

# D.4.2.6 Connection of local database with CIMIS in Port of Split



## Document Control Sheet

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<b>Deliverable name:</b>	D 4.2.6 Connection of local database with CIMIS in Port of Split – “Upgrading and connecting the F4B (Framework for Business) database with CIMIS (Croatian Integrated Maritime Information System) in the port of Split”
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## Introduction

This document is based on a Contract between Port Authority of Split (PAS) and Rathmann d.o.o.. According to the contract terms, Rathmann d.o.o. agreed to upgrade and connect the F4B (Framework for Business) database with CIMIS (Croatian Integrated Maritime Information System) for the purpose of project “CHARGE - Capitalization and Harmonization of the Adriatic Region Gate of Europe”, in the framework of Italy - Croatia 2014 - 2020 Programme - Priority Axis 4 “Maritime Transport” – Specific Objective 4.1 “Improve the quality, safety and environmental sustainability of marine and coastal transport services and nodes by promoting multimodality in the Programme area”, coordinated by RAM – Logistics, Infrastructures, Transports S.p.A. The project CHARGE (Capitalization and Harmonization of the Adriatic Region Gate of Europe) capitalizes the collected results of IPA CBC Programme 2007 - 2013 CARICA project and other projects like ADRIATICMOS, INTERMODADRIA and EASYCONNECTING from IPA and ADB Multiplatform from South-East Europe having the objective the development of freight transports in the Adriatic area and connectivity to the other EU member states. Project CHARGE fosters the connectivity between the Adriatic regions and improves decision-making process coordination at CB level in maritime transport for joint strategies implementation and infrastructural investments, with specific attention to Adriatic Motorways of the Sea improvement between Italy and Croatia. CHARGE aims to upgrade intermodal services on existing maritime links between the two shores of the Adriatic Sea to improve traffic flows efficiency and environmental sustainability and resolve critical bottlenecks. The common approach should lead to the enhancement of Adriatic freight transport, taking into consideration the lessons learned within the 2007 - 2013 CARICA project.

This document relates to Work Package (WP) 4 – Enhancing freight traffic flows and connections between the Adriatic ports, of the project CHARGE, Activity 4.2. Upgrading of existing port

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community systems for the efficiency of the logistic chain, and covers the second part of the deliverable D.4.2.6. of the project CHARGE “Connection of local database with CIMIS in Port of Split” implemented by the Split Port Authority.

The main objective of the WP4 is to foster traffic flows and the connectivity between the Adriatic ports involved in CHARGE and to contribute to the competitiveness of territories served by the existing maritime links while simultaneously increasing the perceived value of shared intermodal solutions, while activity 4.2. is aimed at increasing the efficiency of ferry flows between involved ports by promoting adoption of standardized information and processes along the Italian and Croatian logistic chain. CHARGE project activity 4.2.6. “Connection of local database with CIMIS in Port of Split” includes the following segments:

1. Analysis of needed processes and data with the aim of connecting the Port Operating Information system with CIMIS (Croatian Integrated Maritime Information System) in the port of Split”.
2. Upgrading and connecting the F4B (Framework for Business) database with CIMIS (Croatian Integrated Maritime Information System) in the port of Split.

## 1. Pilot development

Within the CHARGE project (Interreg Cross Border Cooperation Program Italy - Croatia 2014-2020) Split Port Authority is conducting a pilot activity of connecting the port operating information system Framework for Business –F4B with the Croatian Integrated Maritime Information System- CIMIS in the port of Split. Split Port Authority has a Port Management Information System - Business Information System for Management-Framework for Business – F4B, which monitors and records all vessel movements in the port area of the port of Split. Acceptance of vessels is a process involving several entities, operators of different activities and

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functions, and the process holder is the Port Authority. The process involves: timely evidence and documentation of all inputs related to the reception of vessels at the port, in accordance with legal, regulatory and organizational requirements; coordination of all entities involved in the process selected through the flow of information and documents; realization of outputs (statistical data and invoicing); document management and strategic management.

For the purpose of obtaining as accurate as possible operational and statistical data, and ultimately the harmonization of the systems, there is an increasing necessity for gathering data from the state-operated information system CIMIS (Croatian Integrated Maritime Information System) directly in the port operating information system – F4B.

