The Next move of Aviation industry

..Opportunity and Challenge.

LATCHIDA APAPHANT

Executive Vice President.

Airports of Thailand PLC.

JANUARY 24th , 2024

2023 OVERVIEW

Agenda

01 **Actual and forecast**
Actual and forecast of passengers & aircrafts

02 **Slot comparison**
Comparison of slot request and actual in summer 2023

03 **Load factor performance**
summer 2023 and winter 2023-2024 (at dec23)

04 **Nationalities of passengers**
the top 10 nationalities of passengers in 2019 vs 2023

05 **The recovery of Chinese passengers and flights**
2019 vs 2023

06 **Traveler pattern**
Portion of Free Independent Traveler (FIT) Group Inclusive Tour (GIT)

01 Actual and forecast : Passengers of AOT

12 Months(October 2022 - September 2023)

AOT

		Int	Dom
✈	639,892 (+62.2%)	321,053 (+133.5%)	318,839 (+24.1%)
🧳	100.06M (+114.3%)	53.91M (+287.9%)	46.15M (+40.8%)
📦	1.15M (-6.0%)	1.12M (-6.2%)	28,183 (+4.3%)

BKK

		Int	Dom
✈	294,085 (+56.2%)	204,632 (+89.6%)	89,453 (+11.3%)
🧳	48.37M (+137.8%)	36.58M (+245.5%)	11.79M (+20.9%)
📦	1.11M (-7.9%)	1.10M (-8.0%)	11,691 (+5.3%)

DMK

		Int	Dom
✈	177,195 (+84.7%)	64,521 (+442.1%)	112,674 (+34.1%)
🧳	25.74M (+112.1%)	8.71M (+643.8%)	17.03M (+55.3%)
📦	11,014 (+135.4%)	8,166 (+435.1%)	2,848 (-9.6%)

CNX

		Int	Dom
✈	52,682 (+58.8%)	11,145 (+1247.6%)	41,537 (+28.4%)
🧳	7.80M (+79.2%)	1.49M (+1661.7%)	6.31M (+47.9%)
📦	5,290 (+7.8%)	369 (+3590.0%)	4,921 (+0.5%)

HDY

		Int	Dom
✈	20,956 (+11.8%)	1,588 (+228.8%)	19,368 (+6.0%)
🧳	3.20M (+25.1%)	234,848 (+310.8%)	2.96M (+18.5%)
📦	3,302 (-13.3%)	-	3,302(-13.3%)

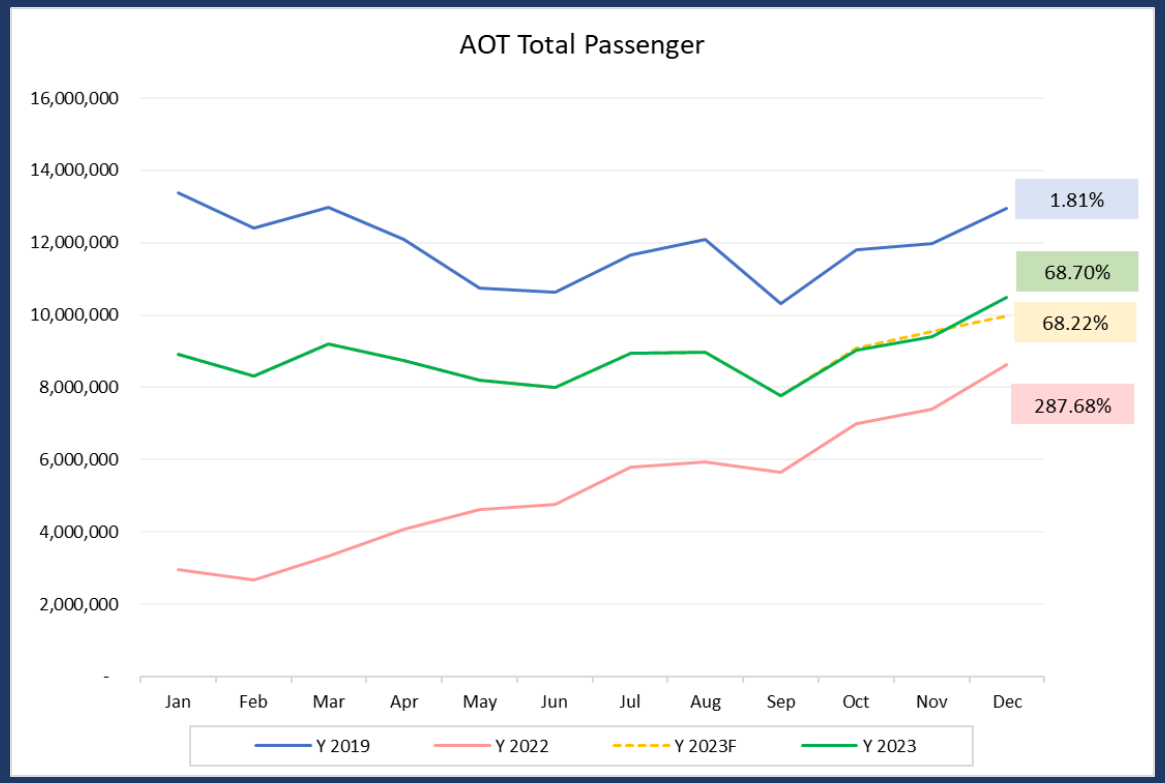
HKT

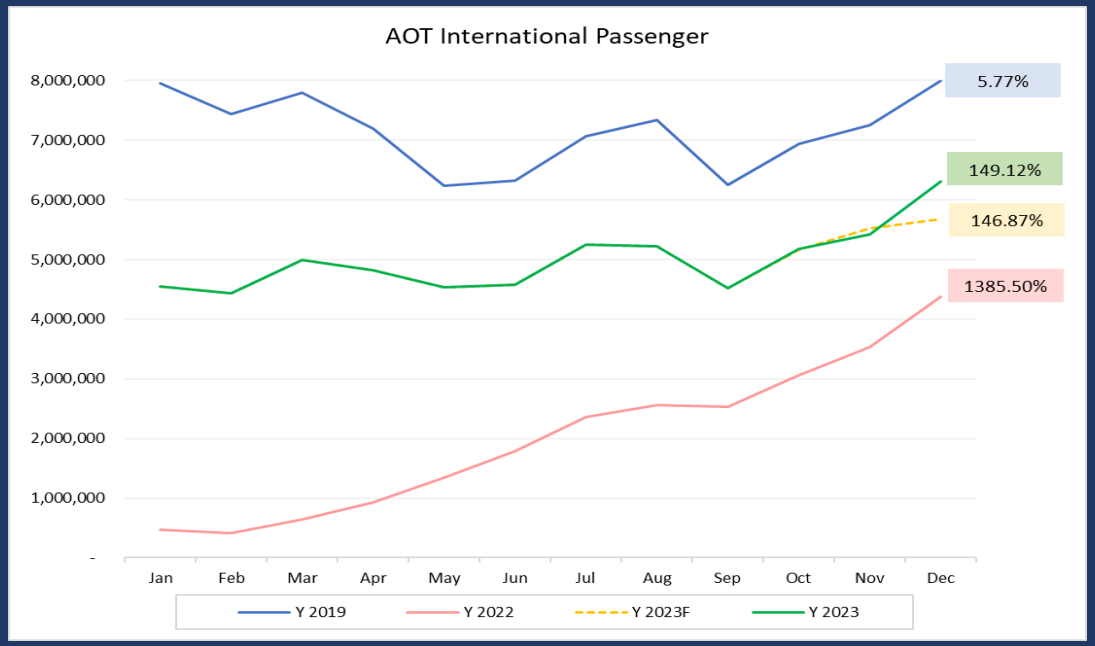
		Int	Dom
✈	82,283 (+72.8%)	39,107 (+139.1%)	43,176 (+38.1%)
🧳	13.01M (+122.8%)	6.90M (+244.9%)	6.11M (+59.3%)
📦	21,966 (+242.1%)	17,441 (+440.3%)	4,525 (+41.8%)

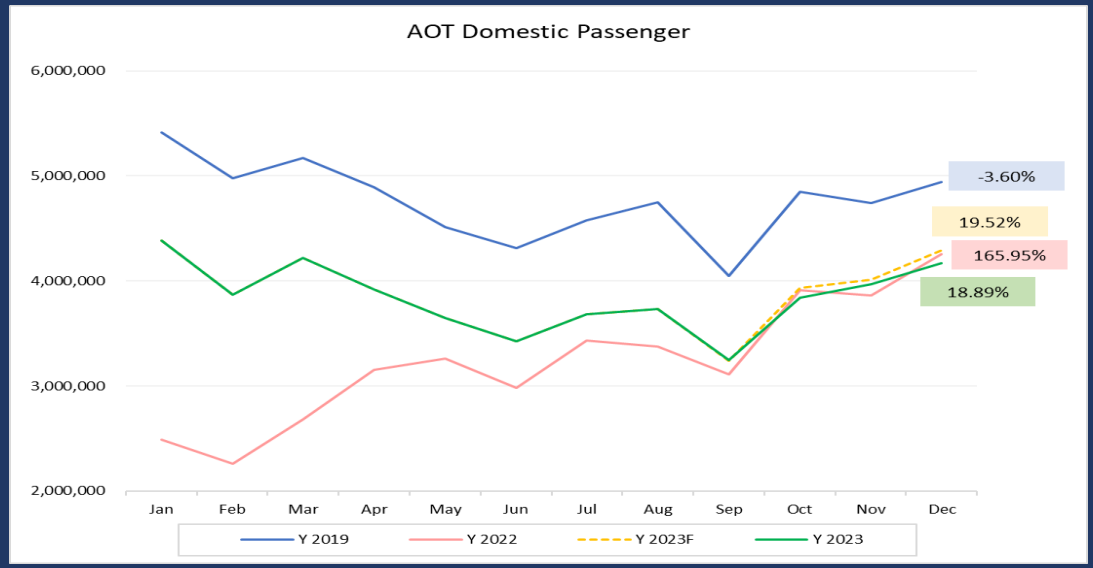
CEI

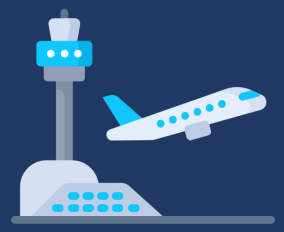
		Int	Dom
✈	12,691 (+18.6%)	60 (+757.1%)	12,631 (+18.1%)
🧳	1.94M (+32.5%)	406 (+745.8%)	1.94M (+32.5%)
📦	896 (+2.1%)	-	896 (+2.1%)

01 Actual and forecast : Passengers of AOT

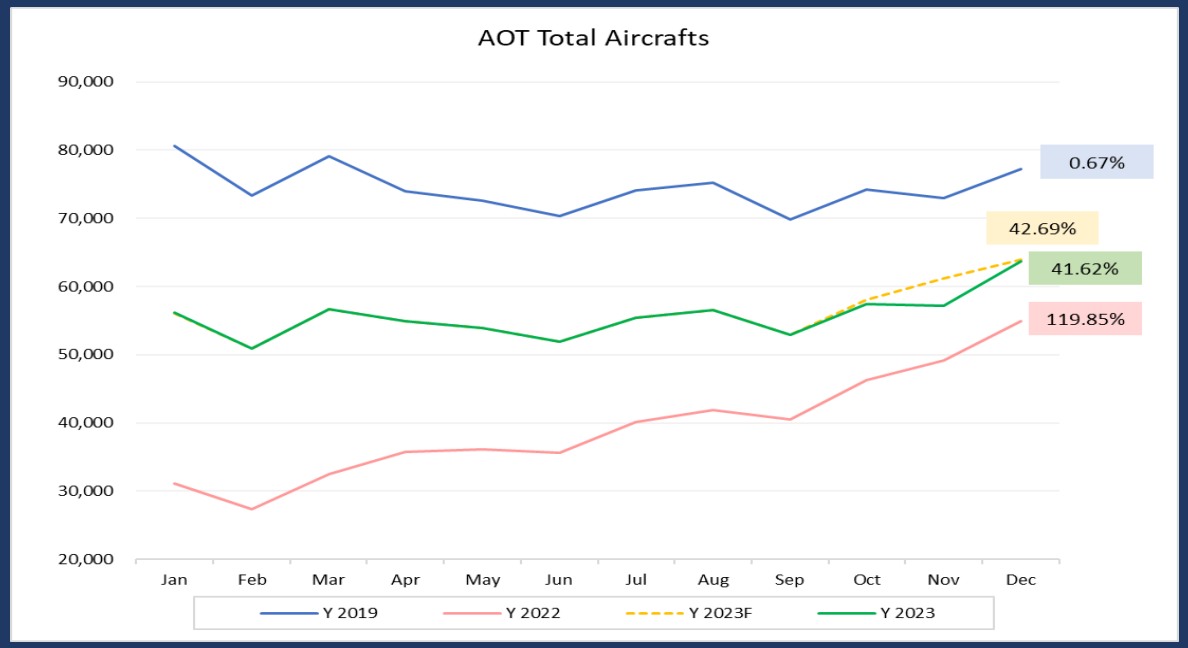


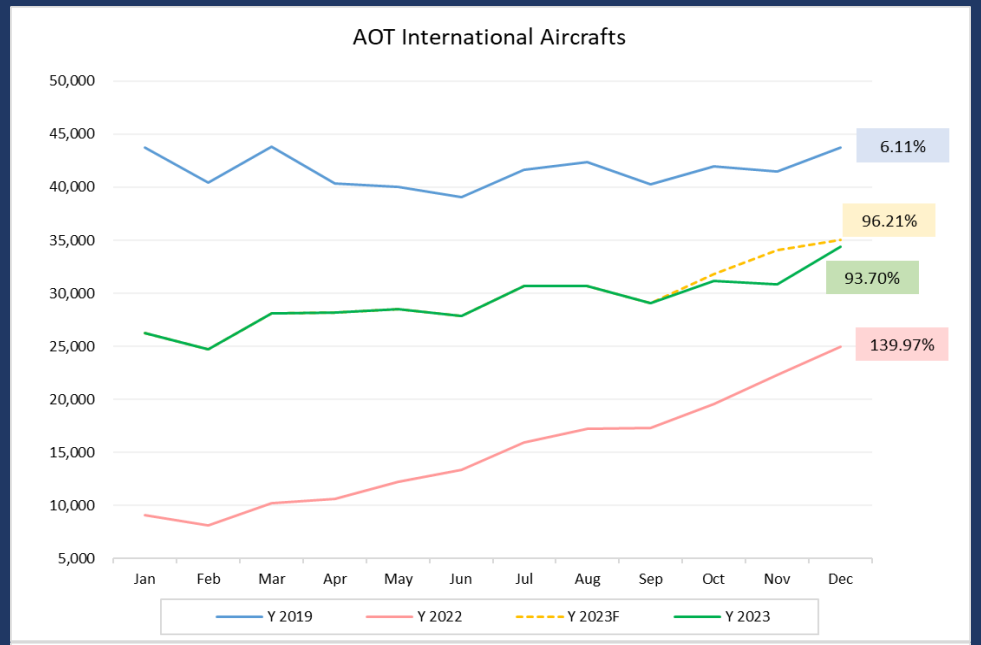


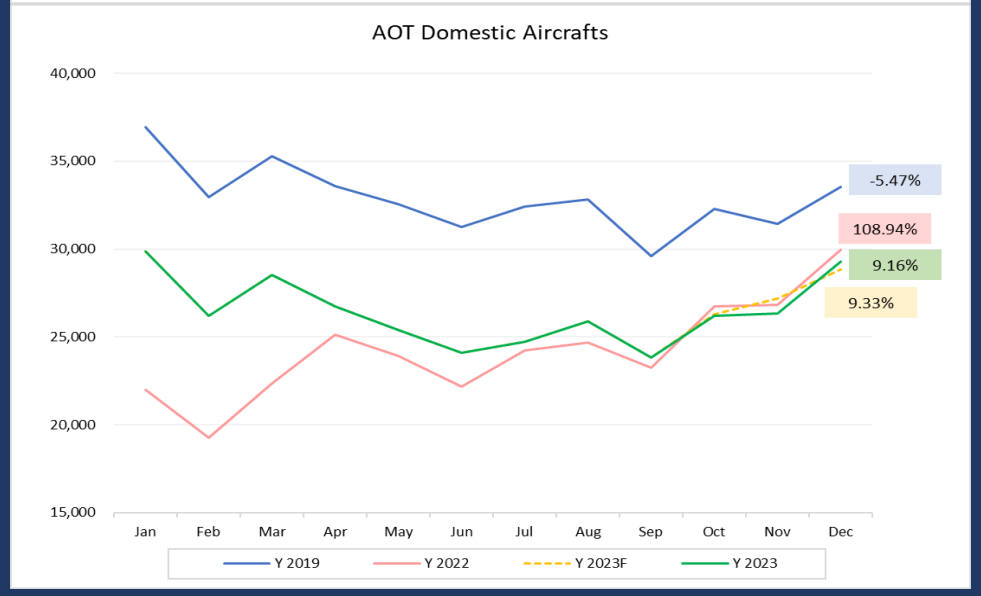




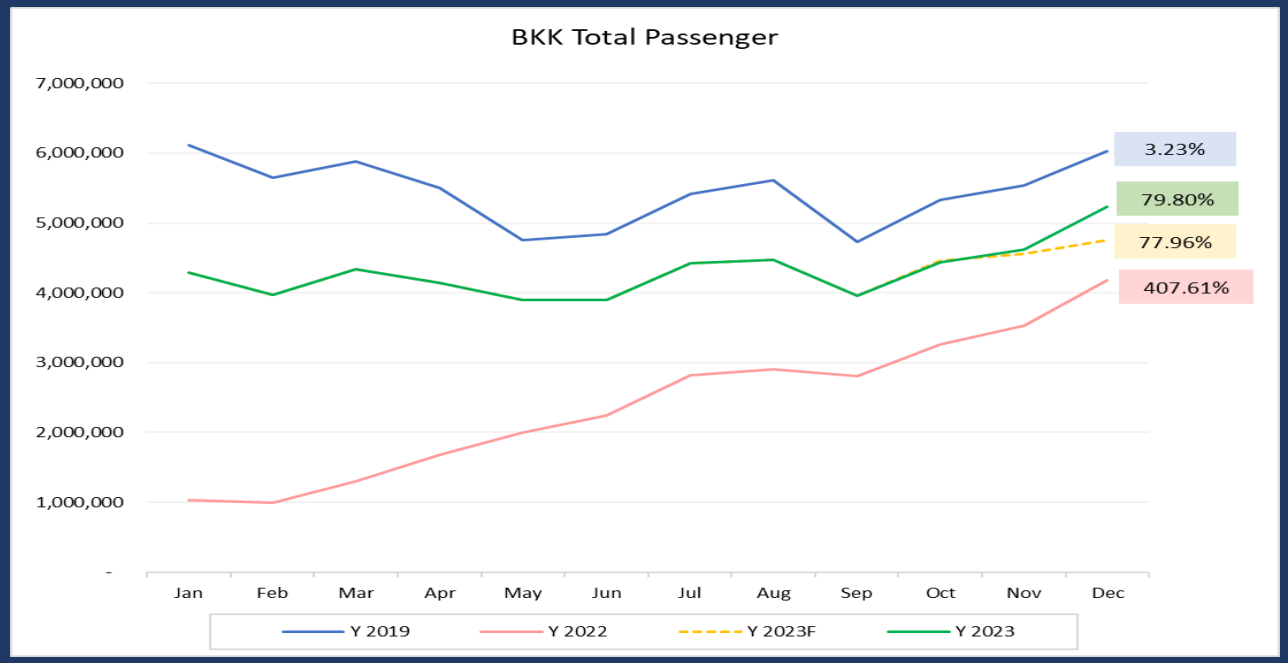
01 Actual and forecast : Aircrafts of AOT

