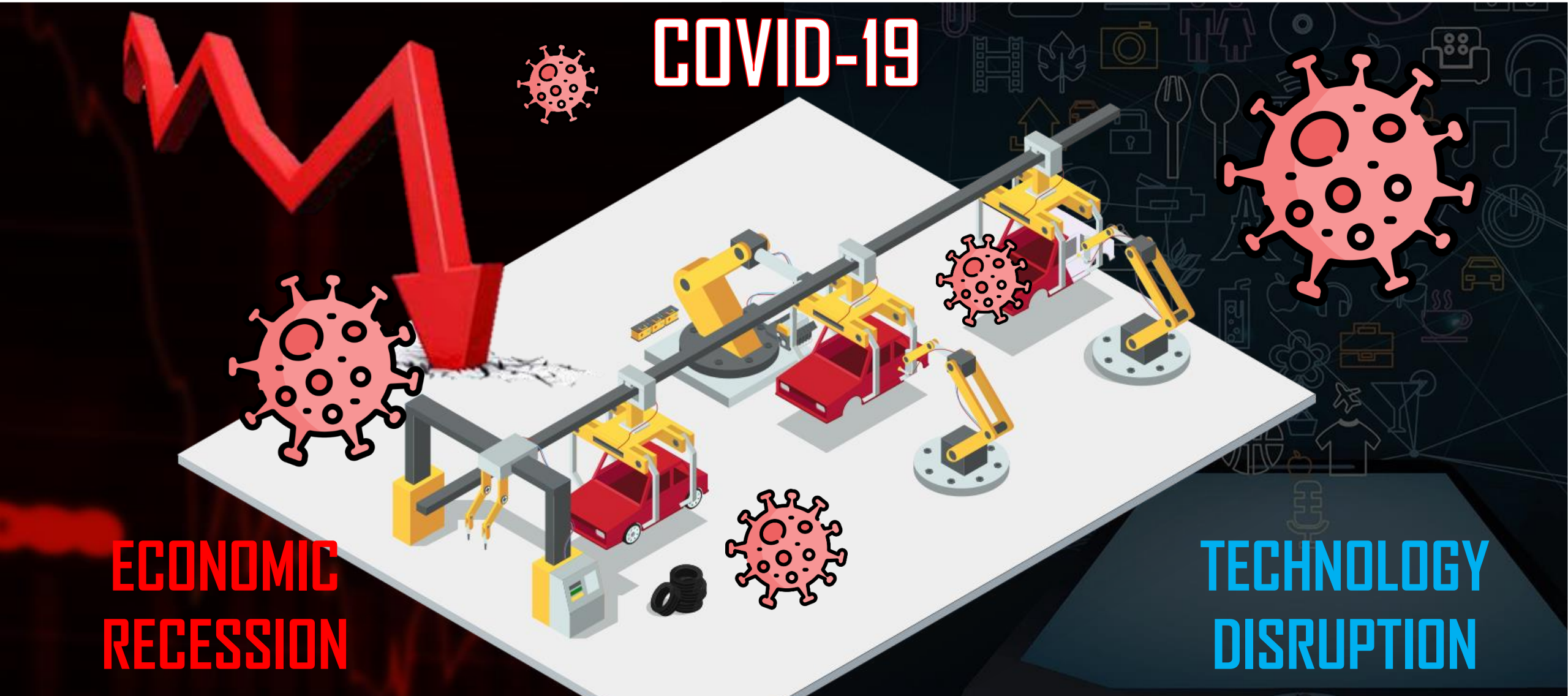
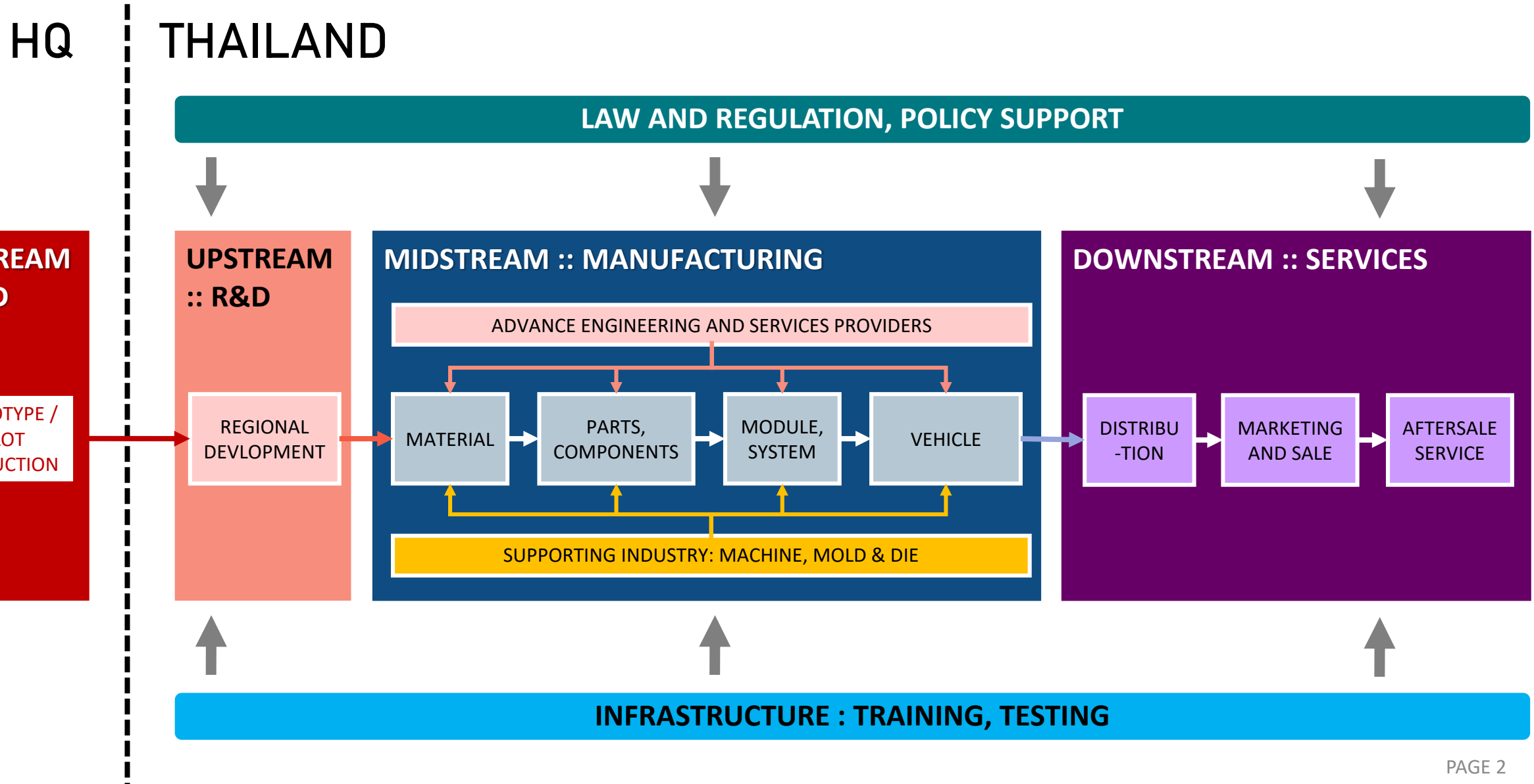


