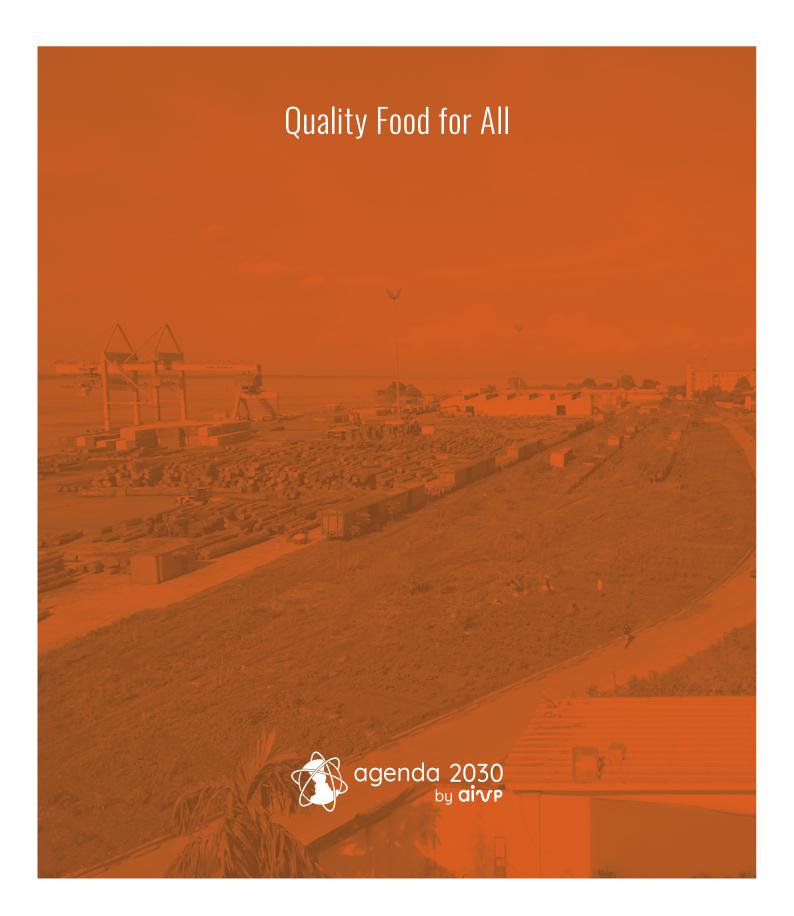
Thematic Dossier



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.

In this last dossier we focus on "Quality Food for All". We wish you a fruitful reading!

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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 "Quality Food for All" goal in the AIVP 2030 Agenda?

Making port cities key players in the search for sufficient, quality food for all:

- 1. Developing smart systems for monitoring and controlling food resources from one end of the logistics chain to the other.
- 2. Combating food waste by improving storage capabilities for both import and export of perishable goods.
- 3. Promoting fair trade and organic and local productions through a tailored commercial policy.
- **4.** Enhancing port areas dedicated to commercial fishing and encouraging innovative food research projects in the City Port territory.

More details on this goal

Introduction

AIVP Team

How to ensure quality food for all in port cities?

Food is a basic human requirement and yet food insecurity has been gradually rising over the past decade. The COVID-19 crisis and the war in Ukraine have disrupted the global food supply chain and have led to the biggest global food crisis since the Second World War according to the UN Secretary General. Although developing nations are predominantly impacted, developed nations have been experiencing soaring prices as well since the second half of 2020.

Port cities, ports, and other key players in the maritime industry are uniquely placed to address this topic and help ensure sufficient quality food for all. Port cities are hubs for local stakeholders involved in the food supply chain – fishers, local agriculture, transport services, and aquaculture can all be found in port cities. Through collaborations, the food supply chain can be made more efficient and new innovations can occur. The ports and cities also have the ability to promote fair trade, organic, and local products though their commercial policies or by establishing food hubs.

Moreover, port-cities are part of the much larger international food chain as people are used to having variety in their nutrition, which requires wider cooperation at the provincial, national and cross-border levels: it is necessary to collaborate to ensure that the food reaches its destination in good condition. This means that monitoring methods and improved storage capabilities need to be implemented by all stakeholders. Collaboration is also important to help ensure that all countries receive sufficient nutrition to help realize the UN SDG objective 2: a world free of hunger by 2030.

AIVP members share their knowledge

Food is potentially the most visible and important good that ports can import and export from port cities for citizens. To ensure that the relation between the different actors surrounding the food chain is good and to explain how to transport these goods without spoilage, the AIVP has turned to its members and an external guest to provide us with insights. The interviews are all centered on different aspects of the Agenda 2030 goal "Quality food for all", which is the seventh objective.

