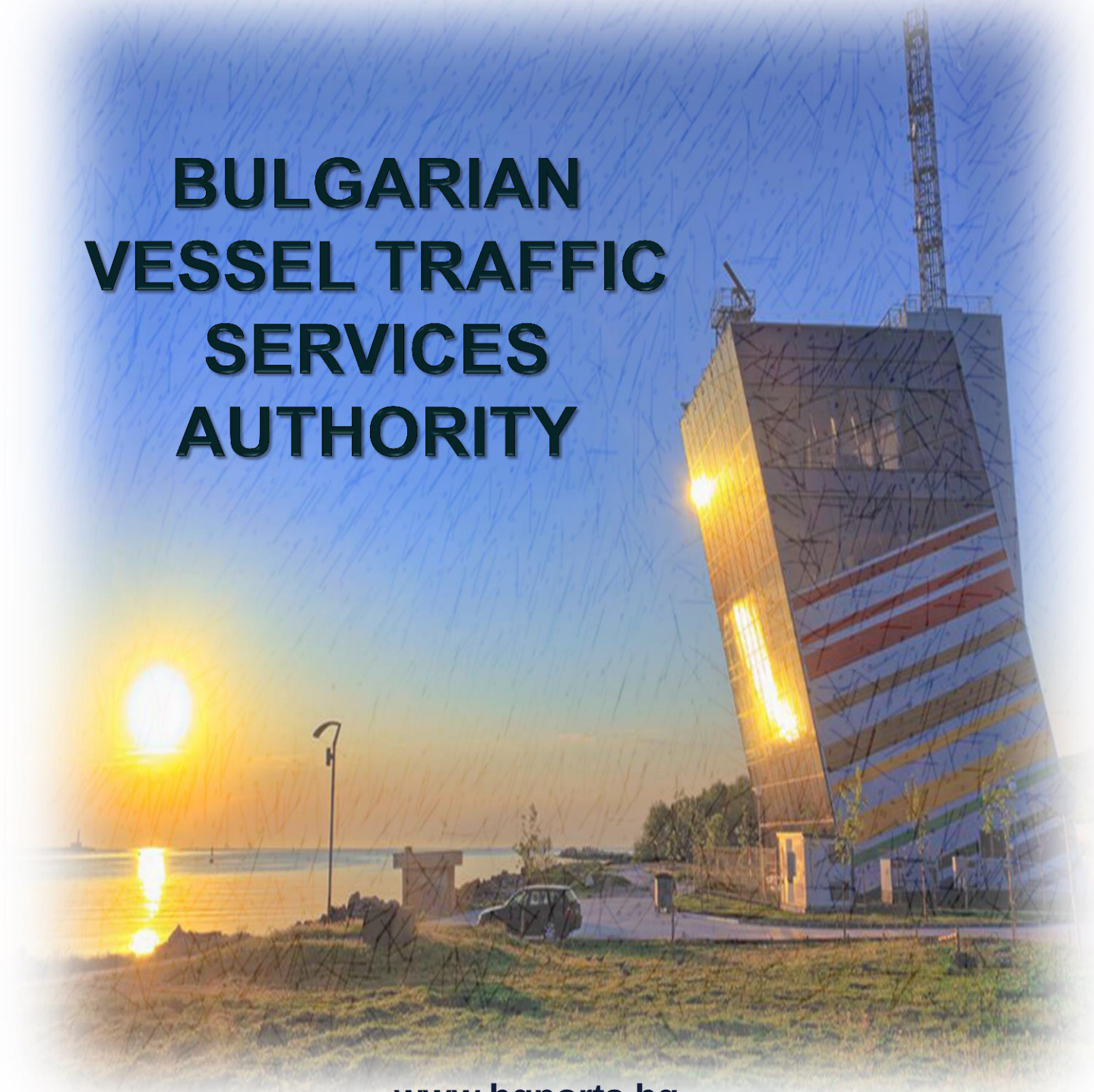
BULGARIAN PORTS
INFRASTRUCTURE COMPANY

# BULGARIAN VESSEL TRAFFIC SERVICES AUTHORITY



www.bgports.bg

# Bulgarian Ports Infrastructure Company

Bulgarian Ports Infrastructure Company (BPI Co.) manages the port infrastructure of the public transport ports of national importance and provides traffic management and shipping information services.

Head office of the BPI Co. is located in Sofia. BPI Co. has four territorial and three specialized divisions situated in Burgas, Varna, Lom and Ruse.

Strategic objective of BPI Co. is to ensure optimum efficiency of port infrastructure and services provided by the company, taking into account the balance of interests in the development of the national port system.

