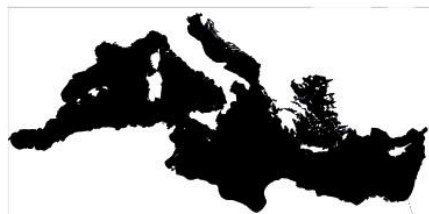


MEDNET Pilot Actions - Croatia

Dražen Žgaljić, Intermodal Transport Cluster

Geneva, 9th September 2014





Pilot Action #1. *Improvement of Ro-Ro Traffic: Parking Management and Customs Procedures at port of Rijeka*



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Pilot Action #2. *Improvement of Ro-Ro Traffic: Parking Management and Customs Procedures at port of Zadar*



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Description

Integration with National Customs System: that is a key entry point to the Customs paperless clearance system. The objective is to improve traffic fluidity and decrease waiting queues at the entrance and exit points of the ports of Rijeka and Zadar. Due to manual procedures, during the entry/exit operations, are causing unnecessary delays and bottlenecks.

The prototype solution will disburden both the Custom officers as well as the truck drivers using improved IT solutions and reducing waiting times. "The aim of the initiative is to provide a technical solution to comply with European regulations, in order to reduce waitings at the entry/exit points of port of Rijeka and Zadar."



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Original situation

Current situation in Port of Rijeka and port of Zadar is that there is no existing equipment of any kind at the entrance points. Implementation of these systems will allow faster and more reliable cargo flows in and out of the port.

Expected results

The initiative proposed is an electronic system which will introduce solution, better and faster transshipment of goods and cargos, create safer and more reliable supervision of all entities entering and leaving the port areas.



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Where?

- Port of Rijeka Authority
- Port of Zadar Authority

When?

- Prototyping: 2014.-2015.
- Piloting: 2015.

Who?

- Port of Rijeka Authority
- Port of Zadar Authority
- Intermodal Transport Cluster
- Customs

Cost:

- In evaluation



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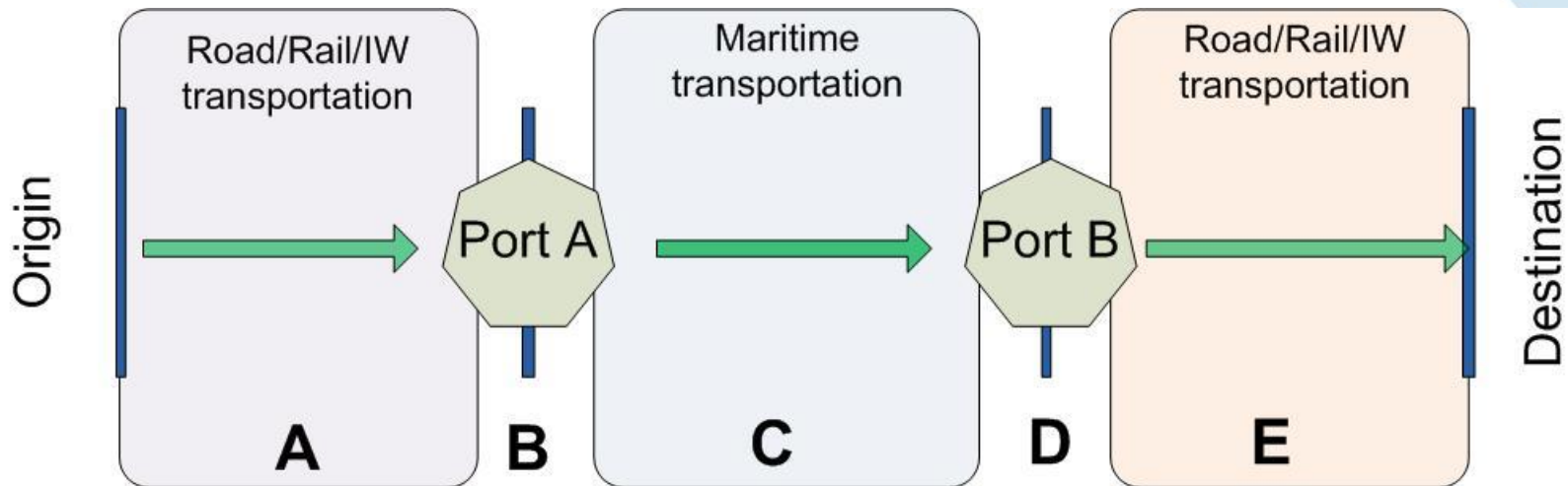
SUCCESS CRITERIA OF SSS/MOS

