

Connected  
River

Interreg  
North Sea



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# International benchmark by AIVP

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Noémi MENE ; Hélène RAKOTOVAO ;  
José SANCHEZ



Connected  
Be like water River

## Project

Connected River

## Request completed by

Noémi MENE – Project Leader – Sustainable  
Mobility and River Port Cities

Email: [nmene@aivp.org](mailto:nmene@aivp.org)

Tel: +33 (0)7 45 16 72 93

Hélène RAKOTOVAO – Intern in the Content  
Division

Email: [hrakotovao@aivp.org](mailto:hrakotovao@aivp.org)

Tel: +33 (0)7 87 83 47 91

Dr. -Ing. José M Pagés Sánchez

Director of Agenda AIVP by 2030, Projects and  
Content

Email: [jsanchez@aivp.org](mailto:jsanchez@aivp.org)

Tel : +33 (0)2 35 42 76 55

## Research objective

- The six pilot areas involved in the Connected River project all face diverse challenges. AIVP's role is to provide its expertise to inspire and facilitate their development.
- This benchmark brings together 35 international case studies, within AIVP's network and beyond, that can inspire and guide the pilot areas in setting up experiments on the cohabitation of commercial, recreational and ecological uses of waterways.

## Executive summary

Connected River is a European project gathering 6 pilot areas facing challenges related to shared uses waterfronts & waterways - resulting from increasing conflicts of use, for example due to urban development, increase in recreational use and port operations. Although they work on this common theme, the pilot areas all face different challenges. As a knowledge partner, AIVP selected 35 innovative examples that could help them face their challenges through the second half of the project. This benchmarking is divided into 3 axis each focusing on one theme. The themes were identified through a consultation of the project partners, where they identified and selected the most relevant topics.

In all pilot areas, there is a desire to establish contact with users, and sometimes with a specific group of users. Therefore, the first part concentrates on this issue. We explored a wide range of measures to provide information to users: permanent, temporary, hosted online or in a targeted location. Besides, we highlighted innovative consultation tools. One is unexpensive and works in the short-term, as the other serves a longer-term dialogue.

The second part of the benchmark focuses on guiding users' behavior, to make it safer or more sustainable. We reviewed several successful communication campaigns on these subjects, to draw out the strong points that can be replicated. We also looked at some interesting examples of signage again to highlight the key points. Finally, we outlined a few measures and activities that could inspire the pilot areas.

The third part addresses the revitalization and the repurposing of industrial port areas. It mainly concerns the pilot area of Vordingborg and the potential Nordic replicators, but we believe that some of the examples could be useful for other areas. From the cases mentioned, we can say that this revitalization involves 2 phases. First, the area needs to be made accessible and attractive. Then, we recommend filling it with life, through the organization of events and activities. It will reinforce its identity and encourage the population to come and discover it, and to visit it regularly.

We hope that this benchmark will inspire the pilot areas. We would like to remind the pilot areas that all the solutions presented must be adapted to each territory. Perhaps some will seem inaccessible, but we think it's worthwhile for pilot areas to read all those we've indicated as "relevant for" them. Indeed, they can always inspire other ideas. Besides, adapting the project to a different territory, or to a lower budget is always possible.

## Table of contents

Executive summary .....	3
AIVP and its Agenda 2030 .....	5
Presentation of the Connected River project .....	7
The Flow Forward approach.....	8
Presentation of the pilot areas.....	9
Introduction.....	12
I – Informing and exchanging with the population .....	13
1. Providing locals and visitors with information on the issues at stake in the area.....	13
2. Ensuring a dialogue through accessible and temporary devices .....	22
3. Developing measures to ensure an ongoing dialogue with the population.....	24
II – Guiding users and their activities .....	26
4. Encouraging good practices through targeted and powerful communication strategies.....	26
5. Signage and measures to preserve the environment and promote safe behaviors .....	29
III – Reconnecting waterfronts to cities.....	35
6. Building an attractive and open waterfront .....	35
7. « A reason to go »: capturing people’s attention.....	42
Conclusion:.....	49
List of figures .....	51

## AIVP and its Agenda 2030

AIVP is an international association with over 190 members from 50 different countries. For 36 years, its aim has been to reconnect cities to their harbors by facilitating the sharing of experiences at a global level.

In the Connected River project, AIVP is responsible for communicating and disseminating information on the project's progress and acts as a **knowledge partner** and strategic advisor. This benchmark showcases many examples from its network of members and beyond who have faced similar challenges to those of the pilot areas, in an exemplary way. Some of them feature in the AIVP "best practices" list, a directory of study cases, and they all meet at least one or more of the objectives of the Agenda 2030 by AIVP. Drew up in 2018, this Agenda is an interpretation of the UN SDGs, listing 10 objectives to be followed to build a sustainable port city<sup>1</sup>:

### 1) Climate change adaptation

→ Preparing port cities for the consequences of climate change

### 2) Energy transition and circular economy

→ Developing innovative sustainable industries and energy projects for port city territories

### 3) Sustainable mobility

→ Finding new mobility solutions connecting city and port

### 4) Renewed governance

→ Using innovative governance for sustainable port cities

### 5) Investing in human capital

→ Human capital for port and social development

### 6) Port culture and identity

→ Local port identity as a key asset for a sustainable relationship with citizens

### 7) Quality food for all

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<sup>1</sup> To learn more: [Commitment - AIVP](#)

→ Port cities are crucial for sustainable food distribution

8) Port City interface

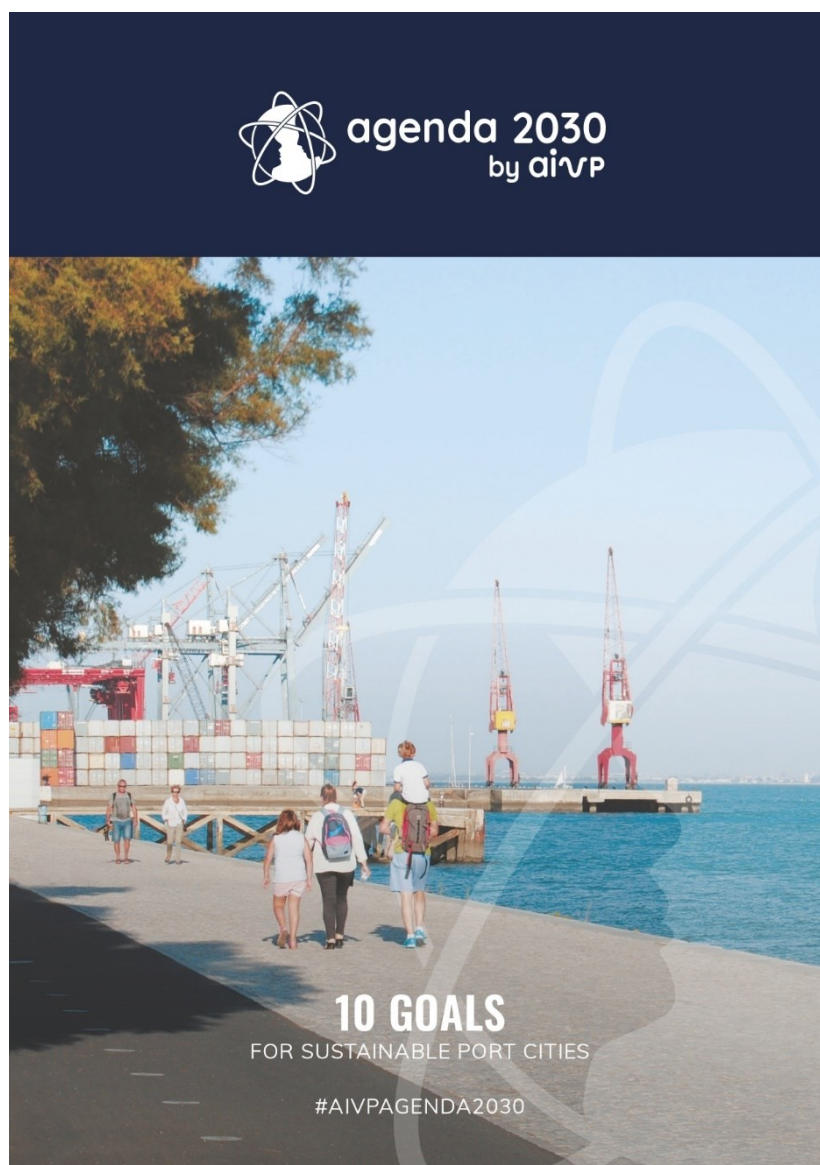
→ Port city interface is a resource to mix different programs

9) Health and life quality

→ Having good living conditions as a priority for the port city

10) Protecting biodiversity

→ Port city biodiversity must be preserved and protected



## Presentation of the Connected River project

Connected River is an Interreg North Sea project, which started in January 2023 and will end in December 2026. It aims to tackle challenges related to shared waterways & waterfronts- resulting from increasing conflicts of use, for example due to urban development, increased recreational use and port operations. The project involves a total of 6 pilot areas and 13 partners. Each pilot area is associated with a « **host partner** » mainly responsible for the development of the experimentation.

PILOT AREA	HOST PARTNER
Amsterdam IJ (the Netherlands)	Rijkswaterstaat
Spiegel Waal (the Netherlands)	Municipality of Nijmegen
Kleine Nete (Belgium)	Flanders Environment Agency
Lille Ports (France)	Port of Lille
Sydhavnen & Masnedø (Denmark)	Municipality of Vordingborg
HomePORT Hamburg (Germany)	Hamburg Port Authority

Moreover, 4 « **approach partners** » give support and advice to the pilot areas:

- InnoValor Advies (the Netherlands)
- Antwerp Management School (Belgium)
- AIVP (France)
- Digital Hub Logistics Hamburg (Germany)

2 « **solutions partners** » are there to help the technical implementation of the experiments:

- Port Pay International (the Netherlands)
- Logistics Initiative Hamburg (Germany)

All these stakeholders are working to achieve 4 major objectives, each of which corresponds to a “work package”. The organization of these work packages ensures that each objective is carried out.

Work package 1: Mobilize multi-stakeholder eco-systems.

Boosting capabilities of eco-systems to mobilize (new) public, commercial and recreational stakeholders for user-centric, agile innovation.

Work package 2: User-centric experimenting.

Leverage user-centric, agile innovation approaches and digital/smart solutions to resolve the complex, dynamic challenges for waterways and & waterfronts more rapidly.

Work package 3: Accelerating digital / smart solutions.

Accelerate digital/smart solutions towards a broad market uptake in order to increase and guarantee safety, accessibility and livability.

Work package 4: Flow Forward Playbook.

Create the Flow Forward playbook for a fit-for-future response to challenges and develop roadmaps to integrate the playbook into future innovation strategies/agendas.

## The Flow Forward approach

The Connected River project developed a collaborative user-centric approach for experimenting and scaling new solutions called Flow forward.

Due to increasing crowds, new challenges arise around water in urban areas all over Europe. Many (port)cities are faced with the task of finding innovative ways to ensure effective, safe and harmonious use of waterways areas. This also puts the current development and management approach under pressure. Long-term plans do not align with these rapid and unforeseen changes. Area users are becoming more assertive and are eager to contribute to supported solutions that address both the challenges in the area and the user's needs.

There is a need for new, participatory innovative approaches that can adapt flexibly to problems and opportunities. Innovative approaches where more value is created in less time and with a smaller budget: for the organization, its partners, and the users of rivers and waterways. Emerging digital solutions can play a crucial role in this regard. Adapting to these changes requires a transformation of organizations, in its role, assets, and people, as well as in collaboration with other organizations and users.

Together with our partners, we can efficiently experiment with emerging digital technologies, new working methods and new forms of collaboration, to:

- Better align with (new) users and the local situation
- Solve problems faster
- Make innovation less expensive

Flow Forward is centralized around collaboration with partners and creating added value for (end) users. The approach focuses on short-cycle experiments that enable rapid learning. Flow Forward combines Design Thinking with Lean Start-up and Agile Design elements. This approach enables us to move like water: agile, unafraid of unexplored paths, and to flexibly adapt to the changing environment, in other words: Flow Forward – “Be like water”.