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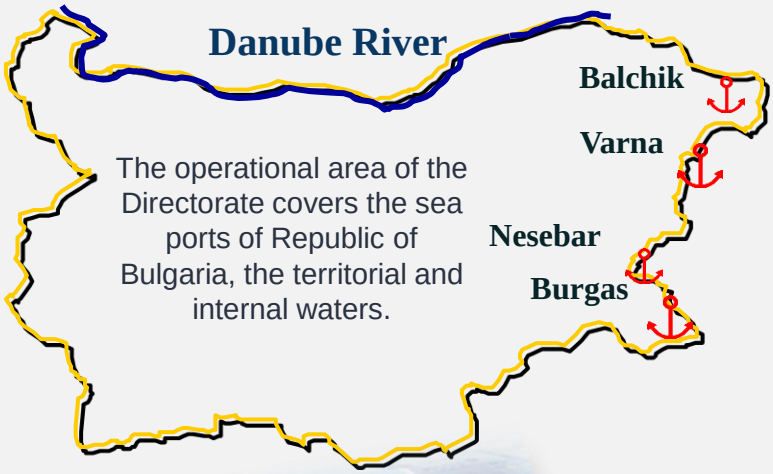
# VTS AUTHORITY - BLACK SEA

## SPECIAL DIRECTORATE OF BULGARIAN PORTS INFRASTRUCTURE COMPANY

## COVERAGE: SEA PORTS AND TERRITORIAL WATERS





VTS Authority - Black Sea is made responsible for the provision of the full range of Vessel Traffic Services, including the IOS (information Service), TOS (Traffic Organization Service) and NAS (Navigational Assistance service) for the vessel traffic. The Directorate also provides vessel electronic documentation environment, port movements planning and organization and assistance in SAR, MAS and anti-pollution response.

# THE MAIN DEVELOPMENT PROJECTS IN THE RESPONSIBILITY AREA:

- Development of Vessel Traffic Management Information System – VTMIS;
- Development and providing electronic data exchange environment for the governmental bodies and business stakeholders in the area of maritime transport:
  - Developing and providing Maritime Single Windows (MSW) for B2G vessel's electronic documentation;
  - Developing and providing a Port Management System;
  - Developing a Port Community system for B2G and B2B electronic data exchange.

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## SERVICES PROVIDED

- Information and navigation support services for ship traffic in the maritime areas of the Republic of Bulgaria, aiming to improve the safety of navigation and preservation of the natural environment;
- Organization and coordination of the traffic and maneuvers of vessels in the navigational waters of the Bulgarian sea ports, contributing to the safety of the navigation operations, improvement of their organization and efficiency and prevention of dangerous situations or pollution of the natural environment;
- Services intended for shipowners and coastal services to accelerate the movement and processing of mandatory ship's documentation electronically and to facilitate the development of administrative decisions related to maritime transport activities and, as a result, to improve the efficiency of ports and the industry as a whole ;
- Disaster, emergency and safety communications, routine communications outside the scope of VHF, and distribution of navigation and meteorological information for all ships in order to improve safety and timely response to dangerous or disaster situations.

The reporting Line of VTS Varna is defined as the line joining the following positions:

a.43°21′,62N 28º27′,90E (Cape Kaliakra)

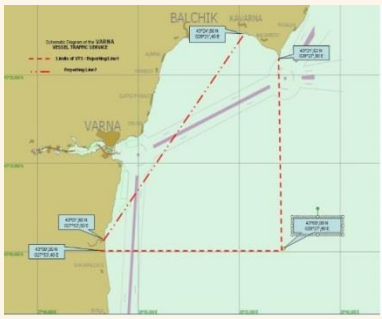
b.43º00′,00N 28º27′,90E

c.43º00′,00N 28º53′,40E

The Responsible Area Line of VTS Varna is defined as the line joining the following positions:

a.43°24′,70N 28º21′,06E

b.43º01′,60N 27º53′,50E



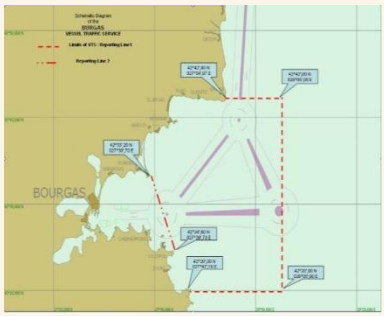

The reporting Line of VTS Burgas is defined as the line joining the following positions:

a.42°42′,00N 27º54′,07E (Cape Emine)

b.42º42′,00N 28º05′,00E

c.42º20′,00N 28º05′,00E

d.42º20′,00N 27º47′,16E (Cape Korakia)




The Responsible Area Line of VTS Burgas is defined as the line joining the following positions:

a.42°33′,20N 27º39′,70E

b.42º20′,00N 27º47′,16E

**VTS – Varna**
UNCTAD LOCODE: **BGVAR**
43° 11’ 28.6” N,
027° 55’ 15.1” E
5, Primorski boulevard,
9000, Varna, Bulgaria

**CONTACT DETAILS:**
Call: Varna Traffic
VHF Frequency: Ch 11, Ch 16
Telephone: +359 52 603113
(Mobile) +359 88 5907719
E-mail: vsltraffic_vn@bgports.bg
Fax: +359 52 602317

VTS – Burgas

UNCTAD LOCODE: **BGBOJ**
42° 29’ 21.3” N
027° 28’ 31.7” E
3, Kniaz A. Batemberg str.
8000, Burgas, Bulgaria

