



# *Imam Khomeini Airport City Masterplan*

**CIVIL AVIATION AUTHORITY OF I.R. IRAN**

**Regional Seminar on Airport Master Planning**

**Hurghada**

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Strategic Objectives  
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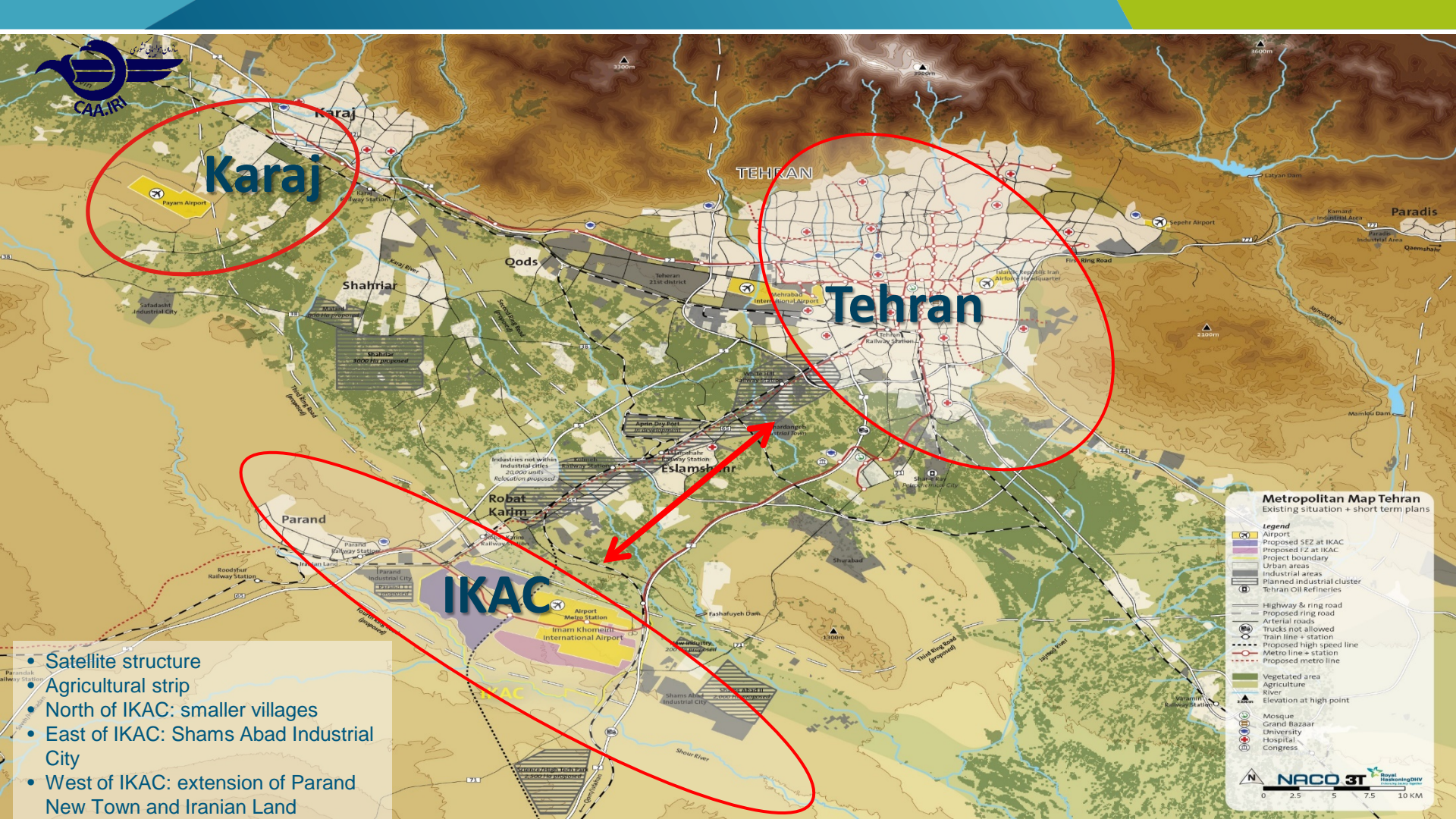
# INTRODUCTION



## Airports

- **Commercial Air Transport**
  - 11 International Airports
  - 29 None-schedule International Airports
  - 30 Domestic Airports
- **Non-commercial Air Transport**
  - 12 Airports
  - 114 Registered Heliports
- Traffic: 28 million passengers per year (before Covid-19: 50 million)





Karaj

TEHRAN

Tehran

IKAC

### Metropolitan Map Tehran

Existing situation + short term plans

- Legend**
- Proposed SEZ at IKAC
  - Proposed FZ at IKAC
  - Project boundary
  - Urban areas
  - Industrial areas
  - Planned industrial cluster
  - Tehran Oil Refineries
  - Highway & ring road
  - Proposed ring road
  - Arterial roads
  - Trucks not allowed
  - Train line + station
  - Proposed high speed line
  - Metro line + station
  - Proposed metro line
  - Vegetated area
  - Agriculture
  - River
  - Elevation at high point
  - Mosque
  - Grand Bazaar
  - University
  - Hospital
  - Congress

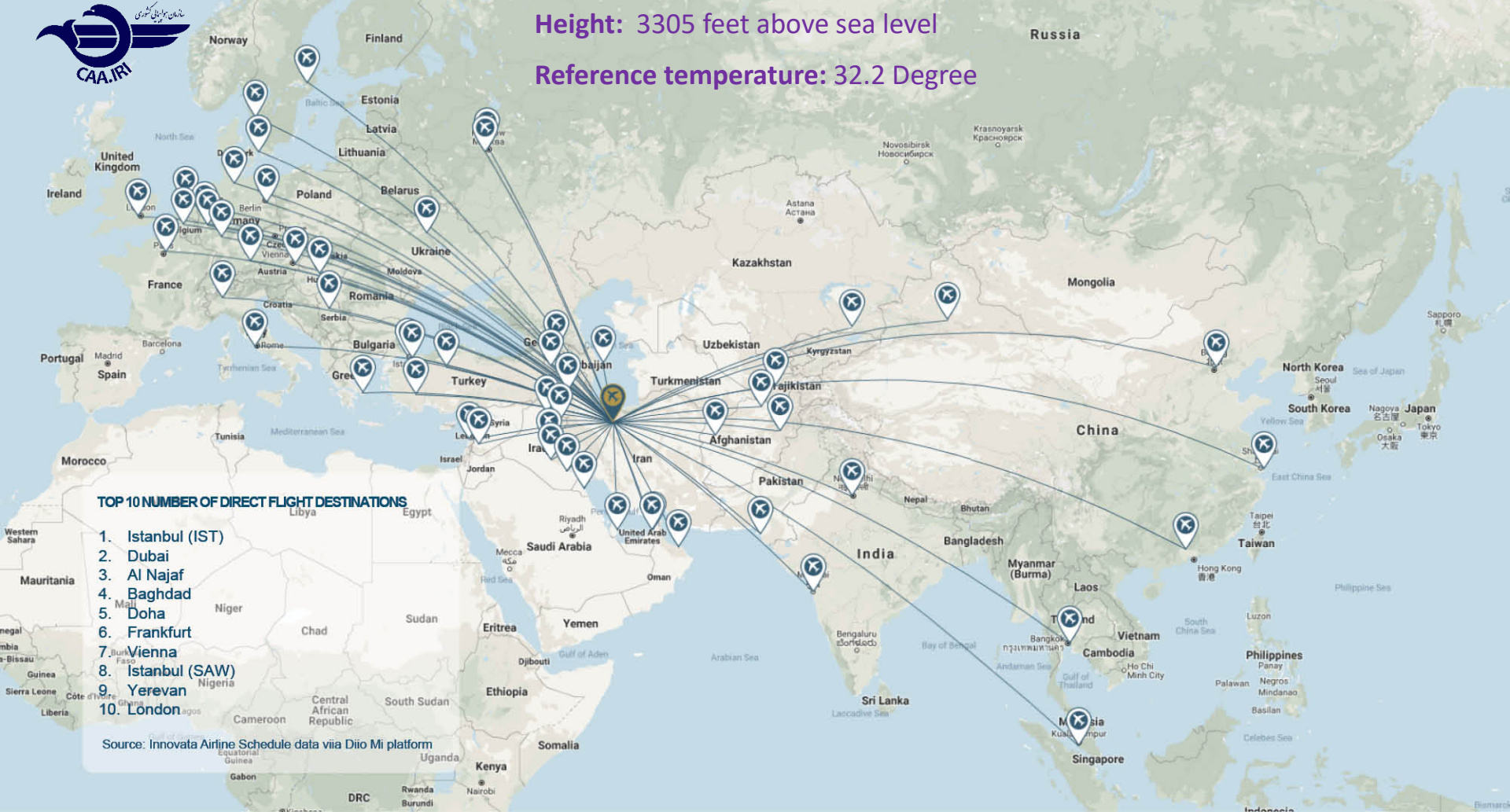
- Satellite structure
- Agricultural strip
- North of IKAC: smaller villages
- East of IKAC: Shams Abad Industrial City
- West of IKAC: extension of Parand New Town and Iranian Land





