

OCTOBER 2020

THEMATIC DOSSIER

HEALTH AND LIFE QUALITY



aivp
AGENDA
2030



aivp
The worldwide network
of port cities

For 30 years, AIVP has been accompanying port cities to guide them towards a more resilient, more concerted and more sustainable future.

In 2018, AIVP launched the AIVP 2030 Agenda, the 1st global initiative that adapts the 17 UN Sustainable Development Goals (SDGs) to the specific context of City-Port relations. This document, drawn up jointly with AIVP members at the Quebec Conference, sets 10 objectives for 2030.

In February 2020, AIVP signed an MoU with UN-Habitat to disseminate good practices related to this agenda.

From September 2020, responding to the interests of our members, we will focus in depth with one Agenda goal per month.

In this first dossier we focus on “health and quality of life”. We wish you a fruitful reading!

INDEX

What is the AIVP 2030 Agenda?	04
What is the “Health and Life Quality” goal in the AIVP 2030 Agenda?	05
Port Citizens deserve good health and good living conditions!	06
Reduce environmental impacts while optimize port operation: Get to know the Pixel project, a new AIVP Partner!	12
SUEZ, environmental integration solutions for the City Port territory	16
Haropa - Port of Rouen, preserving the life quality of the communities along the Seine	22
Will cruises restart like before? 3 perspectives from AIVP’s network	28
Cruises and port cities: How to draw the future after the Covid-19 break?	49
Cruises and port cities, ready to return?	50
In the wake of the tragedy in Beirut, can we expect to see more public calls for improved industrial safety in port cities?	51
Port cities: anticipating the risks?	54

WHAT IS THE AIVP 2030 AGENDA?

The Agenda is designed to guide the actions and projects of port city stakeholders to ensure sustainable relations between the city and port. Port cities frequently find themselves in the front line when it comes to the most serious consequences of climate change (submersion, flooding, hurricanes, etc.), but they are also best placed to test innovative solutions in the following ten areas:

- 1. ADAPTING TO CLIMATE CHANGE**
- 2. ENERGY TRANSITION AND CIRCULAR ECONOMY**
- 3. SUSTAINABLE MOBILITY**
- 4. RENEWED GOVERNANCE**
- 5. INVESTING IN THE HUMAN CAPITAL OF PORT CITIES**
- 6. PORT CULTURE AND IDENTITY**
- 7. QUALITY FOOD FOR ALL**
- 8. CITY PORT INTERFACE**
- 9. HEALTH AND QUALITY OF LIFE**
- 10. PROTECTING BIODIVERSITY**

DISCOVER THE **AIVP AGENDA 2030**

WHAT IS THE “HEALTH AND LIFE QUALITY” GOAL IN THE AIVP 2030 AGENDA?

IMPROVING LIVING CONDITIONS FOR RESIDENTS OF PORT CITIES AND PROTECTING THEIR HEALTH

1. Allowing independent, transparent measurement of air quality, water quality, sound levels, and light pollution in the City Port territory.
2. Optimising the use and management of fresh and sea water in ports.
3. Promoting and supporting the development of greener port facilities.
4. Introducing a commercial policy to reward the greenest ships and enforce slow steaming at the approach to port cities.
5. Regulating cruise ship stopovers based on the port city's capacity, without compromising the equilibrium and appeal of the local area.

[MORE DETAILS ON THIS GOAL](#)

PORT CITIZENS DESERVE GOOD HEALTH AND GOOD LIVING CONDITIONS!

AIVP TEAM



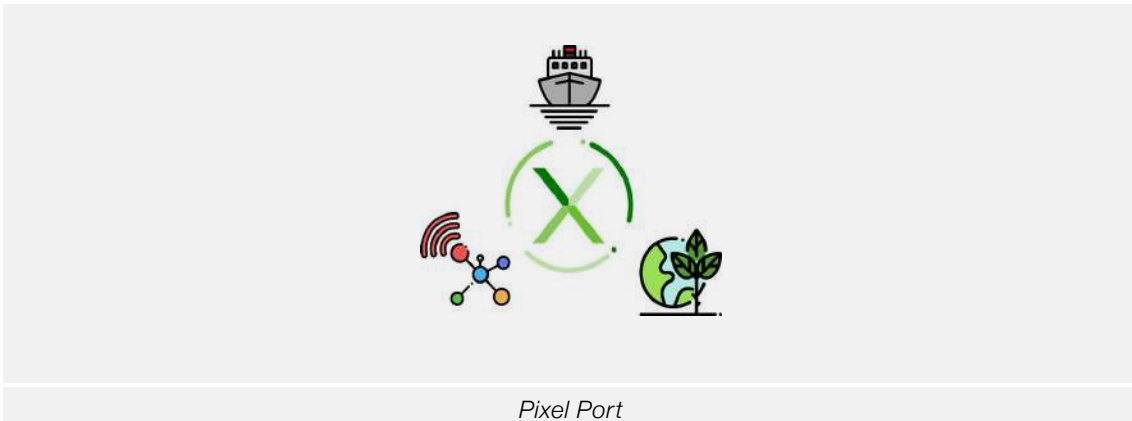
Marseilles, Water management – ©Suez

During the past 30 years, AIVP has assisted port cities in finding their path to a more resilient, concerted and sustainable future. When we launched the AIVP Agenda 2030 in 2018, we gathered massive support from our members in the following months showing it was the right path. Starting in 2020, answering to our members' interests, we will organize our content following the goals of the Agenda, sharing more resources and knowledge: one goal of the Agenda, each month. Our first series since the 15th of September has been about "Health and Life Quality". It makes no doubt that health is currently the top-priority for most citizens around the world, as the atrocious death toll of the pandemic is still increasing.

Port cities can help to fight this tremendous crisis, which also affects the living conditions of the citizens on the economic and social dimensions. During the past month, AIVP has shared good practices and ideas to improve the life quality of port citizens, reaching from improving water quality to reducing carbon emissions. Discussing health implies talking about security, and the awful disaster that happened in Beirut. AIVP started a reflection on the reconstruction of this lively middle-east port city and will engage more directly in the debate about industrial risks. Linked to this debate, we also were concerned for Mauritius, as an oil spill has threatened the coasts of this Indian Ocean island.

To sum it up, in a year without physical conferences, AIVP has decided to tackle sensitive issues with more work and more value-added than ever. Our association want to be at the front-line of the new world, and we are amazed by the significant innovation efforts of our port cities. We hope you find this knowledge useful for your port-city relationship.

MEASURING AND MONITORING POLLUTIONS: HOW TECHNOLOGY CAN PRESERVE OUR HEALTH?



Environmental issues have been one of the top concerns for port cities. Before implementing technical measures to reduce the negative impact of port activities, it is crucial to make detailed assessments to understand their impact and the best possible solution. Measuring this impact is also a key aspect for better port city governance and to increase the transparency of port functioning. This will also strengthen the trust of the citizens in their port and the authorities running it. As our new partner Pixel Port shows, today's technology facilitates the correct measurement of environmental impact and sharing this data with other urban institutions for combined solutions. The Internet of Things, a concept often seen in the media, can provide innovative paths, relying on data generated by sensors deployed in the port territory and machinery. One of the key tools developed by Pixel Port is the Port Environmental Index, a single indicator merging data from different sources, that can ease the exchange of information. The tool is currently under development and you can help to improve it by answering to their survey. Learn more about Pixel Port and monitoring strategies in the article.

WATER IS LIFE! AND PORTS CAN PRESERVE IT.

For the Suez Group, effective water management in port territories means a smart approach that involves not just monitoring and managing water quality in real time, but also anticipating the potential impact of weather conditions or emergency or crisis situations in order to respond more quickly. It also means engaging in dialogue and developing innovative solutions with the whole range of stakeholders that make up the City Port ecosystem. It is this very “co-construction” approach that Suez has deployed in Dunkirk (France) to make the area a “territory of innovation”, especially when it comes to air quality. This commitment to providing a high quality living environment is also reflected in the solutions proposed by Suez to enable port cities and their residents to rediscover their rivers. AIVP was fortunate enough to be able to interview Suez about the delicate issue of water management.

GREENER FACILITIES FOR BETTER AIR AND WATER QUALITY!

Major seaports also have responsibility in the area of water management. In an interview with Xavier Lemoine, Director of Environment and Development at Haropa – Port de Rouen, we also discussed this issue.

However, in that interview we focused on the energy transition at the port of Rouen, whose carbon policy was put in the spotlight when the EU agreed to provide funding for electricity terminals by the Seine. The power source will enable docked vessels to shut down their engines. The “green port” policy adopted by the port of Rouen extends to various areas, including bonuses on fees payable based on the Environmental Ship Index, development of solar roof panels, and studies on the use of low-carbon fuels such as LNG or hydrogen. Above all, though, taking early action is the key, and that is why Haropa – Port de Rouen has rolled out an alert system to flag up the impacts of port activity, using sensors with multiple parameters. The externalities of dredging or chemical emissions are identified quickly and can then be dealt with.



© HAROPA – Port of Rouen

All of these “green port” policies are consistent with the best practices promoted by AIVP, and we are delighted to talk to our members about ways of making their port cities greener.

HOW TO DECREASE THE NEGATIVE EXTERNALITIES OF THE CRUISE SECTOR?

Cruises is one of the most discussed port sectors in port cities. While for some is a base for positive port—city links and economic benefit, being often described as an “urban friendly” activity, for others is a source of problems, from environmental impact, to traffic or over-tourism. The unusual summer period experienced in the northern hemisphere this year gave an opportunity to reflect on the impact of cruises in port cities and discuss possible futures. In a detailed article coordinated by Francesca Morucci and José Sánchez we learn about the situation in three port cities, Tangier, Bordeaux and Livorno, where cruises stopped in 2020. These port cities have developed specific plans and actions to reactivate the sector and propose a more sustainable future, balancing the interests of the hosting city with those of the cruise industry, taking into consideration environmental concerns and improving the communication and coordination between actors and citizens.



Cruises in Tangier, Morocco.

