BREAKOUT SESSION #2

Sustainable transport

European Commission | #CE4EUislands

AGENDA

11:30 – 11:45	***Welcome and objectives of the session***
11:45 – 11:55	***The big picture: transport GHG emissions and emission reduction options***
11:55 – 12:40	***Transport case studies from the 30 for 2030 islands and Q&A*** • Opportunities and challenges to decarbonise transport in West Estonian islands **Ingrid Piirsalu**, Estonian Islands Energy Agency • Hybrid and hydrogen ferries in Giglio and Giannutri and Swedish small islands **Stefano Barberis**, Blue Energy Revolution • Sustainable Transport: challenges and opportunities for Azorean electric power systems **Fernando Henriques**, EDA – Electricidade dos Açores, S.
12:40 – 13:20	***Sharing insights to address island transport challenges***
13:20 – 13:30	***Take the temperature: what have we learned and closing remarks***

The big picture

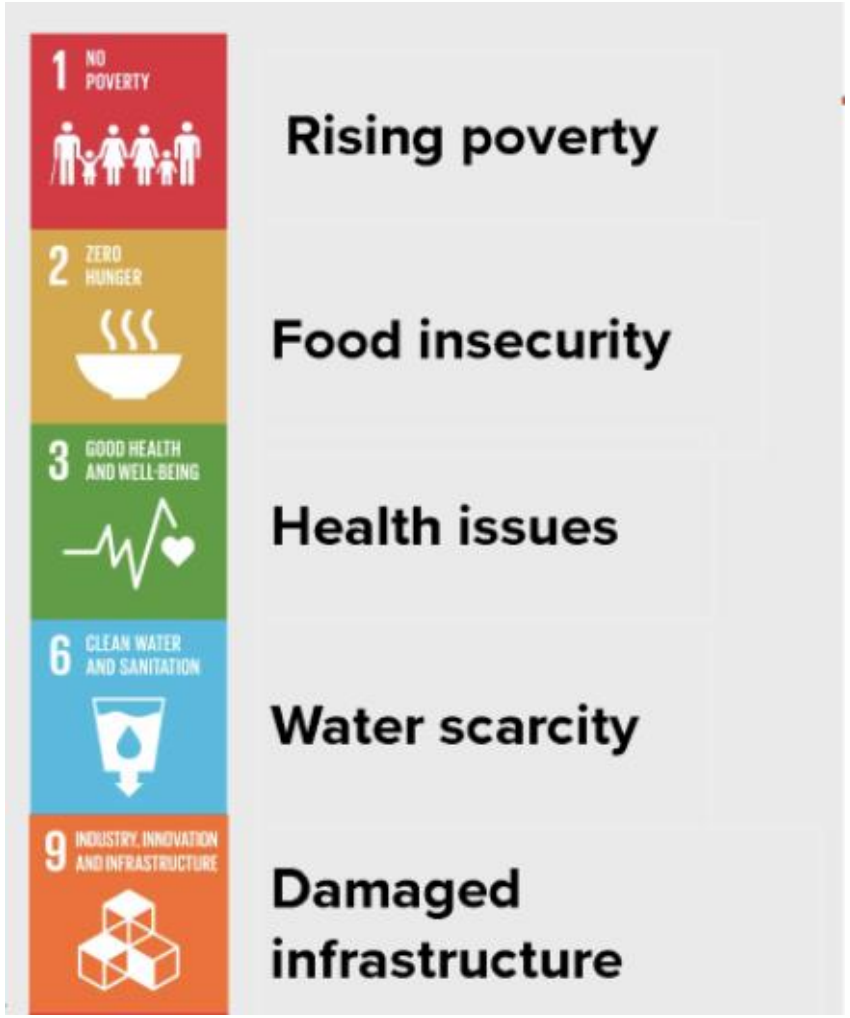
The indispensable transformation of the transport sector

European Commission | #CE4EUislands

Why do we need to transform the way we move?


