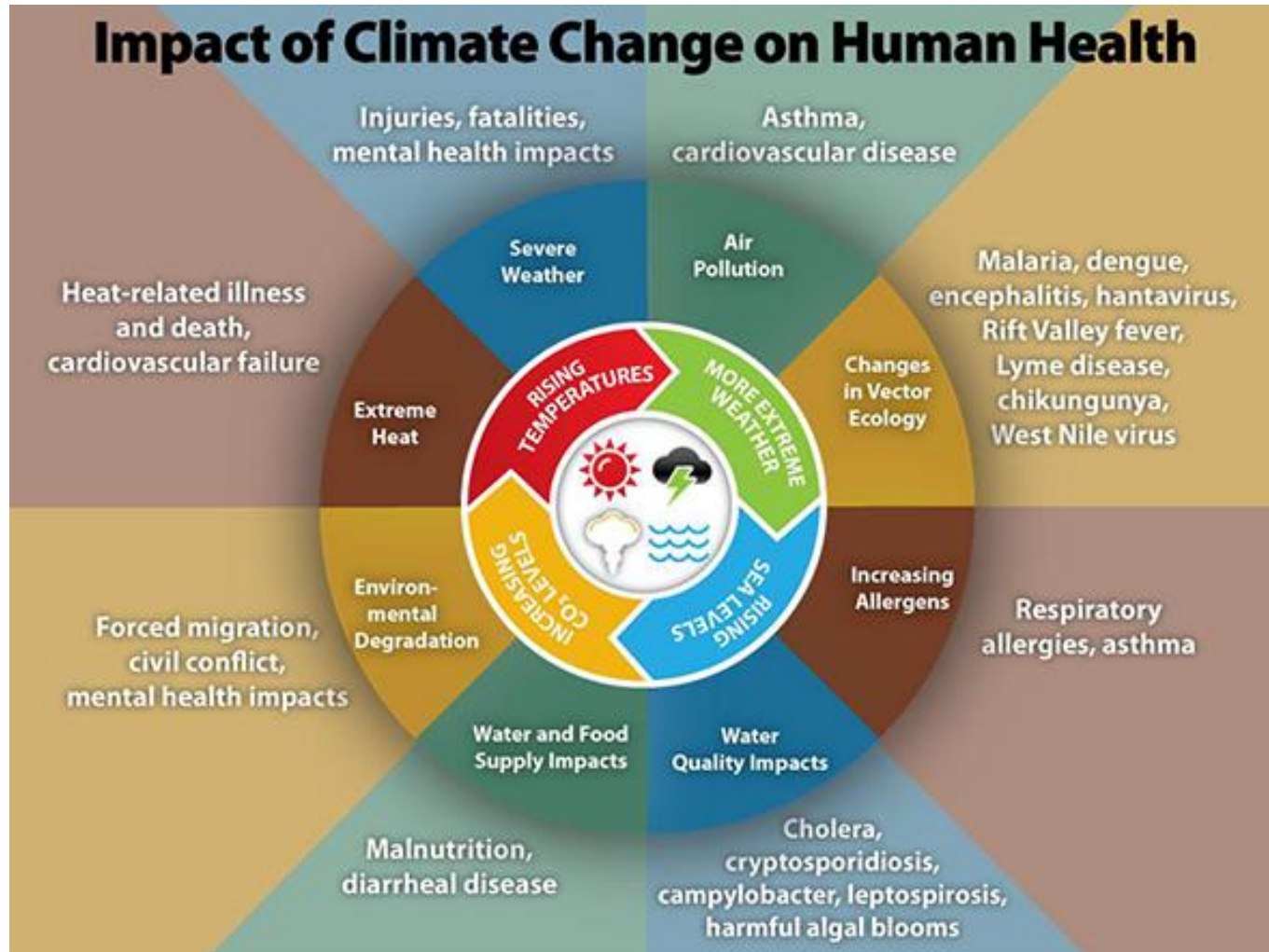


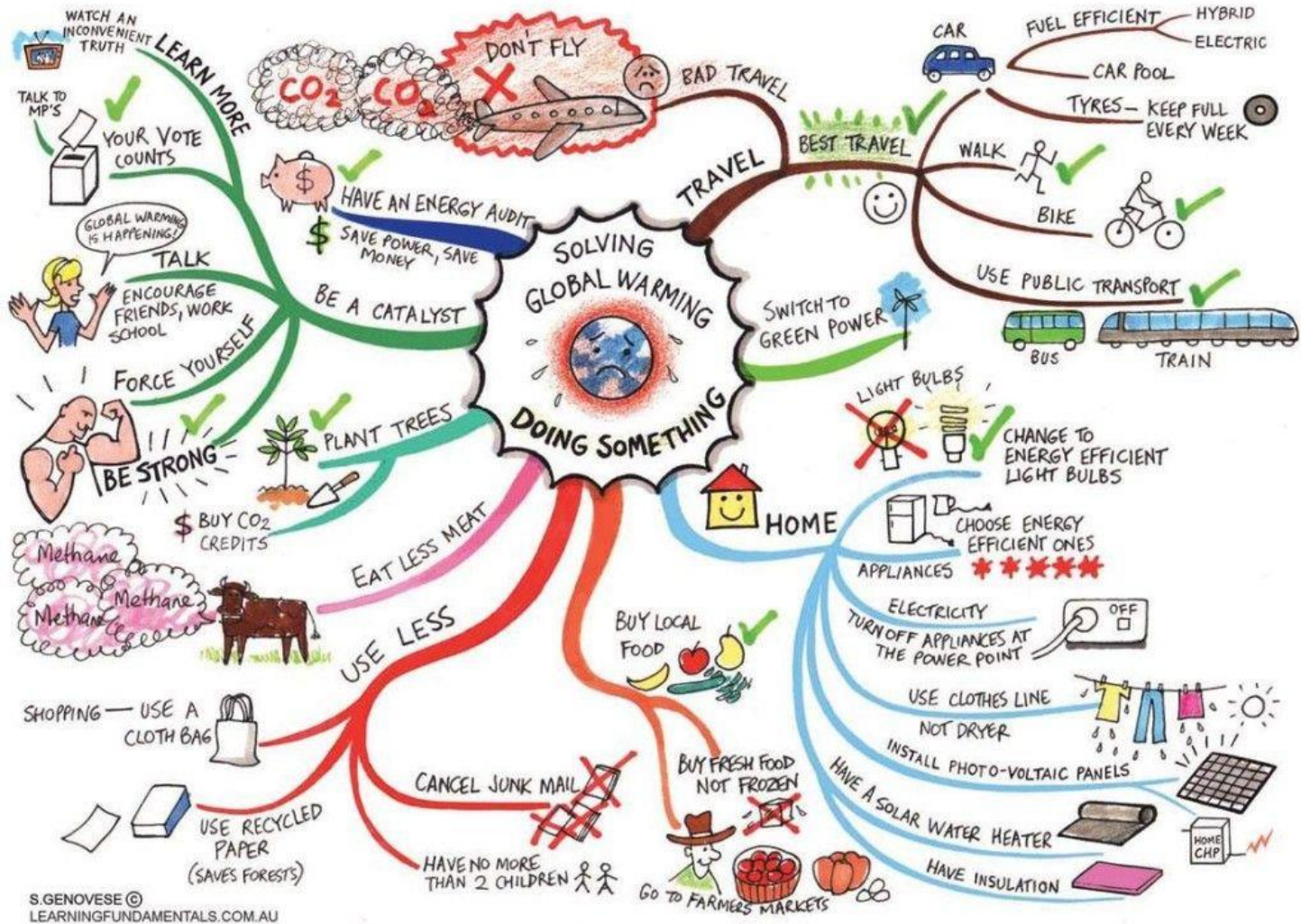
# El clima del futur (2025)