The discussion about cruises continued in the webinar moderated by Prof. Beatriz Tovar de la Fe, with the ports of Venice and Buenos Aires, and the city of Málaga. In the debate we could see that the scale of the ships presents today one of the main challenges for port cities like Venice who are pressuring to change the tendency to ever-larger cruise vessels. “Finding an equilibrium”: all the speakers agreed on this key-idea. They highlighted the need to define a balance between the life quality, economic development and environmental externalities. Should port cities resort to strong measures such as stopovers limitations? That is what Pino Mussolino, from Venice, has advocated. However, softer solutions such as stakeholder’s cooperation can also work, as has explained Marcelo Peyregne, from Buenos Aires. Diversifying local econo-

mies also constitutes an essential goal, as Pedro Marín Cots, from Málaga, wanted to underline it. He described how Málaga, which is dependent on tourism, has suffered from the stop of the cruises. On the bright side, new energy solutions are increasingly available in port cities, even though it remains unclear which one is the best one. While some support LNG, many others are investing in cold ironing to provide docked ships with green electricity, reducing their impact. New investment plans could accelerate this transition and reduce the environmental impact of these giants of the seas in port cities.

ANTICIPATING THE RISKS IN OUR PORT CITIES. KEYWORDS FOR A 21ST CENTURY RISK MANAGEMENT

From last year's fire in Rouen to the events in Beirut and Mauritius, the terrible accidents that have occurred recently have re-awakened public opposition to ports and the industries on which they depend. The four speakers at our webinar highlighted the weaknesses in the way we manage risk. It is vital that we review these and ask the right questions. This means a new approach, which our speakers outlined using some important keywords: communication, transparency, governance, and cooperation. Communication and an on-going process of building a risk culture is essential for ensuring that the public also take on board this risk. That requires total transparency between the various stakeholders concerned, but also with the public, who will otherwise remain increasingly sceptical. This includes transparency about the risks that exist, but also the solutions that exist. A new type of governance is also needed: a collective governance that brings together all of the parties concerned, but which relies on an independent body to assess and control risks. Finally, this new approach to risk will have shown that international cooperation and pooling of resources are more vital than ever.



You may have noticed that something essential is missing in this post-crisis reflection. Culture has often been left behind in the past months, due to the crisis. AIVP believes culture and identity are a key-asset to strengthen social cohesion in port cities. A common cultural identity recalls everyone what they share in common, and incentivize citizens to work together to overcome the crisis. Port cities have a specific identity, and their citizens often share a rich maritime history, with a unique architecture.

This is why AIVP will dedicated the next dossier to Port City Culutre, including a full series of publications.

REDUCE ENVIRONMENTAL IMPACTS WHILE OPTIMIZE PORT OPERATION: GET TO KNOW THE PIXEL PROJECT, A NEW AIVP PARTNER!

IGNACIO LACALLE



Ignacio Lacalle, Pixel Port

Reducing the environmental impact of port operations and increasing their transparency are two key elements for sustainable port-city relationships (goal 9.1 of the AIVP Agenda 2030). Internet of Things (IoT), based on data generated by devices deployed in (smart) ports and cities can play a crucial role in both. Research projects like Pixel Port are working to develop new tools for efficient and transparent monitoring of environmental impact of ports. Their single impact metric can facilitate better joint governance and contribute to a healthier port-city relationship. Ignacio Lacalle,

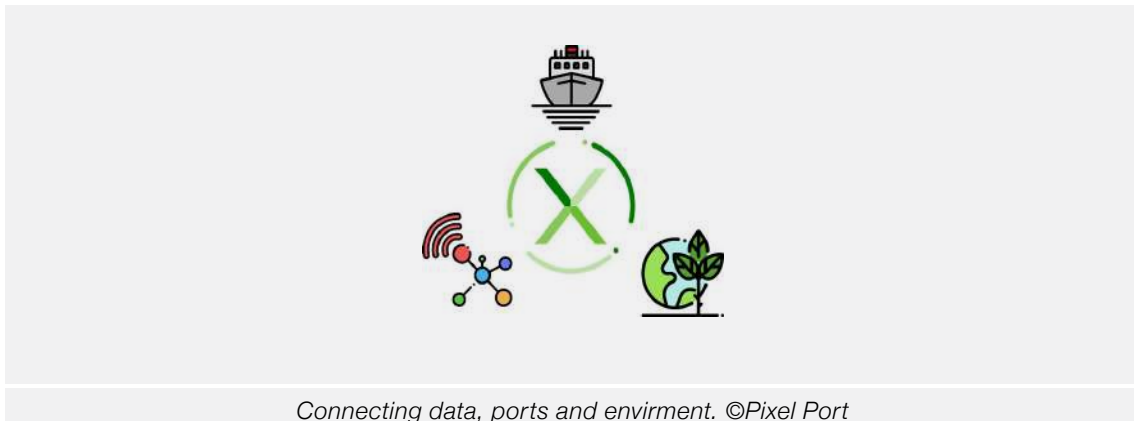
researcher from UPV, explains in this article the key aspects of the project and how AIVP and Pixel are starting a new collaboration based on the AIVP Agenda 2030.

While there is a clear mutual benefit for both ports and cities in the symbiosis established between them, there also exist some pitfalls. In a constantly growing urban population scenario, **establishing transparent lines for the interaction between the port and the city** about the urban development is becoming crucial. Additionally, the existence of the port conveys certain logistic and collateral effects to the city that, if tackled together with the municipality, can be more aligned towards the citizens' benefit.

As it is being promoted by AIVP and other entities, the answer must rely on fostering that interaction, based on a continuous improvement and innovation on both sides of the equation. In a world where the number of “connected devices” increases by 11% per year over the current 7.6 billion [1] and sensors technology and computing capacity are widely available, the **Internet of Things** may be the root of that answer. Applying validated techniques and investing resources on this strategy might lead the pathway to the modern port of the future.

Nowadays, there has been observed a trend from ports to adopt these technologies into their procedures. However, the sector is still way far from optimal, sometimes due to the reluctancy from some actors to change their data exploitation paradigm, other times due to regulations and, in most occasions, due to interoperability siloes and lack of resources specifically devoted to seriously invest in such endeavours.

Analysing all the above, it has been realised that a valid approach for ports, municipalities and other related stakeholders would be **to rely on public-funded research projects**. Such activities are less constrained by business sustainability and have enough latitude to apply time and resources via skilled staff into useful research to be later translated to real maritime port scenarios.

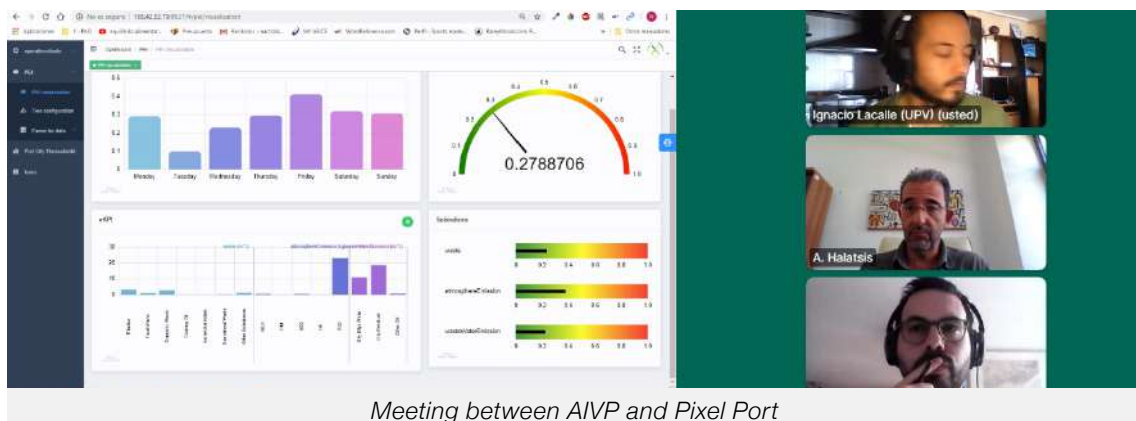


PIXEL is an example of those initiatives that could be soon projected worldwide to help tackle port-city issues introduced before. PIXEL is an **H2020-funded research project** aiming at creating the first smart, flexible and scalable solution for reducing environmental impacts while enabling the optimization of operations in port ecosystems through IoT.

One of the key points of PIXEL is the work on sensors installation and integration for monitoring various aspects of the port operations and their impacts in real time. Another characteristic of PIXEL, being a public-funded research, is its will for making developments available to the whole port and scientific community.

However, the most relevant trait of PIXEL may be its potential as a **port-city interface enabler**. The project has envisaged an advanced tool that gathers data, processes information, and converts complex processes taking place in a port into a single metric. The tool is being instantiated in some ports participating in the project to represent their environmental impact (Grand Port Maritime du Bordeaux, Port of Thessaloniki, Port of Piraeus and Port of Monfalcone) and the induced traffic congestion (Port of Thessaloniki). The most important feature of this tool is its capacity to merge several data sources and finally aggregate them into one impact metric. The strategy behind this solution relies on individual indicators of port (or external) processes impact that can be selected considering their significance, measurability, and representativeness.

AIVP had the opportunity to get to know this tool via a teleconference with PIXEL representatives. It is also worth noting the methodology behind that tool: it has been decided to be transparent, allowing the different involved stakeholders to agree upon indicators and thresholds and making all results available to other entities or the citizens.



Meeting between AIVP and Pixel Port

During its creation and in the beginning of its deployment, PIXEL team and AIVP agreed that this tool fits some challenging purposes of the AIVP Agenda 2030, First, it can be used to agree upon urban-development metrics in benefit for both citizens and ports – e.g. traffic congestion [2] -, which can contribute greatly to goal 3 (sustainable mobility) . It can help increase the visibility of port-municipality interaction, opening the door to public contribution thus democratising key procedures and boosting port appreciation, as it is targeted in the goal 8 (port-city interface). Environmental impact monitoring is already being tackled (with promising results [3]) in some ports, so it could foster targeting goal 1 as well (climate change adaption).

Both PIXEL and AIVP consider that those challenges must be tackled as soon and as thoroughly as possible. To properly face them, it is deemed necessary to cater the sector with a strong continuous dialogue between port authorities, port agents, sector clusters, municipalities – and other governments – and technology creators.