Climate
Change

Risks for sustainable development



UN environment programme

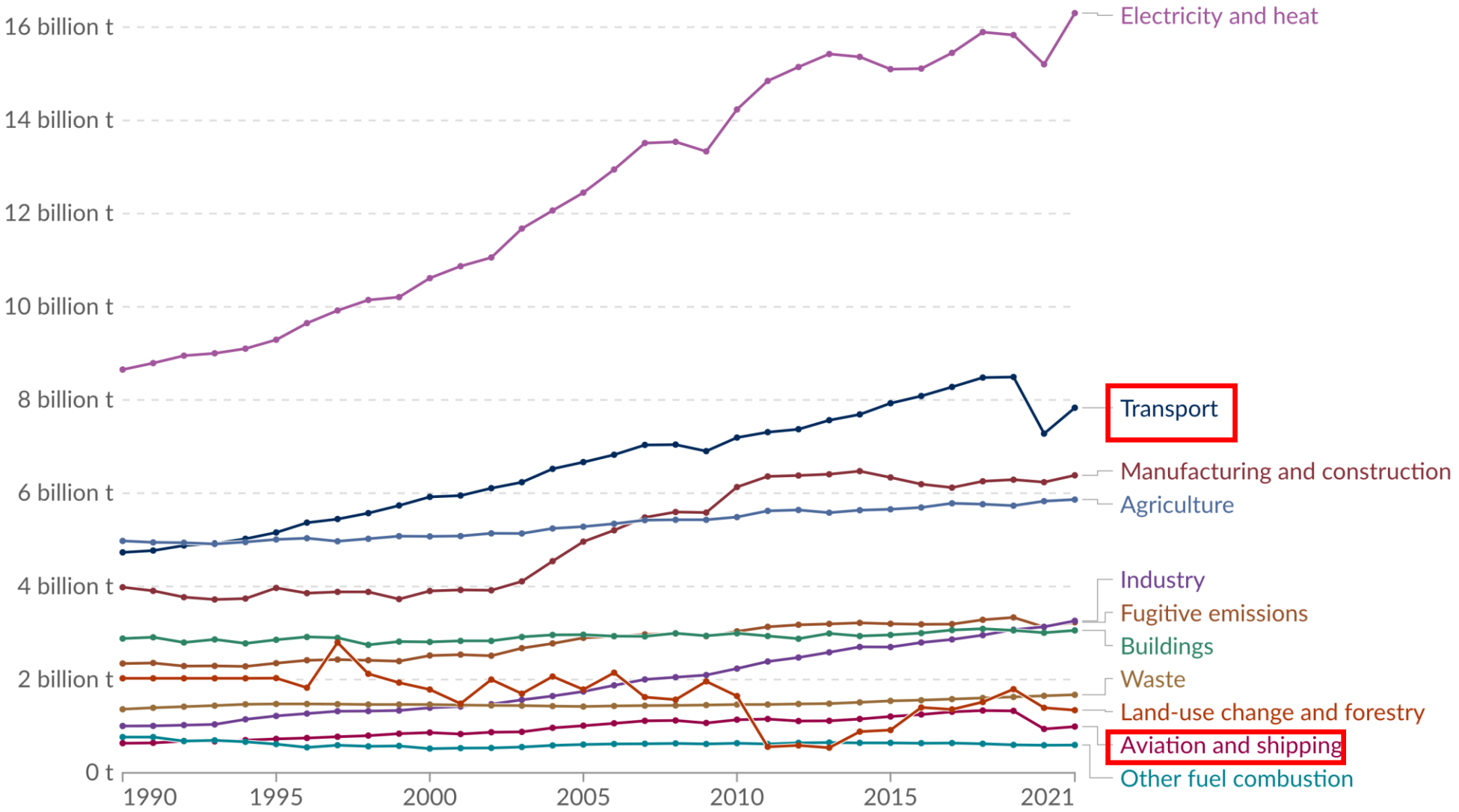
Underfinanced. Underprepared.

Inadequate investment and planning on climate adaptation leaves world exposed

Greenhouse gas emissions by sector, World

Our World in Data

Greenhouse gas emissions[1] are measured in tonnes of carbon dioxide-equivalents[2] over a 100-year timescale.



Data source: Climate Watch (2024)

OurWorldinData.org/co2-and-greenhouse-gas-emissions | CC BY

Note: Land-use change emissions can be negative.

Greenhouse gas emissions by sector, European Union (27)

Our World in Data

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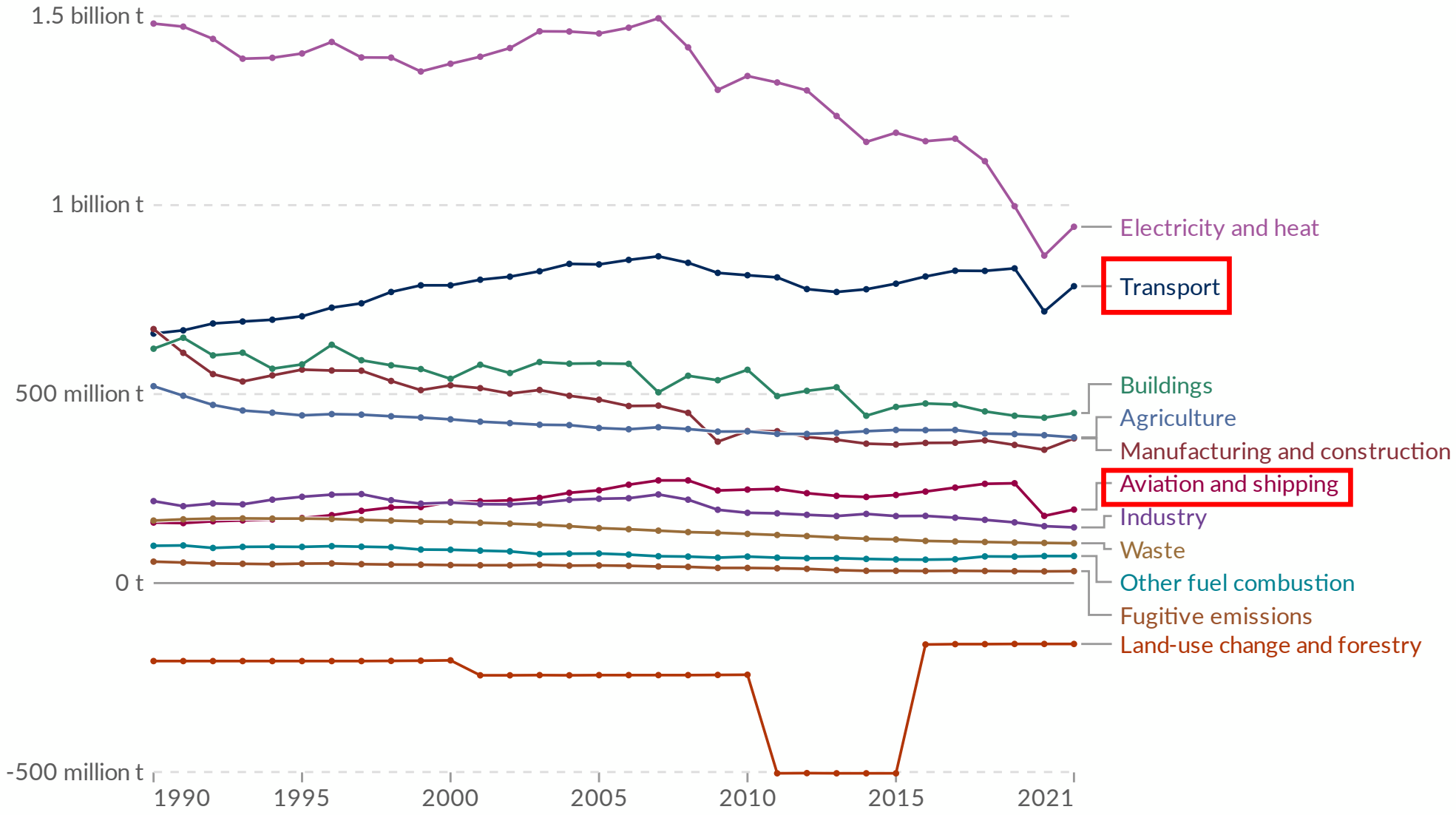


