



IPCSA Sustainability Working Group

KEY INSIGHTS

Are sustainability initiatives and targets part of your year plans? If not, why not? Port Community Systems already play a vital role in ensuring the smooth and swift flow of information through ports and terminals, reducing delays and, in turn, helping to reduce costs and carbon emissions. The question is: how much more can be done, and how can Port Community Systems learn from each other?

The International Port Community Systems Association (IPCSA) has embarked on an ambitious project to identify, assess, analyse and share the part that Port Community Systems can and should play in sustainability; the focus includes in-house projects to reduce Scope 1 emissions and other environmental impacts, as well as looking outwards to see how the services provided by Port Community Systems can be maximised to assist the shipping and logistics industry to deliver its best possible performance in terms of sustainability.

Read, in this story, the key insights from IPCSA's Sustainability Working Group leaders and how Port Community Systems can bring the topic of sustainability into their company strategy, as well as some testimonials from some core participants of the Working Group.

Sustainability: a new focus for Port Community Systems

Stephanie van den Berg, Strategy & Innovation Portfoliomanager at the Netherlands' Portbase and IPCSA's Sustainability Lead, says presenting Portbase's sustainability strategy to IPCSA members two years ago was an important starting point. "I shared insights on the initial emission reduction calculations we had already done at Portbase; that prompted a shout-out to all the other Port Community Systems in the meeting and the decision to set up an IPCSA Sustainability Working Group," she says. "We see port authorities are working a lot on sustainability, including on emission-free ports, making sure they have shore power and supporting the energy transition. But Port Community Systems were not necessarily working on sustainability with such focus.

Through the working group, says Stephanie, IPCSA is focusing on what Port Community Systems are doing now, how they can contribute, how they can facilitate more sustainable flows of goods and what data should be shared to deliver even more emissions reductions. An example is that Portbase worked with an external company to build a model which calculates the emission reductions customers potentially are achieving through modal shift – such as from truck to barge. Customers are using our service hinterland notification, which supports customers with the option to make modal shifts, which can reduce waiting times at the terminal gates and/or inside the terminal, increase capacity and reduce the number of empty containers.

"The IPCSA Sustainability Working Group's main purpose is to share the knowledge and insights from successful sustainability strategies and processes, really focusing on Port Community Systems and together working towards more emission-free, resilient port logistics," says Stephanie.



Stephanie van den Berg,
Strategy & Innovation Portfoliomanager • Portbase

"By sharing knowledge, presenting the guidelines and having a working group and presentations, we aim to create awareness within IPCSA of how a Port Community System can play an important role in facilitating sustainability."

The working group has set **four goals**:

- Monitoring and sharing knowledge of sustainability trends, rules and regulations to provide valuable insight, including of rules and regulations coming up in different regions;
- Considering which data needs to be shared within the community specifically to increase sustainability and make a real difference in working towards emission-free ports;

- Promoting and identifying data standards to ensure Port Community Systems are aligned on which standards are being used; and
- Sharing best practices – encouraging Port Community Systems to share the initiatives that really work when it comes to sustainability.

“The four goals are essentially about sharing knowledge and preparing guidelines,” says Stephanie. As she says, Port Community Systems were created to support customers in the harbour by sharing information; that’s also the case when it comes to sustainability, whether it’s general advice on upcoming regulations or proactively developing APIs to show – for example – the emissions of a specific container.

Portbase’s own experience is that there is a real willingness in the community to become more sustainable, allied to the wish to leave the world in a better condition for our children and grandchildren, says Stephanie.

“By sharing knowledge, presenting the guidelines and having a working group and presentations, we aim to create awareness within IPCSA of how a Port Community System can play an important role in facilitating sustainability. All the material will be shared on the IPCSA Community page, where we will upload any updates, news articles, best practices and white papers shared by our members. We are also looking at adding a sustainability module to the IPCSA masterclass delivered by our IPCSA Ambassador, Hans Rook.”



Rules and regulations: keep up and looking ahead

The past couple of years has seen a deluge of new regulations around sustainability, says Martijn Maatman, Consultant Strategy and Innovation at Portbase. High-profile examples have included introduction of the European Union's Emissions Trading System (ETS) and FuelEU Maritime Regulation. While the EU has been particularly active, sustainability regulation has been accelerating at global level, says Martijn. "Last year we looked closely at EU regulations relating to sustainability and we came up with a list of 20 – some partially implemented, others live or in effect, most of them still being written."