In that sense, PIXEL and AIVP have decided to collaborate more closely in the future via the incorporation of a representative of AIVP staff as a new PIXEL Advisory Board member. It is believed that this juncture will mean a significant step forward for the knowledge sharing capacity. Hopefully, this advance related with real port-city problems will help AIVP port members in the near future.

Finally, hereby AIVP invites all fit members to go through a questionnaire that the project PIXEL has published recently: <https://www.surveymonkey.com/r/YQSJ32N> . The objective is to analyse the current stand of Core and Comprehensive TEN-T ports on environmental impact metrics and their experience of implementing such metrics.

References:

- [1] [https://www.iot-now.com/2020/05/20/102937-global-iot-market-to-grow-to-1-5trn-annual-revenue-by-2030/#:~:text=At%20the%20end%20of%202019,\(CAGR\)%20of%2011%25.](https://www.iot-now.com/2020/05/20/102937-global-iot-market-to-grow-to-1-5trn-annual-revenue-by-2030/#:~:text=At%20the%20end%20of%202019,(CAGR)%20of%2011%25.)
- [2] <https://www.mdpi.com/1424-8220/20/15/4131>
- [3] https://link.springer.com/chapter/10.1007/978-3-030-34914-1_4

SUEZ, ENVIRONMENTAL INTEGRATION SOLUTIONS FOR THE CITY PORT TERRITORY

INTERVIEW BY DENIS DAVOULT

From air quality and water management to mitigating the environmental impacts of port activity, and more, there are a host of challenges when it comes to guaranteeing the residents of our port cities a high quality, healthy living environment, as recommended in Goal 9 of the AIVP 2030 Agenda.

The Suez Group is a signatory to the AIVP Agenda. Several of our Goals overlap with Suez's area of action. In particular, Suez has developed a range of projects and played an active role in some very relevant initiatives aimed at making Goal 9 a reality. So we decided to talk to them, to get SUEZ's views and learn about their innovative solutions for tackling the challenges posed by Goal 9.

SUEZ has been a member of AIVP since 2013

AIVP | *Marina developments are often included as part of waterfront regeneration projects. Your subsidiary, Marinov, develops solutions to protect the environment in marinas. Can you tell us more about them? And can they be replicated in commercial inland or seaports?*



Gerald de Maleville, Development Director, Public-Private Contracts, SUEZ

GERALD DE MALEVILLE, DEVELOPMENT DIRECTOR, PUBLIC-PRIVATE CONTRACTS, SUEZ | SUEZ and its subsidiary Marinov are particularly committed to protecting the port environment and developing relations between the port and city. To that end, SUEZ offers practical solutions to the sustainable development challenges faced by local communities and the changing expectations of port users (local residents, businesses, tourists). We also aim to integrate these solutions and developments, to make them true “living spaces”. The “Presqu’île en

Seine” project, which includes three marinas downriver from Paris, is a good illustration of this new approach to developing infrastructures and services for all (users and the general public).

SUEZ and Marinov help local authorities and public-sector organisations to manage and protect the environment, using effective, dedicated solutions. That may involve carrying out environmental diagnostic assessments of ports and coastal areas, or monitoring the quality of aquatic environments (GenSpot, rainwater impact, models, real-time monitoring, etc.). We also carry out pollution clearance and cleaning of water courses, including in emergency or crisis situations. Restoring biodiversity is actually one of the services we provide. It includes installing artificial habitats on maritime infrastructures to provide breeding grounds for fish (with our solutions ReFISH® or CYSTORE™).



Breeding grounds for fish, ©Suez



Marina, ©Suez

These solutions apply to the port bay in general, not just marinas.

AIVP | *Your water quality and environmental protection projects, such as those you have carried out Bordeaux or Marseilles (France), are often complicated by their scale and the resulting territorial implications. They involve a wide range of stakeholders, as is generally the case in port cities. Given that, how can port cities anticipate the risk and optimise their environmental protection measures at an early stage?*

GERALD DE MALEVILLE, SUEZ | I believe a “smart” approach, that relies heavily on information technologies, can provide useful solutions. In Marseilles, through SERAMM (the Sanitation Service for the Marseilles Metropolitan Area), SUEZ collects and treats some 150 million cubic metres of wastewater and rainwater every year. Protecting the coastline and the environment is central to the job of wastewater treatment. In this port city, SERAMM is doing this by actively helping to build a leading coastal smart city. SERAMM is set to develop the first water treatment service in France that will simultaneously – and in real-time – manage both onshore sanitation infrastructures and the impact on the environment in general and the marine environment into which water is released. These systems includes predictive models that simulate water drainage and discharge using meteorological data, and can even forecast bathing water quality.



Marseilles, Water management, ©Suez



View of Málaga, ©Suez

With 50 km of coastline, Marseilles has the biggest urban seaside park in Europe. Some innovative practices have been adopted to monitor bathing water quality and provide information for users. If there meteorological data shows there is a risk that safe levels could be exceeded, the tools in place detect this as quickly as possible. In addition to these real-time forecasts, sea water samples are analysed with the GEN SPOT® method to obtain bacteriological results in under three hours. That rapid turnaround can sometimes avoid the authorities having to close beaches unnecessarily, or where beaches have been closed, allow them to be re-opened quickly. The “Marseille Infos Plages” app provides smartphone users with real-time updates on bathing conditions at the city’s 21 beaches.

AIVP | *You are one of the partners of the “Dunkirk, Creative Energy” project, which was created by the Dunkirk Urban Community (also a member of AIVP) and adopted by the French State in 2019 following a tender process dubbed “Land of Innovation”. Specifically, you are involved with the air quality aspect. More generally, and not just in Dunkirk, are there any special features of city ports when it comes to the air quality issue? And what are the solutions that could be used to address them?*



Nicolas Prego, Technical & Marketing Director, Smart & Sustainable Cities, SUEZ Director of the “Dunkirk, Creative Energy” project”

NICOLAS PREGO, TECHNICAL & MARKETING DIRECTOR, SMART & SUSTAINABLE CITIES, SUEZ DIRECTOR OF THE “DUNKIRK, CREATIVE ENERGY” PROJECT | *It’s true, the Dunkirk Urban Community, led by its President, Patrice Vergriete, and the Hauts de Flandre Association of Municipalities, obtained State backing following the “Land of Innovation” tender, for a highly ambitious project to redevelop the area extensively by 2030. The main idea behind the project is to create a sort of territorial*

“symbiosis” embodying the industry, port and city of the future, with four strategic priorities: air quality, industrial and territorial ecology, the energy transition, and territorial intelligence.

I must stress that this project would not have been possible without the considerable co-construction efforts undertaken with all of the partners in the Dunkirk area: local authorities and public sector partners (including Grand Port Maritime de Dunkerque), economic and industrial partners including SUEZ, universities and research laboratories (Université du Littoral-Côte d’Opale, CEA, etc.) and non-profit organisations, federations and other bodies (Local Planning Agency, “ATMO Hauts-De-France” air quality monitoring institute).



Dunkirk, Author: Patrice Vergriete, ©Suez

SUEZ, with its long background of working in the Dunkirk area, supported the candidacy from the outset. The Suez Group played a major role in structuring the overall project and coordinating the ecosystem, and focused particularly on the issue of air quality. Two specific actions were identified, one concerning digital decision-making tools, the other dealing with the deployment of operational solutions for processing and recycling polluting emissions. These will be completed by the deployment of a local health monitoring institute.

AIVP | *Of the innovative solutions that you are developing, others could no doubt be applied to some of the sub-goals of AIVP Agenda Goal 9. One example that comes to mind is your efforts to promote the rediscovery of rivers. To conclude, could you give us some concrete examples that specifically apply to port cities?*

GERALD DE MALEVILLE, SUEZ | It's true that many port cities are positioned on rivers or at river mouths which form an integral part of port ecosystems. Rediscovering rivers is now a major urban development issue.



Another example in Lyon : River'tri, waterborne selective waste depot, Suez

SUEZ intervenes in several ways. One is transporting waste by river. A river convoy of 4,000 tonnes can avoid the use of 200 twenty-tonne trucks, with a significant impact in terms of air quality, noise pollution and traffic congestion. These are particularly important developments in the case of the Grand Paris Express project, for which we deployed logistics at several construction sites.

The development of river banks is another example. As part of the major urban project for the Ile de Nantes, we are helping to create a green landscape to enable users to get closer to the river banks. Another example, this time in the French town of Pauillac, is the redevelopment of the town centre quays, which allowed the creation of a pedestrian and cycle path along the river banks, and the development and improvement of the marina. Finally, improving relations between the city and river also means protecting against flooding to ensure the safety of local residents. SUEZ is heavily involved in this process, from hydraulic studies of the basin to the operational deployment of work to improve soil permeability with solutions such as “Smart Pluvial” used in Douai.



Ile de Nantes, Suez

While SUEZ does not have a major presence in port-related professions, our expertise on environmental issues and knowledge of territories puts us at the heart of the challenges in building tomorrow's ports. The operation of major commercial ports is inextricably tied with that of the local areas and regions in which they are located, and it is vital to take account of the environmental aspects. SUEZ's solutions, based on environmental performance and the circular economy, are available to the port ecosystems that we deal with based on the different scales of the port, the port city, and the river. Schematically, we identify three main categories of actions: making ports more attractive, improving quality of life in port cities, and regenerating rivers.

HAROPA – PORT OF ROUEN, PRESERVING THE LIFE QUALITY OF THE COMMUNITIES ALONG THE SEINE

INTERVIEW BY THÉO FORTIN



Mr Xavier Lemoine, Director of Territorial Development and Environment at HAROPA – Port de Rouen

HAROPA – Port de Rouen occupies a site along the Seine, from the river mouth on the English Channel to the city of Rouen, 80 kilometres inland. Maritime and river traffic is crucial for Rouen, and accounts for the wide diversity of activities present in the city, from cruises to cereal export. One of the biggest challenges is preserving quality of life for the hundreds of thousands of people in the vicinity of the port installations.

Incidentally, “Quality of life” and “Health” together form Goal no. 9 of AIVP’s 2030 Agenda. Keen to highlight best practices in this area, we spoke to **Mr Xavier Lemoine**, Director of Territorial Development and Environment at HAROPA – Port de Rouen.

HAROPA – Port de Rouen has been an active member of AIVP since 1989.

