

# *Klimaet I fare*

## *Fotavtrykk fra datalagring*

Malaga 4. Februar 2016

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## Mars

Thin atmosphere

(All CO<sub>2</sub> in ground)

Average temperature : - 50°C



## Earth

0,03% of CO<sub>2</sub> in the atmosphere

Average temperature : + 14°C

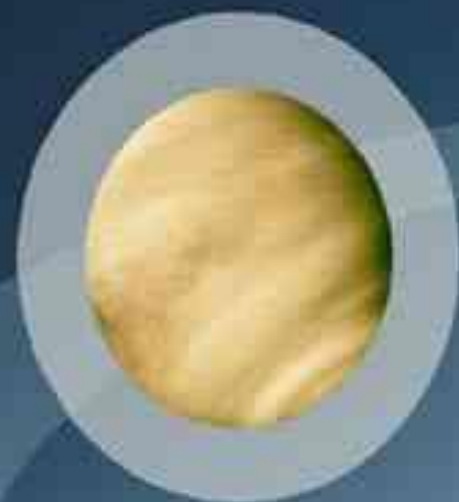


## Venus

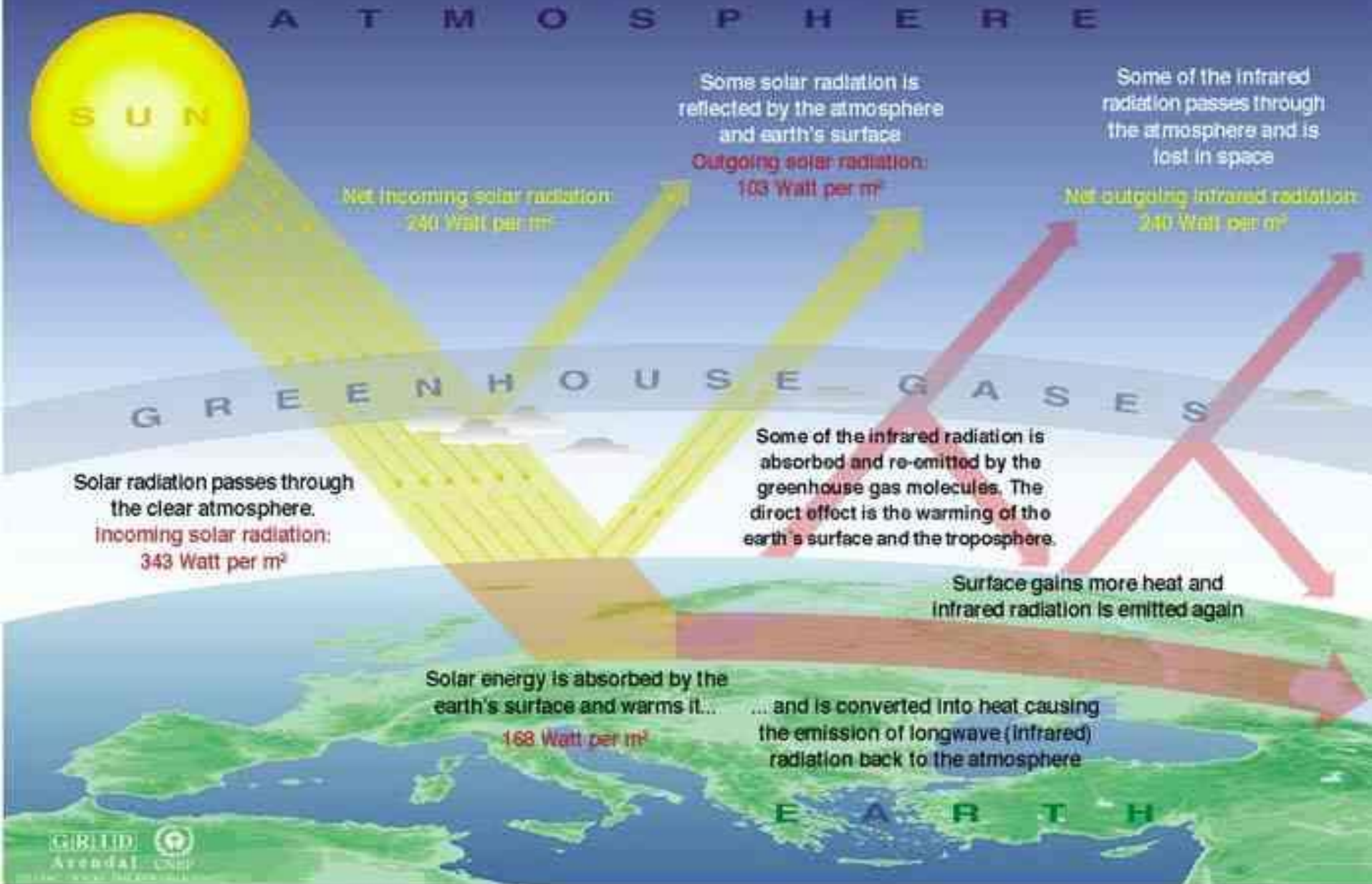
Thick atmosphere

containing 96% of CO<sub>2</sub>