## El Sector Salut

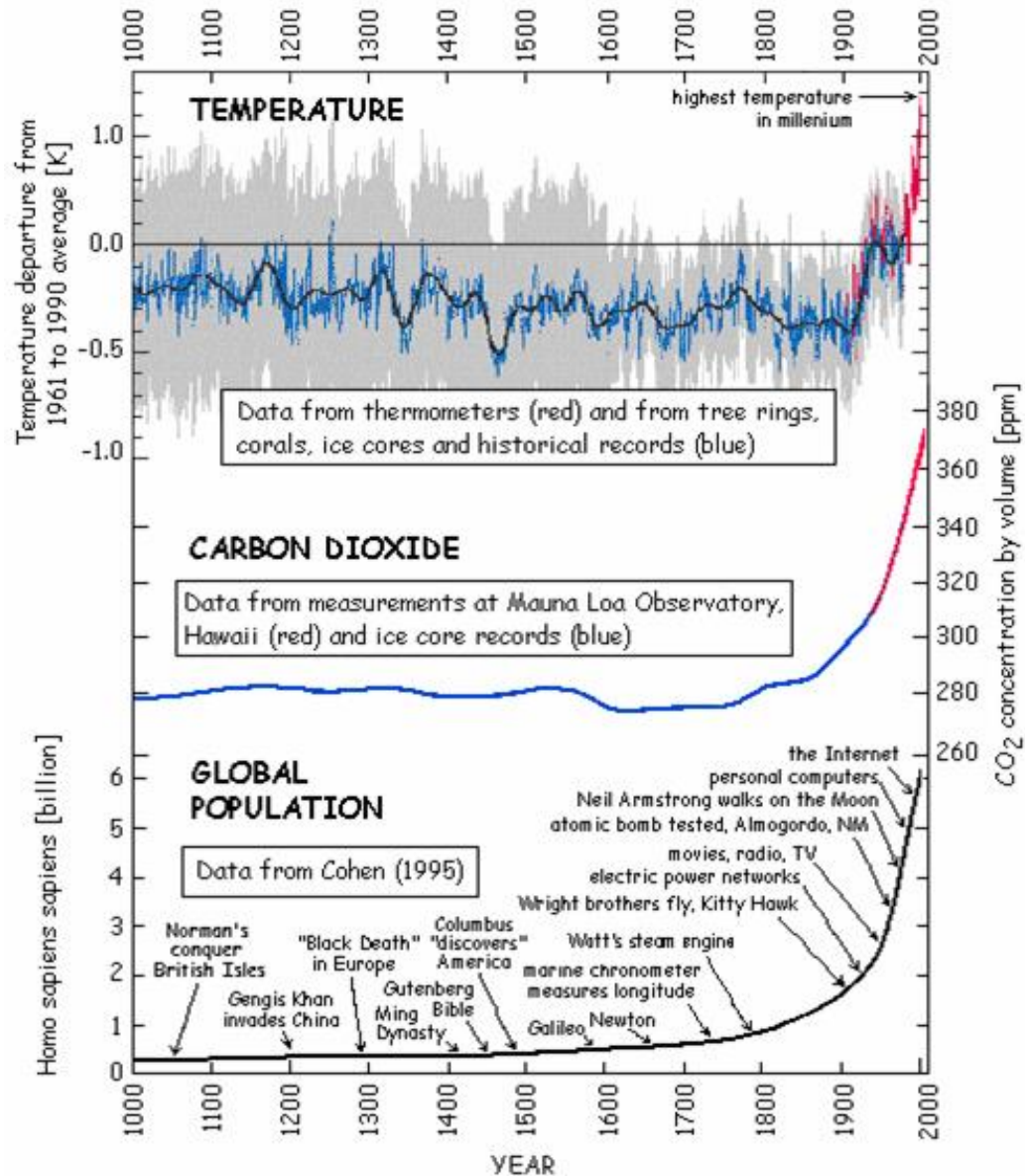


# El clima del futur (2025)

## El Sector Salut

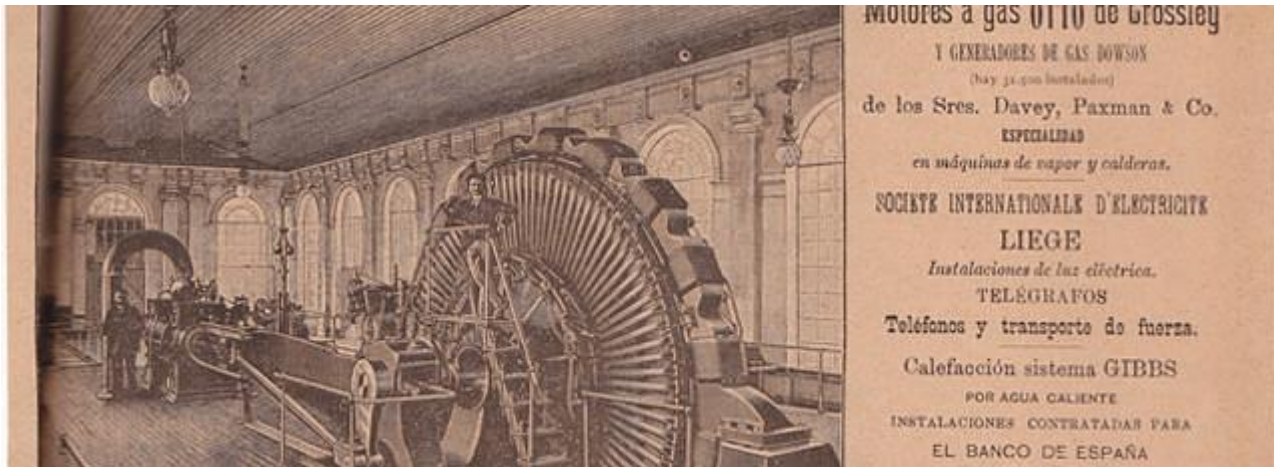


# El clima del futur (2025)





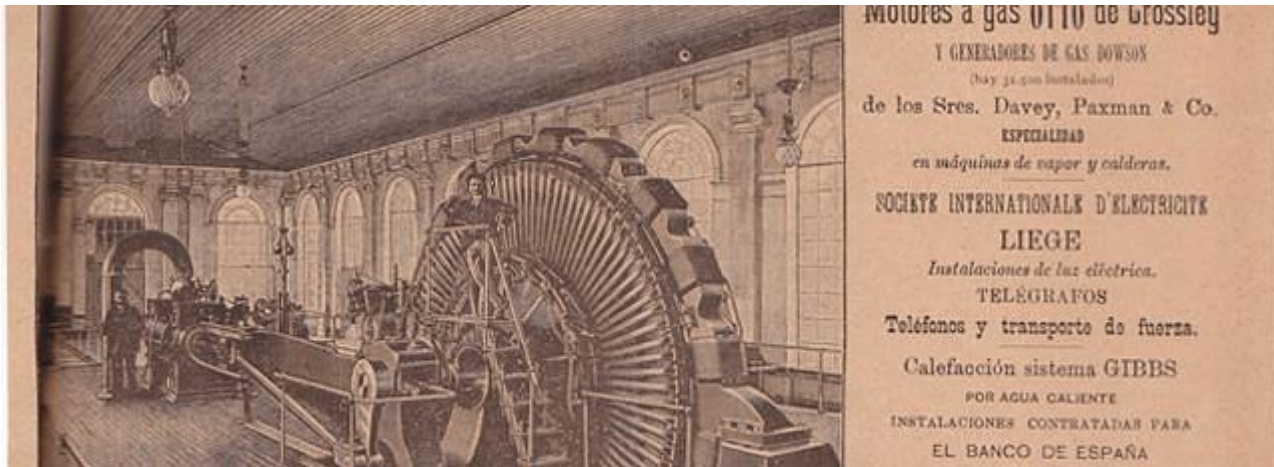
# El clima del futur (2025)



PRIMERA XARXA ENLLUMENAT?



# El clima del futur (2025)

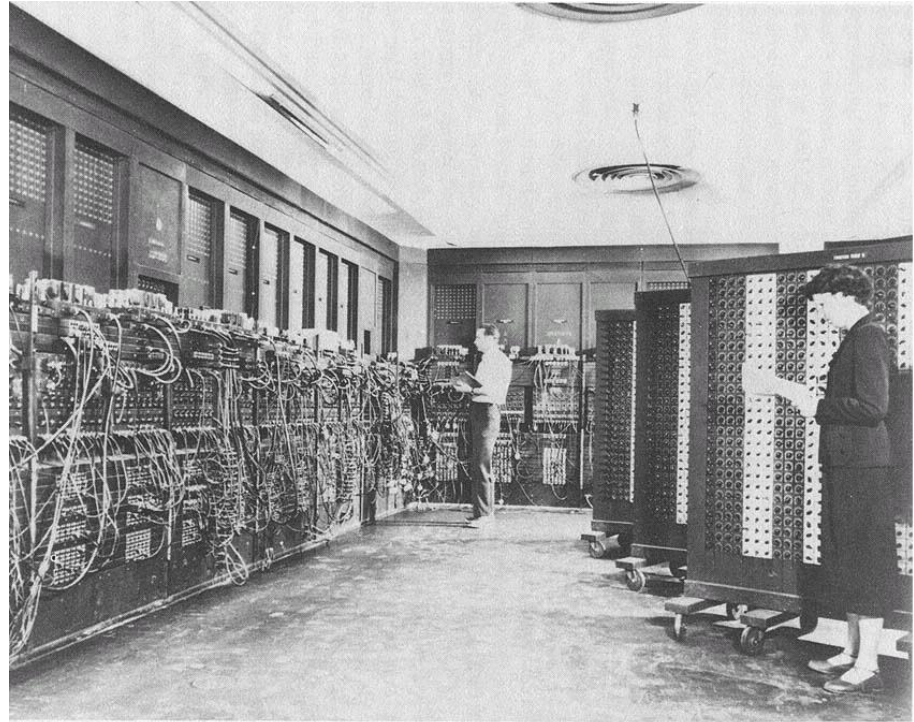


PRIMERA XARXA ENLLUMENAT?

**GIRONA 1886**



# El clima del futur (2025)

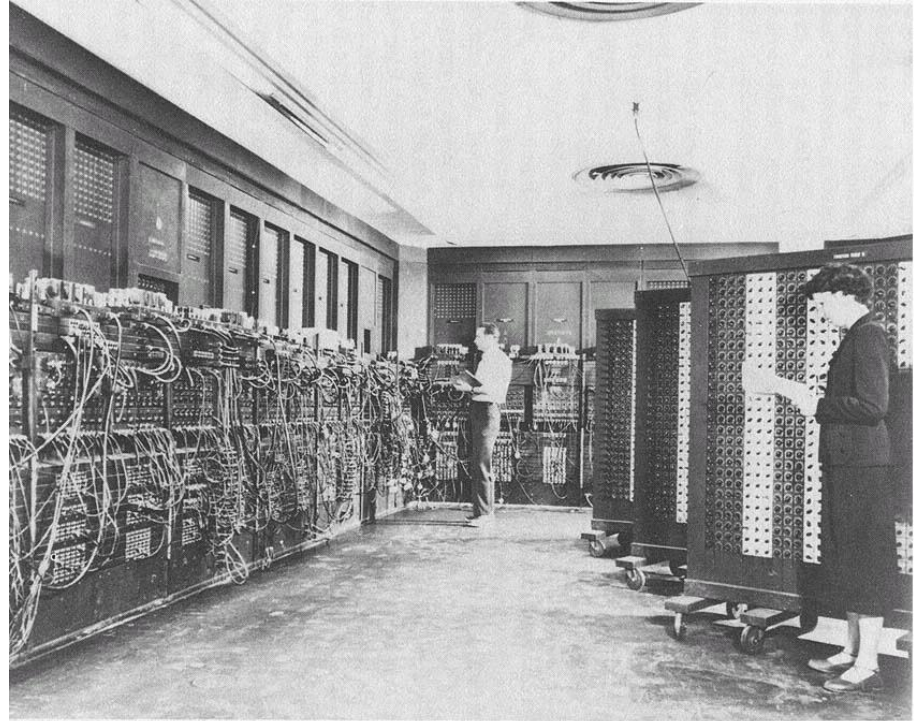


*The ENIAC.  
Smithsonian Institution Photo No. 53192.*

PRIMER PRONÒSTIC PER ORDINADOR?



# El clima del futur (2025)



*The ENIAC.  
Smithsonian Institution Photo No. 53192.*

PRIMER PRONÒSTIC PER ORDINADOR?

**ENIAC 1945**

# El clima del futur (2025)



EL MEU PRIMER ORDINADOR?



# El clima del futur (2025)



EL MEU PRIMER ORDINADOR?

