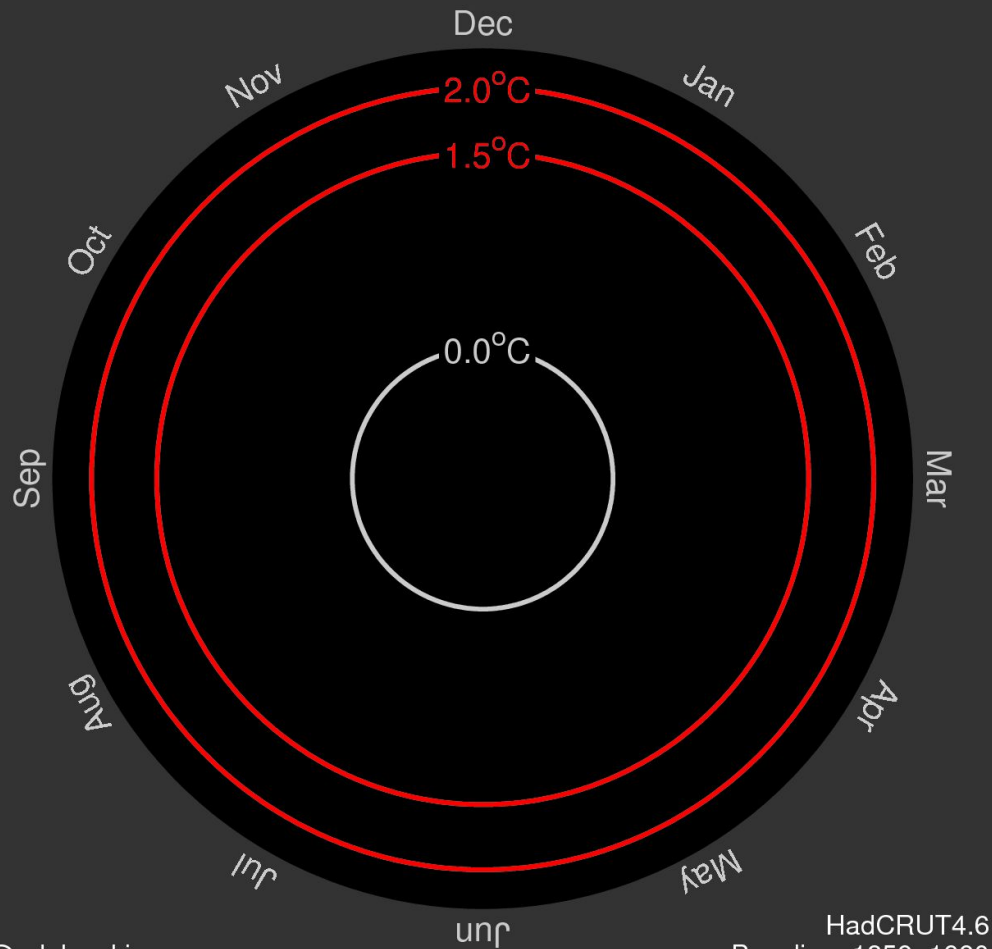


Global temperature change (1850–2017)





UNIVERSITAT POLITÈCNICA
DE CATALUNYA
BARCELONATECH

EMERGÈNCIA CLIMÀTICA

Gabinet d'Innovació i Comunitat

16 de setembre 2019

DRIVERS

INDIRECT DRIVERS

Values and behaviors

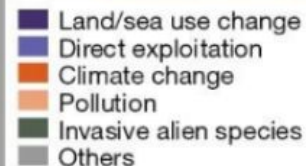
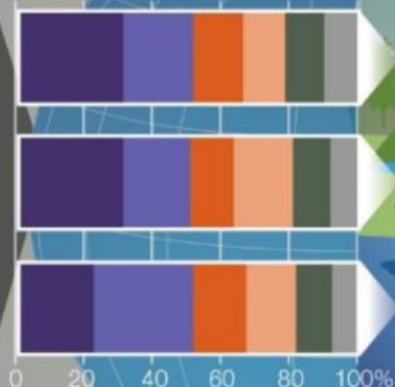
Demographic and sociocultural

Economic and technological

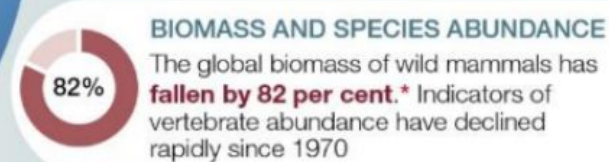
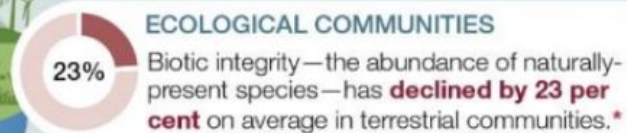
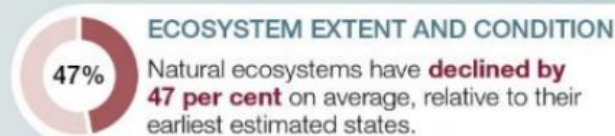
Institutions and governance

