### Shaping a cool tomorrow

# **Adopting sustainable RAC** technologies in MENA and Türkiye

## **Commonly-available technologies**

#### **Air conditioning**

Over the last three years, there's been a markable shift in the region away from HCFCs.

## **Commercial refrigeration**

Enhanced visual merchandising is driving an increased demand for refrigerated display cases.



## Best available technologies

#### Air conditioning

VRF systems are considered to be a dominant technology that can be an effective solution in the region.



#### **Commercial refrigeration**

Regionally, sustainable refrigeration technologies are slowly being introduced, with a few examples of central transcritical CO<sub>2</sub> systems.



A supermarket in Abu Dhabi

District cooling District cooling systems consist of a centralised plant that provides cooling for a network of buildings.

By 2030, Dubai aims to use 40% of its cooling needs with district cooling systems. Dubai's district cooling systems use about 50% of the electricity that would otherwise be required.

## **Developing** a local and regional supply chain



manufacturing and distribution transport<u>ation</u>

Job creation and economic development are other benefits of a more localised supply chain.



# **REGIONAL SPOTLIGHT**

## Passive cooling solutions

that installed a transcritical CO<sub>2</sub> saw initial energy savings of nearly 50%, compared to a standard HFC.

Exterior panels on buildings can considerably reduce the internal temperature due to the shading effect.

> Windcatchers are still frequently used to provide ventilation for buildings. They are also known to reduce internal temperatures by 8°C-12°C.

ambient temperatures across cities

programmes aim to reduce

Urban greening

Achieving environmental sustainability and industry excellence in Türkiye



Türkiye has become a significant manufacturing and export hub.

Turkiye is working to reduce its GHG emissions to comply with EU climate policy. It also updated its national F-gas regulation to align with EU standards.