Average temperature : + 420°C



# The Greenhouse effect



°C

4

0

- 4

- 8

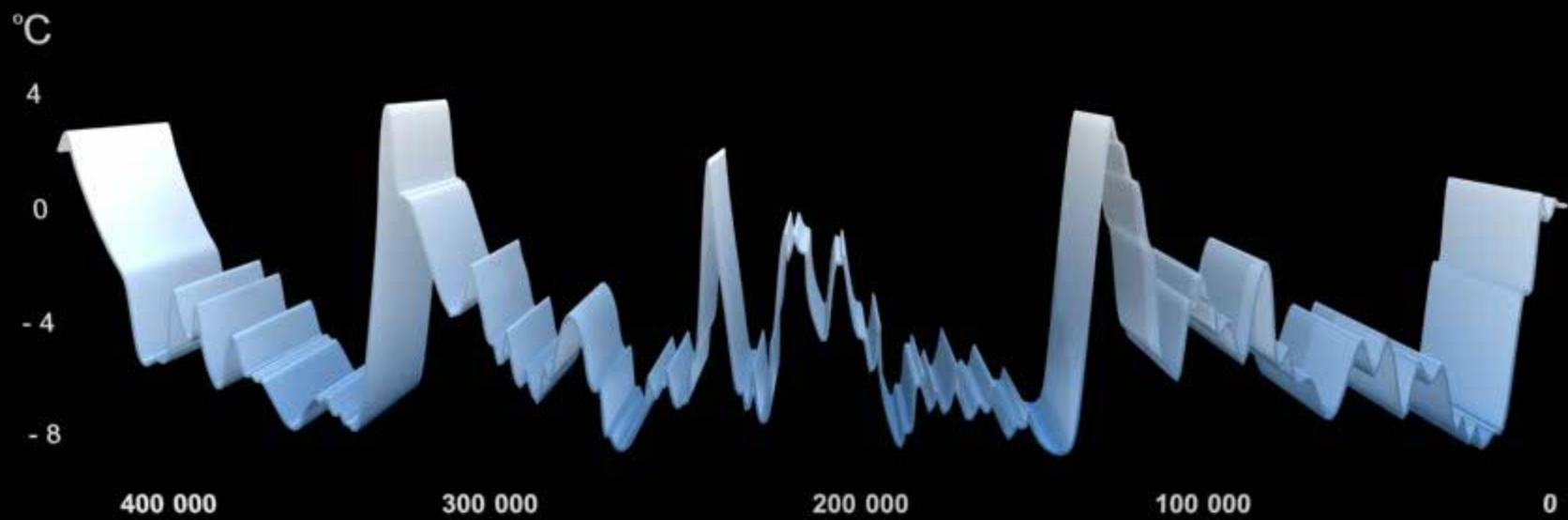
400 000

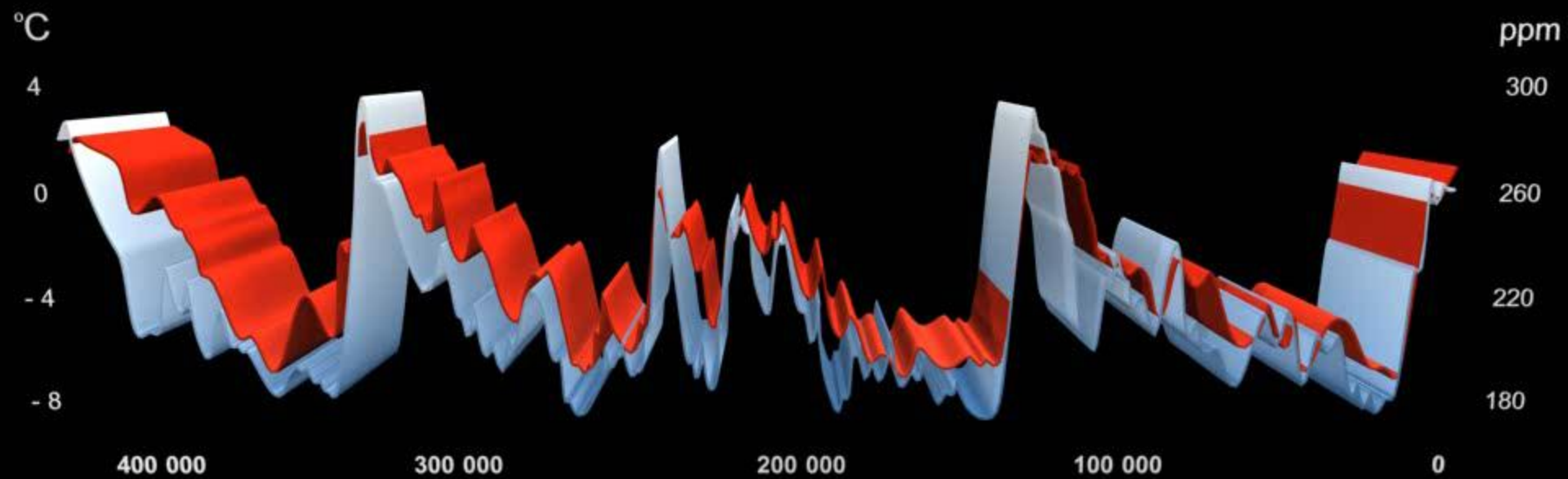
300 000

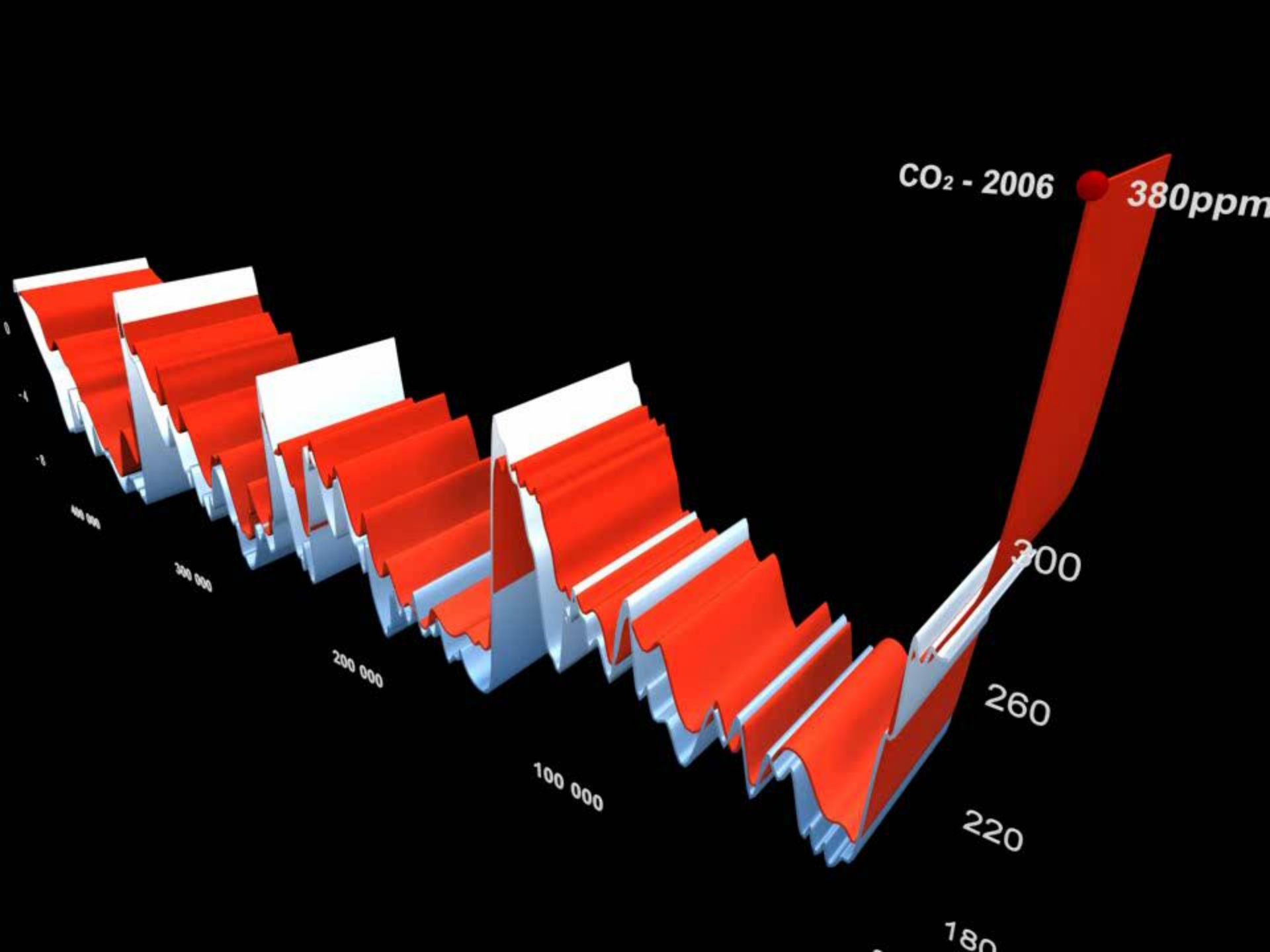
200 000

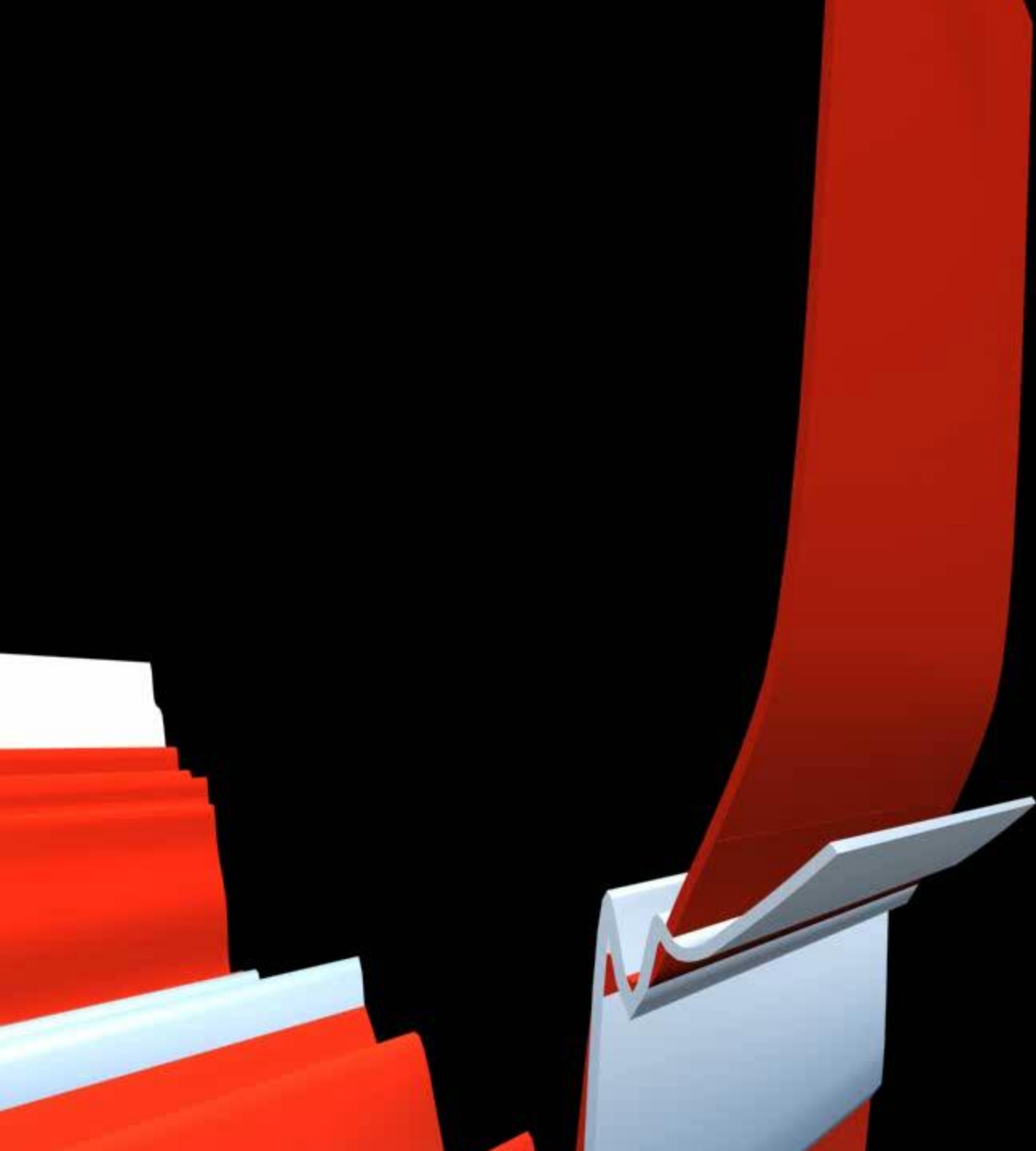
100 000

0

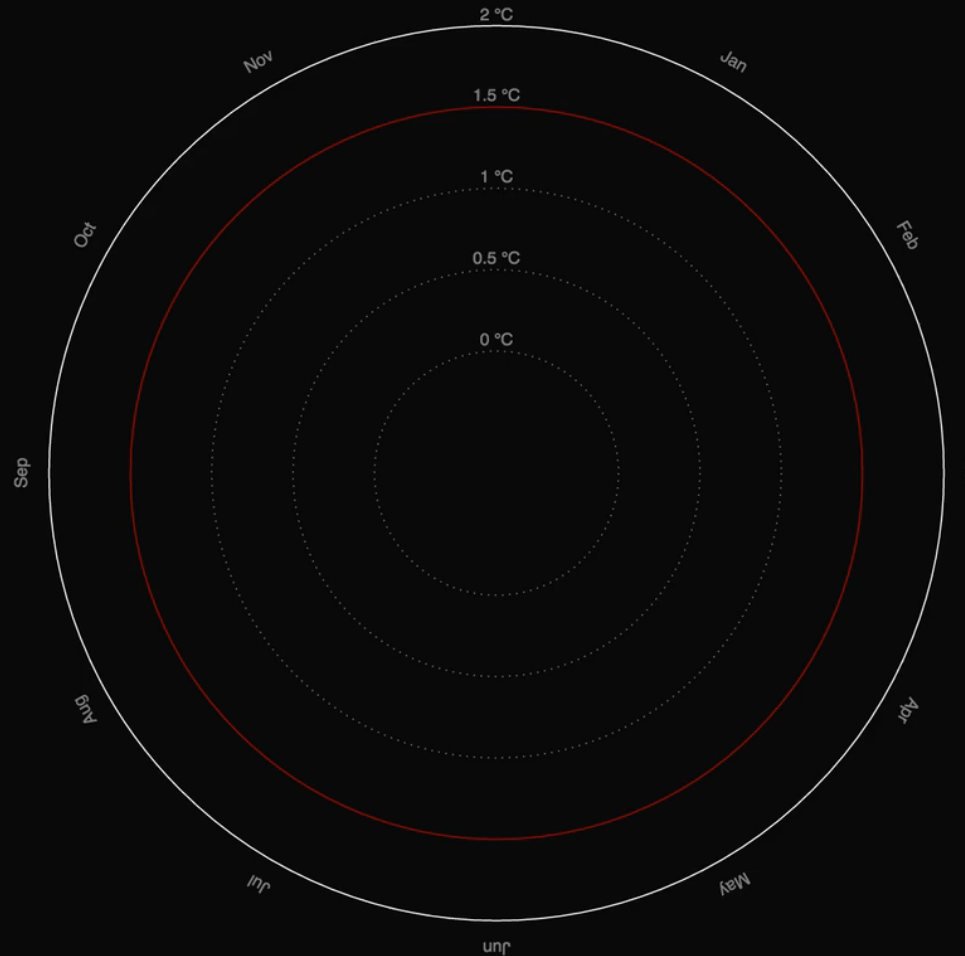








## Global Mean Temperature



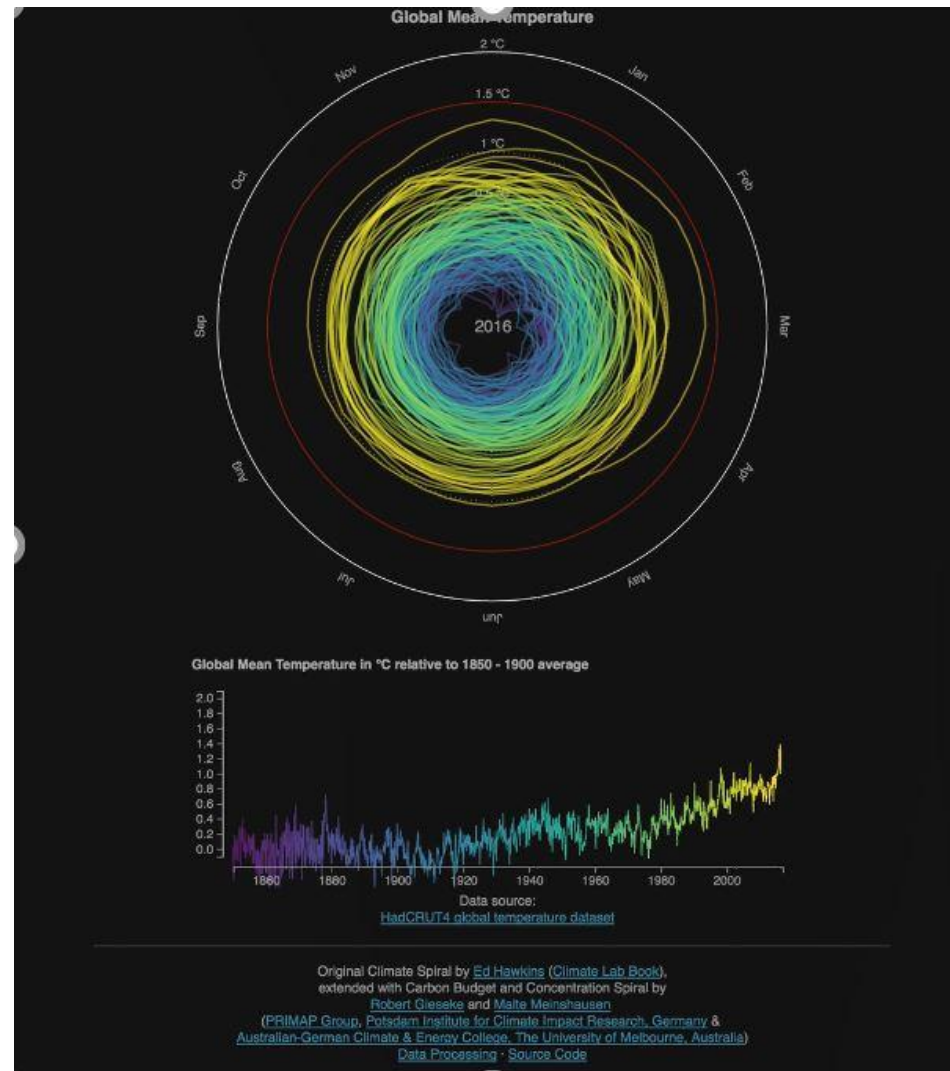
Global Mean Temperature in °C relative to 1850 - 1900 average

Data source:

[HadCRUT4 global temperature dataset](#)

Original Climate Spiral by [Ed Hawkins \(Climate Lab Book\)](#),  
extended with Carbon Budget and Concentration Spiral by  
[Robert Gleeseke](#) and [Malte Meinshausen](#)  
(PRIMAP Group, Potsdam Institute for Climate Impact Research, Germany &  
[Australian-German Climate & Energy College, The University of Melbourne, Australia](#))  
[Data Processing](#) · [Source Code](#)