Conflicts and epidemics

DIRECT DRIVERS



EXAMPLES OF DECLINES IN NATURE

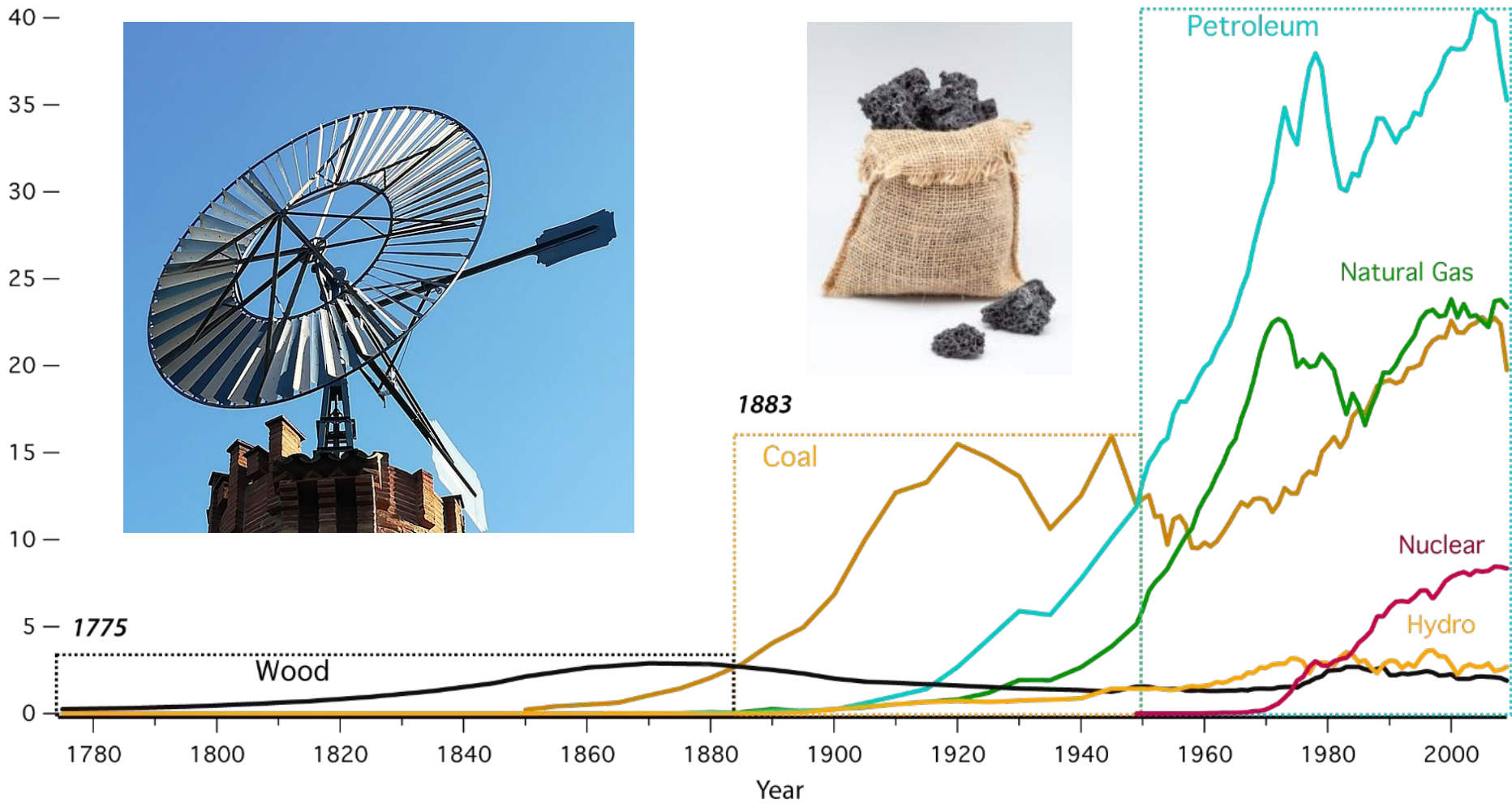
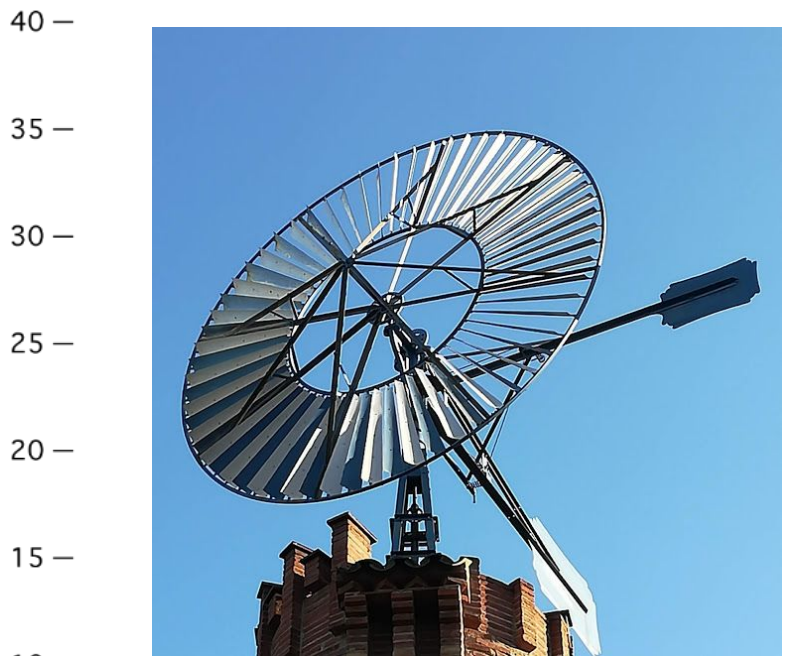


