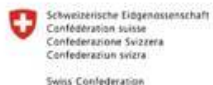


Digital Port Infrastructure



United Nations
Economic Commission for Africa



WORLD BANK GROUP

The digital divide

Situation of emergency

- IMO Resolution FAL.14(46) imposes contracting parties to establish a Maritime Single Window for the electronic exchange of information to assist vessel clearance processes by Jan 1st, 2024
- 13 mandatory declarations for ship arrival and departure

More than 11 months after deadline, many ports still do not have an operational MSW

SSATP undertook a study to assess the digital readiness of African ports and better understand the challenges ports are facing

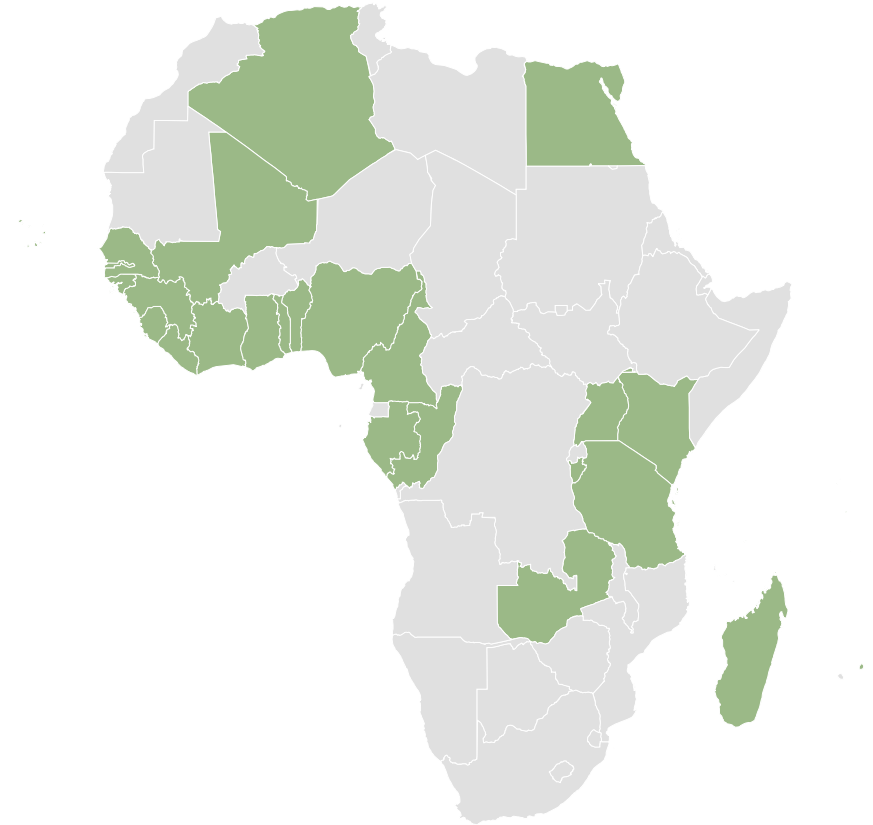


Mandatory legal framework

Conventions, Resolutions & Guidelines

- IMO Resolution FAL.14(46)
- IMO MSW Guidelines FAL.5/Circ.42/Rev.3
- IMO Port Call Guidelines FAL.5/Circ.52
- IMO JIT Arrival Guide
- UN/CEFACT SW R.33 on Single Window:
 - exclusive in the member state
 - standardize information
 - government mandate for single entry point
 - regulatory processes
 - single submission point for individual data elements
- IAPH-WCO Coordinated border management

Cooperation between National maritime administration and Port authority



The objective is port efficiency

Three Steps

- Mandatory declarations
- Beyond that, take this opportunity to handle the whole port call process (pilots, tugs, mooring, vessels services...)
- Process reengineering to optimize port calls (the WB CPPI is precisely measuring this)