All the tools and return on experience from the workshops held within the project can be found on the [Flow Forward Platform](#).



## Presentation of the pilot areas

The Connected River project brings together six pilot areas, each with its own specific characteristics. We'll briefly present them, before highlighting some cases to help them face their diverse challenges.

### Flanders Environment Agency – Kleine Nete

“How can we communicate with water users about the goals for the Kleine Nete, instead of a kayak ban, to keep the Kleine Nete clean and safe for aquatic life?”

The Kleine Nete is a river located in the Belgian Flanders. It is a clean river, made vulnerable by the over-frequentation of kayaks. Therefore, the aim is to organize recreational uses on the river, to preserve its biodiversity without having to ban kayaks from it. The stakeholders involved in the project are kayak and canoe rental organizations, regional water recreation federation, local policy makers, tourist organizations, etc. The Pilot Area lead, the Flanders Environment Agency, has decided to carry out two experiments. One is about sharing information on the characteristics of the water and on the regulation of kayaks to come. Since the beginning of the project, several stakeholder workshops have been set up. During these, other challenges related to waste, parking, noise pollution and digitalization emerged. A digital means of communicating water characteristics and regulations is right now being developed. The other experiment aims to count the number of kayaks passing the river, in order to analyze their real impact on water quality. This counting and monitoring will soon take place using 2 video surveillance cameras and maybe with the implementation of some kind of ticketing system.

### Municipality of Nijmegen – Spiegelwaal

“How can we facilitate shared use of the (Spiegel)Waal by different users, so that we can all enjoy the river and river park and ensure safety, accessibility, and biodiversity?”

The Spiegelwaal, located in Nijmegen (the Netherlands) is a waterway originally created to regulate water levels in this region and counter the risk of flooding. But the development of a more and more popular bathing area there raises safety issues. The waterway is used not only for swimming, but also for water sports. Besides, many high school students use the bridge as a diving board. Therefore, the objective of the experimentation is to organize the different uses of the area, and to discourage high-school students from jumping off the bridge, given its height and the frequent passage of boats underneath. So far, a meeting was organized with several stakeholders to identify the problems to be solved according to them. In order to reach out to the high school students, presentations have been made at local high schools. The conclusions drawn from these two experiments were good and useful according to the municipality, that's why further meetings are currently being organized. In addition, a communication campaign will soon be tested, with the aim of discouraging high-school students from jumping off the bridge by means of posters.

## Rijkswaterstaat (Ministry of Infrastructure and Water Management) – Amsterdam IJ

“How can we make the IJ-area, with its diverse, growing and changing population, a safe, sustainable and economic viable shared space?”

The IJ crosses the city of Amsterdam (the Netherlands), and is commonly used by private boats, passenger ships, commercial vessels and as well as for water sports. Thus, Rijkswaterstaat, in cooperation with Port Pay Eco-System, the Port of Amsterdam, Waternet and the City of Amsterdam, wishes to organize the uses on the IJ in order to increase safety, economic viability and sustainability. A phase of identification of the challenges and ideas in concertation with stakeholders has been carried out. The next activities planned are, first, the installation of a path on the water made up of several bright panels acting as nudges and guiding private boats along alternative, less-congested routes. The effectiveness of this nudge would be measured using RDIF (Radio Frequency Identification) tags on boats. Secondly, the set-up of smart cameras would count the number of boats navigating on the wrong side of the river (sailing left instead of right). Finally, finding ways to make the water “speak”, which means setting up items in the water to guide skippers.

## Municipality of Vordingborg - Sydhavnen and Masnedø Islands

“How can we create a "reason to go", attractiveness and new interest in the pilot areas, which will result in new development, more activity and new recreational use of the southern waterfronts of the city?”

The Islands of Sydhavnen and Masnedø are located in Vordingborg (Denmark), and their objectives are relatively similar. For both islands, it's a matter of working on their attractiveness, particularly that of the waterfront, to give locals a reason to visit. Both are former industrial areas with remaining industrial buildings and infrastructure. The municipality of Vordingborg therefore organized meetings with the surrounding population - in particular workers and residents - to ask them what they would like to see. A workshop between various players in the municipality was also organized, to discuss challenges and visions. The people involved showed great interest in the project, and expressed their wishes, as well as their no-go's, during these events. At the end of the summer 2024, additional workshops will be held, this time with external actors. The aim is to share the results of the first workshop and come up with solutions together. The first experiment, possibly the installation of a pop-up park, will take place in September.

## Ports of Lille – Deûle River

“How can we connect stakeholders for innovative and sustainable solutions while ensuring safety, port activities' acceptability, and boosting Greater Lille's attractiveness?”

The Ports of Lille (France) is a grouping of 12 multi-modal inland ports and containers terminals along the Deûle river, a hub of multiple activities, with a growing number of leisure uses. The arrival of the Seine-Scheldt connection in 2030 will transform the way the river is used, as it is expected to greatly increase the freight traffic on it.

With this horizon in mind, Ports of Lille have 3 objectives: to engage with stakeholders, to ensure safety for all, and to guarantee acceptability and attractiveness for the Greater Lille area. So far, interviews have been organized with local stakeholders. Some experimentations have also been led with European partners and local stakeholders during the CGM hosted in Lille, using some tools like the “Personas” to put ourselves in the diverse stakeholders’ shoes. All of this has helped to understand the stakeholders’ needs and expectations. The next step is to plan more workshops with stakeholders and to recruit an innovation coach.

## Hamburg Port Authority – Hamburg HomePORT

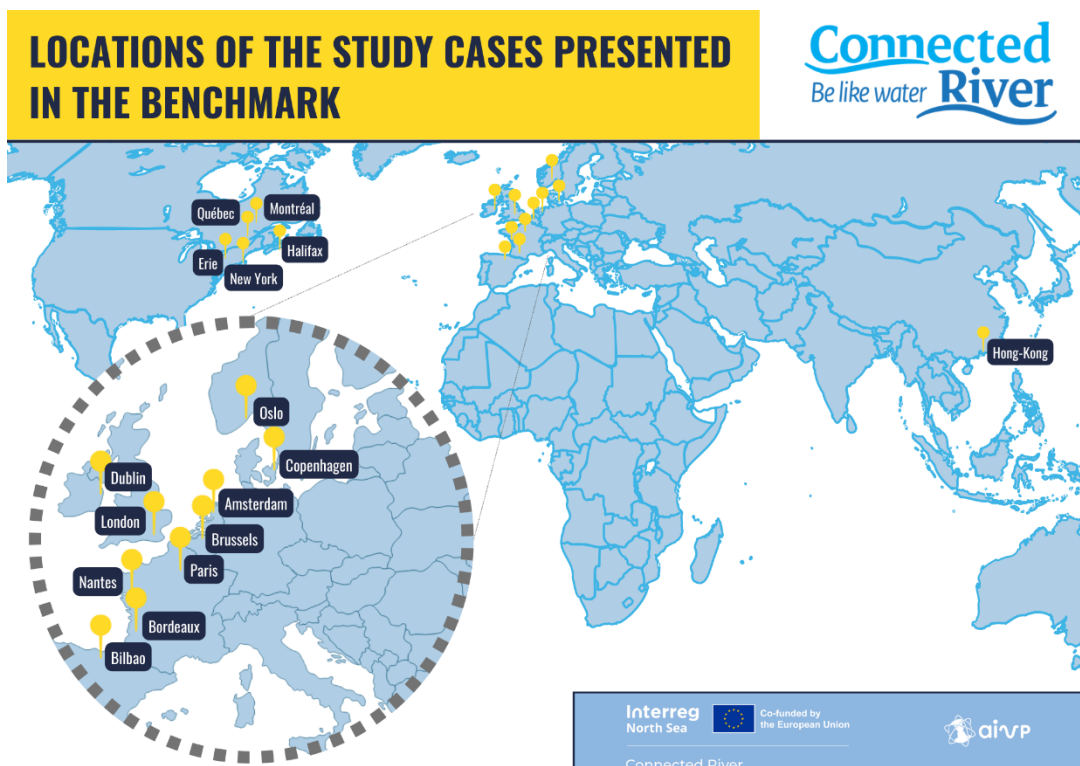
“How can we collaborate in an innovation ecosystem to align port operations with the needs and requirements of residents, while also addressing environmental concerns?”

The main objective of the Hamburg HomePORT (Germany) within the Connected River project is to respond to the skilled labor shortage by developing a “Discovery Hamburg Tour”. It takes place on an app supporting a digital scavenger hunt through the Port of Hamburg. It is about allowing companies as well as young people to discover the port and its companies, to encourage them to work there in the future. For this to succeed, a workshop was first organized with several port companies. Afterwards, 6 tours with pupils, students and business delegations were set up. Then, a first business and pricing model was designed, and a first set of scaling options were identified. Moreover, a digital community for tour alumni and companies has been implemented on the communication platform Slack. From these experiments, HomePORT has understood that the gamification approach of the tour is well received by younger and older participants, and that the port’s companies are very open to host these hunts and are even willing to pay money for it.

## Introduction

The Connected River project started in January 2023. The different pilot areas have now refined their objectives, sometimes redirected them, and begun their experimentation phase. The purpose of this benchmark is to guide and inspire them, not only in this second half of the project, but also after its end, when the experimentation phase is completed, and they move on to the scale-up towards more permanent solutions. This benchmark also aims to inspire potential replication partners in a second phase of the project. To present relevant cases to the variety of challenges faced by the pilot areas, we analyzed each area’s context, its objectives and its ongoing or planned experiments. This analysis was completed by various interviews with representatives of the areas. It enabled us to identify the three most important themes for the pilot areas, which we will be elaborating on. We will draw on many projects or initiatives echoing or directly responding to at least one objective of the Agenda 2030 by AIVP.

First, we found that informing and exchanging with the population is a major concern in all areas. Whether it’s as part of a consultation process prior to a project, or to provide information on specific challenges faced by an area, such as the protection of biodiversity, or users’ safety. More precisely, several pilot areas seek to interact with a young or very young population, which we will refer to as unusual stakeholders. Indeed, they are not so often involved in the creation of public policy. They also are an unorganized group, identified only by their regular or occasional use of pilot areas and therefore not so easy to reach. Thus, through this benchmark, we will pay particular attention on how to reach out to young people. In the second part, we’ll focus on measures taken to guide users and their activities. The final part of this benchmark will be dedicated to the analysis of waterfront regeneration projects, aiming to reconnect a port area or waterfront with the city and its inhabitants.



## I - Informing and exchanging with the population

As we said, all pilot areas are looking to engage with the population, and sometimes specifically with young people. For our pilot area leads (municipalities, port authorities, environmental agency), young people are unusual stakeholders because they are atypical interlocutors, with whom they are not used to working with when developing public policies. In this section, we'll discuss ways to make information about a given area more accessible. We'll also study examples of interaction that could work with the targeted populations.

### 1. Providing locals and visitors with information on the issues at stake in the area

Information is essential for people to understand projects and take ownership of them. It is a key step towards raising awareness, and the start of a dialogue. In this subsection, we will therefore look at several information systems aimed at reaching more unorganized stakeholders. By « unorganized », we mean that they don't belong to a specific organization with a unified voice and contact point. They don't necessarily gather anywhere else, know each other and communicate to organize their actions. Therefore, it is about creating welcoming spaces on site to reach out to them there, as individuals. Finally, we'll highlight measures to target a specific population, in this case schoolchildren and high schoolers.

#### a. Providing information on the specific issues to the area as a prerequisite for local ownership of projects

#### **Port Center model**

Relevant for: Kleine Nete, Nijmegen, Amsterdam Ij.

The Port Center model developed by AIVP<sup>2</sup> could inspire some pilot areas. A Port Center is a place dedicated to education and playful discovery of a city's port and industrial environment, for all ages. Many major port cities such as Rotterdam, Antwerp or Dublin have inaugurated one. For pilot areas which have a port, the opening of a Port Center is conceivable, but not adapted to the chronology of the Connected River project. For all areas, though, a place aiming to educate and inform people about what's at stake there is accessible. For example, an information center dedicated to a river, a beach or a waterfront.

