



EMOBILITY IN THE UNITED ARAB EMIRATES

Understanding opportunities for New Zealand exporters.

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Introduction to this report

Background

The United Arab Emirates has earned global recognition for its progress towards electric mobility, placing 7th in the world and leading the MENA region on the Gemrix index. This ranking highlights their dedication to eco-friendly transportation solutions and their ambitious goal of carbon neutrality by 2050.

New Zealand, renowned for its clean and green image and with a number of emobility solutions, is well-positioned to capitalise on this momentum.

Purpose

The purpose of this research is to:

- 1) Help New Zealand exporters get a deeper understanding of the UAE transport and emobility landscape.
- 2) Help New Zealanders identify key opportunities and challenges within the emobility landscape in the UAE.

Methodology

This report was generated primarily using desktop research, with NZTE subscriptions and publicly available information. Key sources of data used in this report are listed below:

- Statista
- GlobalWebIndex
- OnFrontiers
- Publicly available data

Limitations

Most of the information provided in this report was sourced from secondary data sources. Due to the nature of secondary data, all values and figures should be treated as indicative, rather than absolute. The latest information available at the time of research was used, however present values may differ.

Note that USD has been used in this report for consistency.

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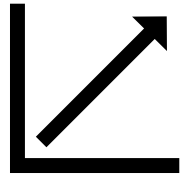
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Key takeaways



The transportation sector is growing

The UAE's transportation sector is growing overall due to increased investment into public transport and advancements in transport technology. Despite high car ownership, public transport usage is also relatively high.

Generally, there could be opportunities for exporters looking at this sector due to the growth in value and investment.



The UAE is an emerging consumer EV market

Car ownership is extremely common in the UAE, and it is an emerging EV market, particularly in terms of customer readiness. Infrastructure and availability is still catching up to demand, but the UAE government have measures in place to establish a national charging network and encourage adoption of sustainable transport methods.

Any companies that offer solutions in the consumer EV space, whether this be charging, parts, battery recycling and more should consider the UAE as a market with emerging opportunities.



The commercial EV market is still in its early stages

Although the consumer EV market in the UAE is emerging, the commercial space is less developed. Despite this, there are signs of activity in this space with a range of companies trialling and implementing commercial EVs and commercial EV companies entering the market.

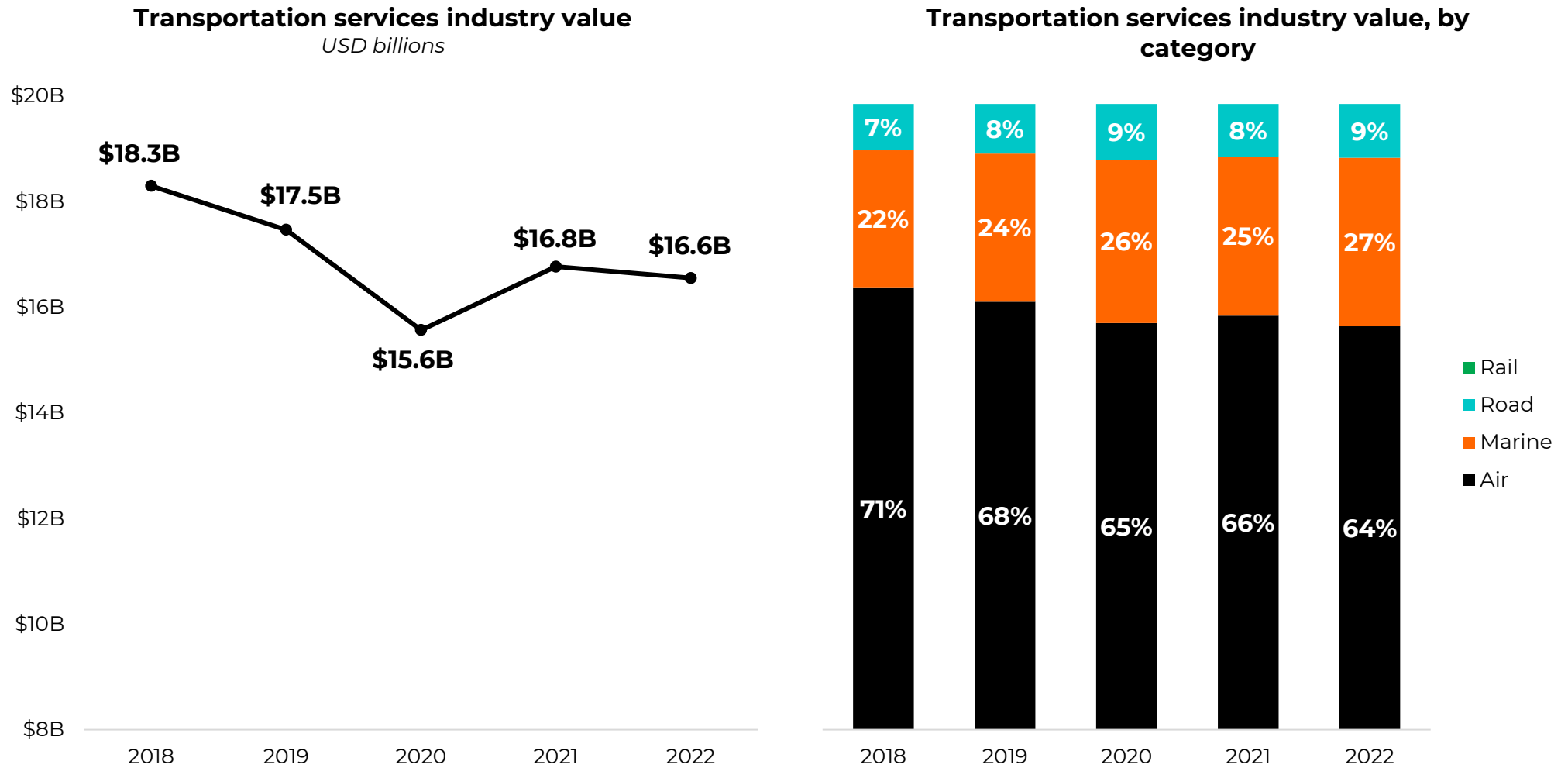
Opportunities in the commercial EV space may be less readily available and potentially quite ad hoc. However, there will likely be more activity in this space and exporters could benefit from first mover advantage in their niche.