For this reason, Split Port Authority started this project activity – “Connection of local database with CIMIS in Port of Split”, which includes the following segments:

1. Analysis of needed processes and data with the aim of connecting the Port Operating Information system with CIMIS (Croatian Integrated Maritime Information System) in the port of Split”.
2. Upgrading and connecting the F4B (Framework for Business) database with CIMIS (Croatian Integrated Maritime Information System) in the port of Split.

On the basis of the above-mentioned, the tender documentation was drafted and the public procedure for the selection of the external providers was carried out first for Analysis of needed processes and data with the aim of connecting the Port Operating Information system with CIMIS (Croatian Integrated Maritime Information System) in the port of Split” and then on the basis of the Analysis for “Upgrading and connecting the F4B (Framework for Business) database with CIMIS (Croatian Integrated Maritime Information System) in the port of Split.”

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# Upgrading and connecting the F4B (Framework for Business) database with CIMIS (Croatian Integrated Maritime Information System) in the port of Split

On the basis of the results of the above-mentioned Analysis, it was necessary to create the interface and modules that will enable upgrading and connecting the F4B (Framework for Business) database with CIMIS (Croatian Integrated Maritime Information System) in the port of Split.

The detailed design is made which will enable Port Authority to materialize all the advantages of synchronization. It was done in such a way that it doesn't burden the current infrastructure, but enables the staff to dedicate more time to control and management.

Considering the volume of business and the current standard business procedures, it was necessary to carefully implement the new system to avoid damaging the port's current operational performance by introducing new processes and obligations.

## **Areas of application of data from the state database**

Gathering data from the state-operated information system CIMIS directly in the port operating information system - F4B, and synchronizing and harmonizing both systems would enable Port Authority to alleviate some of the current problems, introduce order in the system and remove unnecessary documentation.

The following areas of applications are especially useful for the port:

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- Passengers and vehicles (local ferry traffic, catamaran traffic, excursion boats, cruisers (under the flag of the Republic of Croatia), international ferry traffic, cruise Ships
- Cargo traffic -according to different criteria (basins, shoreline users, types of cargo, grouping, cargo catalogue, ect. )
- Port operational
- Environment Safety and Protection

### Technology

- Data communication in the form of a **web service** (the content of the data encrypted with an asymmetric key algorithm)

### Connecting the two systems (criteria)

- Unique definition of ship movement in CIMIS and F4BPort system
- Types of movement
- Vessel identification
- Time
- Port identification

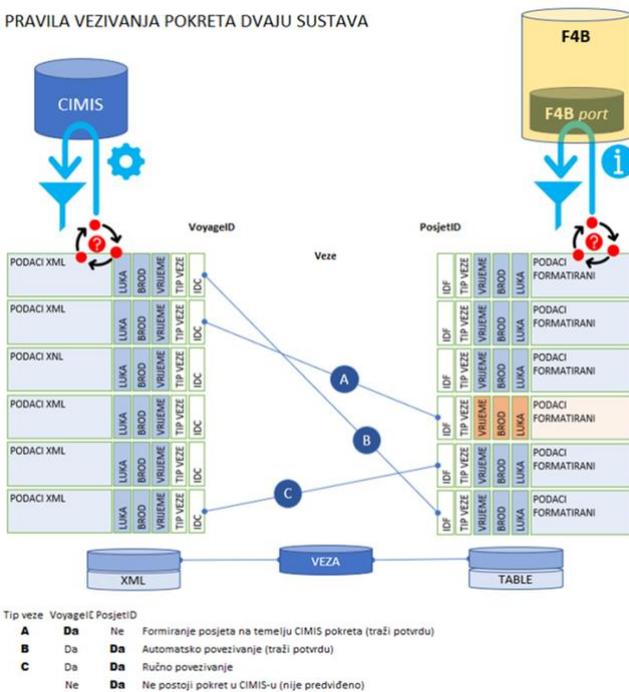
#### D.4.2.6 Connection of local database with CIMIS in Port of Split

