

**IST DAS KLIMA
NOCH ZU RETTEN?
WAS BRINGT DER
ZUKUNFTSENTSCHEID?**

**Mittwoch
03.09.25
19 Uhr**

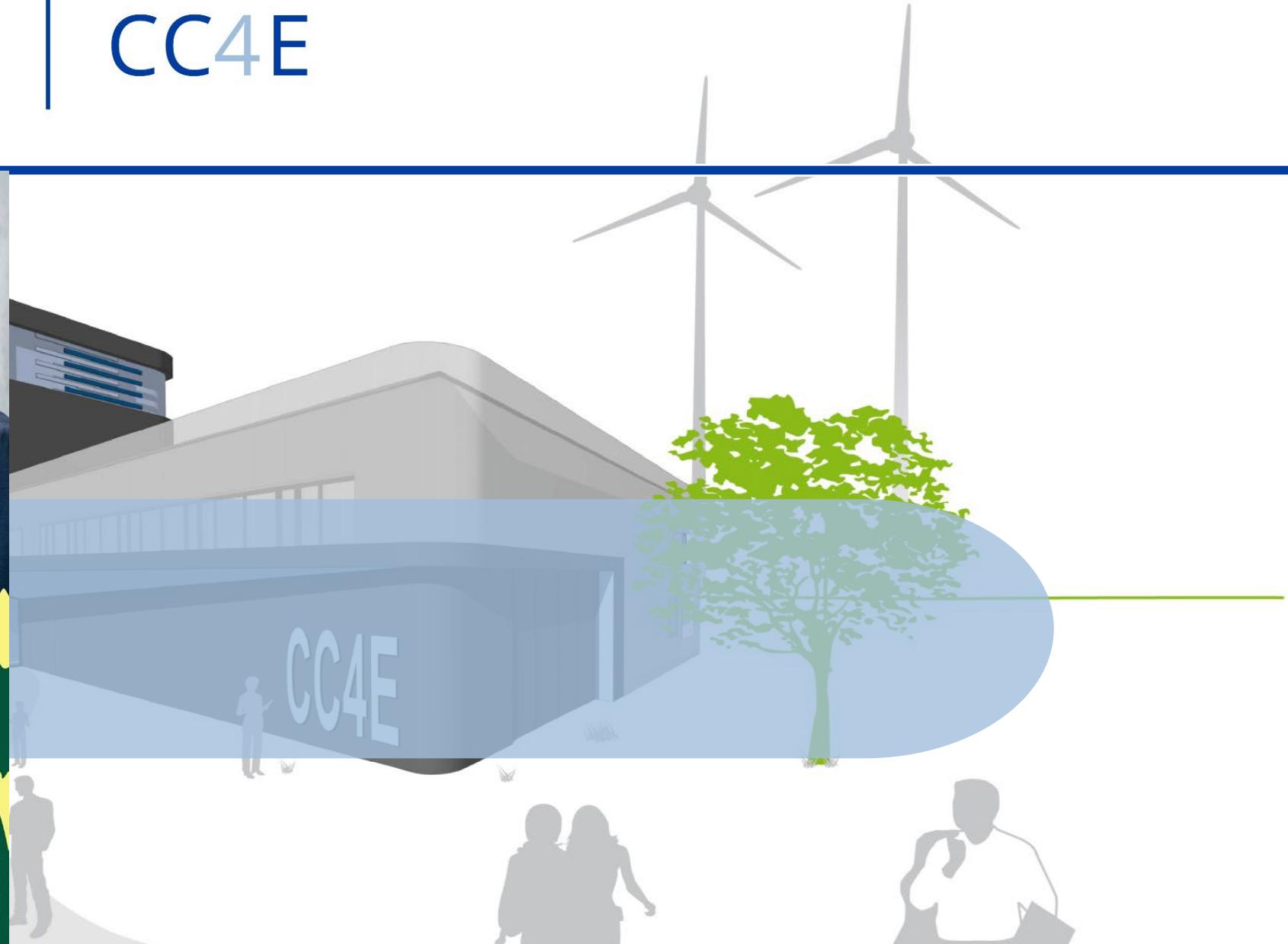
DIE GRÜNEN BERGEDORF laden ein:

**Vortrag und Gespräch mit
Professor Dr. Hans Schäfers**

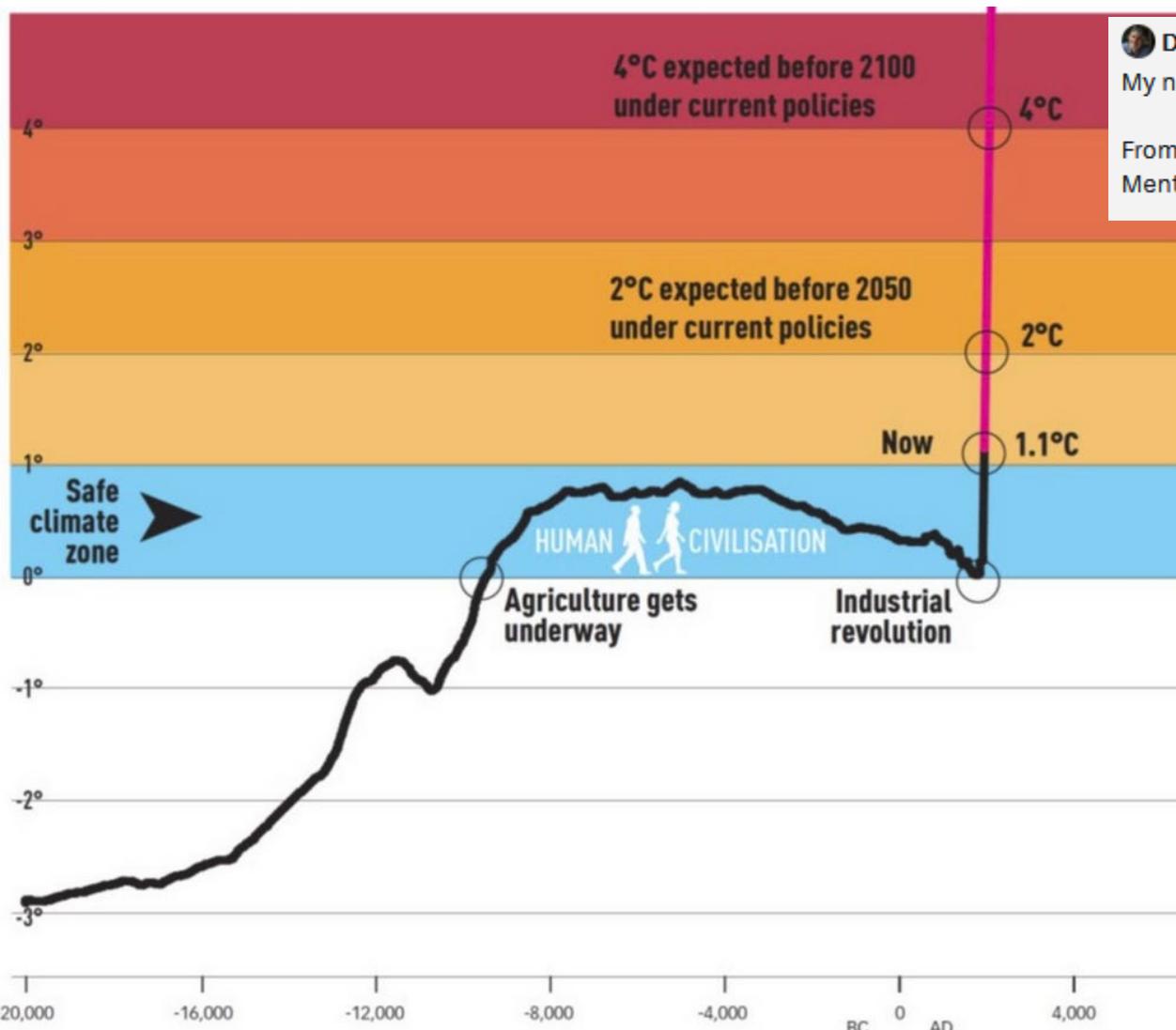
Leiter Competence Center für Erneuerbare Energien
und Energieeffizienz, HAW Hamburg

Serrahn Eins, Serrahnstraße 1, 21029 Hamburg

gruene-bergedorf.de



Unsere Klimanische



Dr Charlie Gardner @CharlieJGardner · 4. Juli

My new favourite climate graphic

From Jane Morton @SafeClimate's excellent free booklet 'Don't Mention the Emergency?'

Our World in Data

Population by world region

Historic estimates with future projections based on the [UN medium-fertility scenario](#).

All together Relative

10 billion

8 billion

6 billion

4 billion

2 billion

0

Oceania
Africa
Asia
South America
North America
Europe

Source: HYDE (2017); Gapminder (2023); UN (2022)
Note: Historical country data is shown based on today's geographical borders.

