

The Covid-19 Crisis:

A Catalyst to Speed Up the Digital Transformation of Ports

Mustapha Lhamouz. Activities and Operators Supervision Director, Strategy and Regulation Branch, National Ports Agency of Morocco.

Moroccan ports have played a major role in managing the Covid-19 health crisis. In fact, the port sector has demonstrated strong resilience and great agility by adapting its various operational processes to the new context, which requires that health measures be taken into account to deal with the pandemic threat. Moroccan ports have thus continued to fulfil their role as platforms serving the country's foreign trade, thereby ensuring supply chain continuity with respect to strategic products and keeping the channels open for national exports to foreign markets¹.

It is important to note that Moroccan ports represented the only border point that remained in operation after the airports and land borders were closed during the lockdown.

As part of the national port sector's efforts to manage this crisis, digitizing port processes and making them paperless has represented a crucial move that has enabled the sector to meet the challenge of service continuity.

With the health crisis, the use of paperless trade to reduce physical interactions has proved essential and has become a key element of the business continuity plan implemented by the National Ports Agency.

The context of the Covid-19 pandemic has thus revealed the importance of the National Ports Agency's strategic choice to digitize port processes in 2008 through the implementation, together with all stakeholders in the port ecosystem, of a port community system known as PORTNET, which has become the single-window system for foreign trade procedures.

Since this community information system was implemented, around 50,000 customers have used PORTNET's services and more than 40 port, customs and foreign trade processes have been digitized through this platform; these include vessel arrival notifications, requests for allocation of posts, the hazardous goods list, import documents, manifest declarations, gate passes, inspections, and the entry and exit of goods.

The direct and indirect effects of the Covid-19 health crisis have made the port community more aware of the added value for port users of speeding up the digitization of new processes to ensure greater fluidity of port traffic and improve the competitiveness of ports.

¹ The ports managed by the National Ports Agency (ANP) moved 92.5 million tonnes of goods in 2020, 5.1% more than in 2019.

For the National Ports Agency, which has already been involved in an extensive programme to enhance the digital transformation of Moroccan ports for several years now, the health crisis has served to speed up the implementation of its SMART PORT programme, whose goal is to achieve “zero paper” ports.

The objective of the SMART PORT programme is to strengthen the competitiveness of national ports by exploiting the opportunities offered by digital technology and new technologies in general.

During the Covid-19 crisis, this programme was adapted to the context and several new services were set up via the PORTNET single-window system, including:

- The procedure for inspecting ships’ stopover documents, which has been extended to the services of the General Directorate for National Security (DGSN) and the Ministry of Health;
- Issuing of customs release forms, which was implemented on the community platform on 4 May 2020;
- Orders for related activities (ship chandling, surveillance, etc.);
- Automatic notification of the arrival of goods at the port, plus traceability and tracking;
- Digitization of the procedure for requesting port access passes, etc.
- Electronic payment for all types of port and goods inspection services.

The Digital Transformation of Ports: A Driving Force for Competitiveness

The Covid-19 health crisis has served as a catalyst for a trend that was already well under way and will help speed up the digital transformation to spark a real digital revolution geared towards the digitization of port processes.

Digitalization currently represents a crucial challenge for ports across the world and will pave the way for a genuine breakthrough in the port and maritime industry, which has seen few innovations since the container was introduced back in the 1950s.

Indeed, according to the latest report published by the World Bank and the International Association of Ports and Harbors (IAPH), digitalization is essential if ports are to recover successfully from the Covid-19 crisis and effectively prepare for future crises.² According to this report, we are now definitively entering a new era in which digitalization will be a port’s key factor for success.

Thus, the year 2020 constitutes a historic turning point, since it allowed the maritime and port digitalization process to gather speed.

In addition to digitalization of information flows between the various stakeholders in the port ecosystem, a flood of new innovations is being implemented in several ports, which are seeking to take advantage

² “Accelerating Digitalization: Critical Actions to Strengthen the Resilience of the Maritime Supply Chain”, World Bank Group, IAPH and WPSP, December 2020.

of the latest technologies, such as the Internet of Things (IoT), blockchain and 5G, to devise new, “disruptive” ways of carrying out procedures.

Several initiatives of this kind have been launched, including the creation of a blockchain platform (Maersk), implementation of a smart bollard (Port of Rotterdam) and testing of autonomous vessels.

At national level, and in the same spirit, in December 2020, the National Ports Agency announced the first Smart Port Challenge in Morocco and Africa in the form of an entirely online hackathon designed to encourage companies, start-ups and universities in Morocco and abroad to offer innovative solutions to address several port issues in areas such as electronic payment, energy efficiency, port infrastructure management, port security and environmental protection.

This event, which finished at the end of January 2021, benefited from the participation of more than 500 researchers, experts, start-ups and professionals from more than 10 countries and resulted in the submission of more than 70 projects.

Through this new innovation-based community approach, the National Ports Agency intends to boost the performance and competitiveness of national ports by coordinating the actions of the various stakeholders with a view to providing innovative solutions to major port challenges.

The Digital Transformation of Ports: Facilitating Regional Trade

Advances such as the digital transformation of ports and making port processes paperless are now paving the way for greater regional collaboration aimed at facilitating trade.

Indeed, optimization of the global logistics chain requires that port ecosystems are connected at regional level through the implementation of a data exchange system between the different port community systems to increase the efficiency of port transit by providing real-time information to all foreign trade stakeholders.

Emerging new technologies (blockchain, IoT, etc.) will simply serve to strengthen this concept of sharing key trade information at regional level, in particular by facilitating the acquisition and exchange of data throughout the global supply chain.