



Intelligent Transport System (ITS) in Thailand

Office of Transport and Traffic Policy and Planning (OTP)

Ministry of Transport

November 27, 2019

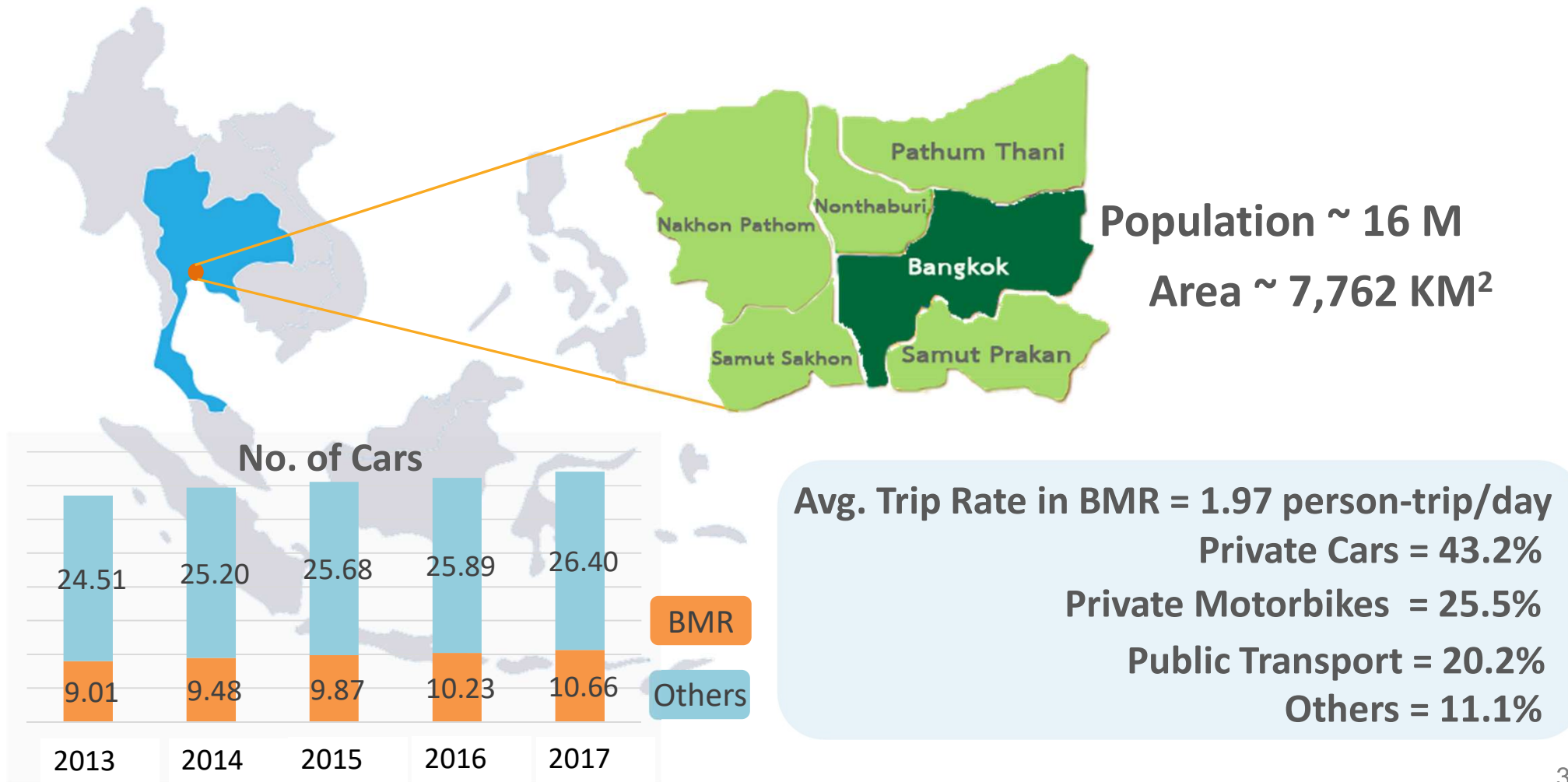
Seoul

*Capacity Building Workshop on Utilizing Smart Transport Technologies
to Mitigate Greenhouse Gas (GHG) Emissions from the Transport Sector*

Outlines

- ❖ **Introduction**
- ❖ **Long-term National Transport Development Strategic Plans**
- ❖ **ITS in Thailand**
- ❖ **Concept of Thailand ITS Development Master Plan**
- ❖ **ITS Development Goal/Challenges**
- ❖ **Priorities on decarbonizing transport system**

