From Climate Change to SDGs in Belgium to the « Global Sustainable Development Report » (GSDR 2019): Standing back

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IPCC Vice-chair from 2008 to 2015

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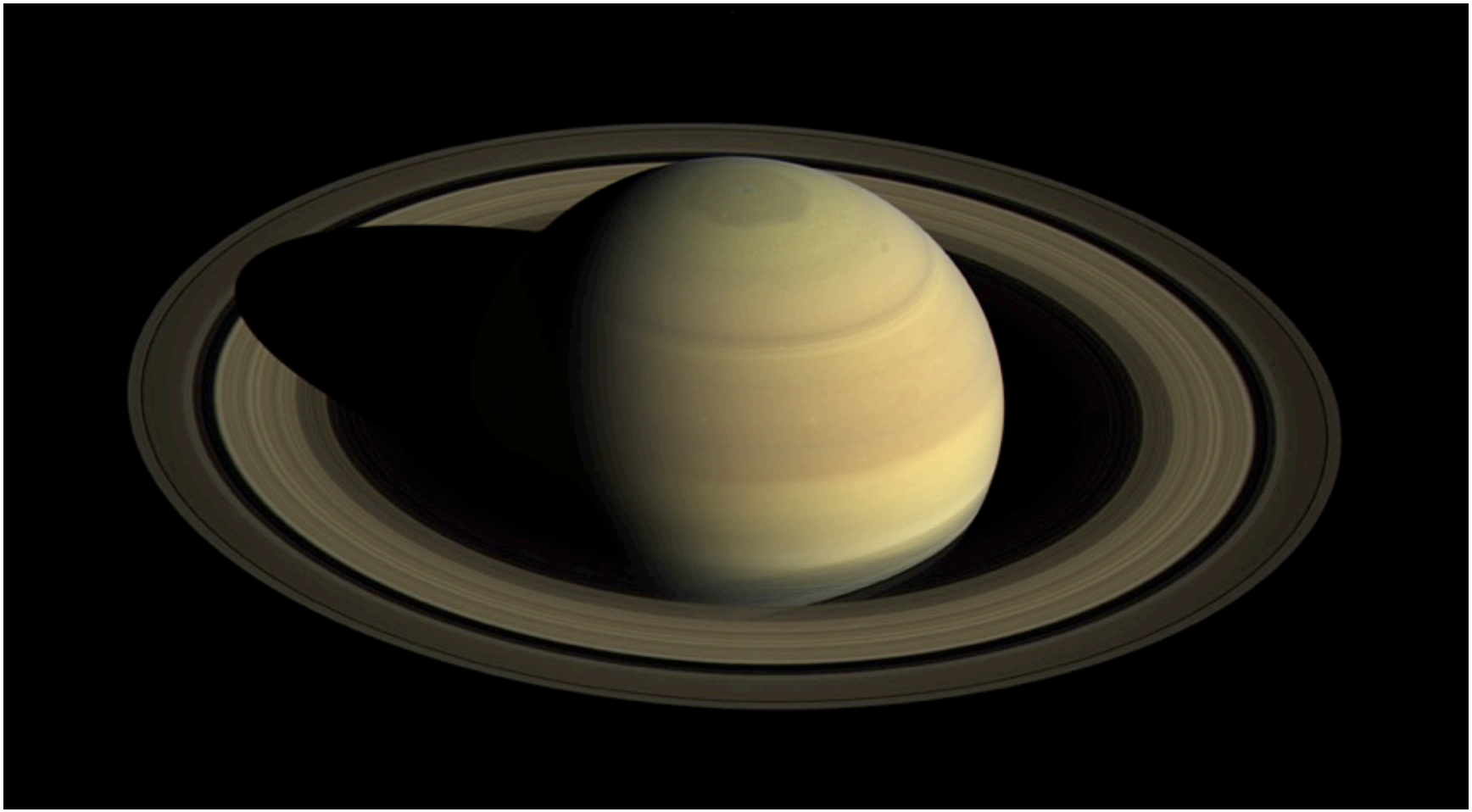
SDGs in België: rapportering en toekomstige acties,
ODD en Belgique: rapportage et actions futures,
Brussels, 22-11-2017

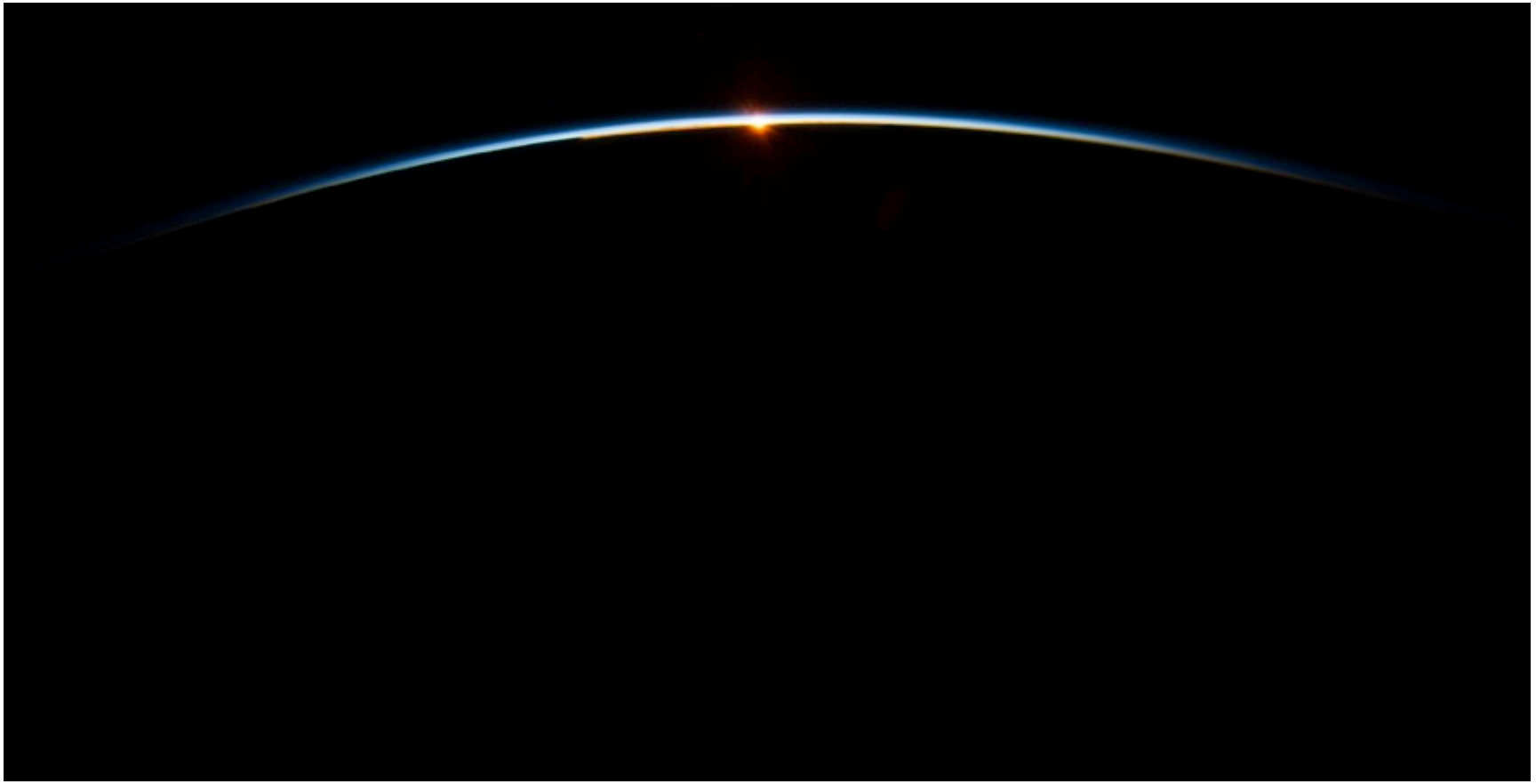
Merci au Gouvernement wallon pour son soutien à la www.plateforme-wallonne-giec.be et à mon équipe à l'Université catholique de Louvain. Merci à Eeva Furman (SYKE, Finlande) pour ses dias (adaptées)

Saturn, as seen on 25-4-2016 from a 3 million km distance by the Cassini satellite launched in October 1997, 40 years after Sputnik



That small blue dot is the Earth, a seen from Cassini, orbiting Saturn, 1.44 billion km from us, on 19-7-2013

Our atmosphere is thin and fragile (as seen by ISS crew on 31 July 2013)



