4SiGHT DRIVE
Our insight drives your foresight

# ACES

**Autonomous** **Connected** **Electric** **Shared**

December 2018

## ACES - Middle East Mobility Trends

A series of research envisaged to track progress of Autonomous, Connected, Electric Vehicles and Shared Mobility in terms of Awareness, Knowledge, Desire and Adoption among customers in Middle East.

This report is from 1st wave of the ACES series, more than 500 daily commuters in UAE & KSA were surveyed in H2 of 2018.


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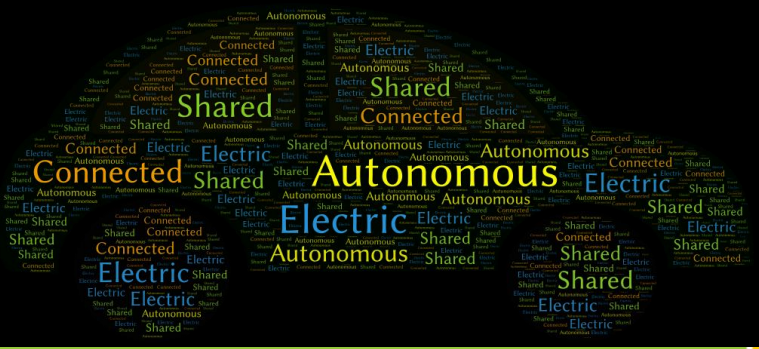


# Survey Sample

In KSA, n=537 daily commuters aged between 18-50 years were interviewed.
59% of respondents are in the age group of 26-35 years. Avg age of the sample is 31 yrs.

Sample consists of 38% females and 62% males and is representative of nationality distribution of the target population in KSA.

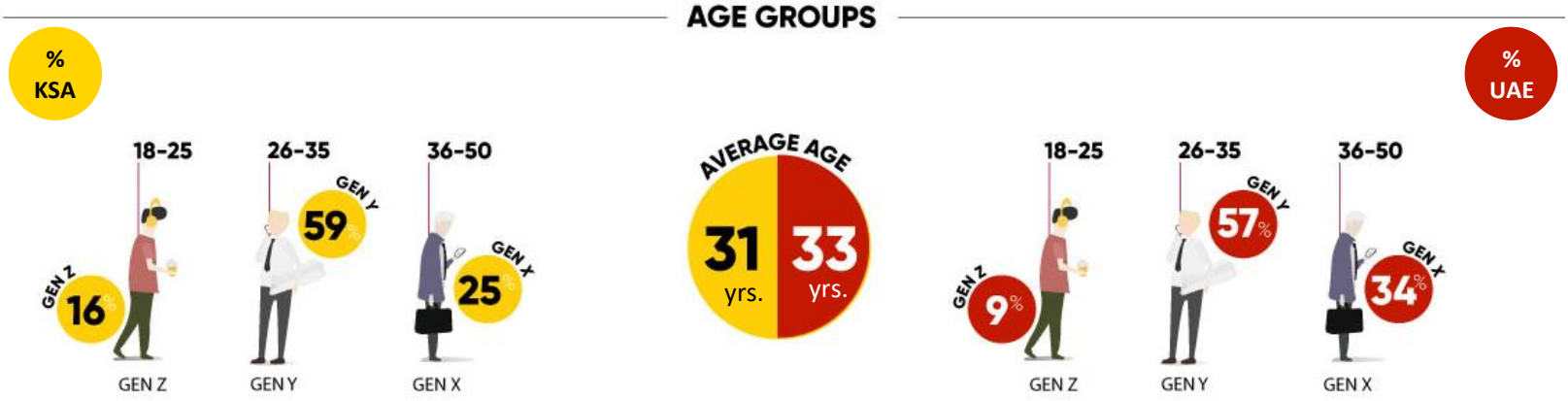
All males were screened to include only valid driving license holders. Females include mix of license holders (59%) and intenders (41%).

In UAE, n=508 daily commuters aged between 18-50 years were interviewed.
57% of respondents are in the age group of 26-35 years. Avg age of the sample is 33 yrs.

Sample consists of 41% females and 59% males and is representative of nationality distribution of the target population in UAE.

All respondents (males and females) were screened to include only valid driving license holders in the survey.

