Connecting Seas

NorthSEE – Baltic LINes MSP conference

Ports & MRE- what are the synergies?

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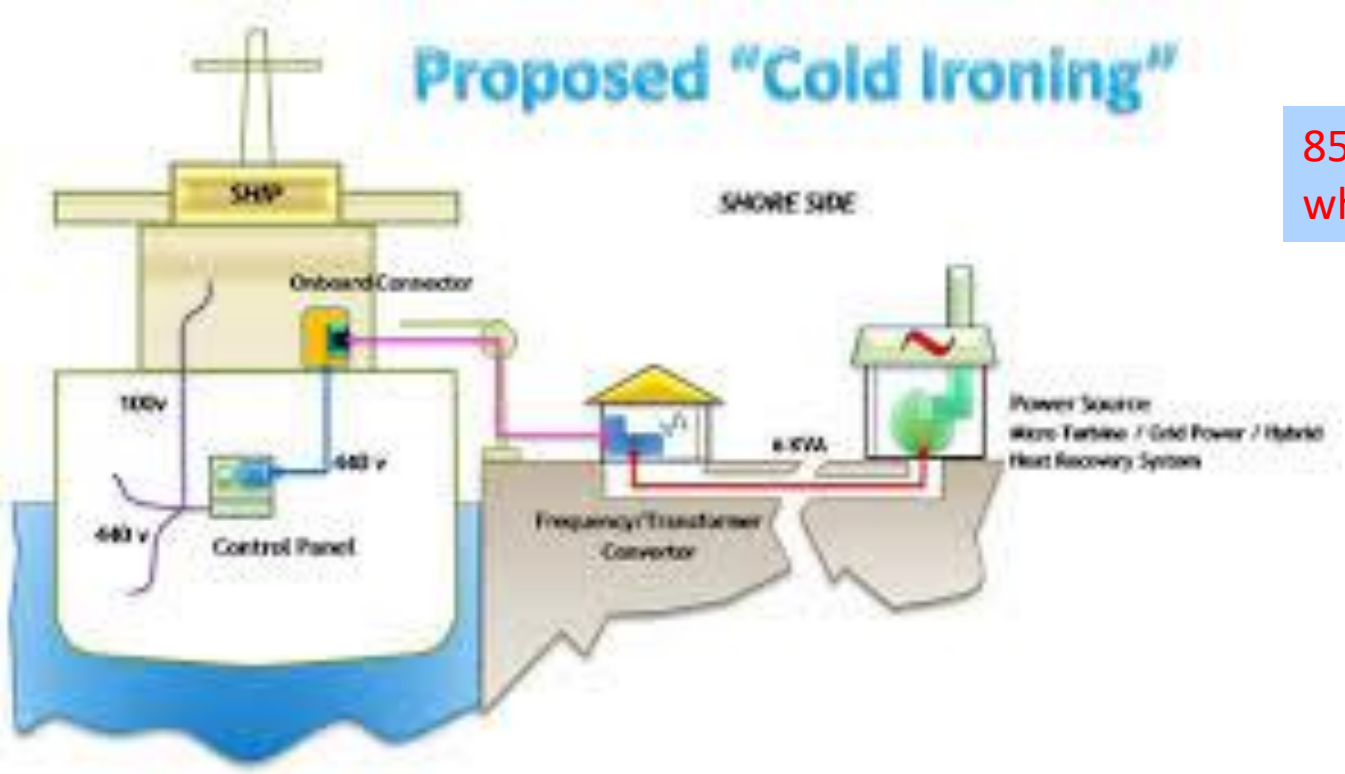
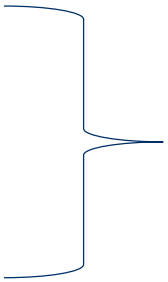
Shore Side Electricity,
Cold ironing,
Shore-to-ship Power,
Alternative Maritime Power.



