


Project Data Sheet

BASIC PROJECT DATA			
Full project title:	High-performance GREEN PORT GIURGIU		
Short project title: (acronym)	GREEN PORT GIURGIU	Project logo:	
Project website:	http://www.ilr.com.ro/fileadmin/ILL/ILR/EU-Projekt/Downloads/2012-EU-18089-S-HPGPG-final_report_part2_inea.pdf	Project ID:	PA1A100
Need and added value for Danube Region Strategy:	<p>The project developed the Municipal Port of Giurgiu (Romania) into a high-performance, energy-efficient and environmentally friendly inland port which fulfils the service requirements of nowadays manufacturing industry. The Municipal Port of Giurgiu is located on the TEN T Corridor PP18 (waterway axis Rhine/Meuse-Main-Danube) and on the Pan- European Corridors VII and IX. Giurgiu is the closest Danube port to Bucharest and Greater Bucharest area. The project therefore has given the Port of Giurgiu the chance to become the main hub for waterborne logistics chains, connecting Bucharest with other industrial centres in the Danube region as well as with the Port of Constanta. For this reason the conducted project also connected the port to the close-by railway network and developed the port into a real intermodal hub for the entire region. In addition, the project has triggered further investment in the port area by other private sector companies and can be considered as an important catalyst for regional development in the Giurgiu – Ruse and Giurgiu - Bucharest area.</p> <p>The high transport volumes being shifted to the Danube, the dedicated energy-efficiency and renewable/alternative energy sourcing concept as well the conducted environmental protection & restoration measures have led to a significant reduction in greenhouse gas emissions. The elaborated and applied “Green Port Concept” together with the pilot deployments of the first phase investment serve as best practice for modern port development and operations in the entire Danube region.</p> <p>The project could be used to prepare a “Dedicated transnational development strategy for the Danube Ports together with long-term Action Plans as part of the future EU regional & economic development policy”. The development of such a Danube Port Development Strategy was proposed by Pro Danube International and welcomed by many stakeholders within the last working group meeting of the EUSDR.</p>		
Objective(s) of project:	<ul style="list-style-type: none"> • The project addressed Priority Project Nr. 18 "Waterway axis Rhine/Meuse-Main-Danube" of the TEN T network. It was designed as a study with integrated deployment. The objective of the project was to define and to develop a comprehensive concept for a technology and service oriented, energy-efficient and green, intermodal port system. Key elements of this port system were implemented through dedicated pilot deployments in the Municipal Port of Giurgiu. • The innovative concept serves as good practice for further port development and thus trigger sustainable port infrastructure development in the entire Danube region. The project included a close co-operation and joint activities of private and public bodies and has delivered a strong form of private - public partnership. This co-operation has broken the decade-long infrastructure degradation as a consequence of missing business activities and insufficient public infrastructure spending. • The port concept is based on a customer-oriented business model offering highest service standards, which did not exist until then on the middle and lower Danube. The logistic chains which will feed the port will be executed by barge transport on the Danube in their main transport leg. This was estimated to increase the cargo flow on the Danube within three years by annually approx. 150.000 tons contributing to a 		