STEP 1

**Vessel Clearance
Process
Incl. IMO
mandatory
requirements**

FAL.14(46)
FAL.5/Circ.52

STEP 2

**Full Port Call
Process incl.
Nautical,
Operational and
other
Administrative
Processes**

FAL.5/Circ.52
FAL.5/Circ.42/Rev.3

STEP 3

**Port Call
Optimization and JIT
Arrival of vessels**

IMO JIT Arrival Guide

Readiness of the ecosystem

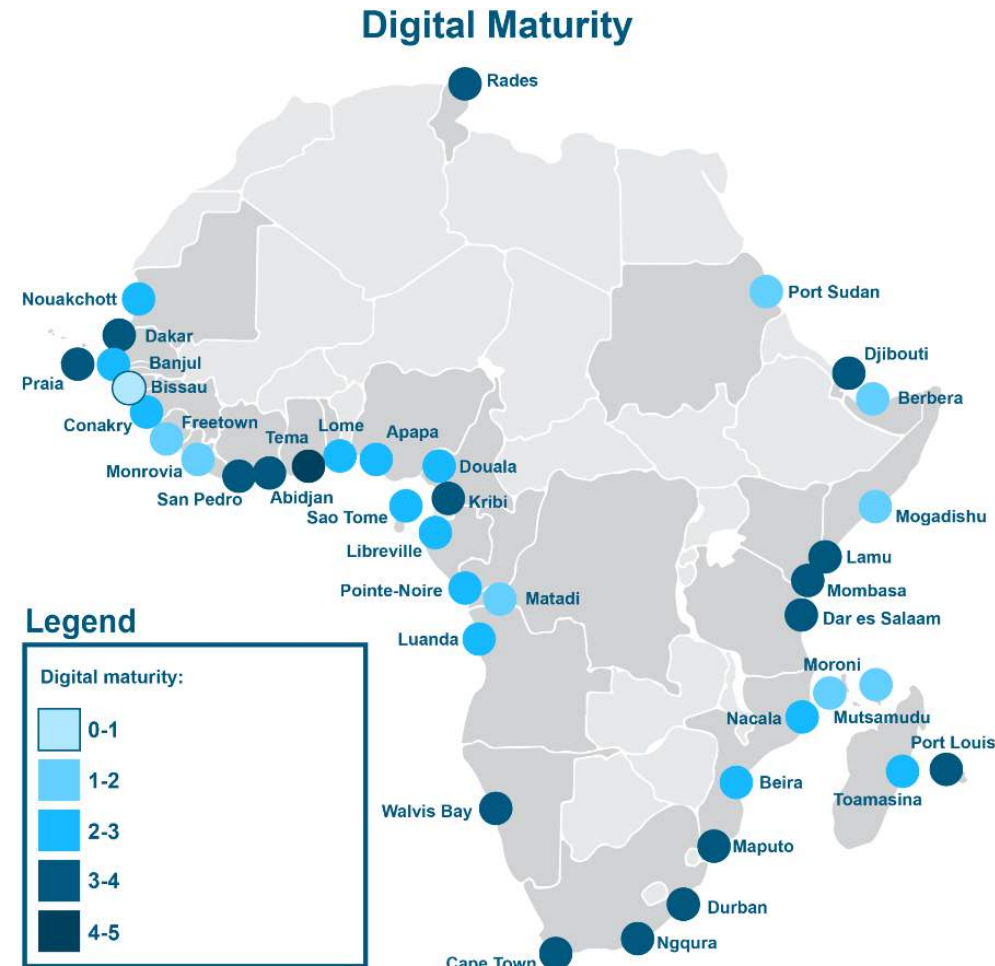
Digital Maturity Index

The overall average for all countries surveyed was 2.76.

Individual country scores can be seen in the graph on the following page.

High digital maturity scores were not limited to particular regions, size of port, or economic development in a country.

Generally, high scores were seen for digital maturity in cargo operations and low levels of maturity or scoring for the digitalization of customs processes and systems.



