


## CPK Program Overview

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Prague, 27.04.2023



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- 1 About CPK
  - 2 Actions to date
  - 3 Current activities
  - 4 Future actions

# 1 About CPK

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**Centralny Port Komunikacyjny** is a transfer hub planned in Poland between Warsaw and Łódź, to integrate **air, rail and road transport**, and include:

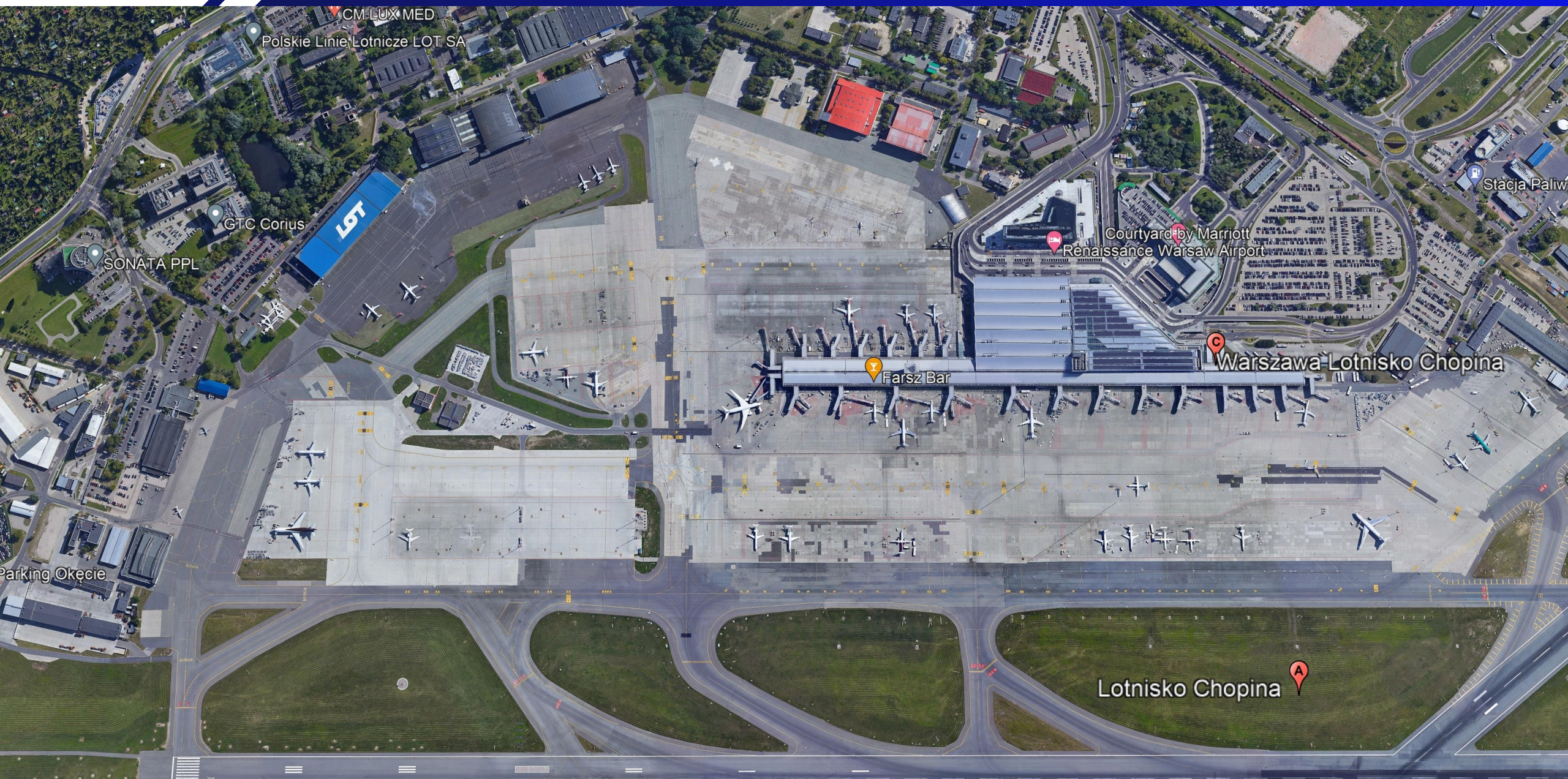
a modern greenfield airport planned in the heart of Poland and Central and Eastern Europe

a network of almost 2,000 km of railway lines, including high-speed lines

Airport city – the development of business, office, hotel, residential and leisure infrastructure









There is no airport in Central and Eastern Europe  
providing services for more than 25 million passengers a year

CPK complements the European  
TEN-T network in terms of access to air transport.  
It will be the main transport hub for Central Easter Europe.



■ Europa Środkowo-Wschodnia



CPK will be located at the heart of Poland,  
in the area responsible for ~30%  
of Poland's GDP, inhabited by ~8m people.

## Łódź

- Population: **0,7 mln**
- Third biggest city in Poland

## Łódzki region

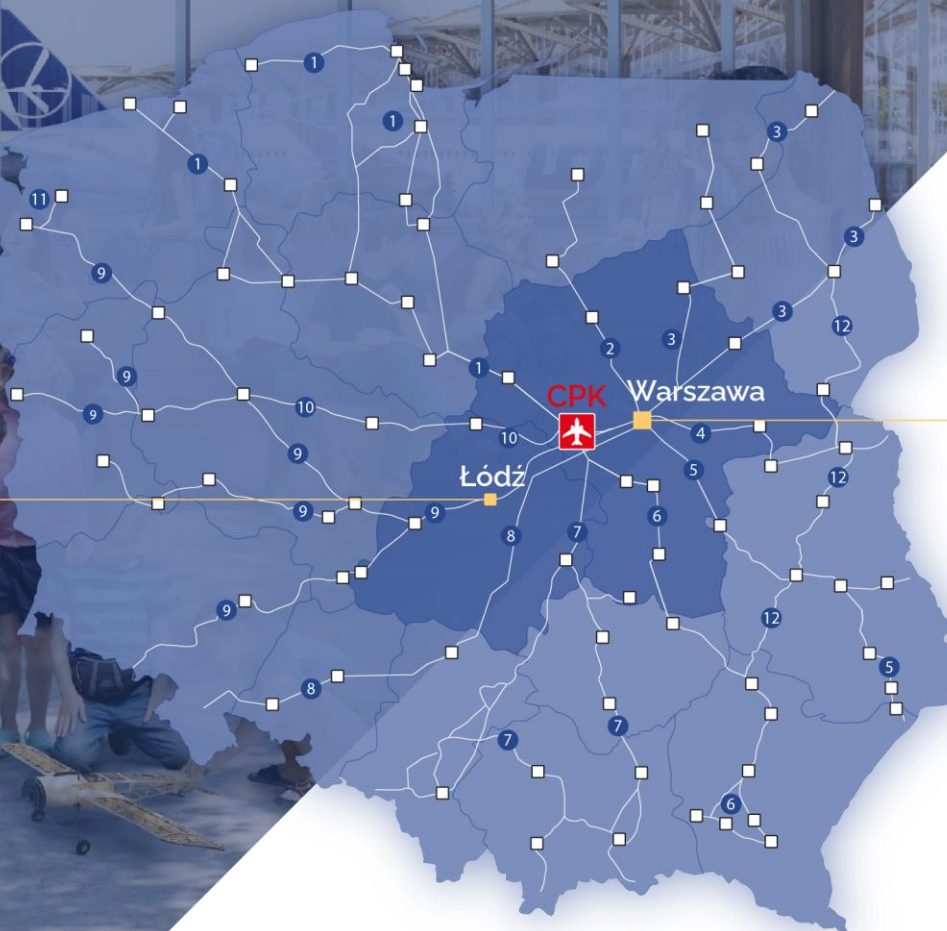
- Population: **2,5 mln**
- Share in Poland's GDP: **about 6%**