**CONTACT DETAILS:**
Call: Burgas Traffic
VHF Frequency: Ch 11, Ch 16
Telephone: +359 56 844311
(Mobile) +359 88 8142935
E-mail: vsltraffic_bs@bgports.bg
Fax: +359 56 844310

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# VESSEL TRAFFIC MANAGEMENT AND INFORMATION SYSTEM (VTMIS)

In the Black Sea region, Bulgaria is the first country to build an integrated Information System for Ship Navigation Management and Information Service for Shipping. The system consists of multiple objects with remote control equipment (sensors, communication devices, CCTV cameras, etc.), electronic navigation system for processing and visualization of the information from the navigation and meteorological sensors "Navi Harbor", digital information systems National electronic document circulation center for maritime transport - "NCEDMT", digital information system for planning of maneuvers in ports - "MOVER", the Bulgarian segment of the world system for poverty GMDSS and two coastal management and information services for shipping.

**Main purposes of the system represent:**

- Continuous monitoring of sea areas of Republic of Bulgaria by technical means;
- Integration of all communications, navigational, weather and video subsystems in a national maritime information system linked to EU structures in accordance with the current requirements of international European, and Bulgarian legislation;
- Management of ship traffic through high-tech aids in ports, Bourgas and Varna Bay, berths, roads, Varna and Beloslav lakes and connecting to sea navigational channels;
- Creating conditions for increasing efficiency in maritime search and rescue vessels in distress;
- Improved information provision for reformed protection of the sea and coastal areas from pollution;
- Collection and provision of information necessary for navigation to all bodies needing it;
- Creating conditions for most effective shipping business.

The result is a single system, integrated with all services and features for the whole covered area.

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# VTMIS DEVELOPMENT ACTIVITIES

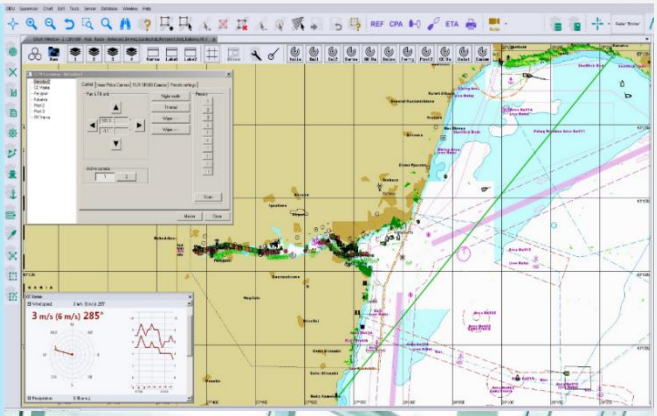
- Establishing, operating and maintaining of coastal centers in Burgas and Varna;
- Implementing of new and upgrade of old automatic radio communication means, development of coastal navigational system with remote controlled sensors /video, meteo, radar/, installing AIS base stations and other equipment.
- Upgrade and expand of the internal data transfer environment, consisting of integrated radio relay, cable and fiber network for all remote sites in Municipalities Varna, Burgas and Dobrich with the coastal centers in Varna and Burgas.
- Installation of all required software in the two coastal centers for traffic monitoring and control and all other system features
- Technological upgrade of the existing GMDSS equipment;
- Establishing a Maritime Single Window for electronic post processing of ship information entering or leaving ports in Bulgaria.

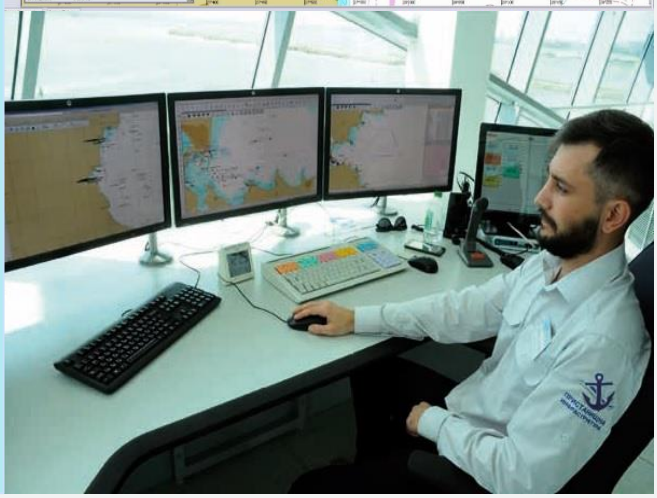
## BASIC FUNCTIONAL SYSTEMS OF THE VTMIS

- Information processing system
- System for operational management and visualization
- Operational applications system
- Recording, storage and playback system
- Monitoring and diagnostics system
- Single time system

