SUSTAINABLE WATERWAY TRANSPORT, CLEAN AIR

On Shore Power Energy Scan

SUSTAINABLE WATERWAY TRANSPORT, CLEAN AIR

Why:

- Low OPS utilization rate
- Create positive impact
- Learning by doing
- Disseminate learnings
- Incompatibility ship-shore (ISO standards)

SUSTAINABLE WATERWAY TRANSPORT, CLEAN AIR

Phase 1:

- Open call to skippers to participate
- OPS & Energy consultant is assigned

Phase 2:

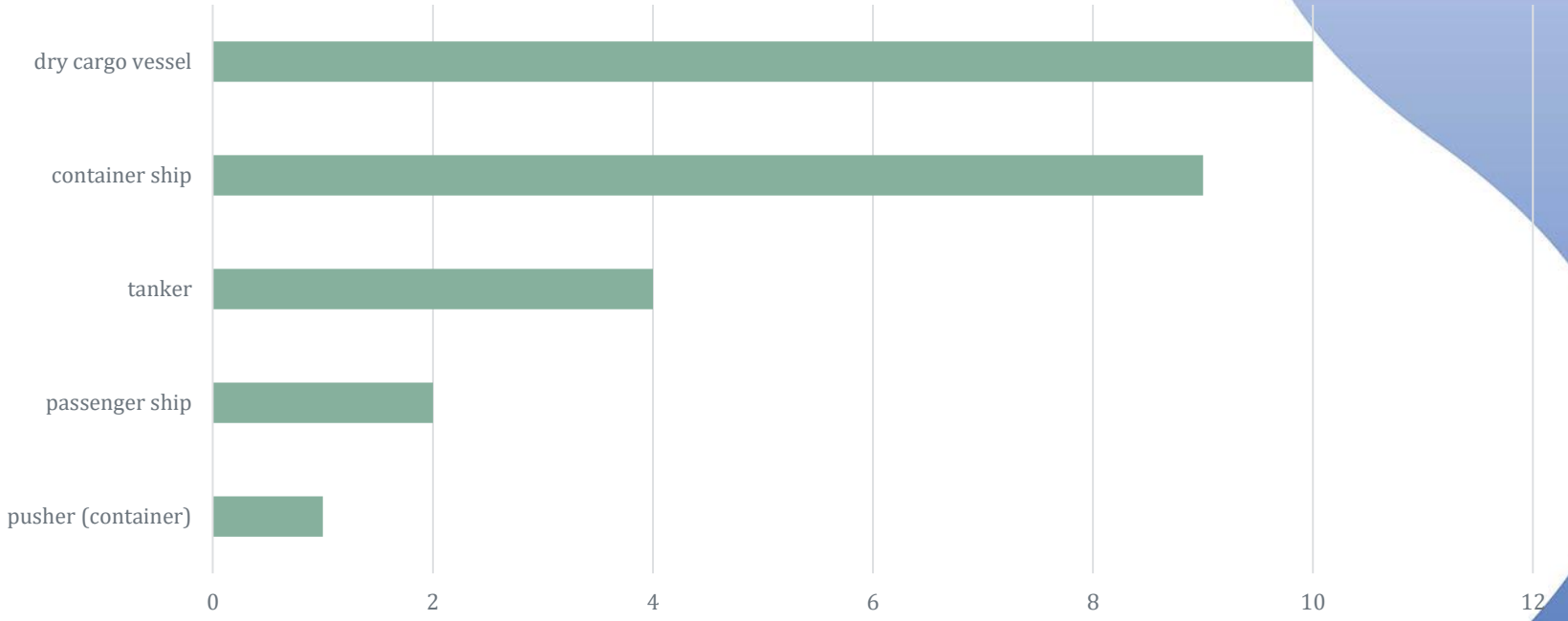
- Execution of approximate 26 energy scans
- Drafting of dissemination document
- Feed-in CLINSH Best Practice Guide

Phase 3:

- Communication campaign based on insights of 26 energy scans
- General message: “these are 5 most advisable actions that can save you energy on board your ship”

