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TRAFIC - Marine TRAnsportation, port Frequentation and environmental Inequalities in the Caribbean

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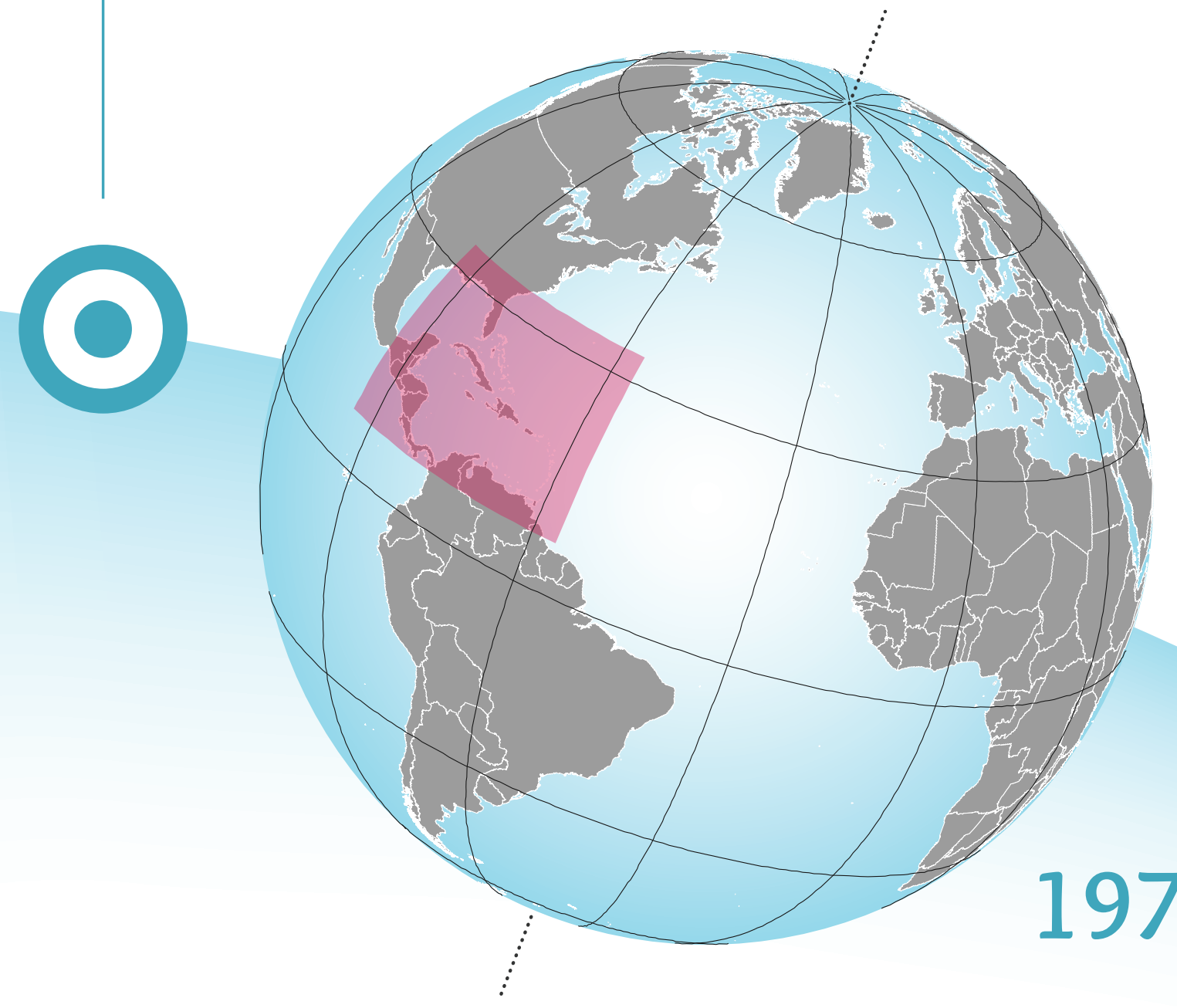
<https://shs.hal.science/halshs-02320491>

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Background



1975 • 2035

The contribution of global shipping to GHG emissions has grown steadily since the 1970s.

