![Port of Rotterdam]

THE IMPORTANCE OF A PORT COMMUNITY SYSTEM TO THE CONTINUED DIGITISATION OF THE SUPPLY CHAIN

WHITE PAPER

Data and digitisation form the basis for reliable supply chains of the future. However, the management and sharing of all available data is at least as important. A Port Community System therefore offers a win-win situation for all parties involved in international logistics.

Digital infrastructure plays an increasingly crucial role in a port's success. Information can be exchanged safely and efficiently along the digital routes and between links in the supply chain, as well as with authorities. This lets shippers, freight forwarders and other organisations in the supply chain benefit from efficiency and cost advantages, while allowing them to continue strengthening their competitive position. For ports, a solid digital infrastructure is a crucial weapon in the battle for the title of 'World's Smartest Port'. It therefore makes sense that ports across the whole world are investing in Port Community Systems (abbreviated to PCS).

Example: Brexit

A current example of the importance of such a PCS for the operation of ports is a possible Brexit. In both short sea and ferry traffic to and from the United Kingdom, if Brexit occurs, there will inevitably be customs formalities. In the event of a no-deal Brexit, this will be so at a very early stage. A PCS will provide the digital infrastructure necessary for the efficient and reliable handling of these formalities.

A good example of this is the Portbase PCS; a joint venture controlled by the Port of Rotterdam Authority and the Port of Amsterdam. The existing practice of information exchange among deep-sea traffic has already led to the creation of links with Customs - and it has been in use for many years to the full satisfaction of all parties involved. It automatically makes PCS the logical choice for a supply chain-wide solution to the Brexit issue. After Brexit, all parties - from the exporter/importer, the freight forwarder and the customs agent to the road haulier, the ferry company, the shortsea terminal and the shortsea carrier - will be able to use the PCS to complete their customs formalities quickly, efficiently and uniformly.

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The somewhat unappealing alternative would be to set up bilateral links between all of the parties involved, whereby everyone would adopt their own system requirements and lay down conditions for the information. A chaotic Brexit would then be virtually unavoidable.

Owned by and created for everyone

What makes a successful PCS though? Several factors have proven to be crucial. Perhaps the most important factor is neutrality. If this can be guaranteed, then a PCS will automatically become more appealing to greater numbers of players in the market. It is also important that the digital services are available to everyone, regardless of their size, nationality or level of automation. By its very definition, a neutral, non-commercial intermediary will be able to guarantee this and allow all links to operate faster, more efficiently and at lower costs, without there being a need for paper documentation.

Once again, the Portbase PCS is a great example. Since its establishment in 2009, the neutral, non-profit intermediary Portbase has been facilitating data sharing between companies and the exchange of information with authorities. The community that is connected through the PCS is by far the largest in Europe and is growing steadily. Currently, over 17,000 people working in 4,000 companies use one or more of the 43 services within the PCS on a daily basis, with more than 94 million messages being sent annually.

