

## **MARITIME CONNECTIONS**

Elimination of obstacles to innovative shipping and facilitation of a modal shift in transport



CLEAN SHIPPING			SMART SHIPPING	SEA RIVER SHIPPING
Offshore energy to <i>"</i> X"	Acceleration of competence development in environment-friendly and low- carbon shipping		Lead the way in advanced, digitised and autonomous maritime/nautical operations in harbours and offshore	Acceleration of competence development in environment-friendly and low-carbon shipping
<ul> <li>Demo of offshore hydrogen production from renewable energy combined with storage &amp; bunkering</li> </ul>	<ul> <li>Sustainable fuels (SF)</li> <li>Pilot projects regarding the use of hydrogen in combustion engines.</li> <li>Logistics, incl. offshore storage and bunkering of SF for shipping.</li> <li>R&amp;D and pilot projects regarding the use of SF (excl. hydrogen) in fuel cells</li> <li>Fully electric or hybrid propulsion in shipping;</li> <li>Exploring the potential of wind energy for fishing vessels.</li> </ul>	<ul> <li>Making shipping more sustainable (incl. nautical aspects in harbours)</li> <li>System for compensating peak power consumption</li> <li>R&amp;D and pilot projects regarding optimisation of the design (incl. hull) of vessels.</li> <li>Pilot projects regarding Carbon Capture on vessels</li> <li>Piloting shore power</li> <li>Reducing the spread of invasive species. Supporting the market uptake of fouling release coatings; exploration of sound-based systems</li> </ul>	(Semi-)autonomous shipping: <ul> <li>R&amp;D and pilot project regarding (semi-)autonomous inland shipping and maritime operations (incl. offshore wind farms)</li> <li>Demonstration of shore control capabilities</li> </ul> Advanced, nautical aspects for harbours, islands and offshore installations: <ul> <li>Mitigation of the impact of offshore wind farms on radar systems</li> <li>Offshore mooring &amp; transshipment</li> </ul> SMARAGD SSAVE	<ul> <li>Detailing of shipping routes and conditions for sea river shipping</li> <li>Economic and environmental decision model for vessel guidance</li> <li>Optimisation of the design of estuary vessels</li> </ul>