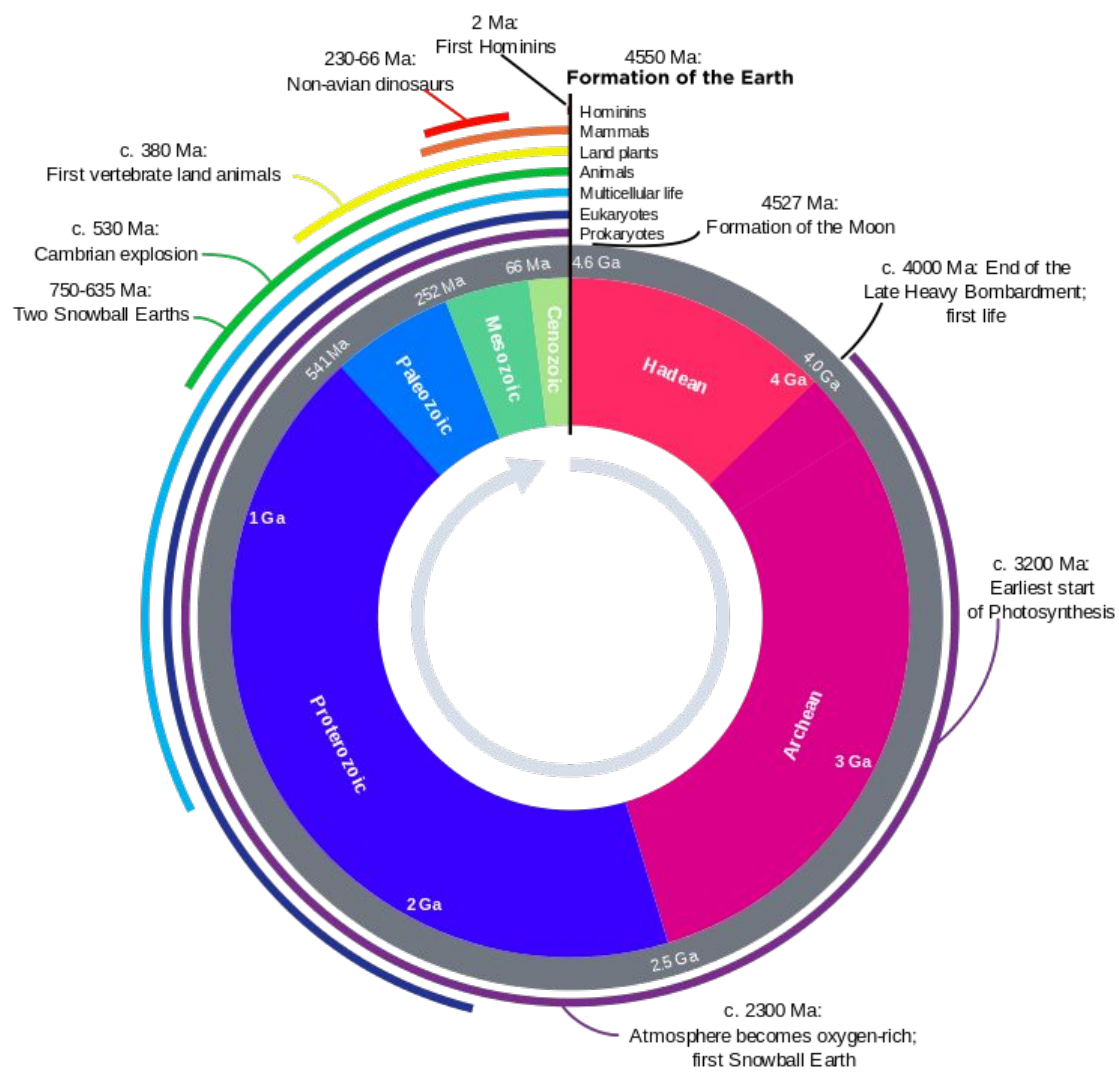
Science and Policy
for People and Nature