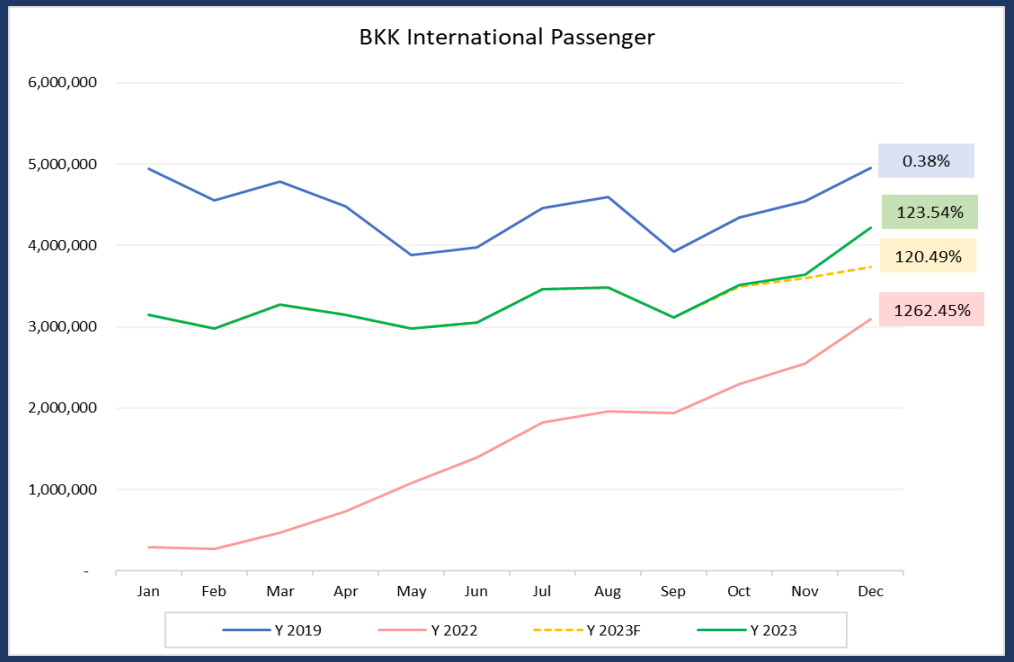


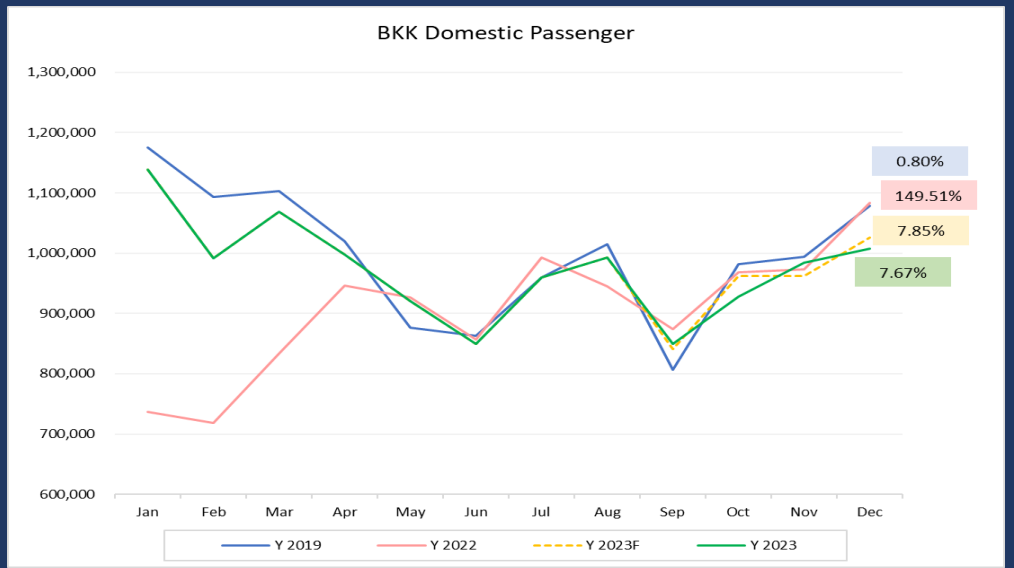


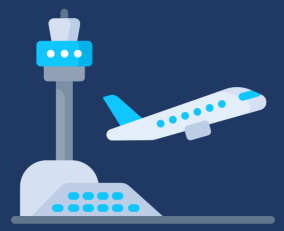


01 Actual and forecast : Passengers of BKK

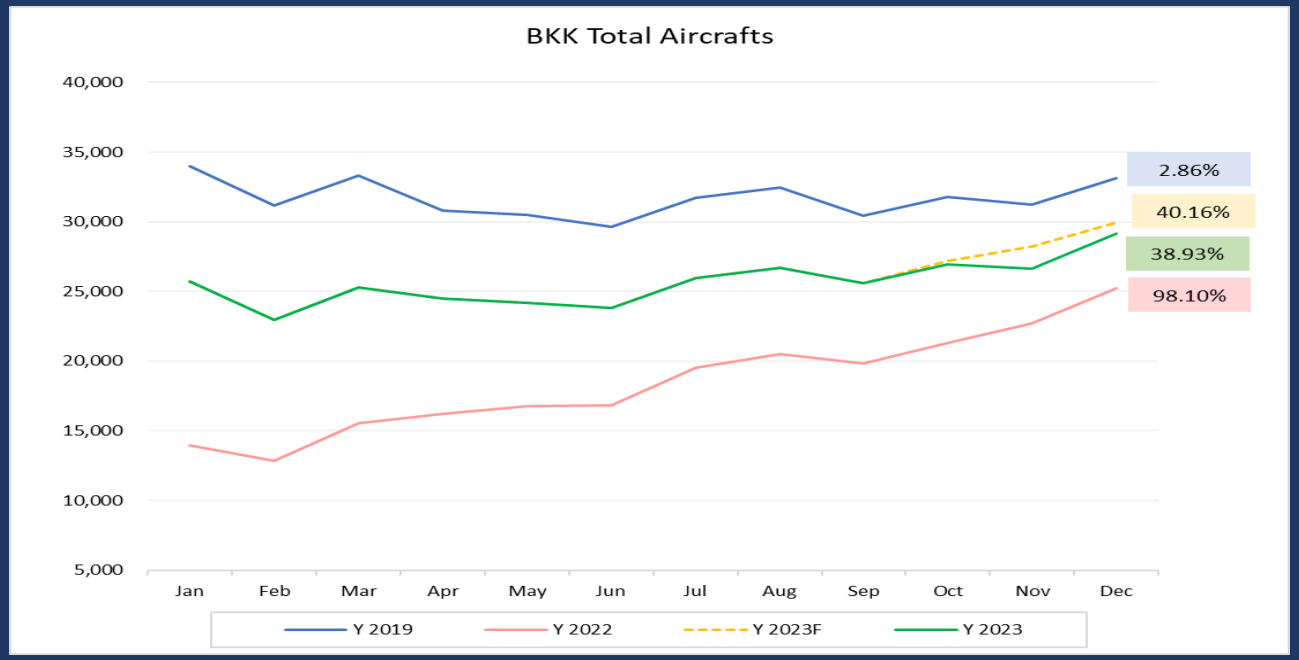


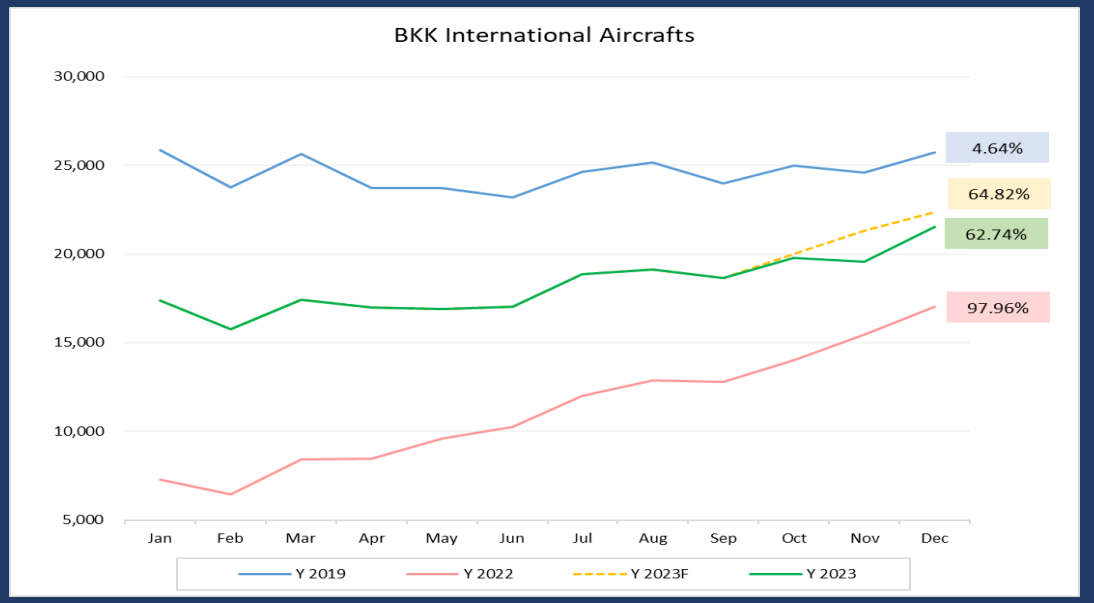


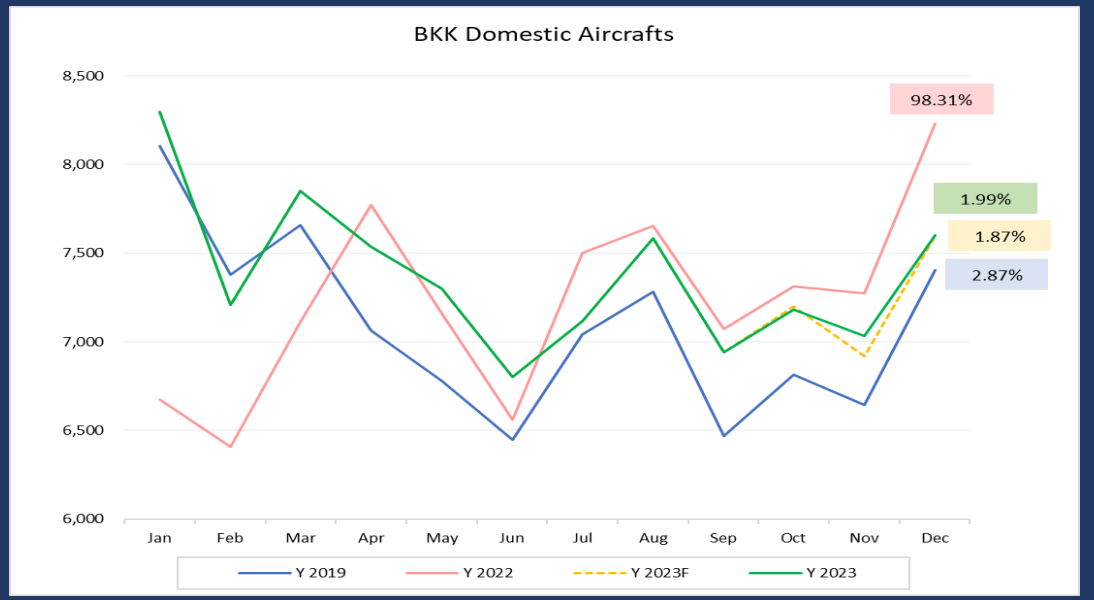




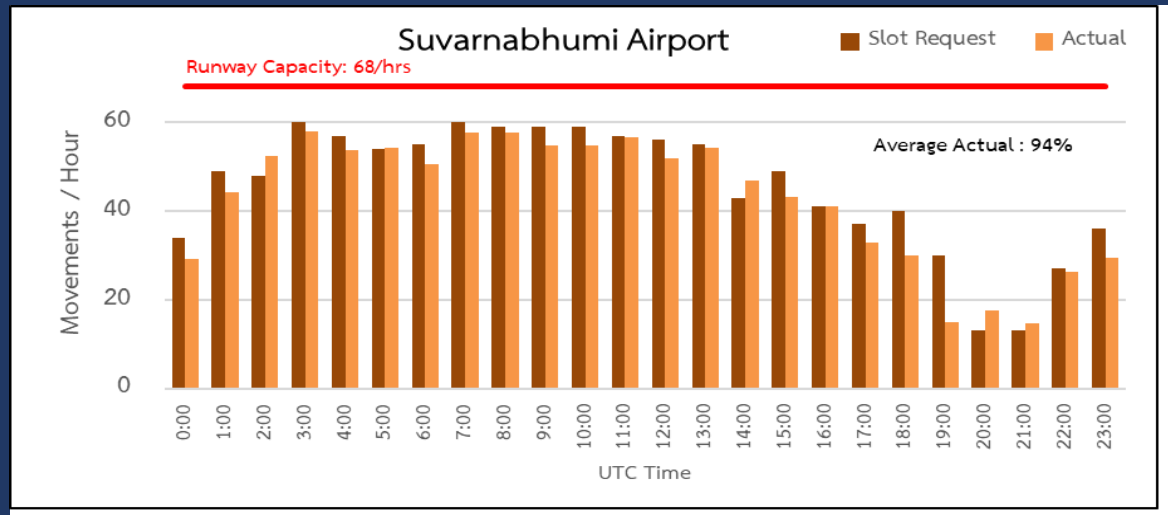
01 Actual and forecast : Aircrafts of BKK

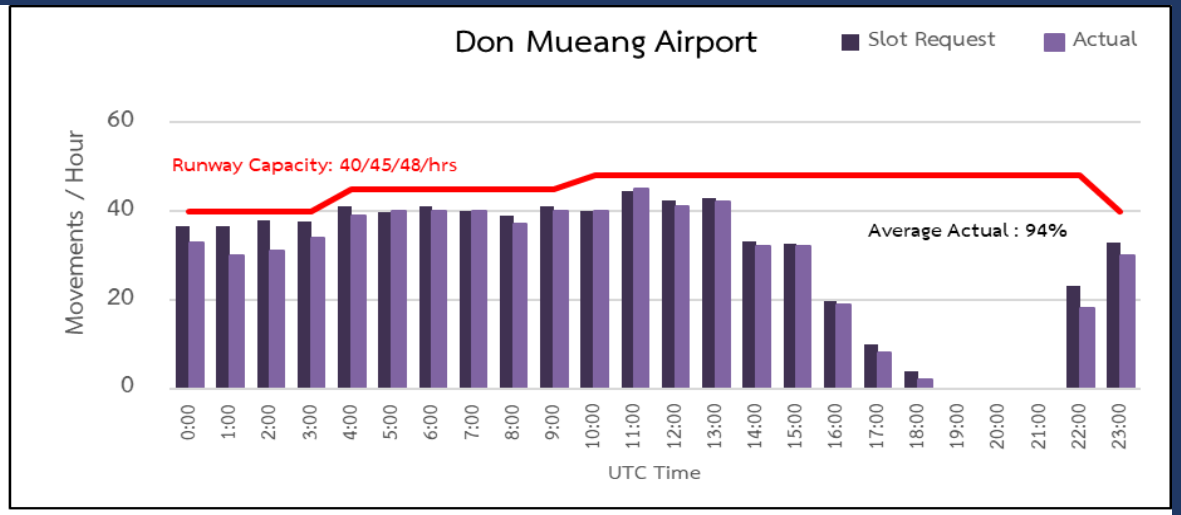


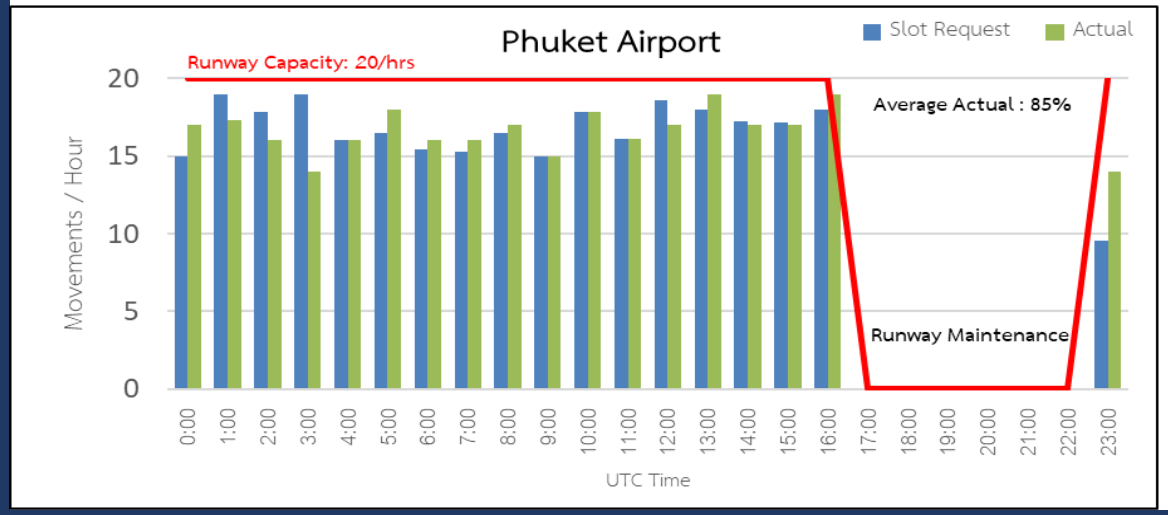


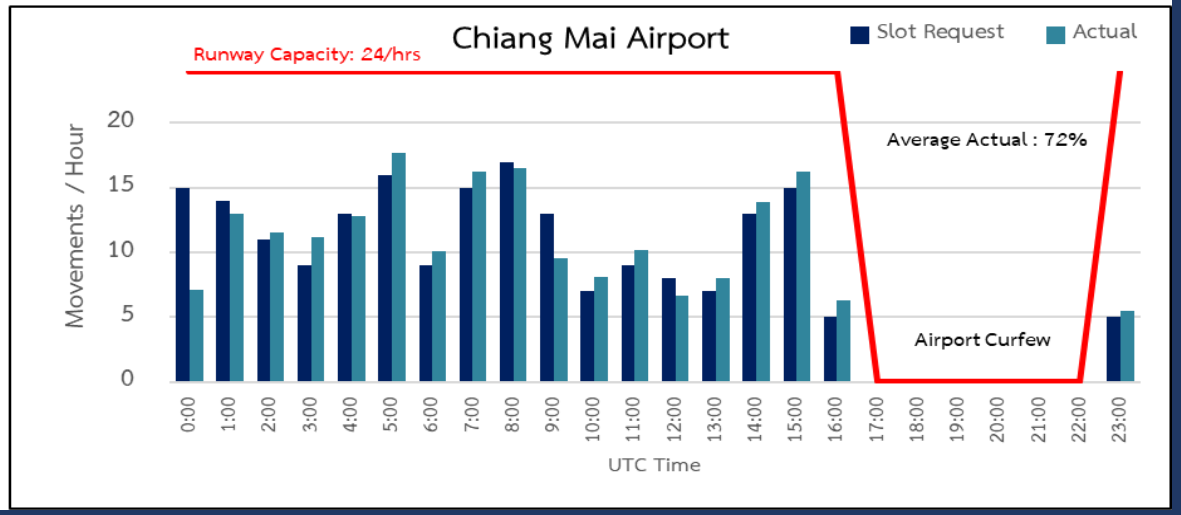


02 Compare Slot Request and Actual in Summer 2023









03 Load factor performance

AFRICA	SUMMER 2023	WINTER 2023/24
	BKK	BKK
AIR AUSTRAL	-	91.1%
ETHIOPIAN AIRLINES	94.6%	54.4%
KENYA AIRWAYS	53.0%	31.7%
TOTAL	**61.9%**	**56.2%**

AMERICA	SUMMER 2023	WINTER 2023/24
	BKK	BKK
AIR CANADA	-	97.7%
TOTAL	-	**97.7%**

OCEANIA	SUMMER 2023		WINTER 2023/24	
	BKK	HKT	BKK	HKT
JETSTAR AIRWAYS	90.8%	95.0%	93.9%	93.1%
QANTAS AIRWAYS	90.7%	-	91.9%	-
THAI AIRASIA X	48.3%	-	58.8%	-
THAI AIRWAYS	84.6%	-	87.9%	-
TOTAL	**81.3%**	**95.0%**	**85.7%**	**93.1%**

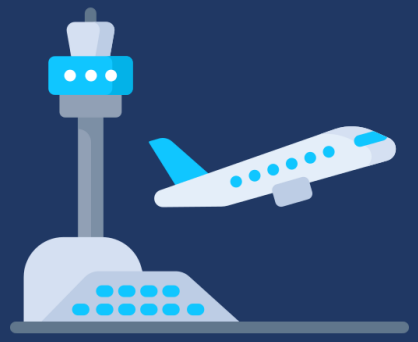
MIDDLE EAST	SUMMER 2023		WINTER 2023/24	
	BKK	HKT	BKK	HKT
EMIRATES	74.2%	87.4%	78.0%	90.8%
ETIHAD AIRWAYS	87.7%	84.5%	88.1%	91.3%
QATAR AIRWAYS COMPANY	86.1%	80.0%	86.4%	79.3%
TOTAL	**79.7%**	**81.6%**	**81.4%**	**81.7%**

EUROPE	SUMMER 2023		WINTER 2023/24	
	BKK	HKT	BKK	HKT
AEROFLOT RUSSIAN AIRLINES	83.2%	85.5%	78.4%	78.2%
FINNAIR O/Y	75.1%	-	75.3%	80.2%
THAI AIRWAYS	84.4%	-	81.9%	-
TURKISH AIRLINES	89.2%	88.5%	88.5%	92.7%
TOTAL	**85.2%**	**85.8%**	**83.6%**	**80.8%**

03

Load factor performance

ASIA PACIFIC	SUMMER 2023				WINTER 2023/24			
	BKK	DMK	CNX	HKT	BKK	DMK	CNX	HKT
THAI AIR ASIA	80.2%	80.4%	67.4%	82.1%	81.5%	82.1%	85.0%	71.6%
THAI AIRWAYS	71.9%	-	-	-	78.8%	-	-	-
THAI VIET JET AIR	71.2%	-	62.2%	67.4%	80.3%	-	81.5%	89.0%
VIETJET AIR	78.8%	-	59.9%	-	80.1%	-	84.8%	82.2%
VIETNAM AIRLINES	80.1%	-	-	-	84.5%	-	-	-
TOTAL	**74.7%**	**78.6%**	**69.4%**	**72.1%**	**82.1%**	**81.8%**	**82.1%**	**73.5%**



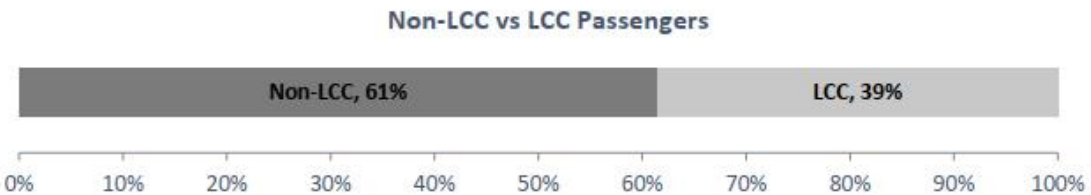
CONTINENTS	SUMMER 2023				WINTER 2023/24			
	BKK	DMK	CNX	HKT	BKK	DMK	CNX	HKT
AFRICA	61.9%	-	-	-	56.2%	-	-	-
AMERICA	-	-	-	-	97.7%	-	-	-
ASIA PACIFIC	74.7%	78.6%	69.4%	72.1%	82.1%	78.6%	82.1%	73.5%
EUROPE	85.2%	-	-	85.8%	83.6%	-	-	80.8%
MIDDLE EAST	79.1%	-	-	81.6%	81.4%	-	-	81.7%
OCENIA	81.3%	-	-	95.0%	85.7%	-	-	93.1%

AOT

FY2023 International Traffic

No. of Schedule Airlines: **84 Non-LCCs + 38 LCCs**

	Schedule	Non-Schedule	Total Int. Pax
PAX (million)	**54.40**	**1.45**	**53.90**
%Recovery from 2019	*63.1%*	*85.6%*	*63.6%*

