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Project presentation in Nantes Saint-Nazaire Port

- ▶ Risk Security Study on marine LNG (Activity 2)
- ▶ LNG Training (Activity 4)
- ▶ Environmental impact assessment (Activity 5)



*Port of Nantes Saint-Nazaire
Roro terminal in Montoir:*

- *Motorway of the sea to Vigo*
- *Project to relaunch the mototway of the sea to Gijon*

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Port risk security study on marine LNG (Activity 2)

- ▶ A **risks assessment** should be carried out to set the rules for authorizing this type of refueling, but also ‘barge to ship’ and ‘ship to ship’ scenarios.
- ▶ A more precise study should be carried out **to identify hazards** in different sites of the Port. The hazard identification study will aim **to ensure that the security and operational risks are eliminated** by clearly identifying:
 - ▶ The risks of LNG bunkering operation by one or more tankers.
 - ▶ The impact of bunkering LNG on the port operation and surrounding facilities.
 - ▶ The application of safety barriers to prevent the risks.
 - ▶ The implementation of additional measures to reduce the risks.
- ▶ After the risks assessment, the local regulation concerning handling dangerous goods will be adapted to allow LNG refuelling operations.

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LNG training (Activity 4)

- ▶ This activity will be implemented by the ports of Rouen and Nantes Saint-Nazaire.
- ▶ Due to the characteristics of LNG as gas and cryogenic liquid, requirements for the use of engine fuel, for loading, unloading, supervising and transportation are of complex nature. Therefore, **operations with LNG in port and inland navigation require specific knowledge and skills of the crew members as well as of staff working ashore.**
- ▶ The TEN-T SAFE SECA has already defined security standards for LNG refuelling operations in the Atlantic arch.
- ▶ The SamueLNG project will liaise with these TEN-T projects **to take stock of the defined standards and develop a coherent set of measure for all ports involved in the project.** Different categories of personnel have already been selected:

- ▶ Navigation crew members
- ▶ Terminal personnel and staff of the ports
- ▶ Bunkering personnel
- ▶ Shore staff for the maintenance.



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Environmental impact assessment (Activity 5)

- ▶ The ports of Le Havre, Rouen and Nantes Saint-Nazaire will implement two different studies at two different levels:
 - ▶ **A carbon footprint assessment** in order to evaluate the impact of the engine retrofit. **An air quality assessment** will then be carried out in each estuary (Loire and Seine) to assess the contribution of the engine retrofit to the improvement of air quality, according to several parameters (SOx, NOx, PM, CO2...).
 - ▶ **Extra carbon footprint assessment** in each port and **extra air quality assessment** in each estuary will be carried out.



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