



**ACV** | AIRPORTS CORPORATION OF VIETNAM

## Journey Towards World - Class Sustainable Airports in Vietnam

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*Specialist of Airport Operation Management*

2<sup>nd</sup> Vietnam Aero Summit  
 Hanoi Jan 24-25<sup>th</sup> 2024

# OVERVIEW OF ACV



# CORPORATE PROFILE



ACV is managing  
**22**  
airports nationwide



**09 INTERNATIONAL AIRPORTS**

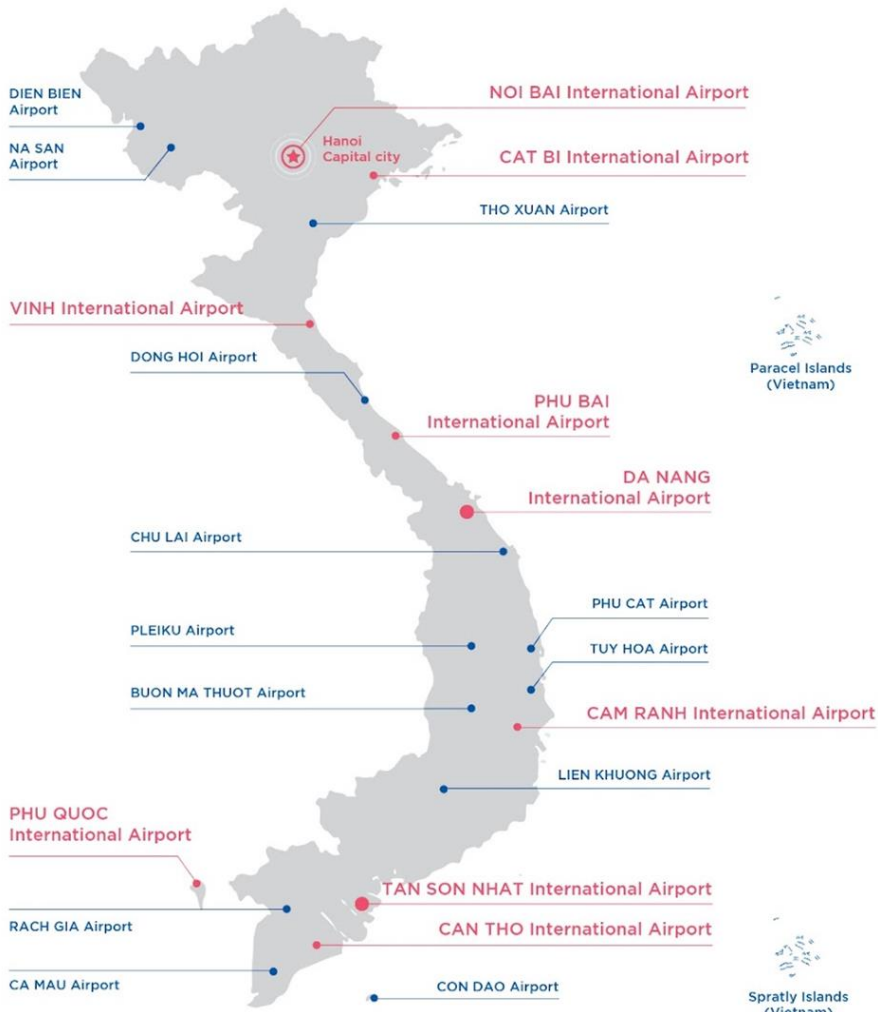


**13 DOMESTIC AIRPORTS**



## PASSENGERS

- **2019: 116,3** million
- **2020: 65,2** million
- **2021: 30,1** million
- **2022: 99** million
- **2023: 112,3** million



## DEVELOPMENT OF ACV

1975-2006

To meet the demand of airport operation management in the region, airport groups were established in state-owned enterprise model, operated public services and changed their names into Northern, Middle and Southern Airports Region with head offices in Noi Bai International Airport, Da Nang International Airport and Tan Son Nhat International Airport.



From Feb 8<sup>th</sup>, 2012

Established Airports Corporation of Vietnam (ACV), directly under Ministry of Transportation, on the basis of merging three corporations namely Northern, Middle and Southern Airports Corporations.