1. Introduction : Bangkok Metropolitans Region: BMR

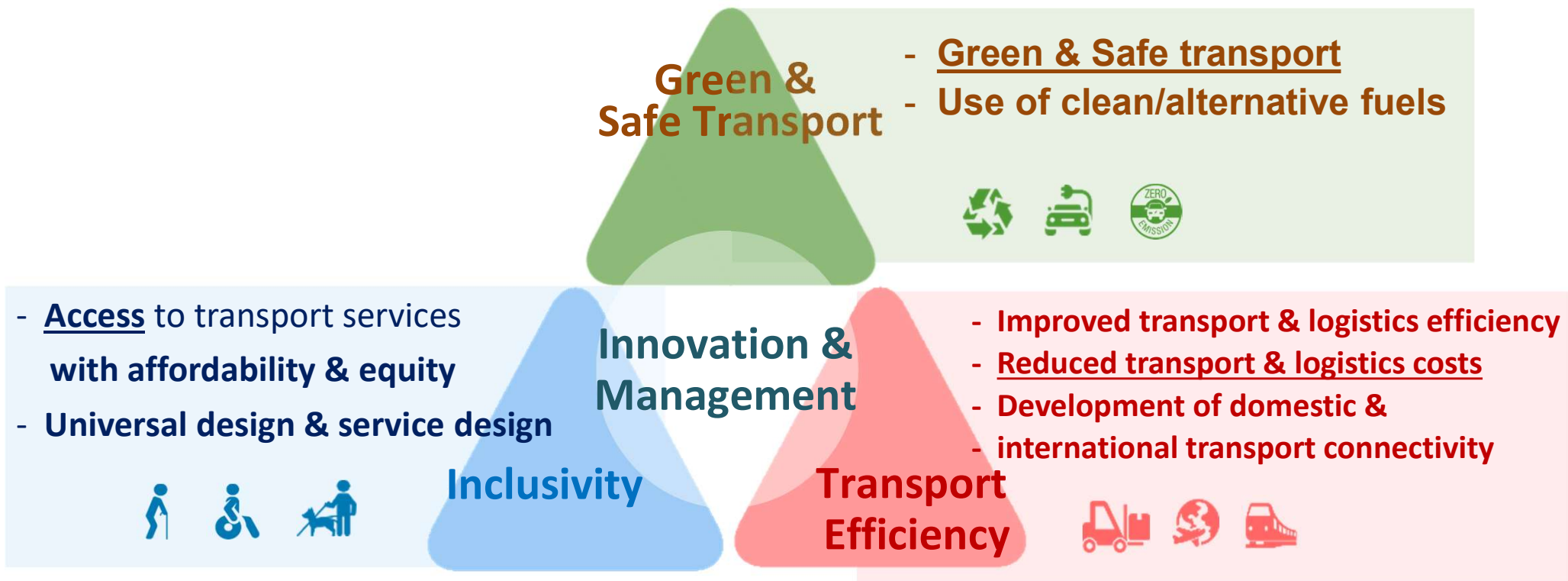


1. Introduction :

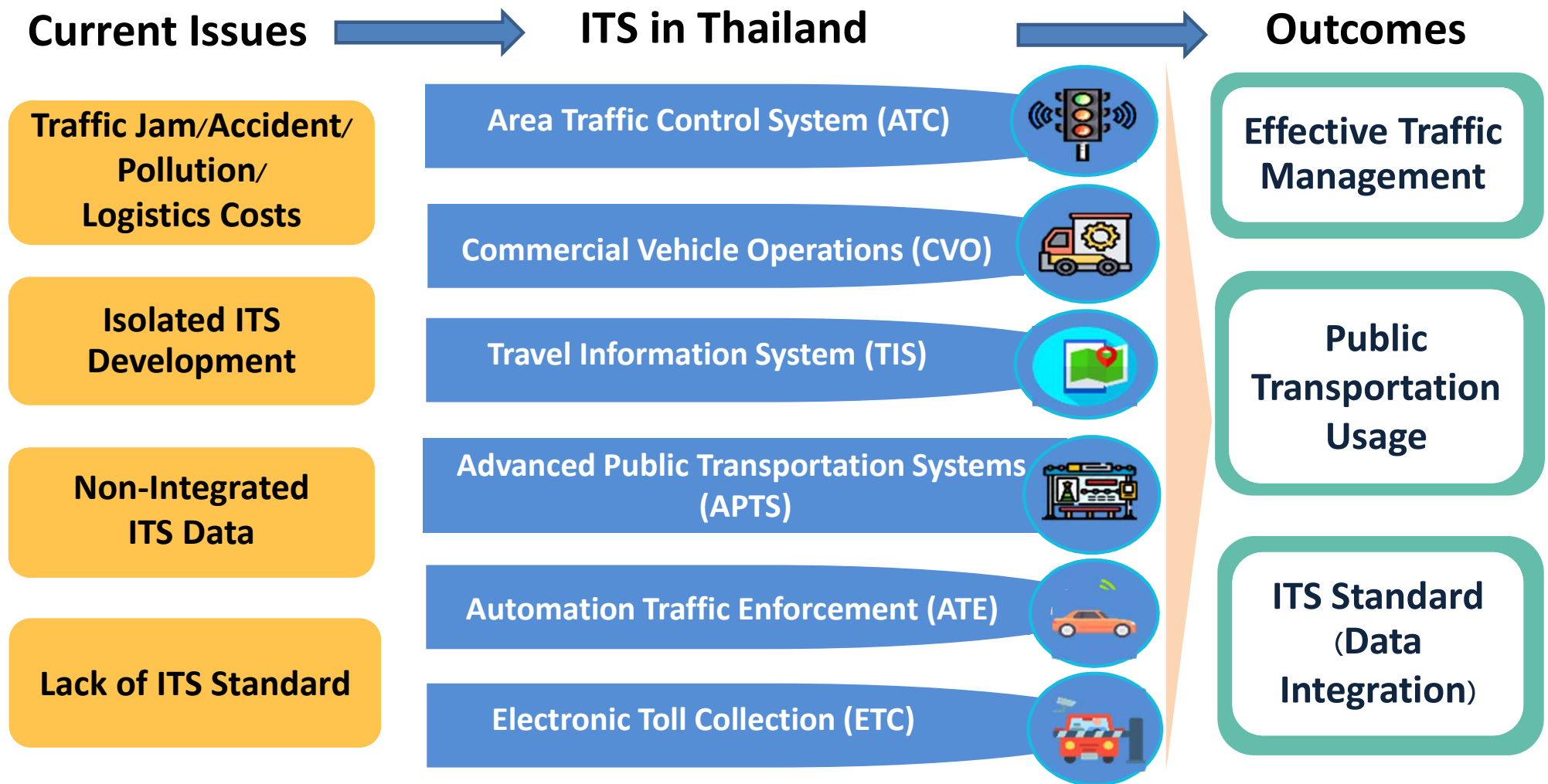


2. Long-term National Transport Development Strategic Plans

20 Years Thailand Transport Systems Development Strategy (2018-2037)



3. ITS in Thailand



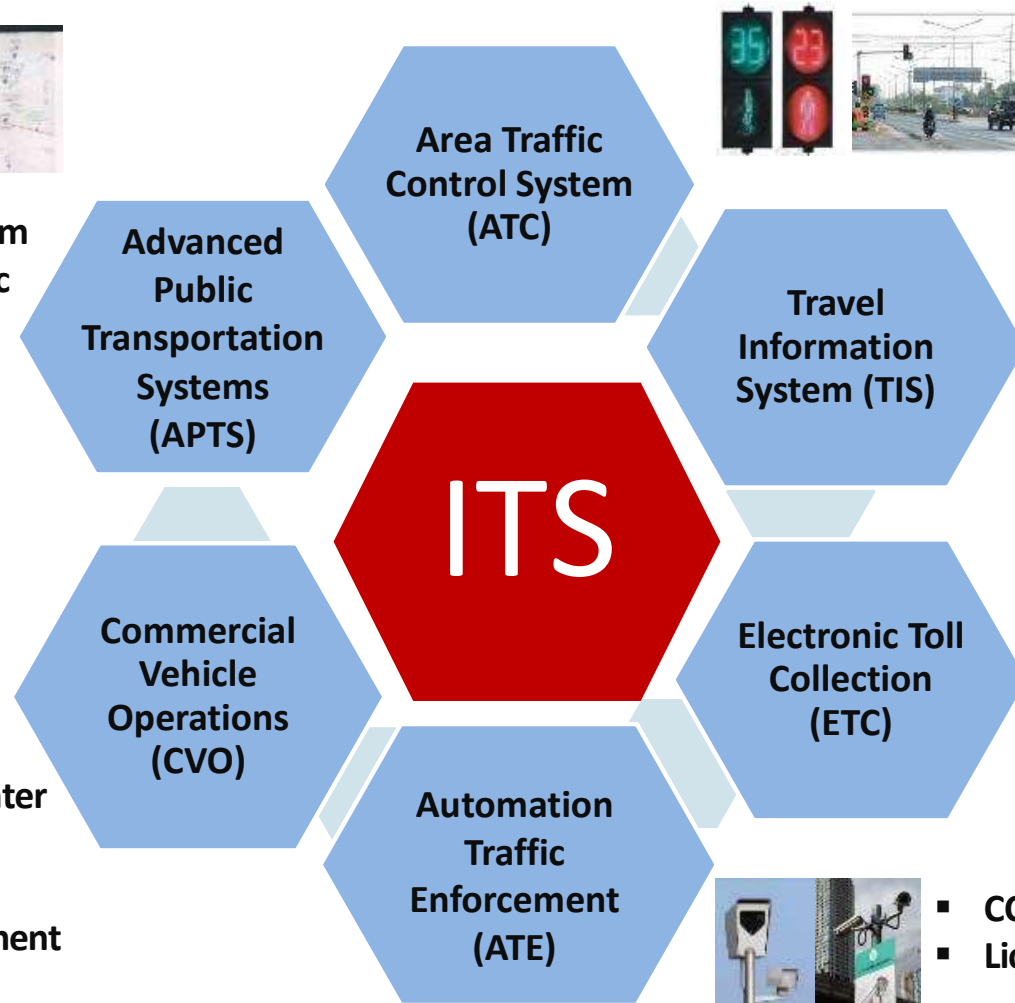
3. ITS in Thailand



- Public Bus Tracking System
- Common Ticket for Public Transport



- GPS Tracking Control Center
- Weigh-in-Motion
- Truck Data Center
- Truck Terminal Management
- Gate Control System



- Adaptive Traffic Control System



- Real Time Traffic Information/ on VMS
- Thailand Road Accident Management System
- National Multimodal Transport Integration Center (NMTIC)