Basic subsystems of the VTMIS

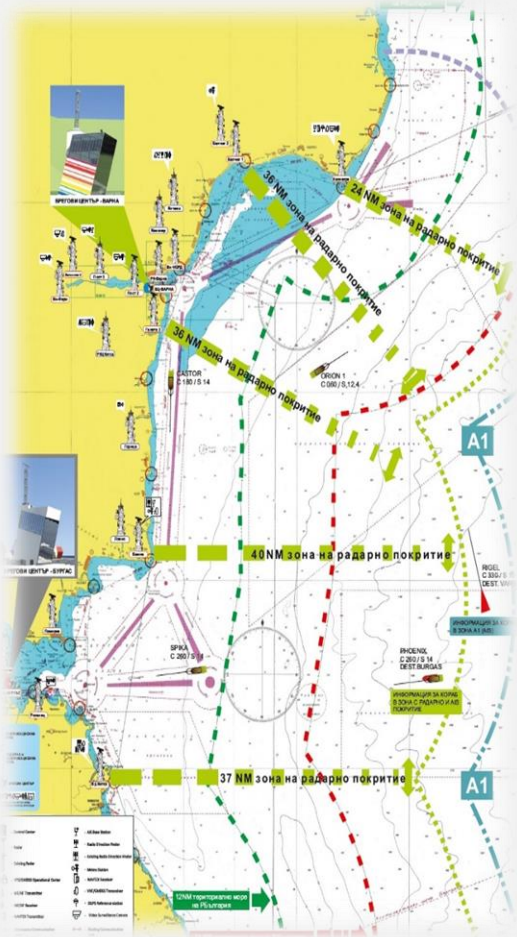
- Radio communications for the vessel traffic management / VHF for VTS /
- Radar subsystem
- Automatic identification (AIS) subsystem
- Radio direction finder (RDF) subsystem
- Meteorological data subsystem
- Video surveillance subsystem
- DGPS subsystem
- Training subsystem (VTS simulators)





