

At the end of the H2SHIPS project

As we near the end of the Interreg NWE H2SHIPS project, the partners are preparing to anchor and bring in the sails. What does this mean for the project activities during the last 6 months? And what can we still expect?

In this newsletter, we take a look at **everything that happened** so far in 2023, share the preparation of the **final conference** and the publication of the **H2SHIPS platform**, review public reports which can be found on the website already, and share behind-the-scenes of the upcoming **project video**.

Join us as we bring H2SHIPS into the port! Thank you for reading.



Last H2SHIPS Steering Committee Meeting
– May 2023 –
Oostende, Belgium

The Journey of the Neo Orbis – the Port of Amsterdam pilot

From design to real-life representative vessel

In the Port of Amsterdam and their H2SHIPS pilot project, the Neo Orbis is slowly moving from being a mere design concept to a real boat. In January 2023, the partners celebrated the Keel Laying, which is the official start of the construction phase.



Neo Orbis Keel Laying Ceremony © Port of Amsterdam



Progress of construction at Next Generation Shipyard © Port of Amsterdam

Fast-forward through February-May 2023 and we see a vessel which is ready to be painted and fitted with the electrical engine which will be both battery-powered and have a hydrogen range extender.

The Neo Orbis will be the first ever vessel to sail with the sodium borohydride reactor, which was developed by H2SHIPS project partner TU Delft. Sodium borohydride (NaBH_4) is a solid chemical compound, which can be used as a hydrogen carrier and fuel for the Neo Orbis and other hydrogen-powered ships. Its main advantages: it's circular, very safe to store (non-toxic, non-explosive), and can release pure, gaseous hydrogen by being mixed with pure H_2O on board the ship.

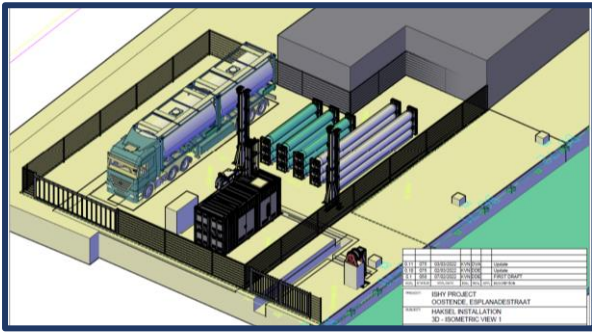
What's next?

- Step inside the Next Generation Shipyard in Lauwersoog and watch the construction of the Neo Orbis – the video will be published soon!
- A visit to the shipyard by the project partners and invited guests during the final conference at the end of June
- The most important milestone in the young life of a new vessel is its maiden voyage. For the Neo Orbis we can expect this event to take place in late summer 2023! Follow the Port of Amsterdam for news updates.

A New Hydrogen Bunkering Station – the Port of Ostend pilot

Crew Transfer Vessels are only the beginning

By visiting the Port of Ostend in early May, the partners could see for themselves where the hydrogen bunkering for crew transfer vessels will be built. The state of construction already allowed to imagine the final installation with trailers supplying pressurised hydrogen and ships docking close-by. A bunkering system was especially developed for the port conditions (waves, wind, etc.). The station features a unique dispenser which is able to absorb any movement to guarantee safe bunkering.



Design of hydrogen bunkering station © Parkwind

Visiting the site of the HRS at Port of Ostend © Steinbeis 2i

The station is being built by Parkwind, an offshore wind park operator in Ostend. Their main objective is decarbonising as much of their operation as possible, incl. transferring crew members to the windfarms in the North Sea in a sustainable manner by using hydrogen powered boats.

What's next?

- Want to see how a hydrogen refuelling station in a port is being constructed? In a few months, the station will be commissioned, and the Port of Ostend will publish a video about the construction phase.

The Paris Action Plan – Where to learn more about it?

The French partners in H2SHIPS – HAROPA ports and Hynamics – have worked on how and where to make hydrogen shipping on the Seine a reality and studied the conditions from multiple perspectives. You can already discover these for yourself on the H2SHIPS website, but also hear about the main conclusions in the webinar on June 21st. You can register, [here](#).

A study for hydrogen shipping on the Seine was conducted by Maritime Hydrogen, a Dutch engineering company focussing on decarbonising the maritime sector with hydrogen. Their feasibility study on how to retrofit a push-boat owned by the global cement and concrete producer Lafarge Holcim will soon be available in a public version. A short summary will also be presented in the upcoming H2SHIPS video, which was shot in Paris, May 2023.



VIDEO
COMING
SOON!

Behind the scenes at the H2SHIPS video production © Steinbeis 2i & EIFER

What's next?

- At the end of 2021, HAROPA ports launched a call for the installation of H₂ and/or renewable energy distribution stations on 5 port sites. The winners were selected at the beginning of 2022 and the stations are currently being planned/constructed.
- EDF's hydrogen subsidiary, Hynamics, will produce 2 MW of carbon-free H₂ at the former Vitry-sur-Seine power station, for use by heavy goods vehicles as from 2025 and by boats as from 2027.

Sharing the progress about hydrogen shipping far and wide

The University of Birmingham was busy over the last months to develop and perfect the H2SHIPS platform – <https://h2ships.org/>

The H2SHIPS platform is a resource centre for learning about hydrogen in shipping and ensuring the exploitation of results. It compiles a number of projects that go well beyond the scope of the activities of the Interreg NWE project and aims to provide a comprehensive overview of all the ongoing projects that want to make hydrogen a reality for shipping applications on small or large scale.

Throughout the project, sharing the project activities and results has always been a priority for the partners. For this reason, three dissemination events took place throughout the last three years: Paris 2021, Brussels 2022, and, just recently at the European Maritime Day, Brest 2023. In Brest, more than 50 participants joined the event and began engaged discussions about different hydrogen fuel options, the investment requirements for ports and other hurdles & opportunities. The workshop was co-organised with BDI and the Interreg North Sea REDII Ports project. For a detailed account of the event, click [here](#).



Workshop „Decarbonising European Ports with Hydrogen“ at the European Maritime Day in Brest, May 2023 © Steinbeis 2i

If you could not attend either of these events to meet the H2SHIPS partners in action, there is one final opportunity to do so!

The Final Conference of H2SHIPS

On 29-30 June 2023, the H2SHIPS partners invite you and everyone else interested to a large-scale final conference in the auditorium of TU Delft, Netherlands. We will have one afternoon to present the results of the project and make sure the discussions and actions started in H2SHIPS will find new protagonists to keep them going. While the H2SHIPS partners are working on final reports, other projects, networks and initiatives have set their sails or are already full steam ahead.

Do you want to meet them too? [Sign up](#) for the final conference now!

Interreg
North-West Europe
H2SHIPS

FINAL CONFERENCE

JUNE 29, 2023 | 13:30 - 17:30

DELFT, NETHERLANDS

DELFT UNIVERSITY OF TECHNOLOGY
AUDITORIUM CONFERENCE CENTER

Organised by eifer Steinbeis Europa Zentrum TU Delft

Registration