**SPECTRUM SINCLAIR 1982**

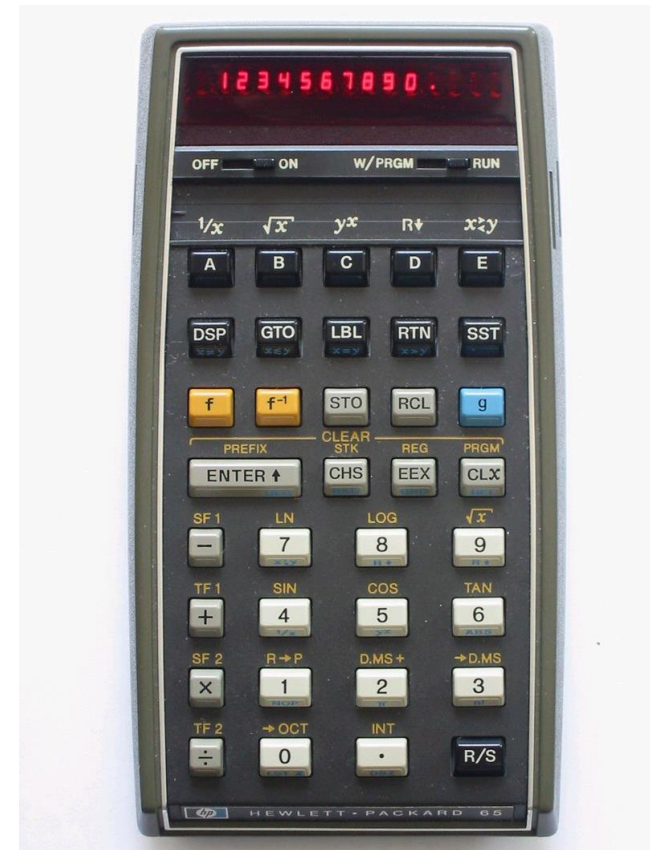
# El clima del futur (2025)



1980/1985

EL MEU PRIMER ORDINADOR?

**SPECTRUM SINCLAIR 1982**



# El clima del futur (2025)



QUAN ES VA INVENTAR INTERNET?



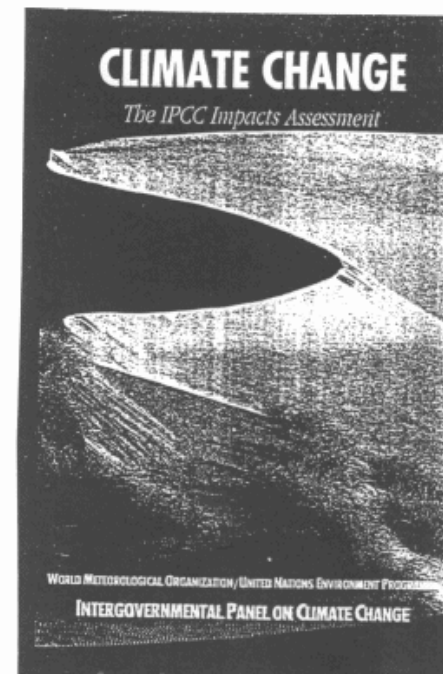
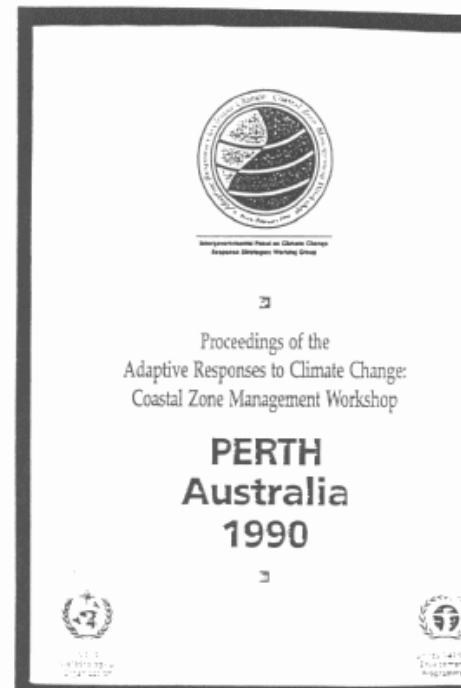
# El clima del futur (2025)



QUAN ES VA INVENTAR INTERNET?

**CERN, GINEBRA 1990**

# El clima del futur (2025)

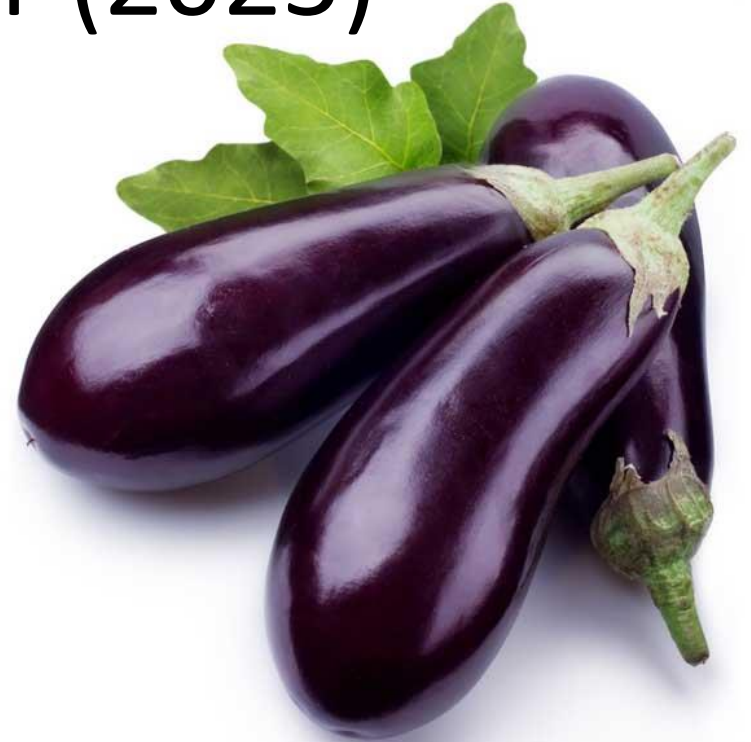


# El clima del futur (2025)





# El clima del futur (2025)



# El clima del futur (2025)

RCP 8.5	Rising radiative forcing pathway leading to 8.5 W/m <sup>2</sup> in 2100.
RCP 6	Stabilization without overshoot pathway to 6 W/m <sup>2</sup> at stabilization after 2100
RCP 4.5	Stabilization without overshoot pathway to 4.5 W/m <sup>2</sup> at stabilization after 2100
RCP 3-PD2	Peak in radiative forcing at ~ 3 W/m <sup>2</sup> before 2100 and decline

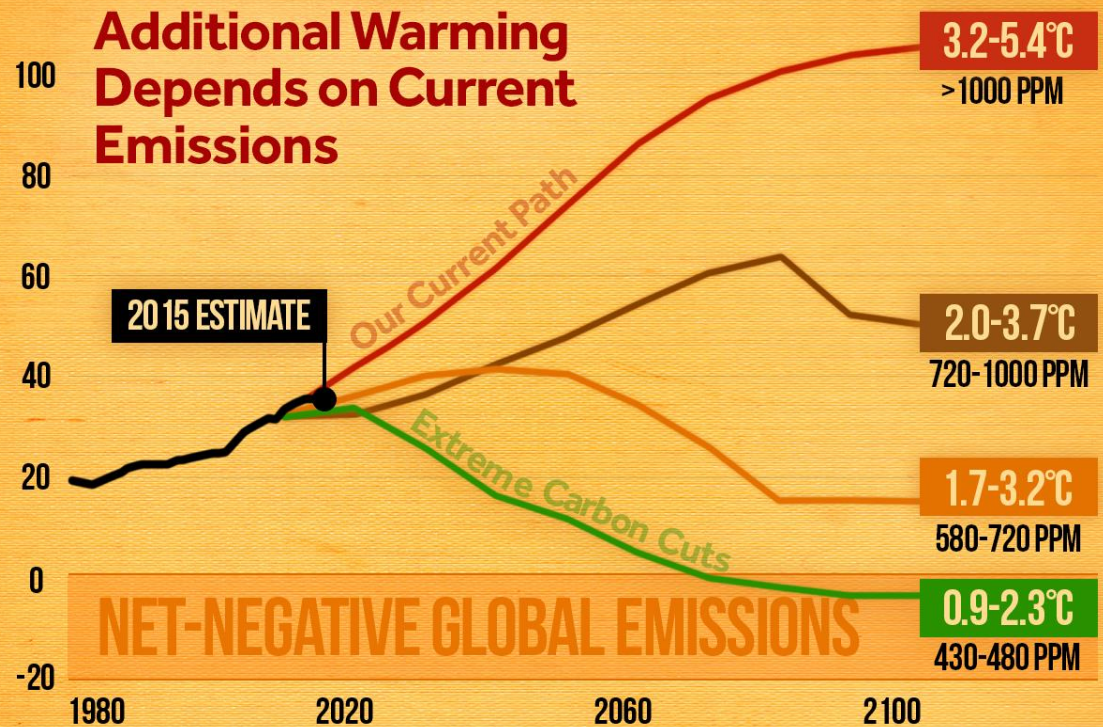
# El clima del futur (2025)