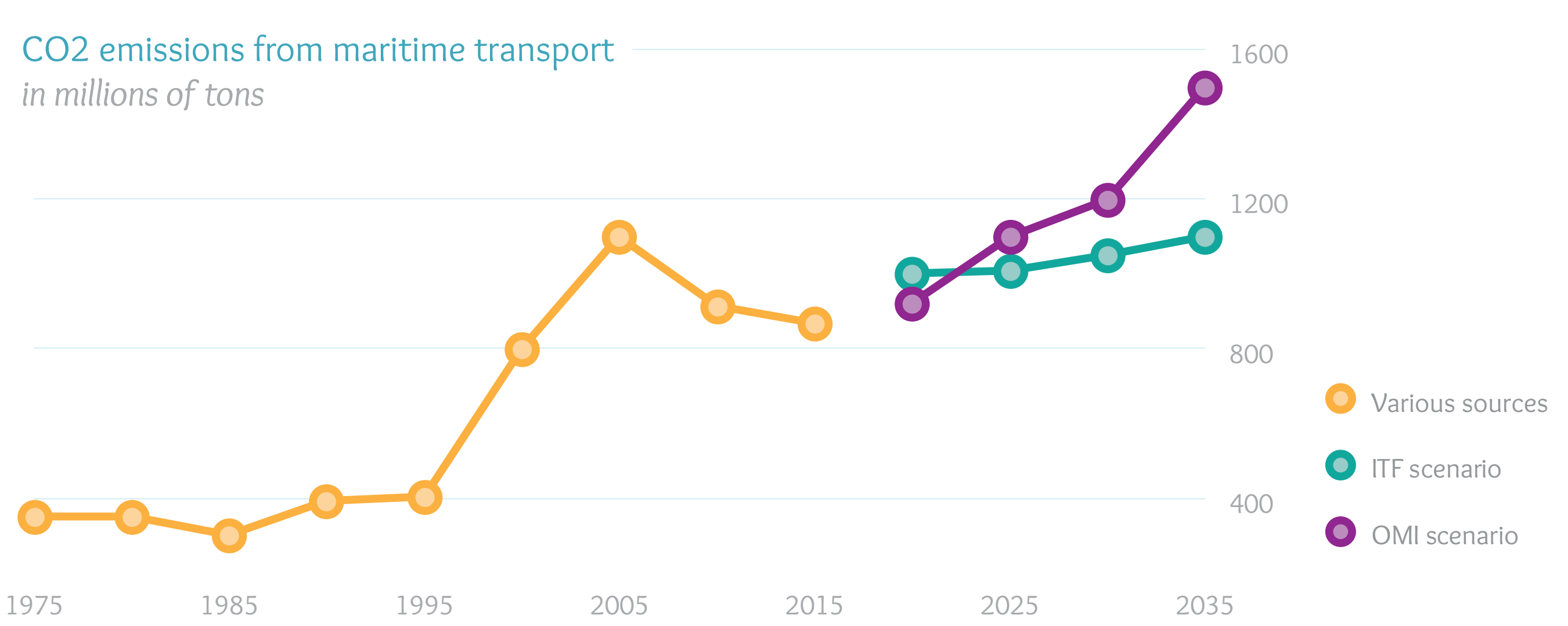
In contrast to international recommendations on climate change, the outlook for 2035 shows exponential growth in emissions in absolute terms.

Issues related to ship emissions are now the top environmental priorities for European ports.