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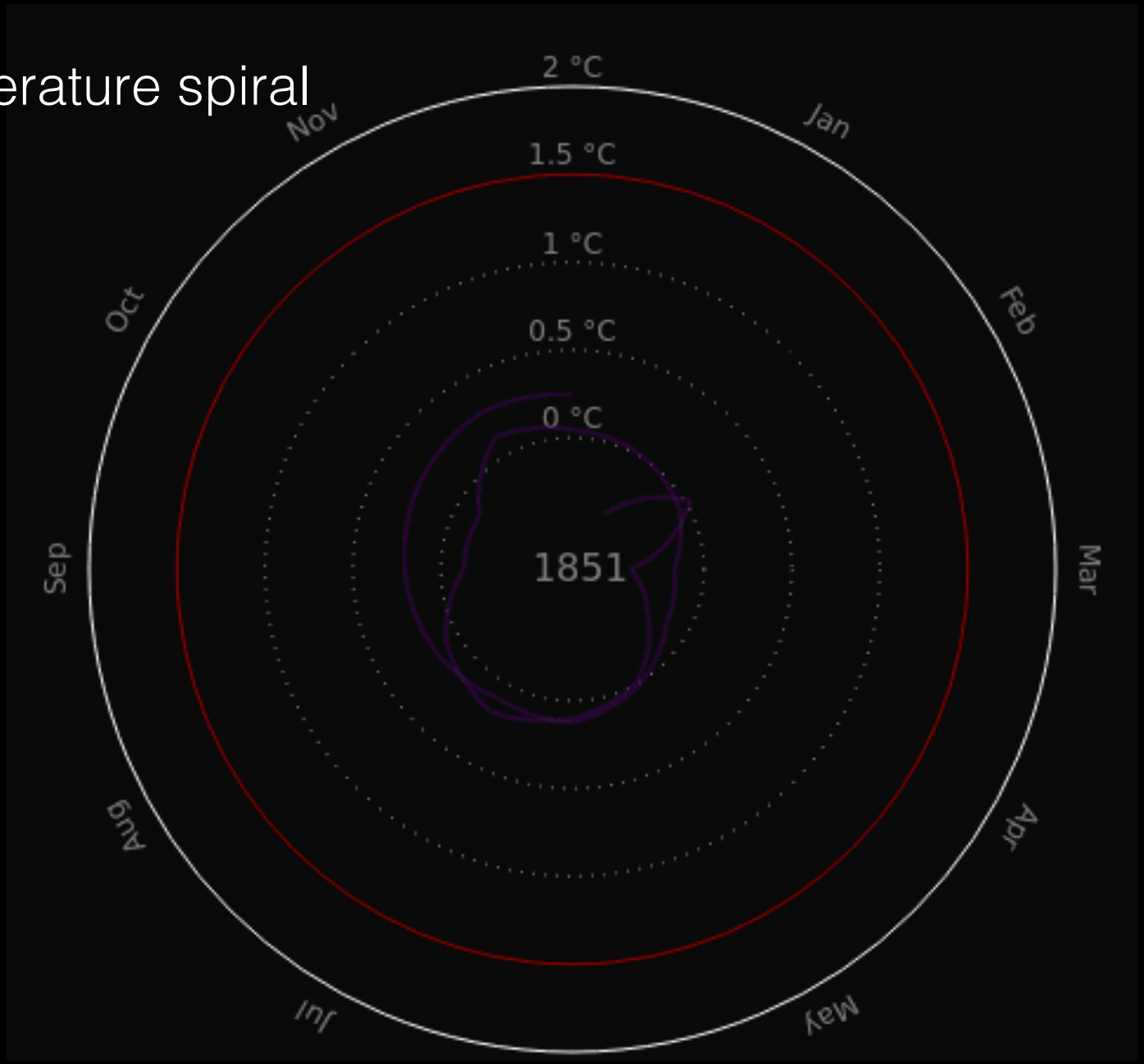
Temperature spiral



Global Mean Temperature in °C relative to 1850 – 1900
Graph: Ed Hawkins (Climate Lab Book) – Data: HadCRUT4 global temperature dataset
Available on http://openclimatedata.net/climate-spirals/temperature

Key messages from IPCC AR5

- → **Human influence on the climate system is clear**
- → **Continued emissions of greenhouse gases will increase the likelihood of severe, pervasive and irreversible impacts for people and ecosystems**
- → **While climate change is a threat to sustainable development, there are many opportunities to integrate mitigation, adaptation, and the pursuit of other societal objectives**
- → **Humanity *has* the means to limit climate change and build a more sustainable and resilient future**

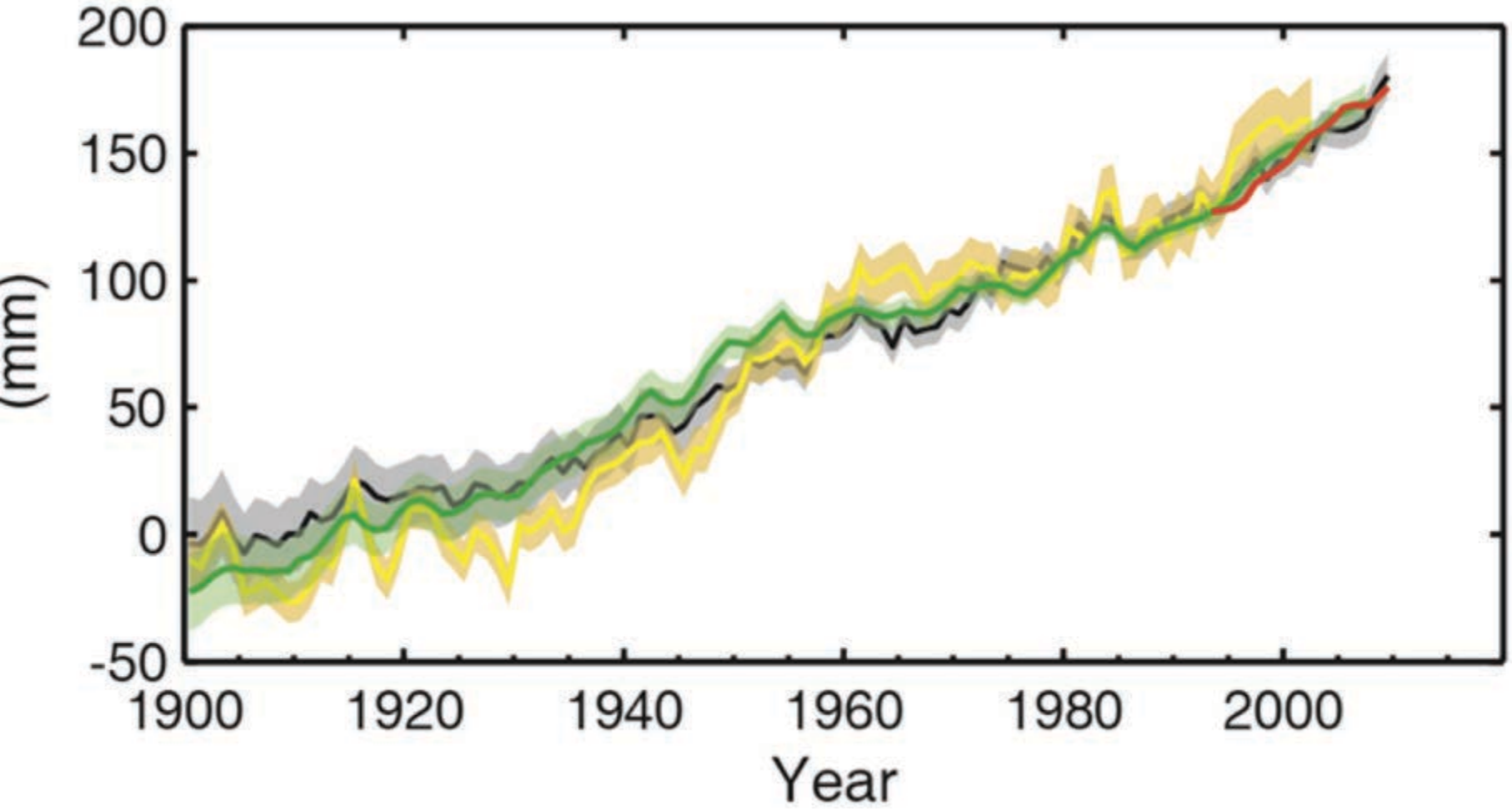
Plateau Glacier (1961)
(Alaska)

http://www.weather.com/news/science/environment/alaskas-glaciers-capturing-earth-changing-our-eyes-20131125?cm_ven=Email&cm_cat=ENVIRONMENT_us_share

