

# Brasov Regional Emergency Hospital Public Presentation

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# Introduction

# The Project and collaboration between CoB and EBRD



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- February 2019 - **Contribution Agreement signed** – the EBRD was mandated by the CoB to support PPP preparation and provide tender advisory services for Brasov Regional Emergency Hospital.
- June 2019 - **Pre-feasibility finalised** – Consultant hired by the CoB completed preliminary analysis of the Project and confirmed its suitability for PPP.
- Nov 2019 - **Consultants mobilised** – EBRD contracted a consortium of consultants consisting of PwC, Clifford Chance and BTY.
- May 2020 - **Due-Diligence approved** – The CoB approved a DD produced by consultants. It included legal, budgetary, technical and healthcare analysis; identified main challenges and provided recommendations on how to address them.
- Oct 2021 – **Draft Feasibility/Substantiation Study submitted** – Consultants prepared a comprehensive draft outlining technical, environmental, social, financial and legal feasibility of the Project as well as risk matrix, VfM analysis and tender strategy. This is a major milestone for preparation of Brasov REH, delivered in line with Romanian requirements.



# Stakeholders and Project Team



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City of Brasov

Brasov County

Ministry of Health

Ministry of EU Funds

**EBRD**  
Marcos Martinez Garcia - Associate Director, Head of PPP Advisory Unit  
Marek Waskiewicz - Associate PPP Specialist

**PwC**

Jan Brazda  
Project Team Leader

Libor Čech  
Project Manager

Ruxandra Chirita  
Project Coordinator

**Clifford Chance**

Riko Vanezis  
International Transaction  
Lawyer

Andreea Sisman  
Local Transaction Lawyer

**BTY**

Tunca Ataoğlu  
Hospital FM PPP Specialist

Baton Arifi  
Lead Healthcare Design  
Consultant

Sibel Gülen  
Environmental & Social  
Expert



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# Technical Solution

# Satellite view



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# Selected Option – Plot View



- Meets NZEB requirements
- Saves 48M EUR
- Adapts City's Medical City Vision
- Shortens Construction Duration
- Reduces Capex

# Aerial View



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# Project Justification

## Addressing the following demand

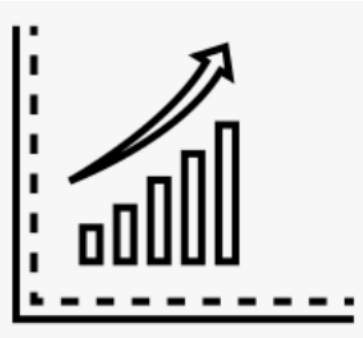


### Summary Outcome of Demand Analysis:

- Number of acute beds : 820
- Number of ICU beds : 96
- Total number of acute & ICU beds : 916
- Number of day facilities (beds + stretchers) : 56
  
- Number of trauma/resus/treat. beds (ED) : 68
- Number of outpatient clinics : 77
- Number of operating theatres : 26  
(including day OT and C-Section)
- Number of LDR rooms : 4
- Number of operating theatres (C-Section) : 2

### Basic Demand Information (for the year 2027):

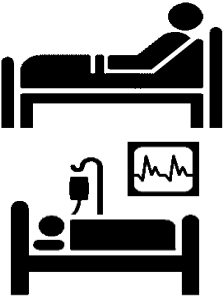
- Number of outpatients : c. 263,000 per annum
- Number of emergency patients : c. 110,000 per annum
- Occupancy Rate : 85%
- Average Length of Stay (target) : 6 days



# 916 Bed Regional Emergency Hospital



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Number of Acute Beds

820

€ 440M

Number of ICU Beds

96



Number of Operating Theaters  
(including Day OT)

26

Day Beds and Stretchers

56



Number of Outpatient Clinics

77

**IMAGING EQUIPMENT**



Medical Imaging Department

X-Ray

6

USG

5

MRI Scanner

2

CT Scanner

2

Emergency Department

X-Ray

3

USG

2

MRI Scanner

1

CT Scanner

1



Nuclear Medicine

1

Gamma Camera

1

PET / CT

1

CT Simulator

Radiation Oncology

2

Linear Accelerator

1

Brachytherapy

# Quantities of Major Equipment

(excl. fluoroscopy devices in Interventional Services):

▪ <b>X – Ray</b>	Medical Imaging Dept.	: 6
	Emergency Dept.	: 3
▪ <b>USG</b>	Medical Imaging Dept.	: 5
	Emergency Dept.	: 2
▪ <b>CT Scanner</b>	Medical Imaging Dept.	: 2
	Emergency Dept.	: 1
▪ <b>MRI Scanner</b>	Medical Imaging Dept.	: 2
	Emergency Dept.	: 1
▪ <b>Gamma Camera</b>	Nuclear Medicine	: 1
▪ <b>PET / CT</b>	Nuclear Medicine	: 1
▪ <b>CT Simulator</b>	Nuclear Medicine	: 1
▪ <b>Linear Accelerator</b>	Radiation Oncology	: 2
▪ <b>Brachytherapy</b>	Radiation Oncology	: 1