## AGE GROUPS




## GENDER

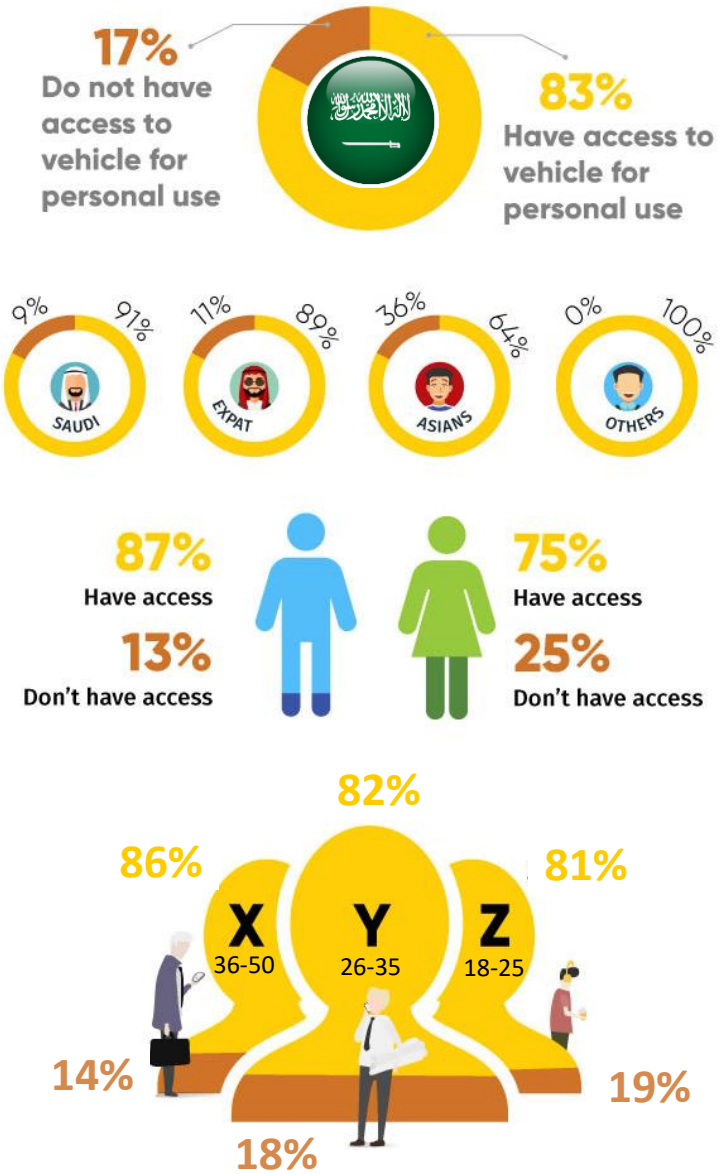

## NATIONALITY

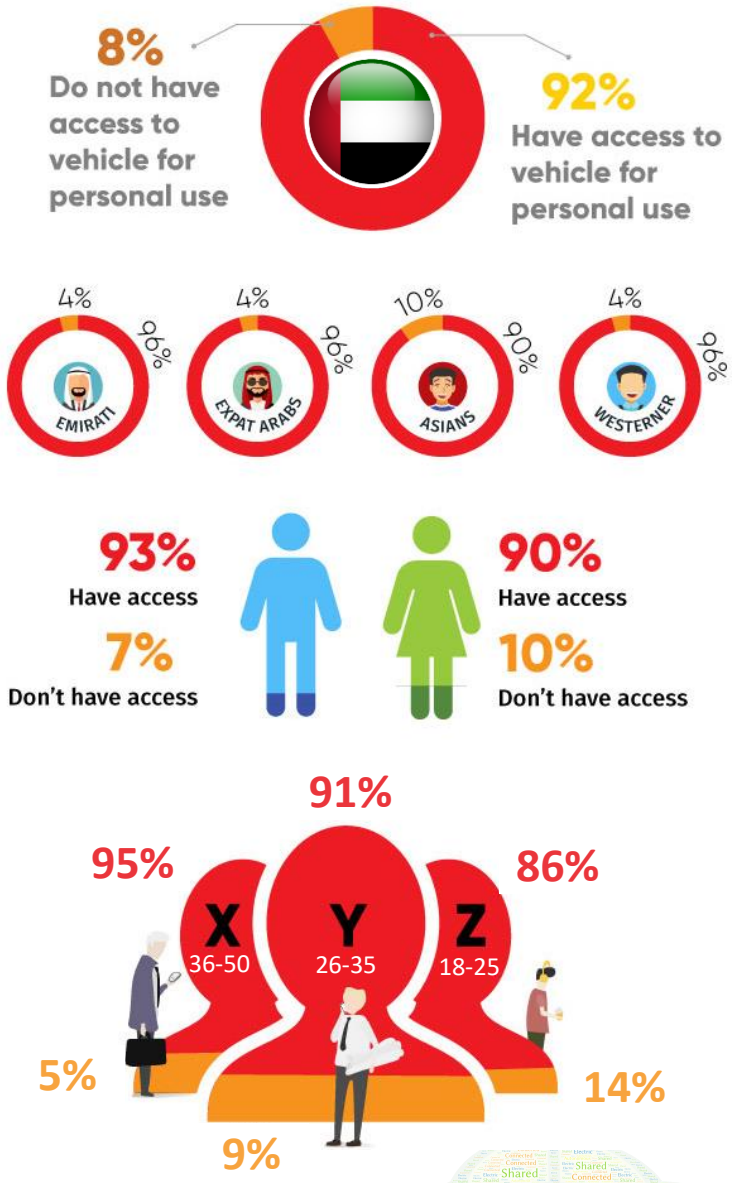

Base: All Respondents

# Current Vehicle

In KSA, 83% respondents had access to a vehicle for personal use.
Adequate spread in sampling is highlighted by the fact that 150 different vehicle models are owned by n=537 survey respondents.
Top 5 models are - Toyota Corolla (7%), Hyundai Accent (7%), Toyota Camry (5%), Hyundai Elantra (5%) and Toyota Land Cruiser (4%).
Only 64% Asian expats had access to vehicle for personal use, while this figure is >90% among other nationality groups. 87% of males and 75% of females had access to vehicle for personal use.

In UAE, 92% respondents had access to a vehicle for personal use.
Adequate spread in sampling is highlighted by the fact that 169 different vehicle models are owned by n=508 survey respondents.
Top 5 models are - Toyota Corolla (6%), Honda Civic (4%), Nissan Altima (4%), Toyota Yaris (4%) and Mitsubishi Lancer (3%).
No major difference in vehicle ownership by gender or nationality. However, probability of vehicle ownership increases with age.