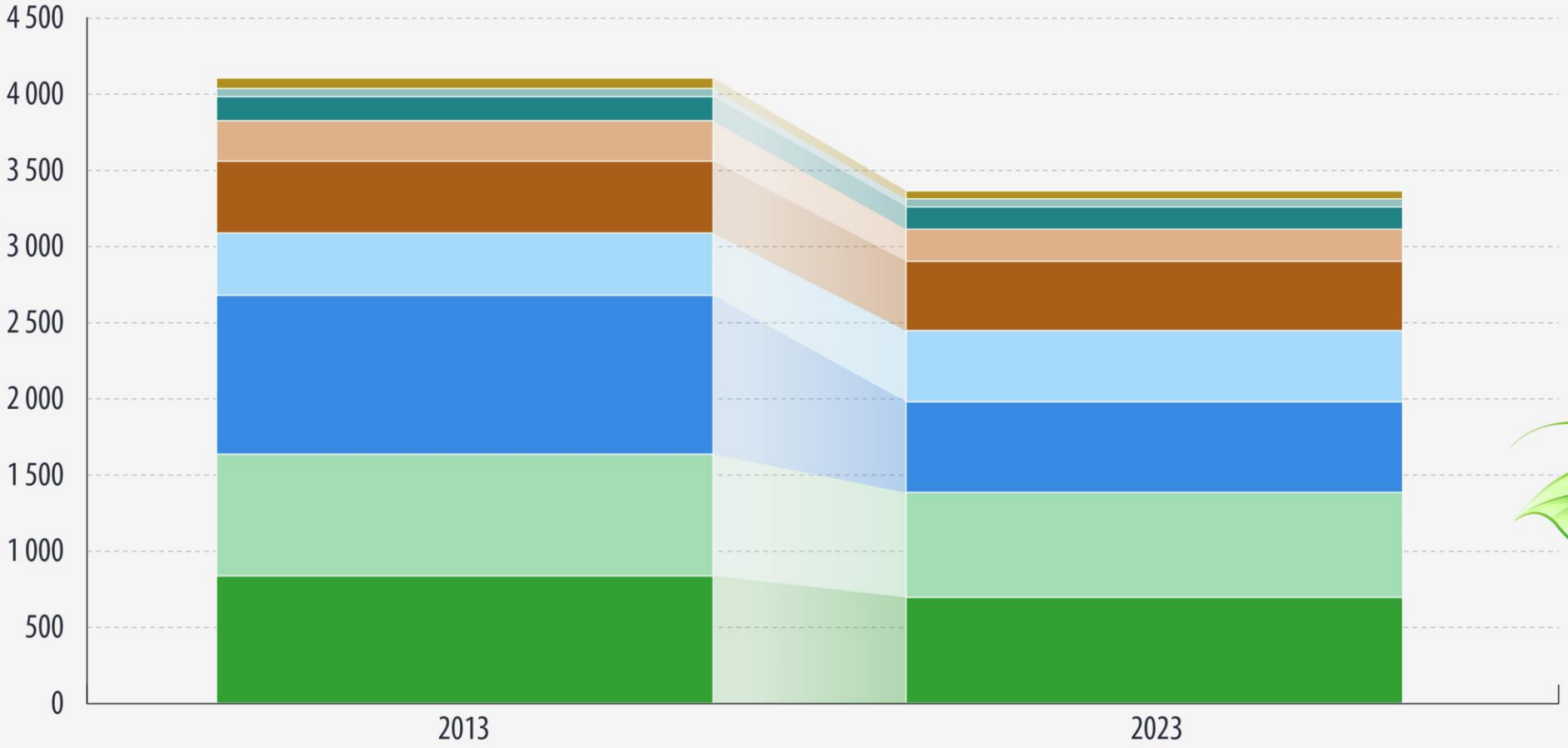
Data source: Climate Watch (2024)

OurWorldinData.org/co2-and-greenhouse-gas-emissions | CC BY

Note: Land-use change emissions can be negative.