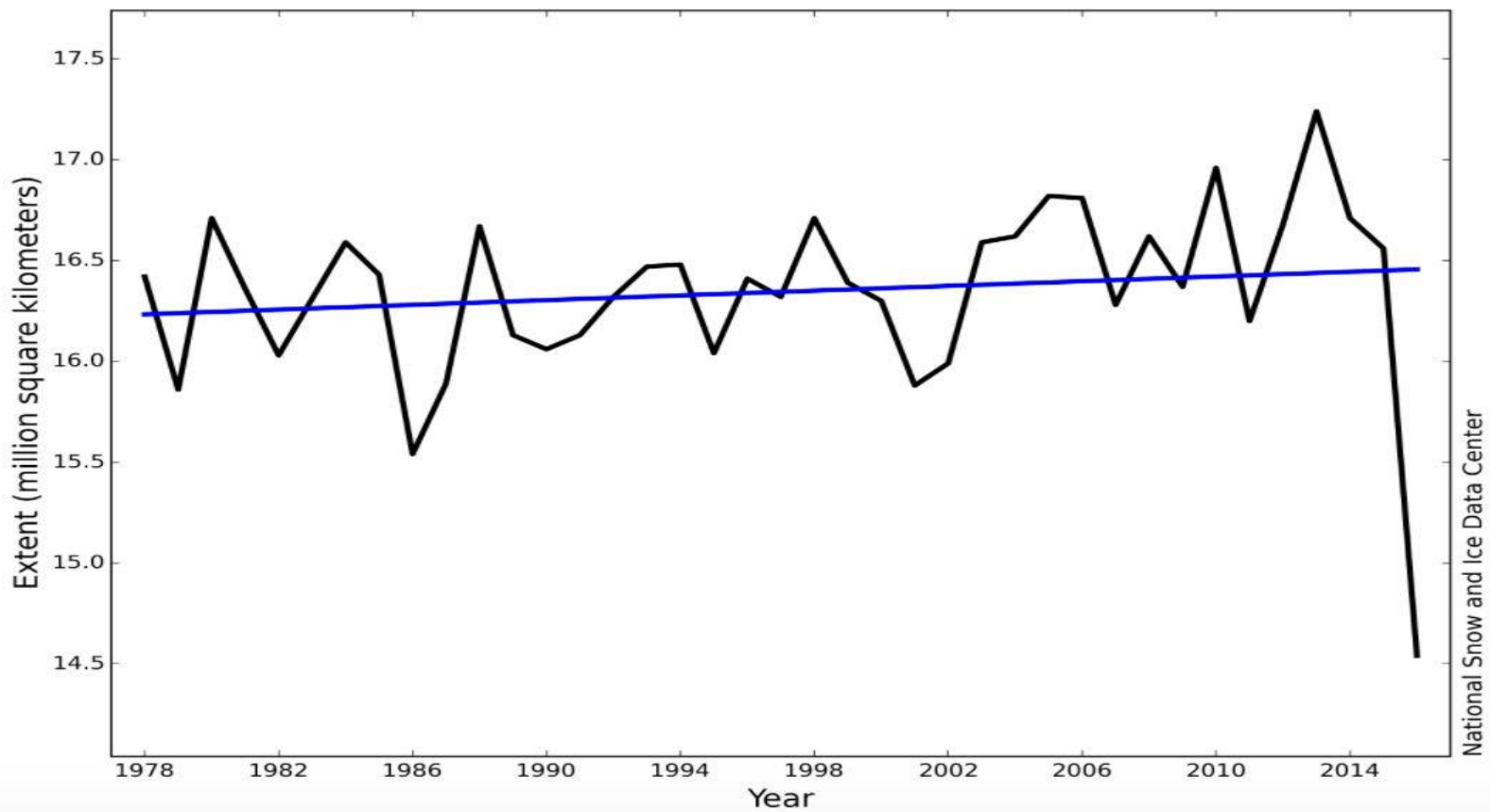
# Temperaturutvikling



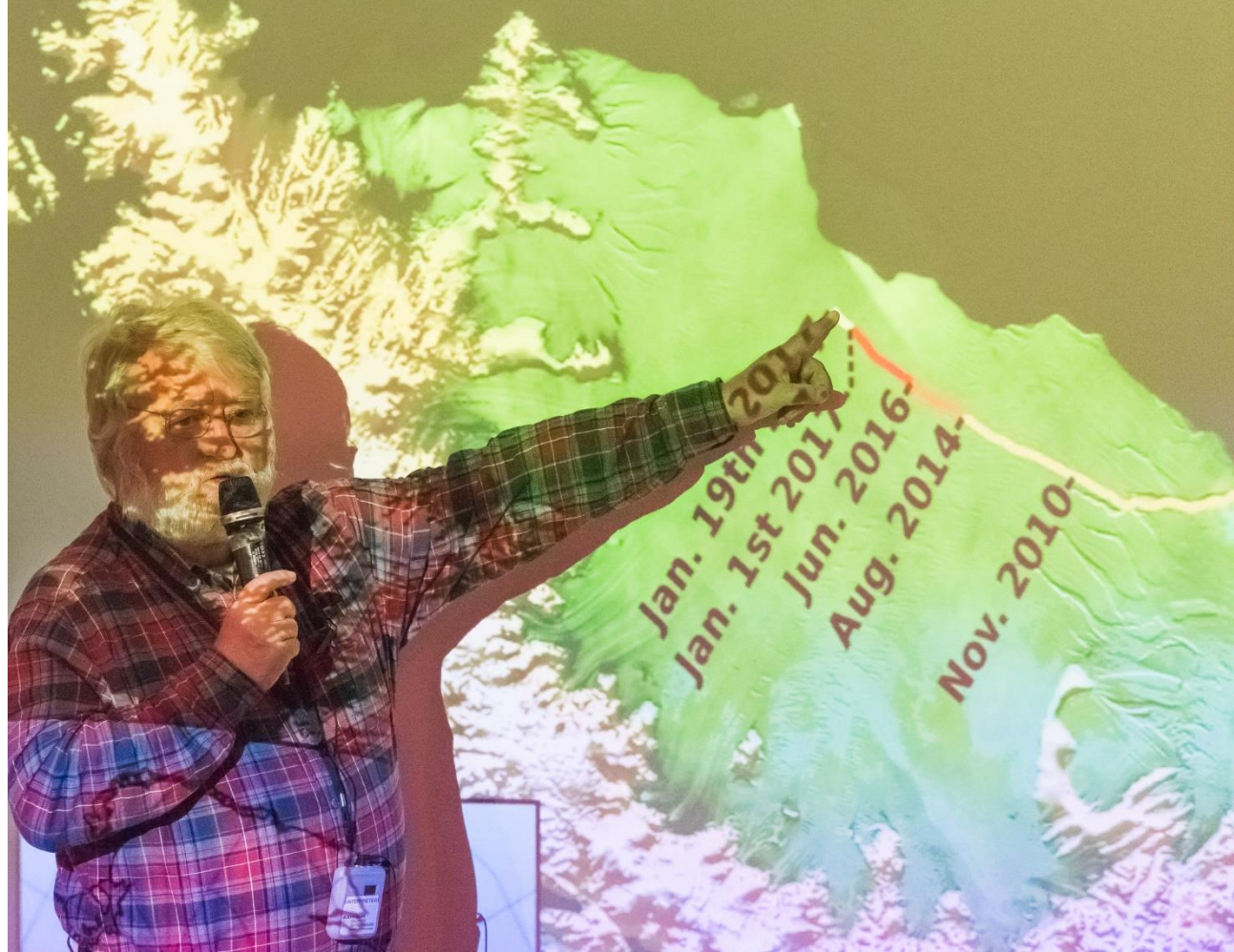




# Average Monthly Antarctic Sea Ice Extent November 1978 - 2016

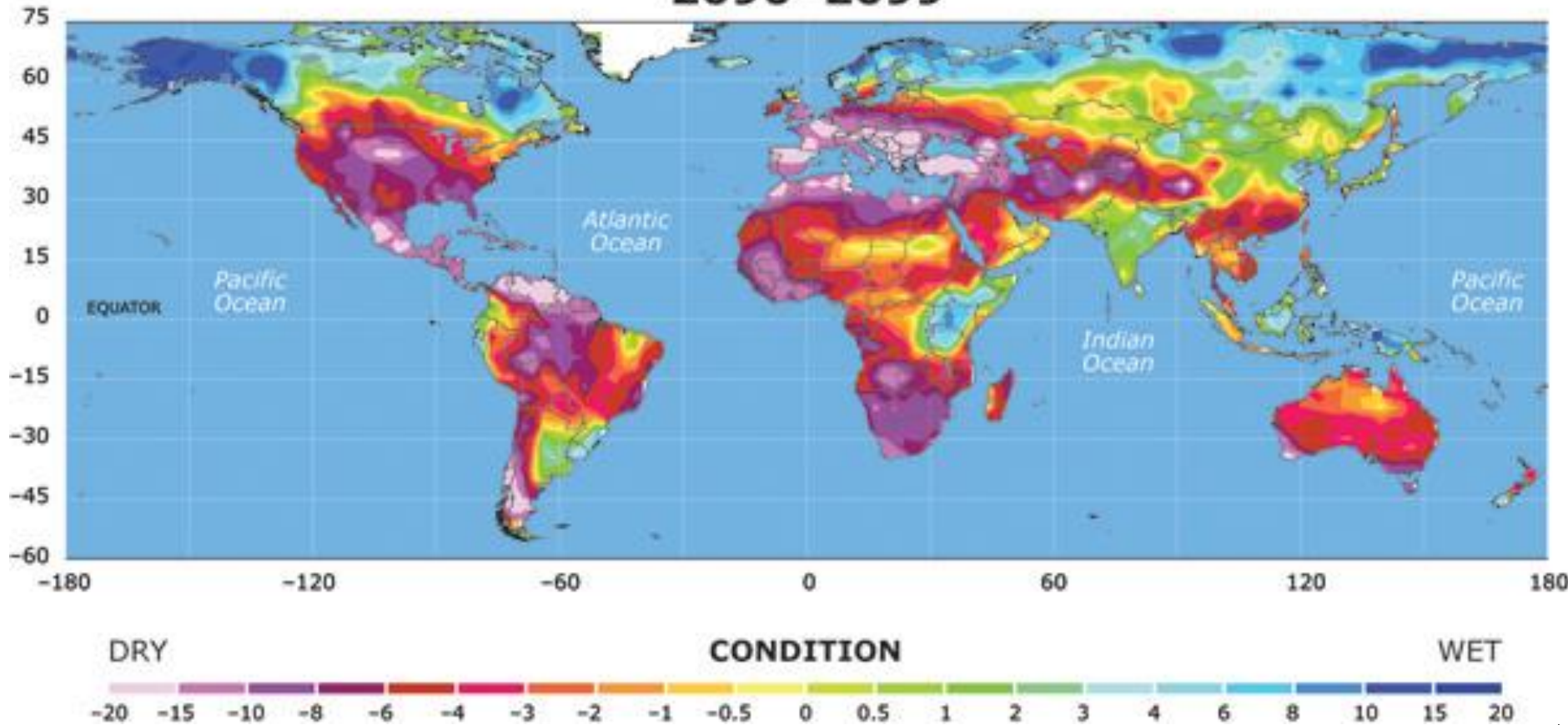


National Snow and Ice Data Center