THAI AUTOMOTIVE INDUSTRY FACT & FIGURE 2020



THAI AUTOMOTIVE VALUE CHAIN



THAI AUTOMOTIVE VALUE CHAIN

NUMBER AND REVENUE

21 CAR 12 MOTORCYCLE ASSEMBLER

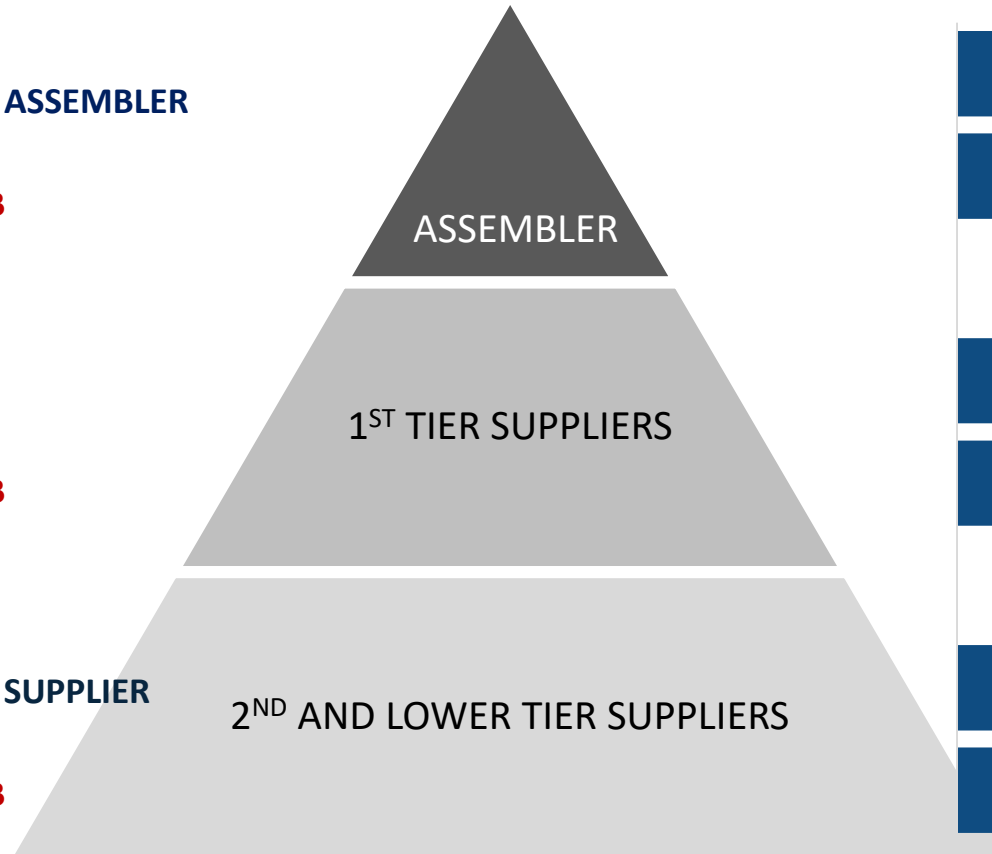
REVENUE 1.6 TRILLION THB

525 1ST TIER SUPPLIER

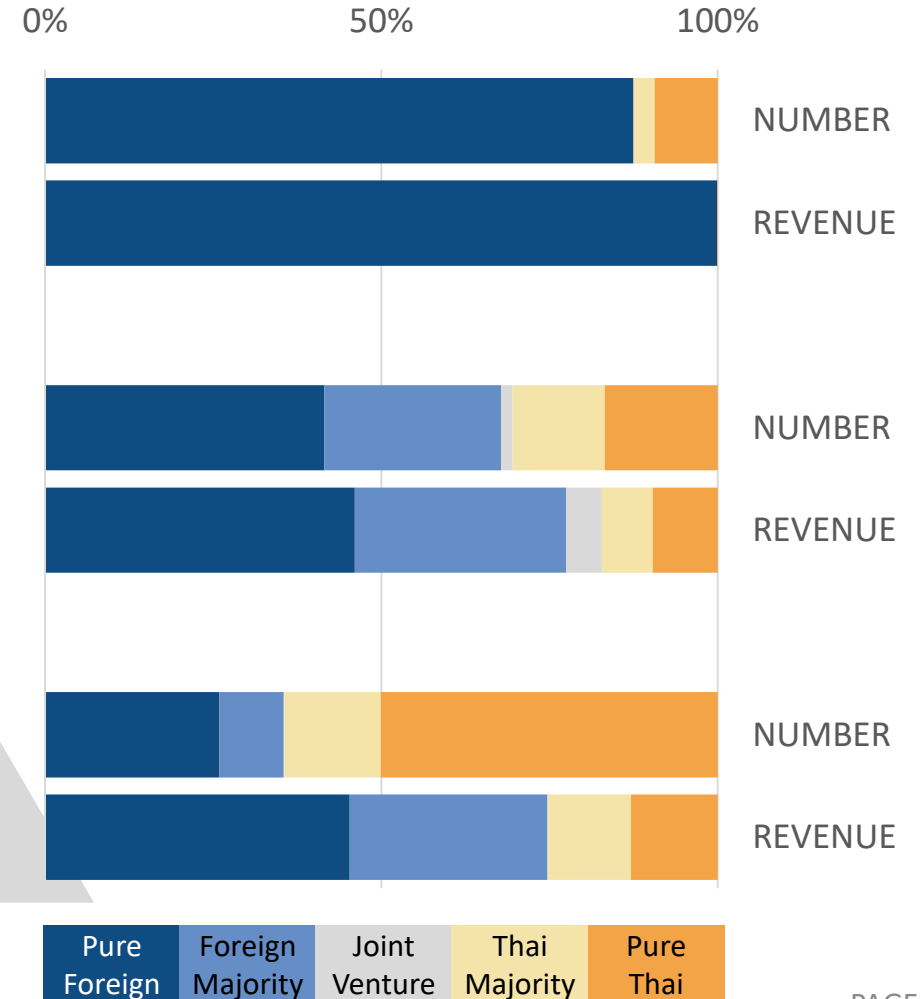
REVENUE 1.9 TRILLION THB

1,687 2ND & LOWER TIER SUPPLIER

REVENUE 1.9 TRILLION THB



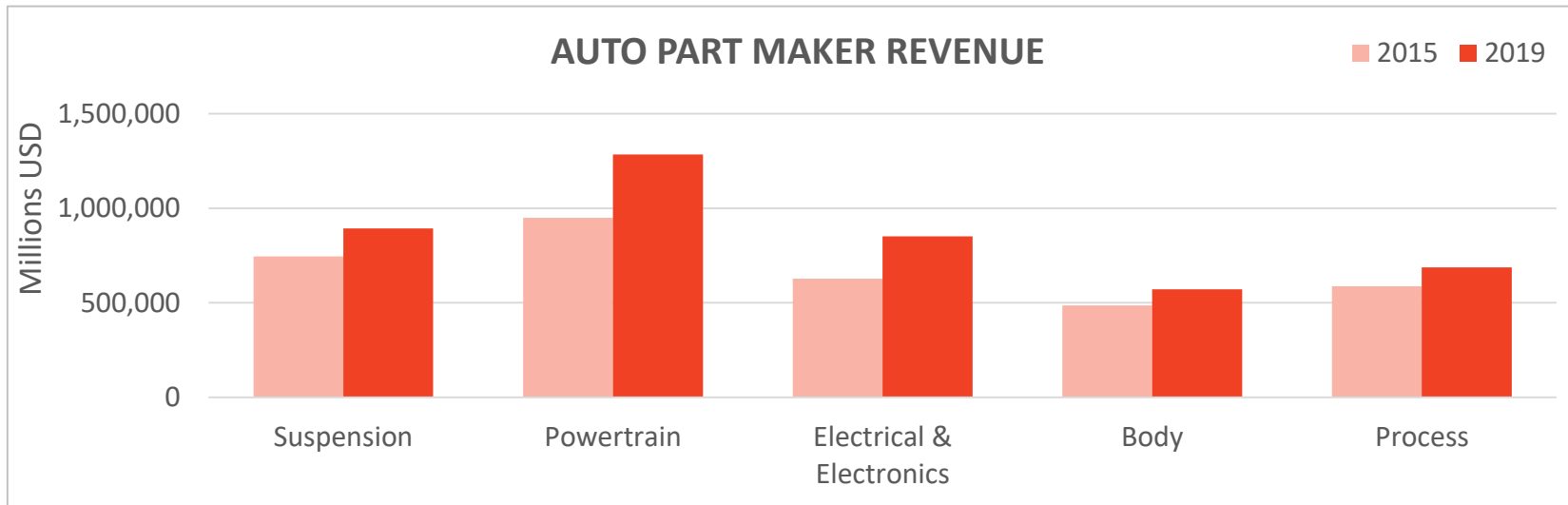
OWNERSHIP



Note: GPX and Subaru Data is from 2018 Revenue.

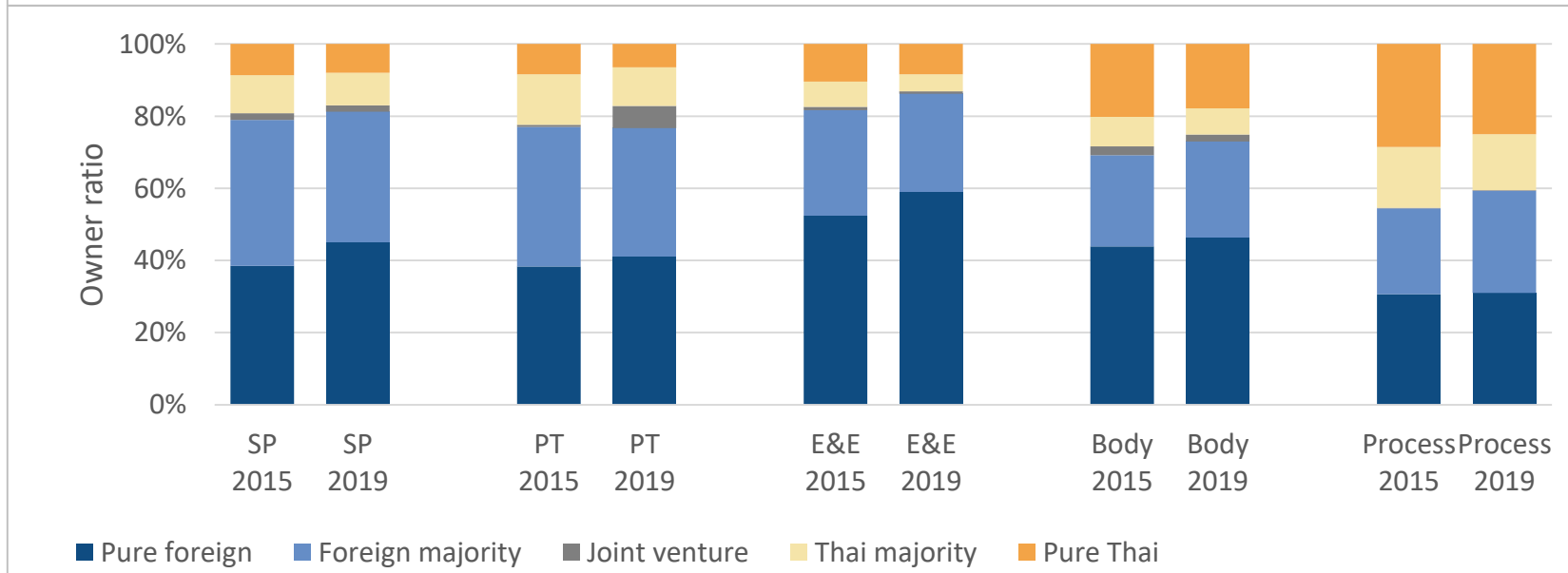
Source: Thailand Automotive Institute (2020), Data as of year 2019

THAI AUTOMOTIVE VALUE CHAIN



REVENUE

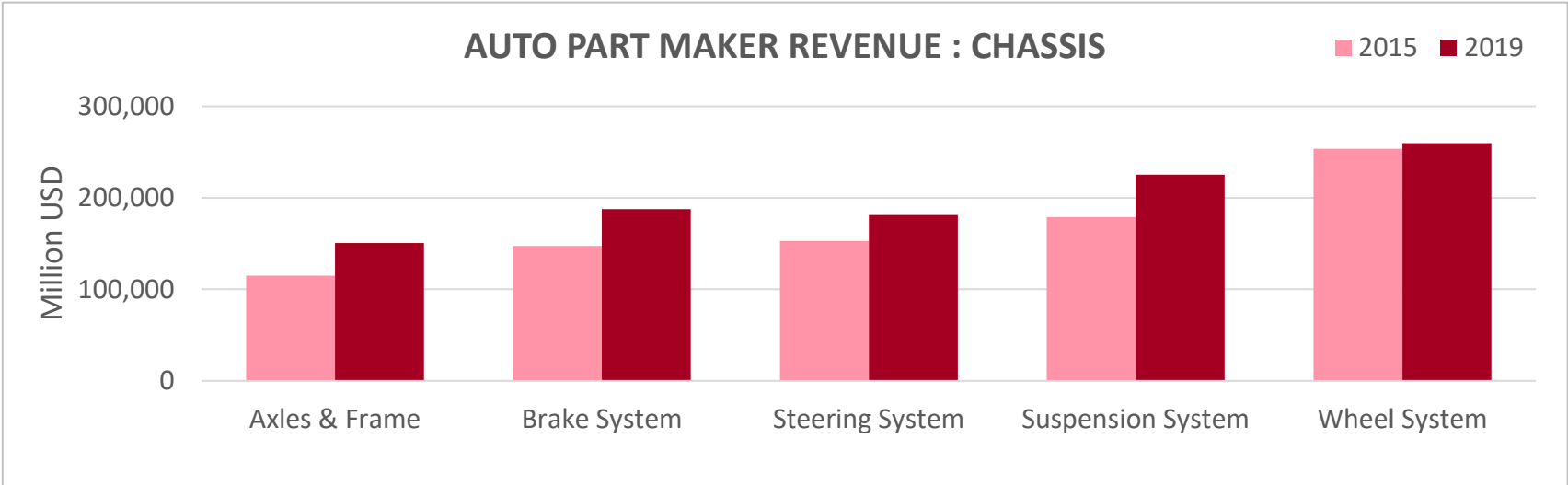
2015 **3.4** Trillion THB
 2019 **4.3** Trillion THB



REVENUE GROWTH 2019/2015

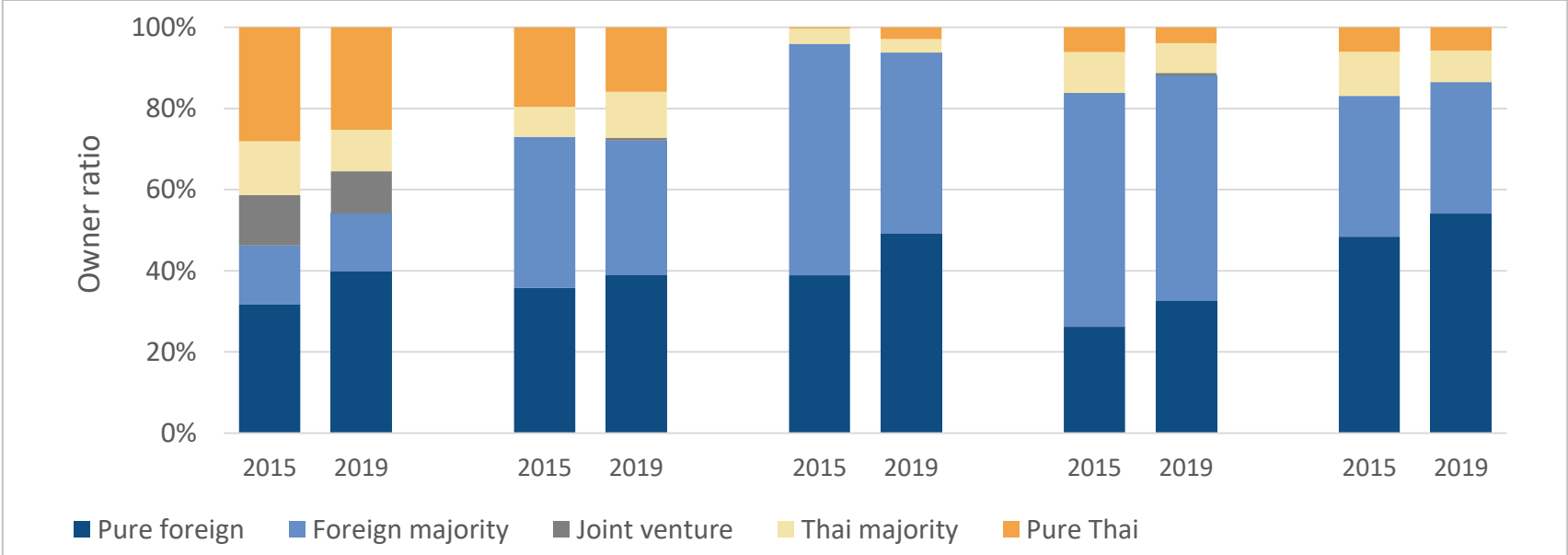
Market **26%**
 Foreign maker **34%**
 Thai maker **4%**

