Green shipping by deploying WASP solutions. Interreg 5B, North Sea Region, [click here for eligible region]: Priority Eco innovation

SO: 1 Promote the development and adoption of products, services and processes to accelerate greening of the North Sea Region economy.

### WASP’s: 2019 - 2022

<table>
<thead>
<tr>
<th>Year</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rationale:</strong> Wind Assisted Ship Propulsion, (WASP) experiments have potentials to reduce fuel consumption with 5 to 25% and is an potentially emerging after sales market. Some experiments are running and start-ups are in preparation. For a market adoption third party validation and proven concepts are needed to enable a viable business. The WASP’s project aims at connecting new and existing WASP real life trials, creating more credible data and preconditions leading to a market penetration of WASP solutions, thus greening NSR economy. (Quick win is possible, WASP’s can be installed on existing vessels in operation, [click here for examples]).</td>
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</tbody>
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### Joined Development

**WP 3: Engineering WASP solutions**

*WP leader:*

1. Engineering related to real life trials. Hybrid dynamics with ammonia, H2, electricity etc.
2. Validate performance predictions

**WP 4: Real Life Trials WASP’s(olutions)**

*WP Leader:*

- Install and pilot X WASP’s on different ships in operation in different conditions.
- Include existing Real Life Trials, [like click here].
- Ventifoils, [click here], turbosails
- Flettner rotors, [click here].
- Dyna rigg, [click here].
- Rigid wings
- ?

### Implementation

**WP 2: Mainstream, disseminate, adopt proven, validated concepts.**

1. Market demand.
2. Transfer of solutions.
3. Support early adopters of WASP’s.
4. Expert centre WASP’s.

**WP 5: Viable business**

*WP Leader:*

2. Incentivising WASP’s, IMO, EC policy, ECA’s, manage split incentives.

### Impact

**Result:** Tonnes SOx, NOx, CO2 reduced in 2022.

Spin off; 100 new WASP’s installed in operation in 2022 saving 15% Sox, Nox, CO2 emissions.

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Looking for partners that are able to set up a real life trial in 2019 – 2021 on a merchant ship with 43% subsidy for pilot costs, depreciation, research, equipment. These can be match funded with national subsidies.

Partners sought in the NSR region [click here]:

1. **Economy, SMES**
   a. Shipowners that will install WAP’s
   b. SMES producing selling WASP’s

2. **Education**
   a. Engineers
   b. Universities

3. **Government**
   a. Provinces
   b. Municipalities
   c. Ports

4. **Civil society**
   a. Associations
   b. NGO’s
   c. IRENA
   d. IWSA

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