



# Digital solutions in "Dry ports" development

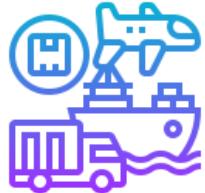
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# Dry ports digitalization is required due to:

- logistics complication in the environment of global supply chain changes;
- the need for developing a region-wide strategic vision of digital transport corridors;
- the lack of accurate and timely information;
- the need for the information about equipment failures and their consequences;
- the Dry ports environments have become intricate partner networks that include the authorities, terminals, shipping lines, trucking and logistics companies, and off-dock storage providers.

# The existing solutions can be divided into several fields of application



- cargo handling,
- dry port infrastructure,
- intermodal traffic and transshipment,
- customs,
- security.

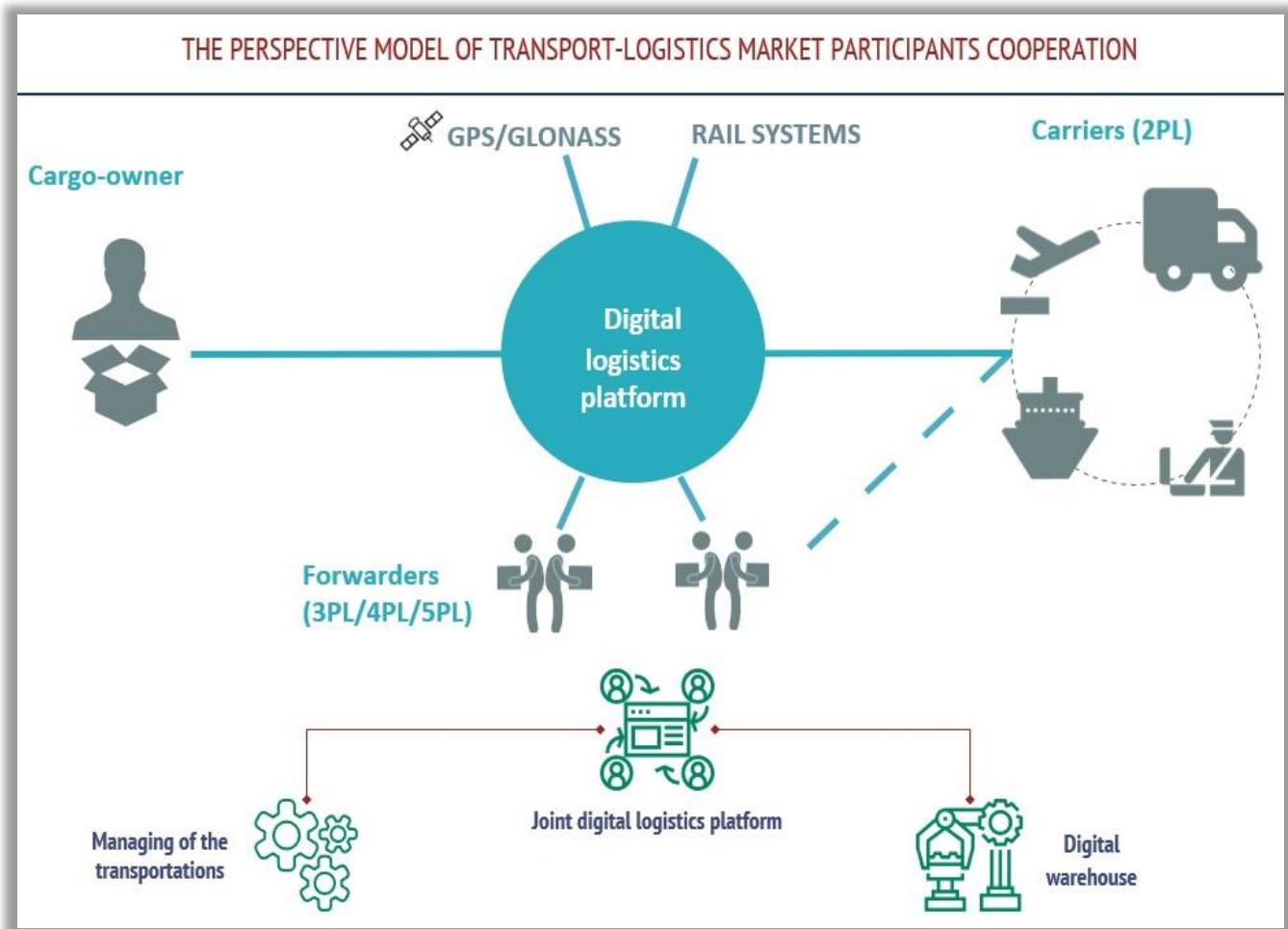
# The existing solutions can be divided into several fields of application



- maintenance,
- energy and the environment,
- autonomous vehicles,
- warehouse robots,
- artificial intelligence.



