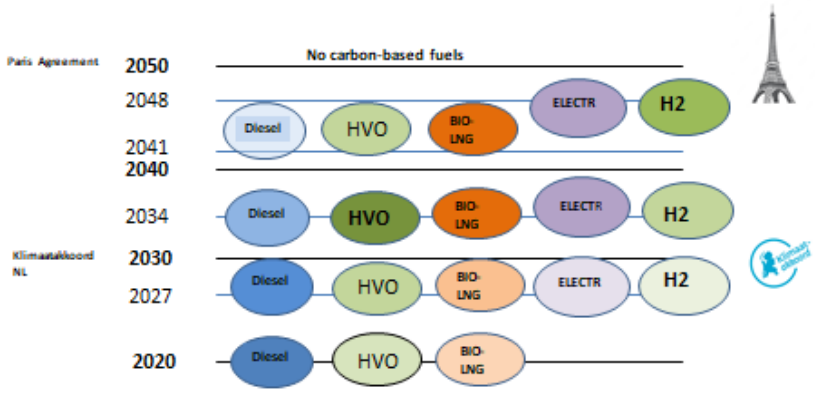
Workpackage 2, EMR H2-Booster Deliverable: Case paper;

‘Hydrogen for inland shipping and barges’

Project name: ***Hydrogen for inland shipping and Barges***
Starting date: tbd. October 2023
End date: tbd. October 2027

Summary

Heavy duty Transport, like inland shipping, is seen as one of the mobility sectors where Hydrogen will and must play an important role, simply because current battery containers are too big and too heavy in relation to the range they can now give. Only for shorter range and small barges (water-taxis, police, Rijkswaterstaat, etc.) fully electric solutions look feasible. Inland shipping is being considered as the best option to realize a modal shift in transport: from road to water. Clearly, this will involve a multi-fuel approach, involving ship fuels such as HVO, Bio-LNG, and battery propulsion. Step-by-step, Hydrogen fuel will be introduced, until full use of green H2 in 2050 (in line with the Paris Treaty):



The need for scalable, affordable Hydrogen systems and complementing re-fueling infrastructure is therefore high and urgent. Current projects like *RH2ine, H2Barge, Zero emission shipping* and *Future proof shipping* need to be followed up by new projects that will continue the good work and learn from the experiences and knowledge that has been gathered. Especially because there are no feasible and complete solutions yet. Next to this an opportunity evolved to combine a couple of initiatives that came together when mapping all Hydrogen projects within the EMR region during the Hydrogen Booster project. One of these ideas is the creation of a Hydrogen Hub (ship yard with Hydrogen storage and re-fueling for barges) in Maasbracht (NL) whereas in the Walloon region, a project called Zellie is going to produce Hydrogen for inland shipping.

Project & cross border cooperation

Since inland shipping, especially the long range we are focusing on here, is almost never 'in-country' shipping, it is evident that the Hydrogen production, storage and re-fueling infrastructure for barges should be done cross-border, all along the vast stretches and harbors along the Meuse and Rhine, and waterways in between. Since both main-shipping routes and rivers are very present crossing the EMR -region, and many (logistic) companies depend on them, it is obvious that close cross-border cooperation is necessary to succeed. It will speed up the de-carbonization of inland shipping, learning from each other's pilots, settling rules, standards and regulations: creating efficiency and faster de-carbonization of the sector, ultimately leading to zero-emission cross-border corridors for inland shipping.

The project-site in Maasbracht (NL) will be revitalized step-by-step, in order to enable the site to be developed into a 'Clean Energy Hub', including the availability of Hydrogen gas as a fuel for inland shipping and barges.

More information can be obtained @ WCL (hydrogen coalition Limburg NL)