



Paul Haering

Project Manager

Steinbeis 2i GmbH, Karlsruhe, Germany

H2SHIPS - Helping hydrogen become a widespread solution for shipping

Context / challenge



© Mauro Picardi/ Shutterstock]

Interreg 
North-West Europe
H2SHIPS
European Regional Development Fund

- EU transport emissions need to be reduced to cope with climate and Green Deal goals
- Maritime transport and inland navigation account for respectively 10,6 and 1% of greenhouse gases from transport in EU (2014)
- The EU shipping sector still relies heavily on fossil fuels
- The deployment of low-emission alternative energy for transport and associated infrastructure needs to be speed up

One of the solutions

→ Hydrogen as fuel for shipping



© Malp, Adobe Stock 2019

Interreg 
North-West Europe
H2SHIPS
European Regional Development Fund

Main advantages

- Hydrogen is one of the most energy-dense fuels by mass
- Zero emission fuel → carbon-neutral if produced from renewables
- Can be used as alternative fuel in different transport mode and in other sectors such as logistics, energy and industry

Current situation in EU

- Strong political commitment towards green hydrogen
- First pilot projects running in Europe, but associated value chain still needs to be developed

What is H2SHIPS about?

Helping H2 become a widespread solution for shipping in NWE



- Territorial Cooperation programme: Interreg NWE project
- 6,3 M€ budget (3,5 M€ ERDF funding)
- 4 years (01/2019 – 01/2023)
- 12 partners from 5 countries (DE, NL, UK, BE and FR) + 16 associated partners
- 3 ports: Amsterdam, Ostende and Paris

What is H2SHIPS about?



- Develop favorable regulatory framework
 - Identify barriers, propose changes
- Help creating a H2 value chain/ecosystem
 - Partnerships, network, investment strategy
- Determine appropriate technology
 - Pilots + sustainable local ecosystem

**3 ports ...
... 3 pilot sites**



Amsterdam



New « Port vessel » (representation ship) for Port of Amsterdam

Ostende



Prototype of a floating H2 bunkering station in the port

Paris



© Bateaux parisiens

Development of an action plan for the implementation of a first ecosystem for hydrogen powered ships on the Seine

Lessons learned so far – main barriers and success factors



- Need for more coordination actions and harmonised EU regulations
- Competitiveness of hydrogen fuel price and fuel cell-based system cost as a key success factor
- Successful hydrogen transition strongly relies on public acceptance and well functioning infrastructure
- Ports are ideal hubs for the production, distribution and storage of green hydrogen

H2SHIPS future studies and activities



- Support the industry by analyzing business scenarios, bringing stakeholders together
- Adapt the current regulatory framework by developing a policy paper and guidelines for the deployment of H2 solutions
- Support similar H2 initiatives in the NWE region to create an EU-wide ecosystem

Follow us!



- Follow us on twitter [@H2Ships](https://twitter.com/H2Ships) and LinkedIn <https://www.linkedin.com/in/interreg-nwe-projekt-h2ships-83b64918b/>
- Our project webpage: <https://www.nweurope.eu/projects/project-search/h2ships-system-based-solutions-for-h2-fuelled-water-transport-in-north-west-europe/>

#hydrogen #transport #ship #decarbonise #transport
#showH2works

Interreg



EUROPEAN UNION

North-West Europe

H2SHIPS

European Regional Development Fund

Thank you!