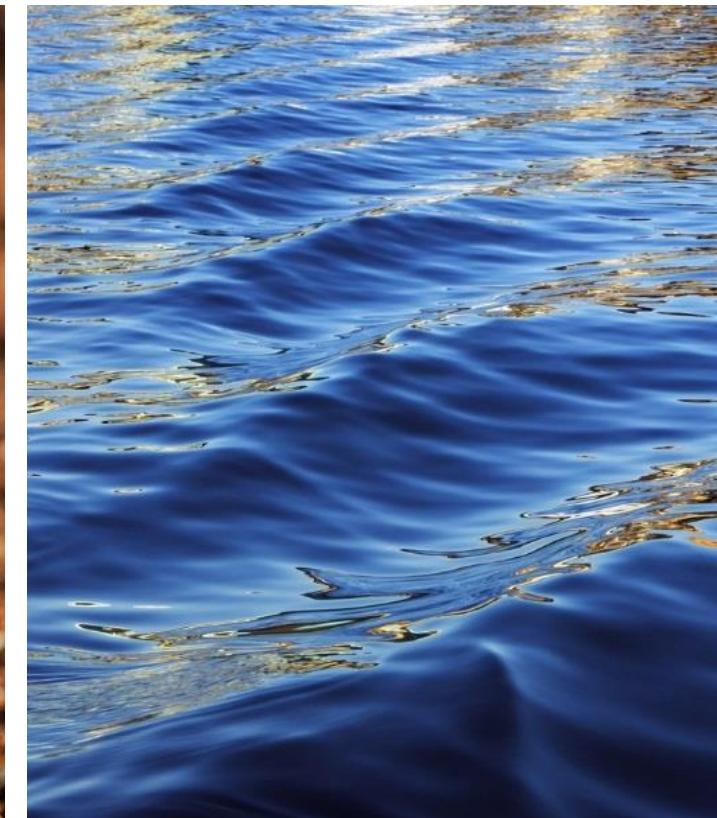




Greener Green Climate Change

Partner name: ULiège
Date: 3 April 2023



Co-funded by the
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Partners

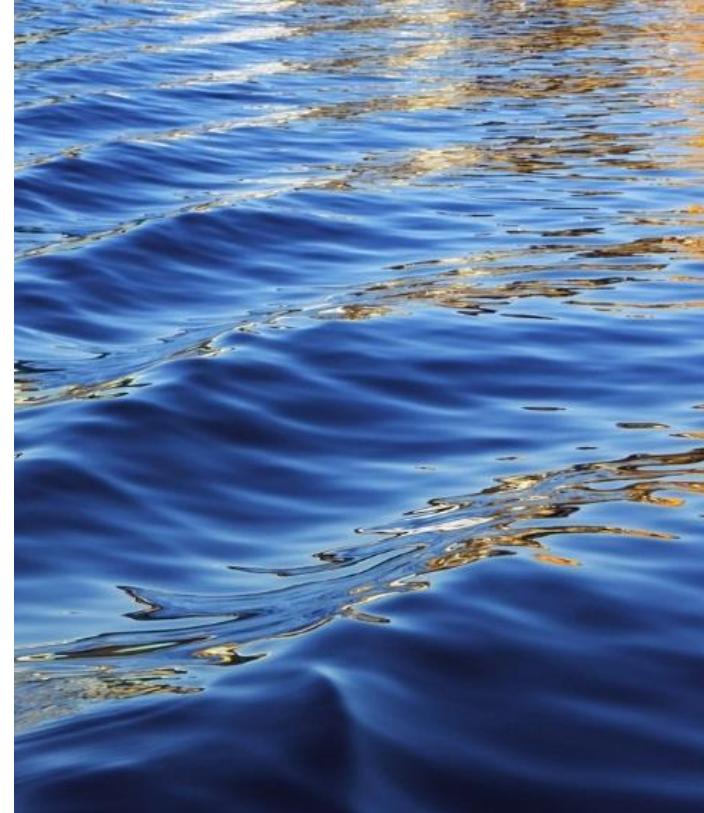
1. BLUE ROOM INNOVATION – SPAIN
2. IDEC – GREECE
3. FEDERATION DES ASSOCIATION DE PARENTS D'ELEVES DU LUXEMBOURG
4. UNIVERSITE DE LIEGE – BELGIUM
5. PRIMARY SCHOOL OF VAREIA – GREECE
6. Instituto Agrario Bell-lloc del Pla SA – SPAIN
7. Scuola Europea di Varese – ITALY



Content

- What is the difference between weather and climate ?
- What is global warming ?
- Which evolution for future of the global warming ?