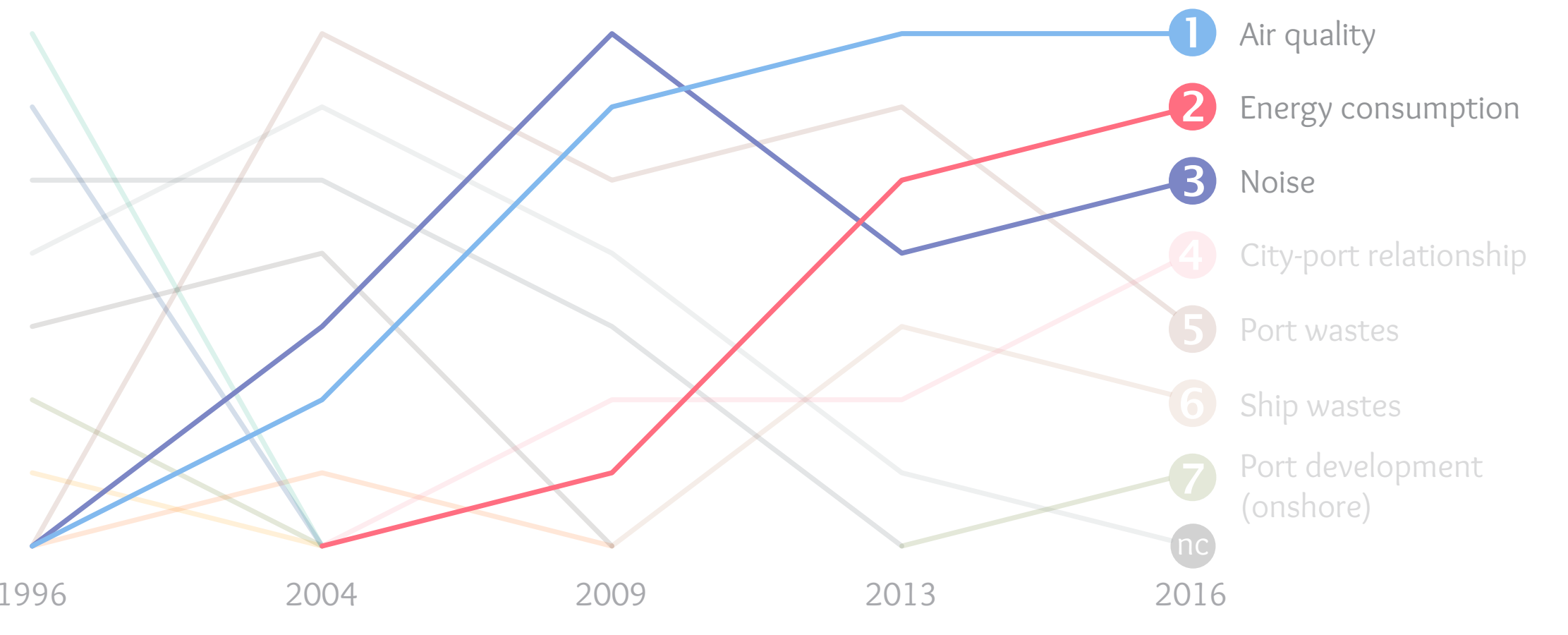
1996 • 2016

2019

AIS data help to reconstitute the spatiotemporal organization of marine traffic and port frequentations. They reveal the nature and the density of marine traffic in the Caribbean région.