Greenhouse gas emissions by economic activity, EU, 2013 and 2023

(million tonnes of CO_2 equivalent)



Greenhouse gas emissions by economic activity, EU, 2013 and 2023

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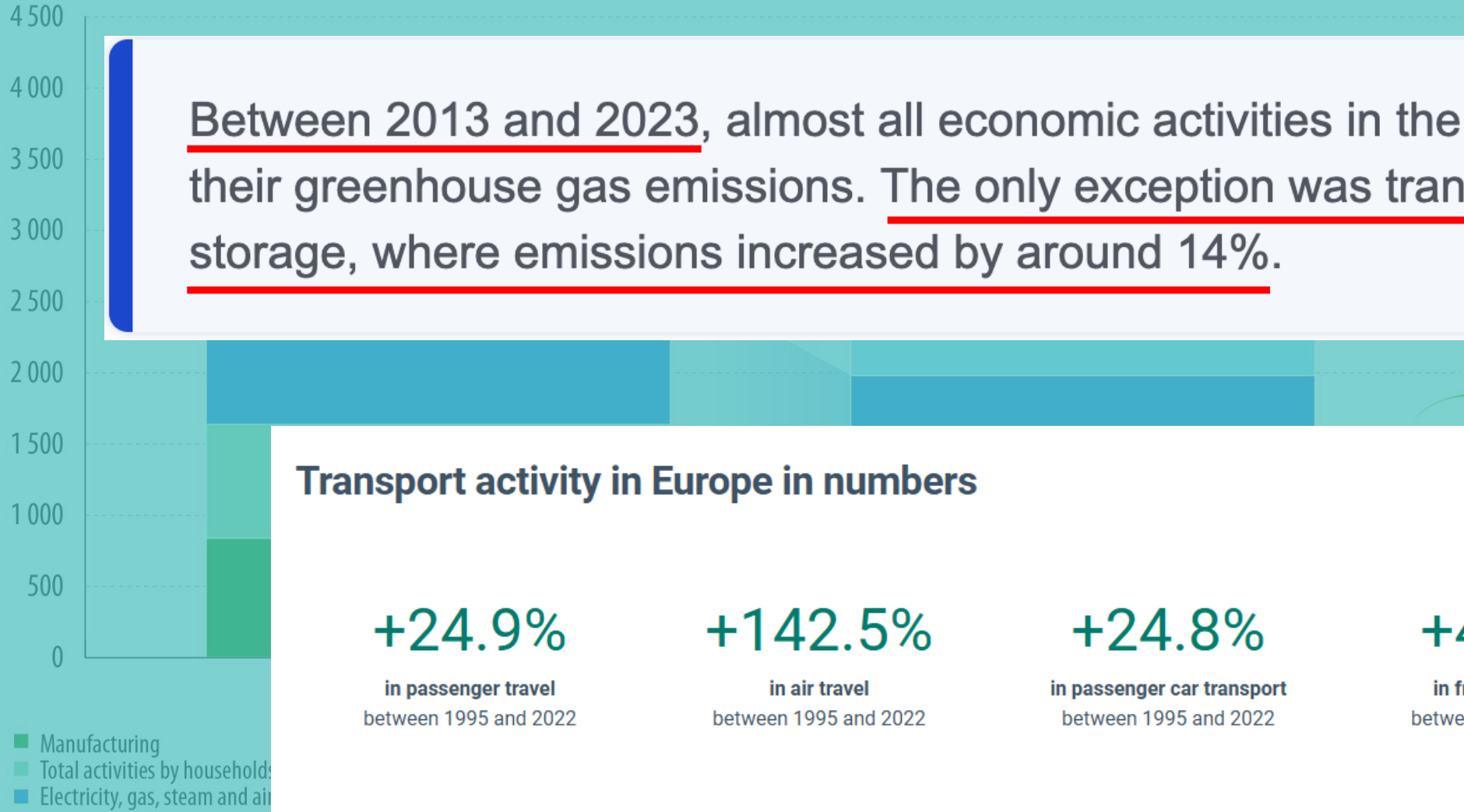


Between 2013 and 2023, almost all economic activities in the EU reduced their greenhouse gas emissions. The only exception was transportation and storage, where emissions increased by around 14%.

Transport activity in Europe in numbers

+24.9%
in passenger travel
between 1995 and 2022

+142.5%
in air travel
between 1995 and 2022

+24.8%
in passenger car transport
between 1995 and 2022

+44.6%
in freight transport
between 1995 and 2022

Source: EEA report Sustainability of Europe's mobility systems

eurostat

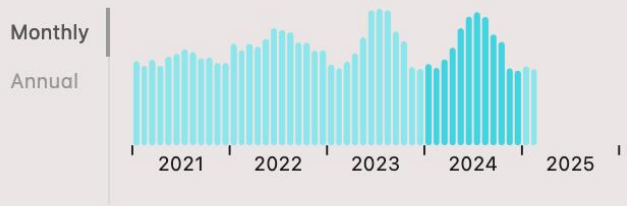
Balearic Islands

2024: All Sectors
(Jan 2024 - Dec 2024)

10.10M t

CO_2e 100yr

155 sources



- 53.52% Transportation
  5.40M t CO_2e 100yr
- 20.52% Power
  2.07M t CO_2e 100yr
- 9.41% Buildings
  950.34K t CO_2e 100yr
- 6.80% Waste
  686.04K t CO_2e 100yr
- 5.02% Manufacturing
  506.66K t CO_2e 100yr
- 3.07% Agriculture
  310.40K t CO_2e 100yr

ESP
Baleares Province
Road transport
1.32M t CO_2e 100yr

ESP
Palma de Mallorca Airport
International airport
1.29M t CO_2e 100yr

ESP
Baleares Province
Residential buildings
742.10K t CO_2e 100yr

ESP
Palma
Domestic Shipping
597.29K t CO_2e 100yr

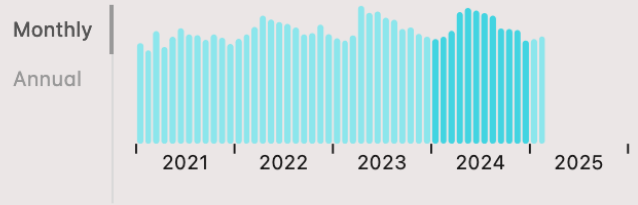
Azores

2024: All Sectors
(Jan 2024 - Dec 2024)