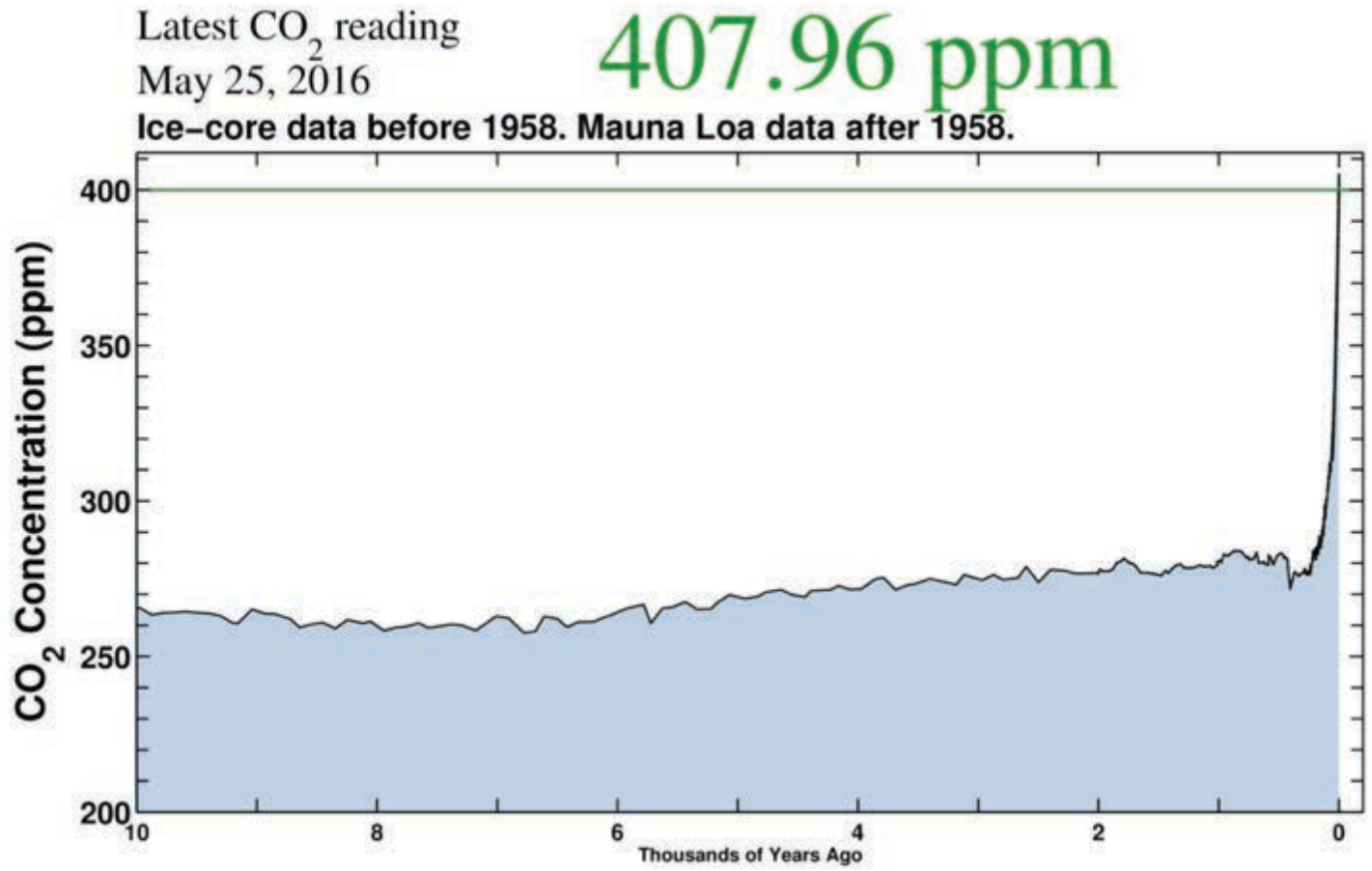
Plateau Glacier (2003)
(Alaska)

http://www.weather.com/news/science/environment/alaskas-glaciers-capturing-earth-changing-our-eyes-20131125?cm_ven=Email&cm_cat=ENVIRONMENT_us_share

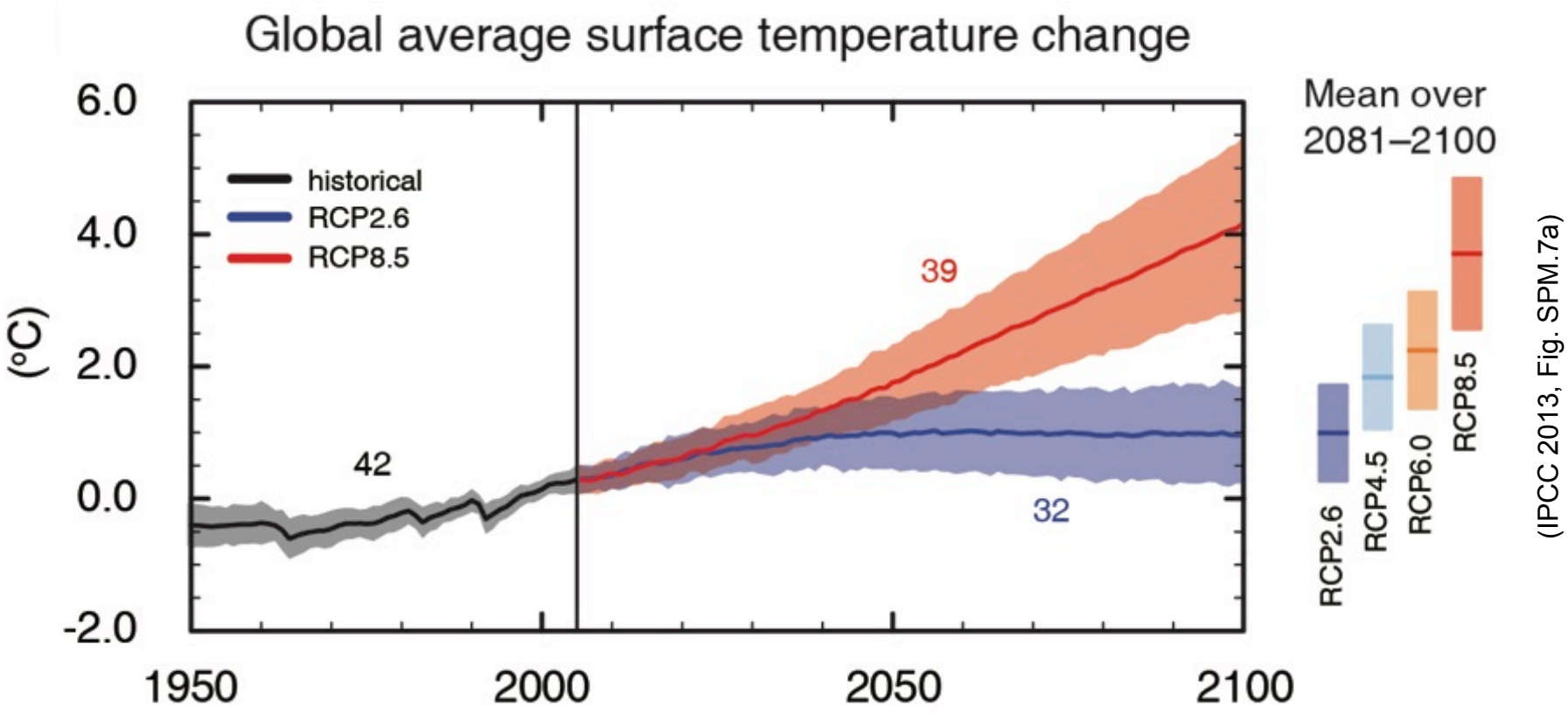
Change in average sea-level change



CO_2 Concentration, 25 May 2016 (Keeling curve)