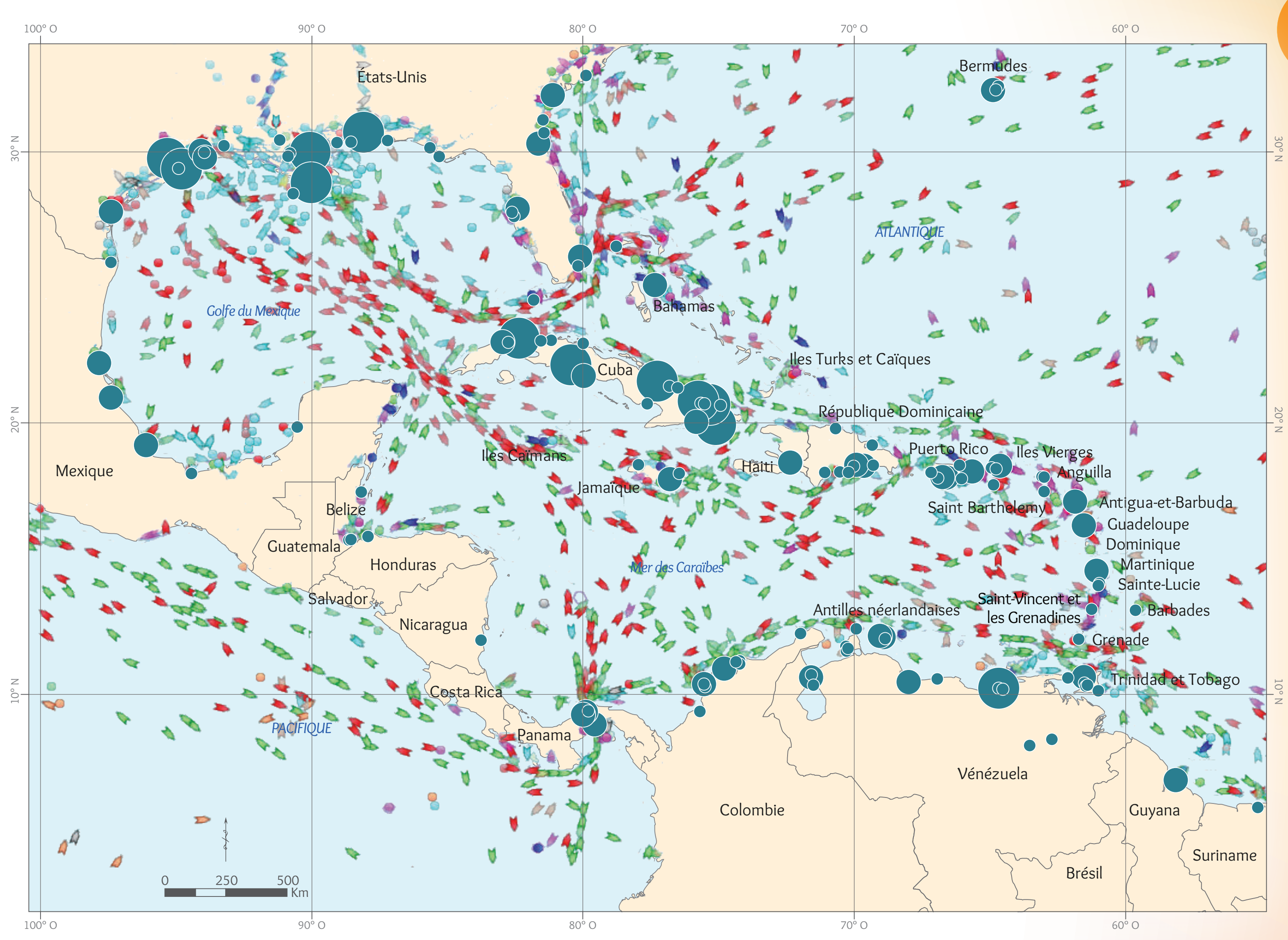
Evolution of the environmental priorities of ESPO ports (European Sea Ports Organisation)



QUESTION ?

Do areas under environmental jurisdiction have an influence on the organization of marine traffic?

- 1997 Creation of Emission Control Area (ECA, Annexe VI Marpol convention)
- 2007 • 2016 Widening of the Panama Canal
- 2010 Creation of the AGOA sanctuary