What is the difference
between weather and
climate ?

Difference between weather and climate

Weather

- instantaneous concept
- evolution directly perceptible by humans
- For example:
 - This morning, it is 10°C in Liege
 - The atmospheric pressure is 1000hPa
 - The wind is blowing from the SW at 15km/h.

Climate

- statistical concept
- evolution completely imperceptible by humans without instrumentation
- For example:
 - In Liege, over the climatic period, 1981-2010
 - The average temperature was 9.9°C
 - It rains 882 mm on average per year
 - It freezes on average 57.7 days per year.



Difference between weather and climate



Donald J. Trump 
@realDonaldTrump

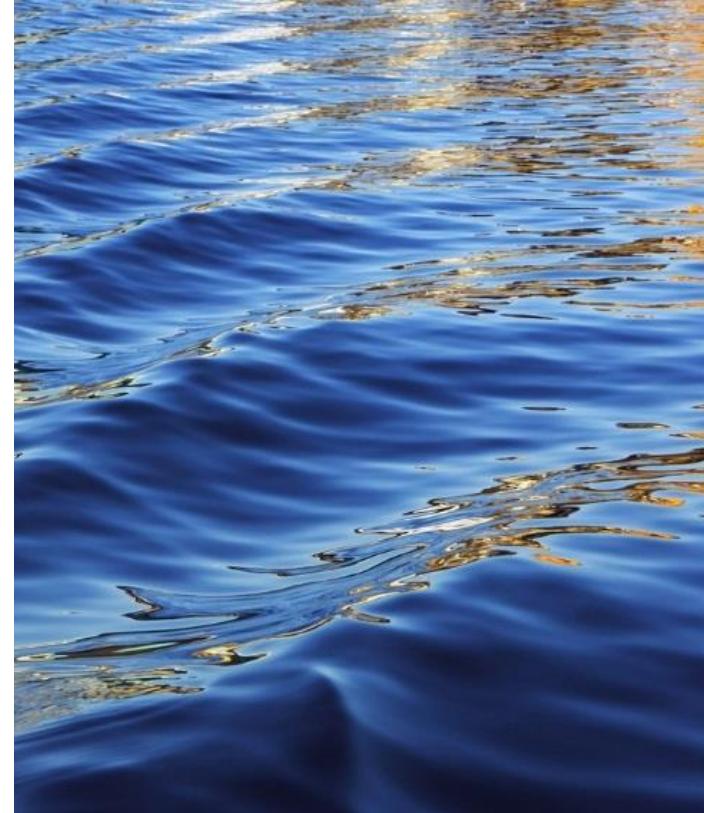
Follow

In the beautiful Midwest, windchill temperatures are reaching minus 60 degrees, the coldest ever recorded. In coming days, expected to get even colder. People can't last outside even for minutes. What the hell is going on with Global Warming? Please come back fast, we need you!

9:28 PM - 28 Jan 2019

- Confusing between :
 - the daily time scale related to the arrival of cold air
 - the time scale of global warming which corresponds to $+1^{\circ}\text{C}/100$ years.
- Confusing between
 - the regional spatial scale of the USA
 - the spatial scale of the whole Earth with respect to global warming.

