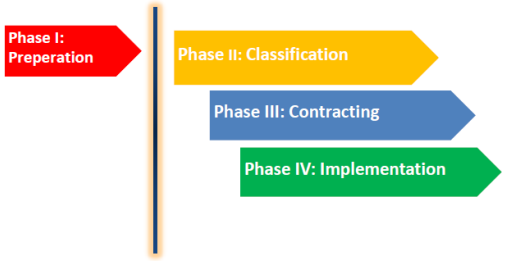
Project Data Sheet

BASIC PROJECT DATA			
Full project title:	**Danube Ship Wreck Removal**		
Short project title: (acronym)	DSWR – Project	**Project logo:**	–
Project website:	–	**Project ID:**	PA1A033
Need and added value for Danube Region Strategy:	The reasons for a comprehensive shipwreck removal project at the Danube River in Serbia, Romania and Bulgaria can be explained by describing four major problems that will be solved only by carefully extracting and disposing abandoned vessels from the Danube: **a) Ship traffic** Shipwrecks can obstruct the economic development in the Danube Region through blocking potential ship traffic. According to the Master Plan and Feasibility Studies for the Serbian Inland Waterway Transports Network and Ports of Witteveen+Bos Consulting Engineers as contractor for the European Agency for Reconstruction (EAR/03SER01/08/002), there is a need for improvement of Serbian waterways in particular in the Danube to follow international standards in order to benefit from its full potential as inland waterway for Serbia but as well the European Economy. The Danube is shippable in 10 European countries and has a further link through the Main–Danube canal to the Rhine that makes it one of the most promising waterways in Europe. The study identifies certain targets and proposes among others the removal of ship wrecks, in particularly the World War II wrecks. Apart from the mentioned and rather detailed Master Plan study, which only considered the Danube in Serbia, there are as well other official documents proofing the importance of a removal of obstacles from the riverbed of the Danube in order to improve navigation: One prominent paper is the “Action Plan” as practical document of the EU Strategy for the Danube Region. It highlights the removal project as an example in order to improve connections to “economic hinterlands”: *“… remove shipwrecks, bridges debris and unexploded weapons from the riverbed of the Danube. On some stretches of the lower Danube these create disruptions and have had long term repercussions on Danube navigation. Although good progress has been made, they are still hindering traffic and endangering safety of navigation on certain stretches especially in low water periods.”* Furthermore, the paper sets the target to increase cargo transport on the river by 20% by 2020 compared to 2010 among others by solving 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. In order to ensure that the Danube can unfold its potential as inland waterway as quickly as possible and to avoid unnecessary blocking that hinders development in this region, the project will evaluate the economic harm of each shipwreck to prioritize according to its economic importance and hence set appropriate timeframes for the removal. **b) Nature** The importance of nature has been neglected for most of the last century. This has been in particular true in the Danube region. The many abandoned ship wrecks are one indication for this attitude towards nature. There could be several threats for nature if the vessels are not removed. Lubricants and oil that is still on board of ship wrecks might cause harm to the sensitive flora and fauna.		