SECTION 1

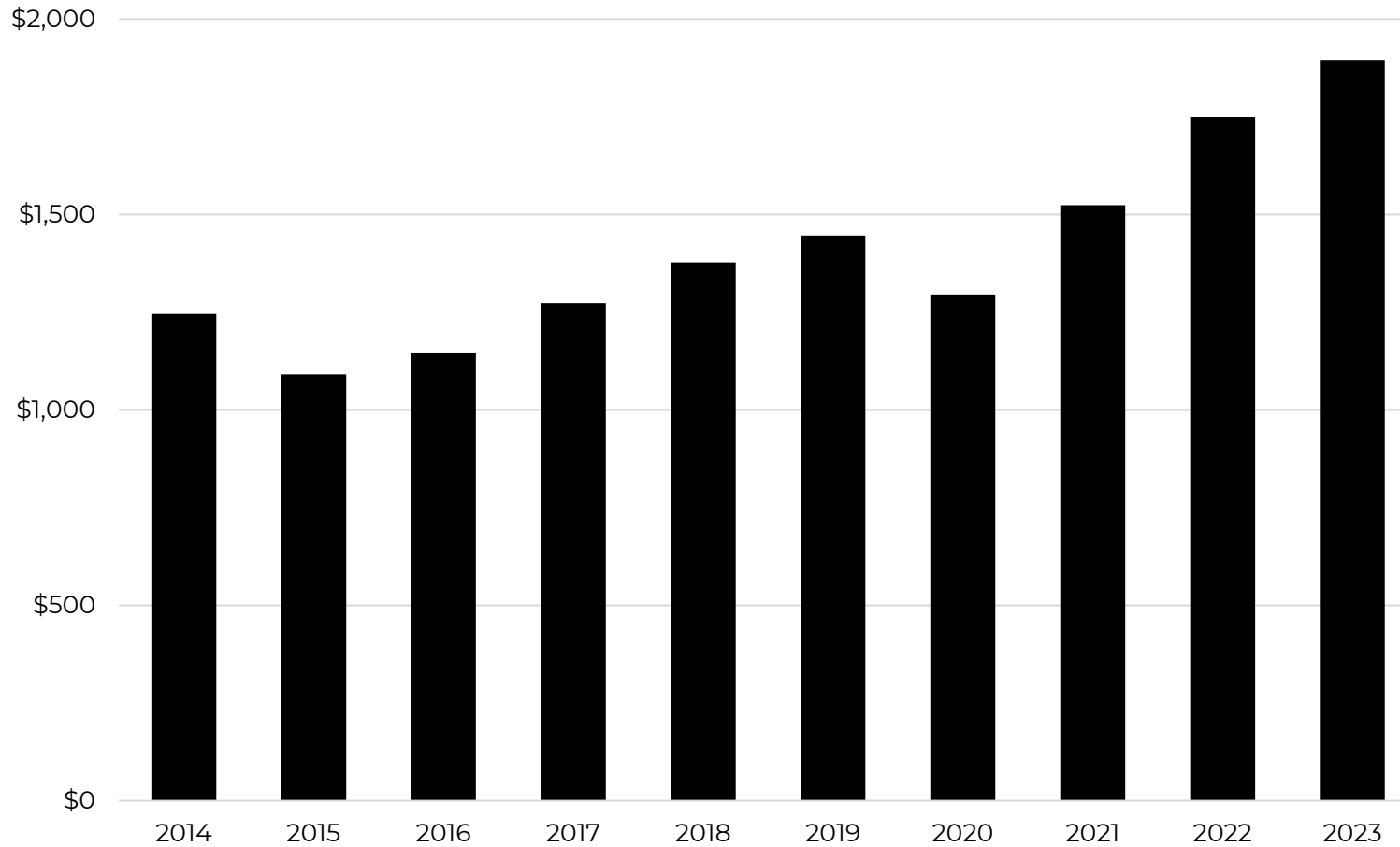
THE TRANSPORT INDUSTRY

The UAE transportation industry is expected to grow at a CAGR of ~7% during the period 2022-2027, despite a recent decline.



UAE's transport industry is poised for further growth due to automation, AI, and more eco-friendly options.

Real per capita spending on transportation
USD



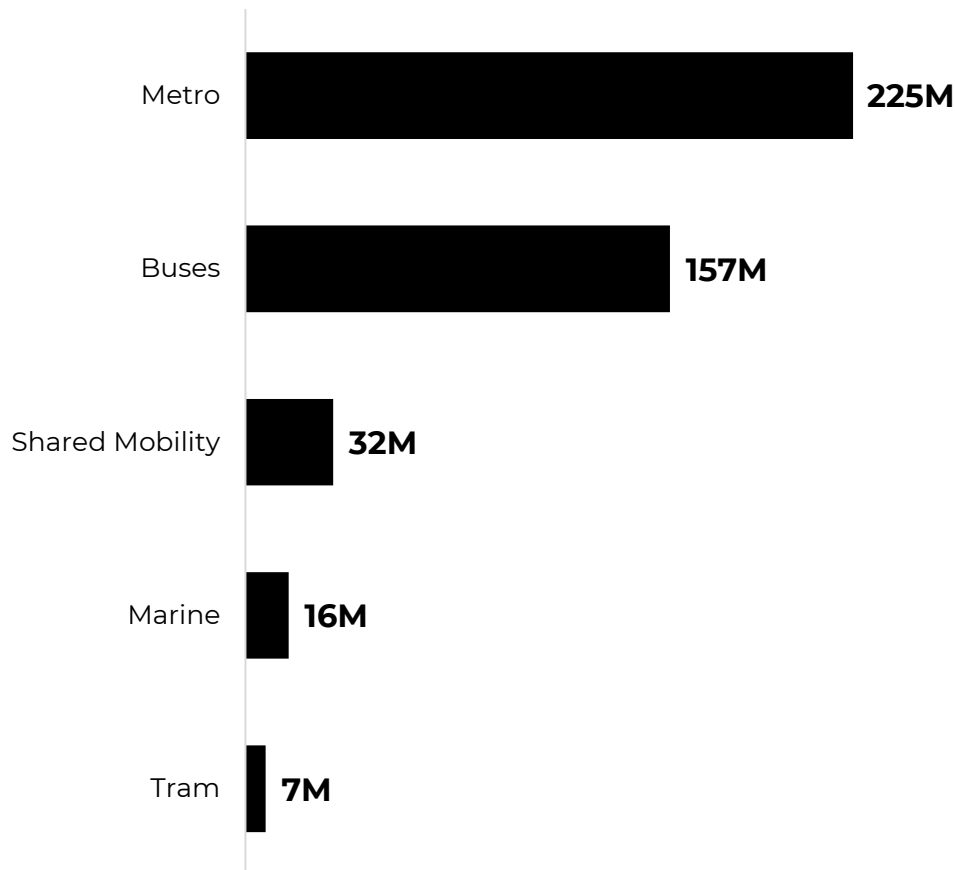
2023 per capita spend on transportation:



Public transport is well established in Dubai, while other emirates are still developing their networks. This could provide opportunity for supporting technologies to public transportation.