Height: 3305 feet above sea level

Reference temperature: 32.2 Degree



#### TOP 10 NUMBER OF DIRECT FLIGHT DESTINATIONS

1. Istanbul (IST)
2. Dubai
3. Al Najaf
4. Baghdad
5. Doha
6. Frankfurt
7. Vienna
8. Istanbul (SAW)
9. Yerevan
10. London

Source: Innovata Airline Schedule data via Diio Mi platform



# Available Capacity

Salam  
Terminal 4.5 MAP

T1 9 MAP  
6 MAP

# IKI Airport



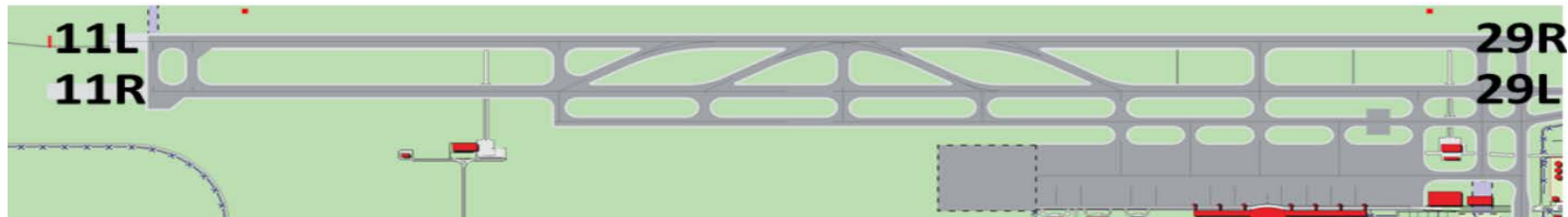
## Runway

29R/11L of precision type(Main Runway, ILS CAT I/II)

29L/11R of non-precision type (Second Runway operate on the certain Condition, CAT I )

Runway reference code: E (B777-200)

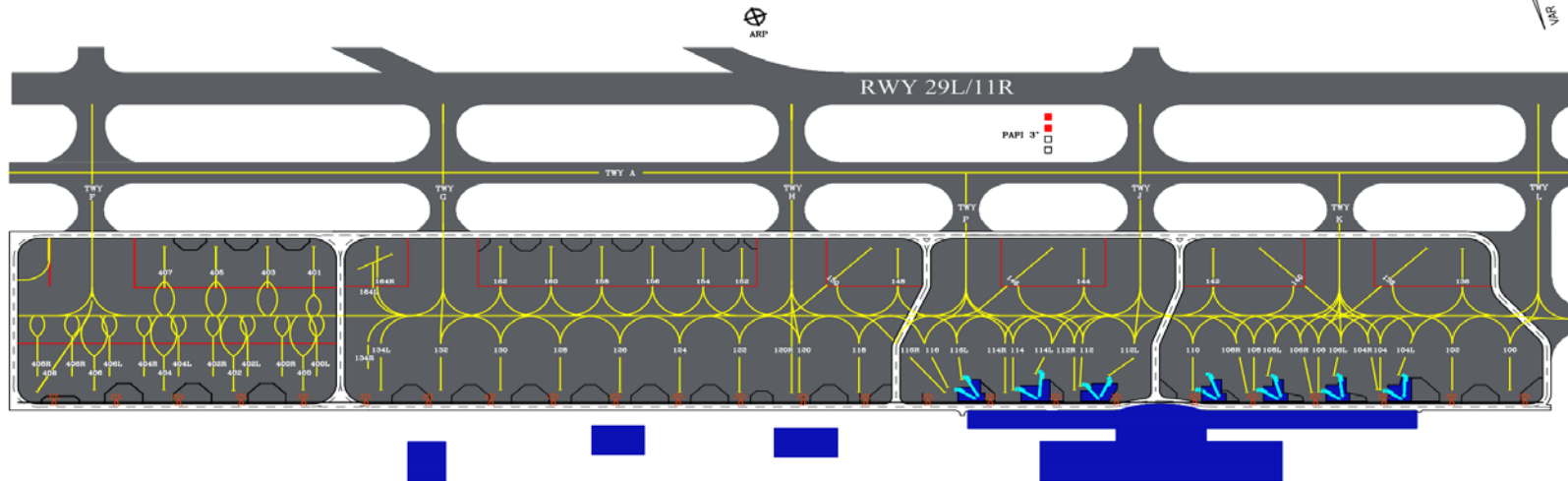
RWY	Dim [m]	Shoulders [m]	PCN	SWY [m]	CWY [m]	TORA [m]	TODA [m]	ASDA [m]	LDA [m]
<b>11L</b>	4,198x45	10.5	80/F/C/W/T	120x45	120x150	4,198	4,318	4,318	4,198
<b>29R</b>	4,198x45	10.5	80/F/C/W/T	121x45	121x150	4,198	4,319	4,319	4,198
<b>11R</b>	4,198x45	7.5	80/F/C/W/T	N/A	N/A	3,648	4,092	4,092	4,092
<b>29L</b>	4,198x45	7.5	80/F/C/W/T	308x45	308x150	4,092	4,400	3,648	3,648





# IKI Airport – Terminal 1

APRON NO 1 (PASSENGER APRON)

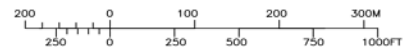


- Stands NR 100, 102, 104, 104R, 106, 106R, 108, 110, 112, 112R, 114, 114R, 116 and 116R are equipped with Ducking guidance system.
- For detailed information on aircraft stands, see AIP page AD 2 OIIIE APDC 1-2
- Apron Surface: Concrete, PCN 80/R/C/W/T.
- TWY Surface: Asphalt, PCN 80/F/C/W/T.
- All TWY Width 30 M.

- If stand NO.408 use for A-380, stands NO.408R, 406L, 406R & 406 can't be use for any other ACFT.
- For pushing back A-380 from stand NO.408, whether stands NO.407, 404, 404L & 404R can't be use or airplane must push back to TWY directly.

