



THE AEROCITY : The Future of Indonesian Airport

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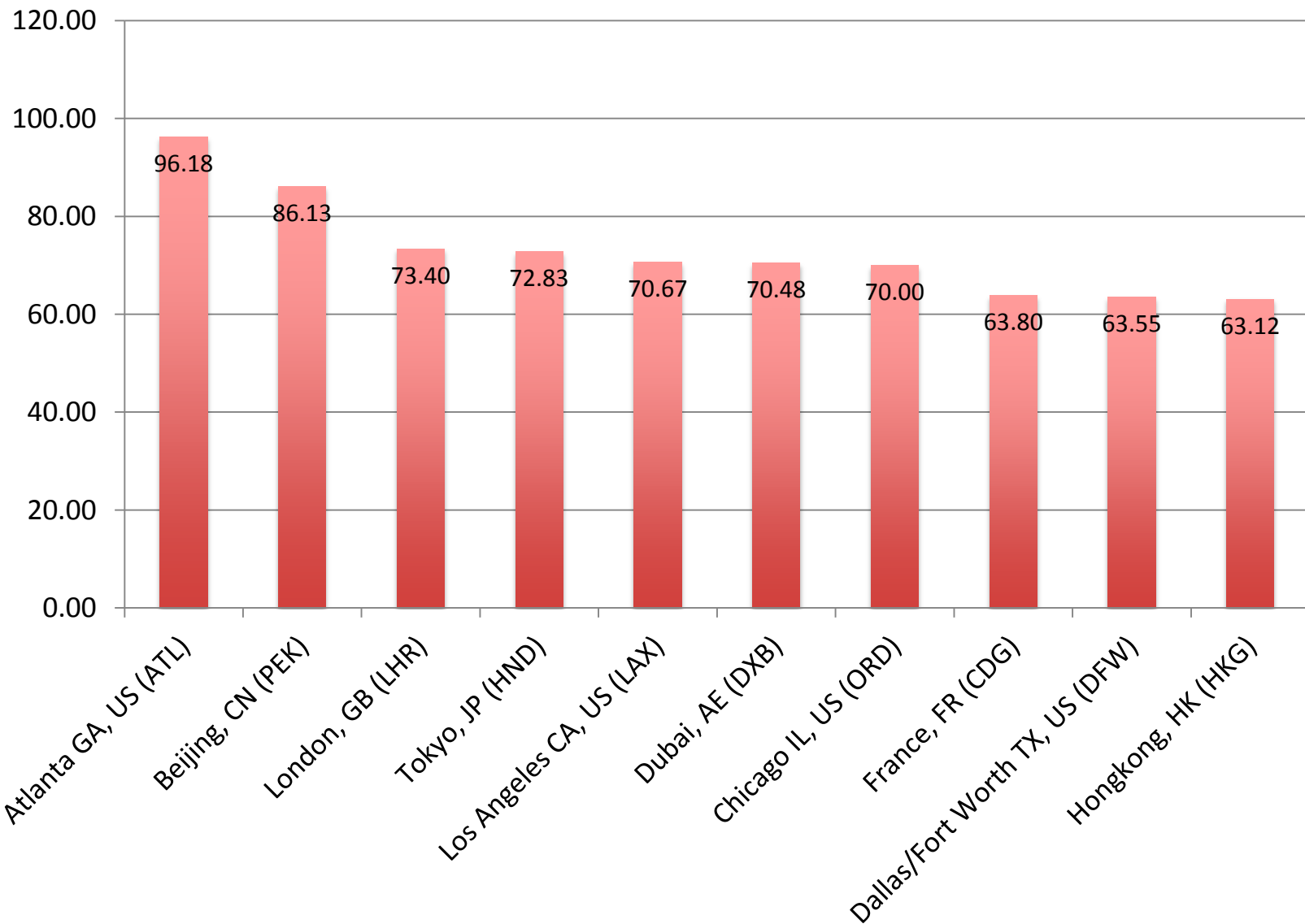
APEN 11-12 November 2015

A red circular graphic with a white outline, containing the text 'RECENT AIRPORTS DEVELOPMENT' in white, bold, uppercase letters. The graphic is centered on a light blue background.

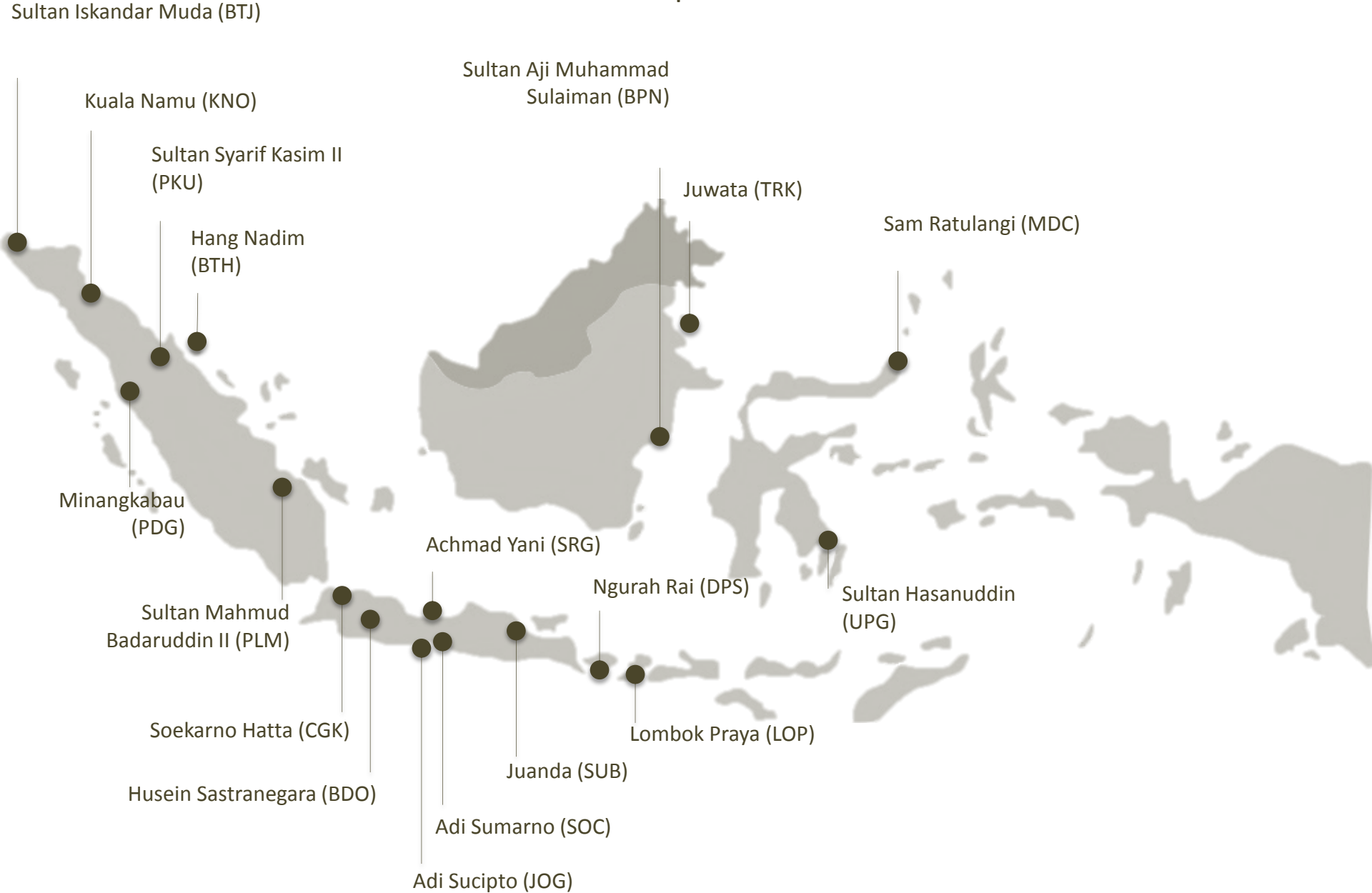
**RECENT
AIRPORTS
DEVELOPMENT**

World airport traffic and rankings for 2014 by Airport International Council (ACI)

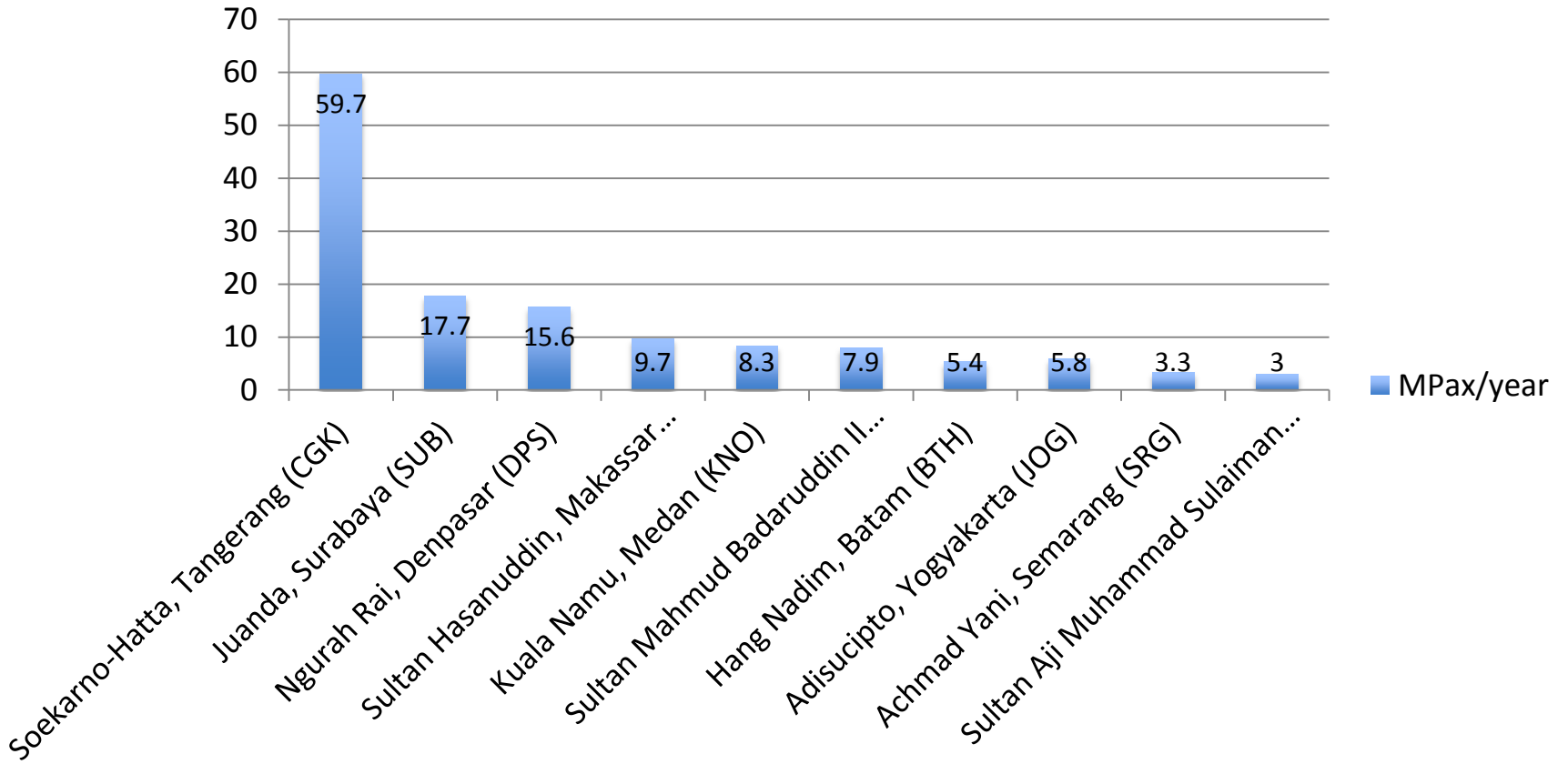
MPax/year



International Airports in Indonesia



Indonesia's Busiest Airport





HISTORY

&

TREND

1980

- London's City Airport
- Norman Foster's Stansted, London -> struts aesthetic of the early airliners



1984

- Gehry's Aerospace Hall at California Science Center LA -> fighter jet as a broche & the expression of the building take its dynamic in an image

1986

- Amsterdam's Schipol tripled in capacity during the following 15 years -> conceived as airport city with a mall etc. For people going there without catching a flight.

1990

- Norman Foster's Chek Lap Kok Hongkong -> ground plane is an aeroplane



1990s

- Grimshaw inspired rather by the modern airliners -> Heathrow, Pier 4a & Ba Combined Operations Center

1989-1994

- Calatrava's railway station for Saint-Exupery airport at Lyons-Satolas



2000

- Calatrava's Sondica airport terminal for Bilbao
- Denver International airport built in 1995 with its three further concourses is the tenth busiest airport on earth.
 - a. 557.400 m2 of public concourses
 - b. Area of 137 km2
 - c. Six non intersecting runways (longest 5 km)
 - d. No rail link (most passengers never leave the airport)

2004

- Zurich airport extension is the first european sustainable airport.

- Still today many old airports are catching up the late 20th century issues instead of dealing with our 21st century needs

1980

- First human powered crossing of English Channel

1990

- First non-stop unrefueled global circumnavigation
- Low-cost flying influences a lot the architecture of airports: everything has to be cheap and costumers don't expect as much as others do.