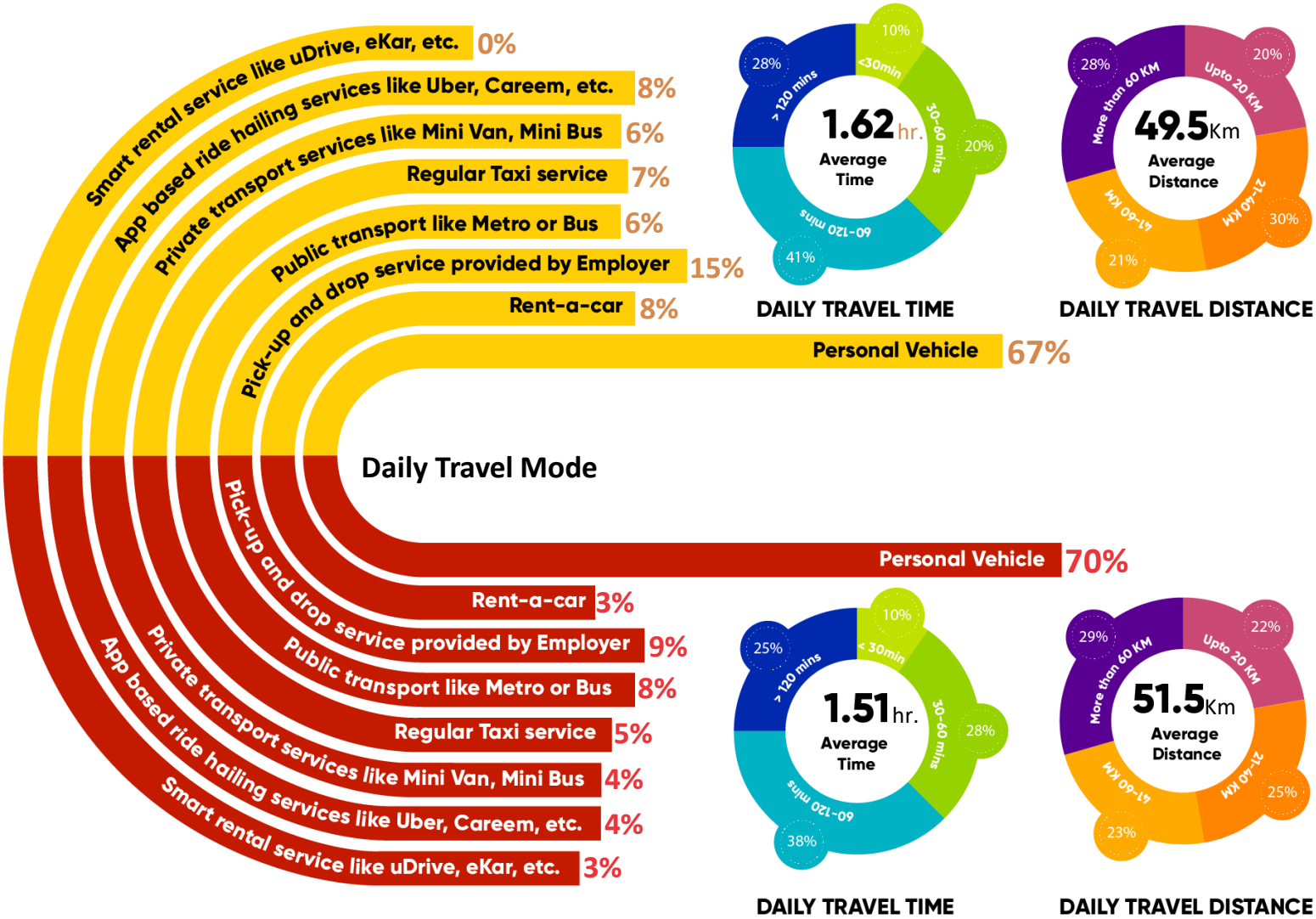

Base: All Respondents

# Commuting Habits

In KSA, survey respondents claimed to travel on an average 50Km and spend 97 mins on average doing this, 28% of them travel more than 60Km everyday.

In UAE, survey respondents claimed to travel on an average 52Km and spend 90 mins on average doing this, 29% of them travel more than 60Km everyday.

In both markets, personal car remains parked for more than 22 hours on a regular day, or in other words, vehicle remains idle for more than 92% of the time.
Proportion of daily users of Uber/Careem is higher in KSA (8%) is twice as much in UAE (4%), it will be interesting to track this trend given the expected surge of Women drivers in KSA.




Base: All Respondents

# ACES Awareness

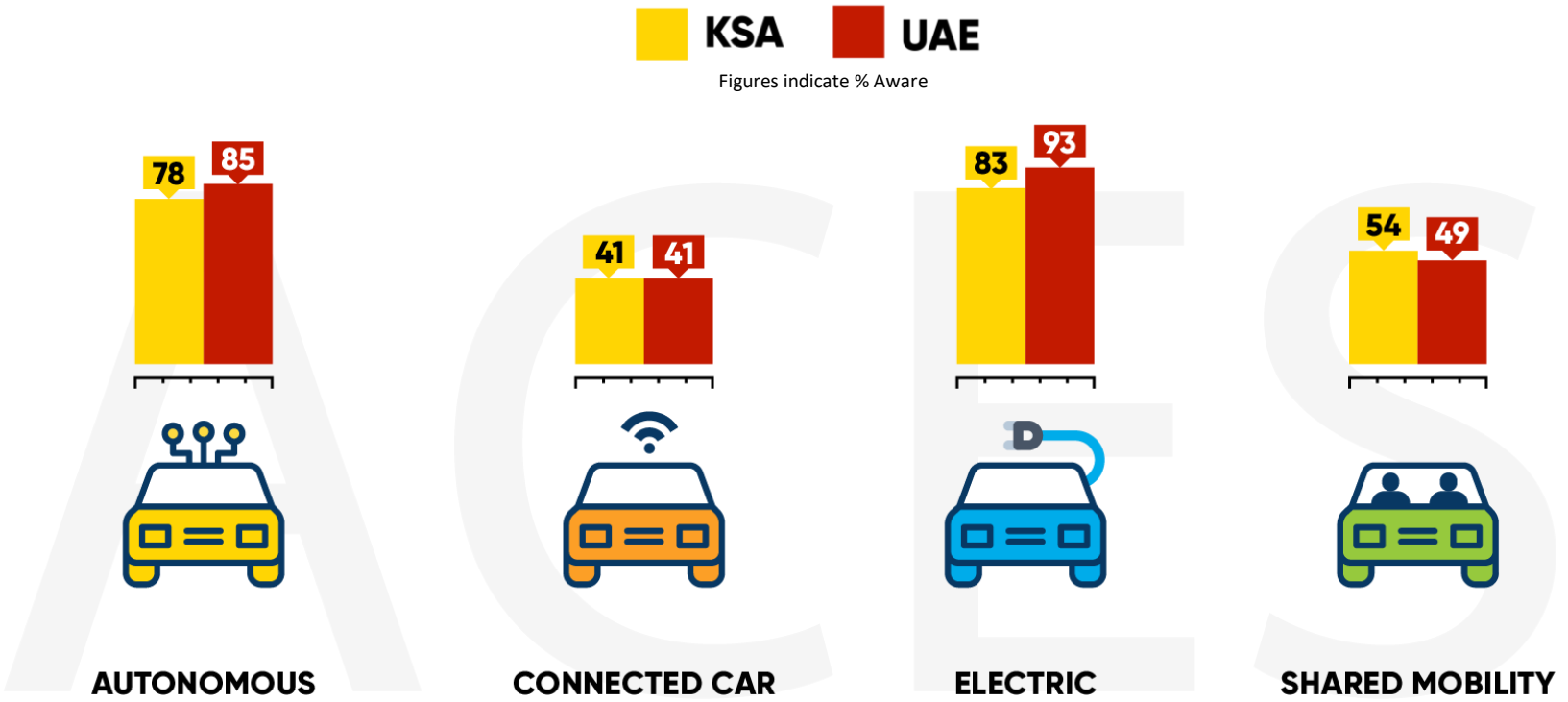
Awareness of 'Electric Vehicle' is the highest among ACES at 83%, followed by Autonomous (Self-driving) at 78%. Awareness of 'Shared Mobility' (54%) and 'Connected Car' (41%) are substantially lower compared to Autonomous and EVs.

Awareness of 'Electric Vehicle' is the highest among ACES at 93%, followed by Autonomous (Self-driving) at 85%. Awareness of 'Shared Mobility' (49%) and 'Connected Car' (41%) are substantially lower compared to Autonomous and EVs.

The buzz around Electric Vehicles and fascination of Autonomous Driving leading to high awareness. However only 2% (KSA) and 8% (UAE) could identify the difference between BEV, HEV, PHEV and FCEV.

Although 'Shared Mobility' and 'Connected Features' have comparatively higher adoption, lower awareness (recall) of these innovations indicate that customers are not sure what is it for them.

Opportunity for OEMs and Mobility solution providers to educate customers and take thought leadership position, thereby drive higher imagery association of these innovations with own brand among consumers.

