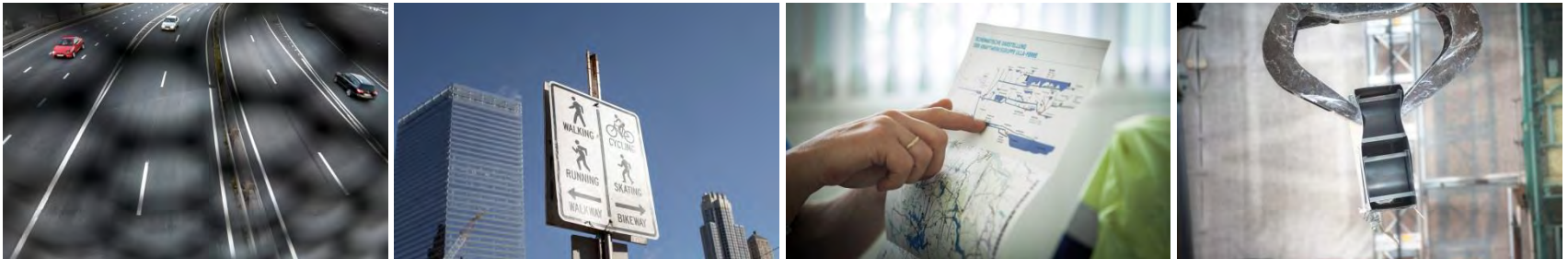


GHG emissions targets for international shipping

How can international shipping
contribute to climate protection?
Brussels, 12 September 2014

Martin Cames



Potential contributions to global GHG mitigation

- Reducing emissions globally is more cost-effective when all sectors contribute
- Shipping has technical and operational options to reduce emissions
- A target enables the adequate and fair contribution of international shipping to global GHG mitigation efforts
- A target will be required to evaluate the effectiveness of efficiency measures

Principles to determine targets or emissions budgets

- Cost efficient split between sectors / equal marginal abatement costs (EU ETS/non-ETS split)
- Equal reduction for all sectors compared to a historic base year or equal annual reduction steps
- Deduction approach: expected emissions for other sectors are deducted from target emissions, remaining allowable emissions are defined as sector target (Californian ETS)
- Technological reduction potential
- Equal intensities (e.g. per capita emissions, emissions per unit of GDP/value added)
- Economic capacity (e.g. GDP per capita) or ability to pass through costs (EU effort sharing)
- Hybrid approaches (e.g. Kyoto Protocol: historical responsibility, economic bargaining, political bargaining)

Types of Copenhagen pledges

Annex I

- Economy wide reduction targets compared to a historic base year (mostly 1990 or 2005)