It can be a permanent or temporary installation, take place in a building, a single room or even be a set of information signs under a shelter. Moreover, it could be part of a discovery course in the area. Here are four examples of such projects.

#### **La Pêcheurie - The Fishing Spot, Isle of Nantes (France)**

Relevant for: Kleine Nete, Nijmegen, Amsterdam Ij, Lille Ports

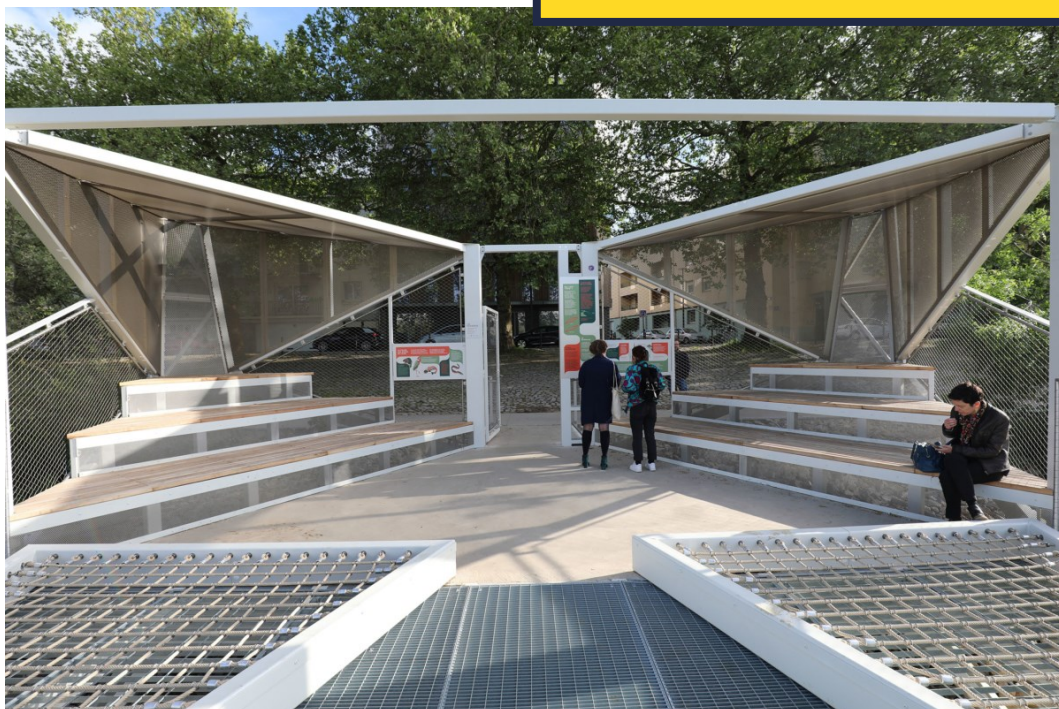
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<sup>2</sup> Port Center by AIVP - AIVP Port center by AIVP

This 40m<sup>3</sup> open-access facility located on the north banks of the Isle was built in 2019 after a series of consultation workshops with the locals. They wished to get closer to the river and to nature, through better access to information on these subjects, a place to rest and contemplate them or where to organize outdoor classes. This multi-use space meets all these demands. It features several information signs - on the Loire and the surrounding flora and fauna - a lookout point, sheltered benches and seats made of rope for children<sup>4</sup>.



Views from the banks and the inside of La Pêcheurie, Nantes, 2019 (figure 1 / 1bis)



<sup>3</sup> <https://www.iledenantes.com/un-ete-festif-en-bord-de-loire/>

<sup>4</sup> [Bruit du Frigo | La Pêcheurie](#)

### **Port in the City container, Montreal (Canada)**

Relevant for: Kleine Nete, Nijmegen, Amsterdam Ij, Lille Ports

The “Port in the City” container is open every afternoon from late June to early September on the Port of Montreal's Grand Quay. It provides plenty of information on the way the port works and its impact on the daily lives of inhabitants. Fun learning games, free snacks and the chance to take part in a game to win a cruise can also be found there. Within the limit of the available seats, visitors can even sign up for a free guided tour of the port<sup>5</sup>. This temporary facility, housed in a container, is a low-priced alternative to La Pêcherie. For pilot areas such as Spiegelwaal whose activity is mainly seasonal, the temporary aspect could be relevant.



**“Port in the city” container, Montreal, 2019 (figure 2)**

### **Virtual Museum of the Ports of Venice and Chioggia (Italy)**

Relevant for: Kleine Nete, Nijmegen, Amsterdam Ij, Lille Ports, Hamburg homePORT

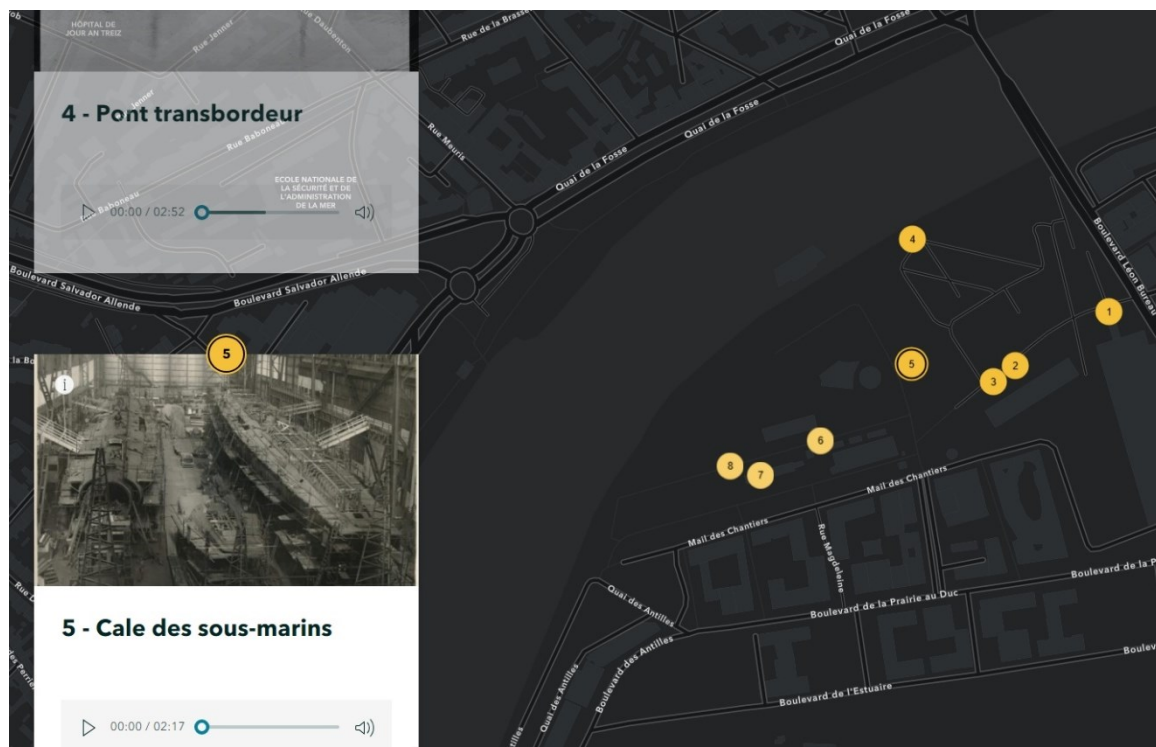
In Venice and Chioggia, information about the port is displayed through a discovery course of 24 attractions, working with geolocation. For each site, the app provides mini-introductory videos, a photo gallery, insights, virtual tours and a 360° panoramic view. They differ according to the itinerary chosen. 3 are possible: “Yesterday’s Veneto port system”, “Today’s Veneto port system”, and “Views from above”. By playing quiz games, extra content can be unlocked. Besides, the app takes all audiences into account, as it first asks every user if they are a kid, a teenager or an adult. For kids, a guide character as well as 3 themed routes with animated drawings are available.

### **A l’écoute des chantiers - Listening to the shipyards, Isle of Nantes (France)**

Relevant for: Kleine Nete, Nijmegen, Amsterdam Ij, Lille Ports, Hamburg HomePORT

<sup>5</sup> [Port in the City \(port-montreal.com\)](http://port-montreal.com)

In Nantes, visiting the former shipyards is possible through a website where 10 audio stories are displayed on a virtual map. The course is thus accessible to anyone, at any time<sup>6</sup>. In fact, in 2019, the city of Nantes and its residents developed a website called **Nantes Patrimonia**, which brings together articles, photo albums, walks, testimonials, useful links and news about Nantes' heritage. This site was born out of a request from the population, who co-constructed it through many workshops<sup>7</sup>.



Arcgis platform hosting the “A l’écoute des chantiers” course (figure 3)

### Working towards universal accessibility: Erie Canal (United States)

The Erie Canal (United States) is innovative in terms of accessibility. Some of the sites along the canal, such as Frank Lloyd Wright's Martin House - a National Historic Landmark - offer audio tours for the blind and partially sighted, as well as ASL (American Sign Language) interpreters for the deaf and hearing impaired. In addition, to mark the 200th anniversary of the Canal, the desire to provide “Accessible Recreation on the Canalway has been expressed<sup>8</sup>. Since, “accessible adventures” weekends regularly occur. During these, some equipment allowing disabled people to cycle along the banks or to kayak within the canal is put in place<sup>9</sup>.

<sup>6</sup> [À l'écoute des chantiers \(lecolededesign.com\)](http://lecolededesign.com)

<sup>7</sup> [Patrimonia : À propos \(nantes.fr\)](http://nantes.fr)

<sup>8</sup> [Celebration for 200 years of the Erie Canal ensures accessible recreation for the future \(13wham.com\)](http://13wham.com)

<sup>9</sup> [Accessible Adventures Extravaganza on the Erie Canal! - Rochester Accessible Adventures](http://rochesteraccessibleadventures.com)



These sorts of measures could help users take ownership of the issues faced by the pilot areas. The focus can be on different themes. Here, cities have elaborated on the port-city interface, the area's past, or the surrounding flora and fauna. In Kleine Nete, for example, a guide of biodiversity-preserving behaviors in each zone could be displayed, depending on where you are on the waterway or in nearby areas (noise pollution, waste management, etc.). In addition to organizing on-site information spots to reach users, it is possible to bring information directly to a targeted audience

### **“Know your Port”, Port of Bilbao (Spain)**

Relevant for: Kleine Nete, Nijmegen, Amsterdam Ij, Lille Ports

This initiative is financed by the port and offers a 3-hour port visit to 4,000 schoolchildren (from 10 to 15 years old) each year. The program covers the history of the port and its current activities<sup>10</sup>.

### **Reaching out to kids: “Robin des villes” association<sup>11</sup>**

To target and raise awareness among an even younger audience - schoolchildren, for example - it is possible to call on certain associations specializing in this field. The Robin des Villes (France) association, for example, educates the very young ones about planning challenges. Their aim is to take the planning lingo out of the equation, enabling primary school pupils to get to grips with city transformation projects.

These cases can be useful for the Kleine Nete or Nijmegen areas, which are seeking to raise awareness of environmental and safety issues with the youth.

In short, we have highlighted 3 ways of providing information to users. First, it can be displayed in a dedicated place, whether it's temporary or not. Secondly, information can be posted on a website. Finally, to target a particular audience, information can be brought to a place dedicated to something else but occupied by the target audience.

#### **b. Proper access to information also makes activities safer: the example of swimming**

Especially in unsupervised bathing areas, access to information is a safety issue. It is about providing swimmers with information about water quality, on how to reconcile different uses of the same waterway, and on how to behave in the case of an emergency. For maximum accessibility, this information should be relayed via different types of communication.

