

Finding space for offshore wind to support net zero

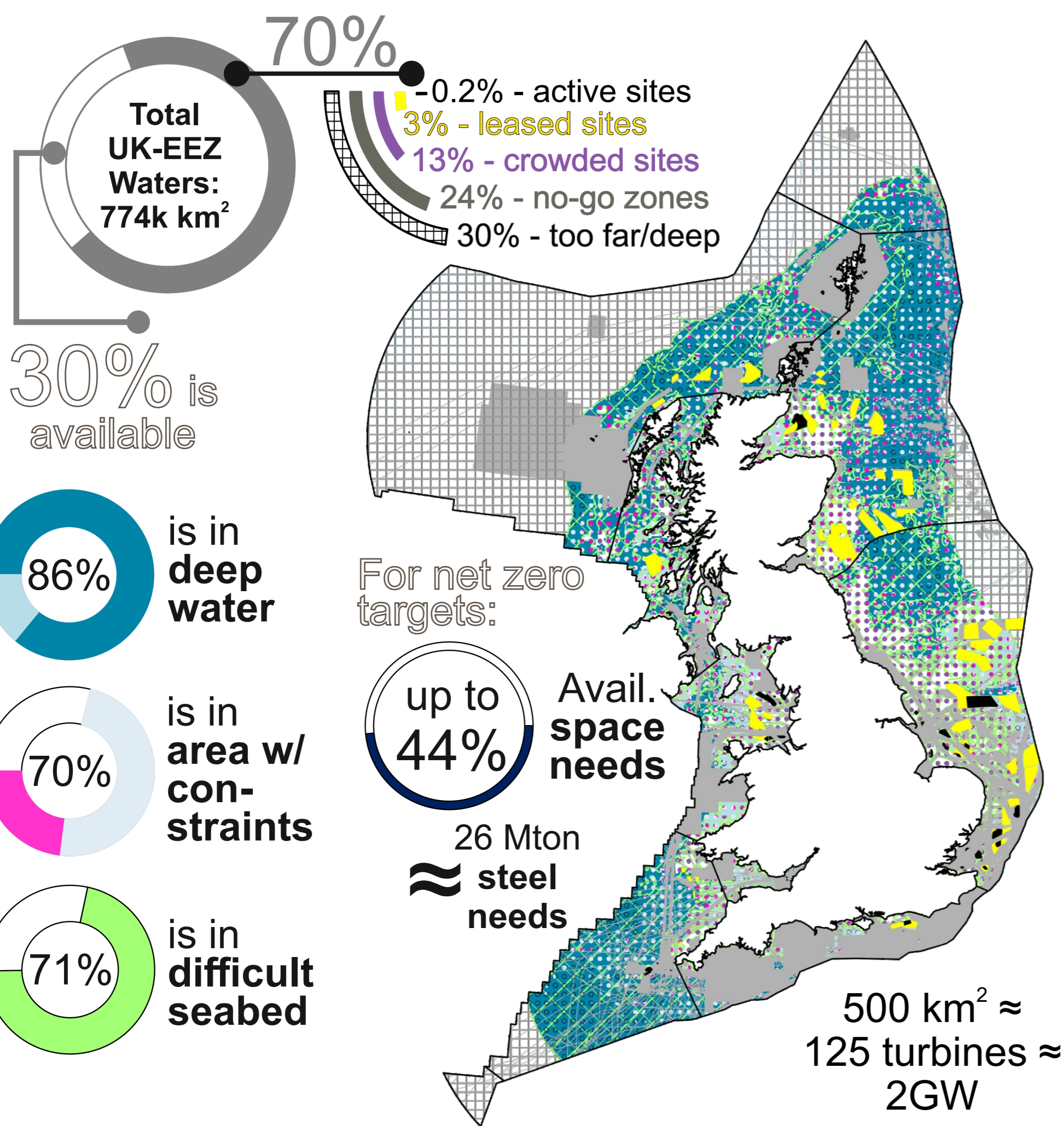
Hugo Putuhena University of Southampton, UK, h.s.putuhena@soton.ac.uk, <https://www.southampton.ac.uk/iroe>

Net zero targets

- Current leased sites [■] for offshore wind have used ~3% of space in the UK-EEZ waters
- To meet the net zero targets, the space for offshore wind needs to be increased by 2-5x