1994

- Low-cost Southampton airport-> half the price of any previous airport by the British Airports Authority

1999

- At Idlewild : 5 times its size
- Now JFK airport 32 Mio paassengers (143,7 times)

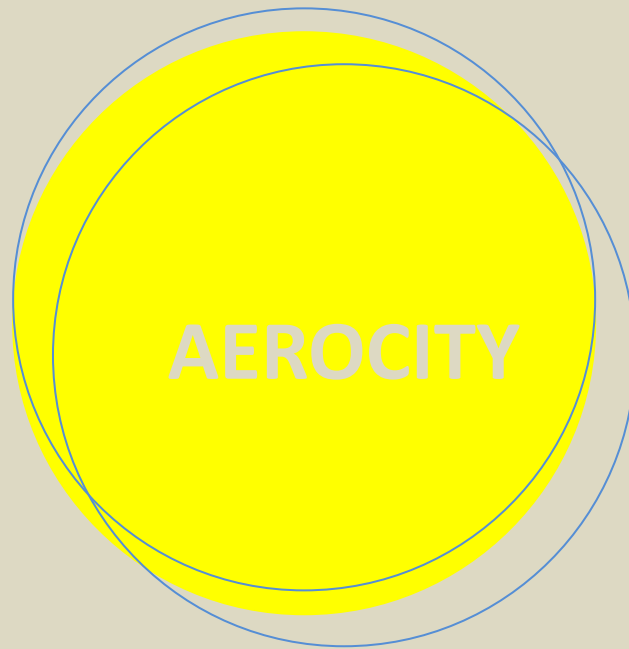
2000

- More and more high speed trains (HST) compete with air traffic in short distance travel
- Space Ship One becomes first privately built space vehicle
- largest commercial airliner
- The landside development of airports gets more and more important to be able to lower air traffic prices & even more to fulfill the needs of modal interchange which in the same time is acompetitor to the airliners

2010

2020

TRENDS AIRPORT OF THE FUTURE



Firms are clustering at and around major airports because of the accessibility, speed and agility airports provide to new-economy supply chains and the connectivity to customers and enterprise partners, and tourists (nationally and worldwide)

John Kasarda

AEROCITY

- Airports have moved from small facilities catering for the needs of a few who could afford airline travel to a thriving hub catering for millions of customers per year.
- Airport was no longer a transport hub but in fact had the potential to become an activity centre and economic generator for the region.
significant supporting businesses and infrastructure
- Significant supporting businesses and infrastructure began to cluster around the airport and a greater range of businesses began to consider airport as a prime destination to do business.

**AIRPORT
1920-now**

From national
infrastructure
to hub in a
global alliance

THE MAIN
PORT
1980-now
**Economic
impact of the
airport on the
region**

**AEROCITY
1990-now**
Business
model of the
airport ,
aviation – non
aviation



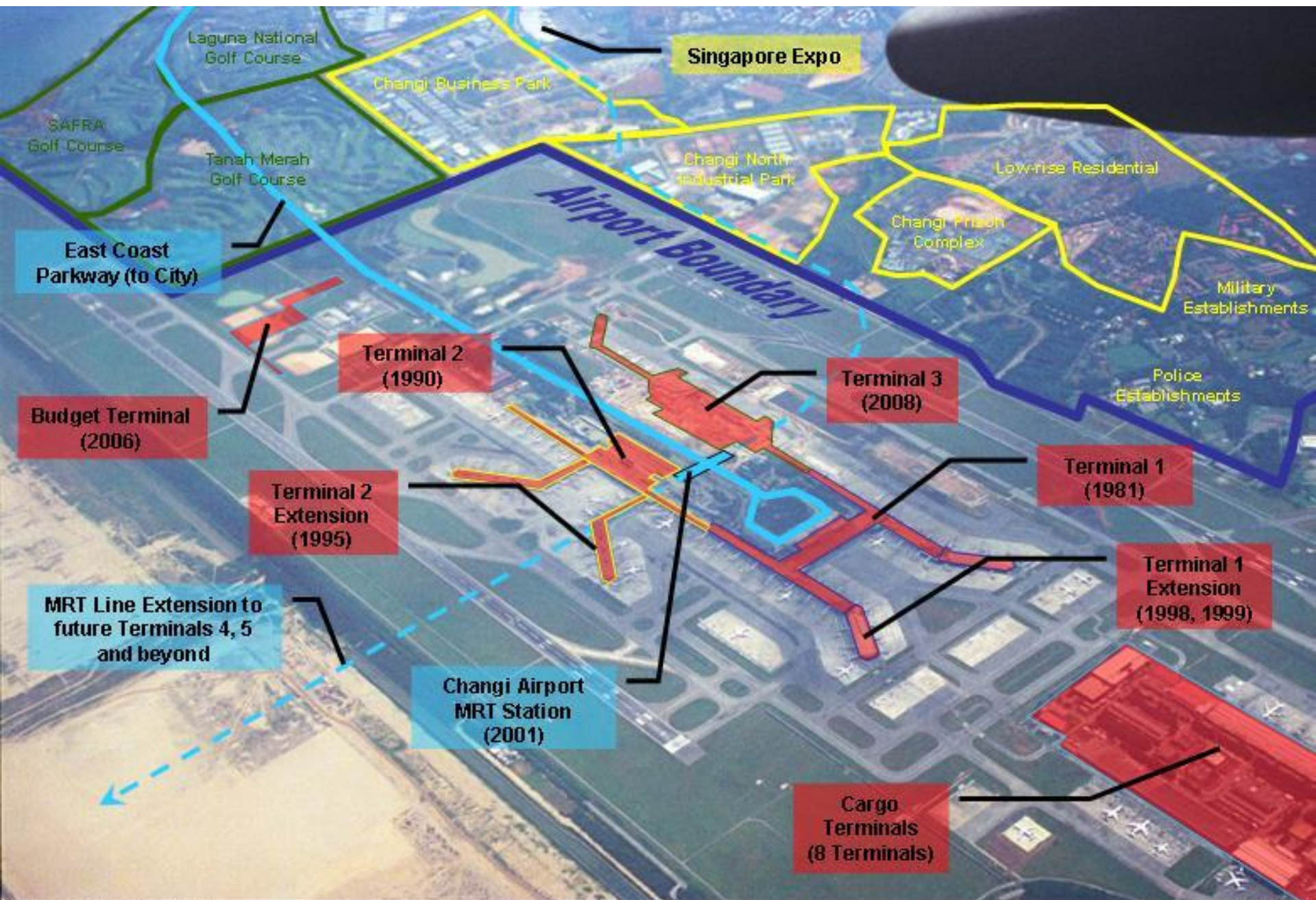
Schematic diagram of the different airport area development concepts
 Source : Ute Knipperberger, Alex Wall, 2009

CHANGI SINGAPORE

CHANGI AEROCITY

CHANGI AIRPORT





East Coast Parkway (to City)

Budget Terminal (2006)

MRT Line Extension to future Terminals 4, 5 and beyond

Terminal 2 Extension (1995)

Terminal 2 (1990)

Changi Airport MRT Station (2001)

Singapore Expo

Terminal 3 (2008)

Terminal 1 (1981)

Terminal 1 Extension (1998, 1999)

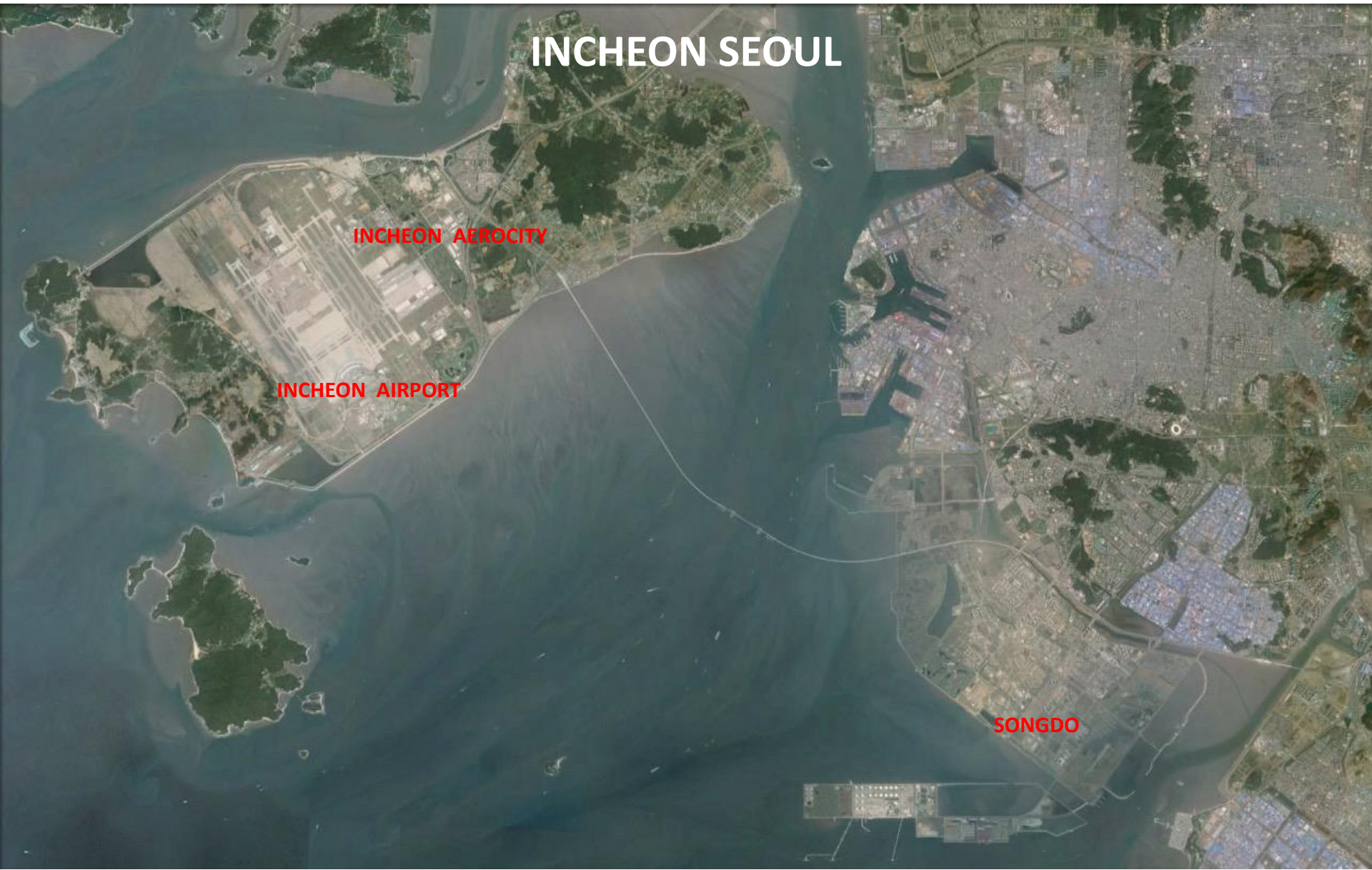
Cargo Terminals (8 Terminals)