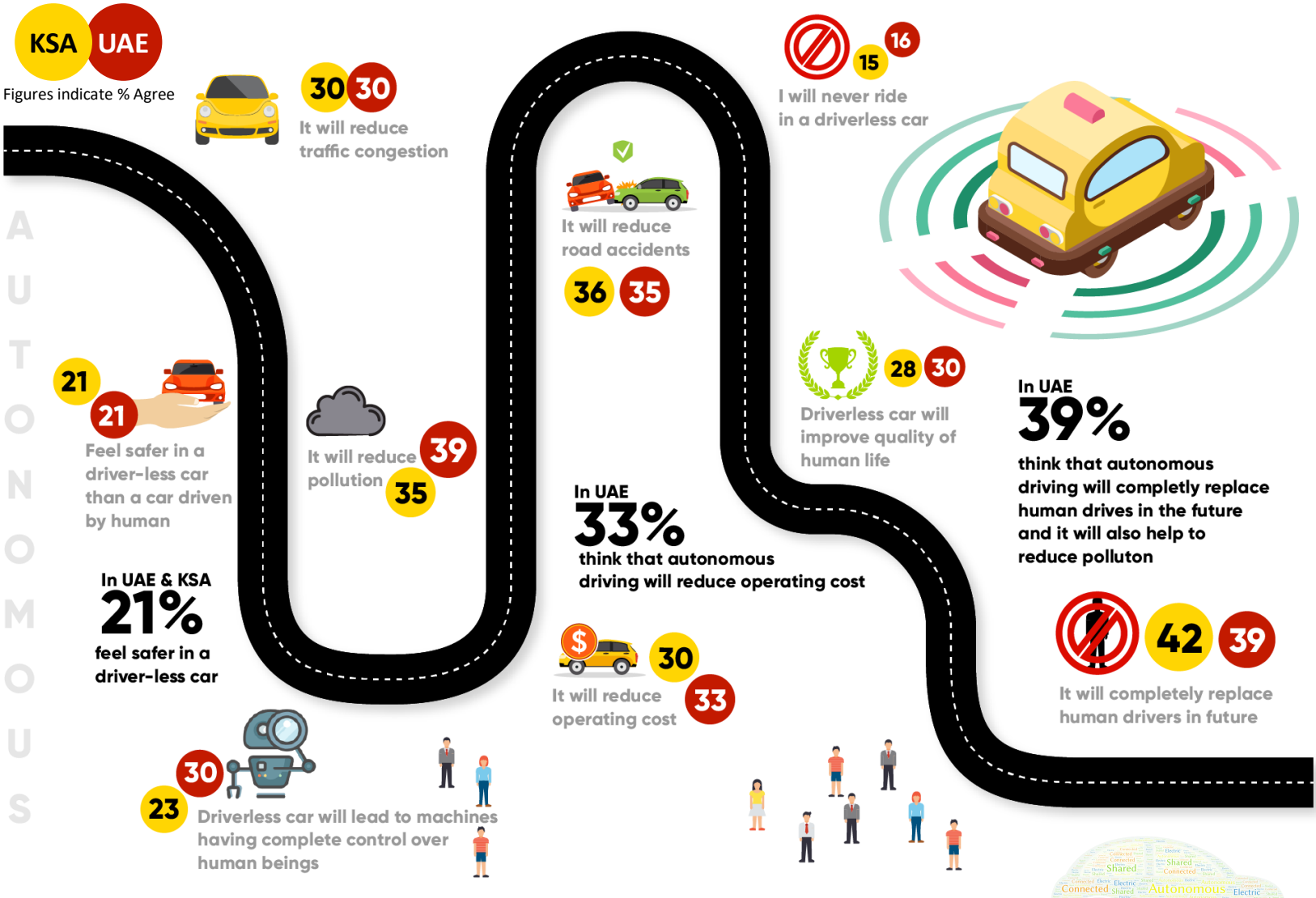



Base: All Respondents

# Autonomous Driving

78% in KSA and 85% in UAE are aware of Autonomous driving.
4 in 10 consumers believe autonomous technology will completely replace human drivers.
3 in 10 feel autonomous car will reduce accidents, cost, traffic congestion and pollution.
2 in 10 will feel safer in self-driven car compared to human-driven car.

OEMs and dealers may consider introducing 'Autonomous Capability Level' stickers, similar to the existing 'Fuel-efficiency' sticker.
This will go a long way in creating product differentiation and building customer expectations.




Base: All aware of autonomous car

# Connected Car

4 in 10 consumers have heard about connected car technology in UAE & KSA.
More than half of those who are aware about connected car believes that it will help to reduce fatal accidents.
While a third of those who are aware about connected car are willing to buy a connected car. But and equal proportion of people also raised concerns about data security, privacy issues and government scrutiny.

Although policy makers are drafting data protection and cybersecurity guidelines pertaining to data collected by connected car manufacturers, from a vehicle owner's perspective it would be imperative to have a clear understanding of the type of data collected and how it is handled.

**31 | 32**

**Willing to buy car with connected features**

**49 | 46**

**Connected vehicle technology enables cars, trucks, buses, and other vehicles to "talk" to each other using in-vehicle or aftermarket devices**

**32 | 32**

**Government agencies will have control over Connected Vehicles, thereby compromising the owner's privacy.**

**34 | 43**

**Vehicle diagnostics and maintenance will be easier and accurate in Connected vehicles.**

**41 | 54**

**Connected vehicles use short-range radio signals to communicate with each other so every vehicle on the road would be aware of where other nearby vehicles are.**

**36 | 42**

**Emergency services like Ambulance will reach faster to Connected Vehicles, thereby improving owner's safety.**

**50 | 52**

**Connected vehicles will reduce the number of fatalities and serious injuries caused by accidents on our roads and highways.**

