



Supporting Greenhouse Gas Management Strategies with Observations and Analysis

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Recent Happenings re: GHGs







- IPCC AR5 reinforces conclusions of AR4
 - > Climate is changing
 - > GHGs are causing it
 - > Increasing atmospheric CO₂ is causing ocean acidification
 - > RF keeps going up, driven mainly by increasing CO₂
- Emission reduction commitments still being made
 - > Europe doubling down by 2030
 - > US-China agreement
 - > States, regions, and businesses making commitments
 - > Enabling programs appearing

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2

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Die Tricks der Klimapolitiker

Auf dem Klimafeld in Lissabon wird es zunehmend wärmer. Wie viel wärmer? Das ist die Frage, die die Klimapolitiker mit den Klimaprognosen beantworten. Die Weltgemeinschaft hat 2009 festgelegt, die Erderwärmung auf maximal zwei Grad zu begrenzen. Doch manche Staaten vermeiden den Blick auf Zahlenplattforms

1. Das Problem ...

2. Die Lösungsvorschläge (Beispiele)

3. Die Zahlen-Tricksereien

Zum Beispiel die Wahl der Vergleichsdaten: Die 1950er Jahre sind ein kaltes Jahrzehnt, was die Erderwärmung im Vergleich zu den 1950er Jahren übertrieben darstellt. Die Wahl der Vergleichsdaten ist also ein Trick, um die Erderwärmung zu vergrößern.

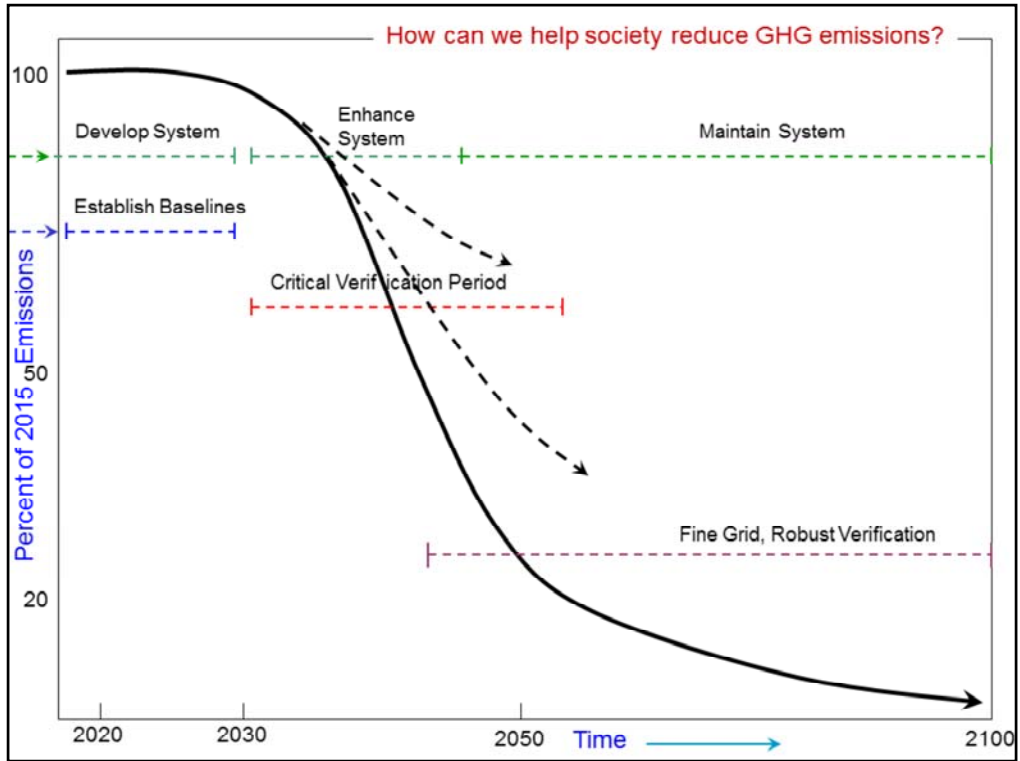
... oder die Angabe der Zeitpunkte: Die 2020er Jahre sind ein kaltes Jahrzehnt, was die Erderwärmung im Vergleich zu den 2020er Jahren übertrieben darstellt. Die Wahl der Vergleichsdaten ist also ein Trick, um die Erderwärmung zu vergrößern.

