, and social interaction potential.

Type of solution: physical and way of working

Category of solution: placemaking



Phase: MVP



Status: Ongoing



Added value and how this is measured:

Positive local response, especially from youth, growth in association membership and social media following. Input gathered via QR-code surveys, interviews, and observation.

Implementation and Scaling Up:

What is needed?

Ownership by the harbour bath association, sustainable governance, small physical and digital improvements.

Who is needed?

Local volunteers, new investors and the harbour bath association.

What are other considerations?

Add-ons like benches, plants, better access to water are natural next steps. Maintaining a business model is key. The sauna is just one “puzzle piece”, success depends on financial continuation and expansion.

For more information see other side



Insights

- Visual tools help overcome abstract discussions and accelerate shared understanding.
- Digital twin is a way to enable shared exploration of space and opportunity, it allows both storytelling and planning integration.

Approach

The 3D scan and digital twin serve as a foundation for storytelling, making complex spatial information accessible and engaging. By visualizing past, present, and future scenarios, stakeholders can better relate to the space and its possibilities. This approach supports collaborative exploration and decision-making, enabling a shared narrative that drives alignment and inspiration.

This highlighted the approach: leveraging digital visualization to enable storytelling as a tool for stakeholder engagement and vision building.

Suggested next readings

- Stakeholder engagement: give the project a territorial approach

3D scan and digital twin



Pilot Area: Vordingborg

3D scan and digital twin

Problem it addresses:

Lack of clear vision and activation for underused site, aims to attract investment and community ideas.

Developed solution:

A 3D scan and digital twin of the harbour area to support discussion and development of amongst others an innovation hub.

Main functionalities:

Makes the invisible visible, supports storytelling (past/future), shared planning, innovation exploration, and visual decision-making.

Type of solution: digital and way of working

Category of solution: visualisation + collaboration



Phase: Concept Status: Ongoing



Added value and how this is measured:

Visualization to gain a better understanding of the possibilities and consequences for area development. Supports decision-making, aligns visions, and makes future scenarios tangible.

Implementation and Scaling Up:

What is needed?

Realistic ecosystem scan, digital twin infrastructure.

Who is needed?

3D scan supplier, area director, spatial planners, and community stakeholders.

What are other considerations?

Used as a tool to align future development and show potential to investors. Helpful in small cities (easier overview), more complex in large urban areas.



Insights

- Presence ≠ representativeness.
- Bottom-up input reveals priorities that might otherwise be overlooked.
- Ensuring inclusivity requires active outreach beyond the most vocal groups.
- Skilled facilitation and local knowledge are essential to navigate sensitive topics.
- Open mic sessions build trust and community but need to be complemented by other engagement methods.

Approach

Open mic sessions create a low-barrier platform for local voices to be heard directly and authentically. This informal setting encourages honest dialogue and reveals lived experience often missed in formal consultations. This highlighted the approach: prioritizing open, inclusive forums that surface diverse perspectives to inform collaborative decision-making.

Suggested next readings

- Voice of the water
- New collaborative working approach

Open mic for input



Pilot Area: Vordingborg

Open mic for input

Problem it addresses:

Need for bottom-up approach in a historically sensitive area with diverse perspectives.

Developed solution:

Public open mic sessions to collect broad local input in an informal, inclusive setting.

Main functionalities:

Anyone can speak, creates a foundation for understanding lived experience and wishes.

Type of solution: way of working

Category of solution: collaboration



Phase: MVP



Status: Ongoing



Added value and how this is measured:

Helped frame priorities for development (e.g., sauna), strengthened coalition of the willing.

Implementation and Scaling Up:

What is needed?

Local facilitators with contextual awareness, attention to hidden or missing voices.

Who is needed?

Public, local experts, neutral facilitators.

What are other considerations?

Ecosystem scans are critical to identify who is missing and why. Presence at sessions does not guarantee full representation; local familiarity helps detect biases or gaps. The open mic is a valuable starting point but should be part of a broader, ongoing engagement process.

For more information see other side



Insights

- AI helps “play” with ideas and bring people together.
- AI helps prototype fast and include more perspectives.
- ChatGPT provided better contextual flow than some visual tools.
- Reminder: images are not facts, they're tools for shared exploration.

Approach

AI prototyping integrates rapid visual generation into co-creation, accelerating idea development and group alignment. This approach encourages experimentation and reduces specialist dependency. This highlighted the approach: using AI as a collaborative sketching tool to boost creativity and shared understanding in early design stages.

