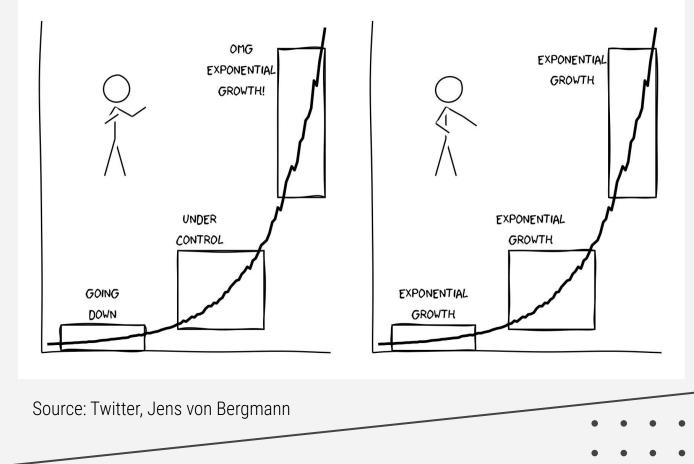
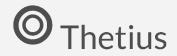




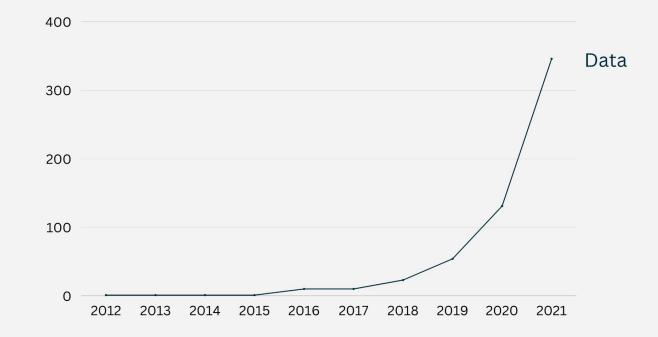
## PUBLIC HEALTH

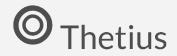




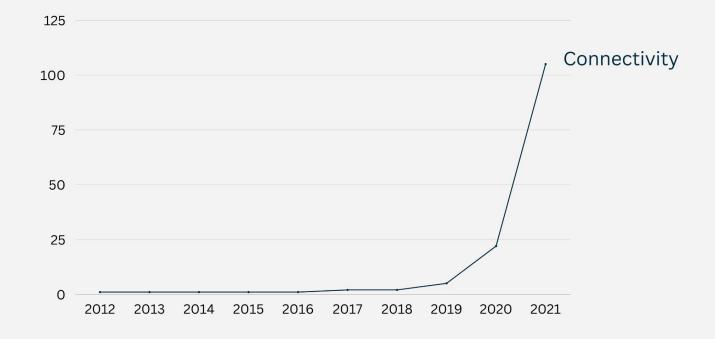


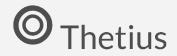
Thetius IQ signals. Market announcements related to data and analytics 2012 - 2021



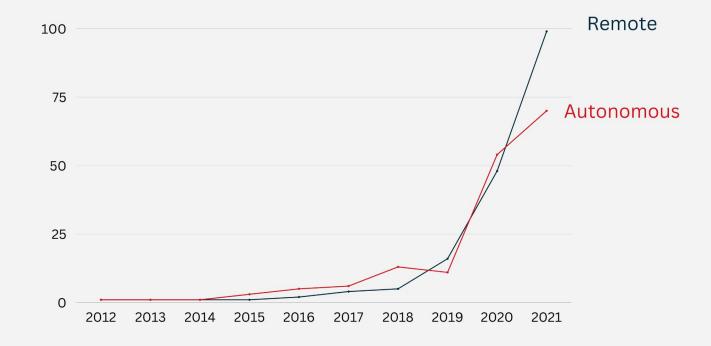


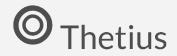
Market announcements related to vessel connectivity 2012 - 2021