- **Price** – Cost of maritime transport combined with road transport from origin to destination must be competitive in comparison to road „door-to-door” services without the usage of maritime transport.
- **Departure/Arrival Schedule** – exact times of departure and arrival must be defined and announced.
- **Reliability** – departures and arrivals must be reliable as defined and announced. No deviations are allowed regardless of the reason, including adverse weather conditions.
- **Transit time** – maritime transit time combined with a road transport „door-to-door” service must be similar to the road transport transit time of the same service.
- **Port efficiency** – port efficiency is reflected in the speed of loading or unloading, high level of security, avoiding bureaucracy, low costs, 24-hour working time and good connections with the inland modes of transportation.
- **Ship courtesy (commodity)** – with RO-RO technologies, truck drivers require commodity in terms of cabins with a bathroom and restaurants which are included in the price.





SERVICE ELEMENTS



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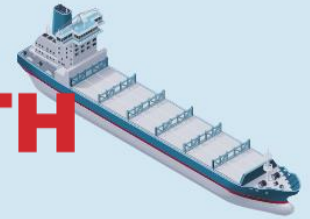
INFRASTRUCTURE CRITERIA

Infrastructure criteria with sub-criteria:

- Group of sub-criteria, port availability with sub-criteria:
 - direct connection with the railway infrastructure,
 - direct connection to the motorway network,
 - safety factor on the railway infrastructure,
 - maintenance of railway infrastructure
 - maintenance of road infrastructure,
 - railway infrastructure capacity,
 - road infrastructure capacity;
- Group of sub-criteria for infrastructure and activities on the land side of the terminal and sub-criteria:
 - condition and capacity of the road infrastructure for external vehicles,
 - condition and capacity of the road infrastructure for internal vehicles,
 - capacity of parking spaces,
 - existence Terminal Operating System,
 - port equipment for handling of containers and vehicles;
- Group of infrastructure sub-criteria and activities on the seaside of the terminal:
 - sea depth,
 - priority at ship acceptance in regular service,
 - exemption for the use of pilots,
 - exemption for the use of tugs;



CRITERIA FOR INTERACTION WITH VARIOUS TRANSPORT MODES



Criteria for interaction with various transport modes with sub-criteria:

- Group of sub-criteria of interactions with ship services:
 - Number of SSS services,
 - Number of regular shipping branch offices;
- Group of sub-criteria of interactions with railway transport:
 - Number of block train services,
 - Number of operators in the country;
- Interaction with road transport;
- Group of sub-criteria for information and document exchange:
 - Existence of port communication service,
 - Existence of priority status;



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ADMINISTRATIVE AND POLITICAL CRITERIA



Administrative and political criteria with sub-criteria:

- Service promotion system,
- Service information support,
- Systematic identification of service bottlenecks,
- Service quality management system,
- Group of sub-criteria of common port system management
 - Complexity of organization and work functioning,
 - Advantage of increased capacity;
- Political decision.



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MULTI-CRITERIA ANALYSIS



Scenario



Criteria



Value of each criteria



Multi-criteria analysis



Results/conclusions



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MCA – SCENARIO 1



Scenario based on independent ports model:

- Rijeka,
- Zadar,
- Šibenik,
- Split,
- Ploče i
- Dubrovnik.



