

## World Refrigeration Day - 26 June 2019 #Refrigerants4Life





<sup>1</sup>IIR, "29th Informatory Note on Refrigeration Technologies: The Role of Refrigeration," 2015. <sup>2</sup>UN Environment, IIR, "Cold Chain Technology Brief: Commercial, Professional, and Domestic Refrigeration" 2018. <sup>3</sup>UN Environment, "Refrigeration, Air-Conditioning, and Heat Pumps Technical Options Committee: 2018 Assessment Report," 2018.



## Context

- Domestic refrigerators use 65% less energy than 15 years ago<sup>1</sup>.
- 4 million refrigerated trucks & 600 million m<sup>3</sup> of refrigerated warehouses help preserve 400 • million tonnes of food each year<sup>2</sup>.

5.6 billion air-conditioners in use by 2050, tripling the sector's energy demand<sup>3</sup>.



## **Environmental Issues and Safety**

- Most commercially available refrigerants contribute to global warming and/or ozone depletion if released.
- Newer energy efficient equipment can save owners money and reduce greenhouse gas emissions.
- Alternative refrigerants are available but some have flammability, high-pressure or toxicity that require proper management.
- Efficient operation and management of cold chain applications curbs food loss and enhances food security.



## What Action is Needed

- Careful refrigerant selection, system design, and management of operation can reduce refrigerant emissions and save energy costs.
- Selecting lower global warming potential refrigerants for new systems, where feasible, and promote relevant research.
- Promoting recovery, reuse, reclamation of refrigerants and prohibiting release into the atmosphere.
- Using certified companies and individuals to ensure good practice and servicing, and safe use of flammable refrigerants.

 <sup>2+</sup> billion domestic refrigerators & freezers (with 170 million produced annually) consuming 4% of global energy<sup>3</sup>.