In order to ensure cooperation along the food chain and improve its efficiency, discussion between stakeholders and citizens is important. In his interview, **Vicente Domingo**, Director of **CEMAS** (the World Sustainable Urban Food Centre in Valencia) speaks about the importance of sharing knowledge and raising public awareness of initiatives promoting sustainable food supply. He highlights the importance of including citizens in the discussions to localize and green food supply by citing good practices in Copenhagen (Denmark), Tunis (Tunisia), and Barcelona (Spain).

To promote the interactions between ports and cities, **Jose Estors Carballo** introduces the **FAO**'s Blue Ports initiative in his article. The Blue Ports initiative aims to contribute to food security, preserving natural resourcing, and reinforce value chains by encouraging cities to include fishing ports in their strategic discussions to create a blue economy approach, benefiting all.

In the international food chain, a port is an important node for imports, exports, and storage. In their interview, **Ingrid Vanstreels**, Business development advisor, and **Dorien Van Cauteren**, environmental expert, highlight how the **Port of Antwerp** (Belgium) is an innovative port for perishable goods. The port is both a host to a number of specialized companies and experienced forwarders and a supporter of agricultural innovation. It created a Fund in 2020 to find solutions to strengthen the synergies between the port and agriculture.

Similarly, **Port Saint John** (Canada) sees itself as an important actor in the food supply chain. **Paula Copeland**, Director, Engagement & Sustainability, emphasizes that the food sector is an important sector for the port as it creates long-term partnerships and a way to connect and support local communities through donations to food banks and schools. Lastly, the cold chain is also an important driver of Port Saint John's economic growth.

The cold supply chain is a vital part of the food chain as it ensures that the goods can be transported globally to customers without spoiling. **Stéphane Desseigne**, Group Development Director of **Seafrigo**, explains the complexities that the international cold chain can help address, such as changing demands and different national regulations that could lead to food spoilage without an effective cold chain. He also addresses how to make the cold chain more sustainable to reduce its ecological footprint.

AIVP is contributing to the collective effort of addressing food insecurity by promoting world-wide exchange of ideas and good practices.

Enjoy your reading!

CEMAS (Valencia): cooperating and sharing experiences toward ever more sustainable food

Interview by José Sanchez



Vicente Domingo, Director of CEMAS

CEMAS, the World Sustainable Urban Food Centre of Valencia, opened in 2018. It is an initiative by the City of Valencia (Spain), which had signed a MoU with the Food and Agriculture Organization of the United Nations (FAO) back in 2016. CEMAS' main objectives are to highlight the numerous schemes aimed at promoting sustainable urban food supplies to cities around the world, raise awareness about food issues, climate change and sustainable local food systems, and spread best practices. Those priorities are in line with those identified by Commitment No. 7 of the AIVP 2030 Agenda for "Quality food for all".

Interview with **Vicente Domingo**, Director of <u>CE-MAS.</u>

AIVP | Sharing knowledge and identifying the best initiatives are also among the reasons for AIVP's creation. Can you briefly tell us how you go about sharing knowledge?

Vicente Domingo, Director of CEMAS | CEMAS is an organisation essentially based on the concept of communication in the broad sense, which means informing the public, taking account of public opinion, but also forging links with knowledge centres, cities, and two sectors which I believe are particularly active: city networks and civil society.

As at AIVP, where there is a clearly defined common goal, a point of convergence, then collaborative actions are adopted, a clear example of a win-win partnership. We disseminate the vast quantity of knowledge that comes to us in 34 categories. Public procurement, food waste, climate change, sexual equality, urban-rural relations, big data, in other words fields of action or strategies that are sources of inspiration for us, and no doubt also cut across some of the other 34 categories during the process. We have just begun steps to launch a content localisation model with that in mind.

The value of information and above all knowledge becomes greater as we add to them with new data and new experiences that confirm or improve concepts. What that means is that while there are already benefits to identifying and listing articles, experiences, practices, and so on, there is even more to be gained from the process of making them available to everyone with an interest in sustainable urban food systems, so they can develop, deploy, and share them. That fosters a positive 'retroaction' approach that confirms our raison d'être and usefulness, not just for cities but also for the FAO and all the research centres working on these issues.

We constantly use all kinds of networks. In almost every part of the world, ordinary people access dozens of networks every day. Knowledges spaces are platforms that, in themselves, allow unprecedented access to information and knowledge. But that phenomenon leads to another, larger still: the ability to disseminate, manage, and apply that information all around the world, practically in real time. Isn't there something miraculous about that? I was born in 1966. I've been working in public information since the age of 18, and today's tools never cease to amaze me. Some techniques put me in mind of Jules Verne!



Urban gardens © Philippe Halle - CEMAS

AIVP | Promoting initiatives while raising awareness is another common priority shared with AIVP. At AIVP, that takes the form of a guide of good practices for City-Port relations, or our support for Port Center initiatives aimed at the general public. What about CEMAS? What tools do you use to raise public awareness?