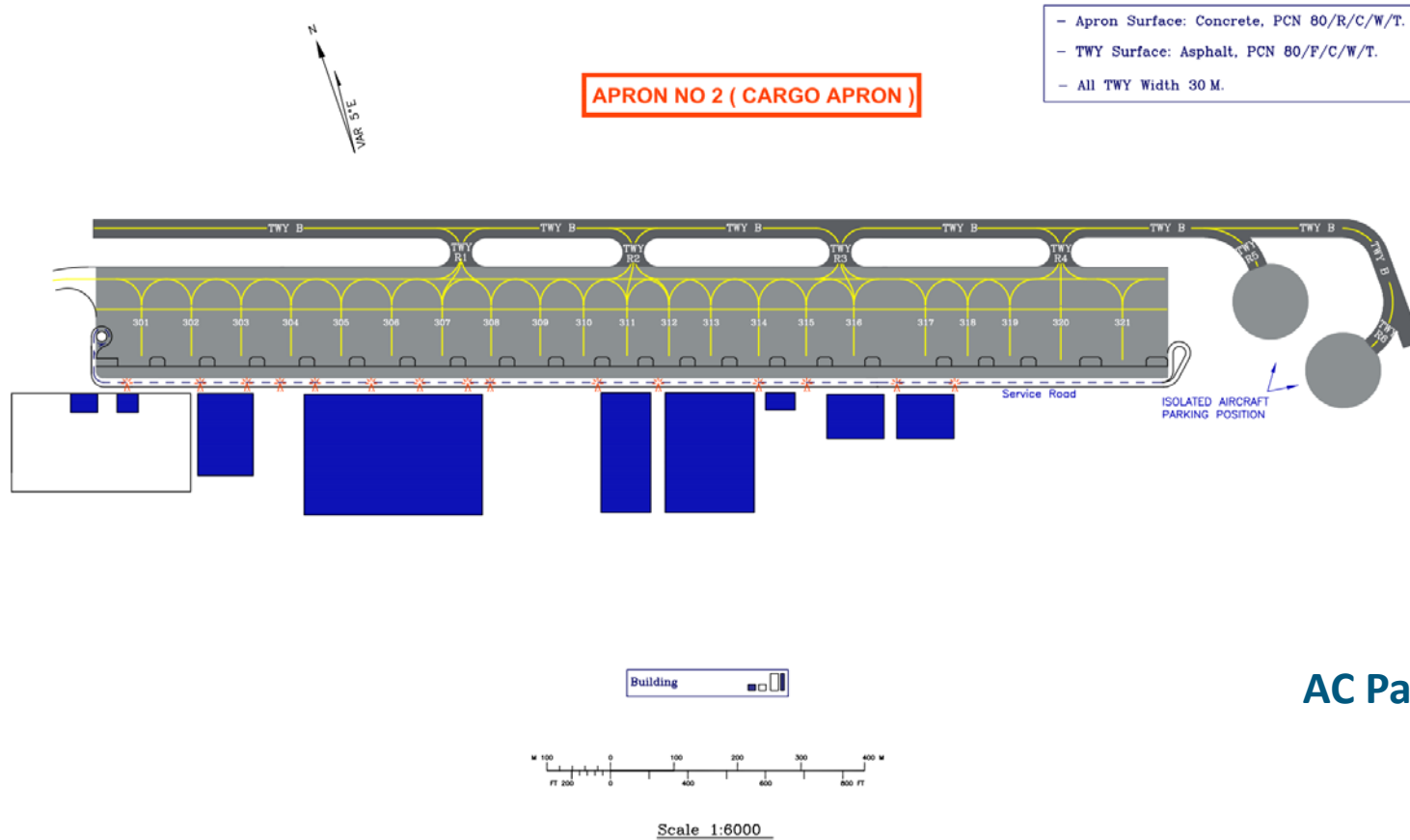
**Airbridge: 7**

**AC Parking: 48**

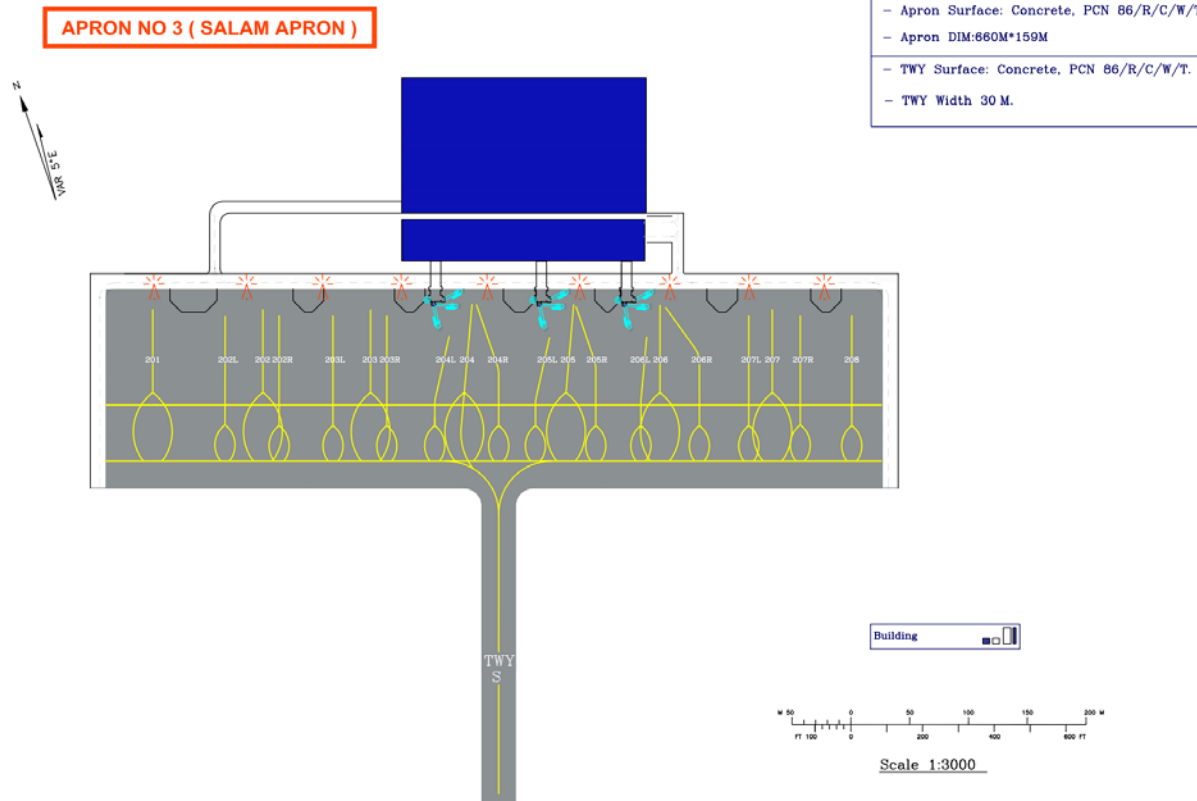


Scale 1:5000

# IKI Airport – Cargo Apron



# IKI Airport – Salam Terminal



**Airbridge: 3**

**AC Parking: 8-14**



# CONTEXT

## Challenges National Policy



# Challenges



**Fast Traffic Growth**



**Service Level Performance**



**Increasing Environmental / Social Impact**

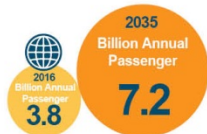


**Financing Gap**



# Traffic Growth - Passenger

## Worldwide



## Regional Growth

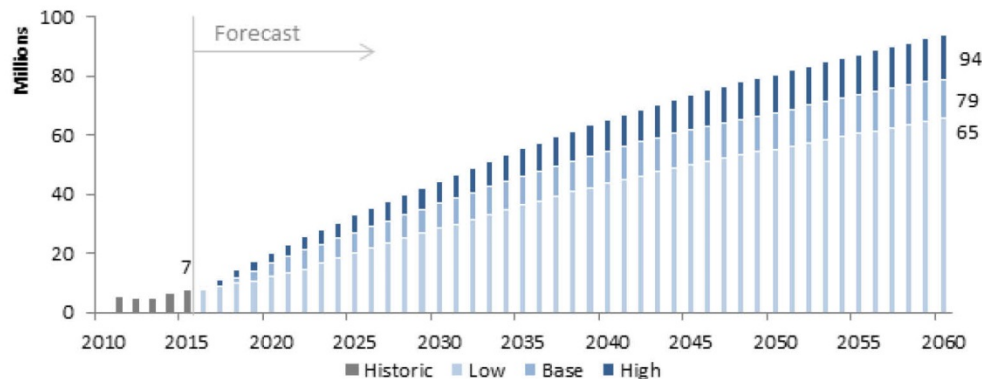


## Iran Tourism Overview



The International Air Transport Association (IATA) expects 7.2 billion passengers to travel in 2035, a near doubling of the 3.8 billion air travelers in 2016. The prediction is based on a 3.7% annual Compound Average Growth Rate (CAGR)