# BULGARIAN PORTS INFRASTRUCTURE COMPANY

## SYSTEM STRUCTURE AND CONTROL:



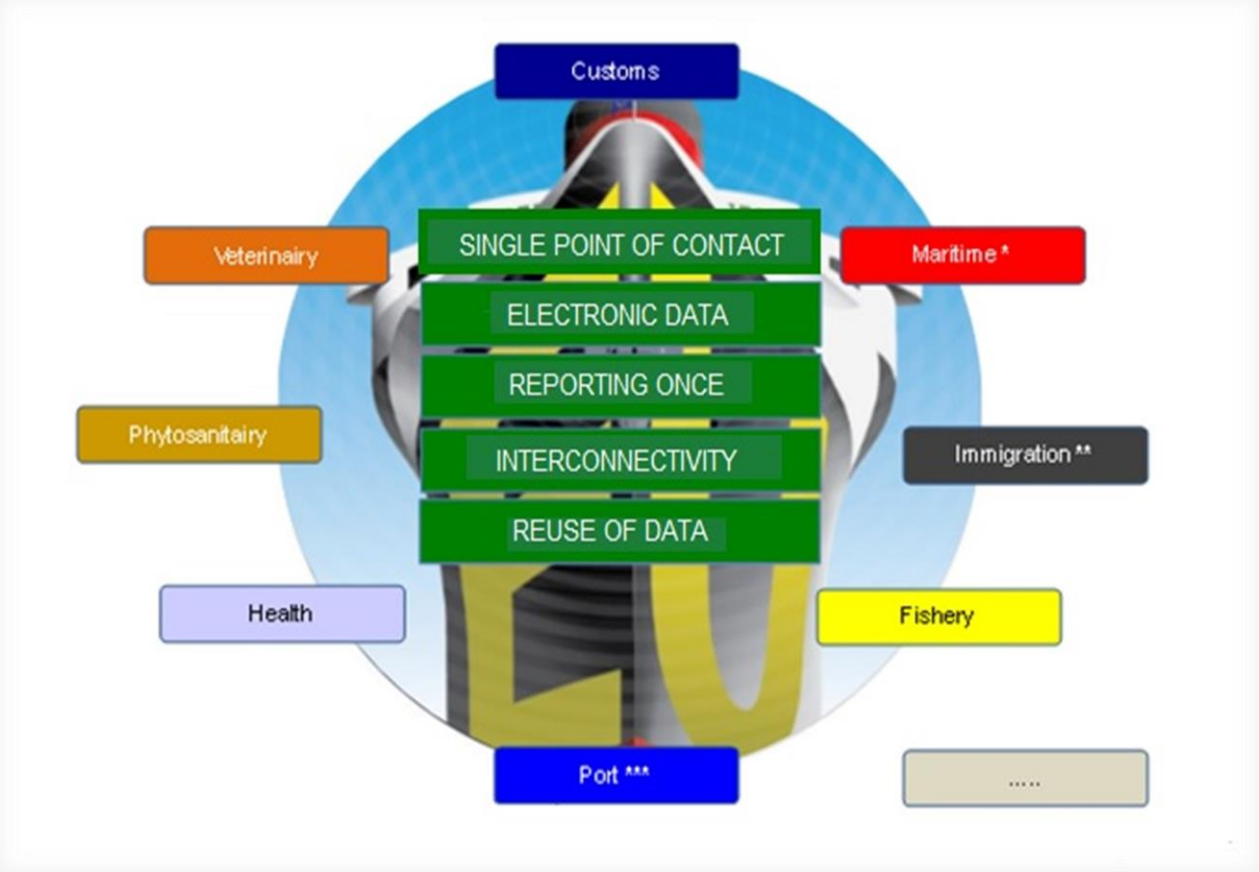

## AN INTEGRATED SYSTEM WITH ENHANCED CAPABILITIES FOR:

**Vessel** traffic monitoring and organization;
Ship to shore communication and information services;
**Automatic processing** of safety and environmental data to European structures.
**The system** consists of two coastal centers in Varna and Burgas and 22 sensor and radio communication sites.
**Coastal centers** in Varna and Burgas are in hot back-up configuration with control functions. The control is global for the whole system and local for chosen sectors. As designed coastal center Burgas is controlling southern from Cape Emine to Rezovska River and Coastal center Varna – northern from Cape Emine to Durankulak.
**The connection** from the sites to the coastal centers is through integrated radio relay, cable and fiber network. For ensuring the usage, presentation and processing the data two new mirror data centers are build – one in Varna and one in Burgas. They create the required calculation and storage capability for functioning of all features of the project.

# MARITIME SINGLE WINDOW (MSW)

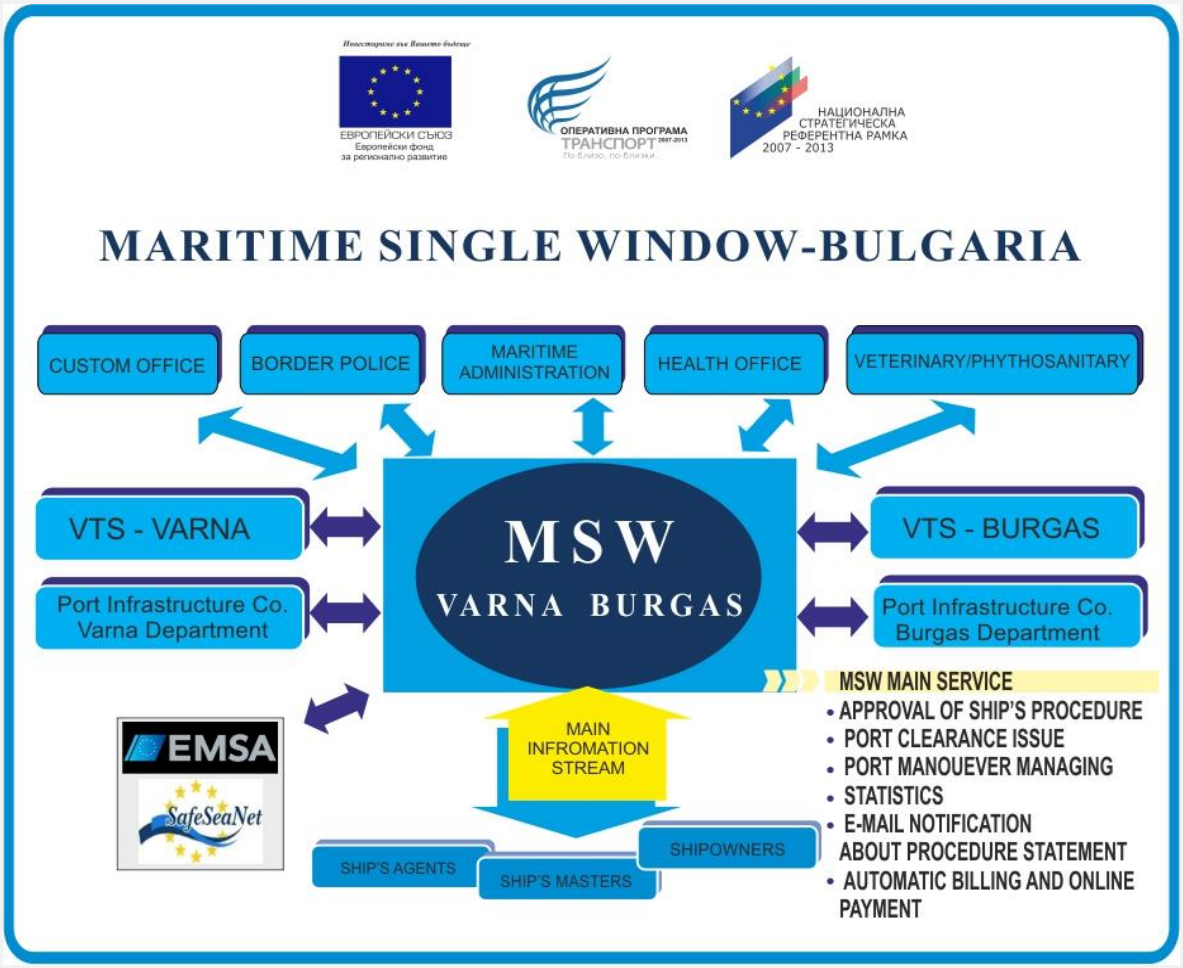
- According to the regulations of European Directive 2010/65EU a MSW, serving as a "single point of contact" for information sharing should be provided by all member states. The main purpose is facilitating the maritime business in means of electronic ship documentation. Individual data elements should only be submitted once. Data transmission in the MSW can be performed directly by businesses, government agencies or trusted third parties (eg. ship agents) by user interface.
- MSW Bulgaria consists of two port office with operator workstations respectively in Burgas and Varna
- Both port offices carry out administrative services for information and have redundant functions relative to one another.
- International data exchange according to Directive 2010/65/EU is being carried out.