RCP 8.5

RCP 6

RCP 4.5

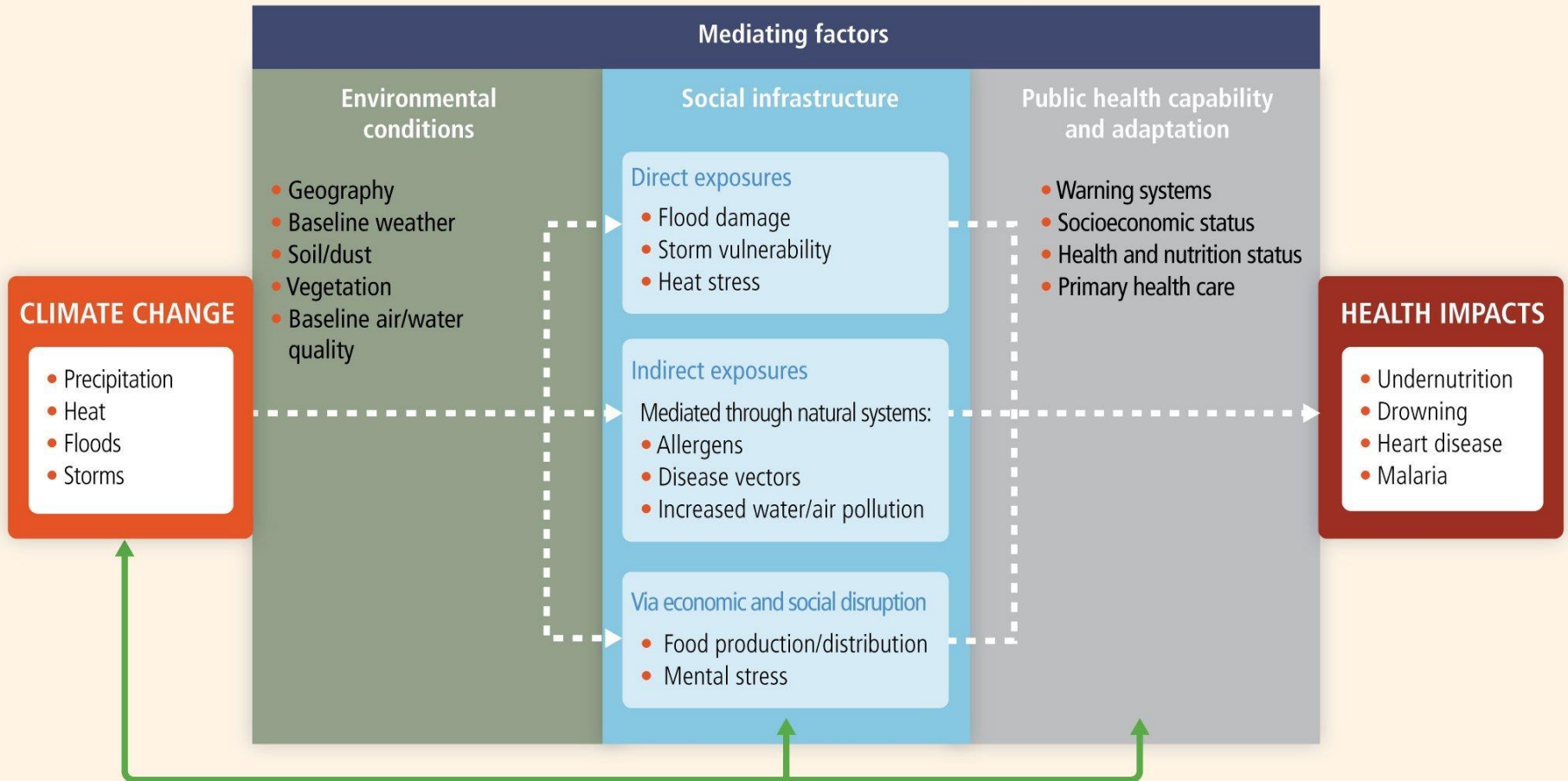
RCP 3-PD2



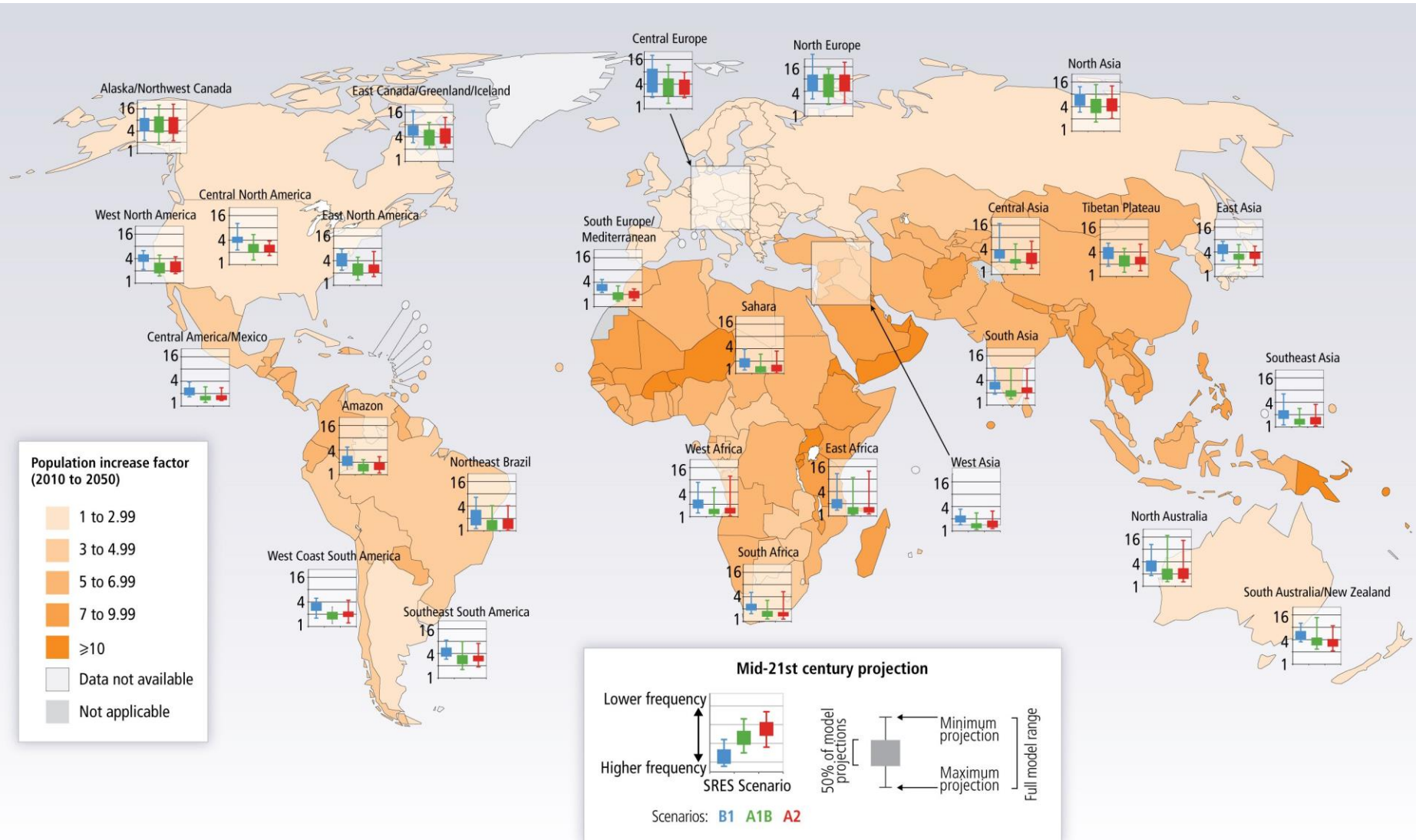
Emissions based on billions of tons of CO<sub>2</sub> per year from fossil fuels and cement  
Source: UNEP. 2014 Emissions Gap Report.



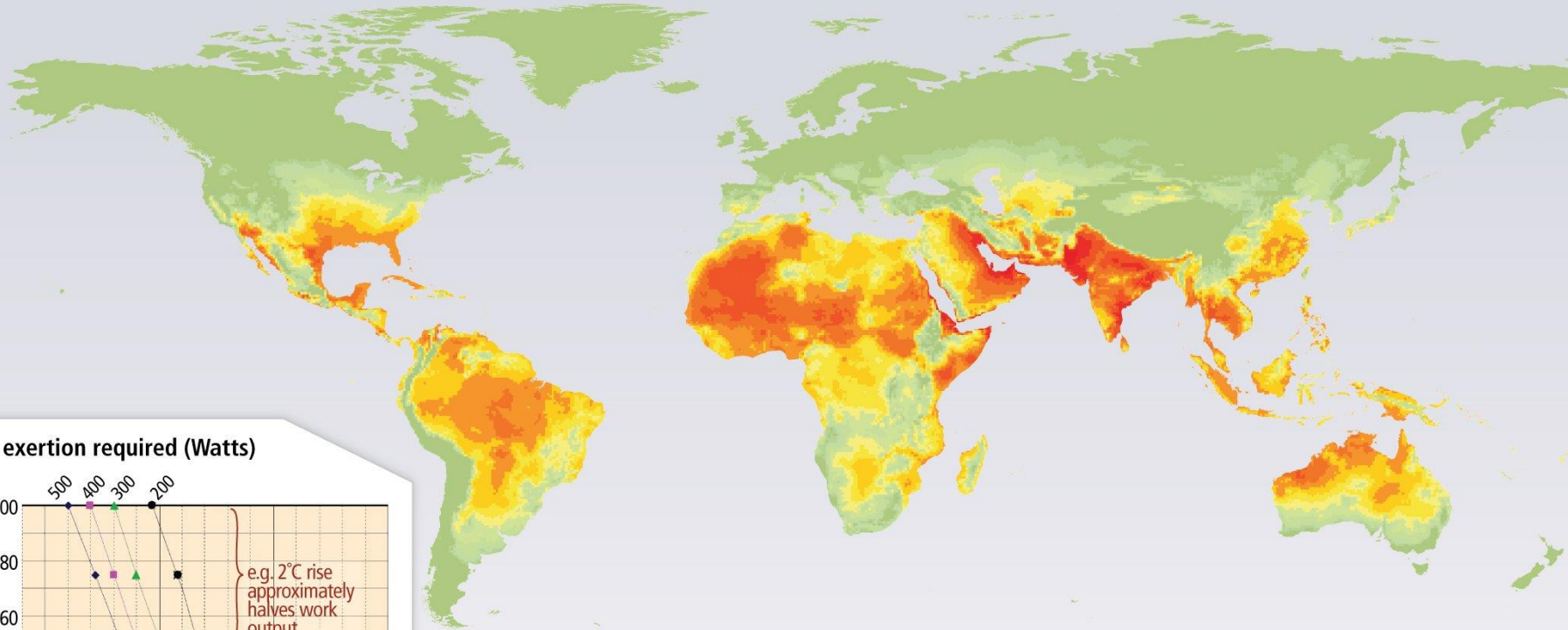
# El clima del futur (2025)



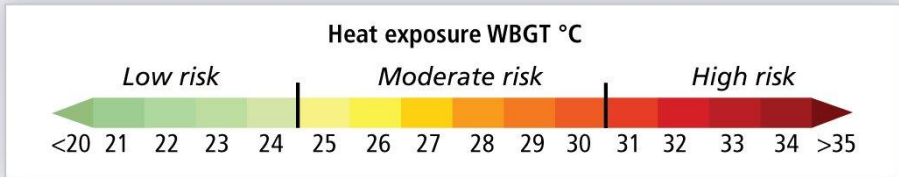
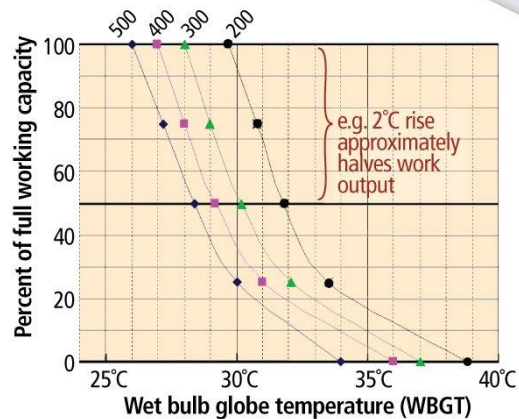
# El clima del futur (2025)