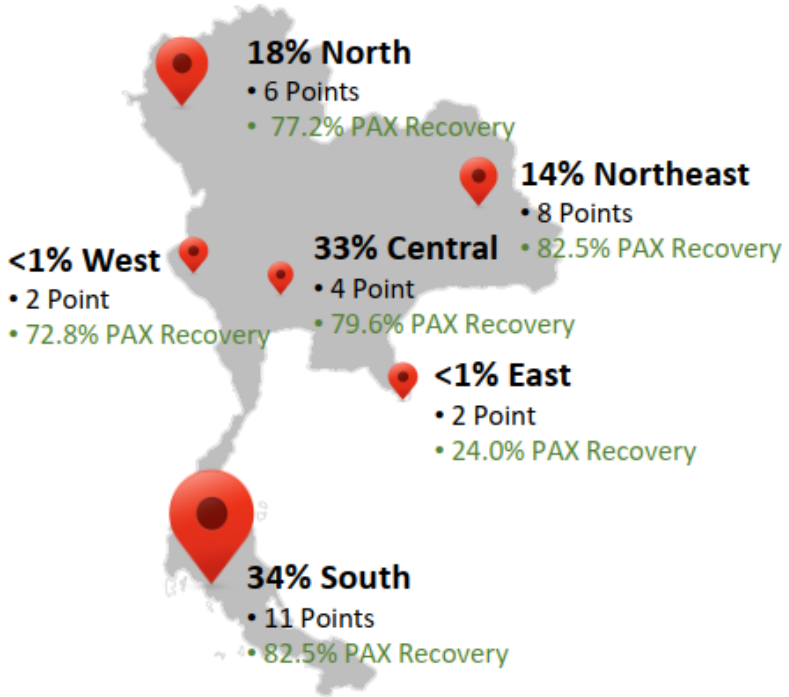


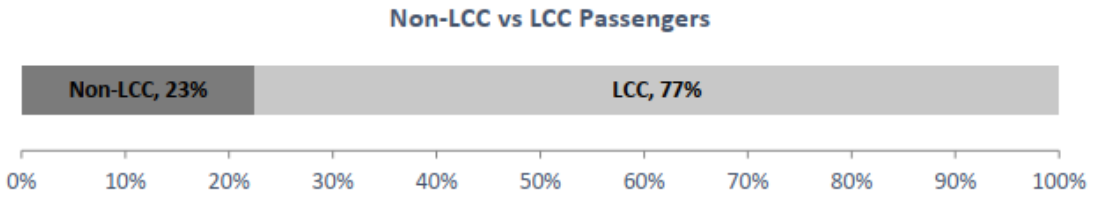
AOT

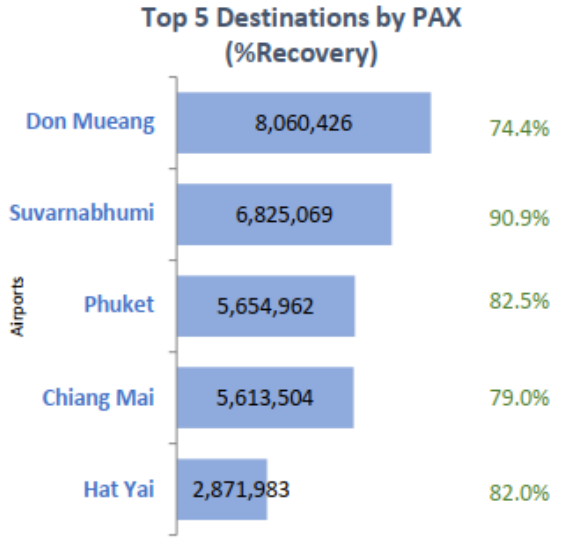
FY2023 Domestic Traffic

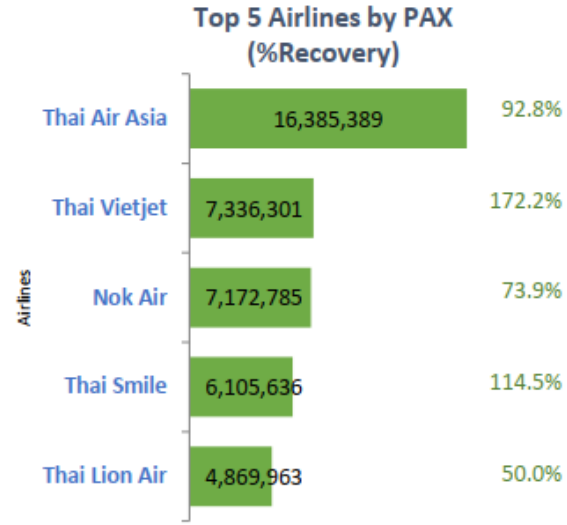
No. of Schedule Airlines: 2 Non-LCCs + 4 LCCs

	Schedule	Non-Schedule	Total Int. Pax
PAX (million)	**45.66**	**0.49**	**46.15**
%Recovery from 2019	*80.8%*	*93.2%*	*80.9%*

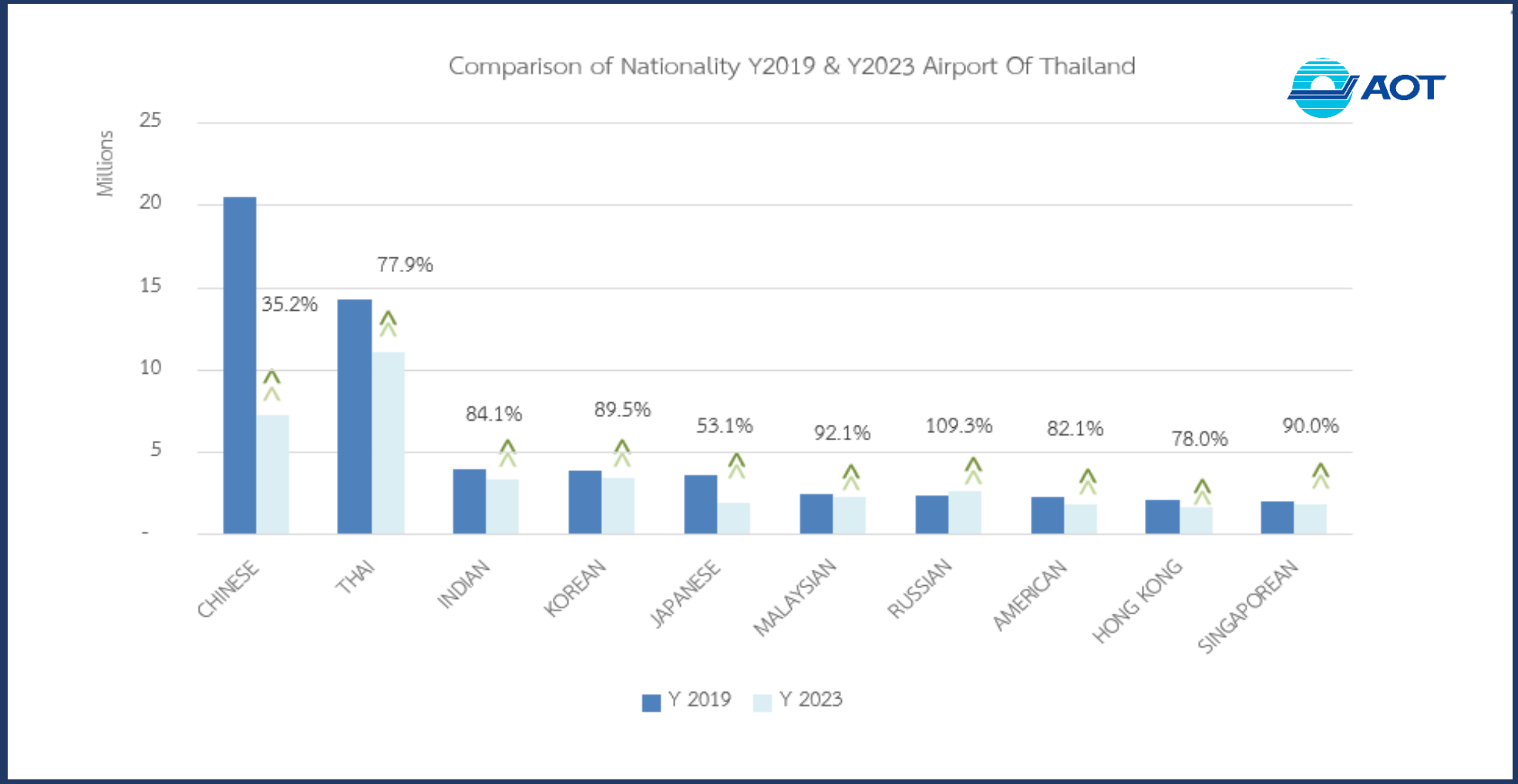








04 Nationalities of passengers



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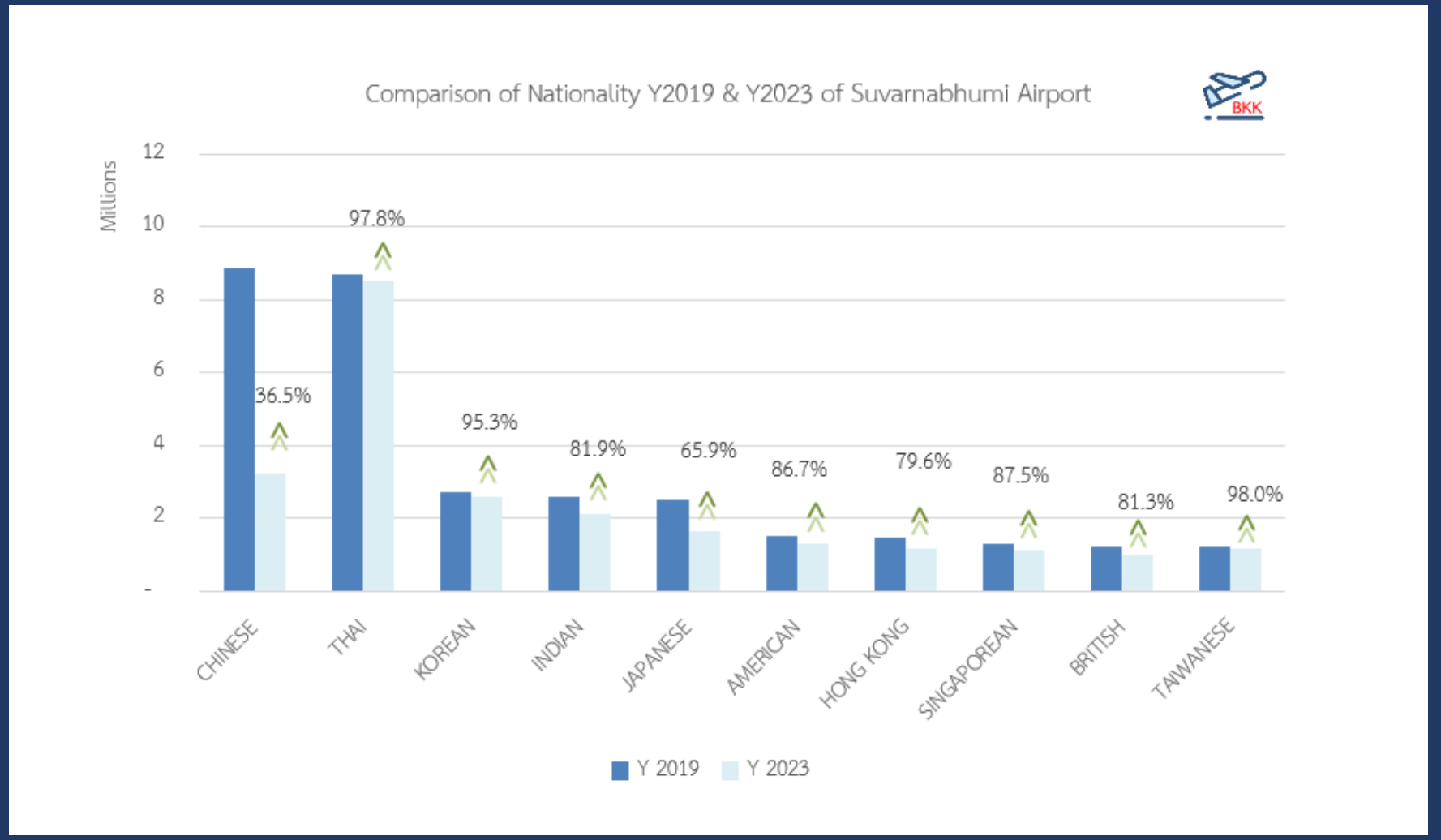
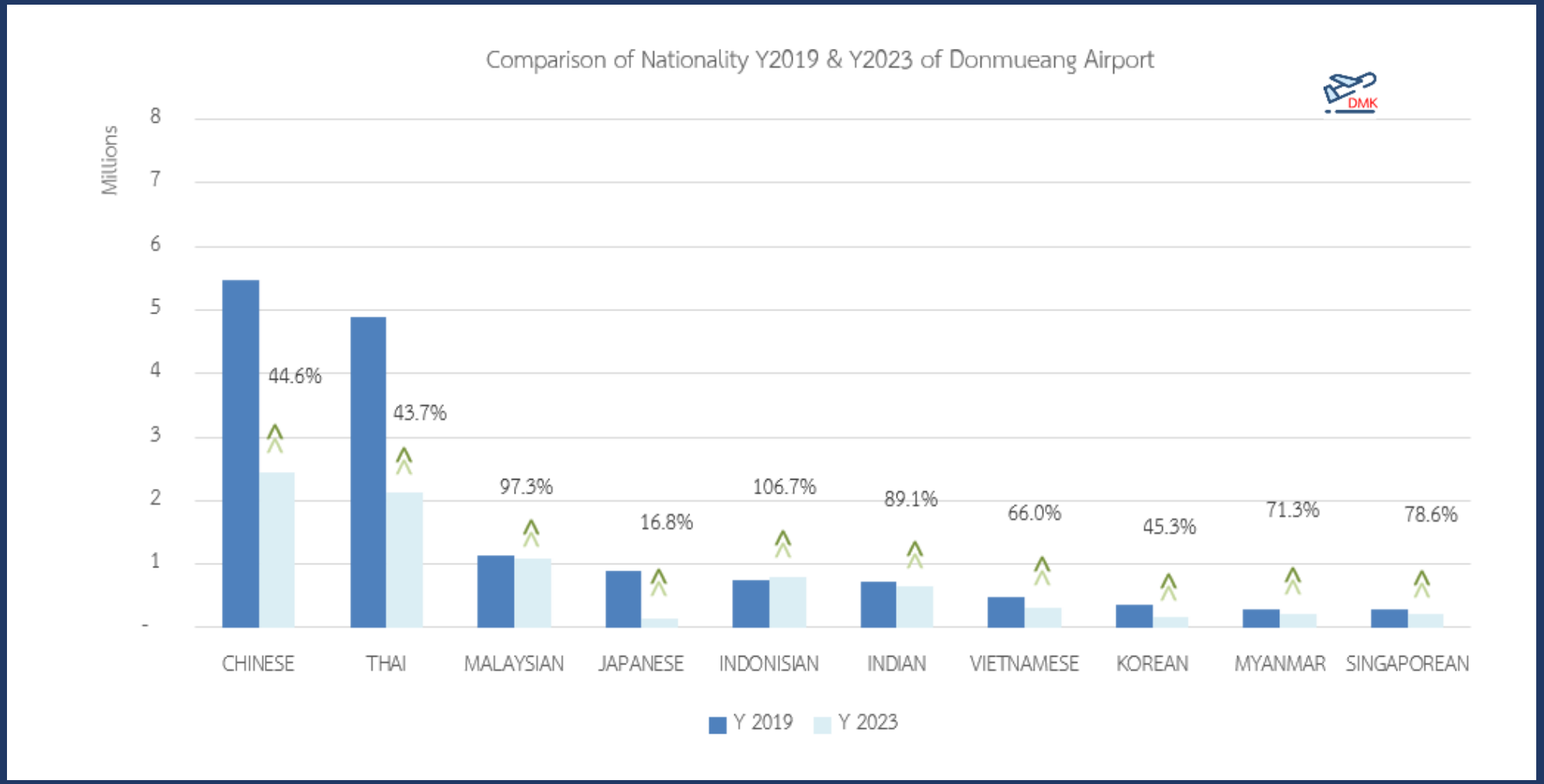


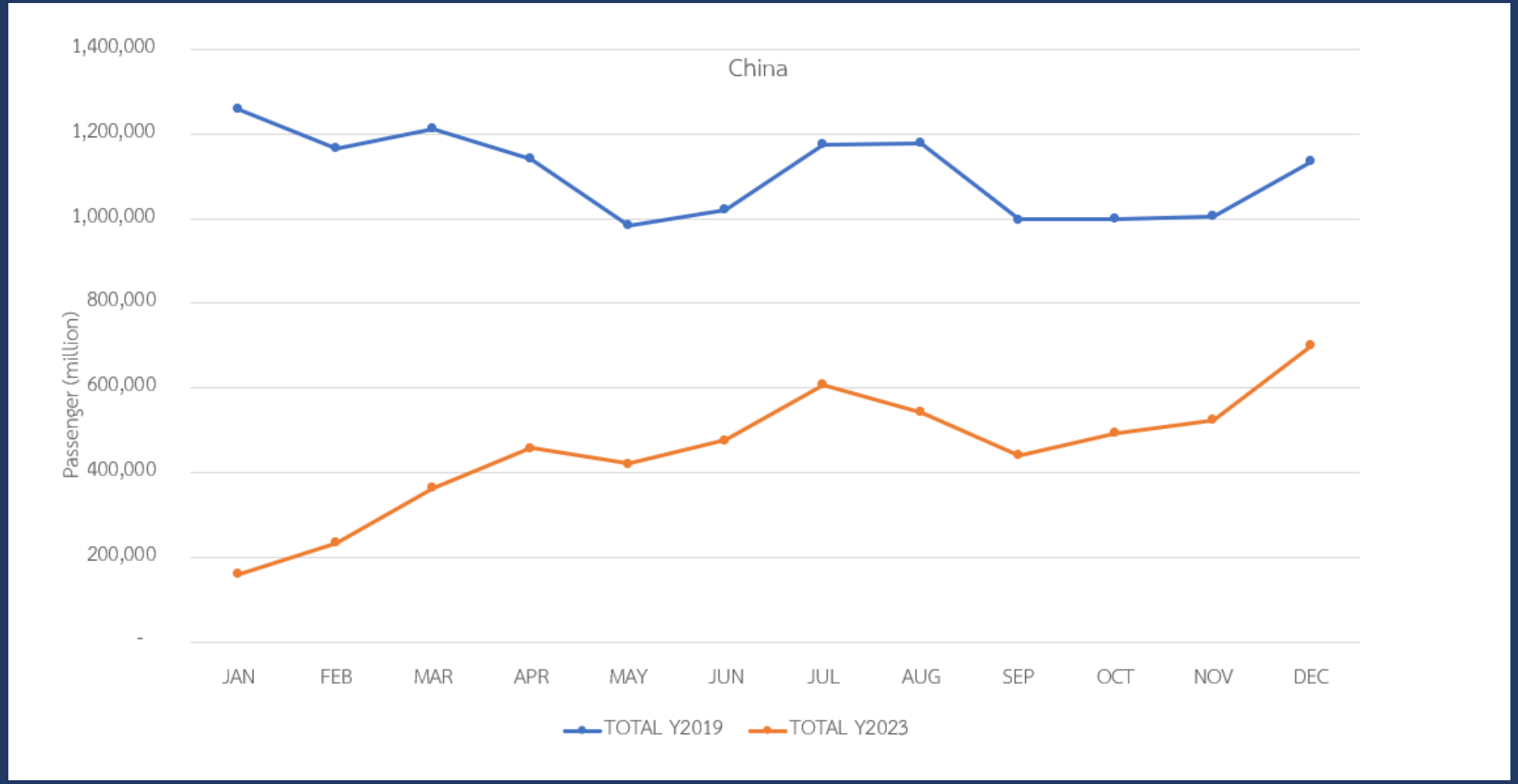
04 Nationalities of passengers



05

The recovery of Chinese passengers and flights

Comparison of Chinese Passenger (Arrival)



05 The recovery of Chinese passengers and flights

Chinese Visa Policy (Arrival)

06 Traveler pattern

Free Independent Traveler (FIT) Group Inclusive Tour (GIT)

(FIT)

Y2019

98%

(83,502,39 passenger)

Y2023

97.3%

(57,904,993 passenger)

(GIT)

2%

(1,728,382 passenger)

2.7%

(1,591,283 passenger)

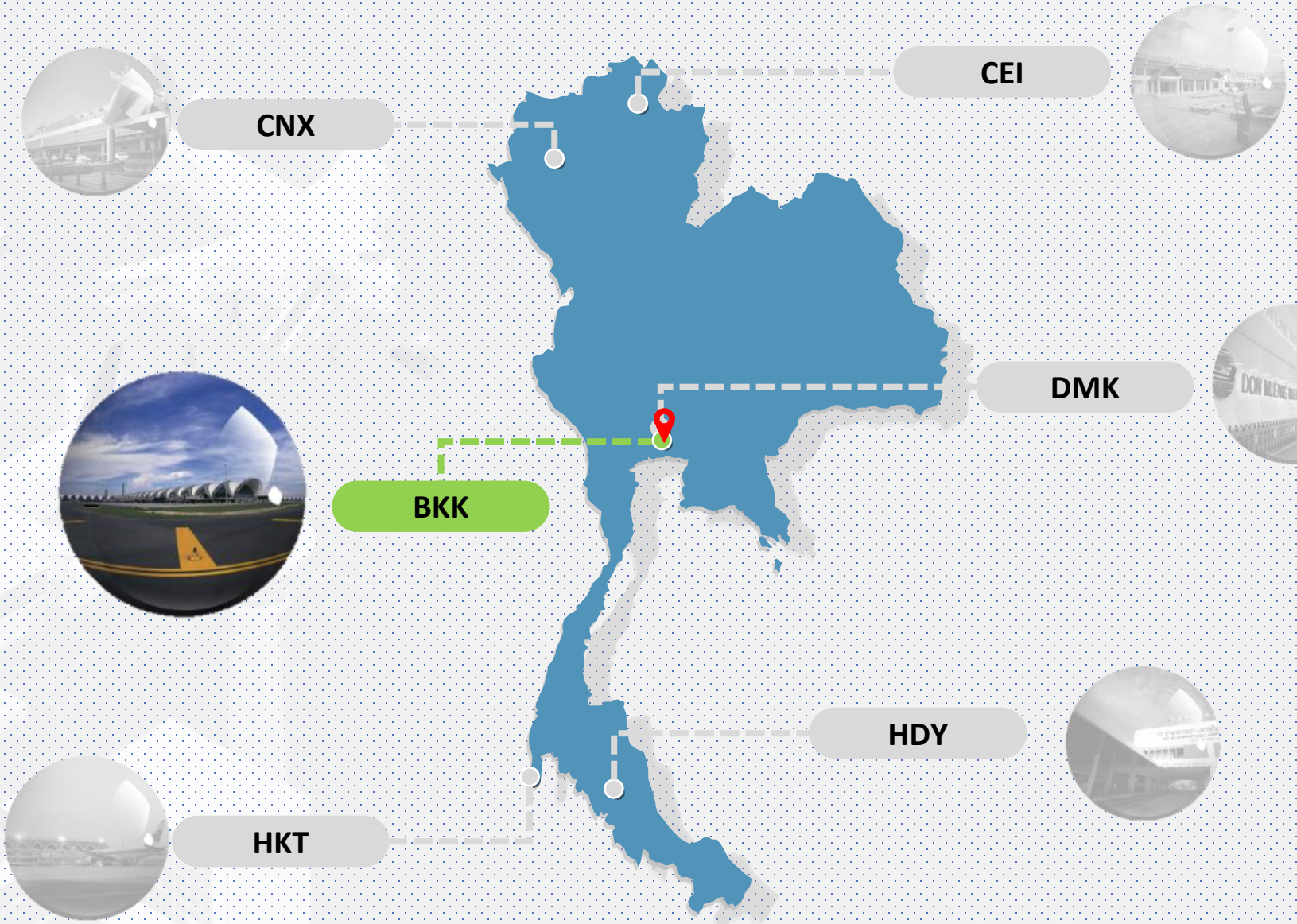
+

(85,230,772 passenger)

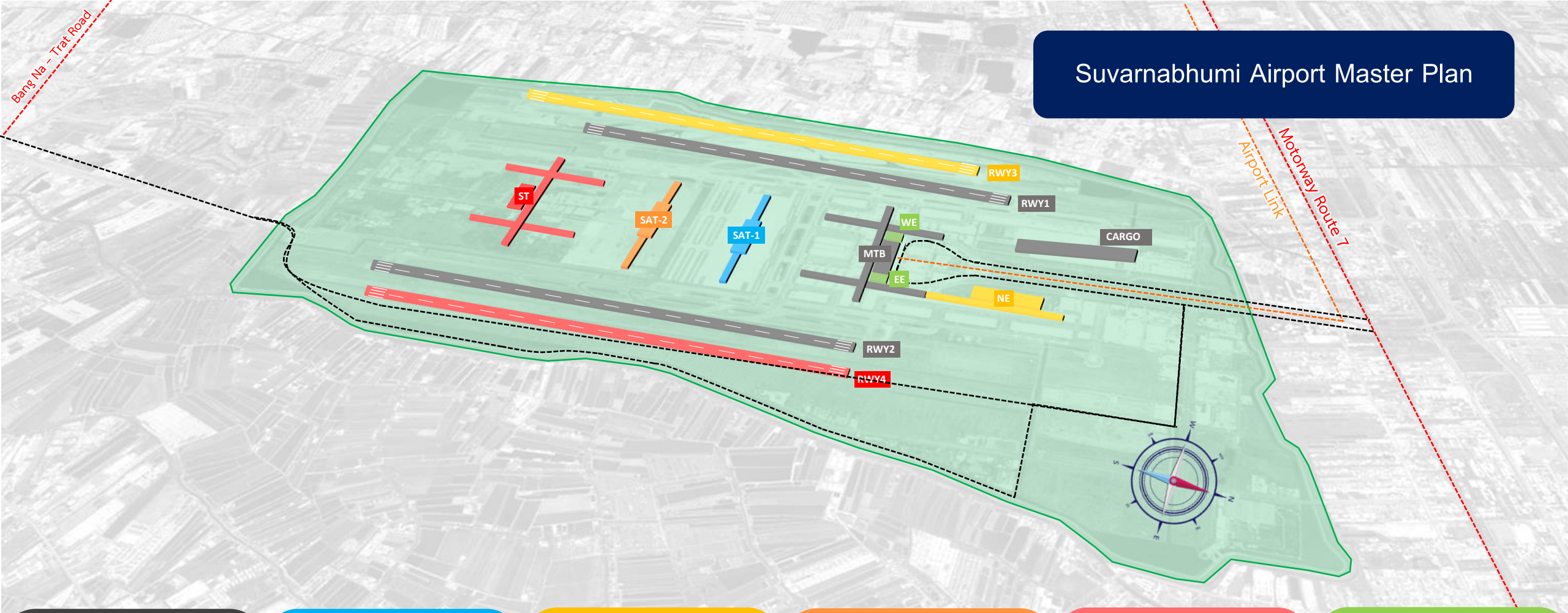
(59,496,276 passenger)

Airport Development Projects.