INCHEON SEOUL

INCHEON AEROCITY

INCHEON AIRPORT

SONGDO







SONGDO

SCHIPHOL AMSTERDAM

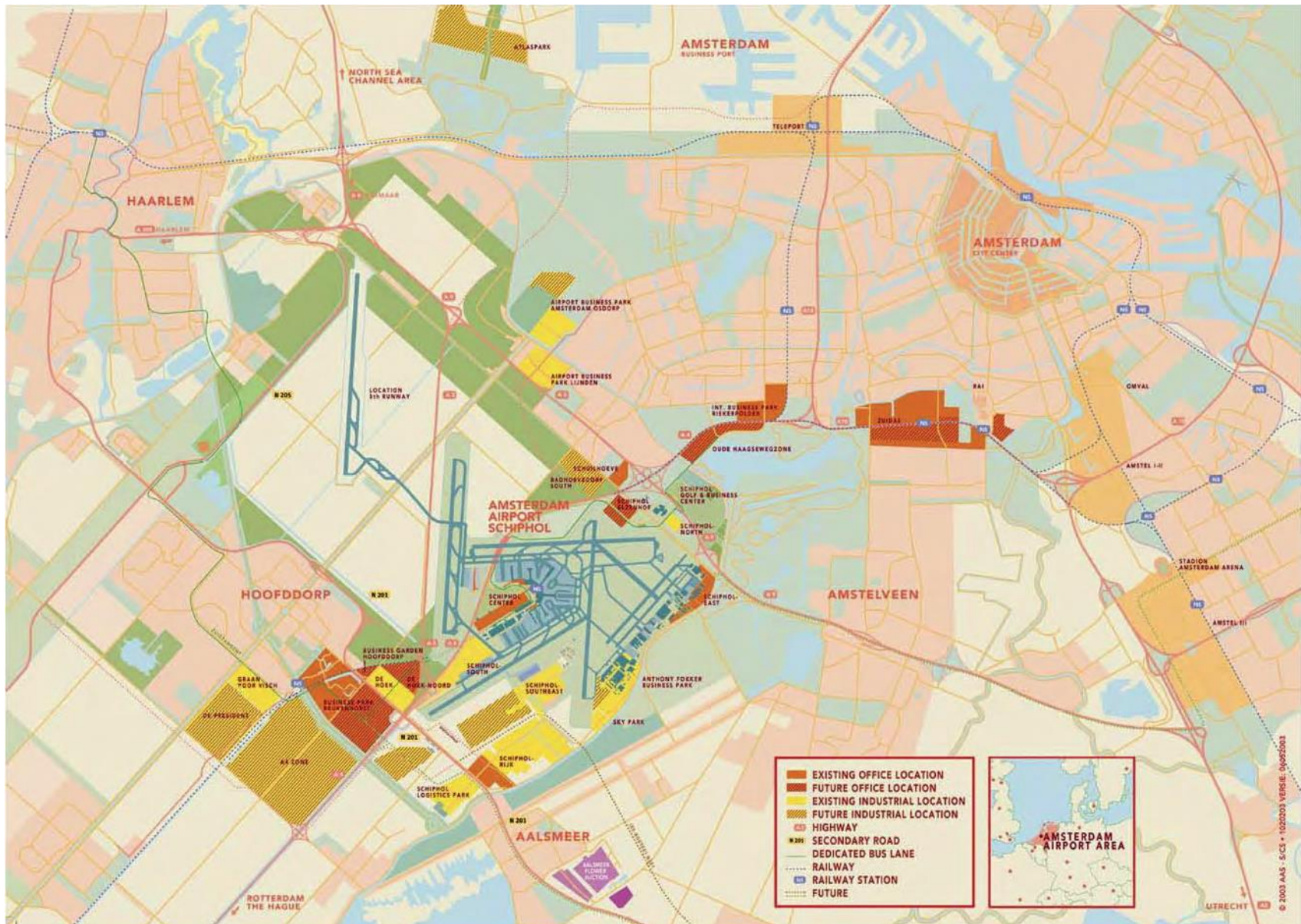
AMSTERDAM

ZUIDAS

SCHIPHOL AIRPORT

SCHIPHOL AEROCITY



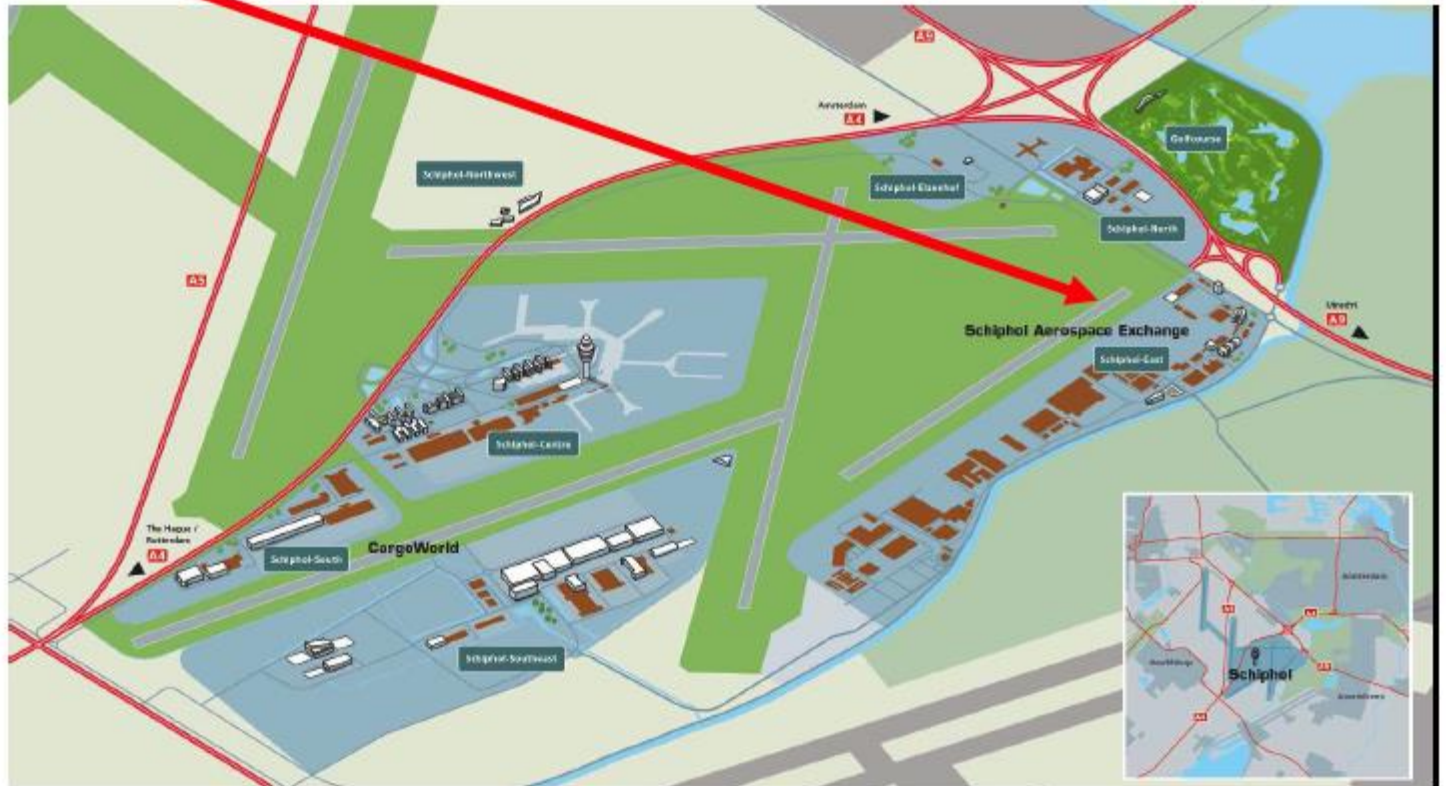






Business Park

Schiphol East





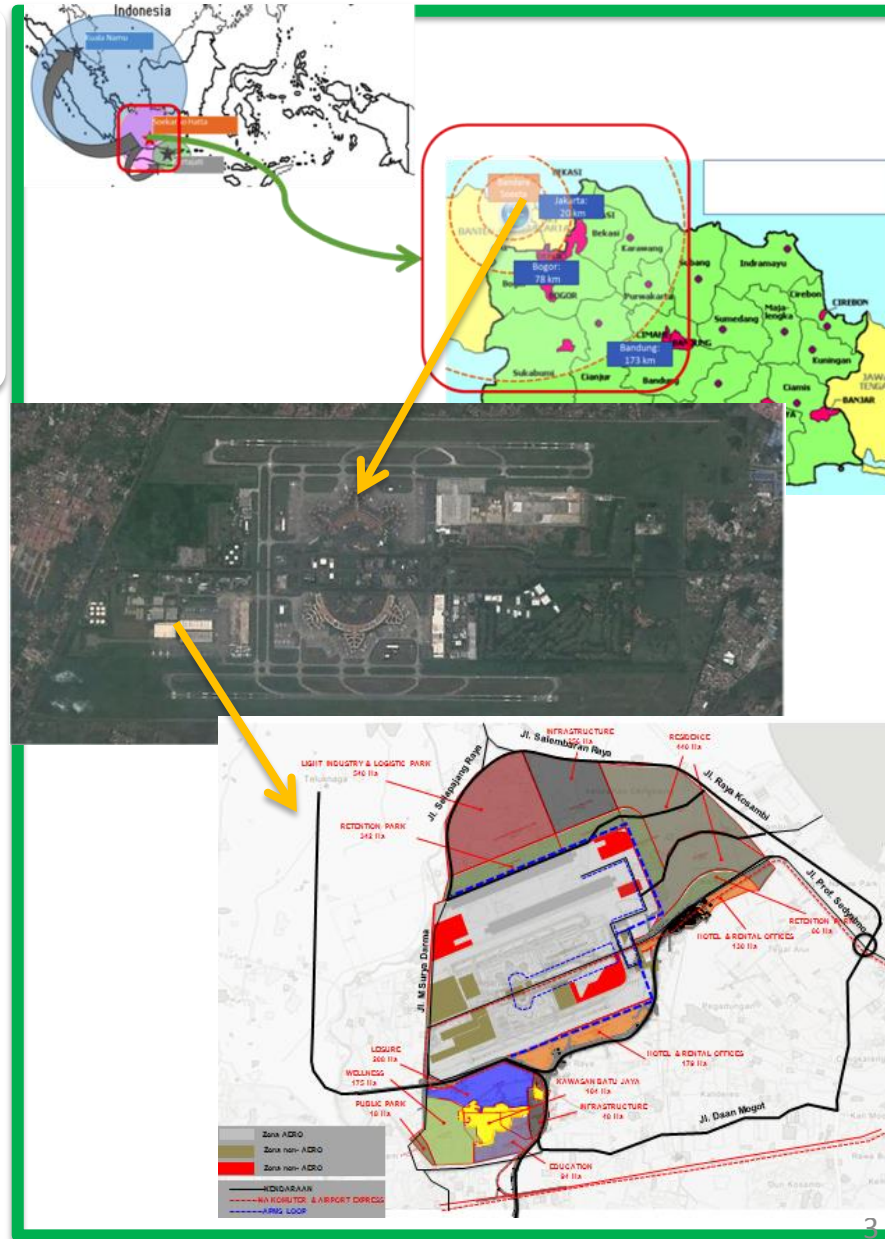
SOEKARNO HATTA INTERNATIONAL AIRPORT

“Catalyzing Economic Growth of Western Java & Southern Sumatera”

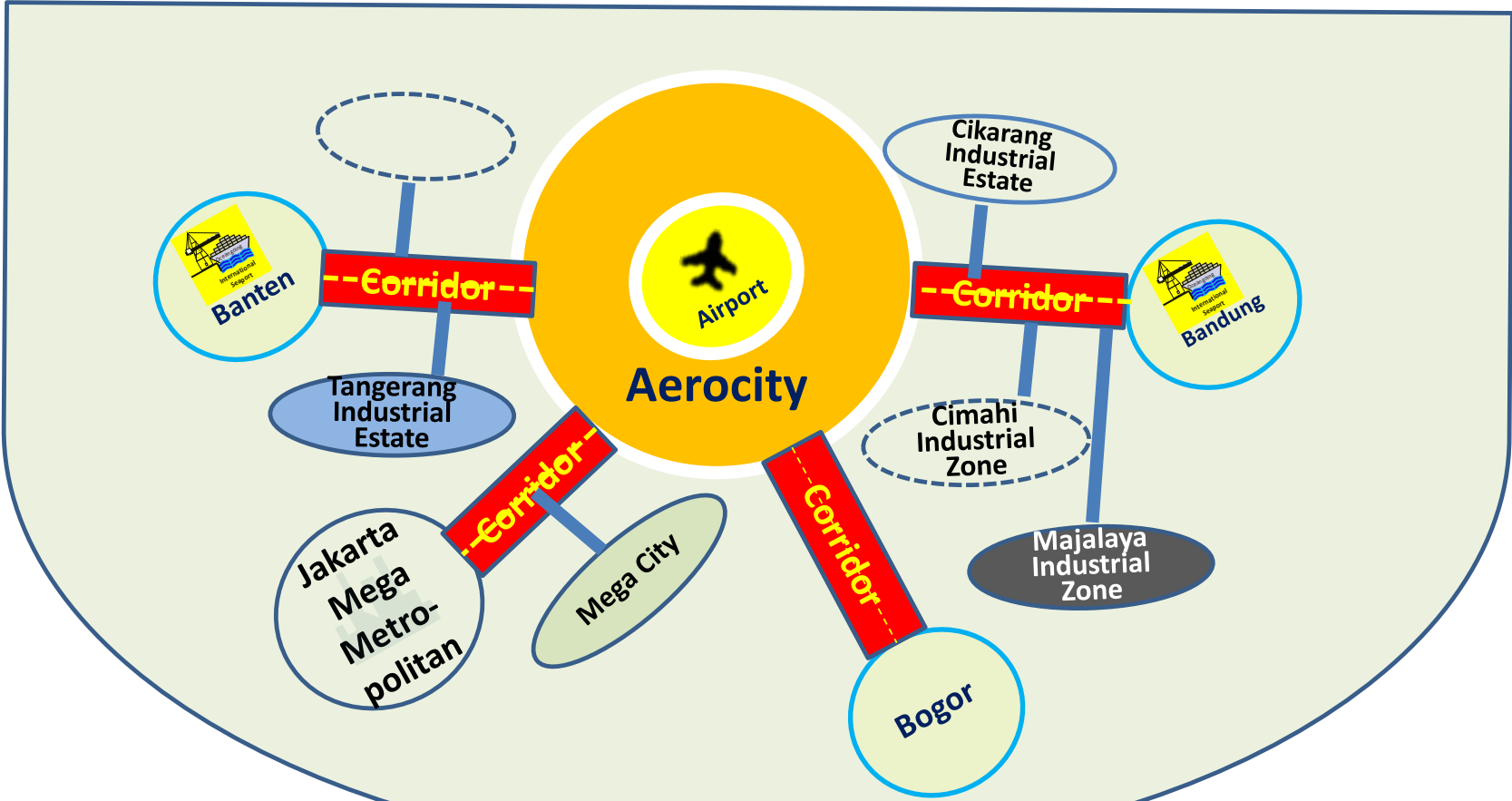
Aerotropolis Soekarno Hatta

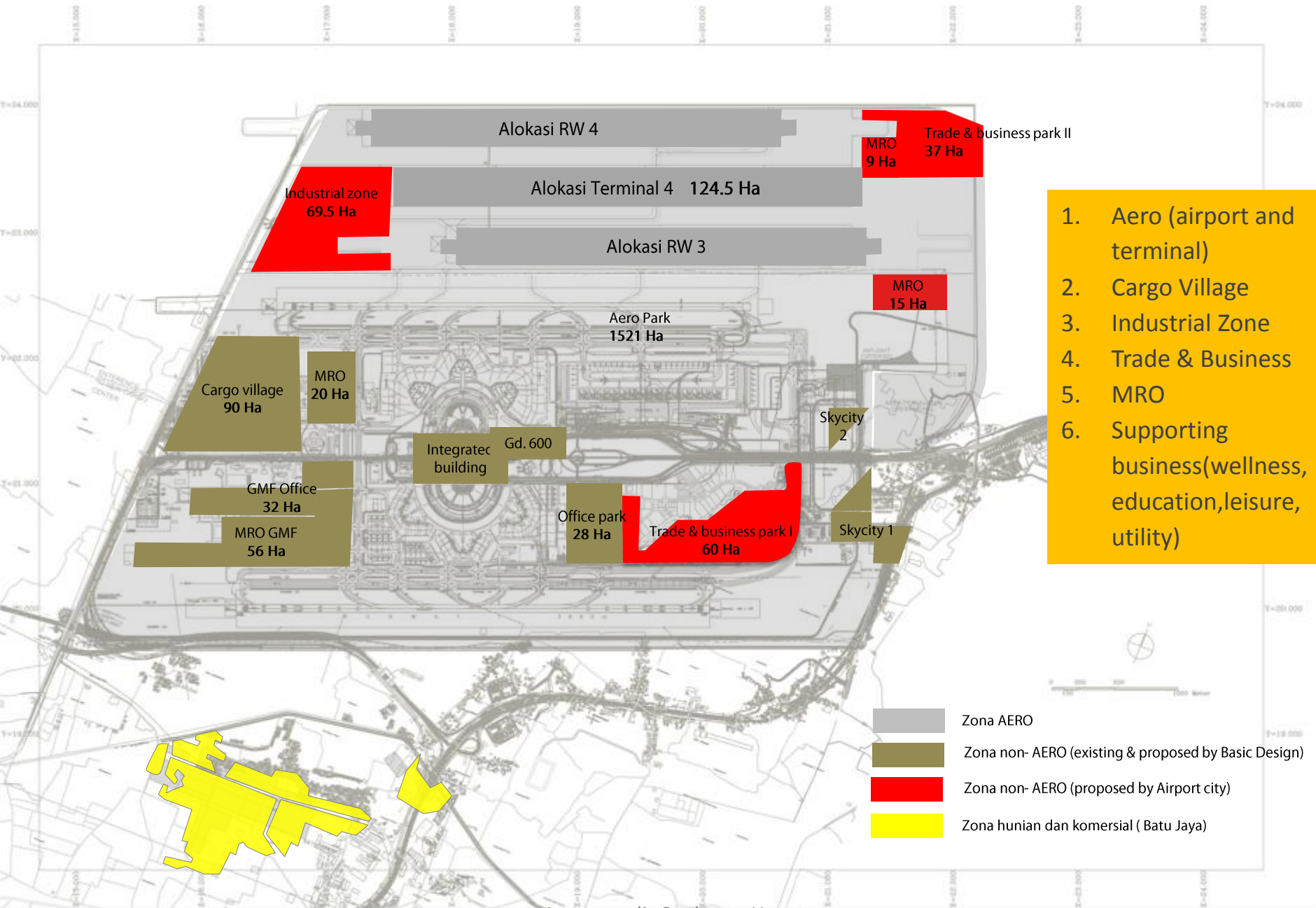
The potentials of Soekarno Hatta ?