AIVP | *You recently announced that the EU Commission is set to co-fund your plan to install quayside cold ironing terminals at your facilities along the Seine. Another project to create an electric-powered river shuttle between the two banks of the Seine has been tested in Rouen since 2019, and represents another best practice for cutting CO² emissions.*

What are you expecting from these two initiatives? And more generally, what is your strategy for continuing to reduce air pollution?



© HAROPA – Port of Rouen

MR XAVIER LEMOINE, HAROPA – PORT DE ROUEN | Reducing not just air pollution, but also greenhouse gas emissions, is an important goal in the fight against climate change. One of the key planks of HAROPA – Port de Rouen’s environmental policy is devoted to the energy transition. The Port of Rouen plays a crucial role in promoting sustainable mobility and modes of transport, and is behind a number of initiatives aimed at meeting that objective.

To that end, we work to promote:

- Clean modes of transport. Firstly by introducing a bonus arrangement for fees as part of the ESI (Environmental Ship Index), which measures the environmental performance of seagoing vessels (CO₂, SO_x and NO_x emissions) according to IMO rules. In 2013, HAROPA – Port de Rouen decided to reward shipping lines which operate the most environmentally-friendly vessels in Rouen. Secondly, by carrying out studies and discussions with the stakeholders concerned about providing low-carbon and carbon-free energy sources such as LNG, hydrogen, etc. at the port, to refuel ships or other means of transport.
- Modal shift by introducing targeted financial incentives
- Massification of the flow of goods
- Services for docked ships, such as cold ironing for river goods convoys, which can replace on-board generators. In 2018, the Port of Rouen installed two terminals for freight shipping at the city quays, and is planning to gradually roll out a total of 17 terminals on the quays and at terminal buildings which house major river services.

Other initiatives undertaken include:

- Developing renewable energies on port land and buildings, especially solar power (solar farms, roof panels, etc.).
- For the Port of Rouen’s own resources, renovating port buildings and hangars to make them more energy efficient, introducing the Business Travel Plan and in particular managing the fleet of vehicles, with the purchase of a number of electric vehicles.

AIVP | *There have been a number of industrial accidents in European port cities in recent years. One of the biggest challenges for the authorities is to gauge pollution levels and tackle their potential impact on human health.*

What can a port like HAROPA – Port de Rouen do to help improve safety standards and ways of cutting pollution?

MR XAVIER LEMOINE, HAROPA - PORT DE ROUEN | In terms of regulations, the port authority is not moving to set standards or processes. Government departments, and in particular the DREAL (Regional Directorate for Environment, Development and Housing) and DDTM (Local Department for Territories and the Sea), play a full part in terms of issuing recommendations and monitoring port projects or industries, to ensure that standards are properly met.

In the case of the Lubrizol and Normandie Logistique fire, there was total cooperation by the different departments of HAROPA, the State, the port (boatage, towage), and all of the parties called upon to tackle the fire, and to limit and eliminate pollution in the Bassin aux Bois basin.

In March 2020, the Port of Rouen also signed a new partnership deal with the SDIS 76 to improve the boats and nautical resources available to the emergency services, and to take account of newly identified requirements, such as providing assistance and rescue for river cruise vessels, an activity that has been growing in recent years.

The Port of Rouen, and more particularly the Harbour Master's office, are called upon to act as intermediaries with the emergency services and the Prefecture.

HAROPA – Port de Rouen is supportive of efforts to create a network of local stakeholders in the port community, aimed notably at strengthening the safety culture, following the example of the association Synerzip at the port of Le Havre. The Port of Rouen is keen to bring together port businesses to develop an organisation of that kind in our own territory.

Over its four major port zones – Rouen and the conurbation, Saint-Wandrille, Port-Jérôme-Radicatel, and Honfleur -the Port also has an important role to play in relations with the customers who use its land and facilities. We require local users to take account of the characteristics of the land made available to them, to ensure it is returned to us in its original state. There are also environmental incentive clauses to encourage them to go beyond the regulatory requirements and do more to protect the environment.

We are committed to constantly improving our local territory, setting aside more and more resources to achieve that goal. This also enables us to identify plots of land affected by pollution, and to deal with it.

AIVP | *At the beginning of 2020, cruise ships were scheduled to call at Rouen 28 times, and 57 at Honfleur, at the mouth of the Seine. However, your “Green Port” strategy prioritises environmental issues, which could lead to restrictions being put in place.*

How do you reconcile the growth of cruise activity with your environmental commitments?



© HAROPA – Port of Rouen

MR XAVIER LEMOINE, HAROPA - PORT DE ROUEN - HAROPA | Port de Rouen lies at the heart of a hinterland with a rich tourist offering, with easy access to Paris, Giverny, Honfleur, the D-Day beaches, and so on. As such, the Port plays its part in making the Seine Valley a tourist destination. Today, the Covid-19 crisis is having a severe impact on the maritime and river cruise industry.

HAROPA – Port de Rouen is positioned in a “high-end” niche market for sea and ocean cruises. It can accommodate liners up to 260 metres in length, and has two cruise terminals, one in Rouen and the other in Honfleur.

The fleet of river cruise boats operated by companies from various countries (France, Netherlands, Germany, Switzerland, Australia, US) is growing steadily, allowing for a bigger range of products and more passengers. The current ports of call within the Port of Rouen’s territory are Honfleur (popular with the Paris-based operators), Caudebec-en-Caux and Rouen.

Building on the process of reflection undertaken concerning electricity terminals (see the first question), HAROPA – Port de Rouen has joined forces with VNF to carry out a feasibility study aimed at identifying the requirements of river-going passenger vessels, and defining sites and facilities of an appropriate size for the networks. The work was approved and adopted by the EU Commission for co-funding. This deployment will enable us to support river cruise vessels, whether as a port of call or for wintering. It will be fully effective by the end of 2023 when HAROPA – Port de Rouen gets five terminals (two for stopovers and three for wintering).

Also, for ocean liners, the Port is considering installing the necessary equipment at its port quays and terminals to supply electric power to vessels and eliminate the need to use on-board generators. This will require very high levels of power and a great deal of work with the cruise operators, and could be in place at the Rouen and Honfleur terminals by 2025.

AIVP | Ports are also responsible for water courses within their area, and in the case of those like Rouen which are both seaports and inland, that means both fresh water and salt water courses. This particular situation, on both the river and estuary, makes the issue of water management all the more important.

Can you give us some details about water management at HAROPA – Port de Rouen?



Les Petits Saules à Sahurs © HAROPA – Port of Rouen

MR XAVIER LEMOINE, HAROPA – PORT DE ROUEN | The Port of Rouen is a seaport whose territory encompasses the Seine estuary from Rouen to the Channel.

It contributes to efforts aimed at improving knowledge of the estuary ecosystem by participating in estuary research programme as part of the GIPSA (Lower Seine Public Interest Grouping), which includes a number of local stakeholders (local authorities, water agency, industrial operators, etc.). For example, they are currently looking at the impact of the rising level of the Seine due to climate change.

The Port is also working in partnership with the GIPSA, the M2C Laboratory at Rouen University, and research institute IFREMER, to create a continuous monitoring system for the Seine estuary, called the SYNAPSE network (Automated System for Physical-Chemical Surveillance of the Seine Estuary). The network aims to allow better monitoring of water quality parameters (turbidity, oxygen levels, pH, conductivity, salinity), while improving the way the estuary system works in terms of sedimentary hydrodynamics. The network's architecture is based mainly on infrastructures provided by the Port of Rouen, namely the use of tide gauges and the deployment of multi-parameter sensors over the period 2014-2019.



Darse de Lillebonne © HAROPA – Port of Rouen

The Port also monitors the impact of its activities by introducing surveillance of numerous environmental criteria, notably for dredging (benthos, fish, chemical quality of water and sediments, bioaccumulation, etc.).

It is working to improve maintenance practices (aiming to eliminate the use of non-organic phyto-sanitary products, differentiated management of green spaces) and develop the sanitation and rainwater treatment networks present in the port community.

In terms of biodiversity, the Port is engaged in a number of initiatives to restore ecosystems, promote wetlands, and improve their ecological functions. In particular, it is promoting the creation of riparian buffer zones and floodable wetland areas, and the link with the river. Examples of this type of eco-restoration project carried out recently by HAROPA – Port de Rouen include the Lillebonne basin and Les Petits Saules in Sahurs.

WILL CRUISES RESTART LIKE BEFORE? 3 PERSPECTIVES FROM AIVP'S NETWORK

F. MORUCCI, J. SÁNCHEZ, L. BOUCHARDIE, J. OUAZZANI



*Opinion article coordinated by **Francesca Morucci**, Head of Public Relations Office, Port Authority of the North Tyrrhenian Sea (Italy) and **José M. P. Sanchez**, International projects manager, AIVP, with contributions from **Laurence Bouchardie**, Head of the Marketing Department – Bordeaux Cruise manager, Port of Bordeaux Atlantique (France) and from **Jamil Ouazzani**, Director of Marketing and Strategical intelligence, Management company of the Port of Tangier City (Morocco).*

BORDEAUX (FRANCE), PORTS OF THE NORTH TYRRHENIAN SEA (ITALY), AND TANGIER (MOROCCO): PORTS AND CITIES IN THREE COUNTRIES FACED WITH THE RESUMPTION OF CRUISE ACTIVITY

Health has been without discussion the major topic of the year 2020. Additionally, about one month ago the terrible incident in Beirut raised once again concerns about the compatibility of port and urban activities, and the health and quality life of citizens living in proximity of active ports. This general framework confirms the choice of AIVP to include in the AIVP Agenda 2030 one additional goal, number 9, dedicated to the health and quality of life of port city citizens.

At the time when “we were happy and did not know it”, as the saying goes, we perhaps oversimplified the main concerns included in Goal 9 of the Agenda. The subgoals we considered, focus mostly on the environmental externalities of port activities in urban settings. We explicitly emphasized environmental monitoring and transparency, the quality of the water, green facilities, the impact of cruises and the need to prioritize clean ships and slow steaming. Nevertheless, these are crucial aspects for the port-city relationship and need a more serious debate post-COVID so we can learn from experts and each other at the same time, about the best solutions for different port cities. For that reason, we decided to dedicate the first month of our autumn programme to Goal 9 of the AIVP Agenda 2030.