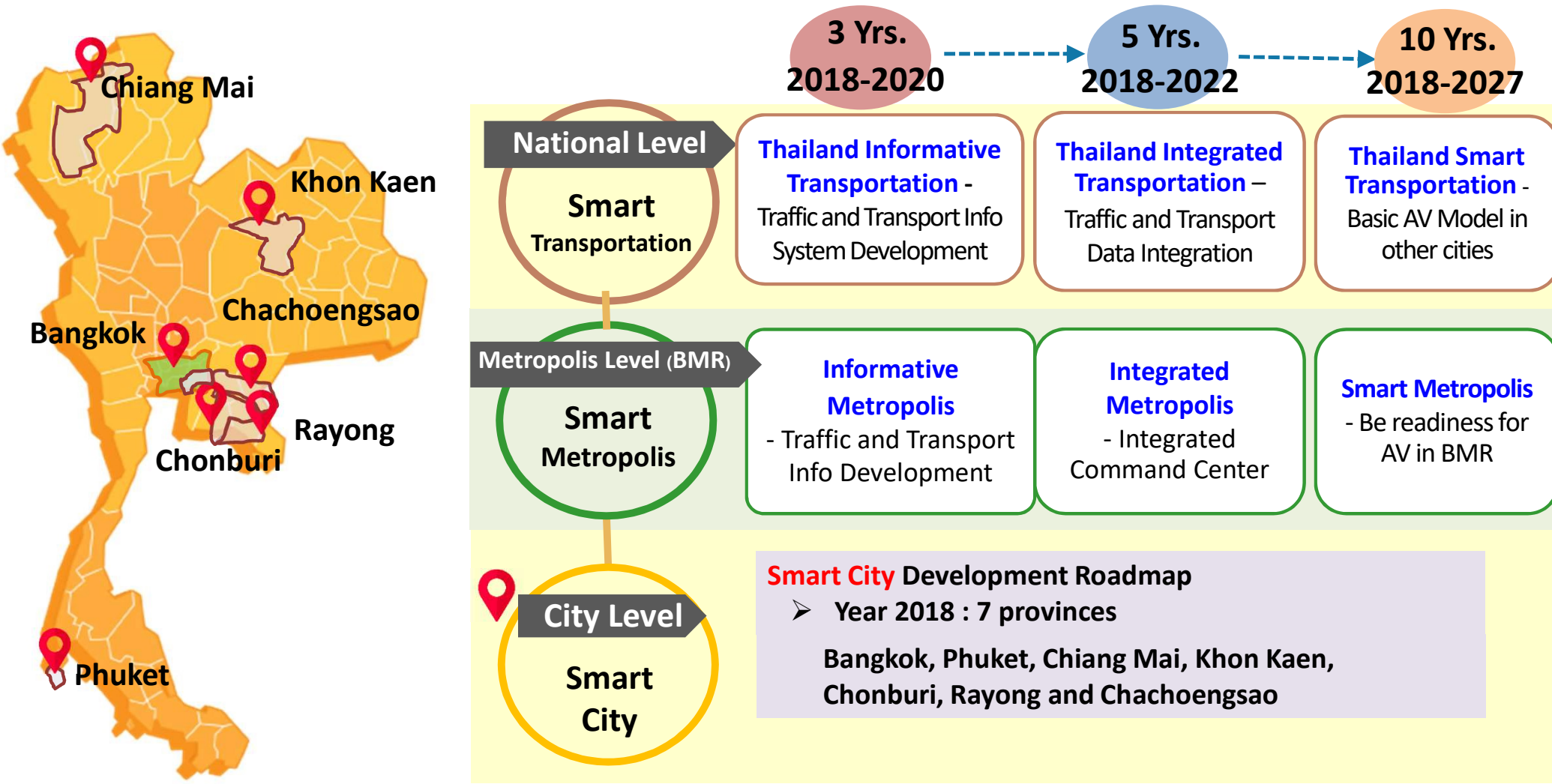


- Easy Pass/M Pass for Express Way



- CCTV and Red Light for Enforcement
- License Plate Detection for Enforcement

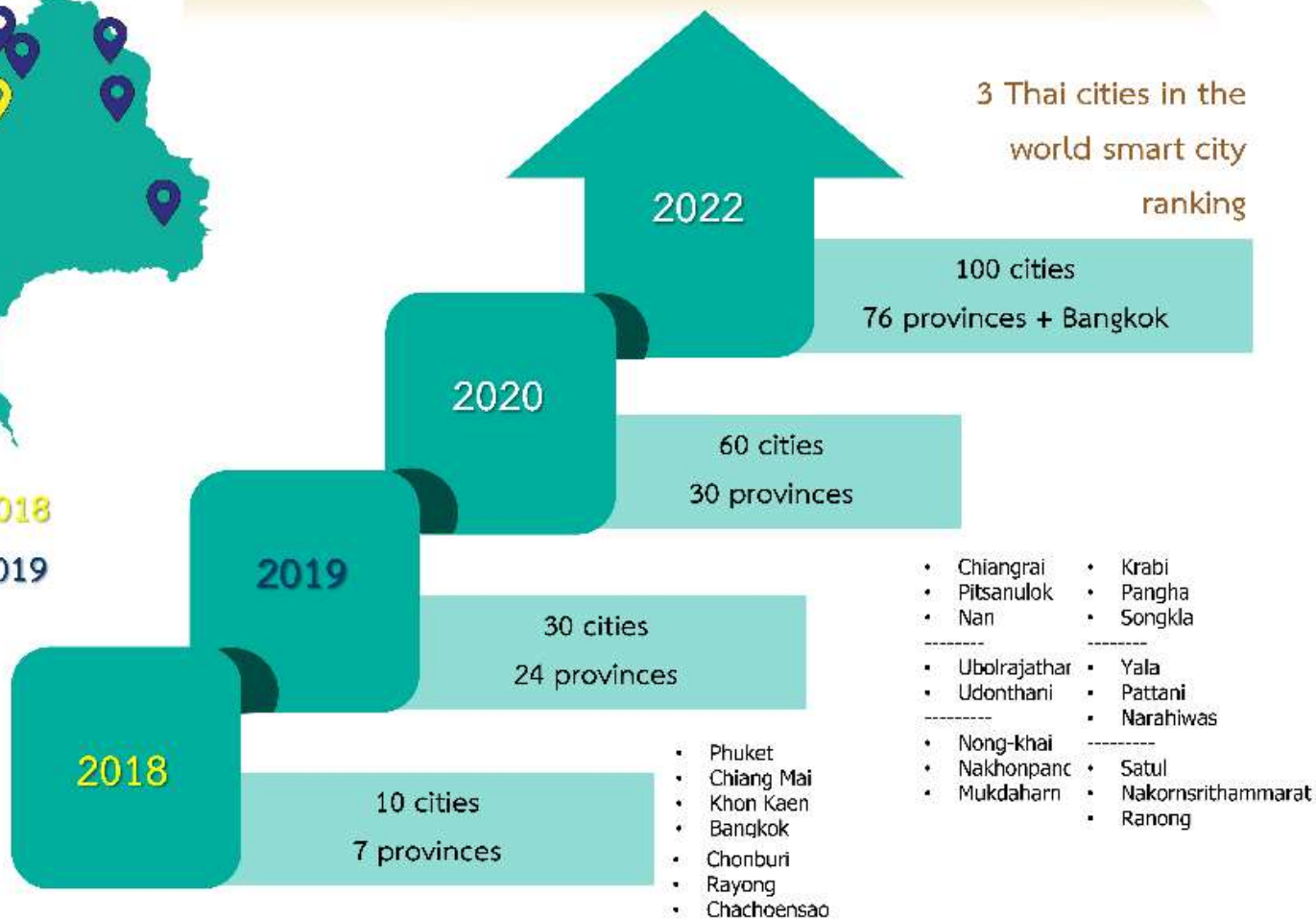
4. Concept of Thailand ITS Master Plan 10 yrs. (2018-2027)