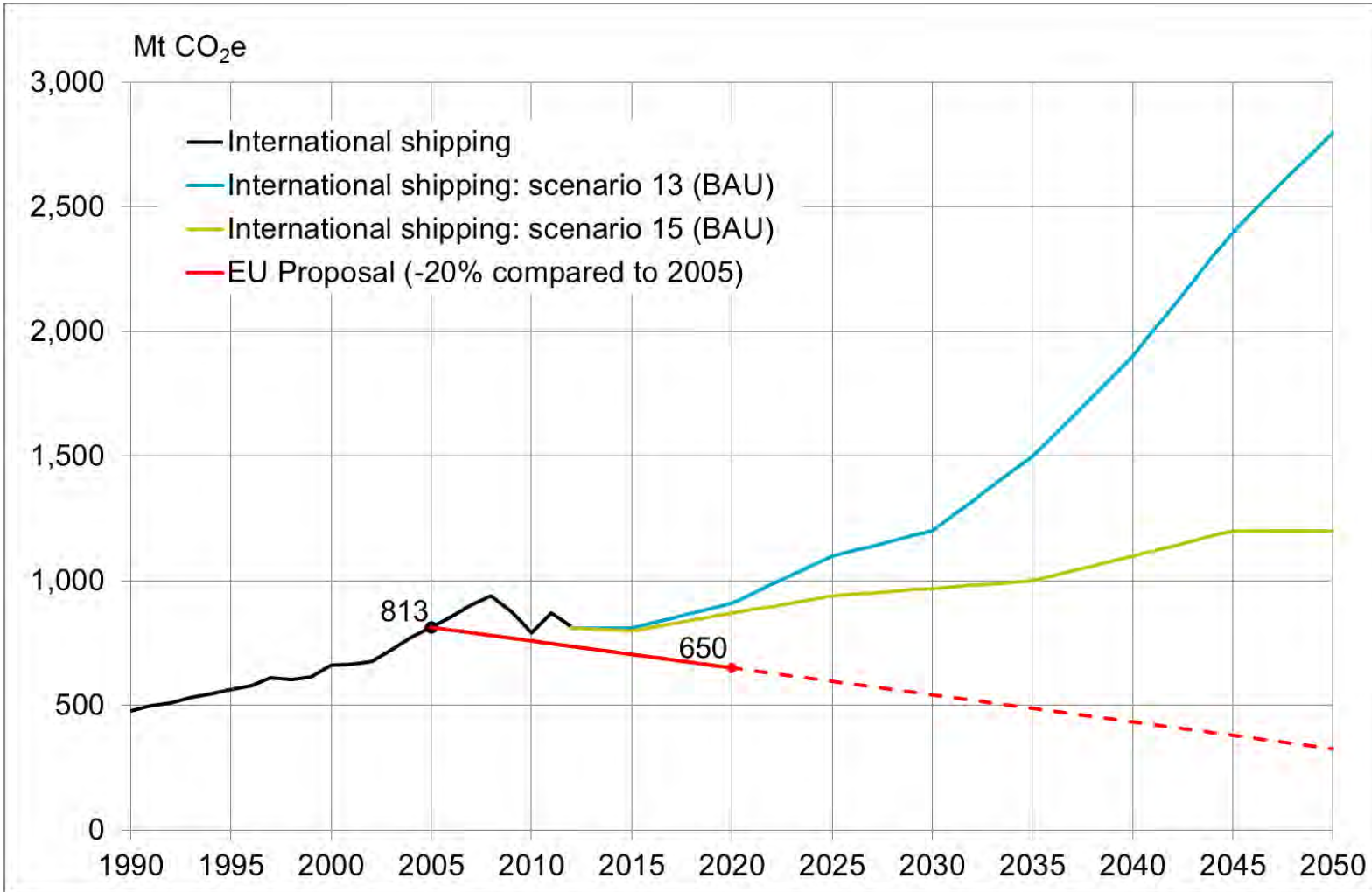
Non-Annex I

- Reduction in greenhouse gas emissions per unit of GDP (China and India)
- Goals specified as reduction percentages in relation to business-as-usual emissions (Brazil, Indonesia, Mexico, South Africa, South Korea, Chile, Israel, Papua New Guinea, Singapore and Taiwan) or as absolute reductions below business-as-usual emission projections (Colombia and Peru)
- Goals specified as a reduction target below a certain historical base year (Moldova)
- Goals aiming at carbon neutrality (Costa Rica and the Maldives)
- Mitigation policies, projects, and/or sectoral actions