Health and Life Quality : a top-priority for AIVP since 2018

In June 2020 we hosted the Port City Talks, a series of three webinars to discuss crucial topics for AIVP members, ports and cities. One of them, focused on cruises in port cities, gathering the expertise from actors directly involved in the sector, coming from Chile, France, Italy, and Morocco. In this session, the speakers introduced interesting initiatives that could inspire port city actors in other regions. Additionally, they came back to the fact that the topic of cruises and port cities is linked to far higher complex environmental issues, such as GHG emissions and socio-economic phenomena such as mass-tourism. Since June, this unusual summer period in the northern hemisphere has severely disrupted the traditional high season for tourism, including cruises, in many regions.



AIVP - PORT CITY TALKS
2ND WEBINAR
**CROISIÈRES ET VILLES PORTUAIRES,
PRÊTES À UN RETOUR?**

June 18th
16:00 - 17:00 CEST

With:
Carlos Mondaca (mod.)
Port San Antonio, Chili

Laurence Bouchardie
Bordeaux Port Atlantique, France

Jamil Ouazzani
Tangier City Port Management Co., Maroc

Francesca Morucci
Port Livourne, Italie

Event for AIVP members

AIVP's first webinar on Cruises which took place on June 18, and to which this article's authors have taken part.

As we mentioned a few months ago during the webinar dedicated to cruises traffic, one of the few positive aspects of the forced stop to many economic activities is the opportunity to reflect on the way we were acting. After some months, we want to share some reflections on the situation of cruises in port cities and the potential way forward. The point of departure is not “do we want or do we not want” cruises but in which way cruises could change in order to cope with this challenge, to collaborate with the cities, to promote a more economic and environment respectful tourism. The key idea that emerges is that we need to make cruises overall more sustainable economically, socially and environmentally. However, it seems the message has not yet reached many of the relevant stakeholders with decision making capacity in the industry and further debate is needed.

Italy, Morocco, France: to each country, its solution – AIVP’s analysis

In this article, we will comment the return of cruises and the opportunity it provides to rethink the sector and make it more sustainable. We will observe the situation in three contexts: Bordeaux, the ports of the North Tyrrhenian Network (Livorno, Piombino and Portoferraio) and Tangier. We will try to answer to the questions here presented, with examples from these three port regions and what issues remain demanding further cooperation and discussion.

CRUISE-CITY-TERRITORY RELATIONS BEFORE THE PANDEMIC?

Before the outbreak of the COVID-19 pandemic, the growth of cruise traffic was already a highly controversial issue, particularly in certain European port cities where local stakeholders have now started to criticise the economic, environmental and social impacts.



The arrival of cruise ships in Livorno, in almost direct contact with the old town.

“Old” and “new” worlds of mass tourism

There is increasing debate about the facilities being built to accommodate cruise vessels and passengers, while concerns over the environmental externalities are merely exacerbated by the fact that the economic benefits for the city or the local area are often unclear. Meanwhile, the different procedures that surround cruise activity are often seen as excessive, as exemplified by the safety arrangements required to accommodate mega-ships, which require a complex logistics chain that is not always within the reach of local communities. On the one hand, there are the representatives of the “old world” of cruises, especially in Europe, who are beginning to feel the strain under the sheer weight of disadvantages brought by the cruise business – which often dumps several millions of tourists a year onto their docks, and then onto their cities. On the other hand, there are the port cities of the “new world”, particularly in tropical regions, which are home to many islands for whom growth in cruise activity is still viewed as an economic engine that creates jobs. For them, the drawbacks still seem manageable, though they are not bringing scale economies.

The challenges of mass tourism : examples from Venice, Barcelona or Lisbon

The environmental and societal externalities, which are becoming increasingly clear in all parts of the world, and also the doubts surrounding the economic benefits, are now coming under the public spotlight, and have drawn comments on several occasions by a variety of different organisations. Environmentalist groups, such as NABU or Transport and Environment, periodically publish reports pointing to this industry for the pollution caused by its massive ships, both on-shore and in open-seas. However we have also witnessed in recent years that major players in the sector are implementing new technologies to reduce this impact by investing on new ships, responding to new regulation and progressively benefiting from On-shore Power Supplies (OPS) with sustainable sources. It is crucial that the efforts to diminish environmental externalities persist in the post-COVID recovery, despite the foreseen economic crisis.

In social terms, cruises have become the symbol of mass tourism, even though they are not the single cause. Comparing figures of visitors to major cities hosting cruise ports, we can easily notice that the majority of tourists arrive through the airport. However, the very extractive nature of cruise tourism and its type of visits, based mostly on large groups, focalised the impact on urban areas, which are already sensitive. Local groups are becoming increasingly organised to protest the tourism industry, including cruises. We could see protests in the local newspapers in some historic cruise destinations such as Venice or Barcelona, or in raising destinations like Lisbon.

“All included” packages, a trap which favours oversized mega-ships?

Economically, there is also an increasing discussion regarding the advantages of cruises in the hosting cities. While for home ports the gains are associated to the expenditure of tourists in flights and hotels in the previous or following nights to departure or arrival, for ports of call, there are more doubts. In addition, with all-inclusive packages being a core feature of cruise marketing, cruise ships themselves are becoming tourist destinations in their own right. The main economic drivers of cruise vessels are their capacity and the extra on-board facilities, especially in the area of entertainment. These generate additional income for the owners, but at the same time they eat into the passengers' budget, leaving them less to spend in their destination. To ensure their on-board services remain profitable, these vast vessels also spend relatively little time in port cities, further reducing the potential for passengers to spend money on-shore. These short stopovers generate peaks in vehicle and pedestrian traffic, whereas the capacity of tourist attractions and venues is limited, resulting in a frustrating experience for many cruise passengers.



Livorno's port area.

Before the crisis : permanent extension of cruises

Prior to the arrival of the COVID-19 crisis, port cities generally found themselves in one of two situations. Although social tensions around cruises gather much media attention, there are many other port cities competing to attract stopovers or become a homeport. This shows that while in some cases the negative externalities point towards social rejection of cruises, in others, in the same routes or countries, the positive outcomes are still desired and consider worth investing in infrastructure or marketing campaigns. Further on, in the same cities where citizen's collectives protest against cruises, economic actors and public institutions defend the presence of cruises for their economic impact and the jobs associated to it. This duality is also visible in the approach towards the negative externalities.

In those with highly developed cruise activity, there was (and is) a need for local stakeholders to coordinate their actions and involve the industry, in order to mitigate the negative impacts and regain a degree of equilibrium, even if that means restricting the numbers of ships and passengers. Meanwhile, port cities newer to the cruise market need to learn from past experience, and chart a way forward that enables them to structure their growth and tackle negative externalities. This situation is aggravated by the fact that ports, and especially privately-operated terminals, are at the mercy of cruise lines that can pile on pressure to cut prices, demand additional investments and services, and ultimately threaten to remove the port from their roster of destinations. The threat is a very real one, and could potentially lead to a collapse in volumes for certain ports, given the tendency of cruise lines to enter into alliances and agreements to share vessels.

On the Tyrrhenian Sea, very watchful citizens

One example of the situation described above can be found in the Ports of the North Tyrrhenian Sea. In Livorno, where cruise activity has been growing since the 2000s, local stakeholders are now increasingly faced with criticism from civil society, which is seeing more the negative externalities and less the economic benefits for the city and the local region. A gateway to the artistic towns and cities of Tuscany, Livorno is visited by cruise passengers but only to a limited extent, often as they return from official excursions organised by the cruise line. During stopovers, it is frequently the ship's crew that visits the city and spends on goods and services locally, but despite its advantages this does not generate a sufficient impact for Livorno's economy. Conversely, Piombino is a city that has not seen (or perhaps not yet?) any growth in this type of traffic, which local stakeholders are now eyeing with interest. After the pandemic, cruise activity could represent a major opportunity for minor ports which, often being in lesser-known locations, are better placed to promote sustainable tourism and therefore able to forge a greater degree of authenticity.



A cruise ship arrives at Livorno under the Torre del Marzocco.

Another relatively new polemic has been associated to the development of cruise terminals. These facilities are often a “must-have” infrastructure to negotiate with cruise lines. Even though the terminals can become junctions for port-city interactions, their location can cause some controversy. On one side, a cruise terminal close to the city centre can provide environmental advantages, since passengers could disembark near the main attractions without using other polluting transportation. On the other, having cruises in central locations means that the polluting exhaust fumes directly affect the populated areas. Additionally, a central location may motivate tourists to visit popular areas rather than exploring new options.

The dilemma that many local and national governments were facing before the pandemic regarding tourism and particularly cruises related to a global phenomenon and the immense growth of urban tourism and international travel in recent years. In many cases, we could say that the most massified tourism destination are victims of their own success. In the years before the pandemic more drastic measures were taken in the most crowded port cities. One famous example is the case of Dubrovnik, where the port authority decided to cap the number of cruise ships and passengers allowed to dock and disembark. Another approach is increasing the so call “tourist tax”, in order to compensate the hidden costs of tourism.

This has been the path cities like Amsterdam or Venice are taking. In the Dutch case, since 2019, cruise passengers making a port call must pay an additional 8€. This measure has already led to 40% less cruise calls in 2019, raising significant concerns among the cruise terminal operators. The city of Venice is following a similar path with a new tax applicable to day-tourists starting on July 2020, arriving by any transport means. In the Italian case, the tax will be adapted to the number of visitors in each day, based on the statistics of the previous years. This way, the tourist that visits the city on a calm day will only pay 3€, while in critical days it could be up to 10€. The question remains if in the new post-pandemic context, local authorities will continue with these measures or if they will postpone them to incentivise tourism as a vector for the economy recovery, albeit in a more sustainable way.