# MSW - PRINCIPALS AND PARTICIPANTS



## MSW BULGARIA BACKGROUND AND STRUCTURE:

The first pilot project in Bulgaria, based on the principles of Maritime Single Window was implemented in late 2009. At the end of 2014, a contract for development of new software platform was signed. The new software platform that complies with the RF Directive was launched in a test period of June 1, 2015. On October 1, 2015 the new system was put into operation as a part of the integrated Vessel Traffic Management and Information system.




## SIMPLIFYING AND HARMONISING

The purpose of the MSW Bulgaria is to provide the ability of Bulgaria to outstand the requirements of the Reporting Formalities Directive (2010/65/EU) and to create grounds for simplification and harmonization of the administrative procedures applied to maritime transport, by establishment of the electronic transmission of information standard and by rationalizing reporting formalities. To achieve this, Member Bulgaria has developed own NSW linked to SafeSeaNet and other electronic systems.

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## MSW BULGARIA FUNCTIONALITIES

- Collects information for reporting formalities required before or at ship's arrival or departure;
- Distributes the information to the relevant national and local authorities;
- Records decisions and comments from the authorities and communicates them to the ship data providers.

In addition, the NSW interconnects to the SSN system in order to provide the required information and to retrieve information from previous port calls from other MSs. Ship data providers can submit notifications via the Web User Interface, which also includes the possibility to upload XLS files. Relevant information is made available to authorities using the Web User Interface.

## BENEFITS AND ADVANTAGES

- Simplified and centralized administrative procedures.
- Paperless electronic administration.
- Facilitates communication between authorities and agents.
- Improve data quality through validation and reuse of previous data.
- Improve user experience for data provision.
- Up-to-Date information.

**A complete NSW solution:** The complete National Single Window has been developed already and adapted to include specific national requirements. The solution is based on ISO standard 28005, Electronic Port Clearance, and can be adapted and interfaced with other national systems.

**A reporting gateway for the shipping industry:** The Common Reporting Gateway module offers a comprehensive and harmonised interface (PC, tablet, XML) for the fulfilment of reporting formalities. It may be linked with existing national back-end systems.

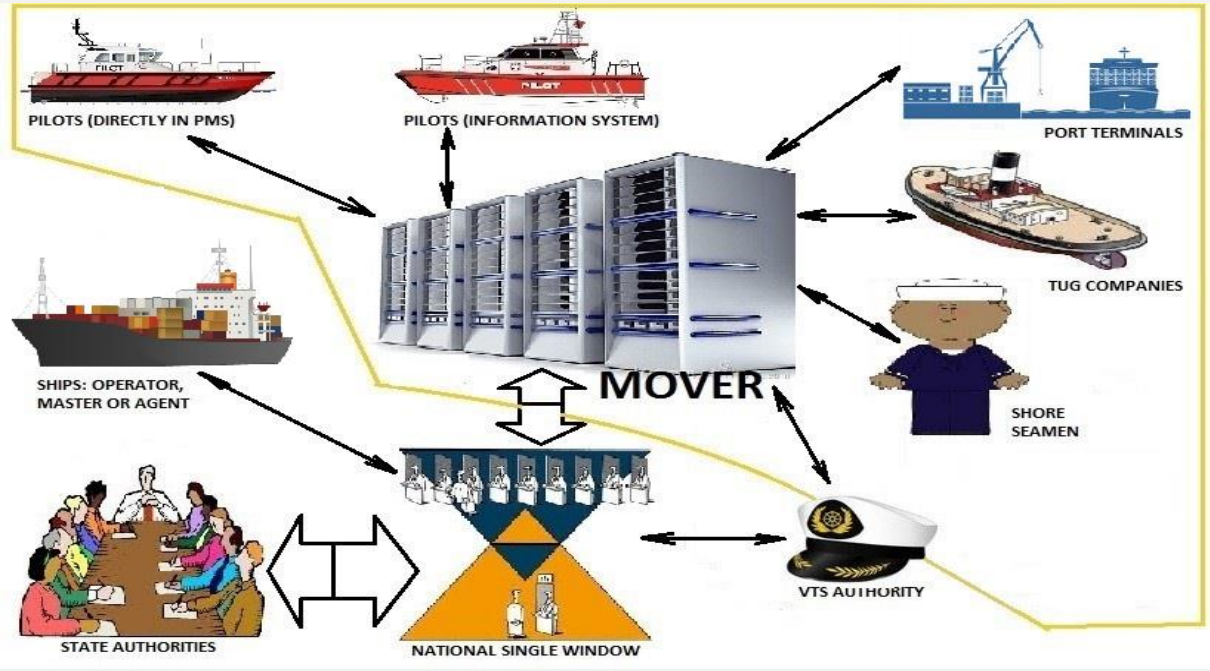
**An efficient link to authorities:** The Authority Information Exchange module can be linked to existing systems used for the receipt of information from the shipping industry. The information received can be distributed to the authorities, who can view it and record their decisions.