**IKIA passenger growth** is particularly strong in the first ten years of the forecast period. A growing domestic economy, fuelled by international trade and expansion, combined with ambitious fleet plans and a constrained Mehrabad Airport, are expected to be the major drivers of traffic at IKIA.







# Traffic Growth - Cargo

## Worldwide

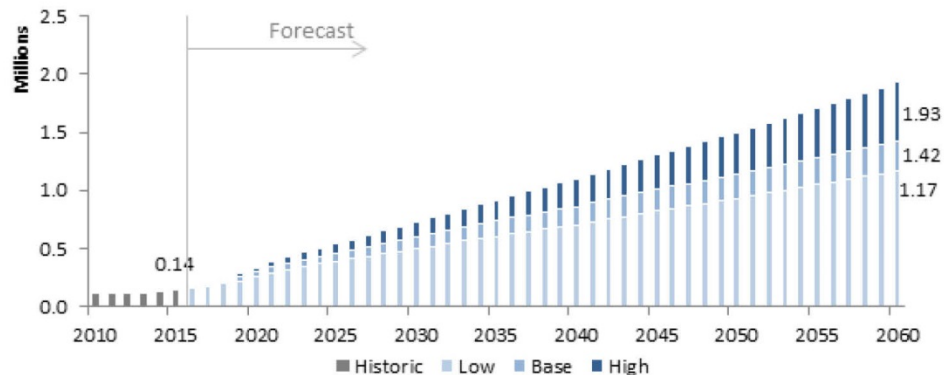


World air cargo is the sum of freight and mail. World air freight traffic is strongly related to GDP and average yield. The baseline forecast for total world air cargo predicts that traffic will more than double between 2015 and 2035. Worldwide traffic will grow from 223.4 billion RTKs in 2015 to more than 509 billion RTKs.

## Regional Growth

Air cargo traffic expands strongly on economic growth. Air cargo moving into, within, and out of the Middle East is estimated to have accounted for 5.2 percent of the world's tonnage and 4.4 percent of the world's revenue tonne-kilometers in 2015.

**Cargo growth at IKIA** will see growth when domestic routes are gradually build up at IKIA, the overall amount is expected to remain modest. Although the average speed of road transport is much lower than air cargo transport, road transport offers more flexibility and typically gains time when taking into account door-to-door deliveries. While commercial passenger aircraft operating on domestic routes will carry some incidental cargo, the average belly freight per movement is expected to remain modest; no full freighters are anticipated on domestic routes operating to and from IKIA. Air cargo imports and exports will be carried as a combination of belly freight onboard commercial passenger aircraft and on dedicated all-cargo full freighters.



# Service Level

## Quality of Air Transport Infrastructure

World Economic Forum 2017-2018

In your country, how is the quality (extensiveness and condition) of airports  
[1 = extremely poor—among the worst in the world; 7 = extremely  
good—among the best in the world]

IRAN



  
**105**  
Rank / 137



# Environmental Impact

The industry will also need to be able to grow sustainably. Supported by airlines, Carbon Offset and Reduction Scheme for International Aviation (CORSIA) is established, to manage the emissions growth of an entire global industrial sector—aims to cap net emissions with carbon neutral growth from 2020.

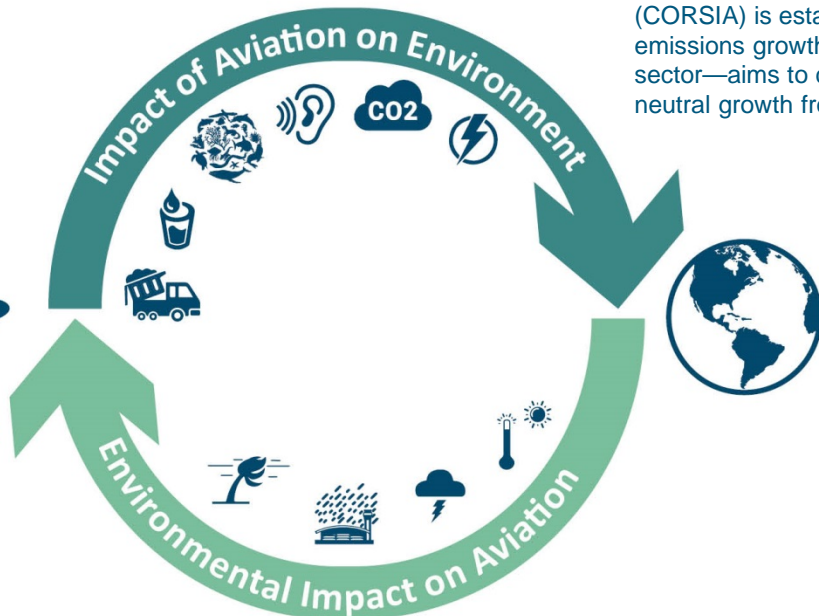
**Eco-friendly &  
Climate Resilient  
Airport**

✓ To Mitigate



✓ To Be Resilient

To cope with the impact of climate change, governments, communities and the industry also need to working together in partnership to advance technology, improve operations and generate more efficiencies in infrastructure.



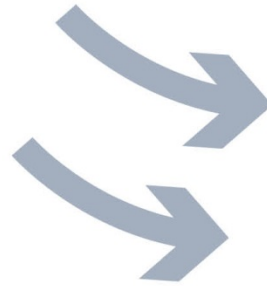
**Environmental  
Sustainability  
&  
Social  
Responsibility**



# \$ Financing Gap

Governmental funding and guarantees

Private funding



Financing gap



IKAC Revenue

Financial Resources Required:

Capital costs of new infrastructure

Operational cost of existing infrastructure

# IKAC in Governmental Structure



# National Policy

## 5th Year Development Plan

### Article 166

To boost the status of the country in international air transportation network and to increase income resulting from transit and goods and passengers transportation and **productive employment**, to promote the level of Imam Khomeini. International Airport to the **first hub of cargo transportation** in the region with insisting on the **airport independence in managerial, financial and organizational aspects** and to provide **stable flow of financial resources** for beneficiaries, the government shall take the below – mentioned actions:

To develop an **airport city** in the area adjacent to Imam Khomeini International Airport and a free Trade Zone and Economic Special Zone in a part the lands belonging to the airport to provide insurance, banking and other services for airport town, such as tourism, medicine, welfare and.....





