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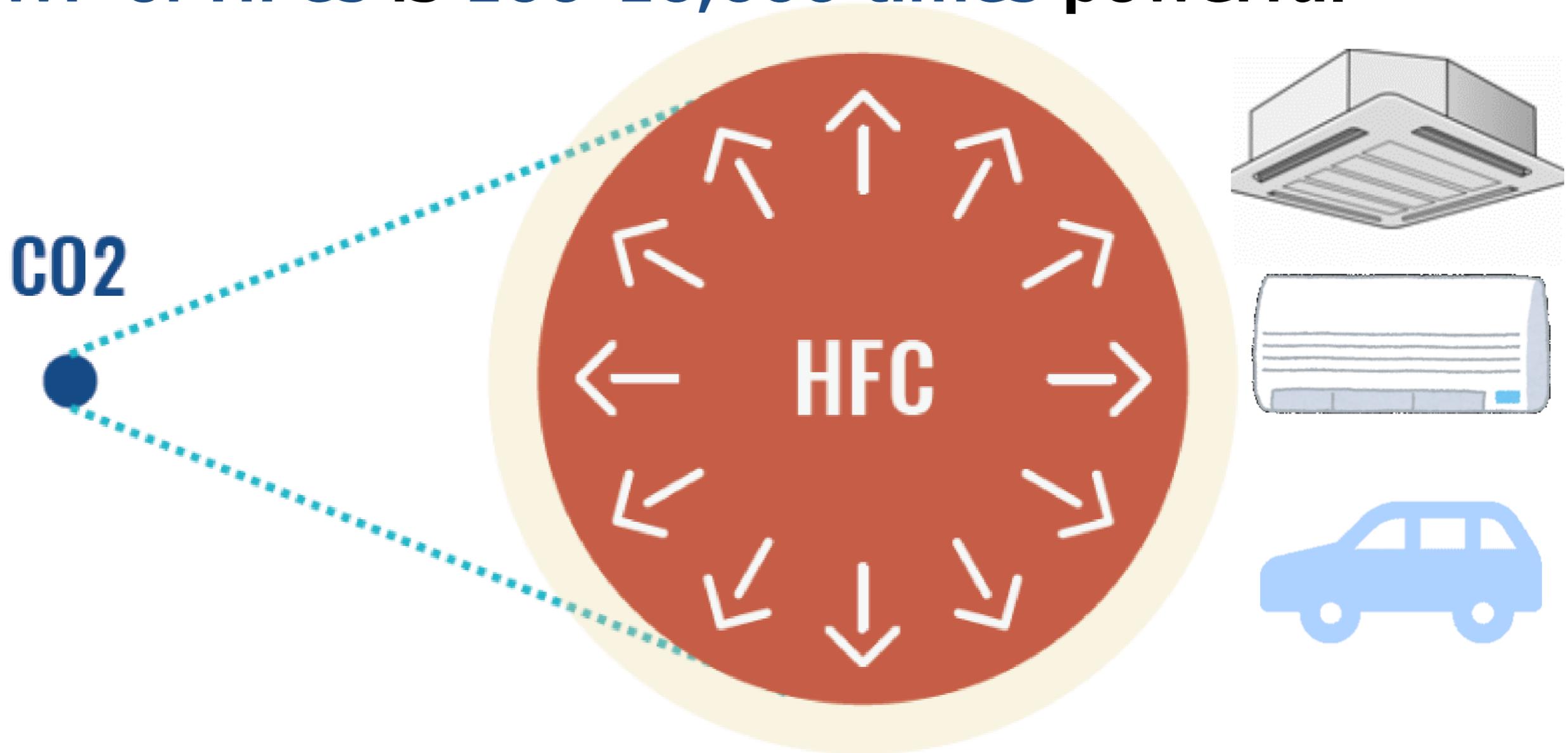
# Japan's Life Cycle Management Approach towards 2050 Carbon Neutrality Goal

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# HFCs as Potent GHGs

- **GWP of HFCs is 100-10,000 times powerful**



# Kigali Amendment



## Untapped work on HFCs bank



- **HFCs bank** will be left behind and contained HFCs will be eventually **released into the atmosphere**