Suvarnabhumi Airport (BKK)



Suvarnabhumi Airport Master Plan



Present

45 million annual passengers (MAP)
68 flights / hour
- Main Terminal Building (MTB)
- Runway 1 and 2
- 120 Parking Bays (51 Contact, 69 Remote)

Phase 2
2023

60 million annual passengers
68 flights/hour
- Midfield Satellite Building 1 (SAT-1)

Phase 3
2016-2024

90 million annual passengers
94 flights/hour
- Runway 3
- North Expansion

Phase 4
2021-2026

105 million annual passengers
94 flights/hour
- Midfield Satellite Building 2 (SAT-2)

Phase 5
2025-2030

150 million annual passengers
120 flights/hour
- South Terminal Building
- Runway 4

Extra Phase

150 million annual passengers
120 flights/hour
- East Expansion and West Expansion

Parking Bay Area 960,000 m^2

64 Contact Gates

Passenger Boarding Bridge (PLB)

Code F : 24 Bridges

Code E : 40 Bridges

Suvarnabhumi Airport Development Project Phase 2

Midfield Satellite Building 1

Increasing the annual handling capacity from 45 million to 60 million passengers per year

Consisting of 4 floors and 2 underground floors (Building Areas of 216,000 m^2)

- B2 Fl. APM Station
- B1 Fl. System Work
- G Fl. Baggage Conveyor System
- 2 Fl. Arrival
- 3 Fl. Departure
- 4 Fl. Shops & Restaurants

28 aircraft parking bays

Divided into:

Code E:

20 parking bays

and

Code F:

8 parking bays

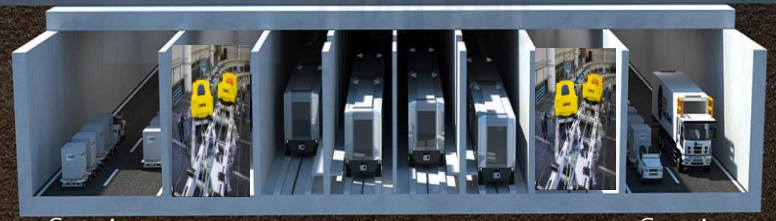
BHS

Baggage Handling Capacity : 180 bags/minute

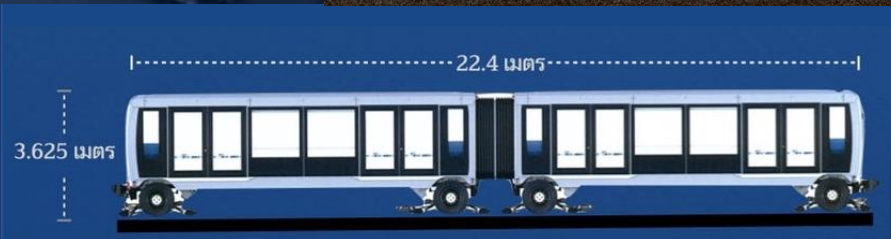
Speed : 600 meters/minute

Sytem : Individual Carrier System (ICS)

Tunnel Connecting SAT-1 to MTB (Length of 1 km)



Service Road | BHS | APM | BHS | Service Road



APM

Travel Time (MTB-SAT-1) : 60 seconds

Speed: 50-55 km/hr (max 80km/hr)

distance : 940m (NMTB – SAT 1)

Handling Capacity: 3,590 pax/hr

Waiting Time: Less than 3 mins

3rd Runway Construction Project
Suvarnabhumi Airport
3rd Runway & Parallel Taxiway

Precision approach runway category 2

Increasing Flight Handling Capacity 68 flights/hour to

94

flights/hour

Length 4,000 meters
Width 60 meters

Construction of 7 Rapid Exit Taxiways

Construction of Perimeter Taxiway

Construction of Taxiway D Extension

Construction of Runway and Taxiway Pavements :

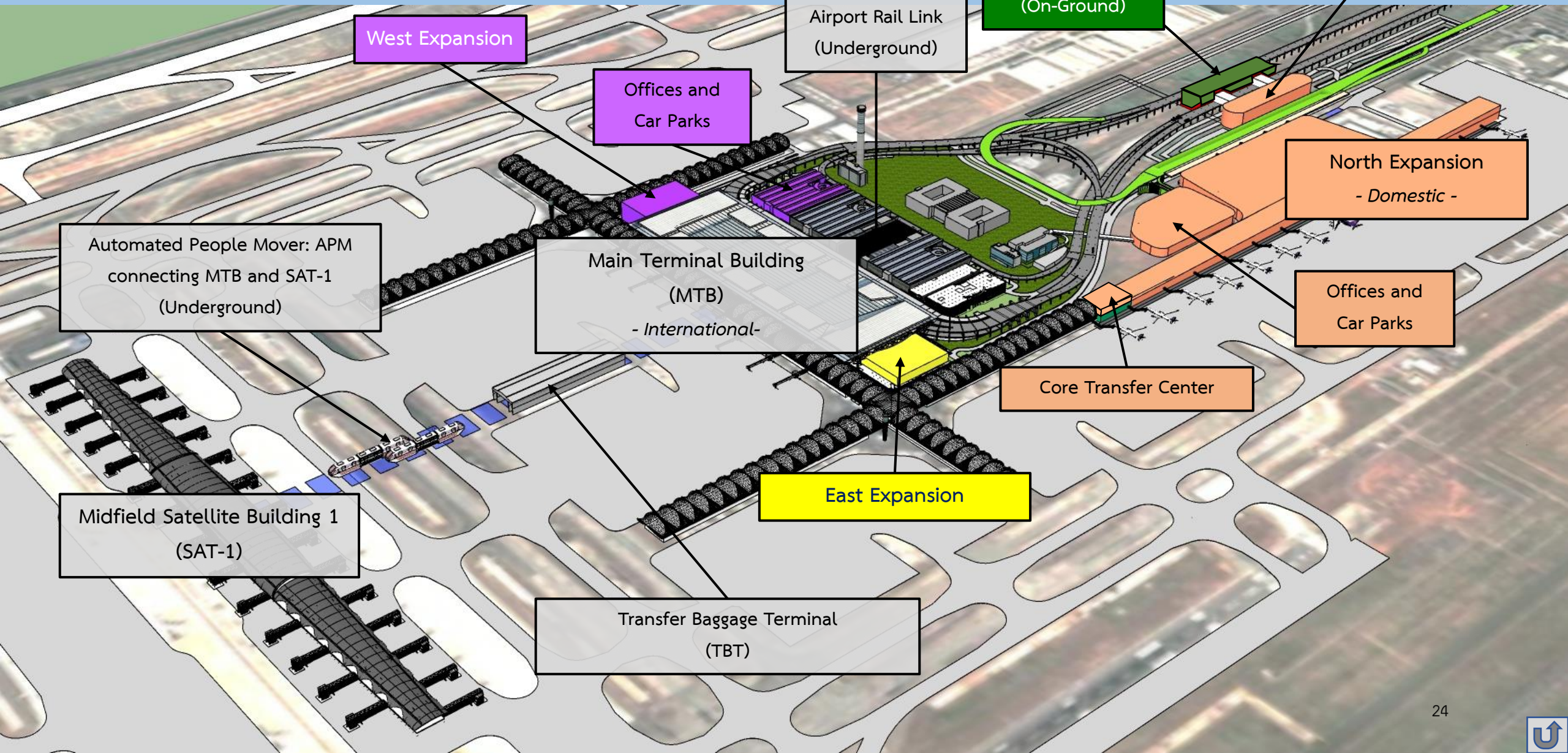
1. Flexible Pavement made from asphalt surfaces for general runway and taxiway
2. Rigid Pavement made from concrete surfaces on Taxiway D Extension-1

Ground Quality Improvement Work

Around the contact gate area of Midfield SAT-2

Total area : 917,000 m^2

Suvarnabhumi Airport Development Project Phase 3



Extra Phase

Project Details

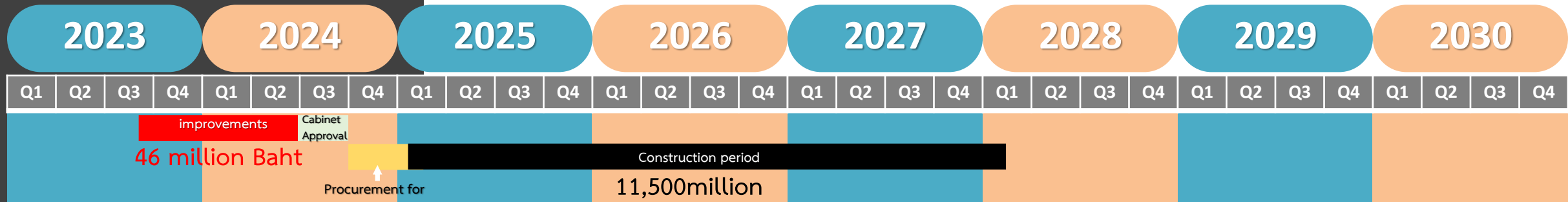
- Construction of Suvarnabhumi East Expansion to increase passenger handling capacity to 15 million annual passengers

Operational Plan

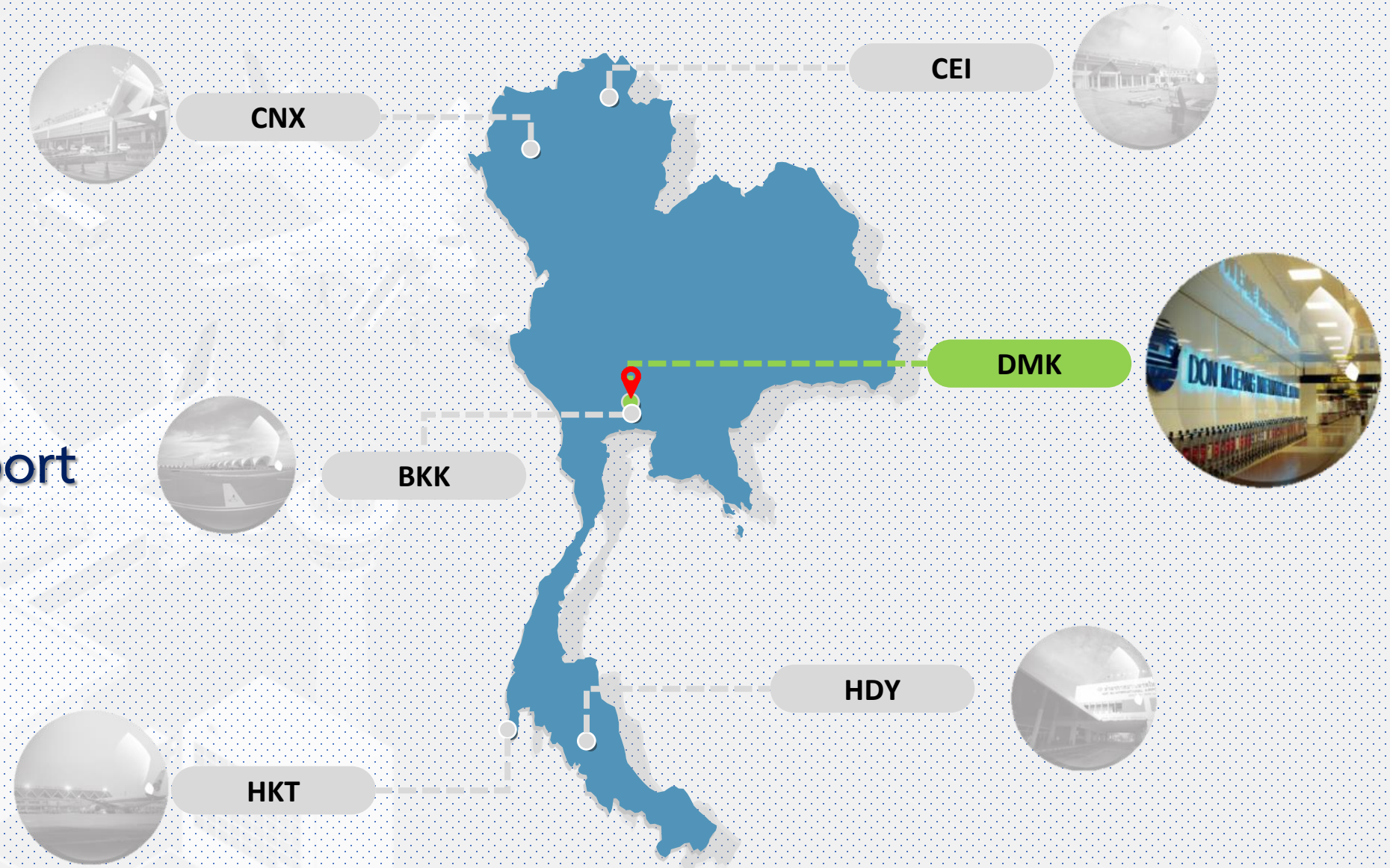
- Design Improvement period, June 2023 - August 2024
- Construction period , Feb 2025 – Feb 2071

Work Progress

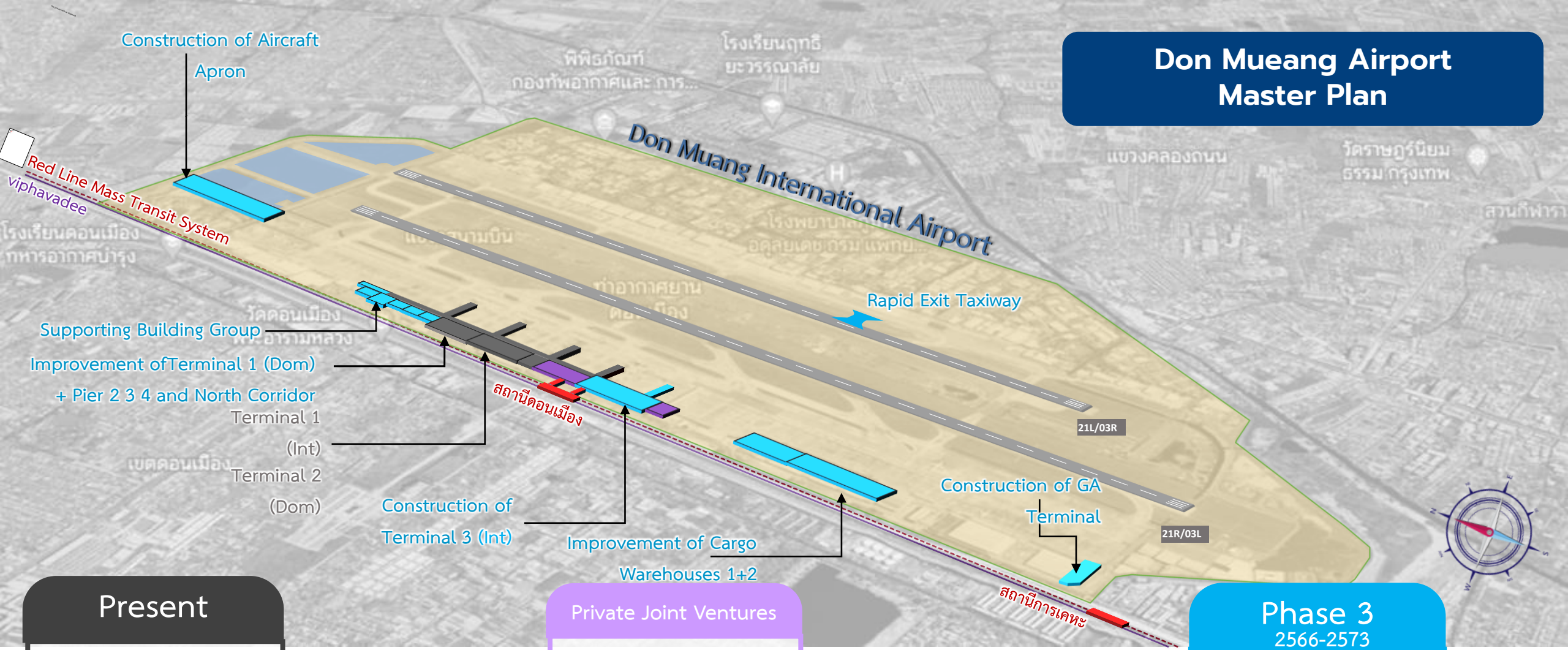
- Design adjustment process



Don Mueang International Airport (DMK)



Don Mueang Airport Master Plan



Present

30 MAP
50 flights/hour
- Terminal 1 (Inter)
- Terminal 2 (Dom)
- 114 Parking Bays (27 Contact, 87 Remote)

Private Joint Ventures

- Junction Building
- Car Park Bulding

Phase 3

2566-2573

50 MAP
50 flights/hour
- Terminal 3 (Inter)
- Improvement of Terminal 1 (Dom)

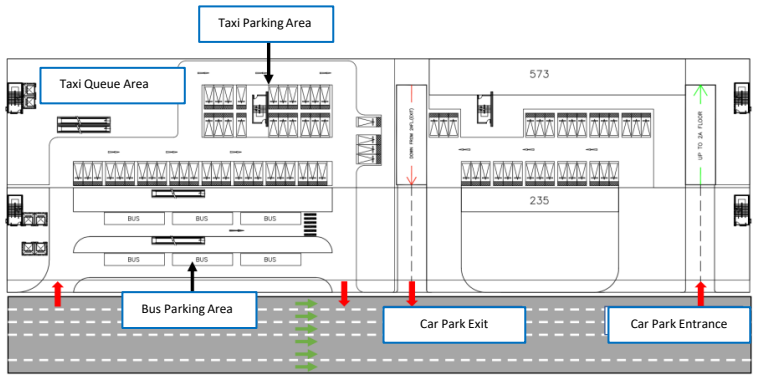
JUNCTION BUILDING

To be a connecting point of changing mode of transport from air to others as well as being a space for providing other facilities apart from main airport facilities.

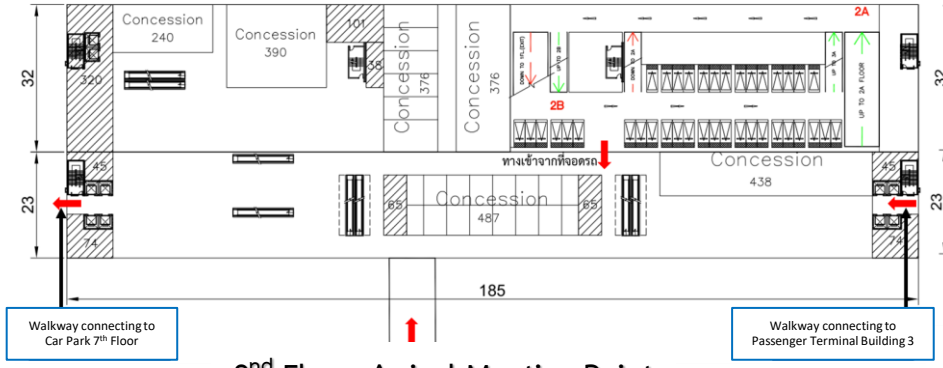
area 97,680 m^2

Commercial area 19,000 m^2

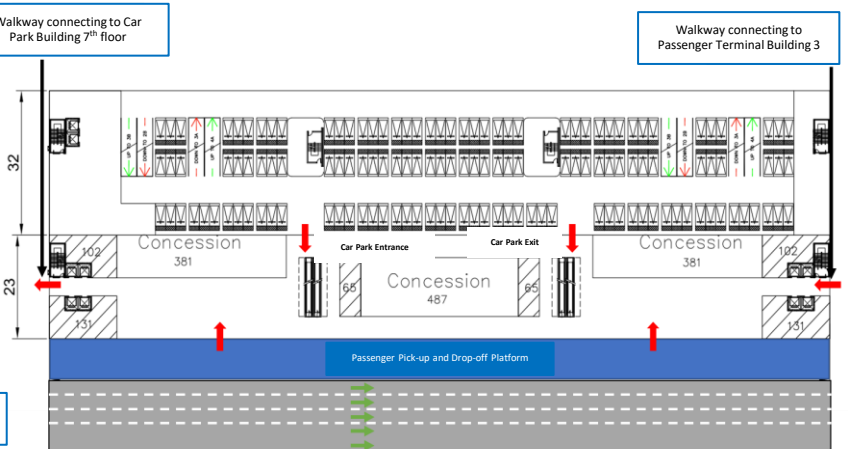
Car Park 1,100 spaces



1st Floor : Bus & Taxi



2nd Floor: Arrival Meeting Point / train connection



3rd Floor: Departure Meeting Point

DMK Development Project Phase 3

Project Details

Constructing an international passenger terminal and renovating Terminal 1 to increase the accommodating capacity of passengers from 30 to 50 million passengers per year.