Public transport rides in Dubai by type 2022

Rides in millions

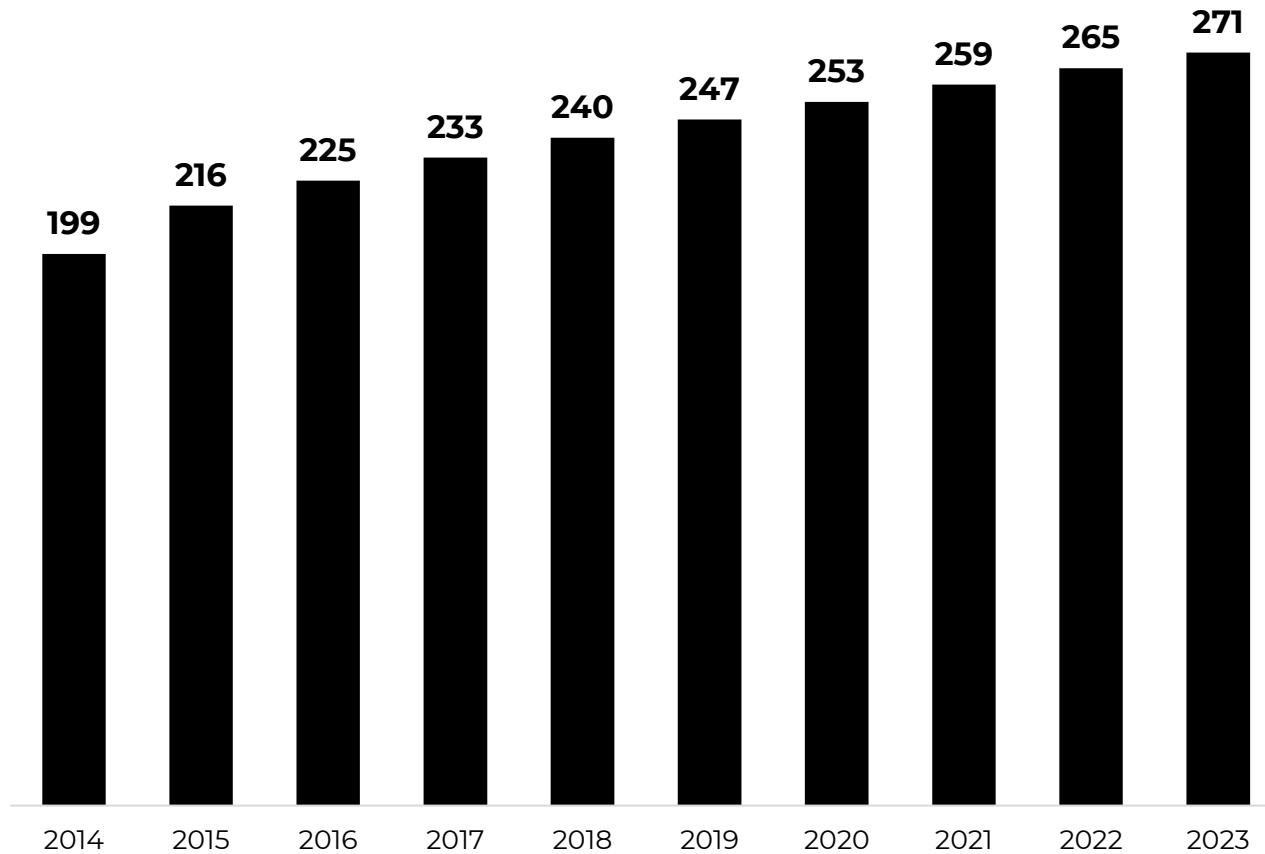


- Buses are the most affordable and prevalent way to get around cities in the UAE.
- Dubai has the world's longest driverless and fully automated metro rail network, stretching 74.6 kilometres. The Dubai Metro serves 50+ stations.
- Dubai is currently the only Emirate with a metro, however, there is one under construction in Abu Dhabi.
- Dubai also has a tram system that connects Dubai Marina to Palm Jumeirah, all the way to Al Sufouh.
- There are plans to introduce trams in Sharjah and Ajma.



Majority of households own a car in the UAE, indicating a strong culture around car ownership.

Number of cars in operation per 1,000 people in the UAE
(Not including vans and trucks)



Car ownership is popular in the UAE, with a wide variety of vehicles available. However, public transport options like the metro and trams are well-developed in some emirates.

90% Of consumers in the UAE say that they have a car in their household.

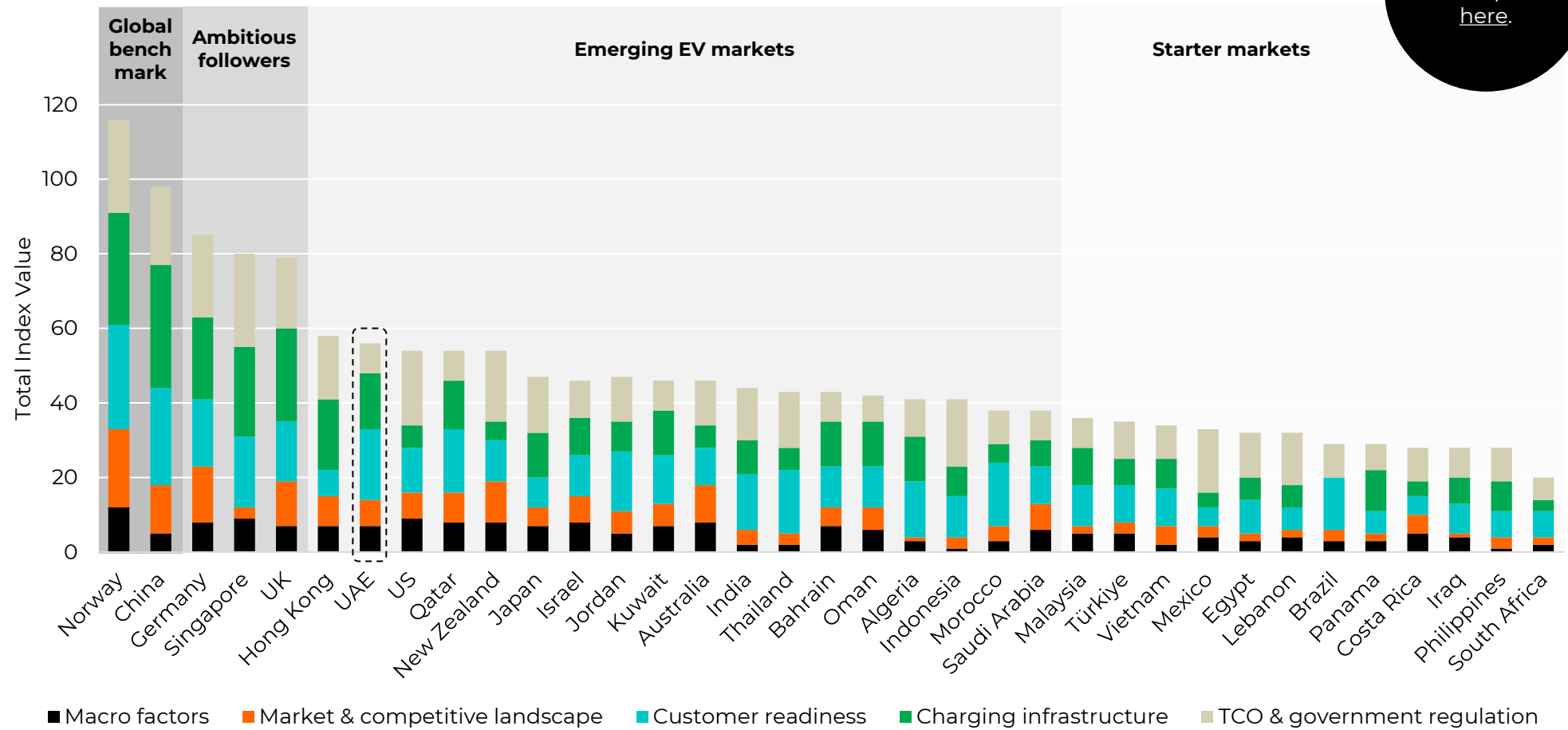
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ELECTRIC VEHICLES

The UAE is an emerging EV market, following behind the likes of Germany, Singapore and the UK.

Global Electric Mobility Readiness Index (GEMRIX) 2023

Find the full report [here](#).



Source: Arthur D. Little, Global Electric Mobility Readiness Index 2023, 2023.