2007

Established Northern, Middle and Southern Airports Corporation, directly under Ministry of Transportation.

From Dec 10<sup>th</sup>, 2015

ACV successfully organized IPO in Ho Chi Minh Stock Exchange (HOSE).



From April 11<sup>th</sup>, 2016

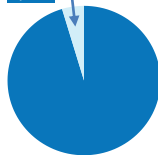
ACV officially operated in joint-stock company model, becoming Airports Corporation of Vietnam - JSC.

From Nov 21<sup>th</sup>

ACV's share was officially traded in UPCoM.

CHARTER CAPITAL  
21.772 BILLION VND

4.6%



From Nov 12<sup>th</sup>, 2018

Airports Corporation of Vietnam - JSC operated directly under Commission for the Management of State Capital at Enterprises.



Architectural design of Passenger Terminal - Phu Bai International Airport

# VISION & MISSION

- Continuing the leading role of the Government in the development in airports infrastructure.
- Environmental protection and response to climate change.



- Achieving business efficiency and service quality on par with the world.
- Preserving and developing capital to ensure resources for investment development

- Improving management skills to continuously invest, operate and manage the modern airports system.
- Applying advanced science and technology to improve competitiveness.



- Maintaining the stability of the employee's life and income.
- Ensuring aviation safety and security as the host of all sky gates to Vietnam



# BUSINESS PERFORMANCE

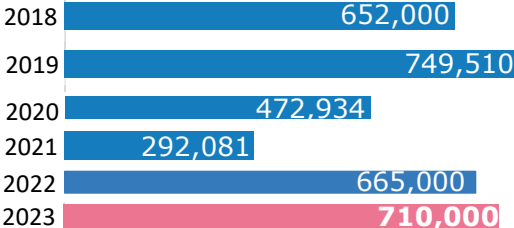
Compare to 2022

The number can speak for itself

## Flight



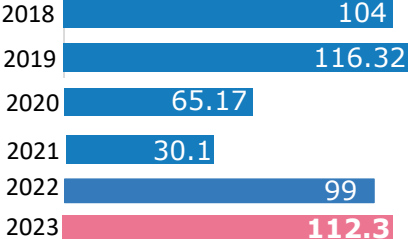
Unit: Aircraft Movement



## Passenger



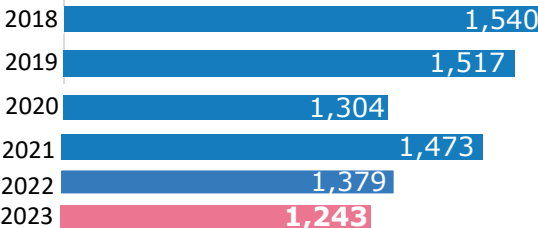
Unit: Mil PAX



## Cargo



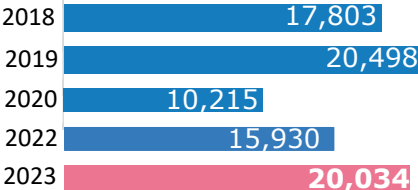
Unit: Thousand tons



## Revenue\*



Unit: VND billion



Passengers

112.3 million PAX  
▲ 13.9%



Cargo

1.243 thousand tons  
▼ 8%



Aircraft movement

710 thousand movements  
▲ 6.7%

(\* ) According to the audited consolidated financial statements for the fiscal year

# GLOBAL CONNECTIVITY



# TECHNOLOGICAL DEVELOPMENT





# DEPLOYING PLAN

## ACV Common Use Terminal Equipment (ACV iCUTE)



2022



ACV i-Cute enables multiple Domestic airlines to use existing airport infrastructures (the same hardware and equipment at a specific airport) to control passenger and flight processing through our own servers

# DEPLOYING PLAN

## ACV Self - Service 2022 - 2023



### Self Kiosk Checkin

- Identify yourself with your ID or passport
- Confirm your flight information
- Review your seat assignment
- Indicate your checked bags
- Print your boarding passes