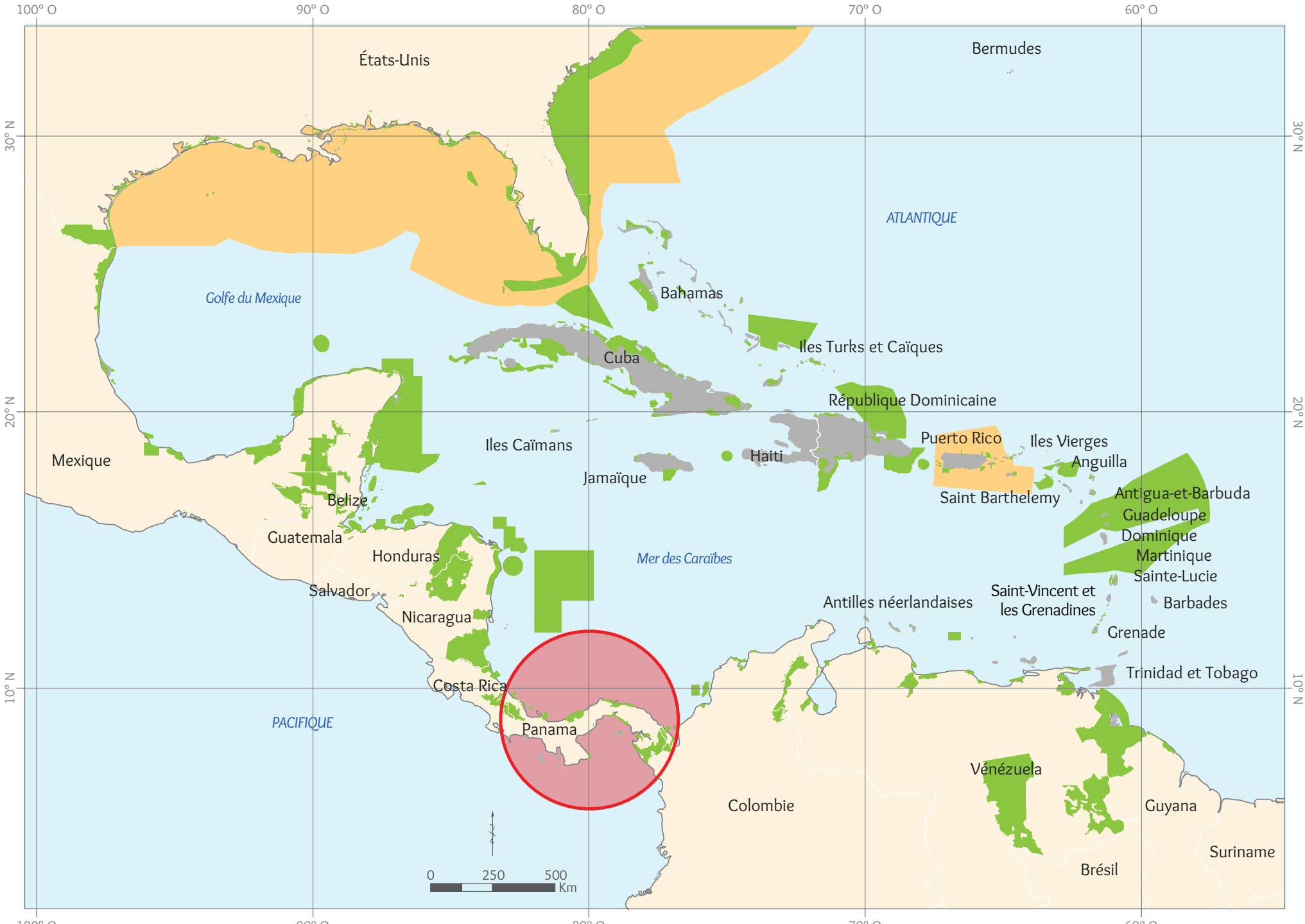
Vessel location by AIS positioning data, April 18, 2019 at 16:07 (source Marine Traffic)

AIS

- Tanker
- Cargo
- Fishing vessel
- Tugboat
- Passenger vessel
- Recreational craft