KSA UAE

Figures indicate % Agree

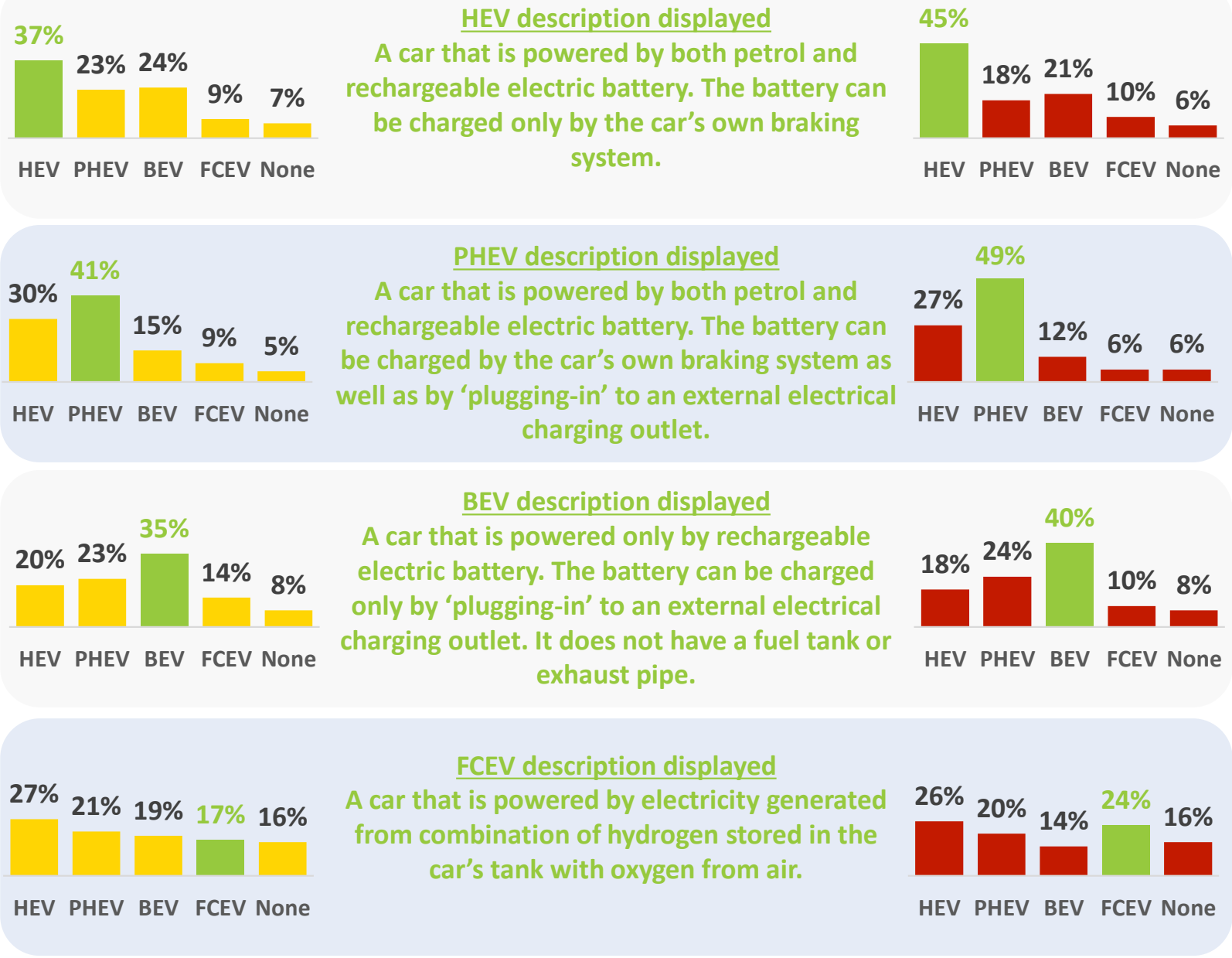
Base: All aware of connected car

# Electric Vehicles: Consumer Knowledge

High awareness of Electric Vehicle, 83% in KSA and 93% in UAE, is understandable given the tremendous buzz it has created in recent times.
However awareness is not progressing into knowledge, only 2% in KSA and 8% in UAE could identify the difference between BEV, HEV, PHEV and FCEV.

For OEMs and dealers to provide product information to their consumers they need to determine which knowledge is needed most by the consumers. The knowledge of product category is an essential part of consumer behavior and purchase process.

**KSA** Figures indicate % associated EV type with the description displayed on their screen **UAE**

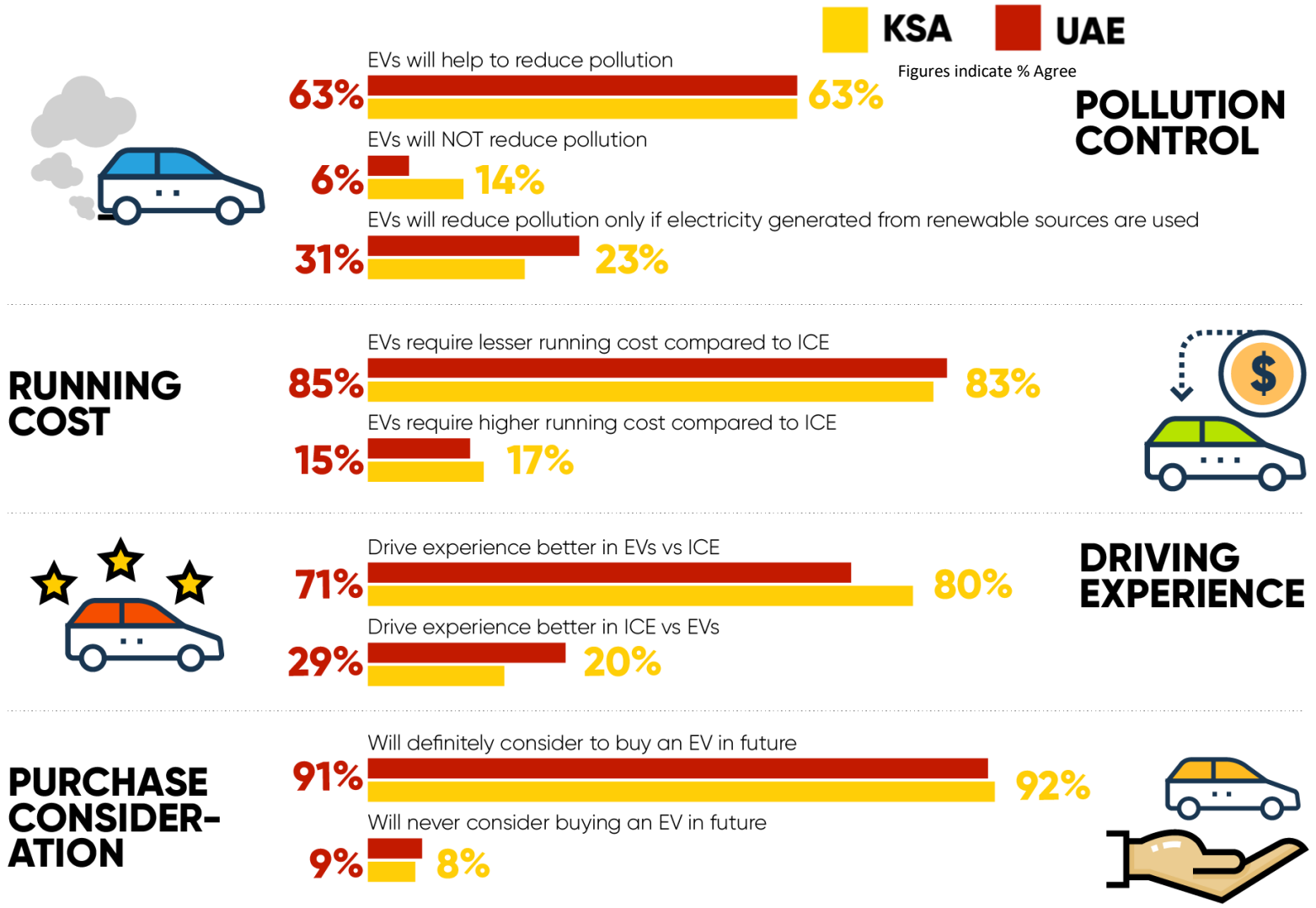



Base: All aware of Electric Vehicles

# Electric Vehicles:
# Perceived Benefits & Purchase Consideration

9 in 10 consumers interviewed in KSA & UAE said they will definitely consider buying an electric vehicle in future.
Although 63% of consumers in both markets believe EVs will help to reduce pollution – 31% in UAE and 23% in KSA strongly feel that EVs will reduce pollution only if energy from renewable sources are used to recharge EV battery.