### **Qualité Rivière - River Quality app, Water Agency (France)<sup>12</sup>**

Relevant for: Kleine Nete, Nijmegen

<sup>10</sup> [Educational visits for schools - Port of Bilbao \(bilbaoport.eus\)](http://bilbaoport.eus)

<sup>11</sup> [ACCUEIL \(robinsdesvilles.org\)](http://robinsdesvilles.org)

<sup>12</sup> [Page d'accueil | Les agences de l'eau \(lesagencesdeleau.fr\)](http://lesagencesdeleau.fr)

Qualité Rivière was developed by the Water Agency, a French public institution. It provides information on the quality of every river in the country. This way, you can find out which rivers are safe to swim in. Initially, the application only provided information on unmonitored rivers. Today, it even covers supervised areas. You can locate them on a map of France, or use the location function, which lists the characteristics of the nearest waters. A wide range of information is provided: ecological status, data on the number of fish, temperature, specific pollutants, acidification, oxygenation, nutrients, bacteria, etc. Unfortunately, information on some less-frequented waterways is not updated every year, and the latest information can be several years old. Besides, the development of such an app should go hand in hand with a proper communication campaign, to inform the public of its existence. From our point view, this was not the case with *Qualité Rivière*, as it seems to be relatively unknown by the public.

**Information sign generator, Environment Agency (UK) <sup>13</sup>**

Relevant for: Kleine Nete, Nijmegen

This website was created to help organizations generating water quality information signage. The instructions are simple: «Use this application to create a sign for one or more bathing waters that you control». After searching for a specific location, you can download a simple or enhanced sign. The simple sign says whether it is possible to bathe in this water, if it is subject to short-term pollution, and gives a general description of its quality. A QR Code gives access to a more detailed website. With the enhanced sign, there is a possibility to add the previous annual classifications, the sampling point location, the Environment Agency’s logo, and even a contact person of your choice, in addition to everything that is on the simple sign<sup>14</sup>.

**The Serpentine - Hyde Park**

A designated bathing water where water quality is monitored from May to September by the Environment Agency

Classifications were not made for the 2020 season due to the impact of the COVID-19 pandemic on the sampling programme

Latest Annual Classification: 2023



**Sufficient**  
bathing water quality  
★★★★ excellent  
★★★ good  
★★ sufficient  
★ poor

**Water quality at The Serpentine - Hyde Park**

Bathing water quality can be affected by surface water running off the surrounding areas and wildfowl faeces.

During prolonged warm dry weather this bathing water is susceptible to blue-green algal blooms, which may be toxic. If the water is discoloured, or a foam is present, this may be an algal bloom and you are advised to not enter the water and to contact your local authority health contact for help and advice.

**Sampling point location**



**Previous annual classifications**

2022 ★★★★★ Sufficient 2021 ★★★★★ Sufficient 2019 ★★★★★ Sufficient

**For more information**

The full details for this bathing water, its catchment, information on all potential pollution sources and how they are managed can be viewed on the Environment Agency website: <https://environment.data.gov.uk/bwq/profiles>



**Enhanced sign for The Serpentine (Hyde Park), generated through the website of the UK’s Environment Agency’s (figure 4)**



<sup>13</sup> [Environment Agency - GOV.UK \(www.gov.uk\)](https://www.gov.uk)

<sup>14</sup> [Create a bathing water sign \(data.gov.uk\)](https://environment.data.gov.uk/bwq/profiles)

Similar systems could be considered to inform not on water quality, but rather on traffic conditions on the water. For example, Amsterdam IJ pilot area wanted to develop an app guiding and giving traffic information to users of the IJ, such as “Waze”, but on water.

### **SIF Seine, HAROPA Port<sup>15</sup> and Voies Navigables de France<sup>16</sup> (Navigable Waterways of France)**

Relevant for: Kleine Nete, Nijmegen, Amsterdam IJ, Lille Ports

SIF Seine app gives real time information on lock traffic, notices to skippers and water levels to professionals working on commercial and passenger vessels<sup>17</sup>. The existence of an app dedicated to swimmers and private users on the one hand, and to professionals on the other hand, could help organize the conciliation of uses.

However, having the same application for all users might be easier to organize.

### **On the Canals, New York State's Canal Corporation (United States)<sup>18</sup>**

Relevant for: Kleine Nete, Nijmegen, Amsterdam IJ

That is the specificity of *On the Canals*. Moreover, it's easy to use: after downloading the app and creating a single-use account, you just have to share your location. The app warns users every time they approach a lock or a lift bridge and asks if they would like to transit the facility. If yes, the app alerts the operator who should open it. Its developers specify that in some contexts, the operator will not be able to open the facility.

To get a wider range of bathing safety measures, the pilot areas could also get inspiration from some river towns that have deployed drowning prevention plans.

### **Drowning Prevention Strategy, 2019, London (UK)**

Relevant for: Kleine Nete, Nijmegen, Amsterdam IJ, Lille Ports

This strategy was deployed in response to the high number of drownings in the Thames, both deliberate and accidental. Two years after the beginning of the project in May 2021, the **Tidal Thames Water Safety Forum<sup>19</sup>** reviewed the measures taken. The document summarizes all the practices put in place to address the issue of drowning and assesses their success. The various procedures used include training the public and

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<sup>15</sup> <https://www.haropaport.com/fr>

<sup>16</sup> [Voies navigables de France, opérateur national de l'ambition fluviale - VNF](#)

<sup>17</sup> [Reliable, economic and ecological river transport services | HAROPA PORT](#)

<sup>18</sup> [On the Canals Boater App | NYS Canals](#)

<sup>19</sup> [Tidal Thames Water Safety Forum | Port of London Authority \(pla.co.uk\)](#)

the youngest members of the community in how to behave near water and in first aid techniques.

Event	Young People's Forum	National Junior Indoor Rowing Championships (NJIRC 2020)	Cadet training	Lifejacket workshops
Partners	LFB & LAS	RNLI & PLA	LFB	RNLI & PLA
Approx. Participants	15	1,800 teenagers	12 young people trained	120 adults
Description	Young people were brought together at Lambeth Fire Station to learn about water safety, drowning prevention and water safety first aid.	Partners worked together to run a safety stand at this event in east London, run by London Youth Rowing. Young people were able to ask questions and access free resources.	LFB cadets received water safety training. The LFB plan to extend this training across multiple borough cadet units.	As restrictions on outdoor sport eased, the RNLI and PLA provided online workshops for the watersports community, preparing for a safe return to boating.

CPD figures

Event	Water Safety Wednesdays	Safety First	Throwline training	Community Responder Initiative
Partners	RNLI	LFB & MPU	LFB	LFB & RNLI
Approx. Participants	Over 50,000 viewers	496 children in 3 schools (since March 2021)	120 adults	25 LFB staff
Description	Formed the <a href="#">Water Safety Wednesday</a> programme for children learning from home with learning materials, creative resources and video tutorials. Content has been converted into a short film for learning materials in and out of school.	<i>Safety First</i> is a Bluelight Collaboration funded by Met Police to deliver a wide range of topics to Year 8 students. LFB deliver water safety training (as well as road and fire safety). Delivery began in March 2021.	120 non-operational and control room staff trained to use throwlines.	This initiative upskills staff so that they are able to go out into the community and instruct others. Providing more training courses for staff based at venues along the water, such as bars and restaurants, is a key objective for 2021.

Table summarizing all the “Community engagement” actions led from May 2019 to May 2021, through the Tidal Thames Water Safety Forum (figure 7)

Let's have a look at a few examples of measures which target a young population. Firstly, project partners ran a safety stand at the 2020 national junior rowing championships. The 1,800 teenagers were able to ask questions and find out more about the topic. Moreover, the Safety-First initiative, which has been in place since March 2021, has enabled almost 500 children in Year 8 (i.e. 12 years old) to receive water safety training from the London Fire Brigade in just two months. Finally, the Royal National Lifeboat Institution has produced Water Safety Wednesdays, a series of educational

videos for home-schooled children and others. They are all available online, for free, and sorted according to the age category they are aimed at. Next to each lesson, the reading time is indicated, and quizzes are available to test your knowledge<sup>20</sup>.

We hope these diverse cases can be used by areas wishing to improve their swimming options. Regarding apps informing on water quality, a QR code could be found on site to inform users of its existence. However, it is worth noting that on-site information, through a paperboard or a screen, is most important. Indeed, it doesn't require any digital skills, and swimmers who only visit the site occasionally may not bother to download an application, especially if they swim in several waterways, and that each one has its own. Therefore, screens relaying real-time information on water are best. But paperboard signs remain a good low-priced alternative to them. They just require someone to regularly check if information displayed has changed, and to update it if necessary. Finally, we believe a single application for all users will make its adoption easier. Moreover, it could also help to coordinate everyone's practices, for example, by informing people about potential time slots defined for each type of user.

## 2. Ensuring a dialogue through accessible and temporary devices

In the previous sub-section, we have seen various ways of informing the public, including younger people, about the issues at stake in an area. Now we're going to look at examples of temporary, economically accessible measures that have made it possible to exchange with users of a specific area and gather their opinions.

### **Port of Pantin, Paris, (France)**

*Relevant for: Kleine Nete, Nijmegen, Amsterdam Ij, Lille Ports, Vordingborg.*

The port of Pantin, located in the suburbs of Paris, has been redeveloped since the 2000s. The aim is to breathe new life into the area, whose industrial activity has gradually slowed down since the 1960s. To do so, a landscape designer who could ensure public participation of locals was recruited. The Belgian office Taktyk led the project, with a 3-stage consultation process. First, a questionnaire was made available, both online and on site. Based on the results, thematic workshops were organized. These were open to anyone that reserved a seat. Three different themes were addressed:

- What uses for the future green space?
- What will the future green space look like?
- Which wall-cladding to use for the wall running alongside the green spaces?

For each question, possible options were defined during the workshops. For example, for question number one, the residents came up with these four options:

- Contemplating (the sky while laying for example).
- Observing (the green spaces and their biodiversity)
- Playing (to allow under 5 years old to play and develop their senses).

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<sup>20</sup> [RNLI Education Resources For Young People](#)

- Repairing (promote cycling by providing a pump and tools for bike repairs)<sup>21</sup>.

Finally, voting devices were installed in a strategic location in the area. A sign explaining the consultation process and how the terminals work was put up next to them. The devices were available 24 hours a day, 7 days a week, for one month, enabling more than 10,000 votes to be cast. Although the unlimited number of votes per person biased the results, the terminals nevertheless indicated a general trend that guided the work of the landscape designers and aroused the curiosity of users about the issues specific to this area.



Examples of signs summarizing questions and options that were hung next to voting terminals. Question n°1 on the left (figure 8)

<sup>21</sup> Participation - ZAC du port - Semip



The three voting terminals installed on la Place de la Pointe, near the former warehouses of Partin, June 2023 (figure 9)

### Collecting information while nudging for the city's cleanliness

Other amenities exist to assess opinions in public spaces, such as polling ashtrays which are anti-pollution nudges. Because they are asked to answer a question, passers-by are encouraged to throw their cigarette butts in a bin rather than on the ground. While the questions asked are generally only intended to create a reaction (i.e. Messi or Ronaldo?), questions about local planning or other issues could be asked. We could also imagine an equivalent of this with two large transparent recycling bins - in the street, on a beach, etc. - for which the volume of waste collected would indicate the popularity of an answer. Pilot areas could use these methods if they wish to collect information while encouraging recycling, and activation of public spaces. In an area like Kleine Nete, where waste management is an issue, a device of this type could prove even more useful.

### 3. Developing measures to ensure an ongoing dialogue with the population

Some port authorities or cities chose to invest in long-term measures to gather the local population's opinion about the development of the port-city interface. Although they are more costly, they mean an ongoing public participation process.

#### Port of Halifax, Canada

Relevant for: Lille Ports, Vordingborg



In 2020, the port of Halifax created a Port Community Liaison Committee (PCLC).<sup>22</sup> Its role is to foster communication and engagement between the port and the broader community. Its 15 members interact with the community through social media and the port's website. They collect requests and opinions and respond to them. This contributes to the port's transparency and helps raise locals' awareness in port issues. Besides, a communication strategy aiming to keep the public informed is deployed. On the "Community and collaboration" page of the port's website, information on the various projects, activities and cultural events taking place in the port is uploaded. Moreover, the "Port Terminology" page includes didactic material and port terminology to help people understand and build an educated opinion. Once again, the aim is to make the ports' functioning less opaque for the public<sup>23</sup>.