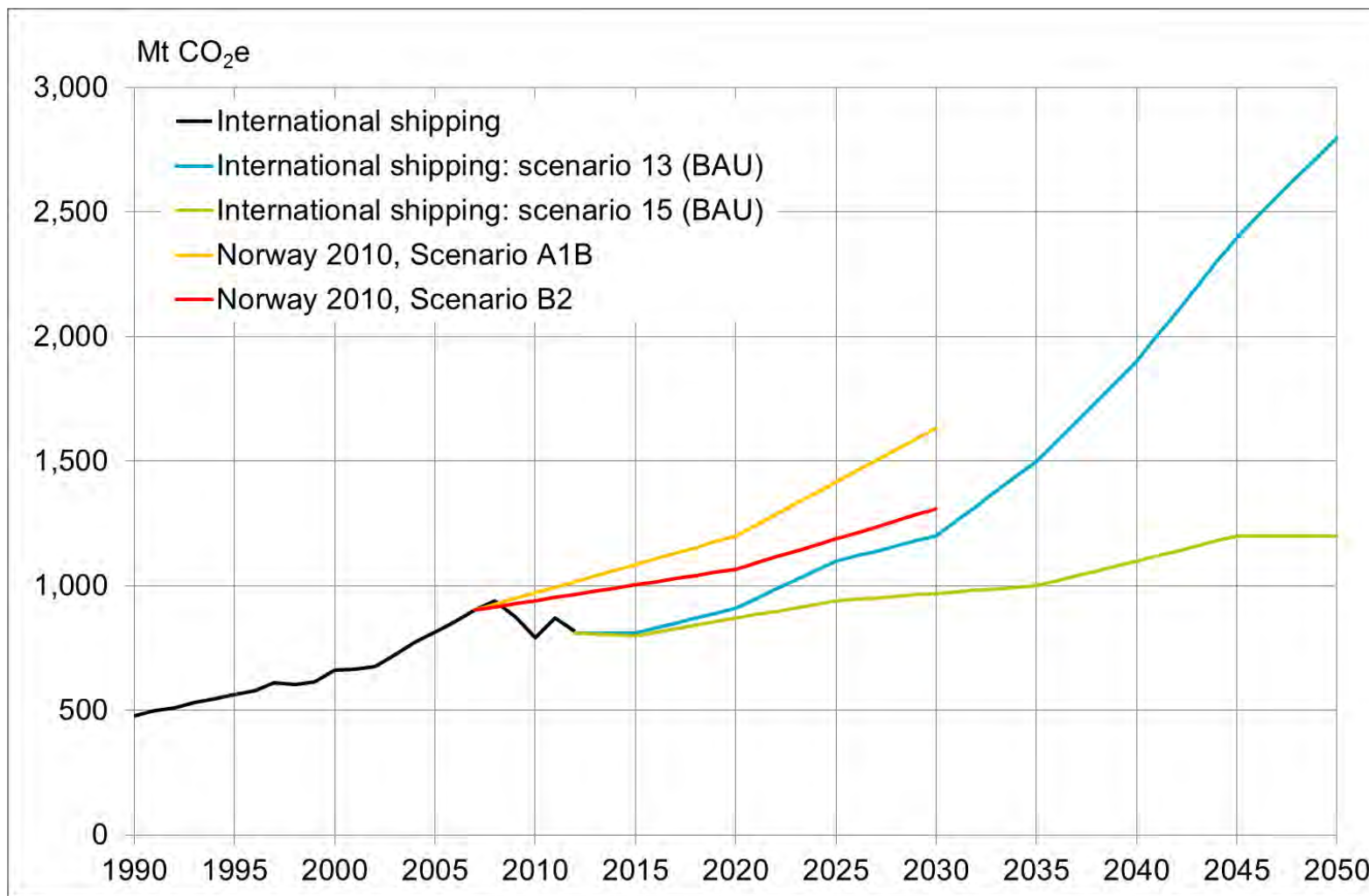
Targets suggested

- EU: Council Conclusions Copenhagen (21/10/2009)
- Norway: MEPC 60/4/23 (15/01/2010)
- IATA: AGM 69 (09/06/2009)
- ICAO: A37-19 (08/10/2010)
- UNFCCC: Copenhagen Accord (2010-2011)
- Tyndall: High Seas, High Stakes (2014)