Broad scope

The range of the services and the connection and cooperation with government bodies are also crucial to the success of a PCS, especially when complexity is on the increase, as is the case in the Dutch ports. The many
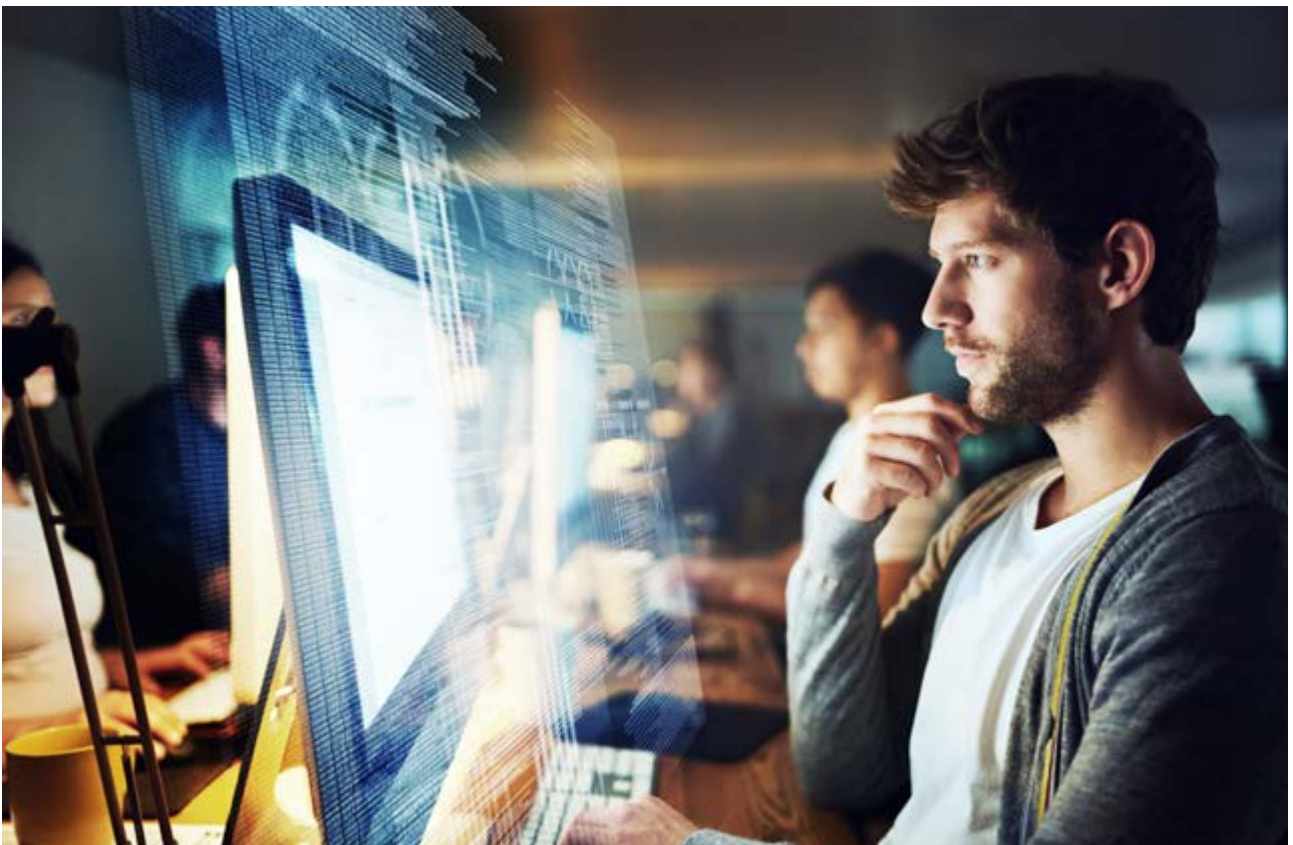
" It creates a snowball effect: the more companies join the community, the more worthwhile it becomes to share information. "

logistics organisations, countless commodities and all hinterland modalities imaginable make it difficult to constantly see the wood for the trees, let alone strengthen the competitive position by sharing data. This is precisely what the Portbase PCS facilitates more than any other PCS, as the vast majority of logistics processes have been automated.

Furthermore, the structure and the technology used for the PCS play a role. It makes sense that a modular structure, using the latest technological developments, offers the greatest benefit and ease of use for a port community.

Continuous investment

For that community, and of course for the port itself, it is important that there is continuous investment in the PCS. When it comes to the reliability and security of information exchange and, for instance, when it comes to the 'language' used (Edifact, API, web etc), the easier it is to

migrate a company's software, the more appealing it is for that company to join the community. It creates a snowball effect: the more companies join the community, the more worthwhile it becomes to share information.

Investments in the services themselves are also crucial to the success of a PCS. For instance, expansion of the services - e.g. by digitally linking sea ports and inland terminals - can make new data available and therefore offer new opportunities. Here too, a neutral intermediary can be crucial, for example by making data from the PCS available on a separate information platform. The generic datasets that are made available on this type of information platform can contain information about the port call, the container offloading confirmation, the container status and the movements on each mode of transport (unloaded or loaded onto an inland vessel).

Especially when linked to smart algorithms, these and other services make the port - and hence the port community - smarter. What's more, the supply chain is more reliable.

Data owner at the helm
For all existing and new services, it is paramount that the data is owned by the parties within the community that supply it. The information will have to be handled with care,

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and the data must only be used for its intended purpose. In the case of fresh developments, permission will always have to be requested first.

A neutral intermediary can create an interesting business model for data owners. Some parties will require data in exchange for their own data in order to gain a better understanding of the supply chains that concern them. Others will need to be paid for their data, for example by means of kickback constructions.

It is a matter of priority that in all cases, the revenues ultimately flow back into the community and that data owners never find themselves facing improper use. Only then will a win-win situation be created for the entire port community, including the hinterland, and will the title of 'World's Smartest Port' be within reach.