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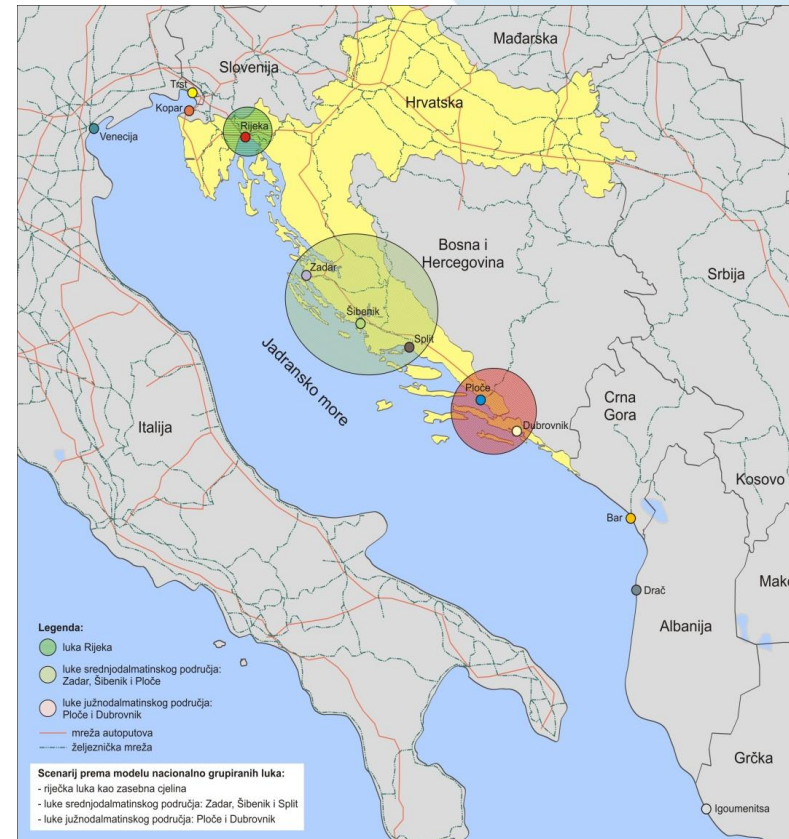
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MCA – SCENARIO 2



Scenario based on nationally grouped ports:

- Port of Rijeka as a separate unit,
- Ports of Central Dalmatian, Zadar, Šibenik i Split,
- Ports of South Dalmatia, Ploče i Dubrovnik.



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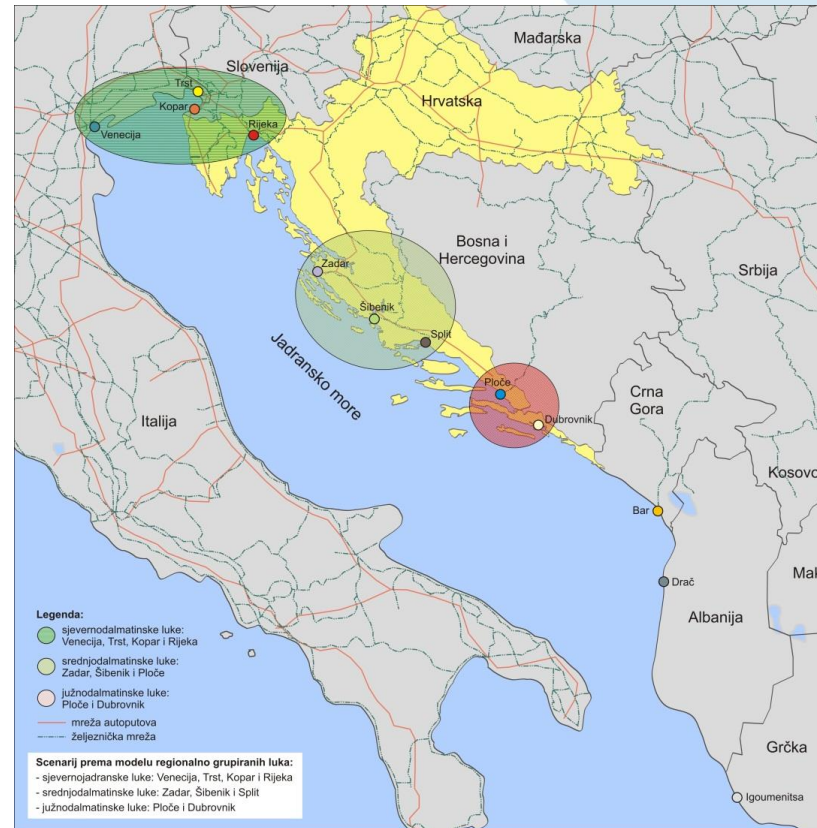
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MCA – SCENARIO 3

Scenario based on regionally grouped ports:

- **North Adriatic Ports**
Venice, Trieste, Kopar and Rijeka,
- **Central Dalmatian ports**
Zadar, Šibenik i Split, i
- **South Dalmatian ports**
Ploče i Dubrovnik.