The UAE government has an ambitious vision for electric vehicles. There is also a strong consumer interest.

Key factors influencing change in emobility in the UAE

- **UAE targets net zero emissions by 2050:** This ambitious goal is driving a major shift towards sustainable transportation, with electric vehicles playing a key role.
- **Government actively promotes electric vehicles (EVs):** Initiatives like Dubai's Green Mobility Strategy 2030 with a target of 42,000 electric cars by 2030 showcase this commitment.
- **Dubai leads the charge with extensive charging infrastructure:** The EV Green Charger initiative has significantly increased charging stations (700+) with further expansion planned.
- **EV ownership incentivised with financial benefits:** Free parking and toll exemptions make owning an EV more attractive to consumers.
- **Public transport aims for zero emissions by 2050:** This long-term vision complements the push for EVs in achieving cleaner transportation.
- **Strong consumer interest in EVs:** A significant 82% of people are open to electric vehicles, indicating a promising market for EVs.
- **Domestic EV manufacturing on the horizon:** A planned assembly plant in Abu Dhabi with initial production capacity of 5,000-10,000 units annually could reduce reliance on imports.
- **E2GO joint venture to accelerate EV charging network:** This collaboration aims to make Abu Dhabi a leader in EV charging infrastructure with fast chargers, convenient services, and digital platforms.

Emobility in the UAE factsheet

GEMRIX 2023
index value:

57

GEMRIX 2023
index position:

#7

(Markets with a score of 100 or above hit the global benchmark.)

of high-power charging
locations per highway km:

0.33

of DC* charging locations per
km² of residential & road area:

0.49



of AC* charging locations per
km² of residential & road area:

0.33





Key challenges to EV uptake in the UAE:

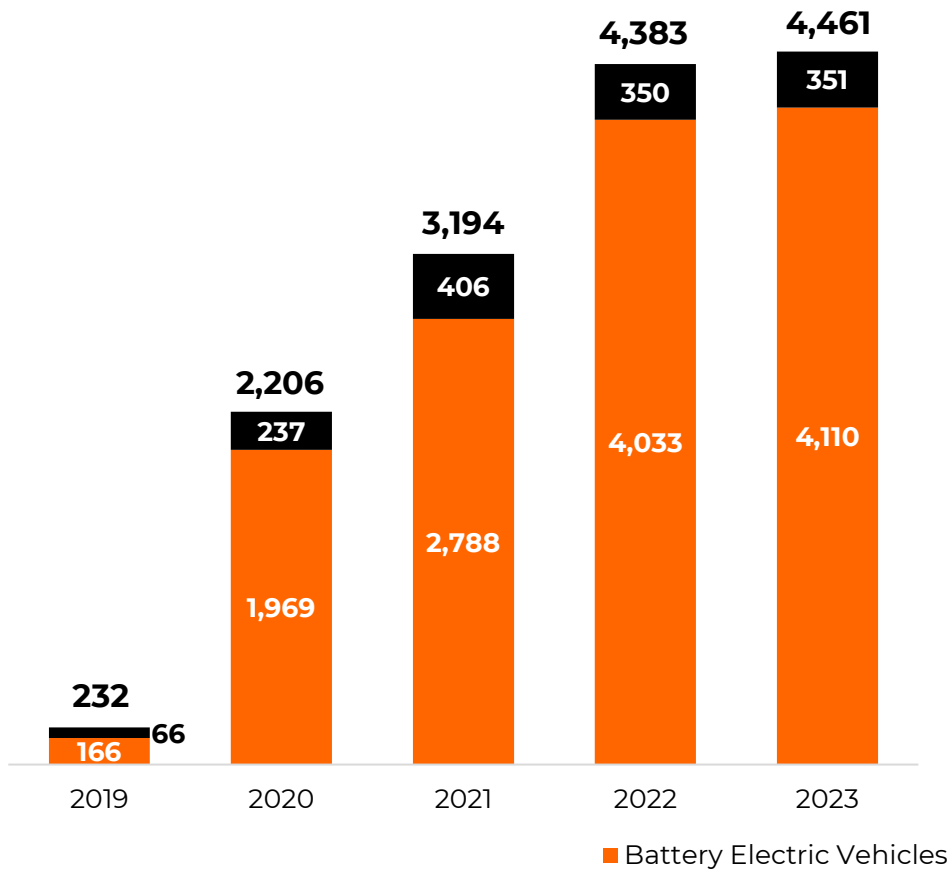
Unpredictable usage: Unlike traditional public transport, data on EV usage is scarce, making it hard to plan for charging stations and electric car fleets effectively.

Power supply: Fast chargers require a lot of electricity, so planning for sufficient power supply at substations is crucial.

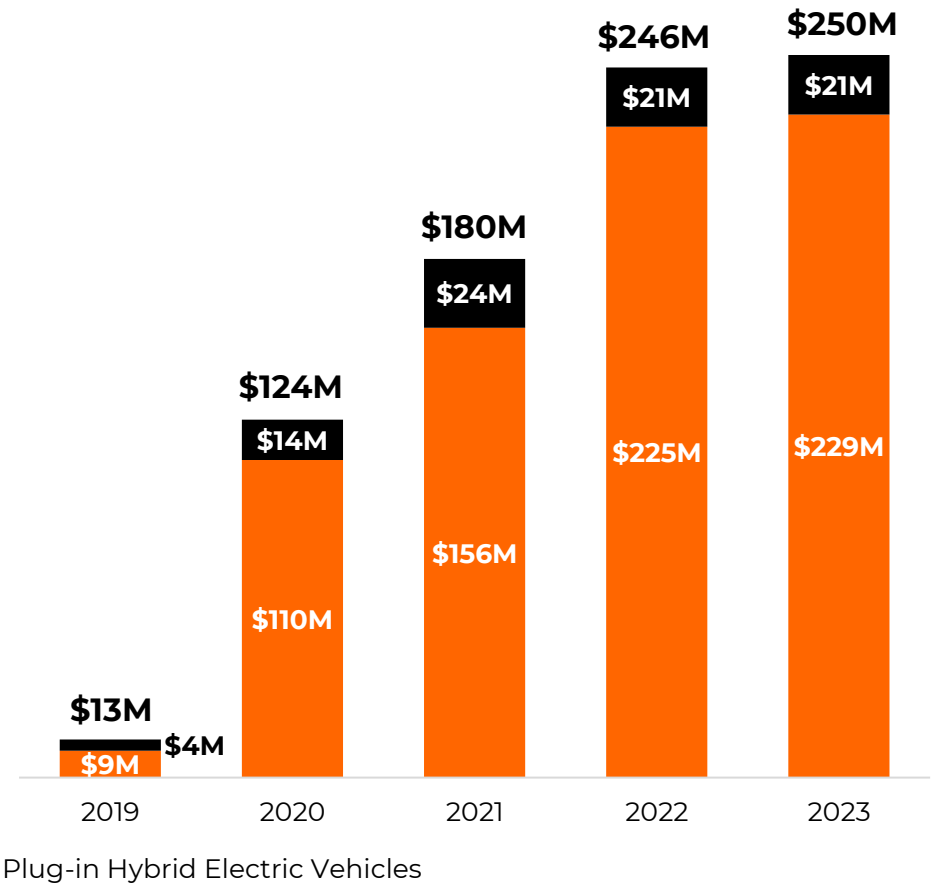
Petrol prices: GCC's affordable petrol prices and different parking culture compared to other regions make simply copying solutions from elsewhere risky.