Operational Plan

- Design Period,

June 2023 – August 2024

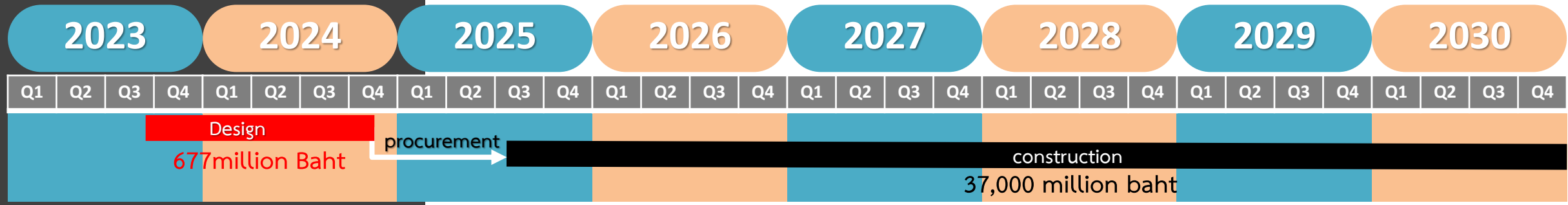
- Construction Period,

May 2025 – Dec 2030

Work Progress

- under design

Cabinet approved the budget and EIA approved the project



PHUKET INTERNATIONAL AIRPORT (HKT)

CNX

CEI

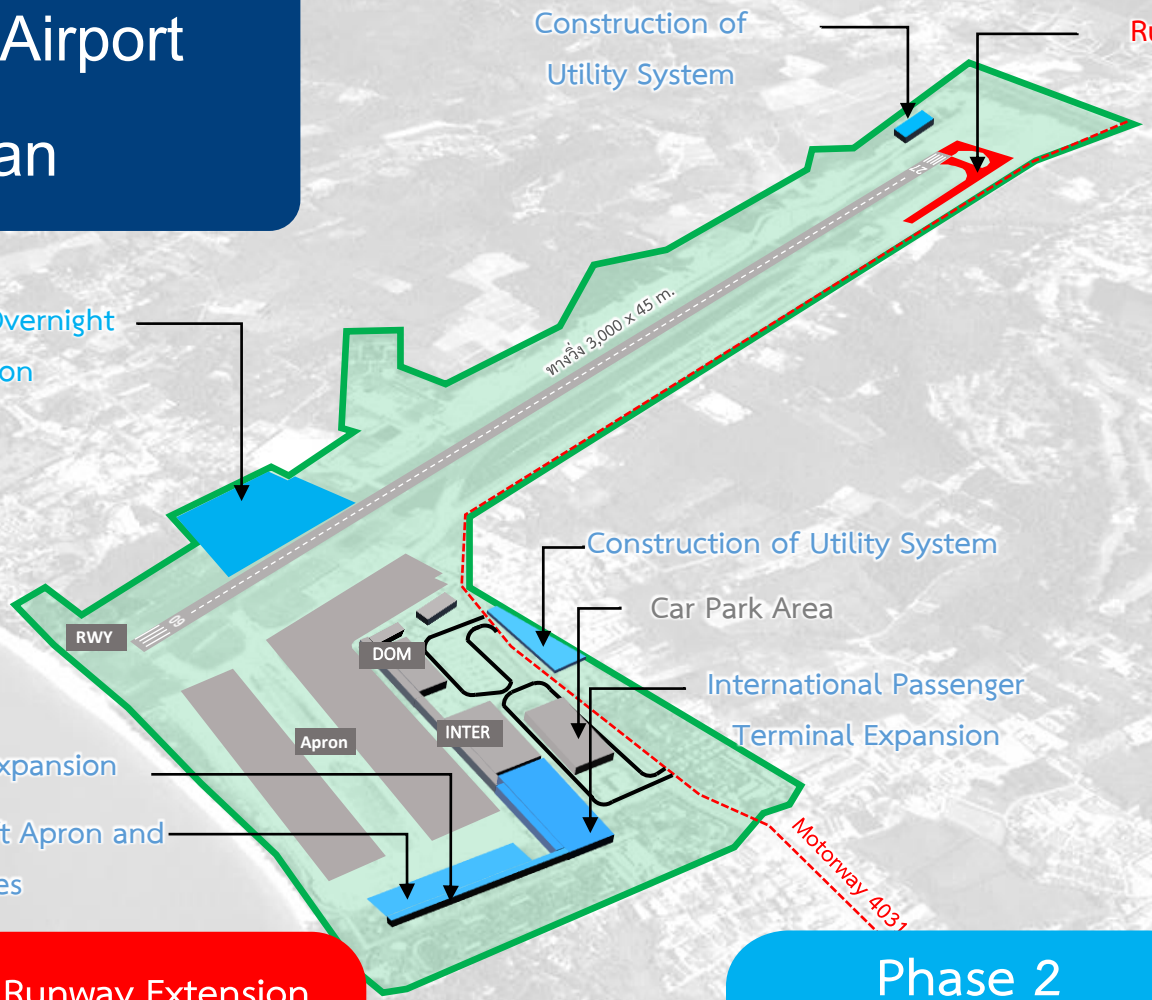
BKK

DMK

HKT

HDY

Phuket International Airport Development Plan



Phase 1
At Present

12.5 million annual passengers
20 flights/hour

- Domestic and International Passengers Terminal
- Runway 1
- 25 Parking Bays (11 Contact, 14 Remote)

Runway Extension
(In progress)

25 flights/hour

- 100 meters length extension on Runway No. 27
- Taxiway extension parallel to the P route

Phase 2
2023-2029

18 million annual passengers
25 flights/hour

- Expansion of International Passenger Terminal, and Apron
- Improvement of Utilities System

Phase 3

- Processing the transfer execution of Krabi International Airport
- Conducting a feasibility study of Andaman International Airport

Phuket International Airport Development Project Phase 2

Project Details

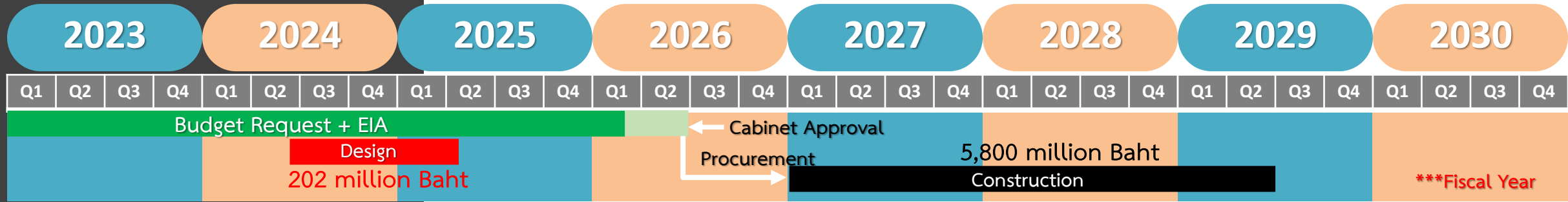
Constructing the extension of international passenger terminal to increase the handling capacity of passengers from 12.5 to 18 million passengers per year.

Operational Plan

- Designing Period,
Mar 2024 – Feb 2025
- Proposing EIA and the Cabinet for approving of the plan in April 2026
- Construction Period,
Oct 2026 – March 2027

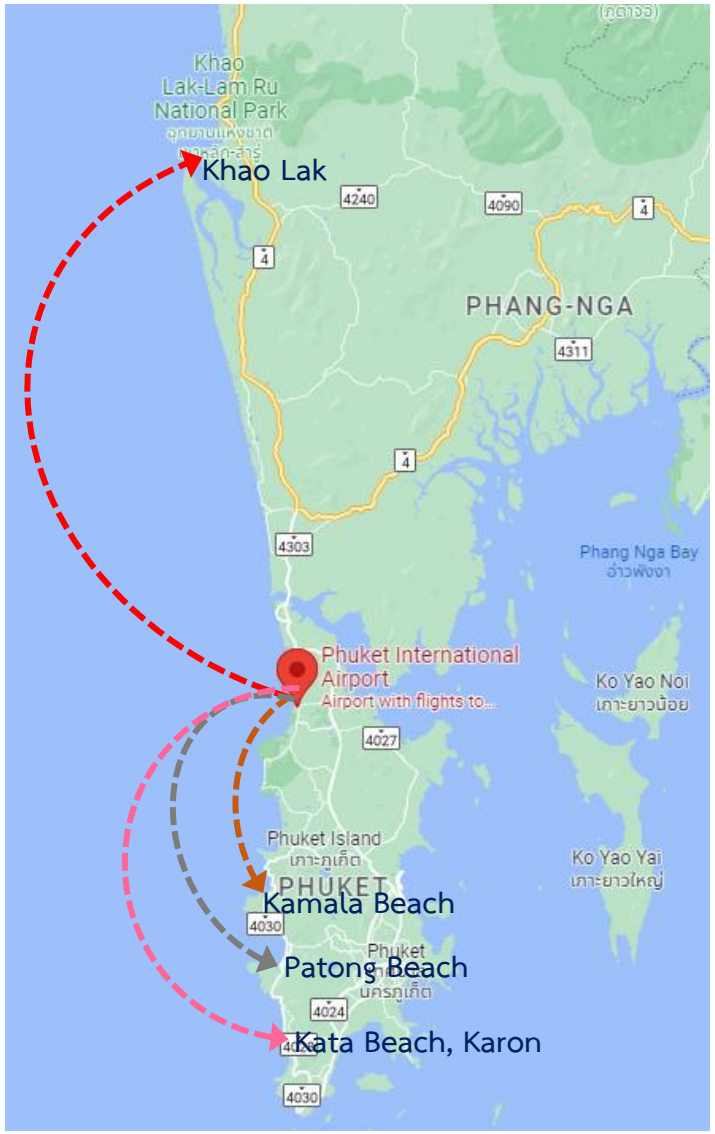
Work Progress

- In the process of procuring a design contractor



HKT : Phuket International Airport (Seaplane & Ferry Terminal)

- Travelling route from the Phuket ferry terminal, and projections of passenger numbers and benefits



Routes from the Airport	Travelling time (minutes)		
	Road	Ferry	Reduced Time
Kamala Beach	42	20	22
Patong Beach	62	30	32
Kata Beach, Karon	75	37	38
Khao Lak	65	55*	10

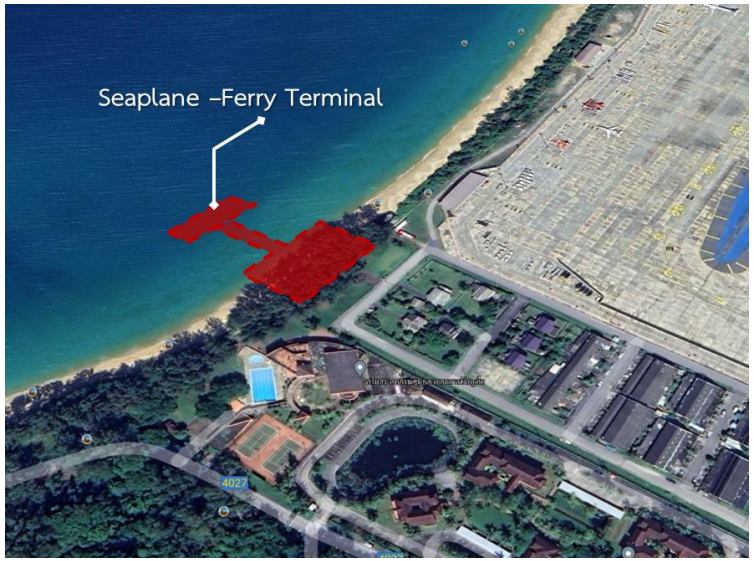
Forecast for passenger numbers	Not less than 370,000 pax/year
Service period/year	6 month (Nov-Apr)

Benefits from the Project

- ❑ Reduced Travelling time
- ❑ Ferry Routes are additionally optional and more convenient for tourists to go to their destinations such as Group of Similan Island.
- ❑ No delays and reducing traffic congestion within the Area of Phuket Province.

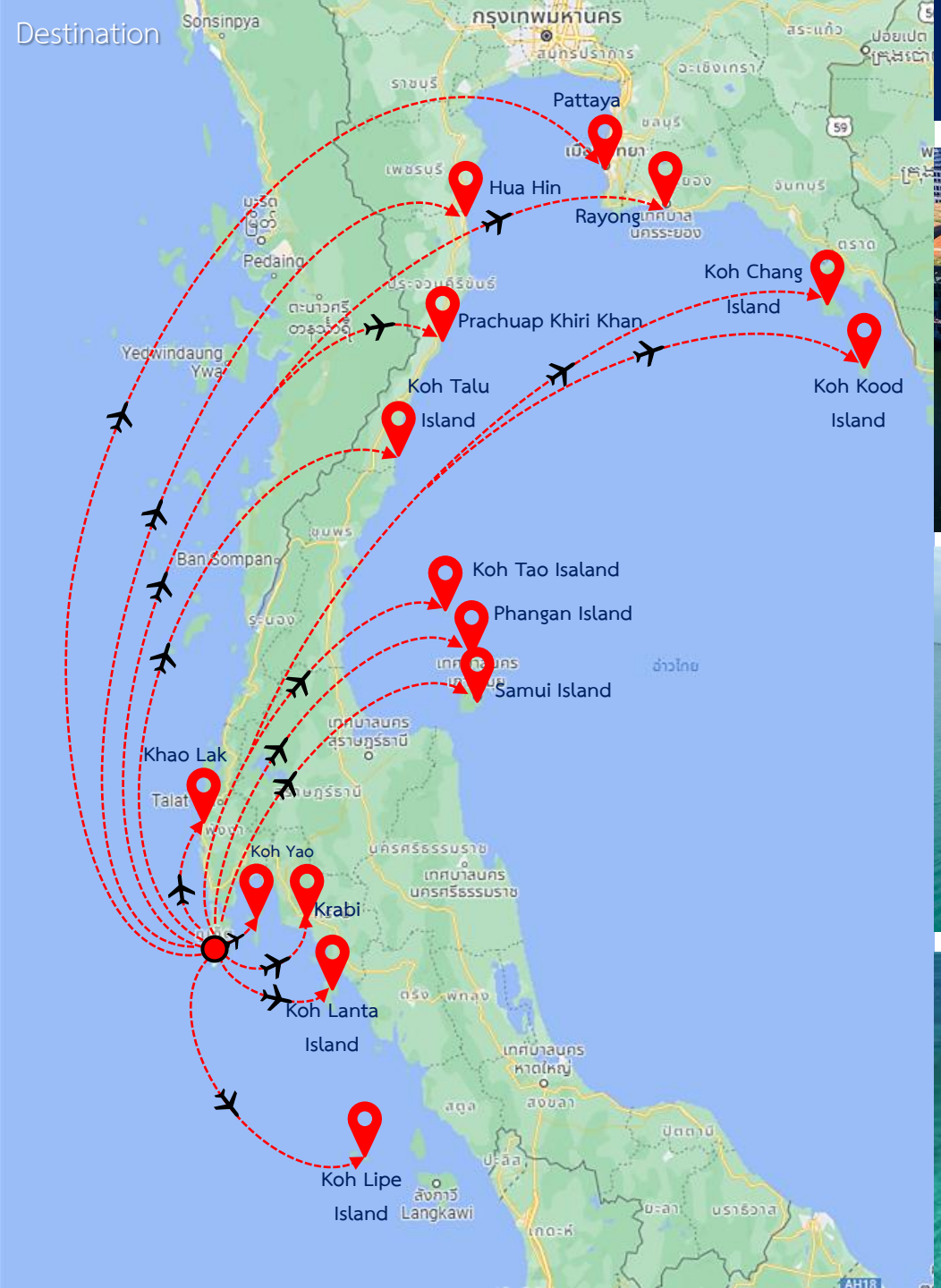
Source: Feasibility study and design survey on tourist Ferry Terminal around Phuket airport area (boarding boat – aircraft, Marine Department) which brings to more study on reports.

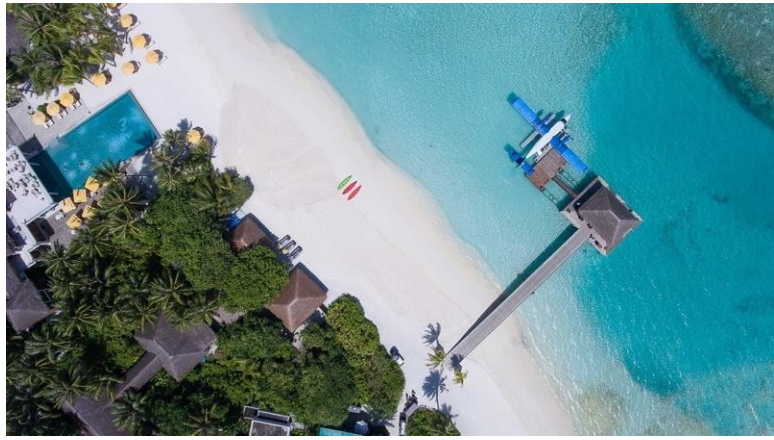
Location : Seaplane – Ferry Terminal



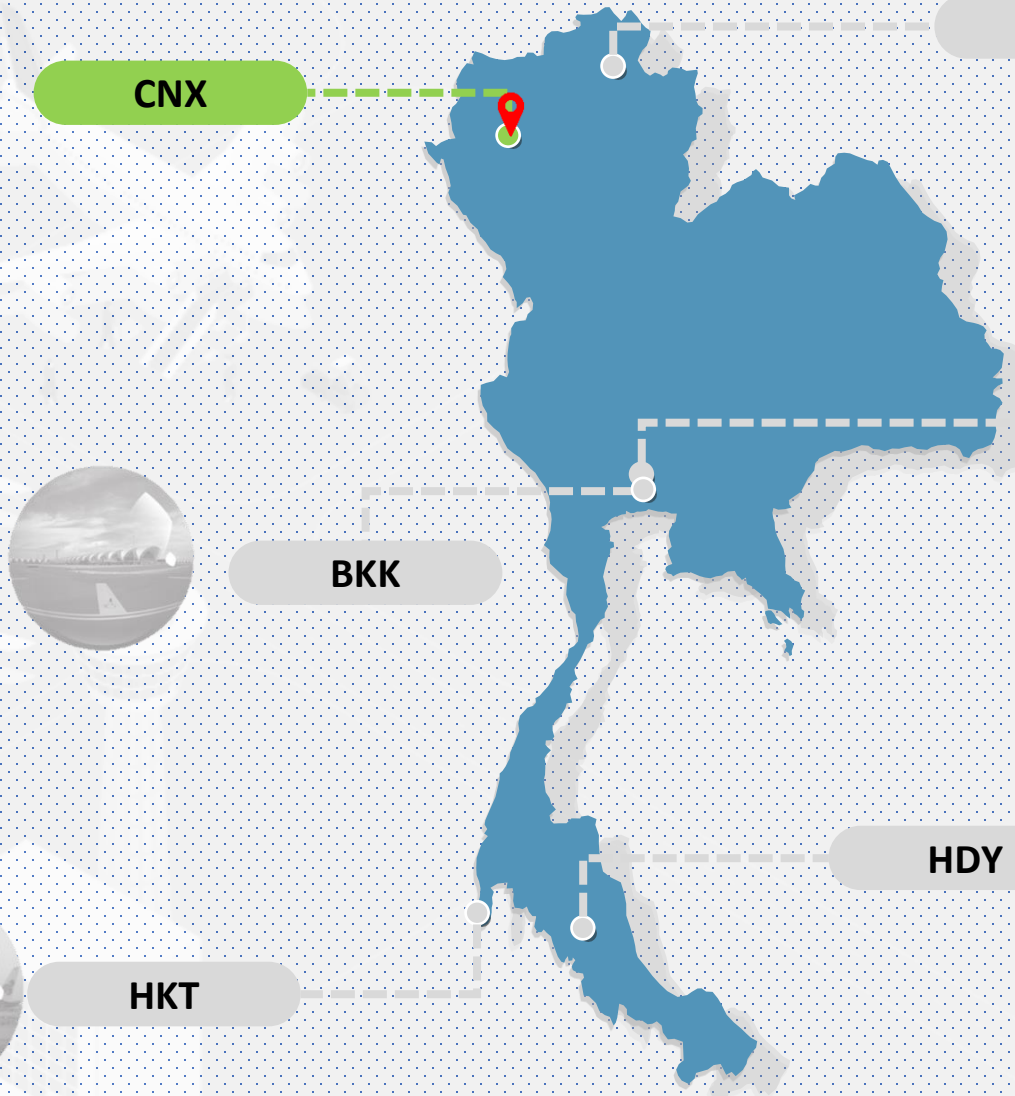
Seaplane Routes

Destination

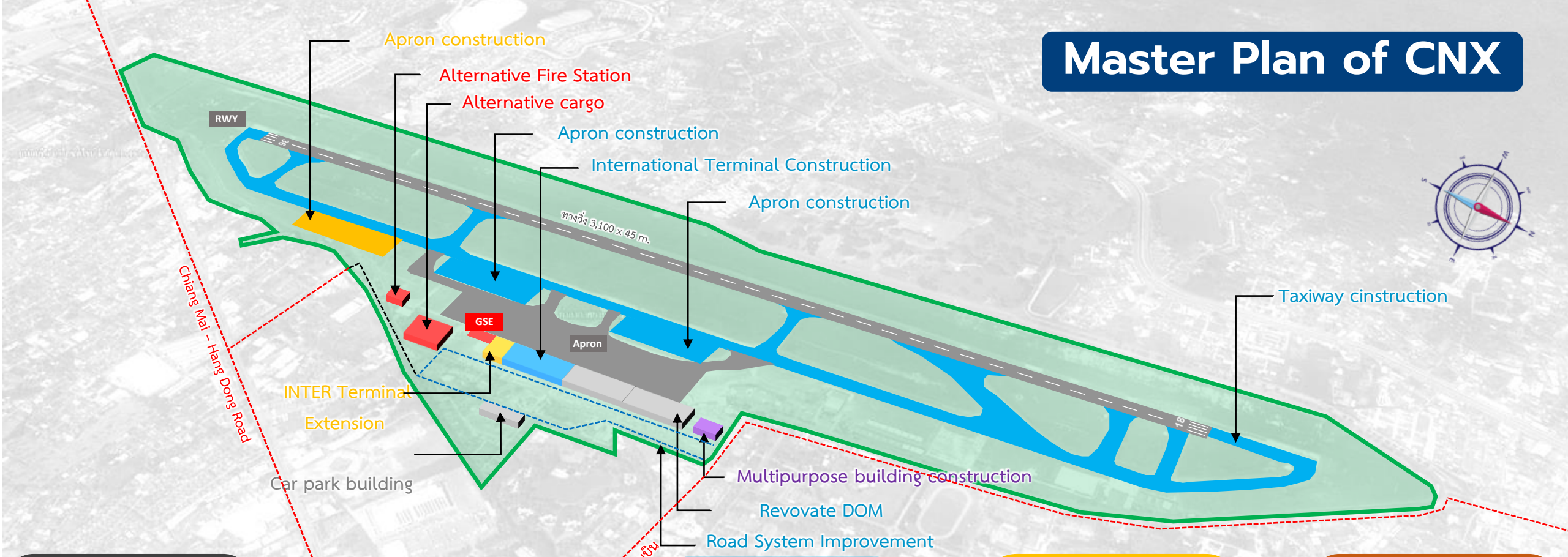




Chiang Mai International Airport (CNX)