While benefits to environment by reducing pollution may not be believable to all consumers, savings through running cost certainly seems believable to most consumers. 85% in UAE and 83% in KSA believe EVs require lower running cost compared to a car with petrol engine.



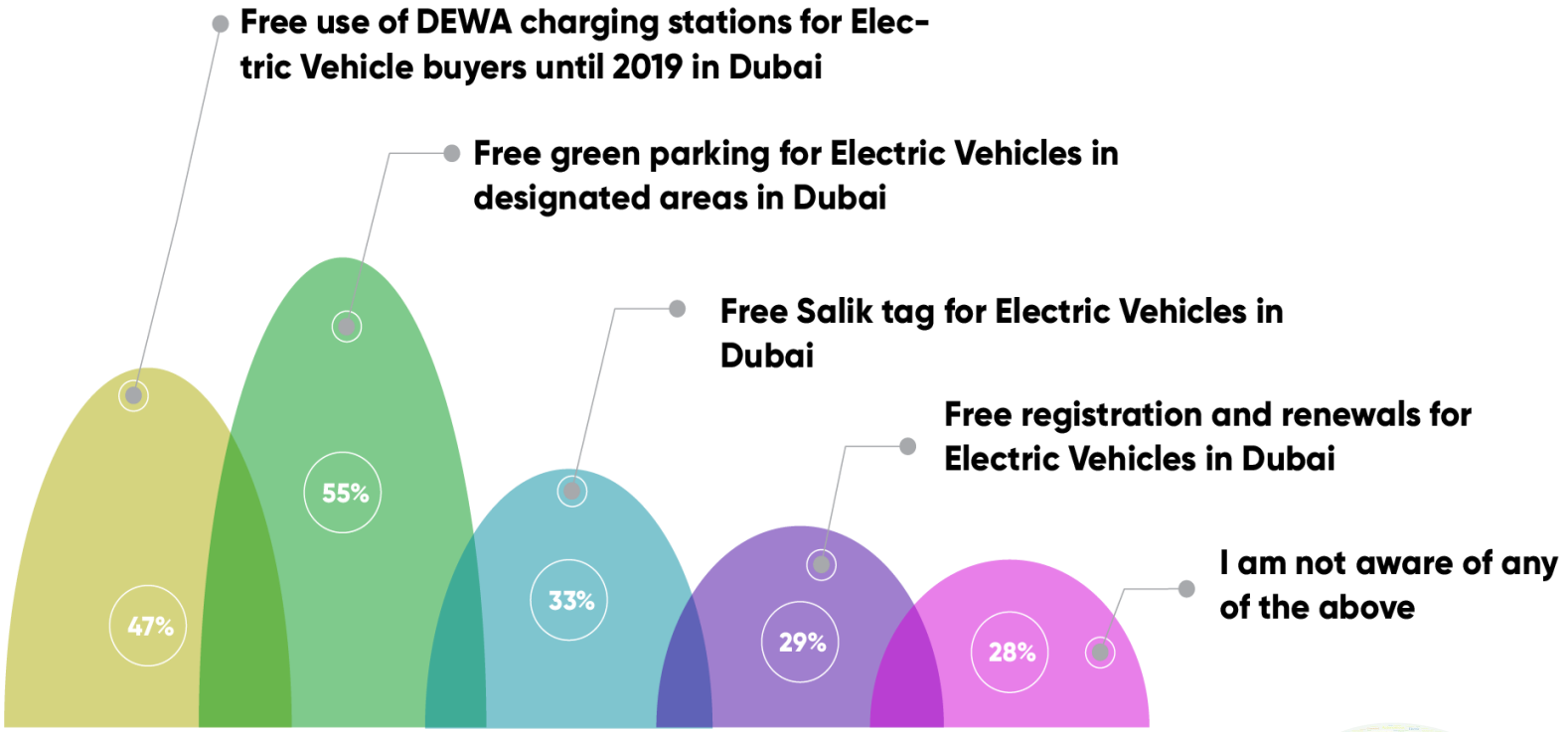

Base: All aware of Electric Vehicles

# Awareness of Benefits for EV Customers in Dubai

72% of respondents in UAE are aware of at least one of the 4 benefits announced by Government in Dubai for customers of Electric vehicles:

- Free use of DEWA charging stations
- Free green parking in designated areas in Dubai
- Free Salik tag
- Free registration and renewals of EV in Dubai

Adoption of ACES will be driven by policy as much as technology.
Real mass impact of innovations at this scale is only possible with sufficient support and development of infrastructure from the policy makers.



