

Electric Vehicles

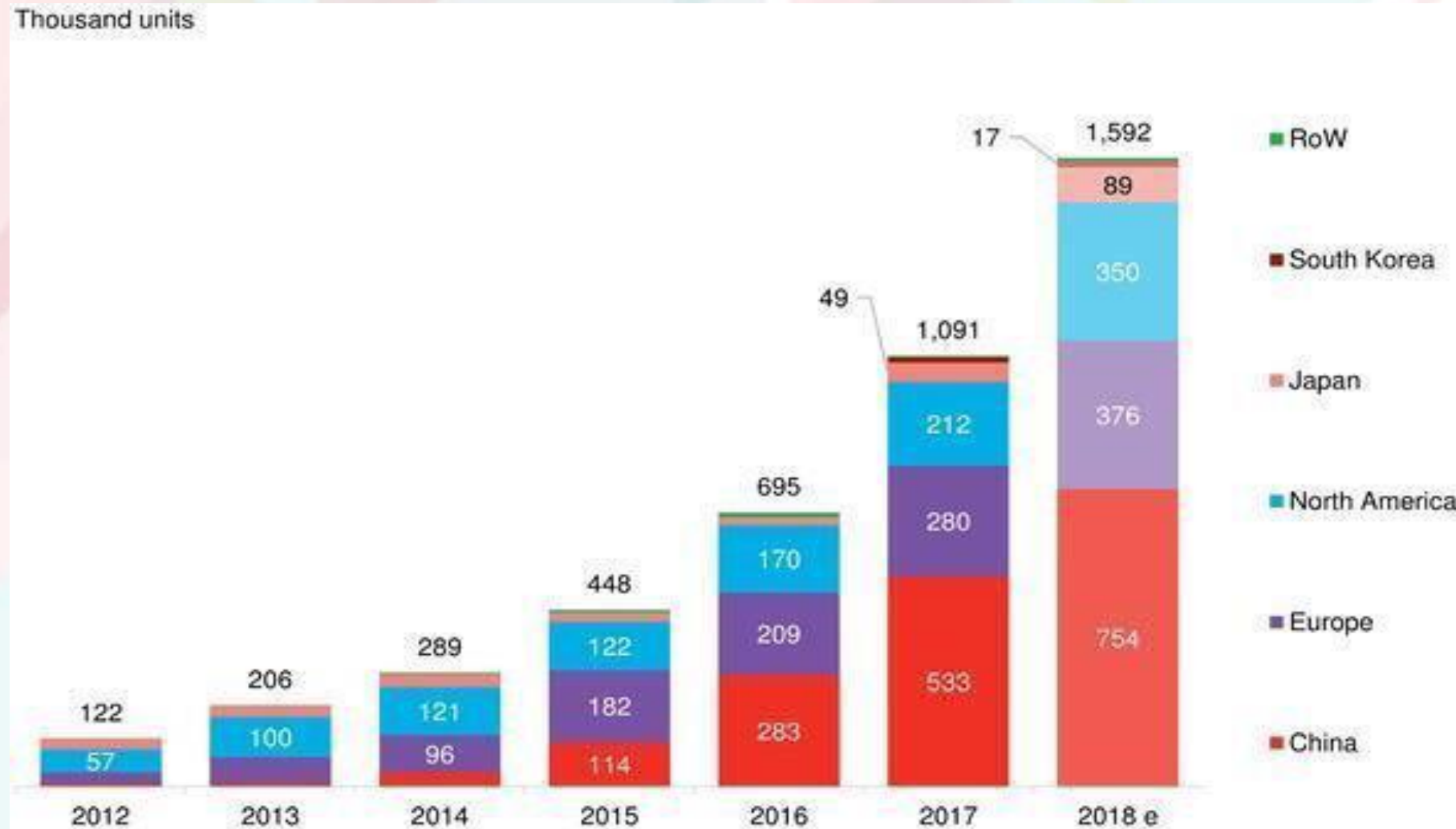
David Beeton



27th CAREC ESCC MEETING

13-14 March 2018, Yyldyz Hotel Ashgabat, Turkmenistan

Global EV Markets are Accelerating



Source: BNEF

Why Invest in EVs?

Emissions and air quality

90%

Nearly 90% of deaths linked to air quality occur in low- and middle-income countries.



Why Invest in EVs?