As we have seen with apps providing information on boat traffic, or with the Port of Halifax's "Community and collaboration page", information to users is becoming increasingly digitalized. This is an interesting alternative for several reasons including labor savings. You don't need a guide to take a virtual tour. Moreover, it can be argued that digitalization makes the content more accessible. For example, users don't have to go anywhere to benefit from it; the information is brought to them instantly. However, the provision of information and consultation with locals on site also has its advantages. Devices like the voting terminals in the port of Pantin have externalities such as the activation of public space. The issue of accessibility for people with disabilities can also be addressed on site, as demonstrated by the innovations at the Erie Canal. Providing information off-line also ensures that a specific audience receives it, as with the "Know your port" measure in Bilbao. Finally, if it's well located, a public installation has the advantage of potentially attracting passers-by who didn't plan on stopping there. This is the case with the Port in the City container (Quebec), which probably gets attention due to its shape and its location along the Grand Quay. In cases where applications and websites are indeed the most appropriate tools, they need to be the subject of a major advertising campaign which brings them to the widest audience. For example, to provide information on water quality in whole France, the idea of an application is interesting. But, as we've said, *Qualité Rivière* is too little known by the public.

Now that we have discussed examples of information and engagement with the population, the second part will highlight processes and measures aiming to actively guide the uses and activities of stakeholders, to secure their behaviors and preserve the biodiversity in the relevant pilot areas.

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<sup>22</sup> [Port Community | Port of Halifax \(porthalifax.ca\)](https://porthalifax.ca)

<sup>23</sup> [Community and Collaboration | One Port City \(oneportcityhfx.ca\)](https://oneportcityhfx.ca)

## II - Guiding users and their activities

### 4. Encouraging good practices through targeted and powerful communication strategies

In this sub-section, we will look at examples of powerful communications operations. A slogan, striking images or even bright colors can grab users' attention and help raise awareness of a cause.

#### **Safety communication campaigns and festivals, Port of Dublin, Ireland**

Relevant for: Nijmegen, Lille Ports, Amsterdam Ij

The Port of Dublin welcomes around 50 commercial ships a day, in addition to many water sports and swimming. To prevent accidents and improve safety culture in the port sector, a major communication campaign has been launched. The main poster, saying “Show off! Your water safety skills”<sup>24</sup> shows an eye-catching slogan to encourage users to find out more about safe behaviors around the port, and not to be reluctant to adopt them. Famous Irish humorists were part of the campaign and contributed to making this message as reachable as possible, including for non-unusual stakeholders.



The campaign also includes a map summarizing good practices depending on where you are in the port, as well as an awareness-raising video available on all social medias, in which various port stakeholders and guarantors of safety within the port take the floor to explain the importance of this issue. This campaign is not the only

<sup>24</sup> [Water Safety - Dublin Port](#)

communication initiative taken by the Port of Dublin to promote safety. An Irish Port Safety Week takes place every year. During the whole week, events and workshops educate locals about safe behaviors<sup>25</sup>.

### Voies Navigables de France (VNF) - Navigable Waterways of France

Relevant for: Nijmegen, Lille Ports, Amsterdam Ij

In June 2024, VNF also launched a communication campaign promoting safety. This time, teenagers are specifically targeted. The video shows how dangerous it is to swim in sites that are not open for bathing, and to jump in the water from a bridge. Risks induced by these types of behavior are listed in the video on a black and white video jumping in a waterway. It ends with the following slogan: "Coule pas ton été" - "Don't drown your summer"<sup>26</sup>.

### Port of Bordeaux, France

Relevant for: Lille Ports

Communication campaigns are also useful to encourage social acceptance of an activity by residents. The port of Bordeaux has launched "Faisons escale ensemble" – "Let's make a stopover together" – a campaign bringing out 3 commitments the Port is making regarding cruises, to make them more respectful of residents' quality of life<sup>27</sup>.



#### Translation:

- 1) A comprehensive environmental approach for cruise stopovers
  
- 2) A cruising business respecting the daily lives of locals
  
- 3) Involvement of all stakeholders to ensure regular, independent checks

**"Faisons escale ensemble" poster, released in September 2022 by Cruise Bordeaux (figure 11)**

<sup>25</sup> [A Look Back on Dublin Port Safety Week 2023 - Dublin Port](#)

<sup>26</sup> [#CoulePasTonÉté juste pour un plongeon ou une baignade entre potes - VNF](#)

<sup>27</sup> [Faisons Escale Ensemble | Cruise Bordeaux](#)

**Environment Preservation campaign, Port of Brussels, Belgium)**

Relevant for: Nijmegen, Lille Ports, Amsterdam Ij

Port of Brussels (Belgium) has launched a campaign to raise awareness of the need to keep the canal clean, specifically among young people it seems. It features photos of young people, accompanied by a short slogan written in a style that appeals to this audience. In French: «Le canal, je le kiffe clean»<sup>28</sup>, in Flemish «Afval in mijn kanaal? Doe effe normaal!»<sup>29</sup>, meaning «Trash in my canal? Be serious!».



**French and Flemish versions of the campaign launched by the Port of Brussels to promote canal cleanliness, March 2023 (figure 12 / 12bis)**

These examples show the diversity of issues that a communications campaign can highlight. It can be about raising awareness on safer or more sustainable behaviors, about promoting social acceptance on a specific project, etc. Moreover, we hope they can inspire pilot areas that wish that launch campaigns for a specific group, such as

<sup>28</sup> [Le canal, je le kiffe clean! | Port de Bruxelles](#)

<sup>29</sup> [Afval in mijn kanaal? Doe effe normaal! | Haven van Brussel \(port.brussels\)](#)

highschoolers. In Dublin, the message was highlighted by well-known artists. In Brussels, young people were represented in the campaign.

## 5. Signage and measures to preserve the environment and promote safe behaviors

Installing signage to inform about the responsible behavior to adopt in some areas is useful. Besides, other organizational measures or activities can have an impact.

### Drowning Prevention Strategy, 2019, London (UK)

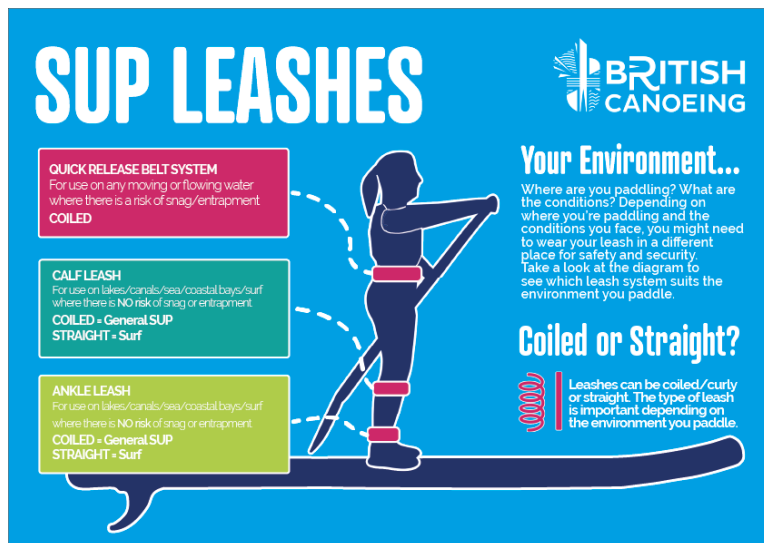
Relevant for: Kleine Nete, Nijmegen, Amsterdam Ij, Lille Ports



Sign put up by the Port of London on the Thames' banks in July 2022 (figure 13)

Safety messaging is another aspect of the Thames Strategy Plan<sup>30</sup>. Signs giving safety advice have been put up on its banks. They include reminders to wear a safety jacket, to put your rubbish in the bin, to only sail sober, and what to do in case of an emergency.

<sup>30</sup> [Tidal Thames Water Safety Forum | Port of London Authority \(pla.co.uk\)](https://www.pla.co.uk)



**Rules put up on the Thames' banks and reminded to paddle buyers (figure 14)**

For the paddling community, a partnership between the Port of London, British Canoeing and equipment suppliers exists to ensure that users and purchasers of paddles know how to use them correctly. An explanation is given at the shop, and the instructions are posted along the quays.

Apart from signage, measures can be taken to secure the use of a waterway, such as the setting up of time slots dedicated to a specific type of activity (swimming, cruising, commercial shipping, etc.). In part I, we have shown ways of informing users of the existing time slots. We are now going to focus on the fact that various ways of organizing these time slots exist, depending on the characteristics of the waterway.

**Time slots in the Bassin de la Villette & the Canal Saint-Martin, Paris, France**

Relevant for: Nijmegen, Amsterdam Ij, Lille Ports

Time slots operation differs from place to place. In the summer, the Bassin de la Villette turns into *Paris Plage* – Paris Beach - and becomes swimmable. During this time, swimming activities must be organized with unlicensed boats, tourist cruises, pleasure boating, and more occasionally cargo boat. Therefore, people in charge of the canals in the Municipality of Paris have ordered conciliatory measures to ensure everyone's safety. In total, a 17m-wide zone is set aside for bathers, while 38m is reserved for navigation. Between these two zones, a 15m buffer zone ensures the safety of bathers. In addition, freight is prohibited from 11am to 8pm - i.e. during bathing hours – and rowing is suspended during this period. The various zones are delimited by floats and side nets<sup>31</sup>.

<sup>31</sup> Mairie de Paris, Service des Canaux



The Bassin 3 separated sections of the Bassin de la Villette, Paris: space for bathers, buffer zone and space for boats. July 2020 (figure 5)

On the **Canal Saint-Martin**, the context and challenges are different: there are fewer visitors, but the width of the canal is smaller. Therefore, swimmers can enjoy the full width of the canal, along a length delimited by buoys, but only during occasional swimming events. On these specific days, navigation is totally forbidden during bathing time, consequently reduced to a maximum of 4 hours in a row<sup>32</sup>. As swimming is only authorized during special events, the infrastructure is much lighter and can be taken out very easily.

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<sup>32</sup> Mairie de Paris, Service des Canaux



The Canal Saint-Martin during special swimming events, Paris, August 2023 (figure 6)

### **Drowning Prevention Strategy<sup>33</sup>, 2019, London, UK**

Relevant for: Nijmegen, Lille Ports

For bathing areas that are open all the time (all year, or 24/7 during summer), it can be difficult to organize monitoring. However, the Tidal Thames Water Safety Forum has come up with some inexpensive ways of improving surveillance of the Thames. On the one hand, surveillance cameras cover the river, sending out signals when a human body is detected in the water. Such a device could be used on the bridge over the Spiegel Waal, to ensure that no young people jump off. Even a dummy camera would already act as a deterrent. On the other hand, a partnership has been signed with the "Good Gym" running club. Runners volunteered to carry out "Mission Runs" around the Thames, during which they paid attention to activity in the water and around the quays while running. In just two months, more than 70 of such runs took place. Once again, runners, cyclists and kayakers could be asked to volunteer their services as watchmen during the summer in Nijmegen.

While these initiatives mainly focus on making water-based activities safer, we can imagine similar measures for areas with important ecological concerns such as the Kleine Nete. For example, a series of signs and maps - legible from the water - indicating the specific features of the river, and the corresponding behaviors to adopt. Signs could also take the form of a course, as in Nantes (I.1). Besides, small paper guides could be

<sup>33</sup> [Tidal Thames Water Safety Forum | Port of London Authority \(pla.co.uk\)](https://www.pla.co.uk)



distributed to users, as the **Riverside Community Water Safety Guide**<sup>34</sup> is in London. Its aim is to educate the public about the dangers of water, what to do in case of an accident, and where to find more information. Again, a similar device could spread ecological advice. They could be printed on biodegradable paper to ensure they don't become an additional source of pollution.

In addition to providing information to discourage pollution, it is possible to organize activities to reduce existing pollution.

**Green Kayak (Denmark)**<sup>35</sup>

Relevant for: Kleine Nete

Green Kayak is a NGO lending people canoes for free at certain time slots. In exchange, kayakers commit to collecting any rubbish found along their way. A reservation on time slots is mandatory, but many are offered each week.

