

## Energy....

- About 35-40% of total throughput of EU ports (crude oil, oil products, coal, fuel oil, LNG, biodiesel & biomass).
- High volatility & uncertainty.
- Transition to sustainable energy, many possible transition paths.
- Critical component of production costs for energy intensive industries.
- Opportunity and threat for ports.

## Ports....

- Locate roughly 10-15% of electricity generation in Europe.
- Consume a similarly high share of energy, as they often locate clusters of energy-intensive industries.
- Important nodes in energy infrastructures (crude oil, fuels, LNG & electricity networks).
- Can improve competitiveness through bunker facilities for ships & barges.
- Need to make investment decisions (on energy) in the face of high uncertainty.
- Energy is major determinant of footprint of port operations.