### Self-BagDrop

- SBD enables passengers to autonomously check-in and securely drop off their baggage
- Confirm your flight information
- The human-centric design increases passenger adoption, resulting in shorter lines, less waiting times – meaning happier passengers, smoother travel and smarter business
- Indicate your checked bags

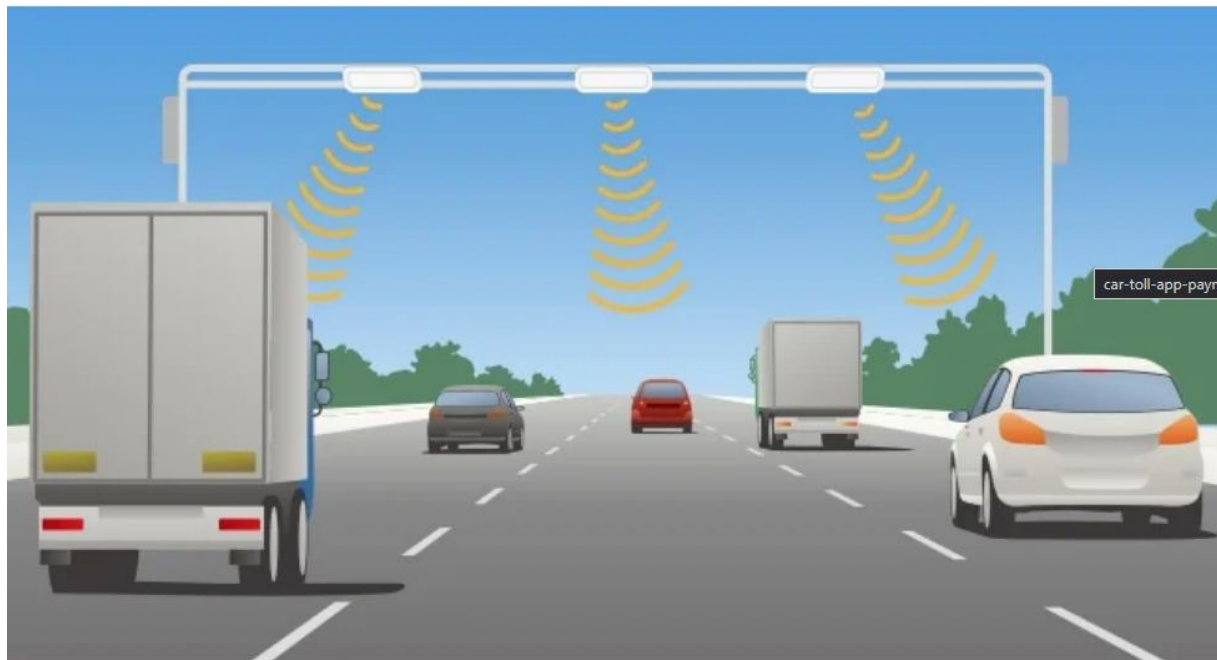


### Self-BoardingGate

- Helps speed up the boarding process, cutting wait times at the gates
- Opening the door to secure and seamless passenger processing
- Single person detection system
- Ensures that passengers board the right aircraft.