## Warsaw

- Population: **1,8 mln**
- Capital city and the biggest one in Poland

## Masovian region

- Population: **5,4 mln**
- Share in Poland's GDP: **about 23%**



Łódź

30 min

CPK

15 min

Warszawa





CPK

Transportation hub  
CPK Airport



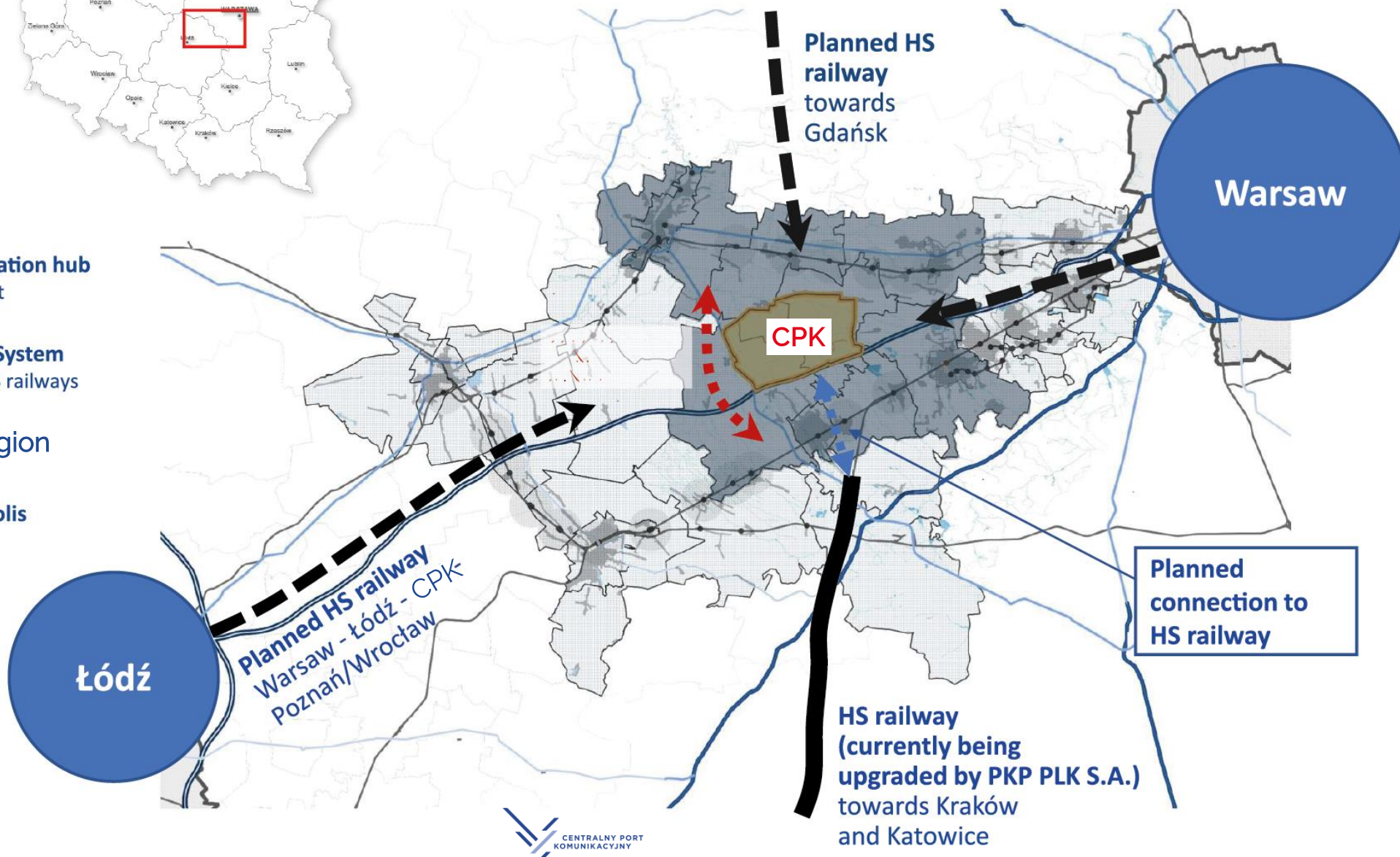
New Rail System  
Planned HS railways



CPK Region



Aerotropolis





## CPK in numbers

2028

2060

40

Million passengers  
capacity

2

Runways

330 000

Air Traffic Movements

300 000 T+

Cargo

### Railway station and PTI ready

65

Million passengers  
capacity

4

Runways

450 000

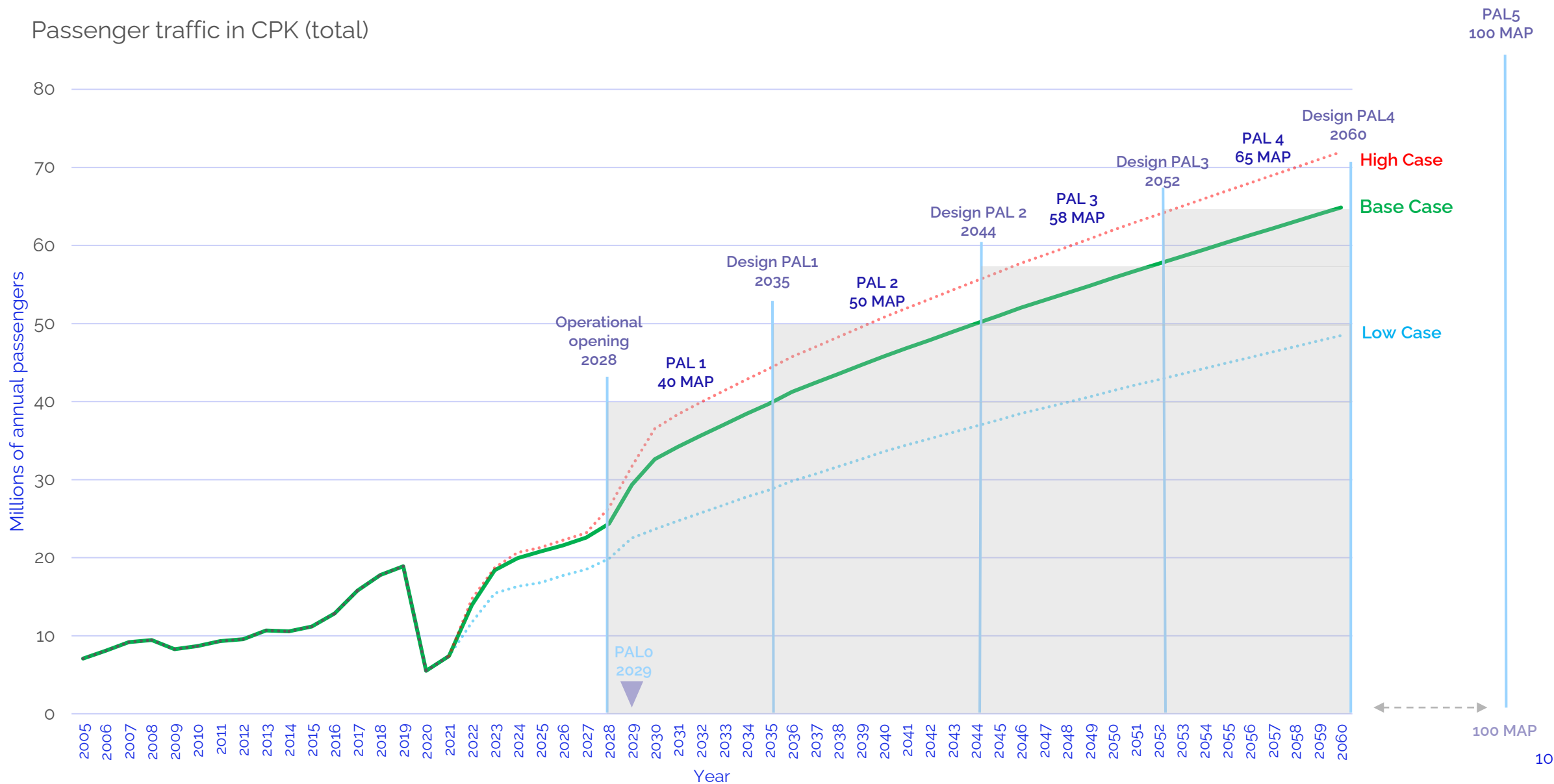
Air Traffic Movements

1 500 000 T+

Cargo

### Railway network ready

# Aviation Forecast - Planning Activity Levels







CPK located in the heart of Poland

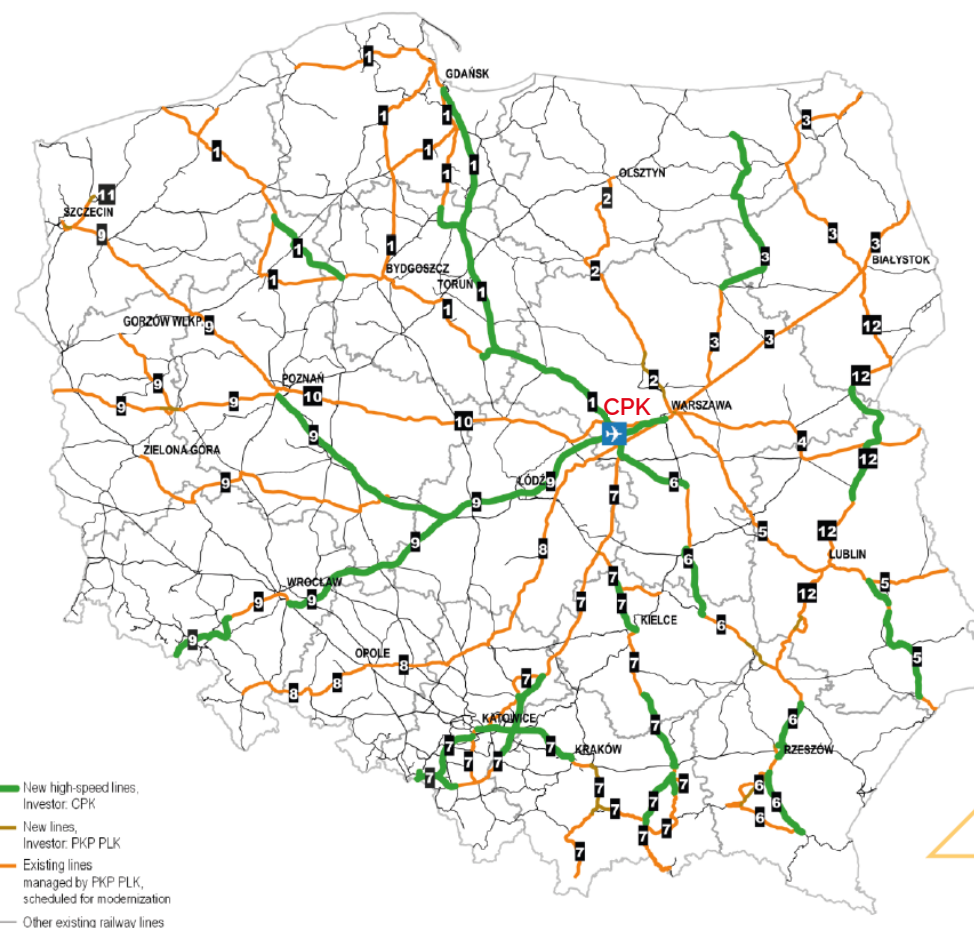
In close proximity to 1st  
and 4th biggest Polish cities