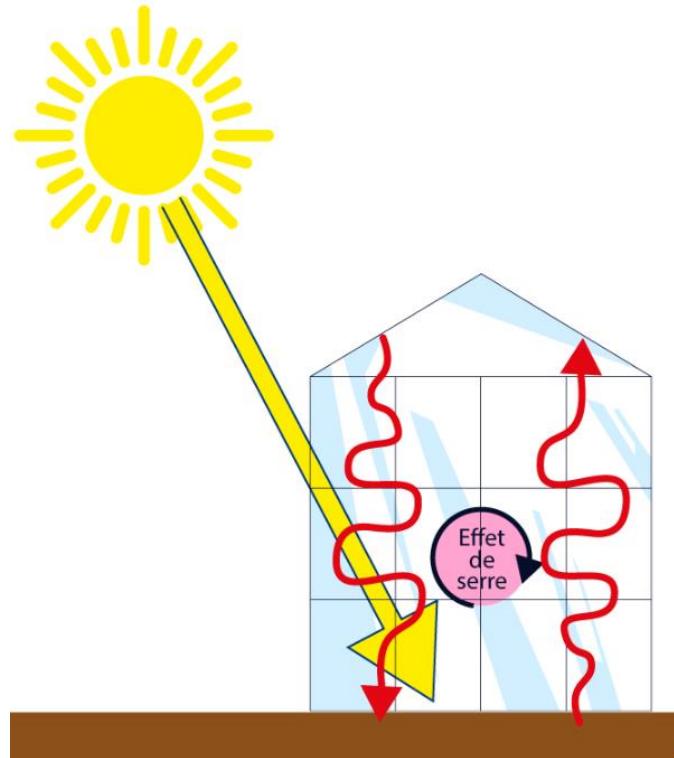




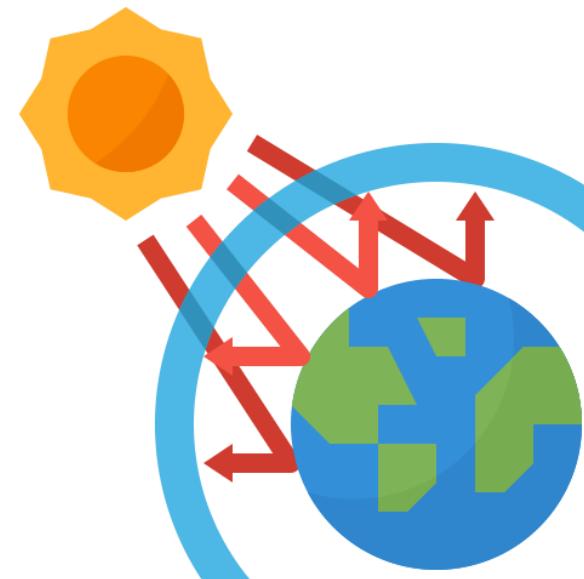
What is global warming ?

What is global warming ?

Like a gardener greenhouse



Heat is “trapped” by greenhouse gases

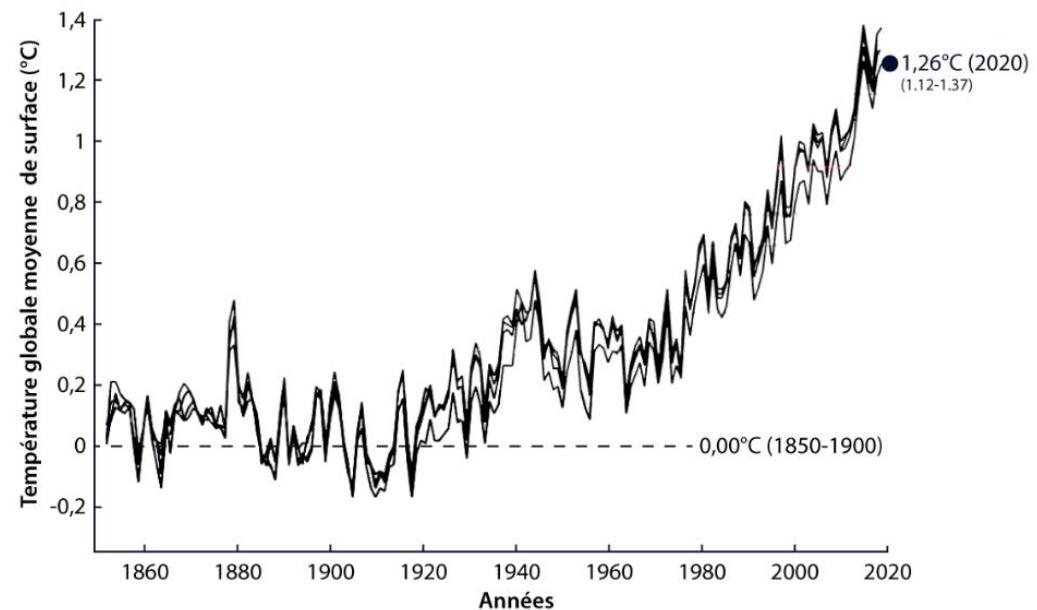


- the more greenhouse gases are injected in atmosphere
- the more heat is trapped