THAI AUTO PART MAKER REVENUE : CHASSIS



REVENUE

2015 **0.9** Trillion THB
 2019 **1.0** Trillion THB

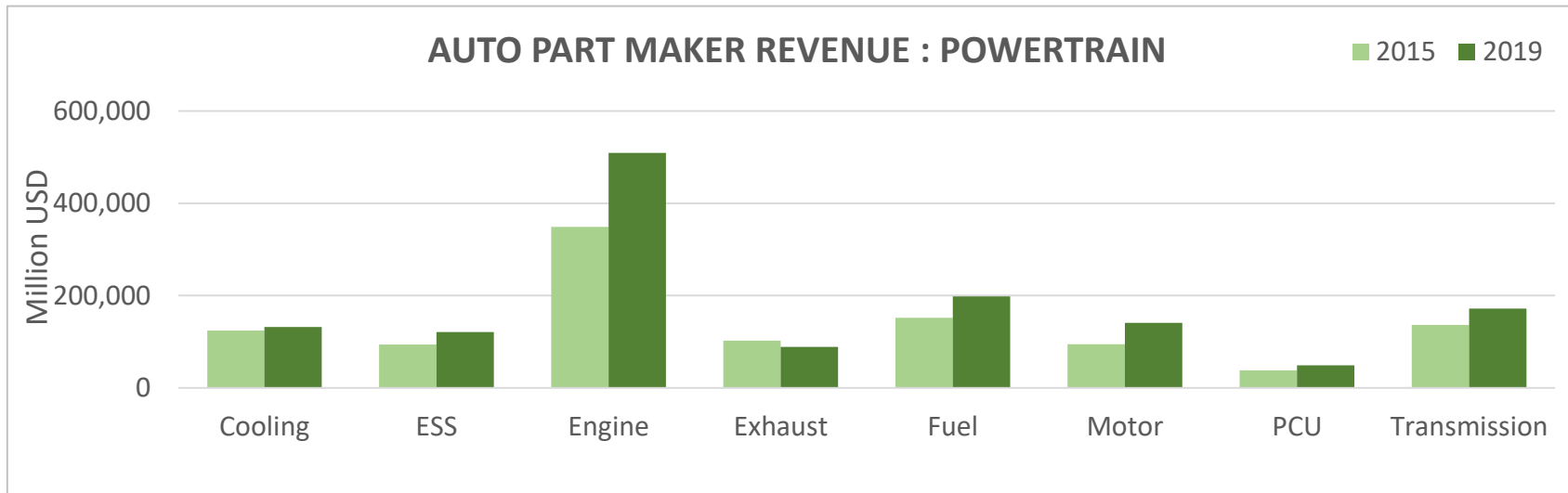


REVENUE GROWTH 2019/2015

Market **18%**
 Foreign maker **21%**
 Thai maker **6%**

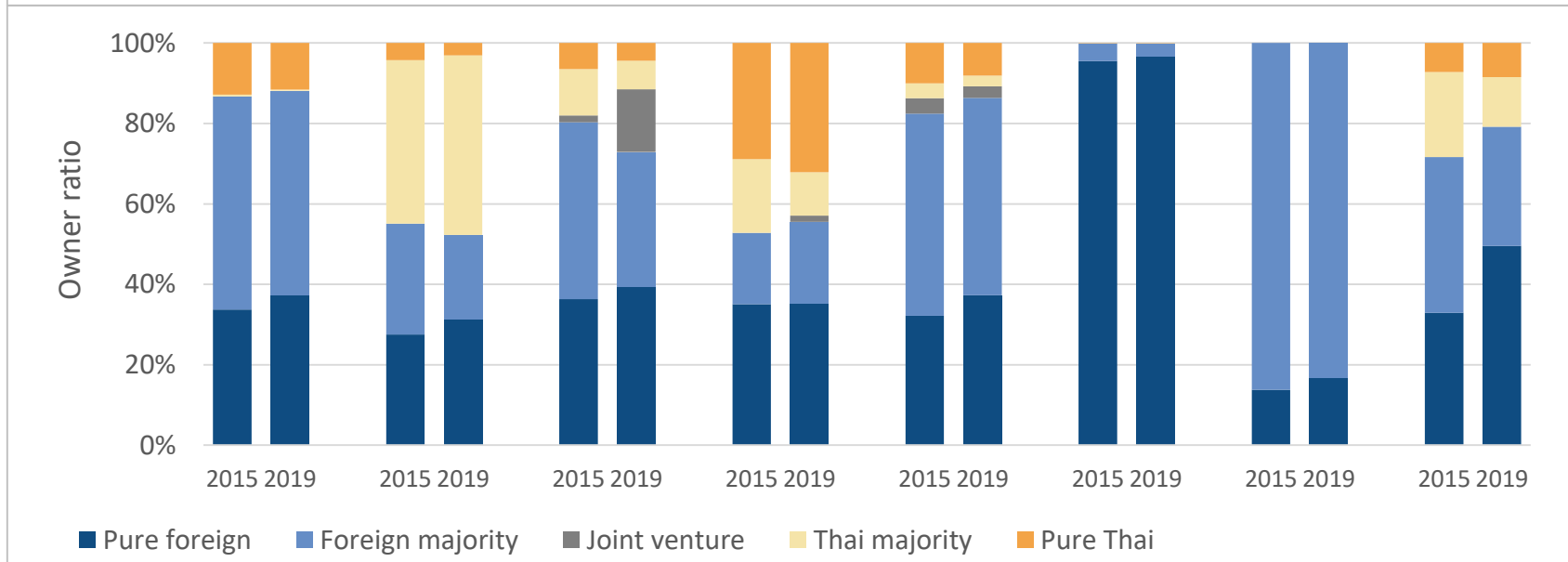
Source: Thailand Automotive Institute (2020), Data as of year 2019

THAI AUTO PART MAKER REVENUE : POWERTRAIN



REVENUE

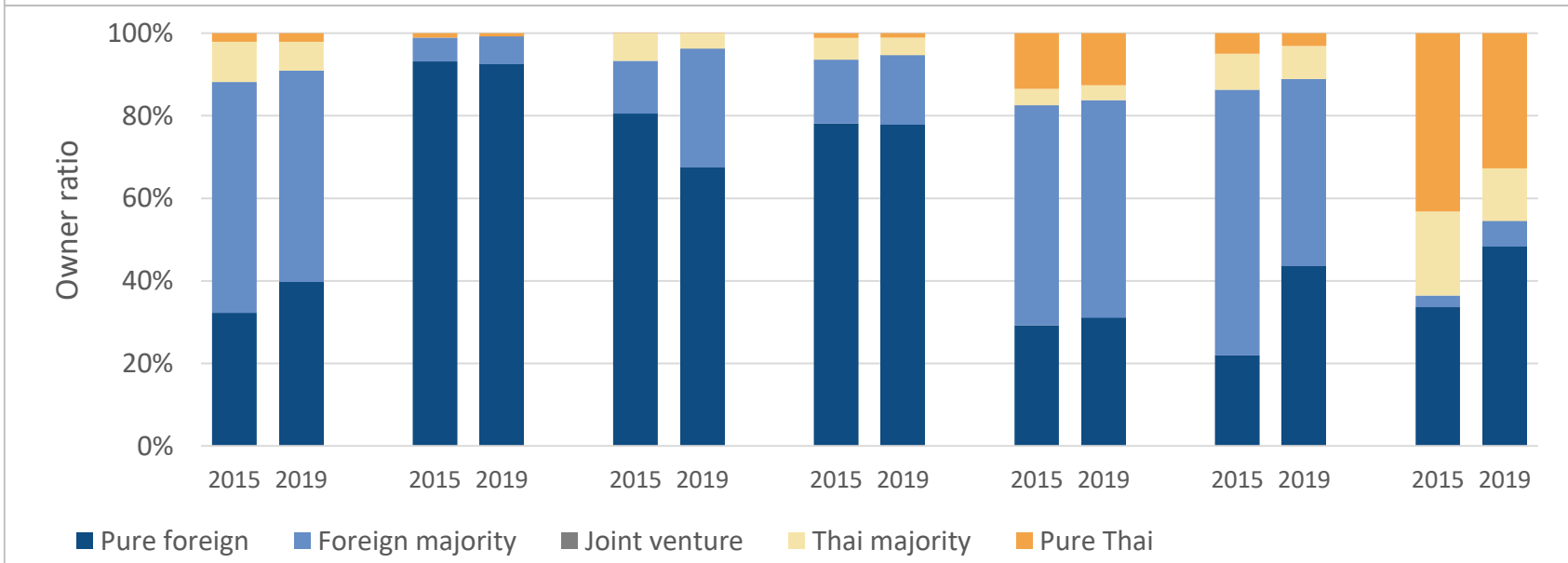
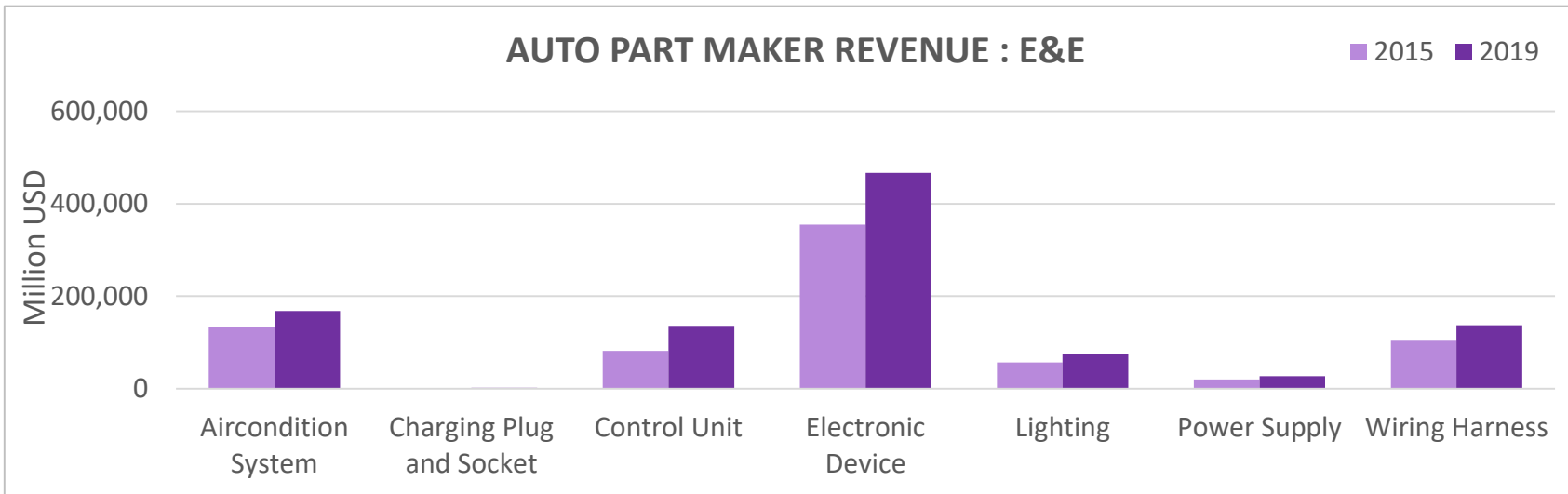
2015 **1.1** Trillion THB
 2019 **1.4** Trillion THB