# DEPLOYING PLAN

## Electronic Toll Collection (ETC)



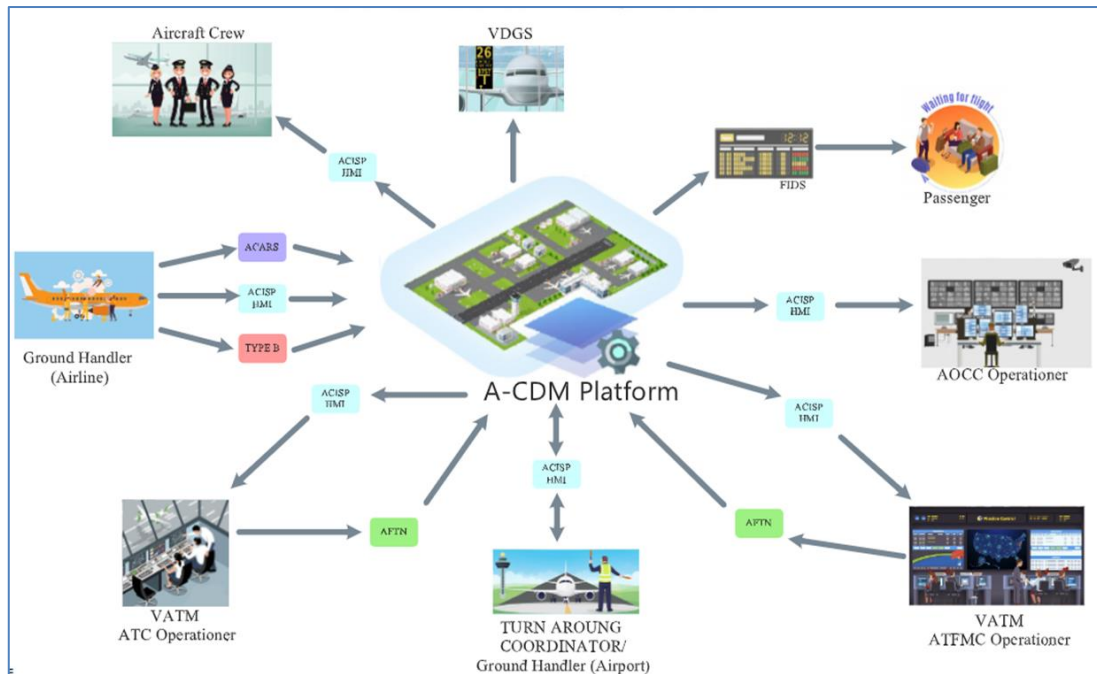
**2024 - 2025**



Increases throughput, Reduce overall toll-collection costs, Reduce traffic congestion

# DEPLOYING PLAN

## Implement “Airport Collaborative Decision Making” (A-CDM) at Noi Bai and Tan Son Nhat International Airports



2022 - 2025

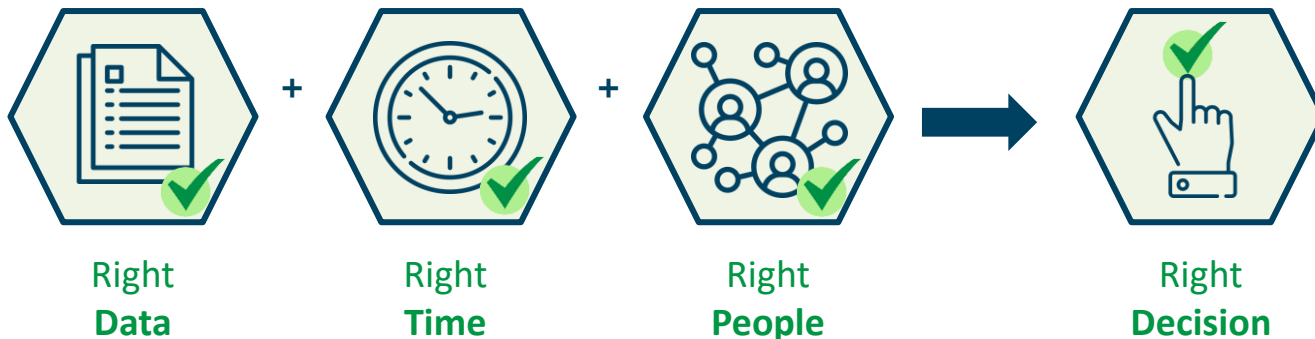


A-CDM can reduce airport and en route delay and optimize airport operations, by increasing an efficient turnaround process and improving flight predictability through real time data exchange for air navigation services

# DEPLOYING PLAN

## Implement “Airport Collaborative Decision Making” (A-CDM) at Noi Bai and Tan Son Nhat International Airports

✈ Airport CDM (A-CDM) is about partners working together and making decisions based on more accurate and higher quality information, where every bit of information has the exact same meaning for every partner involved. More efficient use of resources, and improved event punctuality as well as predictability are the target results.