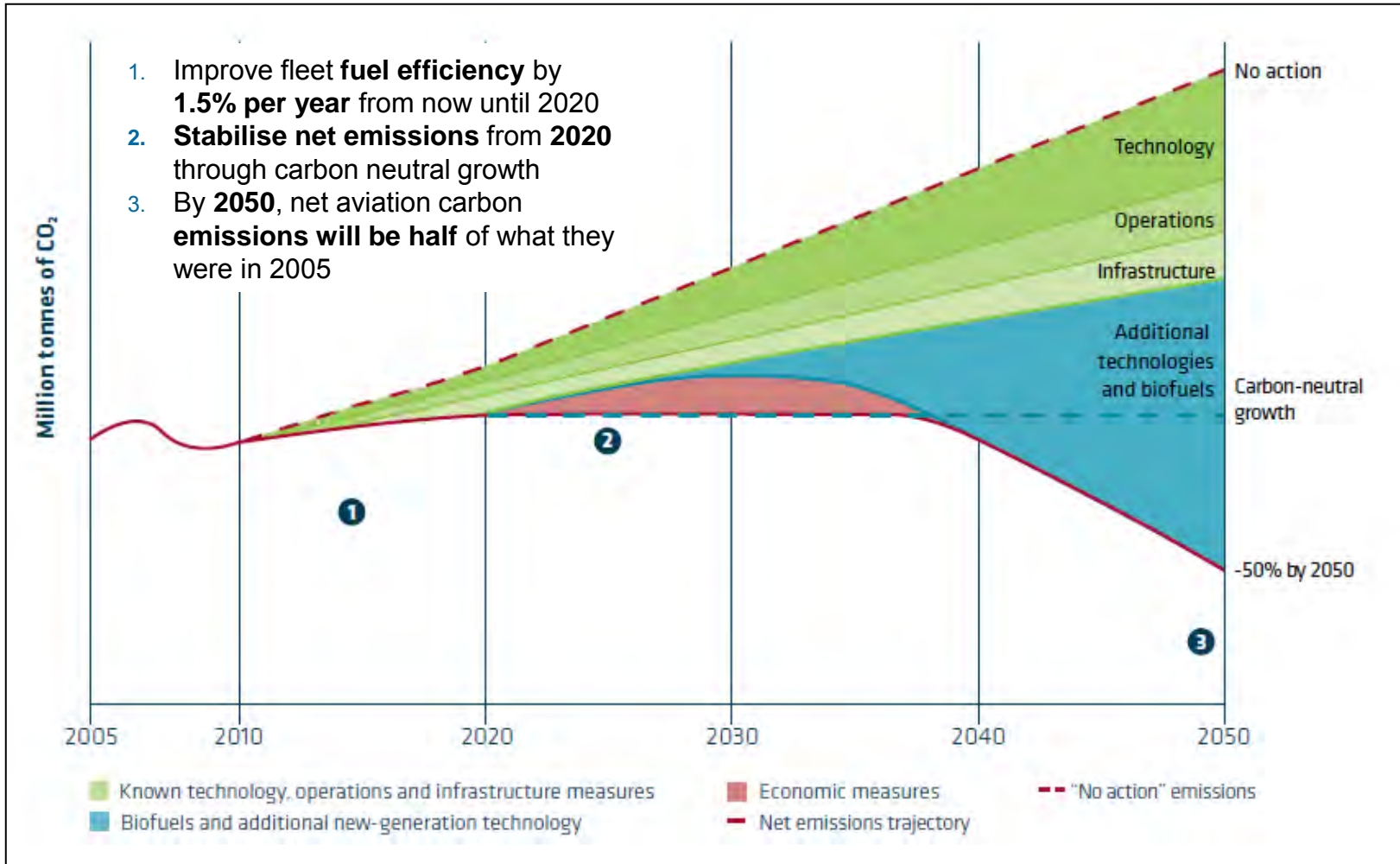
EU



Norway

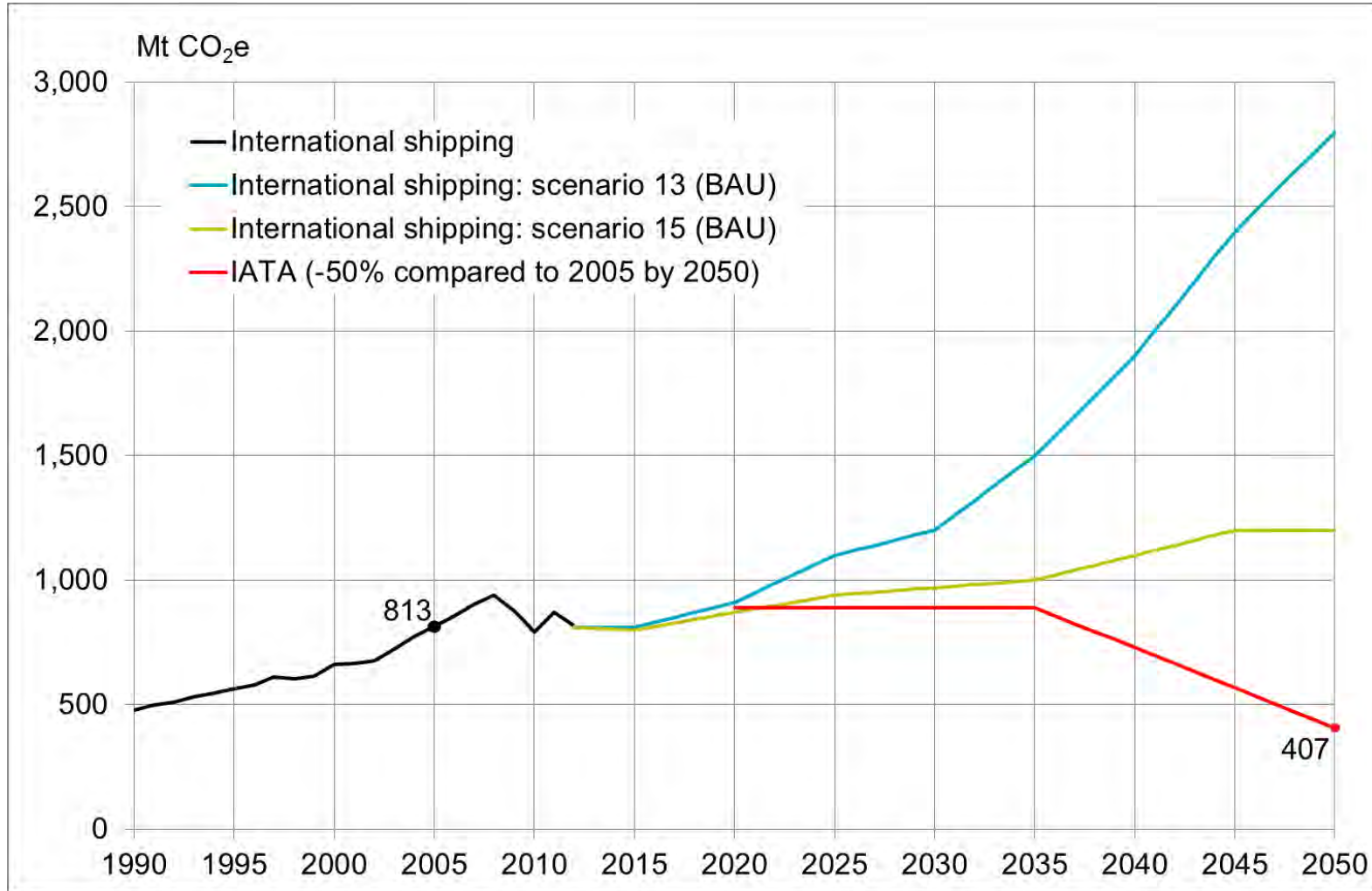


IATA