Inhabited by over 8M people

In a region responsible for  
approximately 30% Polish GDP

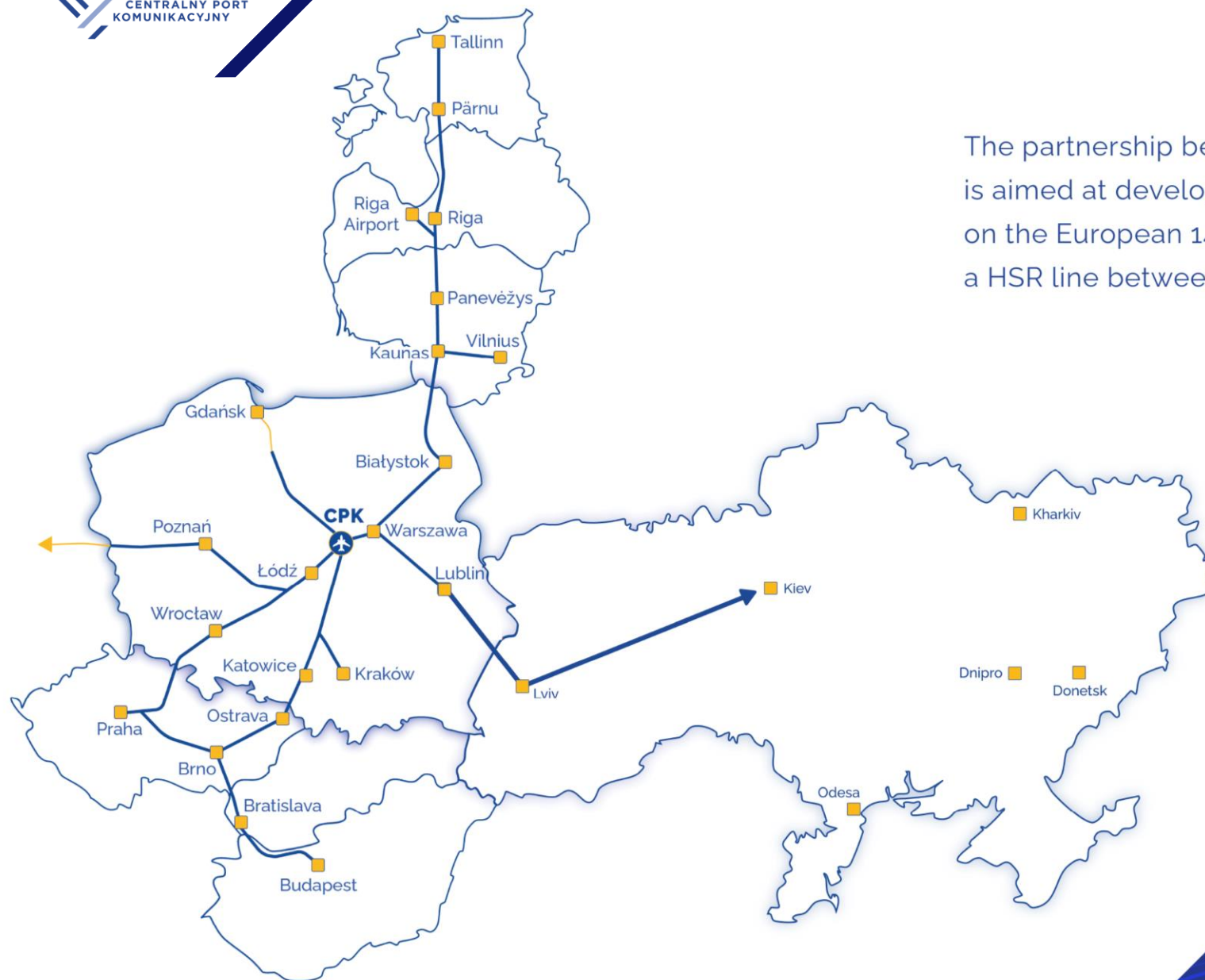
Łódź — 25 min — CPK — 15 min — Warszawa

# Core high speed rail network of 750 km covering all major cities and two cross border lines to the Czech Republic



- Design speed  $\leq 350$  km/h
- Operating speed  $\leq 250$  km/h
- Electrification 25 kV 50 Hz AC
- Passenger stations every 50–100 km, interchange stopping points
- Express cargo traffic possible on selected sections





The partnership between CPK and Ukrainian Railways is aimed at developing new cross-border connections on the European 1435 mm gauge. It is also a plan to build a HSR line between Poland and Ukraine.

# CPK is based on 3 main strategies

## Air hub strategy

- Best in class hub airport with future fit and customer centric facilities for passengers, operators and staff
- World class logistic infrastructure
- Operationally excellent

## Multimodal hub strategy

- Construction of 1981km new lines bringing the integration of the CPK with Polish and European rail system
- Full integration and expansion of existing motorway and expressway system

## Sustainability strategy

- Net zero ready at opening
- 12 Strategic environmental and social-economics goals compatible with the UN Sustainable Development Goals



# Air hub strategy

## Airlines

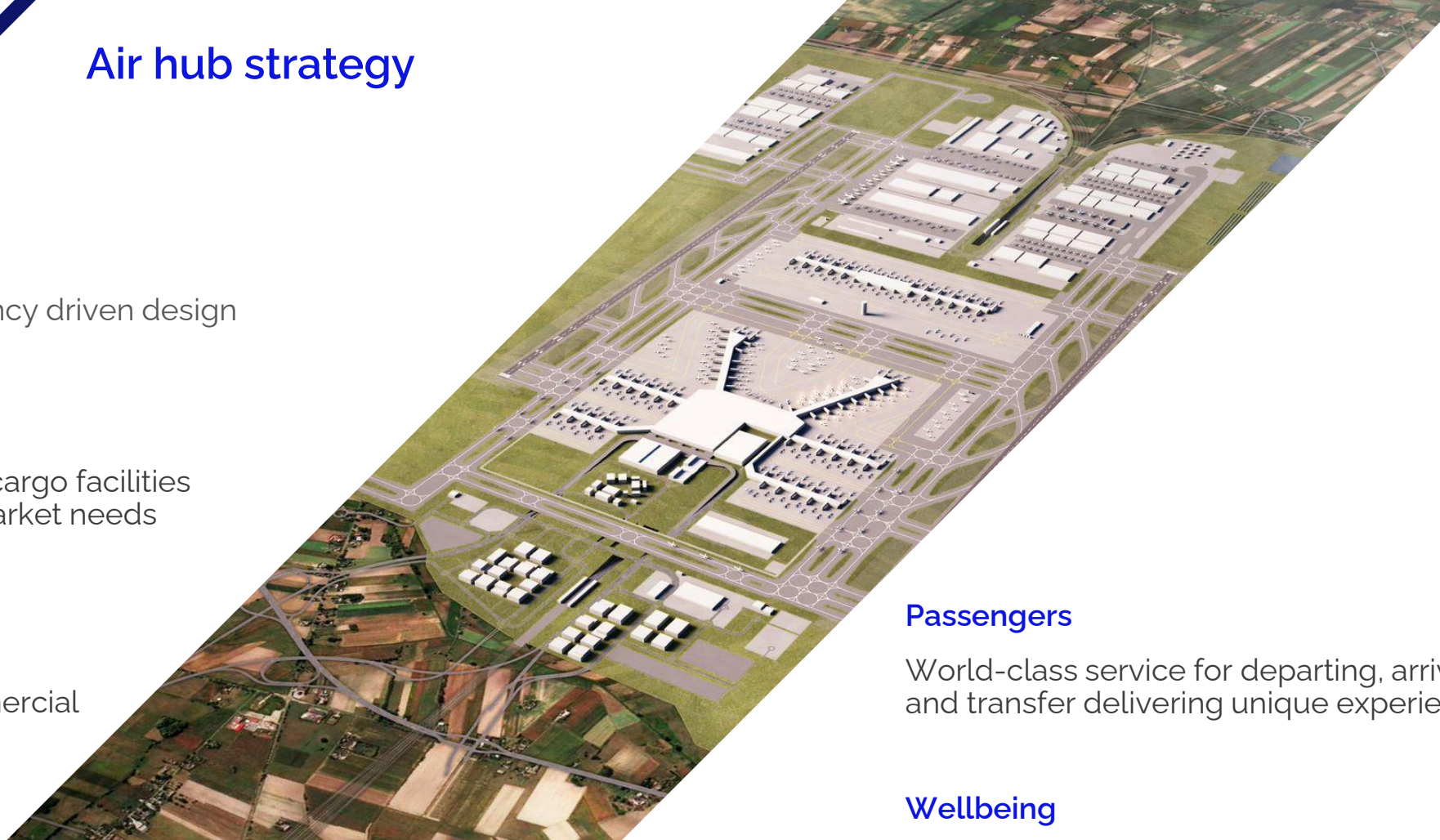
Operational efficiency driven design

## Cargo

Custom designed cargo facilities  
fully addressing market needs

## Commercial

Best in class commercial  
opportunities



## Passengers

World-class service for departing, arriving  
and transfer delivering unique experience

