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# Report on Ports and Multimodal Facilities at National and Macroregional Level

Serbia

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Novi Sad (SRB), 02/06/2010

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## Table of Contents

1	SUMMARY .....	4
2	OVERVIEW .....	5
	2.1 WATERMODE in general.....	5
	2.2 Structure of the Work Programme of WATERMODE.....	6
	2.3 WATERMODE WP3 – Census of Logistics and Multimodal .....	6
	2.4 List of partners and tasks assigned in WP3 .....	7
	2.5 About this Report .....	8
3	Scope of the census in Serbia.....	9
	3.1 Contacted facilities.....	9
	3.2 Facilities in detail.....	10
	3.2.1 Port Napredak AD Apatin.....	10
	3.2.2 Port Backa Palanka .....	11
	3.2.3 Port Novi Sad .....	11
	3.2.4 Port Belgrade.....	11
	3.2.5 Port Krajina Prahovo.....	12
	3.2.6 Port Potisje Senta.....	12
	3.2.7 Port Leget Sremska Mitrovica.....	12
	3.2.8 Cargo transport centre Sabac.....	12
	3.2.9 Railway station Subotica.....	13
	3.2.10 Railway station Novi Sad – Shunting station .....	13
	3.2.11 Logistics centre Belgrade.....	13
	3.2.12 Railway station Red Cross, Nis (Niš) .....	14
	3.2.13 Railway station Radinac (Smederevo) .....	15
	3.2.14 Railway Station Uzice (Užice) .....	15
	3.2.15 Railway station Kragujevac.....	15
	3.2.16 Cargo transport centre Vrsac (Vršac).....	15
	3.3 Method of census.....	16
	3.4 Issues encountered.....	17
4	Innovations / Plans for the Future.....	18

## 1 SUMMARY

**WATERMODE** aims to promote the coordination between the private and public actors dealing with logistics and spatial planning, for a better management of the multi-modal transport solutions. In particular, the project aims at increasing the integration of the waterborne transport modes in the logistics chain, supporting the transnational dimension in the national and local strategies for the valorisation of the sea and inland waterways port infrastructures.

In Work Package 3 (WP3) – Census of Logistics and Multimodal, the aims are twofold:

- ✓ To define a set of indicators for the evaluation of the multimodal and port facilities;
- ✓ To set up a database of ports and multimodal logistics facilities in the countries of the partners (10), accordingly with the set of indicators.

In Activity 3.1 the indicators were defined by a panel of transnational experts, to evaluate ports and the logistics facilities accordingly with their relevant characteristics.

For the census, a questionnaire has been created which is available as a print and an online version and the “Manual for the Census” provides instructions on how to proceed with the census.

The actual census took place in 2010 and the data has been entered into the database which is also published on the internet site of the project ([www.watermode.eu](http://www.watermode.eu)) and will be a support instrument in the decision making process of policy makers and business operators.

This report describes the census, the facilities that were researched, gives an general overview of the specific situation in each country / region and highlights some major findings.

## 2 OVERVIEW

### 2.1 WATERMODE in general

**WATERMODE** has been set up to promote a better coordination between policy actors and stakeholders to increase the competitiveness of the alternatives to road transport, especially valorising the potentials of the water/ground multimodal logistics cooperation. To do that, project activities have been defined to provide instruments for improving the policy coordination and highlight potentials of water/ground multimodal transport.

**WATERMODE** is a project under the SEE Transnational Cooperation Programme of the European Commission and has the Project Code SEE/A/308/3.3/x.

The programme area is crossed by relevant freight traffic flows, originated and directed in- and outside it. This traffic is mainly supported by road infrastructures that were not planned for these flows. The European investments in transport infrastructures are supporting the modernisation of the network, but their implementation is far from being achieved. Therefore public authorities and operators need to coordinate the efforts for a more efficient use of the available infrastructures. In the programme area the waterborne transport solutions have lot of potentialities: the port infrastructures of the area are being revalorised, but these activities lack of a transnational coordination to increase the optimisation of the actions and the competitiveness of the multimodal transport solutions. Moreover, there is the need to demonstrate in what cases the ground/water multi-modal transports solutions are more efficient compared to road transport, in order to focus the investments

This is achieved by:

- ✓ Defining a set of general indicators for measuring and recording the services of the multimodal ground / water logistics platforms. This instrument will be addressed to policy makers and to public and private logistics operators to evaluate the current situation, orienting the investments for the competitiveness of the infrastructures, increase the attractiveness of the multimodal transport solutions
- ✓ Defining common strategies for implementing waterborne multimodal solutions, through the coordination of the relevant policymakers and operators
- ✓ Increasing the attractiveness of the waterways transport, by supporting the implementation of relevant investments for the improvement of the connections between sea- / river-port infrastructures and hinterland areas
- ✓ Testing the competitiveness of multimodal waterborne alternatives to road transport, by comparing the external and internal costs of the different transport modes on predefined routes
- ✓ Increasing the commonality of the training procedures on safety for human resources in ports and multimodal platforms, in order to ease the business cooperation between ports and multimodal facilities in the area.

To achieve the above mentioned tasks a strong emphasis will be put on promoting, disseminating and raising awareness. Also the multiplier effect is important to the project.

## 2.2 Structure of the Work Programme of WATERMODE

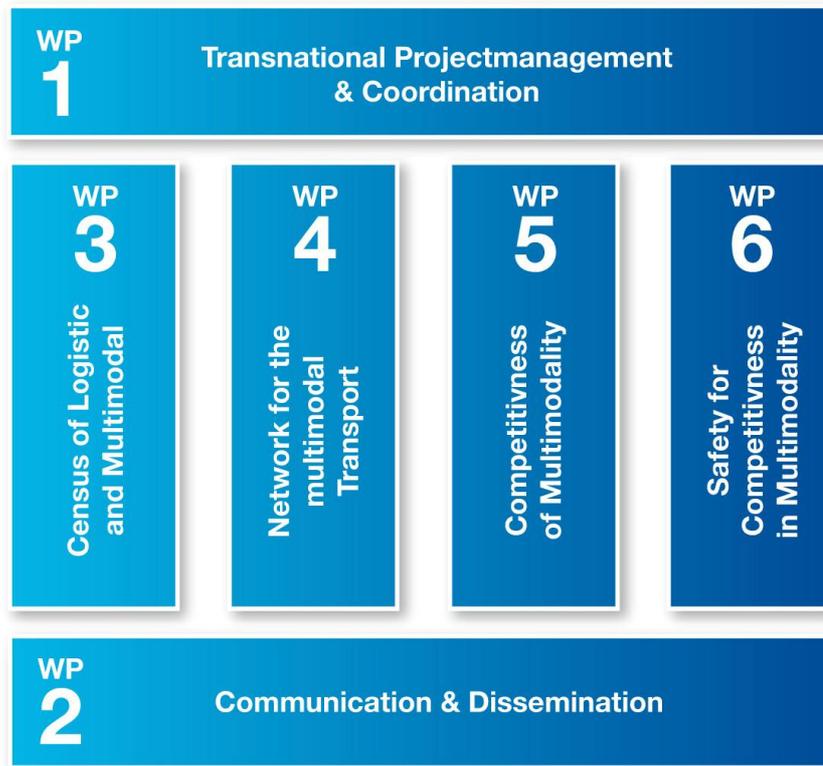


Figure 1: Work package structure WATERMODE

**WATERMODE** is structured into six work packages, WP 3 is the Census of Logistics and Multimodal.

### 2.3 WATERMODE WP3 – Census of Logistics and Multimodal

The aims of WP3 are twofold:

- ✓ To define a set of indicators for the evaluation of the multimodal and port facilities;
- ✓ To set up a database of ports and multimodal logistics facilities in the countries of the partners (10), accordingly with the set of indicators.

The indicators are defined by a panel of transnational experts, to evaluate ports and the logistics facilities accordingly with their relevant characteristics, as position, accessibility, services offered, multimodal connections, innovations, etc. The set of indicators is tested for the database of the ports and multimodal logistics platform of the 10 countries involved in the project. The database is conceived as support instrument in the decision making process of policy makers and business operators. The set of indicators is proposed to the EU authorities as contribution to the need expressed by the European commission (COM(2007)607) for common indicators for the evaluation of logistics facilities

**WP3 is structured into 3 activities:**

**Activity 1: Definition of the Indicators for the evaluation of ports and multimodal logistics facilities** - a transnational working group defines the indicators for the evaluation of ports and multimodal logistics facilities. It defines the questionnaire to be used for the collection of the data and produce a manual assisting the implementation of the census. The partners translate the questionnaire into their own languages. A technical committee provides guidelines for the action.