<p>Location</p>	<ul style="list-style-type: none"> Economic center/ center of national economic, Jakarta (20 km), Bogor (78 km), Bandung (173 km)
<p>Hinterland</p>	<p>Trade, finance&insurance, industry</p>
<p>Connectivity</p>	<p>ASEAN & APEC Common Base for Trade and Production</p>



DEVELOPMENT CONCEPT FOR SOEKARNO HATTA AIRPORT



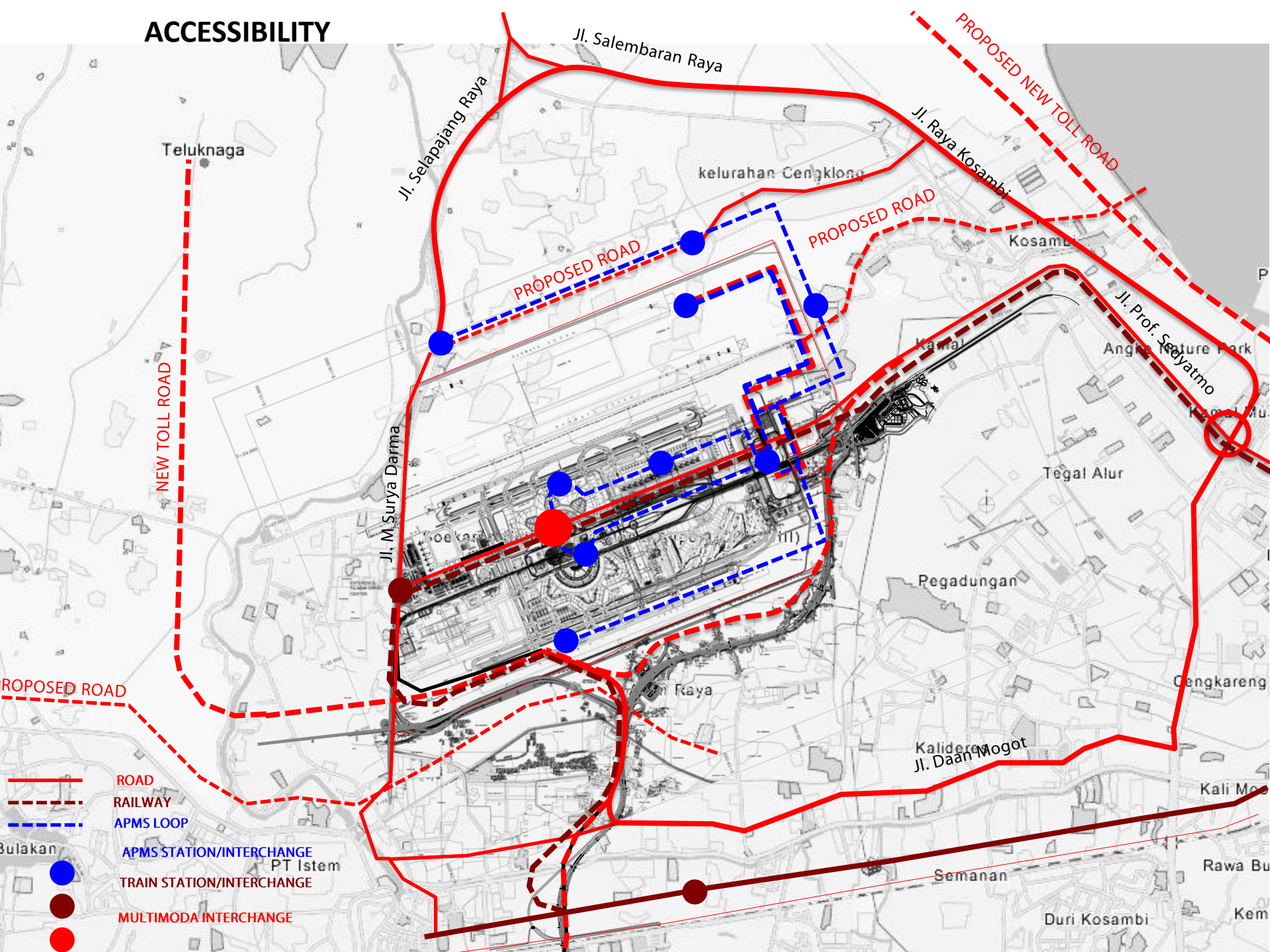


1. Aero (airport and terminal)
2. Cargo Village
3. Industrial Zone
4. Trade & Business
5. MRO
6. Supporting business (wellness, education, leisure, utility)

- Zona AERO
- Zona non- AERO (existing & proposed by Basic Design)
- Zona non- AERO (proposed by Airport city)
- Zona hunian dan komersial (Batu Jaya)

Aerotropolis Soekarno Hatta

ACCESSIBILITY



- ROAD
- RAILWAY
- APMS LOOP
- APMS STATION/INTERCHANGE
- TRAIN STATION/INTERCHANGE
- MULTIMODA INTERCHANGE

KUALANAMU INTERNATIONAL AIRPORT

An enabler of economic growth in the western part of Indonesia

Aerotropolis Kualanamu

The potentials of Kualanamu

LOCATION

- Foreland;
- 1 to 2 hours to Singapore, Bangkok, Kuala Lumpur, Jakarta
- 5 hours to Taipei, HK, Dubai

INDUSTRIES

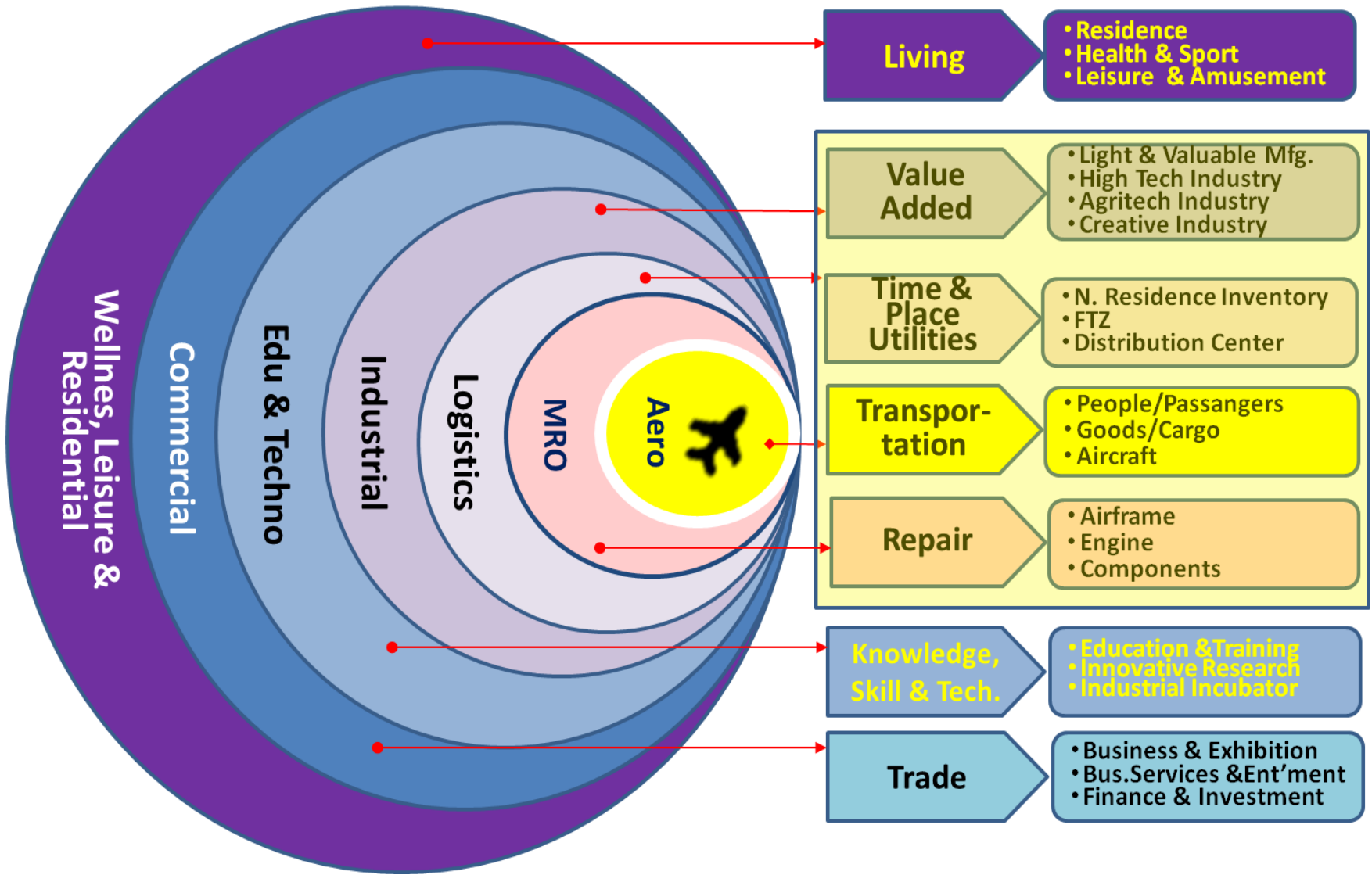
Agriculture, jewelery, ecotourism

CONNECTIVITY

ASEAN & APEC Common Base for Trade dan Production

Location





Living

- Residence
- Health & Sport
- Leisure & Amusement

Value Added

- Light & Valuable Mfg.
- High Tech Industry
- Agritech Industry
- Creative Industry

Time & Place Utilities

- N. Residence Inventory
- FTZ
- Distribution Center

Transportation

- People/Passengers
- Goods/Cargo
- Aircraft

Repair

- Airframe
- Engine
- Components

Knowledge, Skill & Tech.