However, we need to make sure that governments and businesses have enough time to implement all these different regulations, he notes – "because if they do just keep on coming, it will be too much to absorb and delays will follow".

Besides the ETS and FuelEU Maritime, regulations affecting sustainability include: the Alternative Fuel Infrastructure Regulation (AFIR) which includes requirements for vessels to use shore power; the Corporate Social Responsibility Directive (CSRD), requiring extensive reporting on sustainability, emissions and more; the EUDR, prohibiting placing products in the market that cause deforestation or forest degradation; DPP (sharing product data throughout its lifecycle); CBAM (price correction based on emissions of production outside the EU); and CSDDD (relating to due diligence).

From the point of view of a Port Community System, a priority should be to look at regulations with a particular focus – "do we need to be involved or does this go directly between government and company?" says Martijn. "For many regulations, we have considered the details and concluded that the Port Community System doesn't need to play a role. One example where we will play a role is the AFIR. Vessels will have to prove they have used shore power, and where.



Martijn Maatman,
Consultant Strategy and Innovation • Portbase

"Last year we looked closely at EU regulations relating to sustainability and we came up with a list of 20 – some partially implemented, others live or in effect, most of them still being written."

The physical infrastructure is the responsibility of the port or port authority, but vessels will need to submit a shore power request, and this would be a logical addition to the vessel visit notification. They will need to know where their berth is and where they have to go to plug in. At Portbase, we are developing a module for this inside the vessel visit notification."

Port Community Systems should be proactive, asking customers what support they need, considering where data is required for reporting and compliance, and assessing how shared data can help with anything from origin of shipment to type of fuel used to truck kilometres and even the weight of goods or container. “We could have more of a role in providing a variety of data,” says Martijn.

More new regulations are generally first applied to larger and multination companies, he says – then implemented for medium and then small businesses one or two years down the line. That approach makes sense in that larger companies should have larger budgets and teams able to absorb the additional requirements. However, to meet reporting requirements, large companies will also likely request some data from their suppliers, so medium and small companies are swiftly drawn in anyway.

As Port Community Systems step up to support customers in meeting their obligations, the fundamental principle remains – neutrality. “One of the first words on our website is ‘neutral’ – the strength of Port Community Systems lies in their foundation is as trusted, neutral third-party platforms,” says Martijn. “We simply provide the data. For example, Customs could use our system to mark a container for inspection, but it is Customs pressing the button, not us. What does become clear is that the EU steadily wants to standardise and, in some

cases, centralise and provide systems at an EU level while other systems are provided by national authorities. Hence there is a situation where data could be provided partly to the EU and partly to the Port Community System. It’s interesting to see and think about what that will require of Port Community Systems. We will probably need to collaborate more with EU systems and also between Port Community Systems.”

The broader picture shows that Port Community System customers are often unaware of regulations, unclear exactly what data is needed and uncertain about definitions; they can find it difficult to obtain data (which is sometimes commercially sensitive) from partners, and difficult to create data internally; they can feel daunted by the new types of sustainability reporting requirements through, for example, CSRD.

Data sharing is key for compliance and efficiency reasons, and standardisation of data would be the ultimate prize, notes Martijn. IPCSA clearly has a role to play supporting its members. “Although not all Port Community Systems are the same, the basic information for regulations can be investigated and shared with all IPCSA members. We can learn from each other how to implement regulations and which roles to play. IPCSA will also work to ensure that all inspection bodies nationally apply the same rules and strictness to ensure an equal playing field.”



Best Practice Sharing

When it comes to pursuing sustainability, there are two sides to the story for Port Community Systems: first, how can the Port Community Systems run its own operations and facilities more sustainable and second, how can it help its community – customers – to achieve their sustainability goals.

The inside story: dbh Logistics IT

Efforts to reduce emissions and improve sustainability are meaningless if you don't know where you are starting from. dbh brought in external expertise to assess the company's emissions, calculate the baseline footprint and analyse the reduction potential.

"This was the basis for developing a strategy as we concentrated on making our organisation more sustainable," says Marlene Herbold, Sustainability Manager at dbh Logistics IT AG. "It's important to get the external view because you learn to understand your company from another perspective and come up with solutions you wouldn't find on your own in your everyday business."