85% ships emissions while berthed

Summary / take home message

- MU = opportunity space yet to be FULLY exploited
- Significant synergies – triad of:
  - Costs
  - Human health
  - GHG reductions
- Requires explicit MSP approach
  - Recognition of value addition
  - International champions / coordination
  - Explicit approach



Significant scope to fight climate change

+

Sig social benefits!!

Social benefits

Beyond environmental:

- Port area enables added urban development
- Electrical network improvements - resilient electrical infrastructure to city
- SSE integrated with urban mobility - electric cars + buses,
- Electricity cheaper long run?

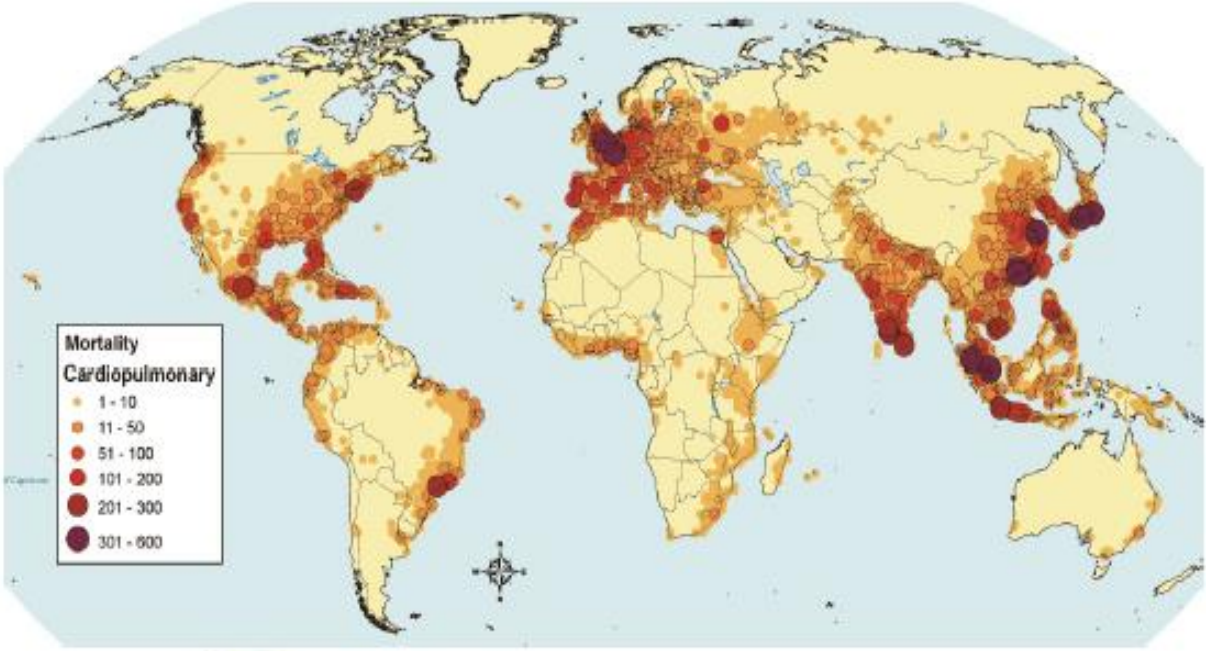
Interesting data…

A cruise vessel (12 MW) emits during 8 hours

1.2 t NO_X	equivalent to	10 000 cars
30 kg PM*	equivalent to	6 000 cars

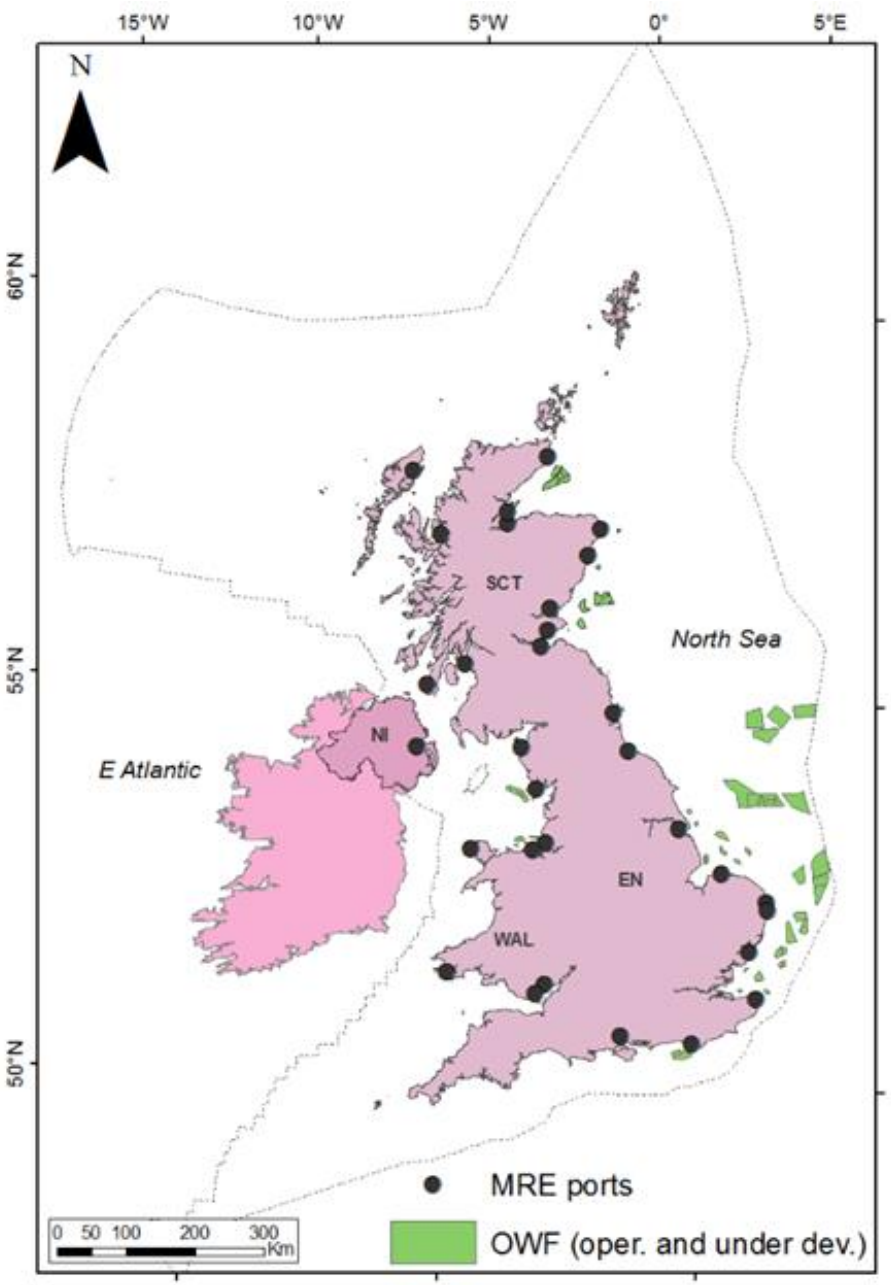
Mortality from CO, SO_X, NO_X and PM generated by shipping

- Annually mortalities in EU increase from 49.500 (2000) to estimated 53.400 (2020)
- 50.000+ premature deaths annually in EU
- Health costs in EU increase from 58.4 bn Euros/year (2000) to estimated 64.1 bn Euros/year (2020)

