

**Building successful Port Community System  
on a transition economy's own resources**

# **"Single Window - Local Solution" Project. Implementation at Seaports of Ukraine**

**PPL 33-35 LLC  
DIGITAL SOLUTIONS**



**Oleksandr Fedorov, CEO, PPL 33-35 LLC**

## Background

01.06.2011 – **According to the recommendations of the First International Seminar "The concept of "Single Window "and the integration of modes of rail transport in the facilitation of trade in the territory of the European Area" (Odessa)**

**... development of the Pilot project on implementation of "Single Window" principle,**

**... the usage of an increase factor of trade facilitation and automation in the world**

... to promote implementation of strategic location of Ukraine as transit country along with economic integration into the European Community.

# Port Community Information System

## PCIS



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- Implementation steps
- Building blocks
- Integrated information protection system



# Port Community Information System

- **PCIS**

- is designed to integrate all participants in the transport and cargo processes at the sea port into a single information space with the ability to provide and access information used in the technological sea port processes using organizational and technical tools to protect confidential information.

- to minimize paperwork in technological operations at the sea port, optimize technological processes, and reduce the time for each operation by providing all participants in the transportation and cargo process with timely, correct, and legitimate information.

- **OBJECTIVE OF THE SYSTEM**

# Port Community Information System

## PCIS and PPP

- **Service delivery to a trading community, who is willing and can pay for the service (as it saves them operational costs), is a good means of generating a revenue stream that forms the basis for operation and maintenance.**

- **PPP as a way of financing projects that otherwise would be ‘unaffordable‘ to the public partner;**
- **Leveraging private sector innovation and technology;**
- **Yielding whole life costs savings;**
- **Allow government Ministries to focus on their core mission..**

**The rationale for  
using PPP**

# PCIS - Implementation Steps

**Built on private investments**

**PLASKE**  
c a r g o

D

Implementation of the project within resources available

**IPCSA**  
International Port Community Systems Association

Providing organizational support for the Single Window - Local Solution project at the international level

  
UNITED NATIONS  
ECONOMIC COMMISSION FOR EUROPE

C

Selection of the main international instruments to address the problems - UNECE Recommendations No 33, 34, 35, 36, 37

B

Assessment and formalization of obstacles related to customs clearance of containers at seaports

A

**Public Private Partnership (PPP) is a model by which governments and the private sector work together in a long term relationship to deliver important public services.**

# PCIS – Building Blocks

Legislation

Contracts and agreements

Regulatory instruments

Laws of Ukraine

International agreements

Harmonisation

Directories

Documents

Formats and protocols

Regulations

Business processes

Process schemes

Control procedures

Stevedoring operations

Port infrastructure

Techniques

Communications

Hardware

Software



# PCIS– IIPS – Integrated Information Protection System

The system has been approved by the State Service of Special Communications and Information of Ukraine and has been granted a positive expert certificate for an integrated information protection system (IIPS) for AC-3 class systems where confidential information that does not contain a state secret can be processed.







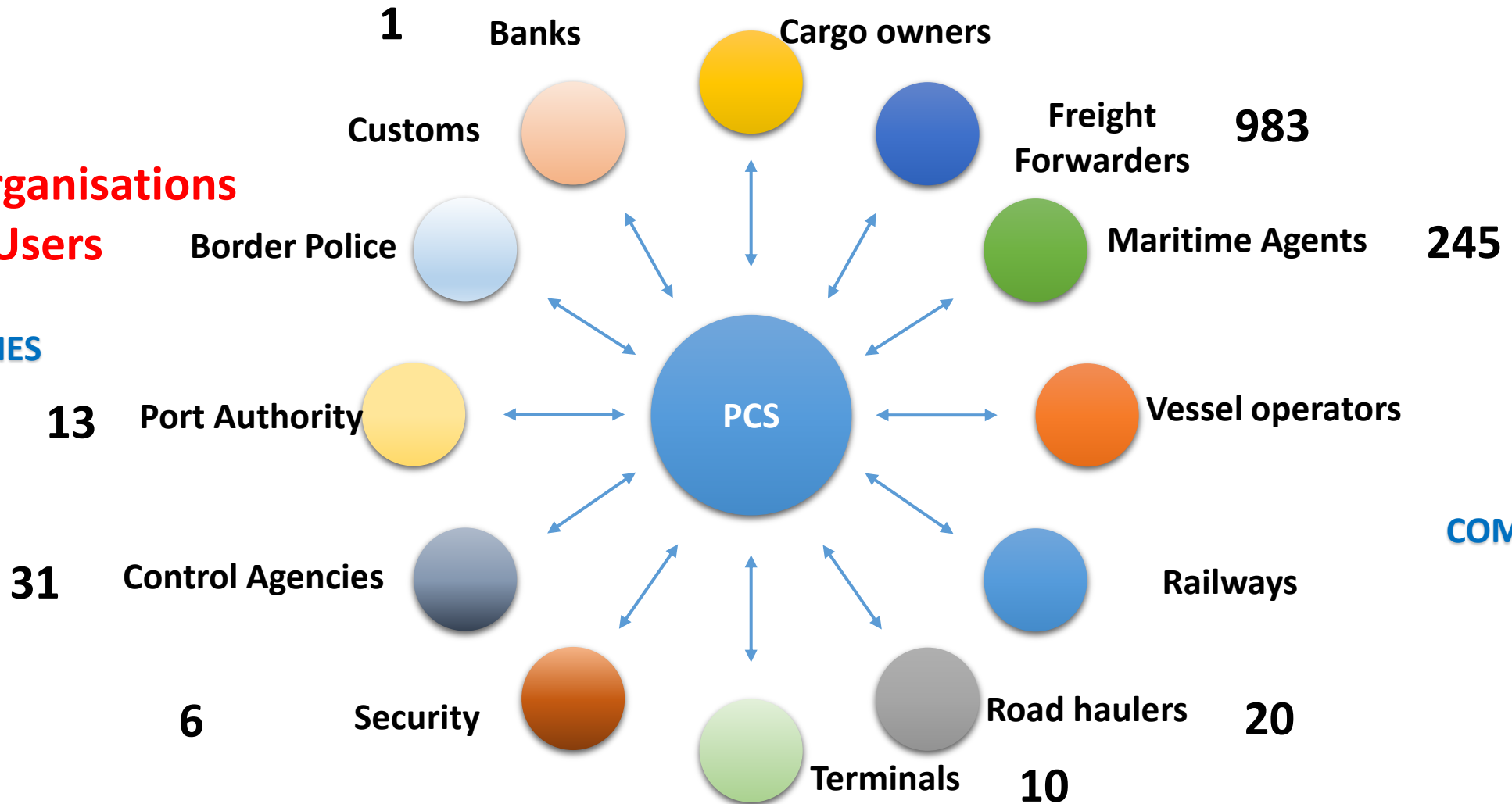
# PCIS- PARTIES (the Community)

Present time model:

➤ **1300 Organisations**

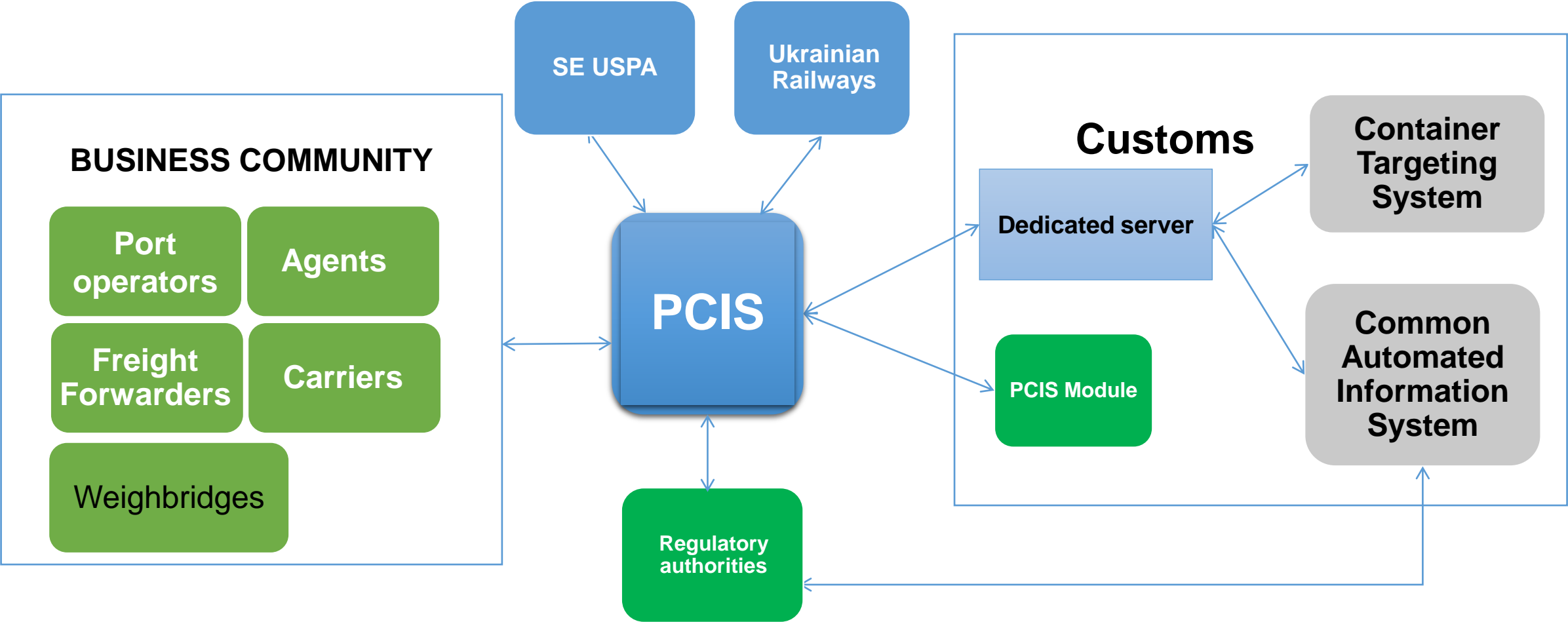
➤ **> 2200 Users**

**AUTHORITIES**



**COMMUNITY**

# Integration of PCIS Stakeholders





- In the UNECE report for 2017, the Project was recognized as **one of the most promising projects aimed at simplifying international trade procedures in Ukraine**.
- In 2018, the PCIS won the UN Global Compact Network competition in the category of "**Fighting Corruption**".
- In January 2019, the IMO FAL included **Ukraine as an example of Maritime Single Windows**, along with the leading systems of Germany, Japan, Sweden, France, etc., the Ukrainian PCIS was included in the Maritime Single Window Implementation Guide.
- In May 2019, the Single Window - Local Solution project took 3rd place and was awarded a **Certificate in the Anti-Corruption nomination in the ICC European Region**.
- In December 2020, **the International Association of Ports and Harbors**, jointly with **the World Bank**, presented a report on the readiness of 100 ports for supply chain digitalization "**Accelerating Digitalization**". The document provides an example of the effectiveness of Port Community Systems in Los Angeles, Barcelona, Shanghai and Ukraine.



Network Ukraine

«ЄДИНЕ ВІКНО -  
ЛОКАЛЬНЕ РІШЕННЯ»

ПЕРЕМОЖЕЦЬ PARTNERSHIP FOR  
SUSTAINABILITY AWARD 2018

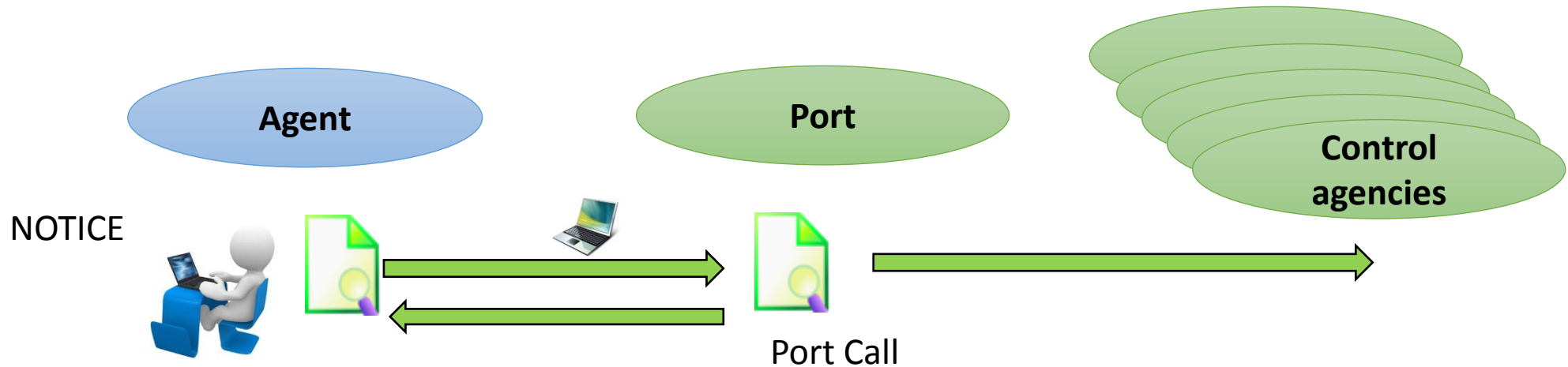
# THE MOST RELEVANT SERVICES IN QUARANTINE CONDITIONS

- Maritime agents (shipboard) - Regulatory authorities
- Freight forwarders – Customs
- Freight forwarders - Marine agents (container)
- Freight forwarders - port of Odesa
- Carriers - port of Odesa
- Cargo owners - Freight forwarders