# MASTERPLAN LAYOUT

AIRPORT MASTERPLAN  
AIRPORT CITY MASTERPLAN





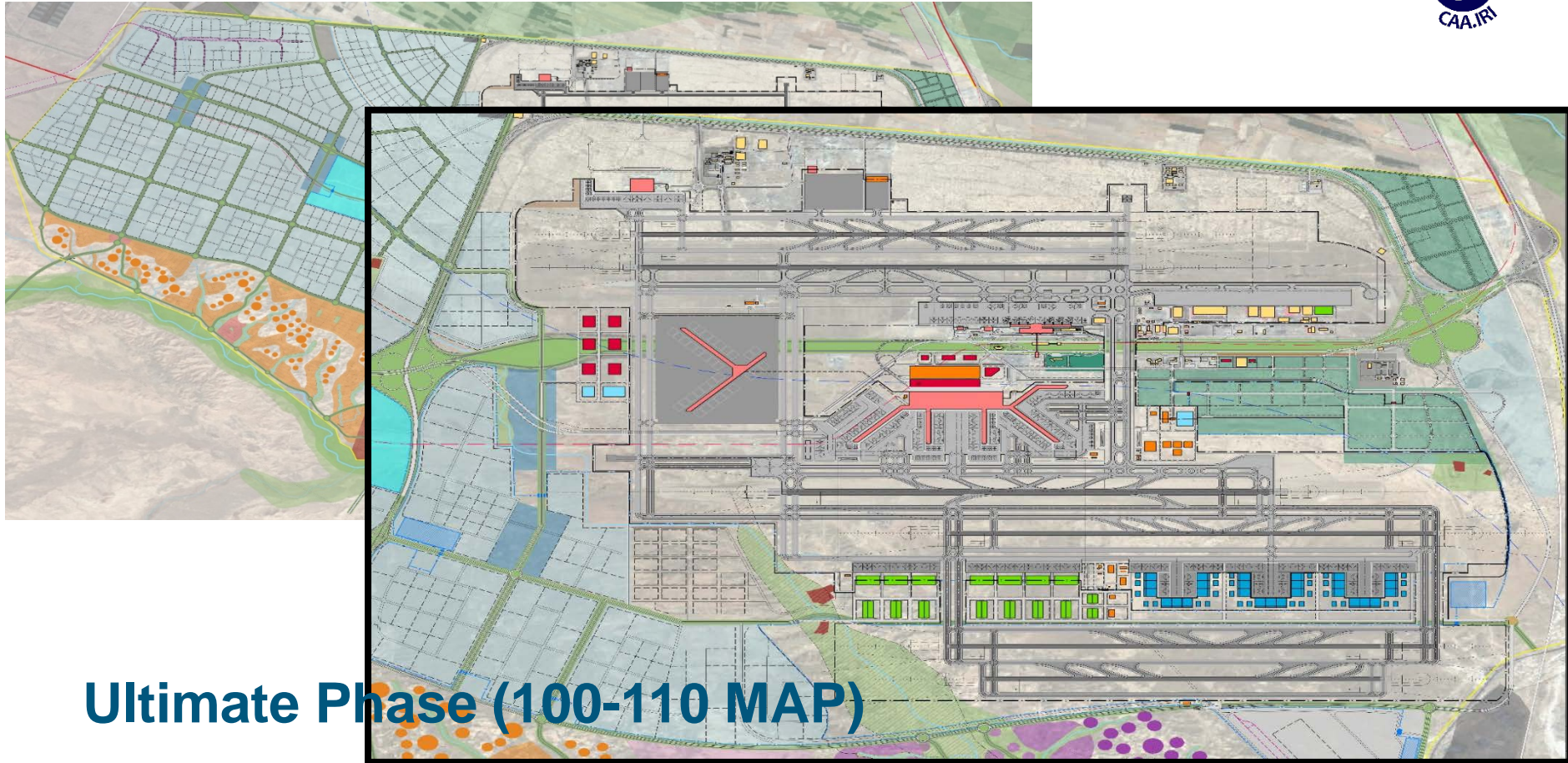
**Airport City  
MP**

**Airport MP**





# Airport Master Plan - Phase 2046 – 63 MAP

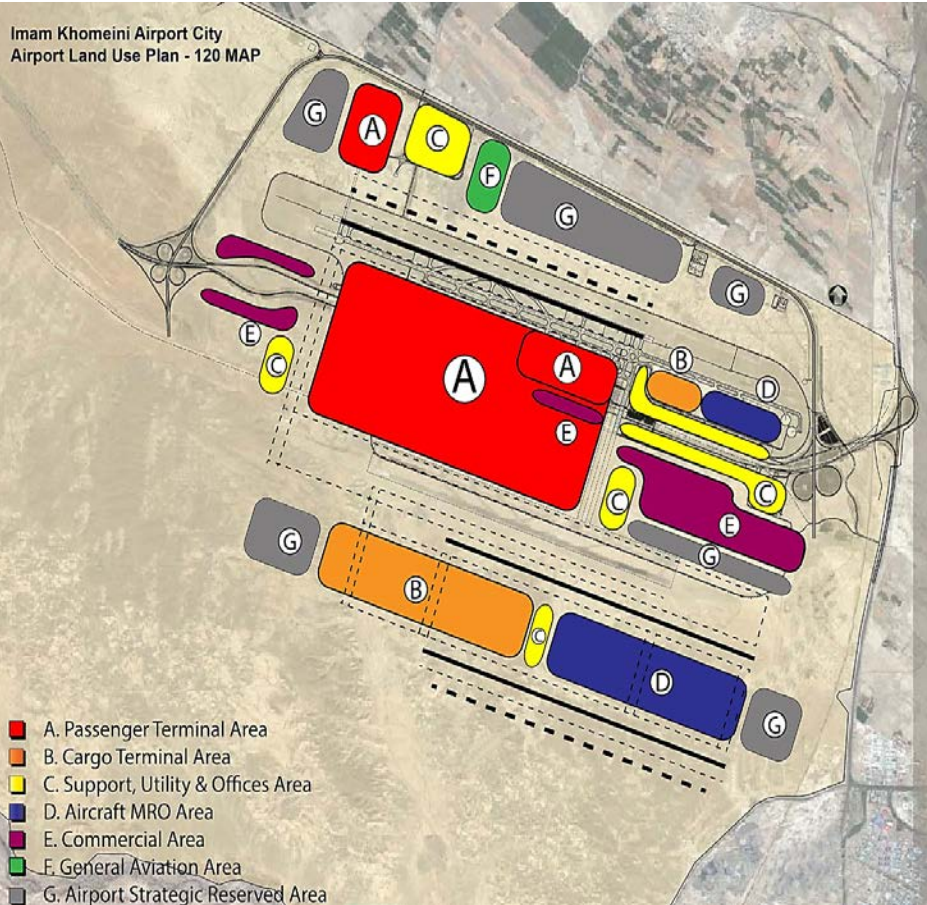


**Ultimate Phase (100-110 MAP)**

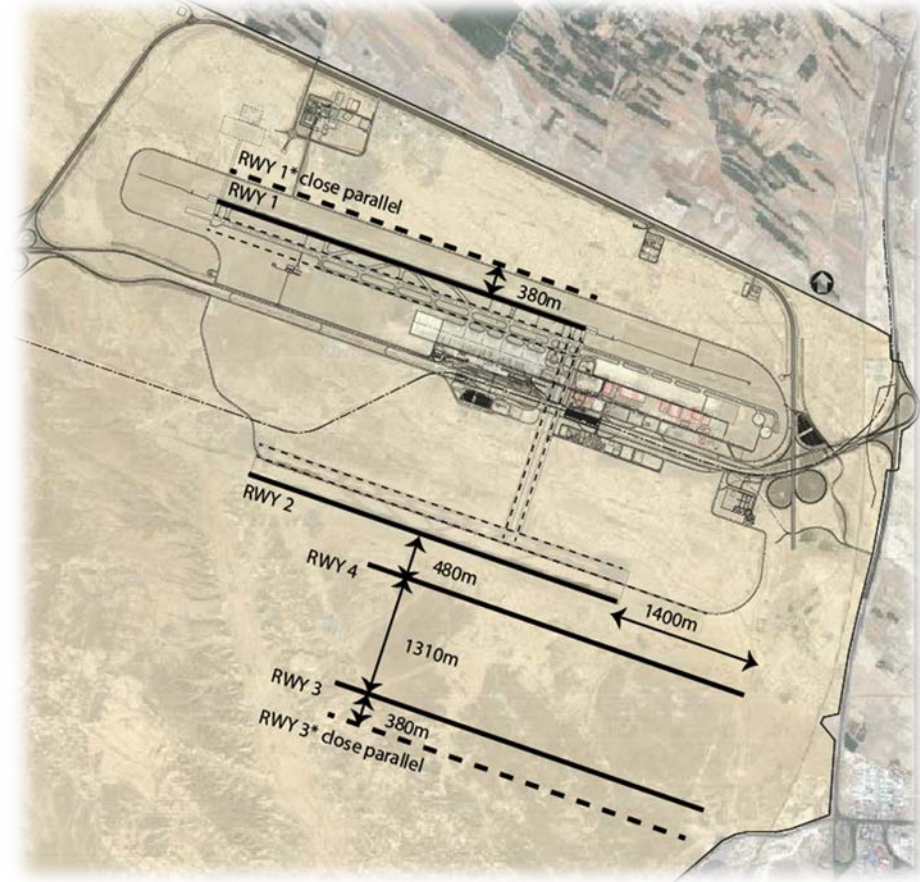


# AIRPORT LAND USE

Imam Khomeini Airport City  
Airport Land Use Plan - 120 MAP



# Runways configuration



# New Terminal Capacity per phase

	Capacity
1 <sup>st</sup> phase	25 MAP
2 <sup>nd</sup> phase	35 MAP
3 <sup>rd</sup> phase	45 MAP
4 <sup>rd</sup> phase	55 MAP
Ultimate	90 MAP

## Approximate Terminal area Demand per development phase

Area demand per phase	Phase-1 25 MAP	Phase-2 35 MAP	Phase-3 45 MAP	Phase-4 55 MAP
Domestic	140,000	180,000	220,000	250,000
International	270,000	320,000	365,000	405,000
Total	410,000	500,000	585,000	655,000

# New Terminal Development Road-Map

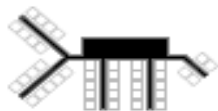
25 MAP



35 MAP



45 MAP