Ports of the Caribbean

- LARGE
- MEDIUM
- SMALL



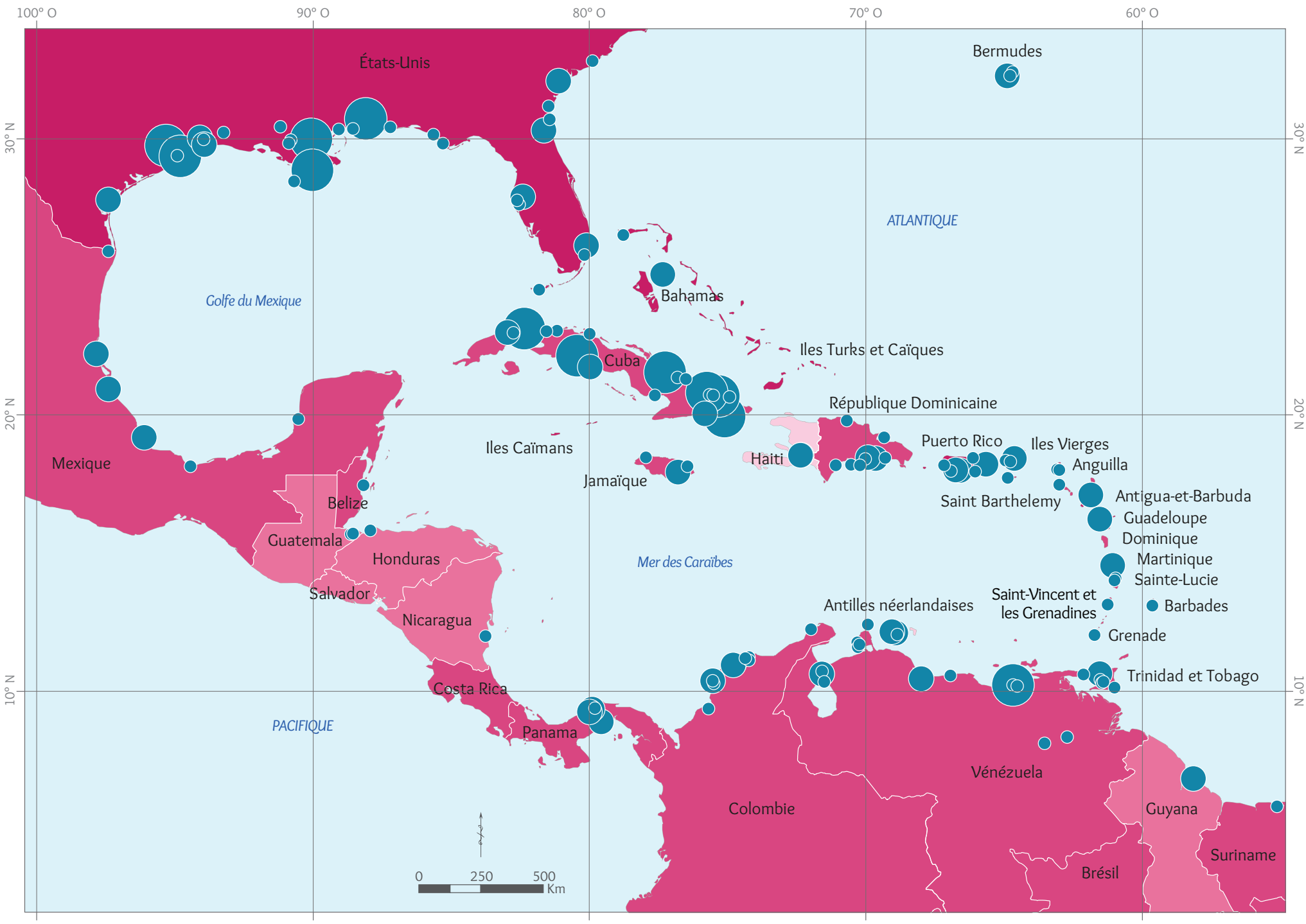
ECA

Panama Canal

Marine Protected Areas

QUESTION ?

Do level of development and marine traffic generate environmental inequalities?