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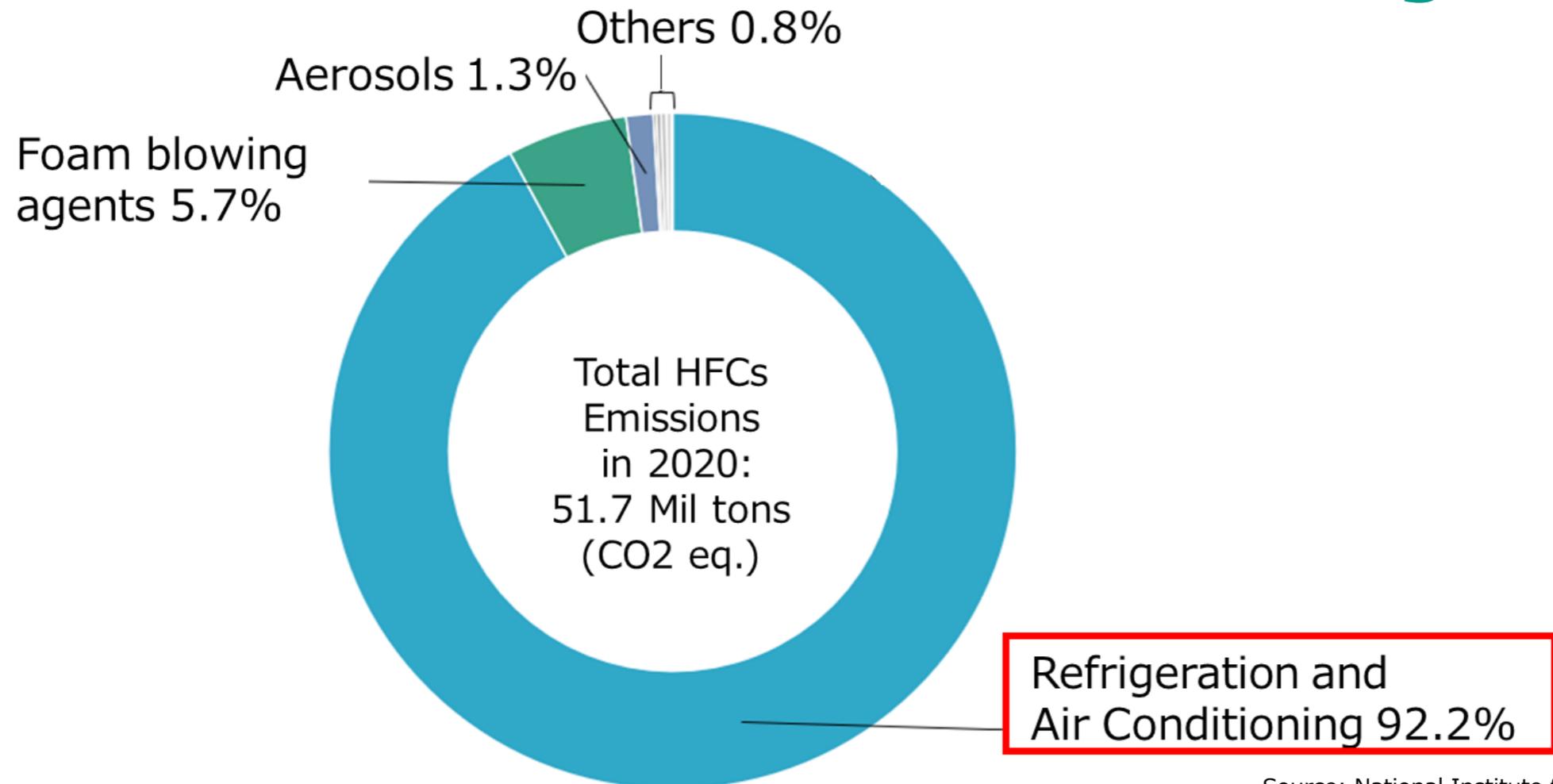
**BANK**



# HFCs emission in Japan



- **Growing HFCs emissions trend**
- **4.5% of Japan's total GHGs emission in 2020**
- **92% of HFCs emissions come from Refrigeration & AC**