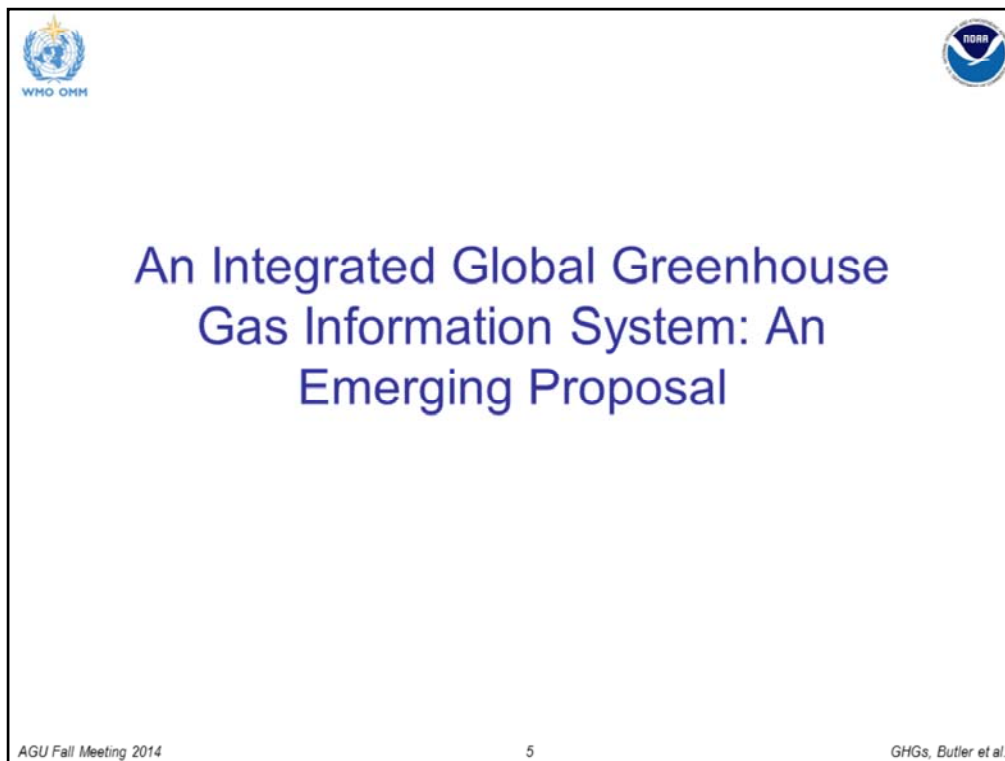
4. Das Ergebnis

Number Games . . .