Reduced dependence on oil

**\$190
million**

Estimated annual savings in the cost of oil imports from a 10% EV fleet in Pakistan, Afghanistan, Kyrgyzstan and Georgia



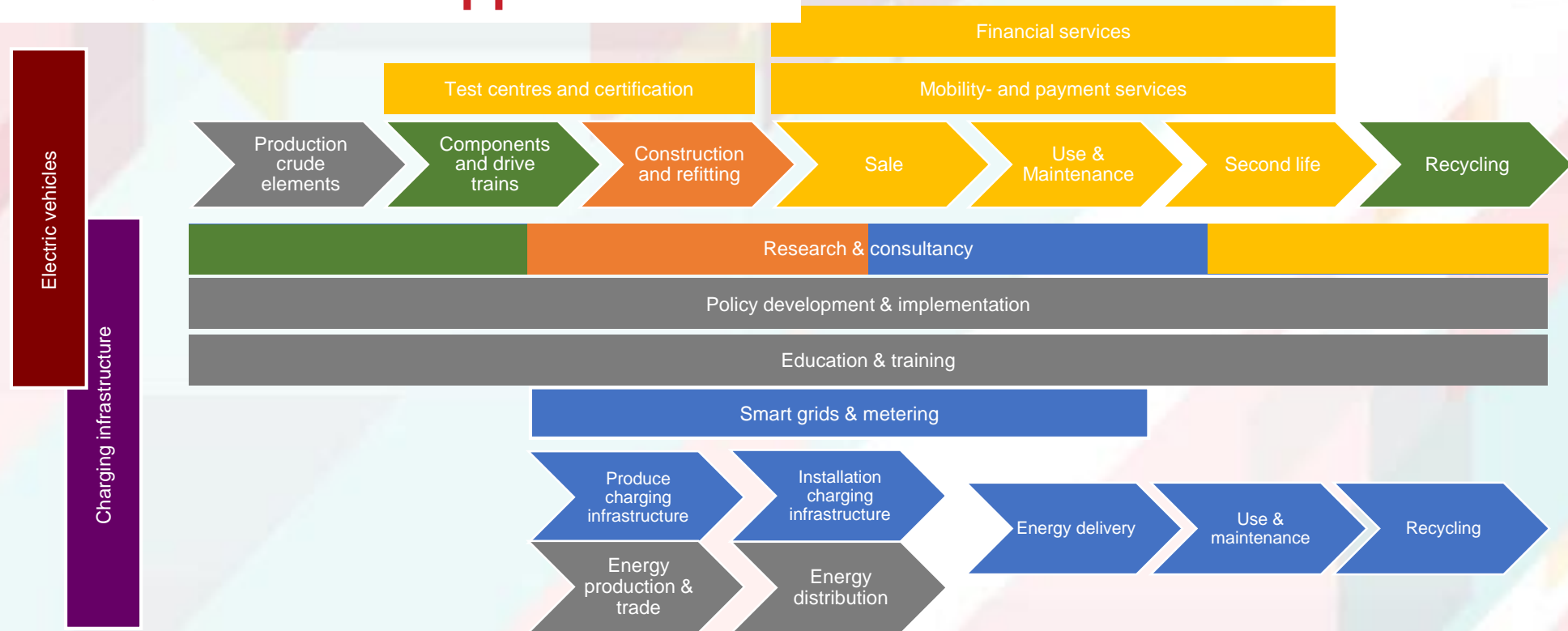
Why Invest in EVs?

Exploiting renewable resources



Why Invest in EVs?

Job creation & economic opportunities



- Vehicle construction and refitting
- Drivetrain & components, battery management and information systems
- Financial, payment, mobility and other services
- Charging infrastructure and smart grids
- Equally part of other sectors