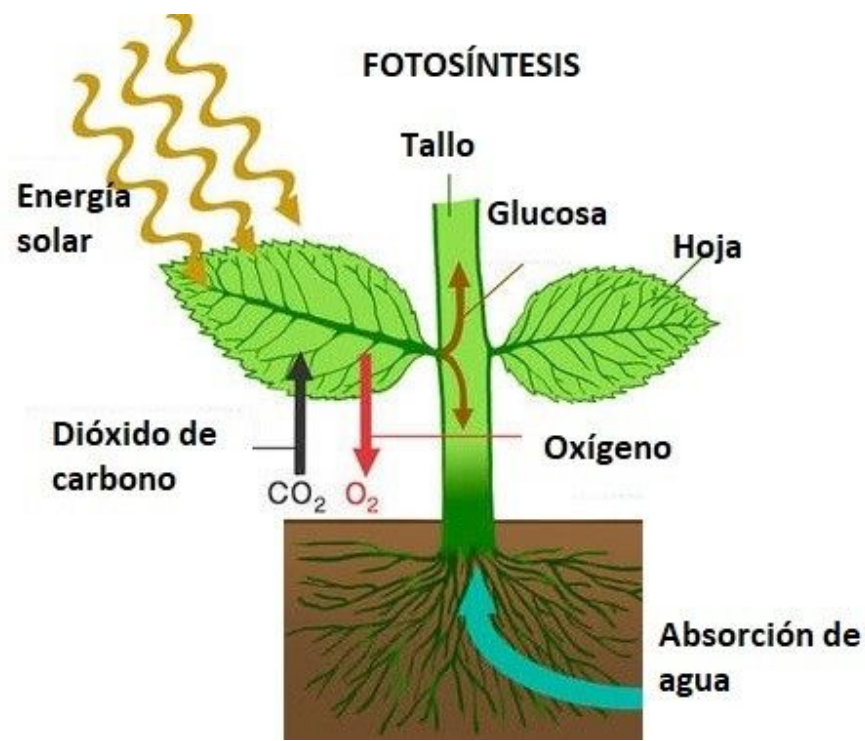
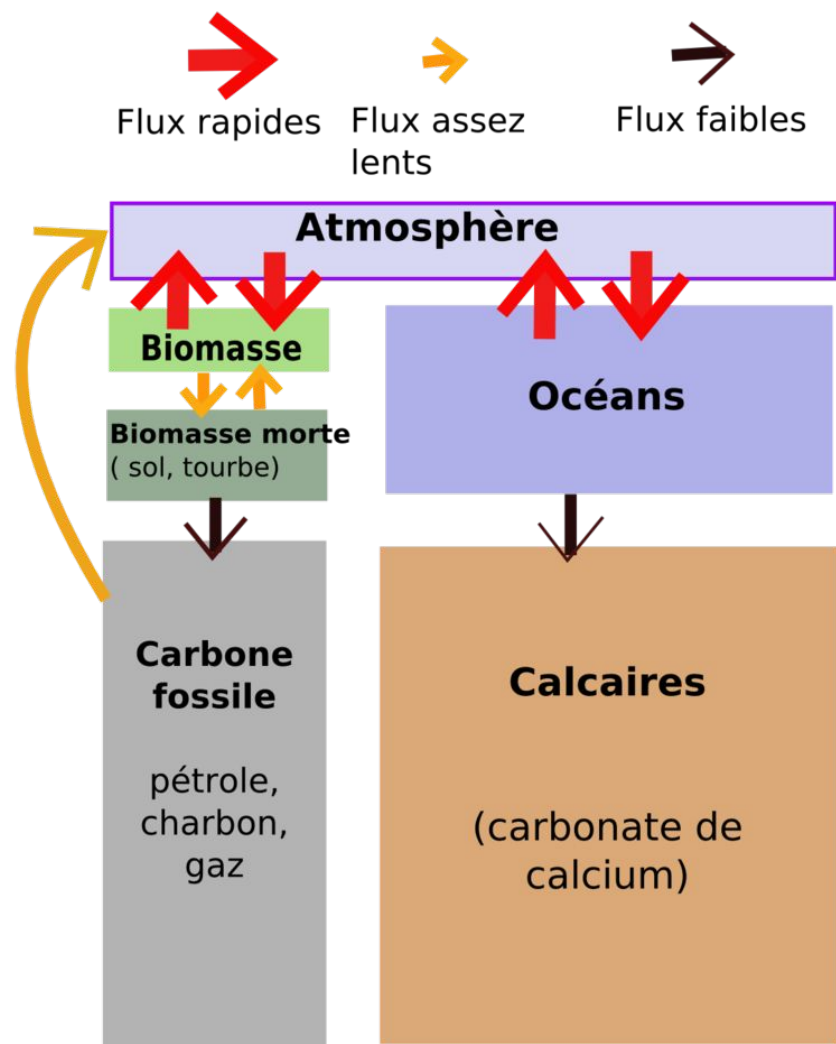
* Since prehistory