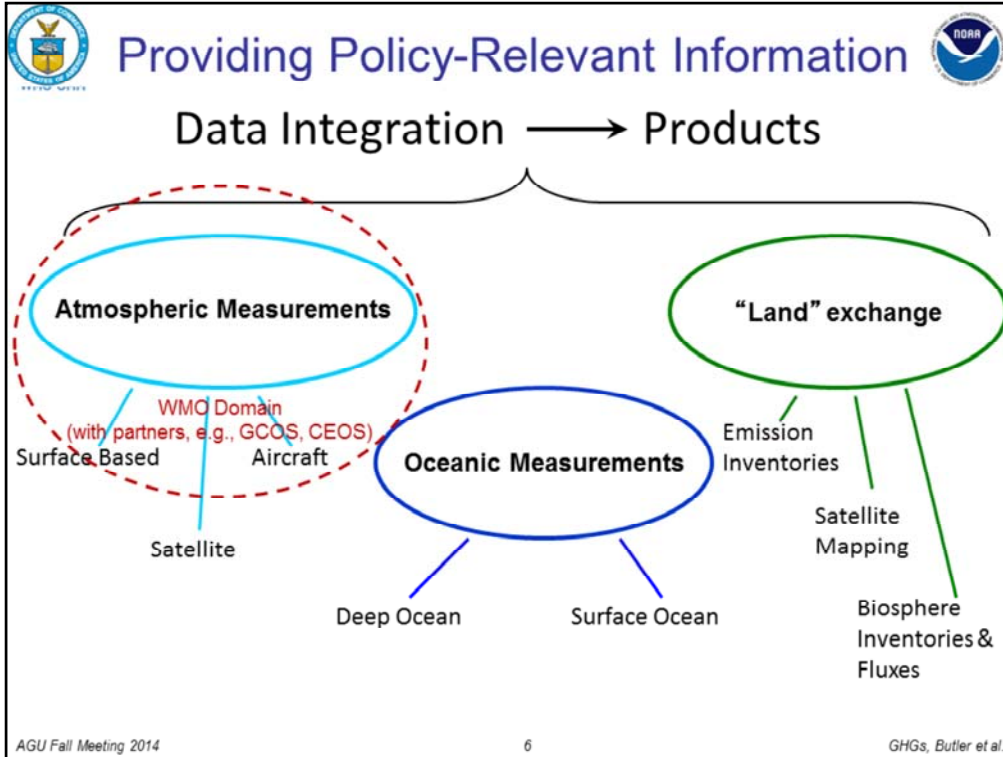
- Everyone makes a commitment
- They are using different baselines
- They are using different approaches
- Exports and imports come into play
- Offsets and tradeoffs are engaged

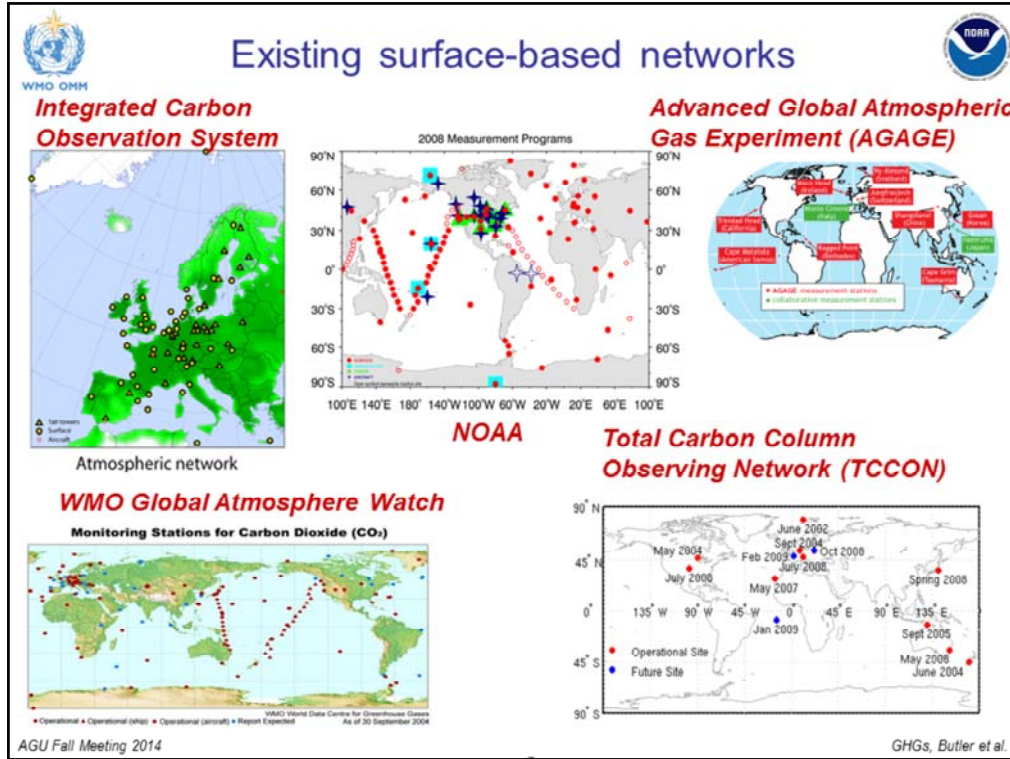
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The Role of an Integrated, Global Greenhouse Gas Information System (IGIS)








