



BPO Digitalization Working Group discusses current projects in Baltic ports

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Members of the Baltic Ports Organization (BPO) Digitalization Working Group met at the beginning of June to discuss the recent developments related to the digitalization process in the Baltic ports. The meeting also featured a preliminary presentation of a report prepared within the Connect2SmallPorts project, focusing on a practical approach to the abovementioned process.

The report is based on the findings from a questionnaire conducted between representatives of various Baltic ports, among others: Kaskinen, Klaipėda, Pietarsaari, Riga, Rønne, Rostock, and Stockholm. Core objectives of the study featured: mapping of the recent digitalization projects in ports within the Baltic Sea region; an analysis of the distribution of said projects according to corresponding port processes and port areas; exploration of reasons behind the implementation of said projects; and preparation of recommendations for future digitalization projects and associated training.

The majority of surveyed ports declared already having a digitalization strategy or being in the development process. Additionally, most of the ports stated that they possess a digital business model currently in its implementation phase. Port representatives agreed that further cooperation and exchange of information regarding the development and implementation of digitalization

projects is essential and would be of great benefit.

The main difficulties identified by the report were related to a relatively low number of employees with a dedicated IT educational background within the ports. This is undoubtedly a point requiring further attention. Most Baltic port representatives are aware of the importance of the digitalization process and the associated training, but progress could be faster. Especially smaller ports are leaving over the implementation of more advanced digital solutions, as the lower turnover numbers might not warrant such investments.

Digitalization in Baltic ports

Members of the group gave a brief overview of the most recent, ongoing digitalization projects. Leading the field are solutions linked to the Internet of Things, big data, artificial intelligence, blockchain, and the digital twin technology.

The Port of HaminaKotka is developing its digital twin together with

GISGRO, integrating various other systems with the solution. The tool is practically operational, but more advanced packages are continuously added. The Port of Kaskinen is working on a similar solution while encouraging operators and partners to get involved in **the NEMO project**

NEMO is a maritime traffic notification system, one to eventually replace the Portnet notification system and be implemented in all Finnish ports. It will be utilized in a variety of processes, such as monitoring the border crossings of persons, maritime search & rescue, overseeing the transport of hazardous substances, collecting fairway dues, port operation, safety and security surveillance, planning port state control, and monitoring infectious diseases. Thanks to the new system, notification data on port visits by merchant ships will be sent to many different recipients on a centralized basis through a single system.

Another tool discussed during the meeting was **the Port Activity App**, already in



Photo: Canva

use in various Finnish ports. The app provides a toolset for ports to improve the overall efficiency of port flow. It is a user interface for port digitalization and communication, strengthening collaboration between various parts of port operations and traffic.

Also worth mentioning is the ongoing implementation of automated solutions

for smart gate systems, estimated time of arrival prediction solutions, and a port community system at the Port of Riga. The Rostock Port, on the other hand, is actively looking for systems which will allow it to streamline and, in turn, increase the efficiency of tasks related to invoice and document management.

An interesting point was raised by representatives of ION regarding the steps undertaken towards setting an ISO standard for port call optimization solutions. Right now, decision-makers seem to be mainly focused on the ship operators' perspective, but the point of view of the ports should also be considered, as it is an important piece of the puzzle. ■