QUÈ ÉS EL CANVI CLIMÀTIC?

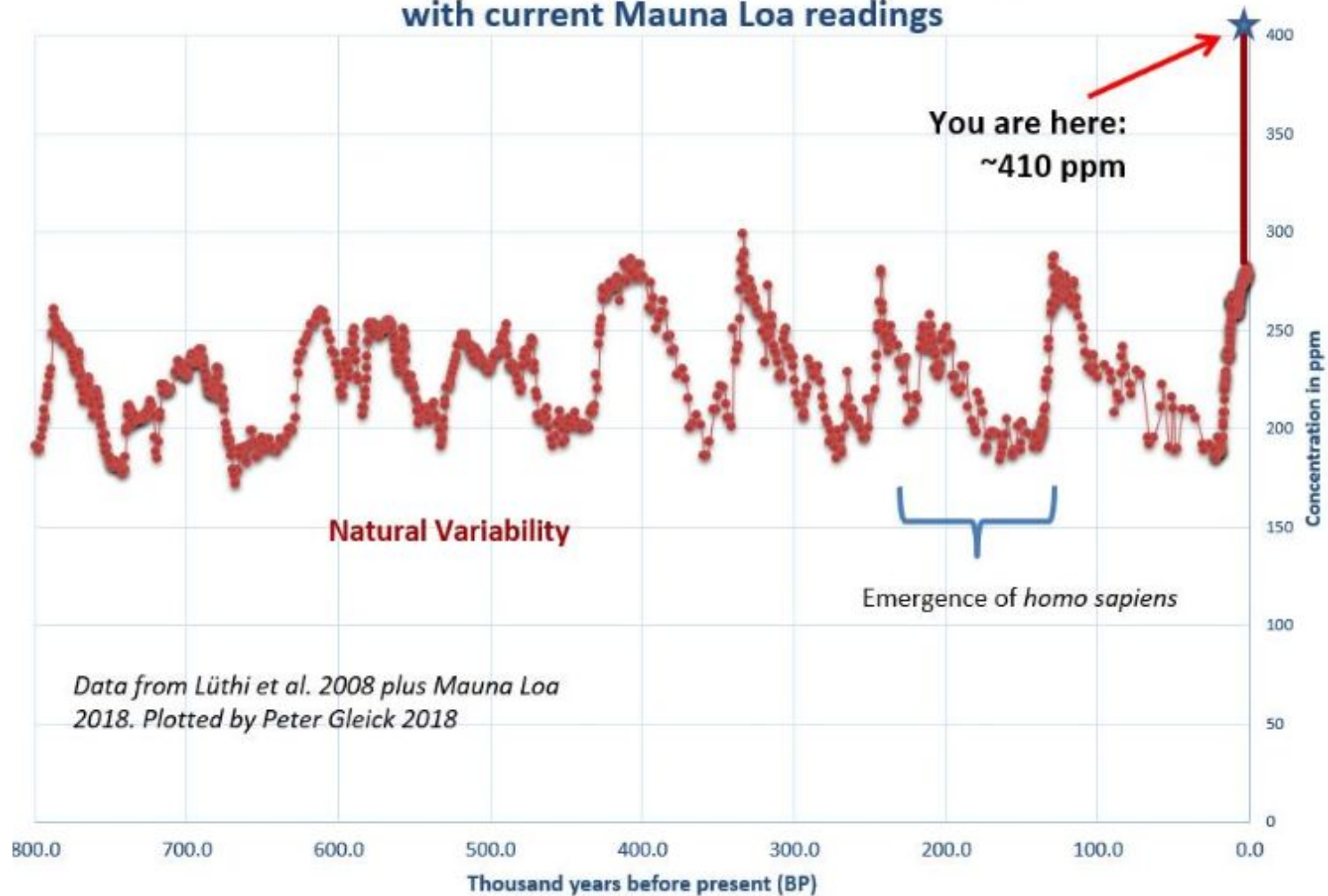
Energy Consumed in Quadrillion BTUs



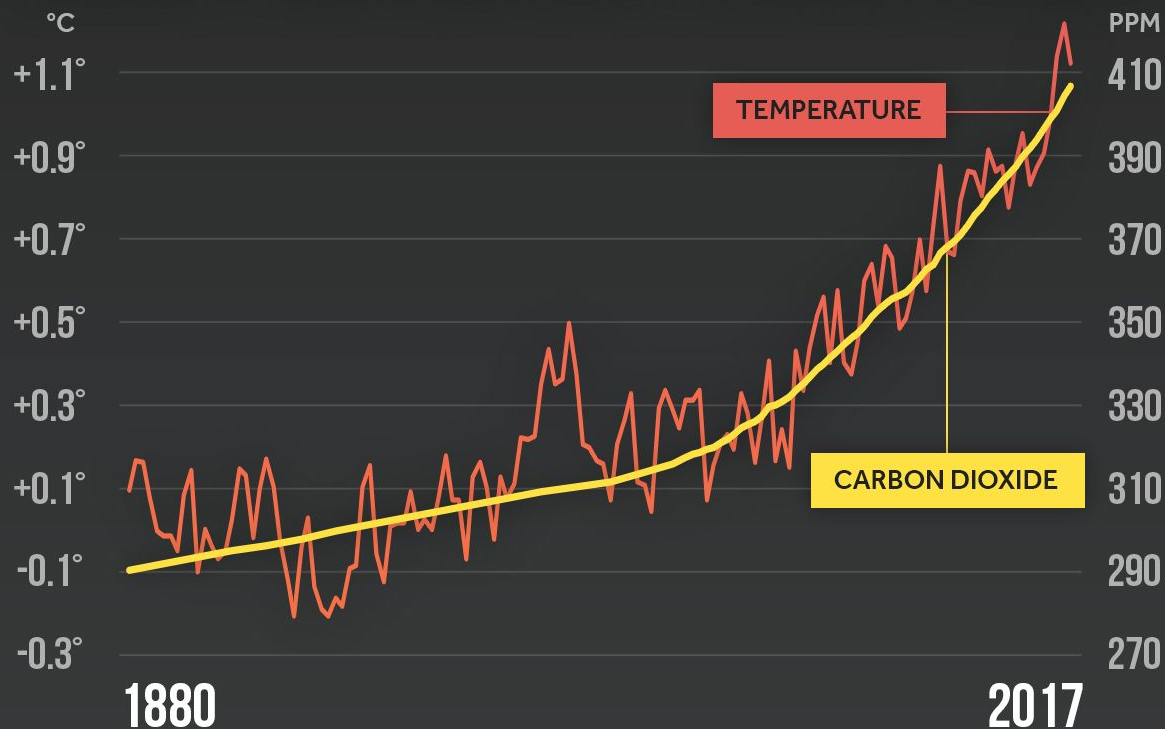




Composite Antarctic CO₂ record (0-800 kyr before present) with current Mauna Loa readings