Focus on MSW

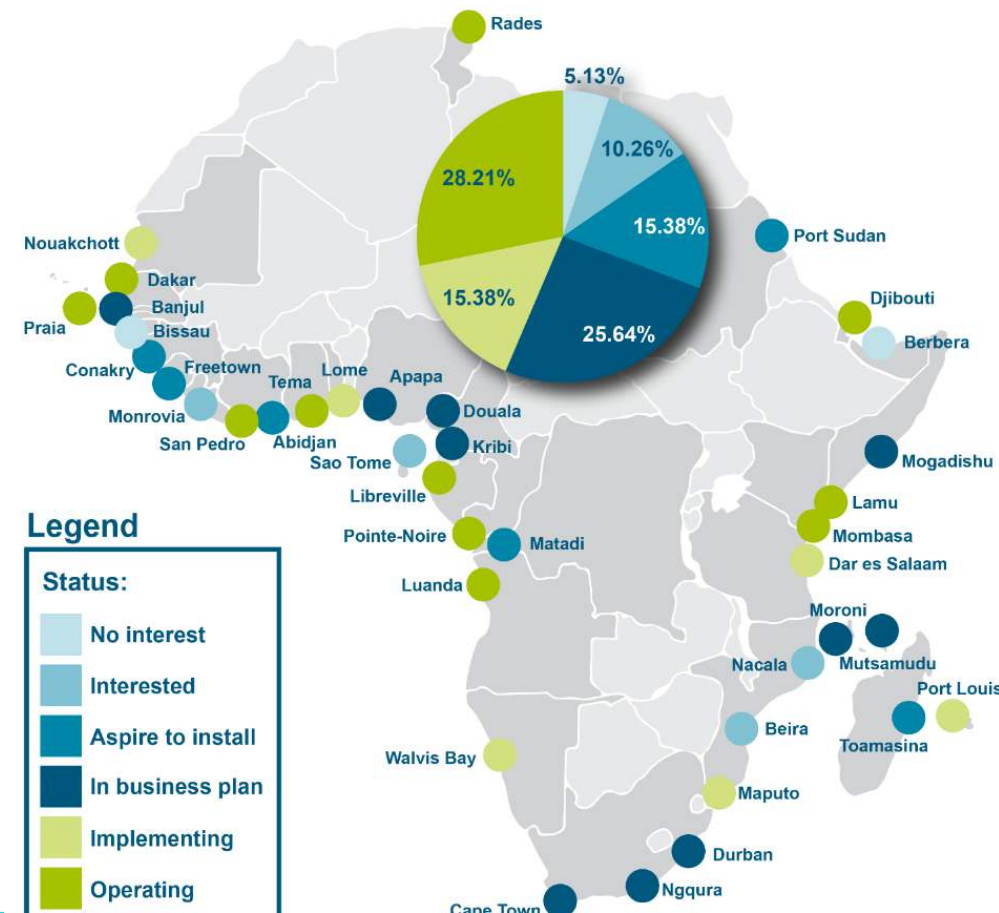
Status of Implementation of MSW (survey conducted end of 2023, and based on self assessment):

Organizational ambitions for further digitalization and improvements are not translated into the implementation of the necessary systems and platforms to enable this.

Most ports (approx. 70%) are not expected to be ready and compliant with the new FAL regulations in 2024.

In addition, many of the self declared MSWs are not FAL.14(46) compliant

Maritime single window status



Cybersecurity is still not considered as top priority

Generally low scoring for the questions related to cybersecurity

- More than 50% of ports surveyed declare not having implemented the IMO/IAPH guidelines on cybersecurity at ports and port facilities. Ghana is a leader in IMO/IAPH Guidelines.
- **Examples of devastating attacks**
 - 2017 - Maersk : official cost over 500M\$
 - 2021 - Transnet was forced to declare *force majeure*
 - 2023 - DPW suspended operations in Australia – delayed containers for 10 days
- **These are not isolated events**
 - LA/LB hit by 60 million cyber attacks per month
- **New IMO MSC 109 (December 24) submission for mandatory Cybersecurity at Port Facilities**
- **New IMO FAL 49 (March 25) submission for mandatory MSW cybersecurity**



Building the ecosystem



SSATP Work Program for DPI



- **Capacity Building**

- Organize workshops with the Port Management Associations to clarify mandatory requirements for IMO FAL.(14.46), the building blocks of Digital Port Infrastructure and sensitize on cybersecurity
- Facilitate contacts between port authorities and Development Partners (WB, AfDB, EU) to develop DPI roadmaps

- **Advocacy**

- Refine the methodology for the digital maturity index and organize periodic updates through the Port Management Associations



References

- **Status of Digitalization and Policy Impediments in African Ports**
https://www.ssatp.org/sites/default/files/publication/SSATP_Africa_Ports_EN%20FINAL.pdf
- **IAPH cybersecurity guidelines for Ports & Port Facilities**
https://sustainableworldports.org/wp-content/uploads/IAPH-Cybersecurity-Guidelines-version-1_0.pdf
- **Port Community Systems: Lessons from Global Experience**
<https://www.worldbank.org/en/topic/trade/publication/port-community-systems-driving-trade-in-the-21st-century>



Changing the Face **OF TRANSPORT IN AFRICA**



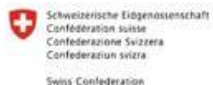
REGIONAL INTEGRATION



URBAN MOBILITY



ROAD SAFETY



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