**Activity 2: Census of the ports and multimodal facilities** in the 10 countries. A database is developed for the collection and organisation of the data. Each partner collects, elaborates and provides the data. The database is an online tool published on the website of the project. The partners sensitise the stakeholders on the potentials of the new online tool.

**Activity 3: Presentation and sensitisation** - the partnership presents the set of indicators as a good practice to the EU and national authorities. The partnership focuses on the transferability of the model at European level. The observer partners support the action.

#### **2.4 List of partners and tasks assigned in WP3**

<b>Participant's name</b>	<b>Short name</b>	<b>Country code</b>	<b>Role in WP 3</b>
Forschungsgesellschaft Mobilität – Austrian Mobility Research	FGM – AMOR	AT	WP-leader of WP3 FGM coordinates the working group and drafts the definition of indicators, the questionnaire and the report data for Austria Reporting on the census sensitization of the relevant EU authorities, draft of the guidelines for the transferability of the indicators in other European contexts
Venice Port Authority	APV	IT	member of the working group is responsible for the (online) database
Veneto Region	Veneto Region	IT	data for Northern Italy
Ancona Port Authority	AP Ancona	IT	data for Central Italy
Levante Port Authority	AP Levante	IT	data for Southern Italy
PBN - Pannon Business network	PBN	HU	member of the working group data for Hungary

<b>Participant's name</b>	<b>Short name</b>	<b>Country code</b>	<b>Role in WP 3</b>
Port of Koper	LKKP	SI	member of the working group data for Slovenia
Business & Innovation Center of Attika	Bic ATTK	GR	member of the working group data for Western Greece
Aleksandroupolis Port Authority	ALEK	GR	data for Eastern Greece
EAMA - Executive Agency Maritime Administration <sup>1</sup>	EAMA	BG	member of the working group data for Bulgaria
National company maritime ports Administration CONSTANTZA	CONSTANTA	RO	member of the working group data for Romania
University of Novi Sad, Faculty of Technical Sciences	NOVISAD	SRB	data for Serbia
Port Of Bar	LUKA BAR	MNE	data for Montenegro
Durres Port Authority	DURRES	AL	data for Albania

## **2.5 About this Report**

The present report is summarising the work done in activity 3.2 of WP3 - the census of ports and multimodal facilities itself.

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<sup>1</sup> The status of EAMA is still unclear. Due to contractual reasons EAMA could not take part in the working group.