Vicente Domingo, Director of CEMAS | CEMAS is a very young organisation. After it was launched in July 2019, almost all of the activities that were planned to take place physically had to be cancelled due to the Covid pandemic. Fortunately, we were able to continue with certain publications and hold online meetings with city networks, public administrative authorities, and UN agencies, but naturally – as at AIVP, I imagine – we were a long way off the level of activity that we had hoped for. Nonetheless, we were able to take part in local campaigns aimed at promoting the consumption of local and seasonal produce, and we found that actions had been carried out targeted directly at the general public.

Our newsletter summarises initiatives and approaches, most of which can be replicated in any urban setting. Let's say that despite the lack of more specific activities held in person, and although it has not been possible to travel physically to those exemplary sites, social media, online publications and knowledge-sharing at virtual events compensated for the inability to use that level of influence where possible. Fortunately, and although we need to remain cautious, once Covid – or at least the sixth wave – is behind us, we should in the months ahead be able to interact more effectively, and in particular to launch awareness-raising and information-sharing tools that are more suited to the physical reality, with everyone working every day for healthier, more sustainable, and more coherent food supplies.



View of agricultural plots © Gudella – CEMAS

AIVP | Port cities are central to the supply and distribution of food. What do you see as the main challenges for ensuring a sustainable food supply?

Vicente Domingo, Director of CEMAS | Cities, and human and urban food, are bound together by the same story. I recommend reading a fantastic book: Hungry City by Carolyn Steel. There are basically two main types of cities: "thalassic" cities, located on the sea, and "telluric" cities, which lie inland. Air transport has today reshaped global logistics, but for centuries, the seas and oceans were the motorways of distribution. Coastal cities derive their identity from the diversity and the permanent comings and goings of people, food, and goods. It is a primordial anthropological and sociological process. But paradoxically, it is precisely from these factors of diversity and movement that structures like the food supply chain get their raison d'être.

Over the centuries, port cities have absorbed knowledge and learned how to produce and manufacture food accordingly. For example, tomatoes, the big product of the conquest of the American continent, became an essential ingredient in Italian cuisine. So there was a beneficial creative symbiosis. In Roman times, or rather pre-Roman, Etruscan times, wheat was used to make pasta, which was later mixed with tomatoes to create numerous flavours and culinary processes. In other words, being a port city, paradoxically, generates wealth, strengthens identity, and allows us to clearly identify what is sustainable, and what isn't.

There are numerous cities with healthy food systems, which promote the work of small producers and family-run farms, which have created solid networks of local markets to stimulate social life and a feeling of belonging, whose inhabitants are proud to be part of the active working life of the city. Examples include Montpellier, Naples, Oran, Palermo, Thessaloniki, Boston, Algeciras, London, and Rome.



Valencia, Huerta de Valencia © CEMAS

AIVP | Of all the initiatives you have seen, are there any particularly innovative initiatives adopted by port cities that could serve as an inspiration for others?

Vicente Domingo, Director of CEMAS | The public procurement system in Copenhagen is really exemplary. It didn't just emerge from a single decision. It is part of a complex process of improvement, that gradually incorporated criteria for selecting and sourcing food intended for schools, hospitals, old people's homes, and so on. This model, which is of interest to many cities, aims to protect smaller producers. It says at what time of year certain supplies should be purchased, and explains how to recycle food waste. It involves social stakeholders and is constantly monitored, ensuring it can be improved further. That's just one example among many. The city of Tunis has successfully fostered relationships between families of fishers and hotel complexes, giving family-run businesses a foothold in the hotel industry. Barcelona has taken a series of measures to promote sustainable development, including offering visitors immersive experiences dedicated essentially to local cuisine. The city also supports young creative talents who source food from small producers based within an hour's drive. Other cities have focused on developing proximity-based delivery systems using electric vehicles, or even bicycles. There are many different initiatives, and they are constantly being renewed. It shows the determination of local authorities around the world to address these issues.

I am particularly pleased to see how quickly local leaders, technical experts, and even very different municipal authorities have begun sharing their experiences. Often, they report their failures, discuss projects that foundered on a key aspect of the development process, or strategies that proved effective and productive. Important things take time. It's vital to take things one step at a time, especially in politics. Each step is a chance to work for the common good by creating a field of action that many municipalities, for various reasons, have not yet explored. Things are moving. The Sustainable Development Goals, increasingly dynamic city networks, and the fabulous pace of progress in knowledge, are all new factors that are shaping a vision centred on values, respect, and hope. It is already bearing fruit, and within a few years, will be a suitable model for guaranteeing a good quality of life for millions of people who deserve a future of honesty and consistency.