**Canal It Up, City of Brussels**<sup>36</sup>

Relevant for: Kleine Nete

A few years ago, a similar project was supported by the City of Brussels, following one of its annual calls for climate projects. So far, the Canal It Up association owns 4 kayaks, meaning a total capacity of 8 people. To sign up, you need to fill in a contact form. The outing then lasts one hour and a half, in which 30 minutes are dedicated to preparing the kayakers, and shortly explaining the organization's values.



**A group of people in June 2024 after a cleaning session with Canal It Up (figure 15)**

<sup>34</sup> [Tidal Thames Water Safety Forum | Port of London Authority \(pla.co.uk\)](https://www.pla.co.uk)

<sup>35</sup> [Frontpage – reduce - GreenKayak](#)

<sup>36</sup> [Participe Family EN - Canal it up](#)

The impact of communication strategies should not be underestimated. We encourage pilot areas to use them, especially to target specific groups. In this case, they must be effective. A great number of posters must be put up in a variety of locations or on the most strategic one. Moreover, speakers that the target audience will listen to must be found. More generally, trying to reduce the impression of top-down communication will help, especially with young populations. As we have seen, informative signs guiding user's behavior are also welcome in the areas. In addition to these initiatives, organizational measures are recommended, such as the introduction of time slots, quotas, volunteer monitoring, or the availability of canoes to clean up the waterways.

An effective exchange and communication approach can educate people and make the port or river more transparent and connected to the population. However, a port-city or waterfront-city reconnection also has a spatial dimension and requires planning and design work.

### III - Reconnecting waterfronts to cities

In this section, we will focus on rather exemplary waterfront regeneration projects, as they all meet one or several objectives of the Agenda 2030 by AIVP<sup>37</sup>. Indeed, within these projects the work carried out on the port-city interface (obj. 08) highlights the culture and identity of the port (obj. 06), while considering the progression of climate change (obj. 01). This ensures a certain quality of life for the inhabitants of the area, and more generally of the city (obj. 09). We have identified two main themes, two priorities, in the process of reconnecting waterfronts with cities and the population. On the one hand, enhancing the attractiveness of the industrial port area, and putting in place infrastructures which invite people to have a walk, stroll or swim, will promote its social acceptance, and therefore its reconnection with the city. On the other hand, setting up cultural or sporting events and projects is a way of inviting the population to discover and familiarize themselves with these areas.

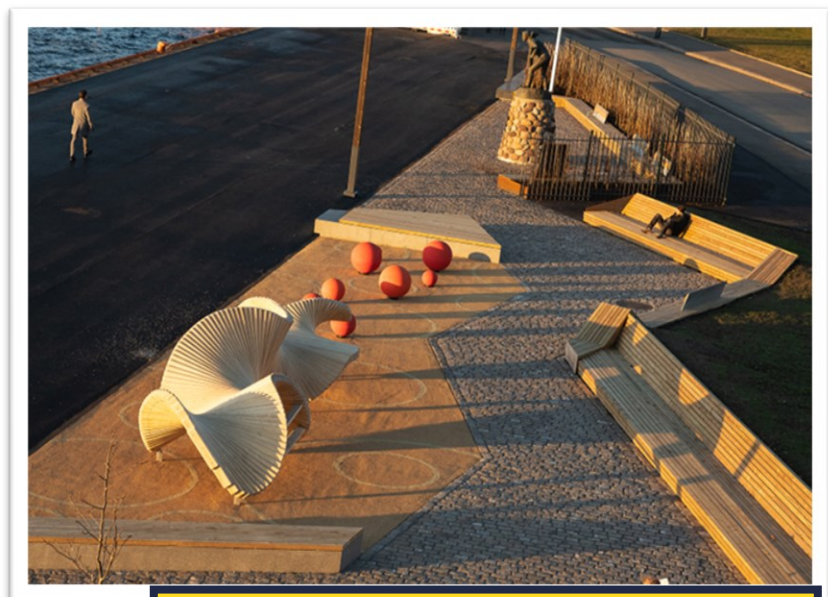
#### 6. Building an attractive and open waterfront

The development of an aesthetically pleasing walking area makes the port area attractive, open and transparent. Buffer zones are attractive transition spaces between the city and the port, which support the connection between these two zones. Bathing facilities also attract visitors, while adapting the area to climate change. These processes embody the urban and symbolic integration of the port area within the rest of the city.

#### **FjordCity project (Havenpromenade and buffer zones), Port of Oslo, Norway**

*Relevant for: Vordingborg*

The FjordCity urban renewal project in the port area of Oslo (Norway) began in the 2000s. It aims to preserve the port's heritage, whilst making its activities and facilities accessible and aesthetically pleasing to the population. In 2010, the port developed "aesthetic guidelines". They promote the highlight of the port activity's aesthetic, its recognition as something picturesque. As a result, a 9km illuminated promenade is developed in the area. A great deal of attention is paid to protecting the visual axes: viewpoint areas, vegetation, natural and aesthetic materials,



**Gasterparken, port of Oslo, providing natural shapes (figure 16)**

<sup>37</sup> [Commitment - AIVP](#)

natural shapes, pastel colors making the logistics equipment's bright colors blend into the sky, etc.

In 2019, the Rådhusbrygge 2 area wins the “Best Outdoor Urban Space” in Norway prize<sup>38</sup>.



**Rådhusbrygge 2, port of Oslo, 2019 (figure 17 / 17bis)**

Buffer zones, located at the port-city borders, are a transition opening to the port's activities and encouraging their acceptance. They can be provided with offices, small shops, cultural establishments, etc. Some buffer zones are entirely dedicated to vegetation. Bekkelagsbadet, one of the most famous ones, is located to the south of the port of Sydhavna. This is an area for relaxation and leisure, with swimming facilities, a diving board and green areas<sup>39</sup>.

Regenerating former industrial port areas is a major undertaking. But certain processes can reduce ecological and financial impact.

<sup>38</sup> [Port aesthetics matter. What can we learn from Oslo? - AIVP](#)

<sup>39</sup> [Port aesthetics matter. What can we learn from Oslo? - AIVP](#)



Views on the green spaces and bathing facilities of Bekkelagsbadet, 2019 (figure 18)

### De Ceuvel, Amsterdam, the Netherlands

Relevant for: Vordingborg

The regeneration of former industrial and port areas often involves prior soil decontamination, which is extremely costly. In Amsterdam (Netherlands), the office complex De Ceuvel is located in the Buiksloterham district, highly polluted because of a century of industrial activities. Instead of starting with a fast but costly conventional decontamination process, the owners decided to opt for a more ecological and cheaper intermediate solution. Phytoremediation plants, proven to slowly decontaminate polluted grounds, have been planted on all the necessary areas. As this is a time-consuming process, boardwalks provide a safe passage throughout the area to prevent users walking on the soiled grounds. This way, polluted soil can be used safely, while being progressively cleaned up<sup>40</sup>.

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<sup>40</sup> [Sustainability – De Ceuvel](#)



Views on one of the boardwalks in De Ceuvel. Undemeath are the phytoremediation plants. November 2020 (figure 19)

Besides, upcycling is economical, ecological, and helps give an identity to the project. In De Ceuvel, old houseboats meant to be demolished were used as co-working offices<sup>41</sup>.

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<sup>41</sup> *Ibid.*



### Example of an old houseboat upcycling: November 2020 (figure 20)

#### Ørestad neighborhood and Kastrup Søbad, Copenhagen, Denmark

Relevant for: Vordingborg Nijmegen, Lille Ports

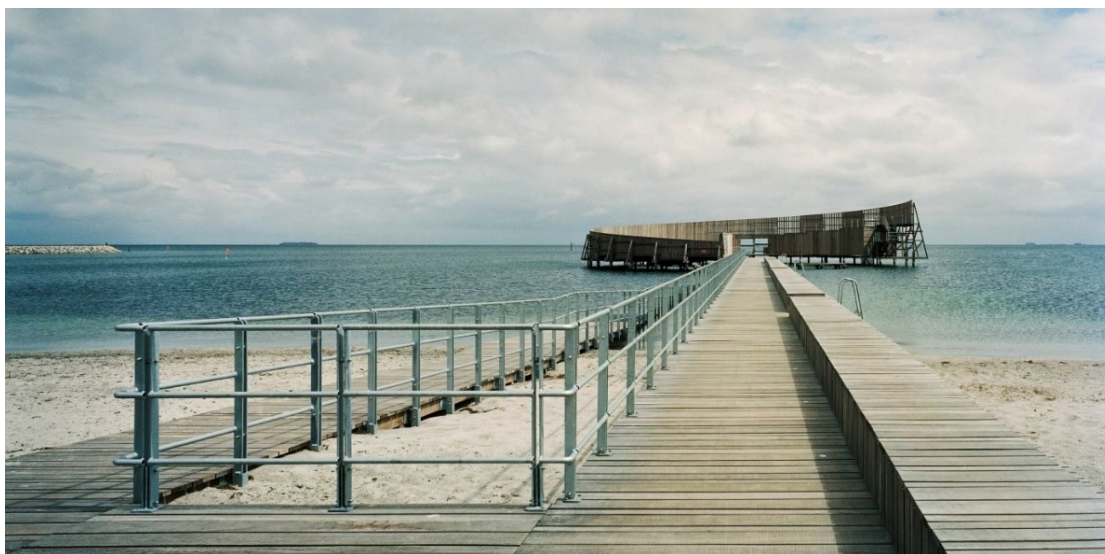
Apart from reusing former boats, it is possible to upcycle materials left over from other projects. In Copenhagen, the extension of metro line 1 to Ørestad led to a huge amount of leftover material. These materials were preserved and used in other projects. For instance, 20 terraced houses called the Upcycle Studios were built in the same district out of 904 tons of leftover concrete<sup>42</sup>. This project shows how important it is to store leftover materials. In the same neighborhood, innovative processes are used to supply the canal. The 10km-long Ørestad Canal is indeed supplied by storm water runoff. Runoff from the rooftops directly goes in the canal, and road runoff goes in a separate system. This way the canal is fed in a sustainable and clean way<sup>43</sup>.

This example is even more important given that climate change calls for the increase of water areas in cities, in order to improve the life quality of residents - especially during the summer. It can be achieved by installing facilities that encourage open-air bathing, such as the Kastrup Søbad<sup>44</sup> in Copenhagen (Denmark). Its snail shape creates privacy, allowing people to change and shower on a beach without changing rooms. In addition, there are facilities for resting in the water and for recreational activities.

<sup>42</sup> [Nrep - Upcycle Studios](#)

<sup>43</sup> [case\\_oerestad\\_artikel.pdf \(wordpress.com\)](#)

<sup>44</sup> [Kastrup Sea Bath — award-winning bath in Copenhagen | White Arkitekter](#)

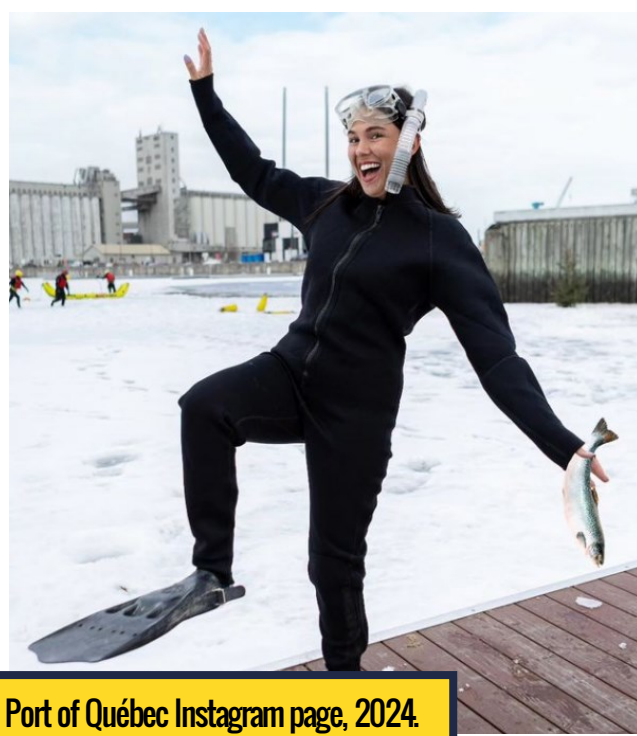


**Outside view of the Kastrup Søbad, 2020; 2015 (figure 21)**

**The Oasis, Port of Québec, Canada**

Relevant for: Vordingborg, Nijmegen, Lille Ports

Inside the Port of Quebec (Canada), the Oasis pool is not only a free-access swimming area with facilities in summer - Olympic lanes, outdoor showers, terraces, lifeguard monitoring during opening hours - but it also supports many activities in winter, such as ice fishing. Therefore, a proximity to water is possible all year<sup>45</sup>.