# Digital Logistics Platform

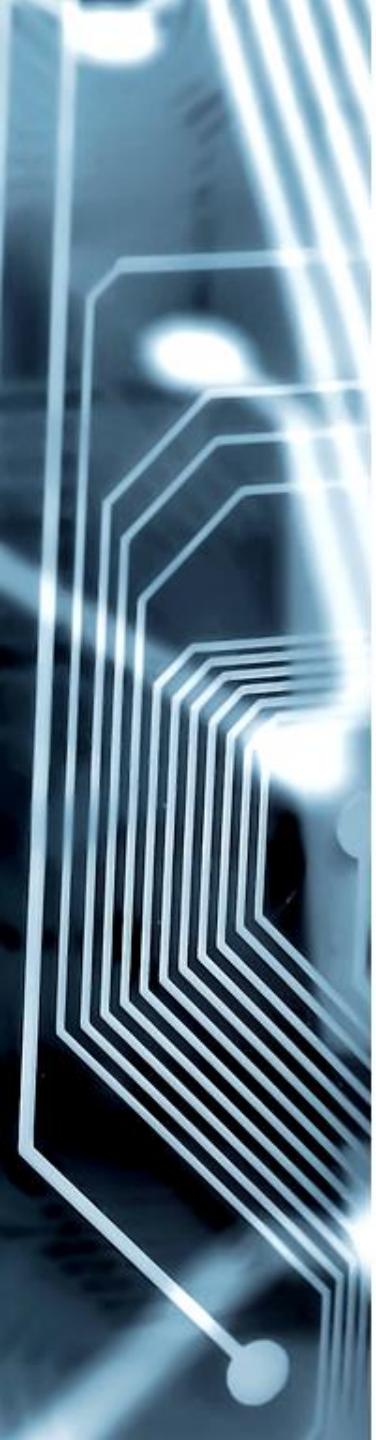


# Digital Logistics Platform

**This digital instrument is able to:**

- automate the business processes, analyze the consumers behavior and offer the optimal solutions to organize the transport flows;
- take into account the specifics of railway, auto, water and avia transport;
- simplify the agreement work between the logistics processes participants;
- accumulate, structure and analyze a large volume of data, predict events and minimize risks for participants in logistics processes;
- optimize transport and terminal assets utilization, improve its profitability and decrease the logistics expenditures.

The digital logistics platform is able to provide the optimal logistics and manage the distributive warehouses with the minimum amount of staff (the digital terminal).