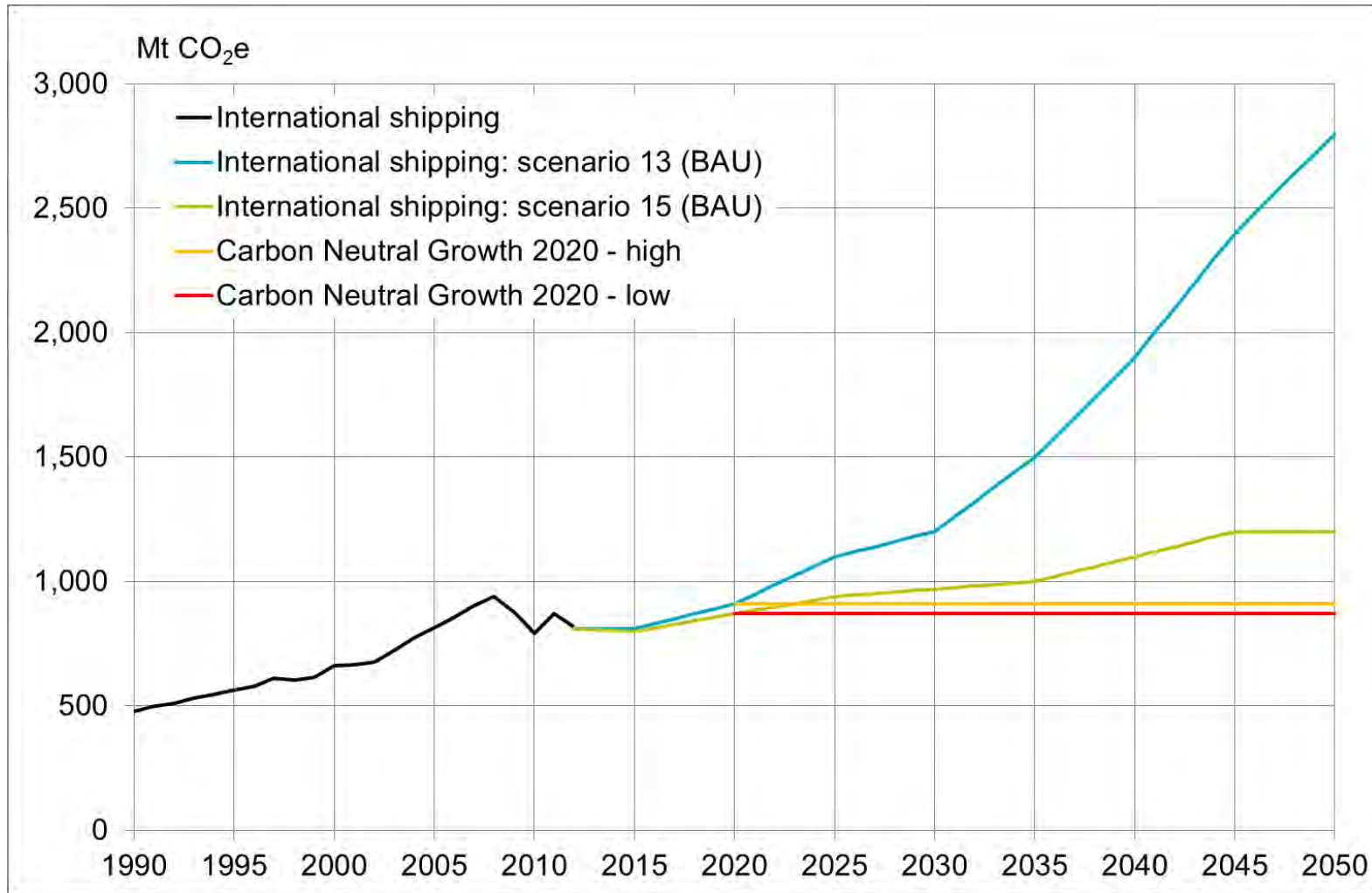


Source: <https://www.iata.org/policy/environment/Documents/atag-paper-on-cng2020-july2013.pdf>