Source: scripps.ucsd.edu/programs/keelingcurve/

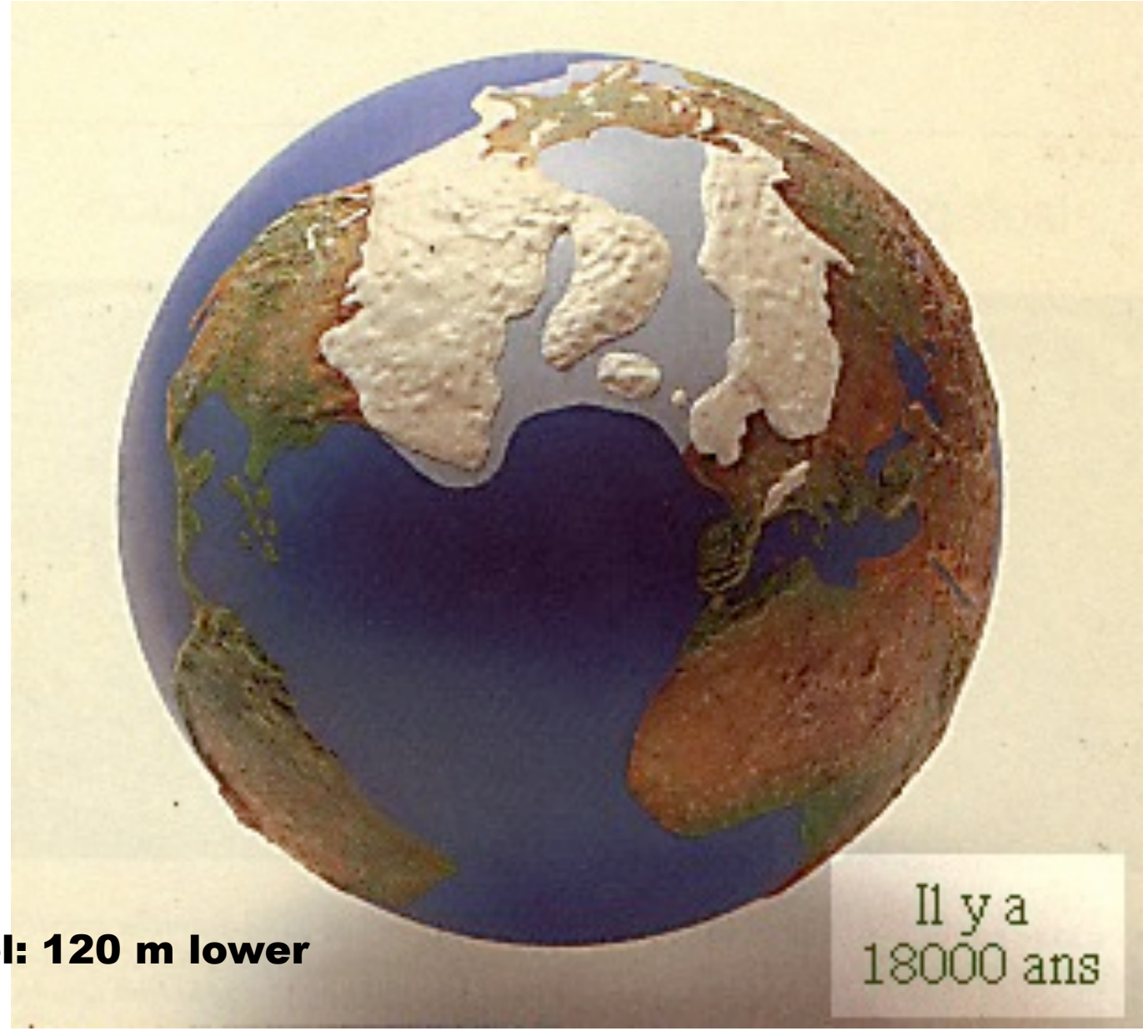


(IPCC 2013, Fig. SPM.7a)

Only the lowest (RCP2.6) scenario maintains the global surface temperature increase above the pre-industrial level to less than 2°C with at least 66% probability

18-20000 years ago (Last Glacial Maximum)

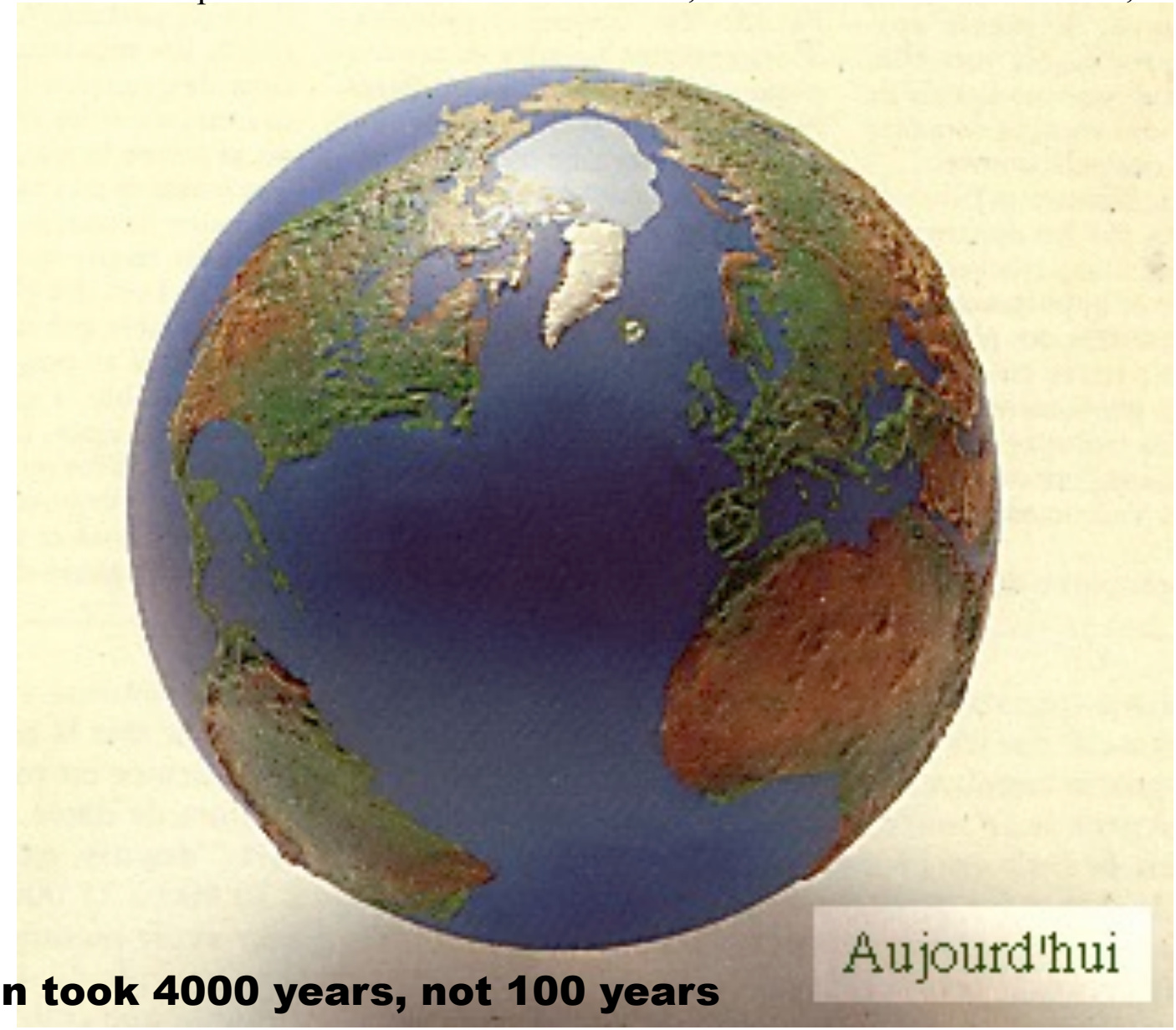
With permission from Dr. S. Joussaume, in « Climat d'hier à demain », CNRS éditions.



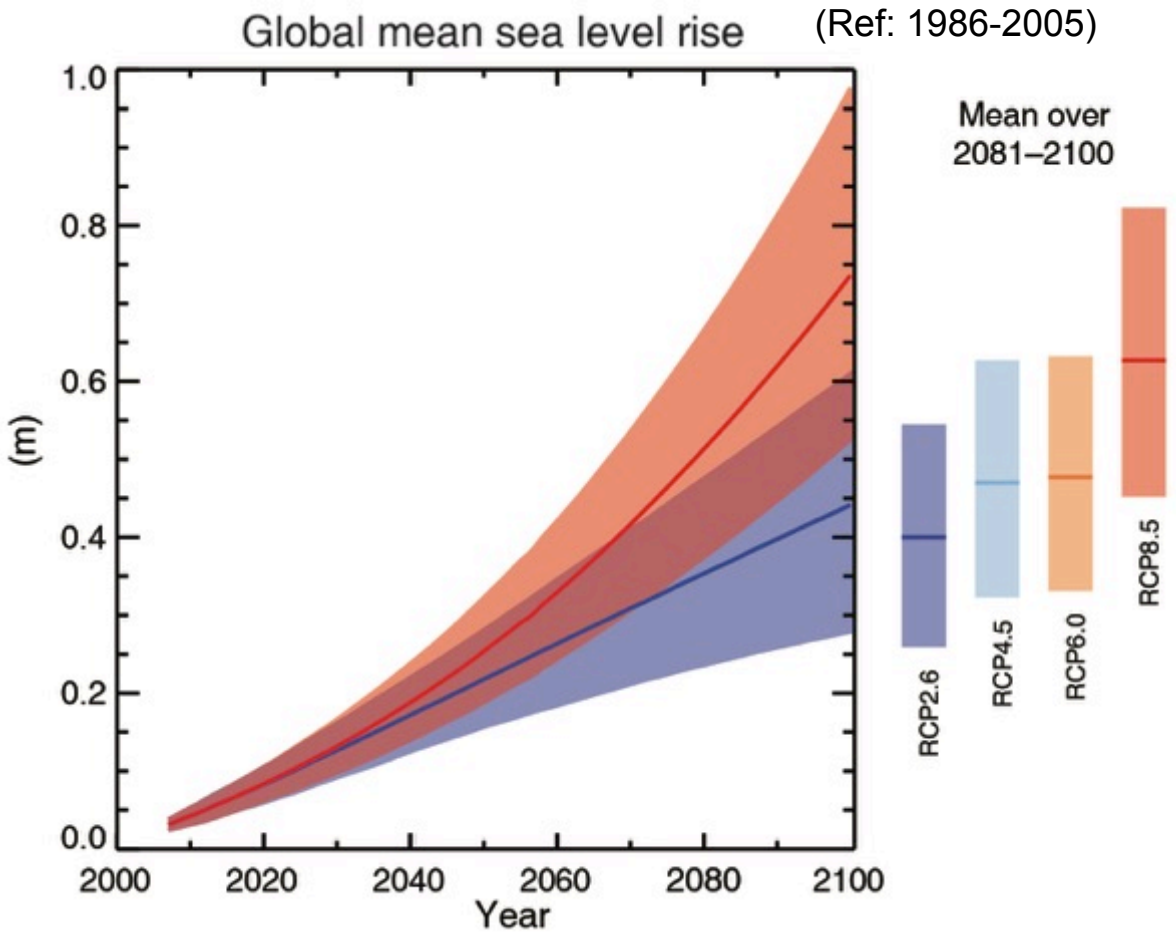
Sea level: 120 m lower

Today, with +4-5°C globally

With permission from Dr. S. Joussaume, in « Climat d'hier à demain », CNRS éditions.