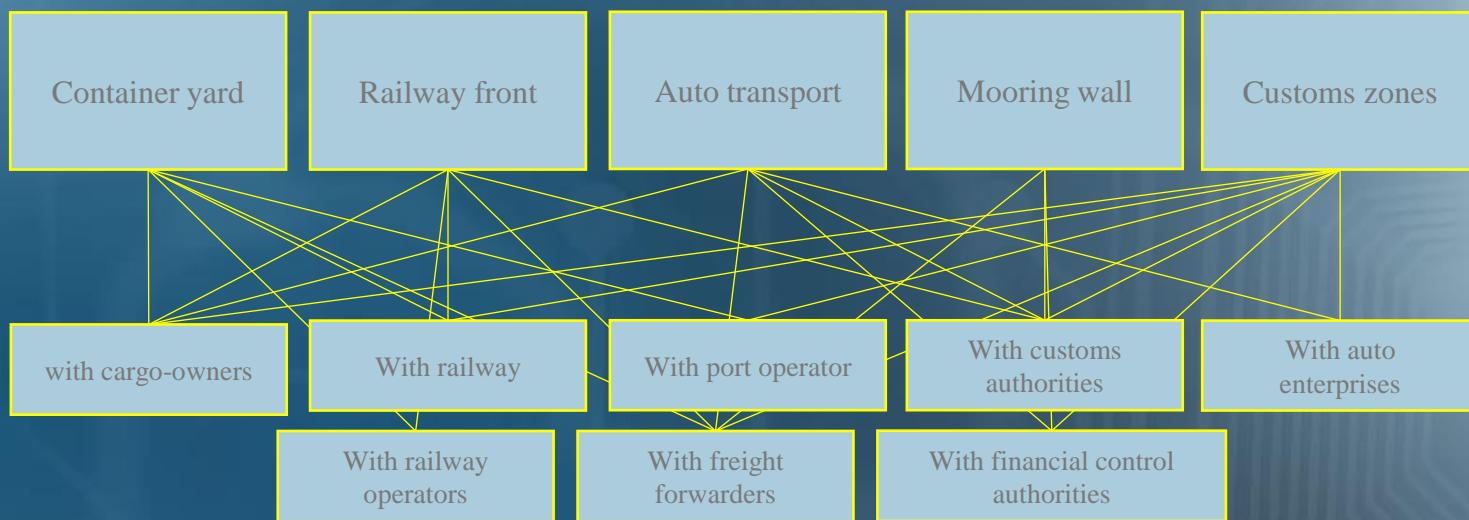


# Digital Logistics Platform

- **While managing the transportations the digital logistics platform:**
  - searches the optimal routes using the technologies of machine learning;
  - uses the comfortable interfaces for the forwarders and the clients;
  - provides the integration with the governmental informational and clients supply chain systems, organizes the digital document circulation and cooperation with the customs.
  
- **While managing the digital warehouse the digital logistics platform:**
  - minimizes the terminals infrastructure and staff expenditures by creating smart loaders using the computer vision technologies;
  - manages the inner warehouse logistics and fulfillment;
  - form the digital warehouse – a virtual twin (copy) of the warehouse with more than 40 technical parameters of the condition.