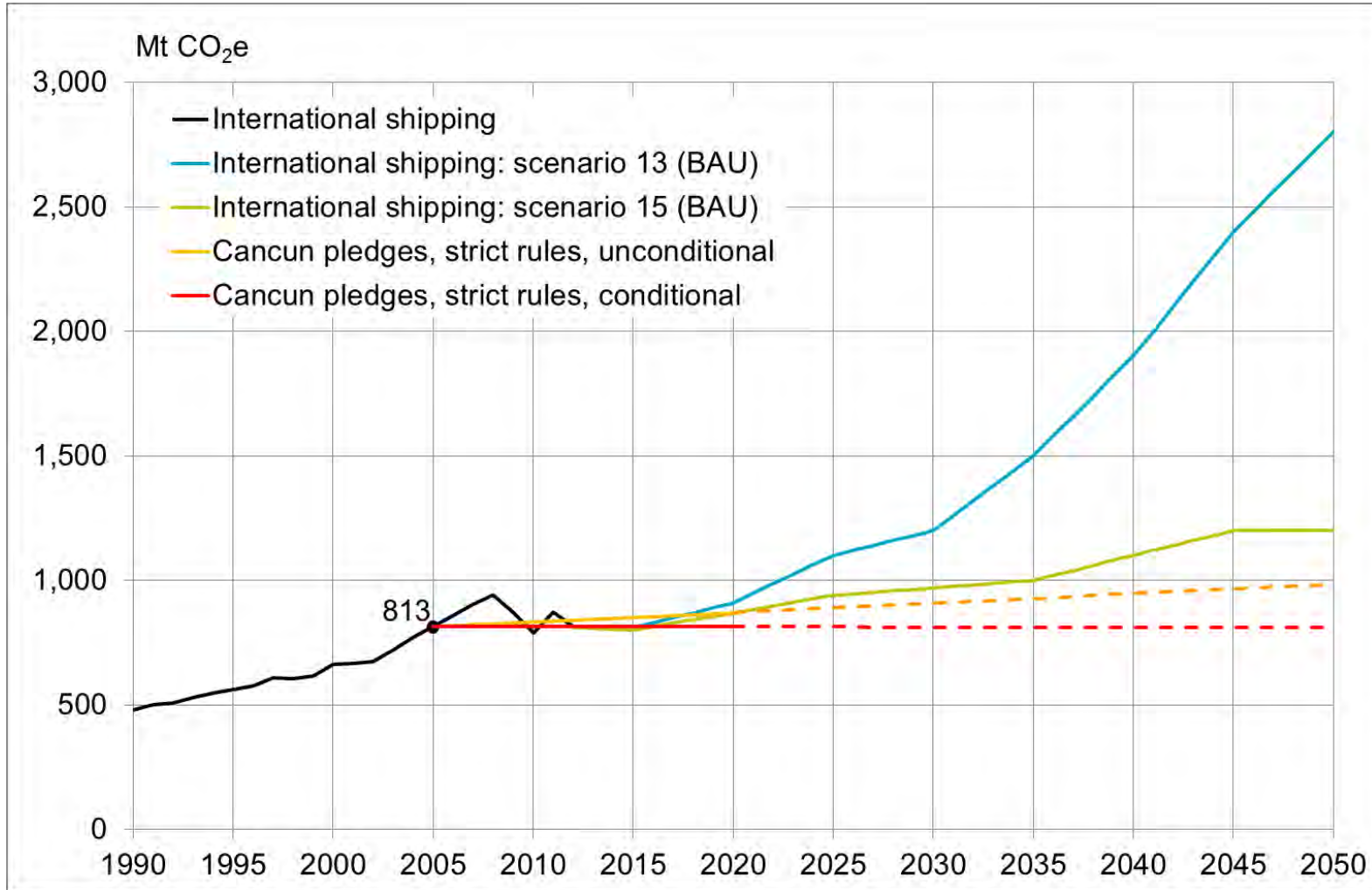
IATA applied to shipping



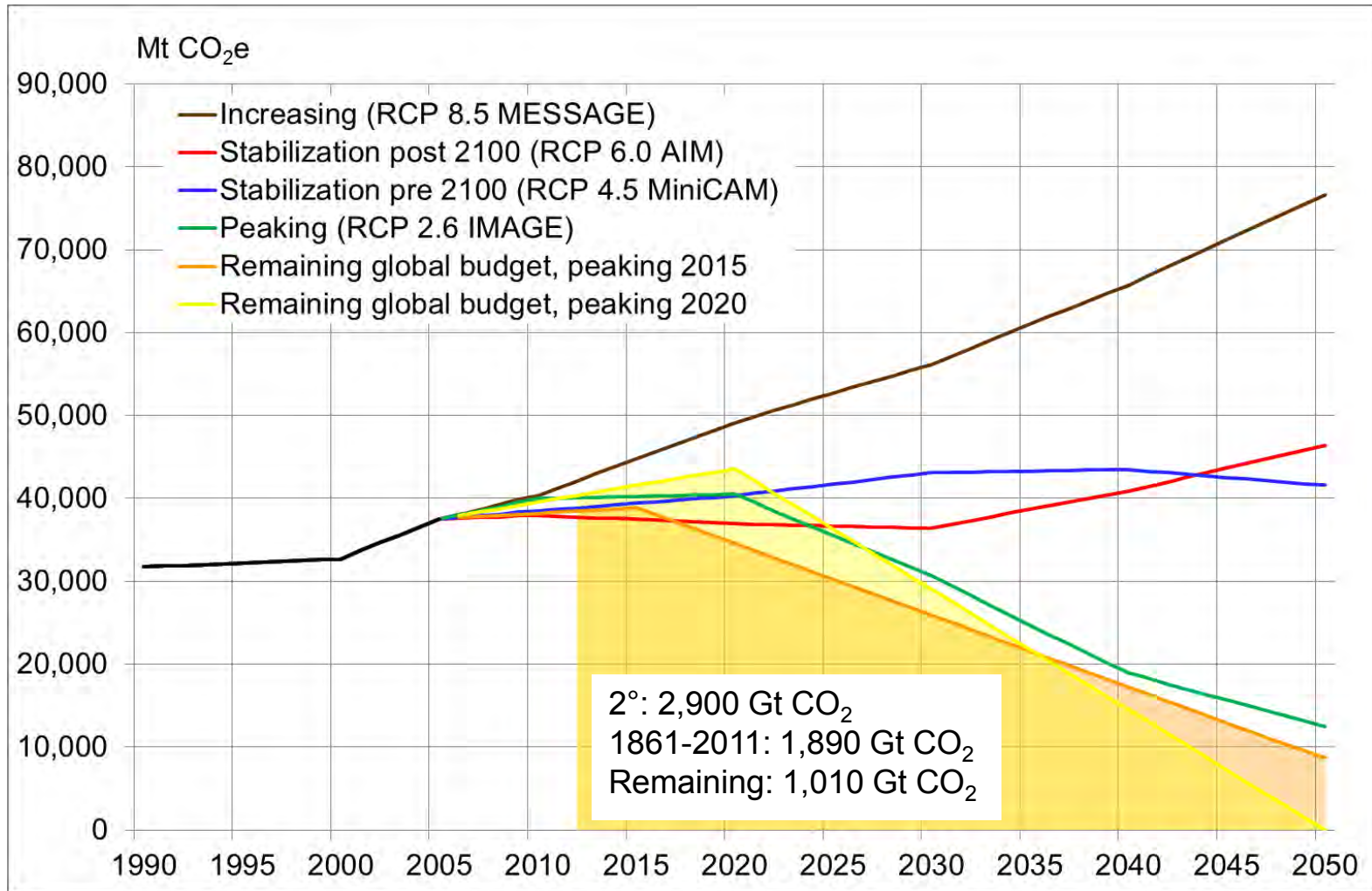
ICAO: carbon neutral growth 2020



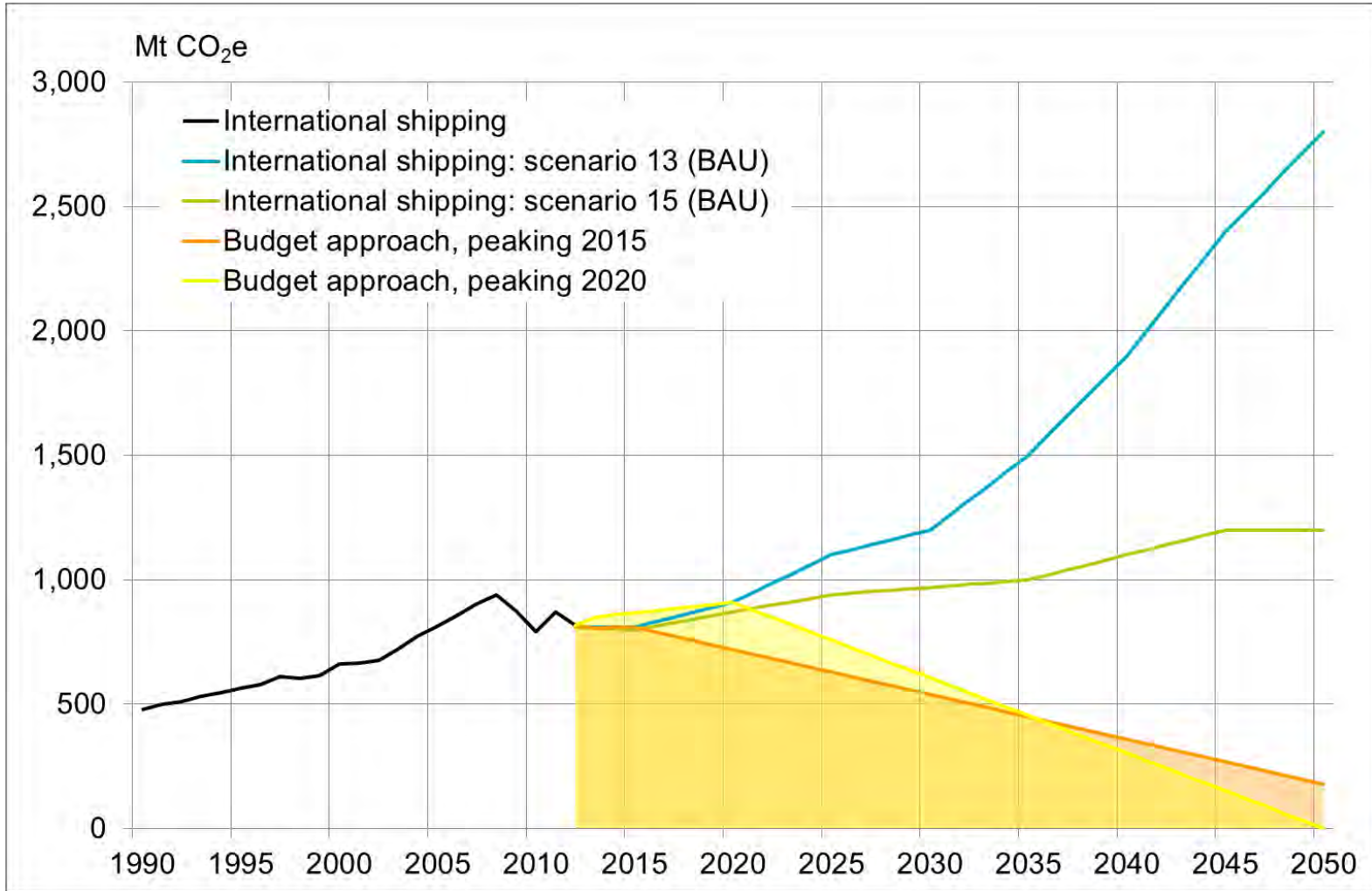
Copenhagen accord pledges



RCP & global budgets



Budget approach



Philosophies for determining targets

- Budget approach (Tyndall)
 - Keep the share in the remaining global emission budget
- Similar emission reductions
 - Same percentage reduction as the world at large
- Similar economic effort (NOR)
 - Shipping's marginal abatement costs equal those in other sectors
- Political decisions
 - Carbon neutral growth 2020 (ICAO)
 - 50% below 2005 emission in 2050 (IATA)

Summary

- Philosophy for determining appropriate targets for international maritime transport are available
- Targets will be required for any measure, policy or instrument for calibrating its design and for determining its effectiveness

Thank you for your attention!

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