Transition took 4000 years, not 100 years



(IPCC 2013, Fig. SPM.9)

Sea level due to continue to increase

Impacts are already underway

- Tropics to the poles
- On all continents and in the ocean
- Affecting rich and poor countries (but the poor are more vulnerable everywhere)




AR5 WGII SPM

Risk = Hazard x Vulnerability x Exposure (Katrina flood victim, New Orleans, 2005)

AP Photo - Lisa Krantz (http://lisakrantz.com/hurricane-katrina/zspbn1k4cn17phidupe4f9x5t1mzdr)

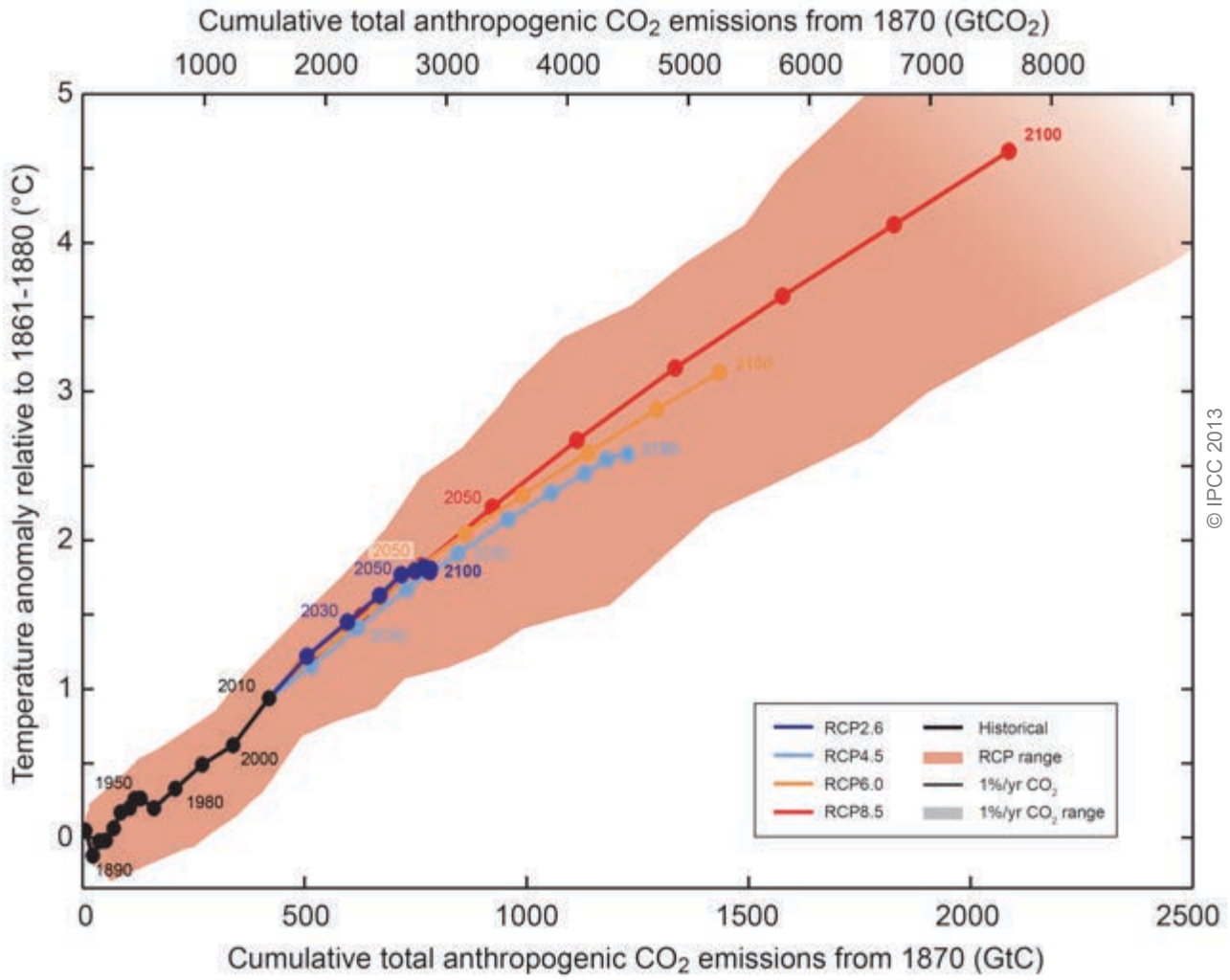
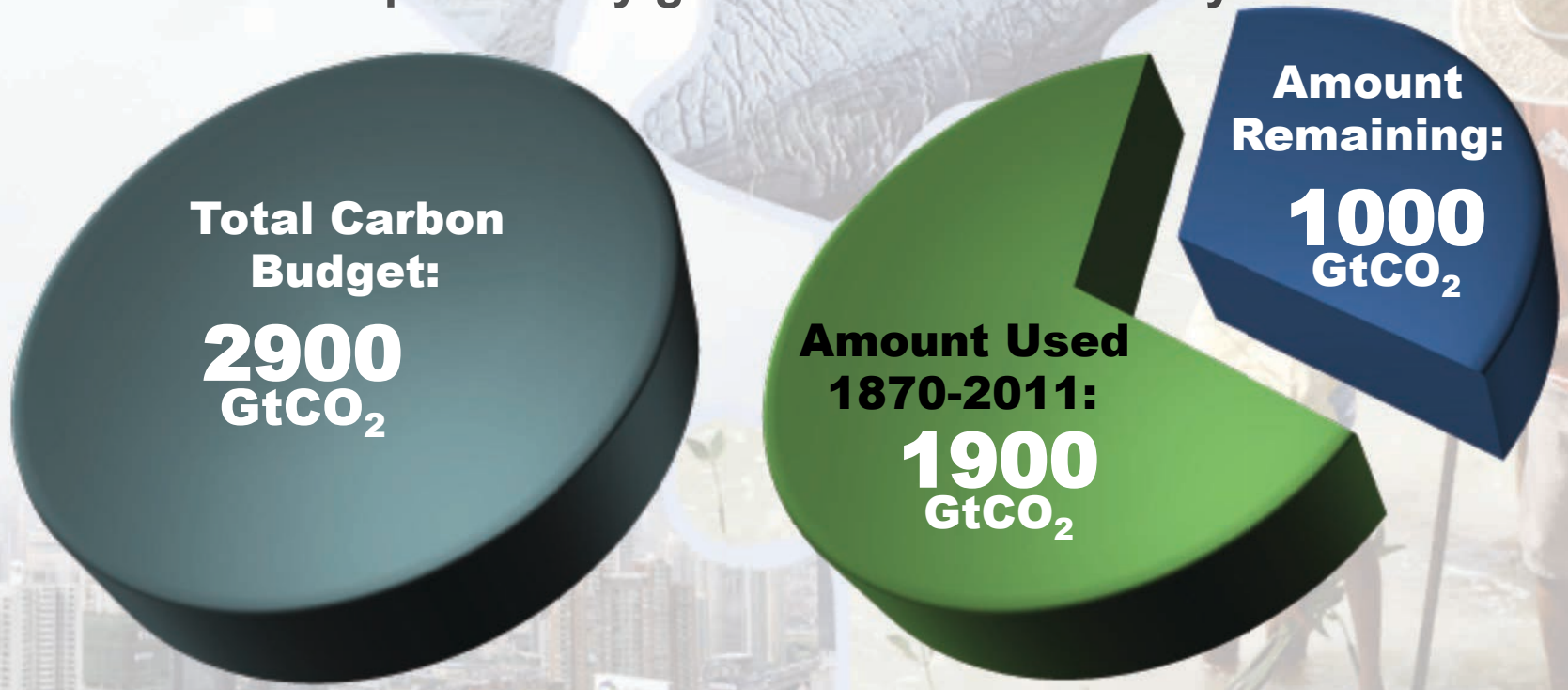


Fig. SPM.10

Limiting climate change will require substantial and sustained reductions of greenhouse gas emissions.