# El clima del futur (2025)

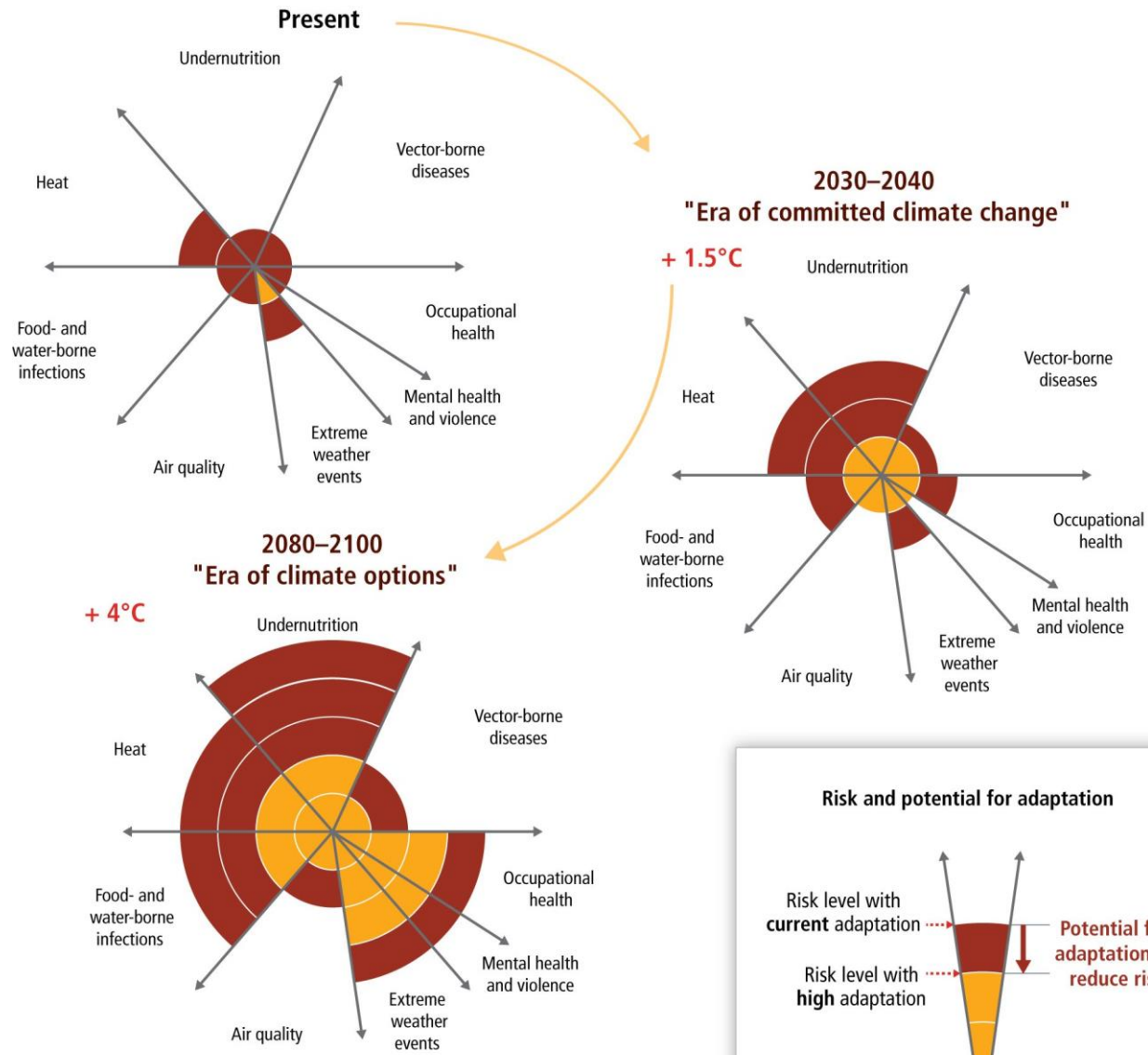


Job exertion required (Watts)





# El clima del futur (2025)

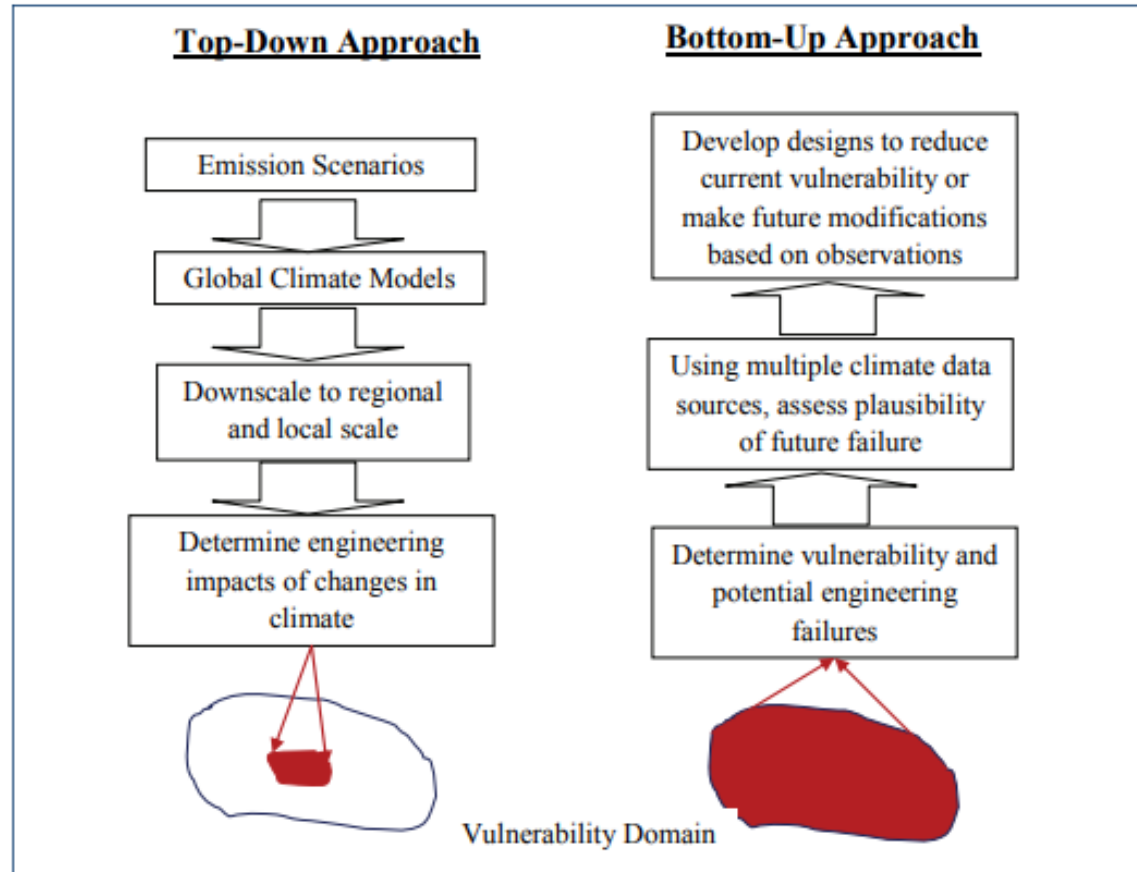


# El clima del futur (2025)

**Table 11-3** | Examples of recent (post-AR4) research studies on co-benefits of climate change mitigation and public health policies. For recent estimates of the global and regional burden of disease from the various risk factors involved, see Lim et al. (2012). (CAP = climate-altering pollutant.)

Co-benefit category	Benefits for health	Benefits for climate	References
Reduction of co-pollutants from household solid fuel combustion (see also WGIII AR5, Chapters 7 to 10)	Potentially reduce exposures that are associated with disease, chronic and acute respiratory illnesses, lung cancer, low birth weight and stillbirths, and possibly tuberculosis	Reduces CAP emissions associated with household solid fuel use including CO <sub>2</sub> , CO, black carbon, and CH <sub>4</sub>	Bell et al. (2008); Smith et al. (2008); Wilkinson et al. (2009); Lefohn et al. (2010); Venkataraman et al. (2010); World Health Organization Regional Office for Europe (2010); Po et al. (2011); Anenberg et al. (2012)
Reduction of greenhouse gases and associated co-pollutants from industrial sources, such as power plants and landfills, by more efficient generation or substitution of low carbon alternatives (Section 27.3.7.2)	Reductions in health-damaging co-pollutant emissions would decrease exposures to outdoor air pollution and could reduce risks of cardiovascular disease, chronic and acute respiratory illnesses, lung cancer, and preterm birth.	Reductions in emissions of CO <sub>2</sub> , black carbon, CO, CH <sub>4</sub> , and other CAPs	Bell et al. (2008); Apsimon et al. (2009); Jacobson (2009); Puppim de Oliveira et al. (2009); Smith et al. (2009); Tollefsen et al. (2009); Dennekamp et al. (2010); Jacobson (2010); Nemet et al. (2010); Rive and Aunan (2010); Shonkoff et al. (2011); Shindell et al. (2012); West et al. (2012); West et al. (2013)
Energy efficiency. Actual energy reduction may sometimes be less than anticipated because part of the efficiency benefit is taken as more service.	Reductions in fuel demand potentially can reduce emissions of CAPs associated with fuel combustion and subsequent exposures to pollutants that are known to be health damaging.	Reductions in emission of CAPs due to decreases in fuel consumption	Markandya et al. (2009); Wilkinson et al. (2009)
Increases in active travel and reductions in pollution due to modifications to the built environment, including better access to public transport and higher density of urban settlements (see also Sections 24.4, 24.5, 24.6, 24.7, 26.8)	Increased physical activity; reduced obesity; reduced non-communicable disease burden, health service costs averted; improved mental health; reduced exposure to air pollution; increased local access to essential services, including food stores; enhanced safety	Reductions of CAP emissions associated with vehicle transport; replacing existing vehicles with lower emission vehicles could reduce air pollution.	Babey et al. (2007); Reed and Ainsworth (2007); Kaczynski and Henderson (2008); Casagrande et al. (2009); Jarrett et al. (2009); Rundle et al. (2009); Woodcock et al. (2009); Durand et al. (2011); Grabow et al. (2011); McCormack and Shiell (2011); Jensen et al. (2013); Woodcock et al. (2013)
Healthy low greenhouse gas emission diets, which can have beneficial effects on a range of health outcomes (see also Table 11.3)	Reduced dietary saturated fat in some populations (particularly from ruminants) and replacement by plant sources associated with decreased risk of (ischemic) heart disease, stroke, colorectal cancer (processed meat consumption). Increased fruit and vegetable consumption can reduce risk of chronic diseases. Reduced CH <sub>4</sub> emissions due to a decreased demand for ruminant meat products would reduce tropospheric ozone.	Reductions in CO <sub>2</sub> and CH <sub>4</sub> emissions from energy-intensive livestock systems	McMichael et al. (2007); Friel et al. (2009); Sinha et al. (2009); Smith and Balakrishnan (2009); Jakszyn et al. (2011); Hooper et al. (2012); Pan et al. (2012); Xu et al. (2012)
Greater access to reproductive health services	Lower child and maternal mortality from increased birth intervals and shifts in maternal age	Potentially slower growth of energy prata consumption and related CAP emissions; less impact on land use change, etc.	Tsui et al. (2007); Gribble et al. (2009); Prata (2009); O'Neill et al. (2010); Diamond-Smith and Potts (2011); Potts and Henderson (2012); Kozuki et al. (2013)
Increases in urban green space (Table 25-5)	Reduced temperatures and heat island effects; reduced noise; enhanced safety; psychological benefits; better self-perceived health status	Reduces atmospheric CO <sub>2</sub> via carbon sequestration in plant tissue and soil	Mitchell and Popham (2007); Babey et al. (2008); Maas et al. (2009); van den Berg et al. (2010); van Dillen et al. (2011)
Carbon sequestration in forest plantations, reducing emissions from deforestation and degradation, and carbon offset sales (see Chapter 13 and Section 15.3.4; see also Sections 20.4.1 and 26.8.4.3)	Poverty alleviation and livelihood/job generation through sale of Clean Development Mechanism and voluntary market credits. Ameliorate declines in production or competitiveness in rural communities	Reduces emissions of CAPs and promotes carbon sequestration through reducing emissions from deforestation and degradation	Holmes (2010); Ezzine-de-Blas et al. (2011)

# El clima del futur (2025)



3.2: A comparison of top-down and bottom-up approaches to climate change adaptation.