REVENUE GROWTH 2019/2015

Market **29%**
 Foreign maker **29%**
 Thai maker **-1%**

THAI AUTO PART MAKER REVENUE : E&E



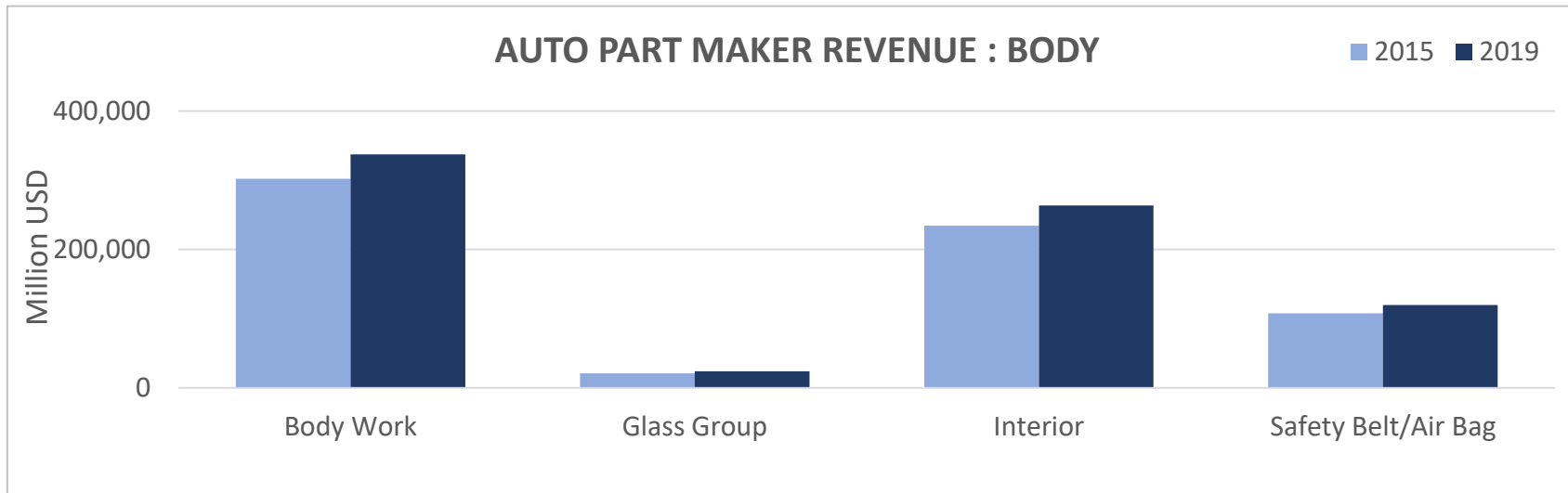
REVENUE

2015 **0.8** Trillion THB
 2019 **1.0** Trillion THB

REVENUE GROWTH 2019/2015

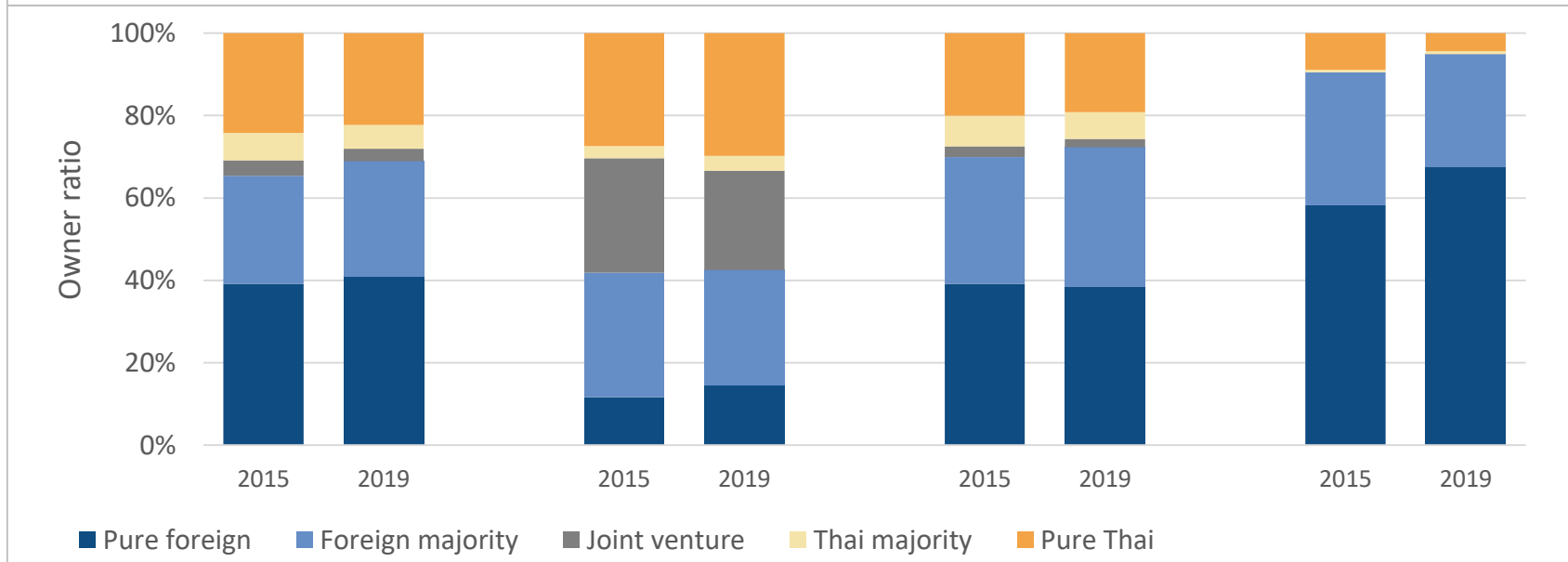
Market **35%**
 Foreign maker **41%**
 Thai maker **0.3%**

THAI AUTO PART MAKER REVENUE : BODY



REVENUE

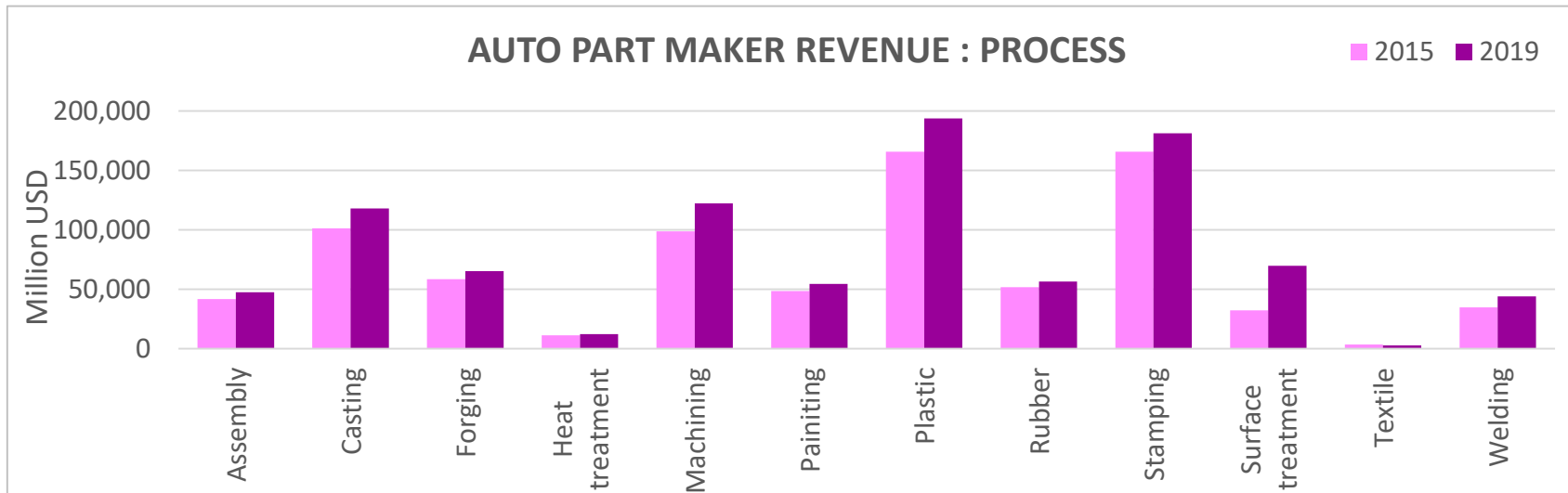
2015 **0.67** Trillion THB
 2019 **0.74** Trillion THB



REVENUE GROWTH 2019/2015

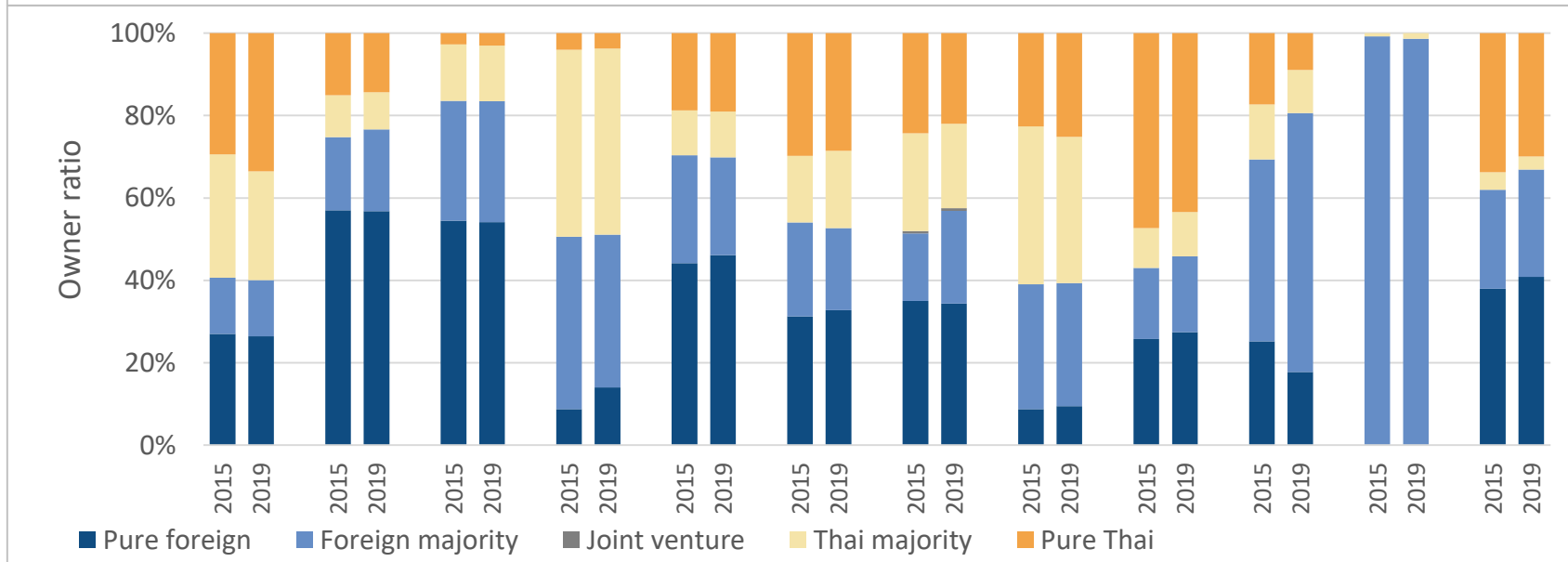
Market **12%**
 Foreign maker **17%**
 Thai maker **1%**