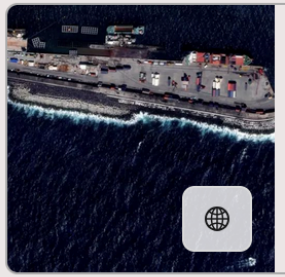
2.19M t

CO_2e 100yr

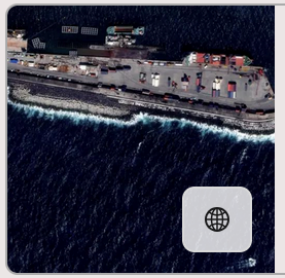
183 sources



- 55.65% Transportation
  1.22M t CO_2e 100yr
- 20.02% Manufacturing
  439.31K t CO_2e 100yr
- 6.11% Waste
  134.07K t CO_2e 100yr
- 5.52% Buildings
  121.05K t CO_2e 100yr
- 5.07% Power
  111.21K t CO_2e 100yr
- 4.70% Agriculture
  103.21K t CO_2e 100yr



PRT
Porto Da Ponta Delgada
Domestic Shipping
118.32K t CO_2e 100yr



PRT
Porto Da Ponta Delgada
International Shipping
115.70K t CO_2e 100yr

PRT
Ponta Delgada Municipality
Road transport
92.29K t CO_2e 100yr

PRT
João Paulo II Airport
Domestic airport
85.30K t CO_2e 100yr

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Press release

Air pollution accounted for 8.1 million deaths globally in 2021, becoming the second leading risk factor for death, including for children under five years

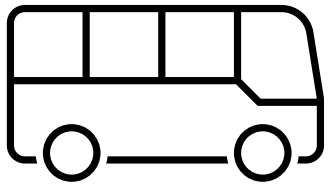
Comprehensive new report details health impacts of air pollution, which has moved ahead of tobacco and poor diet as a risk factor for death.

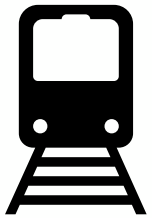
18 June 2024

What are the alternatives?

Road transport

Technological alternatives





Beyond climate and pollution

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NEWS ARTICLES | 12 April 2024

Road fatalities up 4% in 2022


TERM CAPELINHA
VIP

DRIVING CHANGE, NOT DEFORESTATION:

Rainforest Foundation Norway

PRESS ROOM

NO

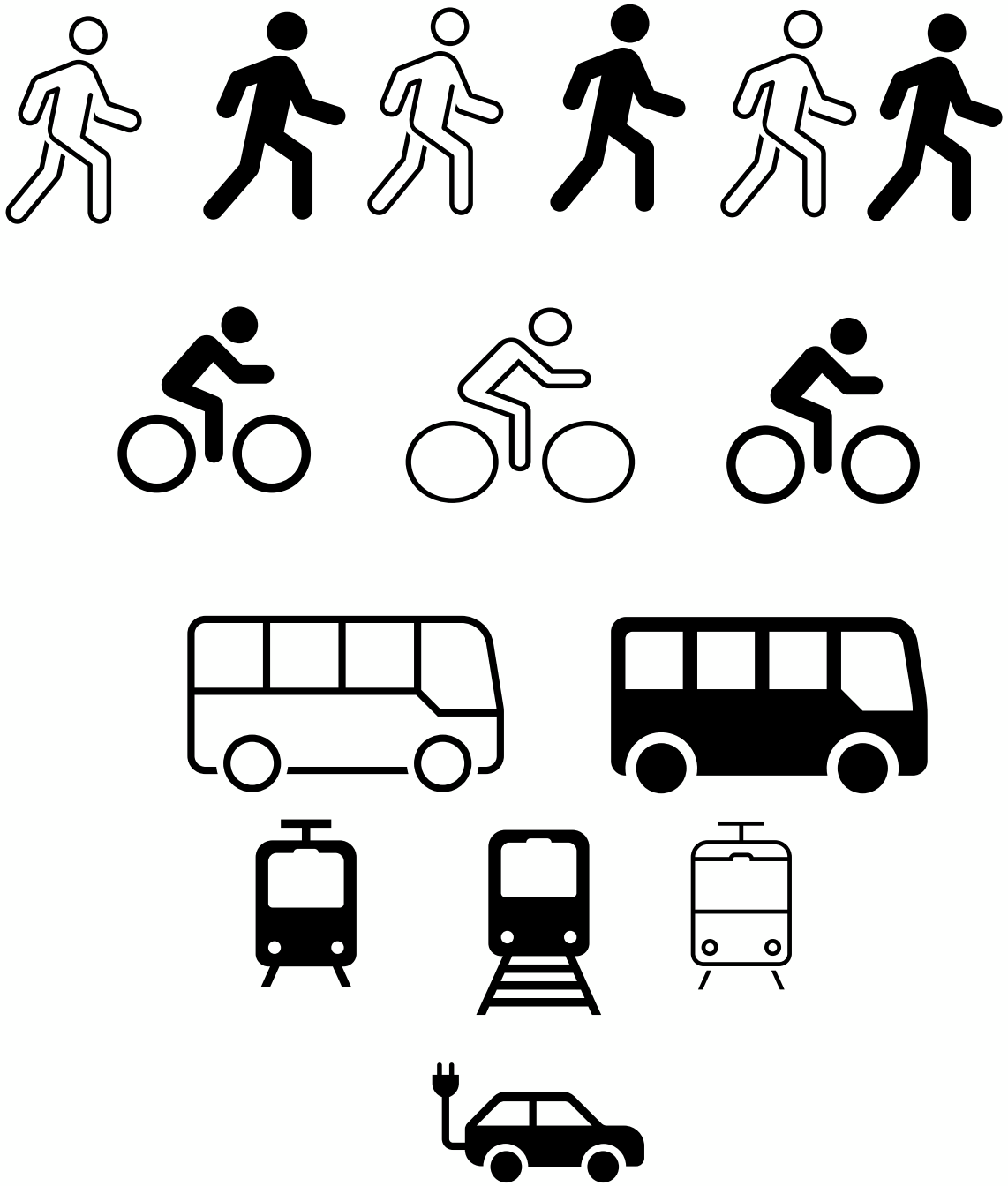
NEW REPORT: DRIVING CHANGE, NOT DEFORESTATION

