FF55: all hands at berth and on deck for efficient emission reductions for shipping

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Key points for Europe's ports

1. **Greening of shipping is a priority** for Europe's ports: **ambitious reduction path needed**
2. Greening the shipping sector means greening during navigation (up to 95% of total emissions) + at berth (5-6% of total emissions)
3. On shore power supply is **an important technology to reduce emissions at berth**
4. **Focus on places/berth/s/terminals in the port where it makes (most) sense in terms of emissions reduction**

=> Installing OPS is complex, costly, 5 years between planning and fully operational

⇒ OPS can only be installed if it is effectively used

"where it makes sense": main criteria: fully used, segment, size of ship, time at berth

5. OPS deployment has to be seen together with the availability of the grid: **scope AFIR proposal means current capacity grid x 15** (to be considered when adding other segments on top)

Key points for Europe's ports (2)

6. **Dialogue with stakeholders and users** is essential to avoid stranded assets: will they use OPS or another technology, how much power needed when at berth?

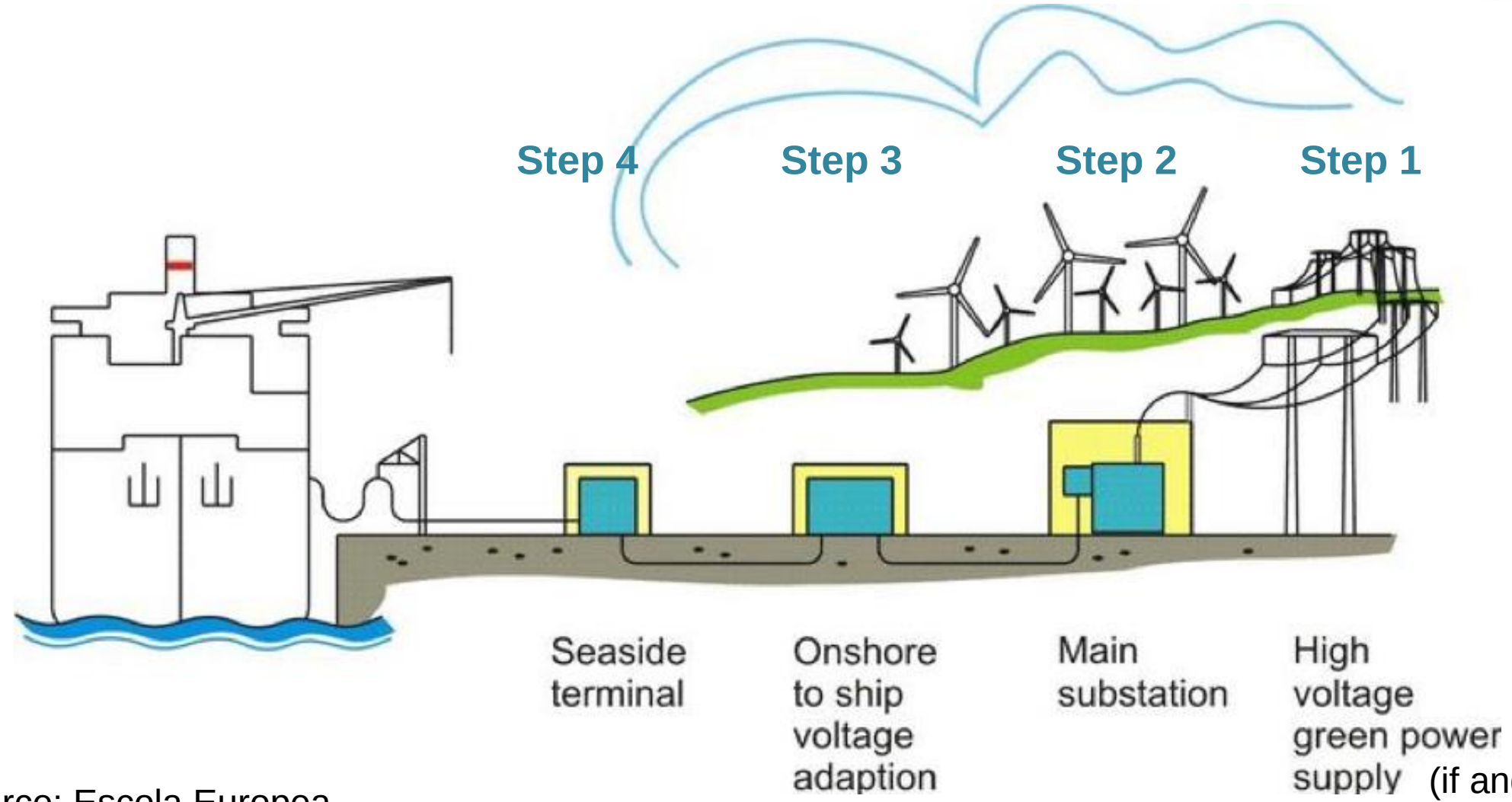
7. **Cruise** must be separate category in art. 9 (different needs, other function)

8. On **LNG**, we must move from a top down obligation to **a demand driven framework** which corresponds to the needs of LNG, but does not go beyond.

9**. Need for public funding:** there are no examples available where OPS has been deployed without public funding.

10. Pilot projects on ammonia and hydrogen in cooperation with users should be supported: too early for requirements. No idea on demand, safety aspects, needs. Will we create another chicken /egg problem?