Cultivated Fruits, Valencia © CEMAS

The Blue Ports initiative to encourage positive city-port relationships

José Estors Carballo



Jose Estors Carballo Fishery Officer NFIMV, FAO

The Blue Ports initiative by the Food and Agriculture Organisation (FAO) enables commercial and fishing ports to enhance their blue credentials and promote sustainable development in their regions. The quality of city-port relations is one of the key issues that ports are required to address as part of the initiative. What are the challenges for a port that aspires to be "Blue", and how can they be overcome through this initiative? José Estors Carballo (FAO) explains.

FAO's Strategic Framework 2022–2031 seeks to "support the 2030 Agenda through the transformation to MORE efficient, inclusive, resilient and sustainable agri-food systems for better production, better nutrition, a better environment, and a better life, leaving no one behind."

The "four betters" of the Strategic Framework reflect the interconnected economic, social and environmental dimensions of agri-food systems. FAO also applies four cross-cutting "accelerators", namely technology, innovation, data and complements (governance, human capital and institutions) in all its programmatic interventions, with the goal to accelerate impact while minimizing trade-offs.

The Blue Ports initiative responds to FAO's four betters and accelerators by approaching marine ports as knowledge hubs, where many activities take place that have a direct influence on people's lives. This approach allows ports to become a source of value on which operational strategies for local development can be based.



Vigo, Spain © FAO

To date, the blue economy approach has been presented as a strategy to enhance the "triple bottom line" of fishing and commercial ports. This includes preserving the environment (e.g. reducing pollution), fostering social benefits (e.g. decent and fair labour) and promoting economic growth (e.g. sustained profits).

The fishing value chain is linked to fishing ports, loaders, customs, retailers, the processing industry, ship owners, the ship building industry, etc. and these activities in turn are related to legal and regulatory affairs (e.g. sanitary and customs regulations) as well as to environmental issues, such as marine resources and/or carbon footprint management. In addition, labour, gender equality and the recognition of indigenous people all play a role.

Ports are also strongly connected with the cities in their area of influence. Indeed, ports are often a gateway to understanding the history of a city and its inhabitants. The economic activity they generate creates employment, stimulates business development, advances technology and innovation and is linked to social development through the strengthening of skills and capacities. Because the environment is affected by port activity, the transition to more sustainable energy production is of relevance to the people who live in port cities.

In 2019, FAO initiated an international consultation process with fishing ports with the purpose of better understanding and measuring the role of ports in the territorial development of coastal areas. This process consisted of three workshops and several actions that together identified a need for increasing and sharing knowledge about how a port can become "blue", i.e. how it can maximize the positive impact it has on its hinterland. Representatives of more than 20 ports worldwide agreed to promote the Blue Ports Initiative, an endeavour that aims to improve and disseminate knowledge about port sustainability.



Working group © FAO



Plenary session © FAO

The Blue Ports Initiative strives to contribute to poverty alleviation and food security by promoting food quality, preserving natural resources, reinforcing value chains and encouraging compliance with good labour practices and gender equality within marine sectors. Through the Blue Ports Initiative, fishing ports are encouraged and assisted to implement a blue economy approach in their strategic and operational processes. To become "blue", a fishing port must achieve at least the following medium to long-term benefits that will help it become a relevant driver for sustainable local development:

- Strategic planning is supported by inclusiveness, competitiveness, greening and process efficiency.
- Relationships with stakeholders are reinforced as major challenges are addressed together, in an efficient and competitive way, by academia, government, the private sector and civil society.
- Investments and facilities respond directly to stakeholders' requests.
- Innovation is fostered by attracting potential investors and entrepreneurs.
- Public-private partnerships, and projects and investments that attract funds, are boosted by improved stakeholder participation, more efficient planning and improved business operations.
- The relationship between the city and the port is improved and secured through the planning and implementation of joint actions aimed at improving the quality of life of city residents.
- Commercial operations are improved in terms of volume and revenue.



View of the Port © FAO, Marshall



Vigo, Spain © FAO

In light of the above, the Blue Ports Initiative intends to **foster the sustainable development of coastal areas through blue port operation**. The following results are expected within the framework of the Blue Ports Initiative:

- Output 1. Creation and operation of the blue ports network. There will be an operational programme, a baseline and a guidance to become a blue fishing port.
- Output 2. Capacity building in the management of blue ports as hubs for innovation and sustainable development. Workshops, seminars and training courses will be arranged and several guides will be produced.
- Output 3. Innovative tools for knowledge management in national and international fishing ports. Such tools include a digital platform and data observatory.
- Output 4. Port design and implementation strategies and actions under a blue growth approach, through specific technical assistance activities.
- Output 5. The real impact of ports on their hinterland is measured.

As already mentioned, the city–port relationship may be one of the main challenges for an aspirant blue port. A port cannot be considered to be sustainable if it does not link with the city in its strategic planning processes. The impact of a port on a city must be measured, and port activities must consider this impact in terms of the quality of life of city residents. The direct involvement of a port in a city's growth strategies is likely to reduce potential conflicts and facilitate the implementation of port activities and processes.

The Blue Ports Initiative will address these challenges through the outputs mentioned above. Many good practices have already been collected to determine how ports can improve their relationship with, and impact on, adjacent cities. The exchange of good practices and knowledge about the techniques that can be used to measure impact are only some of the experiences that should be shared within the Blue Ports Initiative.

Finally, all ports that are interested in becoming "blue" – and therefore sustainable – are encouraged to join the Blue Ports Initiative. Any other related entity is invited to discuss potential collaboration. Maximizing the positive impact of ports on their hinterland and approaching them as knowledge hubs, will generate positive benefits and result in the achievement of FAO's four betters, and ultimately the aspirations of Agenda 2030.

Port of Antwerp: innovation the key to high-quality food and farming

Interview by José Sanchez



Ingrid Vanstreels, Business development advisor at Port of Antwerp



Dorien Van Cauteren, Environmental expert at Port of Antwerp

From its strategic location and dedicated facilities, to experienced port stakeholders and partners, the Port of Antwerp already boasts numerous advantages when it comes to getting food onto European plates. It is also developing pioneering solutions in partnership with the port community. It is the same commitment to innovation that saw it set up an Agricultural Innovation Fund, to promote sustainable co-existence between agriculture, nature, and port activities.

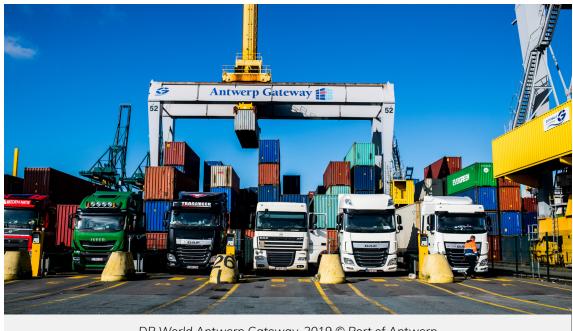
An interview with Ingrid Vanstreels, Business development advisor at Port of Antwerp, and Dorien Van Cauteren, Environmental expert at Port of Antwerp

Port of Antwerp is an active AIVP member since 2008

AIVP I In 2019, you reaffirmed your aim of becoming Europe's number one port for perishable goods. Antwerp has seen growth in this traffic in recent years. What are your biggest advantages in this area?

Ingrid Vanstreels, Business development advisor, Port of Antwerp | First of all our biggest advantage is our strategic location. As an inland deepsea port - we are located 80km land inwards – the distance between Antwerp and the European consumption areas is often the shortest. That's why a lot of regular maritime liner services are calling at the Port of Antwerp and we are the first port of call in Europe for many Latin American and West-African destinations. Not only do we have excellent overseas connection, we also offer smooth hinterland connections via an extensive network of European highways, waterways and railroads. That's why it's safe to say Port of Antwerp offers the fastest way from the field to the shelf.

Off course, a port is only as capable as the companies that are situated within the area. Specialized companies with years of experience and a passion for the job are eager to share their expertise. A large range of added value services are available, such as storage in special refrigerated and fresh areas, phytosanitary inspections and customs clearance. Furthermore, the service providers are adapting their capacities to the growing demand in fresh produce.



DP World Antwerp Gateway, 2019 © Port of Antwerp



There are also numerous experienced forwarders in Antwerp. They help their clients design the optimal international transport route, act as a fiscal representative and take over the documentation, customs and inspection formalities. This results in a worry-free service.



AIVP . **20**

To stimulate growth in the segment, the port authority and the players within the port continually invest in state-of-the-art equipment for loading, unloading and handling activities. When visiting the port, you'll see ultra-modern gantry cranes that load and unload container vessels with a capacity of more than 23 000 TEU. And every container terminal in Antwerp is equipped with reefer facilities, totalling up to 8000 reefer plugs. For example, banana's or pineapples are unloaded and stored in automatic cold stores and the delivery to the market will be executed in less than 48 hours. The pressure on the chain is high. But thanks to our long experience we know how to deal with it.

Last but not least, the Port of Antwerp owes its great reputation to its highly trained workforce and exceptionally high productivity.

AIVP You created a Fund for Agricultural Innovation and launched a call for projects in 2020, and then in 2021, aimed at farmers on the left bank of the Escaut river. The aim is to find solutions that strengthen synergies between the port, agriculture, and the natural environment in this area. Can you tell us more about this initiative, and the new kind of agriculture that it will make possible?

Dorien Van Cauteren, Environmental expert at Port of Antwerp In September 2021, Port of Antwerp has launched a second call for projects for the Agricultural Innovation Fund. This initiative supports innovative and sustainable agricultural projects in the Zeeland-Waase polders. Farmers who want to make an effort to adapt their agricultural activities so that they contribute to biodiversity and in the meantime are economically profitable had until December 2021 the chance to submit a project.