**A bridge to SafeSeaNet services:** The NSW allows for the submission of messages which are compliant with the latest release of SafeSeaNet (version 3). In addition, it is designed to automatically receive ship details and location code updates from the central reference databases of SafeSeaNet.

# PORT MANAGEMENT SYSTEM (PMS) IN BULGARIAN PORTS

The electronic data exchange environment for port movements planning, called “MOVER” has the purpose to provide an information environment for all participants in the process of planning and performance of vessels maneuvers and a database for following reports. The system represents a module of the MSW and provides a reuse of the main volume of necessary data. It was put into operation on November 25, 2015.

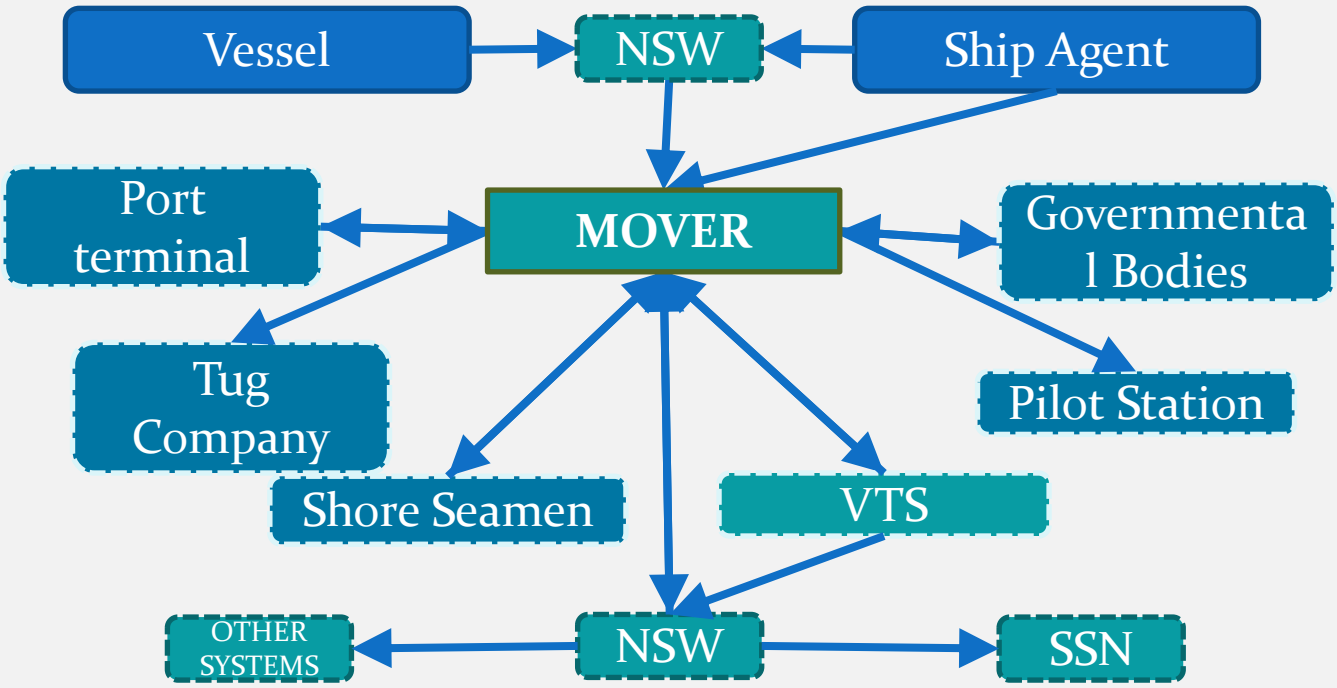
The software tool for port movements/management planning was developed as a national pilot project under the AnNa activities. Its main purpose is to provide an information environment for all participants in the process of planning and performance of vessels maneuvers and a database for following reports. The system represents a module of the MSW and provides a reuse of the main volume of necessary data. It was put into operation on November 25, 2015.