## 3 Scope of the census in Serbia

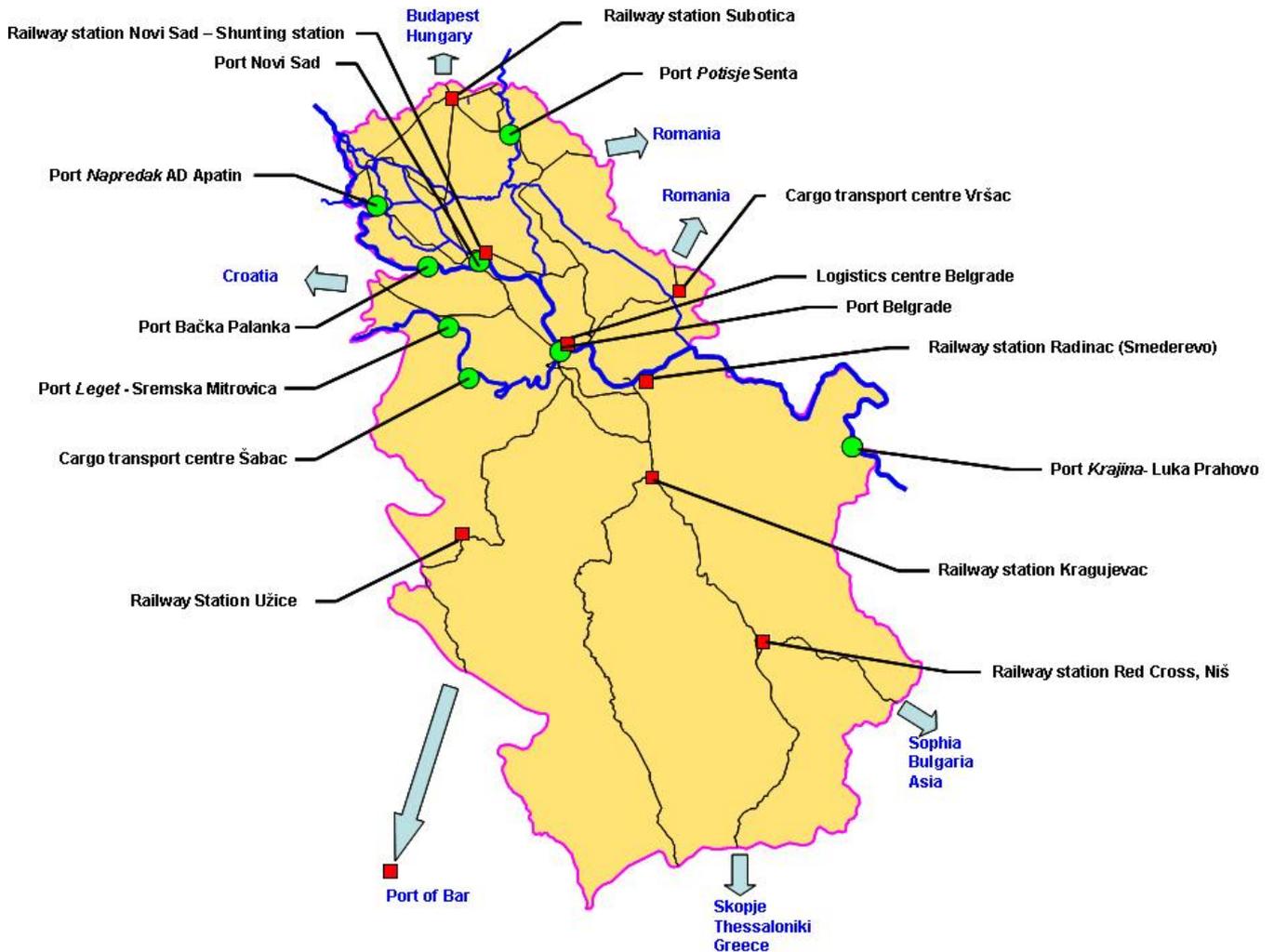
### 3.1 Contacted facilities

In Serbia, a total of 18 facilities have been contacted. As Serbia has three rivers: Danube, Sava and Tisa, which allow water carriage, 10 ports have been contacted (two ports did not response). The other facilities are logistics centres located at 8 locations in Serbia.

The size of contacted logistics centres varies depending on region, accessibility and focus of the facility, e.g. quick handling of cargo or possibility of storing.

Contact table:

Facility	Contact person	Mail
Port <b>Napredak</b> AD, Apatin	Milan Čiček	<a href="mailto:mcicek@napredak.net">mcicek@napredak.net</a>
Port Backa Palanka	M. Kujundžić	<a href="mailto:milivoje@lukabp.com">milivoje@lukabp.com</a>
Port Novi Sad	Nenad Davidović	<a href="mailto:nenad.davidovic62@gmail.com">nenad.davidovic62@gmail.com</a>
Port Belgrade	Srđa Lješević	<a href="mailto:srdja.ljesevic@port-bgd.co.rs">srdja.ljesevic@port-bgd.co.rs</a>
Port <b>Krajina</b> , Prahovo	Dragan Đorđević	<a href="mailto:krajinadoo@neobee.net">krajinadoo@neobee.net</a>
Port <b>Potisje</b> , Senta	Mirko Kondić	<a href="mailto:mirko.kondic@potisje-senta.rs">mirko.kondic@potisje-senta.rs</a>
Port <b>Leget</b> , Sremska Mitrovica	Marko Simić	<a href="mailto:prodaja@portleget.com">prodaja@portleget.com</a>
Cargo transport centre Sabac	Dragan Ninković	<a href="mailto:dragan.ninkovic1@gmail.com">dragan.ninkovic1@gmail.com</a>
Railway station Subotica	Velimir Čavić	<a href="mailto:velimir.cavic@srbrail.rs">velimir.cavic@srbrail.rs</a>
Railway station Novi Sad – Shunting station	Dragomir Radin	Fax number: + 381 21 44 21 86
Logistics centre Belgrade	Miloš Jovanović	<a href="mailto:milosj@srbrail.rs">milosj@srbrail.rs</a>
Railway station Red Cross, Niš	Miroljub Radivojević	<a href="mailto:miroljub.radivojevic@srbrail.rs">miroljub.radivojevic@srbrail.rs</a>
Railway station Radinac , Smederevo	Branislav Živković	Fax number: + 381 26 701 913
Railway Station Uzice	Miroslav Živanić	<a href="mailto:sekrobue@verat.net">sekrobue@verat.net</a>
Railway station Kragujevac	Vujović Ljiljana	Fax number: + 381 34 335 609
Cargo transport centre Vrsac	Dejan Pantovic	<a href="mailto:dpantovic@vrsac.org.rs">dpantovic@vrsac.org.rs</a>