## The rules of linking two systems –

### central interface

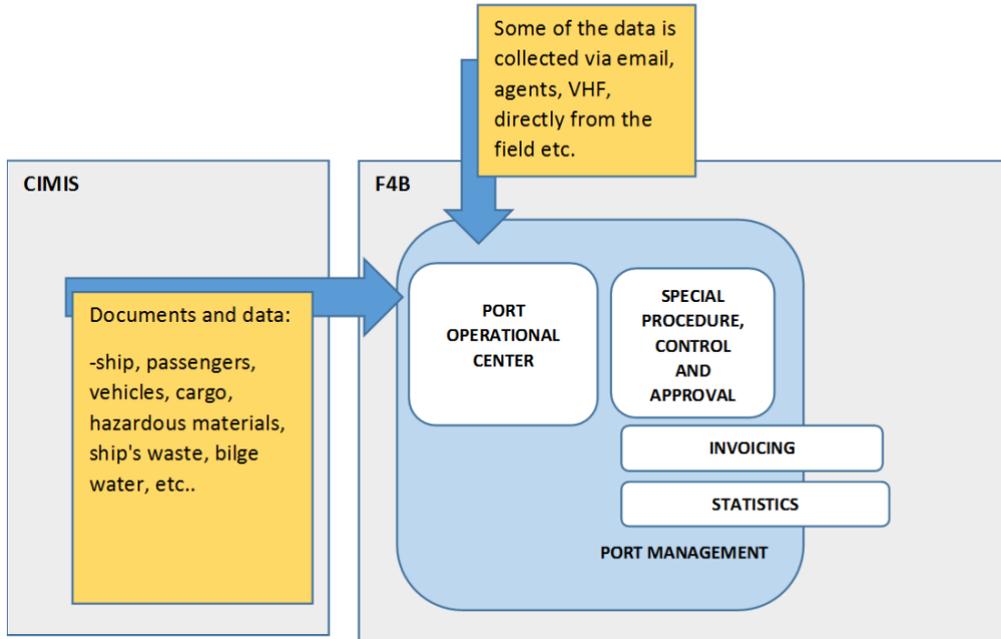
- refreshed autonomously and deliver information about traffic from both systems
- adapted to responsible management of the port

#### PRAVILA VEZIVANJA POKRETA DVAJU SUSTAVA



#### D.4.2.6 Connection of local database with CIMIS in Port of Split

**Changes in business procedures and further automatization of basic business**



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## 2. Result

- Synchronization of visit data between CIMIS and F4B is possible through a web application that offers several options
- The application has a simple interface and supports modern web browsers

Lučka uprava Split 18.12.2019.

Datum: 18.12.2019. Vrsta posjeta: Svi posjeti Broj rezultata: 50 Pretraži XML

Detalji Poveži s F4B Ukloni vezu s F4B

Status	CIMIS Status	Oznaka	Ime broda	Zastava	IMO	ETA	ATA	ETD	ATD	Prethodna luka	Slijedeća luka	Upisan u F4B
Najava	ACTIVE	3013922	BURA NAVIS	HR		18.12. 13:30		18.12. 16:00		Slatine	Slatine	
Najava	ACTIVE	2950532	NARANČA	HR	8807399	18.12. 16:00		18.12. 18:30		Rogač	Rogač	
Dolazak	ACTIVE	2888773	JUDITA	HR	9005778	18.12. 7:30	07:30			Boj		
Najava	CANCELED	2794121	KRILO CARBO	HR	9622708	18.12. 8:30		18.12. 16:00		Split	Hvar	
Dolazak	ACTIVE	3027438	MARJAN	HR	9362786	18.12. 8:35	08:35			Supetar		
Dolazak	ACTIVE	2950985	NARANČA	HR	8807399	18.12. 7:30	07:30	18.12. 14:30		Rogač	Rogač	
Odlazak	ACTIVE	3013882	BURA NAVIS	HR		18.12. 7:15	07:15	18.12. 9:30	09:30	Slatine	Slatine	
Dolazak	ACTIVE	3026179	TUNA PRINCESS	PA	9314612	18.12. 7:00	06:40	16.1. 9:00		TRCES	Gaženica	
Odlazak	LOCKED	3027419	HRVAT	HR	9415181	18.12. 7:20	07:20	18.12. 9:00	09:00	Supetar	Supetar	