Smart City Development Roadmap



2018
2019



- Chiangrai
 - Pitsanulok
 - Nan
 - Krabi
 - Pangha
 - Songkla
-
- Ubolrajathar
 - Udonthani
 - Nong-khai
 - Nakhonpanc
 - Mukdaharn
 - Yala
 - Pattani
 - Narahiwas
 - Satul
 - Nakornsritthammarat
 - Ranong

- Phuket
- Chiang Mai
- Khon Kaen
- Bangkok
- Chonburi
- Rayong
- Chachoensao

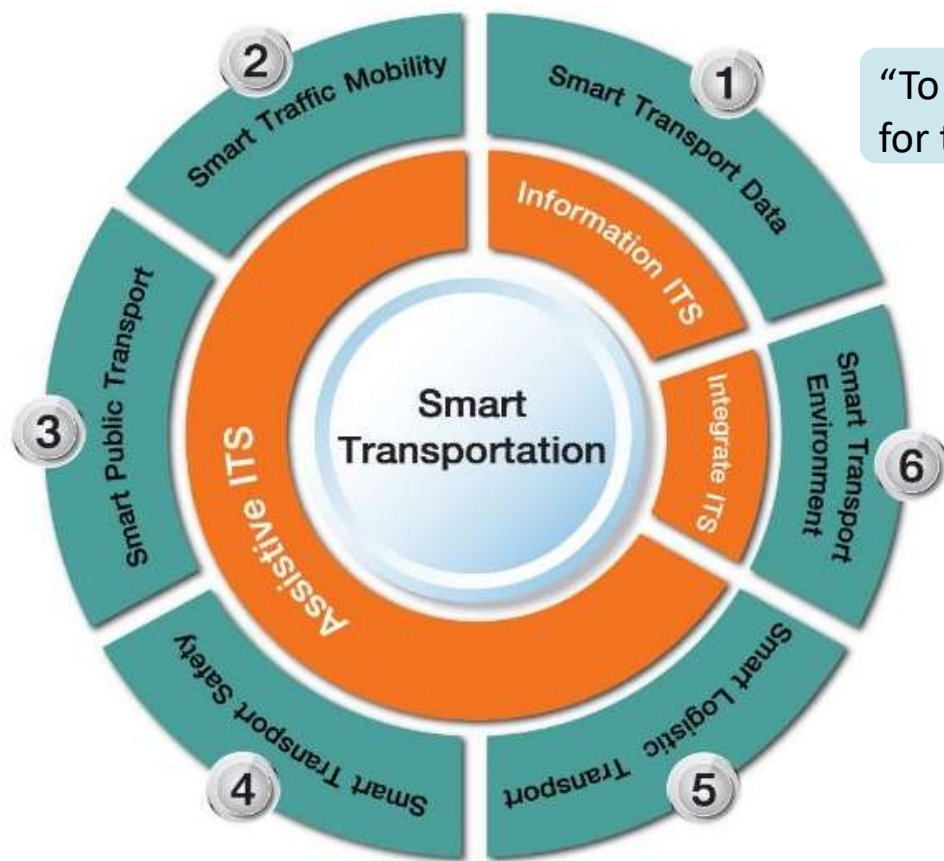
4. Concept of Thailand ITS Master Plan

VISION

Thailand Smart Transportation by Driving Information and ITS Management

MISSION

“To develop traffic information system and ITS management for transport strategy support aiming Thailand Smart Transport”



Phase 1 (3 years) :

Thailand Informative Transportation

Internal country trip is informative and active which is information for trip planning.