► 10,000 BCE ○ 2100

[OurWorldInData.org/population-growth/](#) • CC BY

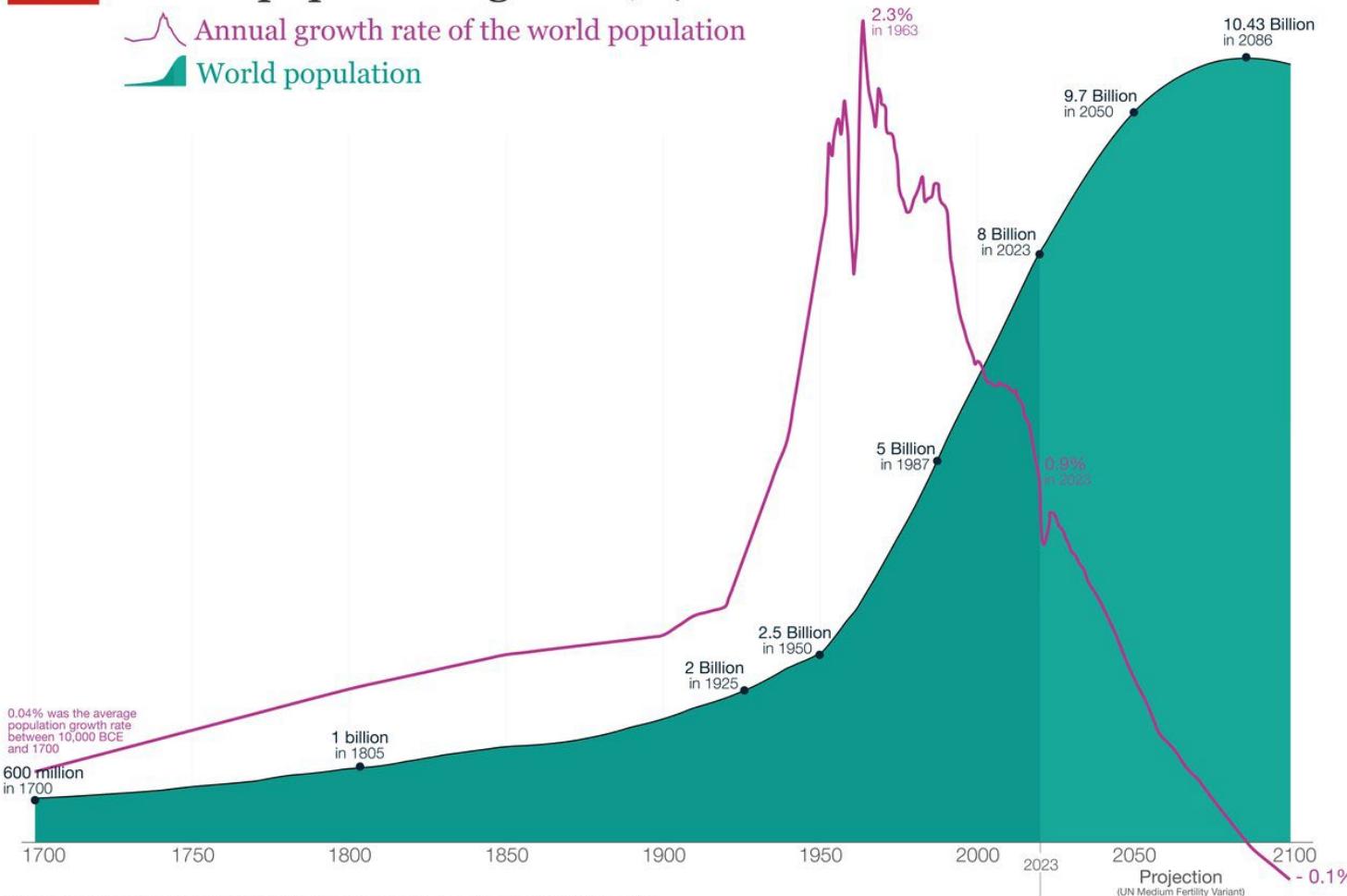
Weltbevölkerungswachstum

Our World
in Data

World population growth, 1700-2100

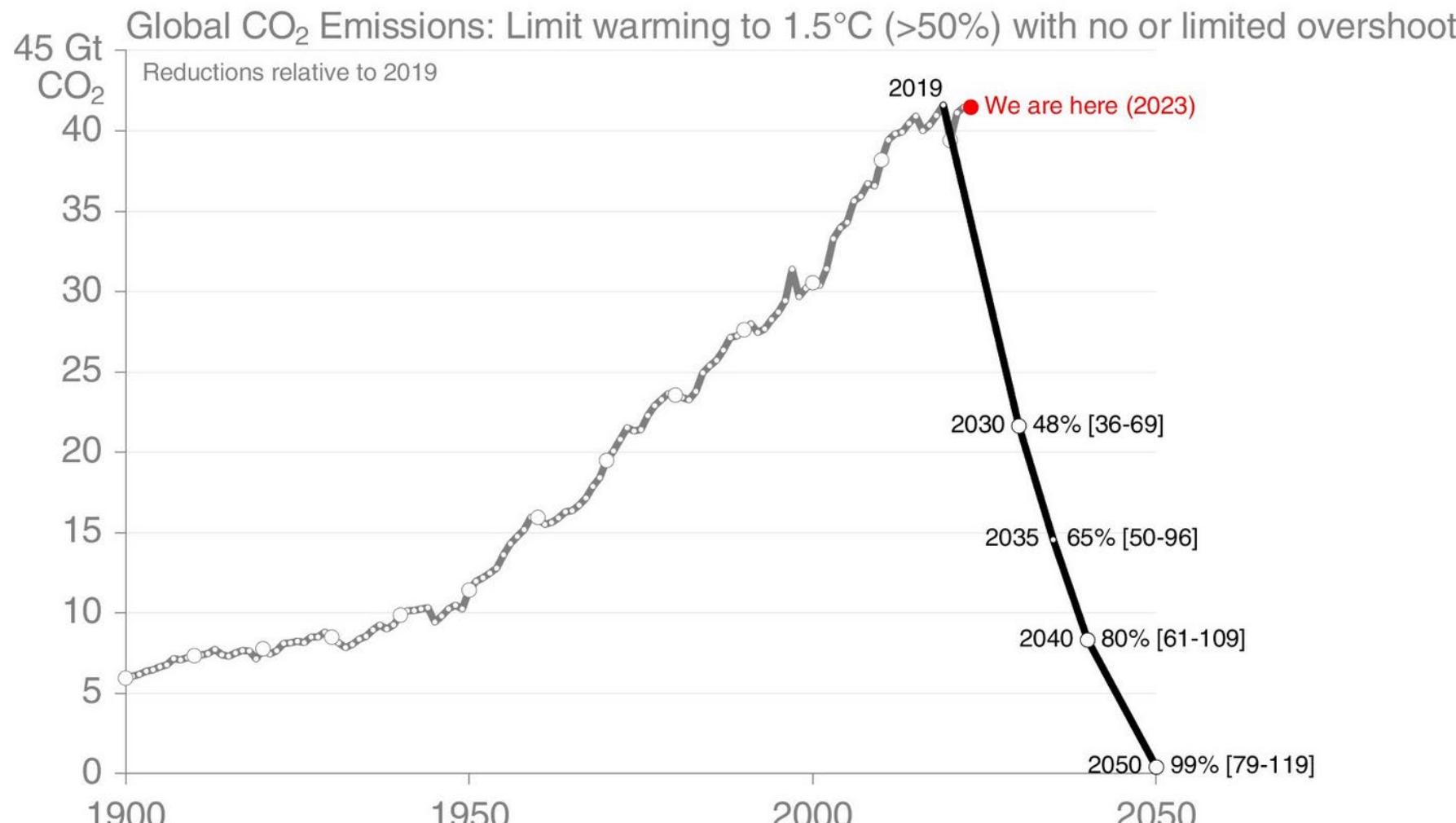
Annual growth rate of the world population

World population



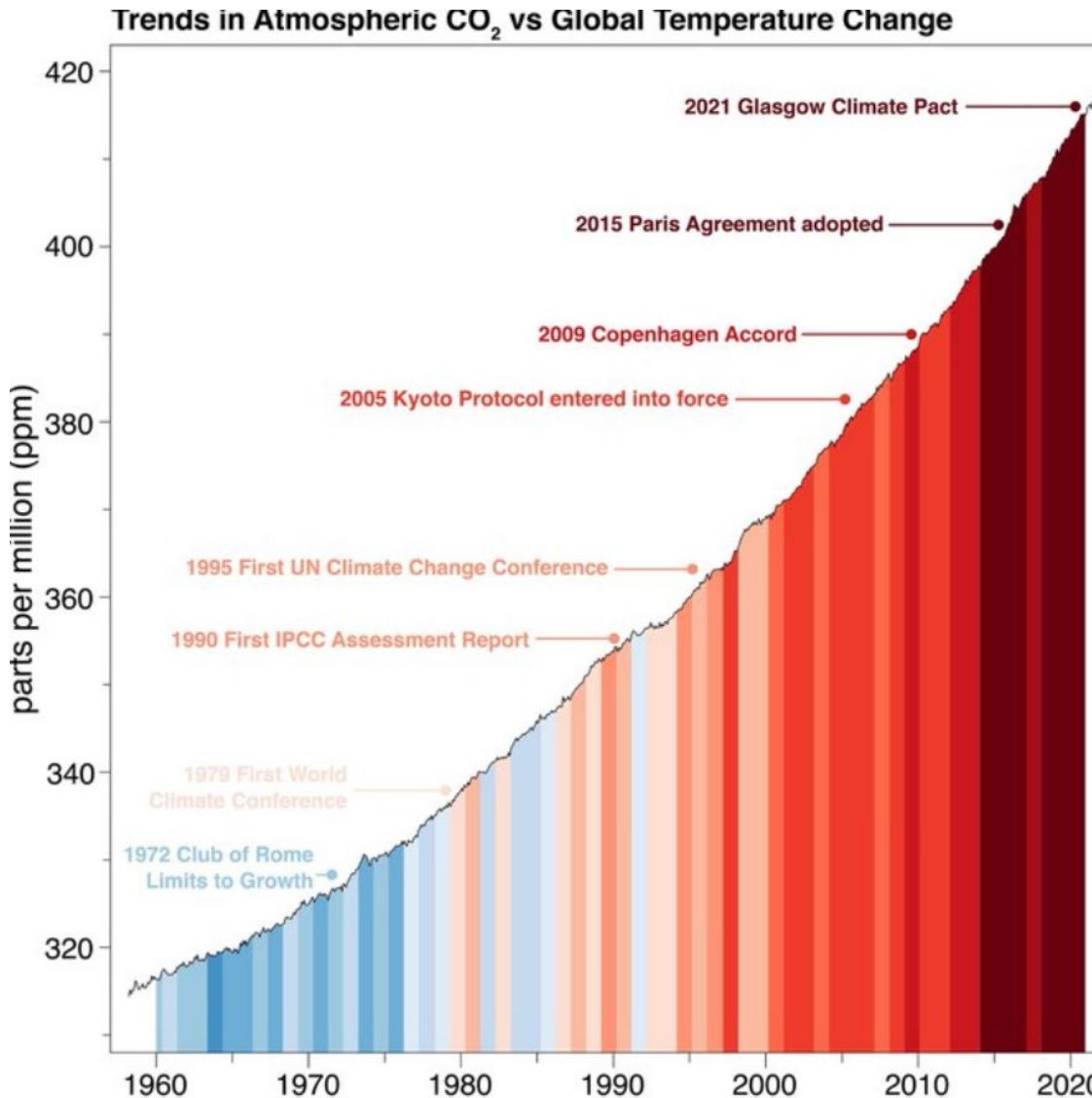
Data sources: Our World in Data based on HYDE, UN, and UN Population Division [2022 Revision]
This is a visualization from OurWorldinData.org, where you find data and research on how the world is changing.

Licensed under CC-BY by the authors Max Roser and Hannah Ritchie.