	The removal project will therefore ensure that nature will not be affected by the ship lifting and removal. Hence, for every section of the Danube that will be part of the removal of a unique environmental impact assessment study. **c) Unexploded Ordinances** One of the main obstacles to the removal of hindrances to ship traffic has been the unknown threat of unexploded ordinances that might be found on board of the sunken vessels. Within the planning, the eddc will always ensure to find the safest possible solution and will hence carry out a risk assessment for every vessel. In order to ensure the safety for all involved individuals, all involved companies will work closely together with respective authorities. **d) Tourism** The Danube region is a beautiful and interesting area full of extraordinary nature and inspiring culture. There is no doubt that this region has a great future as Tourism destination. To ensure that people can enjoy a sound and clean river it is necessary to bring the Danube back to clean and natural conditions. As mentioned above nature might be harmfully affected by the wrecks - that consequently could affect eco-tourism, which is why one of Danube's main touristic potentials is affected too. But apart from the disturbance of unfolding its natural potential - it is the aesthetics of a river full of waste that discourages tourist from coming to the region.
Objective(s) of project:	The overall objective will be the removal of all larger shipwrecks from the riverbed Danube to ensure a sustainable improvement of the waterway.
Planned project activities:	**Project Coordination** The removal project is divided into four different phases, in which the last three phases can overlap.  **Phase I - Preparation** The first phase would consist mainly of the project preparation: It is necessary to define exact structures for the applied course of action: <u>Research and division of Danube into sections:</u> So far there is only limited information about the location, the scope and the possible approach with equipment available. To tackle those problems a team of experts must divide the Danube into several sections according to geography, political borders and in particular according to the amount of workload. An individual study will then be necessary in Phase II for every sub-project (project on each section), because of the different available data records for each section. The current state of information is reasonably accurate in case of most of the Serbian waters, due to private research of IMPERIJA d.o.o. and the Master Plan and Feasibility Studies for the Serbian Inland Waterway Transports Network and Ports of Witteveen+Bos Consulting Engineers. However, the Danube in Romania and Bulgaria with significant numbers of shipwrecks has to be individually observed and accordingly sectioned. In phase I, however the main target will be to get an overview of the current situation and to quantify the amount of workload along the Danube and to prepare a closer study for each section that will be carried out in phase II.

Procedure development:

In order to ensure a clear course of action that can be repeated for every dedicated section to avoid redundant work, a standardized plan for the implementation of a removal will be developed. This includes as well the preparation of an up-to-date accounting and reporting procedure.

Setting of timeframes:

In order to ensure an efficient usage of available resources as well as a quick and effective removal procedure, deadlines and time targets will be developed.

Human resources:

The success of the project depends on a capable team of engineers and project managers that have to be found and introduced to the tasks. The respective persons must have appropriate knowledge and experience in their respective tasks and hence have to be paid accordingly.

Institutional preparation:

The project must be further embedded in the current process of Danube interactions and integration. There are several important organisations that are affected by the implementation of the project. Public bodies such as the national and regional governments will be approached in order to work closely together to ensure a smooth execution. EU and intergovernmental organisation have to be approached and involved into the project management to avoid redundant procedures. Private companies can and will be included in our cooperative strategy e.g. ports, shipping companies and companies that will be contracted in phase III to execute certain tasks.

Phase I is pivotal to trigger the entire process of removal. While all other phases can be overlapping regarding the extent of the Danube with its different sections, phase I as the preparation of the project cannot be skipped in any case. While there might be enough information for instance to start up removing some wrecks in Serbia right now without the run through of phase II and III, it will not solve the problem of inland waterways, due to the fact that just disposable and marketable steel will be removed and difficult tasks will be neglected due to the lack of preparation and the lacking integration in the broader targets. After carrying out phase I, other phases in every section can be executed simultaneously according to the respective state of information, available resources and sufficient funding.

According to calculations the total costs add up to 380,000 € for the entire preparation phase. This amount includes salaries, external advice, research cost regarding traveling and equipment as well as office expenses.

Duration:

In case of full funding, project phase I can be successfully accomplished within 8 months' time. This includes all listed above activities and will prepare the immediate continuation of the following steps in phase II, III and IV.

Phase II - Classification of vessels

In Phase II every vessel would be assessed individually regarding its cost of removal due to location and features (mostly explosive material) and marketable steel. So far, through experience of IMPERIJA d.o.o. with the removal and disposal of shipwrecks it is possible to divide the vessels into four different categories.