Phase 2 (5 years) :

Thailand Integrated Transportation

Transport in Bangkok and metropolis area are integrated with ITS such as toll collection, traffic management & interactive connection between travelers, service providers and infrastructure.



Phase 3 (10 years) :

Thailand Smart Transportation

Integrated and interactive system. Transport in major Country of Thailand turns to autonomous era.

4. Thailand ITS Master Plan : Guideline for Master Plan Performance

Strategy	Phase 1 <u>Thailand Informative Transportation</u> 2018-2020 (3 Yrs)	Phase 2 <u>Thailand Integrated Transportation</u> 2021-2022 (2 Yrs)	Phase 3 <u>Thailand Smart Transportation</u> 2023-2027 (5 Yrs)
1. Smart Transportation Data	<ul style="list-style-type: none"> Informative Data Collection 	<ul style="list-style-type: none"> Smart Data Integration 	
2. Smart Traffic Mobility	<ul style="list-style-type: none"> Integrated Command Center Informative Journey Planning 		
3. Smart Public Transport	<ul style="list-style-type: none"> Assistive Public Transport One Stop Service Mobility as a Service 		
4. Smart Transport Safety	<ul style="list-style-type: none"> Smart Enforcement 	<ul style="list-style-type: none"> Smart Vehicle 	
5. Smart Logistic Transport	<ul style="list-style-type: none"> Interactive Gateway 	<ul style="list-style-type: none"> Smart Freight Information 	
6. Smart Transport Environment	<ul style="list-style-type: none"> ITS Committee Establishment 	<ul style="list-style-type: none"> ITS Integrate Center Establishment 	

4. Concept of Bangkok and Metropolis Area ITS Master Plan

VISION

Intelligent traffic and transport to enhance the metropolis to smart metropolis

MISSION

“To develop ITS for managing travel demand to be balance”



Phase 1 (3 years) : Informative Metropolis

- Gather information system which covers all the area and publishing information for Trip Planning
- Update law and regulation for autonomous vehicles



Phase 2 (5 years) : Integrate Metropolis

- Initiate mobility as a service from public sector
- Pilot project for autonomous vehicles around Government Center Commemorating 80th Birthday Anniversary and Phaholyothin Transportation Center



Phase 3 (10 Years) : Smart Metropolis

- Initiate TDM system such as Road pricing and parking fee
- Install fully automatic public bus service provided
- Be readiness for autonomous vehicle around Bangkok Metropolitan

4. Guideline for Bangkok Metropolitan Regions ITS Master Plan Performance

Strategy	Phase 1 <u>Informative Metropolis</u> 2018-2020 (3 Yrs)	Phase 2 <u>Integrated Metropolis</u> 2021-2022 (2 Yrs)	Phase 3 <u>Smart Metropolis</u> 2023-2027 (5 Yrs)
1. Assistive Public Transportation	• Informative Public Transport		
	• Smart Public Transport Service		
2. Interactive Demand Management	• Smart Demand Reduction		
		• Mobility as a Service Enhancement	
3. Automotive Traffic Management	• Integrated and Automated Traffic Control		
	• Informative Journal Planning		
4. Intensive Transport Safety	• Smart Enforcement		
		• Smart Vehicle	
5. Integrative Mobility Center	• Data Integrated Center		
		• Operation Integrated Center	

5. ITS Development Goal/ Challenges in Thailand

Public Transport Information



Common Ticket (e-payment)



Intelligent Bus Stops



5. ITS Development Goal/ Challenges in Thailand



5. Priorities on decarbonising transport system : NDC (2021-2030)



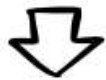
ข้อเสนอการมีส่วนร่วมของประเทศในการลดก๊าซเรือนกระจกและการดำเนินงานด้านการเปลี่ยนแปลงสภาพภูมิอากาศภายหลังปี ค.ศ. 2020 (INDCs) :COP21



“Thailand intends to reduce its greenhouse gas emission by 20 percent from the projected business as-usual (BAU) level by 2030. The level of contribution could increase up to 25 percent, subject to adequate and enhanced (support) through a balanced and



