

# Technology and Economic Assessment Panel

Progress of work and emerging issues  
28<sup>th</sup> MOP high level segment

# TEAP

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28<sup>th</sup> MOP Kigali,  
10-14 October 2016

# SECTOR ACHIEVEMENTS AND LOOKING AHEAD



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# Foams

- 25 Million tonnes of CFC free foam/year
- Increasing by 3%/year in A5
- In A5 Parties, in 2016, 45% of foam applications using HCFCs have converted, of which 80% has converted directly to low GWP agents:
  - Hydrocarbons
  - HFO/HCFO
  - Methyl formate/ Methylal
  - Blends
- Foams in insulation are important for energy efficiency

# Fire Protection Sector

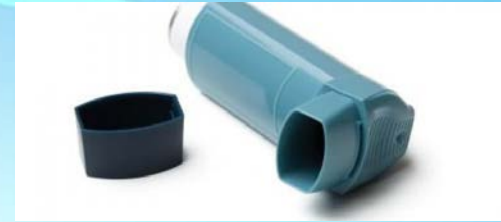


- Last week, the International Civil Aviation Organisation (ICAO) approved the requirement to replace halon in cargo bays in all new aircraft designs by 2024
- From 2024, there is no longer a need to use halon in any new designs in any fire protection application
- This milestone was achieved through more than a decade of engagement between the Montreal Protocol and ICAO

# Fire Protection Sector

- Halons will be needed for existing equipment and current aviation designs for the foreseeable future (excluding those with EU retrofit requirements)
- Many new designs continue to need high GWP HFCs
- Two new low-GWP agents have been introduced that may be suitable in some applications

# Medical and Aerosols



- Phase-out of CFCs used in metered-dose inhalers will be achieved this year, following 30 years of concerted global action
- Affordable CFC-free alternatives to MDIs have been developed over the last 20 years, and are available worldwide.
- The global use of HCFCs in aerosols and sterilants is relatively very small, with alternatives available.

# Chemical uses

- In 2016, the Russian Federation will phase out CFC solvents in aerospace applications, completing the global phase-out.
- ODS process agents have decreased, with some uses phased out.
- Global ODS use for feedstock is still increasing.
- Laboratory and analytical uses of ODS continue under the global exemption, and one essential use exemption.
- A recent international study provided new insights on CTC emissions. Further investigations are required to better understand the sources of emissions.