## 3.2 Facilities in detail

### 3.2.1 Port Napredak AD Apatin

<http://www.dunav-grupa.rs/Index.php>

The port in Apatin, during its more than four decades existence, has developed itself into one of the leading companies in the exploitation of sand, construction and reconstruction of all types of water projects.

Since the sixties of last century, *Napredak Apatin* reconstructed a number of dams and canals, mostly in Vojvodina and built a number of objects that can be seen on the rivers and lakes.

The last few years, business is largely focused on the manufacture and sale of building materials (sand, gravel) and handling all types of cargo on the Danube, which is done in the port Apatin where the headquarters of company is.

In addition to handling and storage, the port offers winter port services for ships.

### 3.2.2 Port Backa Palanka

[www.lukabp.com](http://www.lukabp.com)

Port Backa Palanka is a shareholder business organization which deals with:

- offering port services,
- production and vending building material such as:
  - sand,
  - natural and graded gravel and
  - concrete.

*Luka Backa Palanka* shareholder is situated with its quay on the left bank of the river Danube, on its 1295th kilometre. Trans-european Rhine-Main-Danube river-canal system connects it directly with countries spreading from North to Black Sea. What makes its position even more important is the border with Croatia as well as the proximity to Bosnia and Herzegovina.

The port exists as an privat enterprise since the year 2002 (until then it worked as a part of an enterprise for water management Dunav-Tisa-Dunav “DTD”), and since the december 2006 it is a part of business system *Victoria Group AD*.

### 3.2.3 Port Novi Sad

The Port Novi Sad is located at 1254 km, on the left bank, of the Danube, in the canal Novi Sad - Savino Selo (from km 0.4 to 1.2 km). The port is a universal type, with no specialized terminals.

Novi Sad is situated in the centre of the agricultural region of the Province of Vojvodina. Consequently, goods that are handled in the port are mostly raw materials, finished fertilizers and grain.

In addition to these goods other commodities are handled in smaller percentages such as containers, tin, iron, concrete, equipment, etc.

### 3.2.4 Port Belgrade

<http://www.port-bgd.co.rs/>

The port was established in 1957, however, since 1961 it operated under the name *Preduzece pristanista u Beogradu* what is officially considered a year of its establishment. The company operations included the activities on the docks on the Sava river, docks and piers in Zemun and docks in the process of building on the Danube.

Since 1989, the company operates under the name *D.P. Port of Belgrade*, and after completing the ownership transformation on 21.02.2002, the port is registered as a *Stock Company Port of Belgrade*.

The port disposes of handling and storage terminals for: heavy duty, bulk cargo and containers. The development plans of the Port of Belgrade are focused on the modernization of port services and active involvement in the development and further urbanization of the coastal area of the city of Belgrade.

### 3.2.5 Port *Krajina Prahovo*

Port Prahovo is located at 861st km, on the right bank of the Danube River. The port operates as part of the  *Holding IHP Prahovo AD Krajina* (chemical industry), what significantly determines the sort of goods that are handled in the port.

However, the port is opened for all other sorts of goods and all other interested customers.

### 3.2.6 Port *Potisje Senta*

[www.potisje-senta.rs](http://www.potisje-senta.rs)

In 1973 the company *Potisje* port Senta was founded and registered with the core competencies trading of building materials. In 1979 the port was relocated to the present strategic and geographic position and the construction of the new port is covering an area of approximately 20 hectares began on the right bank of the interstate river of Tisa at the 121-123 km.

By the decision of the Federal Government, *Potisje* port Senta was declared as an international port.

