

## **Comment by CEMT on 2nd revised draft of CCNR roadmap for reducing inland navigation emissions, as envisaged by the Mannheim Declaration**

1. In the beginning of the document (3.1. Basic definitions) it is explained that “tank-to-propeller” approach should be used, while I would rather suggest “well-to-propeller”.

Difference is following:

- Tank-to-propeller emissions are from the energy carrier (Diesel, LNG, Battery, Hydrogen) storage on board (in tank) to the energy usage on the propeller
- Well-to-propeller emissions are from the source where the energy carrier is produced to the energy usage on the propeller

The biggest difference is on Hydrogen, which can be Green, Blue, Brown or Grey. Any kind of Hydrogen used on-board is not producing and emissions except water, while production of the Hydrogen potentially created lot of emissions (Grey) or none of them (Green).

Therefore I would use “well-to-propeller” and take care that Hydrogen is produced from Green energy. It could be solar, wind, water, but cannot be natural gas.

Author of the document is also explaining difference between “tank-to-propeller” and “well-to-propeller”, elaborating that for the “tank-to-propeller” better emission saving will be achieved. I think that is playing with roadmap.

Take a look at the minutes 16:30 – 21:30 on the following video of the guy from Sinter (NO). He is explaining emissions <https://www.youtube.com/watch?v=KHpGURYOMeQ>

2. In the Implementation plan I would suggest two comments, both of them related to the regulatory framework, which should be adopted for the fast pilot actions:

- a. To take standards from marine applications
- b. To release some of the requirement for the smaller vessels in EU Directive, from the reason that small vessels pilot actions can be released fast enough.

In the document Transition pathway it has been identified that the smaller vessels will be first ones with alternative energy. Also it is identified that fast pilot actions are needed.

However, EU Directive is stopping pilot action by the restriction they have for small vessels.