Master Plan of CNX



At present

8 million annual passengers
24 flights/hour
- Passenger Terminal
- Runway 1
- 12 parking bays (6 Contact, 6 Remote)

PPP concession

- Construction of multi-function building

Construction of alternative building

- Cargo
- Fire and Rescue station
- GSE

Phase 1
2023 - 2029

16.5 million annual passengers
31 flights/hour
- Construction of International Terminal
- Construction of parallel taxiway and apron

Phase 2
In process of revison

20 million annual passengers
31 flights / hour
- Construction of passenger terminal extension and apron

New Airport

Chiang Mai International Airport Development Project Phase 1

Project Details

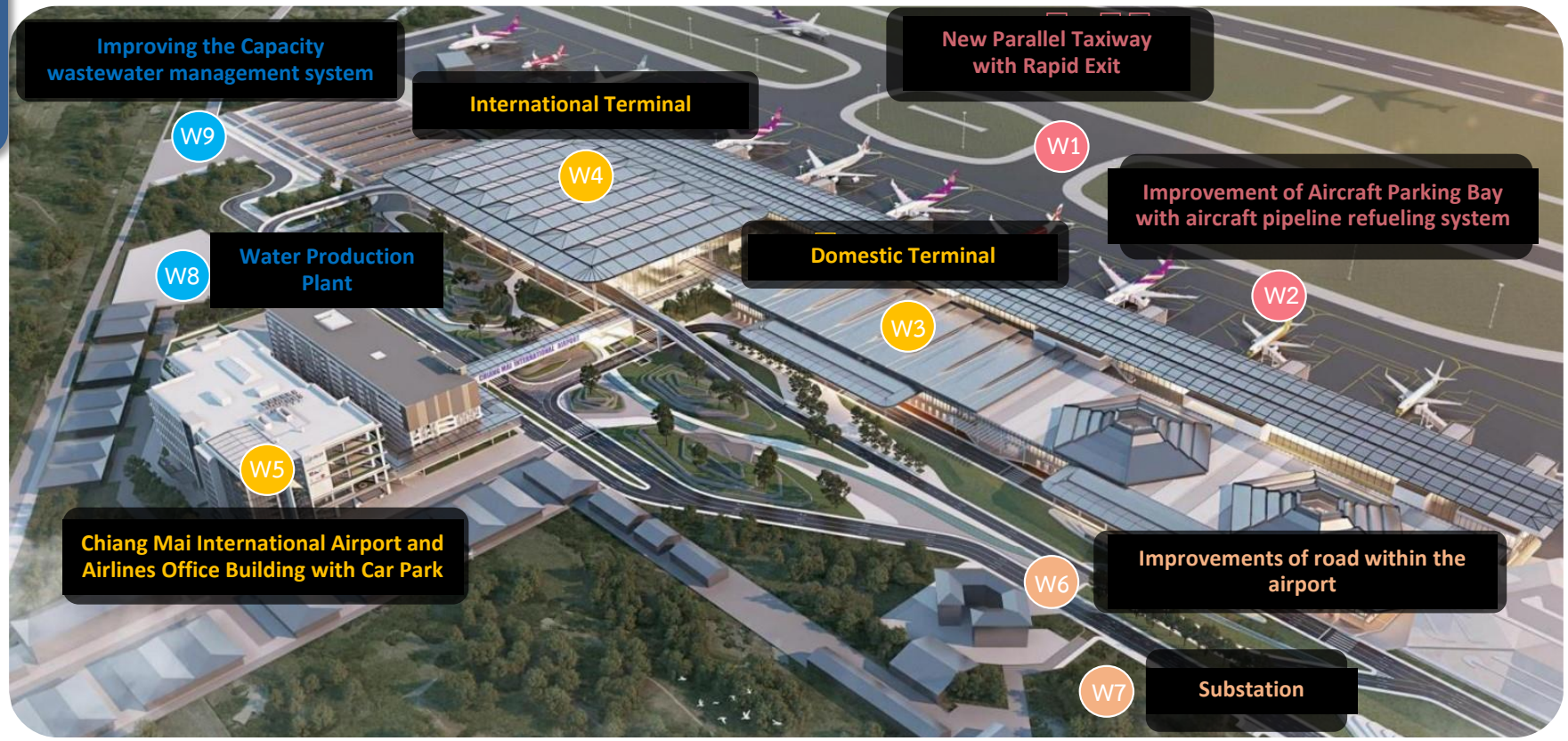
- Cosntructing a new international passenger terminal
- Modifying the existing passenger terminal into a domestic passenger terminal
- Resulting in the increasing capacity to accommodate passengers from 8 to 16.5 million passengers a year.

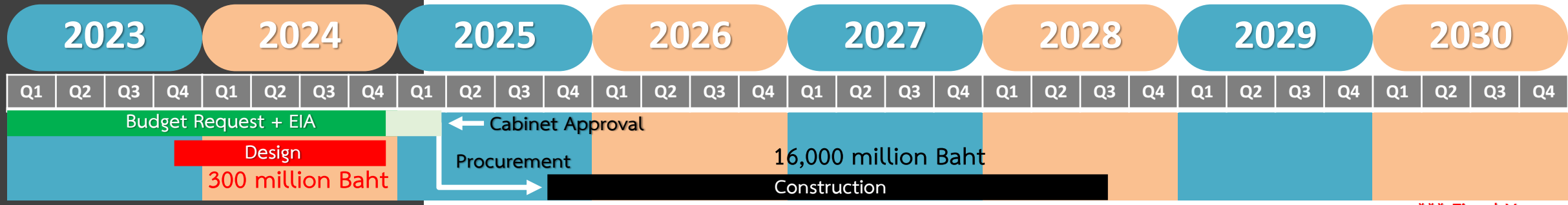
Operational Plan

- Design Period,
  Aug 2023 – Aug 2024
- EIA and Cabinet Approval Period,
  Dec 2024
- Construction Period,
  July 2025 – May 2028

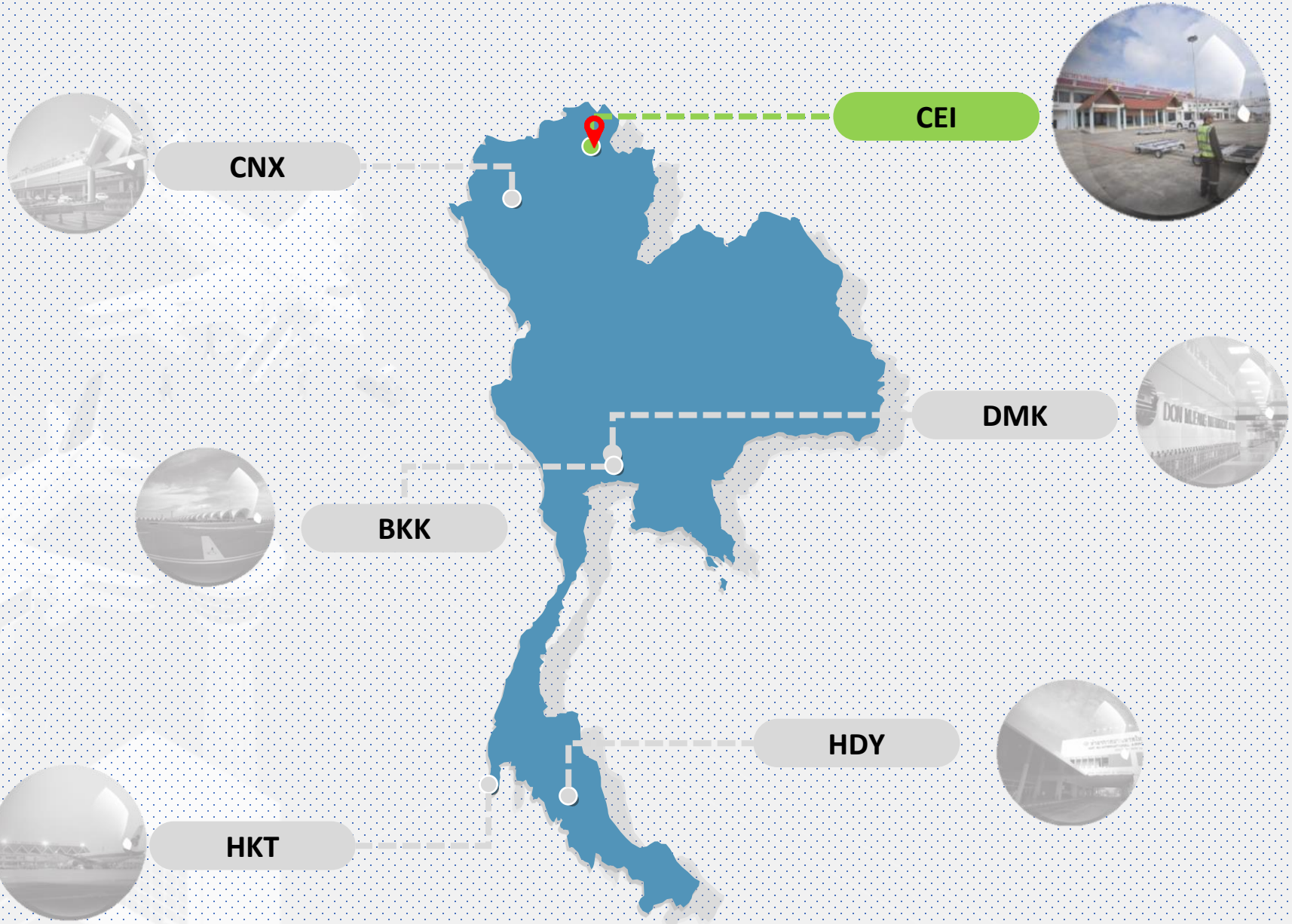
Work in Progress

- under design

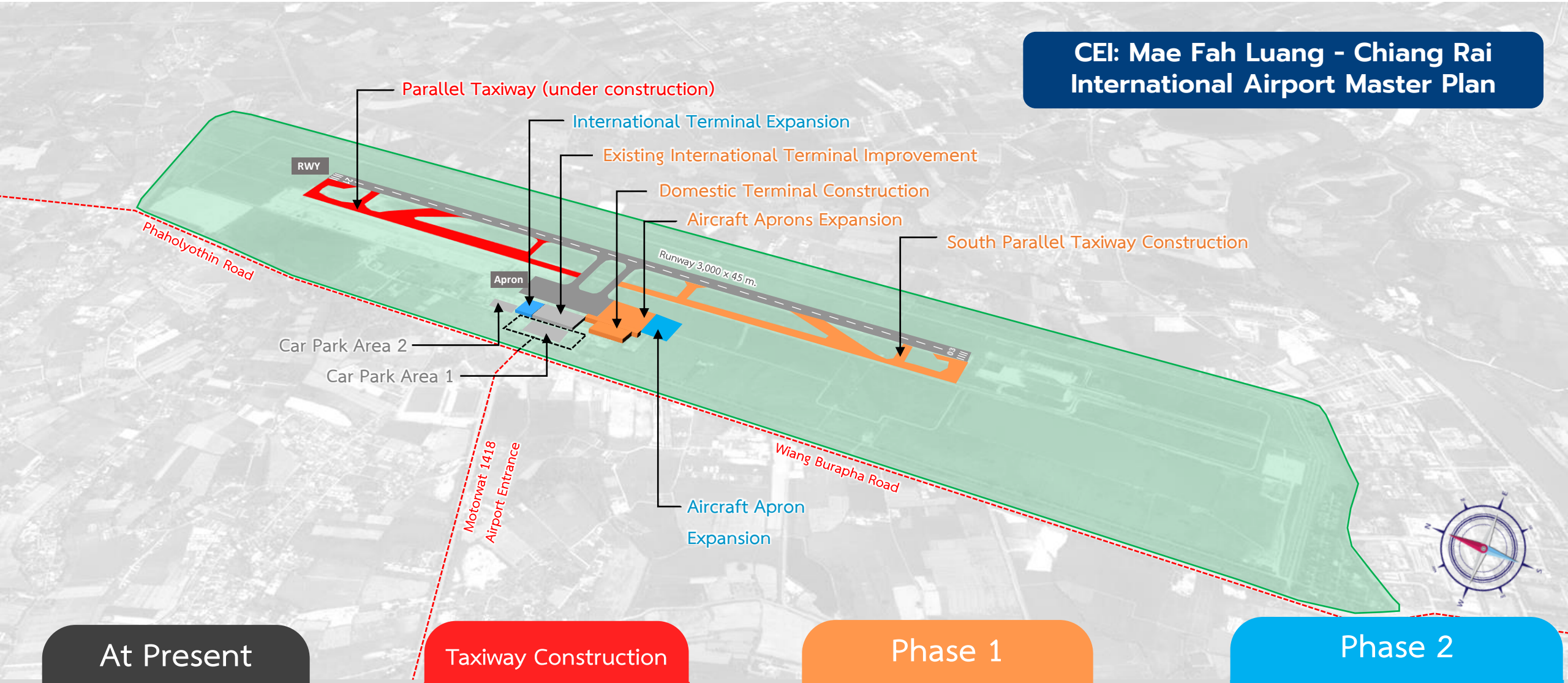




Mae Fah Luang - Chiang Rai International Airport



CEI: Mae Fah Luang - Chiang Rai International Airport Master Plan



At Present

3 million annual passengers
11 flights/hour
- Passenger Terminal Building
- Runway 1
- 7 Parking bays (3 Contact, 4 Remote)

Taxiway Construction

- North Parallel Taxiway Construction

Phase 1

6 million annual passengers
23 flights/hour
- Domestic Passenger Terminal building Construction
- South Parallel Taxiway

Phase 2

8 million annual passengers
23 flights/hour
- International Passenger Terminal Expansion and Aircraft Apron Construction and utility system improvement

Mae Fah Luang - Chiang Rai International Airport Development Project Phase 1

Project Details

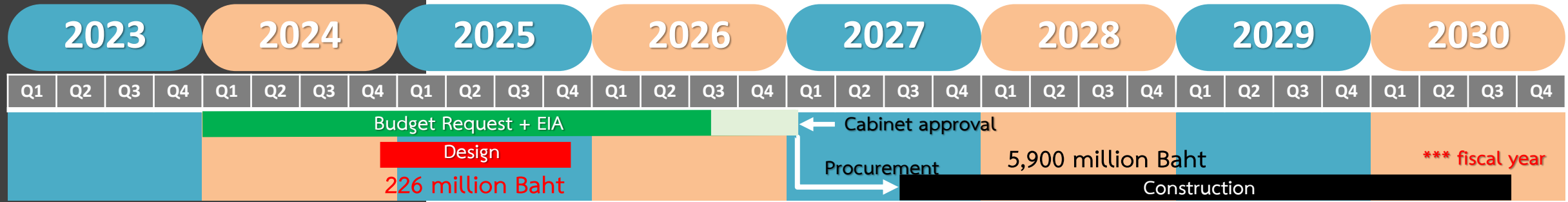
-Increasing passenger handling capacity from 3 million to 6 million annual passengers

Operational Plans

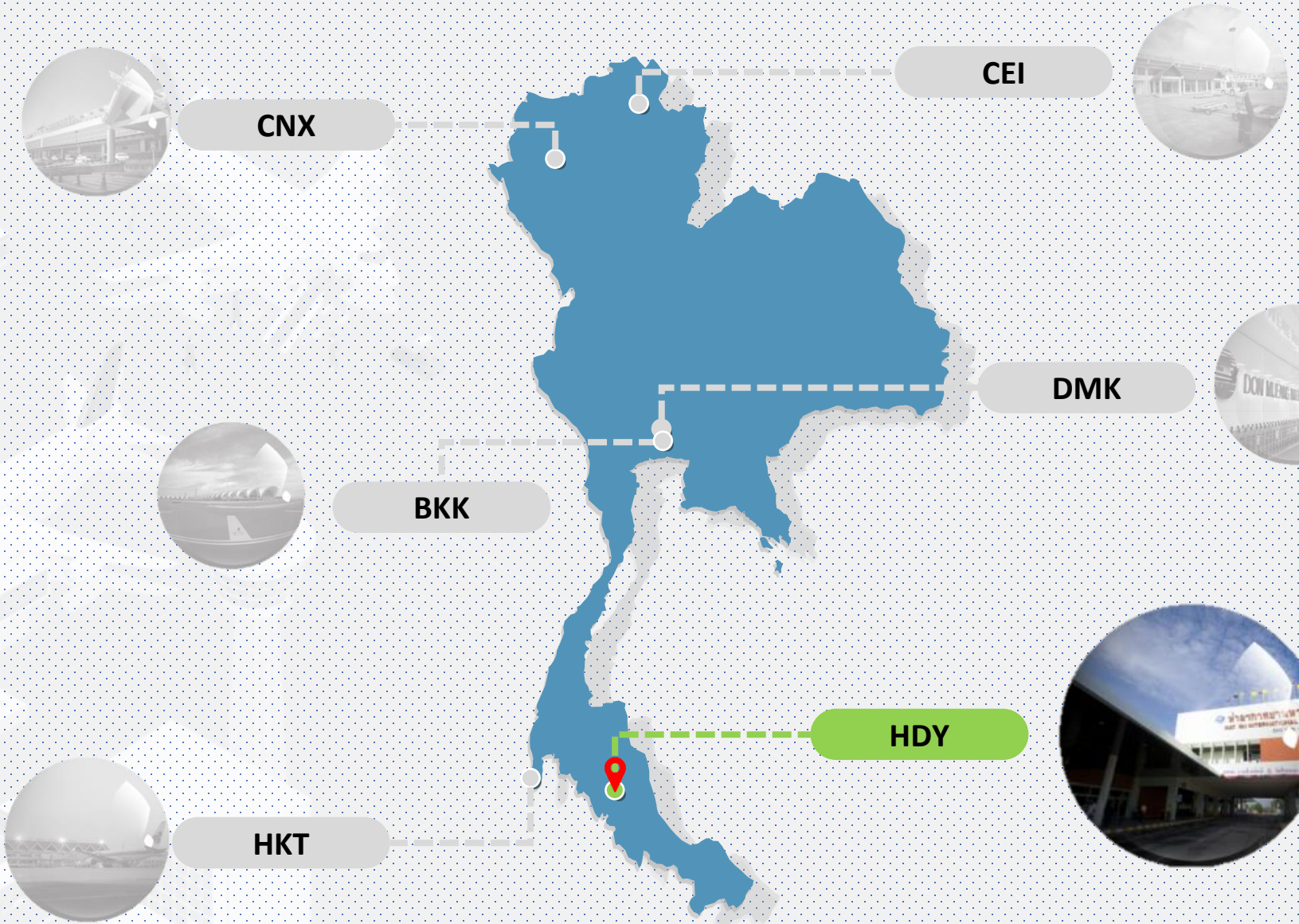
- Design period,
Sep 2024 – Aug 2025
- Proposal of the operational plan to EIA and the cabinet for approval in Oct 2027
- Construction period,
May 2027 – June 2030

Work in Progress

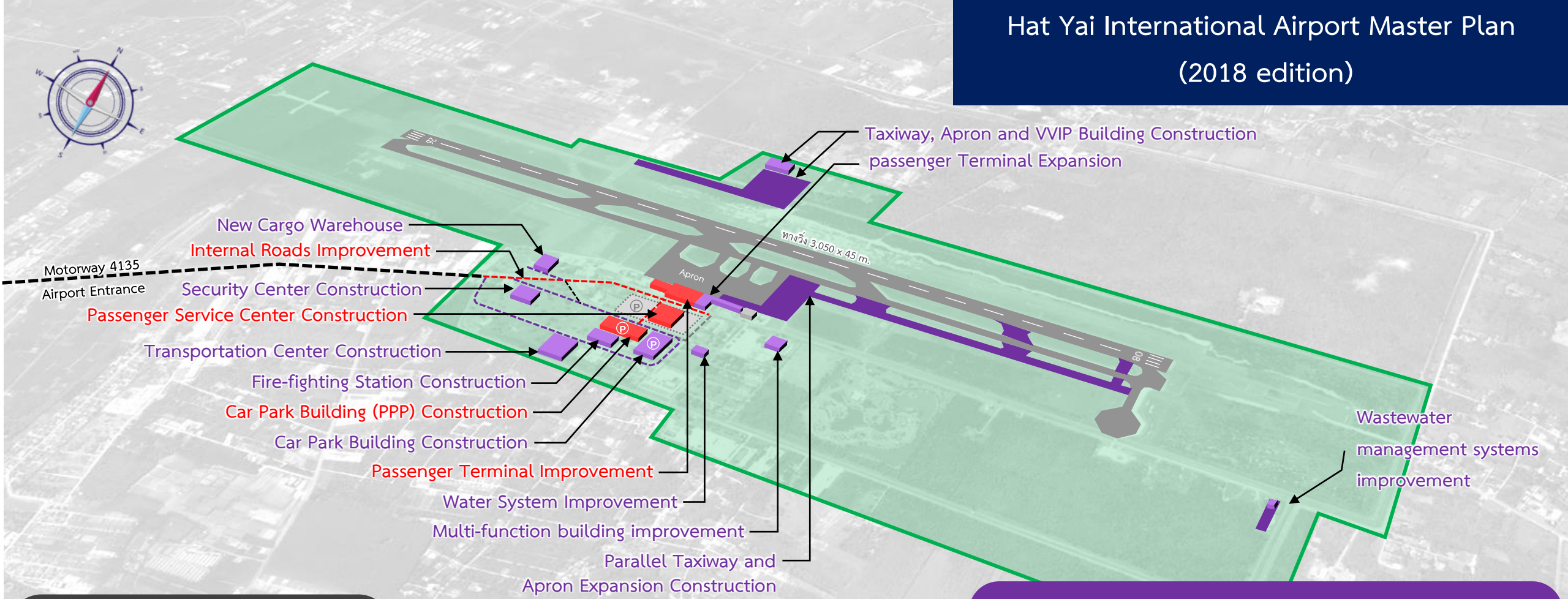
Under TOR process and Employment of Design Contractor and EIA consulting services



Hat Yai International Airport



Hat Yai International Airport Master Plan (2018 edition)



Present

2.5 million annual passengers
12 flights / hour
- Passenger Terminal
- Runway 1
- 9 parking bays
  (3 Contact, 6 Remote)

Urgent Period

1. Passenger Service Building Construction and Passenger Terminal Improvement
2. Internal Roads improvement
3. Car Park Building Construction (PPP)

Phase 1 (master plan under review)

10.5 million annual passengers (INT 0.7 + DOM 9.8)
21 flights/hour
- Taxiway construction and apron expansion
- Passengers Terminal Building Expansion and Improvement
- Car Park Building and Cargo Warehouse Construction
- Multi-function building and Public Utility Systems Improvement