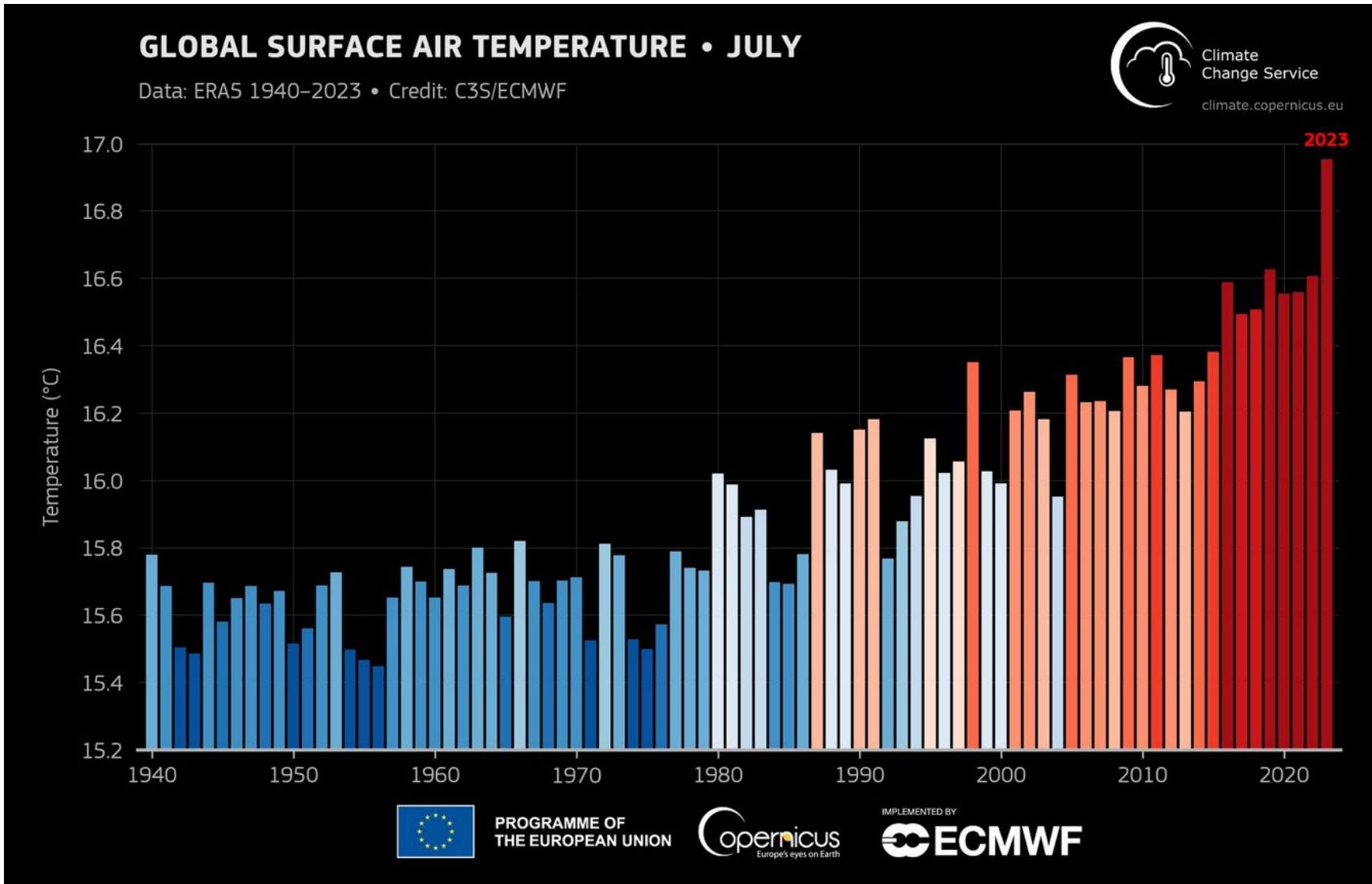


cc @Peters_Glen • Data: Global Carbon Budget (2022); IPCC SYR Table SPM.1

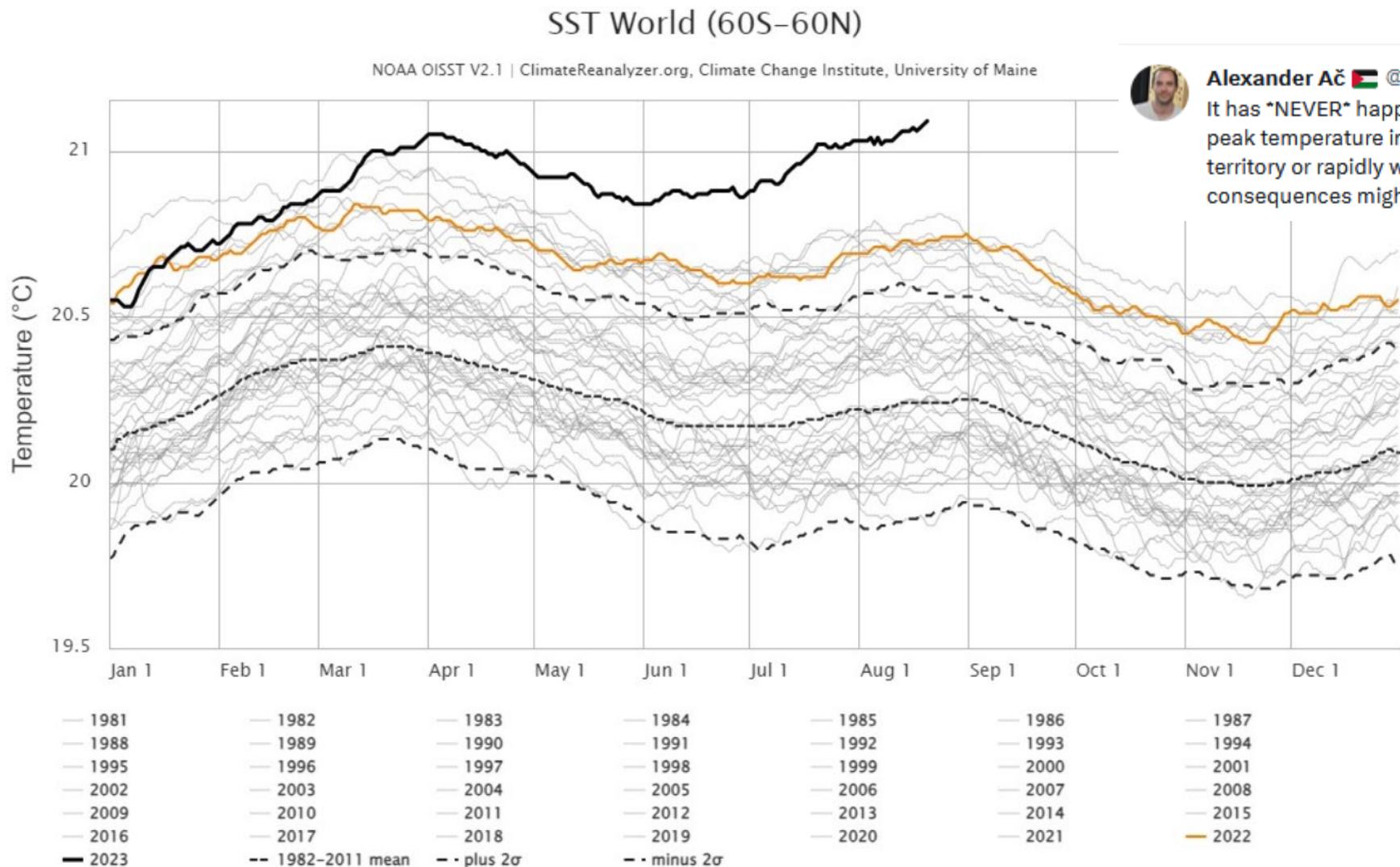
Entwicklung CO₂ Konzentration



Entwicklung Globale Temperaturen jeweils Juli eines Jahres (1940-2023)



Entwicklung globale durchschn. Oberflächentemperatur der Meere (1981 – 2023)

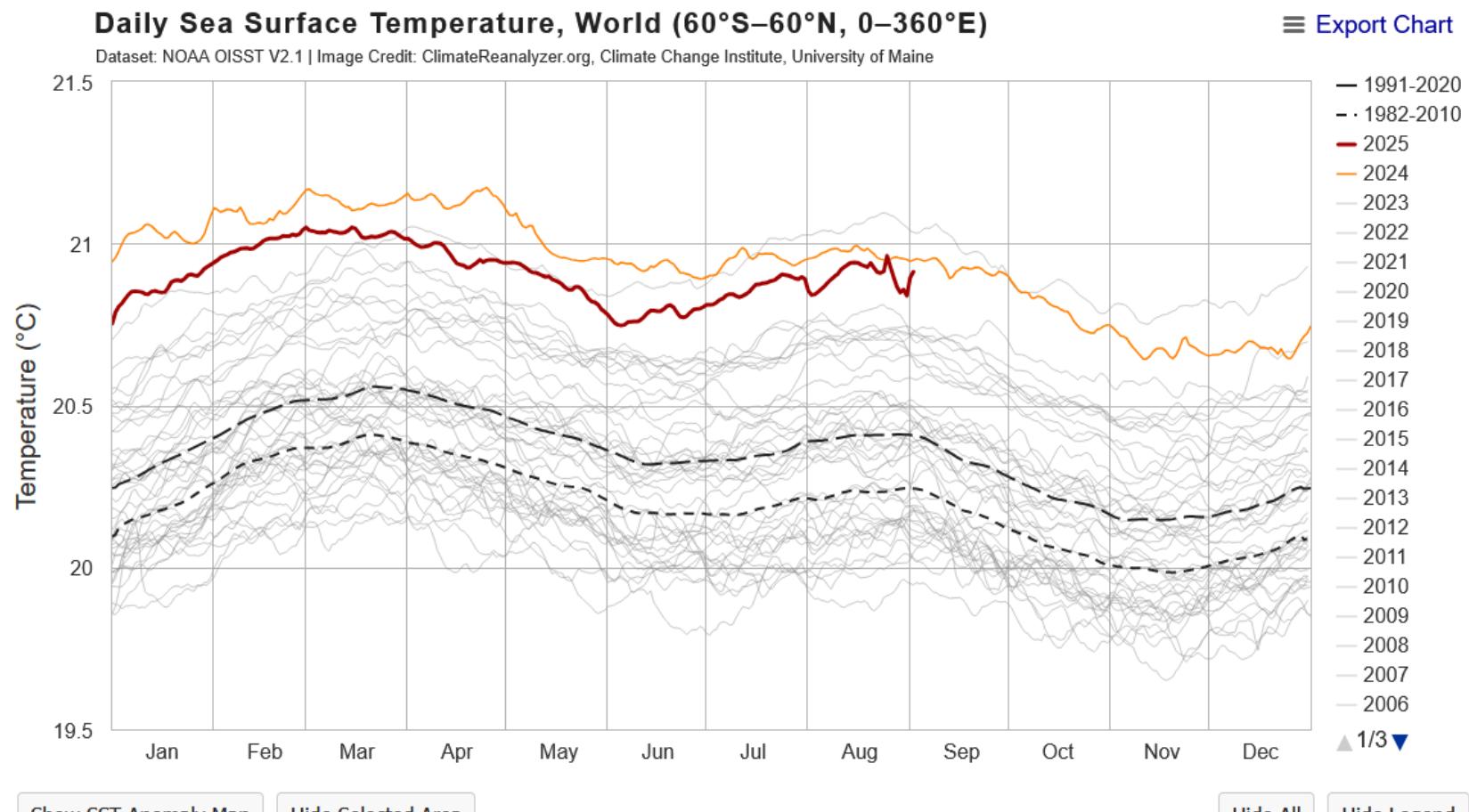


Alexander Ač 🇭🇷 @Lacertko · 14. Aug.

It has *NEVER* happened in known history, that global ocean would reach peak temperature in august. But here we are, in completely uncharted territory or rapidly warming biosphere. Hard to even imagine what the consequences might be... #ClimateCrisis

...