# HFCs emissions target in Japan's LTS and NDC



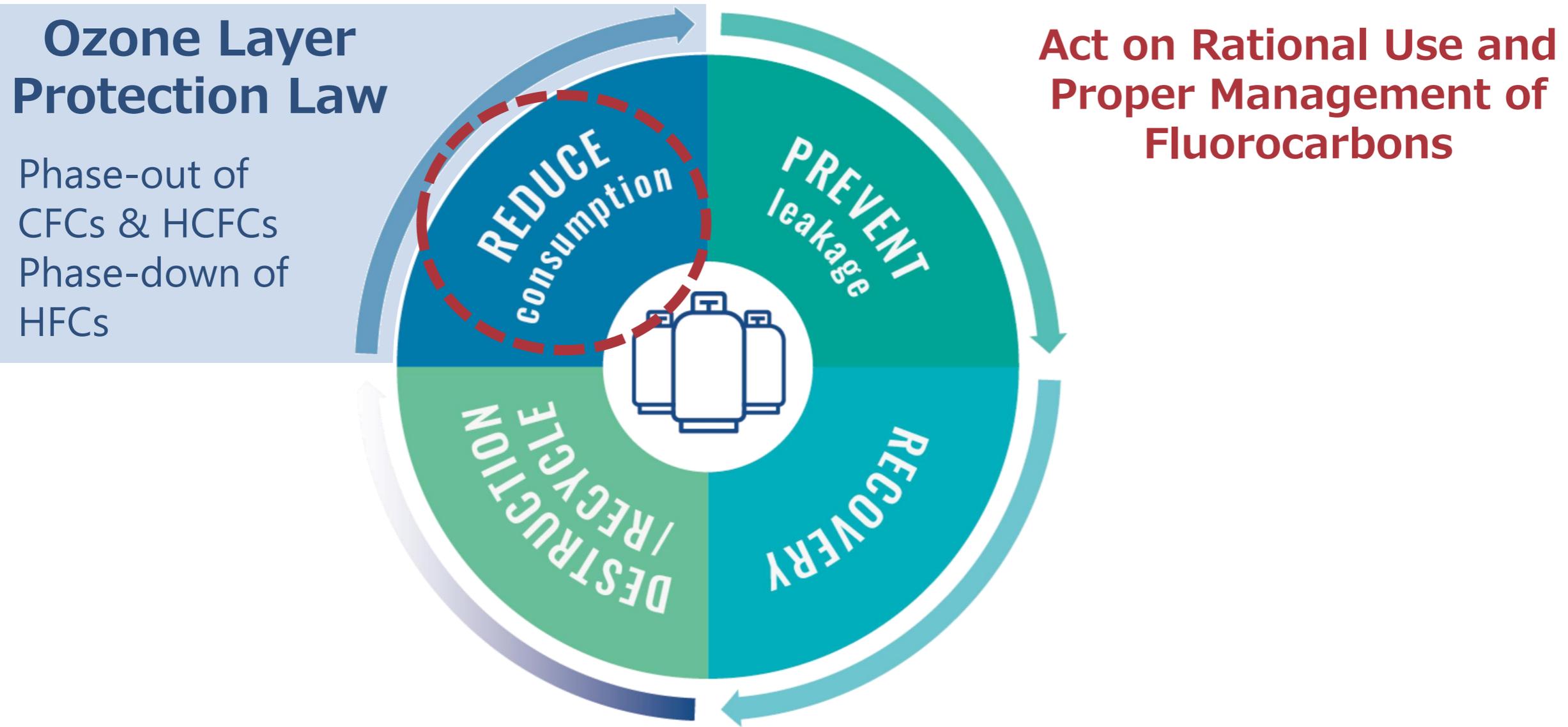
- **55% reduction of HFCs emissions in 2030 compared to 2013 level** (from Japan's revised NDC)
- **CN by 2050 in the HFCs area through promoting its life cycle management and its phase-down**

## Measures to achieve Carbon Neutrality in the field of HFCs

-  ◆ Steady implementation of the Kigali Amendment to the Montreal Protocol
-  ◆ Promotion of RAC equipment using green refrigerants
-  ◆ Leakage prevention of fluorocarbons in RAC equipment usage
-  ◆ Recovery and proper management of fluorocarbons from RAC equipment
-  ◆ International cooperation on fluorocarbons reduction

# HFCs Regulations in Japan

- Regulating HFCs from upstream to downstream, life cycle management of HFCs, is effective in achieving its smooth phase-down and emission reduction.