In 2023 the revenue of electric vehicles in the UAE reached \$250 million USD. This has had 109% compound annual growth rate since 2019.

Unit sales of electric vehicles in the UAE, by type



Revenue (USD millions) of electric vehicles in the UAE, by type



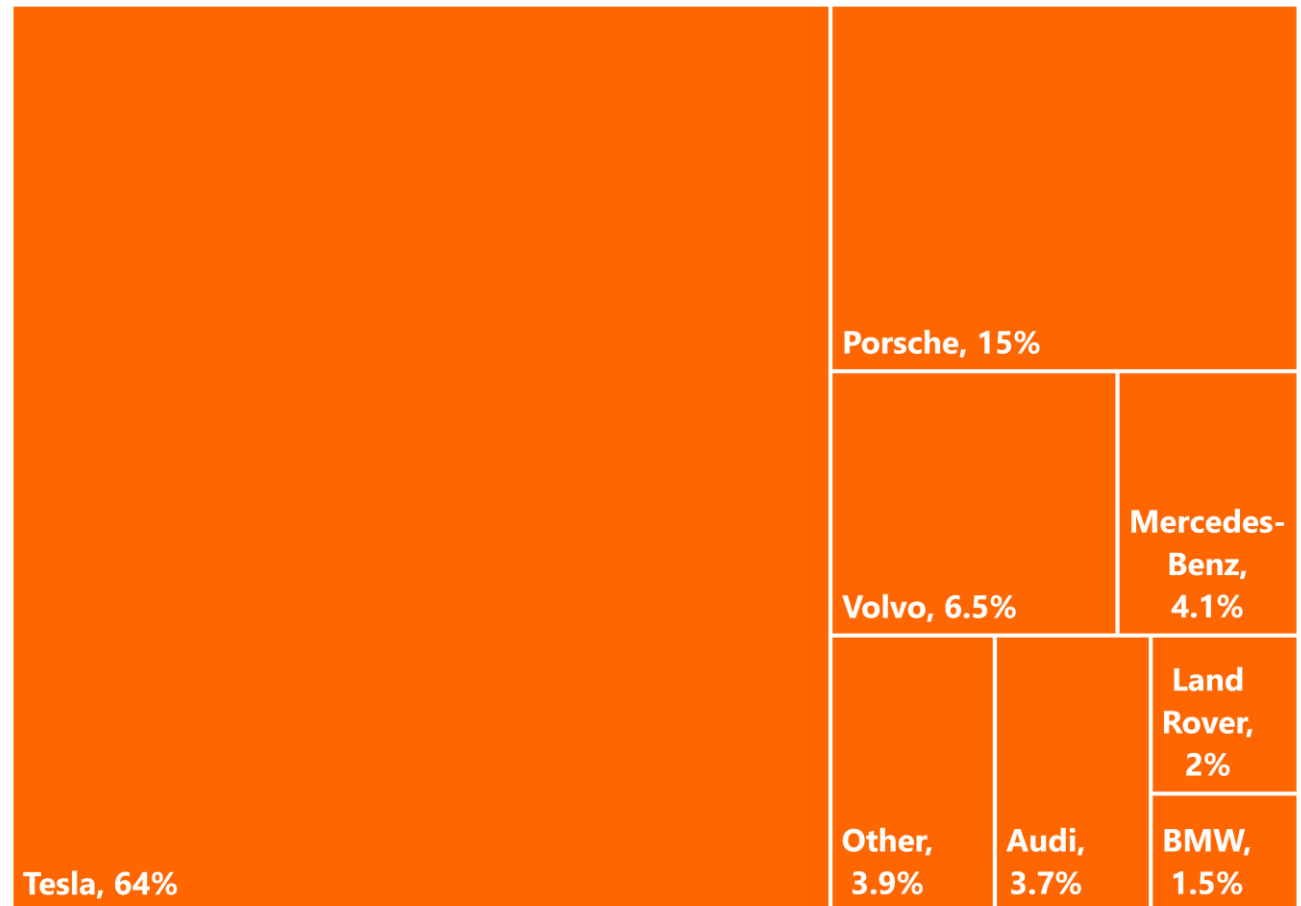
The UAE's surge in EV adoption, is driven primarily by Tesla's dominance and the entry of established luxury brands.

Tesla stands out as the clear EV brand leader, commanding 64% of the market share.

Porsche follows Tesla with 15% share. Known for their high-performance EVs like the Taycan, Porsche has successfully carved a niche in the luxury electric car segment.

Among the German luxury automakers, Mercedes-Benz holds a 4.1% share, while Audi and BMW are just behind with 3.7% and 1.5%, respectively. These brands have been gradually expanding their EV offerings, aiming to cater to environmentally conscious consumers.

Brand share of electric vehicles revenue in the UAE 2022



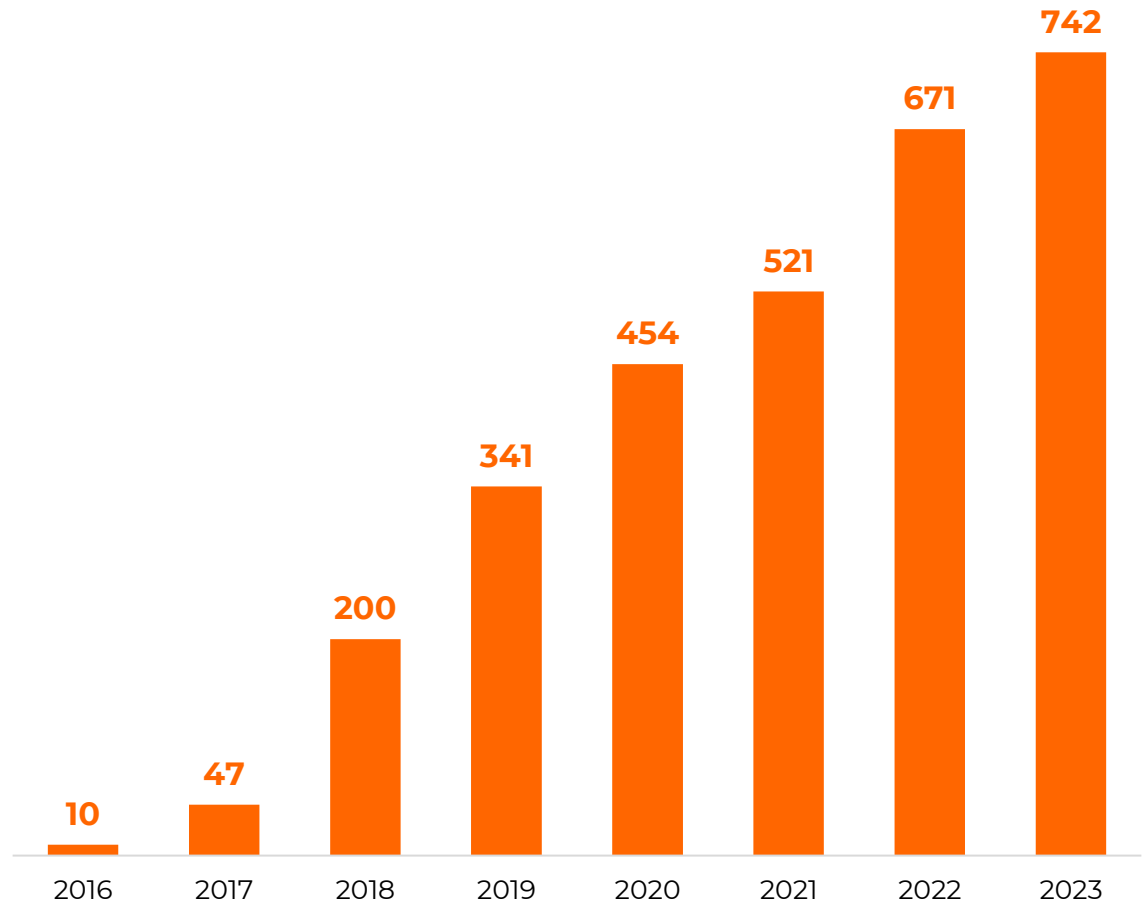
UAE's EV policy prioritises efficiency, tracks chargers centrally, and ensures alignment of road quality with EV infrastructure development.