Entwicklung globale durchschn. Oberflächentemperatur der Meere (1981 – heute)



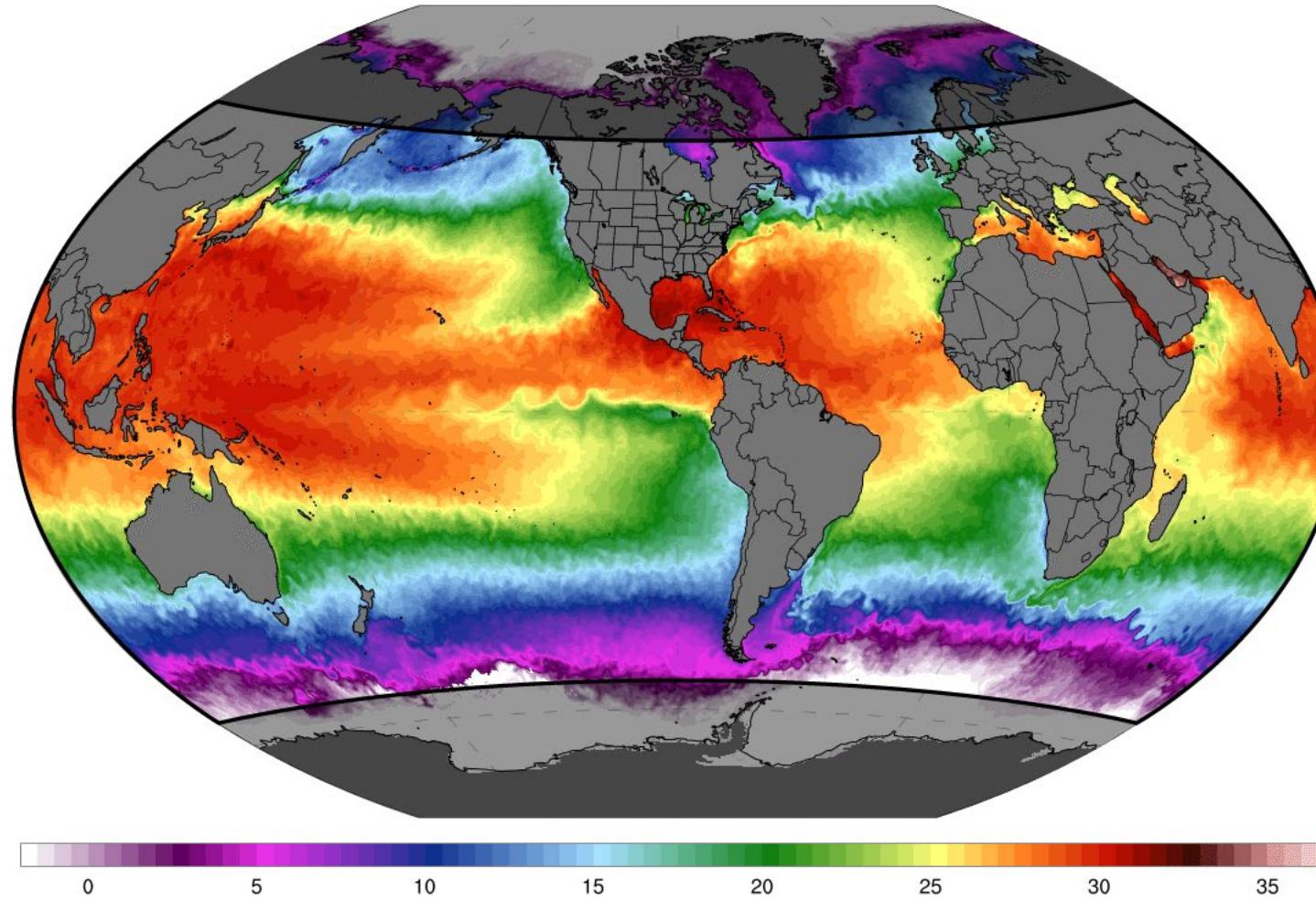
NOAA OISST V2.1 Sea Surface Temperature (°C)
Tue, Sep 02, 2025 | preliminary

ClimateReanalyzer.org
Climate Change Institute | University of Maine

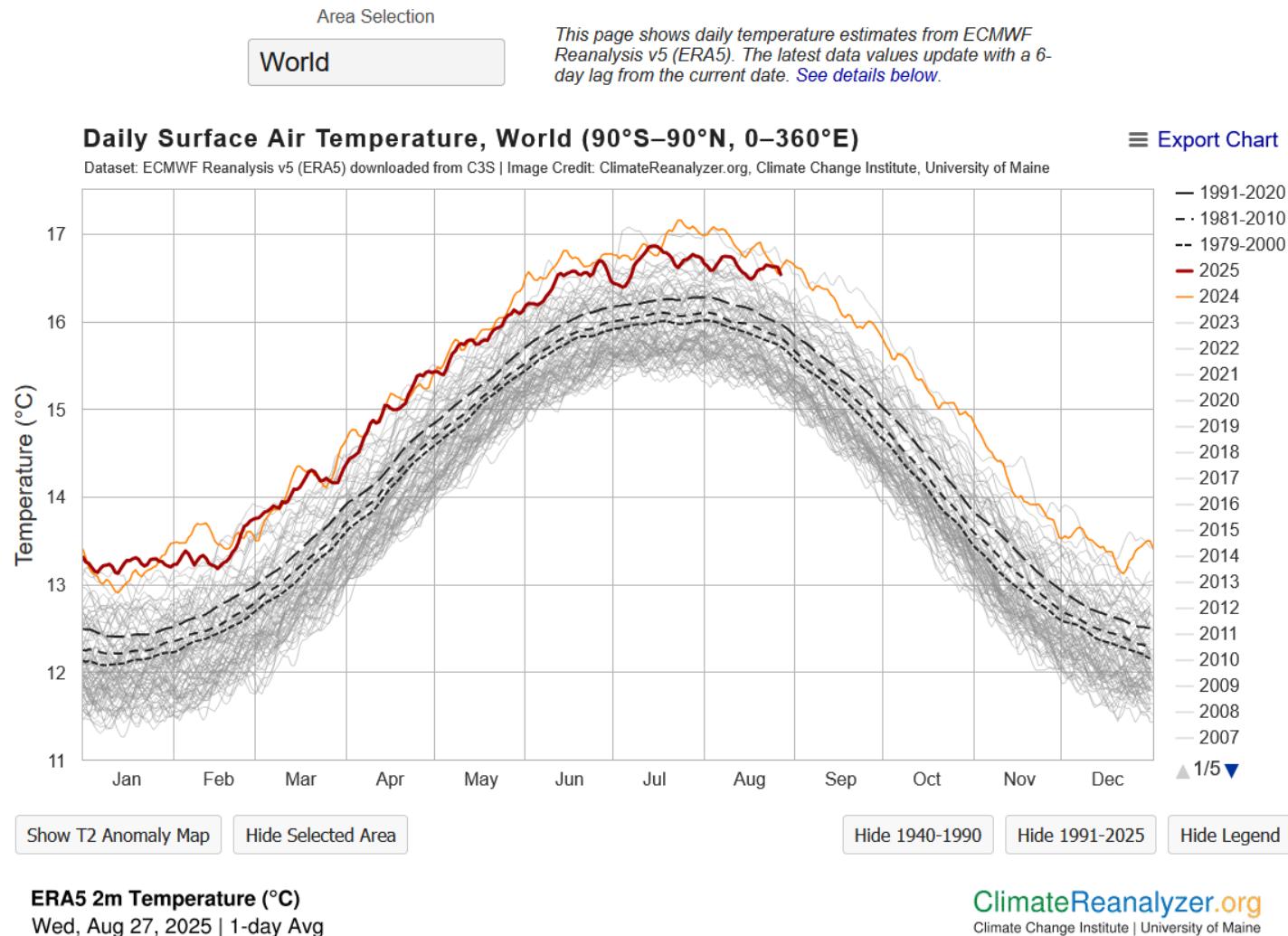
Oberflächentemperaturen der Meere aktuell global

NOAA OISST V2.1 Sea Surface Temperature (°C)
Tue, Sep 02, 2025 | preliminary

ClimateReanalyzer.org
Climate Change Institute | University of Maine



Entwicklung Globale Monatsmitteltemperaturen seit 1940

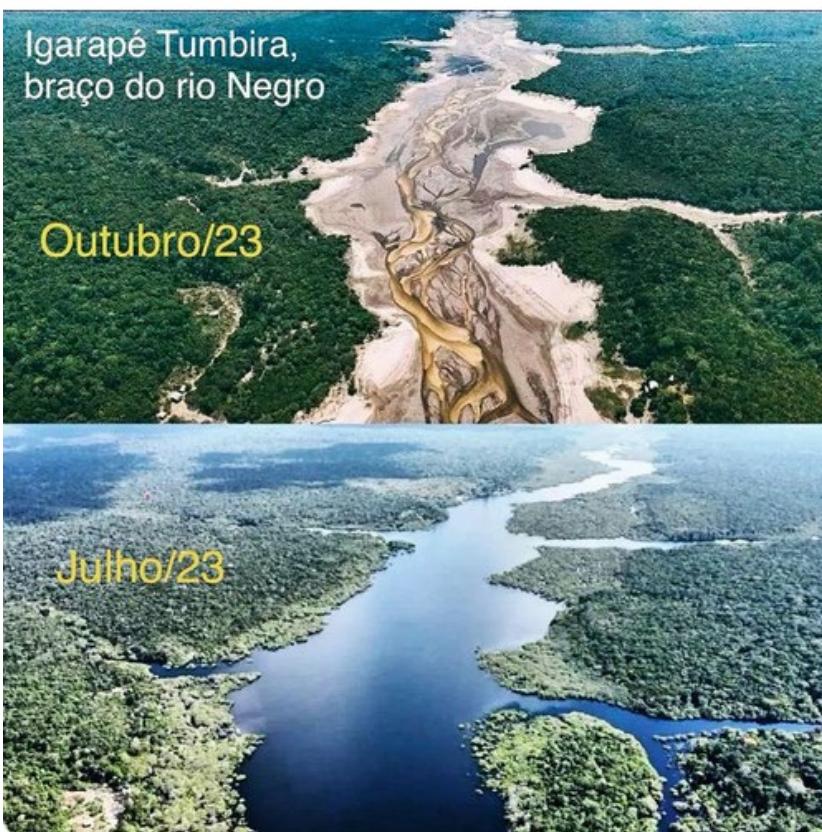


Klimafolgen in diesem Sommer I

André Trigueiro @andretrig · 8. Okt. ·

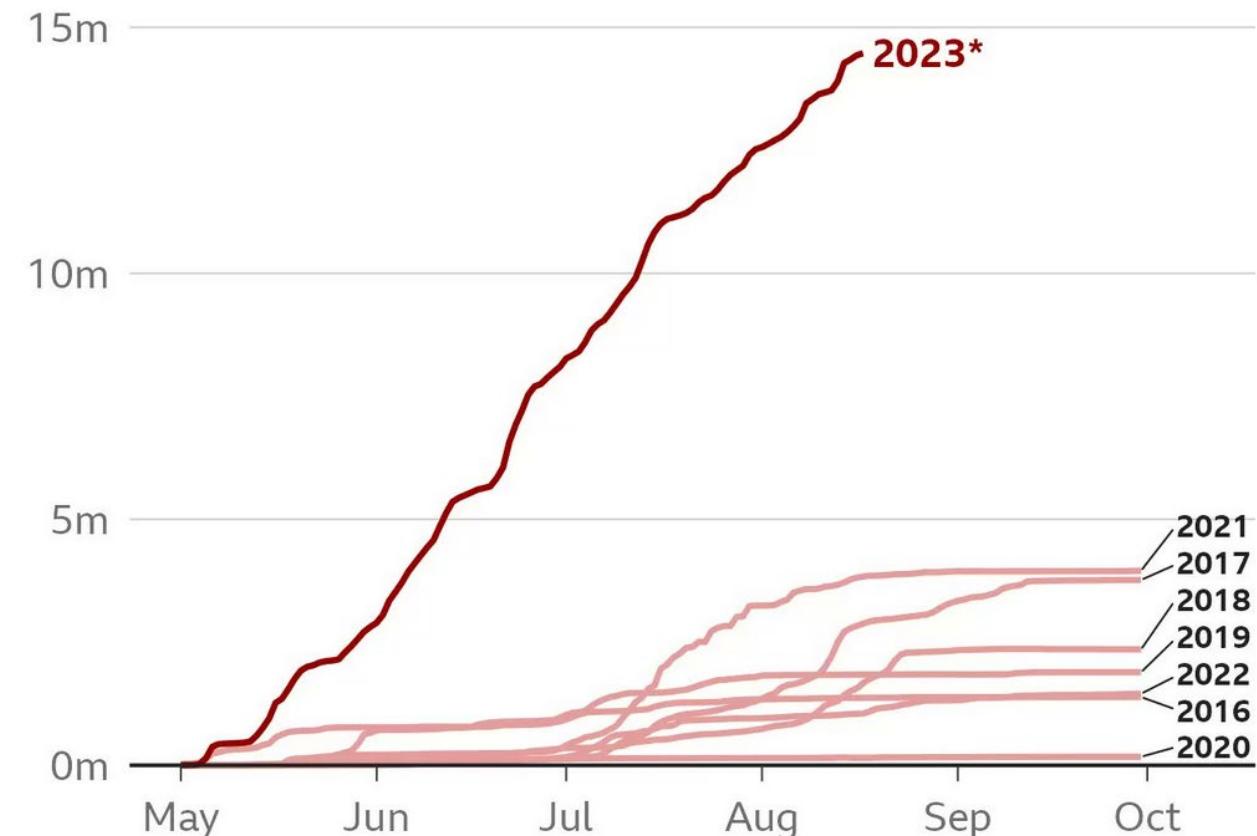
Prestem atenção aos sinais!