55~60 MAP



+60 MAP







# FIVE YEARS DEVELOPMENT PROGRAM

**Mission & Vision**

**Strategic Objectives**

**Portfolio, Program & Project**

A large blue right-pointing triangle is positioned on the left side of the slide. Inside the triangle, the word 'Mission' is written in white, bold, sans-serif font.

## Mission

Mission –core purpose and reason for existence – is:

To provide **a safe, secure and efficient** airport,  
offering **excellent services** to our customers  
and enhancing **economic benefits** for the region.

## Vision

Vision –collective ambition for the first 5 years  
– is to work together to make IKAC

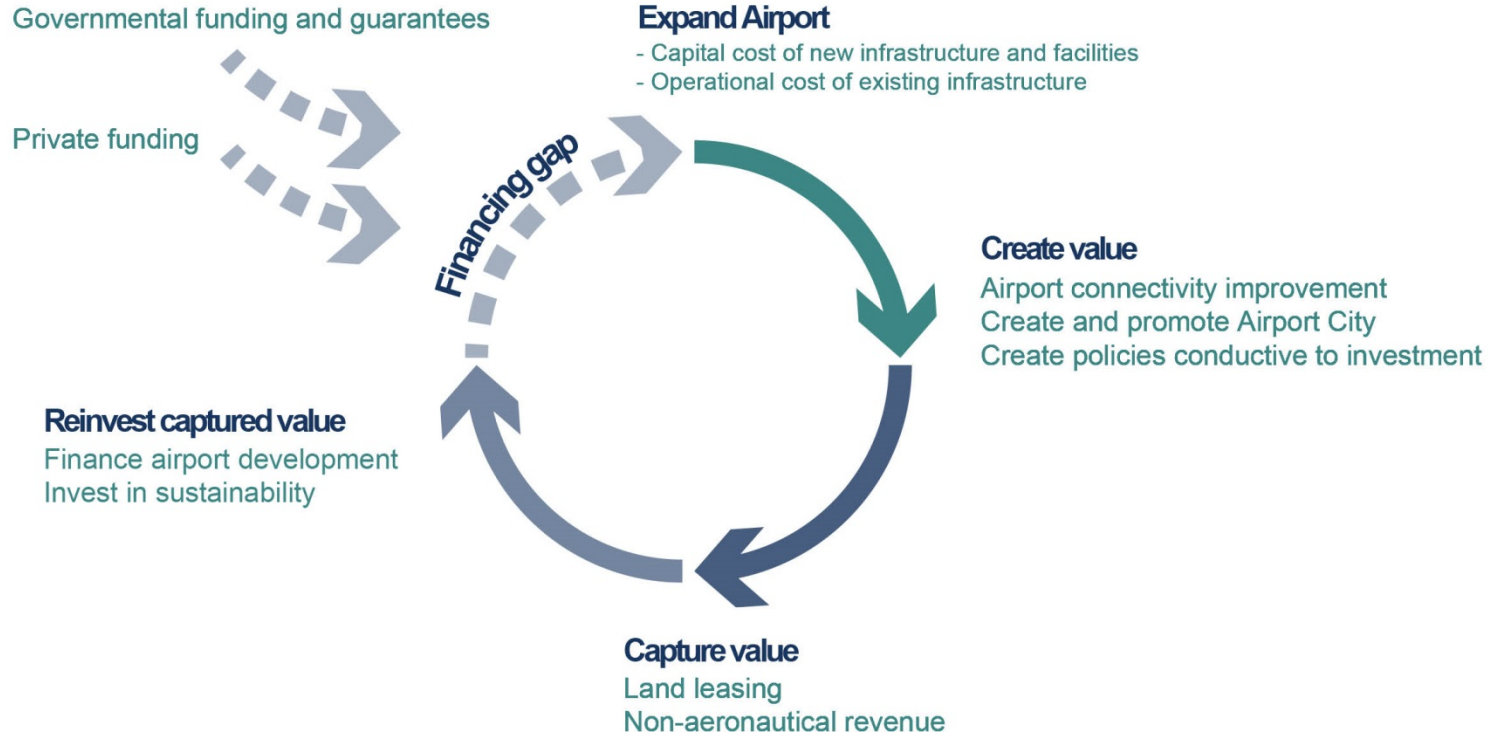
# The Gateway for Iran

**Our Vision embraces transforming IKAC to an air transportation center and economic engine for the Tehran region and the country facilitating aviation and related services supported by an airport city that functions as a multi-modal transport, logistics and manufacturing platform.**