New Airports and Transferred Airports under AOT's Supervision

Lanna International Airport

Construction Project

Handling Capacity of

21 Million Pax / Year

41 flights / hour

*Investment Budget of 70,000 Million Baht

Udonthani International Airport

Handling Capacity of

3.4 → 6.5 Million Pax / Year

20 flights / hour

*Investment Budget of 3,500 Million Baht

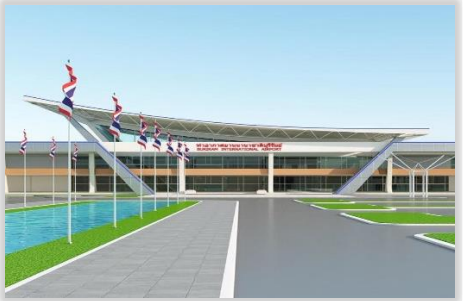
Buriram International Airport

Handling Capacity of

0.78 → 2.8 Million Pax / Year

25 flights / hour

*Investment Budget of 460 Million Baht



Andaman International Airport

Construction Project

Handling Capacity of

22.5 Million Pax /Year

43 flights / hour

*Investment Budget of 80,000 million Baht

Krabi International Airport

Handling Capacity of

4 → 12 Million Pax / Year

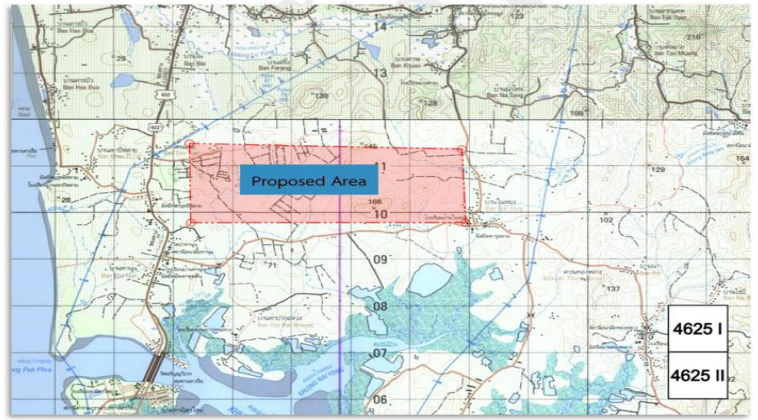
31 flights / hour

*Investment Budget of 6,400 Million Baht

New Airports

Transferred Airports

Andaman International Airport Construction Project

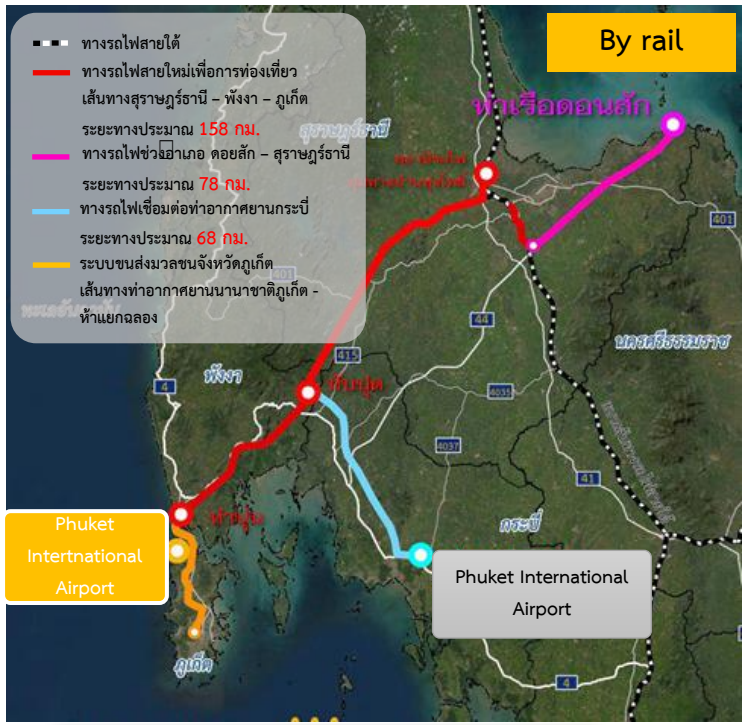


Picture 1: Proposed Area for Phang Nga Airport Development Project

Location

Kok-Kloy and Lor Yung Subdistrict, Takua Thung District, Phang-Nga Province

Transportation



Establishing Process of Andaman International Airport

- Land = 7,300 Rai
- Terminal = 22.5 Million Pax/Year
- 2 Runways = 43 flights/Hour
- Aircraft Stand = 44 Stands

AOT analyzes the worthiness	AOT's Board of Directors AOT/MOT/CAAT considering guidelines	CAAT proposes the guidelines to CAB for consideration and proposed of the guidelines to the Cabinet	AOT conducts a study of the construction and propose the study result to MOT: Land: - Inspect the land - Procurement - Approve of Royal Decree - Land Compensation; Design Feasibility EHIA	MOT proposes to relevant agencies to give comments for consideration of the Cabinet	The Cabinet approves of construction project	Propose the establishing of airport to CAAT	AOT starts the construction
6	3	4	18	5	3	3	42 (month)

84 months (7 years)

Investment budget of 80,000 million Baht

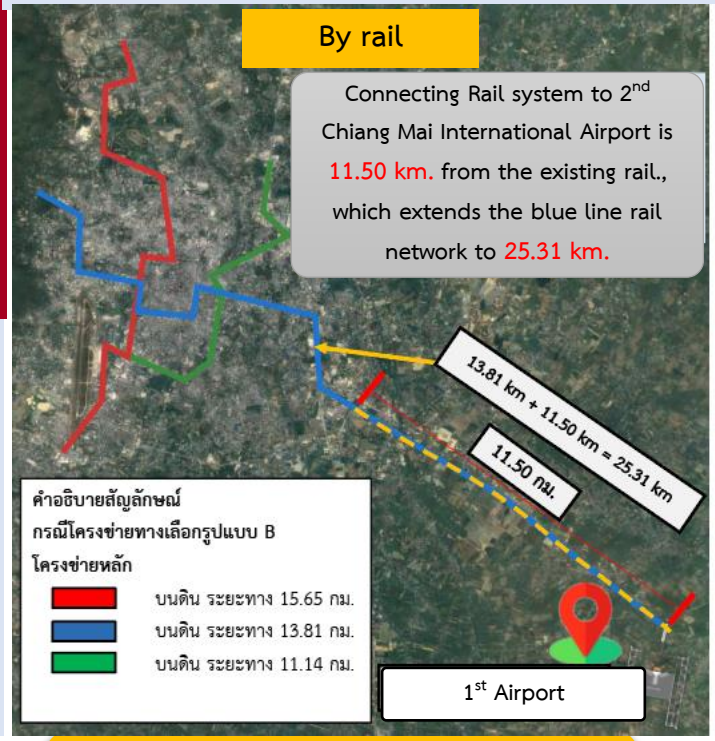
- Airside work 28,000 million Baht
- Terminal building work 25,000 million Baht
- Support and utility work 15,000 million Baht
- Price reserve and tax 12,000 million Baht

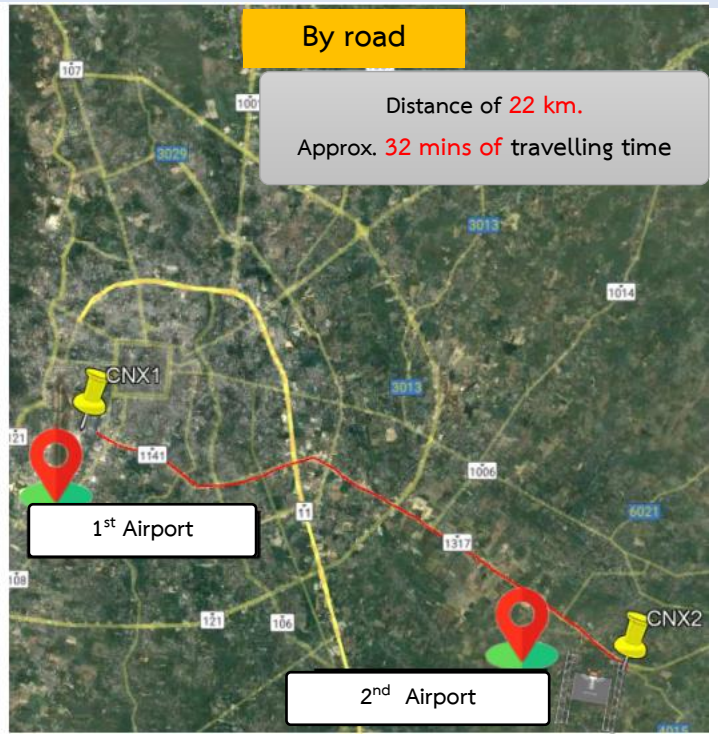
Lanna International Airport Construction Project

Location

San Kum Phaeng District
Chiang Mai Province and
Ban Ti District
Lamphun Province

การเดินทาง





Establishing Process of Lanna International Airport

- AOT analyzes the worthiness — 6
- AOT's Board of Directors AOT/MOT/CAAT considering guidelines — 3
- CAAT proposes the guidelines to CAB for consideration and proposed of the guidelines to the Cabinet — 4
- AOT conducts a study of the construction and propose the study result to MOT — 18
  - Land:
    - Inspect the land
    - Procurement
    - Approve of Royal Decree
    - Land Compensation
  - Design
  - Feasibility
  - EHIA
- MOT proposes to relevant agencies to give comments for consideration of the Cabinet — 5
- The Cabinet approves of construction project — 3
- Propose the establishing of airport to CAAT — 3
- AOT starts the construction — 42

(month)

84 months (7 years)

- Land = 8,050 Rai
- Terminal = 24 Million Pax/Year
- 2 Runways = 41 Movement/Hour
- Aircraft Stand = 38 Stands
- Cargo = 32,000 Tons

Investment budget of 70,000 million Baht

- Airside work 25,000 million Baht
- Terminal building work 22,000 million Baht
- Support and utility work 12,500 million Baht
- Price reserve and tax 10,500 million Baht

Udonthani International Airport

Development Project

Location

Mak Kaeng Sub-district, Mueang District, Udonthani Province

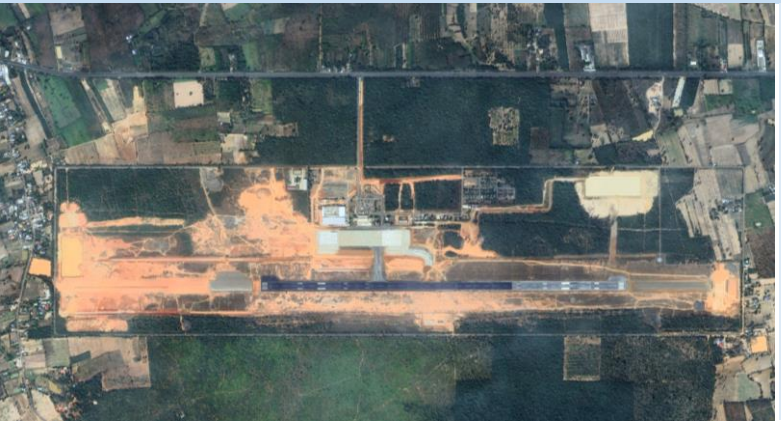
Process of Taking Over Udonthani International Airport

- Terminal = 6.5 Million Pax/Year
- 1 Runway = 20 flights/Hour
- Aircraft Stand = 13 Stands

Investment budget of 3,500 million Baht

- Development Project Phase 1
  Renovating terminal buildings 1 and 2
  1,320 million Baht
- Development Project Phase 2
  Constructing new terminal building
  1,580 million Baht
- Development project Phase 3
  Installing equipment and facilities
  600 million Baht

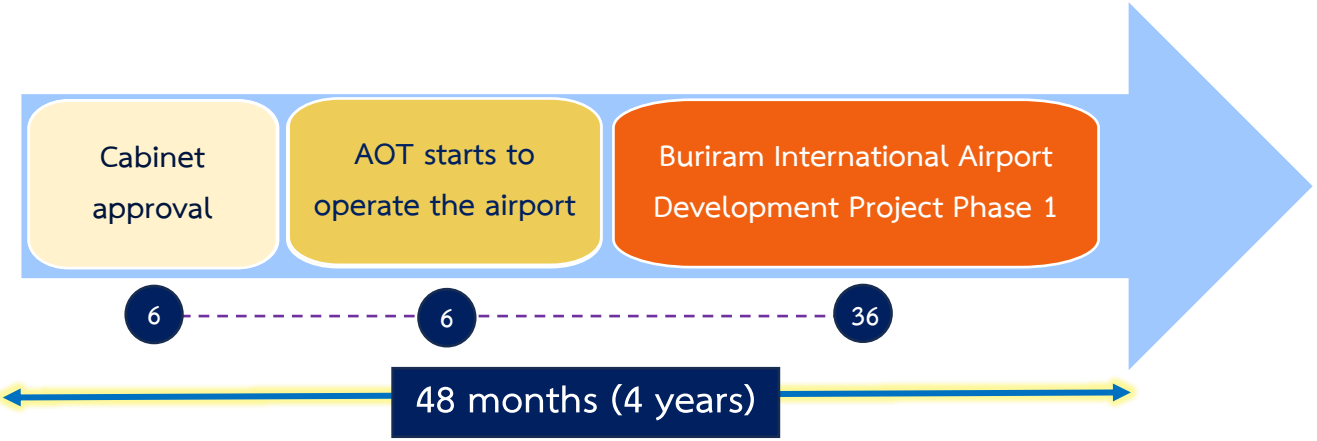
Buriram International Airport
Development Project



Location

Ron Thong Sub-district, Sa-tuek District, Buriram Province

Process of Taking Over Buriram International Airport



- Terminal = 2.8 Million Pax/Year
- 1 Runway = 25 flights/Hour
- Aircraft Stand = 11 Stands

Investment budget of 460 Million Baht

- Installing Smart Airport System

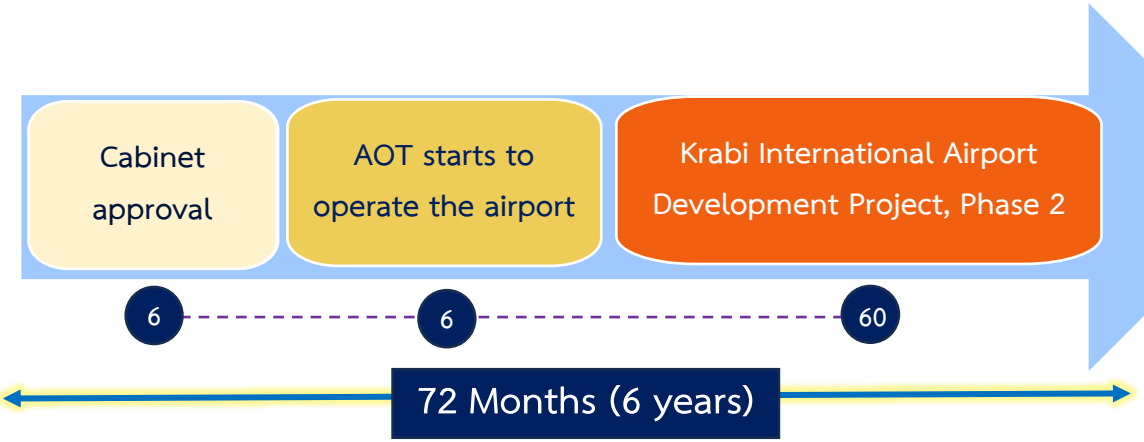
Krabi International Airport

Development Project

Location

Nua Khlong Sub-district
Nua Khlong District and Mueang District
Krabi Province

Process of Taking Over Krabi International Airport



- Terminal = 12 Million Pax/Year
- 1 Runways = 31 flights/Hour
- Aircraft Stand = 40 Stands

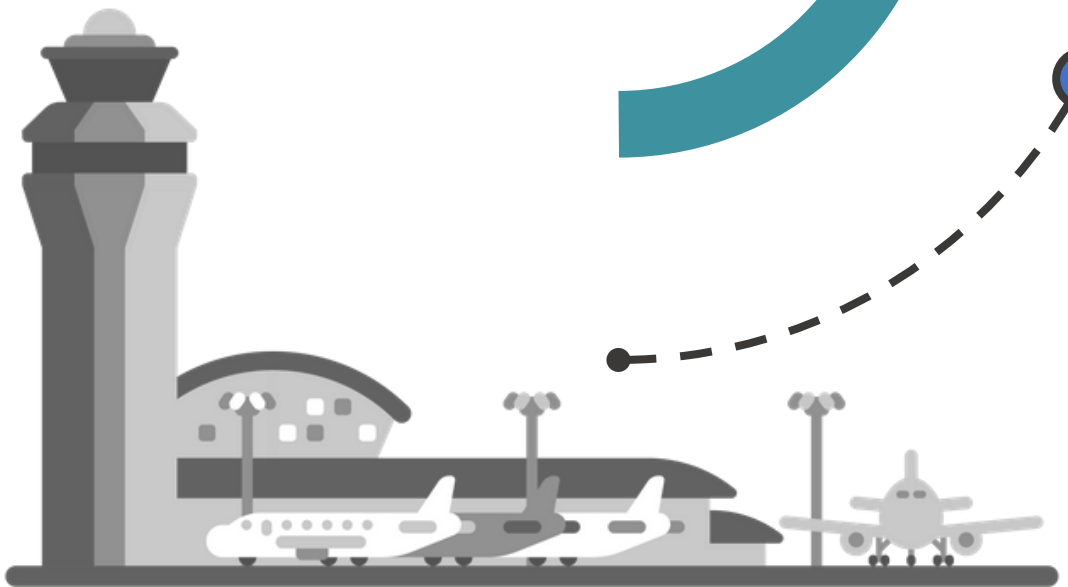
Investment budget of 2,700 million Baht

- Design and procurement work, and terminal building construction totalling 2,700 million Baht

The New Scenes of Airport.

(Airports of the Future: The Development of Airport Systems)

The New Scenes of Airport



01 Innovation

Real time Passenger Tracking, Simulation Programme ,
Airport collaborative decision-making : A-CDM
Artificial Intelligence : AI

02 Technology

Common Use Self-Service : CUSS,
Automated People Mover : APM,
Auto Tray System : ATS, Passenger Validation System : PVS

03 Green & Sustainability

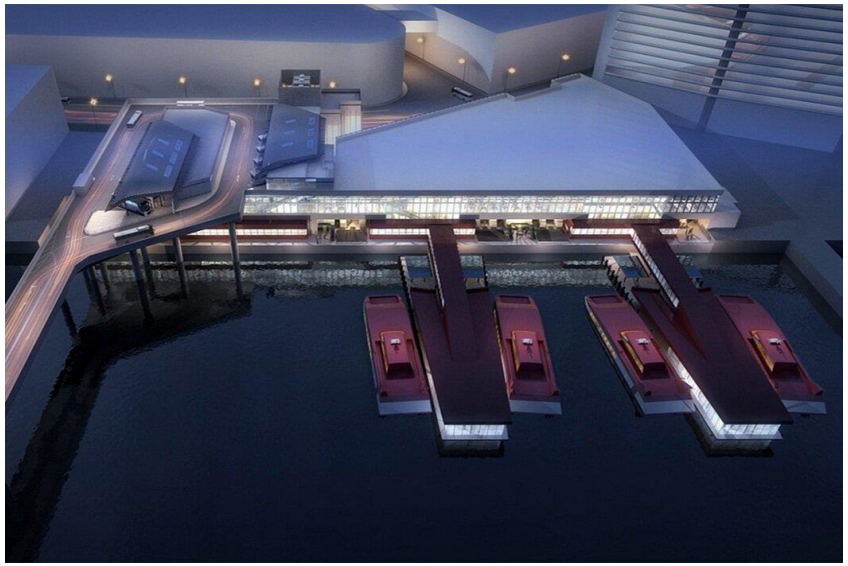
Social Aspect
Environmental Aspect
Economic Aspect

INNOVATION

Seaplane & Ferry Terminal

Passenger Experience

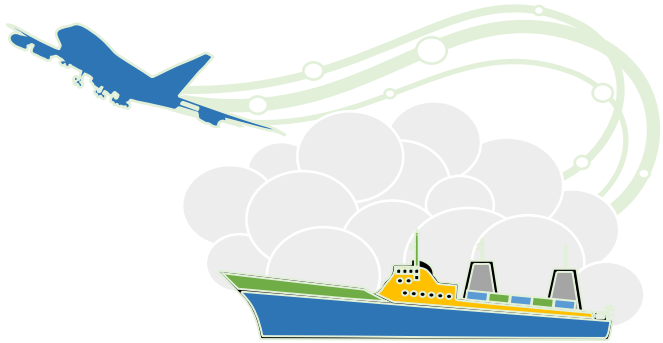
New Travel Trends



HONGKONG INTERNATIONAL AIRPORT SKY PIER

TAIPA FERRY TERMINAL : MACAU

SIAM SEAPLANE : THAILAND



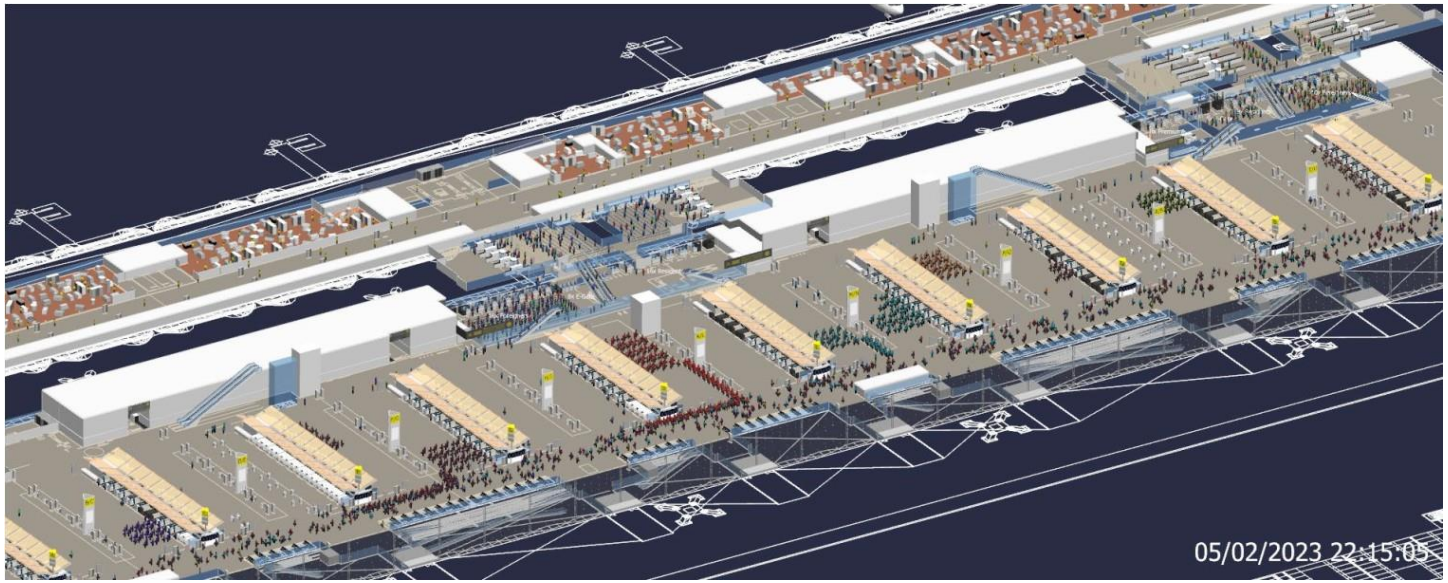
INNOVATION

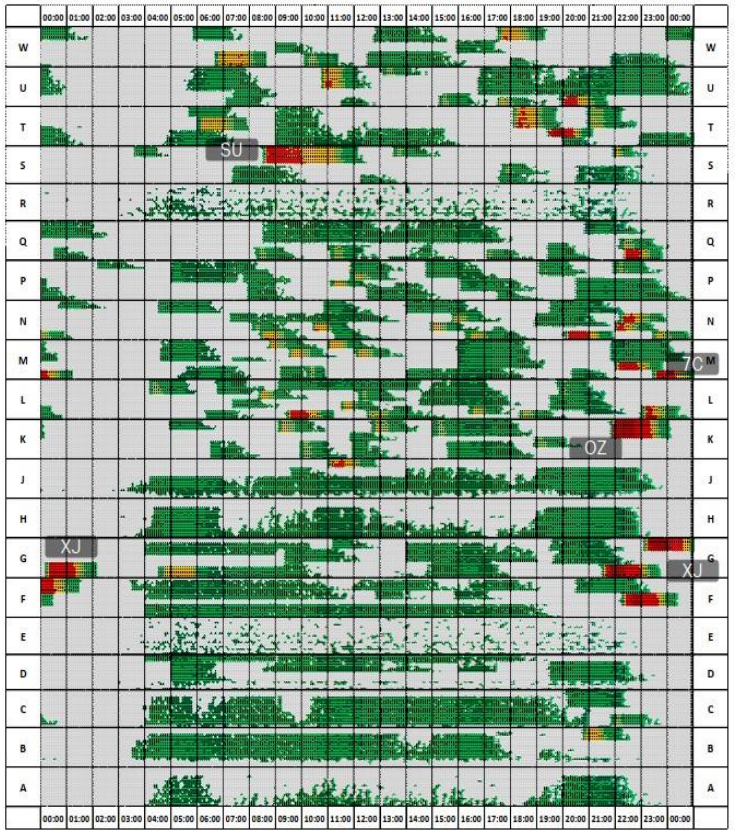
Capabilities of the CAST Terminal Simulation Program