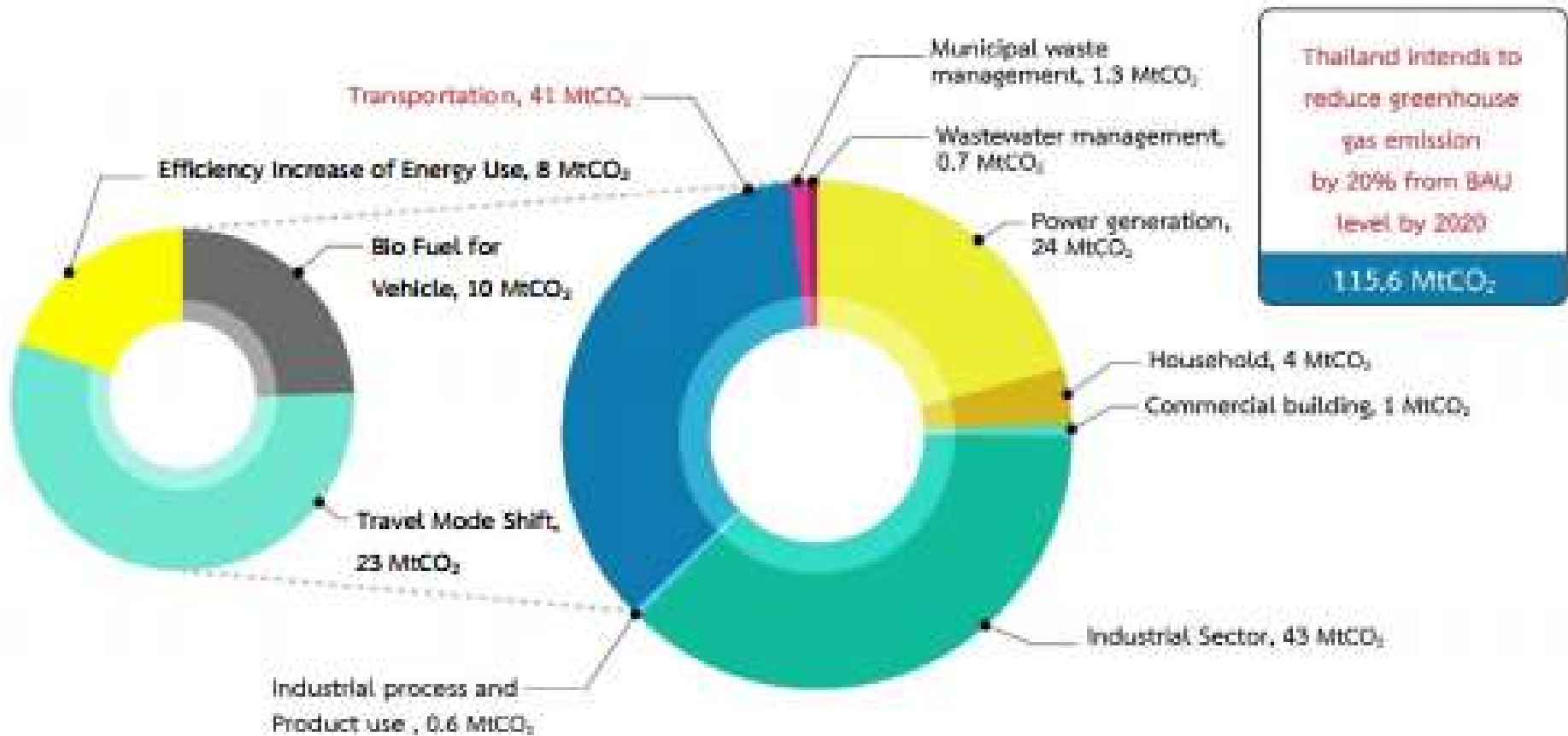
ambitious global agreement [...]”