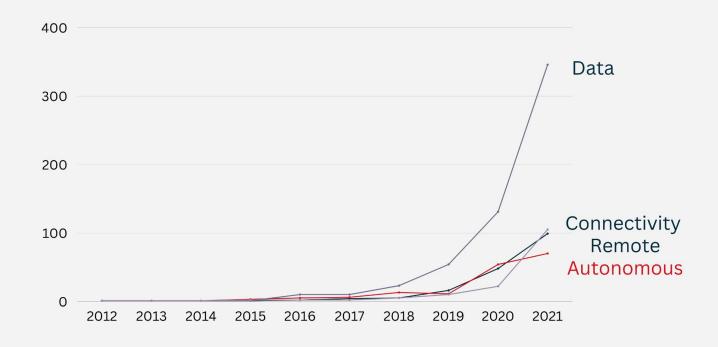


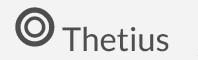
Market announcements related to remote and autonomous vessel operations 2012 - 2021



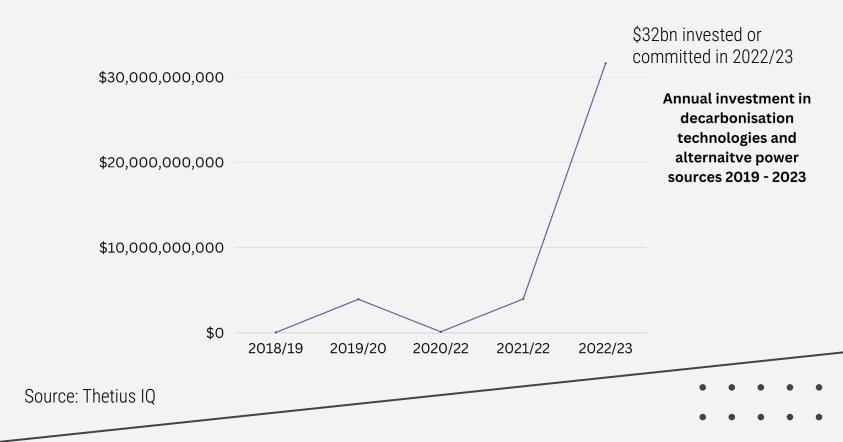


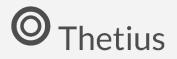
Combined graph showing market announcements related to data, analytics, connectivity, remote and autonomous operations 2012 - 2021





\$40,000,000,000



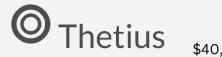


#### Enablers **Buyers** Suppliers BAR bub BREEZE Carbon Sink CARNOT 报商局 (些 CABB 任 ) PIDCADTIER Supplier/Enablers Fortescue PABS DNY R IN UN LAND IN DOGIN. MARYAGENE @ 1997 2 Analysian MOVE -terContinental R KYUDEN <u>.</u> 👷 🚇 NORRELE 🔊 🚺 🥜 🕺 🕅 💵 🚈 🛞 🔒 PCC/ Supplier/Buyers (A)-----REPIL LORGER CON CONTRACTOR CONTR 🖬 Langh 🕅 🧶 Orsted PANASIA PaxOcean DUCC CSSC See/ Sectory StormGeo **Buyer/Enablers** SURGES SUSEVE TITAN THE AND A VENTER WALTERUS WALTERS смасом 🌠 🕁 🔣 ----Port de Barcelope

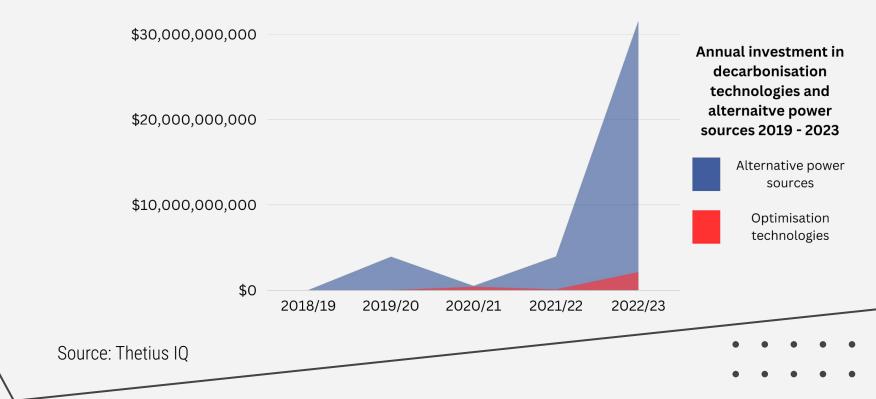
Source: Maritime Decarbonisation Technology Outlook, H1 2023, Thetius