Agriculture Innovation Fund, Call 2021 © Port of Antwerp

Between the Scheldt, the port and the Zeeland Flemish hinterland, the landscape is characterized by dikes and creeks, container ships passing by and vast polders. Agriculture faces several challenges such as drought, water scarcity, rapidly changing regulations and declining biodiversity.



The nature in the port © Port of Antwerp

Agriculture, nature and port activities have to be able to co-existing in the polder area. With the Agricultural Innovation Fund, Port of Antwerp wants to encourage innovations in agricultural companies. These are innovations that reduce the impact on the environment and strengthen the business.

The purpose of the Agricultural Innovation Fund is to support farmers in the region who are willing to adjust their agricultural activities so that they are economically profitable and contribute to environmental objectives. These environmental objectives include boosting biodiversity by growing crops that require less fertilization and pesticides or less intensive tillage.

Harrier-friendly crops and mixed crops

From an earlier project call, 9 projects are now running. In a variety of ways, farmers are working on adaptations that contribute, for example, to soil life, water retention capacity, soil condition and restoration of biodiversity. For example, there are projects that experiment with the targeted use of flower strips as part of natural pest control or work on the further integration and optimization of harrier-friendly crops in the cultivation plan.

Mixed cropping is being used in harrier-friendly cultivation. The difficulty with this is that different crops have to be sown at different depths. Therefore, a number of farmers developed a machine with which it is possible to sow at two different depths at the same time. Field beans and triticale can be sown in one pass. According to the organization, this is not only interesting as a foraging area for the marsh harrier, but also as roughage for cows, so that the farmer is less dependent on the import of protein sources such as soy. A win-win for economy and ecology, tailored to the individual farm.

Jury assesses submitted projects

Due to the diversity of agricultural businesses, the measures to be applied can vary greatly. The innovation fund supports the application and guides farmers through the process. This project call focuses on Flemish farmers, but the initiative on the Dutch side of the polder is also being worked on. Now the project proposals are submitted, a professional jury will assess all projects and will select the most promising submissions in February 2022.

Port Saint John (Canada): high quality food for citizens

Interview by José Sanchez



Paula Copeland, Director, Engagement |& Sustainability, Port Saint John

Port Saint John (Canada) sees a high quality food supply as a major part of its activity, and relies on constant cooperation with its partners to develop its solutions. But public awareness of this role – which is also integral to the port's social responsibility policy and actions to support the local community – is still too low.

Interview with Paula Copeland, Director, Engagement & Sustainability, Port Saint John (Canada)

Port Saint John has been a member of AIVP since 2020

AIVP Port Saint John has a long-lasting relationship with clients in the food sector and supply chain, such as Crosby's Molasses, operating from your port since 1879. Canpotex, a potash distributor, also operates out of Port Saint John. This is an example of the importance of ports in the global food systems.

What are the particularities of this type of traffic when compared to others? And how do you establish such long-lasting ties with these companies?

Paula Copeland, Director, Engagement & Sustainability, Port Saint John The food sector is an important part of our imports and exports at Port Saint John. Our relationship with Crosby's Molasses is our longest partnership. They import and refine over 9000 metric tonnes of liquid bulk each year. Crosby operates a liquid bulk tank storage facility including 46 food grade storage tanks and capacity ranging from 25 metric tonnes to 10,000 metric tonnes.

Nutrien and Canpotex, which are respectively a producer and distributor, contribute to quality food production via potash, which is used in fertilizers worldwide. In 2021, they exported over 1.6 million metric tonnes through Port Saint John. The potash comes to Port Saint John via rail and is exported at the Barrack Point Potash Terminal.



Crosby's Molasses Facility © Port Saint John

We build long lasting relationships with our partners by working to provide them with innovative supply chain solutions. Also, we follow our 'inclusion model' which aims to check in with our stakeholders to evaluate how we can be a better partner. The interactions through this framework and philosophy helps us implement changes that will continue to support a prosperous relationship.

AIVP In our globalized world, we can find almost anything in the supermarkets thanks to food supply chains. Do you think citizens are aware of the important role of the port in the global food systems?

Paula Copeland, Port Saint John I believe throughout the pandemic, citizens gained a higher awareness of the current supply chain issues, mostly because of the shortages we have seen. Consumers are hearing the term "supply chain issues" constantly on the news, but I'm not sure they fully understand the concept and make the connection to ports. Part of our job on the Engagement & Sustainability team at Port Saint John, is to help citizens understand our role in the movement of goods, including global food markets. We do this through social media infographics, blog posts, collaborative projects with our partners and interviews like this. We also use "International Days" such as World Food Day to create awareness.



Port Saint John's Team © Port Saint John

AIVP | Port Saint John is also a frozen food hub, for example for major brands. This is yet another specific type of traffic.

