

Project Data Sheet

BASIC PROJECT DATA			
Full project title:	LNG Power Train for Danube Inland Navigation		
Short project title: (acronym)	LDS	Project logo:	–
Project website:	–	Project ID:	PA1A069
Need and added value for Danube Region Strategy:	Contribution to the implementation of usage of alternative fuels in Danube navigation with highly positive economical and ecological impact.		
Objective(s) of project:	The project constituted of a feasibility study on the sustainable reduction of CO2 emissions as well as particle and NO2 emissions by using LNG (liquefied methane and bio methane) for Danube navigation. The study served as preliminary planning for an experimental development project for a retrofit solution, contributing to the short- and medium-term achievement of the Austrian climate targets.		
Project activities:	<ul style="list-style-type: none"> • Modelling and calculation of the potential for improvement of the climate-relevant CO2 emissions and trace substances (NOx and particulate matter) of Danube navigation • Investigation on a sustainable retrofitting of diesel engines of typical Danube waterway vessels on a methane pilot ignition engine • Evaluation of the expected emission levels • Design and installation of a concept of an LNG tank technology for inland waterway vessels (natural gas and bio methane) • Development of a concept for LNG refuelling infrastructure for the Danube waterway vessels and for the supply on their typical routes • Research and investigation of the need for changes to the legal regulations governing the use of liquid methane and bio-methane in inland waterway vessels (Germanischer Lloyd, etc.) • Cost analysis related to the developed retrofitting methods and infrastructure measures • Presentation and discussion of the results in a final symposium with policy makers and international experts 		
Transboundary impact:	The solutions are applicable to all Danube countries.		
Project beneficiaries / target groups:	<ul style="list-style-type: none"> • Shipping companies • Shipyards 		
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:	01.01.2010	End date:	31.05.2011

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Notes:	-	
PROJECT TEAM		
Project leader:	Vienna University of Technology / Austria	
Project partner(s):	<ul style="list-style-type: none"> • via donau – Österreichische Wasserstraßen-Gesellschaft mbH • Salzburg AG für Energie, Verkehr und Telekommunikation 	
Contact person:	Name:	-
	Organisation:	Vienna University of Technology, Institute for Power Trains and Automotive Technology
	Address:	Gusshausstraße 27-29, 1040 Vienna, Austria
	Phone:	-
	E-Mail:	-
	Website:	http://info.tuwien.ac.at/epucher
FINANCING		
Available: (please tick a box)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> Partly <input type="checkbox"/> No	
Total budget:	121,418 EUR	
Source(s) and amount (potential sources for project ideas): (please tick a box and provide further info)	<input checked="" type="checkbox"/> National/regional funds:	72,139 EUR (Climate and Energy Fund) funded by the Austrian Research Promotion Agency (FFG); project number 825471; 3rd call on New Energies 2020, 3.4. energy-efficient vehicle components and systems
	<input type="checkbox"/> EU funds:	
	<input type="checkbox"/> IFI loans:	
	<input checked="" type="checkbox"/> Private funds:	49,279 EUR (budget of project partners)
	<input type="checkbox"/> Other:	
PROJECT ENVIRONMENT		
Project cross-reference:	-	
Cross-reference ID(s):	-	
Strategic reference:	Introduction of alternative fuels to inland waterway transport.	
Relevant legislation:	-	
Other:	-	

EUSDR EMBEDDING	
Relation to other Priority Areas of the Danube Region Strategy:	<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:	<input 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 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:	<input type="checkbox"/> To complete the implementation of TEN-T Priority Project 18 on time and in an environmentally sustainable way. <input type="checkbox"/> To invest in waterway infrastructure of Danube and its tributaries and develop the interconnections. <input checked="" 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.

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	<input 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 type="checkbox"/> To promote sustainable freight transport in the Danube Region. <input 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:	<input type="checkbox"/> Waterway infrastructure and management <input checked="" type="checkbox"/> Ports and sustainable freight transport <input checked="" type="checkbox"/> Danube fleet <input type="checkbox"/> River Information Services <input type="checkbox"/> Education and jobs
OTHER RELEVANT ISSUES	
Project requirements:	–
Follow-up project:	Demonstration project recommended as outcome.
Any other issues:	–