Ports of the Caribbean

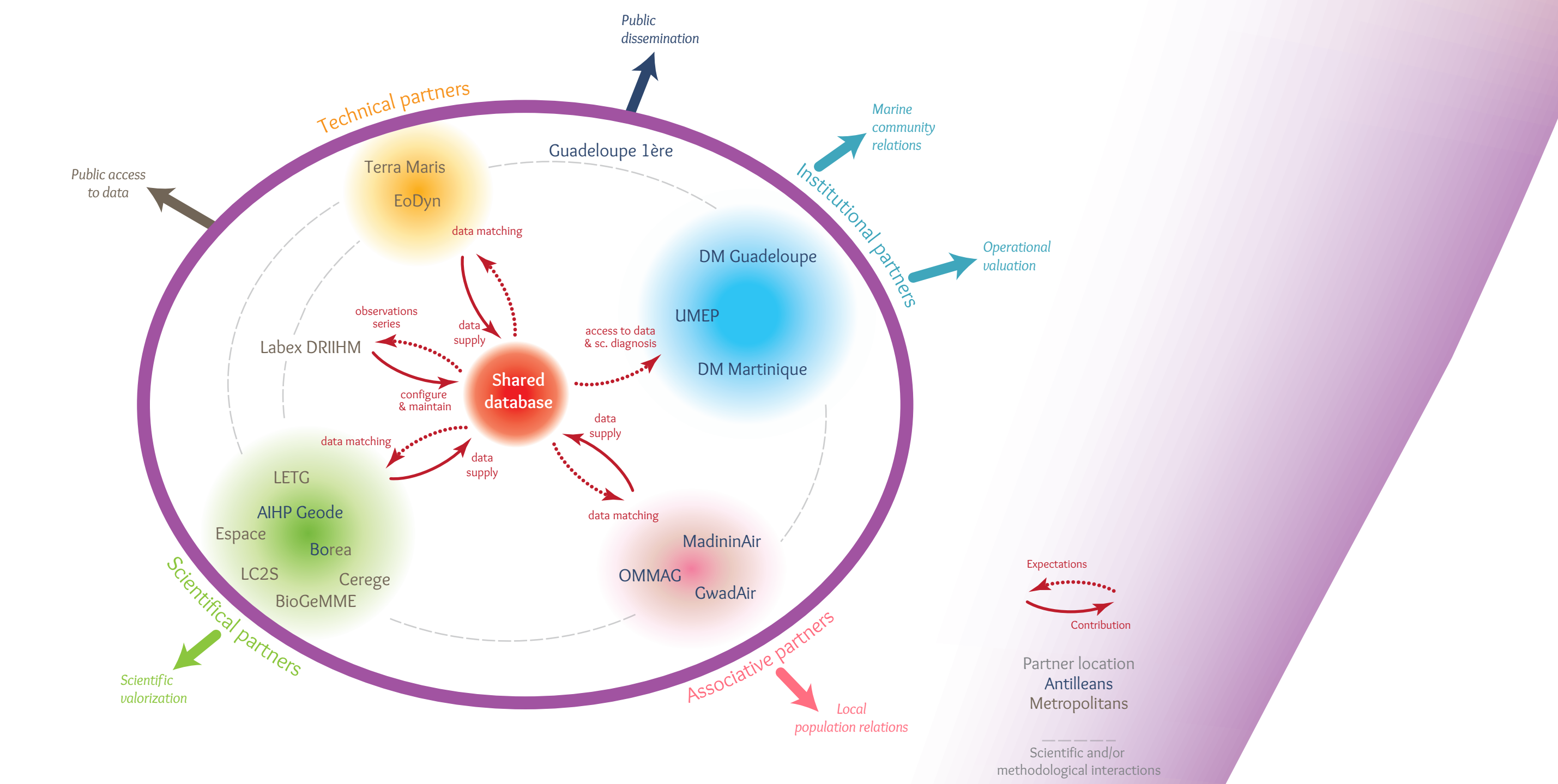
- LARGE
- MEDIUM
- SMALL

Human Development Index

- 0 - 0,5
- 0,5 - 0,6
- 0,6 - 0,7
- 0,7 - 0,8
- 0,8 - 1

METHOD

TRAFIC is a collaborative, interdisciplinary and interinstitutional project supported by the Fondation de France (2020-2022). It aims to create a suitable geographic database for analyzing human-environment interactions related to marine traffic.



Organizational chart of the partnership relations of the TRAFIC project