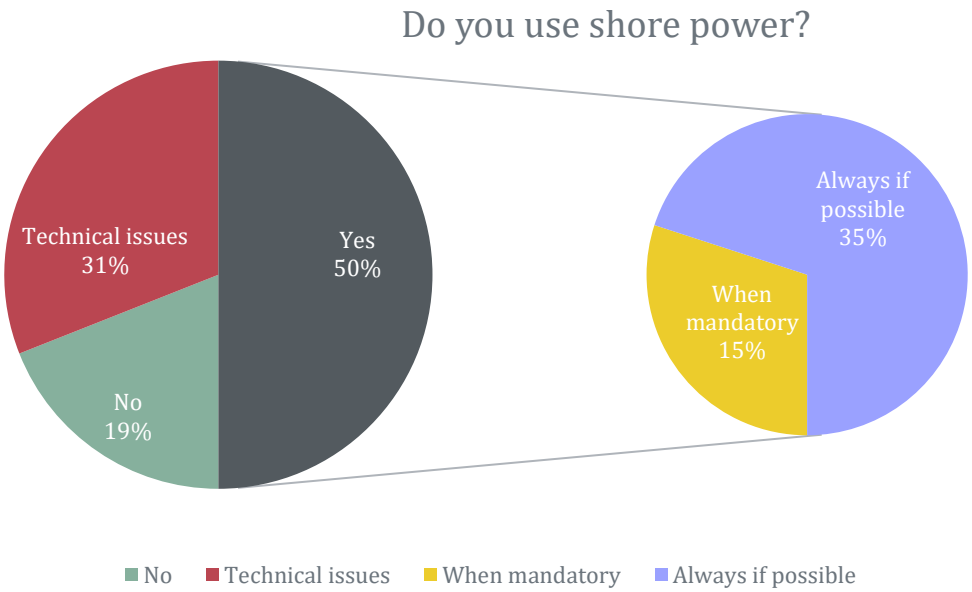
SUSTAINABLE WATERWAY TRANSPORT, CLEAN AIR

Inventory: ship type



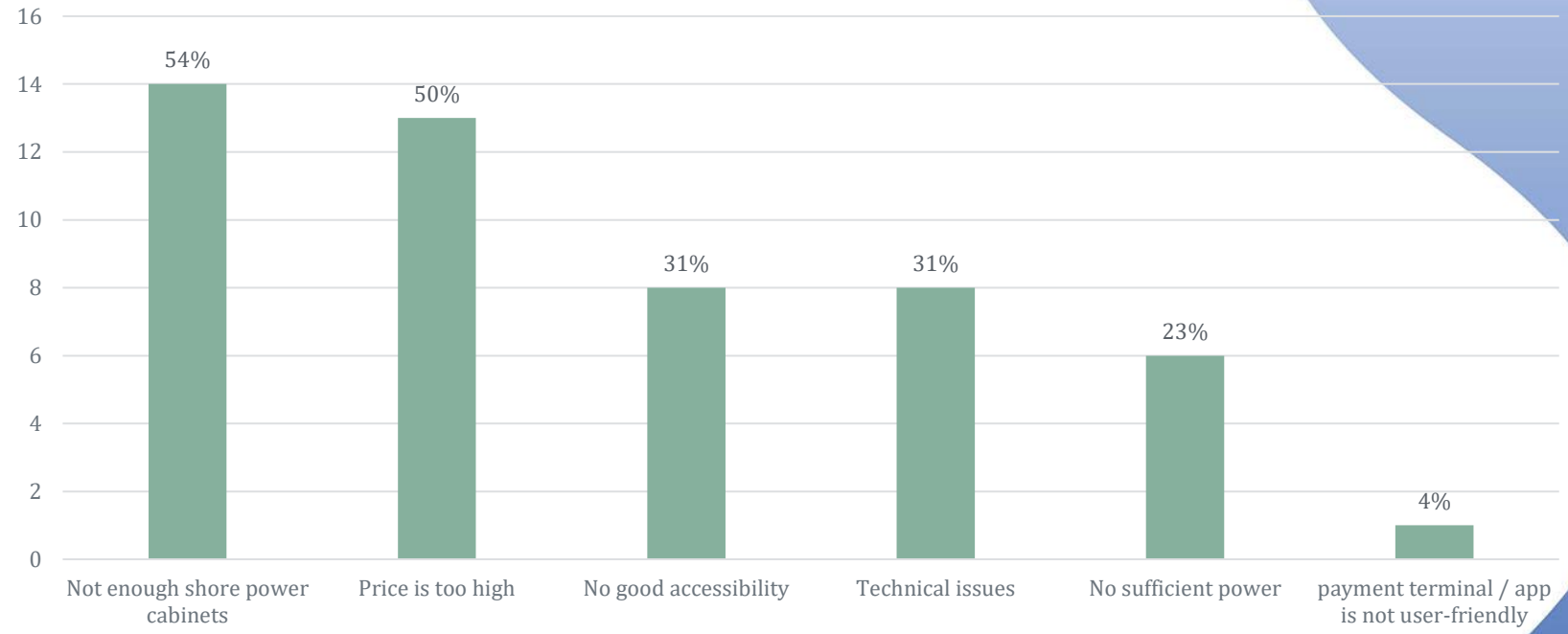
SUSTAINABLE WATERWAY TRANSPORT, CLEAN AIR

Shore power: user experience



SUSTAINABLE WATERWAY TRANSPORT, CLEAN AIR

Shore power: user experience



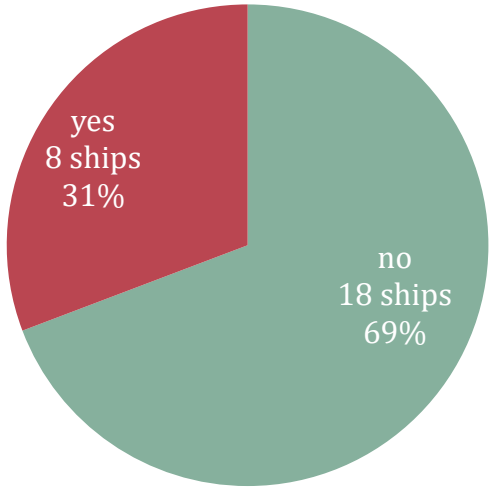