	<p>significant modal shift and generating high savings of external costs of transportation due to the environmental advantage of river transport compared to road transportation.</p> <ul style="list-style-type: none"> • For this, a dedicated concept for "green port engineering" as well as "green port operations" was developed and implemented. The concept includes measures regarding energy-efficiency, use of renewable and alternative energy sources as well as dedicated environmental protection and restoration measures. These measures reduce the overall environmental performance of the port regarding CO₂, NO_x, PM emissions as well as regarding to noise and dust. For the operation of trucks and port equipment, the use of LNG will be investigated. As the TEN T action "LNG Masterplan Rhine-Main-Danube" will facilitate a LNG terminal in Ruse, which is just a few kilometres away on the Bulgarian river banks, close contact has been established with the operator of this LNG terminal, the company Bulmarket DM. • Planning as well as all the works have been based on the intentions and principles of the "Joint Statement on Guiding Principles for Development of Inland Navigation in the Danube River Basin" (ICPDR, Danube Commission, Sava Commission, 2008). • In detail, following main objectives of the project were identified: <ul style="list-style-type: none"> ○ to analyse current port infrastructure and existing services with regard to the technical, economic and environmental performance ○ to elaborate a comprehensive innovation and technology concept for the port of Giurgiu which includes a green & energy efficiency model, an infra- and supra-structure concept, enhanced IT systems as well as customer-oriented operational business processes ○ to translate the concept into a concrete port design and to develop a robust business model ○ to reduce the specific greenhouse gas emissions of port operations ○ to develop a model for sustainable port revitalization and public-private partnership ○ to disseminate this model in the Danube region as good practice ○ to identify suitable port locations in the lower Danube region where this model can be applied in order to set up the same/a similar business model ○ to develop the Port of Giurgiu into a service-oriented tri-modal hub for the cross-border region Giurgiu – Ruse as well as for Bucharest and Greater Bucharest area ○ to stimulate transportation on Danube waterway and to contribute to economic growth and the creation of jobs in the region
<p>Planned project activities:</p>	<p>The project comprised the elaboration of several feasibility studies, technical concepts and the execution of important pilot deployments which prepared the full development of the port in further development stages and which serve as good practices for further investment in Danube ports.</p> <p>The work which was carried out in the project was structured into 5 activities with several sub-activities for each activity:</p> <ul style="list-style-type: none"> • Status quo analysis (Activity 1) • Innovation and technology concept (Activity 2) • Port design and business model (Activity 3) • Project management (Activity 4) <p>Activity 1 identified, described and assessed the current status of infrastructure and supra-structure, port operations, current market situation and market position as well as</p>

the environmental situation and the eco-performance of the Port of Giurgiu. In order to provide a valid socio-economic and environmental assessment, a set of key performance indicators were developed in each sub-activity.

Activity 2 delivered a comprehensive port concept for the Green Port Giurgiu as best practice model. This concept comprised state-of-the art technology measures for:

- Eco-efficiency and renewable/alternative energy provision & distribution
- Infra- and supra-structure investments
- Enhanced port and logistics information systems
- Consumer (customer)-oriented operations

The existing infrastructure (quay, cranes, warehouses) continued to be used for bulk material. The modernization of the quay and of one crane is essential for safe and efficient transshipment. It is the intention to implement a high-technology, tri-modal, weather independent logistics centre (about 8000 m²) for high-quality product handling (for example steel products, paper). The logistics management is being optimized through planning and control of all means of transport (truck, rail, ship). A rail connection to the port (to the tri-modal logistics centre) is essential and has therefore been assessed and designed. Also the road network inside the port area as well as the connecting roads were redesigned and renewed. The logistics management should be optimized by using the advanced integrated information systems: optimum storage management, crane automation, truck logistics manager, railway carriage planning and control, monitoring vessel transportation and control plant transport. For the management of vessel and port operation the integration of dedicated RIS applications has been performed.

Work in **activity 3** led to the preliminary port design and the definition of a related business model. The preliminary port design comprises the upgrade of an existing infra- and supra-structure as well as the integration of high-technology port handling facilities. The existing quay, transshipment and storage facilities have to be modernized. The necessary investments shall raise economic efficiency of operations and at the same time improve the environmental performance of the port. For example, an advanced rail-based crane is needed to increase performance, flexibility and safety of transshipment. This crane has also been optimized with regard to its energy-efficiency, its noise output and its safety-related devices. A new all-weather logistics centre has been designed and planned (underground construction engineering, surface engineering, steel constructions). Further important activities comprised the creation of a railway connection to the port and the quay, the planning of the upgrade of port internal and connecting roads as well as the planning of a truck parking lot for the port area. Technical and operational solutions for energy-efficient heating, cooling, dehumidification and the operation of all internal transport vehicles on alternative and/or renewable fuel have been elaborated.

The business model should enable ILR/ILL to increase the market share and the volume of cargo handled in the port but also to create new jobs in a safe, cost-effective and healthy working environment. Based on this business model and the defined investments, a business plan including an implementation plan has been drafted.