THAI AUTO PART MAKER REVENUE : PROCESS



REVENUE

2015 **0.8** Trillion THB
 2019 **1.0** Trillion THB



REVENUE GROWTH 2019/2015

Market **19%**
 Foreign maker **26%**
 Thai maker **10%**

MOTOR VEHICLE INDUSTRY

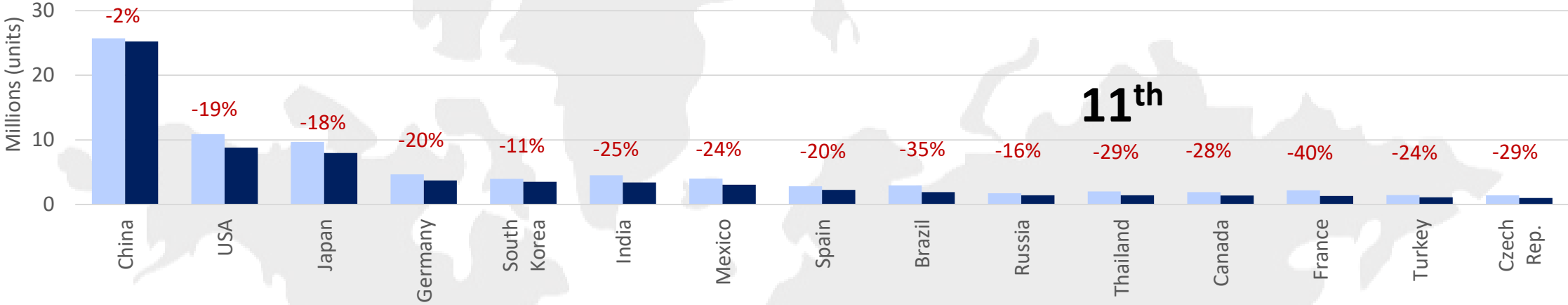


GLOBAL MOTOR VEHICLE SITUATION

MOTOR VEHICLE PRODUCTION RANKING

Production 2019 Production 2020

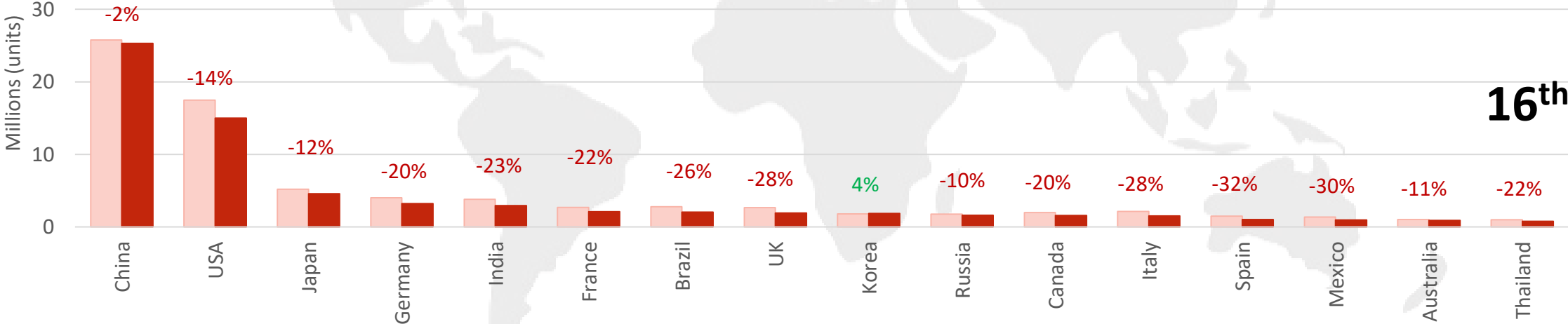
11th



MOTOR VEHICLE SALES RANKING

Sale2019 Sale2020

16th



MOTOR VEHICLE CURRENT SITUATION

3 million Production capacity

1.4 million Production units in 2020

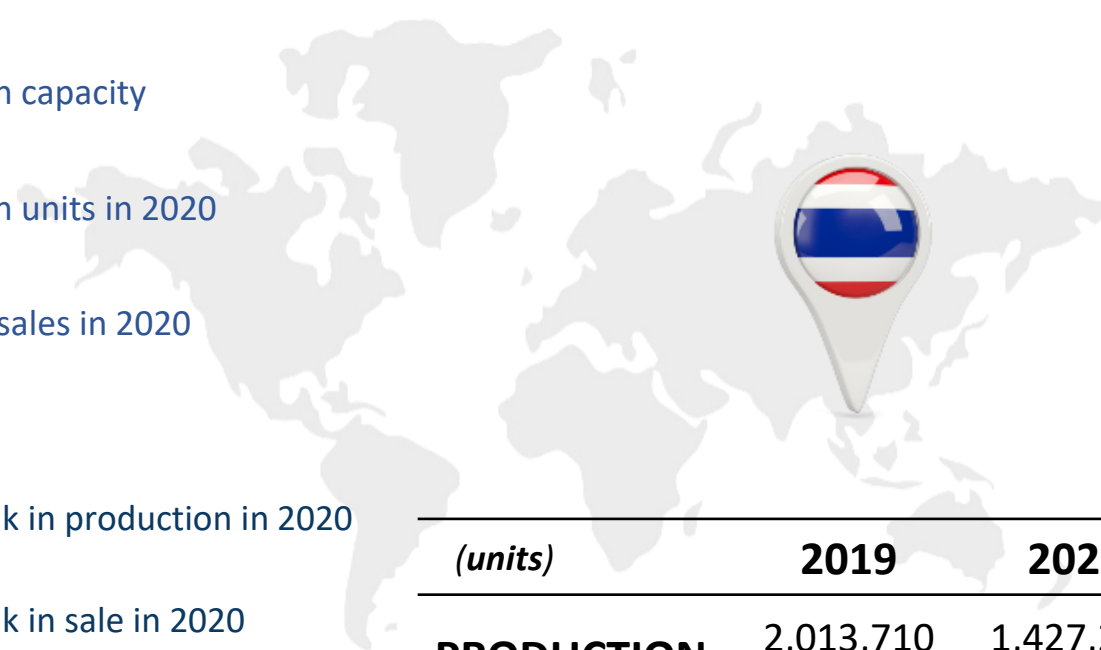
0.8 million Domestic sales in 2020

11th Global rank in production in 2020

16th Global rank in sale in 2020

20 Car makers Produce in Thailand

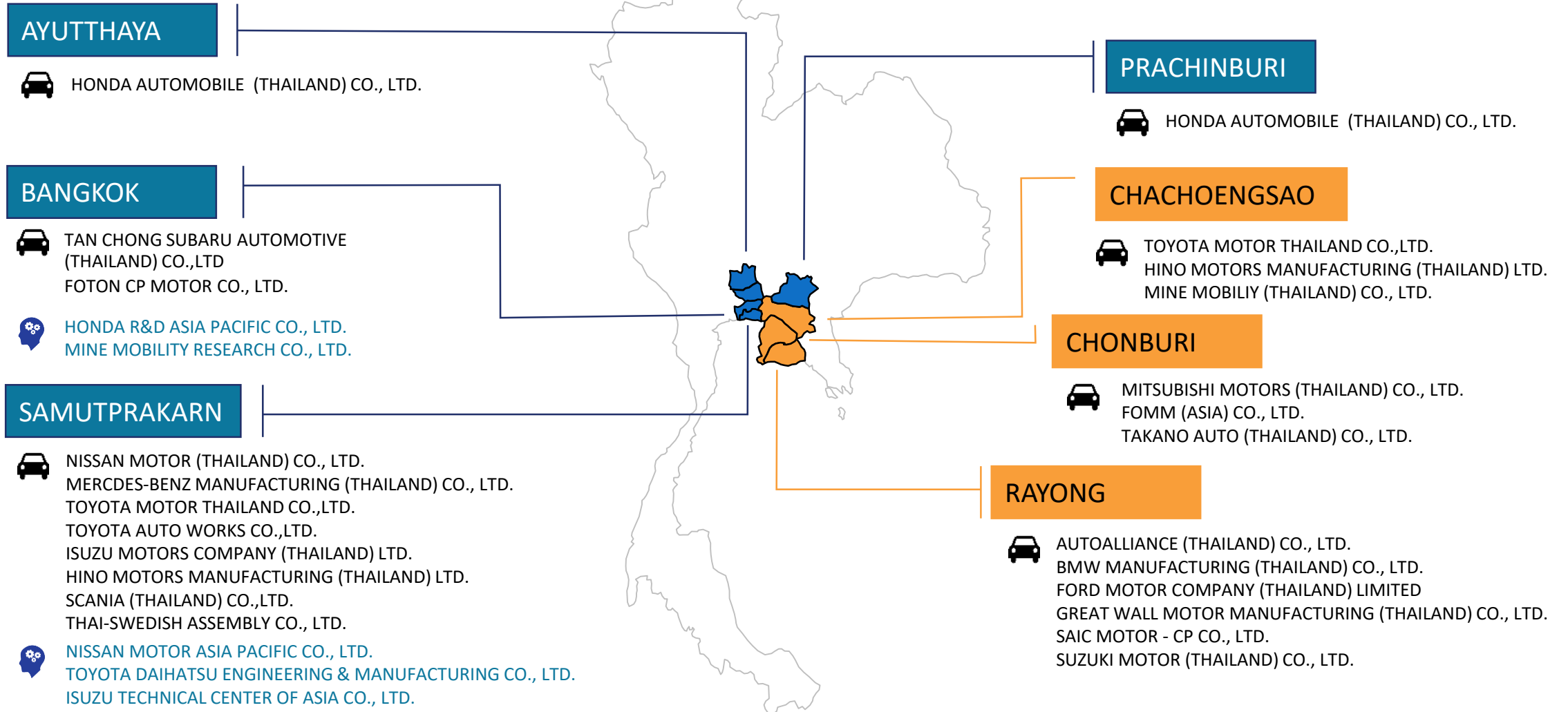
14 Car makers Got xEV production approval



(units)	2019	2020	2021f
PRODUCTION	2,013,710 (%Δ = -7%)	1,427,275 (%Δ = -29%)	1,550,000 (%Δ = +9%)
SALE	1,007,552 (%Δ = -3%)	792,146 (%Δ = -21%)	840,000 (%Δ = +6%)
EXPORT	1,054,103 (%Δ = -8%)	735,842 (%Δ = -30%)	750,000 (%Δ = +2%)