# Maritime agents (ship agents) - Control authorities

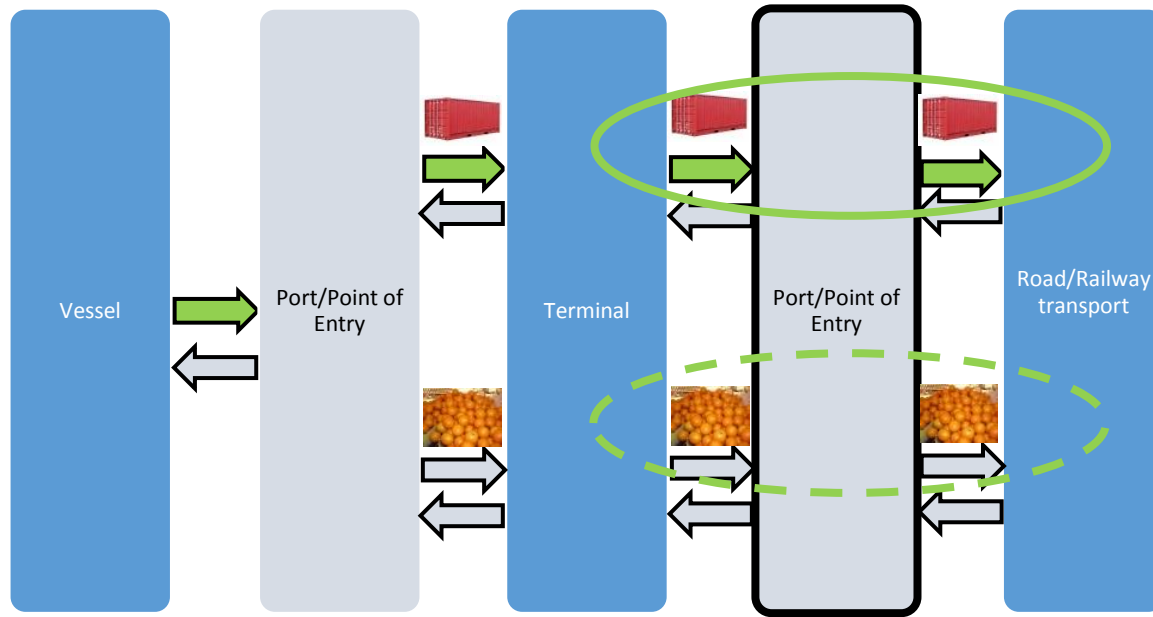
## Documentary Control Prior To The Vessel Arrival



- Cargo manifest
- Cargo Declaration
- Crew's Effects Declaration
- General declaration
- A copy of the international veterinary certificate
- Dangerous Goods Manifest
- Maritime Declaration of Health
- Passenger List
- Crew List
- Ship Sanitation Certificate
- Particulars on the presence (absence) of dangerous goods, weapons, ammunition on board a vessel
- Particulars on the presence (absence) of goods on board the vessel, the import of which is prohibited or restricted



# Remote Submission of Requests (Orders) and Receipt of Customs Assessment Results



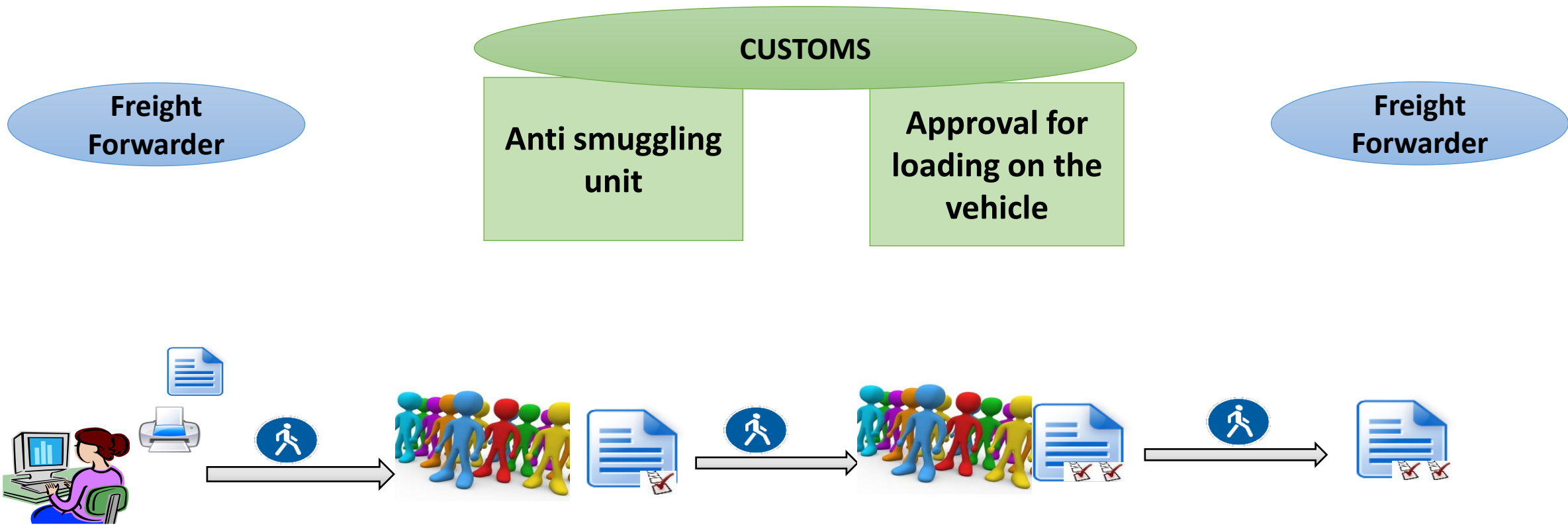
## Clearance parties:

- Freight forwarders
- Customs
- Port Operators / Weighbridges
- SE "USPA" (ports)
- Carriers

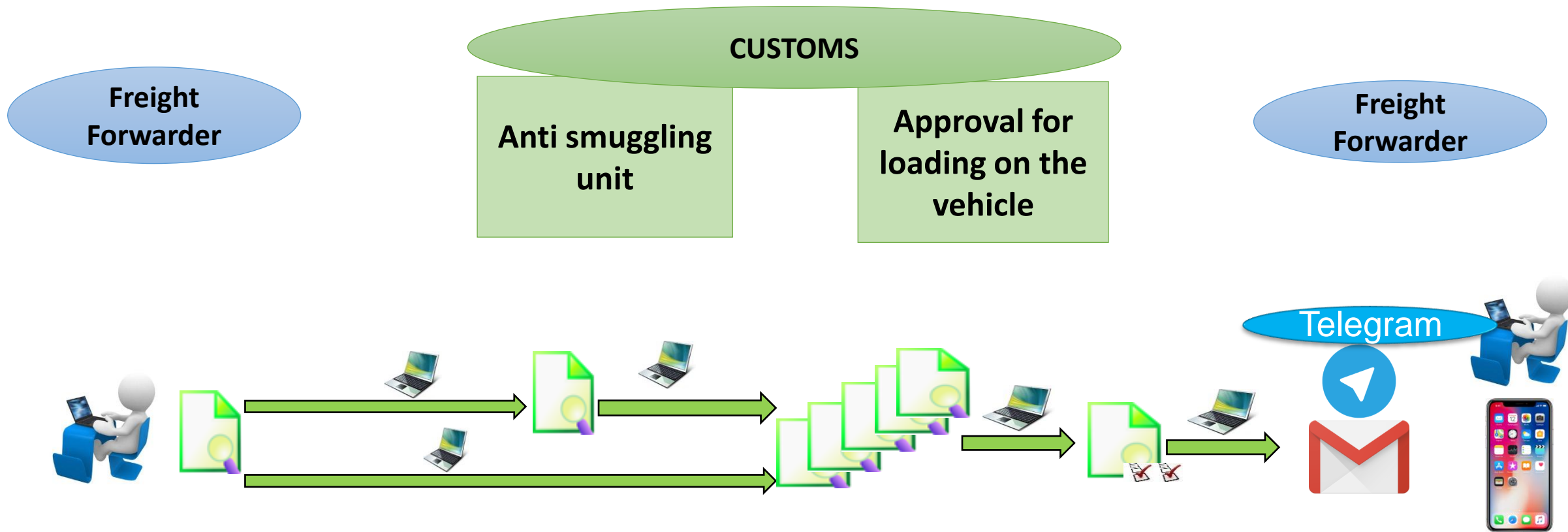
## Documents:

- "Order" - request for loading on the truck (Freight forwarder)
- "Approval for loading on the vehicle" and "assignment of control measures" (Customs)
- "Weighing summary" (Weighbridges)
- "Marker" for blocking the clearance

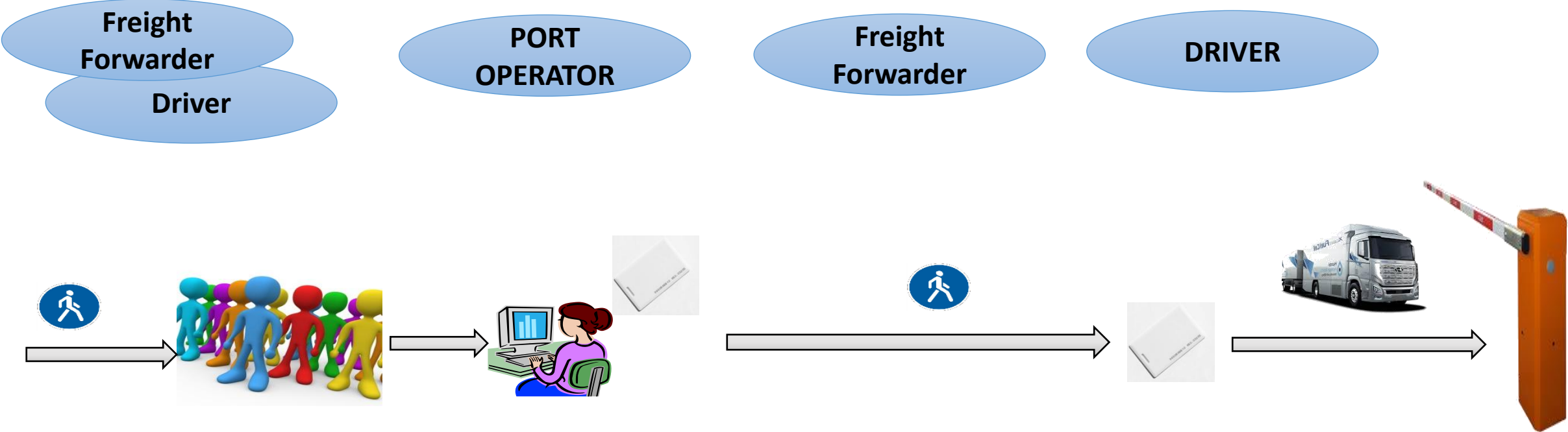
# Submitting Requests (Orders) And Receiving Customs Assessment Results - BEFORE



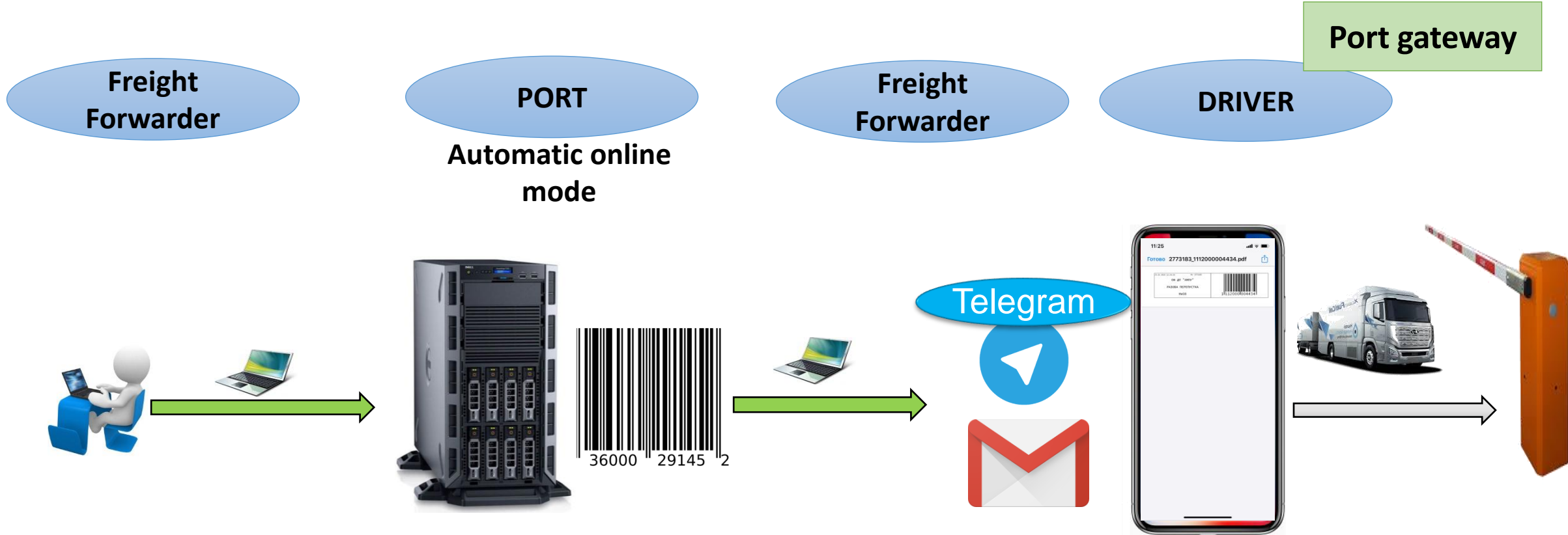
# Submitting Requests (Orders) and Receiving Customs Assessment Results – TODAY



# Getting a Vehicle Entry Pass to the Port – As It Was



# Getting a Vehicle Entry Pass to the Port – TODAY





# Benefits of Implementing PCIS

## Streamlining and acceleration

- Processing of documents by Customs via electronic queue
- Identification of the document's author
- Legitimate record of the date and time of each stage

- Reduced paperwork
- 24/7 filing
- Availability to receive the outcome of the processing with the grounds for the assignment of control forms electronically
- Elimination of contact between freight forwarder and customs officer at this stage

## Publicity and Transparency

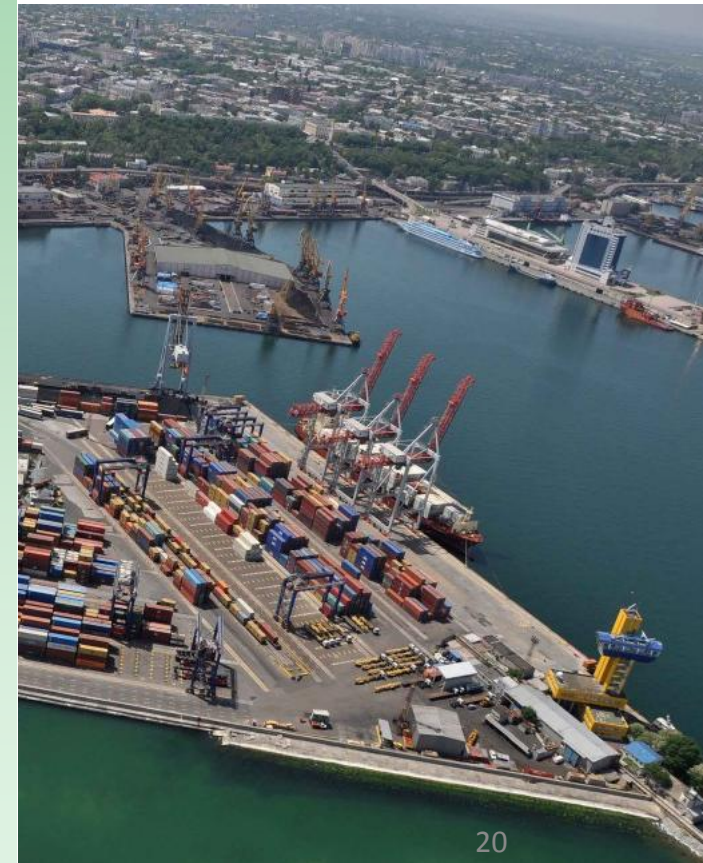
# Port Community Information System

## PCIS

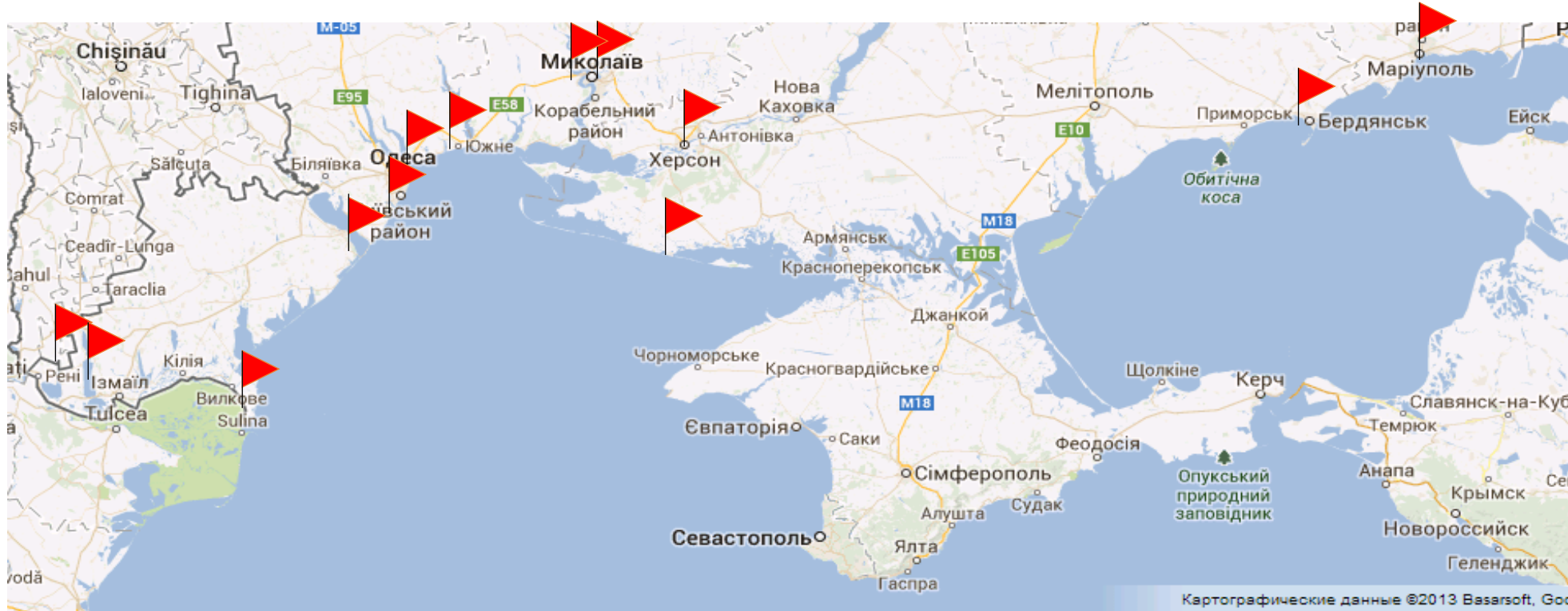


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- **Achievements**
- **Innovations**
- **Major advantages**
- **International recognition of the Project**

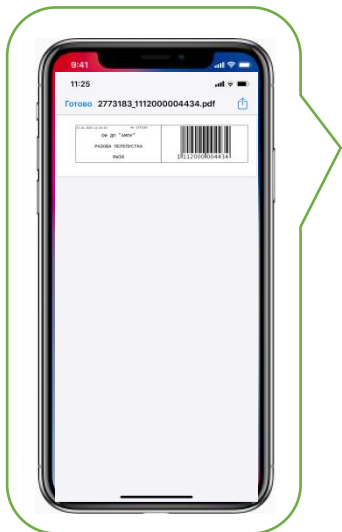
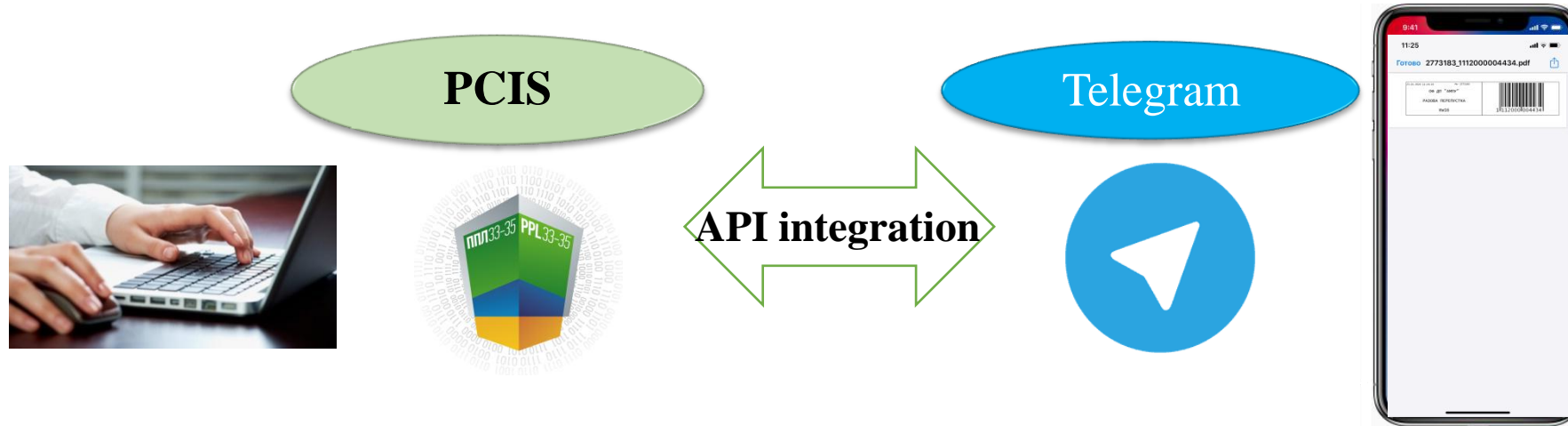