Montagem de @raquelluna e @zay_s2 a partir das fotos de @eutadeu e Rafael.hoffmann



Canada wildfires are worse than recent years

Estimated cumulative area burned during fire season (hectares)

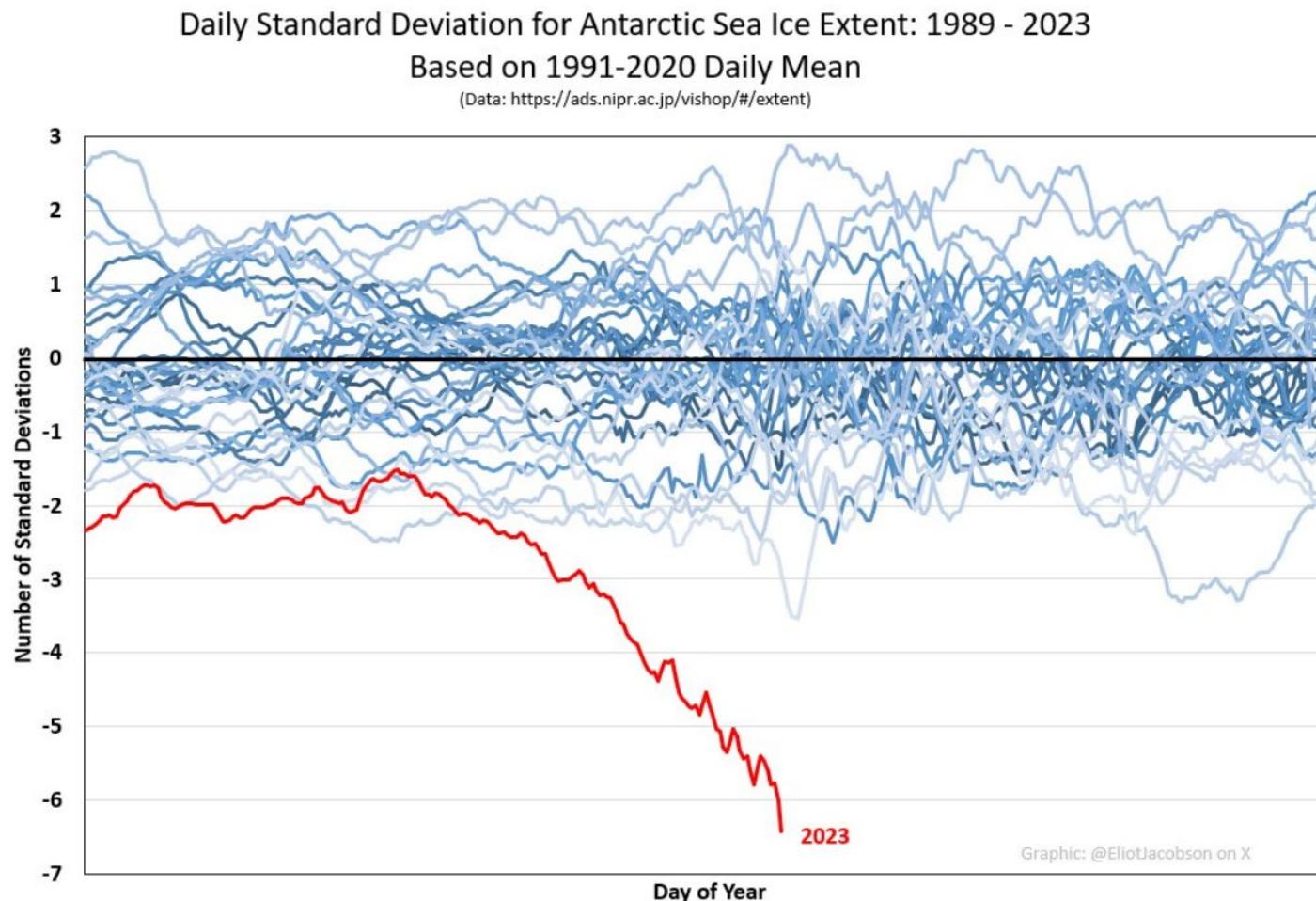


*Data for 2023 is up to 18 August

Source: Canadian Wildland Fire Information System/CBC

BBC

Klimafolgen in diesem Sommer II



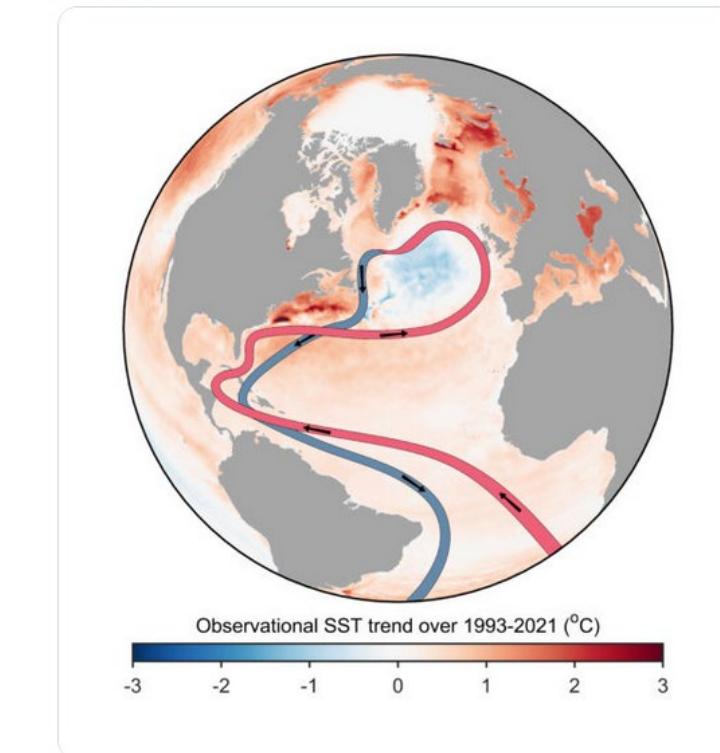
Prof. Stefan Rahmstorf
@rahmstorf

...

New Danish study just out in Nature Communications, titled "Warning of a forthcoming collapse of the Atlantic meridional overturning circulation".