# Tørke!

2090-2099



# TODAY

## THE CONSEQUENCES OF WAR

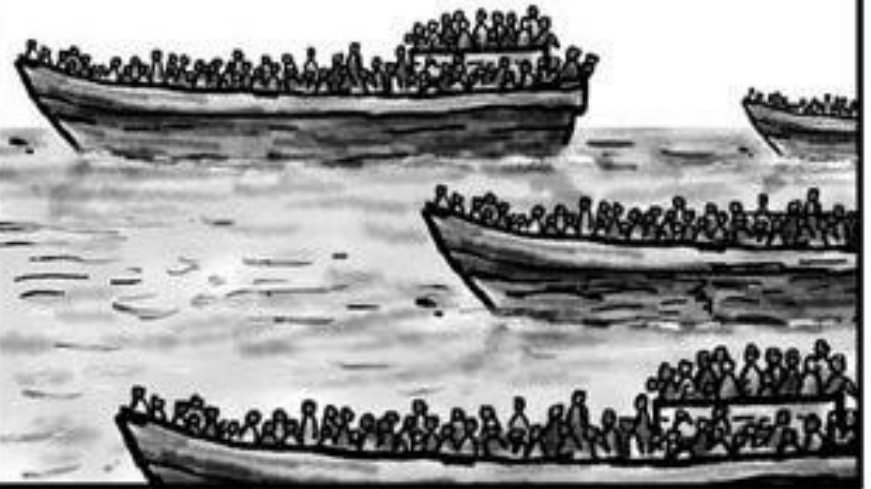


PAYMENT IS  
NEEDED FOR  
THE USE OF  
THIS IMAGE

CHRIS  
MADDEN

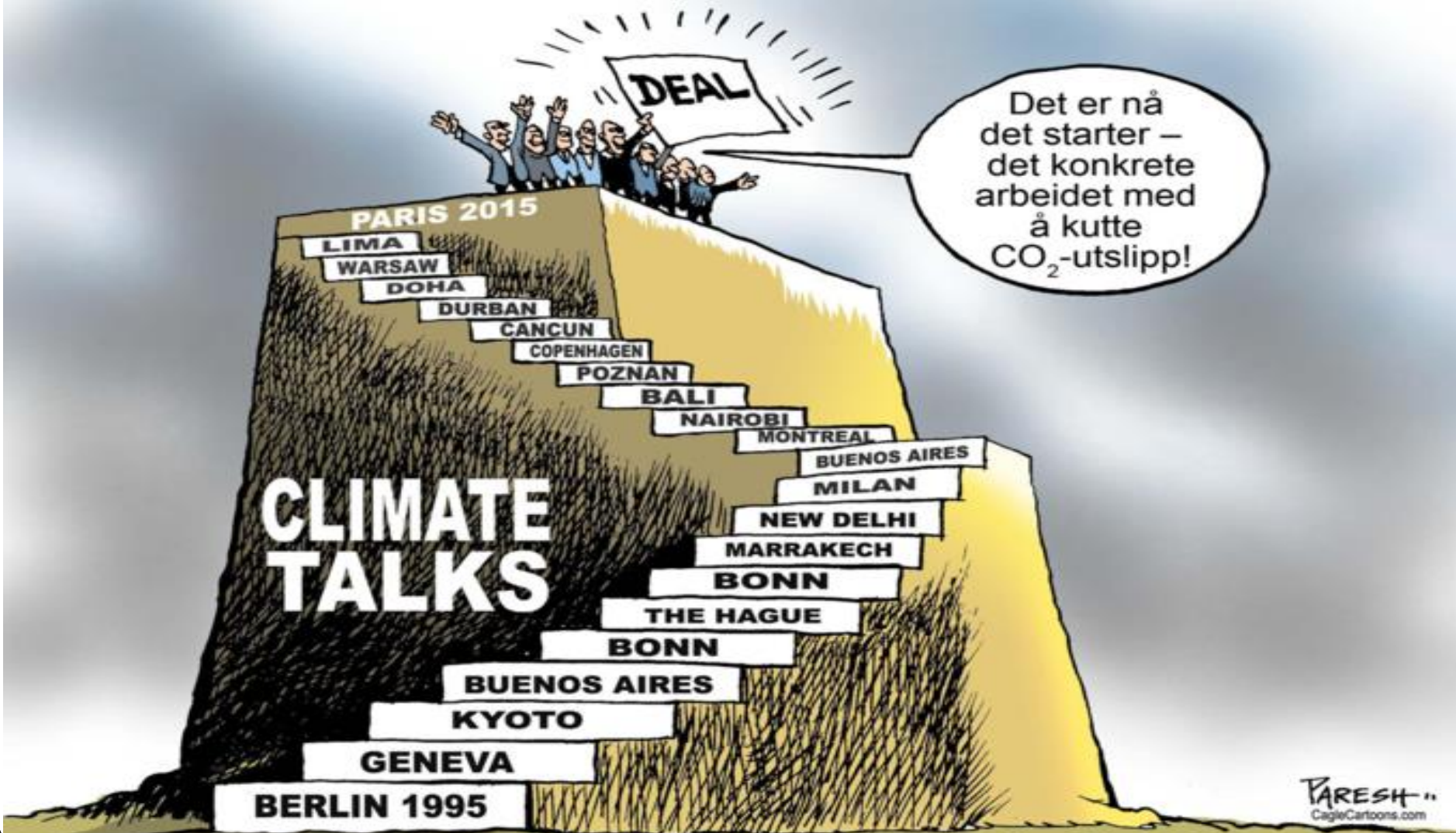
# TOMORROW

## THE CONSEQUENCES OF