Classification	Location	Danger	Cost per vessel
A	Riverbank / shallow waters	little danger - no explosive material	60,000 EUR

B	Shipping passage - costs of interrupting ship traffic	little danger - no explosive material	100,000 EUR
C	Riverbank / shallow waters	great danger due to unexploded ordnances - further precautionary measure needed	200,000 – 300,000 EUR
D	Shipping passage - costs of interrupting ship traffic	great danger due to unexploded ordnances – further precautionary measure needed	450,000 – 500,000 EUR

This classification allows predicting certain costs in order to quantify and predict costs of entire sections. As stated in the table the approximated costs are subject to the location and the potential danger:

Location:

There are several expense factors regarding the shipwrecks' location. The deeper a wreck the more difficult it becomes to fix and lift the vessel. Another major problem is the on-going ship traffic on the Danube that has to be interrupted in order to ensure a smooth execution. Both reasons add considerably cost to the lifting.

Further Danger/Unexploded ordnance:

The major problem of old explosive ordnance is its unpredictability. Even on land unexploded Second World War bombs constitute tremendous challenges to bomb disposal experts. Considering the danger and the therefore preventive measures the anticipation of disproportionately high costs of lifting and removal of explosive material are appropriate.

Phase III - Contracting

After classification of the respective objects and organisations of funding for each section, capable firms would have to be found to lift and remove the ships as well as to ensure the safety and all other aspects of the respective task. The project team would find and select the companies according to prices and quality and contract them individually on the respective Danube section. The respective companies would have to fulfil requirements that are defined in Phase I and Phase II such as experience in the respective course of action and a clear record.

Phase IV - Implementation

The implementation must be supervised, coordinated and properly reported, which would be carried out by the project team. Most probable the removal of many wrecks would not just employ one company, but several. This leads to the challenge of a careful coordination of tasks as well as efficient organization of equipment. Hence, the removal in each section would be implemented under permanent supervision and organized as well as reported according to EU standards. The planning, the financing, the structuring of the procedures, calculations and administration would be accomplished in cooperation with all public and private stakeholders.

Transboundary impact:	• Serbia • Romania

	• Bulgaria (each divided into subsections along the Danube) In the end, the measures would be beneficial for the entire corridor.
Project beneficiaries / target groups:	• Shipping companies and respective industries • Tourism • Local population - removal of possible dangers • macroeconomic benefits in EEU – better connections • further benefits from infrastructure • flora and fauna – removal of artificial objects

STATUS AND TIME FRAME			
Current project phase: (please tick a box)	☒ Definition (e.g. project idea, abstract) ☐ Preparation (e.g. project proposal, feasibility study) ☐ Implementation ☐ Completion		
Start date:	01.07.2013	**End date:**	30.06.2018
Notes:	In order to reach the targets such as the increase of cargo transport by 20% by 2020 compared to 2010, set in the Danube strategy for the Danube Region it is necessary to start the removal of the obstructing wrecks as soon as possible. The project was never implemented.		

