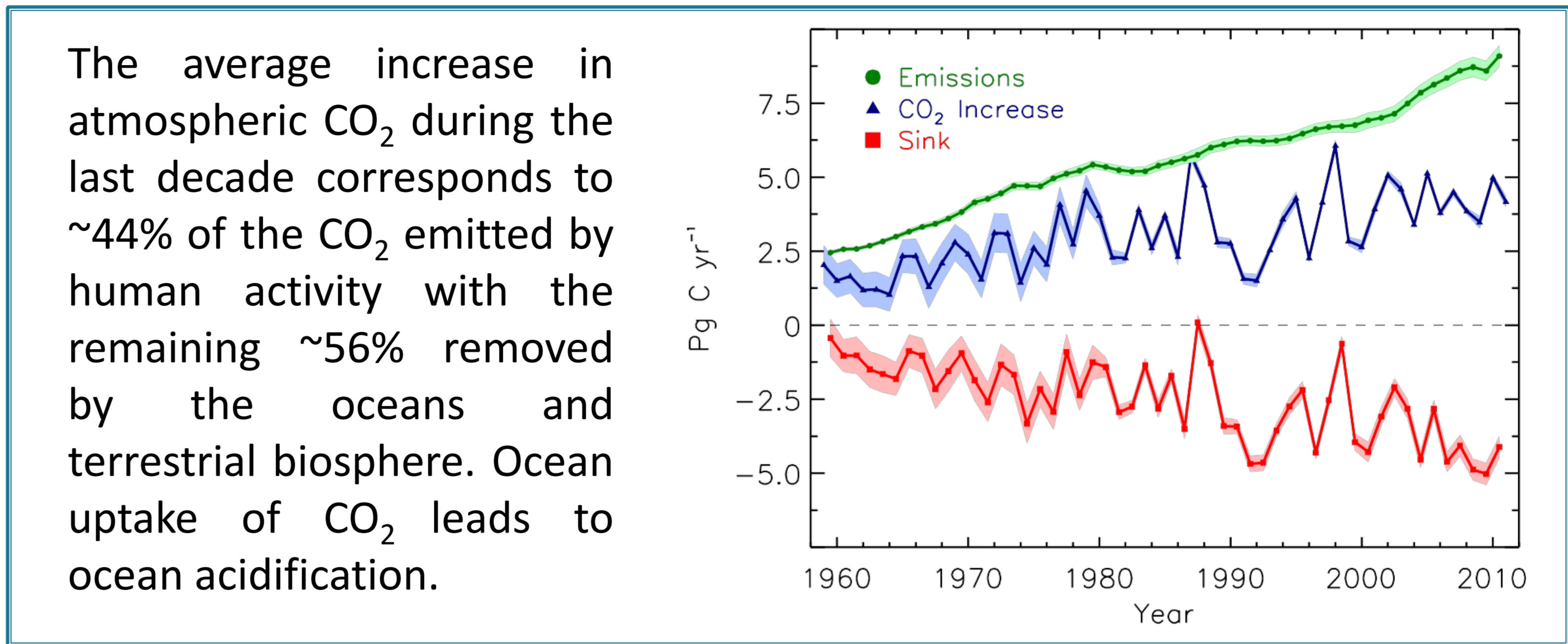


Phil De Cola and IG³IS planning team*

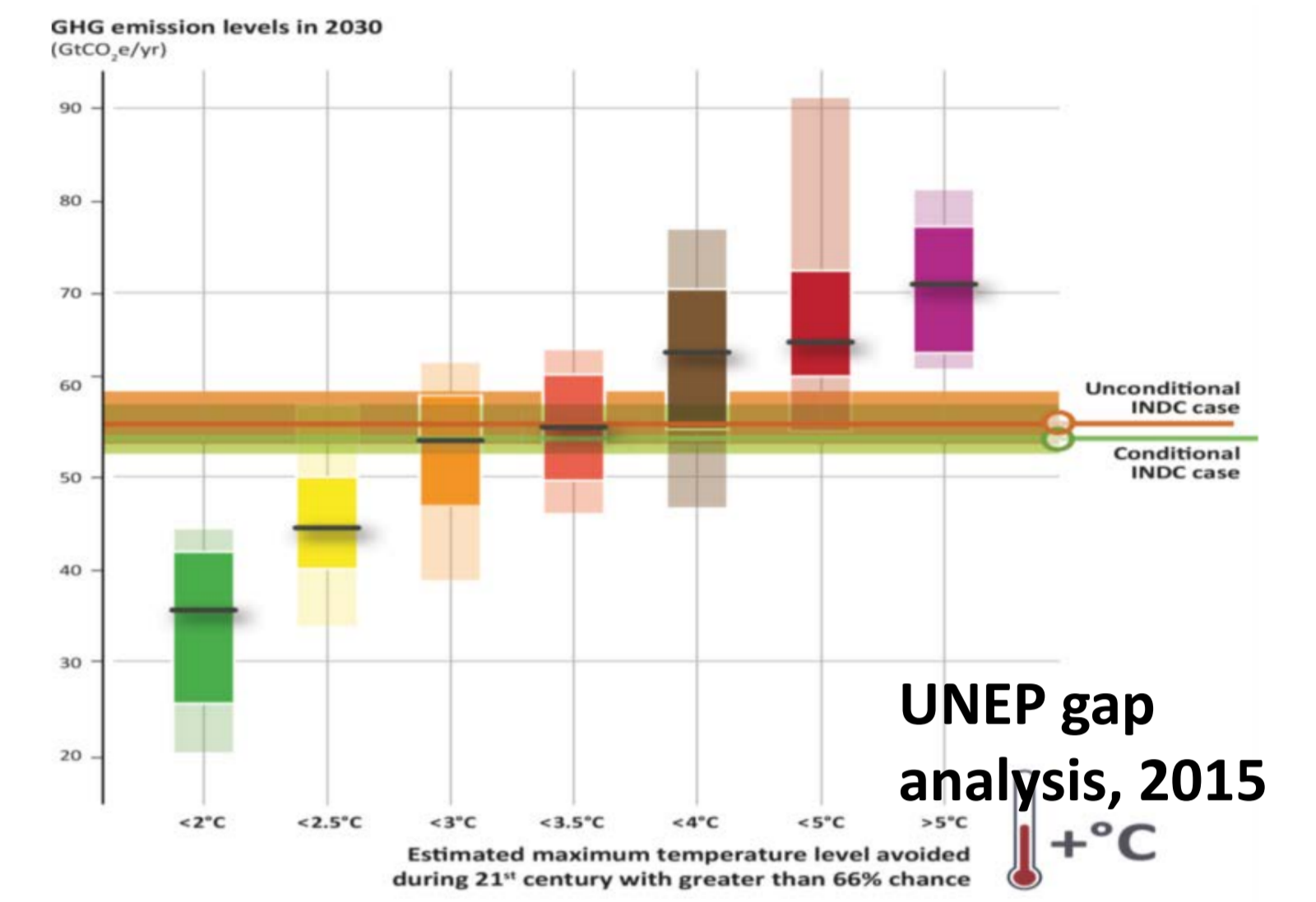
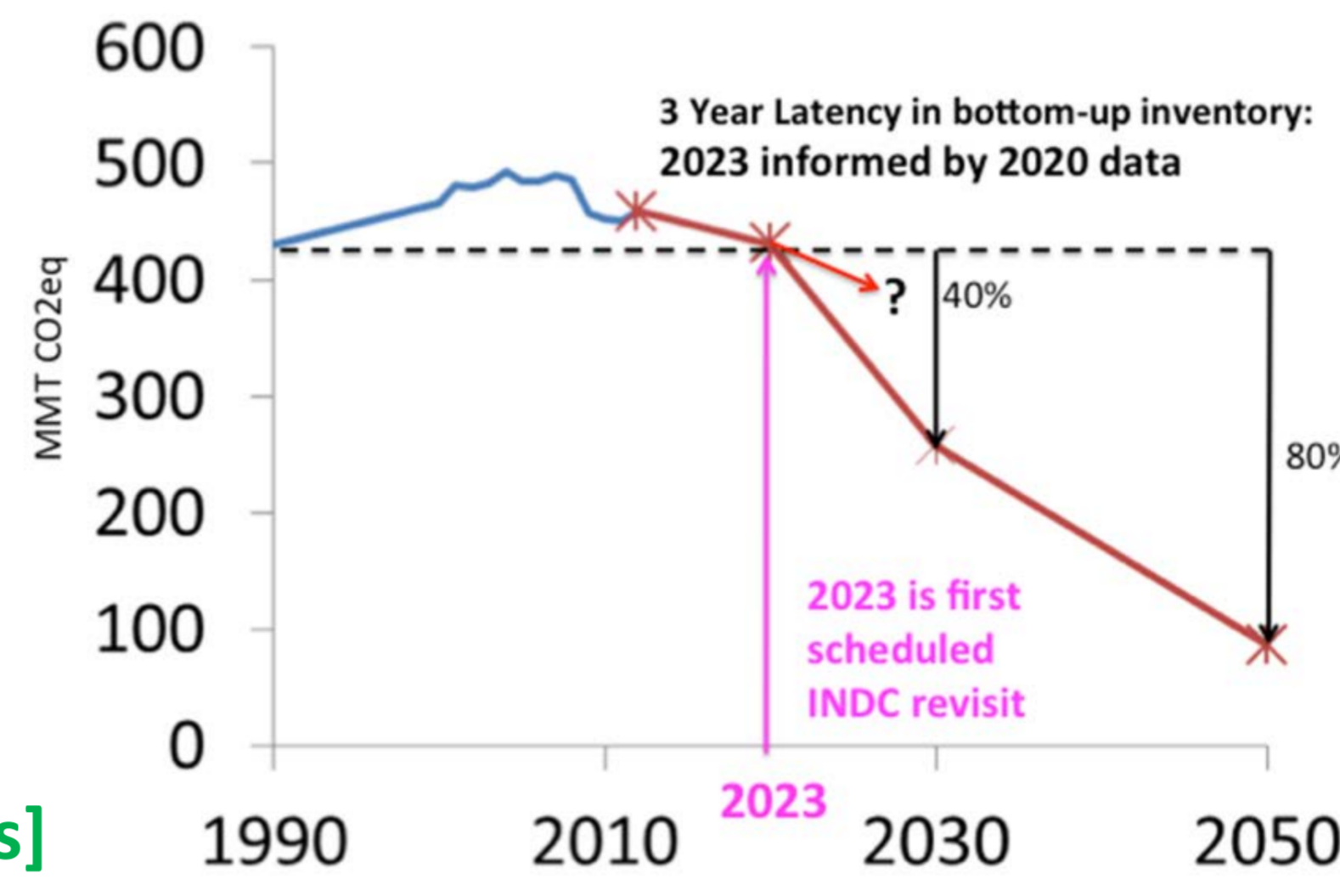
Atmospheric measurements reveal the rapid rise of global greenhouse gas (GHG) concentrations due to human socioeconomic activity, resulting in a rise of global temperatures with evidence of negative impacts on society. In response to this amassing evidence, nations, states, cities and private enterprises are accelerating efforts to reduce emissions of GHGs in particular through the work of COP-21 and its Paris agreement.