**Pictures published on the Oasis of the Port of Québec Instagram page, 2024. The first announces the “Opening of swimming on June 22<sup>nd</sup> at 10h30”, and the second shows the activities offered during the winter (figure 22 & 22bis)**

<sup>45</sup> [Home - L'Oasis \(portquebec.ca\)](http://Home - L'Oasis (portquebec.ca))



## **Harbourfront Shared Space Initiative & HarbourChill, Hong Kong, China**

Relevant for: Vordingborg

In places where water quality is too poor for bathing, it is still possible to enhance visitor's proximity with water, like on the Tsuen Wan Promenade, Hong Kong (China), which is part of the Harbourfront Shared Space initiative. This promenade provides fenceless access to water, as well as a 360-degree view of the sunset over the ocean, and of the East Coast Park Precinct. It is moreover an inclusive place, with comfortable facilities for families and their pets. For example, it includes play areas and a community garden - in which children can participate<sup>46</sup>.



**Tsuen Wan Promenade, Hong Kong, giving an inclusive proximity to water (figure 23)**

To make the waterfront more attractive, the municipality is also using art. The **HarbourChill** (Wan Chai Promenade), themed as "the city's backyard garden", is dedicated to it. In collaboration with the Hong-Kong Arts Centre, pop-up decorations and attractive public furniture are installed. From time to time, a theme is chosen, such as "Zoo along the waterfront", which includes animal shaped furniture<sup>47</sup>.

In short, we recommend highlighting the port's aesthetic. It's also important to make the area welcoming, with pedestrian and cycling facilities. The possibility of bathing in the area is a plus, as it adds another function to the space. Finally, preserving and enhancing the uniqueness of former industrial-port areas certainly helps to reinforce their identity. For example, in addition to avoiding standardization, special layouts to

<sup>46</sup> [Explore Hong Kong's Harbourfront Shared Spaces | Hong Kong Tourism Board \(discoverhongkong.com\)](https://discoverhongkong.com)

<sup>47</sup> [HarbourChill, Wan Chai - Harbourfront Commission \(hfc.org.hk\)](http://hfc.org.hk)

deal with soil pollution as in De Ceuvel, or the use of art like in Hong-Kong create a real activation of the public space and gives people an extra reason to go there.

## 7. « A reason to go »: capturing people's attention

Making a port or waterfront more welcoming involves planning work to reinforce its continuity with the city. But it also means the organization of events and cultural and sporting activities in the area. These can be meant to appeal locals, like the many artistic events organized on the Royal Docks (UK), or to attract people beyond the city's border, like the Machines of the Isle in Nantes (France). This approach encourages people to discover and visit these sites regularly and enhances the port's identity as well as its heritage.

### c. Invite locals to discover and embrace these newly redeveloped spaces

#### **Royal Docks, London, UK**

Relevant for: Vordingborg

Since 2018, the Royal Docks (UK) located in East London undergo a regeneration program to insure their sustainable and inclusive growth. Between 2018 and 2023, more than 270 cultural projects were carried out. The Delivery Plan 2024-2029 aims to ensure the continuity of the "sustainability & wellbeing" and "culture & community" approaches over the period. The aim is to make the Royal Docks "London's cultural engine". It is the biggest public project currently led in London. The budget is huge - an estimated 2 billion euros will be invested between 2024 and 2029 - and a team of 30 people are working on the cultural aspects and the renewal of industrial activities linked to the port. While some of the initiatives may seem financially inaccessible to the pilot areas, we have nevertheless chosen to present them because they could inspire other ideas<sup>48</sup>. We will be developing 2 major aspects of the regeneration of the Royal Docks: culture and art & heritage.

An ongoing work with 100 local cultural and community partners guarantees many arts, culture, sport, food and leisure opportunities. For example, the At-the-Docks Summer Program organized at the Royal Docks gathered 70 events, 360 activities and 30 partners in 2023. Many temporary art exhibitions, live music performances and an expanded urban swimming experience were there to entertain locals. From 2025, a new festival will take place on the Royal Docks: The Royal Docks Originals Biennial Festival. It will deliver many installations. On the one hand, a series of artwork will be produced, and exhibited around the town hall's neighborhood. On the other hand, large-scale water installation will echo to the docks' industrial past and show a commitment to sustainability. Productions by locals, young people and the area's creative community will be showcased. A world-renowned street art group will deliver installations as well. Finally, there are already several public art installations along the docks, and others are expected to be added. For instance, a partnership with The Line gave rise to the first

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<sup>48</sup> [RDDeliveryPlan.pdf \(royaldocks.london\)](#)

outdoor art gallery project in London, called “Follow the Line”. 4 public art installations are currently presented on the docks<sup>49</sup>.



**“Bird Boy (without a tail)” by Laura Ford, 2011. Currently presented on the Royal Docks in the context of the “Follow the Line” project (figure 24)**



**“Types of Happiness” by Yinka Ilorie, 2019. Currently presented on the Royal Docks in the context of the “Follow the Line” project (figure 25)**

Take part in a regional or national festival: the example of **Italian Port Days, Italy**

<sup>49</sup> Ibid.

It is possible to join forces with other regions whose characteristics are similar, or even with the State, to participate in a larger-scale event. For example, the Italian Port Days are a joint initiative of the country's various port authorities. Over a similar period, the ports host events, meetings and organize visits, under a similar slogan and logo.

Heritage is also at the heart of the of the Royal Docks' regeneration program, and is often linked to art. While companies that are still active - such as Tate & Lyle Sugars - sometimes collaborate on projects, former industrial areas are also being culturally activated.

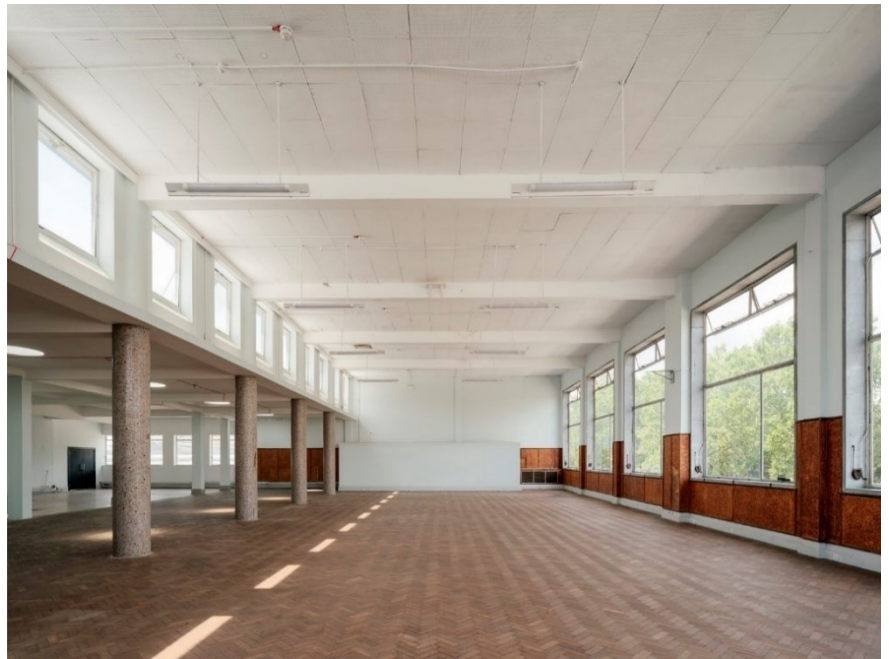
First, an alternative to bricks and concrete, made with sugarcane fibers left over after sugar production has been invented, with the support of Tate & Lyle and in partnership with the University of East London. The Sugarcrete has a 5 times smaller carbon footprint than traditional brick. It is also cheaper than concrete, and its carbon emissions are 20 times lower<sup>50</sup>.

**Sugarcrete, a brick made from the sugarcane by-product bagasse (figure 26)**



<sup>50</sup> [Grimshaw and UEL develop sugarcane-waste construction blocks \(dezeen.com\)](https://dezeen.com)

On the other hand, many old industrial buildings have been restored and redeveloped, instead of being demolished and rebuilt. For example, the Tate Institute, originally a community space for Tate factory workers and their families, became an air raid post during World War 2. Today, there is an official return to cultural and community uses<sup>51</sup>. The Compressor House, a former historic warehouse will soon reopen as Newham Sparks Digital Hub, dedicated to culture and education<sup>52</sup>. Similarly, The Factory Project is the repurposing of a former factory into a workspace and a cultural hub. These spaces are called The Factory, or The Centre for New Culture.



**The Factory, space 4 (figure 27)**

### **The Isle of Nantes, Nantes, France**

Relevant for: Vordingborg

When the former industrial area of the Isle of Nantes was repurposed, the city of Nantes (France) chose to turn it into a place for art and culture, to offer new leisure spaces to residents and breathe new life into the city. The area, once home to shipyards and numerous railways, saw its heavy industry shut down at the end of the 1980s. After 10 years of studies, the city of Nantes began its work on the Isle in 2003<sup>53</sup>. We are going to look at a few examples of the redevelopment work that has been carried out. Like those mentioned above, they could inspire other pilot areas, in particular the areas in Vordingborg (Denmark), which are seeking to regenerate an industrial waterfront.

<sup>51</sup> [The Tate Institute – Beckton and Royal Docks – Newham Council](#)

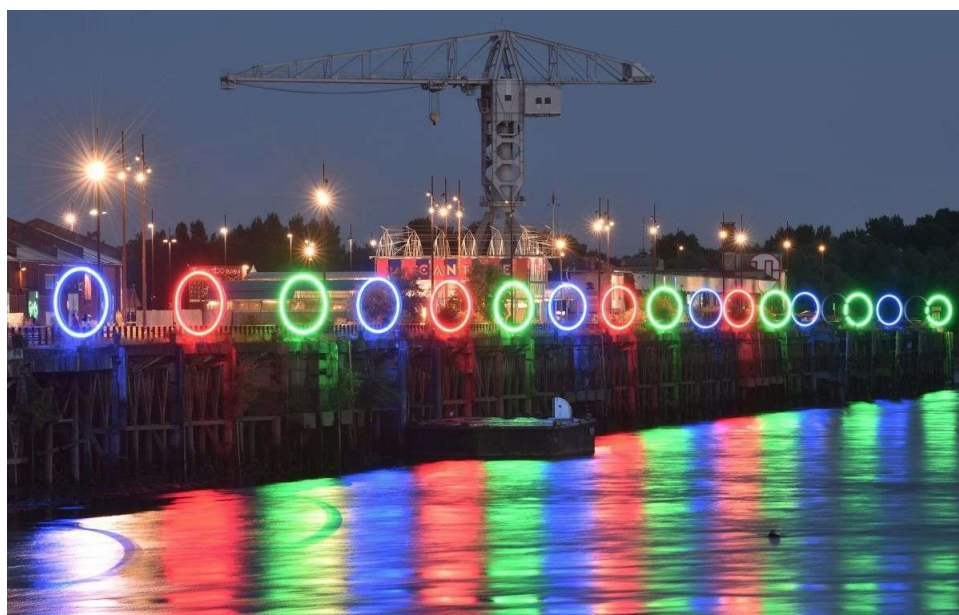
<sup>52</sup> [RDDeliveryPlan.pdf \(royaldocks.london\)](#)

<sup>53</sup> [Histoire de l'île de Nantes : d'hier à aujourd'hui - Île de Nantes – Fabriquer la ville autrement \(iledenantes.com\)](#)

A former fruit storage building known as the Hangar à Bananes - The Banana Shed - was repurposed in 2007 as an entertainment and arts center, with bars, restaurants, theatres and galleries. The original building has been preserved as much as possible to respect the industrial identity of the site.



