CAPNAV

MEASURING POLLUTION EMITTED BY SHIPPING

If measured using conventional emission inventory approaches, shipping contributes little to atmospheric pollution in France. However, pollution from shipping is often concentrated in port areas, which have significant numbers of vessels and manoeuvres.

In terms of the environment and human health, the most dangerous pollutants from shipping are oxides of sulphur and nitrogen, and particulates. International regulations in this area look set to become stricter in the next few years. ADEME hopes to establish a good case in support of the French position on this, as well as reliable methods of checking pollutant levels.

The issue of particulate emissions is key, and we need to analyse these emissions under normal operational conditions. The CAPNAV project will apply a measurement method similar to those used to measure Real Drive Emissions in the automotive industry (RDE test): pollutants are measured on board, at their source.

This project will allow particulate emissions to be measured against three different yardsticks:

- An analysis of emission levels in correlation with the vessel's own parameters; the impact of manoeuvres in port zones will be assessed in particular
- The impact on air quality on board vessels and in the immediate surroundings in port
- Two emission-reduction solutions will be evaluated: one involving conventional fuel additives in marine gas oil and a breakthrough solution, LNG.

CAPNAV will employ onboard instruments for real-time measurements, as tried and tested in the automotive and aeronautic industries. This will provide access to data on a wide range of particulate emission parameters. CAPNAV will provide a means of checking how these instruments can be applied to maritime transport and assessing emissions.

For further information on the Capnav project, see:

https://www.estaca.fr/en/news/measuring-pollutant-emissions-maritime-transport.html

https://www.estaca.fr/presse/juin-2019-estaca-missionnee-ademe-emission-polluantes-maritime.html (in French)

Partners

Companies

Brittany Ferries, Roscoff
Ecogas, Boulogne-Billancourt
Les Chantiers de l'Atlantique, Saint Nazaire
MAN Energy Solutions, Saint Nazaire
Penn Ar Bed, Brest

Research centers

Estaca, Saint-Quentin en Yvelines [Project Developer]
Ecole Nationale Supérieure Maritime, Nantes
IMT Atlantique Bretagne-Pays de la Loire, Brest

Funder

- Ademe

Labelisation

19/10/2018

Overall budget

334 K€