“

The simulation helps
avoid real-life trials
that are usually associated
with significant capital
and operational expenditure

”



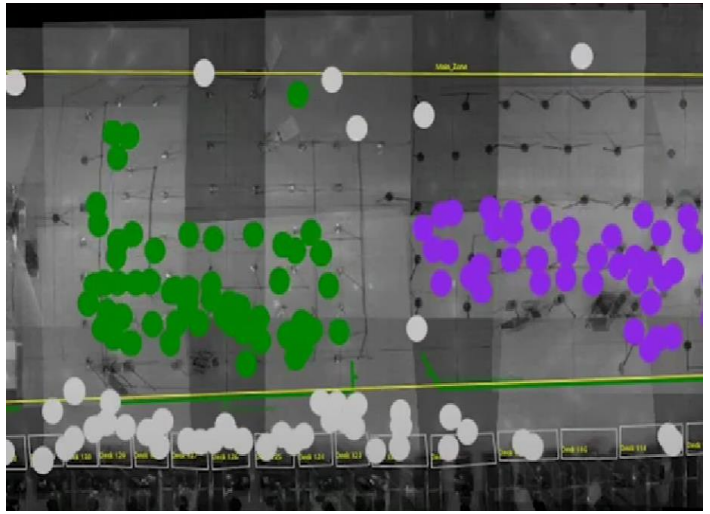


INNOVATION

Real-time Passenger Tracking and Counting System

Real – Time passenger Analysis and Tracking

“Optimize your processes, utilization of space and deployment of personnel”



INNOVATION

“

When Properly integrated
with checkpoint systems,
AI-based algorithms
Significantly improve
threat detection

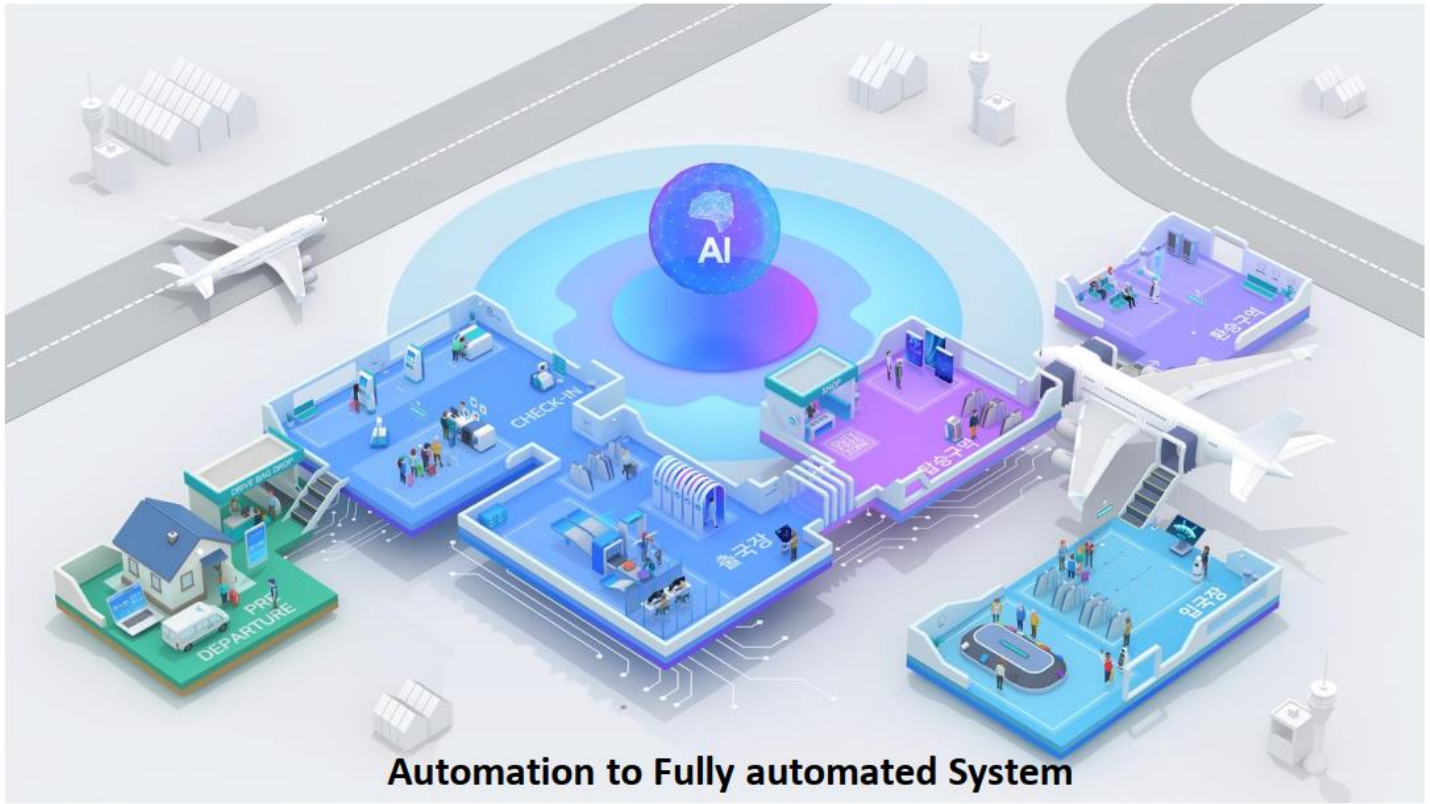
”

“

Costs can be reduced
and productivity
increased through
accurate and automated data

”

AI



Automation to Fully automated System

TECHNOLOGY

Auto Gate

Coordinating with Immigration Office

Self Check In

Coordinating with airlines and related persons

Biometric

Coordinating with airlines and related persons

Tub Base Technology

Automated People Mover (APM)

SAWASDEE by AOT

Sawasdee By AOT Application

TECHNOLOGY

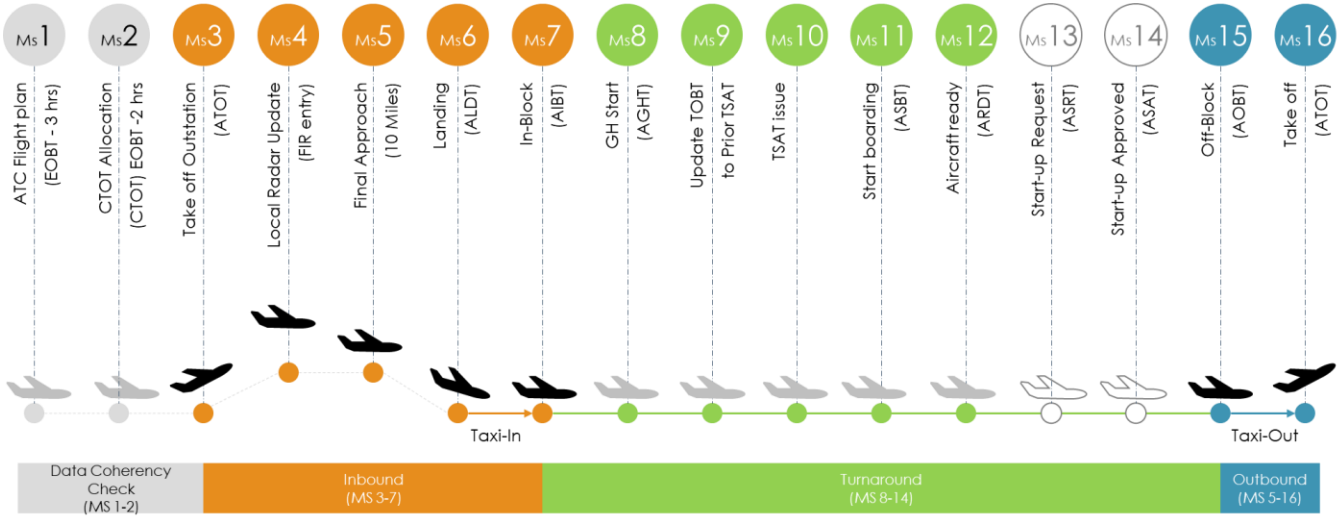
Implementation Concept

A-CDM

Airport Collaborative Decision Making

Objective

- Predictability
- On-time Performance
- Use of infrastructure
- Apron and Taxiway Congestion



หลักการและแนวทางในการดำเนินการ A-CDM ของ ทสภ. และ ทดม.

Airport A-CDM Elements

TECHNOLOGY

“

For every **10 minutes passengers spend in the security line,** their spending in the terminal decreases by 30%

”

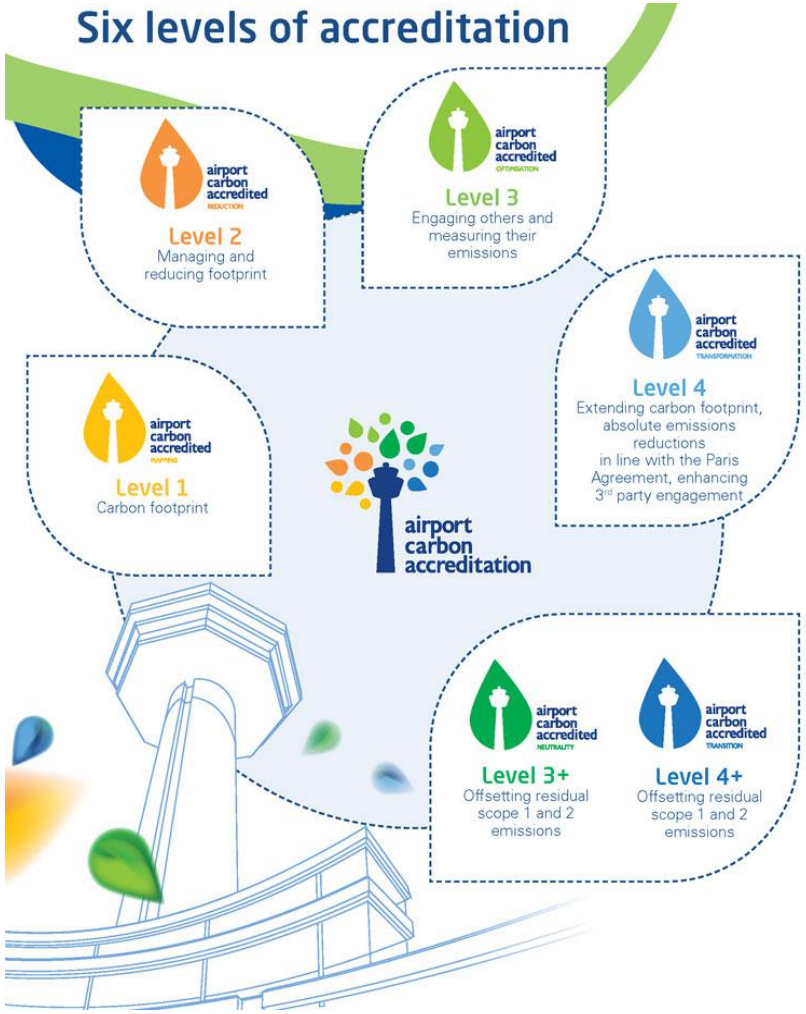
SUSTAINABILITY

Carbon Management

Carbon Management

2 YEAR	CO_2 Neutral Growth
4 YEAR	50% CO_2 Reduction
10 YEAR	Net Zero CO_2

Airport Carbon Accreditation Program (ACA)



ACA consists of 6 levels. BKK, DMK, CNX, CEI and HYD are currently accredited with Level 3 Optimization. HKT is currently accredited with Level 1 Mapping.

SCOPE 1
- **Stationary combustion** (ex : generators etc.)
- **Mobile combustion** (ex : company owned cars etc.)
- **Activities** (ex : firefighting exercises etc.)
- **Process emissions** (wastewater treatment)

SCOPE 2
- Electricity
- Cooling water

SCOPE 3
- LTO
- APU
- GSE
- Surface access
- Business travel

SUSTAINABILITY

AOT's Measures for Reducing Greenhouse Gas Emissions

Use of Electric Cars

- At present, most of the AOT's cars are rental cars. When the rental contract expires in each year, AOT will consider transitioning from conventional fuel cars to electric cars.

The shift from fuel-powered cars to electric power in anticipation of reducing CO_2 emission

CO_2

Gasoline : 2.2394 KgCO_2e/ litre
Diesel : 2.7406 KgCO_2e/ litre

× Fuel consumption for each type of vehicle

× Number of vehicles of each type

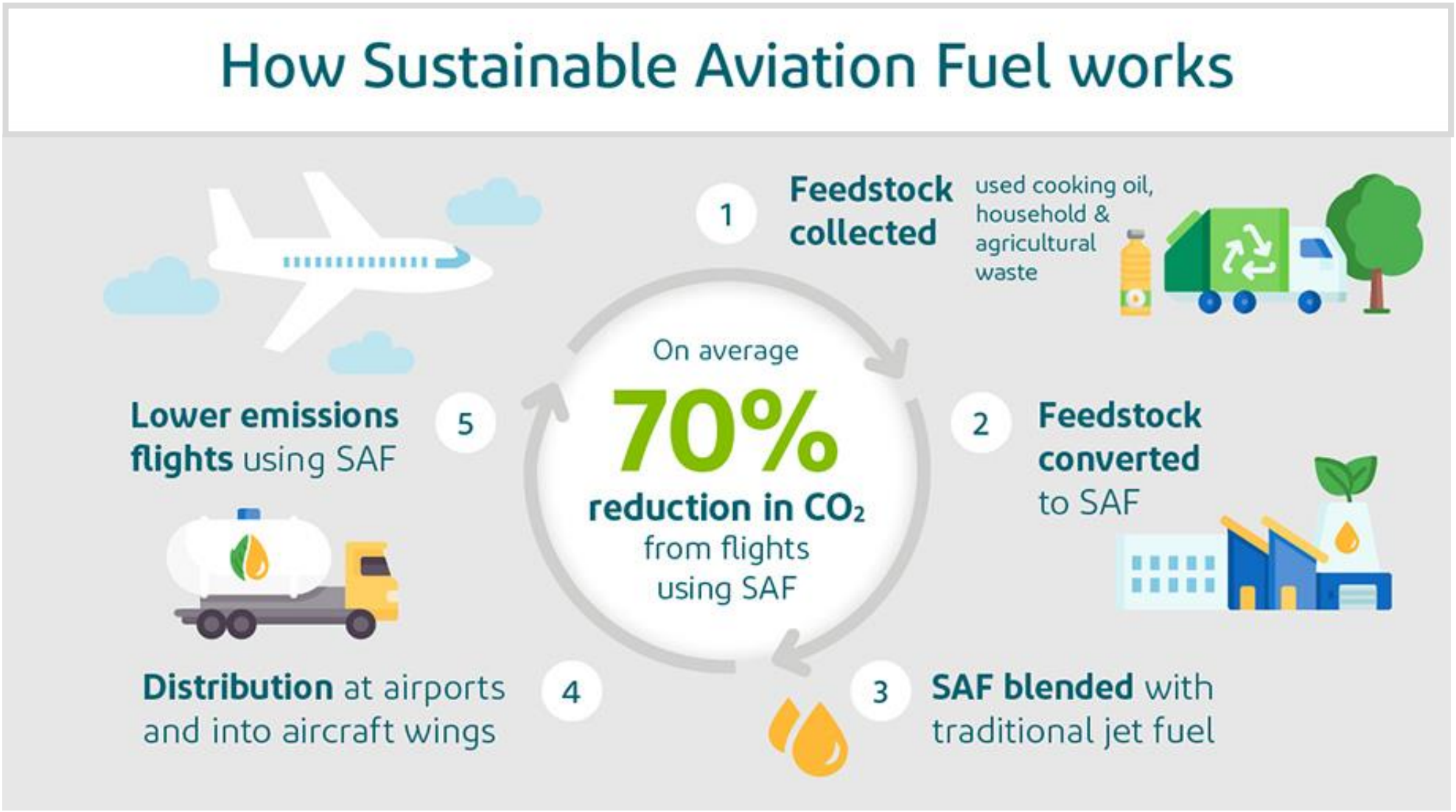
× Data from TGO
- Electric cars emit CO2 50% less than diesel cars.
- When powered by clean electricity, CO2 emissions are completely eliminated, 100% reduction.

= **Anticipation to reduce in CO2 emissions resulting from the shift from fuel vehicles to electric power**

2567	2568	2569	2570	2571
1,180 Cars	760 Cars	1,170 Cars	600 Cars	
Total 2,142.3 tCO_2e	Total 2,142.3 tCO_2e	Total 2,214.0 tCO_2e	Total 1,175.4 tCO_2e	

SUSTAINABILITY

Sustainable Aviation Fuel : SAF



SUSTAINABILITY

Energy Management

2 YEAR

20% of electrical power come from renewables Energy

4 YEAR

50% of electrical power come from renewables Energy

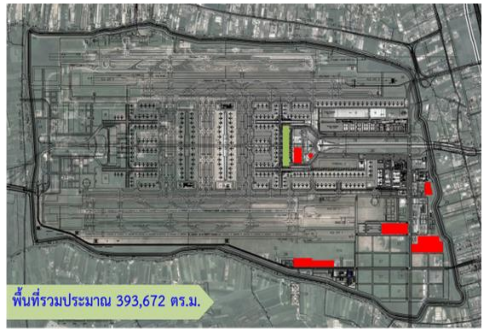
10 YEAR

100% of electrical power come from renewables Energy

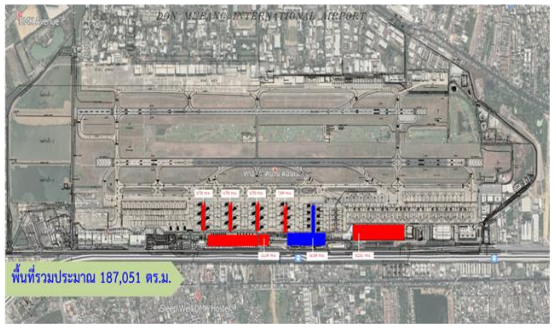
Energy Management

Installing Solar Cells helps utilize renewable energy, reduce carbon dioxide emissions and cut down on electrical power costs.

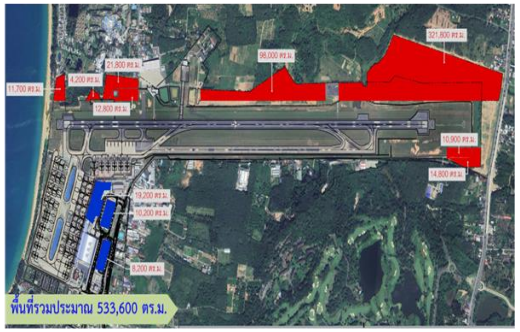
Suvarnabhumi Airport



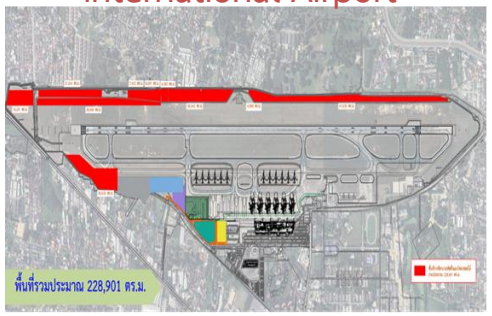
Don Mueang International Airport



Phuket International Airport



Chiangmai International Airport



Mae Fah Luang Chiang Rai International Airport

Hat Yai International Airport

Current solar rooftop installation areas

Suitable Rooftop Areas -Identify suitable areas for solar cell panel installation (taking into account the structural weight capacity).

Potential Area - Identify viable locations for solar cell panel installation and determine the optimal area for the installation of solar panels.

SUSTAINABILITY

Energy Management

2 YEAR

20% of electrical power come from renewables Energy

4 YEAR

50% of electrical power come from renewables Energy

10 YEAR

100% of electrical power come from renewables Energy

Energy Management

The Change of vehicles and machines in all AOT 6 airports from fuel vehicles to electric vehicles

According to the government's policy to decrease reliance on fuel, AOT is implementing a comprehensive policy to transition vehicles and machines used in the airports to electric alternatives. This ambitious policy encompasses a total of 3,400 units, promising a substantial reduction in fuel consumption by an estimated 10 million liters or approximately 28,360 tons of carbon dioxide emission annually. Beyond the environmental impact, this initiative is designed to enhance the overall airport experience for passengers by eliminating air pollution from conventional vehicles at the Bus Gate area.

SUSTAINABILITY

Water and Waste Management

	Water Management	Waste Management
2 YEAR	Water Neutral Growth	20% Zero Discharge
4 YEAR	50% Reduction of Water Withdraw	50% Zero Discharge
10 YEAR	Zero Water Withdraw	100% Zero Discharge

THANK YOU