The consultant Michael Pelzl, of Pelzl Beratung & Umsetzung, worked part-time with the company. "He ran workshops to get everyone on board and gain an insight into our company, then presented our first carbon footprint so we could see where we were generating the largest part of our emissions. We then had a workshop to talk about the possibilities for getting those emissions reduced."

At least 80% of dbh's employees are based in its main office in Bremen, with the remainder working in smaller offices in Hamburg, Dortmund and Lubeck. "The sustainability strategy was for all our offices but some measures were for the main location only – that's because the more space you rent in a location, the more power you have. In Bremen, we can really talk with our landlord," says Marlene. "We will have photovoltaic panels installed by the end of the year through an agreement with the landlord and we also have a written agreement in which the landlord has committed to share data. We are discussing more sustainable heating options, such as switching at least partly to biofuels."



Marlene Herbold,
Sustainability Manager • dbh Logistiscs IT AG

"It is vital to have people on your side and sharing the goal to reduce emissions"

Specific reduction goals have been set for Scope 1 and 2 emissions, with a step-by-step strategy to work towards these. Practical steps have already included replacing old lighting with LED, increasing the number of electric vehicles in the car fleet, and switching to renewable energy. The company's sustainability management system was assessed by and received an award for its commitment from EcoVadis. Scope 3 is more complicated – stretching to services and products purchased, which are tricky to assess for emissions, but also to activities such as commuting and business

travel, which may be easier to quantify but actually make up a very small part of Scope 3 emissions. It is vital to have people on your side and sharing the goal to reduce emissions, says Marlene. She emphasises the need for establish common ground and reduce 'gatekeepers'.

Based on dbh's experience, what is Marlene's advice to other Port Community Systems? "First get an overview of emissions and determine what measures will be most effective. It's important for motivation to see changes. Communicate a lot – every step counts. Sustainability is complex and still new to many. Trial and error is OK. Being transparent is key – it's OK not to be perfect right away."

Sustainable actions may sometimes seem to conflict with financial goals but often sustainability is also about risk management, she emphasises. "Don't just check for short-term costs but also for future risks and opportunities – for example, standing out from the competition, being independent of energy supplies, inspiring employees and increasing loyalty to the company. Get your people involved and engaged. Sustainability is the topic of our and following generations. Companies doing their part can have a huge influence and impact."

"Get your people involved and engaged. Sustainability is the topic of our and following generations."

A new way of collaborating: HAROPA Port

"We have to change the way of coordination between stakeholders and collaborate in a different way with the port community to now include the ecological transition," says Jérôme Besancenot, Head of Digital Transition at HAROPA PORT (Le Havre, Rouen and Paris Ports). "Something is clearly different when we meet shipping companies today – they are really motivated to change. In the past, Port Community Systems were focusing on speed, regarding the flow of vessels and cargoes. Now speed is probably not the first priority – we have to consider energy saving and the control of GHG emissions."

HAROPA has a mission to become one of the top green economies in Europe, while also promoting reindustrialisation along the Seine Axis. "For us, this means switching to cleaner energy, reducing carbon emissions and also adapting to climate challenges. Since the merger (to create HAROPA PORT) in 2021, we have had to consider four ecosystems: one maritime at Le Havre, one maritime with waterways for Rouen, and two river ecosystems in Paris."



Jérôme Besancenot,
Head of digital Transition • HAROPA PORT

An overarching strategy contains **three main objectives:**

- Working towards energy transition, including reducing consumption, enhancing efficiency, guaranteeing access to low-carbon energy, fostering renewable energy locally and ultimately achieving Net Zero and even surplus energy by 2040. This includes, for example, the supply of aviation fuel via pipeline to Charles de Gaulle Airport – HAROPA PORT has an important role in supporting the delivery of new aviation fuel; hydrogen storage and supply; and CCUS (Carbon Capture, Usage and Storage).
- Creating and promoting a 'green corridor' for transport to and between the Seine Axis ports, making the most of the river and waterway connections, especially as there are about 70 ports and terminals within Greater Paris.
- Building resilience to climate change.

