

SPIN-TN, Working Group 3

Innovative transport vehicles on the Rhine

Comments by Bernd Birkhuber

The document is covering four questions. The first three parts are descriptions of the state of the art. The main focus is not on technical problems and how they can be solved by use of new technologies, but on an overview on the development of the Rhine fleet in the last years. The technical aspects of these developments are sometimes not even mentioned. Two examples:

Page 37: the development of very big inland tank vessels with a deadweight of up to 8000 t has lead to long discussions about necessary adaptations of the technical regulations, for example regarding the maximum seize of a single tank and the construction of the outer hull.

Page 15: When 4 containers shall be stored abreast in the cargo hold of a vessel with a beam of 11,40 m, the gangway has to be very narrow. A special design is needed to meet the requirements of the regulations on labour and health protection regarding minimum dimensions of paths.

Some technical developments like the Y-shaped side structure to increase the crashworthiness or propulsion technologies are not mentioned.

Other comments:

Page 29, 1.4:

As an extensive study of the German government has shown, PCs and GSM are already used on a lot of vessels. Telematics can not be restricted to radio-telephone and radar anymore!

Page 32/33, Ship for mixed cargo:

The combination of containers with bulk cargo, which can not be loaded or unloaded as long as containers are on board, causes logistic problems. There have been some tank vessels, which were equipped to carry road vehicles or other deck cargo, on the Danube. Despite the possibility to load/unload even when the deck is occupied, the combination has not been successful.

Page 37, last paragraph of 2.2:

Overhauling of existing ships and equipping them with built in loading tanks needs yard capacity, too. Built in loading tanks have to be inspected regularly and are reducing the deadweight dramatically. They might cause problems with stability, too. The technical differences between liquid cargo transport on sea and on inland waterways and the necessity of double hull vessels for all types of liquid cargo are not discussed. The financial problems of a complete replacement of the existing fleet are not mentioned. The question of transitional regulations is not mentioned.

Page 38:

Only the minimum draught is mentioned, which is not important for shallow water areas like the Danube (which is explicitly mentioned here). The maximum draught might be considerably above 2 m.

Wave generation, kinetic energy, manoeuvrability and stopping abilities should not only be mentioned but described in detail as they are crucial for this project.

Page 41, ARGO:

This is not only a project anymore. The Radarplot of Innovative Navigation is a successful product on the market, which is in operation on more than 250 vessels!

Page 41/42:

The European project COMPRIS is missing as well as the existing international standards for Inland ECDIS, Ship Reporting and Notices to Skippers. Voyage planning, which is also in use on a considerable part of the European fleet, and fuel optimisation applications, which are on the market, too, are not even mentioned.

Page 43, 3:

Ground effect vehicles have been developed quite some years ago, but have not become successful in inland navigation. The ideas for high speed cargo vessels are quite old, but are still unrealized.

Page 44, second recommendation:

Several transshipments make inland navigation unattractive and normally. Is there any study, which provides support for this recommendation?

Page 45, first recommendation:

Big vessels can not be moored or handled in locks by one person on the deck without sophisticated technical solutions. Are there any ideas how to handle this?

With two persons on board there is absolutely no possibility to rescue a person, which is falling over board. Are there any ideas how to guarantee their life in cold water?