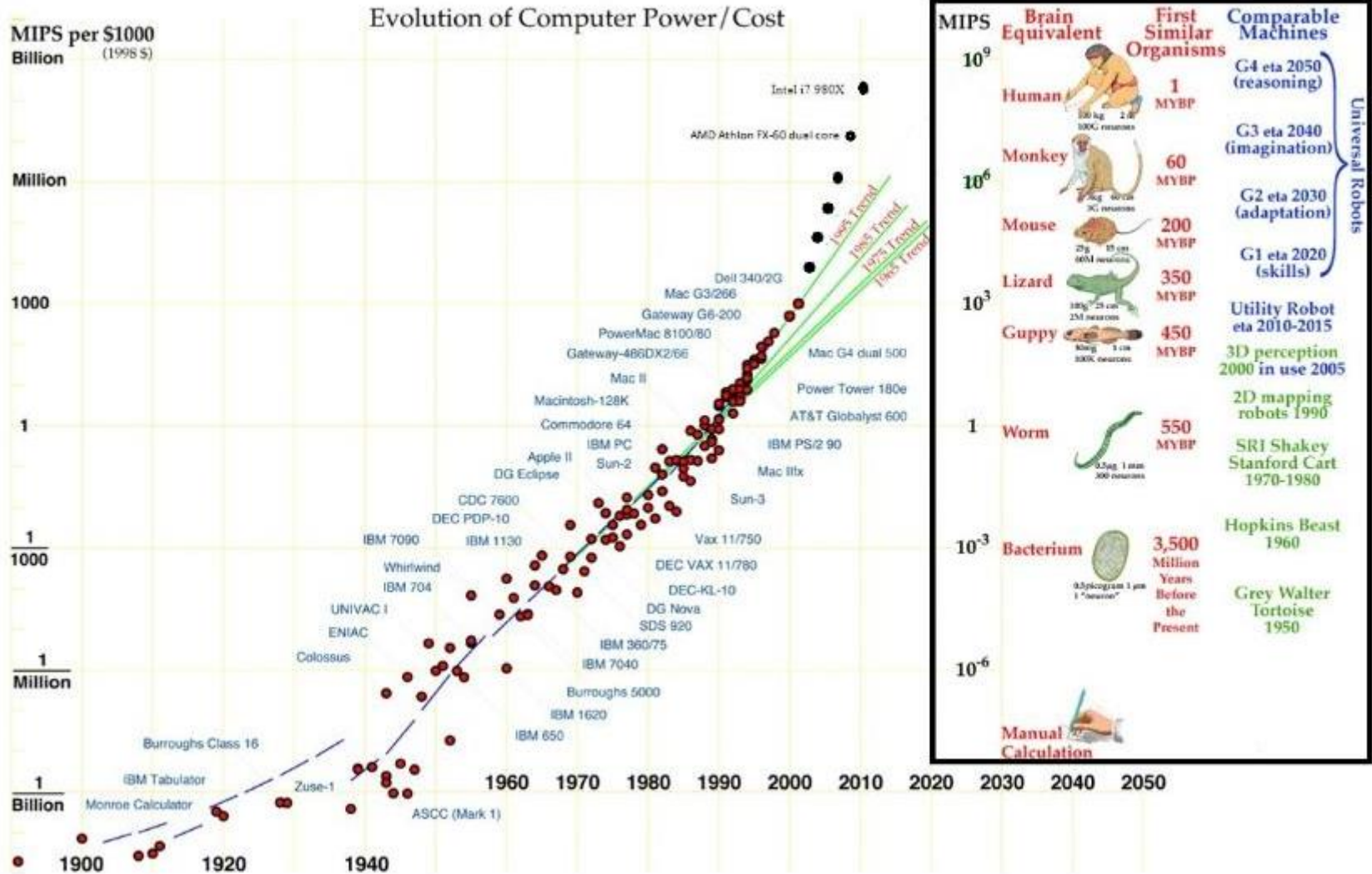
# PRONÒSTIC DEL TEMPS

Assignatura Meteorologia i Climatologia

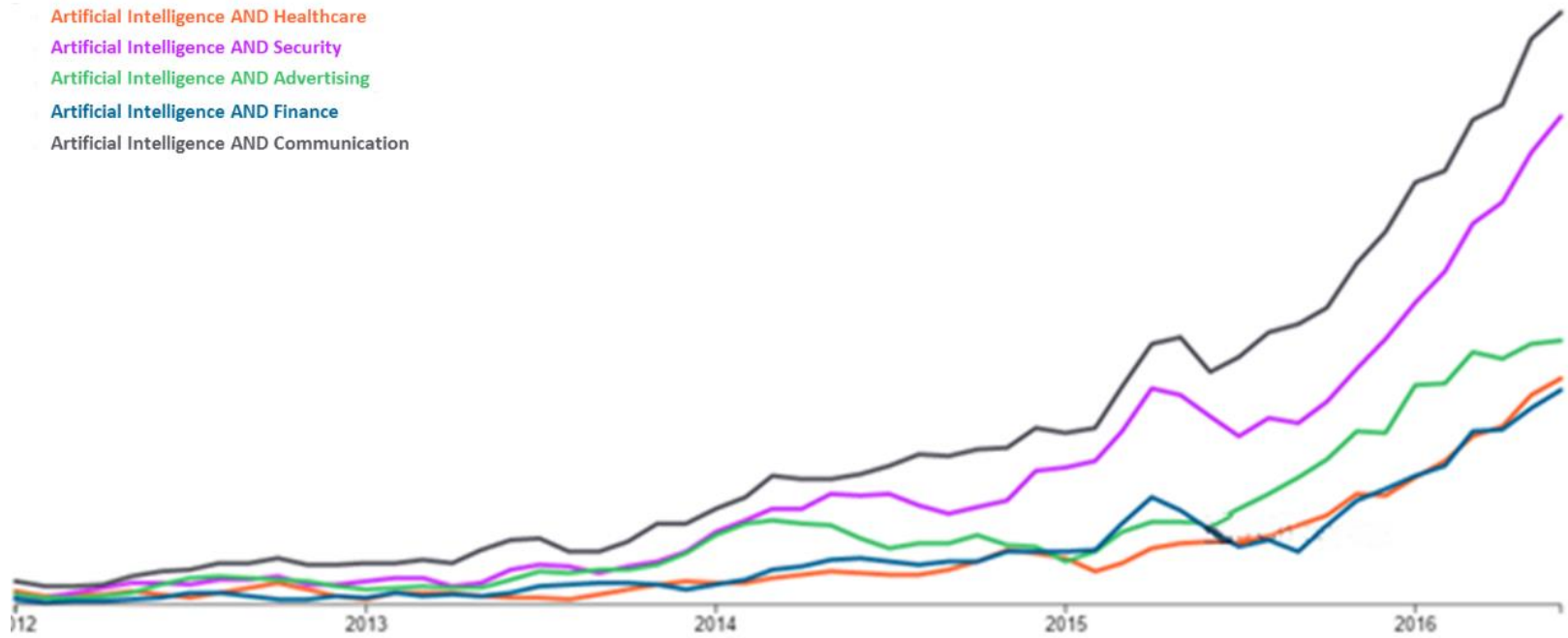
Creativitat!!



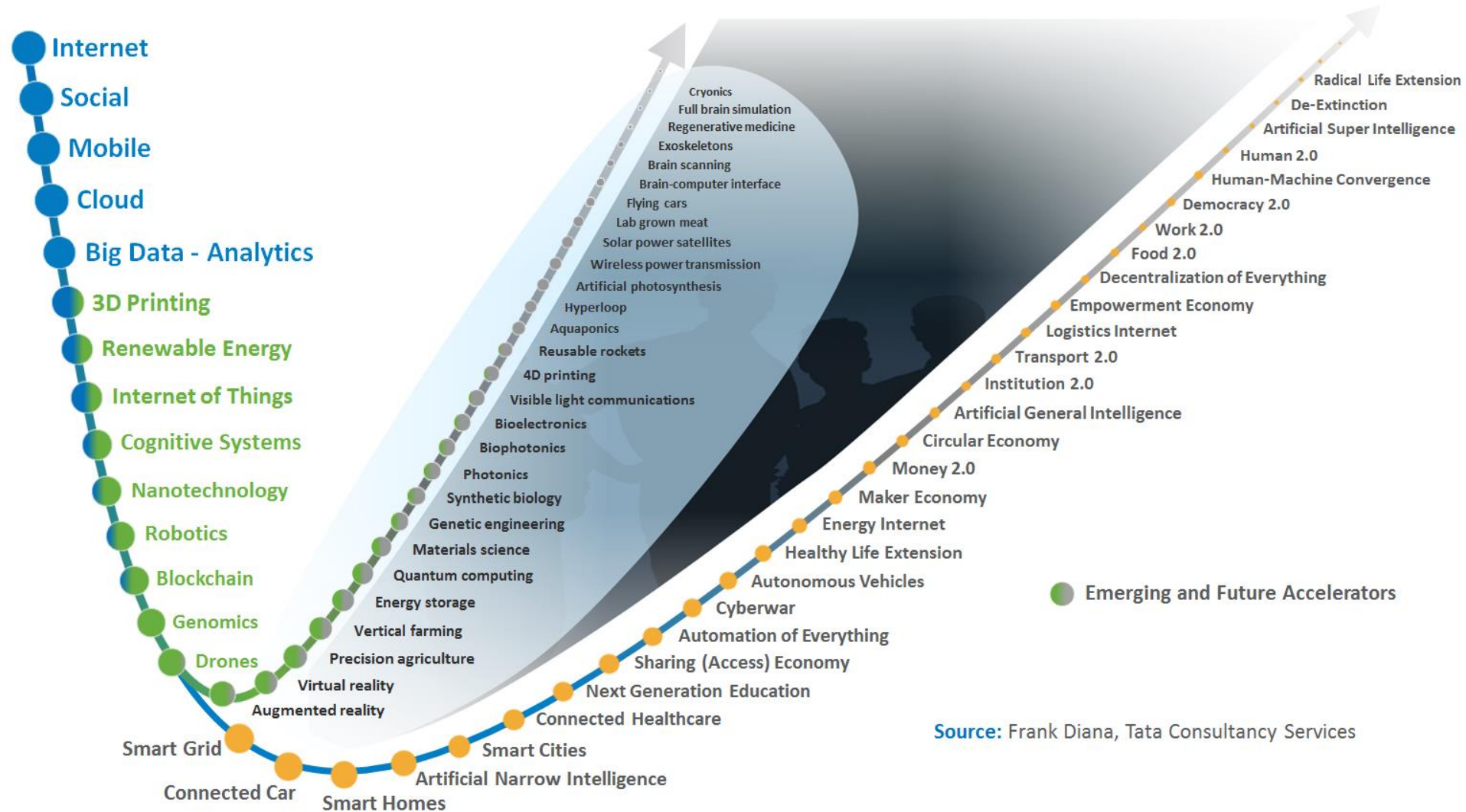
# El clima del futur (2025)