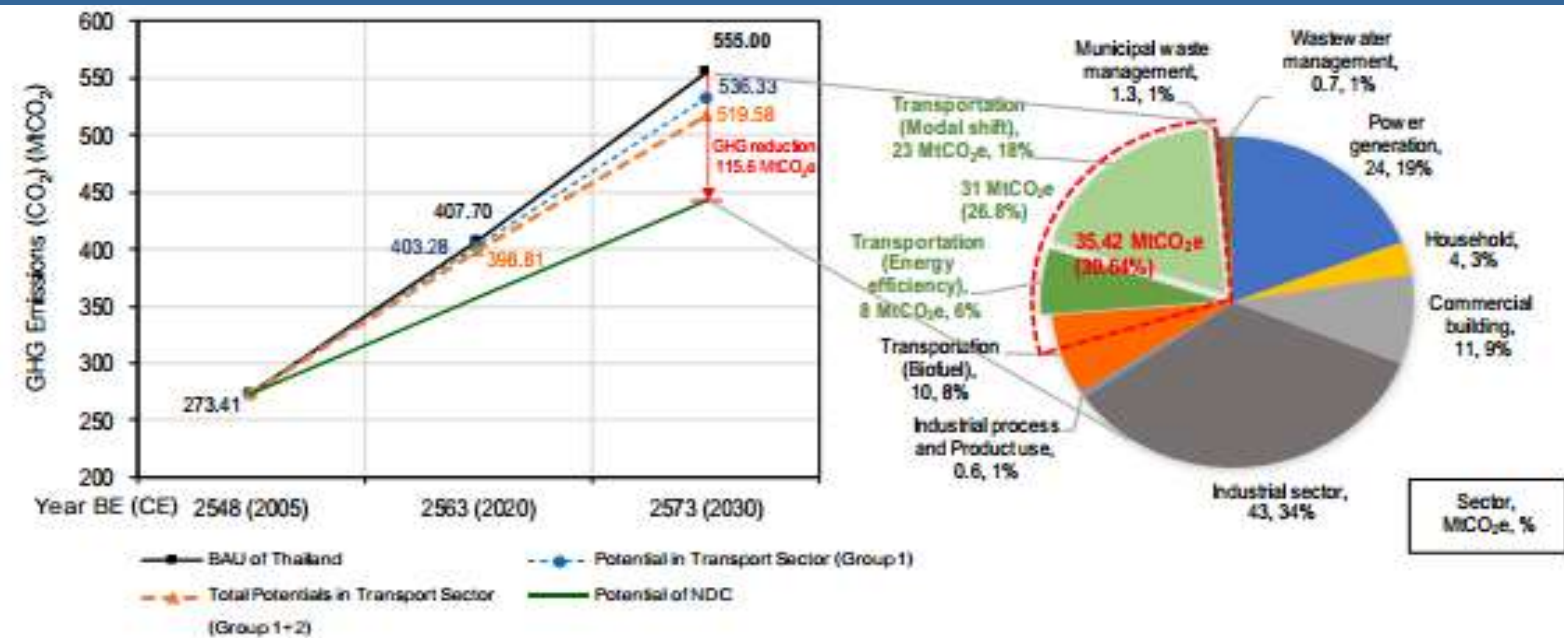
Target
20 % from BAU by 2030
=111 MtCO₂

Thailand’s Nationally Determines Contribution Actions: NDCs

5. Priorities on decarbonising transport system : **NDC in Transport Sector**



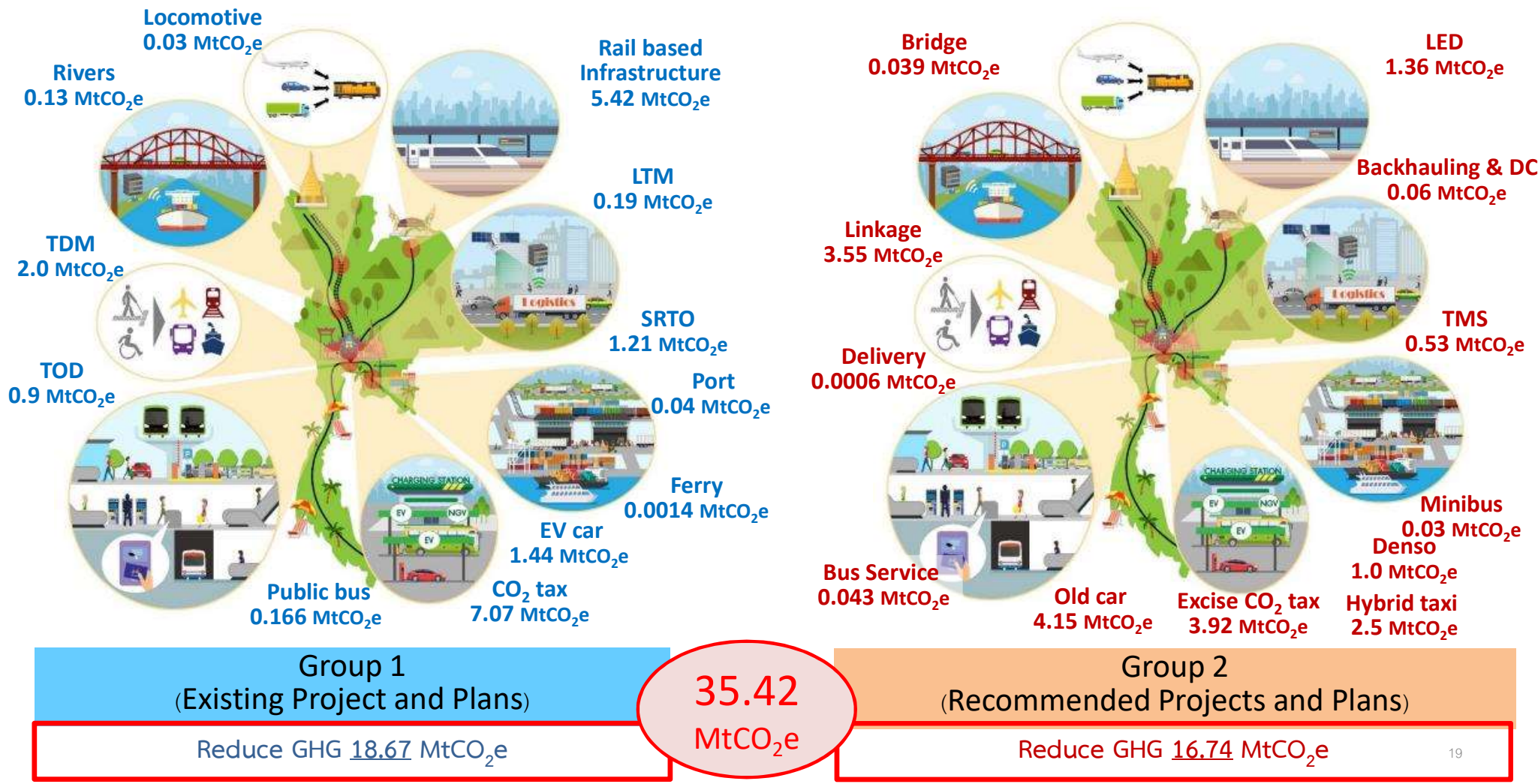
5. Priorities on decarbonising transport system : **NDC in Transport Sector**



		2548 (2005)	2563 (2020)	2573 (2030)
GHG emissions (CO ₂) in care of BAU (MtCO ₂ e):	Thailand	273.41	407.70	555.00
	Transport Sector	57.52	77.98	109.99
Potential to reduce GHG (CO ₂) in Transport Sector (MtCO ₂ e)	Group 1 (Existing Project and Plans) : 17 Projects	-	(4.42)	(18.67)
	Group 2 (Recommended Projects and Plans) : 6 Projects	-	(4.46)	(16.74)
	Group 3 (Added Projected and Plans) : 9 Projects	-	-	-
	Total	-	(8.89)	(35.42)
	Thailand (Plans)	273.41	398.81	519.58

> 31
MtCO₂e

5. Priorities on decarbonising transport system : NDC in Transport Sector





Q&A

Thank You



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