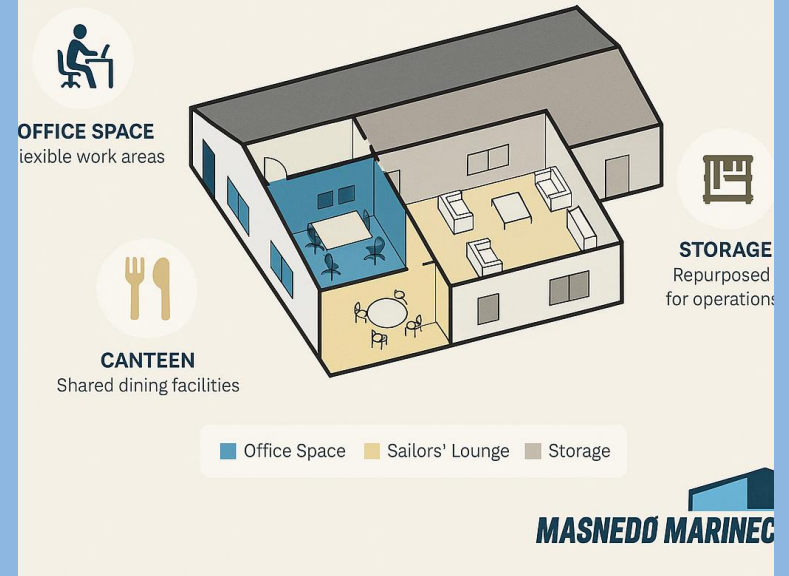
Suggested next readings

- Alternative jumping location

AI prototyping

BASED ON A 3D SCAN

Reuse possibilities of Masnedø Marinecenter



Pilot Area: Vordingborg

AI prototyping

Problem it addresses:

Need for efficient, accessible design capability without relying on specialists.

Developed solution:

Using AI to generate early-stage concepts and visualizations during co-creation.

Main functionalities:

Supports fast iteration, idea translation, and group visualization/vision. Besides quick feedback loops.

Type of solution: digital

Category of solution: visualisation + collaboration (with AI)



Phase: MVP



Status: Ongoing



Added value and how this is measured:

Improves efficiency and engagement in early discussions, helps compare alternatives quickly.

Implementation and Scaling Up:

What is needed?

AI image generation tools (tested multiple options).

Who is needed?

User familiar with AI tools and participants open to iterative exploration.

What are other considerations?

Important to frame outputs as sketches, not final solutions.

For more information see other side



Insights

- The gap is real: teams often stall between testing and scaling. A structured, evidence-based go/no-go governing readiness, scaling potential, and ownership are essential to avoid drift.
- A lightweight system works: the scaling workshop (canvas + semi-automated deck + cue cards) provides a light structure that empowers teams to have efficient a rich conversations that lead to decisions.
- Scaling is a transition of people and plumbing: Successful sessions need the right setup and the right mix of stakeholders.

Approach

Our approach grew out of practical frustration: there simply weren't fit-for-purpose tools on the market to guide the leap from experiment to scale, and classic 1970s scaling playbooks proved too rigid and ill-suited to the diverse Connected River projects and pilot areas. We therefore combined a focused literature scan with interviews of academic experts and field-tested the draft method at the Antwerp mid-term event, iterating it into the current Scaling Workshop and Canvas.

Designed as a one-size-fits-all starting point, the approach is modular and can be adapted to the specifics of any team, governance setup, or context.

Scaling workshop



Pilot Area: All

Scaling workshop

Problem it addresses:

Teams struggle to decide if a tested solution is truly ready to scale, causing many projects to stall in the intention/implementation gap.

Developed solution:

Guided conversation under the form of a templated workshop to cover the important topics and make decisions/formulate scaling strategy and planning

Main functionalities:

Canvas: A shared template that structures the discussion and captures decisions and evidence.

Semi-automated presentation: A guided deck that walks the team through the workshop flow.

Cue cards with triggering questions: A set of prompts that lead through the key conversations needed

Type of solution: workshop

Category of solution: cocreational approaches and conversations / building blox of FF methodology



Phase: MVP



Status: Ongoing



Added value and how this is measured:

Innovation teams often struggle to judge whether tested solutions are truly ready to scale, leading to indecision or drawn-out projects that go nowhere. The Scaling Workshop structures a focused conversation, surfaces evidence and risks, and enables clear go/no-go decisions. Teams then translate those decisions into a scaling strategy and an actionable plan.

Implementation and Scaling Up:

What is needed?

Room with wall space or reliable video-conferencing and digital whiteboard, printed A3/A0 canvas or editable digital canvas, projector/screen for the semi-automated deck, cue cards plus markers/post-its, facilitator/coach and 6–8 cross-functional participants including a decision-maker.

Who is needed?

Using the "SCIN" template in the FF methodology we can select a cross section of stakeholders. As this is a moment where team composition changes from development to exploitation/scaling, both sides need to be represented.

What are other considerations?

As this is a workshop, open collaboration rules apply

For more information see other side