# PCIS Services at Ukrainian Seaports



- Odesa
- Chornomorsk
- Yuzhny
- Reni
- Izmail
- Ust-Dunaysk
- Belgorod Dnestrovsky
- Mykolaiv
- Ol'via
- Kherson
- Skadovsk
- Berdyansk
- Mariupol

# PCIS – Gate entrance optimization



**profit for the port authority**  
**reduced the number of paper permits**

**profit for forwarders and carriers**  
**reduced need for contact between forwarders and carriers**  
**simplified the entry to the port**

**Small improvement**

**Big impact**



# BLOCKCHAIN

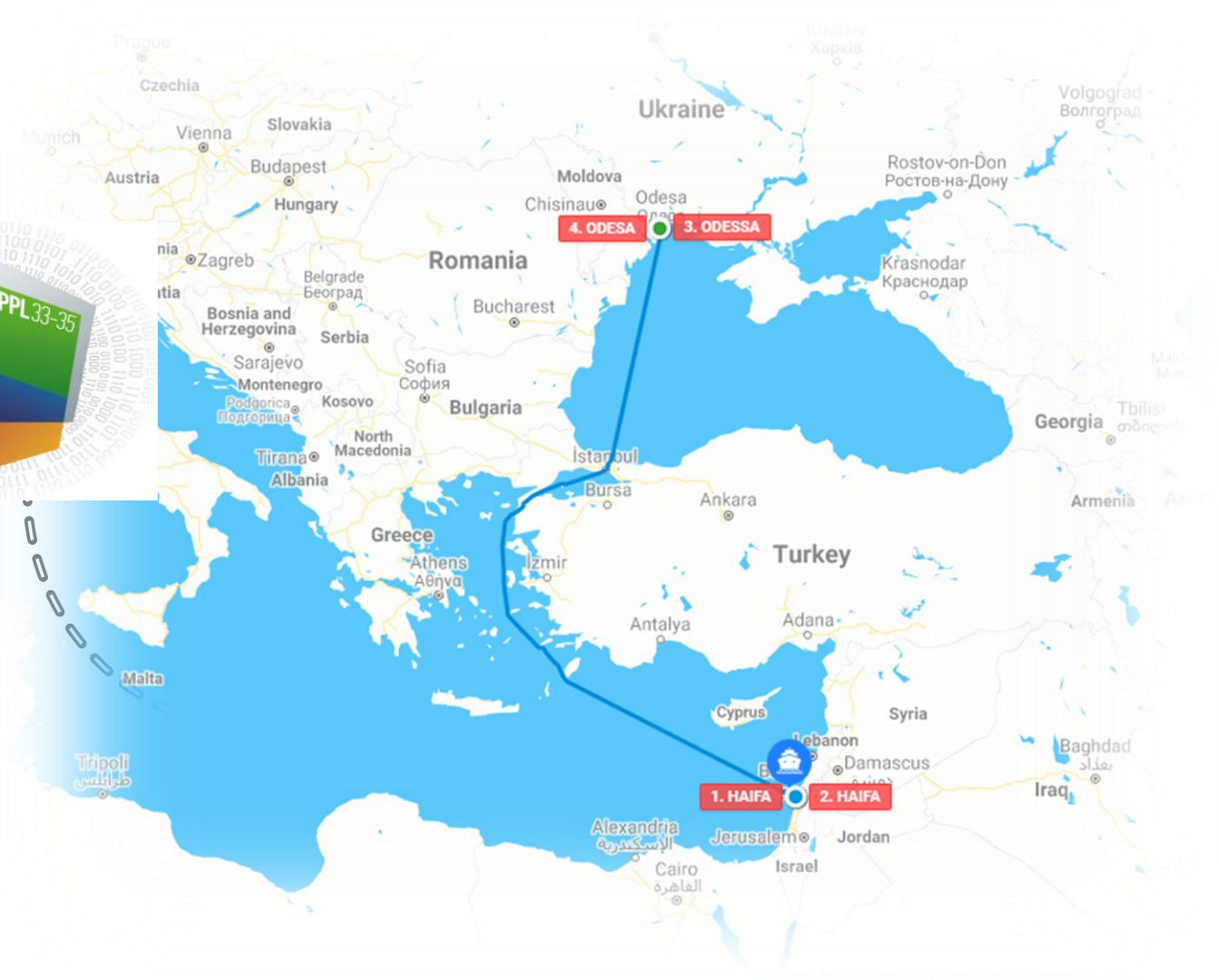
**Carrier – ZIM  
Ukraine**

**Customs Broker -  
Rhenus Revival**

**Customs Broker –  
Rem-Trans**

**Forwarder – ADAMA  
Ukraine**

**Consignee – ADAMA  
Ukraine**





# The Advantages of Using PCIS

- Legitimate recording of request to a government authority (with the use of personal EDS)
  - Legitimate registration of the fact of processing of an application by a person in a government agency (using an electronic digital signature of a government official)
  - Legitimate recording of date and time at each stage
- 
- Public technology for consistency in the handling of requests from stakeholders by public authorities
  - Minimization of the human factor in the cargo and vessel clearance process
  - Reduction of duplication of information in different information systems
  - Reduced clearance time for cargo and vessels

# The Use of PCIS:

- **Saves ship owners \$72-90 million /year (\$10K-12.5 K per vessel),**
  - **Road carriers  $\approx$  \$22 million /year**
  - **Reduces by 3-5 hours the time required to prepare and submit the necessary documents to the regulatory authorities.**
- 
- **After implementation of the PCIS, the average time between the vessel's berthing and the initiation of cargo operations was reduced by more than 10 times (from 3 hours to 15 minutes)**
- 
- **As a result of using of PCIS, the maritime business saves up to \$200 million a year.**

# Moving outside the ports

A

Road consignment note for internal transportation (eTTN) (House way bill)

B

Road consignment note for international transportation (eCMR)