Between hope and cautiousness : cruise-city relation in Bordeaux

In certain cases, the relationship between port cities and the cruise industry was fairly well balanced, owing to the relatively small number of cruise stopovers and passengers, or the layout of the port installations. For example, in the case of Bordeaux (a city with a population of 800,000, which normally welcomes between 6 and 7 million tourists annually), where large cruise ships moor in Verdon at the mouth of the Gironde estuary, with no particular restrictions (this being a “commercial” port located a good distance from residential areas). The city centre terminal has space for only two smaller vessels to dock, with a length of no more than 260 metres and a tonnage limited by the sailing restrictions posed by the river itself. This terminal therefore serves as a “boutique port”, hosting luxury vessels carrying between 80 and 1,000 passengers, and up to a maximum of 1,500 to 2,000 per day, although this figure is rarely reached since these

vessels operate on a less intense schedule and tend to stay for one or two nights. So the economic benefits for Bordeaux and the local area are very substantial, both because the passengers visiting have a high level of purchasing power, and because the stopovers are longer, at the heart of the city, close to all of the shops and restaurants.



Gascony's littoral, near Bordeaux. Vineyards grow a few meters from the Atlantic.

However, Bordeaux's advantages (an exceptional setting, a stopover in the centre of a UNESCO listed city, with all activities, shops and restaurants close by) are in fact a source of controversy and concern for some residents or opponents, who have complaints about the proximity of ships and the pollution they supposedly generate. A 2018 study , carried out over a period of more than two months during the high season by the body responsible for air quality in Bordeaux (ATMO), found that even a during a DOUBLE APPEL, pollutant emissions were well below permitted thresholds, and their impact on pollution levels in the city was "marginal". Sadly, these very real and factual arguments have been insufficient to calm the most vociferous critics, pointing to a challenge that will take some years to overcome and highlighting the need for better communication, particularly on social media, where these groups are highly active. The issues of emissions from large river craft was resolved by providing electricity directly to berths, but for sea-going vessels this is a more technically difficult solution, since they require much more power. The port and its partners (city, conurbation, and pilots), mindful of the need for cruise activity to be accepted and keen to take account of residents' concerns, have produced a Charter of Good Environmental Practices to minimise the impact of stopovers in the city centre. Cruise lines are obligated to sign up to the charter in order to access the docks.

Regenerating the waterfront to stimulate cruises – the case of Tangier

For another perspective on the same issue, consider the waterfront regeneration projects which treated cruise tourism as one of their main components, as is the case of the Port of Tangier City. Launched in 2010, the project aims to establish the Moroccan city as a leading tourist destination in the international markets, whilst finding an environmental and cultural balance. The development of cruise activity, ferry traffic and the marina is linked to other commercial areas. This operation was developed on the basis of dialogue between the various stakeholders in the tourist sector, and in particular cruise operators. The good results obtained thus far from port-city dialogue and the waterfront regeneration could be put at risk by the shutdown of cruise business and tourism in general.

It is not too early to say that COVID-19 has already had a dramatic impact on the cruise sector, and that the tentative recovery in certain European countries (Germany, Norway, Italy, etc.) is at threat not just from the risk of a second wave, but once again from the poor image that has now been associated with the industry for some time. Although climate change and mass tourism are global phenomena that reach far beyond port cities, cruise ships have come to symbolise them in the eyes of wider society.

Pressure from the public tends to influence urban and port governance, especially in Europe, where the balance is most fragile. In the wake of the COVID crisis, the cruise industry has entered a new phase, in which it will need to overcome its own issues and the conflicts it was already generating, and view the pandemic as an opportunity to accelerate efforts aimed at managing traffic and its impacts on port cities more effectively.



View on the Mediterranean sea from Tanger's waterfront.

THE SHUTDOWN AND RESUMPTION OF CRUISES

Since the beginning of the pandemic, cruises have been in the spotlight for negative reasons. In different regions of the world, cruise ships were identified as outbreaks of cases, leading to complex situations in which local authorities or populations rejected their disembarkations. The industry, forced by the different national authorities, reacted to this tough situation by cancelling their planned cruises for the following months.

Brutal recession and global crisis

In 2020, the cruise industry was expected to reach 32 million passengers worldwide. Then COVID-19 occurred and operations were halted globally, causing significant issues for all stakeholders. It is evident that the forced stop of these activities is having a considerable impact, especially in port cities and associated industries. Among cruising companies, Carnival Corporation announced the revision of the sales plan of their ships and the future selling of 15 cruise ships. Even smaller companies have suffered from the pandemic disaster, in fact the German tour operator FTI Group announced the closure of their cruise branch (FTI Cruises) as part of a group-wide restructuring. In the most recent study from CLIA, the lobby organisation indicates that for each day of the suspension of cruise activities in USA, there is a loss of \$110 million and 800 direct and indirect jobs. In countries where the tourism industry is the main source of income for many families, these are relevant figures that can lead to a dramatic social scenario.

Cancelations and limitations : last stopover for 2020's cruises

As the situation evolves, the timeline to reactivate cruises has been constantly postponed in most cases. The ban on cruises in countries like the USA or Canada until the end of the summer, was followed with the reaction from the lobby organisation CLIA, announcing the cancellation of all operations until the end of October, effectively ending the season in some of their major markets.



Back to ancient times, for cruises?

This happened after the US Center for Disease Control and Prevention (CDC) extended its 'no-sail' order . In the meantime, the CDC solicited the public's contribution by September 21st to establish the future orientation of public health and the preventive measures relating to cruise ships.

In Europe, during the summer, several public and private stakeholders prepared and issued guidelines to help the cruise activity resumption . While everybody agrees on the fact that the restart has to be gradual, all the operators need to ensure that cruise trips do not expose passengers and staff to health risks. On July 27th, EMSA (European Maritime Safety Agency) and ECDC (European Centre for Disease Prevention and Control) issued a "Guidance on the gradual and safe resumption of operations of cruise ships in the European Union in relation to the COVID-19 pandemic" which is meant to be the most official one for EU/EEA flagged ships engaged in international voyages and for ships calling at EU/EEA ports, irrespective of flag.

Its objective is to facilitate a safe re-start of cruise ships' operations in the EU, by recommending minimum measures to be implemented by all those concerned, while maintaining general safety and security standards.

A risky challenge on the Mediterranean: restarting cruises traffic

In practical terms, in regions where the COVID-19 spread earlier in the year, like the Mediterranean, some countries decided to give the opportunity to restart the traffic. Greece has reopened six ports to cruises: Piraeus, Rhodes, Heraklion, Volos, Corfu and Katakolo and cruise ships are allowed to visit any of the ports, after completing clearance at the first Greek port. In Italy, after the Government released a specific decree on July 31st in which new rules regarding the spread of the COVID concerned also cruises, the National COVID-19 Technical Scientific Committee wrote on August 5th a document starting from the safety protocol defined by the Italian Health Minister together with the Minister of Transport and Infrastructure and aimed at ensuring a safe restart of cruise operations. This document allowed the Government to release another specific decree on August 7th through which, among other issues, it gives formally the final green light to restart to cruise ships. On August 16th the MSC Grandiosa, laying up in the port of Genoa, has been the first cruise to restart, welcoming only Schengen's area guests with an itinerary calling Civitavecchia, Napoli, Palermo and La Valletta, where the authorities have approved the health and safety protocol to support the restart of operations and re-opened the port to cruising . Costa announced its first post-lockdown itinerary from September 6th.



The Tyrrhenian Sea in Piombino.

In other countries, most major cruise companies have postponed their activities until September or later, but in many cases have cancelled the season. While there are some companies like Tui Cruises that have restarted, they are proceeding with restricted itineraries and occupation, becoming an exception to the rule. In other regions, like South America, the situation remains unclear due to the complex coordination of travel bans, forced quarantine for foreign visitors and new security rules. For example, in Chile, the industry already considers the cruise season for 2020 to be lost. In this situation, sub-sectors such as river cruises may have an advantage. In European rivers such as the Danube, Rhein and Main, passenger ships have operated since June, albeit in reduced number and frequency. Another example are the cruises from CroisiEurope that started to navigate in the Seine river in France since mid-July.

The situation in the ports of the three countries studied Italy – Ports of the North Tyrrhenian Sea (Livorno, Piombino and Portoferraio)

As far as cruise traffic is concerned, the ports of the North Tyrrhenian Sea hosted no stopovers during the pandemic, and although MSC and Costa have begun operations once again, in mid-August and September respectively, they are not currently not visiting any of the ports. At the time of writing, however, other lines do have reservations in place for the autumn. For Livorno, for example, there are 21 stopovers scheduled for the period leading up to December, while the other ports have around thirty altogether. Yet there are several indications to suggest that cruise traffic in the ports of the North Tyrrhenian Sea, as at the other ports considered in this article, is unlikely to return to normal until 2021. An optimistic scenario would see normal service resumed in the autumn, whereas a more pessimistic prediction would be early 2021. In both cases, the economic loss caused would result from a sharp drop in spending in three areas: by passengers, by crew members, and on services, including technical and nautical services and passenger hospitality.

Between January and March 2020, Livorno saw just nine stopovers, with 18,459 passengers, while no cruise ships at all called at Piombino and Portoferraio . When compared with the figures for 2019 , it is easy to see just how significant a loss the ports in this region have sustained, along with all cruise ports.

Earlier this year, two ships provided a certain visual impact, both positive and negative. The Costa Diadema was laid-up at the port of Piombino from 29 March to 4 June, with 1,255 passengers – all crew members, some of whom were infected with COVID-19. Meanwhile, the Seven Sea Voyager was laid-up at Livorno from the end of May, with 108 COVID-free passengers on board. The vessels provided a negative spectacle, in as much as they were a clear reminder of the pandemic. However, there was a positive aspect, in the case of Piombino for example, as for other port cities with minimal cruise traffic, which are not yet fully familiar with its advantages and potential disadvantages.



Livorno's citadel, located just on the waterfront.

France – Bordeaux

No cruise ships stopped at ports of call in France until mid-July, with a predictable impact on all of the ports and destinations concerned. The Port of Bordeaux had been all set for a record season between April and October 2020, expecting to welcome 65 liners and almost 50,000 cruise passengers to its various sites, mainly in the centre of the city. In Bordeaux, we are visited by passengers from over 80 countries, but 40% are American, 25% British, and 20% German.

As a result of the spread of the pandemic, particularly in the US, and the quarantine recently imposed by the UK, the end of the season cannot now be saved. One of the rare positives came from the operator Ponant, which was able to organise a summer deployment in France, sailing from certain French ports (including Bordeaux) with a very strict protocol and a very limited number of passengers. Although the new regulations allow up to 250 passengers, the Ponant only embarks 80 every Saturday for a coastal cruise.