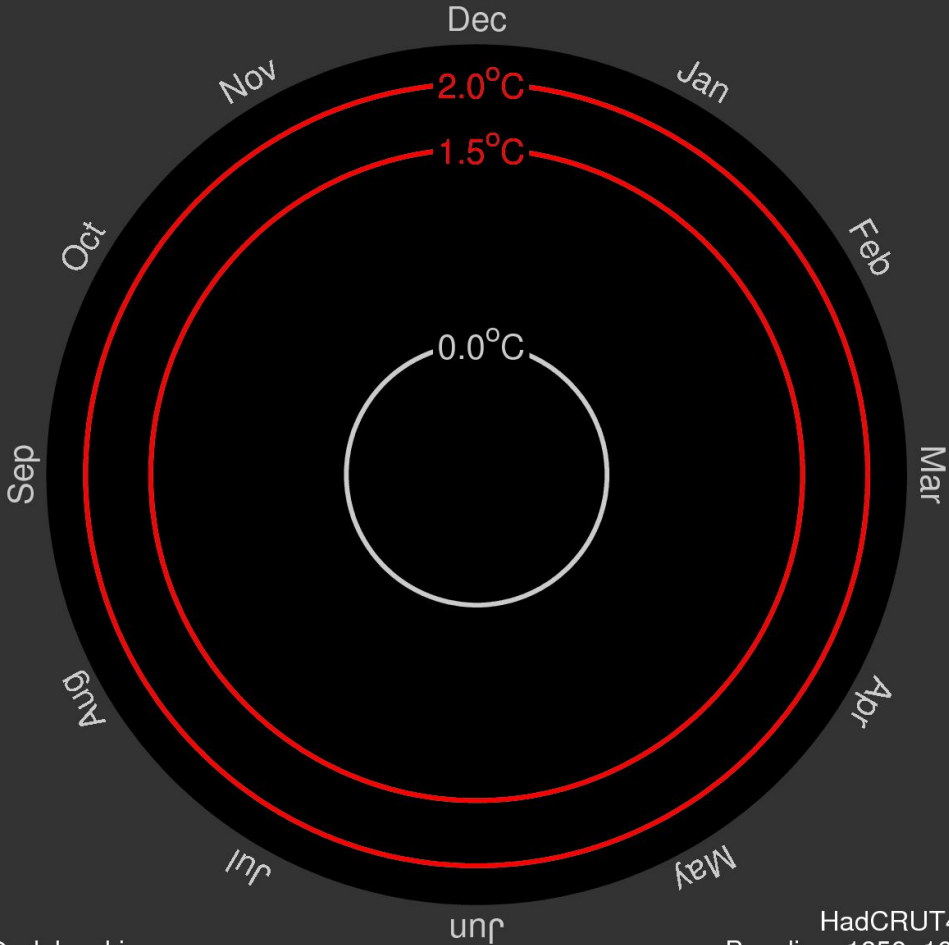


GLOBAL TEMPERATURE & CARBON DIOXIDE

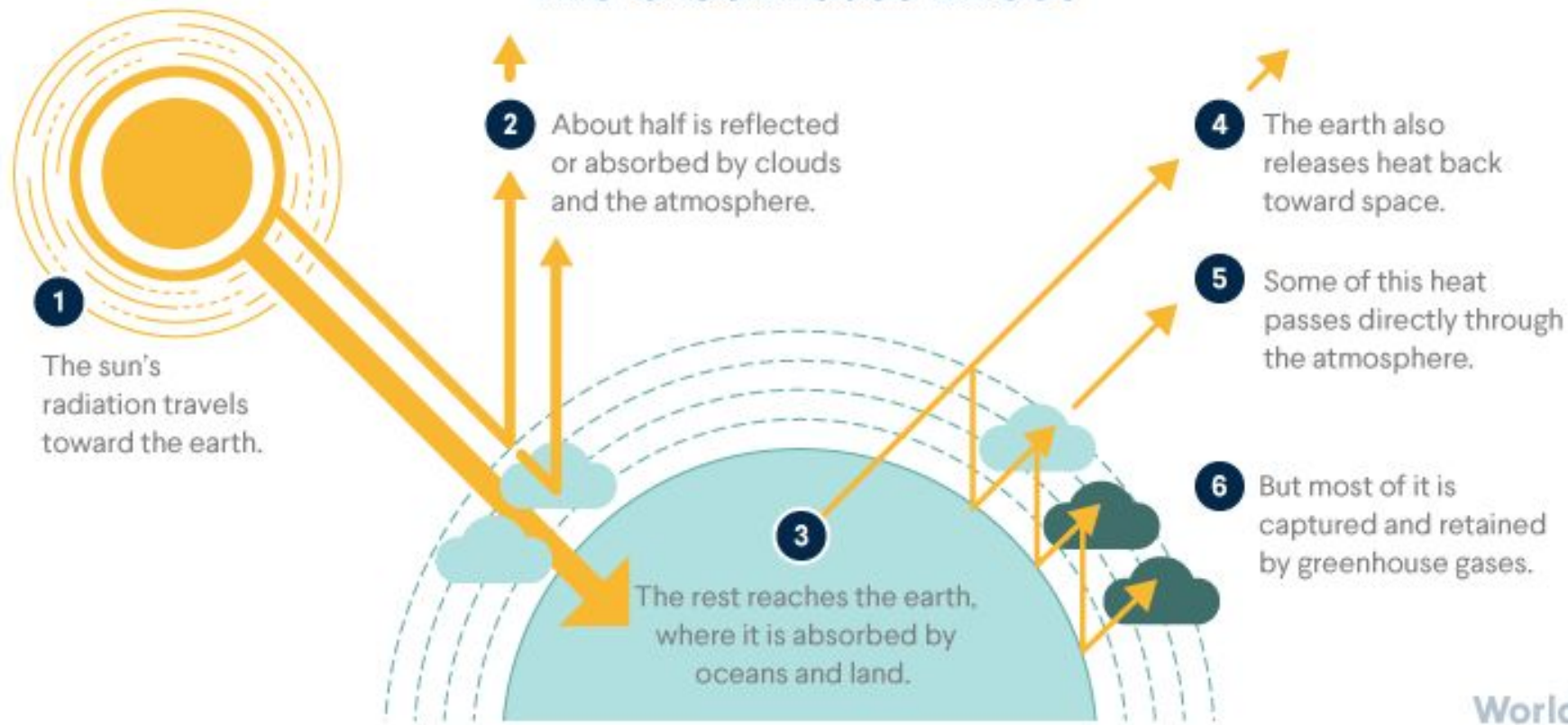


Global temperature anomalies averaged and adjusted to early industrial baseline (1881-1910)
Source: NASA GISS, NOAA NCEI, ESRL