HAROPA PORT's Port Community System, which was developed in collaboration with SOGET, has many parts to play in the overall strategy, says Jérôme. "For example, we need to encourage ships to check their pollution using the Environmental Ship Index (ESI), something we can follow through the Port Community System. Working towards climate change resilience is also interesting – how can we collect data on natural phenomena, and how can we support adaptation? How can we collaborate with regional actors on a risk prevention plan?

"We are focusing on creating a green digital corridor – sustainability with digital innovation – to optimise logistics flows. To accelerate this, we use IoT sensors and are also making the most of 5G, recently deployed as a private network in the port area. We are also using blockchain for traceability. For anything relevant, we want to be sure that we share accurate data.

We are analysing how we can be better synchronised between stakeholders regarding port calls." The common denominator for all of this is that a Port Community System already has the community on board, working

"We have to change the way of coordination between stakeholders and collaborate in a different way with the port community to now include the ecological transition"

together, with established trust and a willingness to share (most) data. "We use that community, focusing on the Port Community System and now also the Maritime Single Window, to work on how we can improve data sharing, optimising logistics and promoting decarbonisation – not only locally but also on a larger scale, including a view on global maritime transport."

HAROPA PORT's Port Community System has been steadily expanded to incorporate not only cargo and vessels but also functionality around e-maritime, e-navigation, traffic regulation and multimodal logistics. "The limitation we have is that we are working with factual data – i.e. about a real event such as arriving/ departing terminal," says Jérôme. "If we want to optimise logistics, we have to think to the next step – not only 'what happened' but also 'what will happen'.

We are focusing on prediction functionality, to predict when a vessel will berth, when cargo handling operations will start and finish, and in this we have to create a new interaction with shipping companies and the Terminal Operating System (TOS) and establish clear standards to ensure everyone is using the same definitions.

Key to all of this is a Digital Twin with three modules – an ETA application; prediction of when a container will be ready for truck/train/ barge; and tracking & tracing of goods within HAROPA PORT, mainly for inland navigation along more than 300 kms of river between Le Havre and Paris. The next step is to develop an ETA for barges. "The just-in-time approach is a way to reduce GHG emissions, but it doesn't make sense to welcome a (seagoing) vessel through a just-in-time approach without providing a just-in-time connection with the multimodal stakeholder," explains Jérôme.

HAROPA PORT is also focusing on the 'last kilometre' and low-carbon ways to deliver goods into Paris using electric vehicles. "That strategy relies on the Port Community System data, and the Digital Twin is totally interconnected with this."

Both SOGET and HAROPA PORT are aiming to support carriers and logistics operators in reducing carbon and improving sustainability, says Jérôme – but, as ever, not all stakeholders are necessarily aligned with concepts such as just-in-time. "I would say we have to face the same difficulties we met in the past when we first started to work on the Port Community System 40 years ago. The main difficulty then was to gather stakeholders to work better together and define what could be an optimisation of processes, in a concept that was new. Today I have the same feelings that we are starting something new. The Port Community System is the leader – but we must change the minds of people working within them, because speed is probably not the main parameter in the future."

As he says, a priority is to improve the quality and uniformity of data and establish how information can be shared – about the energy performance of a vessel, for example. Three years ago, EasyPort was created as a joint venture between HAROPA PORT and SOGET, to provide a digital platform for sharing new types of information.

"For Port Community Systems, it's all about how we can change, locally and globally, to support more sustainable shipping and logistics. The IPCSA sustainability working group is seeking to define what could be a common strategy at the international level – this is an excellent, relevant approach if we want to address the scope of GHG emissions in the future."

"The Port Community System is the leader – but we must change the minds of people working within them"



The next steps

Members of the Sustainability Working Group attended a meeting in Rotterdam in September, where initial guidelines were discussed and subsequent steps were agreed upon. "The guidelines were further refined during October, and we presented them at the members' meeting in Dubai on the 29th of October," says Stephanie. "The guidelines will assist IPCSA members in understanding how they can contribute to sustainability, how to develop their own strategy, what trends, rules, and regulations are emerging, and which best practices they can follow."

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**Stephanie van den Berg,
IPCSA Sustainability lead**

Discover more about the IPCSA
Sustainability Guidelines with the QR code



A clear, data-driven sustainability strategy enables PCSs to transform ambition into action, ensuring that port communities not only meet today's regulatory demands but actively shape the sustainable supply chains of tomorrow.