MOTOR VEHICLE FACTORY LOCATIONS

21 MOTOR VEHICLE ASSEMBLER AND 5 R&D CENTER




Note: * GM ended production and sold factory to Great Wall Motors in Feb 2020
 Collected by Thailand Automotive Institute (2020)


xEV INVESTMENT PROJECT APPROVAL BY BOI

xEV INVESTMENT PROJECT APPROVAL BY BOI


xEV Projects approval by BOI

HEV







TOYOTA
C-HR HYBRID




TOYOTA
COROLLA ALTIS HYBRID




TOYOTA
COROLLA CROSS HYBRID




TOYOTA
CAMRY HYBRID








HONDA
CITY HYBRID



HONDA
ACCORD HYBRID



NISSAN
KICK e-POWER

PHEV





BMW
Series 3, 5, 7, X3, X5



MERCEDES BENZ
C, E, S, GLC, GLE Class









BEV






FOMM
ONE



TAKANO
TTE 500







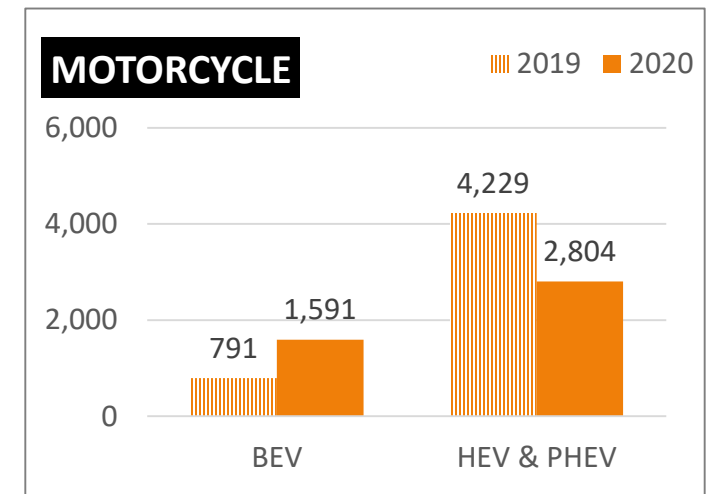
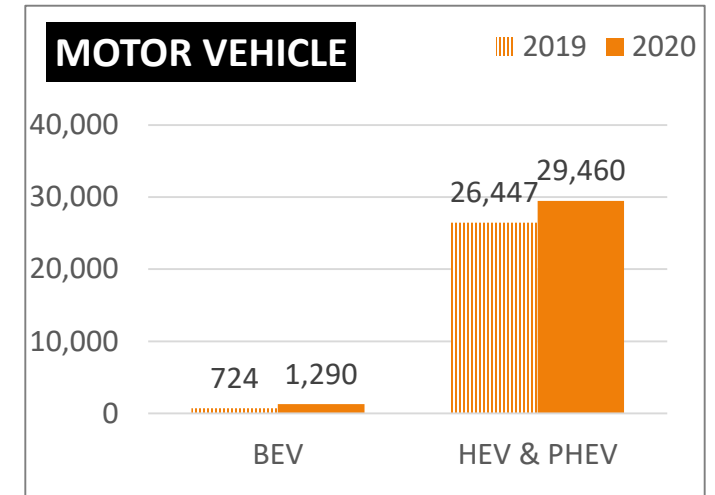




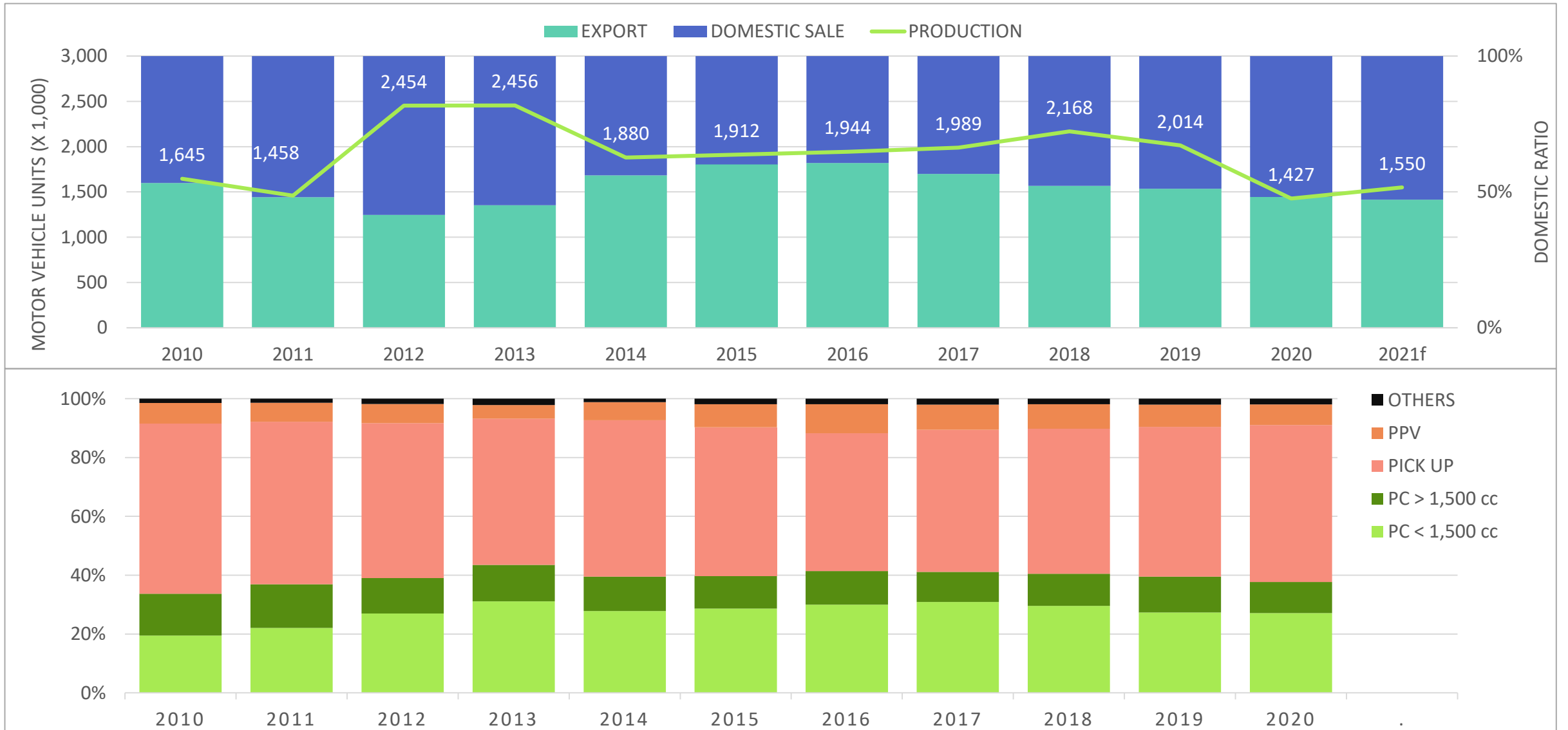




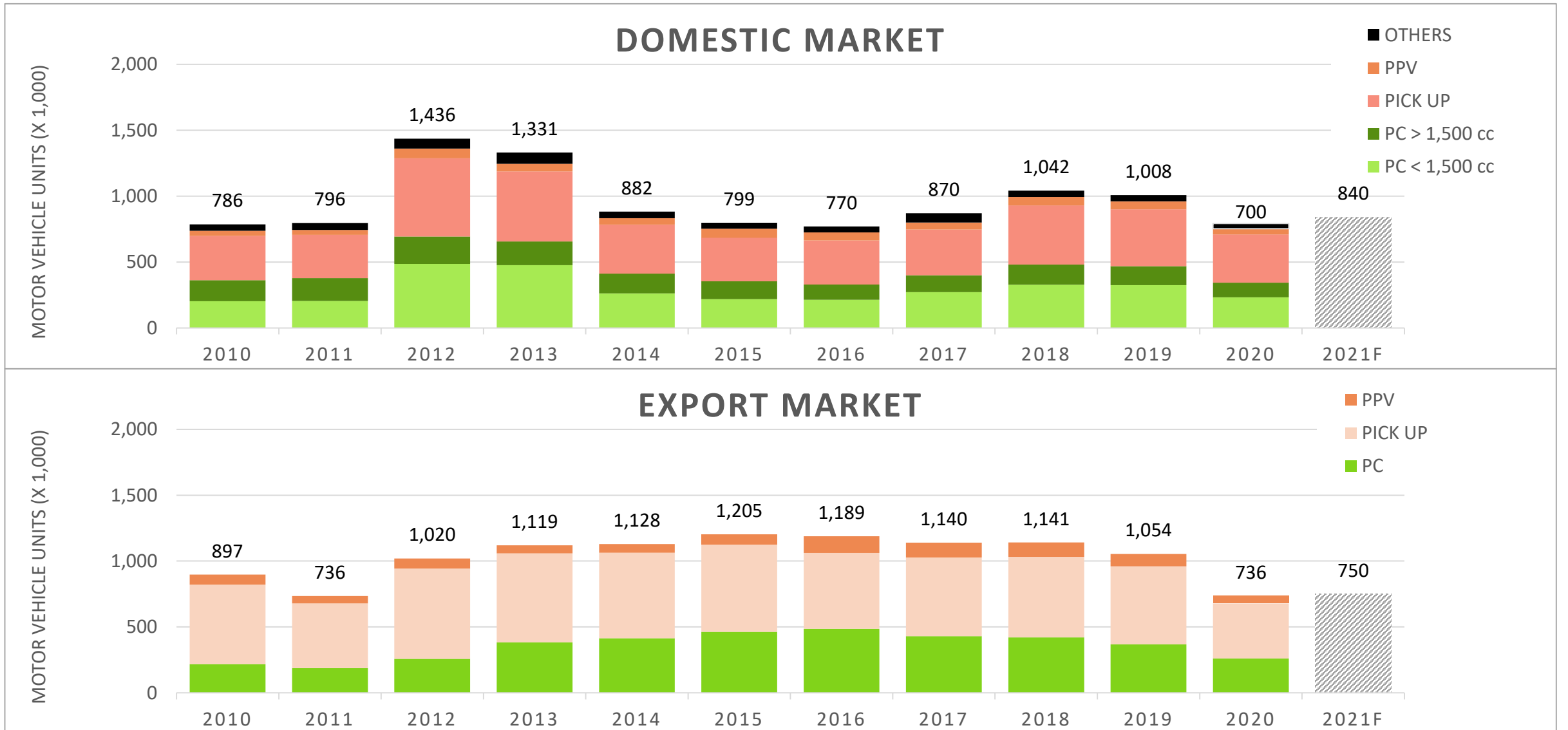
xEV REGISTRATION NUMBERS



MOTOR VEHICLE PRODUCTION



MOTOR VEHICLE MARKET



MOTOR VEHICLE EXCISE TAX

Vehicle Category	CO ₂ (g/km)	Tax Rate (%)					
Passenger Car		E10,E20	E85,NGV	HEV,PHEV/BOI	BEV/BOI	FCEV	
	≤100	25*	20*	8 / 4*	8 / 2	8	
	101-150			16 / 8			
	151-200	30	25	21 / 10.5			
	>200	35	30	26/13			
	>3,000cc	40	40	40			
Eco Car (E10/E20/Diesel) / (E85,B10)	≤100	12* / 10*					
	101-120	14					
Pick up (PPV/Double cab/ Space cab/No cab)		PPV	DC	SC	NC	BEV	Other
	≤175	18*(HEV)	8*(HEV)			10	
	≤200	20*	10	4	2.5		15
	>200	25	13	6	4		17
	>3,250 cc	40	40	40	40		40
Motorcycle		ICE	BEV	Other			
	≤10	1%	1%	20%			
	11-50	3%					
	51-90	5%					
	91-130	9%					
	>130	18%					