Today the port is defined as a joint - stock company and is the only international port on the river Tisa. To the existing 8900 m<sup>2</sup> of storage space were built another 9360 m<sup>2</sup>, and the new storage capacity of 18000 m<sup>2</sup> facilitate and improve business of this modern commercial - transportation center. It is important to note that this strategic port, as commercial - transportation centre integrates river, railroad and road transport for the purposes of multimode transport.

### 3.2.7 Port *Leget Sremska Mitrovica*

[http://www.portleget.com/main\\_en.htm](http://www.portleget.com/main_en.htm)

RTC Luka *Leget* company is registered for passenger and goods traffic within inland navigation system, reloading in piers, gravel and sand production and trade, gravel segregation, as well as road transportation. The company was founded on 19th May 1969. In the year 1986 the company expanded and acquired the status of a goods transportation center, thus being integrated in the network of goods transportation centres in the south-eastern Europe through the Traffic Association of Yugoslavia.

Today, being located in the eastern industrial zone of Sremska Mitrovica the company occupies 80 hectares on the left shore of Sava river 133 kilometers away from the mouth of Danube river i.e. from Belgrade. By factory siding it is connected with the main railroad line Belgrade - Zagreb and it has a direct access to Belgrade - Zagreb highway.

### 3.2.8 Cargo transport centre *Sabac*

Cargo transport centre *Sabac* AD is located at 98 km, on the right bank of the Sava River and has an area of approximately 44 hectares. Its work is based mainly on providing services of storage of goods in the indoor and outdoor storage as well as the services at the terminal for road vehicles. However, the centre disposes of an area that is planned for the development of port activities. The area is in the Free trade zone and disposes of a natural water pool of a size 4.5 hectares, with a

depth up to 12 m and with the possibility for mooring of four vessels at the same time. The center is not located at any corridor but has a very good connection to the corridors VII and X. The authorities of the city and the region support the development of the centre.

### **3.2.9 Railway station Subotica**

The railway station Subotica is located on the corridor X, at the 176 km of the electrified railway line Belgrade – Novi Sad – Kelebija (Serbian – Hungary border). The station is one of the most important border stations (with Hungary) in the Republic of Serbia. The station has an area of 60 hectares, disposes of 40 railway tracks (7 of them are loading tracks) and handles both: freight and passenger transport. The station handles all kinds of goods except the dangerous goods which are handled only on the factory sidings.

The station does not dispose of any handling equipment because of the Serbian railways regulations which obligate customers of the railway services to handle their goods. However, the station has the possibility of renting the equipment from private companies.

The railway station Subotica is situated in the centre of the city of Subotica. The position of the station in the city centre creates opportunities for better cooperation and communication with customers.

Within the station building there are the customs office of Subotica and the border police department of Subotica, which enables faster dispatching of trains and consignments. Very near the station are located post office and several shipping companies. Access roads to the station are in a very good condition.

### **3.2.10 Railway station Novi Sad – *Shunting station***

The station is located on the corridors X and VII, at the 78 km of the railway line Beograd - Subotica – Kelebija (border with Hungary). The station is situated in the industrial area B of the city of Novi Sad, 5 km away from the highway E 75.

The station covers an area of approximately 15 hectares and has 17 railway tracks and 6 factory sidings. The sidings connect the station with the three industries in the city area.

The station handles all kinds of goods including the dangerous goods under the especial safety conditions.

The station has a total of 4350 m<sup>2</sup> of warehouse space.

Except for a few hand forklifts, the station does not have other equipment, as a consequence of the Serbian Railways regulations which obligate customers of the railway services to handle their goods.

After Belgrade, Novi Sad is the main centre on the corridors VII and X in Serbia and, according to the Master Plan of the Republic of Serbia, it is the second one priority location for the construction of a logistics centre.

### **3.2.11 Logistics centre Belgrade**

Belgrade is the node place for the corridors VII and X. Additionally Belgrade is situated on the route Bar – Belgrade – Vrsac – Timisoara, which is potentially the new corridor – corridor XI.

The railway junction in Belgrade is the starting point on the Serbian railway network. The entire junction is electrified and the traffic in the junction is regulated by tele - control. Belgrade Shunting Station and Belgrade Station are two of the most important stations in the railway junction Belgrade. The Belgrade Shunting station is the largest and the most modern shunting station in Serbia. The Belgrade Station is the largest passenger station in Serbia. The spatial plan of the city of Belgrade considers relocation of the Belgrade Station to another location. Therefore, the data about the Belgrade Station are written in brackets.