## Wellbeing

Friendly and safe environment for our customers  
and our staff

## Future proofed

Flexible design ready to accommodate future  
challenges such as technological, political, sanitary



## Single hub – all modes

Airport, train station and PTI under one roof within walking distance

## Network integration

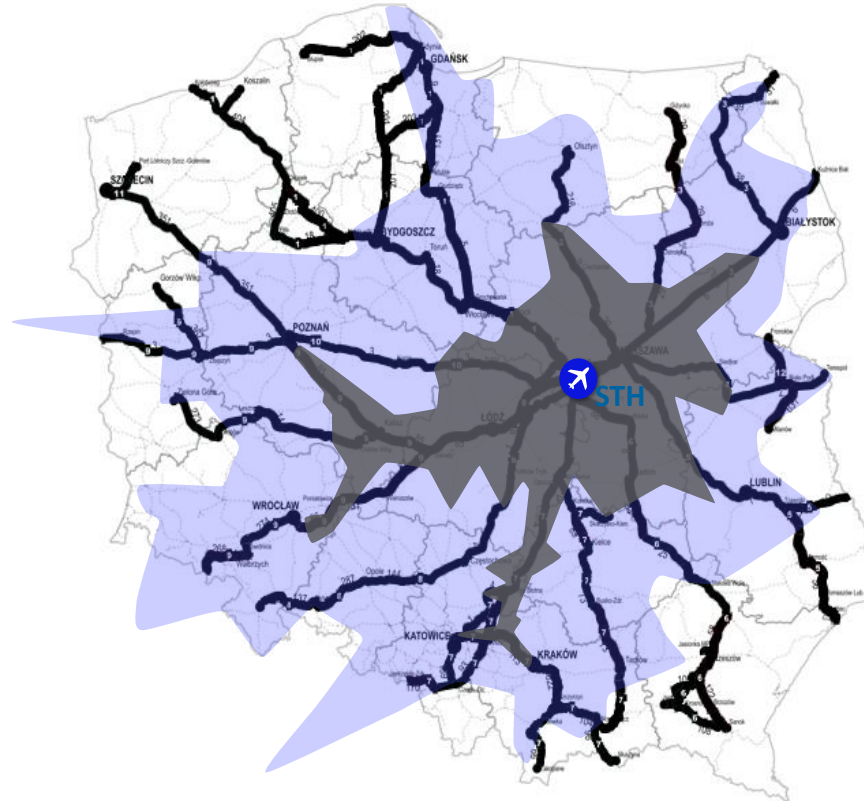
Multimodal system of airport with rail and road network, vastly enhancing short time catchment area

## Cargo hub

Full-service cargo and logistic centre consolidating air and road network

## TEN-T connected

An essential part of European TEN-T network



## Train catchment area

3M – 1:00h

6M – 1:30h

23M – 3:00h

## Road catchment area

5M – 1:00h

7M – 1:30h

27M – 3:00h



## Sustainability strategy

### Example of sustainability initiatives

#### Net Zero emission from 2028

Significant share of zero emission fleets, electric power and air-conditioning supply to all stands

#### Sustainable building construction

Multimodal system of airport with the rail and road network vastly enhancing short time catchment area

#### Green transport

Reduction of domestic flights supported by convenient green transport connections

#### Airport Carbon Accreditation

>20-fold reduction in the number of people affected by aircraft's noise compared to WAW airport

Buildings and infrastructure designed to be certified at the world's best sustainability level

## Why in Poland?

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The biggest and most  
populous country  
in the CEE region

Dynamic  
and resilient economy

Geographically close to  
main trade routes

## Why a greenfield airport?

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Unlimited development  
possibilities for fully  
multimodal transport hub

Current Chopin airport  
has unremovable constraints

## Why is CPK important for CEE?

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Infrastructure planned as dual  
use, enhancing military mobility  
capacities along NATO Eastern  
Flank, addressing geopolitical  
importance

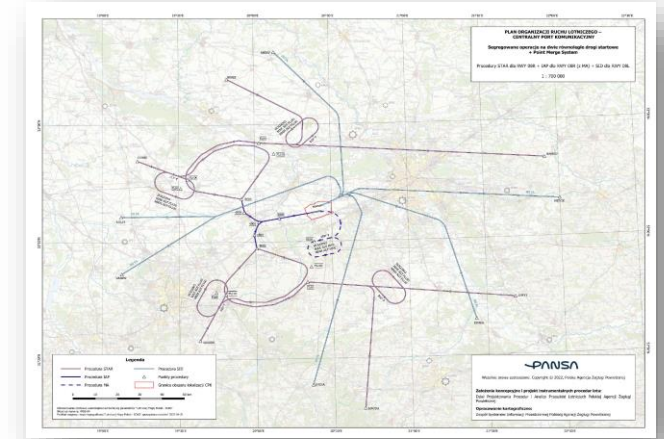
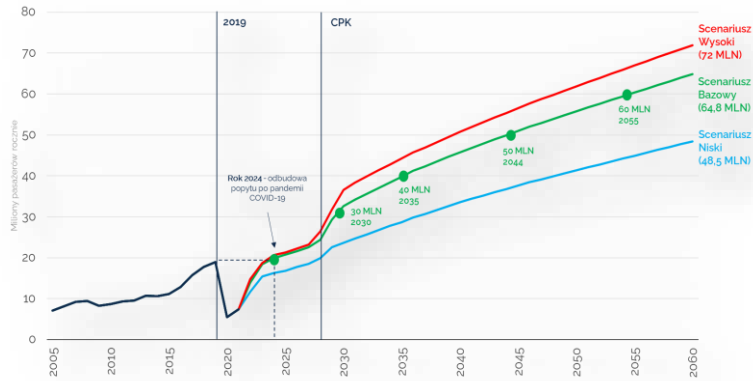


## 2 Actions to date

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IATA aviation forecasts for Poland and CPK, developed in 2021 in cooperation with 'Polish Airports' State Enterprise (PPL) and Ministry of Infrastructure (MI). The forecasts have been validated by the Operational Advisor (IIAC) and Master Planner (Arup).

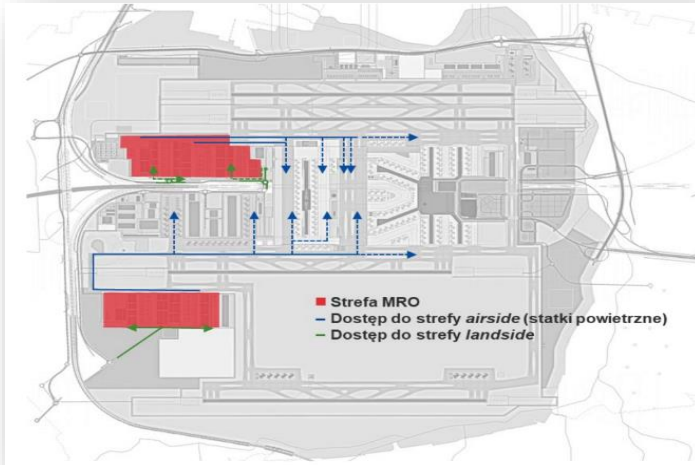
Basis for MP, PG, ROOS, financial projections.

**Meteo station** – since October 2021, meteorological data have been acquired (wind speed and direction, temperature, humidity, pressure, precipitation, cloud base), necessary for the preparation of the Meteorological Study for the airport certification process.

Initial assumptions for the development of instrumental flight procedures. Division of responsibility for air traffic service systems. Air traffic organization plan.