COVID-19 has also affected cruises on inland waterways. Under normal circumstances, the five operators which run cruises in the Garonne/Dordogne/Gironde estuary would have had 28,000 passengers per year, mainly Americans, British and Australians. Given the restrictions imposed on travel, these activities have been severely impacted. One of these companies, Croisieurope, made its ship *Cyrano de Bergerac* available to accommodate health workers during the lockdown. Later, in mid-August, the ship returned to service in Bordeaux, but all of the other vessels have remained out of action.



Riversides of the Garonne, in Bordeaux.

Morocco – Tangier

In the case of this North African country, the Merchant Navy Department decided to temporarily suspend access to Morocco's ports for all cruise ships, pleasure craft and passenger ferries from 12 March 2020. The economic impact was obviously considerable, but was the price to be paid for effectively limiting the spread of the virus in the country. The tourist industry was completely shut down. Initial figures from the Moroccan Tourist Board painted a picture of a sector virtually at a standstill owing to the unprecedented crisis. On 1 April 2020, booking numbers were down by 98% year-on-year.

The impact of this dramatic situation on revenue was felt immediately by the city of Tangier, and in particular the Port of Tanger Ville, one of the biggest players in the region's tourist industry. For several reasons, 2020 was originally expected to have been an excellent year for the cruise business, with positive trends in terms of new deployments and a predicted increase of 31.3% in passenger numbers compared with the previous year.

RESPONSES AND MEASURES FOR PORT CITIES FOR THE RESUMPTION OF CRUISE ACTIVITY

The main shared sentiment around the globe today is uncertainty. As cruise companies constantly postponed their return date and several considered the summer season to be lost, the need to react and reactivate the economy became clearer.

Local responses to a global issue: tyrrhenian and canarian examples

Local and regional governments from touristic areas have also reacted. Under the threat of rampant unemployment in the sector, governments in touristic areas, such as the Canary Islands in Spain, are proposing new measures. Along with the local port authorities of Las Palmas y Santa Cruz de Tenerife, they have established a technical committee to create a safe maritime corridor and restart cruises. This committee will coordinate a health protocol, that will include measures such as a mandatory health insurance for the cruise lines to cover all potential health expenses related to COVID-19 from the passengers, reduced capacity (not exceeding 60 to 70%), increased medical staff on board, a monitoring protocol and disinfection of ships after each travel. The main issue remains the coordination of the different initiatives at a higher scale. If the goal is the reactivation of the sector, including the traditional itineraries, it is necessary to harmonise the different measures imposed on a local or regional basis. Otherwise, the uncertainty will continue, raising insecurities on companies, travellers and local citizens.



Cruises in Fuerteventura, Canary Islands. Here, cities and ports cooperate locally for a restart of the cruise sector.

The ports of the North Tyrrhenian Sea network have not only looked at measures designed to prevent and tackle the COVID pandemic, but over the summer they also used the resumption of ferry services to prepare for the return of cruise ships, and are now ready . These measures are focused on both workers and users of ports, bearing in mind that Livorno's passenger terminal is operated by a private firm, Porto di Livorno 2000, whereas at the other ports in the regional network, passenger traffic is managed directly by the Port Authority. As a result, there are differences between the measures and associated documents, even though they come from an agreement between all of the institutional stakeholders in the sector, and notably those concerned by safety and security.

Health safety first – for crews also

As regards port users, Piombino and Portoferraio both began implementing their own measures and documents, owing to the continuation of passenger traffic during the pandemic. In Livorno too, documents were produced to accompany the resumption of passenger ferry services to Sardinia and Corsica (at the beginning and middle of June respectively). After the Decree by the President of the Council of Ministers was issued on 17 May (DPCM 17 maggio 2020), a Prevention and Protection Plan (PPP) was unveiled by the Port Network Authority, setting out guidelines for passenger traffic between Piombino, Portoferraio, Rio Marina and Cavo . A little later, in Livorno, following a “services conference” on 17 June between the Tuscany Region, the Municipality of Livorno, the Harbour Master's office, the Maritime Health Bureau and the company Porto di Livorno 2000, a health protocol for the port zone was produced . Based on this document, the Port Network Authority issued another document focusing specifically on Livorno and containing general guidelines. Meanwhile, Porto di Livorno 2000 produced a special protocol for ferry passengers . Specific guidelines for cruise passengers would be drafted in collaboration with Italy's other terminals and industry stakeholders.

It is clear that the ports are keen to restore cruises. However, the activity involves a large number of partners, and of course this will only be possible by strictly following national or international health protocols and measures. In the case of Bordeaux, the new Medoc installations have already been readied for the post-COVID rules. Although the cruise calendar for 2021 has not yet been changed, everything hinges on how the situation looks in late 2020 and early 2021, and on the financial situation of businesses operating in the industry. Until now, experts had expected “normal” service to be resumed by 2023, but there is hope that destinations seen as “safe”, with stringent health protocols, could regain the trust of cruise lines and passengers and return to normal before then.

Destination: business continuity!

The situation certainly remains very serious, though, not only in Europe. In Morocco, for example, as in other countries, strict social distancing measures have caused major disruption to everyday life, and to tourism in particular. These measures are being eased gradually as the situation is assessed in the various prefectures and provinces, with committees including the Health Minister, governors and Walis. In the specific case of the port of Tanger Ville, throughout the period during which port activities were on hold, the organisation worked on three areas. In terms of management, it set up a crisis unit to minimise the impact of the crisis, establishing direct contact with the competent authorities to resume activities as early as possible. The company also drew up a business continuity plan including all of the measures needed to combat any spread of the virus and analyse the risks of hosting passengers. In terms of infrastructure, all of the projects in the port zone have been respected, with public squares created, the avenue leading to the Port being widened, and the completion of work on the second dock basin. Finally, in terms of communication, the Port of Tanger Ville established contact with all of the industry stakeholders concerned, including ports and cruise lines.



A business continuity plan has been enacted in Tanger City.

OPPORTUNITIES FOR RETHINKING THE CRUISE-CITY-CITIZENS RELATION

Governments around the globe are rushing to launch economic reactivation packages, at the cost of increasing national debt. Public investment, especially on infrastructure, has been pointed out as one of the key vectors to relaunch the economy, reduce the impact of the crisis and implement the goals of the green deal its sustainability. This public investment can accelerate the transformation of port facilities, reducing the environmental impact of cruise activities. The development of on-shore sustainable power supply for ships was already underway in many leading ports, it is necessary to intensify this transformation, forcing the industry to adapt.

Rethinking the scales of Cruises: size does matter!

Another key challenge is the scale of cruise ships and number of visitors. Capping has almost been considered as a taboo idea in the sector, even though before the COVID-19 port cities like Dubrovnik were already implementing it. It is time to consider measures to enable new systems in order to improve the management of cruise stopover, particularly in port cities with a fragile social and environmental balance. Restarting the sector provides the chance to have this discussion and consider what are the limits to our cities. As we have seen, the size of ships, building on economies of scale, imposes challenges to many port cities. Already before the pandemic, there were coordinated initiatives to lobby the industry from the port side.

The Port Authority of Venice launched in 2019 the Cruise 2030 Call for Action in cooperation with eight European cruise ports to develop common strategies for sustainable cruises. The discussions continued in 2020 focusing on issues such as cleaner fuels, on-shore power supply, but also the problem of ship size, even proposing a “Europax class” ship size, more compatible with European seaports.



Several sizes exist among cruise ships. Diversity is a key-feature of the sector.

The tourism of tomorrow must be balanced – or there won't be tourism at all

It is also an opportunity to rethink the kind and intensity of tourism that is reasonable for port cities and coastal territories. One of the main issues before the pandemic was the concentration of visitors in specific ports and areas of the port cities. As said before, there is a considerable contrast between overtourism in some destinations, while others compete to attract cruise lines. The need to establish common health protocols, coherent to the different destinations along an itinerary is also a base to improve the coordination between ports to pressure for a balanced distribution of port calls and passengers.

Extreme cases in which tens of thousands of passengers arrive all at once have helped give the sector a negative image, which is also a factor in other cases where the contribution to mass tourism is not as significant. However, they continue to be closely associated with overtourism, while some of the positive secondary effects are not communicated as clearly. In this case, the biggest challenge lies in improving communication and coordination between all of the stakeholders concerned. Port cities, port authorities and businesses need to work together more closely on these issues. One of the key aspects highlighted at the height of the crisis, and vital for restoring traffic in ports, is the importance of communication, both between stakeholders in the industry and the authorities, and also with users and local residents. Communication will be crucial to the recovery, with a need for new campaigns to reassure the markets, cities, and the public. International organisations will have an essential role to play in restoring trust between all of the parties involved in the cruise industry ecosystem.

An ecological waterfront for turistic cities

For urban waterfront operations such as the port of Tangier Ville, the aim will be to combine the sustainable development priorities laid down in the initial environmental plan, with cruise activity. This could include measures now found in other ports, such as recycling demolition materials or dredged sand, and monitoring sediment and water quality. As regards cruise activities, the aim is to continue scheduling stopovers as has been done until now, with small and medium-sized cruise ships, in order to ensure optimum management of passenger traffic during on-shore excursions. The plan also includes investments in sustainable mobility for cruise passengers, such as a cable car. Designed to allow easier access between the Port and marinas, the city centre and the Medina (the old city), the cable car is an eco-friendly mode of transport that will provide cruise passengers with superb views of the Bay of Tangier and a fun way to reach the main places of interest in the city.



Tangier's waterfront, perspective from the Medina.

FINAL THOUGHTS ABOUT THE FUTURE OF CRUISES

This pandemic has repeatedly highlighted weaknesses at various levels, in particular among decision-makers and authorities, whether locally, nationally or internationally. Their management led to delays in decision-making processes, allowing the virus to spread rapidly in the spring. There was rising confusion and contradictory information, leading to greater uncertainty and distrust among the public. As far as cruise traffic is concerned, the image of ships sailing from one country to the next looking for a port to shelter them has added a macabre touch to the symbolism of mass tourism that has come to be associated with cruises. Moreover, the relentless international media coverage in the online and offline press, TV, radio, seminars, and so on, only served to ramp up the uncertainty.