- Education & Training
- Innovative Research
- Industrial Incubator

Trade

- Business & Exhibition
- Bus. Services & Ent'ment
- Finance & Investment

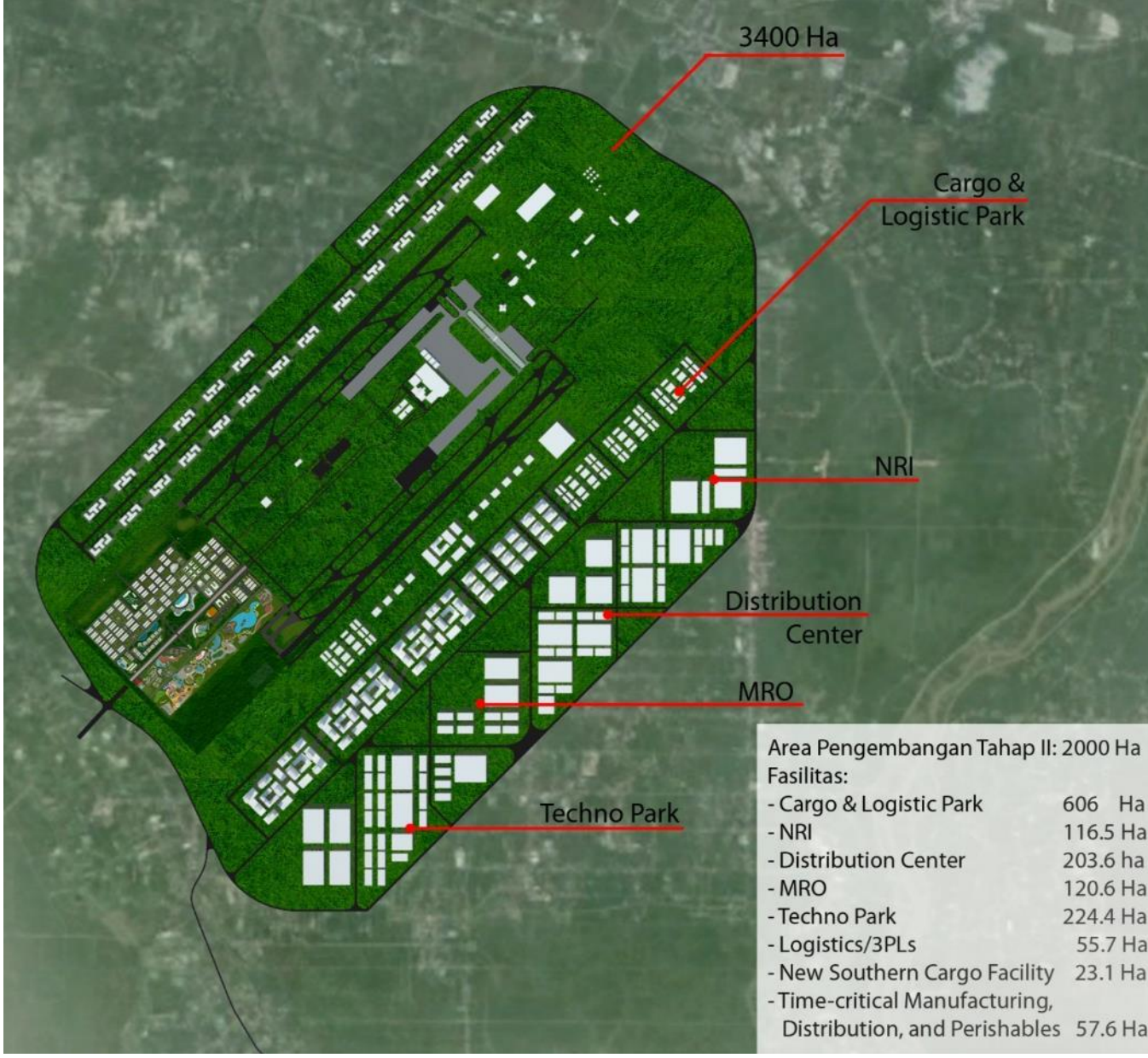
Phase I

DEVELOPMENT AREA:
247 Ha



PHASE II

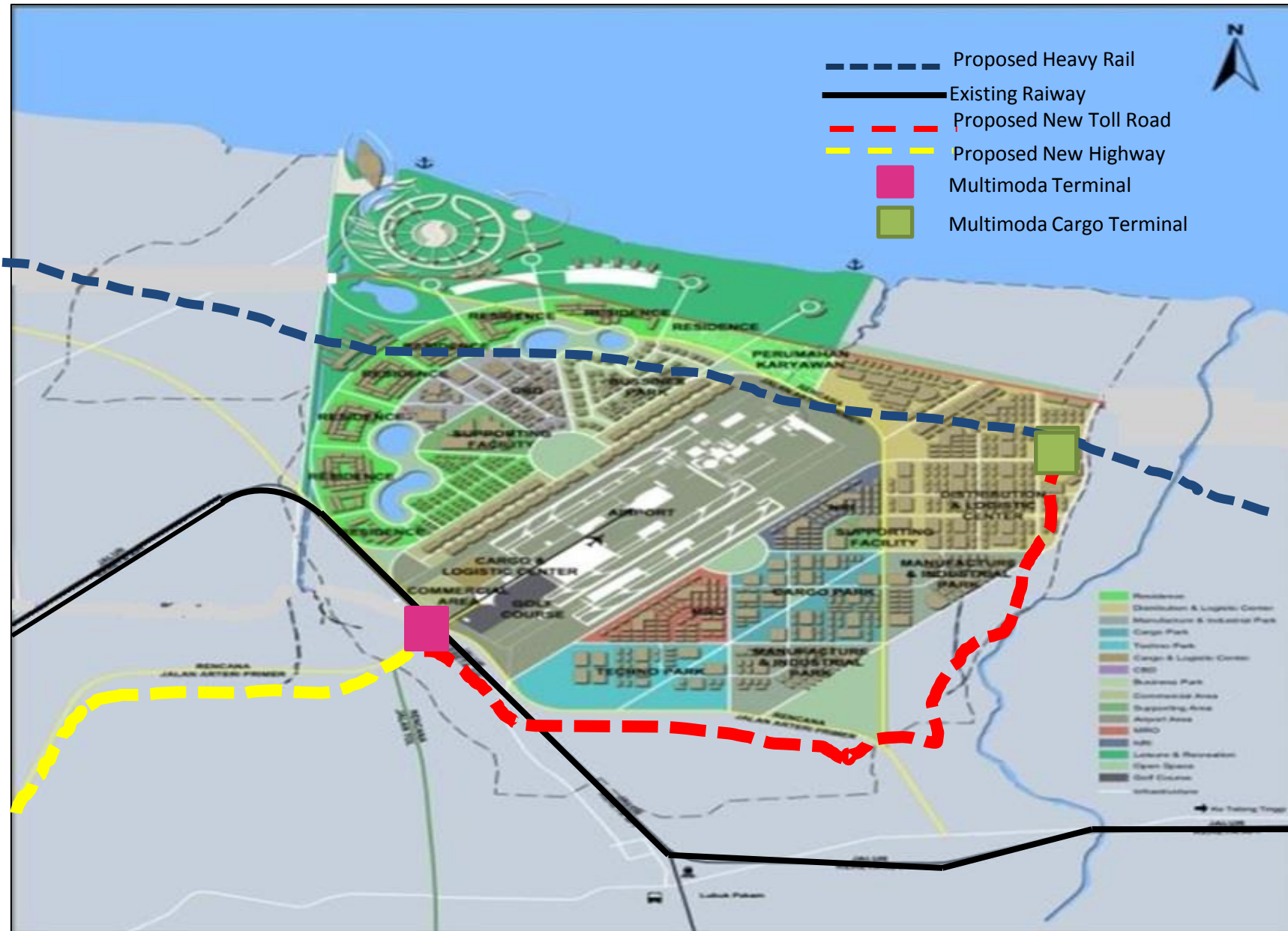
DEVELOPMENT AREA:
2000 Ha



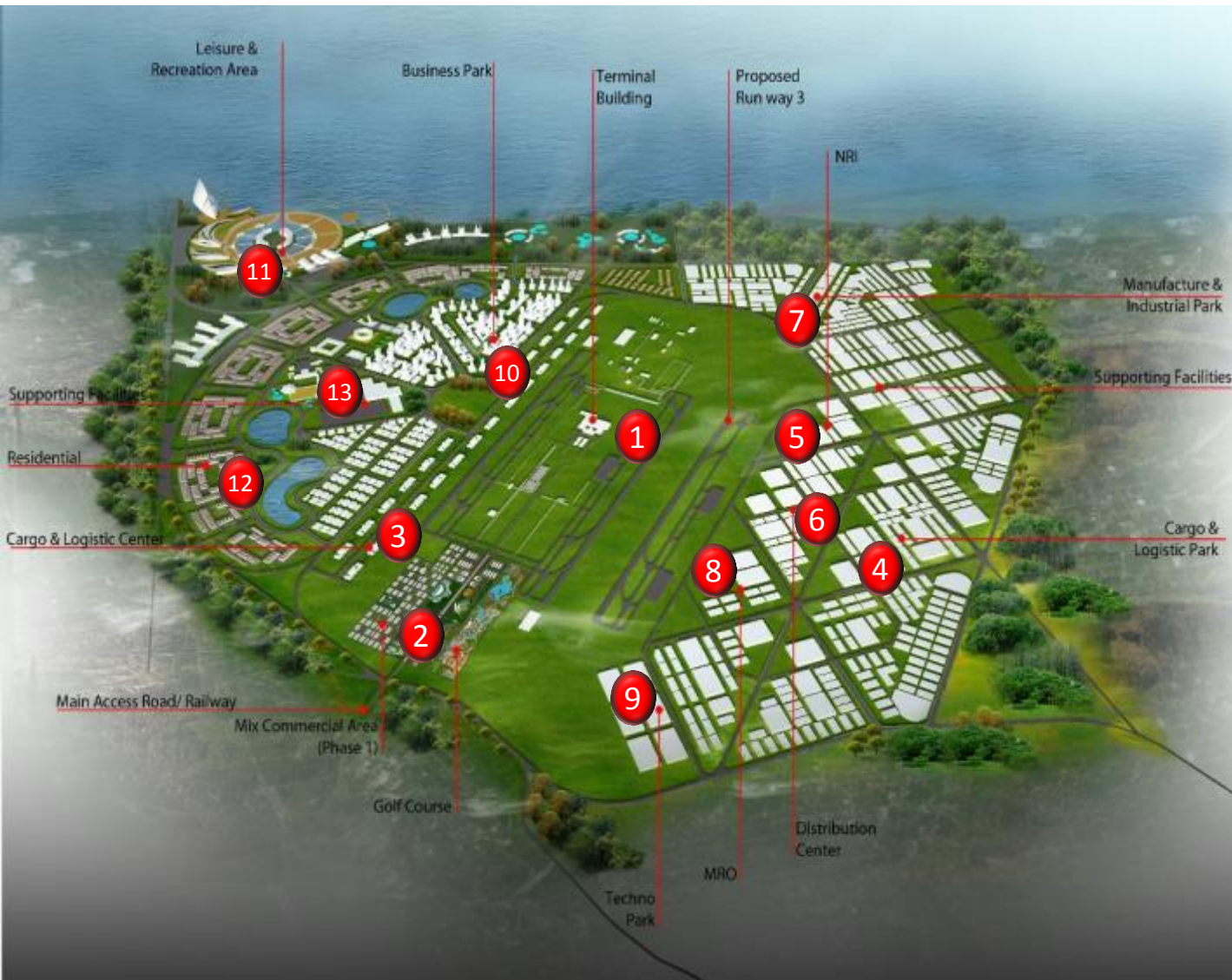
PHASE III

DEVELOPMENT AREA
4000 Ha



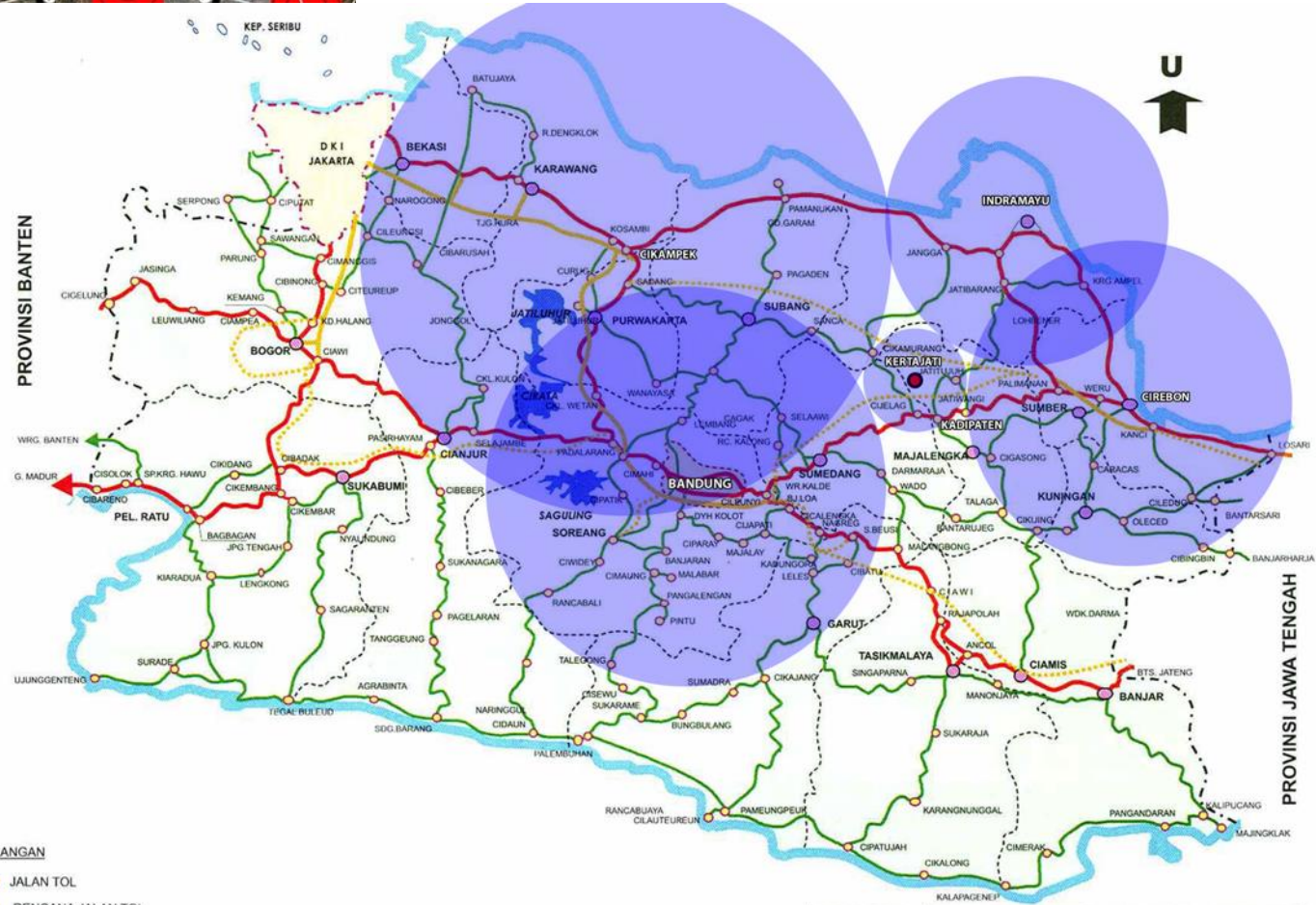
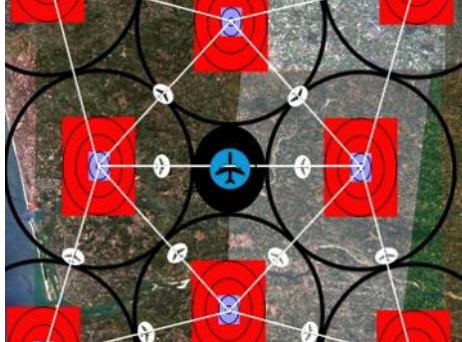


ZONING



1. Airport & Terminal
2. Mix Commercial Area & Golf Course
3. Cargo & Logistic Center
4. Cargo & Logistik Park
5. NRI
6. Distribution Center
7. Manufacture & Industrial Park
8. MRO
9. Edu&Techno Park
10. Businesss Park
11. Leisure & Recreation Area
12. Residential
13. Supporting Facilities

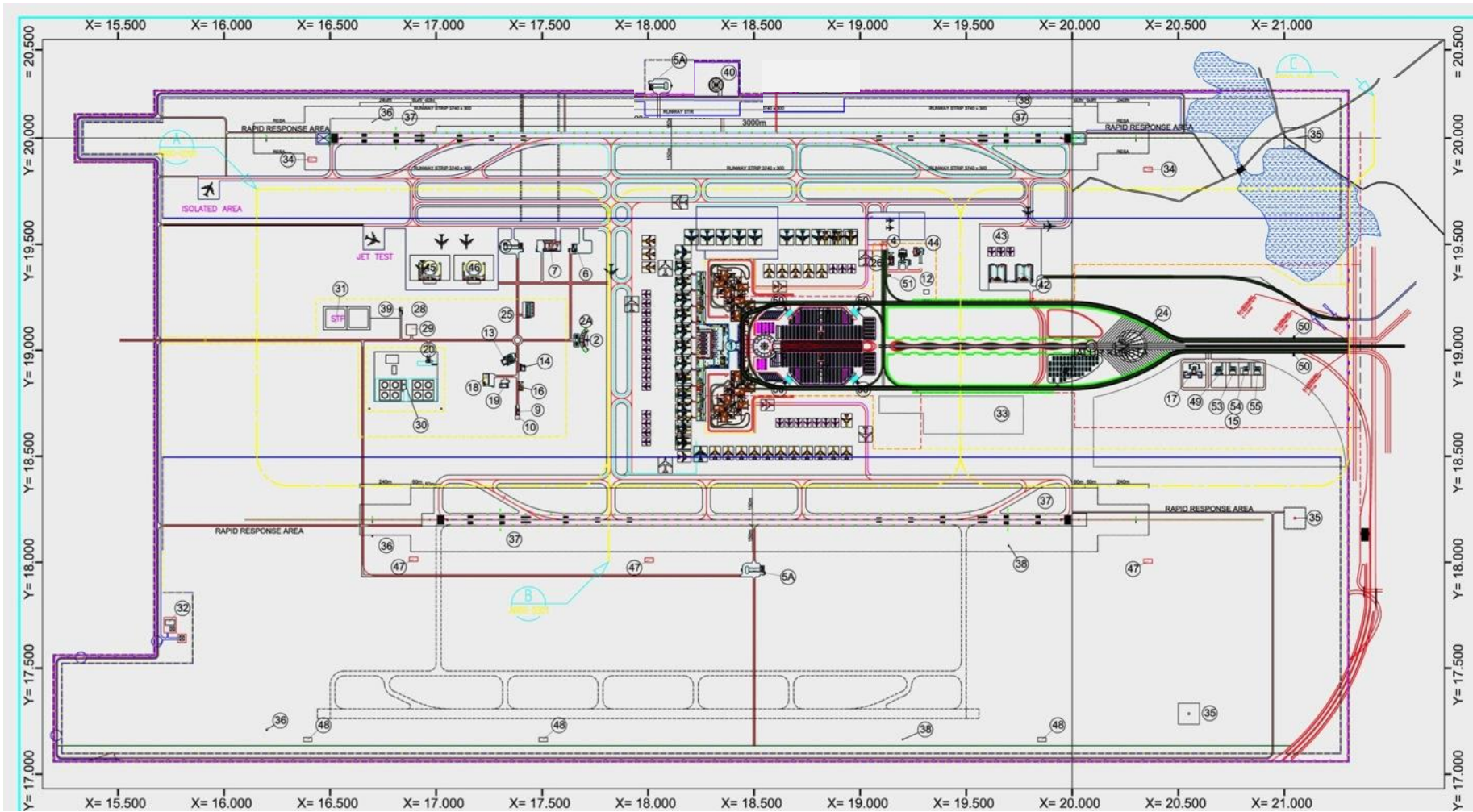
source:Kualanmu Aerotropolis-LAPI ITB



- KETERANGAN**
- JALAN TOL
 - - - - RENCANA JALAN TOL
 - JALAN UTAMA
 - JALAN ALTERNATIF
 - BATAS PROPINSI
 - BATAS KABUPATEN