National Electric Vehicles Policy (NEVP)

The UAE Government has embarked on an ambitious mission to foster collaboration with federal and local partners, as well as the private sector, to establish a robust national network of EV chargers throughout the country. The NEVP aims to achieve several critical goals:

- **Energy Efficiency:** By reducing energy consumption in the transport sector by 20%, the UAE is actively contributing to global sustainability efforts.
- **Centralised Database:** The policy emphasises building a centralised database of electric vehicle charging stations. This streamlines the charging process, enhancing convenience for EV users.
- **Road Quality:** The UAE's commitment to maintaining top positions in global road quality rankings aligns seamlessly with its EV infrastructure development.

Number of public charging stations in the UAE, 2016-23



With a focus on becoming a global EV hub, the UAE offers a fertile ground for companies specialising in EVs and supporting technologies.

UAE's EV Charging Landscape: Policies and Progress



UAE's Global EV Market Project

In May 2023, the Ministry of Energy and Infrastructure launched the 'Global EV Market' project. This transformative initiative aims to turn the UAE into a global hub for electric vehicles. By 2050, the goal is to have 50% of all vehicles on UAE roads be EVs. This project underscores the UAE's commitment to sustainable transportation and reducing carbon emissions.



Dubai's Green Mobility Initiatives

- **Government Procurement:** Since 2016, Dubai's government has been procuring electric vehicles as part of its policy to promote green mobility. The goal is to have 30% of government procurement consist of electric or hybrid vehicles by 2030.
- **Green Building Regulations:** Dubai's Green Building Regulations mandate that 5% of parking spaces be dedicated to green or low-emission vehicles.
- **Preferred Parking:** Designated preferred parking spots must be provided for hybrid, electric, & carpool vehicles.
- **Building Code Guidelines:** The Dubai Building Code outlines requirements for electric vehicle charging points in the city.



DEWA's Monopolistic Role

Currently, the competition in the UAE's EV charging space is monopolistic. The Dubai Electricity and Water Authority (DEWA) spearheads the installation and operation of EV charging infrastructure in Dubai, where the majority of EV chargers are located. However, it is anticipated that there will be increased competition in the coming years as the EV market continues to evolve.



Abu Dhabi's Regulatory Policy

In the Emirate of Abu Dhabi, the Regulatory Policy for Electric Vehicle Charging Infrastructure sets out stipulations and criteria for establishing a network of EV charging stations. This policy addresses ownership, installation, management of electric vehicle supply equipment (EVSE), electricity supply, and pricing mechanisms. It represents a significant step toward achieving Net Zero emissions by 2050.



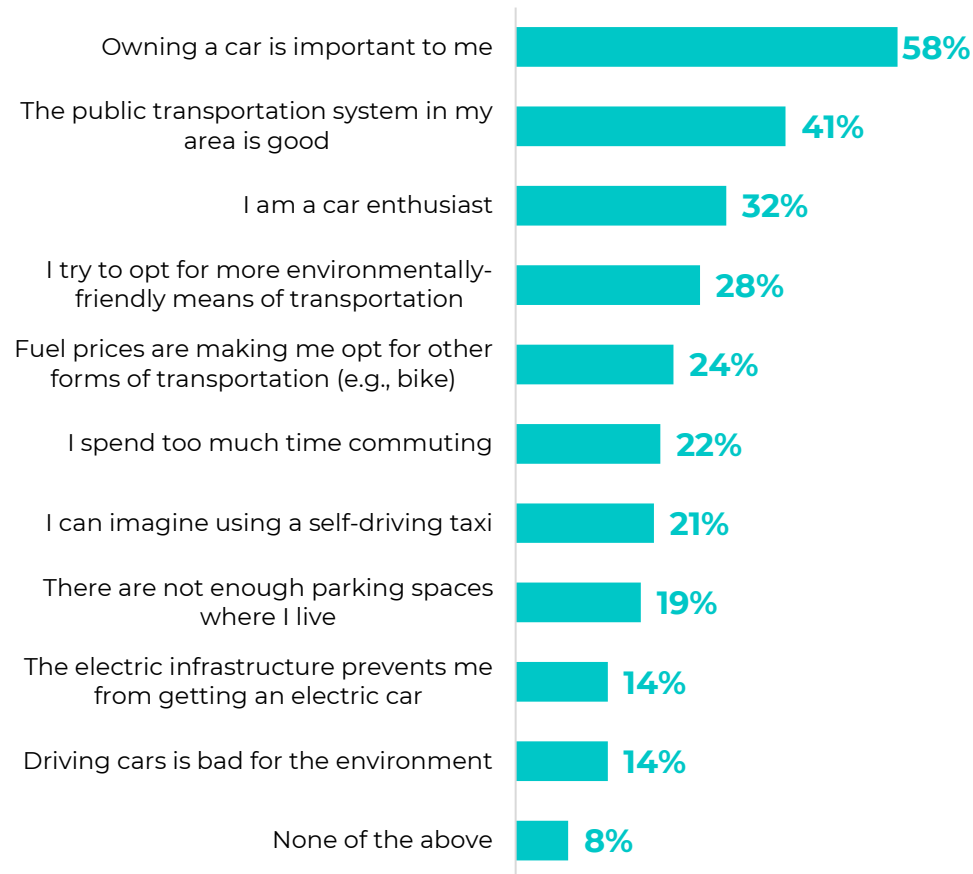
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CONSUMER DRIVERS

While the UAE has strong usage of public transport, car ownership is also important to consumers here.