## Decarbonisation Market Map 2022 / 2023

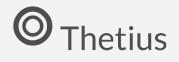
• • • • •

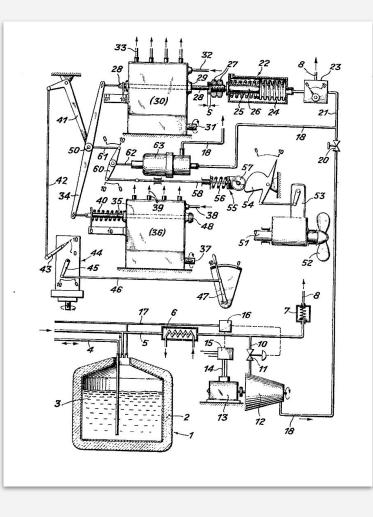


\$40,000,000,000









Source: Patent no. GB1325349A priority 1969

#### Explore CO, savings by ship type and port

Simulated savings with BVS

**Median CO<sub>2</sub> savings by ship group** Click to select a group.

#### 14.5 %

All ships (92279 voyages)

#### 13.8 %

Large bulkers (10582 voyages)

#### 15.0 %

Small bulkers (30825 voyages)

#### 10.4 %

Crude oil tankers (1689 voyages)

#### 14.9 %

Product tankers (46139 voyages)

#### 11.1 %

Other ships (3044 voyages)

### Median $CO_2$ savings by port for all ships

Click to select a port.



#### WINDWARD

Enter IMO:

1234567





# E

Today's fuel consumption 09 Apr 2022 12:00 at sea

a relation and the second s

6.1 t

 I26 t

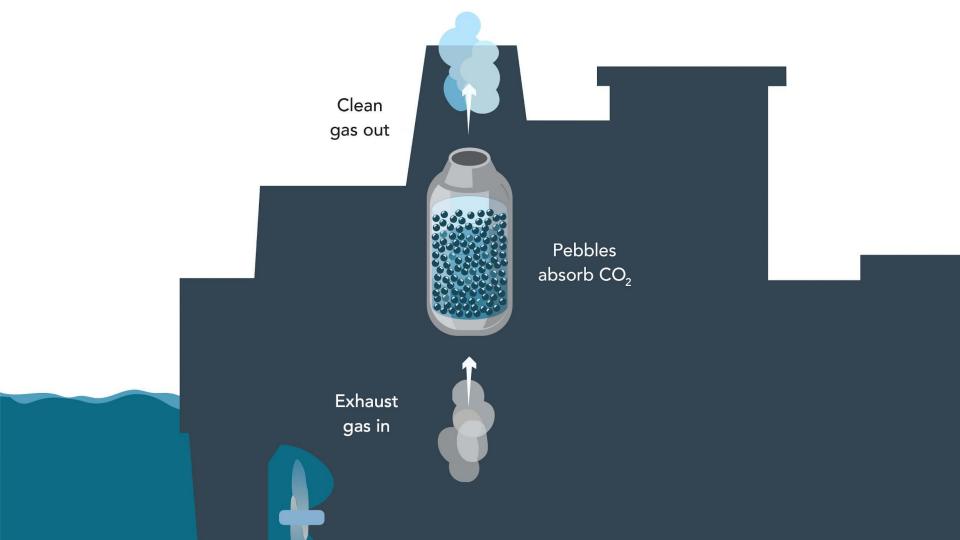
 Total fuel con. since departure

 LAT
 LONG

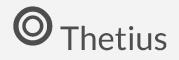
 5°59'16.8"N
 87°04'40.8"E

or Person and Labor









- We have hit a major inflection point in investment in decarbonisation technologies. You need to be ahead of the curve or you may be left behind.
- Even so, it will take many years for alternative fuel infrastructure to be widely available.
- There is a real danger that we are under-investing in optimisation and retrofit technologies, making it highly likely that we will miss the 2030 targets

Nick Chubb Managing Director

nick@thetius.com +44 (0) 7449 965 499