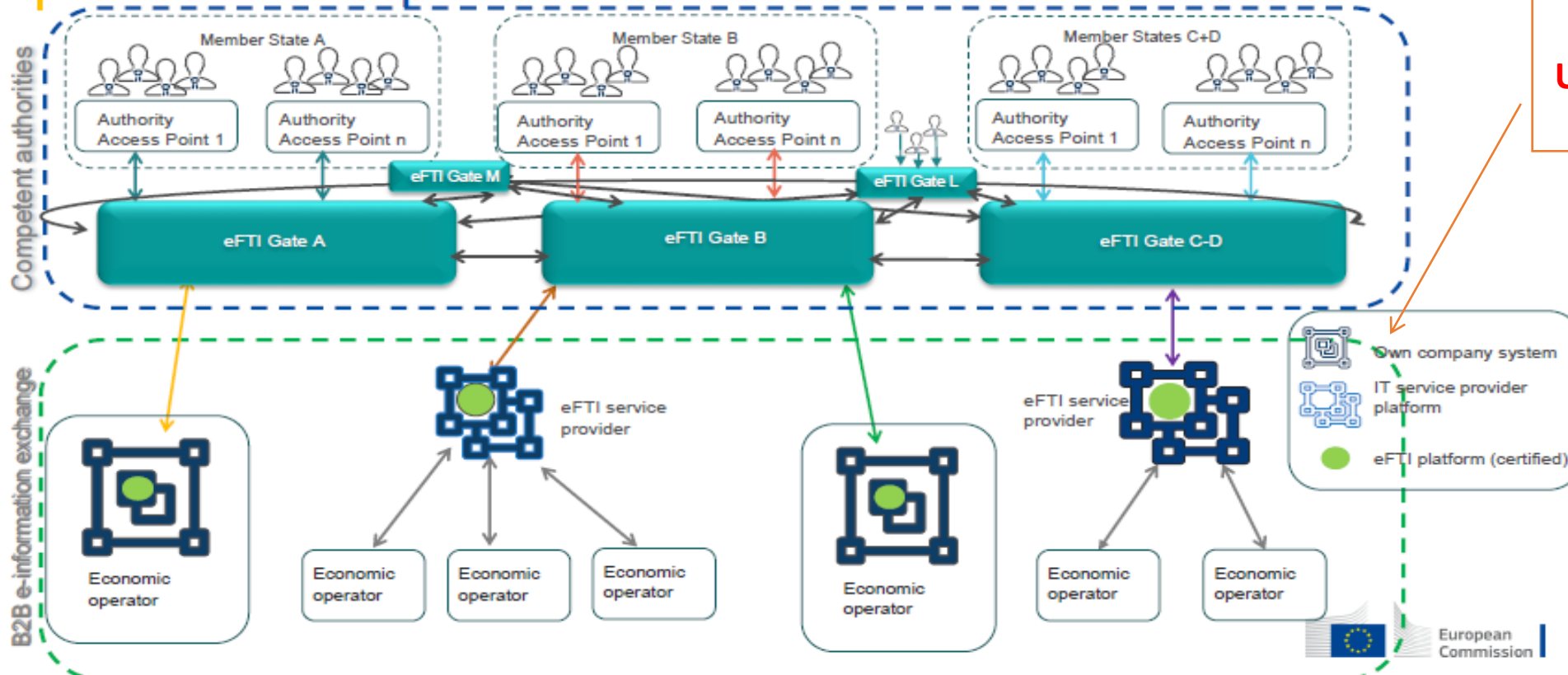
C

Cooperation with UN/CEFACT on Data Model adaptation for Ukraine

```
<?xml version="1.0" encoding="UTF-8"?>
<ram:CMR xmlns:cxi="http://www.unece.org/2001/DQM/Schema-instance" xmlns:ram="urn:un:unce:uncfact:data:standard:eCMR"
xmlns:udt="urn:un:unce:uncfact:data:standard:UnqualifiedData Type:25" xmlns:ram="urn:un:unce:uncfact:data:standard:Ret
xsi:schemaLocation="urn:un:unce:uncfact:data:standard:eCMR:1 eCMR_1p0.xsd">
  <ram:ExchangeID documentID="<token>">
    <ram:ID schemeAgencyID="<token>" token="<ram:ID"
    <ram:IssueDateTime>
      <udt:DateTimeString format="String" String="<udt:DateTimeString"
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    <ram:ProviderTradeParty"
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  </ram:CMR>
</pre>
```

# Further activity in the International Trade environment

## eFTI exchange environment – Potential implementation architecture

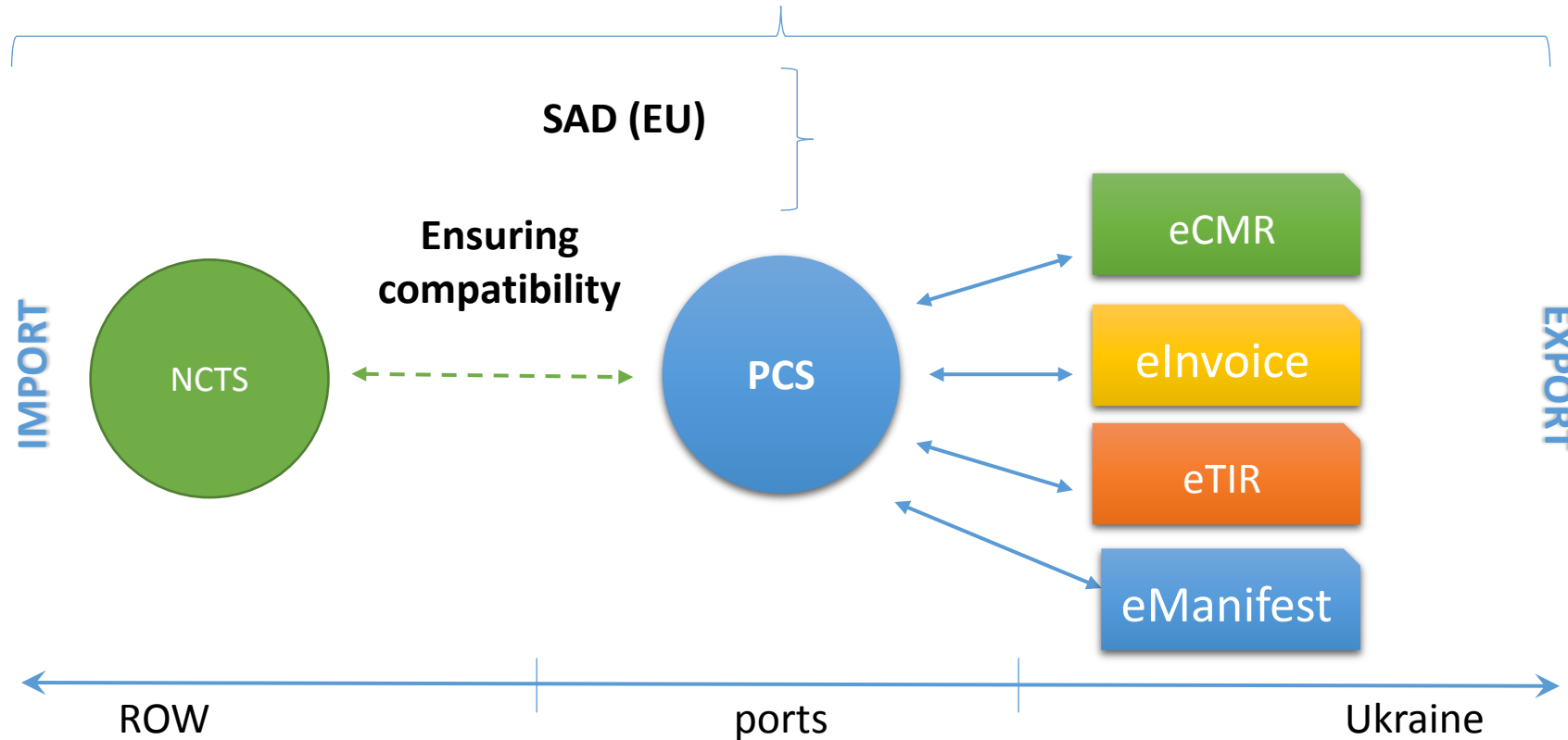


Possible place and role of PCIS in the nearest future based on UN/CEFACT MMT RDM and eFTI Regulation

Source – Ms. Lia Potec, Policy Officer, European Commission, Directorate General for Transport (DG MOVE), presentation at the webinar on 12/22/2022, Odesa, Ukraine

# PCS – example of export documents recognition (B2B project)

## Export documents recognition – 2-parties contract (bilateral mutual recognition)





# OUR PART

- Business analysis
- Software development and maintenance
- Data centre set-up and operations
- Technical Support



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# Software

## Business analysis

- took 3rd place
- Participation in the analysis and development of requirements at legislative level
  - Participation in the analysis and development of requirements at legislative level

- Development and operation of interface modules of the system:**
- server modules of the system;
  - system-to-system integration modules.