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MCA – SCENARIO 4

Scenario based on the single port model – port of Rijeka:

- Rijeka as a nationally prioritised port for the Motorways of the Sea services



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MCA – SCENARIO 5



Scenario based on the two ports model - Rijeka i Ploče:

- **Ports of Rijeka and Ploče are equally developed and have the same status for the container and RO-RO transport.**



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MCA – SCENARIO 6



Scenario based on the „simple ports“ model:

- Theoretically set port of Zadar as the port that functions by the „simple ports” model on the territory of the new container and RO-RO port in Gaženica.



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VALUE OF EACH CRITERIA



Identified scenarios are analysed on several different combinations and levels of difficulty of criteria and sub-criteria. Ranking is performed including:

- Only infrastructure criteria,
- Only interaction criteria with different modes of transport,
- Only administrative and political criteria,
- Simultaneous influences of infrastructure and interaction criteria with different modes of transport,
- Simultaneous influences of infrastructure, administrative and political criteria,
- Simultaneous influences of administrative and political as well as interaction criteria with different modes of transport and
- Simultaneous influences of administrative and political, infrastructure and interaction criteria with different modes of transport.

Criteria meaning in combination	Difficulty
Criteria is not considered	0
Low criteria difficulty	1
Medium criteria difficulty	2
High criteria difficulty	3



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RESULTS

		SCENARIOS					
		Independent ports model	Nationally grouped ports model	Regionally grouped ports model	One port model	Two ports model	Simple ports model
Criteria influences	Infrastructure criteria	6	5	4	2	3	1
	Interaction with different modes of transport criteria	4	2	1	6	3	5
	Administrative and political criteria	6	4	5	3	2	1
	Simultaneous influences of infrastructure and interaction criteria with different modes of transport	6	5	3	4	2	1
	Simultaneous influences of infrastructure, administrative and political criteria	6	5	4	2	3	1
	Simultaneous influences of administrative and political as well as interaction criteria with different modes of transport	6	3	1	5	4	2
	Simultaneous influences of administrative and political, infrastructure and interaction criteria with different modes of transport	6	5	4	3	2	1



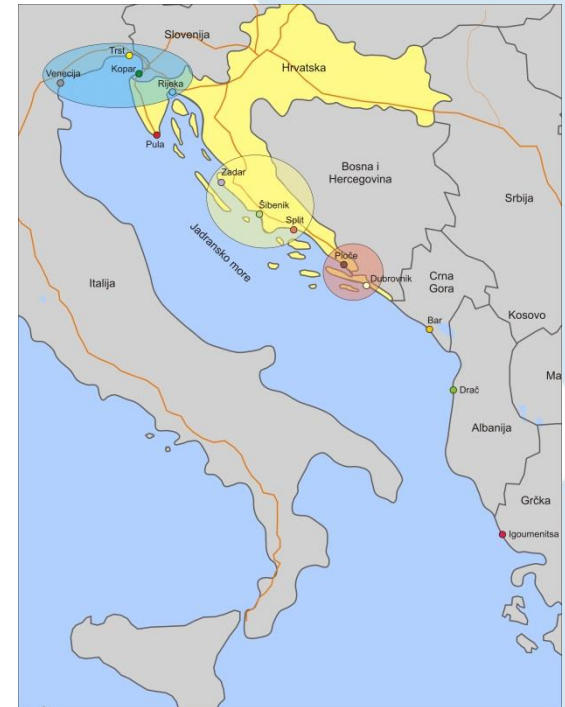
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CONCLUSIONS



- **Current model of the Croatian transport and port system functioning is completely inappropriate** for the development and implementation of a sustainable Motorways of the Sea system and it is the worst solution in relation to all identified models.
- **Optimal solution** would be development of a single port and a gravity transport infrastructure according to the „simple ports” model.
- In case the Republic of Croatia decided to ignore development of the Motorways of the Sea and in case its development is left to transport operators, ideal model would be **regionally grouped ports model**. This model considers coordination and a joint work of port systems in several countries, and objectively, except in the case of the same owners, functioning of common port systems is hard to implement.
- In case the Republic of Croatia decided to actively participate in the development of the sustainable Motorways of the Sea system, individually or in coordination with transport operators, **two ports system is optimal**. This model presumes specialisation and preference of these two ports, by focusing infrastructure investments into these ports while other ports consciously focus on development of other types of freight and private investments.



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Thank you for your attention



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