Remarks

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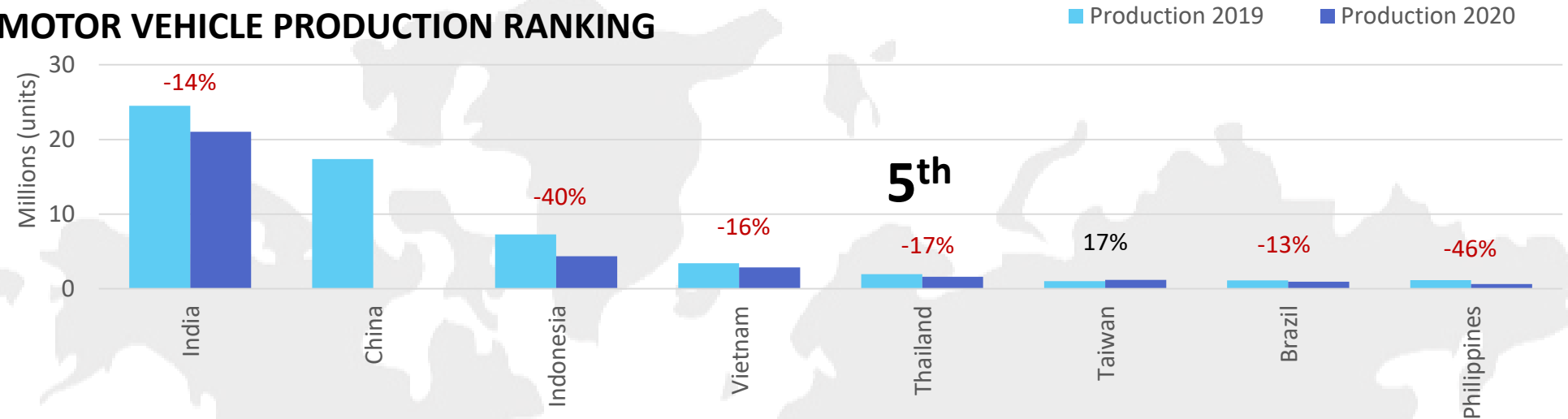
* Active Safety Feature (ABS+ESC) required for passenger car having not more than 10 seats with CO₂ ≤ 150 g/km Pickup Passenger Vehicle (PPV) with CO₂ ≤ 200 g/km /Eco Car with CO₂ ≤ 100 g/km

MOTORCYCLE INDUSTRY

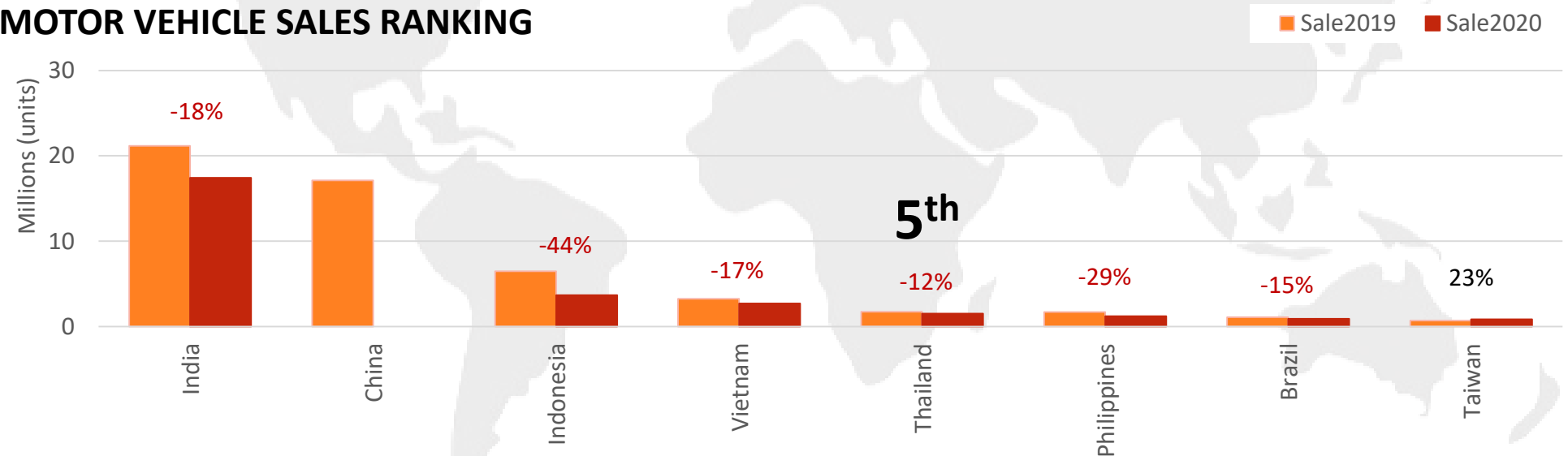


GLOBAL MOTORCYCLE SITUATION

MOTOR VEHICLE PRODUCTION RANKING



MOTOR VEHICLE SALES RANKING



MOTORCYCLE CURRENT SITUATION

3.0 million

Production capacity

1.6 million

Production units in 2020

1.5 million

Domestic sales in 2020

5th

Global rank in production in 2020

5th

Global rank in sale in 2020

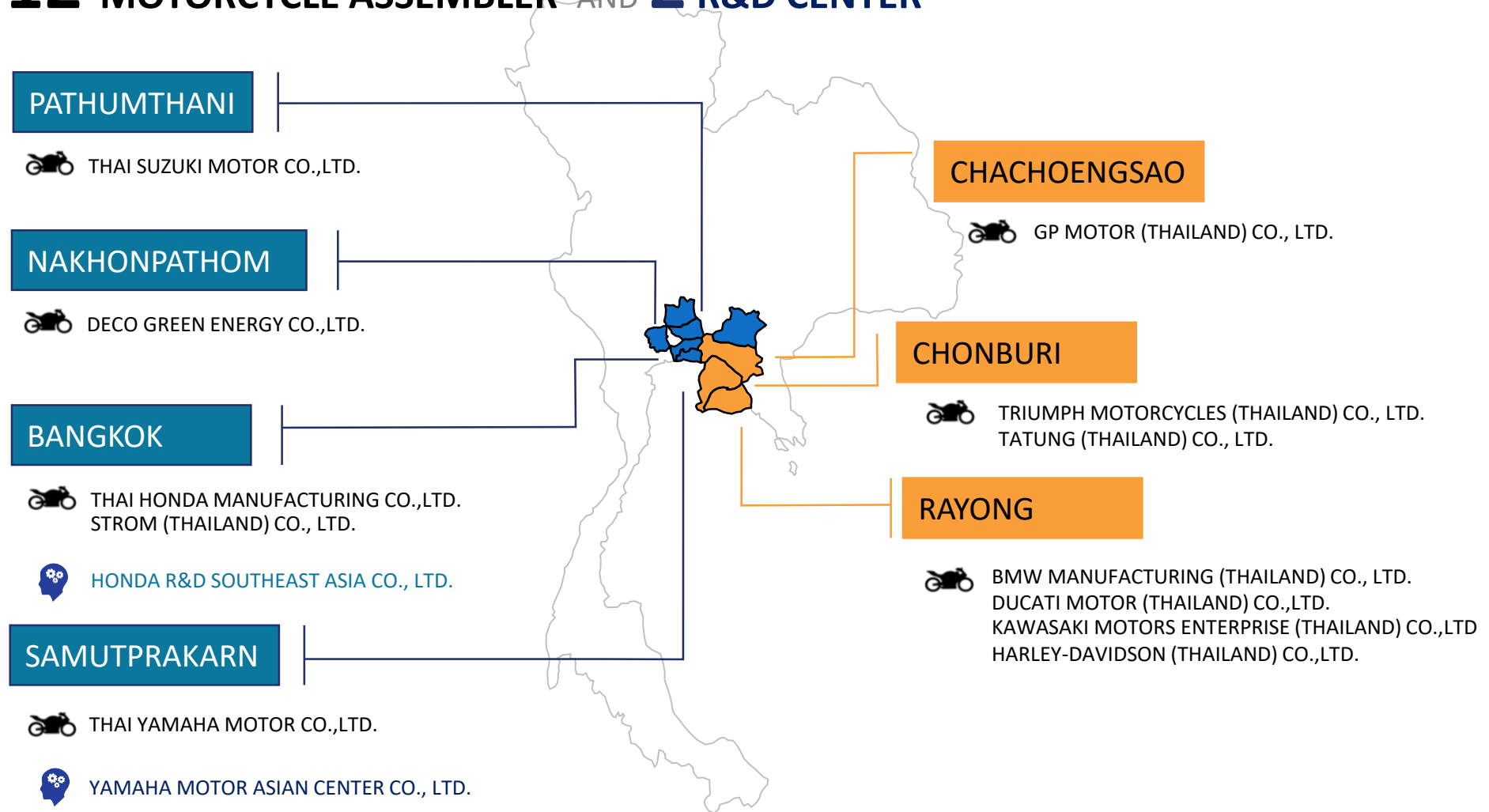
12 makers

Produce in Thailand

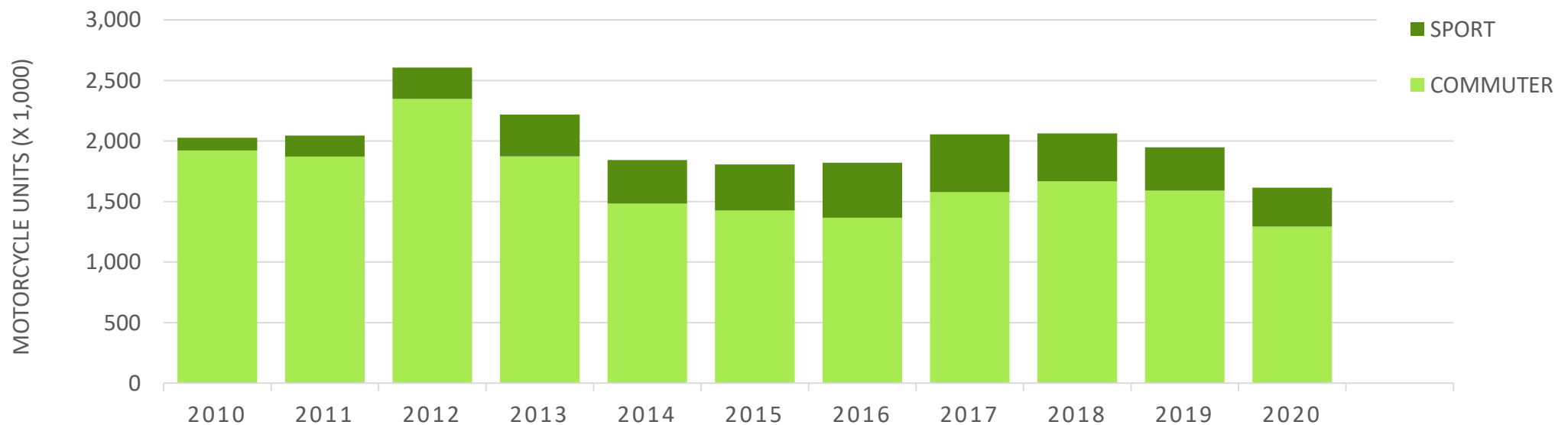
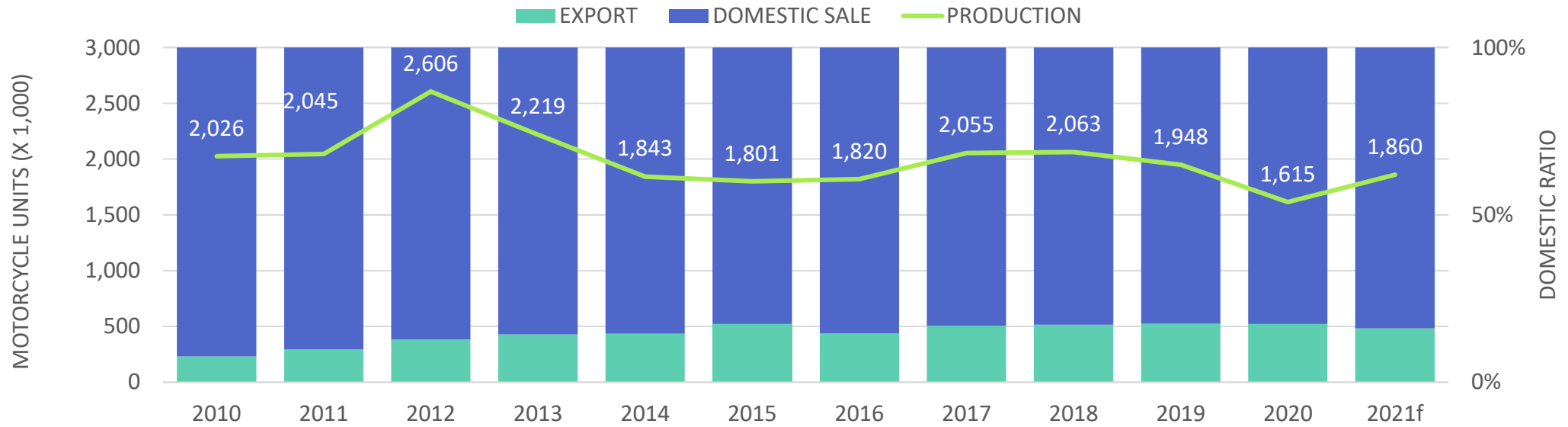
<i>(units)</i>	2019	2020	2021f
PRODUCTION	1,948,480 <i>(%Δ = -6%)</i>	1,615,319 <i>(%Δ = -17%)</i>	1,860,000 <i>(%Δ = +15%)</i>
SALE	1,718,587 <i>(%Δ = -4 %)</i>	1,516,096 <i>(%Δ = -12%)</i>	1,560,000 <i>(%Δ = +3%)</i>
EXPORT	364,050 <i>(%Δ = -2%)</i>	319,038 <i>(%Δ = -12%)</i>	300,000 <i>(%Δ = -6%)</i>