Global uncertainty: is there still love in the boat?

Today, that uncertainty remains. Despite on-going scientific research efforts, we still do not know how long the virus is likely to affect our lives. Consequently, tests and special conditions could continue in the short to medium term, and we will have no choice but to adapt, in both our personal and professional lives. Obviously, travel restrictions and border closures are always dependent on national governments, and this summer saw an explosion in local tourism, with many holidaymakers opting for “staycations” in their home countries or regions.

As a result, in this difficult context, it will be difficult to establish long term plans for the cruise industry, with the general consensus being that the sector will take two to three years to regain its momentum . However, if there is a positive to be taken from this pandemic, it should be seen as an opportunity to accelerate efforts aimed at better organising cruise tourism and a chance to rethink the relationship between the industry, cities, and the public.



A cruise terminal. At the moment those lines are written, ships are still nailed to the quay.

Before COVID-19, there was often a kind of general acceptance that there was no way of reversing the trend, making the necessary changes and re-orienting the sector towards a new model. That has now changed, with the cruise industry forced to suspend operations and preparing to resume in the coming months. So it is vital to try and find new and more sustainable ways of accommodating cruise ships and their passengers in port cities, drawing on what we have learned from these last few months, and also what we already knew but were reluctant to consider, for fear of “slowing down the machine”.

There might not be a return of yesterday’s cruises

At the beginning of the article, we saw there was a need for the cruise industry to reinvent itself even before the COVID-19 crisis came along. Today, it is true that the challenges faced by the cruise sector and port cities, and the innovative solutions to allow activities to co-exist side by side, need to make way for other considerations, such as how to stop the virus from spreading on board.

It is also true that, once we have a clearer picture of the effects of this crisis, we will need to quickly return to the issue of sustainable cruises. The return of the waterfront, for example, with mixed-use passenger terminals where retail activities (shops, cafés, restaurants, etc.) could focus partly on local residents, is emerging as a possible means of tackling the societal issues posed by the crisis in the cruise industry.

Looking to a bigger picture than the pandemic: may cruises work in tandem with the territories

In that sense, while the first step currently consists of strengthening cooperation on health protocols and COVID-19 response measures in order to create international standards (with the same procedures applied in all countries), if cruise operators and port cities are to be allowed to return to business more efficiently, there is a need to look beyond the pandemic. Communication, which has often been found lacking recent months, will be crucial not just for collaboration between the various stakeholders concerned, but also as a way of bringing people together, getting feedback from customers and securing the consent of citizens. As we said in the introduction, the question is not “whether or not we want cruises”. We must ensure that the cruise industry works in tandem with territories to promote a brand of tourism that is more respectful of the environment, the city, and people.

CRUISES AND PORT CITIES: HOW TO DRAW THE FUTURE AFTER THE COVID-19 BREAK?



*Beatriz Tovar de la Fé
(Applied Economics
Professor, University
of Las Palmas de Gran
Canaria, Spain)*



*Pedro Marín Cots
(Chief OMAU, City
from Málaga, Spain)*



*Pino Musolino
(Special Commissioner
and Acting President,
North Adriatic Sea
Port Authority, Italia)*



*Marcelo Peyregne
(General Manager,
Port of Buenos
Aires, Argentina)*

In this webinar in Spanish, the speakers draw conclusions from this forced halt of activity and explain how they foresee the future of the sector for the coming years.

ADDITIONAL RESOURCES:

- Presentation of AIVP in the Cartagena Cruise Dialogue
- AIVP DOC(k) - Cruises, between dream and reality
- Article by Dr. Pedro Marín Cots

WATCH REPLAY

CRUISES AND PORT CITIES, READY TO RETURN



*Francesca Morucci
(Promotion and Public
Relations Office of the
North Tyrrhenian Sea
PortNetwork Authority)*



*Carlos Mondaca
(Vice-President of AIVP,
responsible for Public
Affairs of the Port of
SanAntonio in Chile
and Chairman of the
Corporación de Puertos
del Cono Sur)*



*Jamil Ouazzani
(Director of Marketing
and StrategicIntelligence
of the Port Management
Company of the City of
Tangier)*



*Laurence Bouchardie,
(Head of the
MarketingDepartment
– Head of Cruise
Bordeaux – Port of
Bordeaux Atlantic)*

Webinar in French on the consequences of the stop of cruise activity on the city-port relationship and prospects for the future.

ADDITIONAL RESOURCES:

PORT OF BORDEAUX:

- Cruise ship Charter

NORTH TYRRHENIAN PORT NETWORK AUTHORITY:

- General Guidelines for Preventing the Spreading of Covid-19 in the Port -Commercial Sector

Piombino, Portoferraio, Rio and Cavo port

- Prevention protection plan
- Rules for passengers

WATCH REPLAY

IN THE WAKE OF THE TRAGEDY IN BEIRUT, CAN WE EXPECT TO SEE MORE PUBLIC CALLS FOR IMPROVED INDUSTRIAL SAFETY IN PORT CITIES?

OLIVIER LEMAIRE



This text is a translation of the opinion of Olivier Lemaire, Director General of AIVP, originally published on the LaTribune.fr website.

After the terrible events that struck the port of Beirut on the evening of 4 August, and without wishing to prejudge the findings of the inquiry that has just begun, suspicion has already fallen on already well-known issues with the storage of 2,750 tonnes of ammonium nitrate, a chemical that can be highly-explosive in certain conditions.

The international press is alive with remarks to the effect that many ports around the world are now potential “Beirut”. Shocking images of the devastation wrought, not just to the port but to the wider city, have been seen around the globe, and residents of port cities are naturally worried. In 2015, after the terrible fire that ravaged the Chinese port of Tianjin and the resulting chemical pollution that severely affected the entire city, against a backdrop of negligence and corruption, citizens’ groups, politicians and international organisations called on the port authorities and the wider port community to tackle these safety concerns. That movement will no doubt be revived in the days and months ahead, as a result of the disaster in Beirut.

URBAN PORTS AND INDUSTRIAL RISKS

With the spectacular growth in international trade over a half-century of globalisation, the transport and storage of hazardous materials – often at the heart of densely-populated agglomerations – has naturally grown accordingly, and the risk of serious accidents with it. To prevent such disasters, port authorities have long-established and in all cases highly rigorous procedures for managing and monitoring industrial risks.

Accidents remain extremely rare, and when they do occur, as appears to be the case in Beirut, there are generally multiple factors responsible. There is no such thing as zero risk, and residents of port cities are regularly invited to remember that they too live in proximity to sensitive industrial sites, with procedures to be followed. In France, since 2003, so-called “technological risk prevention plans” or PPRTs have brought together all of the stakeholders concerned and the general public, in urban-port areas such as Dunkirk and La Réunion. Specific regulations on the transport of hazardous goods in ports has gradually been developing over the last ten years or so, in conjunction with a number of international conventions (ISPS, SOLAS, etc.). The question remains to what extent these multiple layers of national and international regulations are actually enforced in practice.

DEVELOPING THE CITY WITH THE PORT: CONSULTATION AND NEGOTIATION IN THE FACE OF RISKS

The issue is key, with most port cities keen to forge closer links with their ports through development projects aimed at regenerating and transforming urban waterfronts as a “window onto the port”. A port is not just hundreds of hectares housing potentially hazardous industrial activities, but also trucks, trains and ships every day. They are of course necessary for transporting hazardous materials, but often pass close by residential areas, schools, museums, shopping malls or cruise terminals with their giant liners. In Europe, to manage the industrial risks posed, major petrochemical ports such as Antwerp, Marseille, Barcelona, Le Havre and Rotterdam have drawn up very clear documents and procedures for managing their territories. Given this, it is unfair to blame port operators for objecting, often vigorously, to the aspirations of politicians and citizens who, in their legitimate enthusiasm to “plan the city with the port”, may misunderstand or underestimate the risks of industrial accidents inherent to port activity.

Everything comes down to explanation and negotiation. An ambitious urban development project for the community may require certain high-risk port activities to be moved to new sites, as for example in Seville, where moving hydrocarbon storage facilities is a prerequisite for plans to create a leisure area near one of the docks. The issue of industrial risk is naturally settled if, as in Helsinki, the industrial port can be moved 40 kilometres away from the city, leaving behind only the cruise facilities. However, such operations are extremely costly and quite rare. A strategic port development may, conversely, entail significantly limiting urban development, as in

Moorburg in the expansion zone of the port of Hamburg, with the inevitable tensions generated, but as part of a wider public consultation.

As for any kind of industrial activity linked closely to our way of life, and which we collectively accept, risk management in urban-port settings is clearly a vital strategic consideration for those looking to “plan the city with the port”. The concerns of port city residents, which will no doubt be legitimately reported in the days to come, demand responses local authorities, who will need to demonstrate complete transparency. We can only aim to reduce the risk of accidents to zero, but port authorities themselves have a duty to encourage public vigilance, through procedures or local consultation and educational resources (such as Port Centers). Where citizens become partners and not just spectators of the city-port dynamic, the entire city-port community stands to benefit, and many a disaster could be avoided!

PORT CITIES: ANTICIPATING THE RISKS?



*Charlotte Goujon
(Vice-présidente,
in charge of health
and industrial
health and
safety, Métropole
RouenNormandie,
France)*



*Christian Char
(Vice-President of
the Port of Beirut,
Lebanon)*



*Eric Pourtain
(Deputy Director,
Head of the
Technological Risks
Pole, CYPRES,
France)*



*Gaëtan Siew
(Special Envoy,
ONU Habitat)*



*Bruno Delsalle
(Directeur Adjoint
de l'AIVP)*

Webinar in French.

From last year's fire in Rouen to the events in Beirut and Mauritius, the terrible accidents that have occurred recently have re-awakened public opposition to ports and the industries on which they depend. The four speakers at our webinar highlighted the weaknesses in the way we manage risk. It is vital that we review these and ask the right questions.

[WATCH REPLAY](#)

TEL: +33(0) 235 427 884 | FAX: + 33(0) 235 422 194
AIVP@AIVP.ORG

WWW.AIVP.ORG