Are there any particular technical challenges to preserve the cold chain?

Paula Copeland, Port Saint John | The cold chain is an important part of the supply chain that touches Port Saint John. We recently upgraded our reefer towers through the West Side Modernization Project, a \$205 M infrastructure upgrade, which added 288 new plugs to the DP World Saint John Container Terminal. This resulted in significant growth for both imports and exports of cold containers from 2020 to 2021. Imports grew 490% and exports grew 42%.



Reefer towers © Port Saint John

As you can appreciate with this level of growth, it is also critical to ensure the available infrastructure and equipment are in place to accommodate. We are continuously working with our logistics chain partners to enable and maintain our cold chain offering at Port Saint John. This includes our rail providers right-sizing their investments and supply of refrigerated rail cars, gen-sets and clip-ons to accommodate our demand, as well as working with our terminal operator and other third parties with the investment of a cold storage facility in Saint John.

AIVP In the local context, ports also play a very relevant social role, supporting institutions such as food banks.

What kind of aid programs and support is the Port of Saint John developing for the local inhabitants?

Paula Copeland, Port Saint John | We believe that we have a duty to support our local community and we have a major focus on the priority neighbourhoods that surround the Port. Each year, we participate and create opportunities to help our community in this area.

For example:

• Each Fall our employees help stock the pantries of 3 local high schools for students who are in need.

- We donated, under a long-term arrangement, space in a building for our regional food bank association to install a custom-built freezer and dry good distribution area for larger volume donations.
- During the holiday season, we participate in a program through our elementary schools that helps local families with groceries.
- Also, during the holiday season our operations personnel erect a large Christmas tree made
 of lights to symbolize the start of the giving season for a local foodbank support campaign
 called Harbour Lights. Each year it raises over \$200,000 for local foodbanks and a few of our
 employees are on the Board of Directors for the campaign.
- In 2020, as the pandemic started, we offered a collective of helping agencies our cruise terminal facilities free of charge so they could safely provide an Emergency Food Program. We often provide non-profits and initiatives like this an in-kind donation of our space.



Seafrigo: The cold chain specialist

Interview by Caya Hein



Stéphane Desseigne, Seafrigo Group Development Director

Seafrigo is a logistics company specialized in the global food logistics chain. It is specialized in handling frozen, chilled and ambient products with reefers and refrigerated warehouses. Through its global network of offices and variety of services it provides – ocean freight, air freight, warehousing, hinterland modalities, and customs brokerage – they are experts of the food supply chain. In this interview, the AIVP explores Seafrigo's knowledge in relation to goal 7 of the AIVP Agenda 2030, "Quality food for all".

Interview with Stéphane Desseigne, Group Development Director.

Global food supply chain company

AIVP Seafrigo has ports of call all around the world and is involved in many of the logistical aspects along the transportation route. As a global company, what do you believe is your role in the maintenance of the food supply chain?

What are the particularities of this type of traffic when compared to others? And how do you establish such long-lasting ties with these companies?

Stéphane Desseigne, Seafrigo Group Development Director | Technically, freight forwarding around the food supply chain is our specialty. That is the reason we are very specialized. You need specialists to manage products that are under temperature control. The most important thing with food products is to maintain the temperature, track it, and be sure that while moving the products from one port to another you can guarantee the food safety. It also guarantees the consumer that the food has been handled with care. Therefore, it is extremely important for two reasons. First, it is vital for the health and security of the consumer. Second, it helps avoid waste because, if we do not respect the cold chain, products are spoiled. This would generate a waste of product and money, which we would like to avoid. Already, a lot of products that are handled with care between the producer and the consumer go to the garbage. Seafrigo has decided to be part of the chain to help avoid this waste of food as much as possible.

Therefore, our role in the food supply chain as specialists guarantees that the food being shipped arrives from port to port safely. It is what we guarantee our customers and consumers. We are the middlemen.



Food transport © Seafrigo

Centralising services and reducing waste

AIVP | Seafrigo offers food processing services, including e-commerce fulfillment and re-packaging. Does the centralization of this process into your company aid to combat food waste?

Stéphane Desseigne, Seafrigo Group Development Director | Yes, for one main reason. You have two ways in which you can transport products from point A to point B. If you imagine that at the origin point you start to customize the products with brand labels it limits where the goods can go. For example, a good that is produced in France and is labeled with "Walmart" at the point of departure, it can only go to Walmart. However, if the consumer does not acquire the entirety of the product or does not want it anymore, the product is wasted as it will be destroyed. This is because it costs too much to repack the products at the destination.

On the contrary, you can transfer the raw material. If you transfer the raw materials, such as seafood, which is stored in big bags in frozen facilities in the US, you increase flexibility in the recipient. Processing the food at the destination allows for last minute decisions when receiving orders. You pack the product at the destination with the certainty that it is desired by a customer. This gives a better chance to the goods to be sold and lessens waste. If a deal with Walmart falls through, you can still sell it to another supermarket, only pack it once, and allow for the product to reach the consumer.