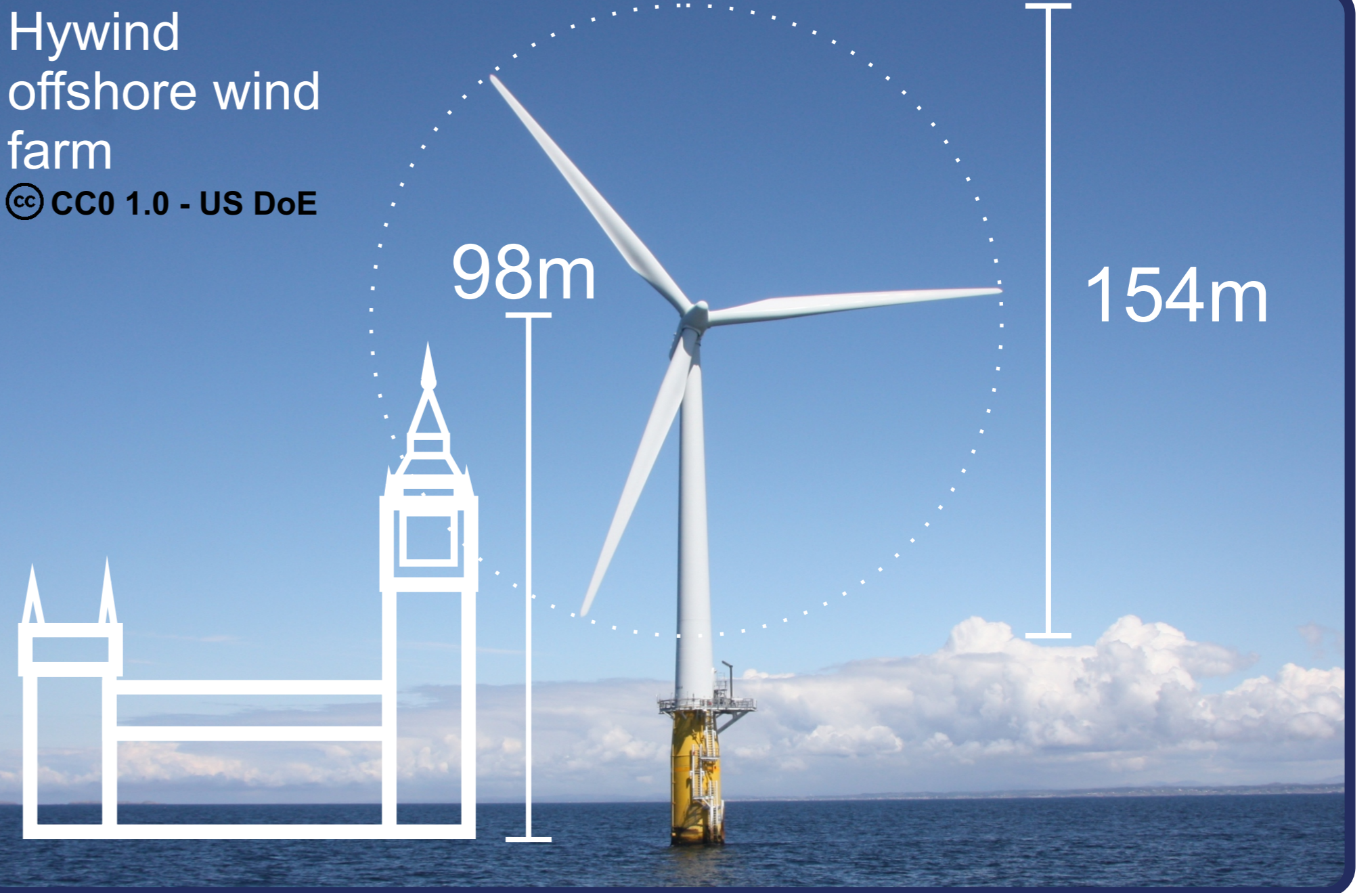
UK waters are a busy space

- 70% is not available: leased sites [■], area w/ more crowded constraints [●], no-go zones [■], or too deep or too far [■]
- 34 spatial constraints have been identified