EU demand for electric vehicles drives deforestation

Road transport

Technological alternatives

Social, political and economical alternatives

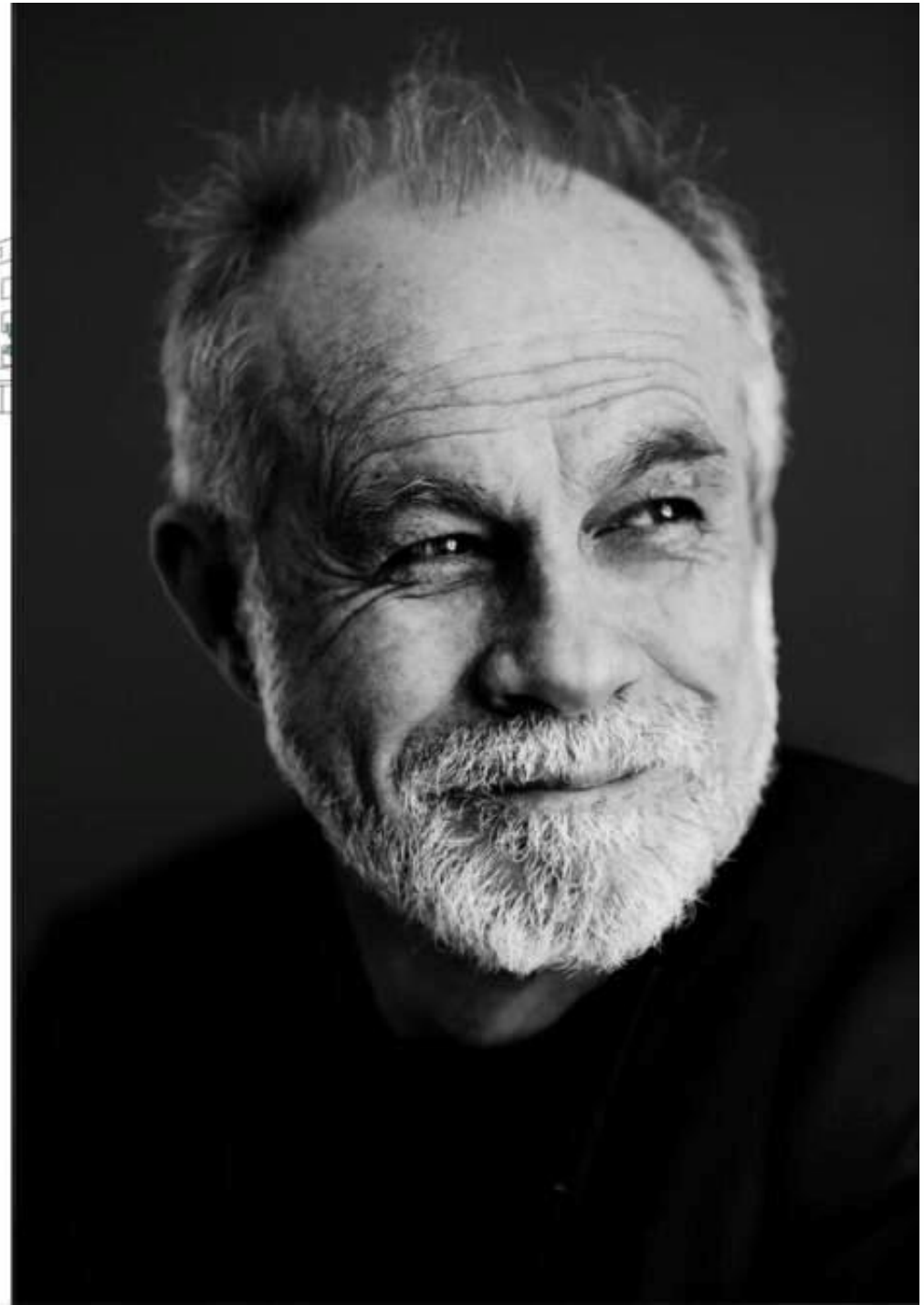


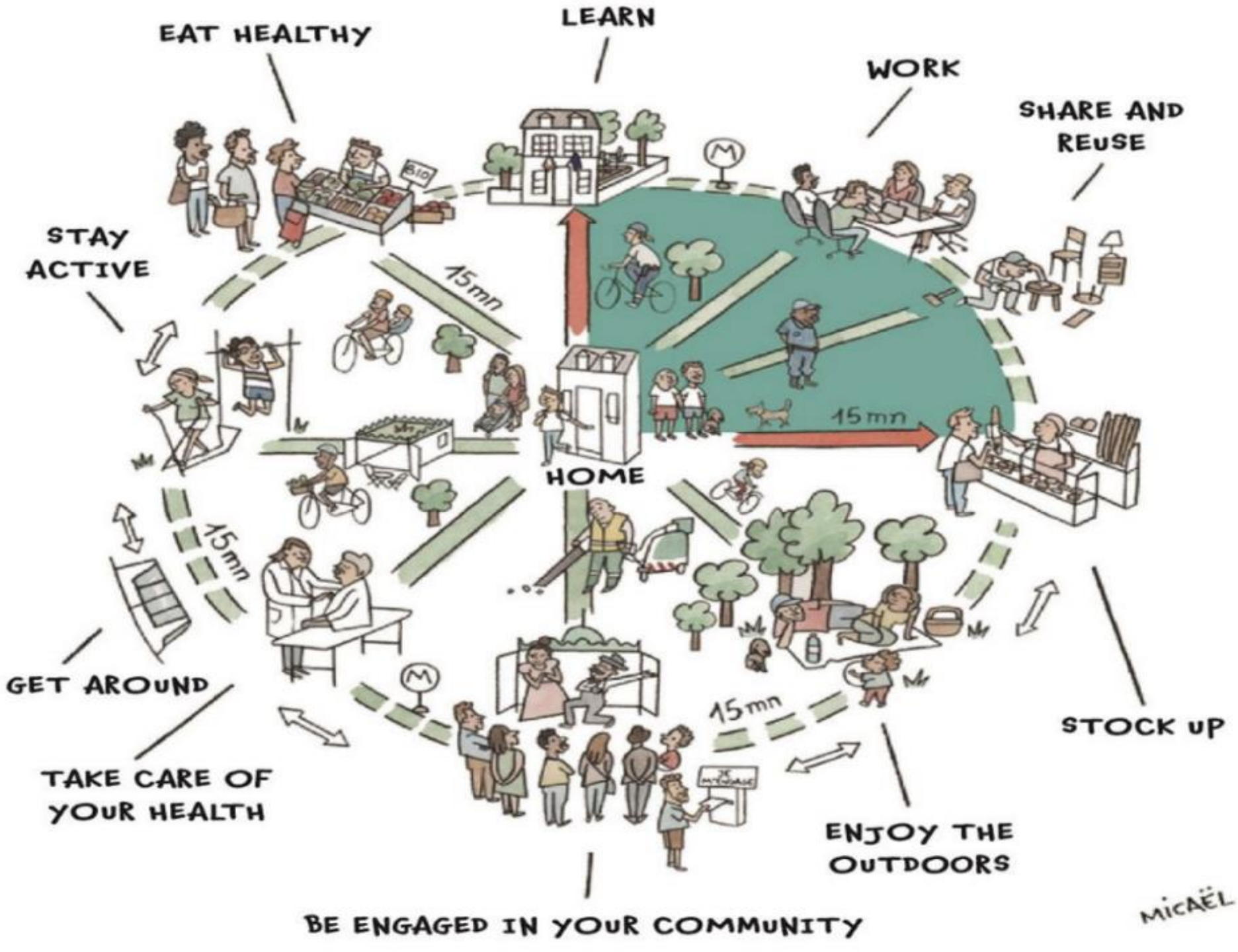
FOREWORD BY
JAN GEHL

AFTERWORD BY
MARTHA THORNE