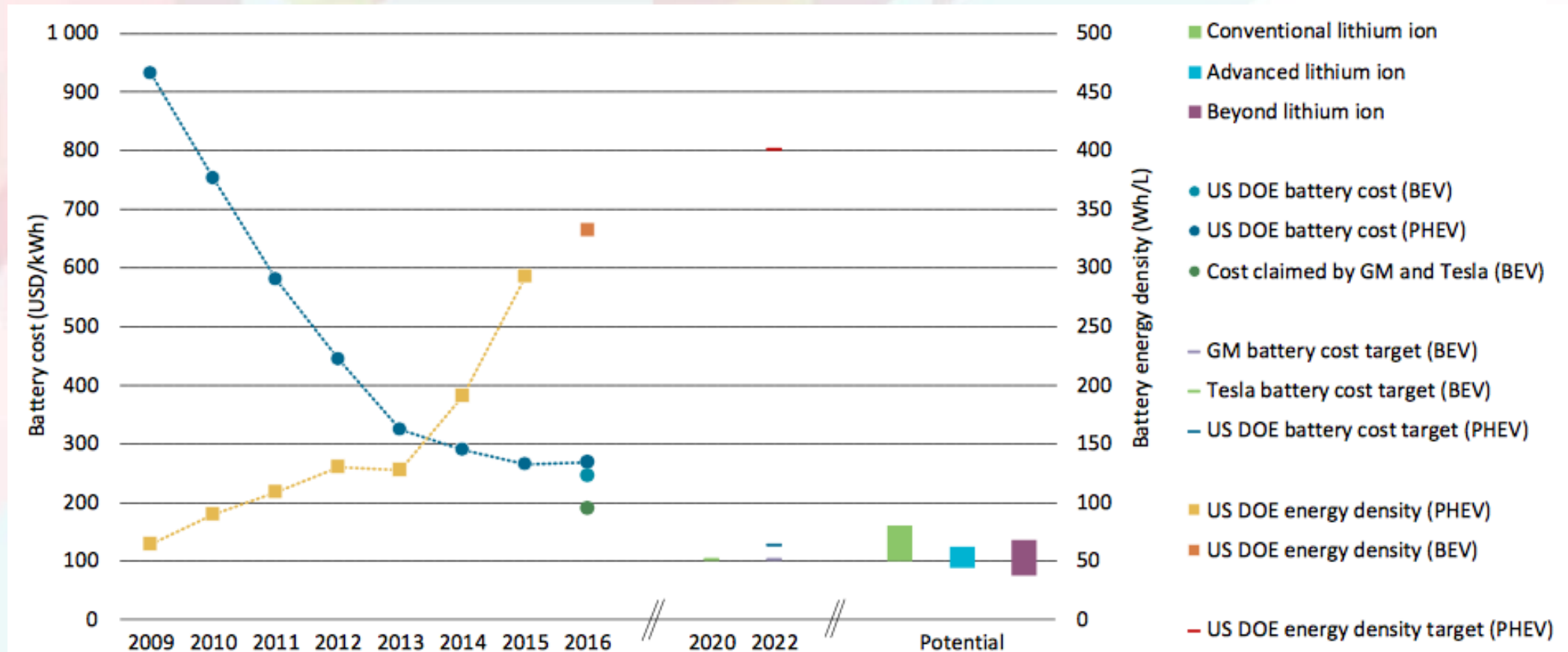
Why Invest in EVs?

Connectivity



What are the trends & opportunities?

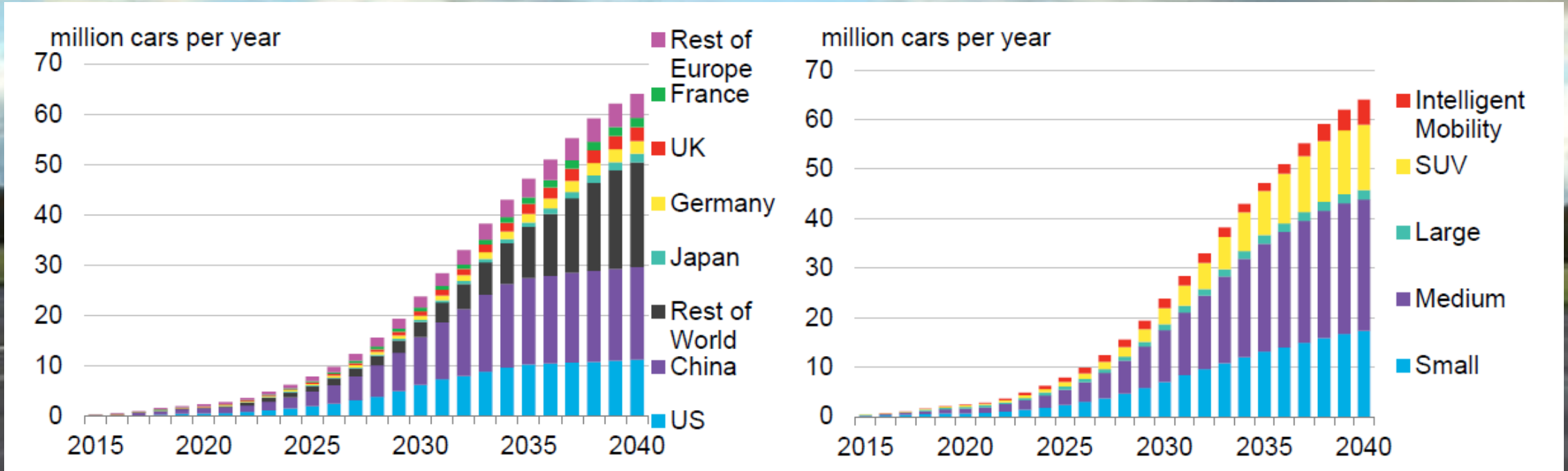
Decreasing costs of lithium ion batteries



Source: IEA/ US DoE

What are the trends & opportunities?

