



# AVIATION AND CLIMATE: WHO ACTS?

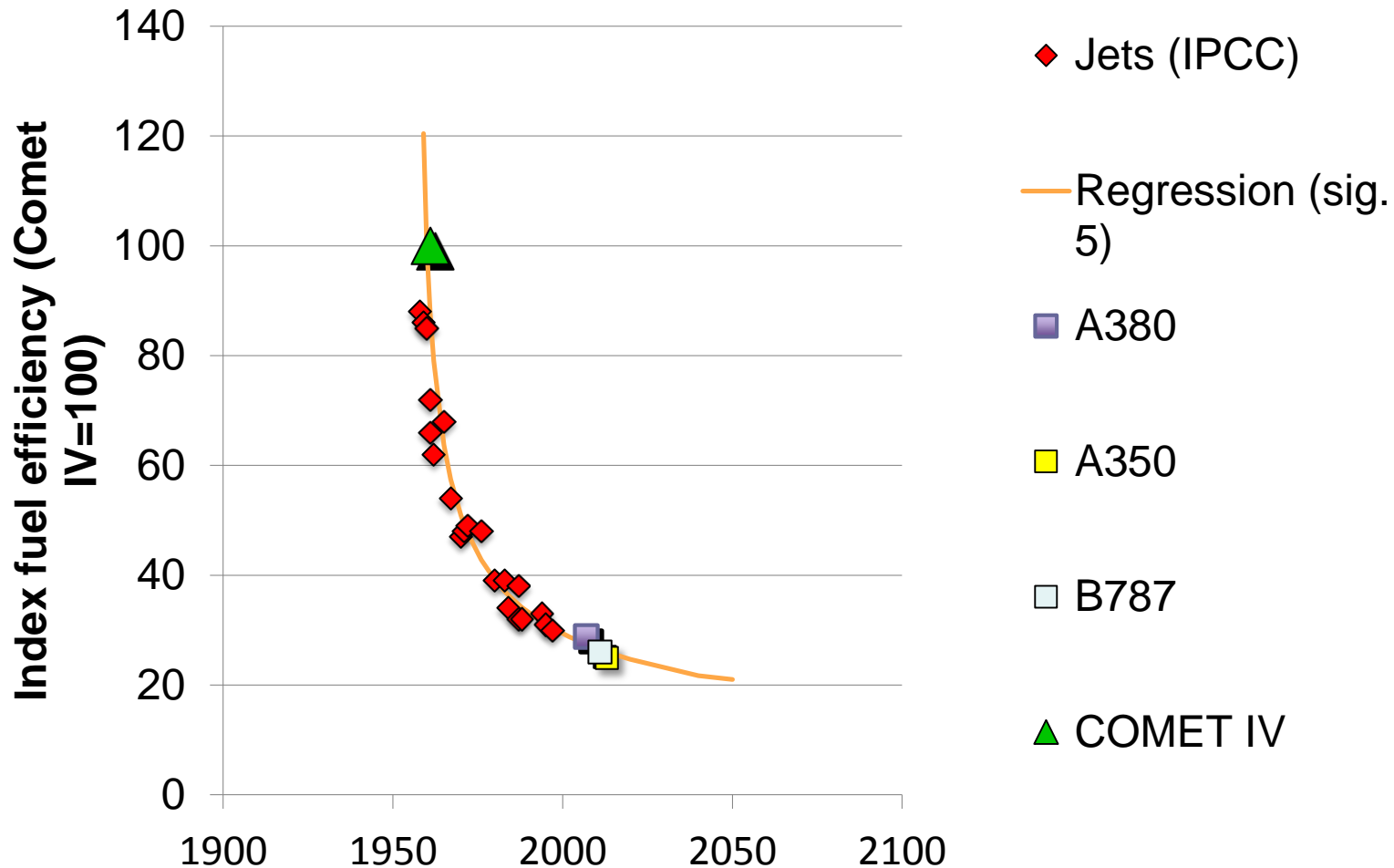
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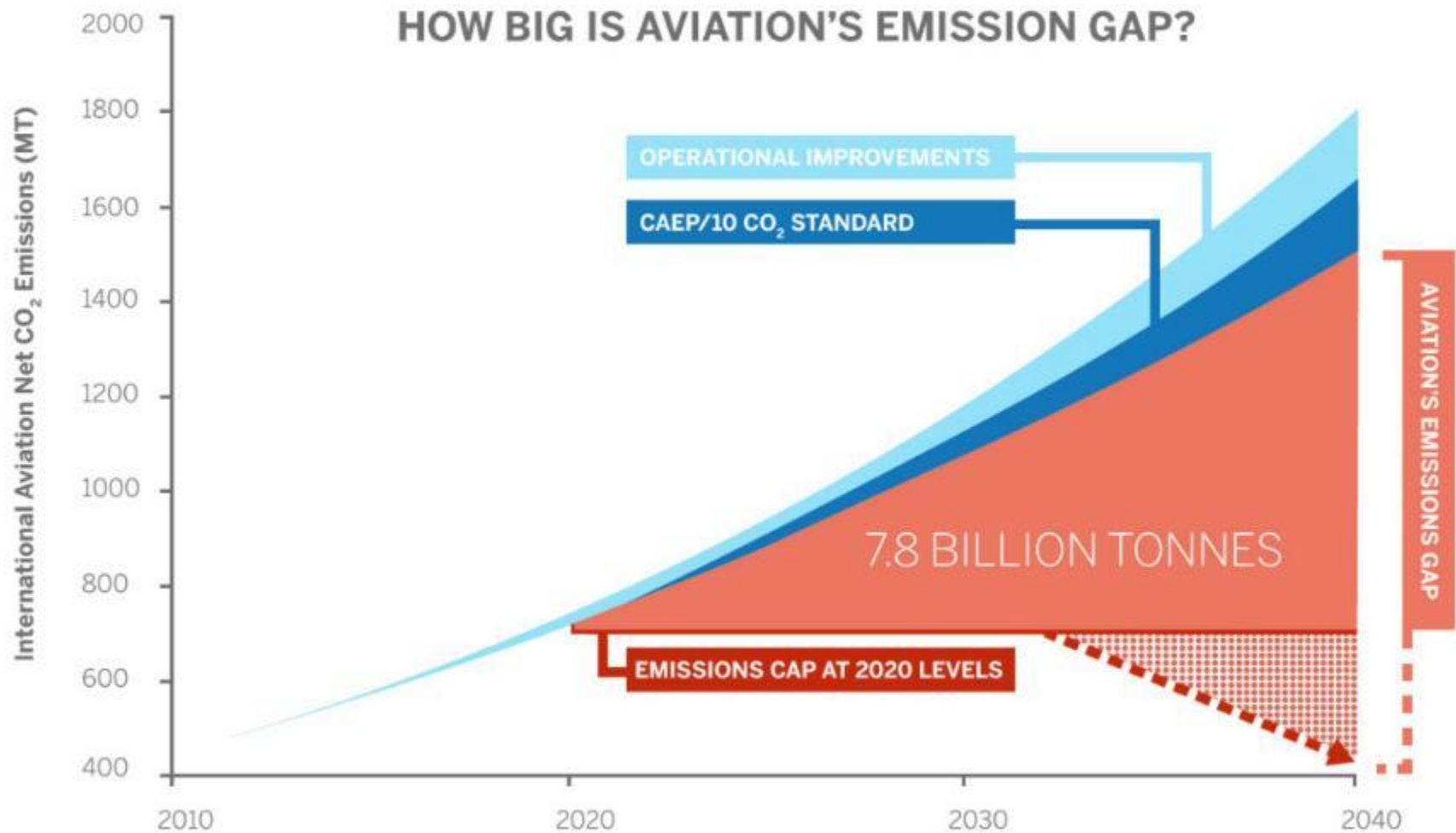
# AVIATION'S RAPID GROWTH