SUSTAINABLE WATERWAY TRANSPORT, CLEAN AIR

Technical obstacles shore power use

The most common technical infringements are:

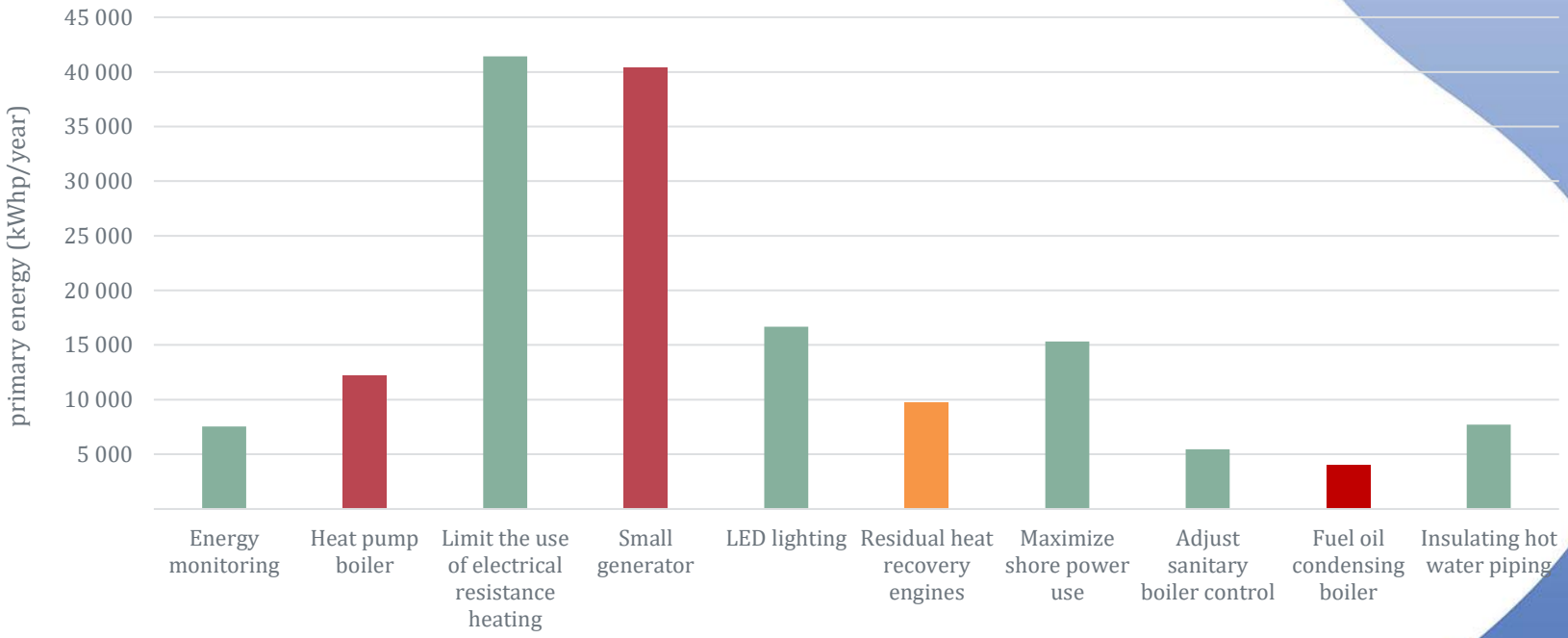
1) No isolation transformer (54% of the ships)
2) No IP67 shore power cable/plug (42% of the ships)
3) No soft start switch (peak current) (15% of the ships)