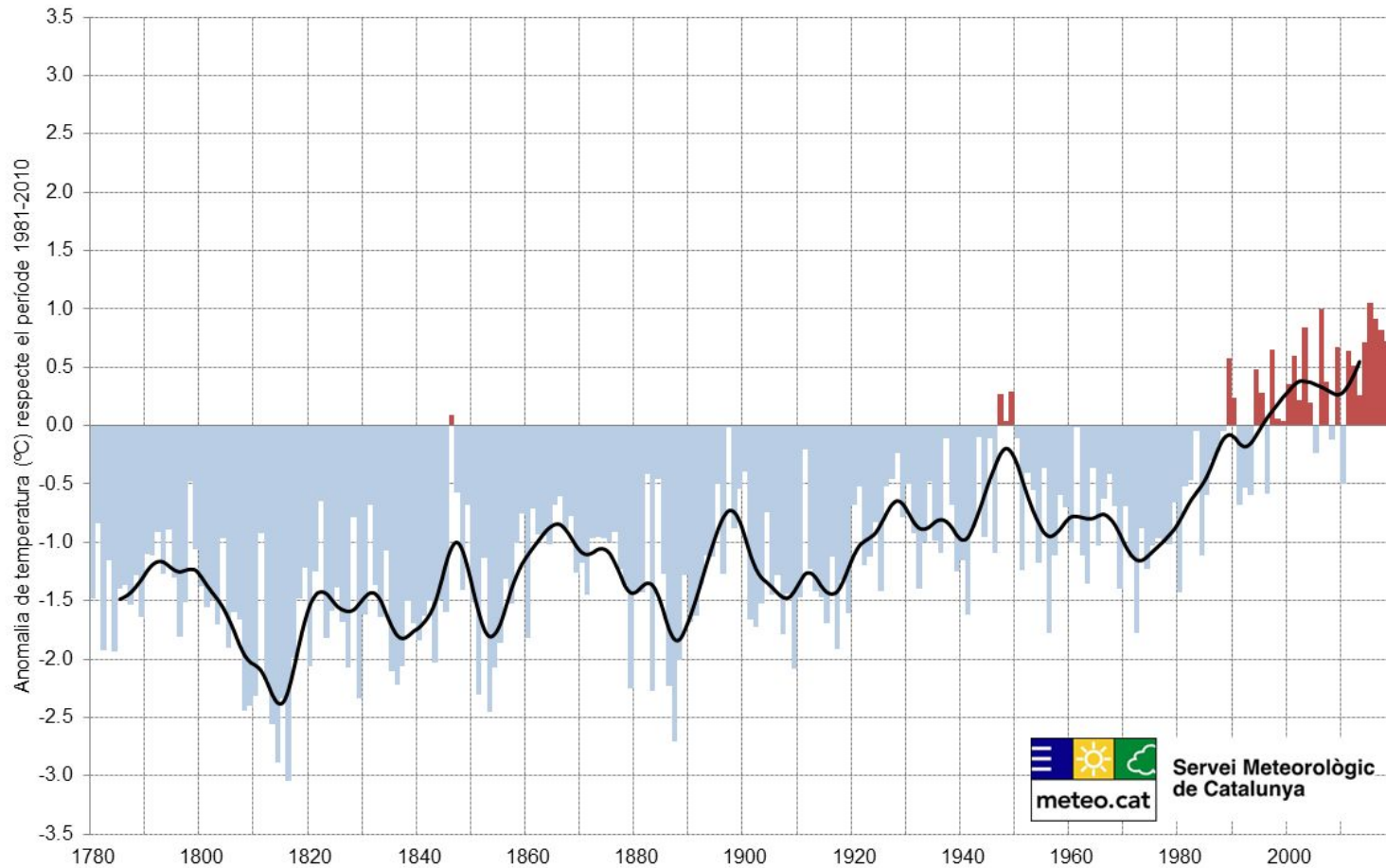
Global temperature change (1850–2017)



The Greenhouse Effect



Anomalia de la temperatura mitjana anual a Barcelona (1780-2018)



Servei Meteorològic
de Catalunya

A 4C rise in global average temperatures would force humans away from equatorial regions

Canada, Siberia, Scandinavia, and Alaska

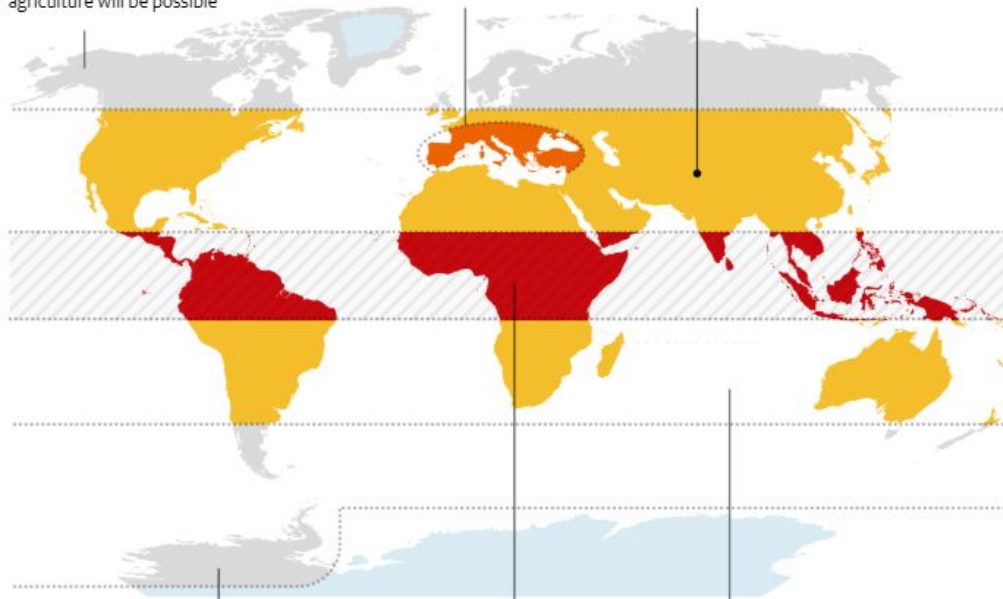
The vast majority of humanity will live in high-latitude areas, where agriculture will be possible