PETA PROVINSI JAWA BARAT



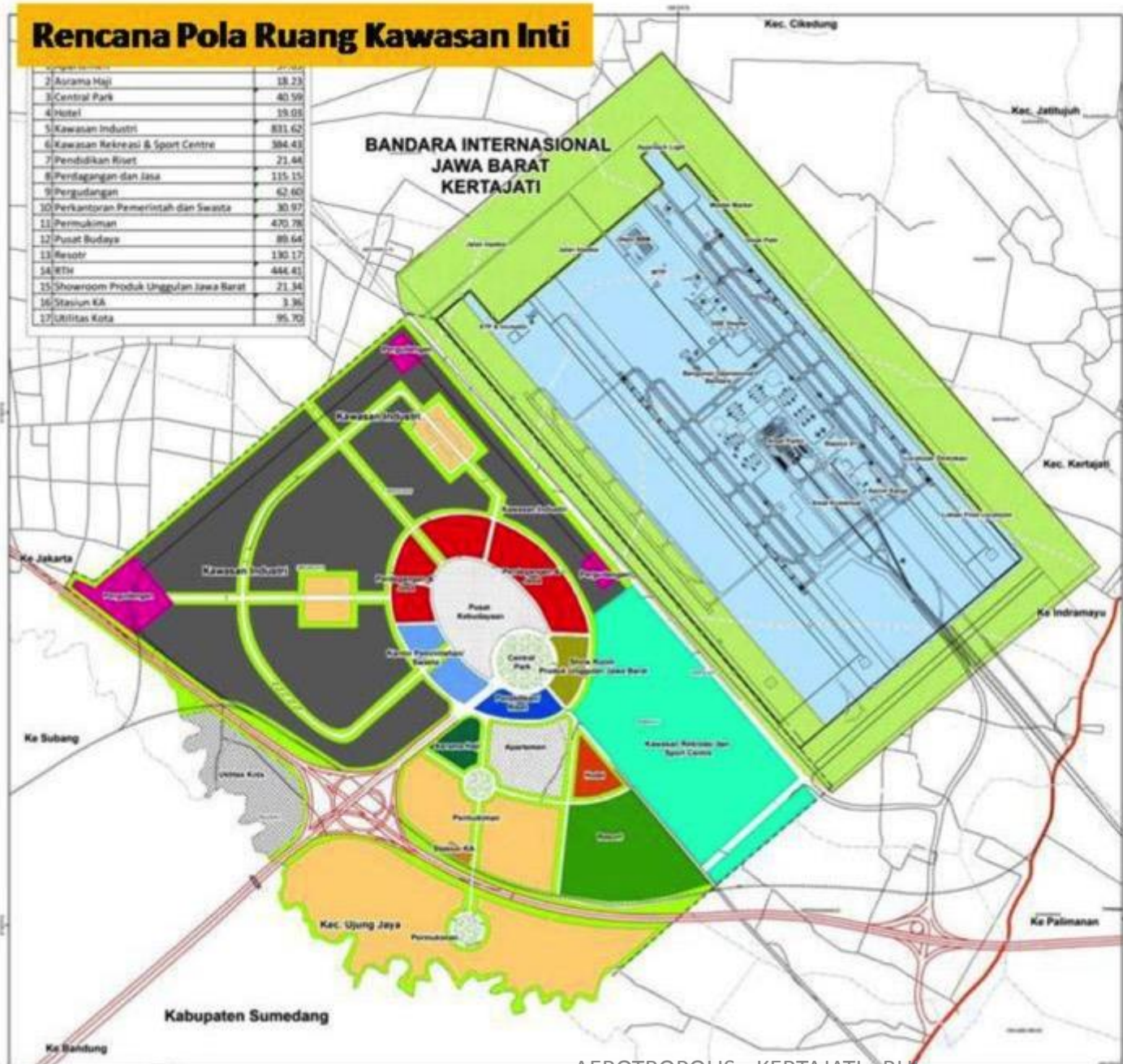
AIRPORT AREA

Source : Pemerintah Provinsi Jawa Barat - Dinas Perhubungan

Rencana Pola Ruang Kawasan Inti

No	Kategori	Luas (Ha)
2	Asrama Haji	18.23
3	Central Park	40.59
4	Hotel	19.05
5	Kawasan Industri	831.62
6	Kawasan Rekreasi & Sport Centre	304.43
7	Pendidikan Riset	21.44
8	Perdagangan dan Jasa	115.15
9	Pergudangan	62.60
10	Perkantoran Pemerintah dan Swasta	30.97
11	Permukiman	470.78
12	Pusat Budaya	89.64
13	Resort	130.17
14	RTH	444.41
15	Showroom Produk Unggulan Jawa Barat	21.34
16	Stasiun KA	3.36
17	Utilitas Kota	95.70

BANDARA INTERNASIONAL JAWA BARAT KERTAJATI



RENCANA TATA RUANG KAWASAN STRATEGIS PROVINSI (KSP) BIJB DAN KERTAJATI AEROCITY

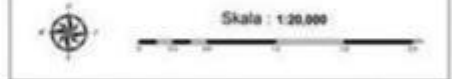
Gambar Rencana Peruntukan Kawasan Inti

Keterangan :

- Batas Kabupaten
- Batas Kecamatan
- Batas Desa
- Sungai
- Jln Nasional
- Jln Propinsi
- Jln Kabupaten
- Jalur Kereta Api

Peruntukan Kawasan Inti:

- Apertemen
- Asrama Haji
- Central Park
- Green Belt
- Hotel
- Kawasan Industri
- Kawasan Rekreasi & Sport Centre
- Pendidikan Riset
- Perdagangan dan Jasa
- Perkantoran Pemerintah dan Swasta
- Permukiman
- Pusat Budaya
- RTH
- Resort
- Showroom Produk Unggulan Jawa Barat
- Stasiun KA
- Utilitas Kota
- Pergudangan



Proyeksi : Universal Transverse Mercator
 Sistem Grid : Grid Geografi
 Zona UTM : 49 South

**PEMERINTAH PROVINSI JAWA BARAT
 DINAS PERMUKIMAN PERUMAHAN
 Tahun Anggaran 2012**

Jalan Kertajati No 4 Bandung, Telp. (022) 7519000, 7519750 Fax. 7519750 Bandung



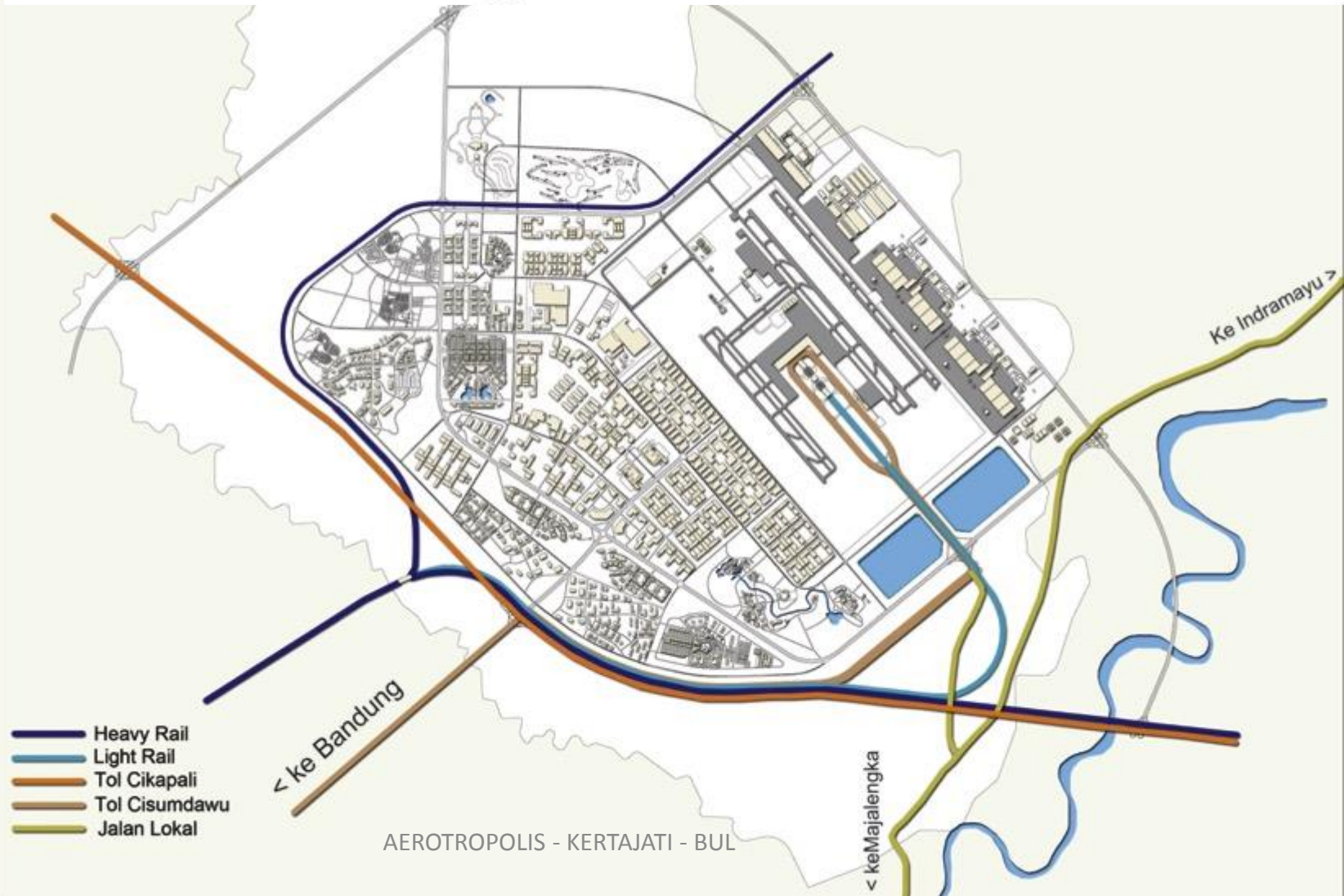
MASTERPLAN AEROTROPOLIS KERTAJATI



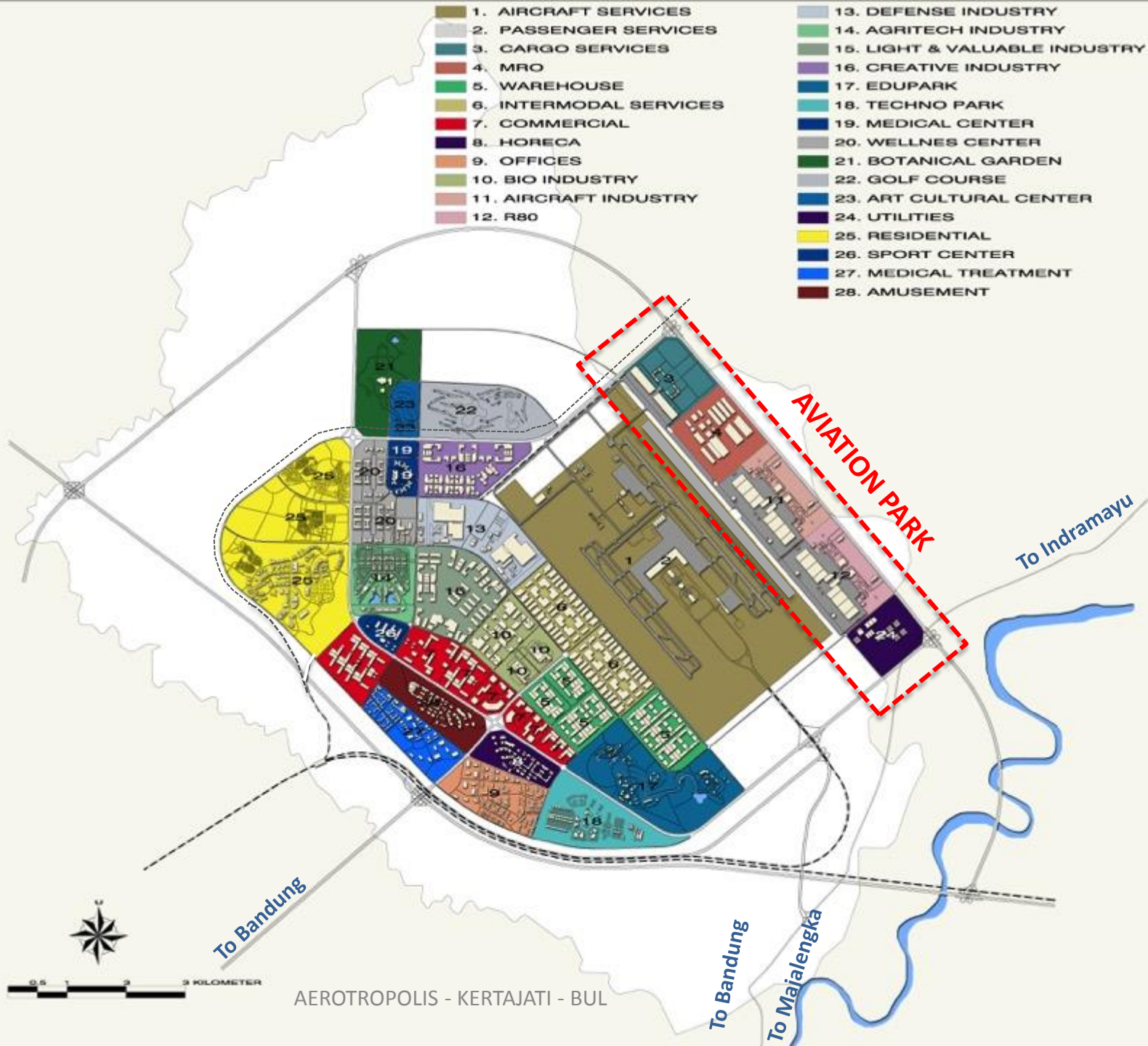
1. Aircraft Services
2. Passenger Services
3. Cargo Services
4. MRO
5. Warehouse
6. Intermodal Services
7. Commercial
8. HoReCa
9. Offices
10. Bio Industry
11. Aircraft Industry
12. R80 Industry
13. Defense Industry
14. Agritech Industry
15. Light & Valuable Industry
16. Creative Industry
17. Edu Park
18. Techno Park
19. Medical Center
20. Wellness Center
21. Botanical Garden
22. Golf Course
23. Art Cultural Center
24. Utilities
25. Residential
26. Sport Center
27. Medical Treatment
28. Recreation Center