The food processing services we have at the destinations help to avoid additional waste of food. The centralization process helps give more flexibility in where the goods end up and the quantity of products can vary more easily as well. When you have more than one solution for a product, there is a smaller chance of wasting it. When you have only one solution, you limit your own capabilities to use the products, with the risk of wasting it. The processing at the destination can also be a way to preserve the products. The seafood can be moved in large quantities while frozen, defrosted safely at the destination, and sold like fresh to markets locally. To defrost a product, you need to respect certain processes, to be sure that it is done securely and guarantee that there are no health issues with the product. Seafrigo has the capacity to do this through the variety of services we provide.





Cold storage © Seafrigo

The ecological footprint of warehouses and refrigerated containers

AIVP | Seafrigo deals with frozen and chilled ingredients on a regular basis, making reefers (refrigerated containers) and temperature-controlled warehouses necessary. What measures do you take to reduce the ecological footprint of your reefer containers and your warehouses?

Stéphane Desseigne, Seafrigo Group Development Director If we first consider the matter of the warehouses, to reduce our footprint and energy consumption you need to have modern warehouses. It is certain that if you use the latest technology, in the next 5-10 years it will be more respectful of the environment than a facility that is 30-40 years old. So, there is a need to create new facilities and to modernize the facilities worldwide. This has two objectives: reduce and follow the good trend set by the UN SDGs and better preserve the products that are stored.

Technology has greatly improved recently so there are a lot of options at our disposal. The first one is the choice of gas you use to refrigerate the warehouses. In the past, many companies used chemical products that had negative impacts on the environment, like Freon. There are some gases that are CO2 neutral, such as ammonia. There are also new technologies that can be put in place for the management of the refrigeration system. This allows the system to start-and-stop to prevent it being on continuously. It can also help check the temperatures and reduce the electric load consumption.

It is the same for the electricity you need to run a warehouse. It cannot be denied that we still need electricity to power the warehouses, so we cannot arrive at zero consumption. However, Seafrigo advocates adding solar panels, which help with the whole consumption. The difficulties with solar panels depend on the country in which you are situated. Some countries, such as the USA, have no issues putting them on their warehouses but it is more complex in other countries, such as France. They have more complexities between their environmental laws and the risks associated to solar panels (e.g. fires). As this technology improves and increases in importance, it is certain that the laws will adapt to permit the placement of panels on refrigerated warehouses.

It is a similar story for reefers: newer ones are better for the environment. However, it is also different because you need to plug reefers in to an electrical base to ensure that it is functioning. Technology needs to be improved and there is work that needs to be done on reefers and their consumption, but it can be expected that in a couple of years, similar technology to the warehouses will be available for reefers. Seafrigo is not in control of the reefers as the shipping lines own the reefers. Shipping lines have the ambition to reduce their CO2 footprint. Their priority is fuel used in the boats before improving the reefers, but they are very interested in doing this in the next few years.



Food warehouses © Le Barbo Graphics

Organic products

AIVP An important subgoal of AIVP's goal on "Quality food for all", is the promotion of fair trade and organic and local production. Does the fragility of organic or fair-trade products require particular precautions to be taken?

Stéphane Desseigne, Seafrigo Group Development Director | Yes, organic products need to be managed properly. In a way you need to be careful with all products but within the product you need to be careful of cross-contamination. Within the shipments, you need to be careful about cross contamination. Organic products cannot be mixed with non-organic ones as they would lose their organic label. You need to have specific areas and specialized warehouses that have received organic certifications. However, once it has reached this base it is managed in the same way all along and we can guarantee at the end the quality of the product. If it is a raw or exposed product, they require more care during manipulation.

Fair trade products are the same as they can have the same issues as organic products. It can be more difficult to identify and track them as they are not necessarily identified as fair-trade products from the beginning. The label becomes more interesting in the logistics side, in the way they are produced and sold, and thus the transport chain is less involved.

The identification and management, once again, also has national and regional differences. Generally, there is more interest in the organic products – how to store them, identify them, etc. Some products labelled organic in the USA would never pass the organic requirements in France, due to differences in definitions and standards. Every single country, due to its culture, has different ways to manage foods. France, for example has a culture which values its food as natural as possible. This means that whole milk is used for certain cheeses but that the population has knowledge on which goods can be consumed by whom (e.g. pregnant women know which foods they should avoid). However, in the US the regulations are turned more to protecting the consumers. This means using pasteurized milk for safety reasons and assuming the consumer has no knowledge. The bottom line is that everyone, from countries to logistics enterprises like us, want to reduce the risks of consuming goods.







Interior of warehouses © Seafrigo

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