Electric cars



Source: BNEF



What are the trends & opportunities?



Buses

Nearly half of the municipal buses on the road worldwide will be electric within seven years (BNEF, 2018)

Target for 10,000 electric buses in India

16,759 electric buses in Shenzhen



Taxis

Target for 67,000 electric taxis in Beijing

Opportunities for electric quadricycles and tricycles in CAREC countries



Motorcycles & scooters

Asia-Pacific electric scooters and motorcycles market \$9.1 billion in 2016

Forecasted to reach \$14 billion by 2025

How can this happen in CAREC countries?

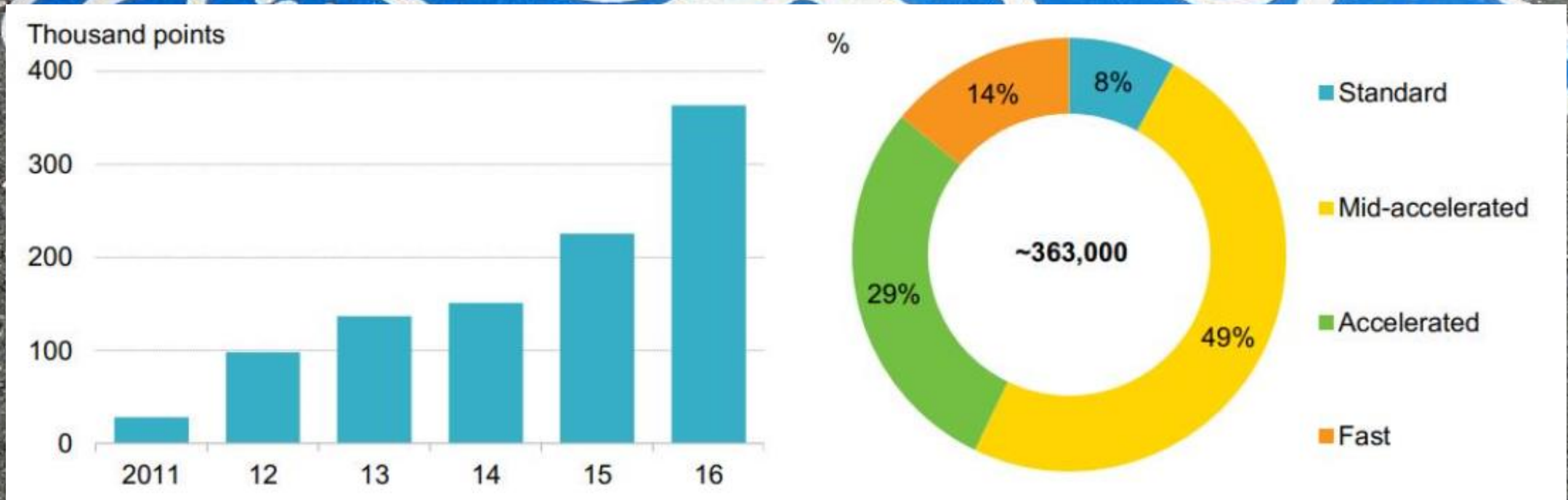


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**Lessons from
leading EV markets**

How can this happen in CAREEC countries?

Infrastructure



Numbers of charge points globally and by type (source: BNEF)

How can this happen in CAREEC countries?

Incentives



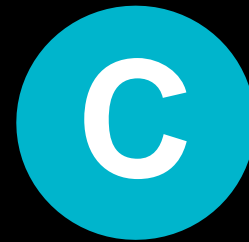
PARKING



INFRASTRUCTURE
PROVISION



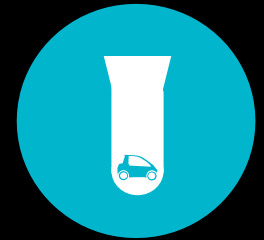
PLANNING



ROAD ACCESS
AND CHARGING



ECONOMIC
DEVELOPMENT
& TOURISM



PILOTS & TRIALS



TAXIS &
PRIVATE HIRE
VEHICLES



INTEGRATION
WITH WIDER
TRANSPORT



CAR SHARING



PROCUREMENT



EDUCTAION &
PROMOTION



FINANCIAL
MEASURES

How can this happen in CAREEC countries?

Communications





”

Your future is whatever you make it.

So make it a good one.

”

Doc Brown, 1990

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