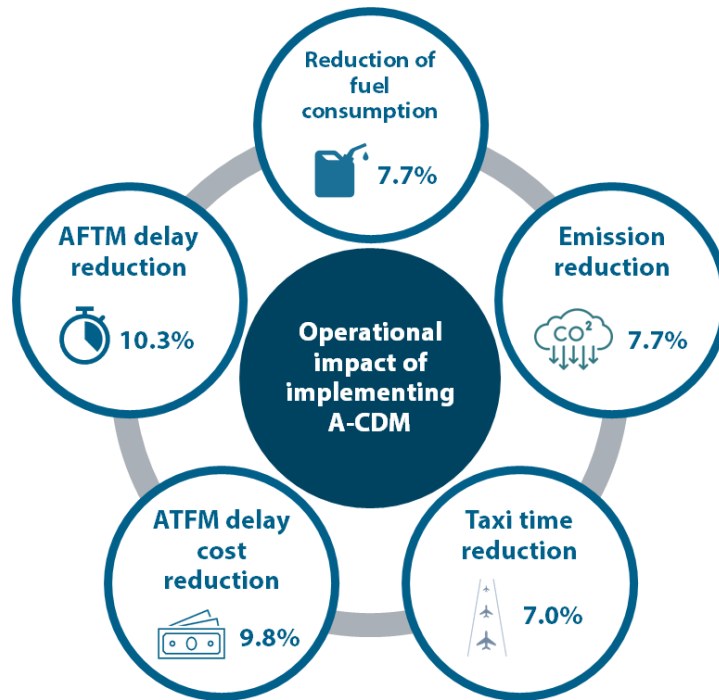


# DEPLOYING PLAN

## Implement “Airport Collaborative Decision Making” (A-CDM) at Noi Bai and Tan Son Nhat International Airports

### 2016 Assessment Report by EUROCONTROL

- Reduction in Taxi Time
- Reduction in start-up delay
- Improved Predictability
  - ✓ Increased runway peak departure rates
  - ✓ Increased slot adherence
- Reduced network delay
- Quicker Capacity recovery

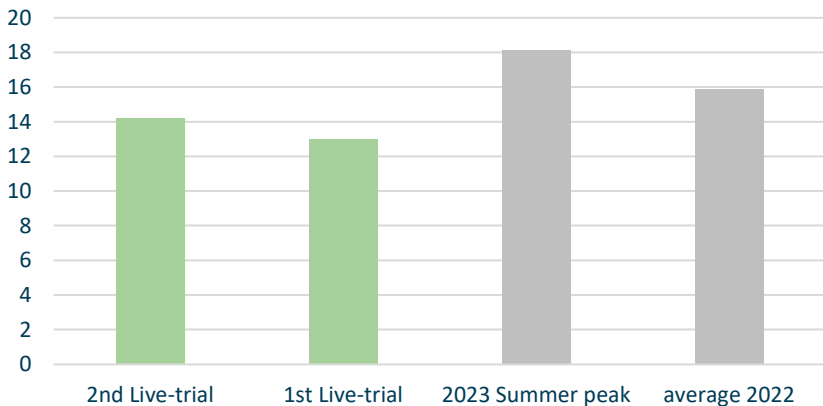


# DEPLOYING PLAN

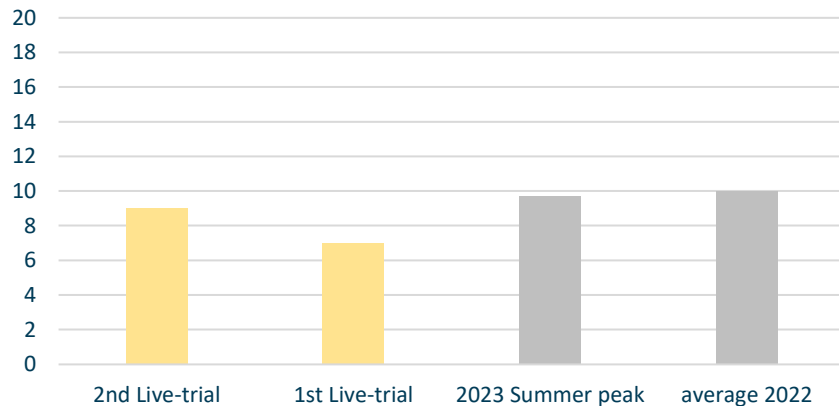
## Implement “Airport Collaborative Decision Making” (A-CDM) at Noi Bai and Tan Son Nhat International Airports

Thanks to A-CDM, average taxi-out and taxi-in time in 2<sup>nd</sup> live trials are reduced by around **21.98%** and **7.22%** respectively, compared to 2023 summer peak.