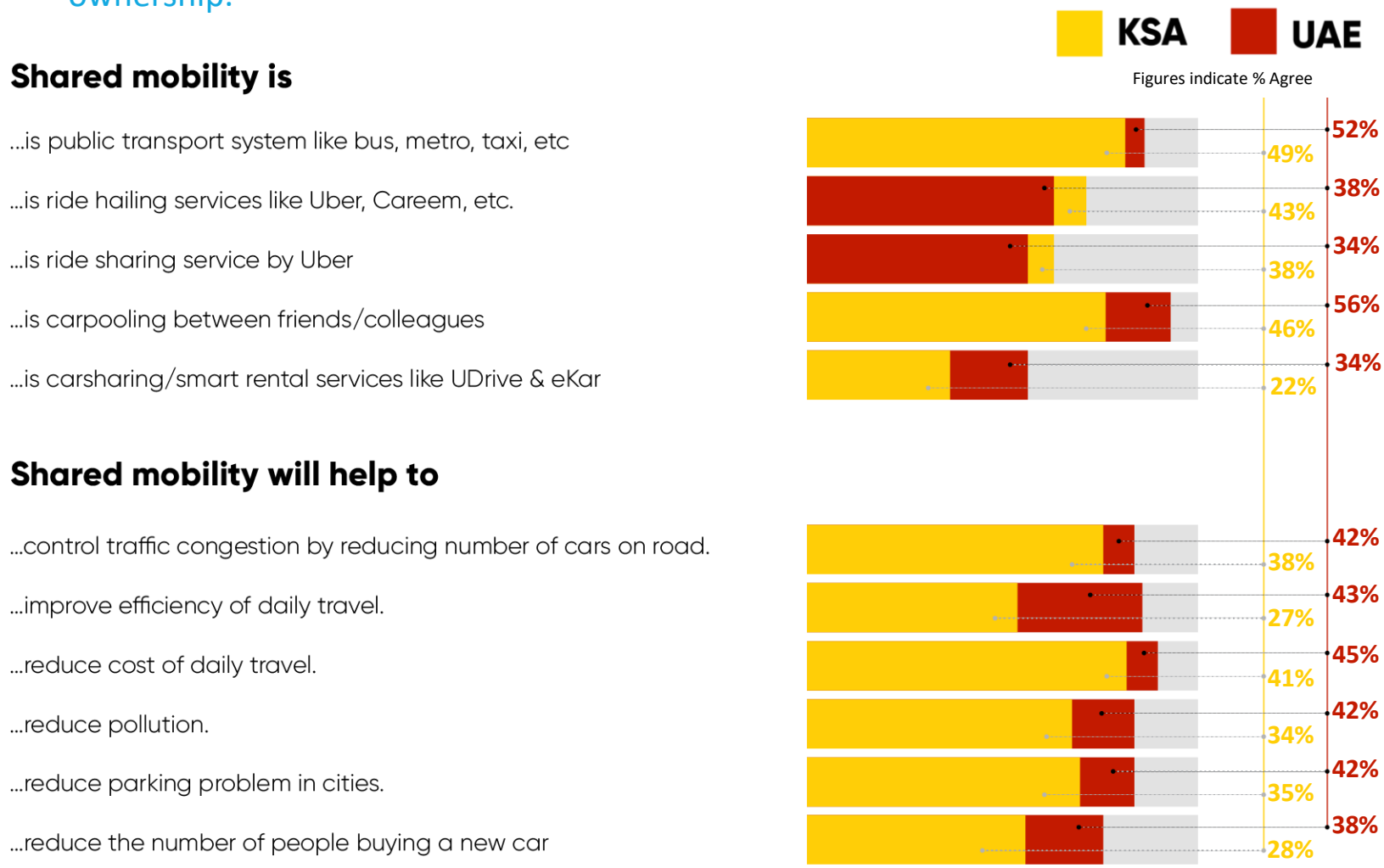

Base: All aware of Electric Vehicles in UAE

# Shared Mobility

Awareness of 'Shared Mobility' (54% in KSA and 49% in UAE) is substantially lower compared to Autonomous and Electric vehicles.
For most consumers shared mobility means public transport system or carpooling with friends and colleagues. They expect shared mobility will reduce cost of daily travel.

In both markets, personal car remains parked for more than 22 hours on a regular day, or in other words, vehicle remains idle for more than 92% of the time.
How to unlock this potential?

Although there is still a sizeable market where the vehicle has to be positioned as a status symbol, one that emphasizes the individuality and personality of it's owner.
On the other hand an automobile is increasingly seen strictly as a utility, rather than part of one's identity, given the notable decrease observed in individual car ownership.




Base: All aware of Shared Mobility

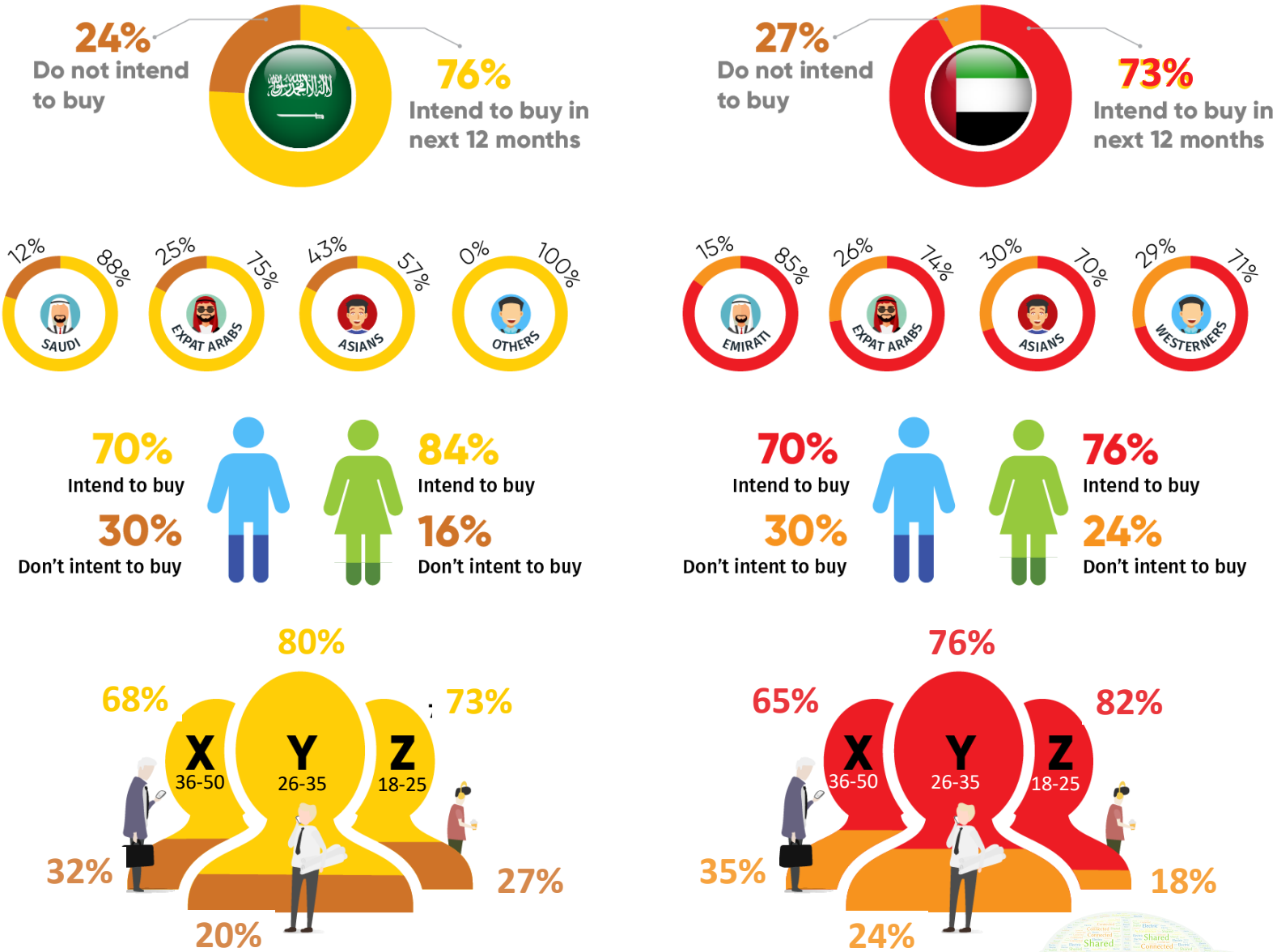
# New Vehicle Purchase Intention

In KSA, 24% of surveyed sample do not intend to buy a vehicle in next 12 months. 5% neither have access to a personal vehicle nor intend to buy in near future – majority are Asian Expats aged 18-25 years.

Note: In KSA, all males were screened to include only valid driving license holders. Females include mix of license holders (59%) and intenders (41%).

While in UAE, 27% of surveyed sample do not intend to buy a new vehicle in next 12 months. Only 1% do not have access to a personal vehicle and nor intend to buy in near future.

Note: In UAE, all respondents (males and females) were screened to include only valid driving license holders in the survey.




Base: All Respondents

# What Next?

Over the last century progress made in transportation sector and inventions like mobile phones and internet played a huge role in transforming the daily life of consumers. World in 20th century became smaller, more accessible and connected compared to how it was in 19th century.