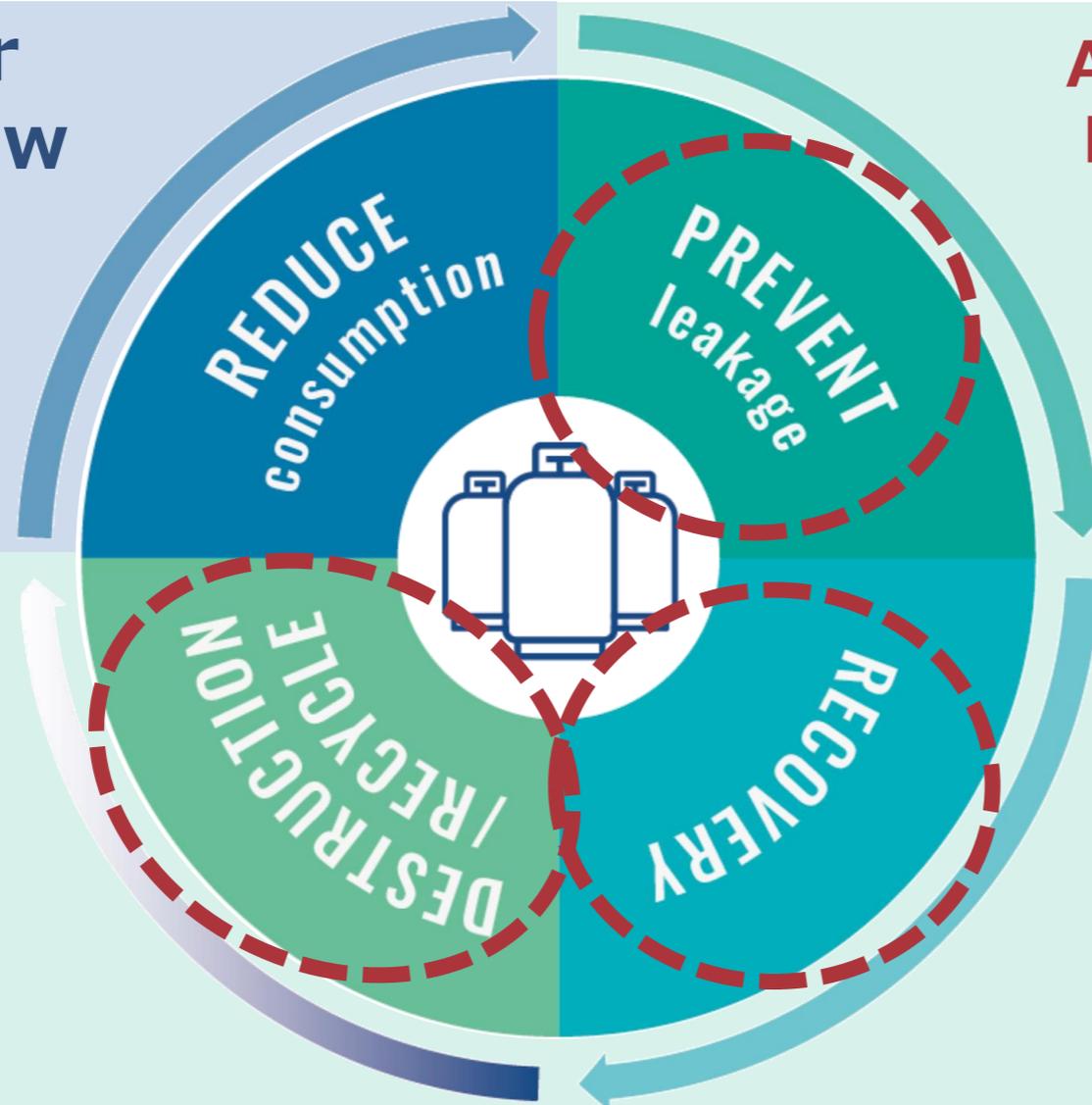


# HFCs Regulations in Japan

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## Ozone Layer Protection Law