### D.4.2.6 Connection of local database with CIMIS in Port of Split

- Visit search in CIMIS:
  - Tabular presentation of visits
  - Search by date and type of visits (announcement, arrival, departure)
  - Selecting the desired number of results
  - Ability to view XML results

Datum		Vrsta posjeta		Broj rezultata							
18.12.2019.		Svi posjeti		50		Pretraži		XML			
Detalji		Poveži s F4B		Ukloni vezu s F4B						BU	
Status ^	CIMIS Status ^	Oznaka ^	Ime broda ^	Zastava ^	IMO ^	ETA ^	ATA ^	ETD ^	ATD ^	Prethodna luka ^	
● Najava	ACTIVE	3013922	BURA NAVIS	HR		18.12. 13:30		18.12. 16:00		Slatine	
● Najava	ACTIVE	2950532	NARANČA	HR	8807399	18.12. 16:00		18.12. 18:30		Rogač	
● Dolazak	ACTIVE	2888773	JUDITA	HR	9005778	18.12. 7:30	07:30			Boj	
● Najava	CANCELED	2794121	KRILO CARBO	HR	9622708	18.12. 8:30		18.12. 16:00		Split	
● Dolazak	ACTIVE	3027438	MARJAN	HR	9362786	18.12. 8:35	08:35			Supetar	
● Dolazak	ACTIVE	2950985	NARANČA	HR	8807399	18.12. 7:30	07:30	18.12. 14:30		Rogač	
● Odlazak	ACTIVE	3013882	BURA NAVIS	HR		18.12. 7:15	07:15	18.12. 9:30	09:30	Slatine	

#### D.4.2.6 Connection of local database with CIMIS in Port of Split

- Ability to view individual visits:
  - Visit details
  - Technical details of the ship
  - Information on passengers, cargo and waste

Lučka uprava Split

Datum: 18.12.2019. Vrsta: HR

Posjet: Brod: Putnici Teret Otpad XML

Detalji Poveži s F4B Ukloni vezu s F4B

Status	CIMIS Status	Oznaka
Najava	ACTIVE	3013922
Najava	ACTIVE	2950532
Dolazak	ACTIVE	2888773
Najava	CANCELED	2794121
Dolazak	ACTIVE	3027438
Dolazak	ACTIVE	2950985
Odlazak	ACTIVE	3013882
Dolazak	ACTIVE	3026179
Odlazak	LOCKED	3027419
Dolazak	ACTIVE	2923081
Odlazak	LOCKED	2923062
Dolazak	ACTIVE	2923058
Dolazak	ACTIVE	2923151
Odlazak	LOCKED	2923061

Detalji putovanja: ID 3027419

HR LOCKED

Putnička aktivnost

Iskrcaj i ukrcaj

Ukupno iskrcano: 139    Ukupno ukrcano: 190    Ukupno u tranzitu: 0

Ukupan broj osoba na brodu - dolazak: 35    Ukupan broj osoba na brodu - odlazak: 35

Domaći putnici

Ukrcaj: Broj putnika: 190    Odlaze u: Supetar

Iskrcaj: Broj putnika: 139    Dolaze iz: Supetar

Zatvori

#### D.4.2.6 Connection of local database with CIMIS in Port of Split

- The connectivity interface allows the user to select the appropriate visit in F4B to match the visit in CIMIS
- If an identical visit is found, the application automatically offers to select it
- If neither visit matches, it is possible to transfer CIMIS's visit to F4B as a new one

Povezivanje posjeta s F4B

### Posjet iz CIMIS-a

Status posjete u CIMIS-u:

ID posjete u CIMIS-u:

IMO:

ETA:

ETD:

Prethodna luka:

↔

### Lista posjeta u F4B

Ako ponuđeni posjet ne odgovara ni jednom od upisanih, možete ga **unijeti kao novog.**