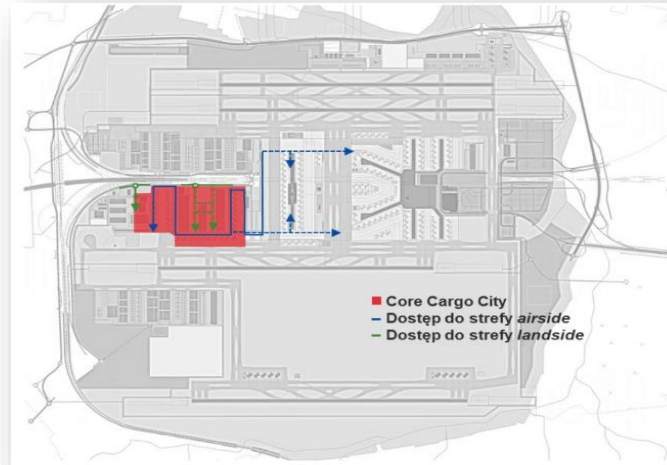






**MRO Analyses** - works on design requirements from MRO Stakeholders

Facilities dimensioned based on requirements provided by MRO operators during the stakeholder engagement process.



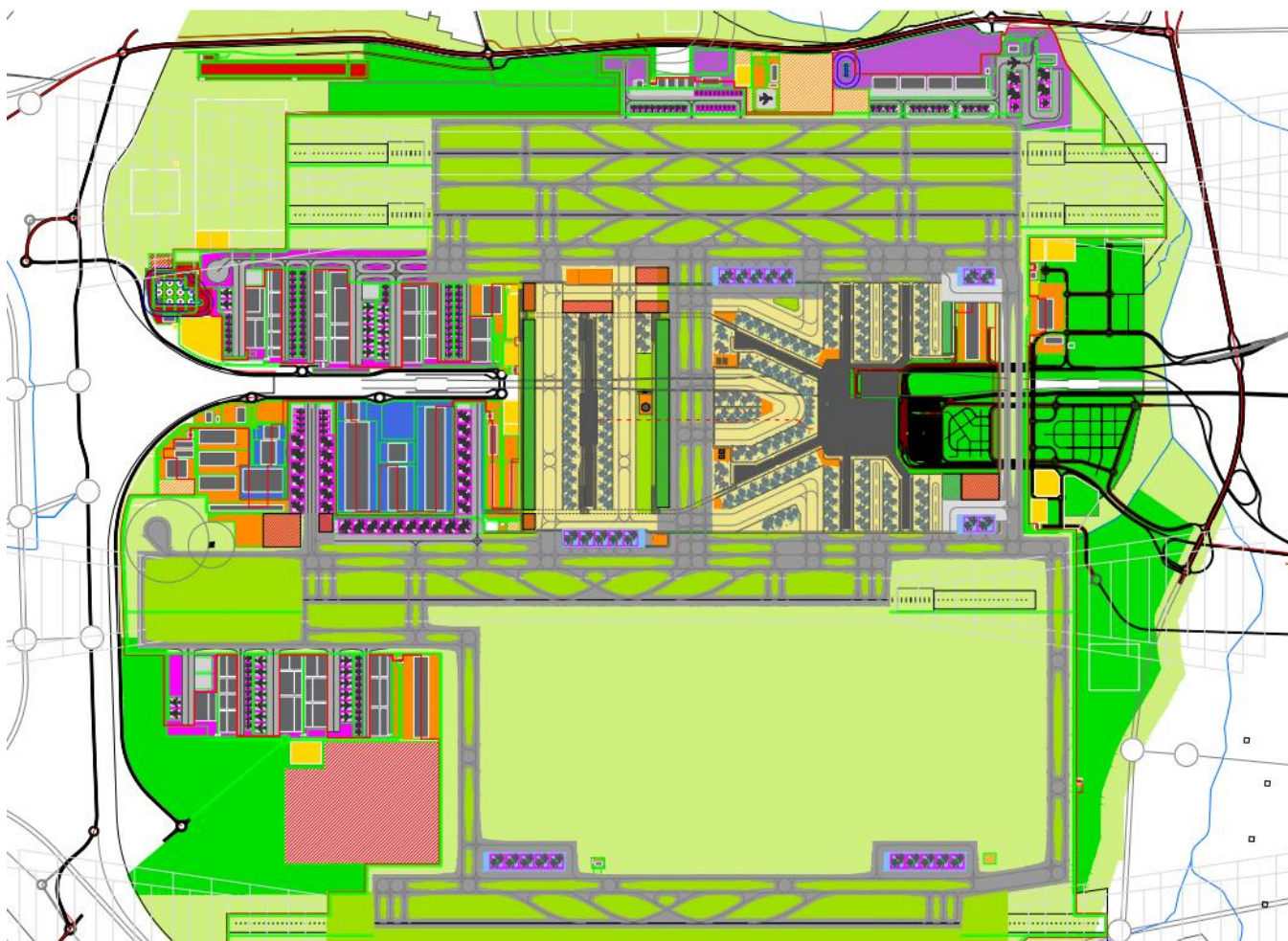
**Cargo analysis** - works on Cargo infrastructure dimensioning, design requirements from Cargo Stakeholders.

Development of Cargo Business Case and Cargo Development Strategy at CPK.



**Commercial** - development of airport charges, airline and non-airline revenue model, development of commercial assumptions - terminal and landside (plaza), commercialization and preparation of network development strategies.





Master Plan is the CPK Company's key planning document that shapes CPK location, scope and delivery of the Investment and related Associated Investments, which was developed in cooperation with Arup throughout 2021 and 2022.



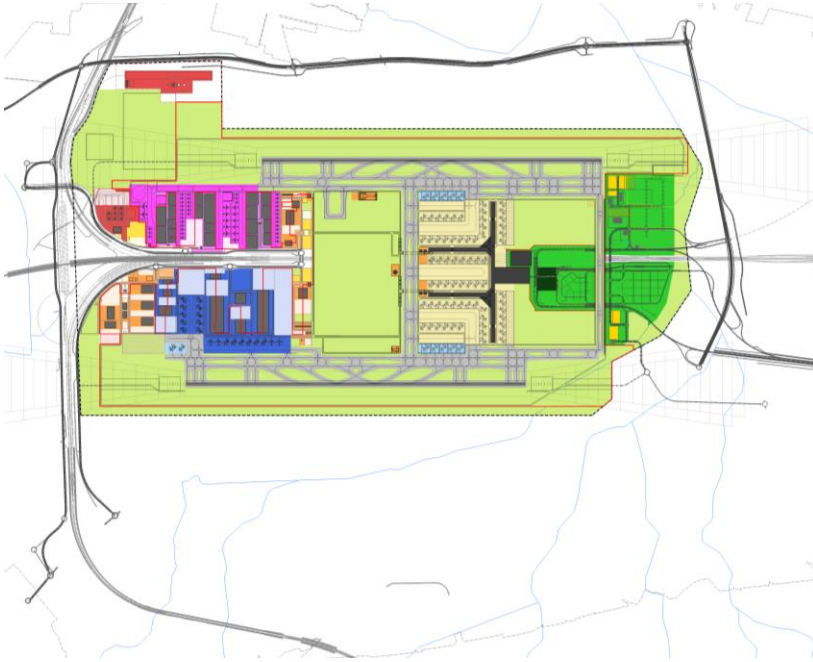
**ARUP**

**Incheon Airport**

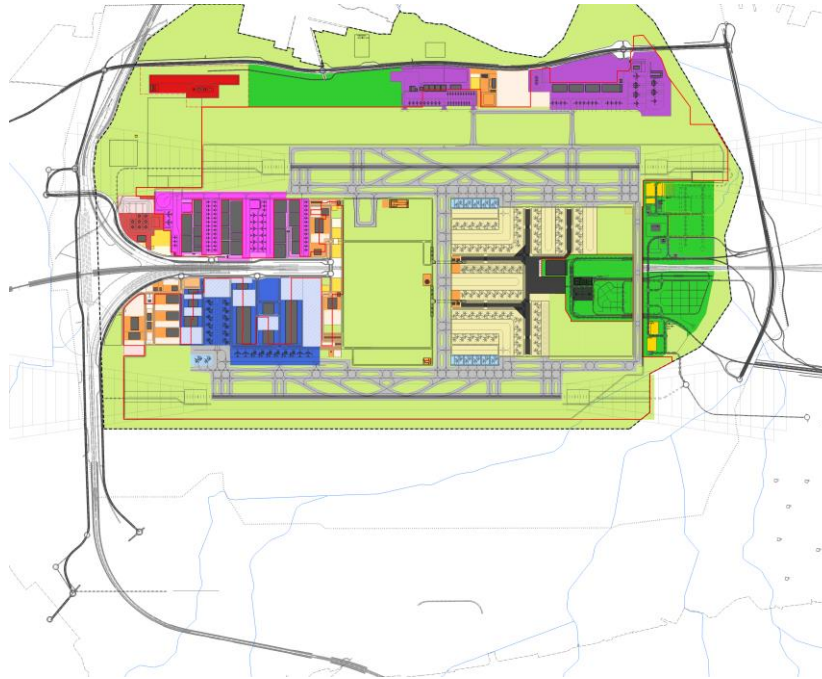




PAL 1



PAL 2



PAL 5



- Terminal Apron
- Parking / Airport City
- Deicing
- Cargo
- MRO
- Support Facilities
- Utilities
- Aviation Fuel
- Military / GA