CLIMATE CHANGE



PAYMENT IS NEEDED FOR  
THE USE OF THIS IMAGE

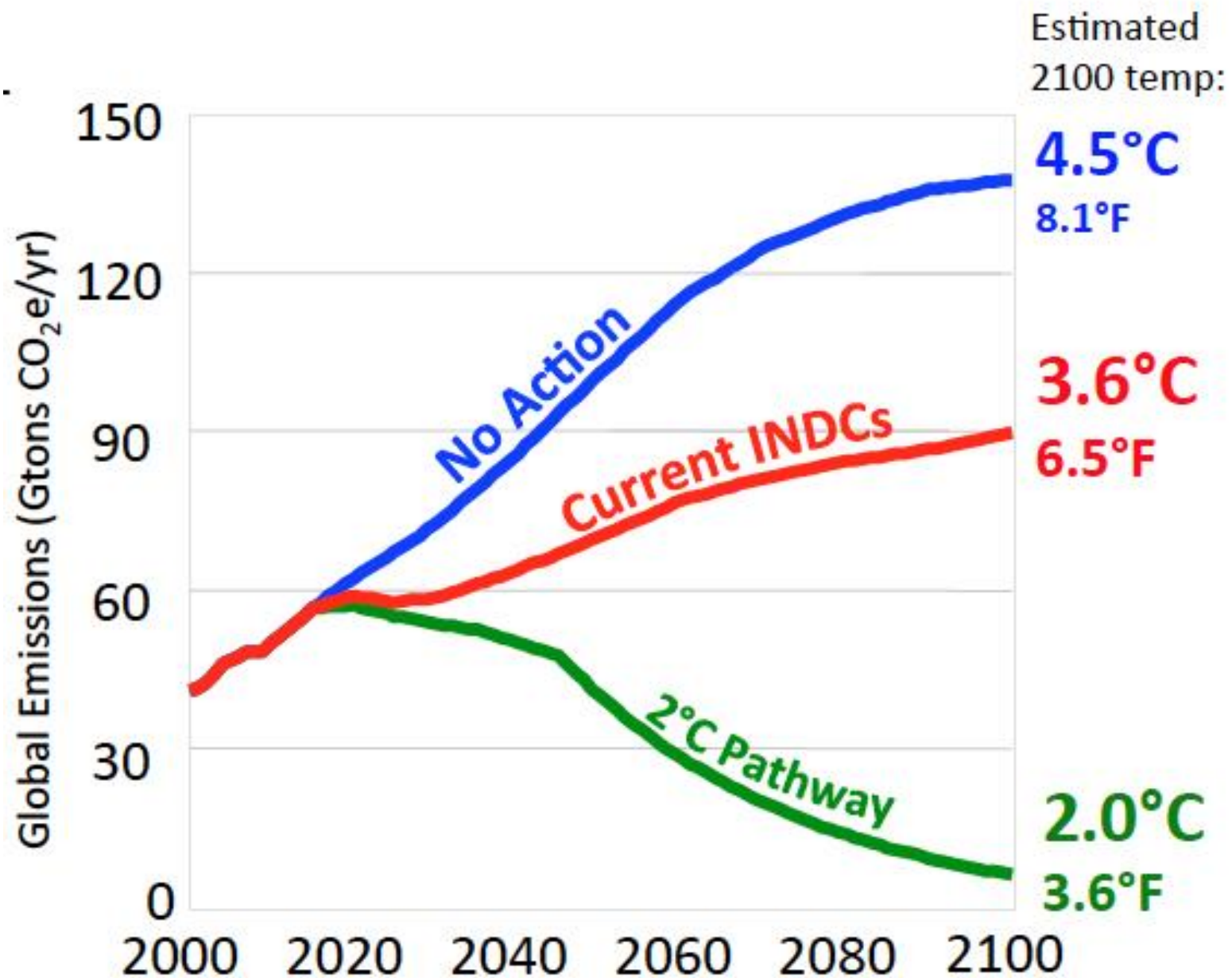
# Veien til Paris



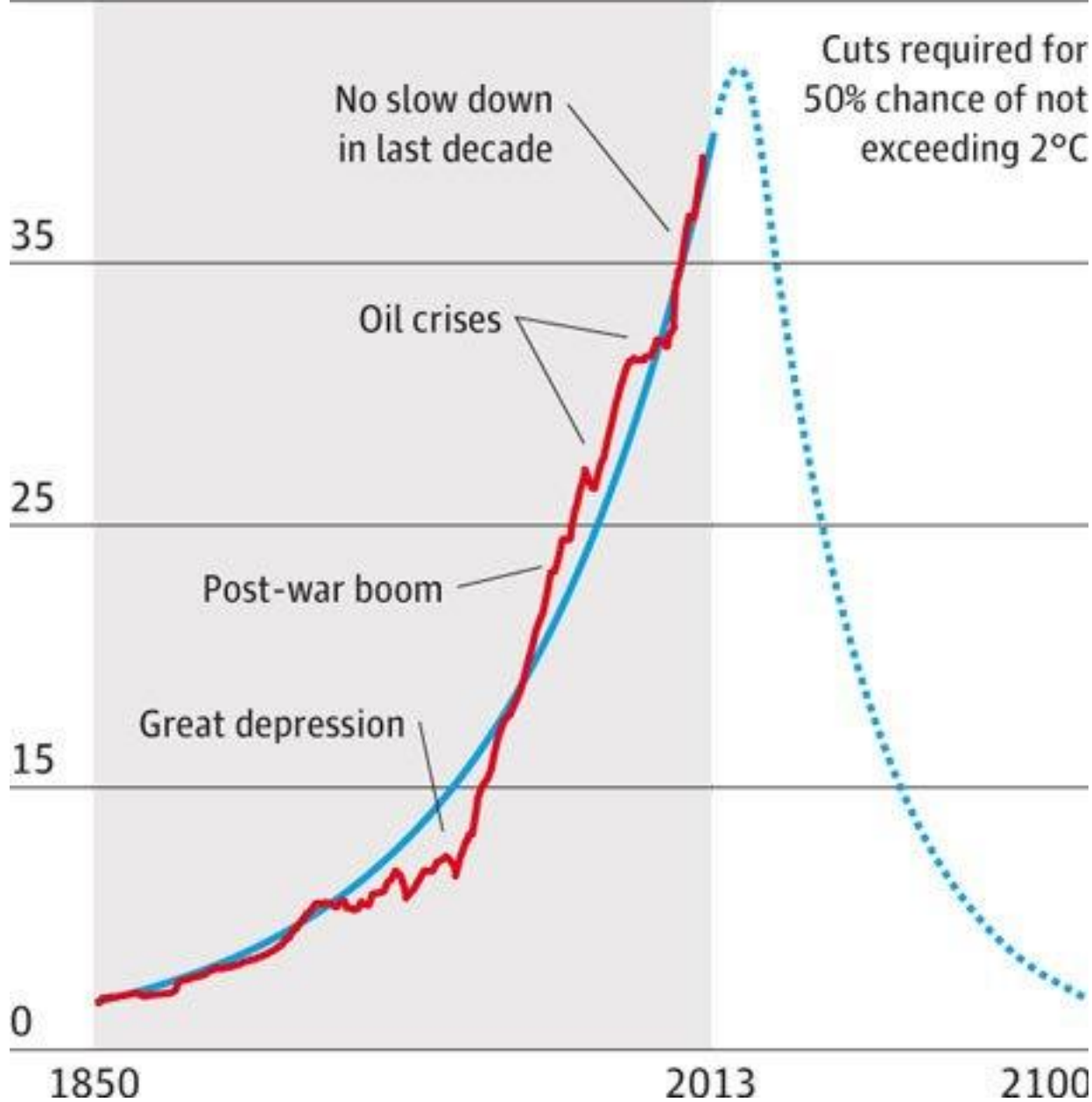
Det er nå det starter –  
det konkrete arbeidet med  
å kutte  
CO<sub>2</sub>-utslipp!