Is it serious? Here's my take on it: buff.ly/3O95c2M

Post übersetzen



5:34 nachm. · 25. Juli 2023 · 943.042 Mal angezeigt



105

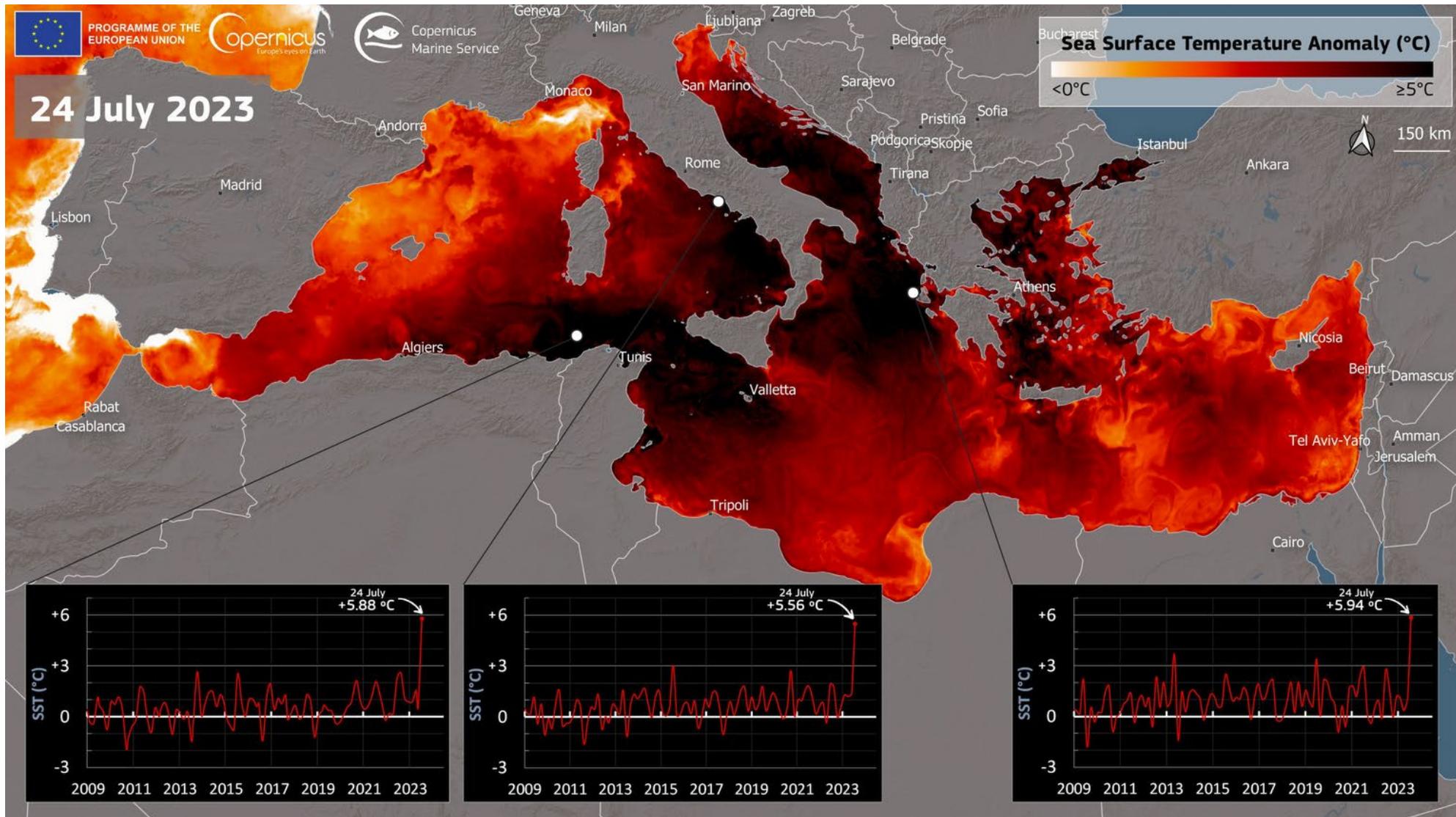
1.675

3.557

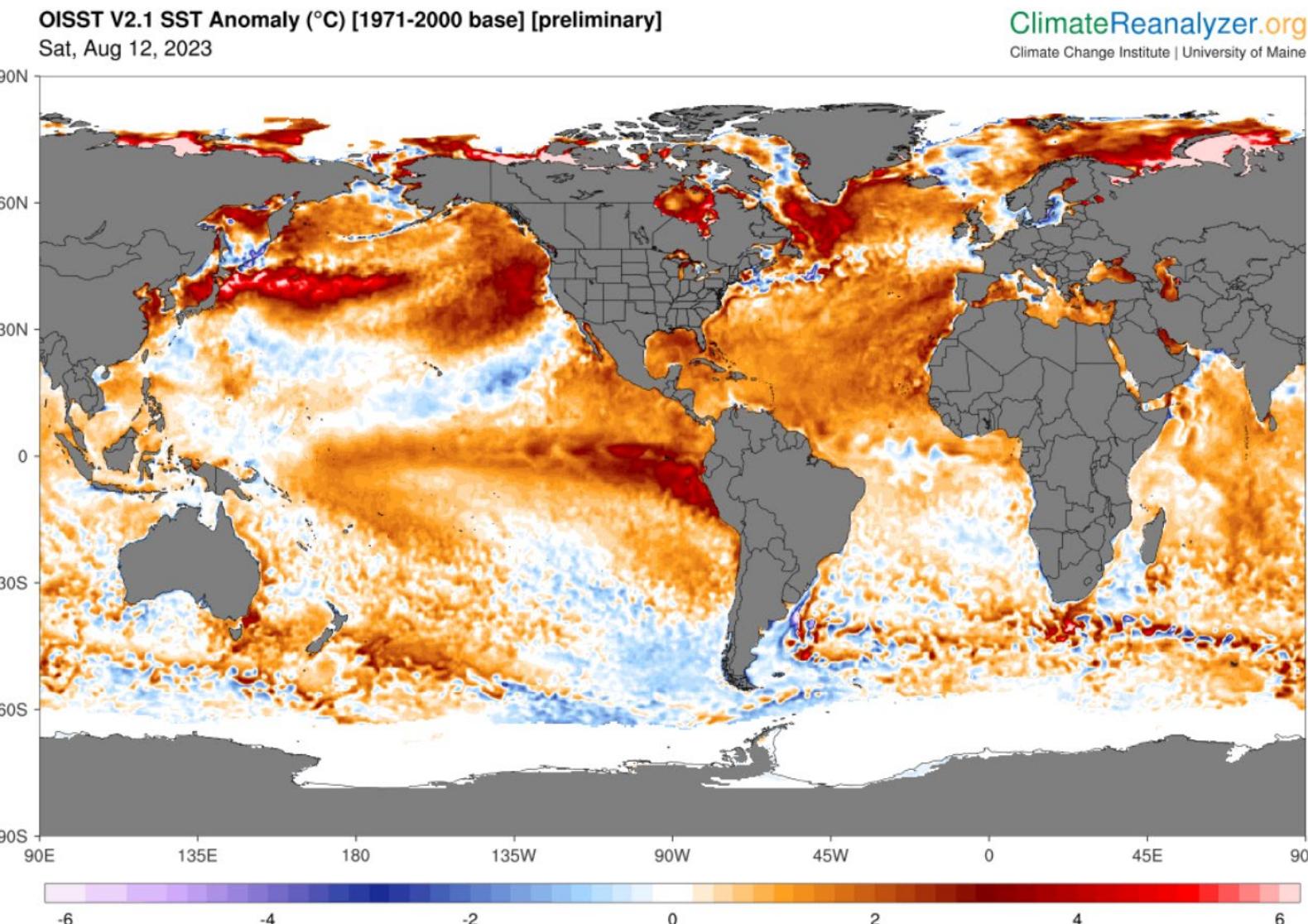
740



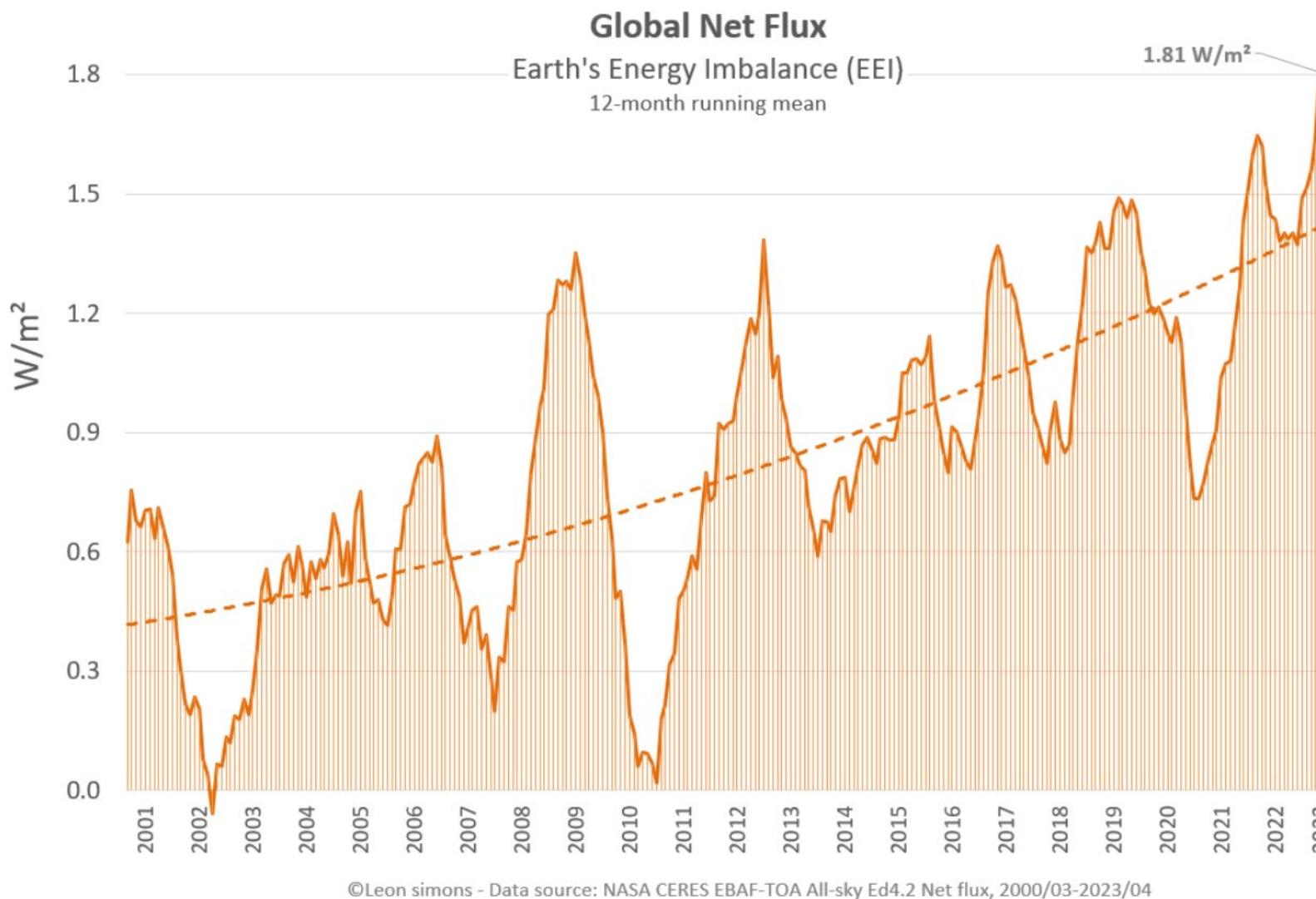
Wassertemperatur Anomalie Mittelmeer July 2023



El Niño Beginn 2023



Entwicklung des EEI oder: Wie stark ist der Klimawandel?

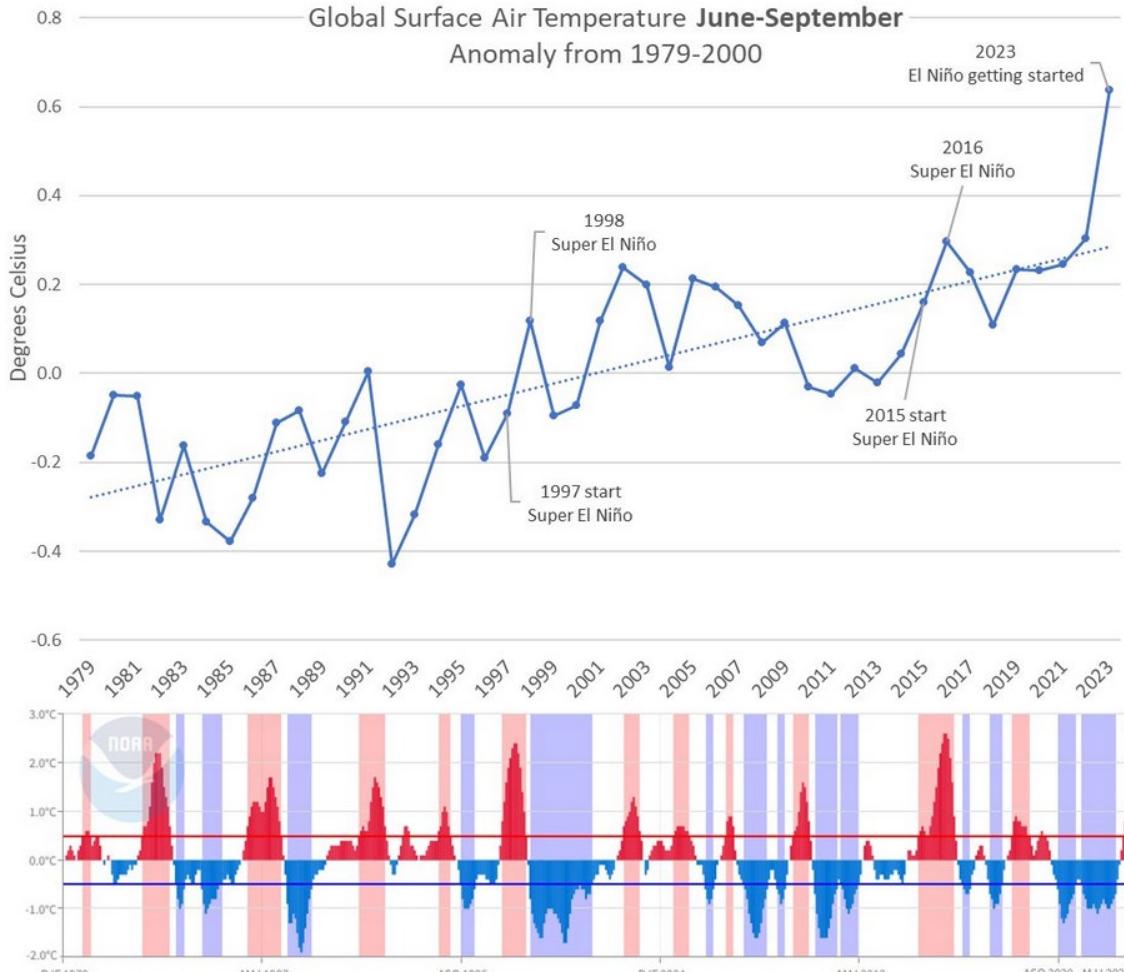


Klimawandel in Hiroshima Bomben

- $EEi \approx 1,4 \frac{W}{m^2}$
- $1 \text{ Hiroshima Bombe} \approx 13 \text{ kt TNT}$
- $1 \text{ kt TNT} = 4,184 * 10^{12} \text{ J (oder Ws)}$
- $13 \text{ kt TNT} = 54,392 * 10^{12} \text{ Ws}$
- $\text{Erdoberfläche} = 510 * 10^6 \text{ km}^2$
 $= 510 * 10^{12} \text{ m}^2$
- $EEI * \text{Erdoberfläche} = 714 * 10^{12} \text{ W}$
- $714 * 10^{12} \text{ W} / 54,392 * 10^{12} \text{ Ws} \approx \frac{13}{s}$

Die Kraft des Klimawandels entspricht aktuell der Energie von etwa 13 Hiroshima Bomben pro Sekunde!