Phase-out of CFCs & HCFCs  
Phase-down of HFCs



## Act on Rational Use and Proper Management of Fluorocarbons



### RAC Users etc.:

Proper Management of Refrigerants in RAC  
✓ Report of Leakage  
✓ Inspection/ Log Book  
✓ Proper Disposal



### Registered Filling & Recovery Operators:

Proper Filling & Recovery of Fluorocarbons



### Approved Recycling/Destruction Operators:

Proper Recycling/Destruction of Fluorocarbons

# Life Cycle Management of Fluorocarbons



## 1 REDUCE consumption

- Phasing down the production and consumption of HFCs.
- Managing the production and import/export of refrigerants.
- Promoting refrigerants transformation to low-GWP/natural refrigerants etc.

## 2 PREVENT leakage

- Preventing refrigerant leakage from equipment in use.
- Mandating leakage check-up/logging/reporting.
- Capacity building on appropriate technique/technology for servicing etc.

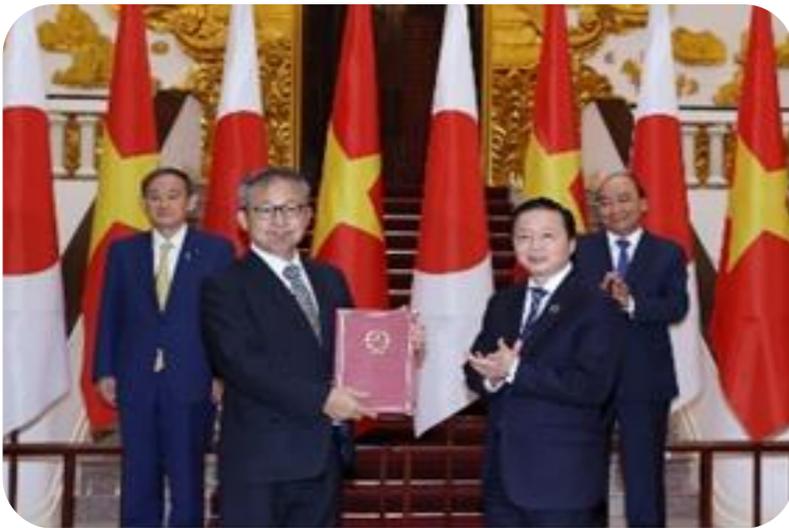
## 3 RECOVERY

- Mandating the recovery of refrigerants from equipment at disposal stage.
- Capacity building on appropriate technique/technology for recovery.
- Institutionalizing beneficiary payment system for recovery and destruction/recycle etc.

## 4 DESTRUCTION / RECYCLE

- Destroying or recycling recovered refrigerants.
- Disseminating appropriate technique/technology for destruction/recycle etc.

- IFL (**I**nitiative on **F**luorocarbons **L**ife cycle **M**anagement) promotes the **global awareness, policy, technology, & capacity building**



**Cooperation on strengthening policy and measures**



**Capacity building trainings**

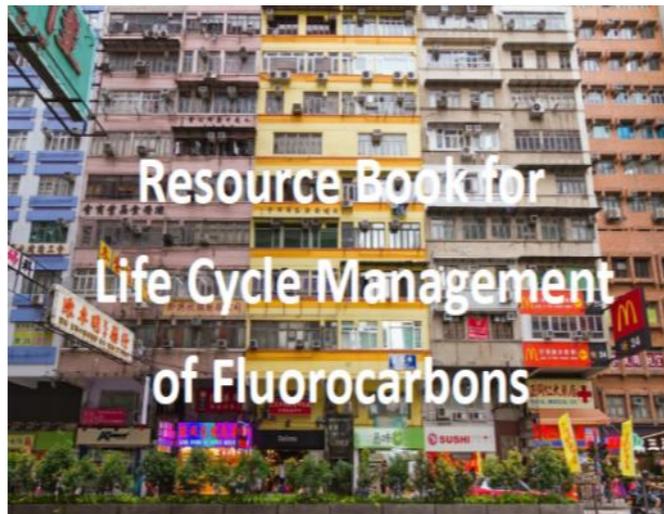


**JCM projects on F-gas destruction**



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