The window for action is rapidly closing

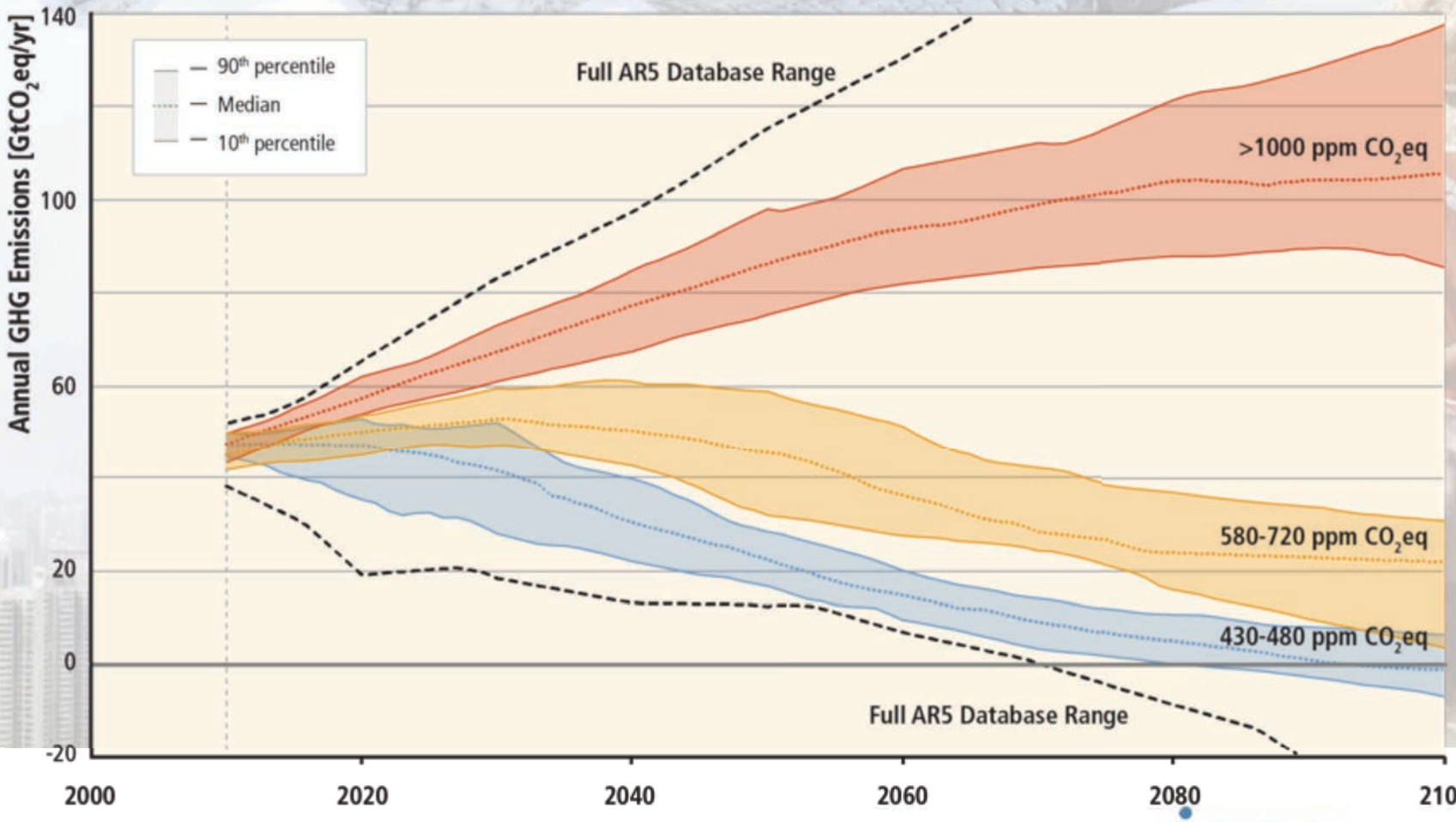
65% of the carbon budget compatible with a 2°C goal is already used
NB: this is with a probability greater than 66% to stay below 2°C



NB: Emissions in 2011: 38 GtCO2/yr

AR5 WGI SPM

Stabilization of atmospheric concentrations requires moving away from the baseline – regardless of the mitigation goal.



Based on Figure 6.7

AR5 WGIII SPM

IPCC AR5 Synthesis Report

ipcc
INTERGOVERNMENTAL PANEL ON climate change

WMO UNEP

Mitigation Measures

More efficient use of energy

Greater use of low-carbon and no-carbon energy

- Many of these technologies exist today
- But worldwide investment in **research** in support of GHG mitigation is small…

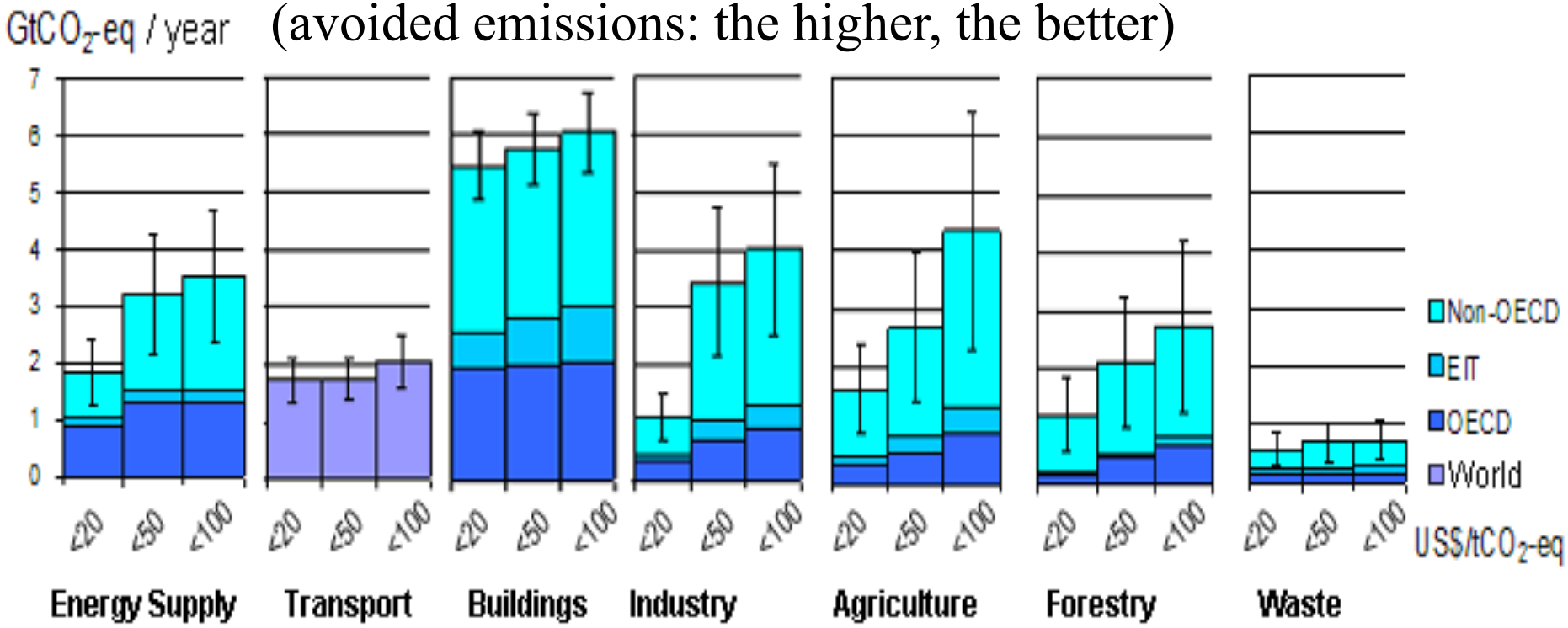
Improved carbon sinks

- **Reduced deforestation** and improved forest management and planting of new forests
- **Bio-energy with carbon capture and storage**

Lifestyle and behavioural changes

AR5 WGIII SPM

All sectors and regions have the potential to contribute by 2030



IPCC AR4 (2007)

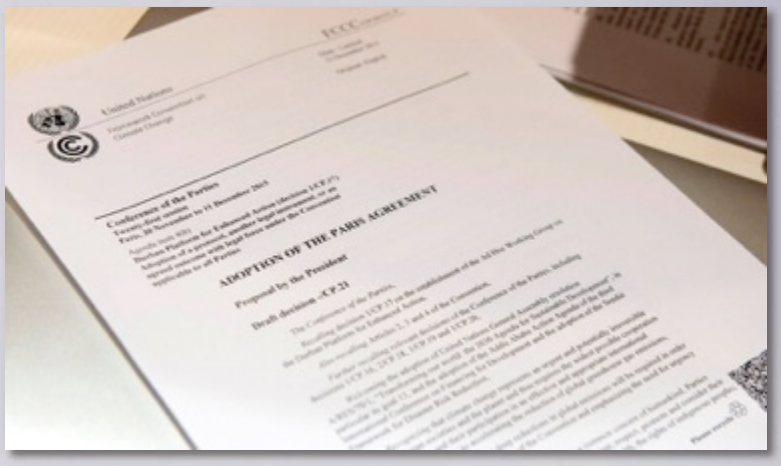
Note: estimates do not include non-technical options, such as lifestyle changes.