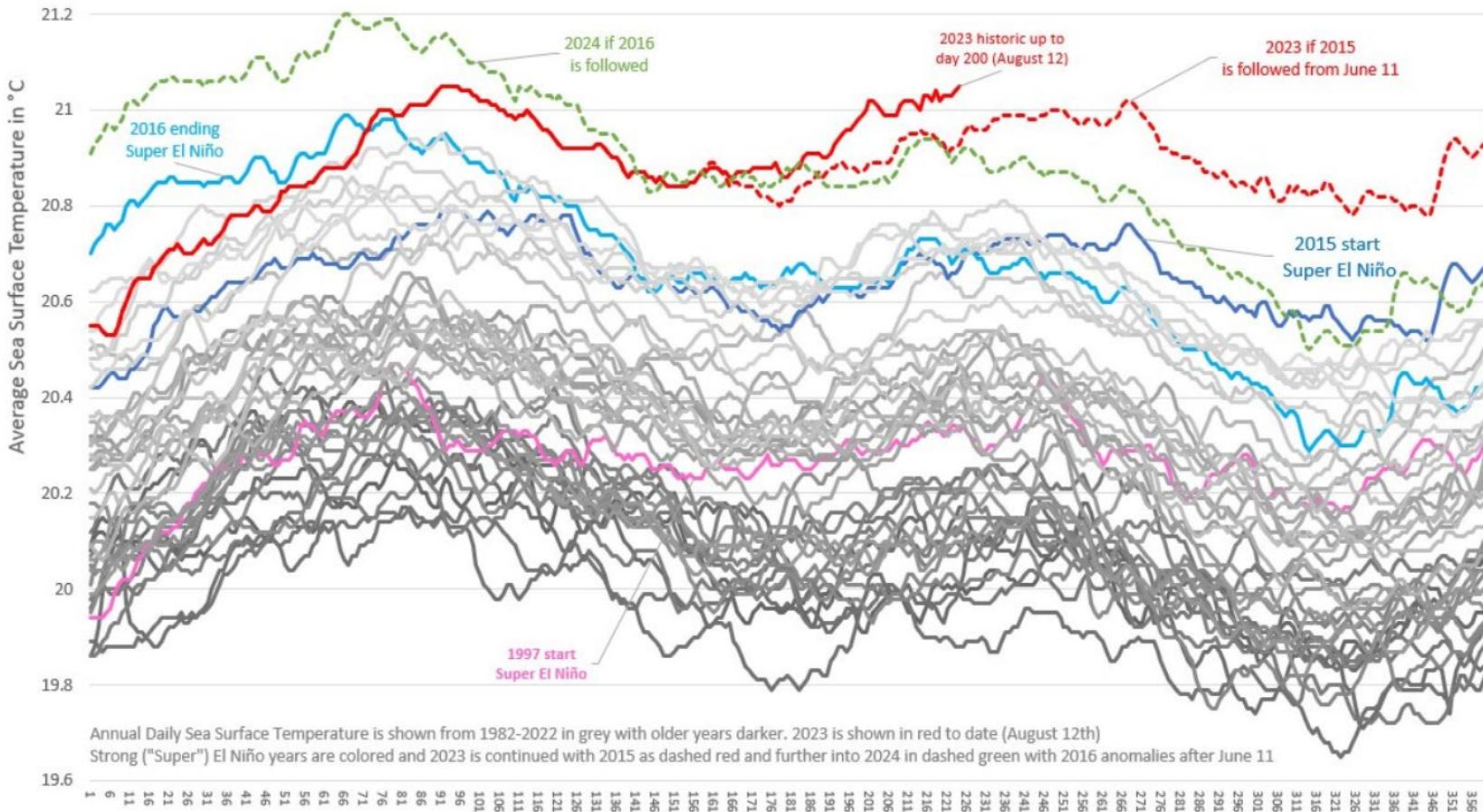
El Niño früher



©Leon Simons- Data source: NCEP CFSV2/CFSR, up to September 30, 2023; NOAA, Trough Climate Change Institute University of Main; NCEI, NOAA

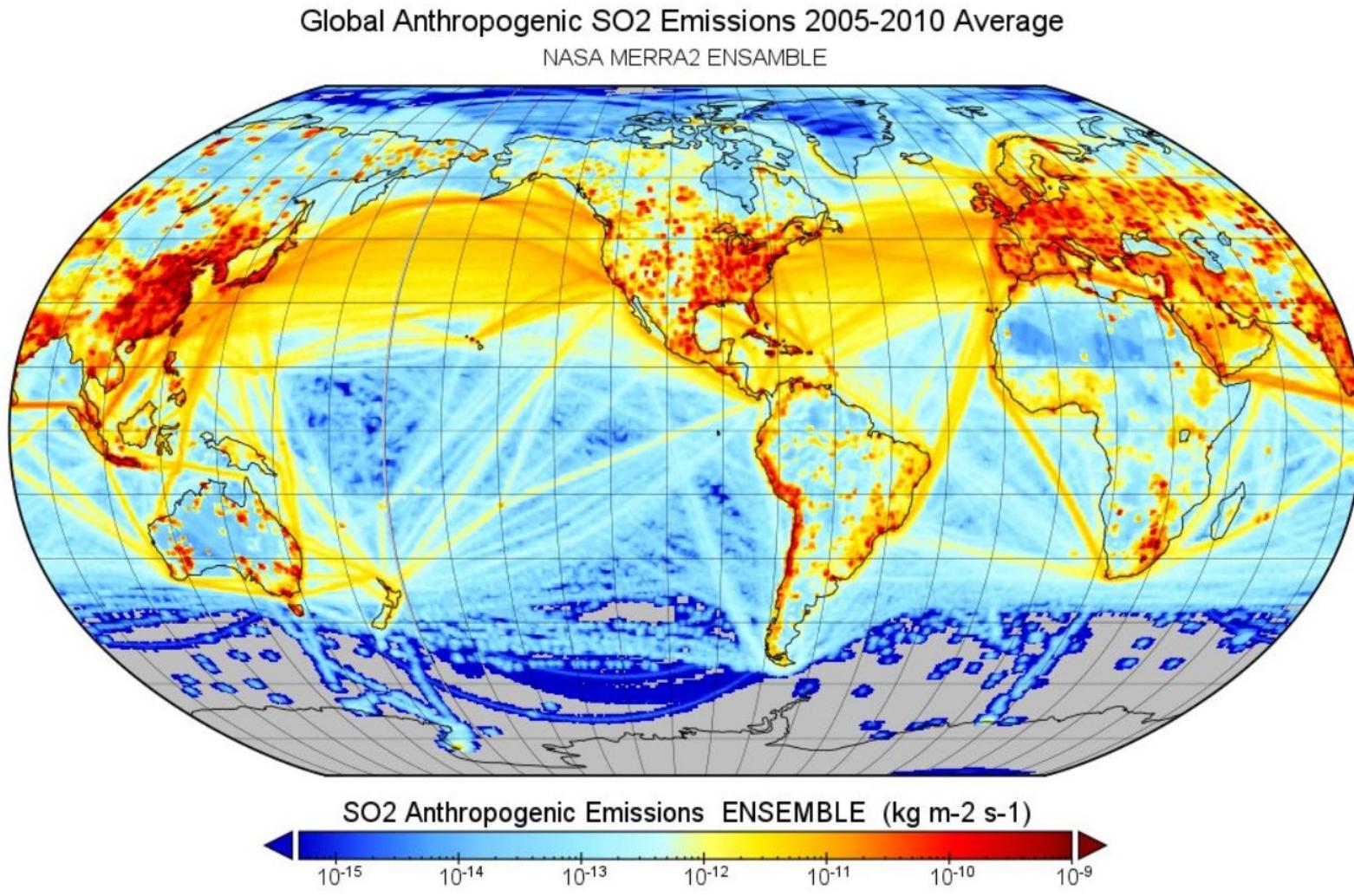
Was ist 2024 zu erwarten?

What could a Super El Niño mean for global (60°S-60°N) Sea Surface Temperatures?



©Leon Simons, adjusted from Prof. Eliot Jacobson - Data source: NOAA Optimum Interpolation SST (OISST) dataset version 2.1
Through https://climatereanalyzer.org/clim/sst_daily/, Climate Change Institute, University of Main

Verstärkung der Entwicklung durch Reduktion der SO₂ Emissionen aus der Schiffahrt?



