

# Cooling in the MENA region and Türkiye

The MENA region is exceptionally vulnerable to the impacts of climate change. The increase in temperatures and growing populations in the MENA region are triggering a booming demand for refrigeration and air conditioning and generating high electricity usage.

Sources: Cool Up, MENA Region Cooling Status Report, 2022.

## Key facts



increase in average temperature by 2050



increase in energy demand by 2040



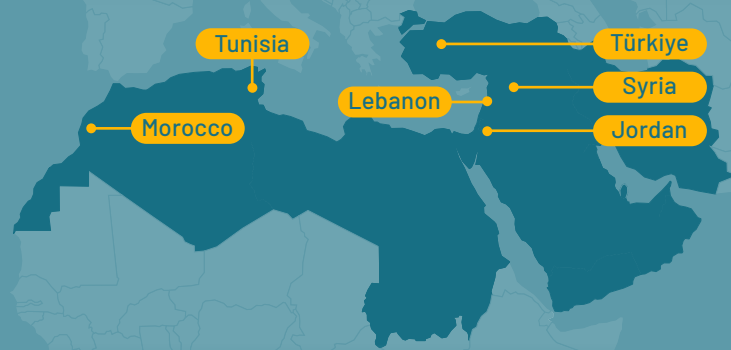
of global demand for AC in 2018 was in the region



annual growth expected for RAC technologies until 2024

## Ratification of Kigali Amendment

- Successful implementation of the Kigali Agreement is meant to limit global warming from HFC emissions to 0.06°C
- Ratification complete in 6 countries: Jordan, Lebanon, Morocco, Syria, Tunisia, Türkiye
- Reduction of HFC consumption after 2024 by more than 80% over the next 30 years

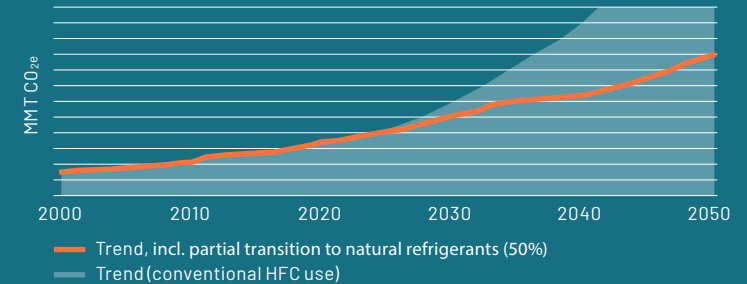


## Trends in the refrigeration and air conditioning (RAC) sector

- High growth and large market potential
- Strong increase in refrigerant demand and direct emissions
- Market growth may outweigh HFC demand and emission reductions from a (partial) transition to natural refrigerants
- Early action and swift reduction are key to lowering the starting point of the HFC reduction pathway

### Total direct emissions (AC and comm. refrigeration)

Trend line is representative for growing RAC markets.



## Air conditioning



**70%**

Air conditioning systems consume up to **70%** of the total residential and commercial electricity in the region

**60M**

**60 million** air conditioning units are installed

**210M**

Air conditioning units are forecast to grow to **210 million** by 2050

**52°C**

Product design of air conditioners requires a high ambience of up to **52°C** (normal products are usual just measured until 46°C)

## Progress and opportunities for sustainable cooling



### Policy landscape

International agreements such as the Kigali Amendment to the Montreal Protocol provide the framework for national cooling targets, which are already underway in some countries of the region.



### Market landscape

The total market size of RAC technologies in the region was estimated at around EUR 8 billion in 2018 of which Saudi Arabia has the largest market share with around 29%.



### Technology landscape

Variable Refrigerant Flow (VRF) systems are currently the dominant cooling solution for countries in the region.



### Finance landscape

Financing institutions and programmes offer new products in the sustainability field that, in part, promote sustainable cooling solutions in some countries.