## Software development and maintenance

# Data Centre Set-up and Operations

## Set-up

- **Establishing a Data Centre**
- **Creating an Integrated Information Security System**
- **Maintaining a centralised legally significant registry**

- **Guaranteed 24/7 operability**
- **Providing storage for all versions of all documents**
- **Enabling access to archived information**

## Operations

# Technical Support














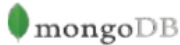



## CALL CENTRE 24/7

- Providing customer support on setting up and installing the PCIS software
- Consultancy to clients in the documentation process

## TECHNICAL SUPPORT FOR INTEGRATION PROCESS

- Providing support for integration processes with other information systems

# Technological platforms

Native	   
Frameworks	    
Databases	    
Cloud/Integration	  

# Instruments

  	Tele-conference
 	Project Collaboration & Tracking
 	Configuration Control
  	Documentation



# International Relations

- **Participation in the activities of international and intergovernmental organisations**
- **Associations and partners**
- **Partnership for Sustainability Award 2018**



# Participation in the Activities of International and Intergovernmental Organizations



UNITED NATIONS  
ECONOMIC COMMISSION FOR EUROPE

- Inland Transport Committee (ITC)
- Working Party on Customs Questions Affecting Transport
- Working Party on Intermodal Transport and Logistics
- United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT)



EU EAP

- Permanent Working Group on Coding and IT
- Digital Transport Corridor

# Associations and Partners

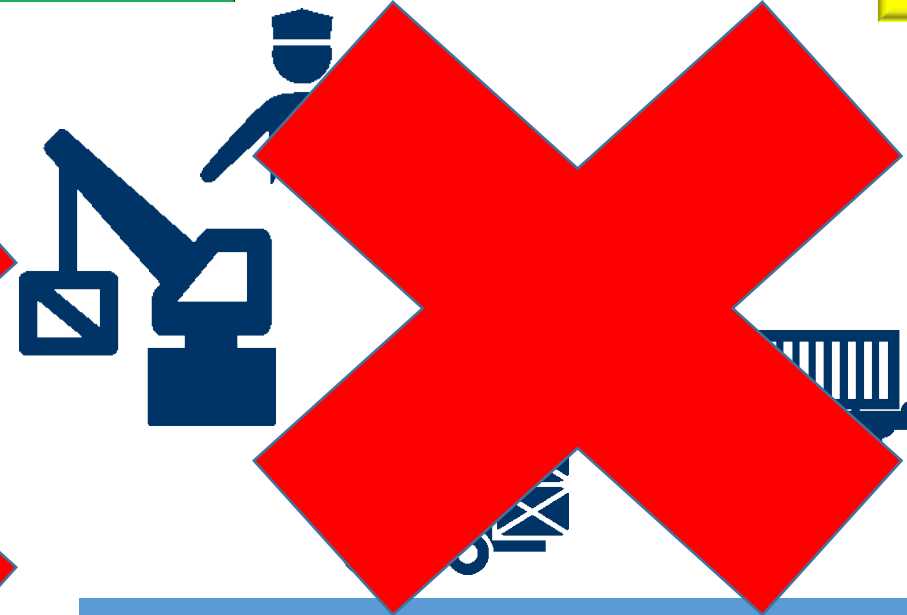
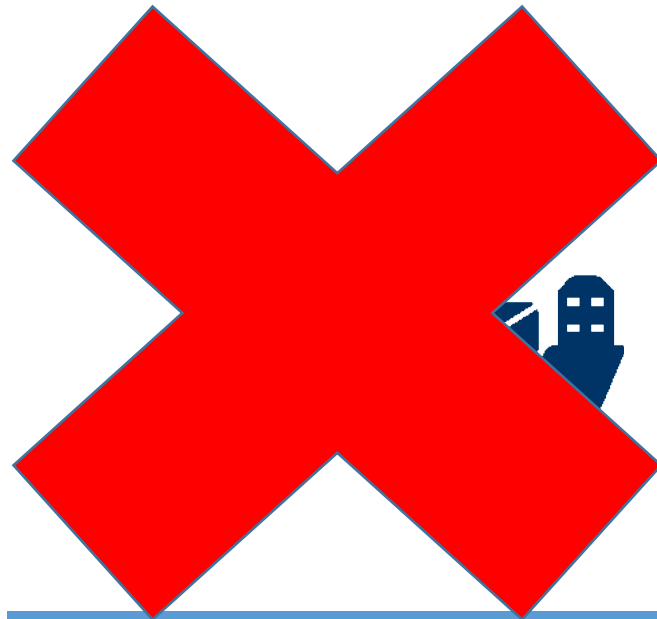


# HOW PCIS AND RELATED SYSTEMS FIT TOGETHER 2023

TRANSPORT (OPERATIONAL) PROCEDURES

TRANSPORT LEGISLATION

TRADE LEGISLATION



MARITIME SINGLE WINDOW

PCIS

TRADE (CUSTOMS) SINGLE WINDOW

CCU, Recs 33-36, IMO FAL, RCMU + Reg. Acts

EU 2010/65, AnNa, SSN, IMO FAL, Draft Resolution of CMU + Draft Law

Recs 33-36, CCU, CMU Resolution of 2016, Draft RCMU + 2 + 1 Draft Laws<sup>37</sup>

# Challenges to PCIS and to Trade Facilitation Efforts **TODAY**

- ✓ **Lack of political will to make changes?**
- ✓ **Lack of trust between the private and public sectors?**
- ✓ **Lack of means to assess and ensure compliance of reforms?**
- ✓ **Inadequate coordination between governmental agencies?**
- ✓ **Difficulties to meet the requirements of international standards, and**
- ✓ **Integrity?**



**ROLL BACK TO the INFORMATION FLOWS and CLEARANCE as it was BEFORE PCIS ESTABLISHMENT?  
(Up To 30 days for clearance)**

STEVEDORE

CONSIGNOR

CONTROL AGENCIES & CUSTOMS

PORT SERVICES



FREIGHT FORWARDER

LAND TRANSPORT

MARITIME AGENCY

CONSIGNEE

PORT AUTHORITIES

SHIPPING AGENCY





# **Momentum Towards Progress (resilience)**

## **Questions to be addressed:**

- **Progress in achieving what?**
- **What is needed to be done?**
- **How shall progress be measured?**
- **How to build momentum?**

**THANK YOU FOR YOUR ATTENTION!**

**Oleksandr Fedorov, CEO, PPL 33-35 LLC**

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[www.ppl33-35.com](http://www.ppl33-35.com)