THE 15-MINUTE CITY

A SOLUTION TO SAVING
OUR TIME & OUR PLANET



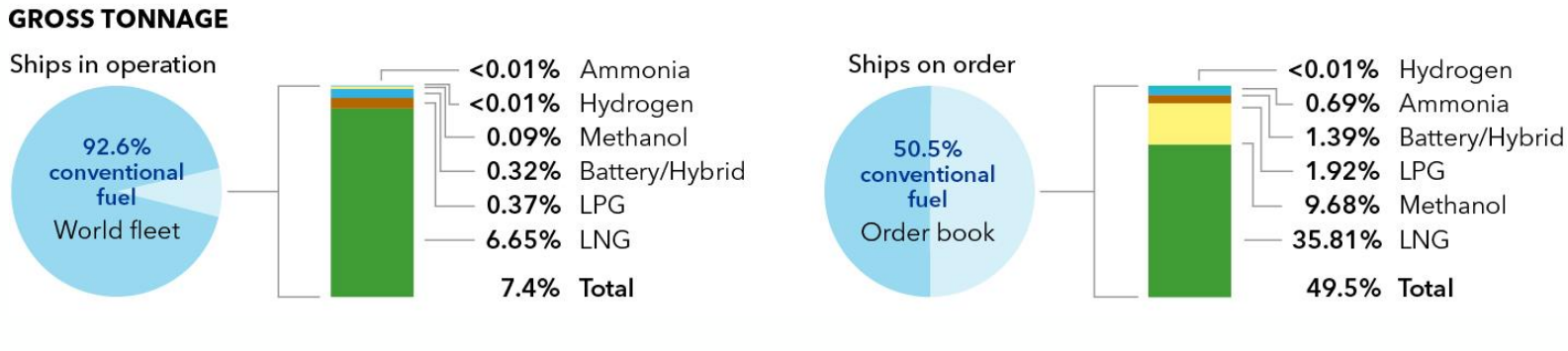

EAT HEALTHY
LEARN
WORK
SHARE AND REUSE
STAY ACTIVE
15mn
15mn
HOME
15mn
15mn
GET AROUND
TAKE CARE OF YOUR HEALTH
STOCK UP
ENJOY THE OUTDOORS
BE ENGAGED IN YOUR COMMUNITY
MICAËL