The investments in infrastructure and the built-up of high performance supra-structure created an added value to Giurgiu as business location and facilitate further investment in the port area as well as in the area of Giurgiu. Work in activity 3 therefore also provided a comprehensive assessment of the macro-economic, environmental and social impact of the elaborated port design and business model (impact assessment).

Activities 1-3 of the Action delivered a comprehensive concept, the technical designs and a business model for the revitalization and upgrade of the Municipal Port of Giurgiu as well as a generic model for an eco-efficient Danube port. The developed business model is based on concrete business activities and thus on concrete cargo volumes of the beneficiaries ILR and ILL.

The structured and intensive public-private co-operation is a standard in Western Europe but did not exist in South-Eastern Europe. The Action therefore fostered this model by providing a show-case and good practise for future port development in the Danube region.

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Transboundary impact:	The key objective of the Action was to improve the efficiency and the environmental performance of the Danube Port of Giurgiu and to develop a technical and commercial model for the Danube ports on the middle and lower Danube which serves as good practice. By this, the Danube ports would become central hubs of a more efficient and sustainable transport system and should function as centres for regional development contributing to economic growth and creating new jobs.		
Project beneficiaries / target groups:	<ul style="list-style-type: none"> • ILR Logistica Romania S.R.L. (ILR) – coordinator of the action (CoA) • Industrie-Logistik-Linz GmbH (ILL) • S.C. Administratia Zonei Libere Giurgiu S.A.(FZ) • Giurgiu Municipality (M) 		
STATUS AND TIME FRAME			
Current project phase: (please tick a box)	<input type="checkbox"/> Definition (e.g. project idea, abstract) <input type="checkbox"/> Preparation (e.g. project proposal, feasibility study) <input type="checkbox"/> Implementation <input checked="" type="checkbox"/> Completion		
Start date:	30.09.2013	End date:	31.08.2015
Notes:	The project was a multi-partner application which answered the TEN T MAP 2012 call published 25 November 2012 with deadline 26 March 2013.		
PROJECT TEAM			
Project leader:	ILR Logistica Romania S.R.L.		
Project partner(s):	Industrie-Logistik Linz GmbH; S.C. Administratia Zonei Libere Giurgiu S.A.; Giurgiu Municipality		
Contact person:	Name:	-	
	Organisation:	ILR Logistica Romania S.R.L	
	Address:	Garii Street 30, 1 st floor, room no.2, 080301 Giurgiu ,Romania	
	Phone:	-	
	E-Mail:	-	
	Website:	www.ill.co.at ; http://www.ilr.com.ro	
FINANCING			
Available: (please tick a box)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> Partly <input type="checkbox"/> No		
Total budget:	656,371.00 EUR		
Source(s) and amount (potential)	<input checked="" type="checkbox"/> National/regional funds:	19,831.00 EUR (Free Zone Administration) 23,539.00 EUR (Giurgiu Municipality)	