## MOVER FUNCTIONALITIES

- Vessel port movement management
- Generating reports on port movements, terminals status, administrative permissions etc.
- Provision /reuse of data for MSW, SSN and other information systems

## STRUCTURE OF THE PMS IN BULGARIAN PORTS




## PMS INFORMATION EXCHANGED

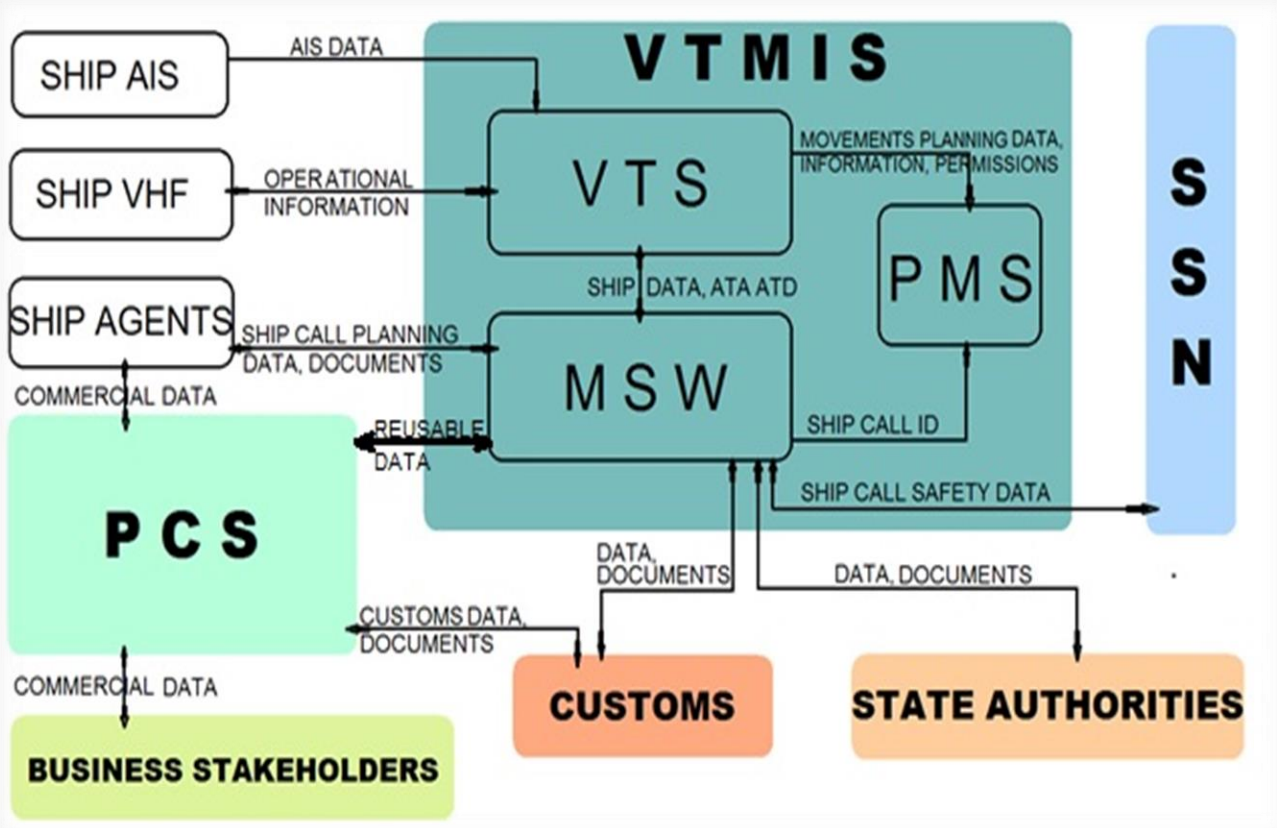
- Information on planned date of movement and required place in port;
- Information on status of readiness of port terminals;
- Information on disposition of tugs, pilot boats and other support craft;
- Information on availability of pilots and mooring men;
- Information on necessary number of tugs and meteorological limitation for every particular vessel and port area;
- Times of berthing/unberthing for port taxes calculation;
- ATA, ATD, remarks on ship condition, Administration special permissions and comments, accident reporting etc. for SSN and other governmental users – integration via National MSW.
- Data for planning and information systems of port terminals, pilot stations, tug companies etc.

# DEVELOPMENT OF PORT COMMUNITY SYSTEM FOR B2G AND B2B INFORMATION EXCHANGE

An undergoing feasibility study project aims the development and deploying of electronic data exchange environment for the port community.

- Since in Bulgaria there was no common initiative from the business community in the field of port activities to create PCS and;
- Such systems represent a practice-proven solution for great improvement of the effectiveness of ports through intelligent methods:

BPI Co. has committed in developing and provision of such an information environment for the purposes of maritime business environment.
The company recognized the need for far-reaching studies to make the future system an useful facilitating tool for improving the efficiency of Bulgarian ports.



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# SAFETY, ENVIRONMENTAL AND ELECTRONIC GOVERNANCE POLITICS OF BPI Co. – MAIN GOALS OF THE VTS AUTHORITY:

- Improved safety of navigation and improved protection of human life at sea;
- Improved environmental protection;
- Improved b2g dialogue for enhanced law enforcement and improved safety and security of the ports;
- Improved efficiency and improved competitiveness of Bulgarian ports.

# BULGARIAN PORTS
# INFRASTRUCTURE COMPANY


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