### Average Taxi-out Time at Noi Bai Airport



### Average Taxi-in Time at Noi Bai Airport



# DEPLOYING PLAN

## Implement “Airport Collaborative Decision Making” (A-CDM) at Noi Bai and Tan Son Nhat International Airports

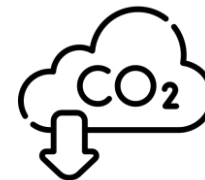
- On average, aircraft at the airport burn 12 kg. per minute during taxi
- During 2<sup>nd</sup> live trial, average taxi-out and taxi-in time is reduced by 4 and 0.7 minute, respectively
- That is 56.4 kg of fuel save per one aircraft rotation at HAN
- Based on 2019 traffic, by implementing A-CDM, the airport could help airlines save 5,338 tones of fuel, equal to 16,814 tones of carbon emissions, annually



A-CDM help  
reduce taxi-out  
and taxi-in time by  
**4 and 0.7 minute**



That is **56.4 kg of  
fuel save** per one  
aircraft rotation  
at HAN



Airport could save  
**16,814 tones of  
carbon emissions**  
per annum

## LONG THANH INTERNATIONAL AIRPORT PHASE 1

### Smart - Eco Airport

The entire Long Thanh Airport, upon completion after three phases, would have four runways and four passenger terminals. It is designed to handle a capacity of 100 million passengers and five million tons of cargo per year by 2040

The first phase is set to be up and running in 2025 to serve 25 million passengers per year

Smart Airport: AI, IoT, Big Data, Biometric Technology, Self services, Early Baggage System

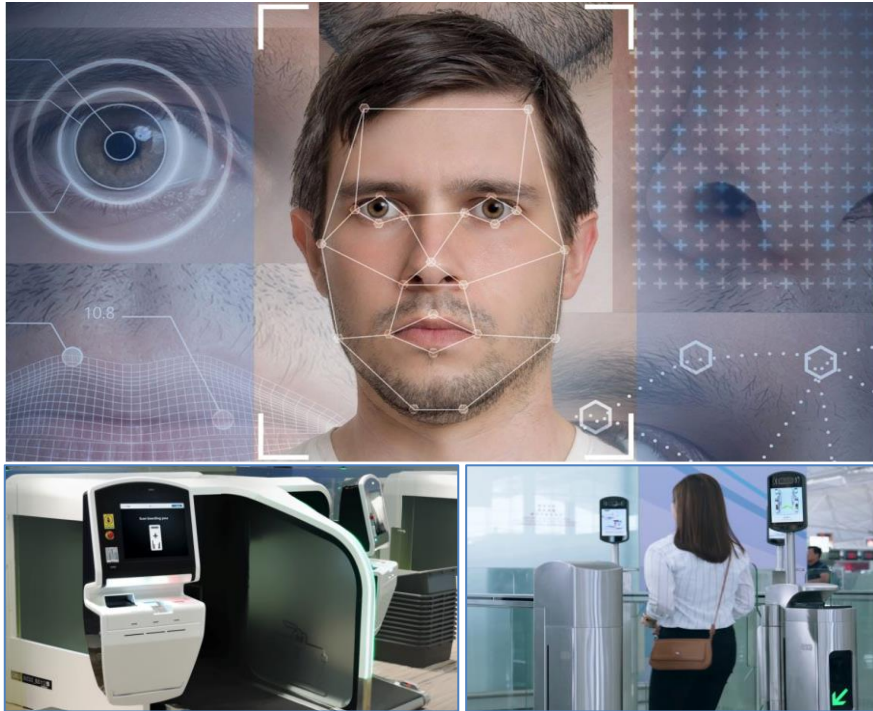


In near future, ACV continues to upgrade our current airports to be more and more modern and intelligent, moving nearer to be “smart/connected-eco” airport. There are some technologies that we plan to be equipped in our airports from now to 2025, orientation to 2030