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sources for project ideas: (please tick a box and provide further info)	<input checked="" type="checkbox"/> EU funds:	328,186.00 EUR
	<input type="checkbox"/> IFI loans:	
	<input checked="" type="checkbox"/> Private funds:	113,553.00 EUR (ILR Logistica Romania) 171,262.00 EUR (Industrie-Logistik Linz)
	<input type="checkbox"/> Other:	
PROJECT ENVIRONMENT		
Project cross-reference:	<ul style="list-style-type: none"> LNG Masterplan Rhine-Main-Danube (TEN T MAP 2012 Application) IRIS-Europe 3 (TEN T Program) DaHar – Danube Harbours (SEE Program) 	
Cross-reference ID(s):	LNG Masterplan PA1A023, Green Danube Ports	
Strategic reference:	<p>The project addressed key priorities of the European Union transport policy such as:</p> <ul style="list-style-type: none"> Europe 2020 – New Economic Strategy (2010) with highest relevance for the Flagship initiatives: “Innovation Union”, “Resource Efficient Europe” European Union Climate Action - Climate Energy Policy (2009) with 20-20-20 targets until year 2020 which aims: to cut greenhouse gases by 20% below 1990 levels, to reduce energy consumption by 20% through increased energy efficiency, to meet 20% of energy needs from renewable sources White Paper on transport – 2030/2050 perspective (2010): creation of modern infrastructure and multimodality assisted by smart management and information systems, provision of a roadmap to a low carbon transport system and independency from oil and to the objective to shift 30% of road freight over 300km to rail and waterborne transport by 2030 and more than 50% by 2050 	
Relevant legislation:	–	
Other:	–	
EUSDR EMBEDDING		
Relation to other Priority Areas of the Danube Region Strategy: (please tick a box)	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> PA1b: To improve mobility and multimodality – Road, rail and air links <input type="checkbox"/> PA02: To encourage more sustainable energy <input type="checkbox"/> PA03: To promote culture and tourism, people and people contacts <input type="checkbox"/> PA04: To restore and maintain the quality of waters <input type="checkbox"/> PA05: To manage environmental risks <input type="checkbox"/> PA06: To preserve biodiversity, landscapes and the quality of air and soils <input type="checkbox"/> PA07: To develop the knowledge society through research, education and information technologies <input type="checkbox"/> PA08: To support the competitiveness of enterprises, including cluster development 	

	<input type="checkbox"/> PA09: To invest in people and skills <input type="checkbox"/> PA10: To step up institutional capacity and cooperation <input type="checkbox"/> PA11: To work together to promote security and tackle organised and serious crime
EUSDR COMPLIANCE	
Compliance with targets of the Danube Region Strategy: (please tick a box)	<input checked="" type="checkbox"/> Increase the cargo transport on the river by 20% by 2020 compared to 2010. <input type="checkbox"/> Solve obstacles to navigability, taking into account the specific characteristics of each section of the Danube and its navigable tributaries and establish effective waterway infrastructure management by 2015. <input checked="" type="checkbox"/> Develop efficient multimodal terminals at river ports along the Danube and its navigable tributaries to connect inland waterways with rail and road transport by 2020. <input type="checkbox"/> Implement harmonised River Information Services (RIS) on the Danube and its navigable tributaries and ensure the international exchange of RIS data preferably by 2015. <input type="checkbox"/> Solve the shortage of qualified personnel and harmonize education standards in inland navigation in the Danube region by 2020, taking duly into account the social dimension of the respective measures.
Compliance with actions of the Danube Region Strategy: (please tick a box)	<input checked="" type="checkbox"/> To complete the implementation of TEN-T Priority Project 18 on time and in an environmentally sustainable way. <input checked="" type="checkbox"/> To invest in waterway infrastructure of Danube and its tributaries and develop the interconnections. <input type="checkbox"/> To modernise the Danube fleet in order to improve environmental and economic performance. <input type="checkbox"/> To coordinate national transport policies in the field of navigation in the Danube basin. <input type="checkbox"/> To support Danube Commission in finalising the process of reviewing the Belgrade Convention. <input checked="" type="checkbox"/> To develop ports in the Danube river basin into multimodal logistics centres. <input type="checkbox"/> To improve comprehensive waterway management of the Danube and its tributaries. <input checked="" type="checkbox"/> To promote sustainable freight transport in the Danube Region. <input checked="" type="checkbox"/> To implement harmonised River Information Services (RIS). <input type="checkbox"/> To invest in education and jobs in the Danube navigation sector.
Affiliation to thematic working group of Priority Area 1a of the EUSDR: (please tick a box)	<input type="checkbox"/> Waterway infrastructure and management <input checked="" type="checkbox"/> Ports and sustainable freight transport <input type="checkbox"/> Danube fleet <input type="checkbox"/> River Information Services <input type="checkbox"/> Education and jobs

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OTHER RELEVANT ISSUES	
Project requirements:	Positive decision of EC to the TEN T call MAP 2012 application.
Follow-up project:	Building the high-performance green port in Giurgiu
Any other issues:	–