Global warming increase from 19 century

- + 1,26°C in 2020
 - At global scale
 - Compared to the 1850-1900 temperature mean

Changement observé de la température de surface moyenne mondiale par rapport à 1850-1900 en utilisant quatre ensembles de données

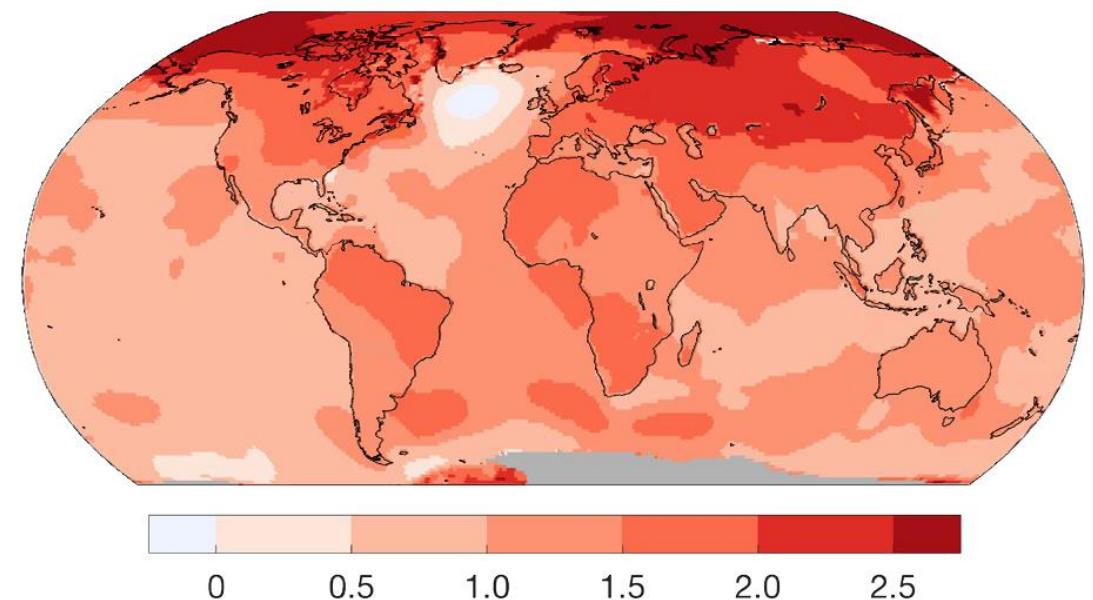


Source : https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Chapter_01.pdf