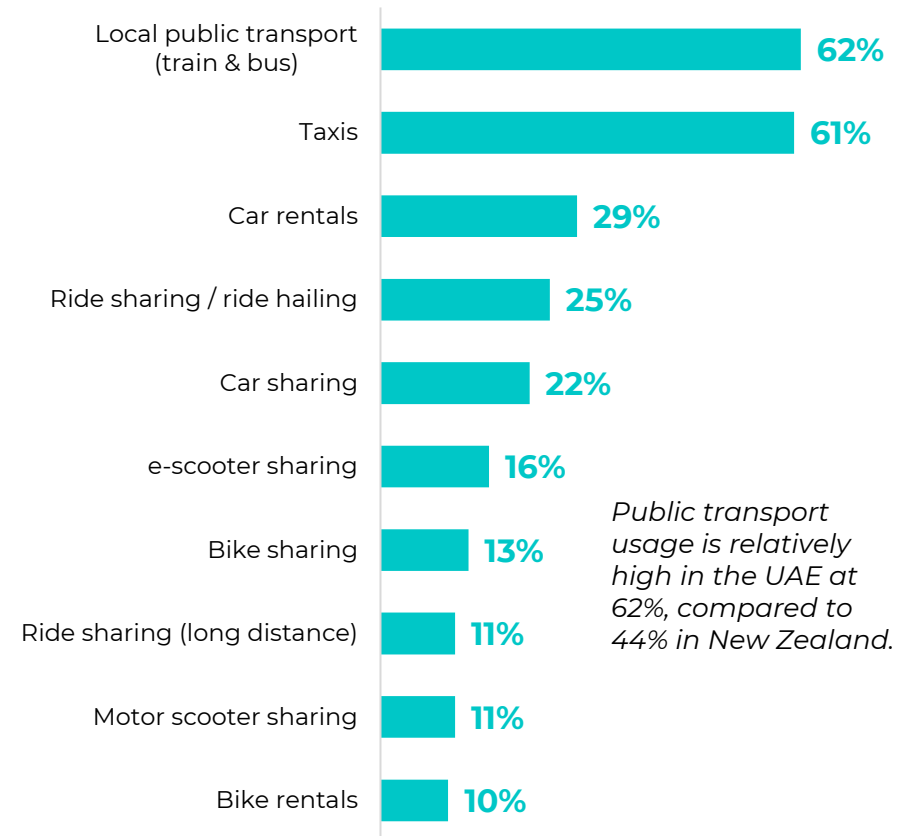
Attitudes towards mobility in the UAE 2023

'Which of these statements about cars and mobility do you agree with?' (multi-pick)



Mobility service usage in the UAE 2023

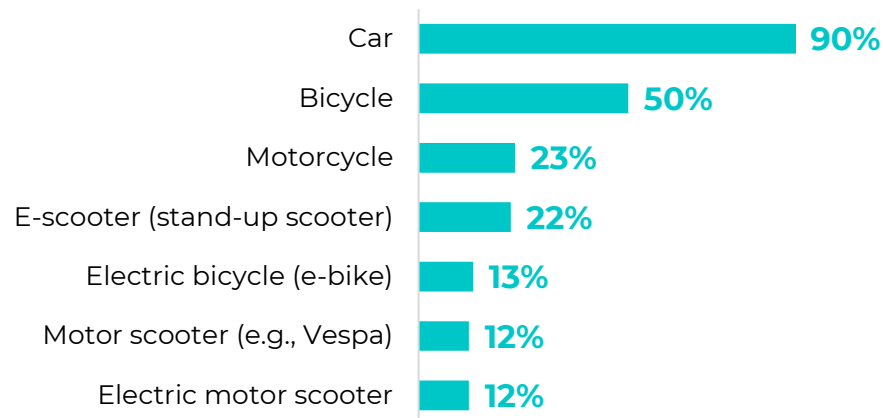
'Which of these services have you used in the past 12 months?' (multi-pick)



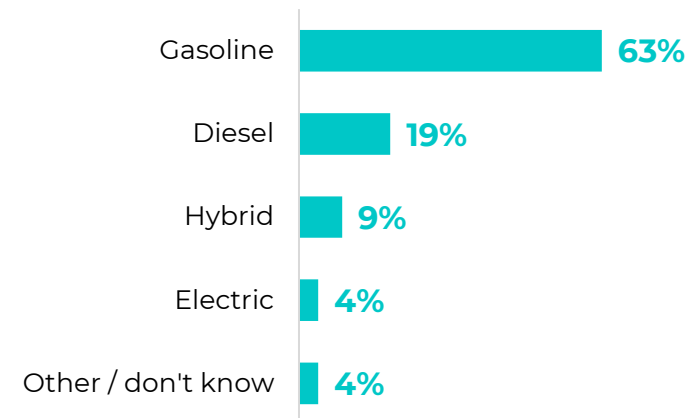
13% of car owners in the UAE have an electric or hybrid vehicle, but over 1/3rd plan to buy one for their next car, indicating high consumer readiness.

Vehicle ownership and usage (household) in the UAE 2023

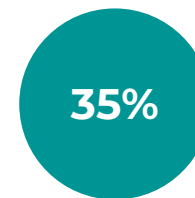
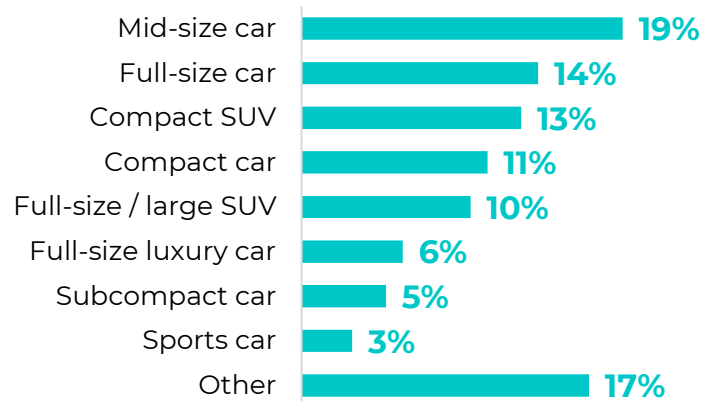
Vehicle ownership



Car propulsion type (of those who own a car)



Car ownership type (of those who own a car)



Of consumers in the UAE plan to buy an electric or hybrid car for their next vehicle purchase.

This is higher than other nations like the UK (29%), Australia (31%), Germany (27%) and New Zealand (32%). It is lower than Norway, a leading EV nation, at 46%.