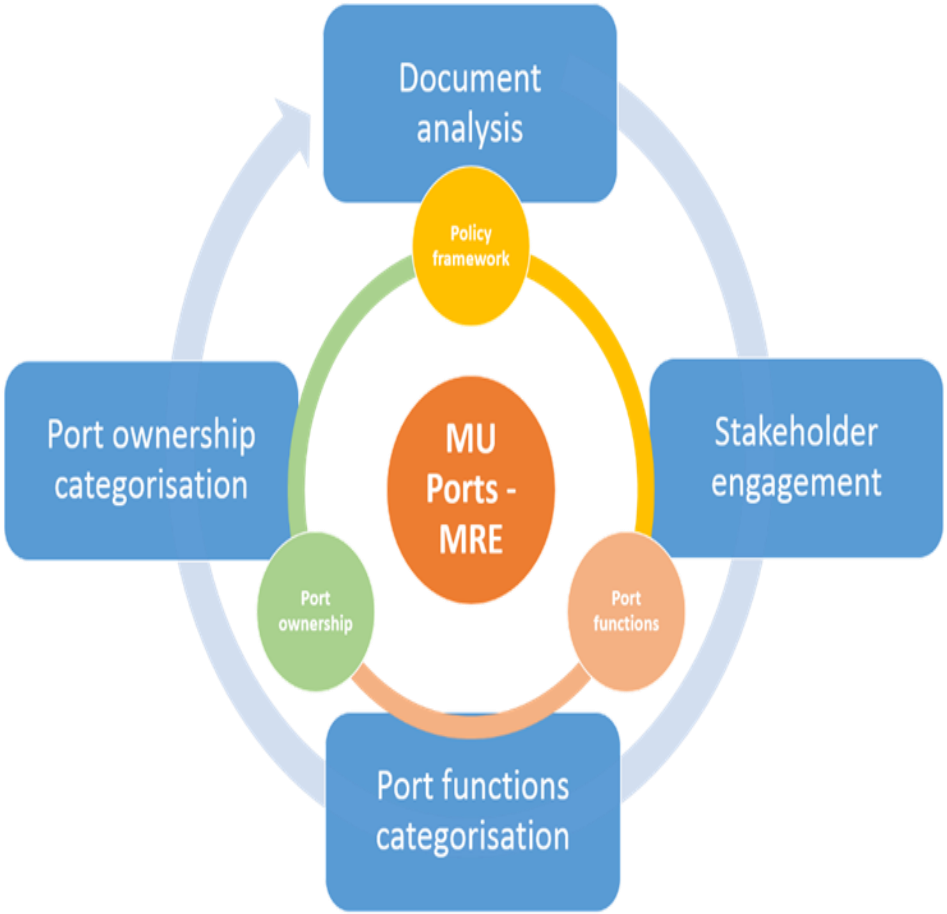


Source: J. Brandt et al., 2011: Assessment of Health-Cost Externalities of Air Pollution at the National Level using the EVA Model System, CEEH Scientific Report No 3, Centre for Energy, Environment and Health Report series, March 2011, pp. 98.
http://www.ceeh.dk/CEEH_Reports/Report_3/CEEH_Scientific_Report3.pdf

Urban hinterland – port – MRE ECOSYSTEM



Ports/MRE MU
Opportunity Space Analysis



MU = f(policy, f(n)s, ownership)

Scope:

Type of link - ports & MRE?

Btn

- port functions
- ownership
- policy

Sources of data

- UK ports

- Strategic docs: Marine Policy; Marine Safety Codes; Commercial Strategy; Economic strategy; Investment plans; Spatial planning policy; Relevant spatial plans, etc.

- Data repositories: ports directories (UK Ports, 2018); OWF directories (4C Energy portal); and databases/repositories of key institutions (e.g. TCE, 2018; Crown Estate Scotland, 2018).

- Interviews

Signposted key areas of synergy – “strategic”

- Streamlining policy objectives – RE, health, GHGs
- Cost rationalisation
- Deepen policy reach / action / output
- Systems? Urban hinterland vs marine coastal vs socio-econ & env
- Human health / welfare

Synergies: 1
Priority locations (EC, 2006)

- ***air quality limit values exceeded***
- ***high levels of noise, vibrations & nuisance***
- ***near residential areas***
- *EC, 2013: Clean Power for Transport: alternative fuels in urban areas with air pollution issues*
- Legislated Zones (e.g. ultra low emission London Zone; Clean Air Zones).

Synergies 2:
Pollution reduction targets; ports forefront of delivery

- Ships - 4% EU CO_2 in 2010
- CO_2 (per tonne/km) by 20% (2020) 50% (2050)
- Dir 2012/33/EU - sulphur content of marine fuels
- Reg (EU) 2015/757 - monitoring, reporting, verification of CO_2.