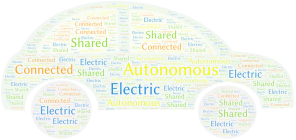
Now in the 21st century, ACES innovations has brought automotive industry to the same stage where smart phone technology had brought mobile phone industry 10 years back in 2008.

Autonomous, connected cars running on alternate fuel and shared by multiple users are ushering in a new era of travel that is efficient, affordable, clean and green.

Vehicles are already becoming more engaging and opening up next level of possibilities. Experts are predicting ACES will transform the way people travel and shape the future of mobility, smart cities, and interactive communities.

However, it remains to be seen if ACES innovations will push consumers further into the digital based social life and virtual reality, which is already witnessing alarming rate of increase in incidence of loneliness and isolation from real world.

Opportunity for stakeholders in automotive industry to stand up and take the responsibility of guiding consumers to connect more efficiently with real surrounding by making available right technology at the right time to consumers.

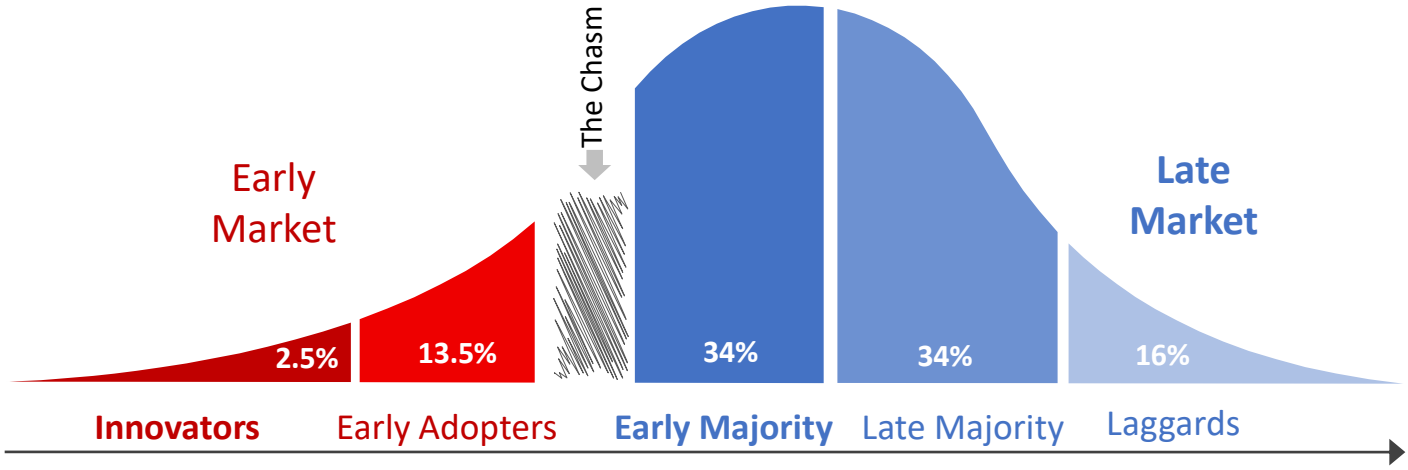


# What Next?

In terms of adoption of ACES in KSA & UAE, there are visible signs of pull from OEMs and push from policy makers.

- For example, the Supreme Council of Energy in Dubai is working to increase the percentage of electric and hybrid cars in Dubai. It has set a target for the government: at least 10% of all newly-purchased cars will be electric or hybrid from 2016 to 2020. The proportion of electric and hybrid cars will rise to 2% by 2020, and 10% by 2030 – source: Gulf News.
- Similarly, in terms of Autonomous driving, the Dubai Future Foundation in conjunction with Dubai's Roads and Transport Authority launched the 'Dubai Autonomous Transportation Strategy'. The strategy aims to transform 25% of the total transportation in Dubai to autonomous mode by 2030.

Considering diffusion of innovation theory, the industry has considerable distance to cover before they fully entrench the early market (share of 16%), which means we are still some distance from reaching or crossing the chasm. Long way to go…




Decision makers across Automotive and Mobility industry are anxious to know exactly how consumers would react to these new innovations.

4SiGHT will continue to track the developments in Middle East through the ACES Series. Watch out for more in 2019.

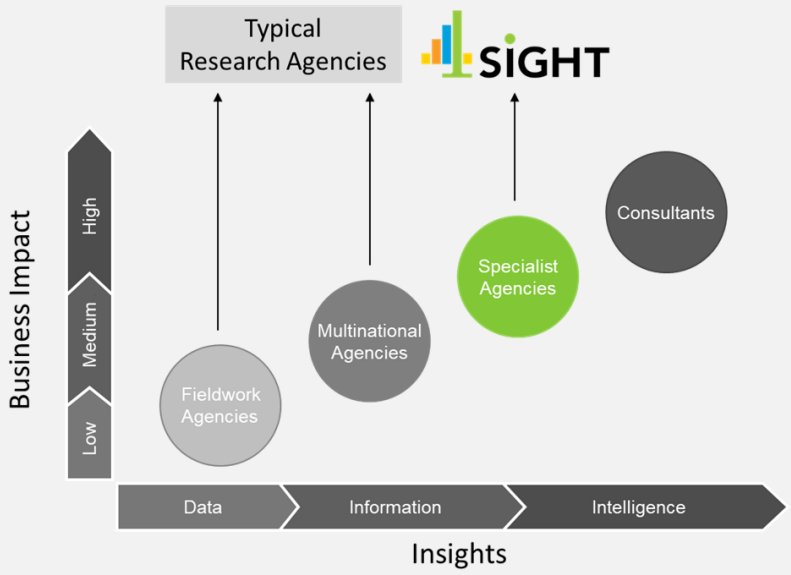
Thank you for reading!

# About 4SiGHT

4SiGHT Research & Analytics is one of the fastest growing market research agency in the region with offices in UAE (Dubai), Saudi (Riyadh & Jeddah) and team in India (Delhi and Madurai). In 2017 4SiGHT became the 4th largest market research agency in Middle East … Largest boutique consultant

4SiGHT Drive is Automotive & Mobility research division of 4SiGHT Research & Analytics.

We are a specialist consultancy offering **insight** based solutions for **leading Auto Brands** assisting them in effective and profitable decision making.




## 01 Our Automotive Expertise

Led strategic and tactical research across leading local, regional and global auto brands in the region.
Delivered insights and analytics requirements to automotive sector helping them in policy making and administration.

## 02 Our Technology Enabled Smart Solutions

We are a team of technology oriented research experts. We look to offer smart solutions be it data collection, dissemination and data harvesting. We have worked with clients to develop innovative custom solutions.

## 03 Our study approach & design

Is holistic, starting with harvesting insights from past, bringing-in stakeholders to contribute to the project to bring actionability, a business centric design, collection and analytics frameworks to benefit with most efficient outcomes.

## 04 Our team

Senior team of consultants (domain experts, qualitative, quantitative & analytics), who are fully hands-on, through the project lifecycle. A team that is extremely consultative in their approach with client centric ethos.