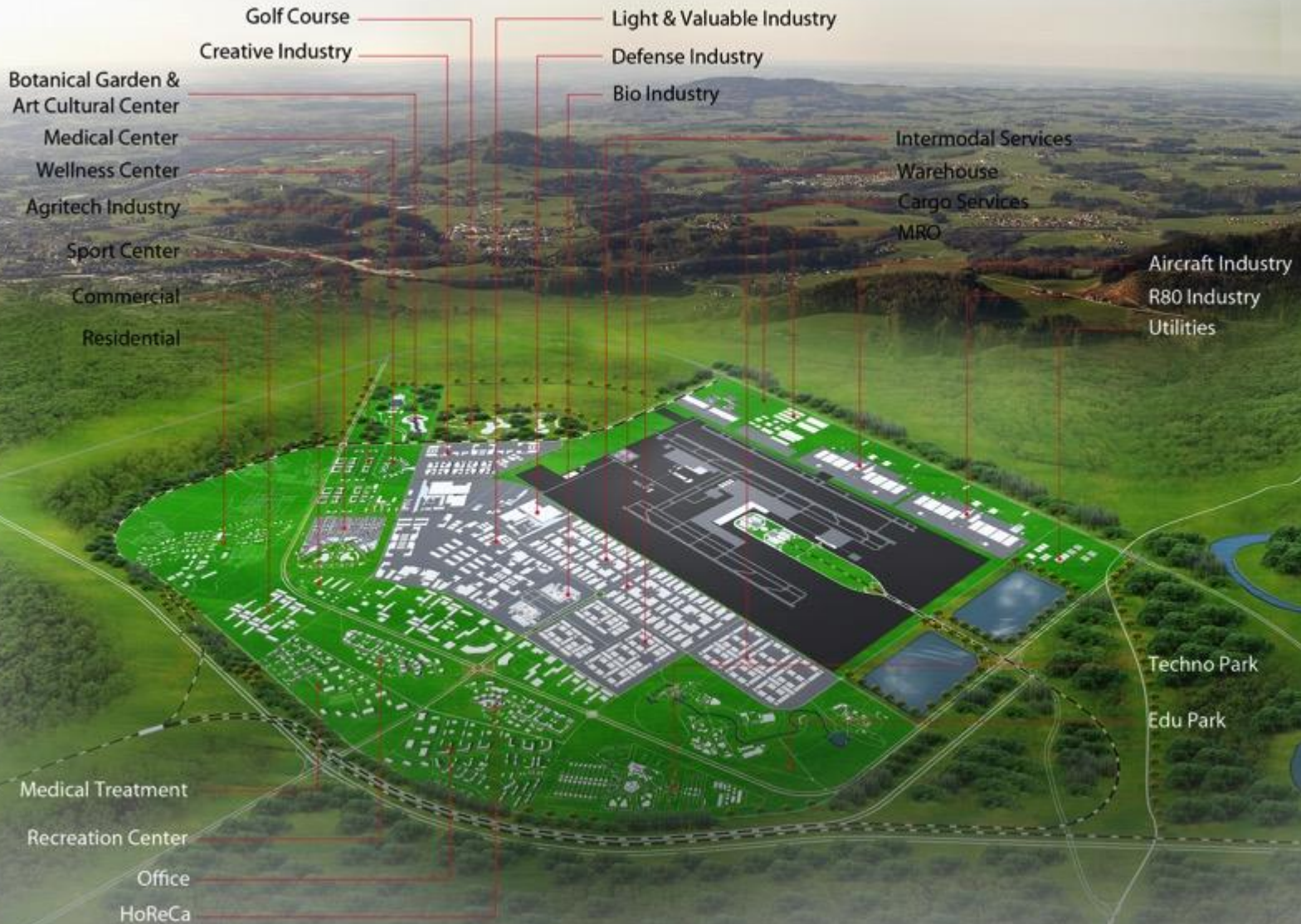
Accessibility



Zoning

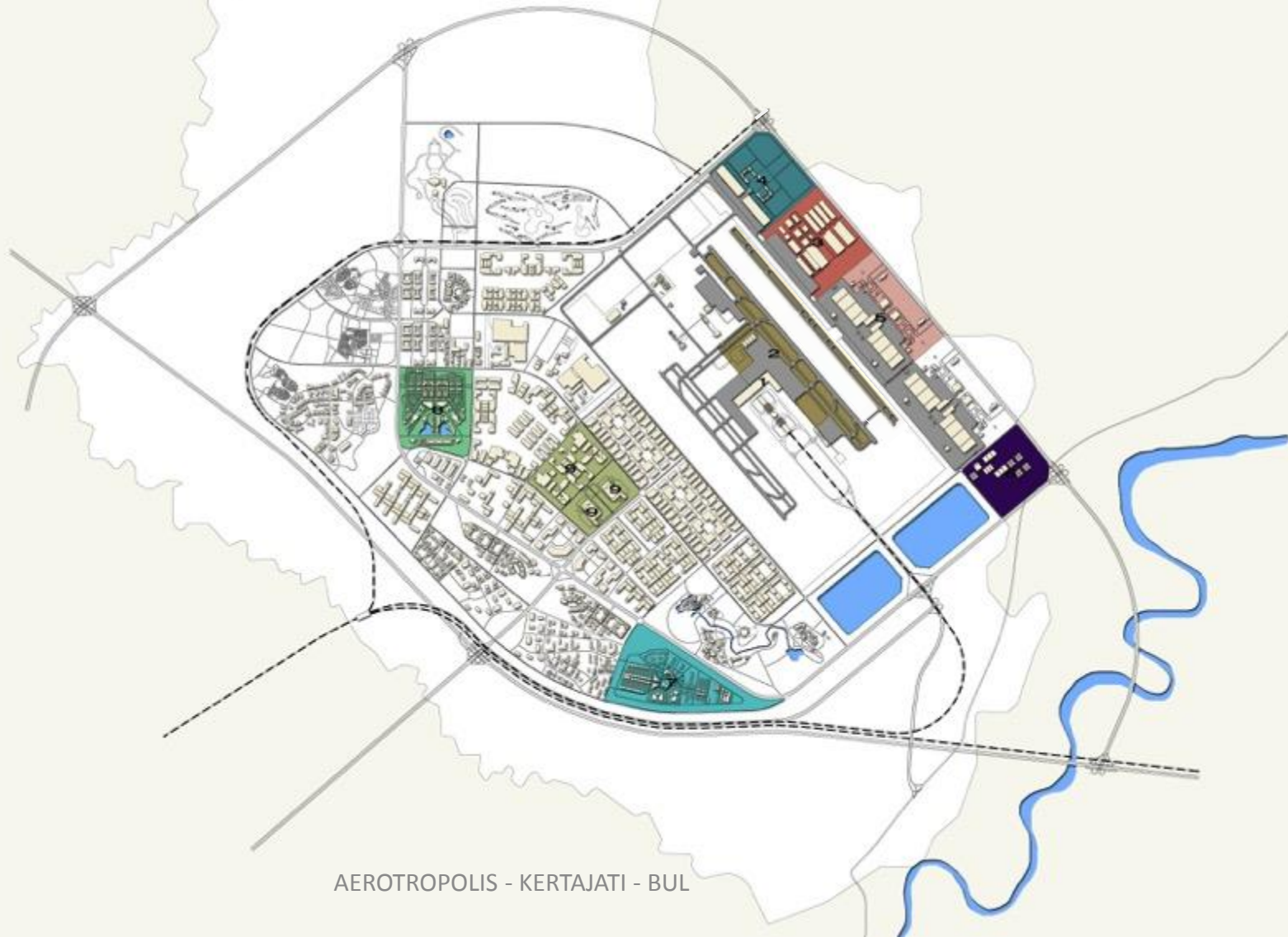


AEROTROPOLIS KERTAJATI



Phase I

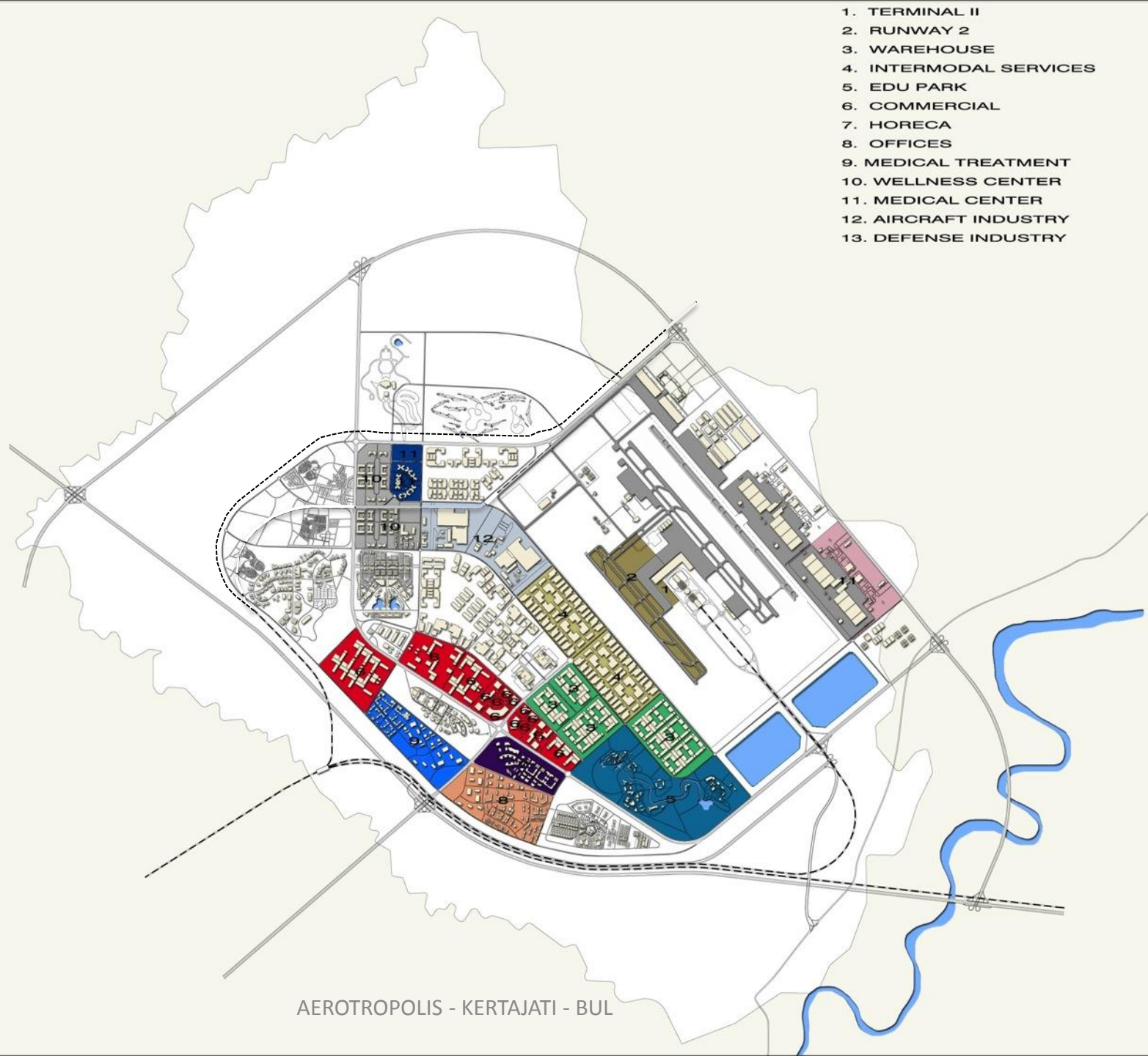
1. TERMINAL I
2. RUNWAY 1
3. MRO
4. CARGO SERVICES
5. R&D INDUSTRY
6. UTILITIES
7. TECHNO PARK
8. AGRITECH INDUSTRY
9. BIO INDUSTRY