# El clima del futur (2025)



# El clima del futur (2025)



El clima del futur (2025)

Responsabilitat



El clima del futur (2025)

Responsabilitat

Professionalitat

El clima del futur (2025)

Responsabilitat

Professionalitat

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El clima del futur (2025)

Responsabilitat

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CREATIVITAT

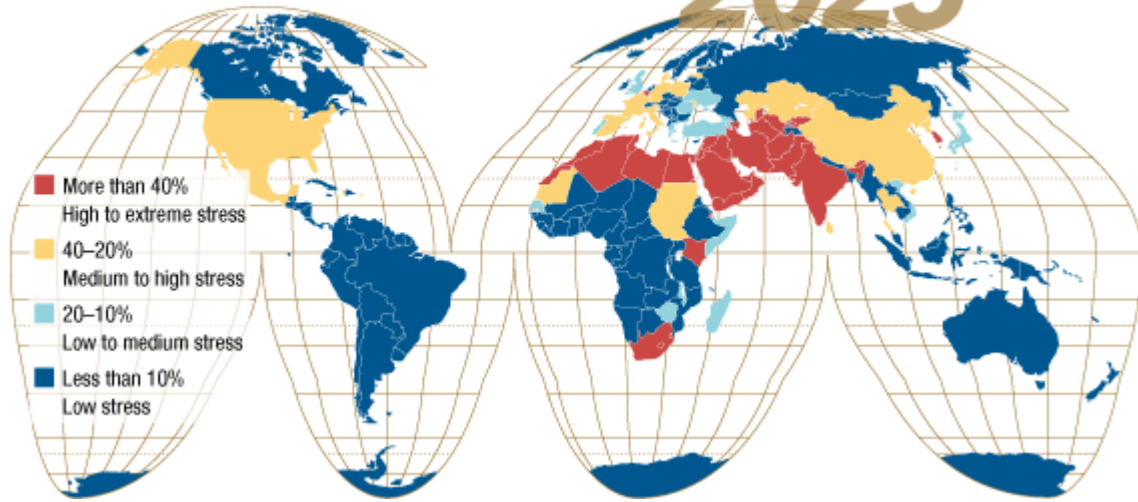
# El clima del futur (2025)

QUANTS ANYS TINDRÀS EL 2025?



# El clima del futur (2025)

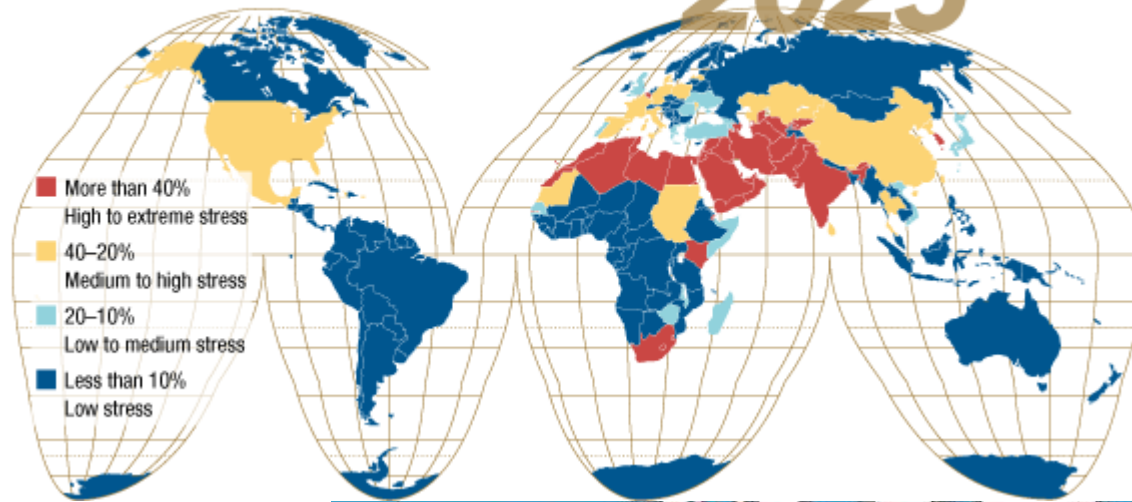
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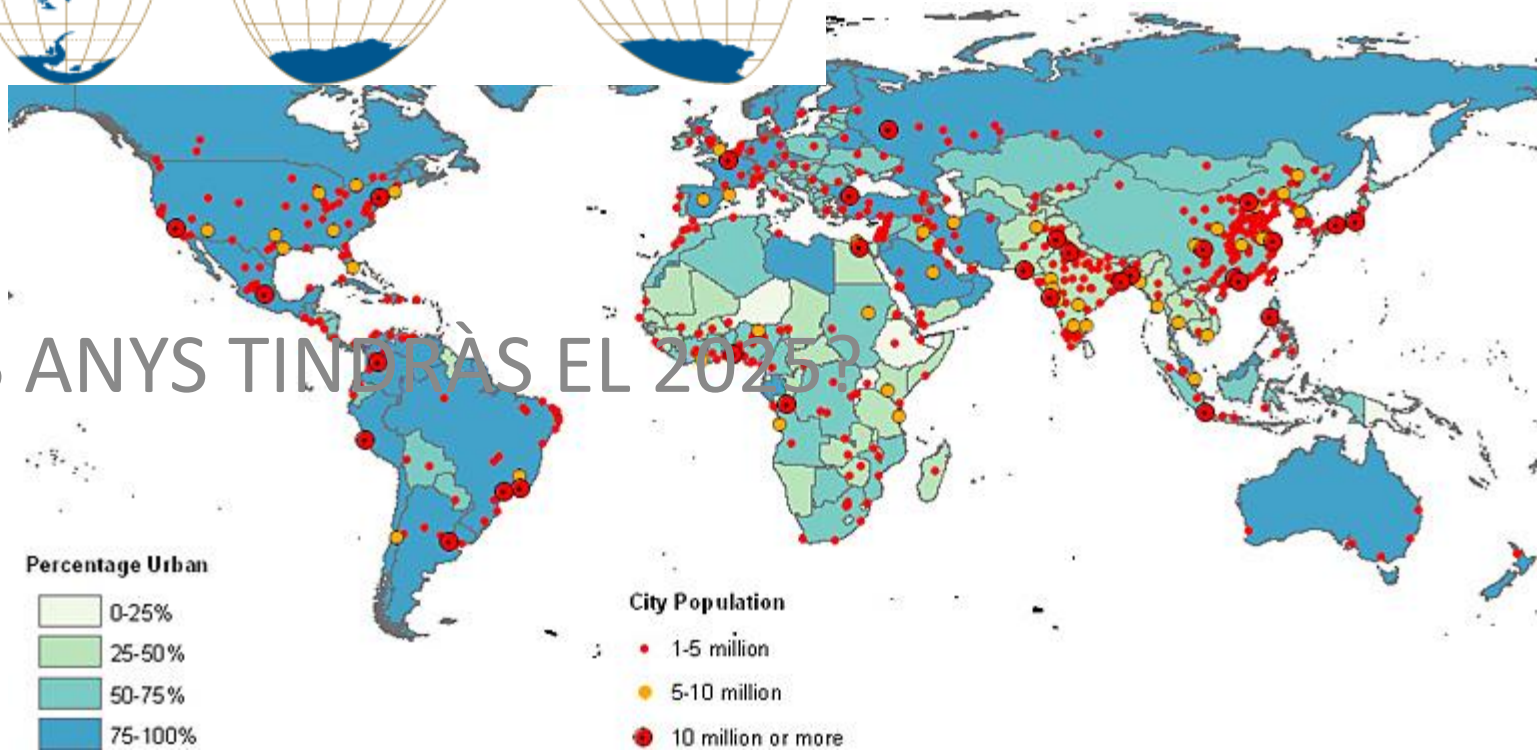
QUANTS ANYS TINDRÀS EL 2025?

