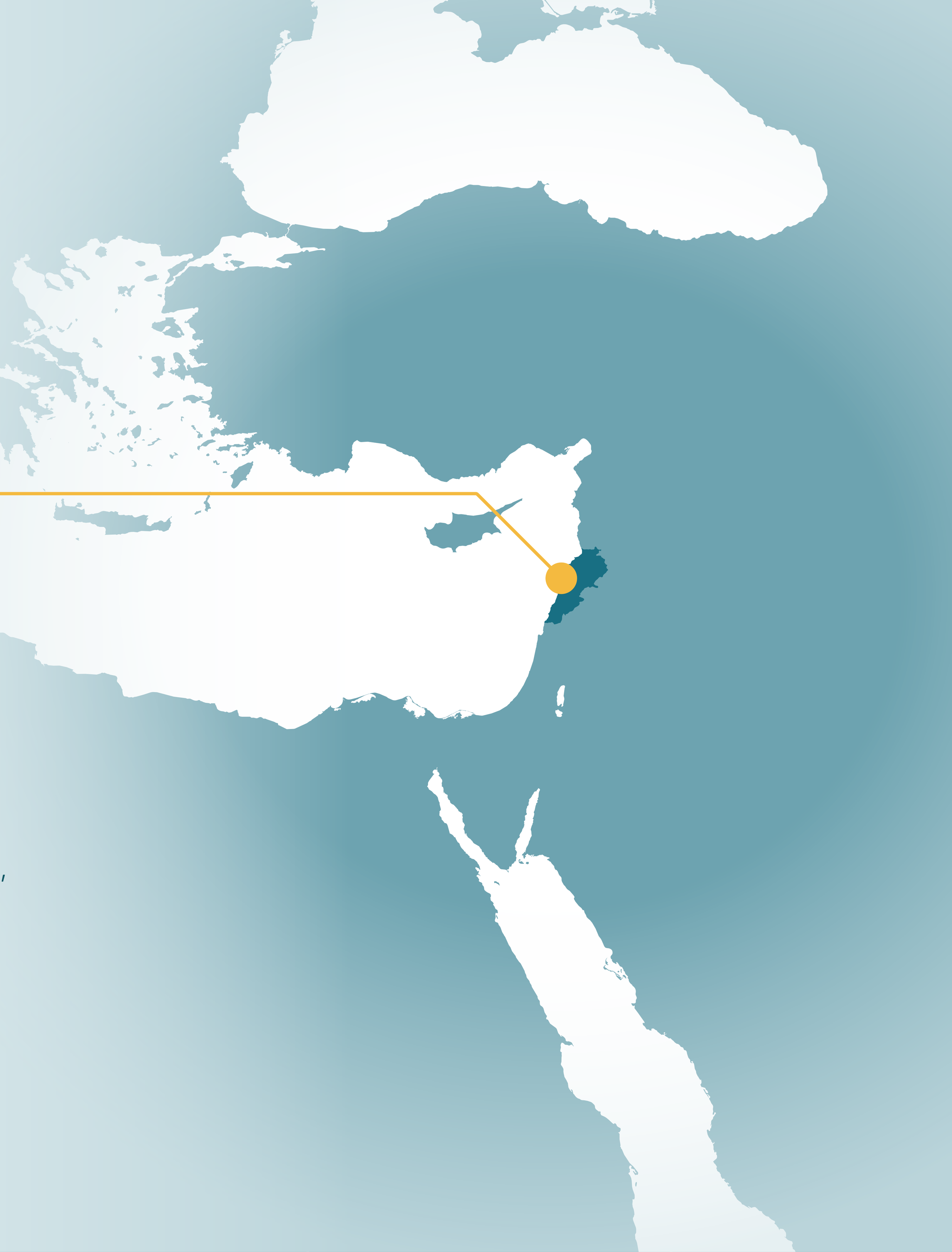
Cool Up

Key Facts of the Cooling Sector Status in 2023

Lebanon



The Lebanese AC market is dominated by imports. Imported cooling products include whole split units and systems and detached parts that are typically assembled locally. Though the Lebanese air conditioning market declined between 2017 and 2020 due to the economic crisis, the market is expected to grow as soon as the economic situation stabilizes.

The snapshot focuses on the following three cooling sectors, air conditioning, commercial refrigeration, and refrigerants.

Air Conditioning | Commercial Refrigeration | Refrigerants

Air conditioning

Market drivers

- Extreme weather conditions
- Increased population and urbanization
- New construction activities
- Economic growth before the economic downturn

High market potential for cooling equipment sales is floor area in existing buildings that is not air conditioned yet.

1 900 000 existing AC systems in 2021

210 000 sales of AC systems in 2018

Residential sector

The AC market is strongly dominated by single split systems: these are mainly sold to residential sector and small non-residential building.

50% of the floor area in residential buildings is not air conditioned

Non-residential sector

Central systems, including chillers are typically sold to large non-residential buildings, such as large hotels, shopping malls, and hospitals.

21% of the floor area in non-residential buildings is not air conditioned

New buildings installing AC systems

Apartment buildings	85%

New buildings installing AC systems

Retail	90%
Hotels, offices, healthcare buildings	95%–100%

Energy efficiency

Energy Efficiency Ratio (EER)

2.0–2.8 Average EER rating of installed AC systems → **Large potential for energy savings**

Commercial refrigeration

Market drivers

- Highly tied to the economic situation
- The market currently relies on the maintenance services of commercial refrigeration systems rather than the sales of new systems

The commercial refrigeration market is **import-dominated**

1 400 000 existing systems in 2018

78 000 sales of systems in 2018

Predominant technologies

Market Share by Technology (share of units sold)

95% Standalone Systems

5% Condensing Units

Important commercial refrigeration segments are corner stores, restaurants, and small and large supermarkets.

Refrigerant leakage

20–40% per year

Annual leakage rates are estimated to be in the range from **20%–40% in condensing units and centralised systems**.

Up to **100%** potential release

End-of-life management of refrigerants can be strengthened, as the absence of it can result in higher rates of release of the refrigerant into the atmosphere during disposal.

Refrigerants

100% of refrigerants imported

1483 MT imported in 2015

Air conditioning

The predominant refrigerants used in the existing AC sector are **R22** and **R410A**. In central systems **R134a** is also used.

In new AC systems, the predominant refrigerant is **R410A**, also **R32** is applied. In new central systems, apart from **R410A**, **R1234ze** and a small amount of **R600a** are used.

Commercial refrigeration

The predominant refrigerants used in existing equipment are **R22** and **R134a**.

In new condensing commercial refrigeration systems, the predominant refrigerants are **R404A** and **R134a**, small amounts of **R22** are still used in new system, and **R717** for the newly installed units.

More information

Main report

This snapshot is based on the report:

Cooling Sector Status Report Lebanon:
Analysis of the current market structure, trends, and insights on the refrigeration and air conditioning sector
March 2022

To download the full report, click on the following link:
bit.ly/CU-CoolSecStat-L

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