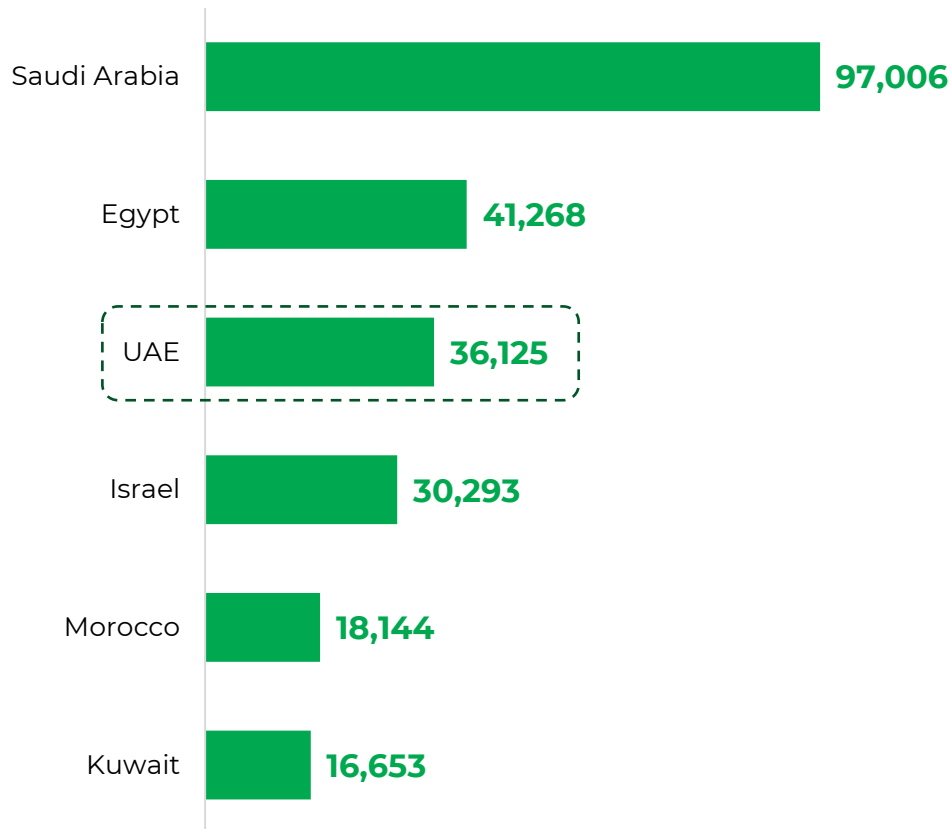


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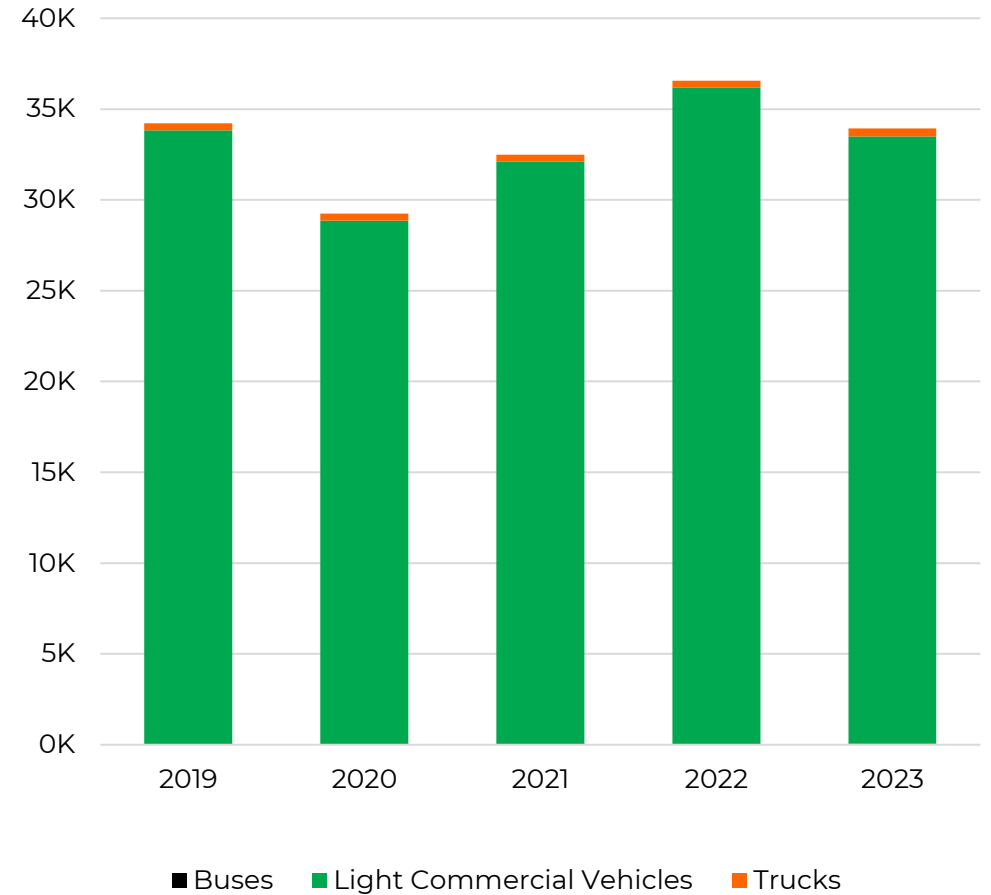
B2B OPPORTUNITIES

Commercial vehicle sales in the UAE are primarily made up by light commercial vehicles.

Number of commercial vehicles sold in Middle East & North Africa 2022, by country



Unit sales of commercial vehicles in the UAE, by type





Commercial EVs: Early signs of growth

The UAE government recognises the potential of electric vehicles and has incentives to encourage their adoption, these also apply to commercial EVs:

- Reduced electricity tariffs for off-peak charging, lowering operational costs.
- Exemptions on road tolls and Salik charges for electric commercial vehicles.

Despite these initiatives, commercial EV sales have not taken off significantly in the UAE. In 2022, it is estimated that just 50 units were sold, primarily consisting of vans and buses.



Although the commercial EV market is only in its early stages, it is poised for growth with increasing interest from companies and new electric truck and bus models entering the market.

Activity in the UAE's commercial electric vehicle space

The UAE's commercial EV market has had a number of new players and product launches, indicating a growing interest in this sector.

Electric Trucks:

- Distributor [Admiral Mobility](#) is bringing medium and heavy-duty electric trucks from Geely to the UAE and Saudi Arabia in 2023. They plan to introduce around 5,000 electric trucks across the Middle East and Africa.
- [FAMCO](#) launched the Volvo FH, the first-ever heavy-duty electric truck in the Middle East, in June 2023.
- In anticipation of the upcoming COP28 climate change conference in the UAE in May 2024, [DSV](#), a global logistics leader, is introducing the first ever fully electric, long-range heavy-duty trucks for transporting cargo in the country.

Electric Buses:

- [Dubai's Roads and Transport Authority \(RTA\)](#) is collaborating with [Daimler](#), [Volvo Bus](#), and [VDL Bus & Coach](#) to test electric buses. Successful trials could lead to a wider rollout across the UAE. Abu Dhabi has also begun testing electric buses.
- [Ashok Leyland](#), an Indian automaker, has a bus plant in the UAE and plans to develop the region's electric bus market. They've received orders for 1,400 school buses (including some electric models).
- Chinese manufacturers [BYD](#) and [Yutong](#) are also entering the market, further boosting electric bus adoption.

Electric Vans:

- [Unilever Arabia](#) recently incorporated a [Yaxing](#)-branded electric van into its UAE fleet.
- Traditional automakers like [Renault](#), [Stellantis](#), and [Nissan](#) are capitalising on the light commercial EV market by offering electric vans.

Electric boats:

- [Candela](#), a manufacturer of electric hydrofoil boats, and [Al Seer Marine](#), a global maritime organisation with HQ in Abu Dhabi, recently announced a partnership to produce electric ferry boats for the emirate.
- In 2023, [Crown Electric Ships and Boats Dubai](#) announced that they are going to be setting up an all-electric boat and yacht manufacturing plant in the market. This company has also signed a deal with the [Badr Sultan Group of Kuwait](#) to manufacture a fleet of electric yachts for the region. The deal was valued at \$10 million USD.

Logistics sector:

- Global logistics services giant, FedEx announced in 2022 that they were to start testing electric vehicles to assess their feasibility for daily operations.
- Following this, [FedEx](#) announced in 2023 that they were deploying the first three electric vehicles to its delivery fleet in the UAE.

Government involvement:

- The Abu Dhabi government, through its [Department of Economic Development](#), is specifically looking to boost its electric bus and low-emission lorry production by signing a deal with [Emirates Global Industries \(Alfahim Group\)](#) in 2024 to establish a new manufacturing facility.



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