# El clima del futur (2025)

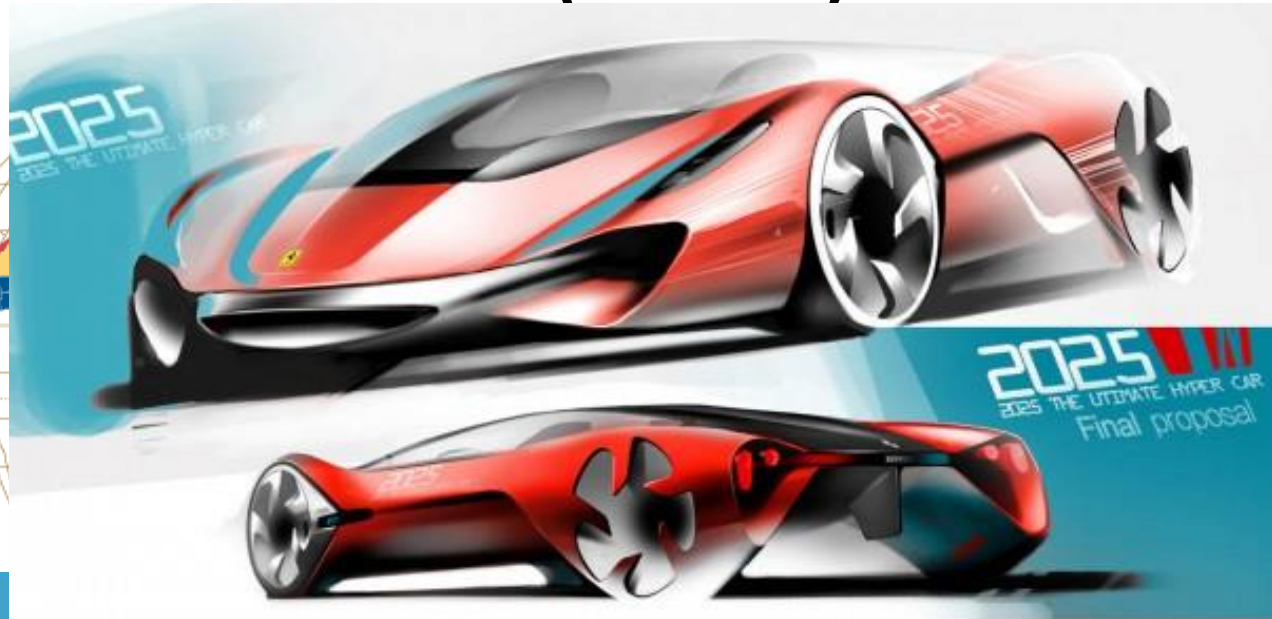
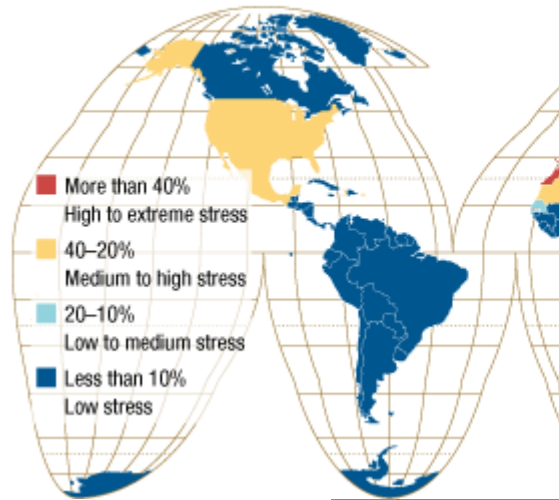
## 2025



QUANTS ANYS TINDRAS EL 2025?



# El clima del futur (2025)



QUANTS ANYS TINDRAS EL 2025?





# El clima del futur (2025)



QUANTS ANYS  
TINDRÀS EL 2025?



# El clima del futur (2025)





# El clima del futur (2025)





# El clima del futur (2025)



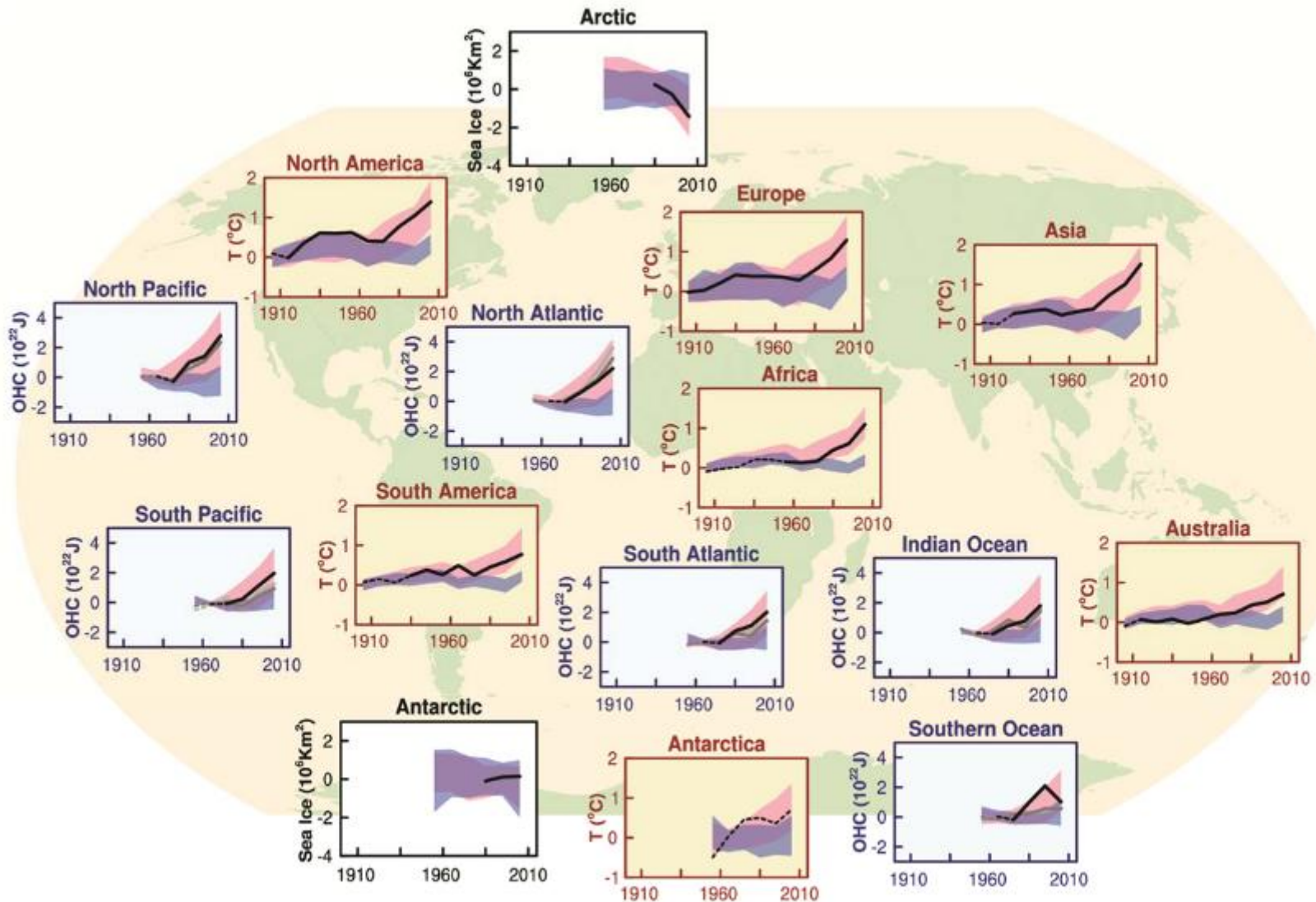


# El clima del futur (2025)

Moltes gràcies!

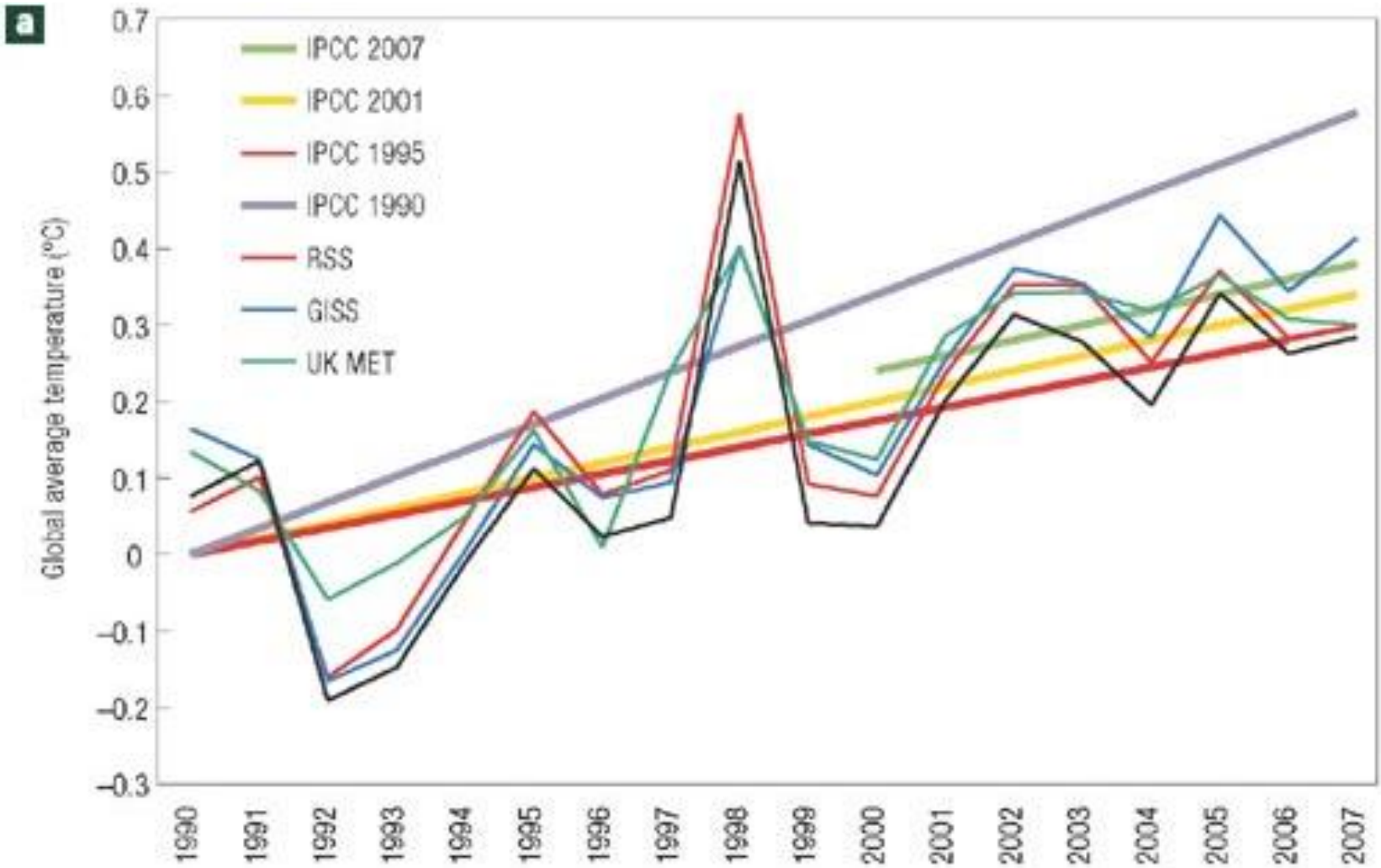


# El clima del futur (2025)





# El clima del futur (2025)



# El clima del futur (2025)

GLOBAL TEMPERATURES: comparing CMIP5 & HadCRUT4