# Process of obtaining opinions, settlements and approvals for the Airport General Plan

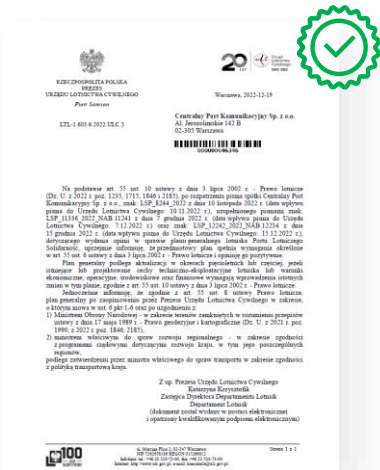
11.10.2022  
Forum of Stakeholders



PANSA



19.12.2022 Opinion of the Civil Aviation Authority President



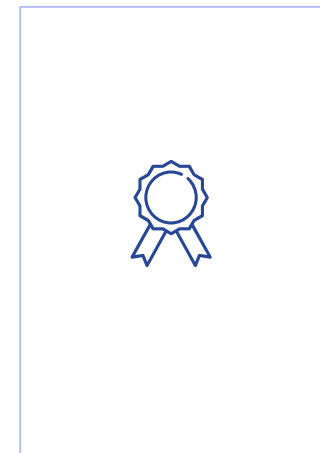
13.01.2023 Agreement by the Ministry of National Defence



26.01.2023 Agreement by the Ministry of Development Funds and Regional Policy



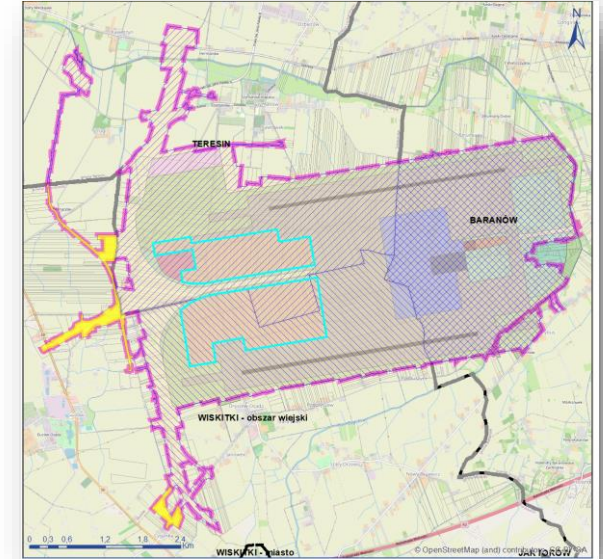
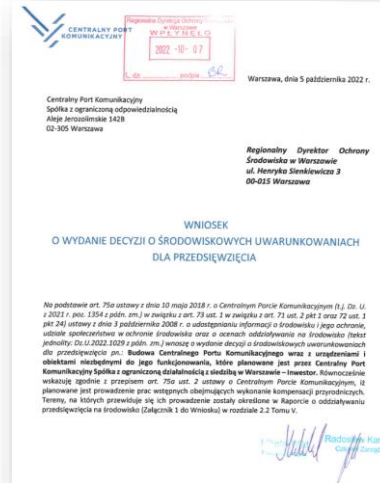
..... Approval by the Ministry of Infrastructure



27.09.2022 Consultation with municipalities







Multiconsult

ARUP

Site surveys and measurements - hydrogeological and geotechnical drilling, photogrammetric measurements, maps for design purposes.

Environmental surveys in preparation of location decision, preparation of the report on the environmental impact of the project and obtaining a right to the application for an environmental decision.





A decision on environmental conditions (Polish: DŚU) is the first administrative decision obtained through an administrative procedure, which determines environmental conditions for the implementation of an undertaking.

*Submission of an application for Environmental Decision : October 2022*

*Obtaining the Environmental Decision is expected in May 2023*





# 3 Current activities

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*Agreement signed on: 20.10.2022*

Preparation of the design documentation for:

- Airside,
- Landside,
- Utilities.

**Foster +  
Partners**



NACO

a company of Royal HaskoningDHV

*Agreement signed on: 10.11.2022*

Preparation of the design documentation for:

- Terminal Building,
- Railway Station Building,
- Public Transport Interchange (PTI).





## MASTERPLAN OPTIMISATION



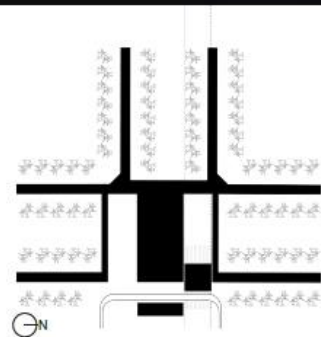
INDIVIDUAL PASSENGER FLOW



MULTIPLE PASSENGER FLOWS



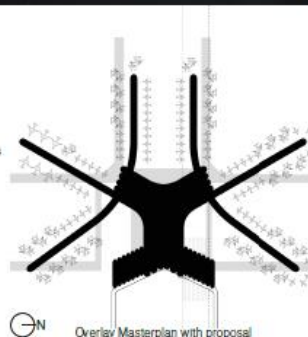
ARCHITECTURAL EXPRESSION  
REPRESENTS PASSENGER FLOW



### MASTERPLAN

#### Brief parameters

- Single terminal
- Adjacent to rail alignment
- Limit rail tunnel to airside areas only
- 6 piers 144 ICAO code C equivalent stands



Overlay Masterplan with proposal

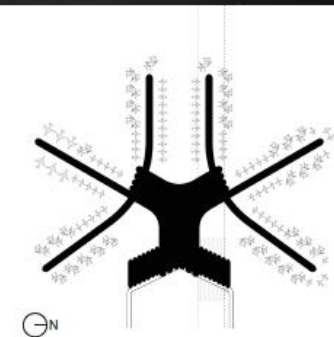
### PROPOSAL

#### Compliant

- Single terminal
- Adjacent to rail alignment
- Limit rail tunnel to airside areas only
- 6 piers 146 ICAO code C equivalent stands

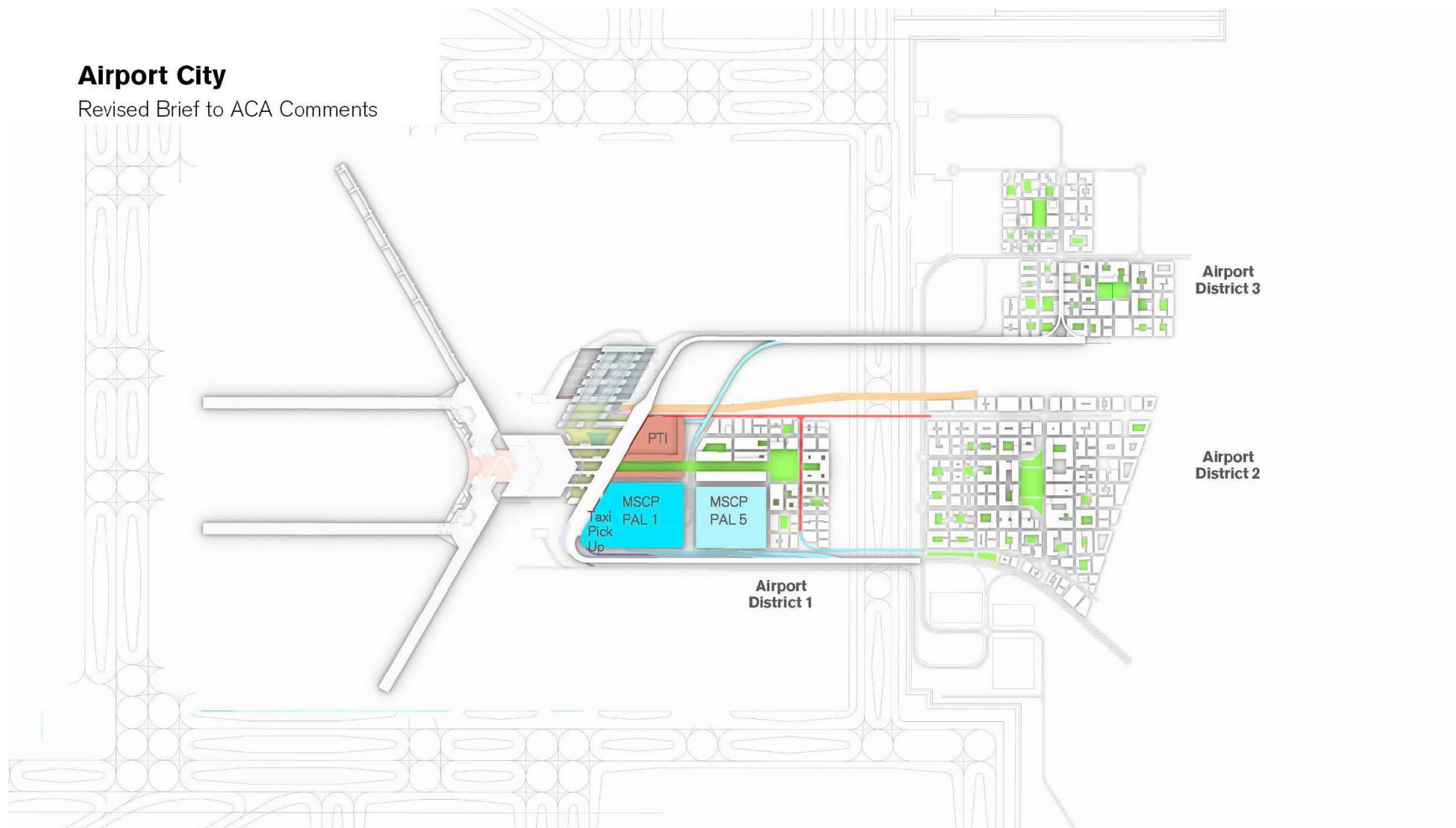
#### Improvements

- Walking distances reduced by 24%
- Intuitive passenger flows
- PTI plaza linking all transport nodes together
- Symmetrical
- Improved airfield layout
- Building footprint optimized