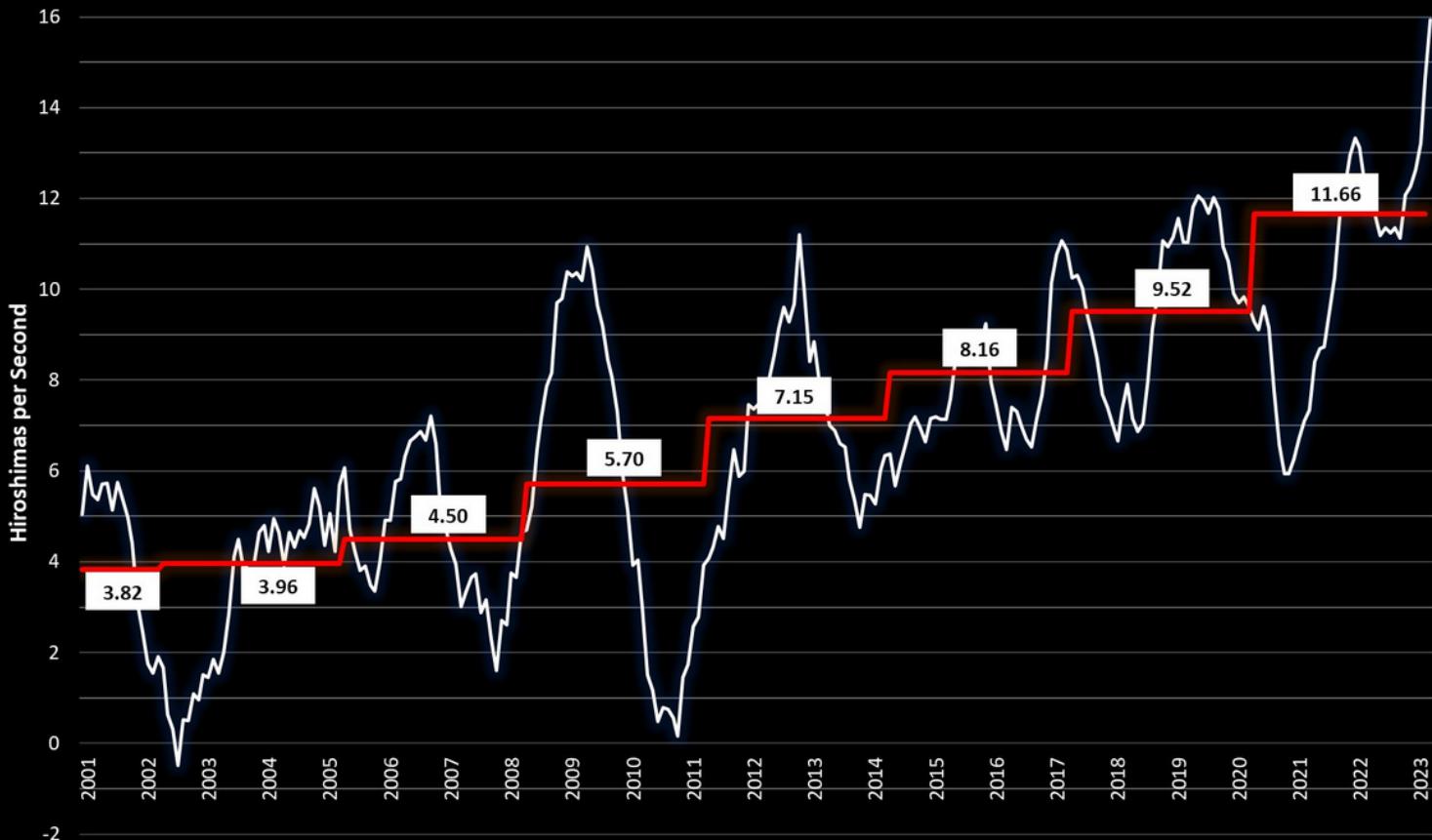
By: Leon Simons

EEI as Hiroshima Bombs per Second

Heating of Earth Expressed in Hiroshimas per Second

12 month running mean vs. 36 month step average

Feb. 2001 - May 2023

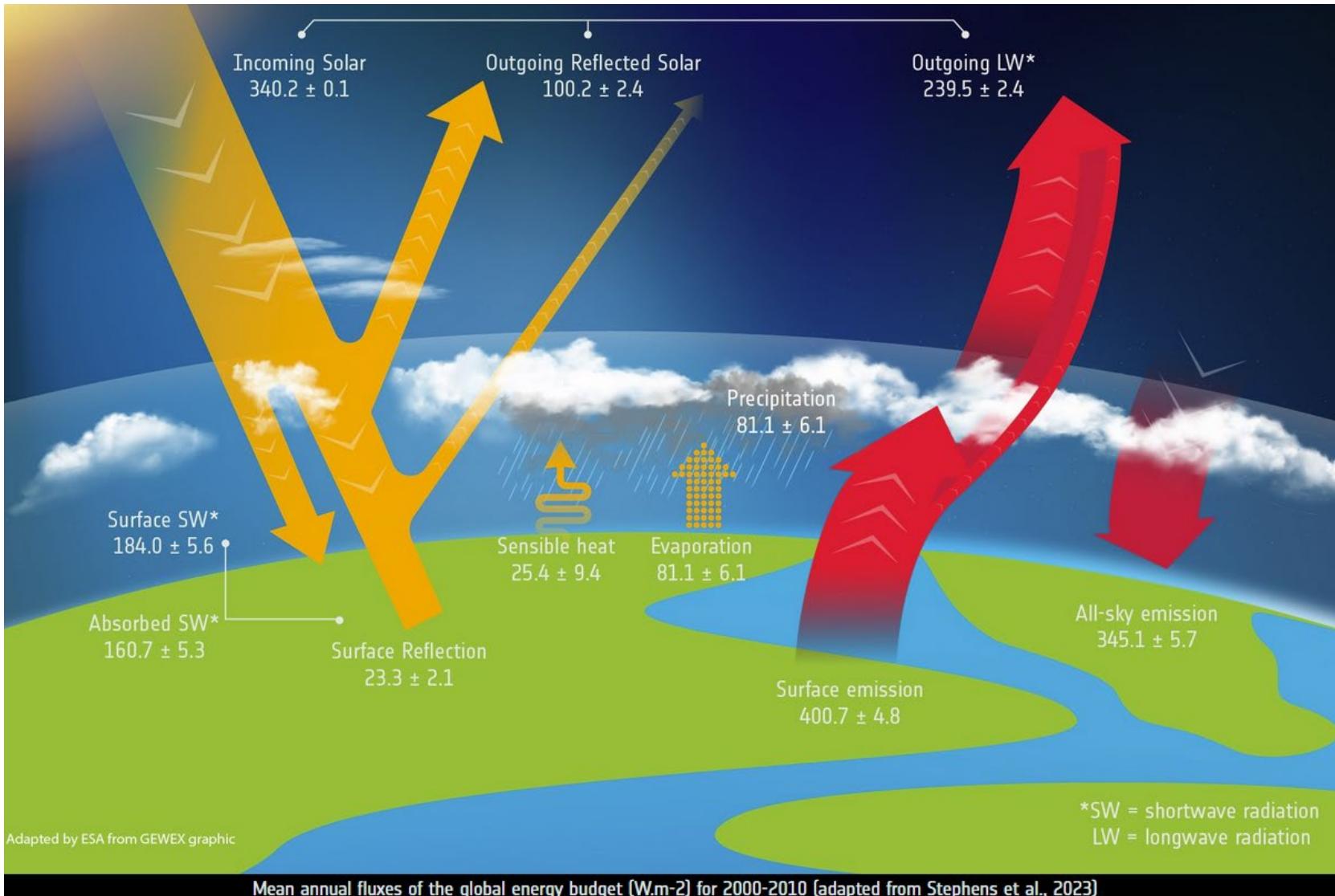


Prof. Eliot Jacobson @EliotJacobson · 29. Juli

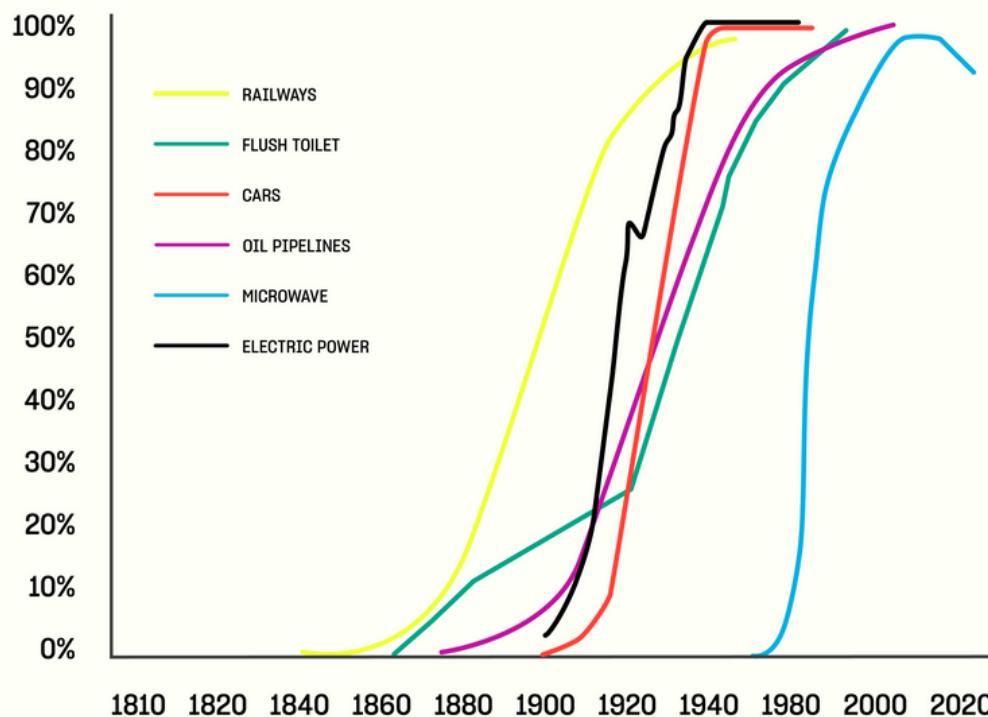
In rushing to put my live show together, I forgot to extend BOTH the x-axis and y-axis to include the latest EEI data. The 12-month plot did not include May's data.

The 12-month running mean for the EEI is now a record 1.97W/m^2 , equivalent to roughly 15.9 Hiroshimas per Second.

Treibhauseffekt

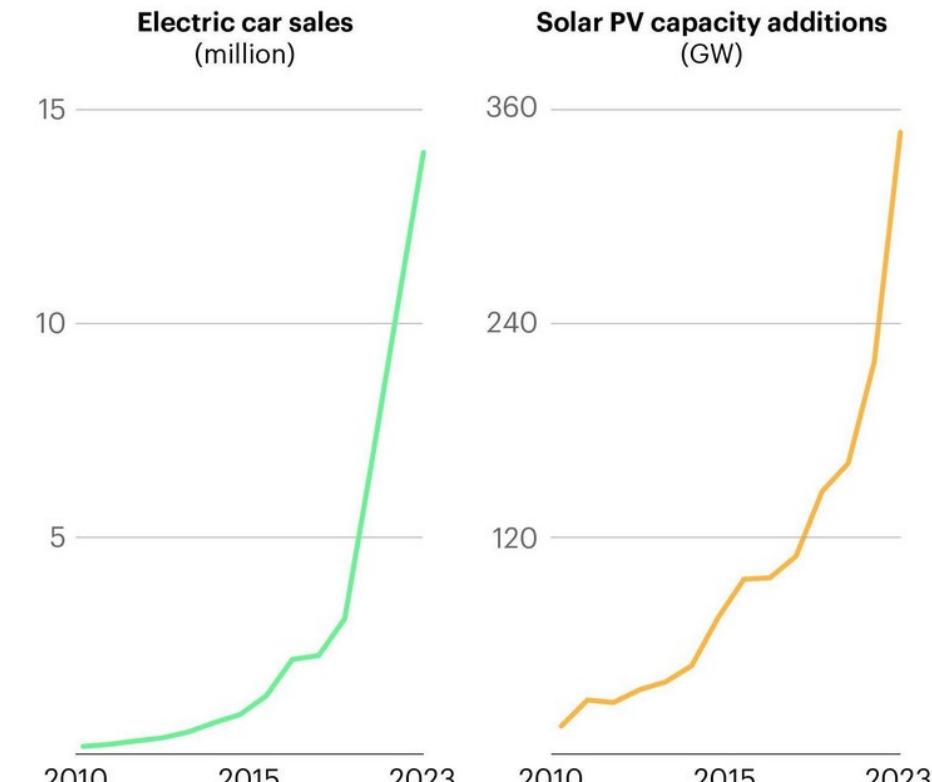


CHANGE HAPPENS SLOWLY AT FIRST. AND THEN FASTER THAN WE EVER THOUGHT POSSIBLE.



Source: IRENA, ETC

The path to 1.5 °C has narrowed, but clean energy growth is keeping it open



Note: 2023 values are estimated

International Energy Agency