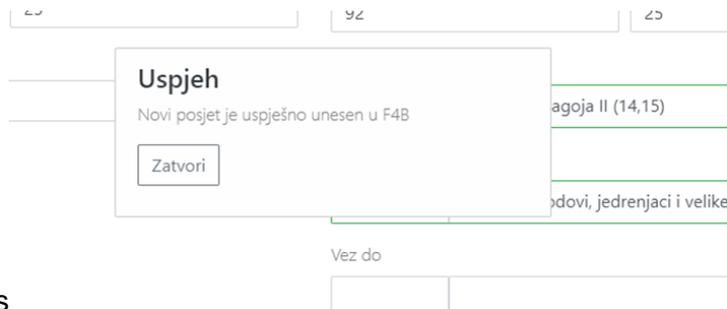
Pretraži po imenu:

Ime broda: BIOKOVO	Brodar: JADROLINIJA
Status: Odlazak (linija)	
IMO: 9559107	NIB:
ETA: 8.11. 6:20	ATA: 8.11. 6:20
ETD: 8.11. 6:45	ATD: 8.11. 6:45
Ime broda: BIOKOVO	Brodar: JADROLINIJA
Status: Odlazak (linija)	
IMO: 9559107	NIB:
ETA: 8.11. 10:50	ATA: 8.11. 10:50
ETD: 8.11. 11:15	ATD: 8.11. 11:15

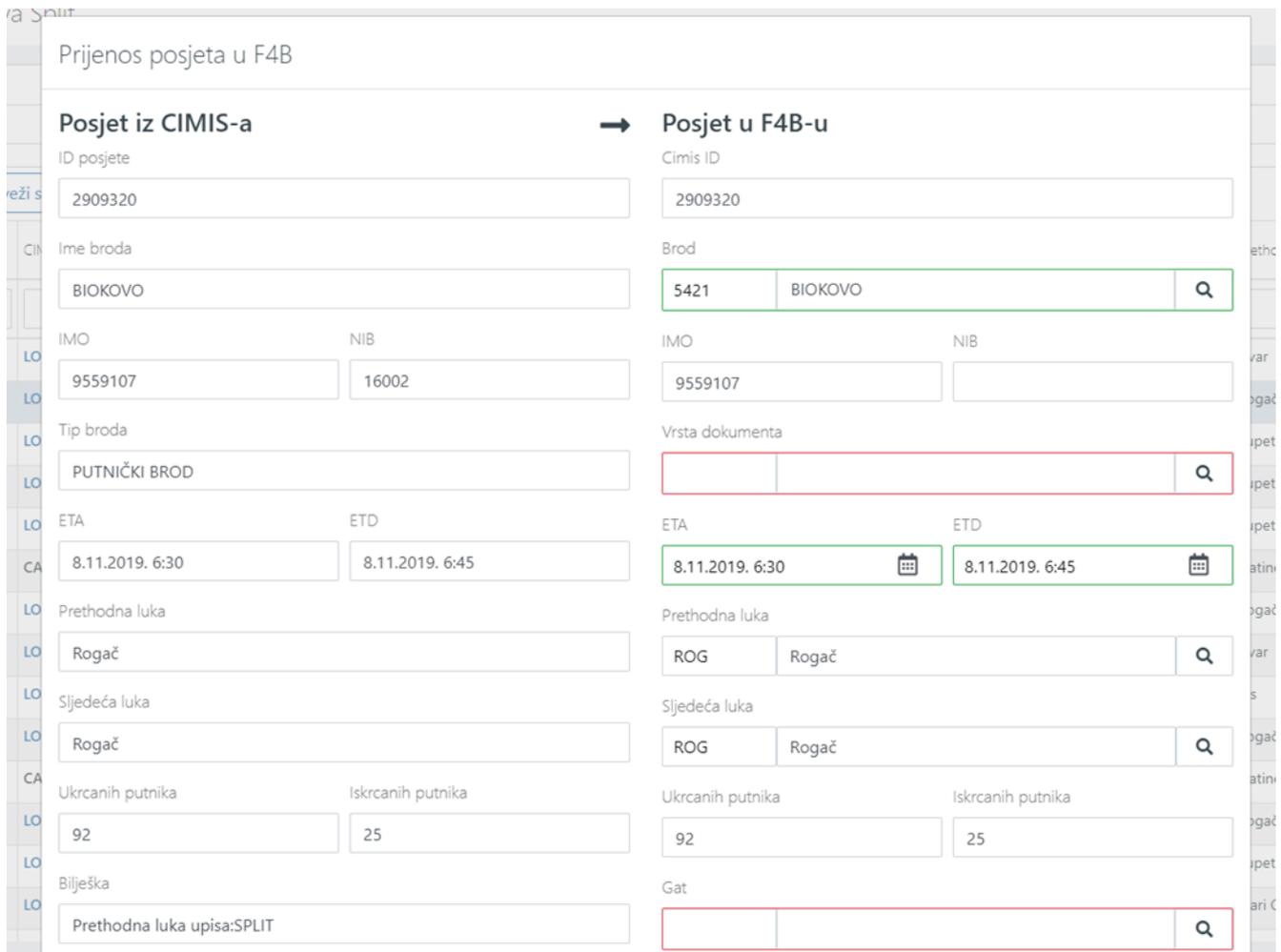
LOCKED	2909449	TIN UJEVIC	HR	8974207	8.11. 13:30	13:30	8.11. 14:30	14:30	Stari Gr
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#### D.4.2.6 Connection of local database with CIMIS in Port of Split