## Airport City

Revised Brief to ACA Comments





## ASID – Airport Systems Integration Designer

# IDOM



McCor  
Airport Solutions



ADP  
INGÉNIERIE

*Agreement signed on: 21.12.2022*

Scope:

1. ICT/SAS Systems Strategy development and integration - context of operational, commercial and design assumptions.
2. Analysis of systems and new technologies suppliers.
3. Development of ICT/SAS requirements to be included by MA/MCE/SIE in the Design Documentation.
4. Development of a plan for procurement and implementation of individual systems.
5. Systems and systems integration design - systems architecture, interfaces, data model, technical and functional specifications, cybersecurity.
6. Verification of MA/MCE/SIE designs' compliance with ICT/SAS requirements.
7. Development of specifications for the acquisition of systems/systems packages.

## DRF – Design Review Consultant



HILL

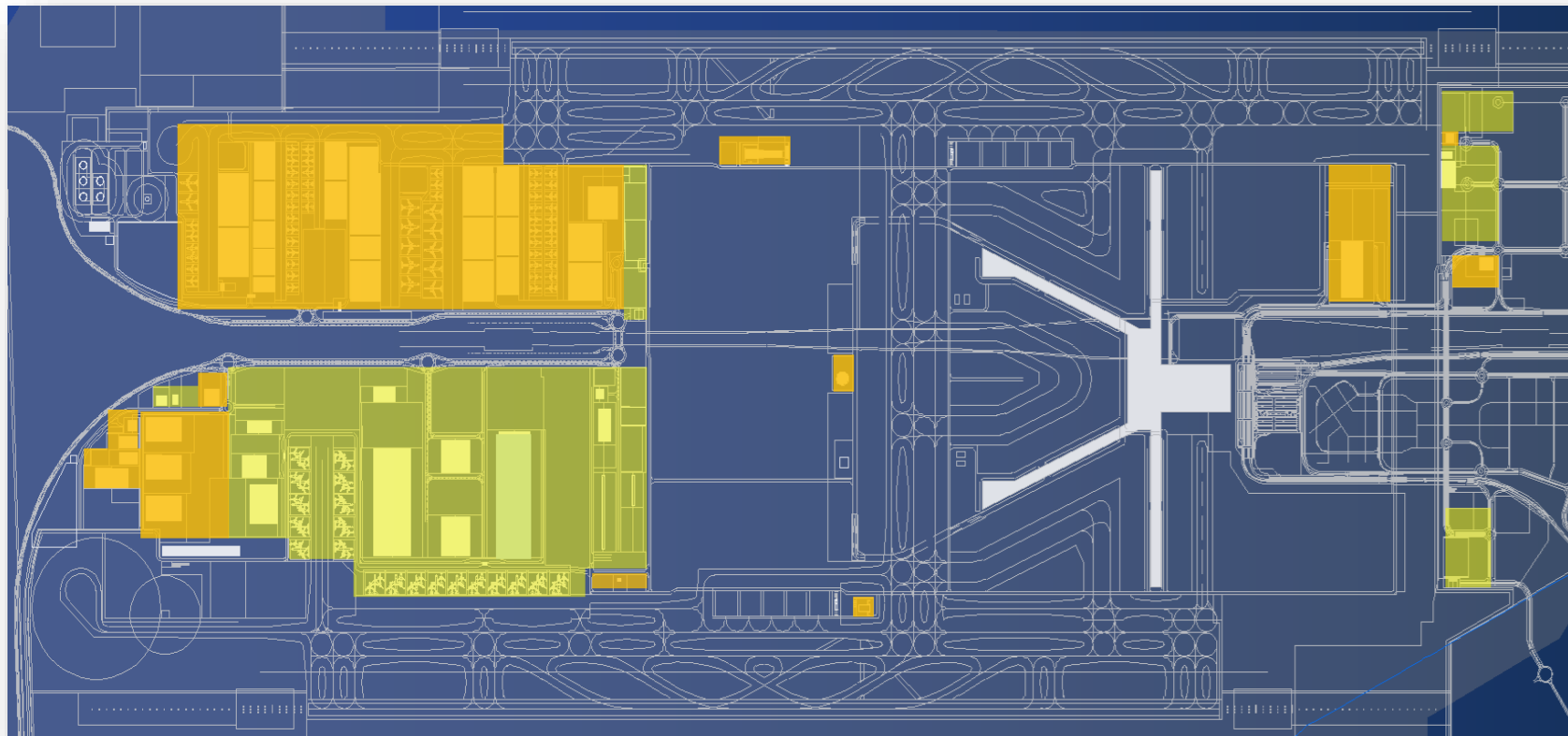
# Hill International

*Agreement signed on: 03.01.2023*

Scope:

1. Technical supervision of design works,
2. Monitoring the progress of documentation production,
3. Verification of project documentation,
4. Verification of schedules, cost estimates, quality,
5. Early warning mechanism,
6. Claims assessment,
7. Provision of services as regards construction works packaging,
8. RFI management,
9. Monitoring the design change process,
10. Managing project interfaces,
11. Provision of services as regards design solutions optimisation.





## Frame Agreement 1 (signed)



## Frame Agreement 2 (pending)







databout



Multiconsult

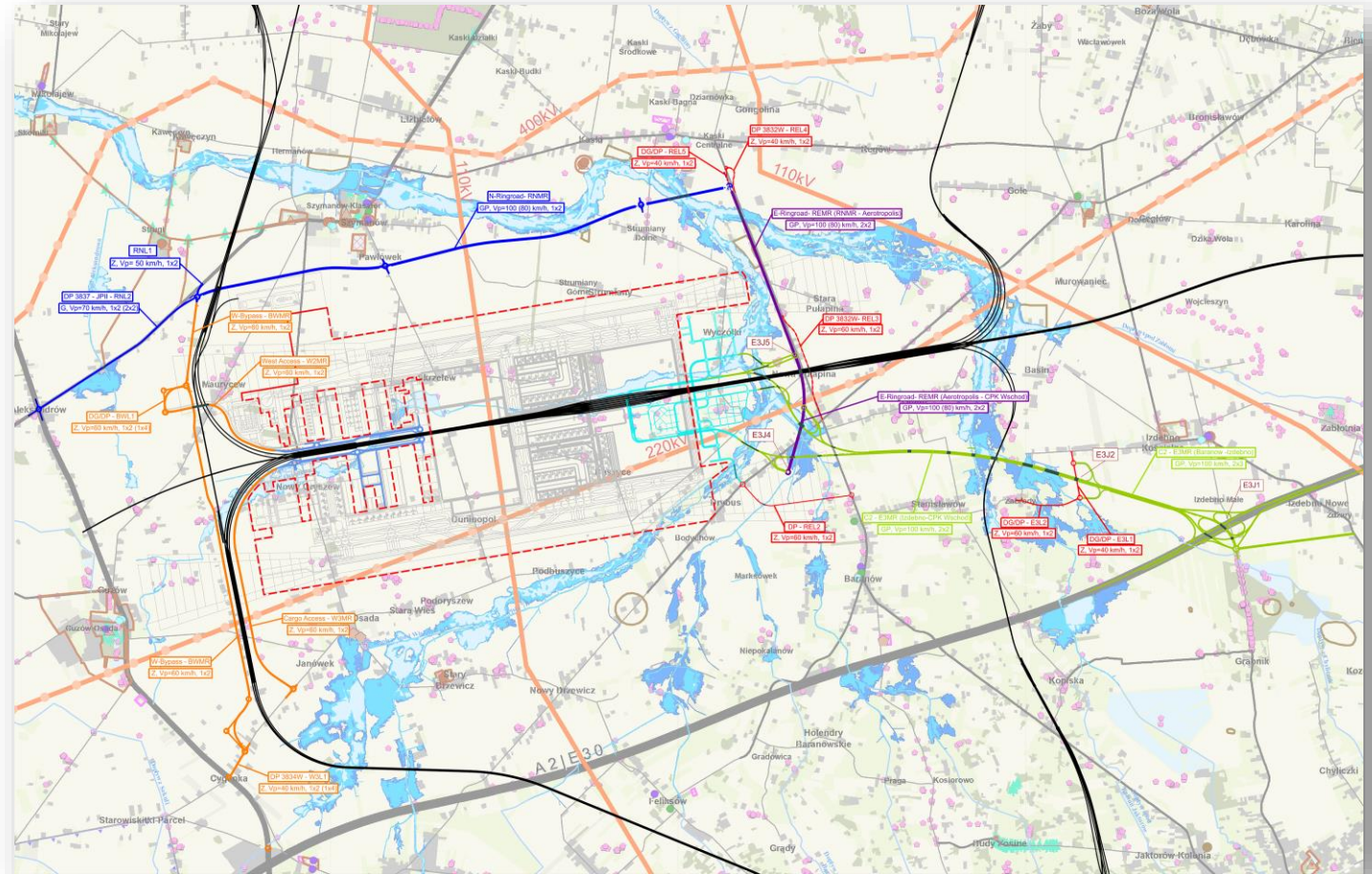


Transprojekt - Warszawa Sp.z o.o.