**CLIMATE  
TALKS**

Byer som har arrangert klimatoppmøter siden Rio i 1992.



# 45 Billion tonnes of CO2



WE SAVED THE WORLD!



# Den skremmende klimamatematikken

(Bill McKibben, Rolling Stone Magazine - July 20102)

2° Celsius

565 Gigatons

2795 Gigatons

Det ser ut til at vi kan ha en  
sunn økonomi i  
oljeselskapene eller en  
relativt sunn klode, men  
ikke begge deler



*“Yes, the planet got destroyed. But for a beautiful moment  
in time we created a lot of value for shareholders.”*

# En værmelding for jula 2050

## Hva vi har i vente



# What can a person do

- Stay informed!
- Use your vote!
- Help pushing the green shift through your purchasing:
- Select green solution at home and in transport
- Purchase green electricity
- Eat less red meat
- Recycle, re-use and avoid useless purchases
- Use greenest possible travel (you are still allowed to fly and take a boat trip)
- Offset the rest of your footprint – it is not indulgences

# It helps to engage





for Development  
and Environment

FOR  
OUR  
GRAND  
CHILDREN

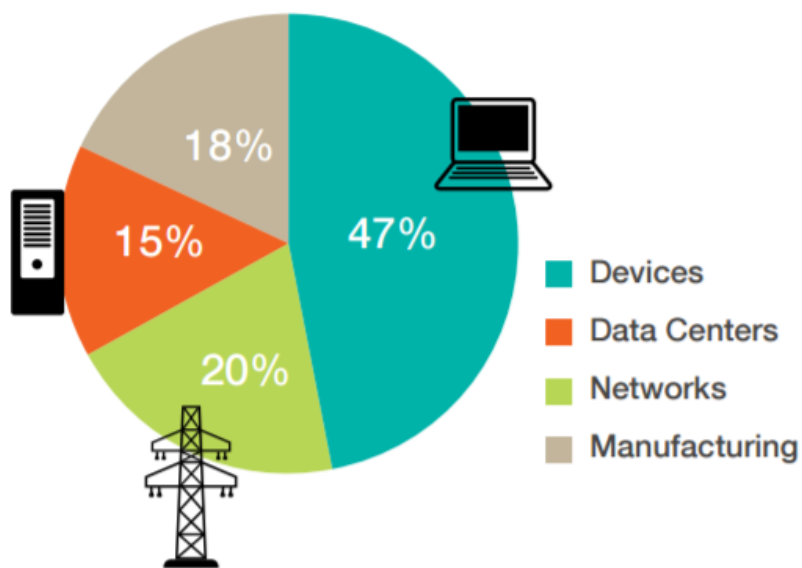
# Kan Purity gjøre noe?

ICT står for 2-2,5 % av globale CO2 Utslipp

Prosent øker hvis ikke tiltak tas

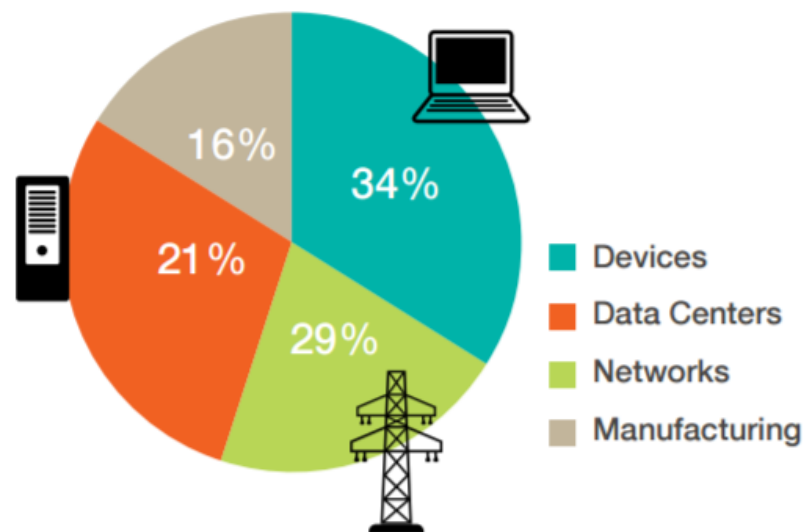
## Main components of electricity consumption for the ICT sector

2012



Main components of electricity consumption for the IT sector, 2012. From "Emerging Trends in Electricity Consumption for Consumer ICT"

2017



Main components of electricity consumption for the IT sector, 2017 estimate. From "Emerging Trends in Electricity Consumption for Consumer ICT"

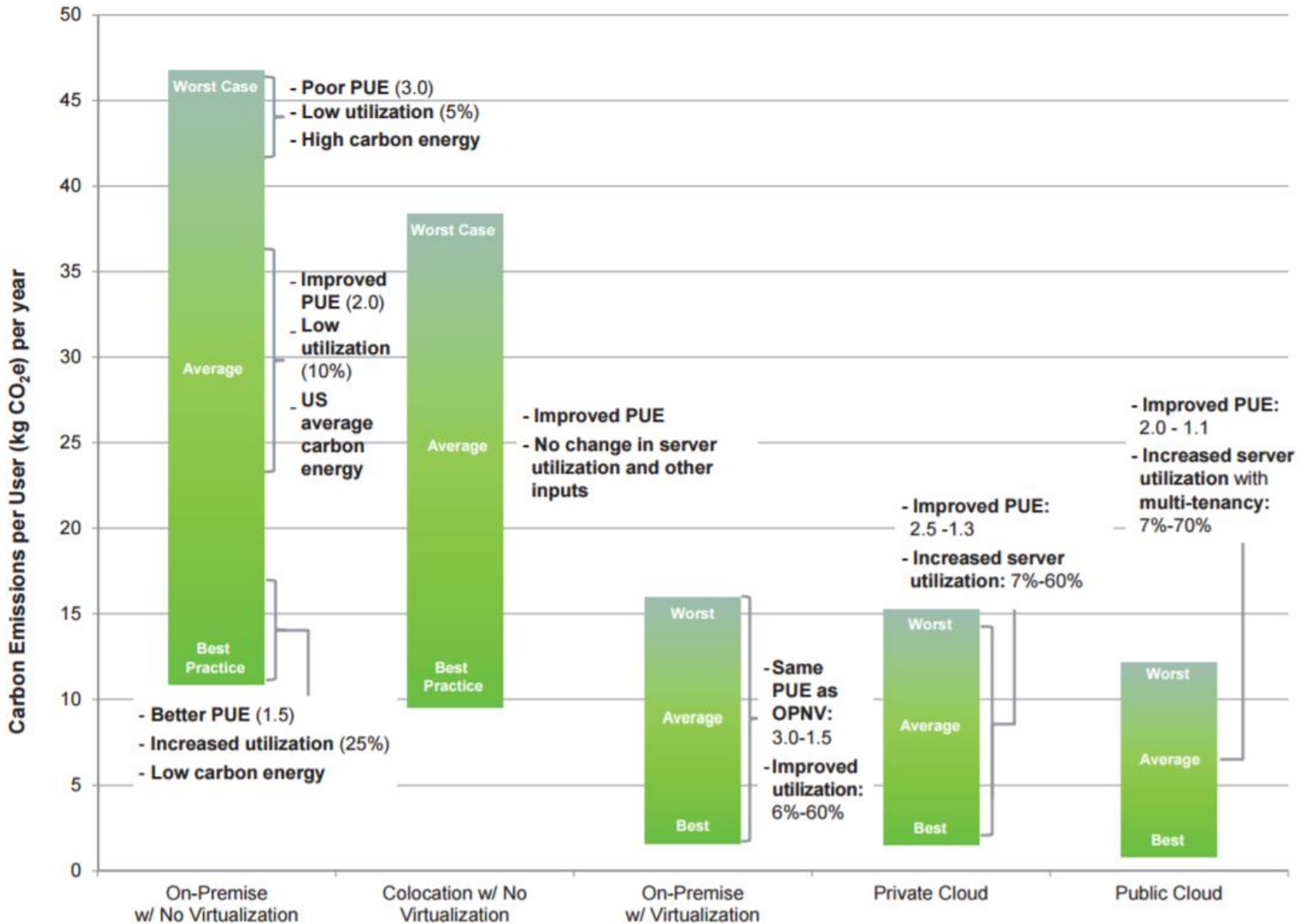
# THE CARBON EMISSIONS OF SERVER COMPUTING FOR SMALL- TO MEDIUM-SIZED ORGANIZATIONS