The Belgrade Shunting Station has an area of approximately 100 hectares and 79 railway tracks which exclusively serve for shunting of wagons. Loading front of the station is rather small and enables placing of nine wagons.

The Belgrade Station covers an area of 20 hectares and has 30 railway tracks, of which seven loading / unloading and four factory sidings.

The both stations are capable of handling all kinds of goods. However, the dangerous goods can be handled in the stations only under the special security measures and after the authorization of the state authorities.

Neither one of the stations dispose of fixed or mobile cranes, however, within the Belgrade Station is located the company **ZIT** that is equipped with fixed and mobile cranes and a spreader for handling of containers.

The construction of a logistics centre in Belgrade is one of the priority investments of the Republic of Serbia. The Master Plan made by the Serbian government considers construction of the centre on the *Makis Polje* (Makis Field).

### **3.2.12 Railway station Red Cross, Nis (Niš)**

The railway station Red Cross is located on the corridor X, at 233 km of the electrified railway route Beograd – Nis – Presevo (border with FYR Macedonia). The station is a part of the railway junction Nis and disposes of a total area of 3 hectares and 486 m long handling track. Additionally, the station disposes of 9 factory sidings. The station can handle all kinds of goods and factory sidings can additionally handle dangerous goods.

The station does not dispose of any handling equipment because of the Serbian railways regulations which obligate customers of the railway services to handle their goods. Besides, the companies which are the most important users of the railway services dispose of their own factory sidings and their own handling equipment.

However, in the case of the construction of a logistics centre in Nis, investments in equipment should also be planned.

Nis is on the list of priority locations for the construction of a logistics centre in the Republic of Serbia and the station should be a part of the centre.

Part of the wider logistics area of the city of Nis is Pirot. Pirot is a town close to Nis with a significant industrial potential and initiation for construction of a logistics centre (read more about it at: <http://www.freezonepirot.com/english/logcentar.htm> ).

### **3.2.13 Railway station Radinac (Smederevo)**

The railway station Radinac is located on the corridor VII, close to the corridor X, at the 62 km of the electrified railway line Lapovo - Velika Plana – Smederevo. The station handles both: freight and passenger transport. Loading and unloading of goods are carried out on the track with the length of 675 m. The station mostly provides services for the one of the most important clients of the Serbian Railways, the company *US Steel* Serbia.

Therewith there are no much more resources for working with other clients. The station does not dispose of any handling equipment because the company *US Steel* handles good with its own equipment.

In the case of building an oil refinery in Smederevo the station would significantly get on its importance.

### **3.2.14 Railway Station Uzice (Užice)**

The railway station Uzice is stationed in the narrow area of the town of Uzice, at the 206 km of the railway route Belgrade - Pozega – Vrbnica (in the direction of the port Bar – Montenegro). The station is not located with Pan European corridors. The station has an area of 1.2 hectares and disposes of 3 handling tracks and a storage area of 272 m<sup>2</sup>. The station handles all kinds of goods including dangerous goods under the especial safety conditions. The station does not dispose of any handling equipment because of the Serbian railways regulations which obligate customers of the railway services to handle their goods.

Main advance of the station, in the logistics point of view, is its nearness to the industrial zone Sevojno. Access roads to the station are in a good condition.

### **3.2.15 Railway station Kragujevac**

The railway station is located in Kragujevac, on the 154 km of the railway line Beograd - Kraljevo - Lapovo. The railway section Kragujevac – Kraljevo – Lapovo of the railway line has not been electrified yet. The station is not located with Pan European corridors, but is in the centre of the Serbian automotive industry. The station covers an area of 9 ha and has 9 railway tracks, but only one loading and unloading railway track, in the length of 70 m (it is able to set only 5 wagons).

The station handles all kinds of goods except the dangerous goods, but does not dispose of any handling equipment because of the Serbian railways regulations which obligate customers of the railway services to handle their goods.

Within the station building is a storage area of 800 m<sup>2</sup>. Near the station building are located customs, police and several shipping companies. The station is mostly handling the cargo for the automotive industry *FIAT*.