Southern Europe

Saharan deserts will expand into southern and central Europe

Hindu Kush, Karakoram and Himalayas

Two-thirds of the glaciers that feed many of Asia's rivers will be lost



New Zealand, Tasmania, Western Antarctica and Patagonia

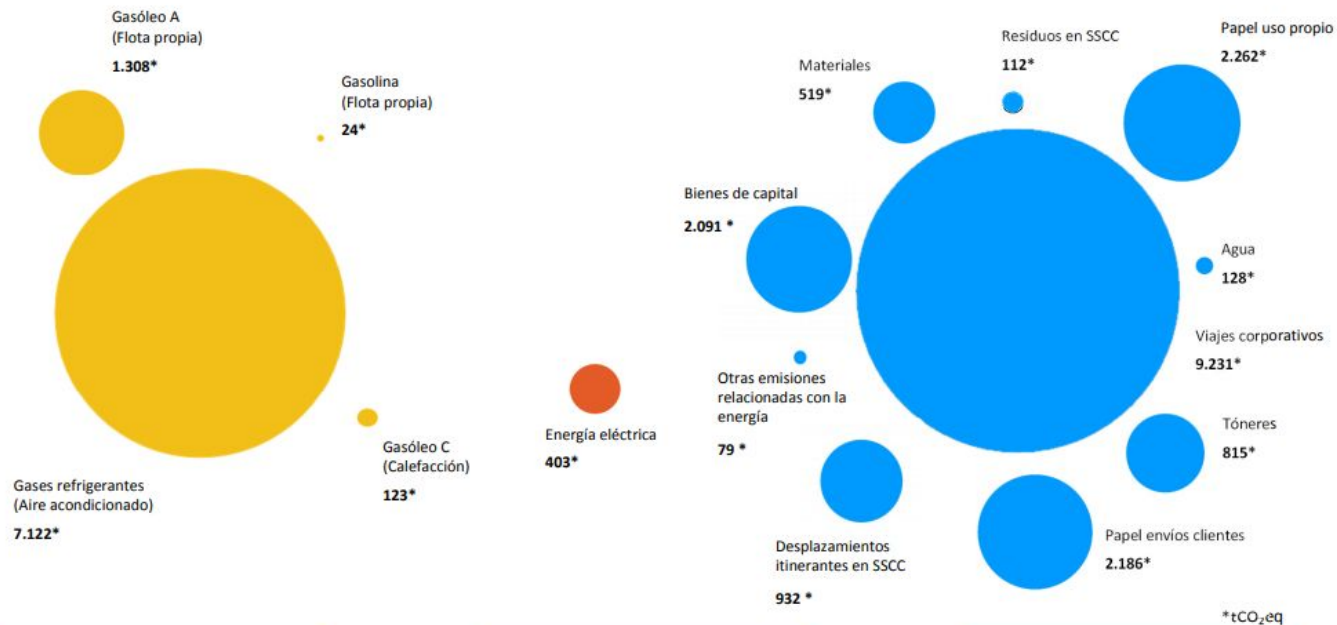
Some of the only habitable parts of the southern hemisphere - likely to be very densely populated

Equatorial belt

High humidity causing heat stress across tropical regions will render them uninhabitable for much of the year. To the north and south will lie belts of inhospitable desert

Oceanic dead zones

Coral reefs, shellfish and plankton will be wiped out by rising acidity and algae starving the oceans of oxygen. Without prey, larger sea life will decline rapidly

Total emisiones 27.334 tCO₂eq en 2018

Total emisiones ALCANCE 1
8.576 tCO₂eq

Emisiones directas

Gasolina y refrigerantes

Total emisiones ALCANCE 2
403 tCO₂eq

Emisiones indirectas

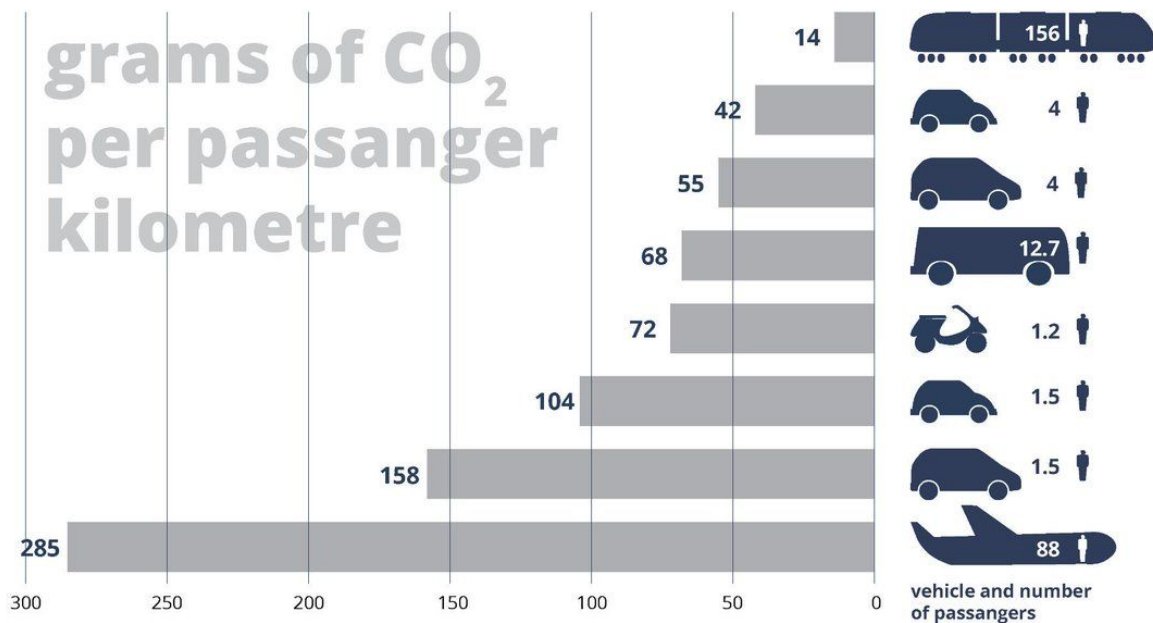
Compra de energía para uso propio

Total emisiones ALCANCE 3
18.355 tCO₂eq

Otras emisiones indirectas

Productos y servicios consumidos

CO₂ emissions from passenger transport



Note: The figures have been estimated with an average number of passengers per vehicle. The addition of more passengers results in fuel consumption – and hence also CO₂ emissions – penalty as the vehicle becomes heavier, but the final figure in grams of CO₂ per passenger is obviously lower. Inland ship emission factor is estimated to be 245 gCO₂/pkm but data availability is still not comparable to that of other modes. Estimations based on TRACCS database, 2013 and TERM027 indicator.

Source: EEA report TERM 2014
eea.europa.eu/transport