View on « The travel canteen », a famous restaurant of The Banana Shed, Nantes, 2020 (figure 28)



The Rings, Nantes, 2007, by Daniel Buren & Patrick Bouchain (figure 29)

Today, it is one of the city's best-known neighborhoods. Even more so because of its location on the Antilles banks<sup>54</sup>. Indeed, they are illuminated by the Rings, a permanent work of art that has been on display since 2007<sup>55</sup>.

The Isle's banks were worked on between 2015 and 2018. Playgrounds, parks, skateparks and more can be found on them. The work was carried out in close consultation with the local population and cost a total of €9 million<sup>56</sup>. Besides, the naves,

<sup>54</sup> [Hangar à bananes - Île de Nantes – Fabriquer la ville autrement \(iledenantes.com\)](http://iledenantes.com)

<sup>55</sup> [Les Anneaux | Le Voyage à Nantes \(levoyageanantes.fr\)](http://levoyageanantes.fr)

<sup>56</sup> [Nantes : Quais de l'île de Nantes - BASE \(baseland.fr\)](http://baseland.fr)

former industrial warehouses used for shipbuilding, now host temporary cultural events - such as festivals - or permanent ones - like sculptures<sup>57</sup>.

In addition to these diverse facilities inviting locals to frequently visit the area, the redevelopment of the Isle of Nantes has given rise to larger-scale projects boosting the city's economy and tourism.



d. Building spaces that attract people beyond the city's borders



**The iconic elephant machine of the Isle of Nantes splashing people, while others are on board (figure 31)**

The repurposing of the Alstom Halls is one of the most symbolic projects on the Isle. These halls were once a key location for shipbuilding. Today, they are home to a creative factory, a support center for businesses of all sizes and to the Nantes School of Fine Arts. The site is now a magnet for students and businesses, attracting visitors from beyond the city's borders<sup>58</sup>. Last but not least, an original tourist attraction was built on the Isle in 2007. A multitude of machines called *Machines de l'Île* (The Machines of the Isle) representing animals have been built and exhibited in the Shipyard Parc, as a robotic zoo. The best-known machine, an elephant, even parades before the eyes of

<sup>57</sup> [nantes\\_nefs\\_2005-2007\\_alexandre-chemetoff\\_1.pdf](#)

<sup>58</sup> [dp-les-halles-nov-2017-bd.pdf \(iledenantes.com\)](#)

tourists near the naves and splashes them with water. It can accommodate several people on board. The Machines of the Isle are now a symbol of the city and attract visitors from far<sup>59</sup>.

To sum up, it is a very important first step to make former industrial waterfronts or port zones aesthetically-pleasing, accessible, and to maintain their singularity and identity. However, to maximize visitor numbers and dynamism, we recommend elaborating on this identity. In the cases we have studied, this new identity has obviously been forged around heritage, but also around art. In both cases, this approach has successfully energized the targeted spaces. But it has also contributed, or will contribute, to breathing some fresh air in the whole city, by becoming their “cultural engine”.

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<sup>59</sup> [Nantes : Quais de l'île de Nantes - BASE \(baseland.fr\)](http://baseland.fr)



## Conclusion:

The 35 cases selected will provide additional inspiration to the pilot areas. AIVP has chosen these good practices following the 10 goals of its own Agenda 2030, with a particular focus on 4 main ones, more relevant for the Connected River project:

- **Obj. 04: Renewed Governance**

Promoting city port dialogue through a renewed governance approach aimed at reconciling the quest for economic and environmental performance with the wellbeing and aspiration of the population.

- **Obj. 05: Investing in Human Capital**

Investing in human capital and developing port cities in a way that provides residents, young talents, professionals and entrepreneurs with the jobs needed for their own personal development and for the competitiveness of the port community.

- **Obj. 08: Port City interface**

Providing residents living in proximity to port activities with housing, recreational and cultural amenities in city port interface zones.

- **Obj. 09: Health and quality of life.**

Improving living conditions for residents of port cities and protecting their health.

This benchmark illustrates that the challenges faced by the pilot areas are not uncommon and have been addressed before in different contexts, often successfully. Among the solutions offered to meet the 4 objectives mentioned above, we can highlight 11 general tendencies around the world.

- Citizens' perspective is increasingly considered, while improving communication and engagement with them is a top priority. The opening of spaces providing information on the area's current activities and challenges, or on its historical past, happens more frequently. The aim of such places varies from one area to another, but some motives are common. First, these informative places can increase social acceptance regarding the whole area and its activities. Therefore, these former or current industrial port areas seem more attractive to the locals. They become a new reserve of land, useful for leisure activities, housing, etc. In some cases, these regenerations even breathe new life into the entire city. Secondly, these places inform people about activities they are usually unaware of. Their existence is a key stake in developing human capital. Besides, in areas close to water, the issue of safety is very important, and informative places can be used to underline it.
- Public participation is commonly used as well to increase proximity with the locals. It may take the form of light initiatives that activate public spaces and provide information on current activities taking place there. For instance, voting

terminals that poll the population on different planning scenarios for a specific zone.

- Some authorities choose for an ongoing dialogue, especially via social networks, apps or web pages created by port authorities. Although it has some limits, it should be noted that the digitalization of information and communication is a major tendency. The stakeholders involved in the Connected River project have understood this and follow this trend.
- Communication campaigns are a common tool to guide user's behaviors towards sustainability or increased safety. These campaigns implement certain strategies to reach their target audience. Powerful campaigns aimed at a young audience include pictures of young people's faces, a relaxed vocabulary, and are sometimes carried by spokespeople they're more likely to listen to. For example, comedians or public characters, better known by the locals, instead of a port's general manager.
- Providing clear instructions to swimmers and users of an area through signage appears to be an essential measure.
- Participatory activities are in vogue to encourage users taking ownership of an area's challenges. For example, some NGO or cities make canoes available to the public if they collect garbage in the water while using them.
- 4 processes are recurring to reconnect a waterfront or a port to its city.
  - First, bathing options are increasingly put forward given the current climatic context.
  - A continuity between a port and a city is worked on, making the enclosed area accessible by several means of transport. Some paths are also often designed to give leisure opportunities, such as promenades.
  - Port or industrial aesthetics are generally not hidden, but rather worked on and emphasized. Heritage is a key element in the building of these area's identity.
  - Highlighting heritage often goes hand in hand with artistic activities, either in public spaces or in former industrial facilities that have been repurposed to host art exhibitions and festivals. These activities energize formerly enclosed areas. Indeed, accessibility and aesthetics alone do not guarantee a strong increase of visits, regular activities also need to be offered.

However, each context is unique, and solutions must be adapted to it. Direct transposition is rarely efficient. This benchmark should therefore be seen as a source of inspiration, rather than as a handbook.

If a pilot area has questions about a study case that has been carried out by AIVP members, or by people with whom AIVP is in contact, feel free to contact us and we will do our best to put you in contact.

## List of figures

- Figure 1 / 1bis. Bruit du frigo, 2019.  
<https://bruitdufrigo.com/projets/fiche/la-pecherie/>
- Figure 2. Port de Montréal.  
[Accueil | Administration Portuaire de Montréal \(port-montreal.com\)](#)
- Figure 3. Screenshot from:  
[A l'écoute des chantiers \(arcgis.com\)](#)
- Figure 4. Sign generated from: [Create a bathing water sign \(data.gov.uk\)](#)
- Figure 5. SL / actu Paris, 2020.  
[https://actu.fr/ile-de-france/paris\\_75056/paris-plages-la-baignade-fermee-au-bassin-de-la-villette-a-cause-d-une-bacterie-dans-l-eau\\_35199693.html](https://actu.fr/ile-de-france/paris_75056/paris-plages-la-baignade-fermee-au-bassin-de-la-villette-a-cause-d-une-bacterie-dans-l-eau_35199693.html)
- Figure 6. Bruno de Hogues, 2023.  
[Paris : la baignade, grande absente de l'été au canal Saint-Martin - Le Parisien](#)
- Figure 7. Tidal Thames Water Safety Forum, 2021.  
[Tidal Thames Water Safety Forum | Port of London Authority \(pla.co.uk\)](#)
- Figure 8. SEMIP/ SPL Ensemble, 2023.  
<http://www.semip.net/participation-zacduport/>
- Figure 9. SEMIP/ SPL Ensemble (Linkedin), 2023.  
<https://fr.linkedin.com/pulse/zac-du-port-pantin-ouverture-vote-sur-les-amenagements>
- Figure 10. Dublin Port Company, 2022.  
<https://www.dublinport.ie/water-safety/>
- Figure 11. Cruise Bordeaux / Faisons Escale Ensemble, 2022.  
<https://www.cruise-bordeaux.com/fr/nouvelles/>
- Figure 12. Port Brussels, 2023.  
<https://www.port.brussels/fr/actualites/le-canal-je-le-kiffe-clean>
- Figure 12bis. Port Brussels, 2023.  
<https://www.port.brussels/nl/nieuws/afval-mijn-kanaal-doe-efte-normaal>
- Figure 13. Port of London authority.  
<https://server2.pla.co.uk/Summer-safety-reminder>
- Figure 14. Active 360 Paddleboarding UK.  
<https://active360.co.uk/product/nrs-quick-release-leash/>
- Figure 15. Canal It Up Brussels (Erik, Abdelaziz, Unite Saintpaul, Euroclear, et Intys Partners).  
<https://www.canalitup.org/fr/erik-abdelaziz-unite-saintpaul-euroclear-et-intys-partners/>
- Figure 16. Hans Kristian Riise.  
[1032fc\\_6a3026a7b0164d949450f4296066e5d4.pdf \(filesusr.com\)](1032fc_6a3026a7b0164d949450f4296066e5d4.pdf)

- Figure 17. Tove Lauluten.  
[1032fc\\_6a3026a7b0164d949450f4296066e5d4.pdf \(filesusr.com\)](#)
- Figure 17bis. Hans Kristian Riise. [1032fc\\_6a3026a7b0164d949450f4296066e5d4.pdf \(filesusr.com\)](#)
- Figure 18. Tove Lauluten.  
[Bekkelagsbadet — bar bakke landskapsarkitekter](#)
- Figure 19 / 20. Delva Landscape Architecture Urbanism.  
[De Ceuvel - DELVA Landscape Architecture & Urbanism](#)
- Figure 21. White Arkitekter.  
[Kastrup Sea Bath — award-winning bath in Copenhagen | White Arkitekter](#)
- Figure 22 / 22bis, Instagram Page of the Port of Québec Oasis, 2024.  
[L'Oasis du Port de Québec \(@loasisduportdequebec\) • Photos et vidéos Instagram](#)
- Figure 23, Mike Pickles. Hong Kong Tourism Board.  
<https://www.discoverhongkong.com/uk/explore/attractions/explore-hong-kong-refreshed-harbourfront-spaces.html>
- Figure 24. Dezeen, 2023.  
<https://www.dezeen.com/2023/05/04/sugarcrete-slab-university-of-east-london-grimshaw-sugarcane-biowaste/>
- Figure 25 / 26. Royal Docks, 2023.  
[Follow The Line | Royal Docks](#)
- Figure 27. The Factory.  
[The Factory \(thefactoryproject.co.uk\)](#)
- Figure 28. Philippe Piron, 2020.  
<https://france3-regions.francetvinfo.fr/pays-de-la-loire/loire-atlantique/nantes/le-voyage-a-nantes-la-cantine-du-voyage-rouvre-ses-portes-au-hangar-a-bananes-vendredi-3-juin-2554040.html>
- Figure 29. Daniel Buren / ADAGP, 2007.  
<https://www.danielburen.com/images/artwork/2407>
- Figure 30. Les Machines de l'Île, Nantes.  
<https://www.lesmachines-nantes.fr/ete-indien/>
- Figure 31. Creative Commons – Flickr – Guilhem Vellut.  
<https://www.mediacites.fr/enquete/nantes/2018/03/15/derriere-le-succes-artistique-la-lourde-facture-des-machines-de-lile/>