Illustration of an SSE setup in a port



(if and where possible)

Source: Escola Europea

1. Grid + substantion +

Cables from grid to berths at port

Depending on situation/location/ capacity needed: can be very high

2. Converter

60MHz (ship)/50Mhz (EU)

Approx 1 million EUR

3. OPS installation at berth

1 to 10 mio EUR

(even up to 25 million (source INEA)

OPS on board of Ship

EUR

OPS where it makes sense

Segments:

Container => biggest emissions reductions (are often longer at berth)

Passenger => berth near city centres, regular users, making it more easy

Cruise => a lot of emission savings possible at berth, berths near cities

Size: support for 5000 GT and more: covers 90% of all emissions

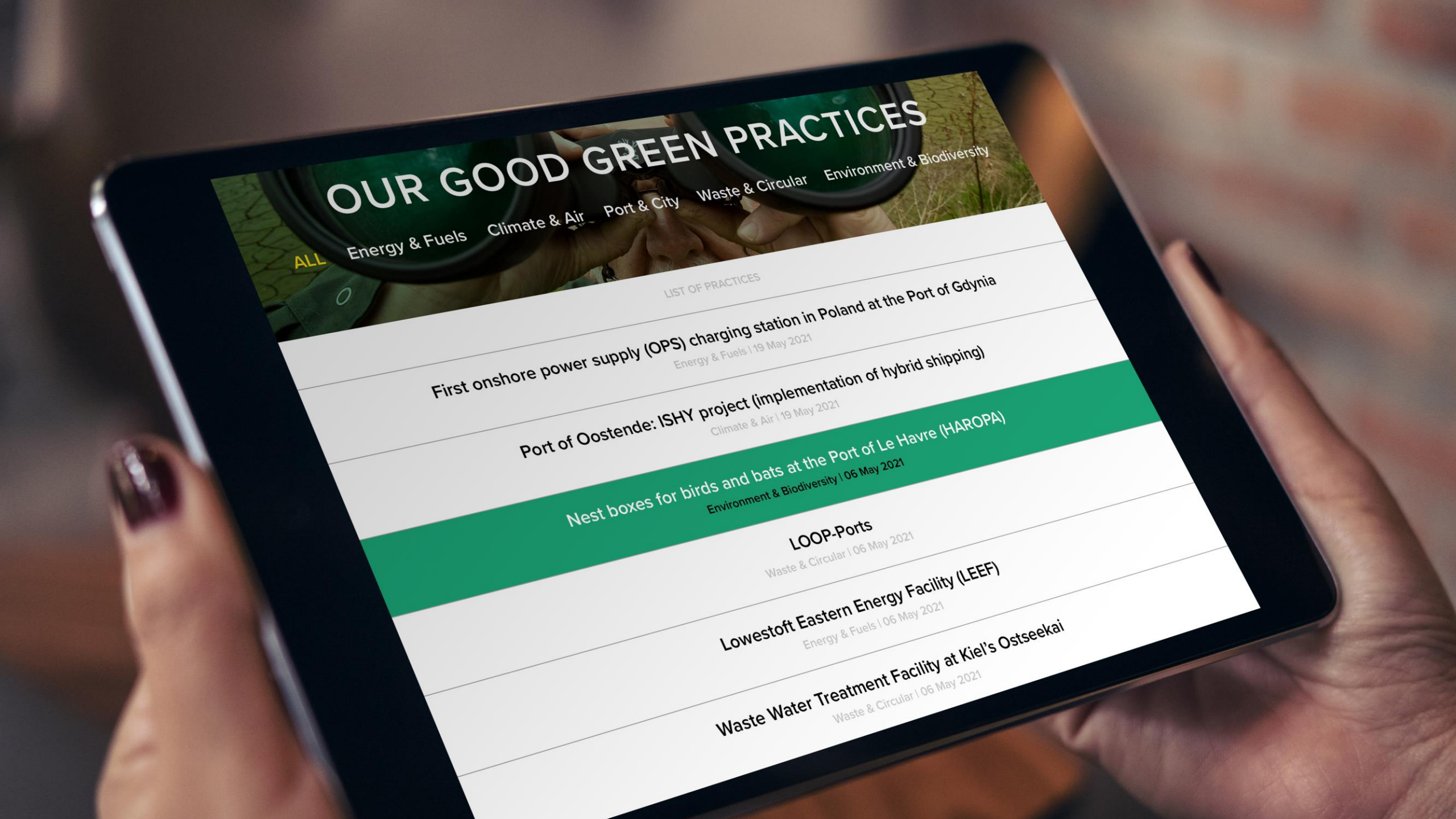
Lowering to 400 GT? Limited gains in emission reduction (do not stay long at berth) whereas:

- Doubles/ Triples even in some cases the amount of berths that have to be equipped,
- Requires other (additional) OPS installation (low voltage) on top of high voltage,
- smaller size segment will sooner have alternative technologies,
- increases operational and technical complexity at berth a lot (risk of congestion),
- Increases the amount/investments in connecting points + cabling to these points massively.

ESPO's proposal: prioritise OPS to capture as many emissions ats possible

- Support for Commission proposal on segments
- Count scope on the basis of calls/terminal: avoid underused terminals or terminals not used by the segment prescribed by the legislation
- Obligation to use when OPS is available both at berth and on board
- Dialogue with users to avoid stranded assets
- Flexibility: ports should be supported in their roadmap/tailor made assessment of where OPS makes most sense: support needed, also if other segments beyond the requirements are addressed.
- Funding: min. 50% co-funding needed

All hands at berth and at deck needed to reduce shipping emissions!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First onshore power supply (OPS) charging station in Poland at the Port of Gdynia
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Port of Oostende: ISHY project (implementation of hybrid shipping)
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Nest boxes for birds and bats at the Port of Le Havre (HAROPA)
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