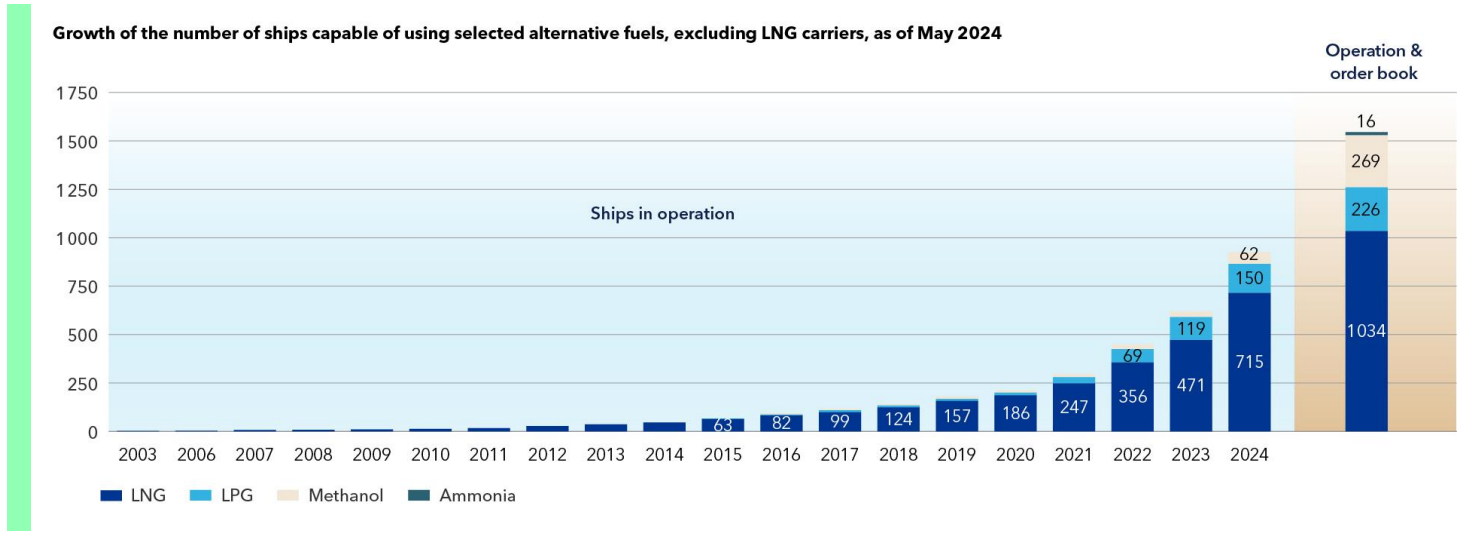
The 30-minute island

Maritime transport

Technological alternatives

Fuel technology transition progressing – half the ordered tonnage on LNG, LPG or methanol in dual-fuel engines





Batteries can be very efficient

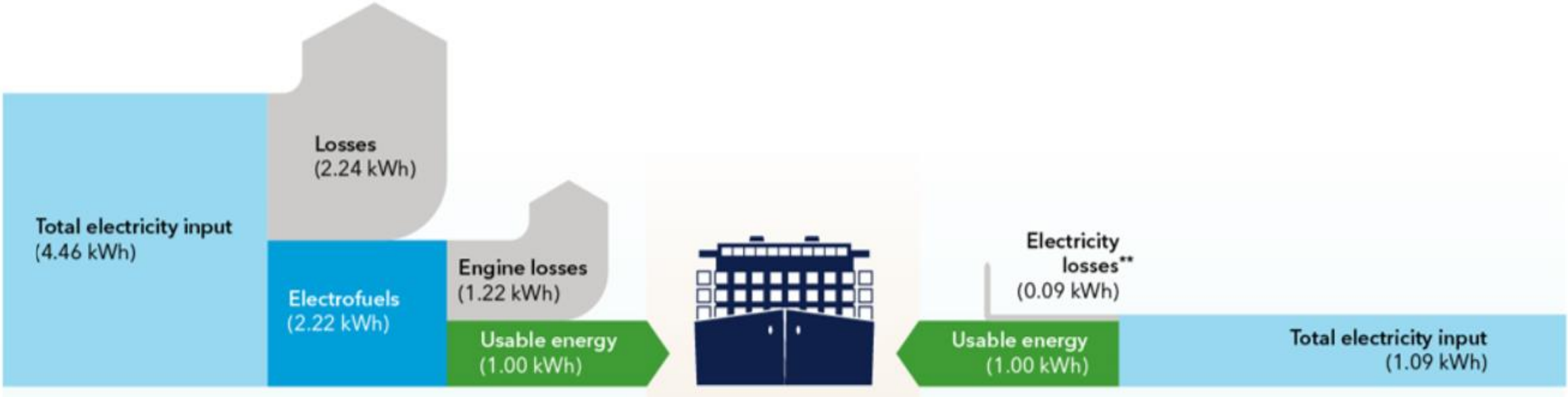


Illustration above compares well-to-wake losses between e-fuels and shore power

Source: DNV Maritime Forecast 2024

Maritime transport

Technological alternatives

Social, political and economical alternatives


COSCO SHIPPING

Air transport

Technological alternatives

- Global aviation activity will grow 130% by 2050
- By 2050, oil will remain the dominant energy source in aviation
- ”Alternatives”:
  - Biofuels
  - E-Fuels
  - Hydrogen

Aviation direct GHG emissions:

- Global: 2%
- Europe: 4%

National GHG emissions:

- Spain: 0,54%
- Portugal: 0,1%
- Burundi: 0,01%

1% population = 50% of aviation emissions

A considerable share of emissions in islands

Air transport

Technological alternatives

Social, political and economical alternatives

Elements for a necessary for a social discussion

- Equity – Fair transition: what do we reduce first?
- Different modalities of stay:
  - Longer
  - From closer destinations
- Diversify: other economic activities


Some final
thoughts

Think beyond technology


Connect the dots
Connect the challenges
Connect the solutions
Think


3
Don’t forget the main goal
Make people’s lives better


What do we want
to be as a society?


What do we want
to be as an island?

Muito obrigado!

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