A Performance Study of  
On-Premise vs. The Cloud

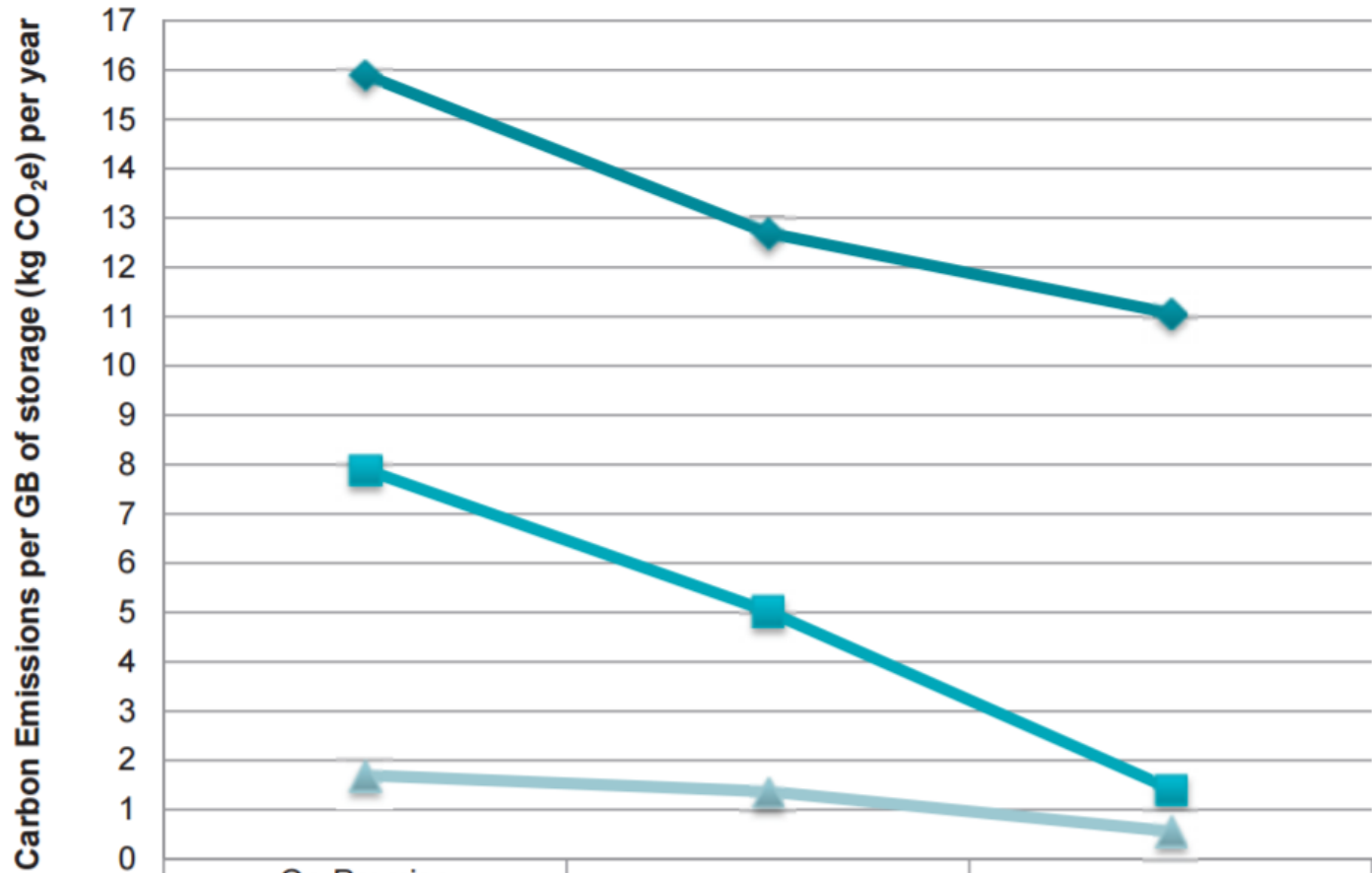
October 2012

**Figure 1 –**

Comparison of Deployment Scenarios (Office Productivity Apps)

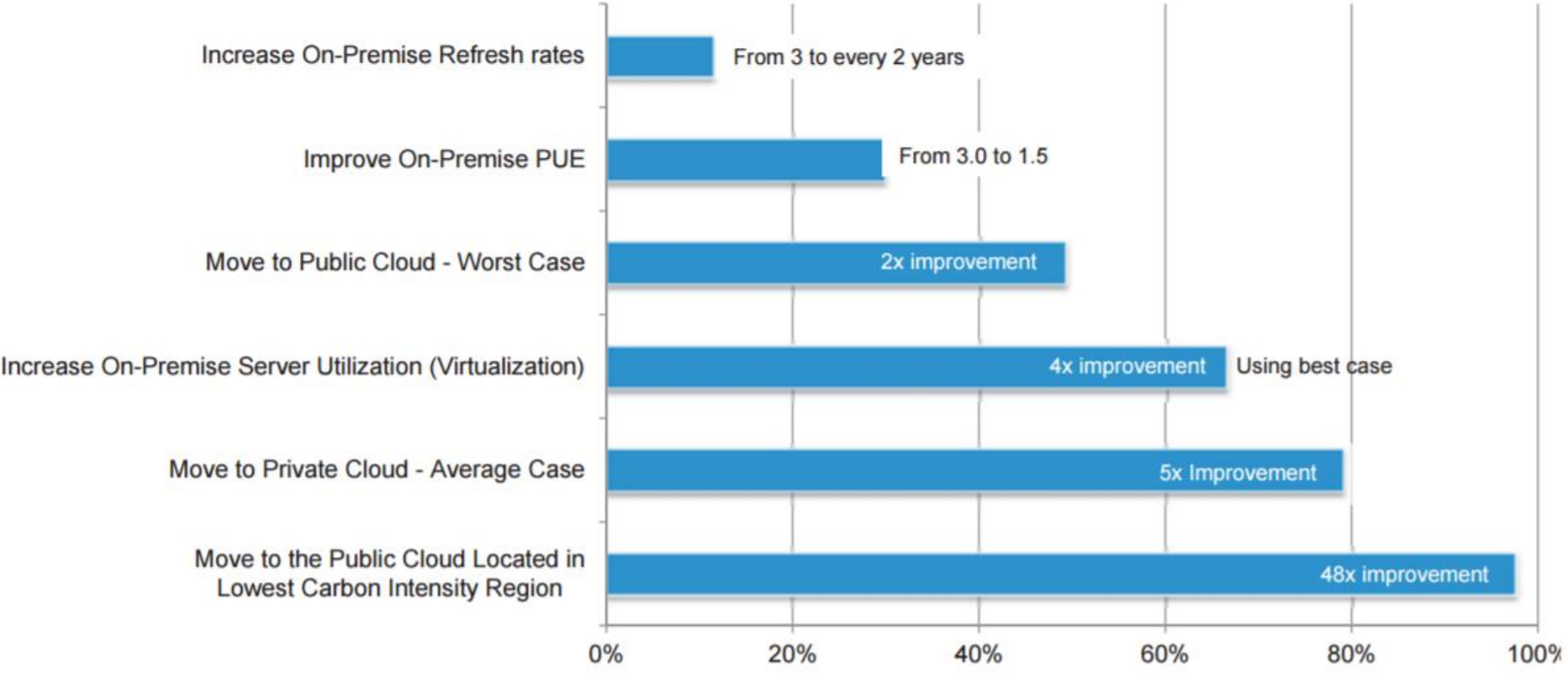


**Figure 2 –**  
 Close-up on 3 Most Carbon Efficient  
 Deployment Scenarios, using Utility Apps



	On-Premise w/ Virtualization	Private Cloud	Public Cloud
◆ Worst Case	15.9	12.7	11.1
■ Average	7.9	5.0	1.4
▲ Best Practice	1.7	1.4	0.6

**Figure 5 –**  
Potential for Carbon Reduction  
(from Average On-Premise Not Virtualized)



# Noe her for Purity?

- Kunnskap i organisasjonen
- Gjøre våre løsninger maksimalt utslippseffektive
- Kjøpe strøm med fornybargaranti
- Vise på hjemmeside
- Ta med i tilbud