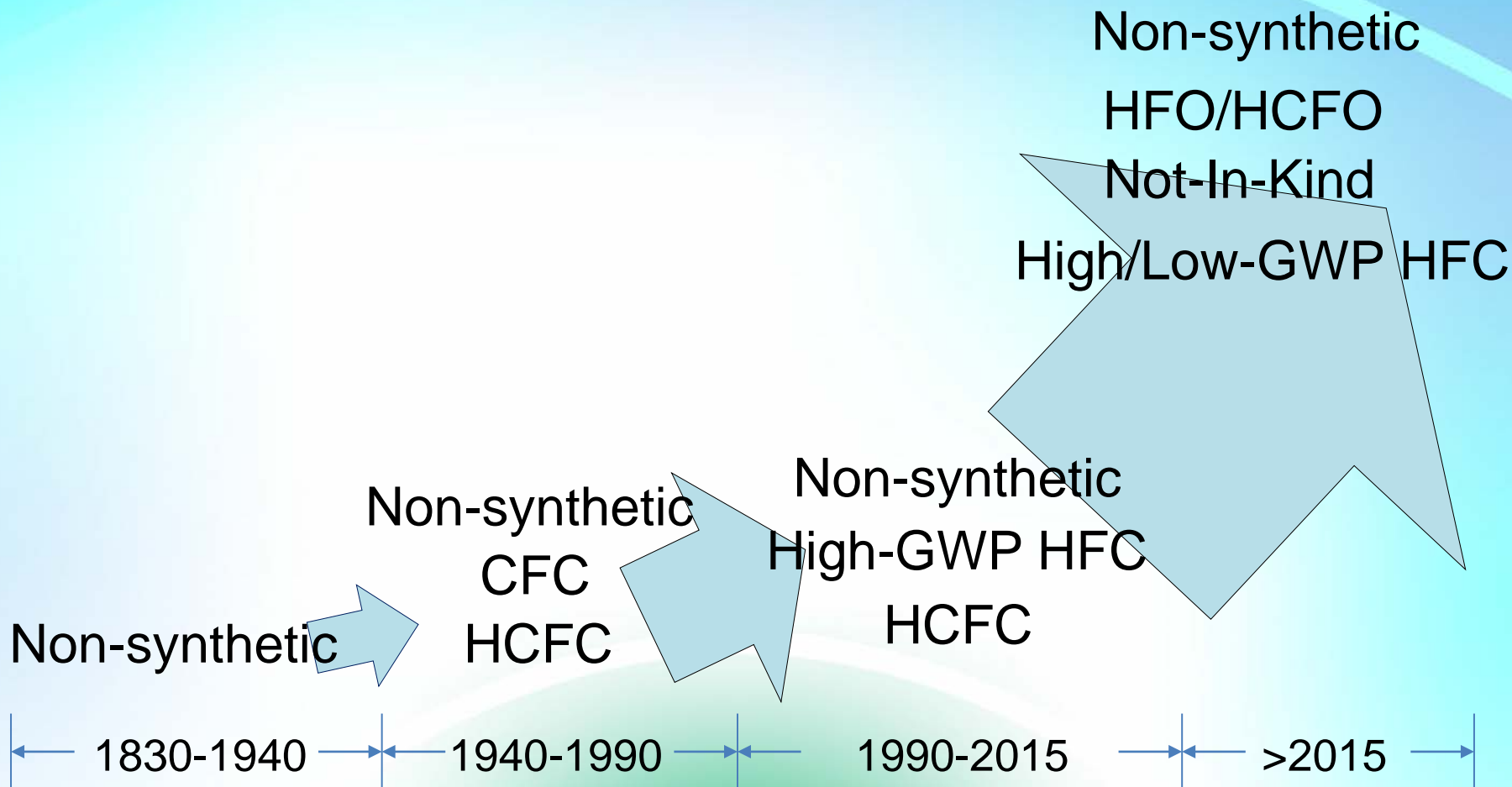


# Methyl Bromide



- Almost all controlled uses of MB have been phased out and replaced successfully.
- The Critical Use process has evolved successfully from non A5 to A5 parties
- Global atmospheric measurements indicate that about 30,000 t of MB are still emitted annually.
  - Of this, 11,000 t is for Quarantine and Pre-shipment Uses, of which up to 40% may have alternatives
  - About 15,000 t (50%) cannot be accounted.
- Addressing these issues would have a positive impact on the ozone layer.

# Refrigerant Evolution



# Refrigeration and A/C

- 100% CFC phased out
- HCFC phase-out almost complete in non-Article 5
- HCFC consumption in Article 5 is decreasing
- Low-GWP solutions available for many applications
- Alternatives are being tested under high ambient temperature conditions
- Rapidly evolving technology environment
  - Industries actively looking for best solutions
  - More comprehensive approach balancing energy efficiency, flammability, toxicity in choosing alternatives

# 2018 Assessment Reports

**Decision XXVII/6** requests TEAP reports to consider,

- a) Impact of the phase-out of ODS on sustainable development;
- b) Technical progress in the production and consumption sectors in the transition to alternatives and practices that eliminate or minimize emissions of ODS in consideration of factors stipulated in the Vienna Convention;
- c) Technically and economically feasible choices for reduction and elimination of ODS in all relevant sectors;
- d) Status of banks containing ODS and their alternatives, including those maintained for essential and critical uses, and options for handling them;
- e) Accounting for production and consumption for various applications and relevant sources of ODS and their alternatives;

# TEAP going forward

- Remains ready to respond to tasks.
- Seeks to be aligned with the current and future needs of the parties.
- Continues to identify emerging issues for Parties
- Continues to be challenged by a limited pool of qualified A5 and non-A5 experts with working capacity and relevant expertise, together with the necessary support to take on the workload, or able to volunteer their time.
- Requests parties' continue to consider the overall workload and the timeline when assigning tasks to TEAP

# Acknowledgment

- Mr. Dave Catchpole is stepping down from TEAP and HTOC after 26 years of dedicated service to the Montreal Protocol.