### **3.2.16 Cargo transport centre Vrsac (Vršac)**

In the area of railway station in the municipality of Vrsac, which is near the area planned for the industrial zone and technological park, it is planned the construction of a road-rail intermodal terminal. The terminal should be located in the area between the railway lines to Bela Crkva and Pancevo and should represent the first phase in the construction of the logistics centre. In the first stage, the terminal should become a classic cargo transport centre, which provides:

- Parking area for road freight vehicles (min for 50 trucks)
- Area for storage of intermodal units (min 2 000 m<sup>2</sup>),
- Two railway tracks for the transfer of rail intermodal units to the road vehicles with a portal crane,
- Ro-La terminal zone,
- Infrastructural space for the settlement of the logistics support.

Spatial resolution of the intermodal terminal in the station Vrsac should be a compromise of existing infrastructure and facilities in it, and projected use of the intermodal terminal services.

Additionally, other facilities and logistics services that will attract and increase cargo flows in the terminal are:

- Transportation of the intermodal transportation units (road traffic and parking space for trucks)
- Storage (subsystems for indoor and outdoor storage and handling),
- Additional services: customs, post office, banks, insurance, etc.,
- Business-information subsystem,
- Maintenance and
- Subsystem for additional services for intermodal units.

### **3.3 Method of census**

The activity started with a research of multimodal logistics centres in Serbia. After identifying the most important facilities, the method used for the census was carried out three phases:

#### 1. Initial contact phase

The census started with translation of questionnaire and contacting the centres by phone, e-mail and visit, in order to find the appropriate person to contact with detailed information about the census. A general description of the project together with the census document has been give or sent to the contact person.

#### 2. Data collection phase

In the second phase, the identified person was asked to answer the questions of the census. Depending on the contact person explanation by phone and/or mail was provided in order to avoid any double work for the facility. After answering the questions, the filled document in Serbian, was sent back to Uni Novi Sad (Faculty of Technical Sciences). None of the facilities has answered the questions directly by internet.

#### 3. Completion and follow up

After reviewing all answers, missing and/or wrongly interpreted questions have been asked again to the contact person by mail, an additional explanation has been provided by phone contact, e-mail and in some cases visits.

In general, some questions have never or just exceptionally been answered, because some centres did not know what to write.

### 3.4 *Issues encountered*

For this type of research in Serbia, we had some formal and fundamental problems.

Formal problems arising from the facts are:

- All ports, except the port of Novi Sad are privatized. Despite the long-standing cooperation with the most of the ports and the fact that the participation in the project can also have a promotional effect, it was difficult to motivate the management of the ports to devote some time for providing the requested information and filling out the questionnaire, although it was translated into Serbian. This is why filling out the questionnaire was done iteratively in multiple rounds.
- The company Serbian Railways is centralized. At the same beginning of the WP, the top managers of the company in Belgrade were contacted. Additionally, a letter from the LP (Venice Port Authority) with explanations of research was provided in order to motivate the company (Serbian Railways) to the cooperation. The management gave approval for the cooperation and assigned the contact persons for every station. Every analyzed railway station was visited at least ones and the visits were used for discussing and clarifying the requirements of the questionnaire to the contact persons.

The fundamental problem is the low technological level, considering that, according to the actual definition of a logistics center, there is no logistics center and no adequately equipped container terminal in Serbia. Transshipment of containers, at the facilities that provide that service, is done by portal cranes (see figure below – transshipment of containers at the Port of Novi Sad).



## **4 Innovations / Plans for the Future**

All centers in Serbia are at the level of cargo transport centers, and only with the modernization of equipment could offer additional logistical services, which would lift them on the level of logistics centers. Additionally, the economy in transition process does not give clear signals regarding to what is expected from logistics.

The privatized ports are in the initial stages of development and still do not have a vision of transformation in logistics centers.

Master Plan of Serbian logistics, which is still not finished, could give some directions in a sense which of the existing centers are of the EU and national importance. This would significantly help in the process of defining the vision of development.

The company Serbian Railways is waiting for the restructuring, which is a prerequisite for defining the status and basis for consideration of possible development plans. Vrsac can be seen as a good example, due to the plans for the logistics center on the horizontal cargo flow direction: Italy - Slovenia – Croatia – Serbia - Romania, since most other centers consider only the cargo flows on the north-south corridor and around the Danube River.