Conform NBN-EN 15869-3:2019?



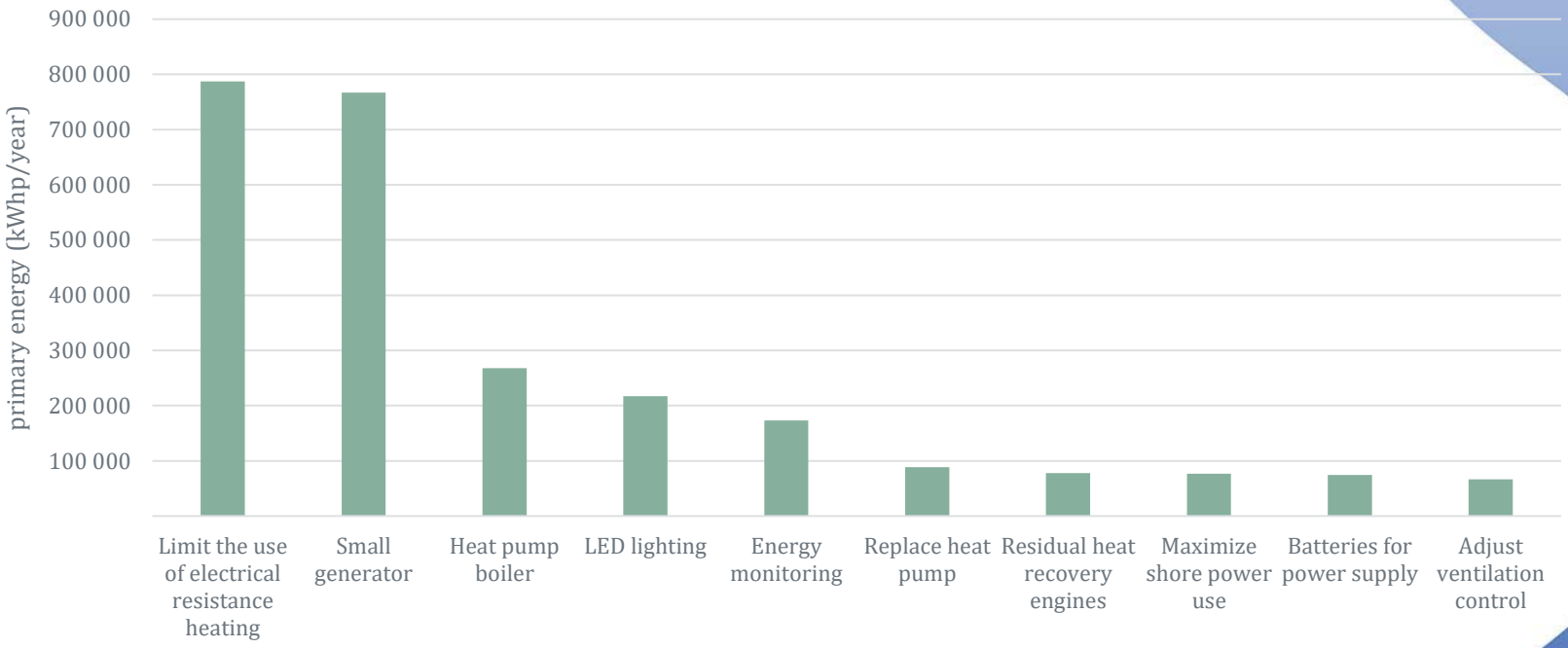
SUSTAINABLE WATERWAY TRANSPORT, CLEAN AIR

Energy savings on board: measurements



SUSTAINABLE WATERWAY TRANSPORT, CLEAN AIR

Energy savings on board: measurements



SUSTAINABLE WATERWAY TRANSPORT, CLEAN AIR

Energy savings on board: summary