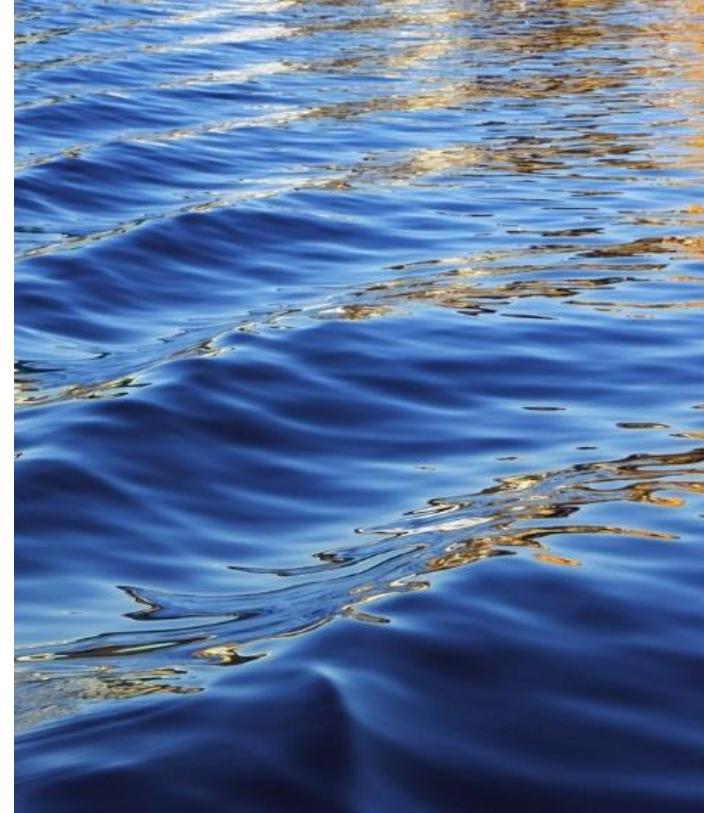


Global warming increase from 19 century

- + 1,26°C in 2020
 - At global scale
 - Compared to the 1850-1900 temperature mean
- It impacts all the whole world



Source : https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Chapter_01.pdf

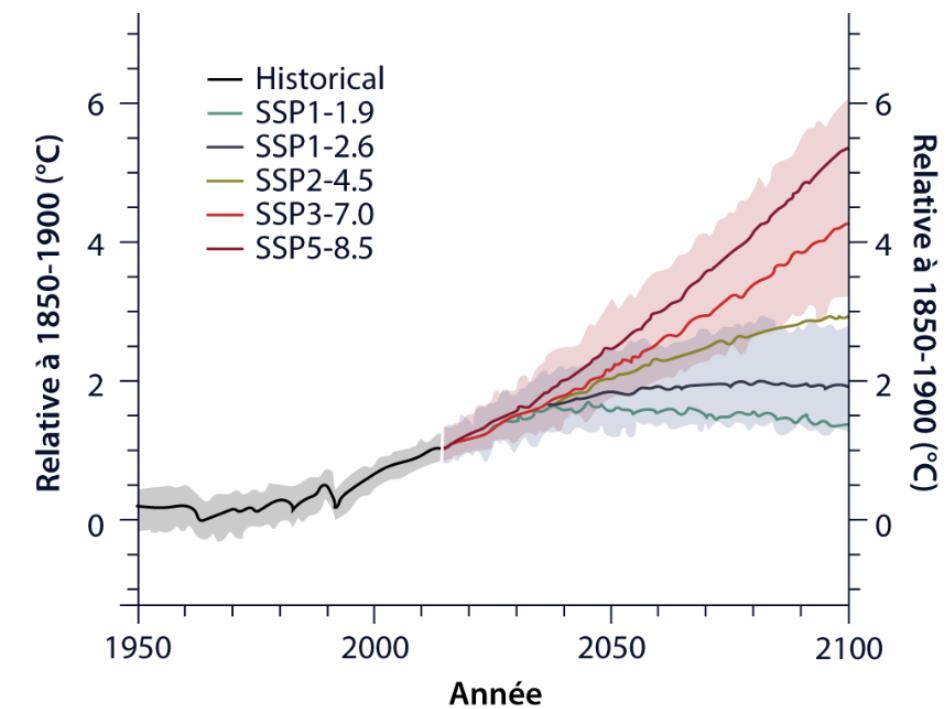


Which evolution for future
of the global warming ?

Which evolution for future of the global warming ?

- Different socio-economic scenarios are establish
 - From **low (SSP1)** greenhouse gases emissions
 - To **high (SSP5)** greenhouse gases emissions
- Temperature reaches from **+1,5°C** to **5,5°C** depending on the scenario

Évolution globale projetée de la température en surface



Source : https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Chapter_04.pdf



Global warming is not just a question of thermometer ...

- Impacts on :
 - the melting of the polar ice sheets and glaciers
 - the melting of permafrost
 - the rise of sea level
 - the intensification of some extreme events
 - more intense rains
 - record floods
 - more and more frequent droughts
 - increasing impact on our agriculture.
- Schools have roles to :
 - Inform
 - Raise awareness
 - empower
- the future citizens





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