# Financial Independence

## “AIRPORT + AIRPORT CITY” Joint Business Model



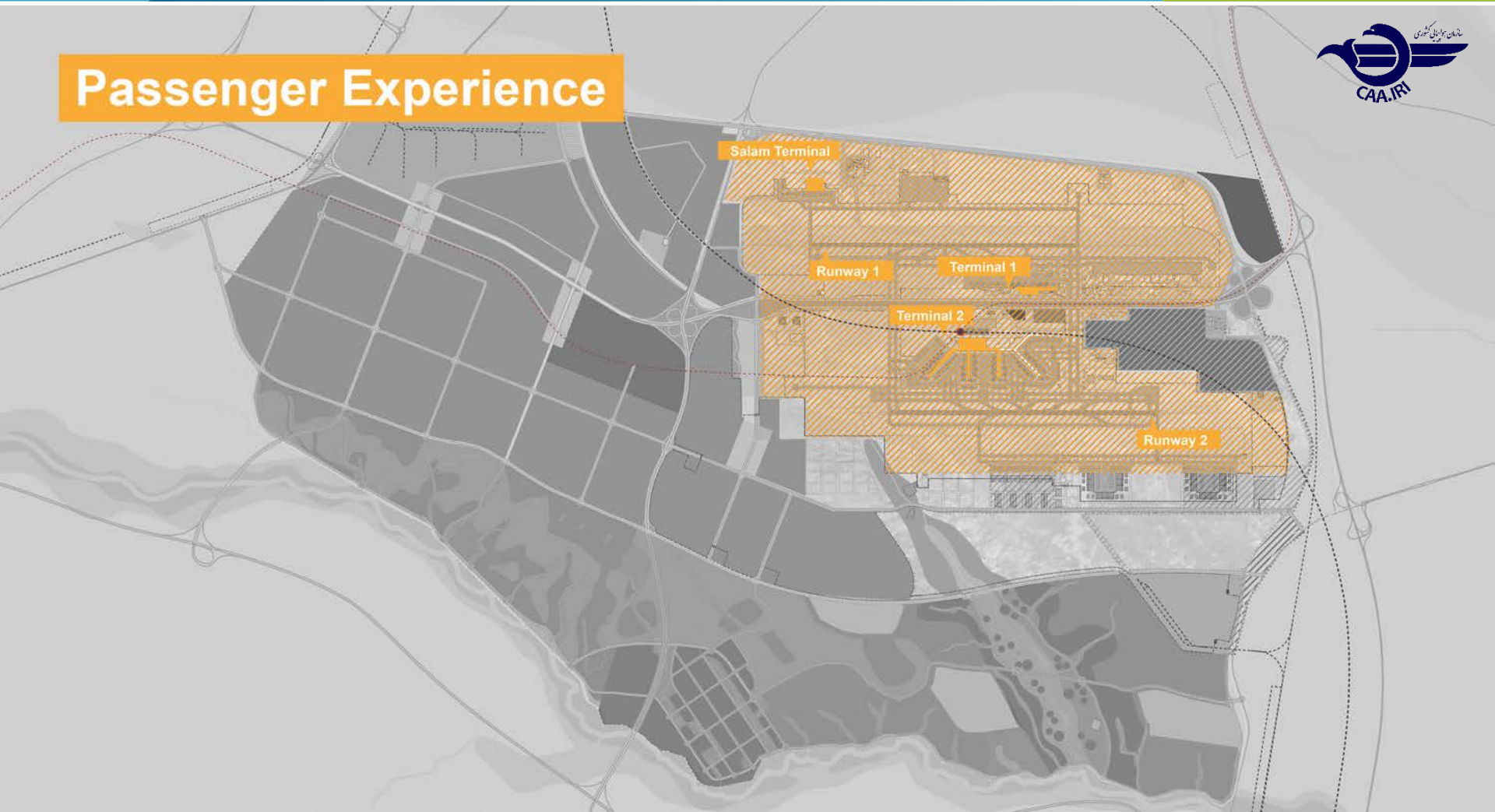


Passenger  
Experience





# Passenger Experience

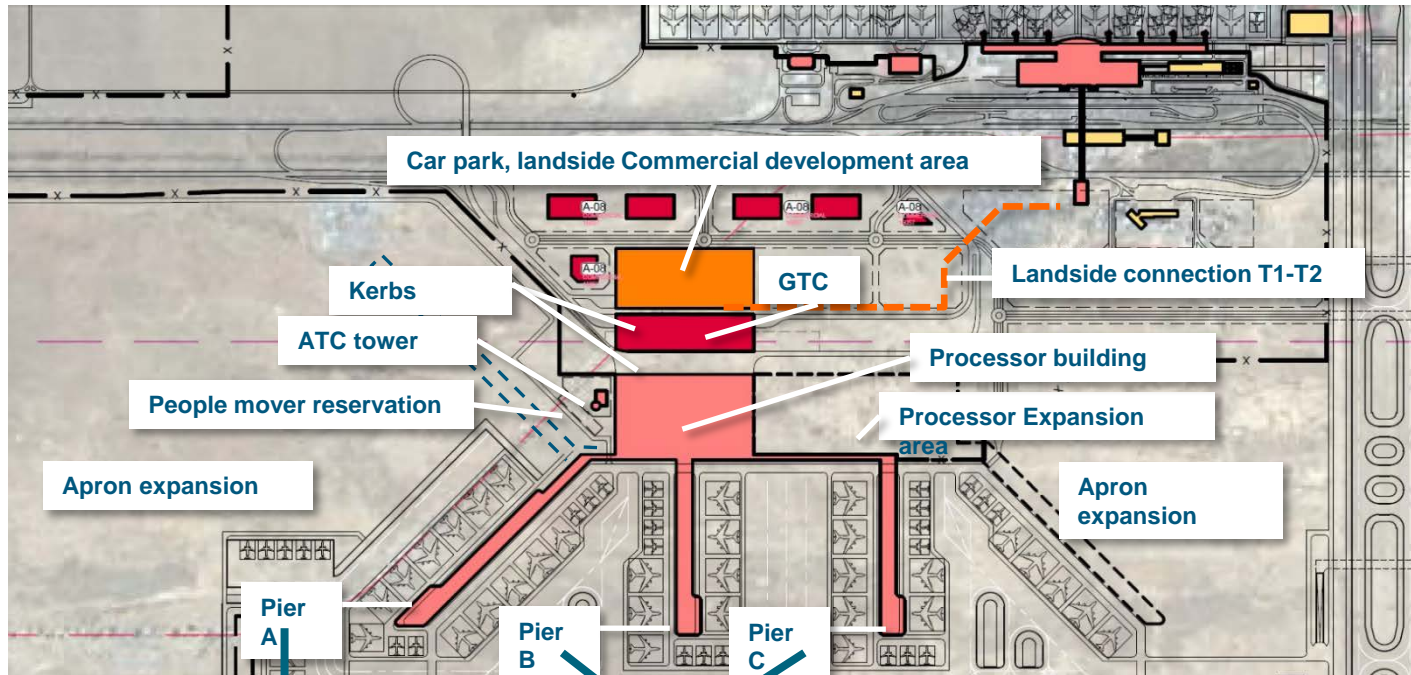


# Program Terminal 2

## Projects:

- New Passenger Terminal 2 Building (Phase 1)
- T2 Apron Construction (Phase 1)
- T2 Apron Utilities (Phase 1)
- T2 Apron Utilities (Phase 1)
- Construction of T2 Access Road & Kerbs incl. structures
- Construction of Secondary Roads Around T2
- Construction of GTC at T2
- Construction of Short-Term Parking T2
- Construction of New Air Traffic Control Tower, Meteorological
- Construction of Consolidation Center
- Construction of Central Utility Plant

# First Phase of New Terminal (25 MAP)



**INT pier**

**INT+DOM piers**

**Area: 665,000 sqm**

**Operation: Int & Domestic**

**LOS: OPTIMUM**

**AC Parking: 144**

**Airbridge: 73**

**Widebody Service: 100%**

**Narrowbody Service: 75%**

**GTC Area: 200,000 sqm**

**Commercial Area: 100,000 sqm**

## Program

## Salam Terminal

### Projects:

Salam Terminal Building Construction

Salam Taxiway & Apron Construction

Salam Terminal Completion including Access Roads, Parking, Utilities,...