*Conclusion of the Agreement with Contractor  
planned for **March 2023***

- Airport Eastern connection to A2 Motorway (E3MR)
- Airport Eastern Bypass (REMR)
- Airport Northern Bypass (RNMR)
- Airport Western Bypass (BWMR)
- Airport Western Connector - central (W2MR)



Programme Concept

03.2023 – 04.2024

Tender Procedure (Design and Build Contractor)

08.2023 – 10.2024

Selection of Design and Build Contractor - October 2024



Design (Construction Design + Executive Design) + Construction Works

10.2024 – 12.2027



On 13.02.2023, demolition work began on the plots acquired under the Voluntary Acquisition Programme.

- Preparatory works for CPK Airport
- Provision of transport infrastructure for the purpose of CPK construction
- Relocation of sanitary networks outside the CPK area
- Construction of a sewage collector to Żyrardów
- Construction and reconstruction of power and telecommunications lines
- Removal of overhead collisions
- Relocation of the drainage ditch from Nowy Oryszew

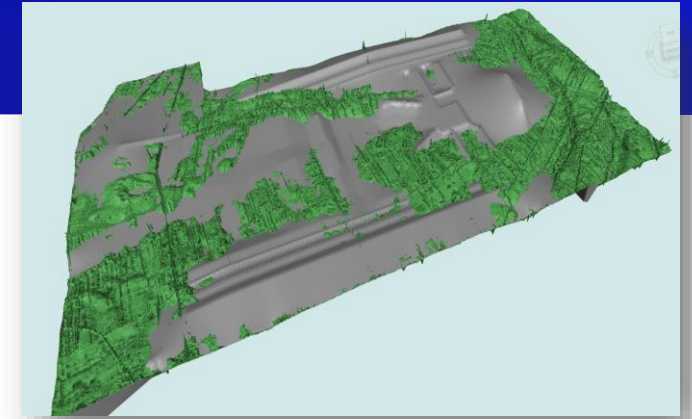
## Designers



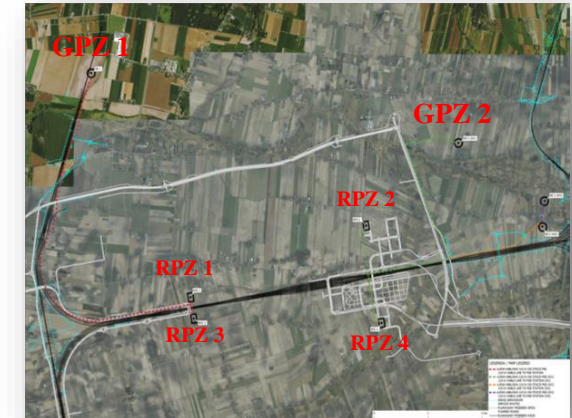
## Contractors



## Survey



Land levelling - one of the designer's main objectives is to optimise as regards earth masses and stormwater management.



Power supply - the airfield power supply system will consist of two independent connections GPZ-1, GPZ-2. The DPZ stations will supply the four main RPZ stations.



# Preliminary Market Consultations – Main Works

**aldesa**



**HOCHTIEF**  
POLSKA



**kalyon**



**budimex**



**Polimex  
Mostostal**



**GÜLERMAK**



**SAMSUNG**

**SAMSUNG C&T**



**RAIL**  
KZN Rail Sp. z o.o.



**HYUNDAI**  
ENGINEERING CO., LTD.



**N**  
Mostostal  
WARSZAWA



**mirbud®**



**cellnex**  
driving telecom connectivity



**COLAS**  
WE OPEN THE WAY



**warbud**



**POLAQUA**



**MAX BÖGL**



**webuild**



**posco**  
E&C



**DORACO**



**POLIMEX**  
INFRASTRUKTURA  
GK POLIMEX MOSTOSTAL



Preliminary Market Consultations for Main Works were announced on 20.01.2023.

20 companies were qualified for the second stage.



Support to CPK as regards the development of a detailed concept of operations, as well as the airport operational and management model





## Airport Operational Advisor

Support to CPK by the experience of the large and effectively managed airport hub operator in the following areas:

- Initial Model of Operations
- Extended Concept of Operations
- Support in developing design requirements
- Support in responding to designers' enquiries



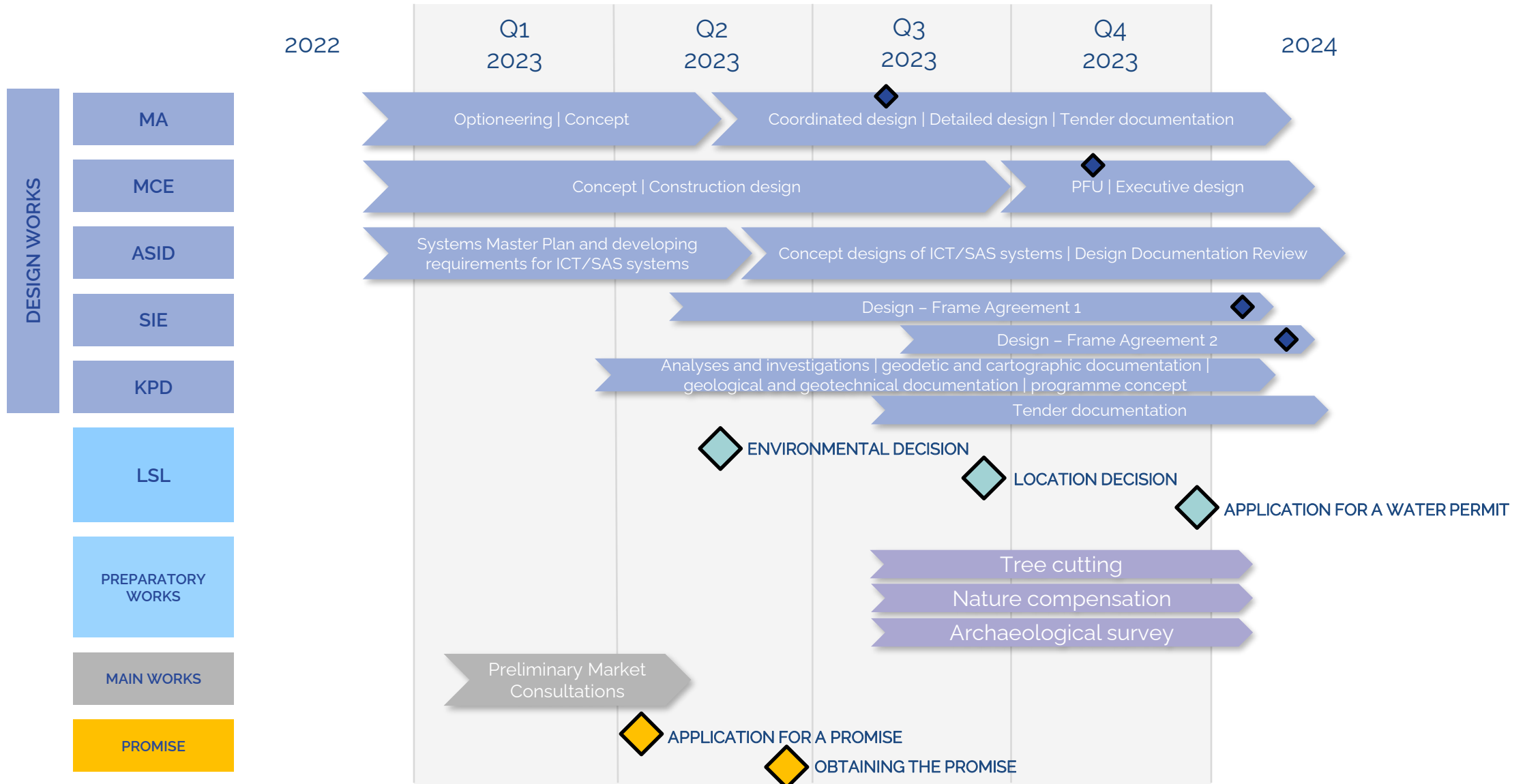
## 4 Future actions

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# Schedule - Plan for 2023



Thank you

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