# FUTURE ORIENTATION

## Contactless Technology within ACV Airport Environments



## Biometric Technology with ACV Self Services

- ✈ Facial recognition solution for passengers.
- ✈ Passengers use their faces as a means to access facilities around the airport:
  - Sel-Kiosk check-in
  - Self-Bagdrop
  - Self-Boarding gate



# FUTURE ORIENTATION

## SECURITY & OPERATION within ACV Airport Environments

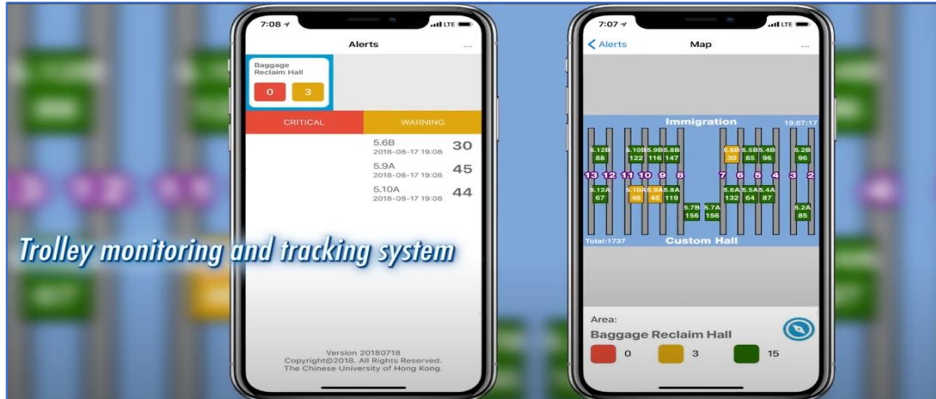


### Biometric Technology with Security

- ✈ Facial recognition security camera
- ✈ Protecting operations, site and people

# FUTURE ORIENTATION

## SECURITY & OPERATION within ACV Airport Environments



*Trolley monitoring and tracking system*

### Monitoring & Tracking System

- ✈ Trolley monitoring and tracking system
- ✈ GPS vehicle tracking



*GPS vehicle tracking*

# FUTURE ORIENTATION

## SECURITY & OPERATION within ACV Airport Environments



### Foreign Object Detection (FOD)

- ✈ Using FOD in runway
- ✈ FOD is set up on stand
- ✈ Mobile FOD is set up on cars



# DEVELOPMENT & INVESTMENT PLAN





# OBJECTIVES FOR THE PERIOD 2021- 2030



Ensure 22 airports to be modern, secure, safe, and efficient in accordance with ICAO standards



Joining logistic service provider system



Proficient implementation of digital transformation and green eco airports



Investment in human resources



Preservation and expansion of capital

## TOP 10 Fastest Growing Countries for Passengers 2017-2040

Over 50 million passengers per annum

Ranked

**01**

Vietnam

**6,2%**

Ranked 02

India

Ranked 03

Saudi Arabia

Source: ACI-Annual World Airport Traffic Forecasts 2018-2040



# SUSTAINABILITY GOAL

At ACV, our commitment to global sustainability goals is unwavering. We consistently aim to enhance operational efficiency to minimize our environmental impact. Concurrently, we actively champion diverse environmental initiatives, ensuring the airport's legacy of prosperity is passed down to future generations.

2030

- Enhancing efficient energy consumption
- Promoting and implementing the utilisation of green energy in conjunction with ISO 14001 standards
- Decreasing carbon emissions and waste
- Expanding green spaces within airports to create Eco-friendly airport environments

2050

- Implementing a significant shift towards electric and green energy to achieve a Carbon level 3+ certification
- Obtaining an Eco Airport certificate
- Achieving a "**net zero**" reduction in Carbon emissions