PROJECT TEAM		
Project leader:	EDDC – European Danube Development Cooperation Involved companies: • Imperija d.o.o. (Serbia) • Scholz AG (Germany/Romania) • Max Buck GmbH & Co KG (Germany)	
Project partner(s):	**1. Chamber of Commerce and Industry Serbia** Resavska 13-15, Belgrade/Serbia **2. Council of Danube Cities and Regions - CODCR The General Secretariat** 1-3 Nicolae Iorga Street, District 1, Bucharest – 010431/Romania	
Contact person:	**Name:**	-
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FINANCING		
Available: (please tick a box)	☐ Yes ☐ Partly ☒ No	
Total budget:	The exact amount of public financial support would still need to be defined. Most expenses regarding the removal cannot yet be named due to the uncertainty of the characters of shipwrecks. The implementation of preparative Phase I, which includes research on wrecks and costs, however will cause expenses of approximately **380 000 EUR** as explained above. Serbia: According to the above-mentioned Danube Master Plan Study, the cost of all WWII Shipwrecks in Serbia will sum up to **20 000.00 EUR** The initial project for the removal of 48 shipwrecks in the Smederevo region needs to be financially supported with approx. 5 000.00 EUR. (1.5 years, 50 skilled workers full time, including services from divers and heavy machinery). Approx. 10% of project budget would be used for the detailed planning. The implementation of the removal in each project section would be prepared by a distinct feasibility study, which would only explore and assess the missing information. Those studies include a social, economic and environmental impact assessment. A particular problem is the Explosive Ordnance Abolition, which has to be assessed and implemented by specialists at every step. Romania and Bulgaria: The available data record on obstructing shipwrecks in Bulgaria and Romania is so far mainly based on non-scientific reports. According to our state of knowledge, there are not any studies comparable to the one of Witteveen+Bos for Serbia. Hence the implementation of a specific study in Romania and Bulgaria is necessary and will be part of the overall removal project. The cost of such study will be approx. **300 000.00 EUR**.	
Source(s) and amount (potential sources for project ideas): (please tick a box and provide further info)	☒ National/regional funds:	State budget
	☒ EU funds:	Cohesion Fund
	☐ IFI loans:	
	☐ Private funds:	
	☒ Other:	Public-private partnership
PROJECT ENVIRONMENT		
Project cross-reference:	–	
Cross-reference ID(s):	–	
Strategic reference:	Various experts and policy makers have stated their support for such a project. Among others:	

	Erhard Busek - Coordinator of the South-Eastern Cooperative Initiative (SECI) and Chairman of the Institute for Danube Region and Central Europe
Relevant legislation:	-
Other:	The Master Plan and Feasibility Studies for the Serbian Inland Waterway Transports Network and Ports of Witteveen+Bos Consulting Engineers as contractor for the European Agency for Reconstruction (EAR/03SER01/08/002).
EUSDR EMBEDDING	
Relation to other Priority Areas of the Danube Region Strategy:	☒ PA1b: To improve mobility and multimodality – Road, rail and air links ☐ PA02: To encourage more sustainable energy ☒ PA03: To promote culture and tourism, people and people contacts ☐ PA04: To restore and maintain the quality of waters ☒ PA05: To manage environmental risks ☒ PA06: To preserve biodiversity, landscapes and the quality of air and soils ☐ PA07: To develop the knowledge society through research, education and information technologies ☐ PA08: To support the competitiveness of enterprises, including cluster development ☐ PA09: To invest in people and skills ☐ PA10: To step up institutional capacity and cooperation ☐ PA11: To work together to promote security and tackle organised and serious crime
EUSDR COMPLIANCE	
Compliance with targets of the Danube Region Strategy:	☒ Increase the cargo transport on the river by 20% by 2020 compared to 2010. ☒ 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. ☐ 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. ☐ Implement harmonised River Information Services (RIS) on the Danube and its navigable tributaries and ensure the international exchange of RIS data preferably by 2015. ☐ 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:	☒ To complete the implementation of TEN-T Priority Project 18 on time and in an environmentally sustainable way.

	☒ To invest in waterway infrastructure of Danube and its tributaries and develop the interconnections. ☐ To modernise the Danube fleet in order to improve environmental and economic performance. ☐ To coordinate national transport policies in the field of navigation in the Danube basin. ☐ To support Danube Commission in finalising the process of reviewing the Belgrade Convention. ☐ To develop ports in the Danube river basin into multimodal logistics centres. ☐ To improve comprehensive waterway management of the Danube and its tributaries. ☒ To promote sustainable freight transport in the Danube Region. ☐ To implement harmonised River Information Services (RIS). ☐ To invest in education and jobs in the Danube navigation sector.
Affiliation to thematic working group of Priority Area 1a of the EUSDR:	☒ Waterway infrastructure and management ☐ Ports and sustainable freight transport ☐ Danube fleet ☐ River Information Services ☐ Education and jobs
OTHER RELEVANT ISSUES	
Project requirements:	• Appropriate funding • Access to respective national authorities
Follow-up project:	-
Any other issues:	–