“New” Players for Observations

- **IAGOS**
 - > Builds on efforts from MOSAIC (Euro airlines), CARIBIC (Lufthansa), and CONTRAIL (Japan Airlines)
 - > Fourth package approved for CO₂ and CH₄ on commercial aircraft
 - Operational, but not much funding for instrument construction
 - > Many airlines are interested in participating
- **Earth Networks**
 - > Investing \$25M over 5 years to enhance global network with ~100 sites
 - Enhancement of ~40% over existing network
 - Committed to high quality positions
- **Satellites (Existing and *Forthcoming)**
 - > AIRS/IASI (passive, mid-tropospheric sensors)
 - > SCHIAMACHY (passive sensor)
 - > GOSAT (passive sensor, large footprint)
 - > OCO-2 (passive sensor, small footprint)
 - > *ASCENDS (active laser)

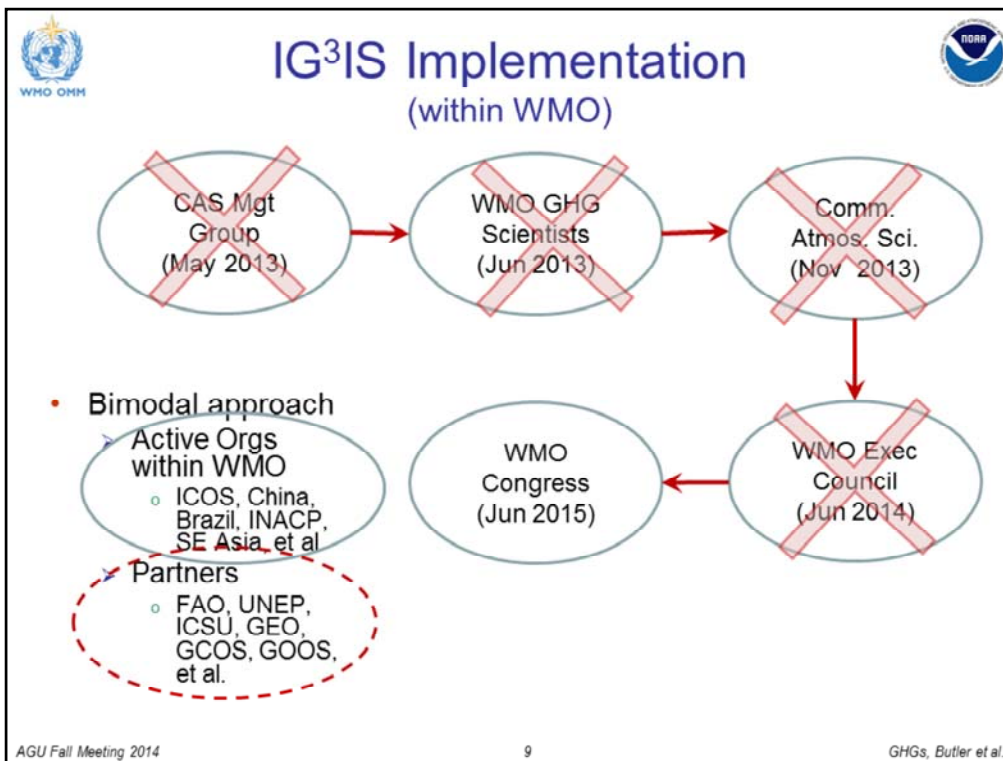




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8

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IG³IS Goals



Direct improvements

- More observations and improved data management
- Higher resolution transport models
- Advanced data assimilation capabilities

Potential outcomes

- Better understanding of distribution and trends of GHGs
- Validation of emission reductions at subcontinental scales
- Separation of human and natural influences
- Separation of ocean and terrestrial influences
- Ultimately successful policy implementation



Where we are now

- The outline of the implementation plan was developed (on the GAW GHG web page)
- Potential drafting team was identified
- The drafting team is lead by Phil DeCola
- IG3IS concept is included in the WMO Congress document (if approved the drafting team will work on the plan)
- Contribution from satellite community will be welcome (we may contact some expert from ACC community for help)