- **Substantial reductions in emissions would require large changes in investment patterns e.g., from 2010 to 2029, in billions US dollars/year:**
  (mean numbers rounded, IPCC AR5 WGIII Fig SPM 9)
- **energy efficiency: +330**
- **renewables: + 90**
- **power plants w/ CCS: + 40**
- **nuclear: + 40**
- **power plants w/o CCS: - 60**
- **fossil fuel extraction: - 120**

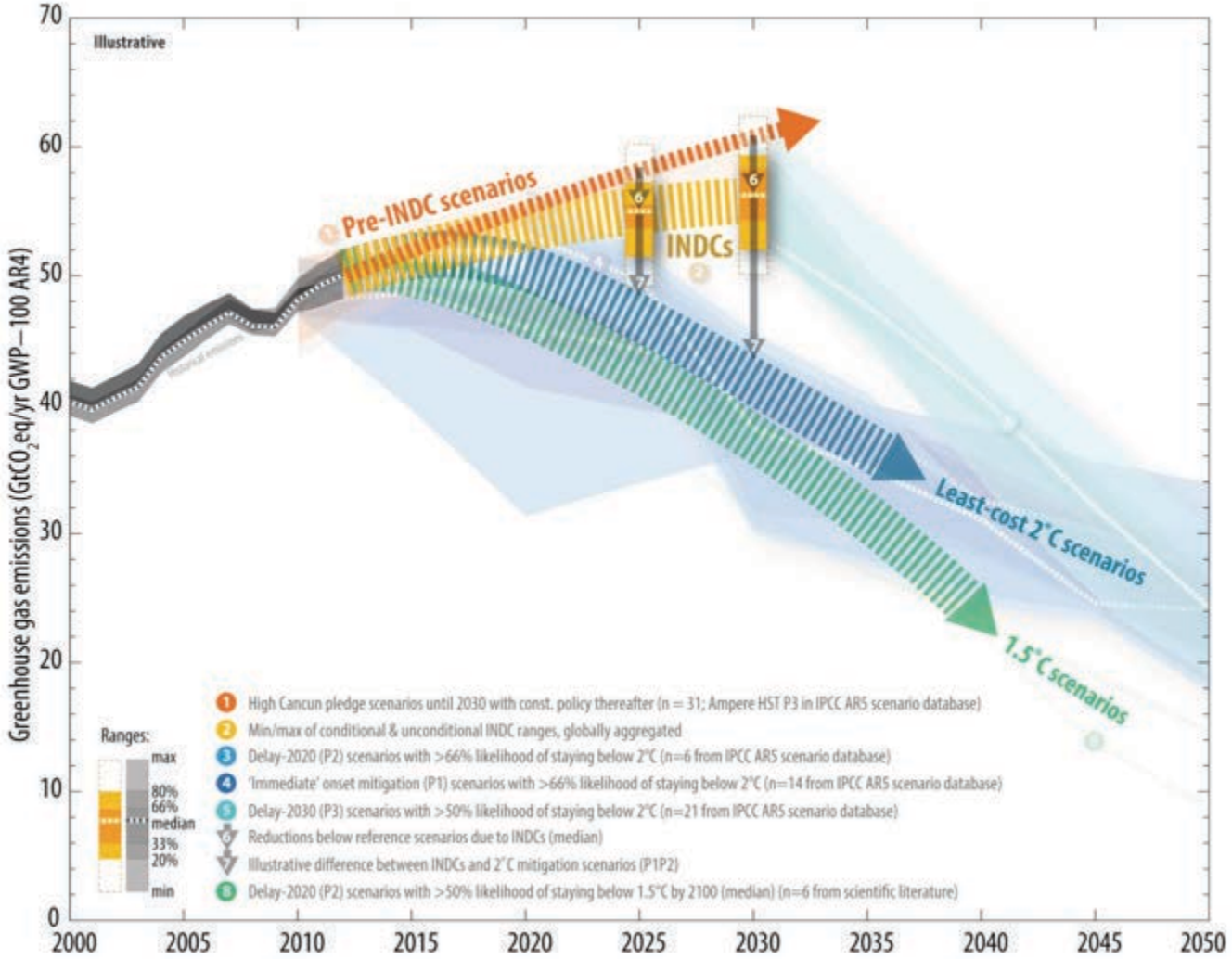
ur les Changements Climatiques 2015

COP21/CMP11

Paris, France



Comparison of global emission levels in 2025 and 2030 resulting from the implementation of the intended nationally determined contributions



UNFCCC, Aggregate effect of the intended nationally determined contributions: an update
http://unfccc.int/resource/docs/2016/cop22/eng/02.pdf

COP 23 in Bonn, presided by Fiji

COP 23 in Bonn, presided by Fiji: Timoci, 12 years, speaks to Heads of State and of Government (see https://www.youtube.com/watch?v=rx_l1Y_nG40)

COP 23 in Bonn, presided by Fiji

- **Fiji has done the job it was given to do**, which is to **advance the implementation guidelines of the Paris Agreement** and **prepare for more ambitious action** through the Talanoa Dialogue of 2018.
- Countries will need to finalise the implementation guidelines at COP24 in Poland next year.

COP23 in Bonn, presided by Fiji

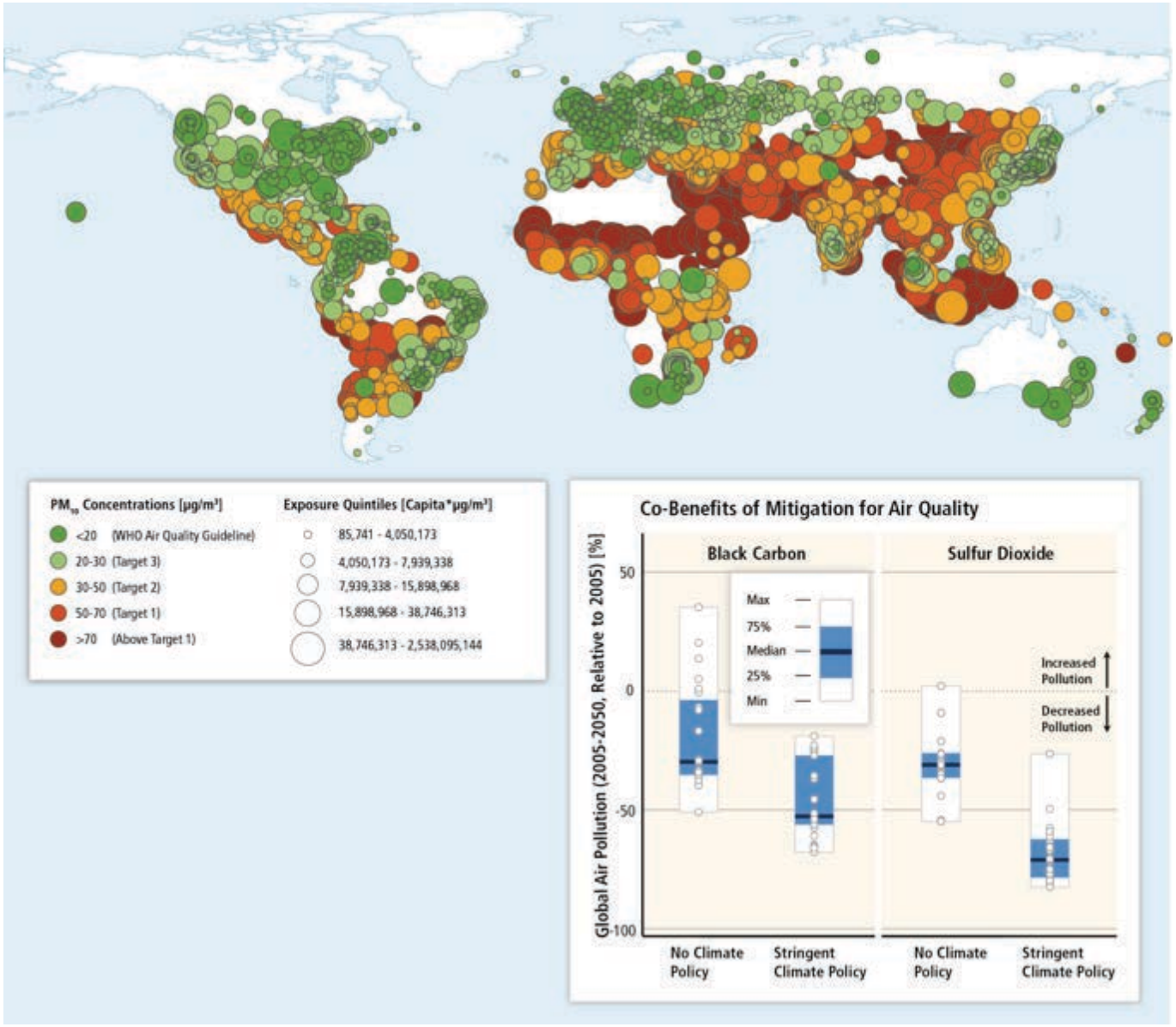
- The **Talanoa Dialogue** agreed in Bonn establishes an inclusive and participatory process to allow Parties, as well as non-party stakeholders, to share stories and showcase best practices **to urgently raise ambition** - including pre-2020 action - **in nationally-determined contributions (NDCs)**.

COP23 in Bonn, presided by Fiji

-**The Gender Action Plan** and **Indigenous Peoples Platform** agreed in Bonn will help ensure that those who are traditionally marginalised have a strong voice in the climate change negotiations and are empowered to become actors of change.

COP23 in Bonn, presided by Fiji

- Through the **Ocean Pathway Partnership**, Fiji has launched a major new initiative to strengthen the link between climate change action and the health of the ocean, including in the UN Climate Change process, as well as in national climate action plans.
- **A historic agreement on agriculture** will help nations reduce emissions for the sector that is the second biggest emitter after energy, as well as help promote the sector's resilience to the effects of climate change.