## MAIN INVESTMENT PROJECTS (PERIOD 2021-2030)

Scope in order	Airport	Categories
1	<b>Long Thanh International Airport Phase 1</b>	1 Terminal 25mil pax 1 Runway
2	<b>Tan Son Nhat International Airport</b>	New terminal T3 20mil pax
3	<b>Noi Bai International Airport</b>	T2 expansion to 15mil pax New terminal T3 10mil pax with auxiliary works
4	<b>Phu Bai International Airport</b>	New terminal 5mil pax
5	<b>Dien Bien Airport</b>	New airport
6	<b>Cat Bi International Airport</b>	New terminal T2 5mil pax Cargo terminal and parking stand area expansion
7	<b>Dong Hoi Airport</b>	New terminal 3mil pax
8	<b>Projects in reservation after master plan modification: Expansion plan of Da Nang, Cam Ranh and Phu Quoc International Airport</b>	

# LONG THANH INTERNATIONAL AIRPORT PROJECT

Since 2004, ACV has been assigned by the Government and Ministry of Transport to be the investor from the planning phase to prepare the Long Thanh International Airport Feasibility Study of Investment.

On 26/11/2019, at the 8th Session of the XIV National Assembly, the Feasibility Study Report for Long Thanh International Airport Construction Investment Project-Phase 01 was officially approved by the National Assembly of the Socialist Republic of Vietnam.

From 2020, ACV is ready to have all resources to implement the project Phase 1.

## Overview of Long Thanh International Airport Project

According to the Pre-Feasibility Study approved by the National Assembly in 2015, the total expected capacity of Long Thanh International Airport for all 3 periods is 100 million passengers/ year and 5 million tons of cargo/ year.

The project of Long Thanh International Airport consists of 3 phases:

### Phase 01 2020-2025

# 01

Constructing and completing runway No.01, T1 Passenger Terminal and auxiliary items to ensure the designed capacity of 25 million passengers/ year and 1.2 million tons of cargo/ year.

### Phase 02 2025-2030

# 02

Constructing and completing runway No.02, T2 Passenger Terminal and auxiliary items to ensure the designed capacity of 50 million passengers/ year and 1.5 million tons of cargo/ year.

### Phase 03 2035-2040

# 03

Constructing and completing runway No.03, runway No.04, T3 & T4 Passenger Terminal and auxiliary items to ensure the designed capacity of 100 million passengers/ year and 5 million tons of cargo/ year.



Long Thanh, Dong Nai  
42 km away from HCMC

4F International Airport  
(ICAO standards)

Total area:  
5,000 ha

Perspective drawing of Passenger Terminal - Long Thanh International Airport

# LONG THANH INTERNATIONAL AIRPORT PROJECT

## Investment Phase 01



Runway



Passenger Terminal  
373,000 m<sup>2</sup>

## Auxiliary items



Apron with 64 positions



Air traffic control tower - 123 m



Parking lot of 3,500 parking positions



Catering area with 40,000 meals/day

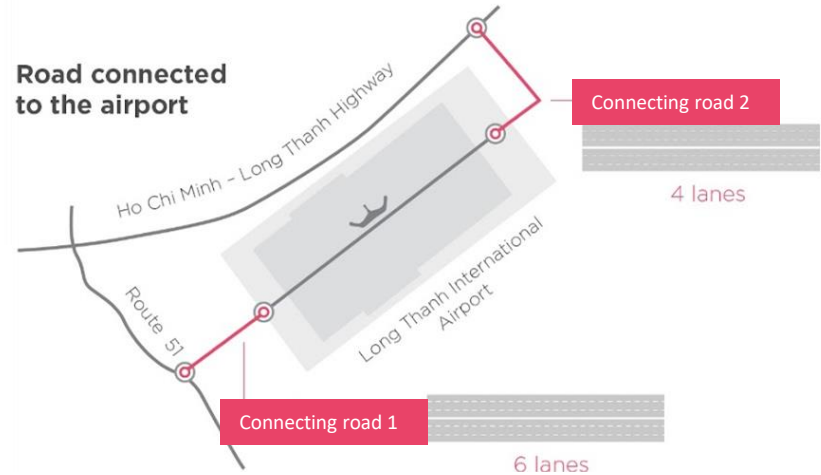


Aircraft maintenance facilities



Fuel station and waste disposal

## Road connected to the airport





**ACV**

AIRPORTS  
CORPORATION  
OF VIETNAM



**THANK YOU!**