- The application will automatically fill in the fields
- User manually completes data in fields required in F4B for which CIMIS has no



corresponding values



Posjet iz CIMIS-a		→	Posjet u F4B-u	
ID posjete	2909320		Cimis ID	2909320
Ime broda	BIOKOVO		Brod	5421 BIOKOVO
IMO	9559107		IMO	9559107
NIB	16002		NIB	
Tip broda	PUTNIČKI BROD		Vrsta dokumenta	
ETA	8.11.2019. 6:30		ETA	8.11.2019. 6:30
ETD	8.11.2019. 6:45		ETD	8.11.2019. 6:45
Prethodna luka	Rogač		Prethodna luka	ROG Rogač
Sljedeća luka	Rogač		Sljedeća luka	ROG Rogač
Ukrcanih putnika	92		Ukrcanih putnika	92
Iskranih putnika	25		Iskranih putnika	25
Bilješka	Prethodna luka upisa:SPLIT		Gat	

#### D.4.2.6 Connection of local database with CIMIS in Port of Split

- The application offers the ability to update IMO and NIB (National Identification Number) data in F4B
- This information is used when linking visits, so it is necessary to update it

IMO	NIB	
		<input type="button" value="Uredi"/>
<input type="text"/>	72861 <input checked="" type="checkbox"/>	<input type="button" value="Spremi"/>
		<input type="button" value="Uredi"/>



Posjeti

**Brodovi**

### Lučka uprava Split

OPP	Oznaka broda	Tip broda	Ime broda
6384	BROD.JAH	Jahta	MIDNIGHT s/y
7463	BROD.JAH	Jahta	MIDVA m/y
6460	BROD.IB	Izletnički brod	MIHOVIL
9115	BROD.TER	Teretni brod	MIKA
6736	BROD.JAH	Jahta	MIKADO m/y
26520	BROD.TER	Teretni brod	MIKHAIL ISAKOVSKIY
6429	BROD.TUR	Turistički brod	MIKI
237741	BROD.JAH	Jahta	MIKKEL
6322	BROD.TUR	Turistički brod	MILA MAJKA
235651	BROD.JAH	Jahta	MILA VII
6610	BROD.TER	Teretni brod	MILANO

Trenutna stranica: 32    Ukupan broj stranica: 51

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### 3. Conclusion

The result of the pilot consists of the improved business model and the improvements in terms of synchronization with Croatian Integrated Maritime Information System –CIMIS that are related to:

- gaining insight into reliable documents without the use of paper
- introducing order in the system and removing unnecessary documentation
- easier collection of relevant data for statistical purposes
- increasing the productivity of the port and speeding up the process of tracking vessels
- Increasing the throughput of the port

This represents a significant step forward in the present paper-dominated business environment. The fact that various data will be used throughout the system and that it will be documented and ready for further use represents a great benefit for the port.

In addition, it provides to the partnership added value and knowledge in the specific field of data sharing on maritime level and port purposes.

It is a new system to share maritime data among all port users that brings innovation to the project and that can easily be replicated using more standardized information from the ports, making certain services more accessible for goods handling and traffic flows.

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