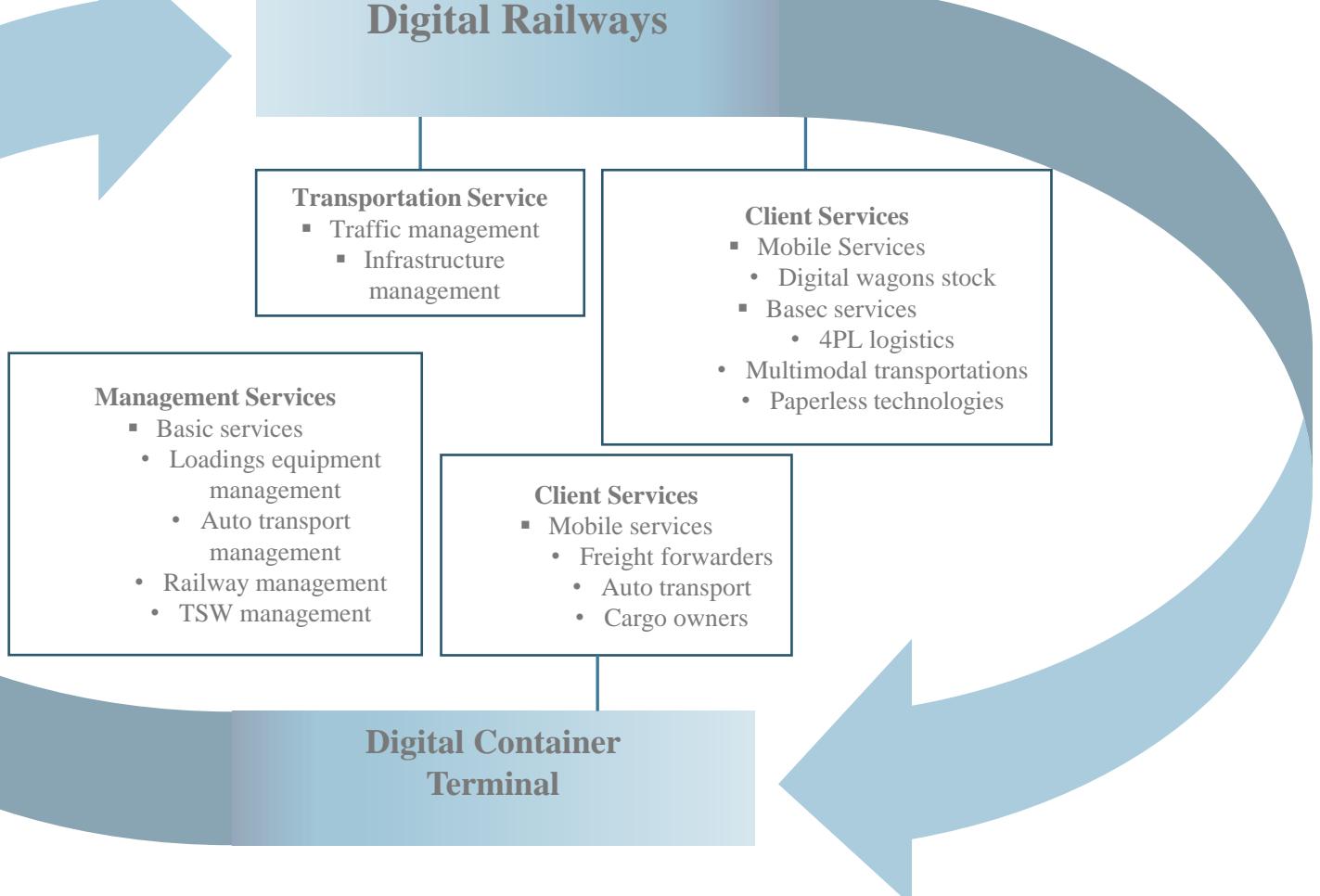
# Digital Container Terminal

A service that is providing through IT solutions terminal business-processes management, its technical and technological coordination with all the stakeholders



- The approach to the terminal services on the principle of “single window” and the possibility of terminal services reservation as a part of complex logistics door-to-door service;
- Monitoring of the actual and documentary cargo condition and the equipment on the terminal;
- Centralized/distributed electronic document circulation;
- Containers/wagons transfer;
- Cargo presentation for customs registration and monitoring of the customs clearance process;
- Centralized control of the powers of attorney;
- Formalization of the transportation and accompanying documents (railway and transport consignments).

# Digital Container Terminal



# The limitations for digital solutions application



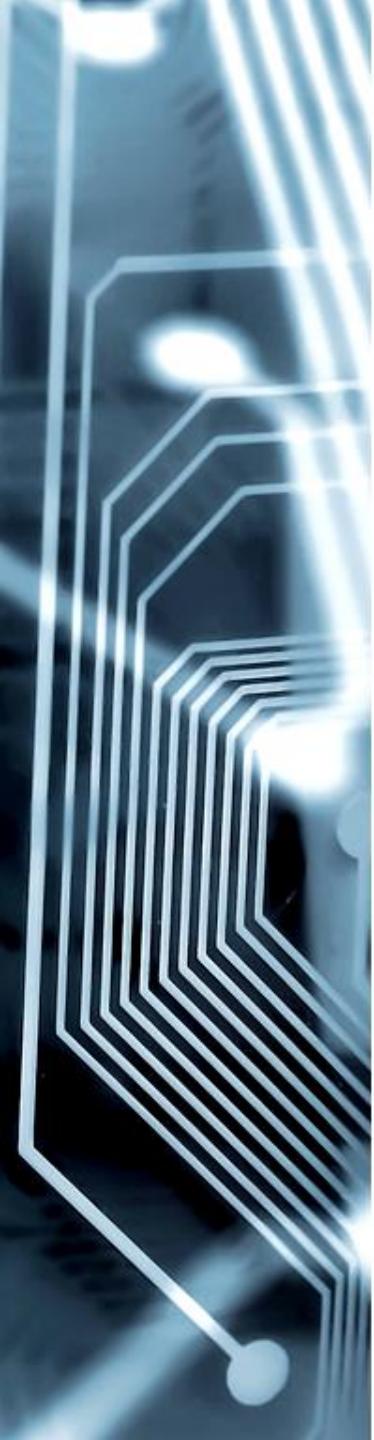
- The standardization and the output of the market participants and regulatory organizations at every stage.
- Unification of formal documents, accompanying cargo and proving the fact of this or that transport and logistical service render.
- The output of the united legislation base on the international and national levels, regulation the relations between the sides of the digital transport-logistics process.



# Main dry port digitalization cornerstones



- Dry ports usually specialize on handling of particular types goods and have certain geographic and logistic peculiarities, which have to be taken into account while creating the terminals processes digitalization systems.
- Every Dry port is a place of cross for different material and information flows: cargo owners, forwarders, linear operators, carriers, state authorities and many others.
- In perspective, the multipurposed systems that will be integrated in the other logistics chain participants' IT-systems will be the winners of the Dry ports digitalization market - not the IT-systems of the separate terminals.



Thanks for your kind attention!