Hywind offshore wind farm

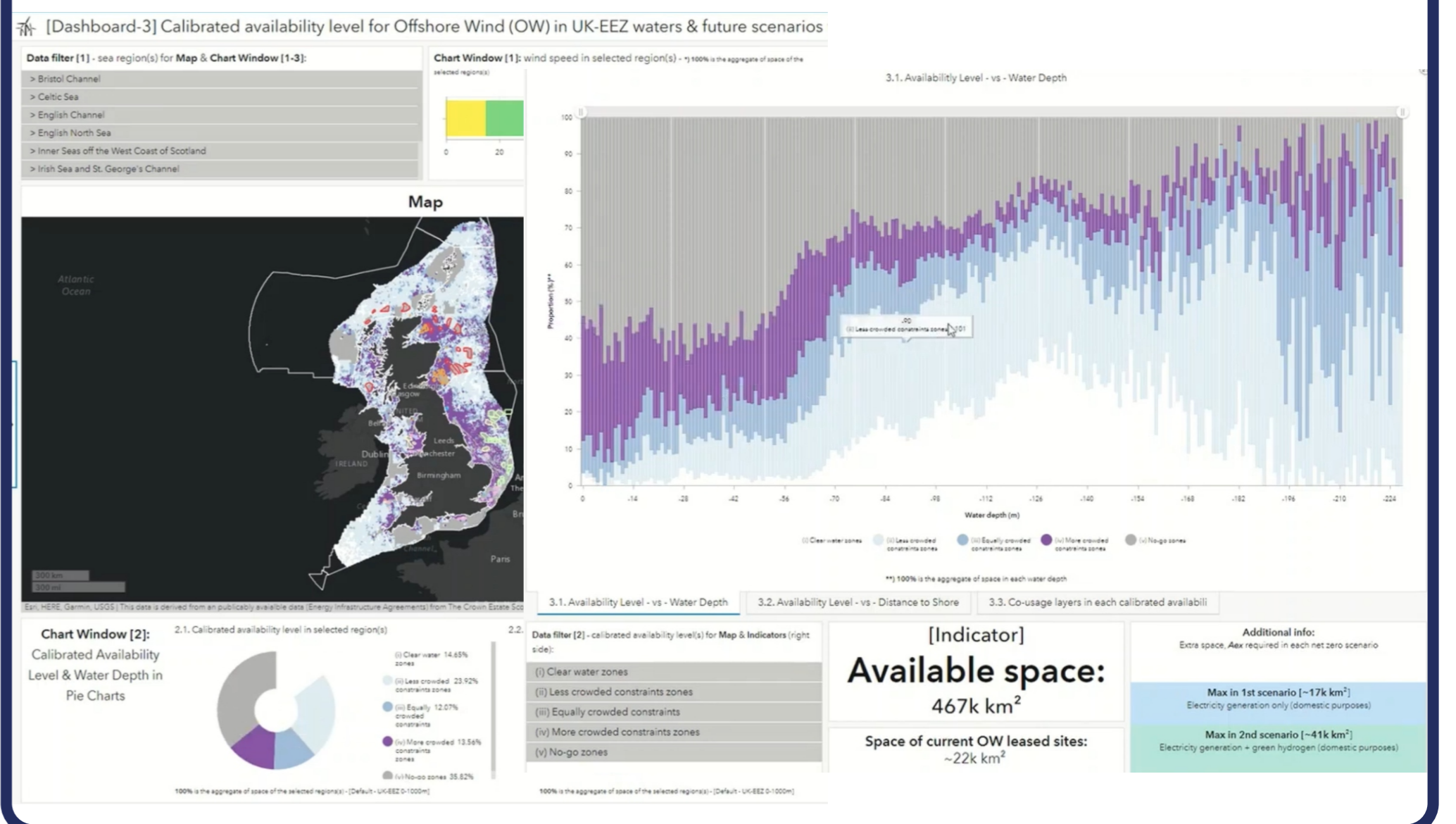
CC0 1.0 - US DoE



Available spaces in UK waters

- >40% of available spaces will be needed: either in clear water [○], area w/ less [○] or equal [●] crowded constraints
- Most of available UK waters 'deep' (60-227m) [■] - needing floating offshore wind
 - Some spaces are located in difficult seabed [■]

Open-access dashboards



Future challenges

[1]

Cumulative effects on marine ecosystems

[2]

Deeper water & further from shore

[3]

Demands on supply chain

Addressing challenges

R&D + collaboration

Scan for more:

