



Promoting E-mobility in Vietnam

Le Anh Tuan | Hanoi University of Science & Technology (HUST)

ASEAN Energy & Utilities DIGITAL WEEK – 7 July 2021

LE ANH Tuan Professor, PhD.

[Google Scholar](#)

Scopus Author ID: [57204435768](#), [57218719381](#)

ORCID number: [0000-0003-4609-0382](#)

CONTENTS

- Overview of Vietnam's transport sector
- Sustainable development in the transport sector
- Electric vehicle market in Vietnam
- Policies for e-mobility deploy



Overview of Vietnam's transport sector





Overview of Vietnam's transport sector

Being in a period of strong development state

- Average annual growth rate of transportation: **10%/yr** (all modes)
- Number of road motor vehicles is increasing rapidly:
 - 13.7%/yr** for car
 - 9%/yr** for mortorbikes and mopeds

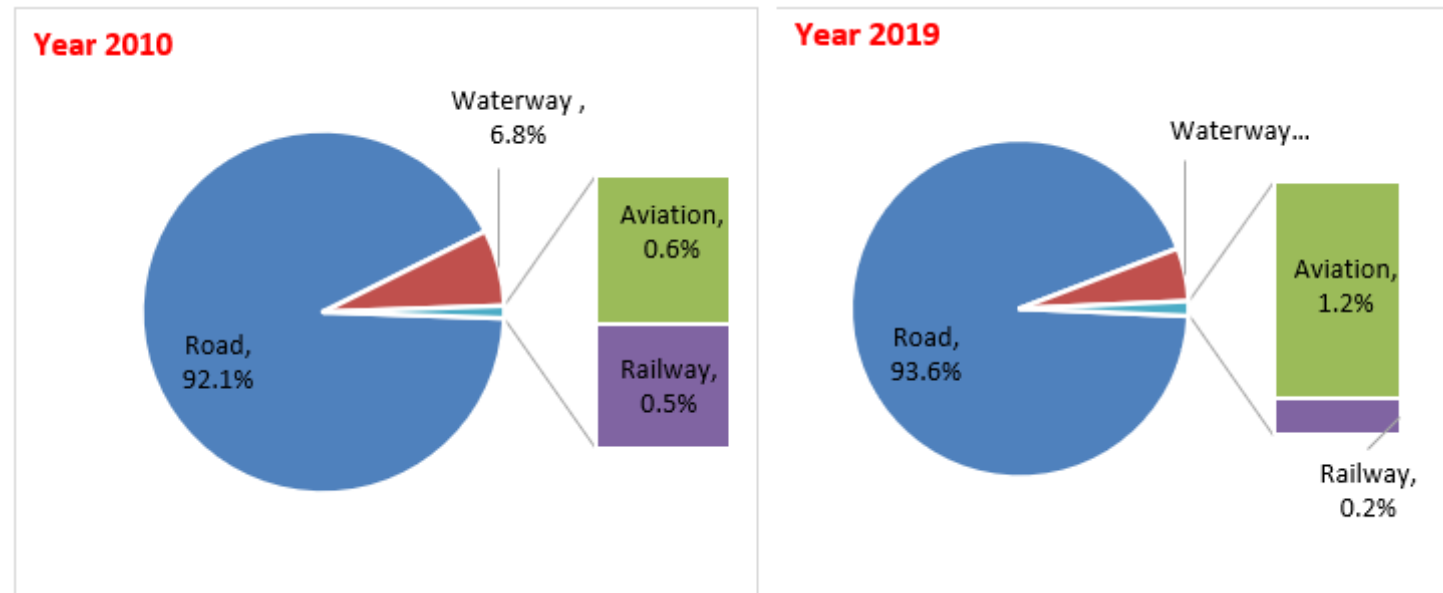
*(Source: Transport and Logistics
Statistical Yearbook 2018, TDSI)*

(Average annual growth rate for the period of 2014-2018)

OVERVIEW OF VIETNAM'S TRANSPORT SECTOR *(cont.)*

- Low public transport share: ~ **14%** (Hanoi), ~ **10%** (Ho Chi Minh city) in 2017
- Share of motorcycles in circulation is still highest (~**92%** nationwide; ~ **84%** Hanoi)
- Being in a drastic transition stage between the mode of transport

Change in passenger
transport mode of
period 2010-2019



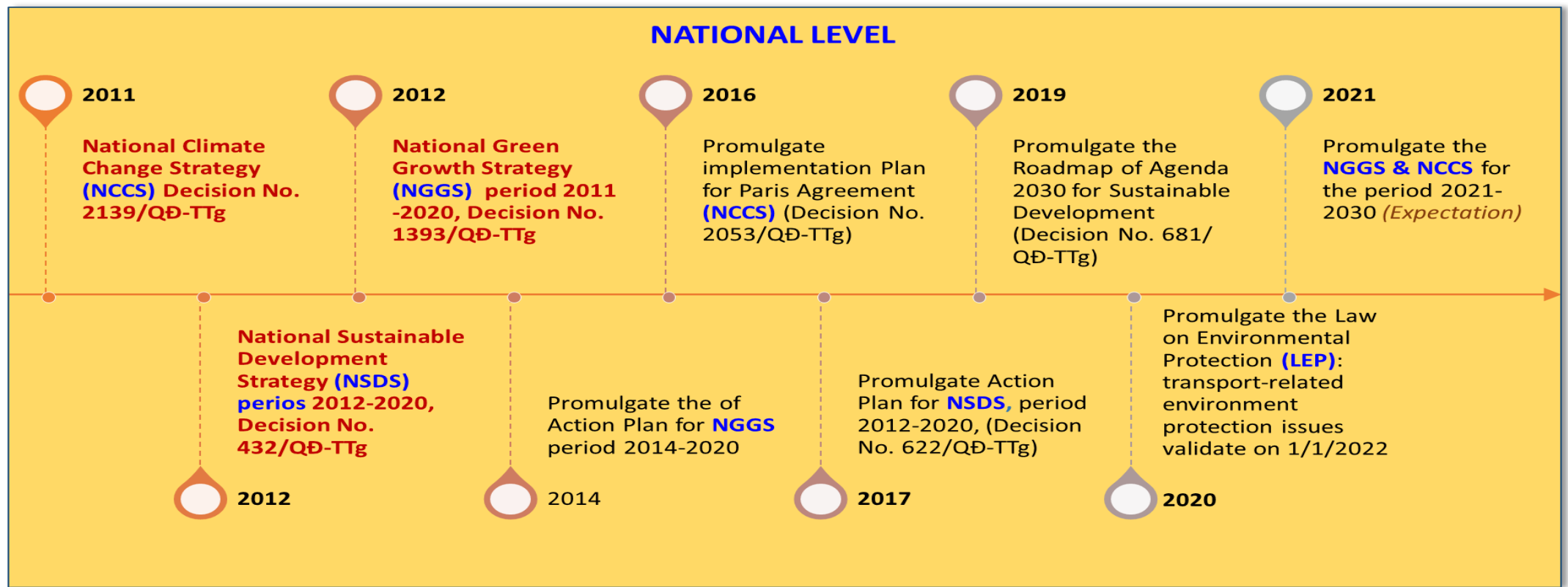
(Sources: General Statistics Office of Vietnam; the statistic data of the Department of Environment)

Strongly increased in aviation: 16.2% (passenger) & 10% (freight). However, road transport still holds the largest proportion.

Why Choose Sustainable

SUSTAINABLE DEVELOPMENT IN THE TRANSPORT SECTOR

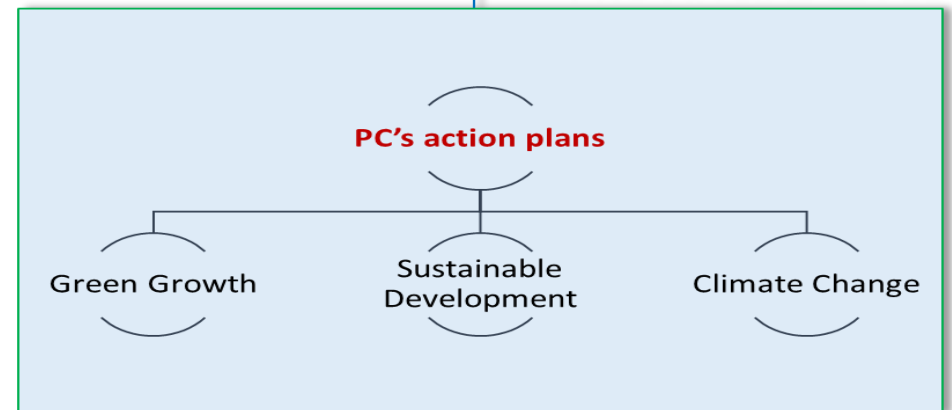


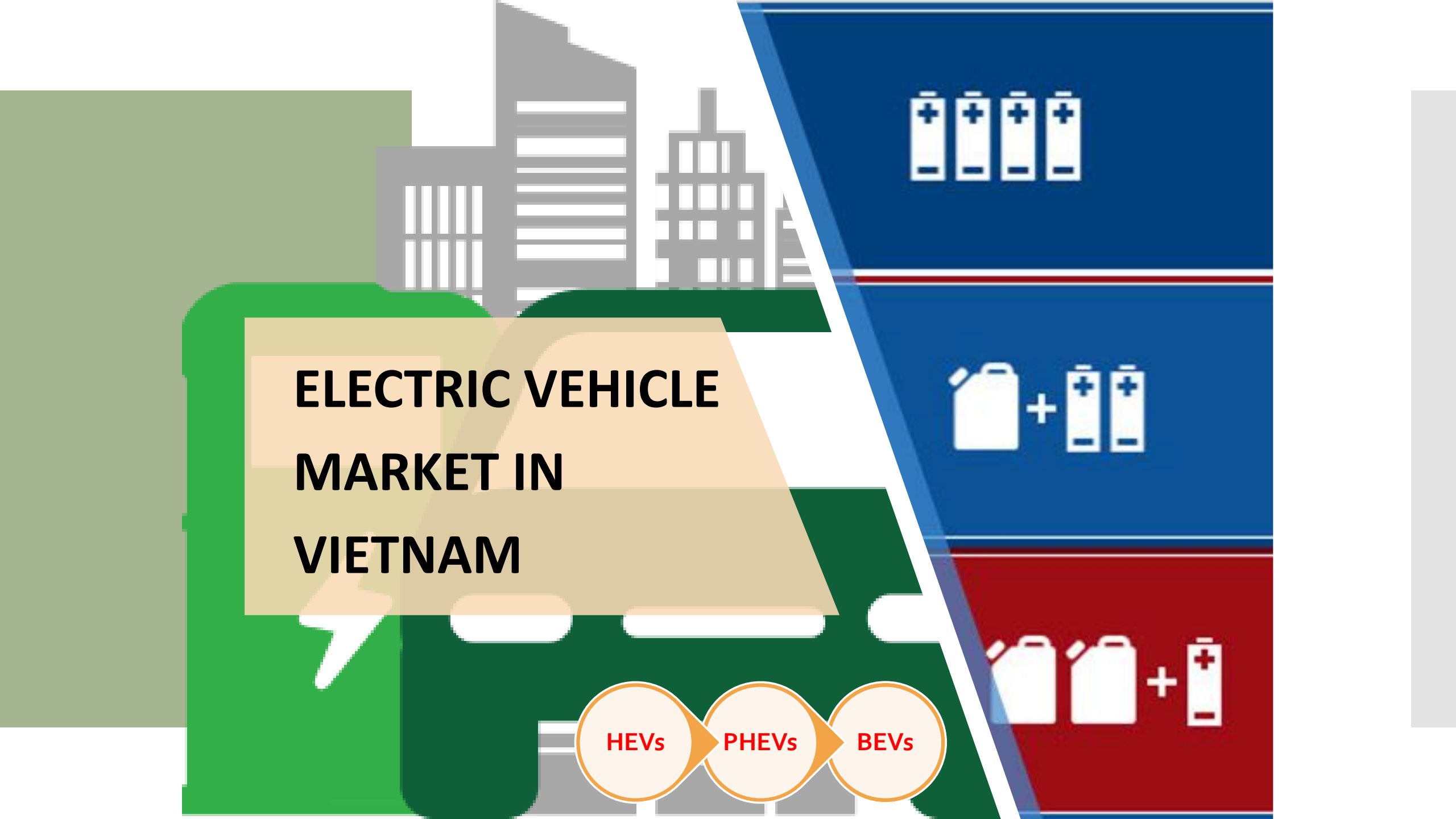


SECTORAL LEVEL



PROVINCIAL LEVEL





ELECTRIC VEHICLE MARKET IN VIETNAM

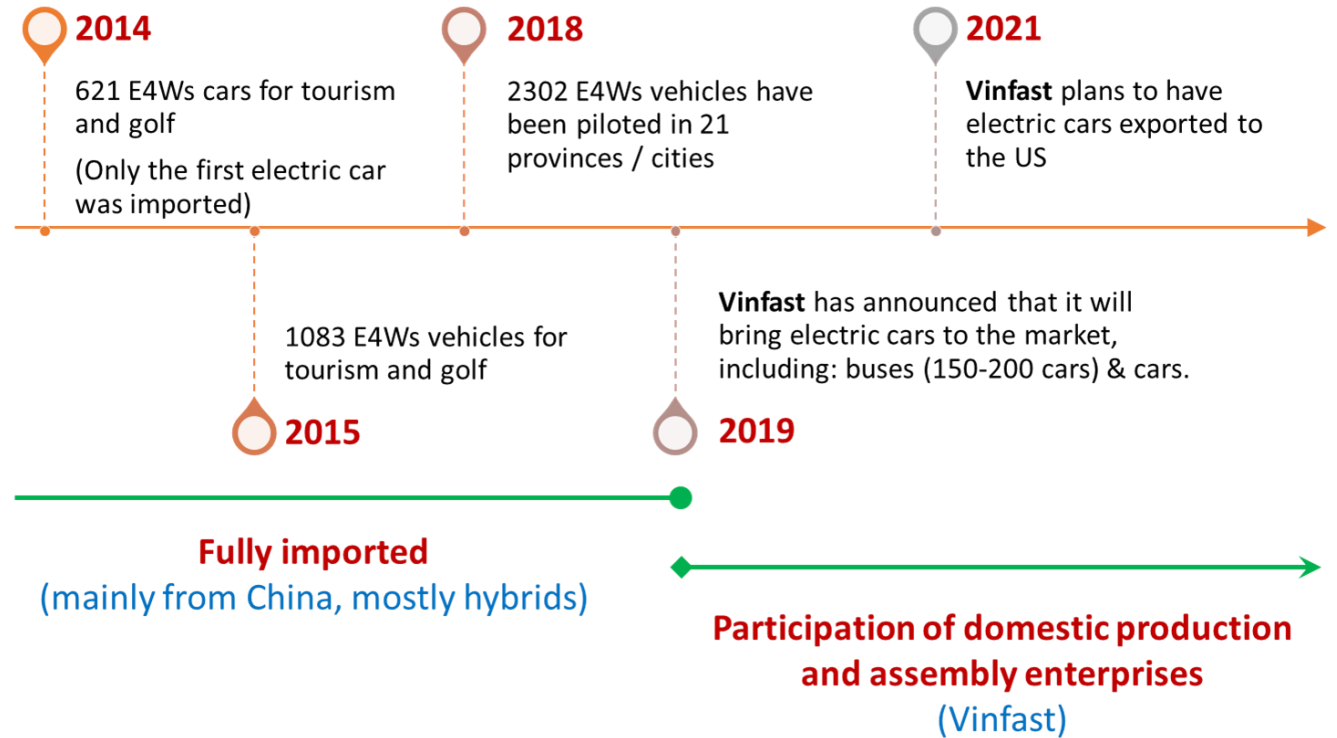
HEVs

PHEVs

BEVs



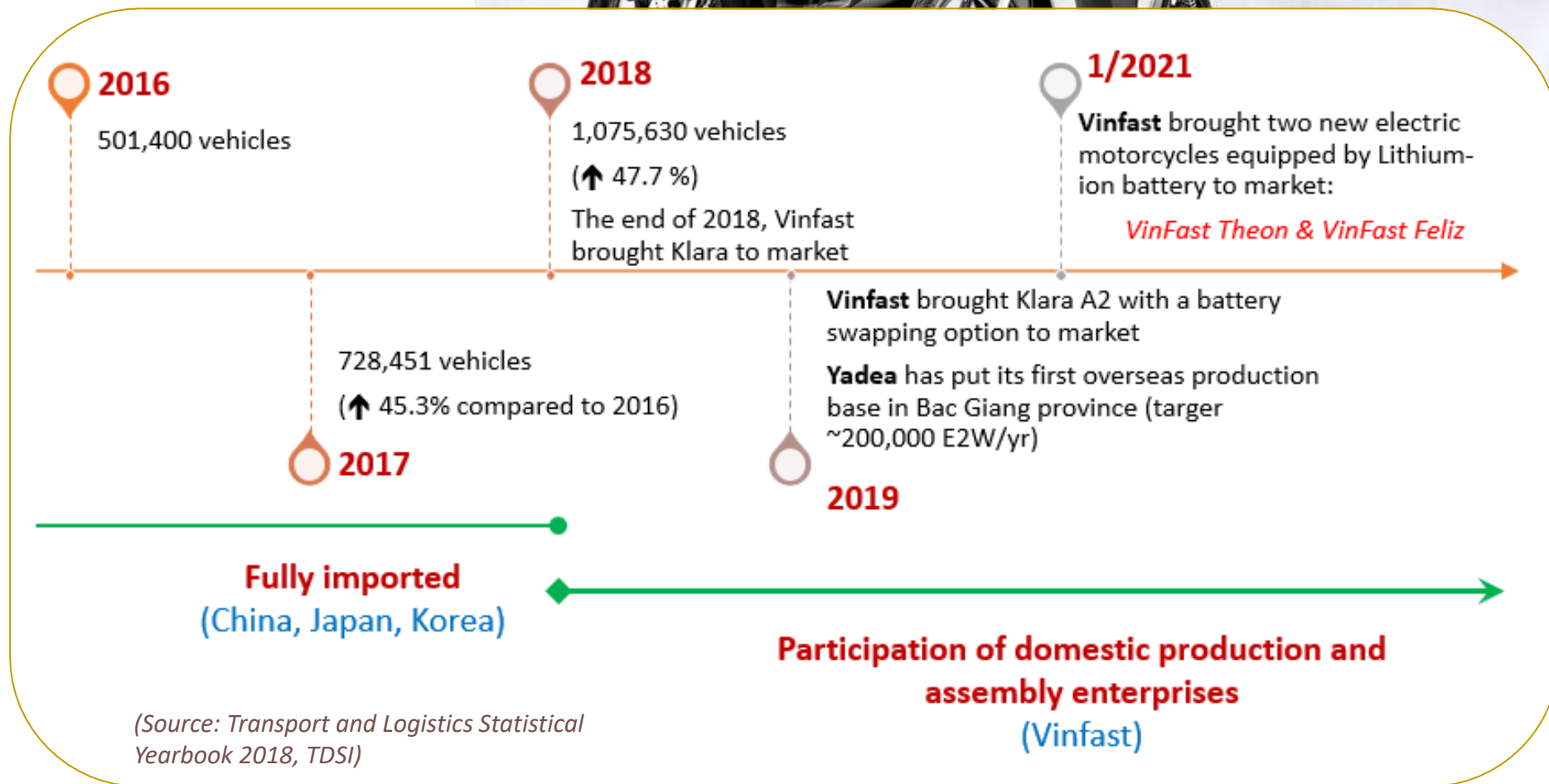
E4W vehicle market



(Source: Study of Electric Mobility Development in Vietnam, NDCTIA, 2020)

Penetration of E2W into the Vietnam's market

(Electric motorcycle)



Domestic production and assembly in the period 2014-2020



E-bikes

- Downtrend
↓ 15%/year
- Number of vehicles manufactured and assembled up to 2020:
~440,000 vehicles



E-motorcycle

- Uptrend
↑ ~ 46 %/year
- Number of vehicles manufactured and assembled up to 2020:
~1.35 millions

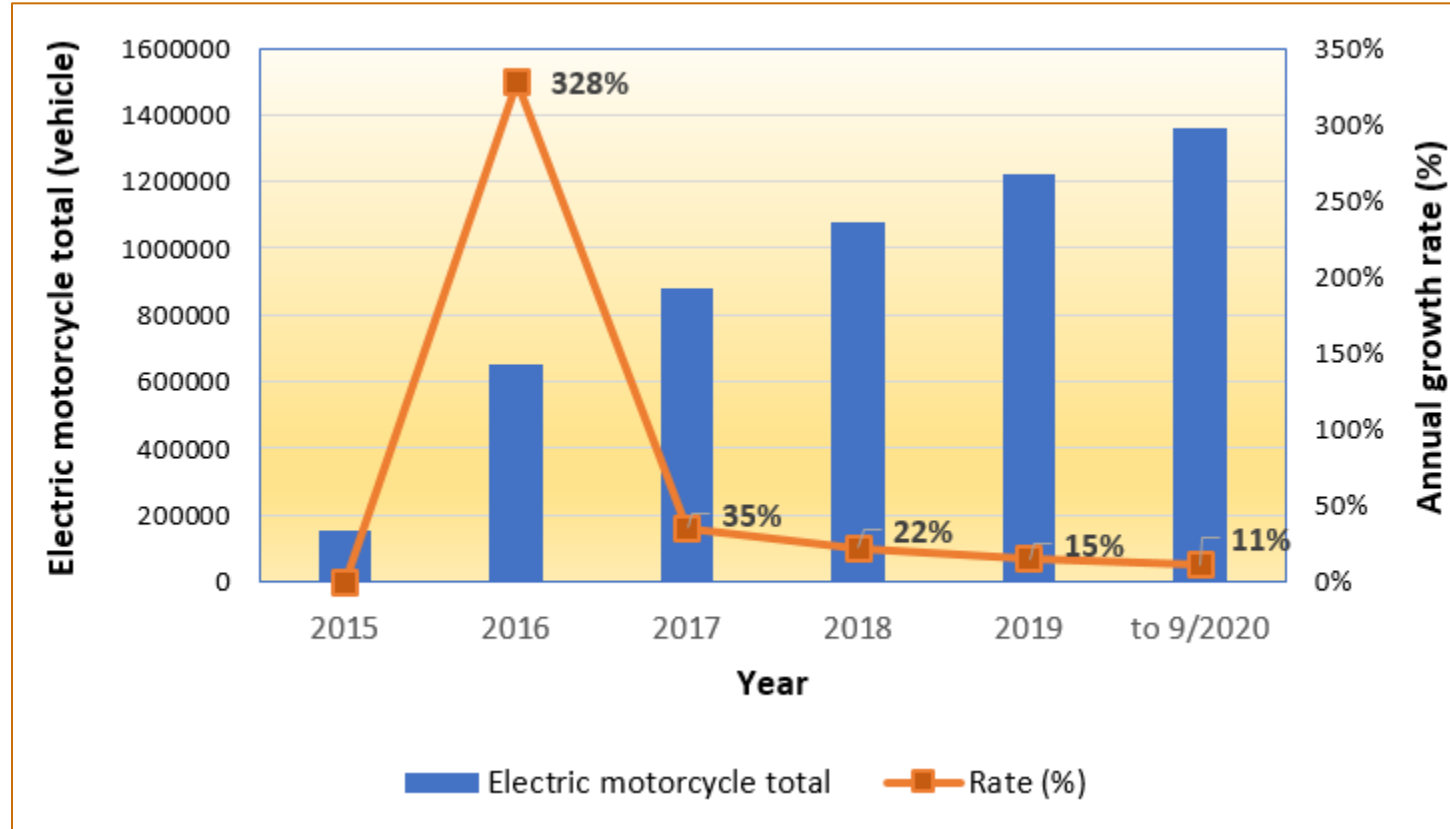
The number of imported E2W accounts for: **~10%**

Total E2W manufactured, assembled & imported in 2020: **~250,000 vehicles**

(Source: Vietnam Register)



E2W IN CIRCULATION



E-motorcycles are forecasted to witness the fastest growth of 19.1% in terms of fleet size during the period of 2018-2024.

The number of e-motorcycles in circulation and the annual growth rate in Vietnam in the period 2015 - 2020 (not including e-bikes)

(Source: Transport and Logistics Statistical Yearbook 2018;
Traffic Police Department)

(Source: Vietnam Electric Two-Wheeler Market
<https://www.vynzresearch.com/>)



POLICIES FOR E-MOBILITY DEPLOY IN VIETNAM

Policies related to the EV development in Vietnam

Items	Government policy	Types of Electric Road Vehicles					
		E2W	E3W	E4W ^(*)	E-cars	E-buses	E-trucks
Orientation	Central-level	✓ (M)	✓ (O)	✓ (O)	✓ (M)	✓ (M), (O)	■
	Provincial-level	✓ (O)	✓ (O)	✓ (O)	■	✓ (O)	■
Target/Road map	Central-level	■	■	■	■	■	■
	Provincial-level	■	■	■	✓ (O)	✓ (O)	■
Incentives	Central-level	■	■	■	■ (M)	✓ (M), (O)	■
	Provincial-level	■	■	■	■	✓ (M), (O), (U)	■
Vehicle management	Central-level	✓	■	✓	■	■	■

Policies for road electric vehicles development in aspects

Note: ^{*}Not passenger cars. It is used for transportation of tourists or visitors.

✓ (Yes); ■ (No); M - Manufacture; O – Operation; U - Usage

(Source: Study of Electric Mobility Development in Vietnam, NDC TIA, 2020)

Integrating the e-mobility development into sustainable development strategies in some big cities

Policies		Big cities							
Items	Strategy	Hanoi	Hai Phong	Da Nang	HCM	Can Tho	Hue	Nha Trang	Ha Long
Orientation of EV development	Green Growth	Yes (1)	Yes (1)	No	No	Yes (1)	Yes (2)	Yes (3)	Yes (3)
	Climate Change	No	yes (3)	Yes (5)	Yes (6)	No	No	yes (7)	yes (4)
Target of EV development	Green Growth	Yes (5% of MCs are e-MCs in 2030)	No	No	No	No	No	Yes (200 e-bus circulation in 2025)	No
	Climate Change	No	No	No	No	No	No	No	No

- (1) Clean-energy vehicles
- (2) Enewable energy transport
- (3) Clean-energy public transport
- (4) Clean-energy transport
- (5) Encouraging the use of e-MC
- (6) Pilot install of charge stations
- (7) Low-carbon transport technology

(Source: Study of Electric Mobility Development in Vietnam, NDC TIA, 2020)

Thanks for your attention!



LE ANH Tuan Professor, PhD.

[Google Scholar](#)

Scopus Author ID: [57204435768](#), [57218719381](#)

ORCID number: [0000-0003-4609-0382](#)