Measures for the reduction of fuel consumption and CO₂ emissions in inland navigation

Template for the catalog-like presentation of the potential measures

(according to the PLATINA Innovation Database)

	Name of the measure described	
1.	Keywords	Propulsion, Waste Heat Recovery, reduction fuel consumption, reduction emissions footprint (CO2, NOx, HC, Particles, CO, SO2)
2.	Short description	The Voith SteamTrac system converts the unused amount of exhaust heat energy from a combustion engine into effective mechanical energy, which is delivered back to the crankshaft of a combustion engine. As a result, the fuel consumption and the emissions footprint are considerably reduced, i. e. the engine output is kept at the same level, with less fuel injected.
3.	Objective & target	Reduction fuel consumption by min. 8% and reduction of emissions in all global marine markets on all shiptypes
4.	Key success factors	Reduction fuel consumption and emissions against affordable investment
5.	Innovative aspects	Fully automatic Waste Heat Recovery system, independent from main engine function
6.	Benefits for users	Lowering operational cost assets by reduction fuel consumption and emissions. Main engines have a lower loadfactor resulting in longer Time Between Overhaul periods (=lower maintenance cost)
7.	Geographic area	No geographic restrictions
8.	Status	Test phase
9.	Difficulties met	n.a.
10.	Year(s)	2008 – 2011, 6 months prototype test march 2011 River Rhine
11.	Users, stakeholders	Users: shipowners Stakeholders: Voith Turbo GmbH
12.	Contact person	Mark Werkman
13.	Costs & financing	ROI expectation of max. 5 years
14.	Website / links	http://www.voithturbo.com/vt_en_paa_marine.htm
15.	Available data, publications	See Annex 1 [*]
16.	Added value: possibility for application elsewhere	Application can also be used in road, rail and industry applications
17.	Further information	n.a.
18.	Filled in by	Mark Werkman
19.	Date	2011-03-02

[*] Please have a look at the VOITH TURBO presentation under the rubric **Information provided by workshop participants**