- More CO<sub>2</sub> into the atmosphere than the combined emissions of the 129 lowest emitting countries
- Passenger growth 2.6 times that of GDP growth

# FALLING EFFICIENCY



# AVIATION'S RAPID GROWTH



SOURCE: ICAO, "Overview of Environmental Work," Singapore GLAs, 2015.

# HEAVILY SUBSIDISED

- Exemption from fuel tax estimated at \$60bn annually – result of Air Service Agreements negotiated by transport ministries
- **IMF** and **World Bank**: aviation is under taxed
- **IPCC**: aviation does not bear its environmental cost to society
- Contravenes Principle 16 of **Rio Declaration**: polluter must pay

# KYOTO PROTOCOL

- Difficulty in allocation international aviation emissions to national inventories
- Art 2.2 contains flawed language
- ICAO unable or unwilling to reconcile UNFCCC language on differentiation and Chicago Convention language on non-discrimination
- ICAO itself not a party to Kyoto

# **REGIONAL OR GLOBAL?**

# ACTION IN THE US

- 4c gallon gas tax (1c a litre) since the 1990s, compared to 0c in the EU
- Lawsuits ongoing against EPA under the Clean Air Act: likely to result in some action, but unclear what or when



# AVIATION IN EU ETS

- In 2002 EU warned: it will act if ICAO does not
- Directive 2008/101/EC added aviation to list of sectors covered by ETS

“the inclusion of international aviation into the European scheme has created one of the most highly fought controversies in the annals of international aviation”

(Piero, 2015)

# AVIATION IN ETS

- Extra-territorial reach the most contentious aspect
- A4A took legal case against EU, but lost in ECJ
- 2011 'New Delhi' declaration, subsequently adopted by ICAO Council
- Thune Bill passed unanimously by US Senate (Dec 2011)
- Announcement of 'stop-the-clock', Dec 2012
- Subsequent airspace proposal also defeated
- BUT - full scope returns Jan 1<sup>st</sup> 2017