Mission: To facilitate worldwide cooperation in the reduction of greenhouse gas emissions supporting post COP21 actions by helping countries achieve their Nationally Determined Contributions (NDCs) and to inform other governmental and private actions to reduce greenhouse gas emissions.



IG³IS and 4 Pillars for COP-21

- 1) Nationally Determined Contributions (NDCs)
 - 2) Climate Finance
 - 3) Agreement text
 - 4) Lima-Paris Action Agenda
- National level targets [Trend monitoring]
Reporting mechanisms [Improved emissions estimates]



Specific sub-national actions in different sectors, and initiatives involving cities [Mitigation guidance]

Atmospheric observations can decrease latency and inform additional mitigation actions

National level example

UK DECC Measurement Network

Use the NAME transport model driven by 3-D meteorology to understand the recent (3-4 weeks) history of the air arriving at measurement stations

Emission inventories and inverse modelling results

Emission inventory results substantially improved in 2016 in comparison with 2015 through addressing the issues with inventory compilation detected through atmospheric observations and inverse modelling

Urban level example

Los-Angeles GHG observing system

Selected GOSAT footprint locations over LA nightlights

The Hestia Project: Quantifies all fossil fuel CO₂ emissions at building and street scale

Added Value of an IG³IS

- Focuses on where scientific skills and use cases exist, and where users are ready to engage
- Brings together atmospheric composition information with socioeconomic activity data and emission factors...
-thereby, delivering information that is more timely, accurate, and consistent, with better temporal and spatial resolution
- Propagate standards and methods to establish fairness and efficiency that encourages increasing participation

IG³IS Goal: Combine atmospheric composition and socioeconomic activity data in partnership with the user community to

- quantify progress of emission reduction agreements (e.g., NDCs),
- reduce emission inventory uncertainty, and
- inform additional mitigation actions.

IG³IS Principles

- IG³IS will serve as an international coordinating mechanism and establish and propagate consistent methods and standards.
- Diverse measurement and analysis approaches will fit within a common framework.
- Stakeholders are entrained from the beginning to ensure that information products meet user priorities and deliver on the foreseen value proposition.
- Objectives must be practical and focused.
- Success-criteria are that the information guides additional and valuable emission-reduction actions.
- IG³IS must mature in concert with evolution of user-needs and policy.

IG³IS planning team

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