AEROTROPOLIS - KERTAJATI - BUL

Phase II

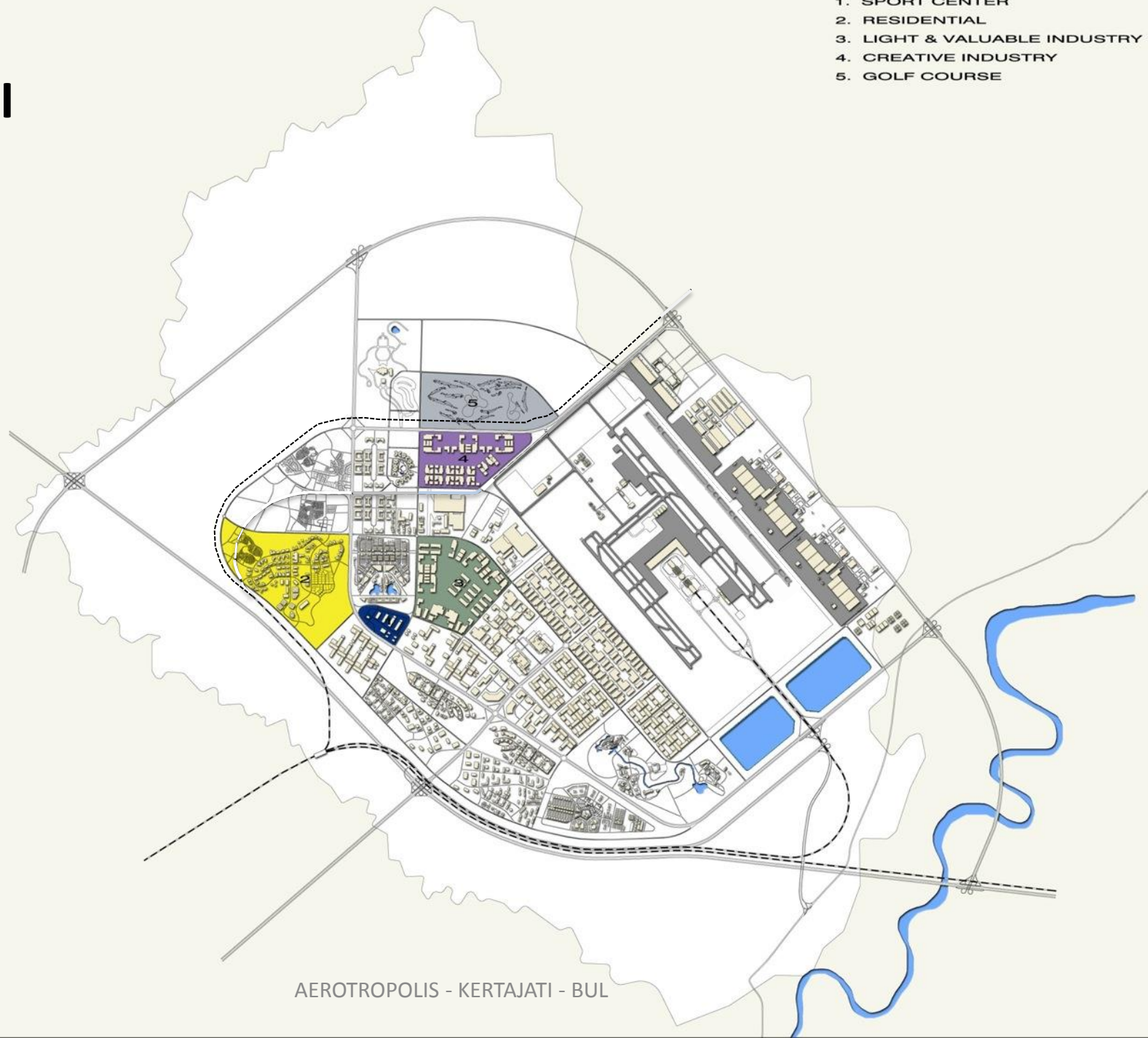
1. TERMINAL II
2. RUNWAY 2
3. WAREHOUSE
4. INTERMODAL SERVICES
5. EDU PARK
6. COMMERCIAL
7. HORECA
8. OFFICES
9. MEDICAL TREATMENT
10. WELLNESS CENTER
11. MEDICAL CENTER
12. AIRCRAFT INDUSTRY
13. DEFENSE INDUSTRY



AEROTROPOLIS - KERTAJATI - BUL

Phase III

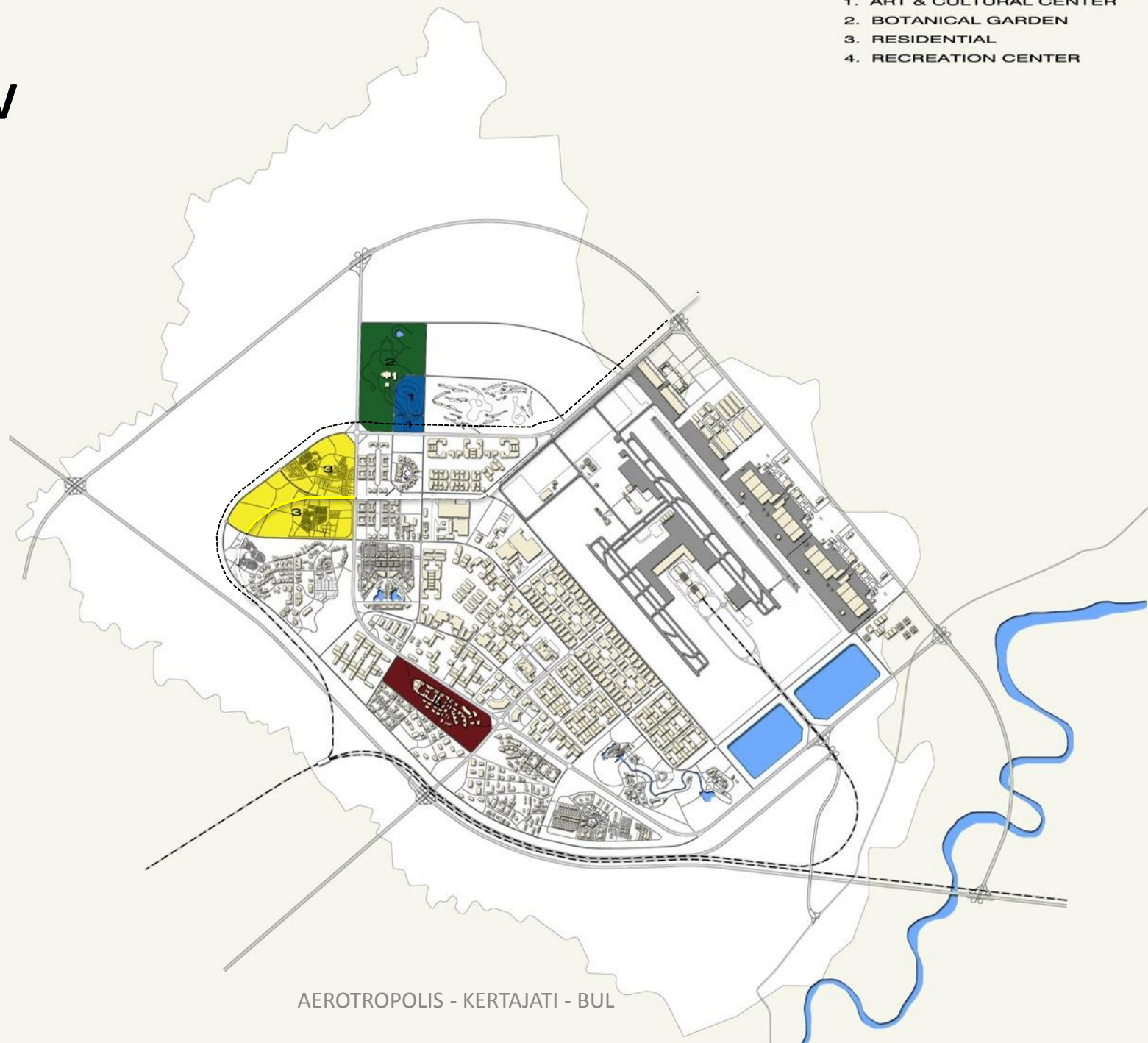
1. SPORT CENTER
2. RESIDENTIAL
3. LIGHT & VALUABLE INDUSTRY
4. CREATIVE INDUSTRY
5. GOLF COURSE



AEROTROPOLIS - KERTAJATI - BUL

Phase IV

- 1. ART & CULTURAL CENTER
- 2. BOTANICAL GARDEN
- 3. RESIDENTIAL
- 4. RECREATION CENTER

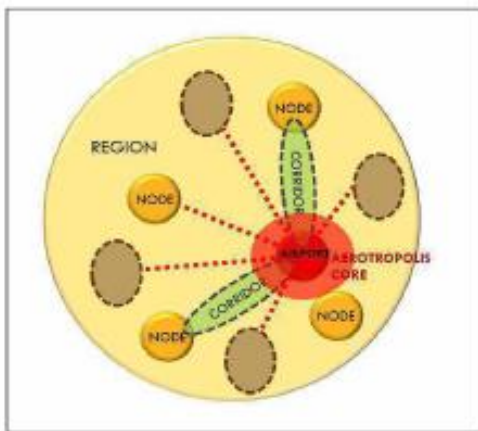


AEROTROPOLIS - KERTAJATI - BUL

SUPPORTING INFRASTRUCTURE SHOULD BE PROVIDED

- Land use
- International seaport
- Airport Express
- Cisumdawu Toll Road (2017)

Kertajati Aerocity



Due to the complicated land acquisition around the Kertajati airport, the complex character of the Kertajati Region and the built-up nature of the area surrounding Kertajati International Airport, the Kertajati Aerocity should consist of a hybrid of

- the Airport Corridor Concept,
- the Kasarda Aerotropolis Concept,

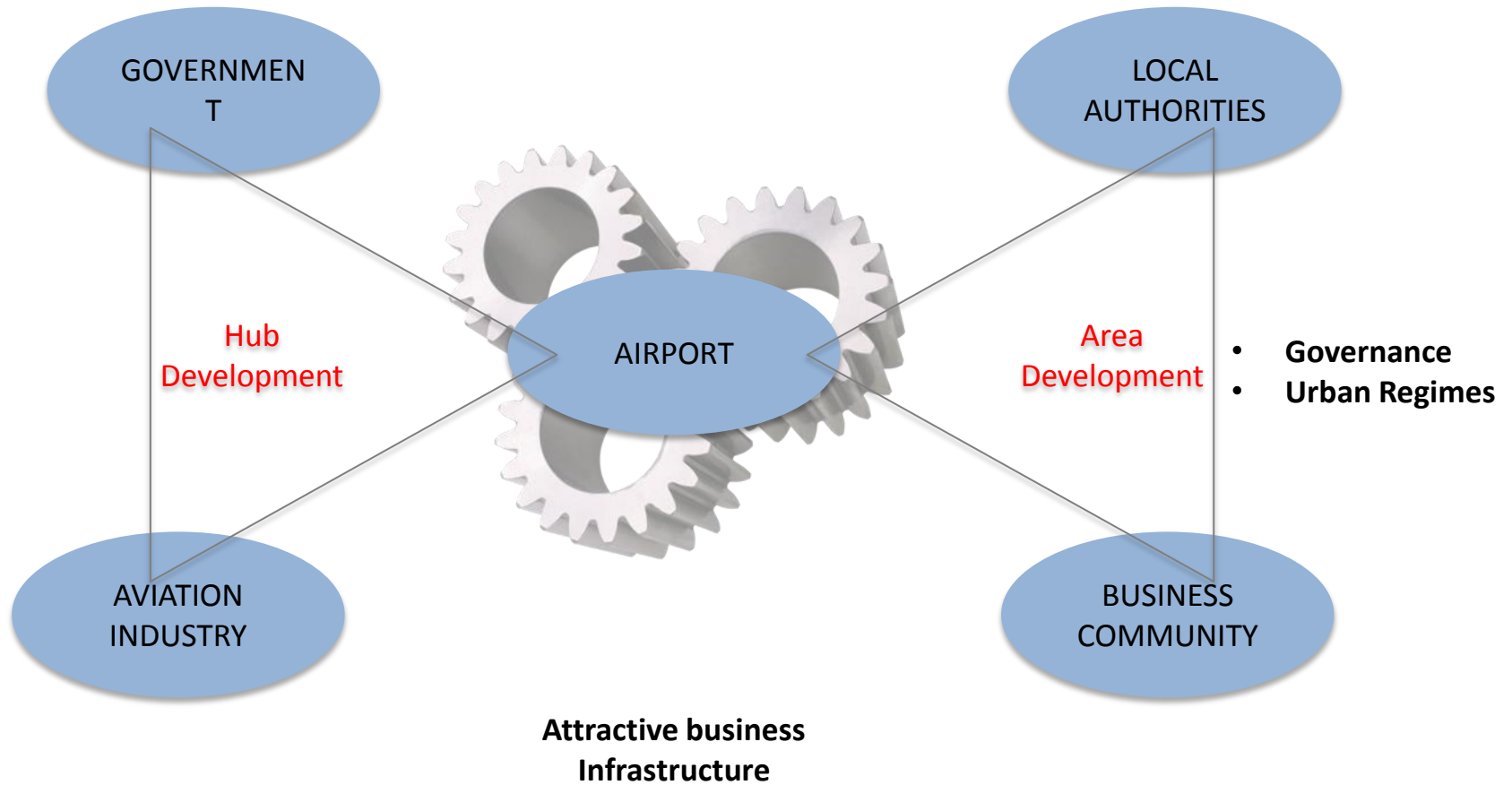
It is proposed that The Kertajati Aerocity consists of the following elements:

- The **Airport** itself;
- A **Core Business** around the airport making up the 'airport city';
- **Corridors** radiating outwards from the airport (Bandung, Cirebon, Indramayu, Tasikmalaya and Karawang)

Areas that are **functionally supported and connected** to the airport, e.g. businesses that make use of the airport on a regular basis, residential areas where large numbers of airport employees reside, areas that are easily accessible from the airport in terms of time if not distance.

Key to Success

From Airportcity to Aerotropolis and Airport Corridor



CONCLUDING REMARKS

- Airports have always been key nodes in global production systems offering speed, agility, and connectivity. To increase the speed, many warehouse and distribution companies, as well as logistics companies, have located close to airports. Increasingly, now, manufacturing companies are also locating close to airports to minimize the distance between the place of manufacture and the location of transport. In this way, products can move quickly off the assembly line and onto the freighter. The concentration of these manufacturing activities acts as a magnet to attract other supporting knowledge and service industries.
- Multimodality, and accessibility are the key success factor for development of aerocity
- Giving the possibility to emerge from Airport to Aerocity – Aerotropolis-Airport corridor

THANK YOU