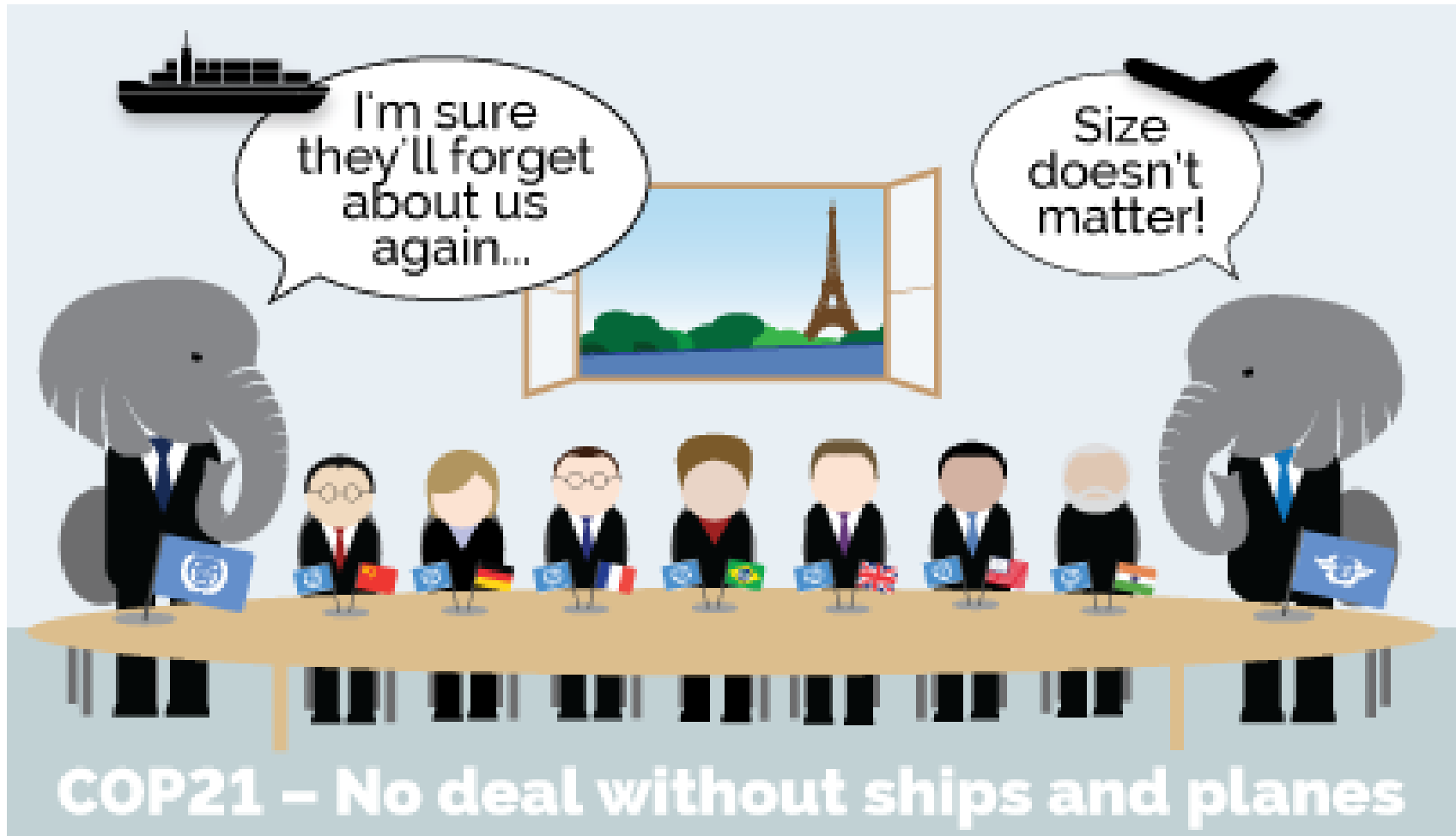
# GLOBAL MARKET BASED MEASURE (GMBM)

- Agreed at 38<sup>th</sup> ICAO Assembly in 2013 to adopt a GMBM to stabilise net emissions at 2020
- 50 states objected to this target, 44 because 2020 was insufficient
- Stabilising at 2020 levels insufficient: 55% deviation from 2°C, let alone 'well below 2°C'
- To be achieved through operators purchasing offsets which meet certain criteria
- Attempts to reconcile CBDR and differentiation

# LEGAL BASIS OF GMBM

- ICAO is predominantly a standard setting body
  - no record in adopting economic measures
- Unclear how the GMBM will be enforced
  - Treaty faces US Senate resistance and will take years to come into force
  - States can choose to opt out of ICAO standards
  - Some states question whether ICAO has authority to regulate operators as opposed to states
- Fear of market distortions

# PARIS AGREEMENT



# PARIS AMBITION

“Holding the increase in the global average temperature to well below 2 °C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5 °C above pre-industrial levels

- Objective requires action on aviation emissions, but leaves it unclear who has responsibility
- Provides more nuanced idea of CBDR

# FUTURE MEASURES

- Will failure to adopt GMBM result in ICAO being marginalised?
- Regional measures: EU ETS and Chinese ETS
- Further legal action in the US
- EU to depart from ICAO minimum standards (noise, CO<sub>2</sub>, air)
- International aviation as a source of climate revenue