Salam Terminal Fuel Supply

## Program

## Terminal 1

### Projects:

Terminal 1 Refurbishment

Design & Construction of TT (Temporary Terminal)

Design & Construction of Parking Number 3

Design & Construction of Entrance to Spine Road near Hotel (for P3 Parking)

Construction Flight Guard Security Building



## Program

## RWY 1

### Projects:

- Construction of the De-icing Positions at Western Threshold of RWY 1
- Construction of Northern Parallel Taxiway of RWY 1 (to connect GA and Salam)
- Construction of Isolated Aircraft Parking Position
- Construction of RFF Training Grounds
- Construction of Apron Extension West

## Program

## Sitewide Infrastructure

### Projects:

- Develop IT Master Plan
- Develop & Install Parking Management System (airport wide)
- Construction of Telecommunication Network Infrastructure

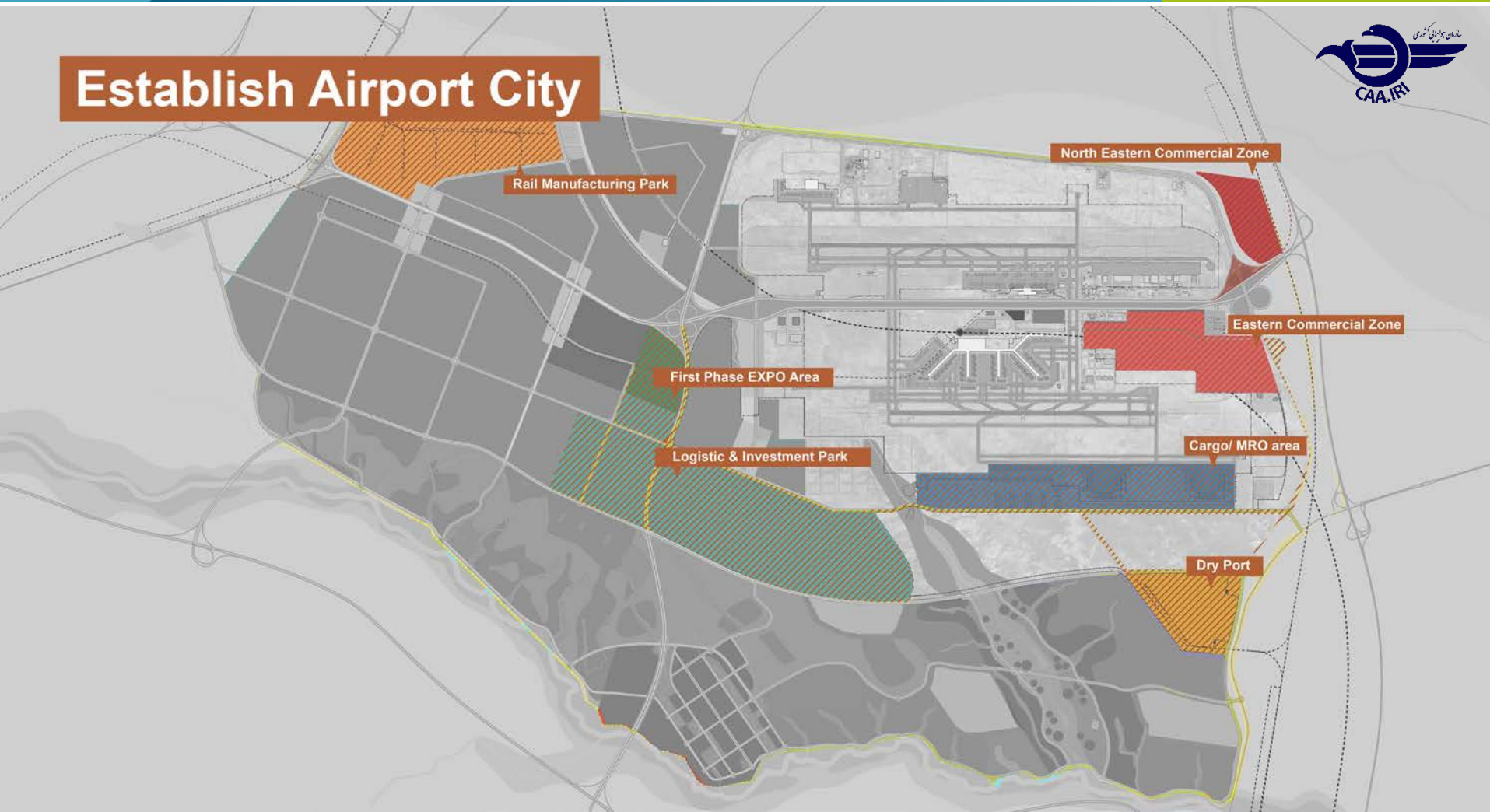
## Program

## RWY 2

- Completion of RWY 2 / Taxiways Civil Works
- Completion of Cross Taxiways Civil Works
- Construction of the Southern Parallel Taxiway of RWY 2 (to connect cargo and MRO)
- Construction of Runway Exits for Southern Parallel Taxiway
- Construction of Isolated Aircraft Parking Position
- Procuring Airfield Lighting Equipments (Accessories)
- Completion of Cargo Tunnel under RWY 2
- Design & Purchasing of Navigational Instrument for RWY 2
- Construction of RFF (Rescue Fire Fighting) Station
- Construction of the Airside Roads
- Construction of the Airside Fence
- Construction of Southern Cargo Apron & Associated Infrastructure
- Construction of Southern MRO Apron & Associated Airside Infrastructure
- Construction of the Engine Run-Up Bay
- Construction of Cargo Support Roads
- Construction of MRO Support Roads
- Construction of Security Facilities (airside-landside gates)
- Construction of Airport Maintenance Facility
- Define new Flight Procedures for RWY 2 Operations



# Establish Airport City



## Program Dry Port

### Projects:

- Construction of Fence Around Dry Port Area
- Construction of Access Road to Dry Port Area
- Construction of Entrance Gate for the Dry Port
- Site Grading

## Program Logistic and Investment Park

### Projects:

- Construction of logistics free trade zone fence
- Western Commercial Zone

## Program Organization

### Projects:

- Develop and Establish IKAC Airport City/ Free Zone Management Team incl. support functions (legal, HR, contracts)
- Develop and Establish Free Zone Customer Center (for one-stop shopping service)
- Develop and Establish Free Zone Management Services (maintenance, utilities, waste management, security, etc)
- Develop and Establish IKAC Airport City/ Free Zone Sales Team
- Establish Knowledge & Development Center
- Establish Air Service Development Center
- Develop Marketing and PR Strategy
- Develop and Implement CIQS (Customs, Immigration, Quarantine and Security) Procedures for the Free Zone

## Program Infrastructure: '240/ 90 ha'

### Sub-program 240 HA ECZ

- Expansion of the Eastern Clover - Leaf Junction
- Construction of Fences
- Construction of Entrance Gates
- Construction of Landside Infrastructure

### Sub-program 90 HA NECZ

- Construction of Long-Term Parking T2 (Cell Phone Parking /Car Rental Parking)
- Construction of Landside Infrastructure

## Program Sitewide Infrastructure (Utilities)

- Utility Distribution Network
- Electrical Power Supply
- Water Treatment Plant
- Fuel Supply
- Natural Gas Supply
- Energy Strategy
- Smart City Strategy
- Construction of Telecommunication Network Infrastructure
- Waste Water Treatment Plants
- Solid Waste Recycling Plant

# Sustainability



Water



Carbon & Energy  
Reduction



Green Building  
Design



Waste  
Management



Air Quality



**Thanks For your Kind Attention!**