THAI AUTOMOTIVE FACTORY LOCATIONS

12 MOTORCYCLE ASSEMBLER AND 2 R&D CENTER

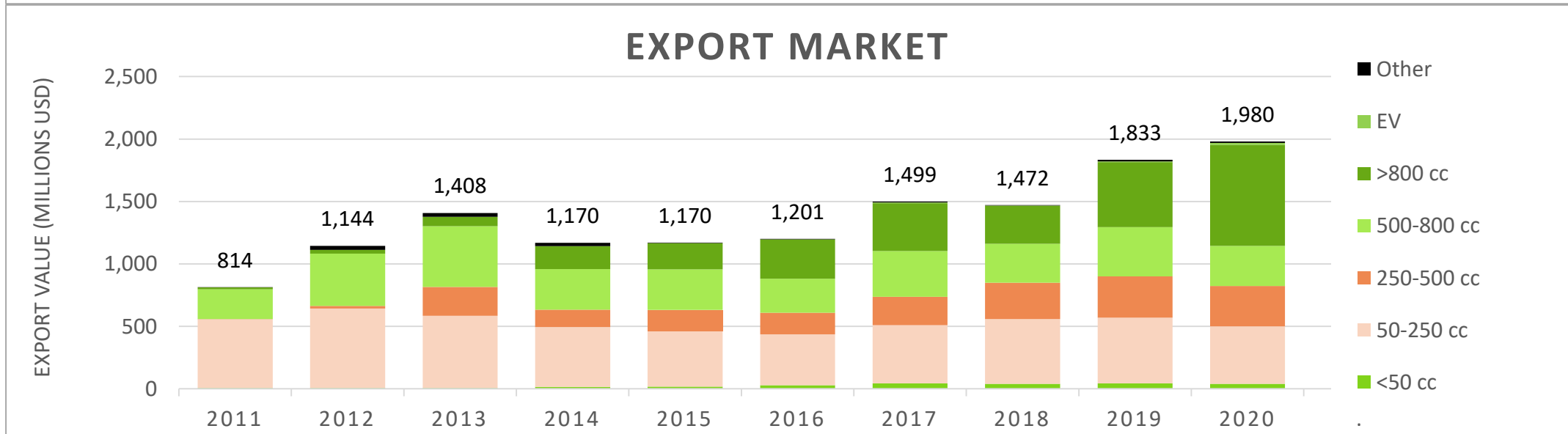
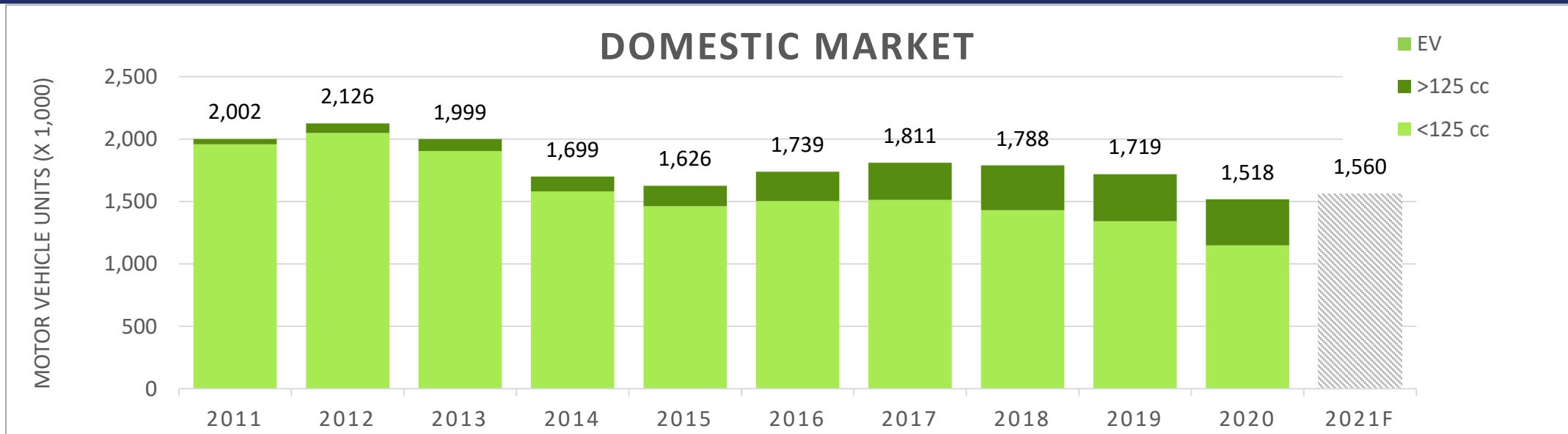


MOTORCYCLE PRODUCTION



Source: Automotive Industry Club, The Federation of Thai Industries

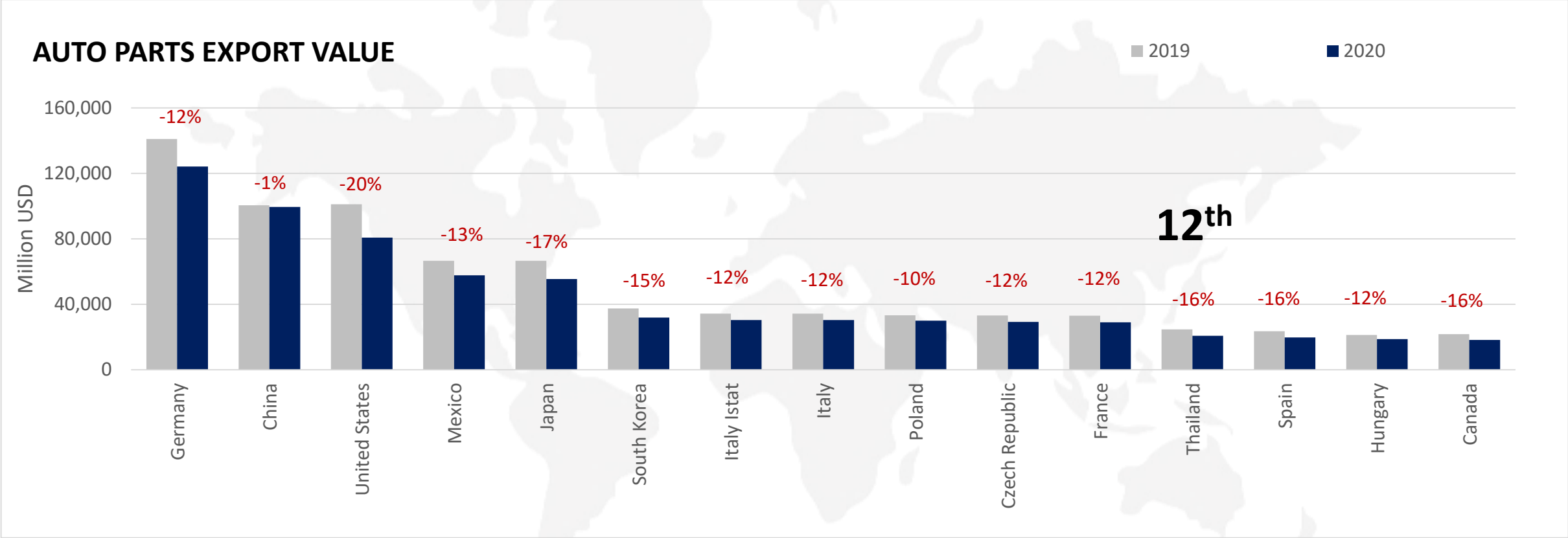
MOTORCYCLE MARKET



AUTO PARTS INDUSTRY

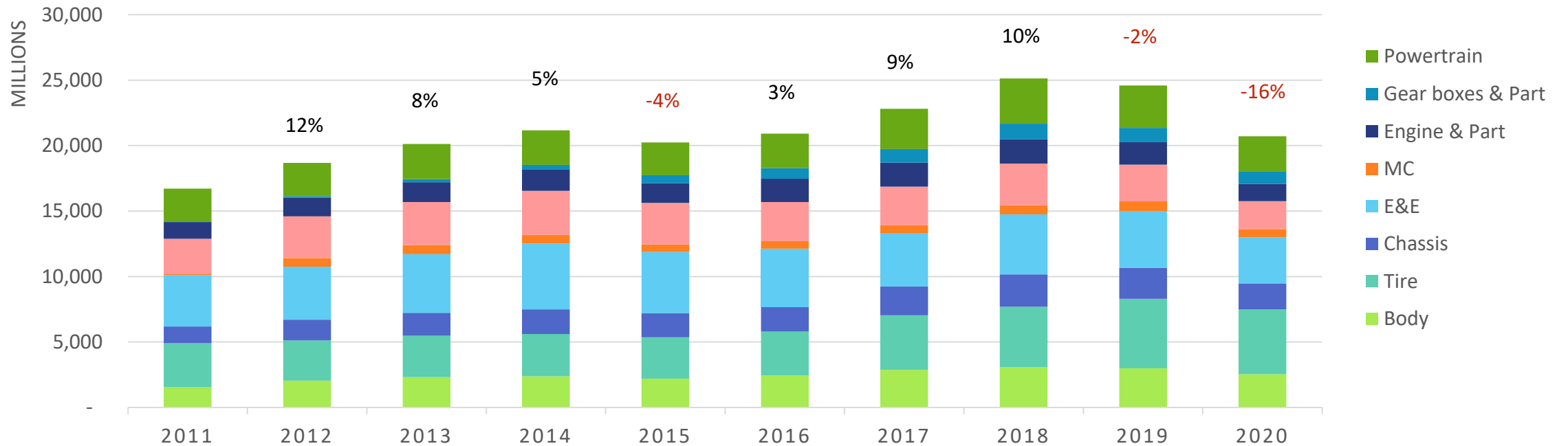


GLOBAL AUTO PARTS EXPORT



AUTOPARTS EXPORT

AUTO PARTS EXPORT VALUE (MILLION USD)



ศูนย์วิจัยอุตสาหกรรมยานยนต์สมัยใหม่

NEXT GENERATION AUTOMOTIVE RESEARCH CENTER

NEXT GENERATION AUTOMOTIVE RESEARCH CENTER