Mitigation can result in large co-benefits for human health and other societal goals.

If well designed, measures to prevent climate change could offer so many opportunities:

- Co-benefits in reduced pollution, health improvement, employment, gender equality, food security, reduced poverty, energy independence…
- Opportunities to shift the tax burden away from labour, incentivise, and fund sustainable development
- Opportunities to integrate research results in a useful, policy-relevant way, accross disciplines (including social sciences)

Les 17 Objectifs de Développement Durable, adoptés par l'ONU en septembre 2015

OBJECTIFS DE DÉVELOPPEMENT DURABLE

SOLIDARITÉ climatique
UN MOUVEMENT ANIMÉ PAR gères

Global Sustainable Development Report 2019 drafted by the Group of independent scientists: Mandate agreed by UN Member States in July 2016

- The GSDR is one important component of the
  - **follow-up and review process** for the 2030 Agenda for Sustainable Development

- The GSDR will **inform the UN High-Level Political Forum**
  - **(HLPF**), and shall strengthen the science-policy interface and provide a strong evidence-based instrument to support policymakers in promoting poverty eradication and sustainable development

- The report will be **available for a wide range of stakeholders**,
  - including business and civil society as well as the wide public

SYKE

Scope of the report

- Guidance on the **state of global sustainable development**
  - from a scientific perspective, which will help address the implementation of the 2030 Agenda,
  - provide **lessons learned**, while focusing on challenges, address new and **emerging issues** and highlight emerging **trends and actions.**

- An **integrated approach and examine policy options**
  - with a view to sustaining the balance between the **three dimensions** of sustainable development. These policy options should be **in line with the 2030 Agenda** to inform its implementation

- **Regional** dimension, as well as **countries in special situations**

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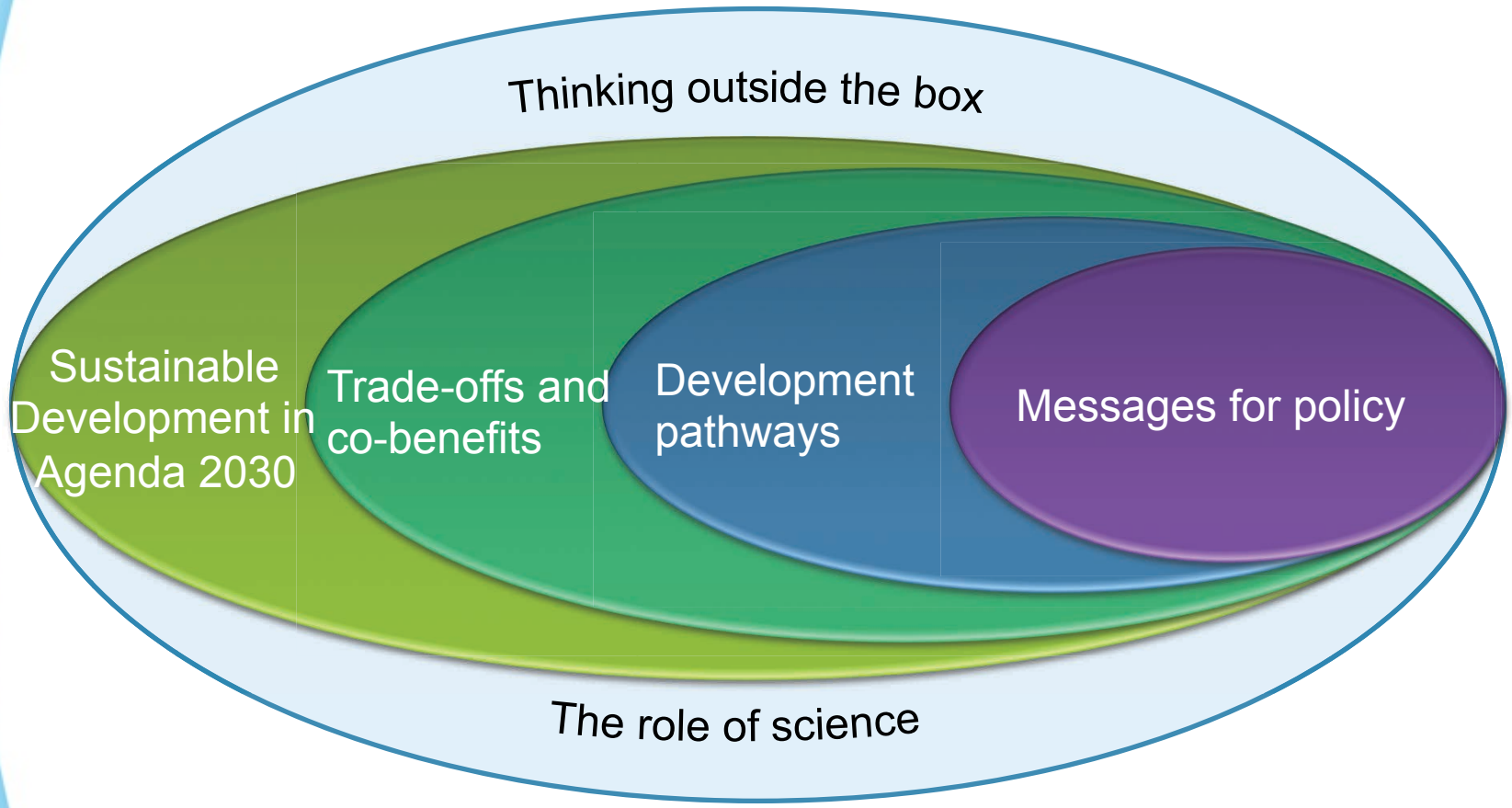
SYKE

GSDR 2019 draft concept:



SYKE

You can participate to the GSDR 2019 process!

- Search for « **GSDR 2019 Call for inputs** » https://sustainabledevelopment.un.org/globalsdreport/2019
- 4 areas:
  - Interactions among SDGs
  - Transformation pathways
  - Which issues did the SDG miss?
  - Role of science for SD
- Deadline: 1st December 2017!

(Elements) of Conclusions

- **There is urgency to change humanity's course (see the 15000 scientists warning to humanity, and the many international reports)**
- **The challenge is huge: *transform* the world in a few decades so that the whole world activities are reoriented towards the achievement of the 17 SDGs**
- **Addressing it opens so many opportunities to address in a synergistic manner many different societal goals, previously considered in silos**

Conclusions

- **The foundation of any action should be a solid (science-based) analysis of the situation, the trends, the processes behind, the possible impacts of different scenarios on people, ecosystems, and the economy. Research on SD is essential (and under-funded)**
- **Our present development patterns are on a collision course with maintaining the stability of ecosystems and of societies**
- **What is needed is not some small adjustments here and there, but a real *transformation of production and consumption patterns*, and many other aspects, while fully considering all dimensions of SD (environment, social, economic, and cultural)**

Conclusions

- **Plans are useful and needed (where is the *present* Federal Plan for Sustainable Development???)**
- **Their preparation must be as *inclusive* as possible (gender equality, young people, all stakeholders, all departments, all levels of power, all sectors of the economy, …).**
- **This must be organized in a *structural* way, not just to rubber stamp the end product, or « be informed » about it**
- ***All businesses are part* of the problem, and must increasingly, be part *of the solution***
- **If the transition is « *just* », many problems will be avoided**
- **Plans are not enough: see next photo (taken today at 1 pm)**

At the end of our very nice buffet, the caterer told me there was no structural and easy way to avoid disposing all of this in a garbage can…

NB: The local organisers (de Vlaamse Overheid) did their best to distribute what was left, to avoid wastage in this case. Congratulations! But structural measures must be taken.

Conclusions

- **Plans must have clear, quantified targets, structural implementation processes, indicators monitoring, without greenwashing**
- **All relevant departments and levels of power must cooperate (and this must be structural)**
- **Existing mechanisms and bodies must be fully used**
- **Accountability is key (*who* is responsible of what ?)**
- **Awareness raising and education, at all levels, are essential**

Conclusions

- **Lifestyle changes must be facilitated by policymakers**
- **Ambition is *far* too small in general**
- **Changing financial flows is essential for SDG implementation**
- **Beware lock-ins effects (if much effort is done with too little ambition, it's a lost opportunity): don't be shy!**
- **There is probably a need to update the 1997 SD Federal Law (and may be other legal texts), in line with the new SDGs context (and the same is true in the climate area, with the Paris agreement)**
- **Belgium has international responsibilities, particularly as a rich country, and its reputation also depends on respecting its promises (cooperation, climate finance, …)**

Conclusions

Last but not least, addressing this challenge, together, will allow us to look our children and grand children into their eyes when they will ask us how we contributed to avoiding the announced environmental collapse.

Buddhist saying: Courage is the gateway to happiness (call for more political will)

In a nutshell: Yes we can ! But we need to organize ourselves better

These slides will soon be available on:

- www.climate.be/vanyp (see « conferences »)
- **See also Twitter: @JPvanYpersele**