**€ 50M**



# Gross Floor Area



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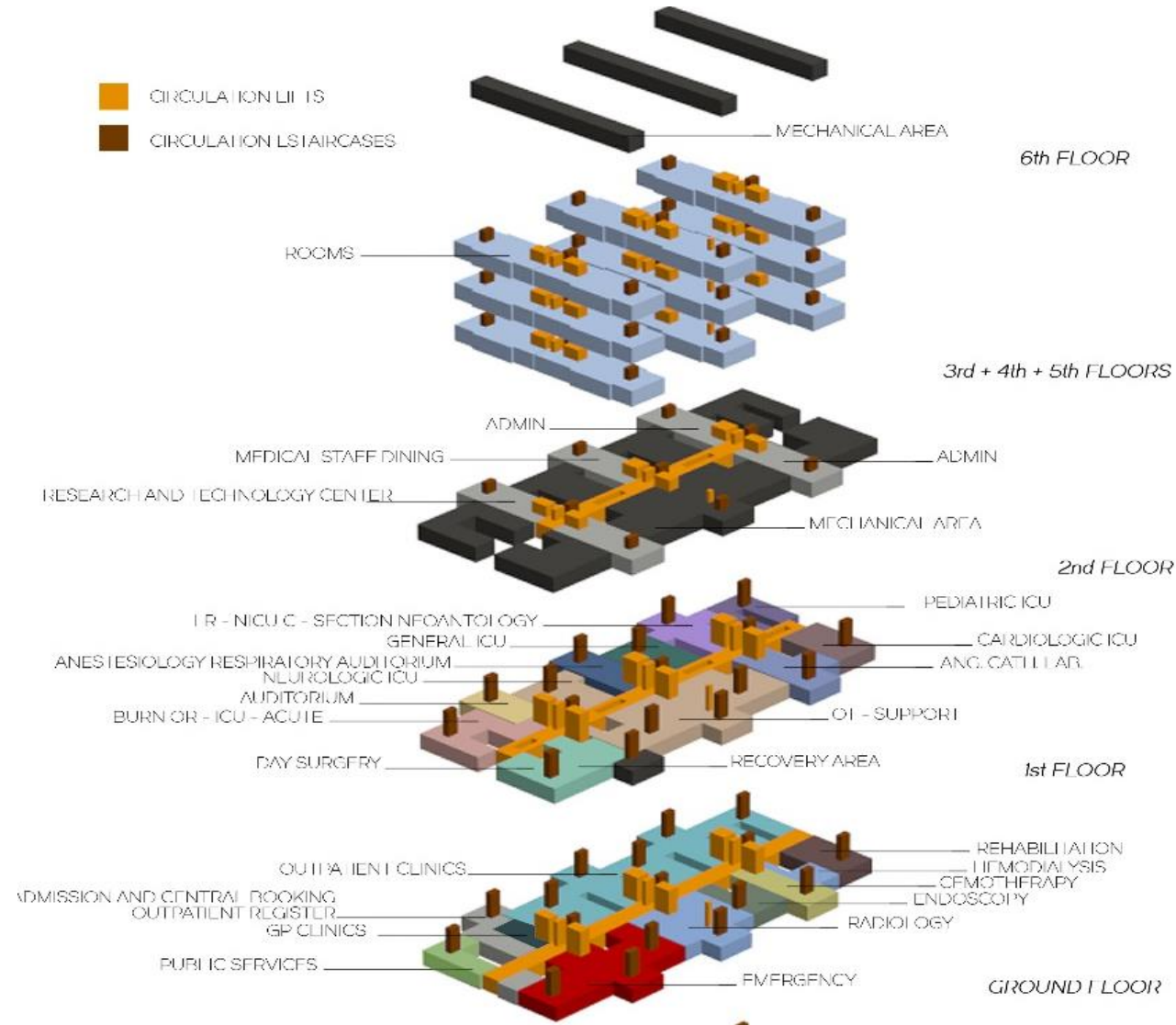
Function	m2, inc. departmental circulation
<b>Clinical Outpatient Departments</b> (Outpatient Reception & Registration, GP Clinics, Medical & Surgical Clinics)	<b>7,455</b>
<b>Diagnostic &amp; Treatment</b> (Emergency Department, Interventional Services, Endoscopy Suite, Medicine Laboratory, Clinical & Metabolic Genetics, Medical Imaging, Surgery Services, Labor & Delivery Suite, Hemodialysis Unit, Chemotherapy Unit, Nuclear Medicine, Radiation Oncology, Iodine Treatment Unit, Anesthesiology, Respiratory Therapy, Mortuary, Ambulatory Surgery Center, Central Pharmacy and Transfusion Center)	<b>32,762</b>
<b>Nursing Care</b> (Burn Care Unit, ICUs, Medical / Surgical Inpatient Units, Admissions & Central Booking)	<b>43,328</b>
<b>General Services</b> (Medical Records, Main Reception & Public Services, Security & Safety, Staff Facilities – Central Lockers)	<b>4,815</b>
<b>Support Services</b> (Materials Management, Central Sterilization Department, Central Kitchen, Dining Areas, Laundry & Linen, Engineering Services, Biomedical Engineering, Environmental Services, HIMS)	<b>13,275</b>
<b>Hospital Management</b> (Administrative Services)	<b>2,327</b>
<b>Research &amp; Education</b> (Auditoriums, Teaching & Simulation Facilities)	<b>4,782</b>
<b>Sub-Total</b>	<b>108,744</b>
<b>Inter-Departmental Circulation</b>	<b>19,352</b>
<b>Plant</b>	<b>23,626</b>
<b>Sub-Total</b>	<b>42,978</b>
<b>Total (exc. Car Parks &amp; Shelter)</b>	<b>151,722</b>
<b>Car Parks &amp; Shelter</b>	<b>41,476</b>
<b>Total</b>	<b>193,198</b>

# Architectural Conceptual Design

## Stacking Diagram – 3D



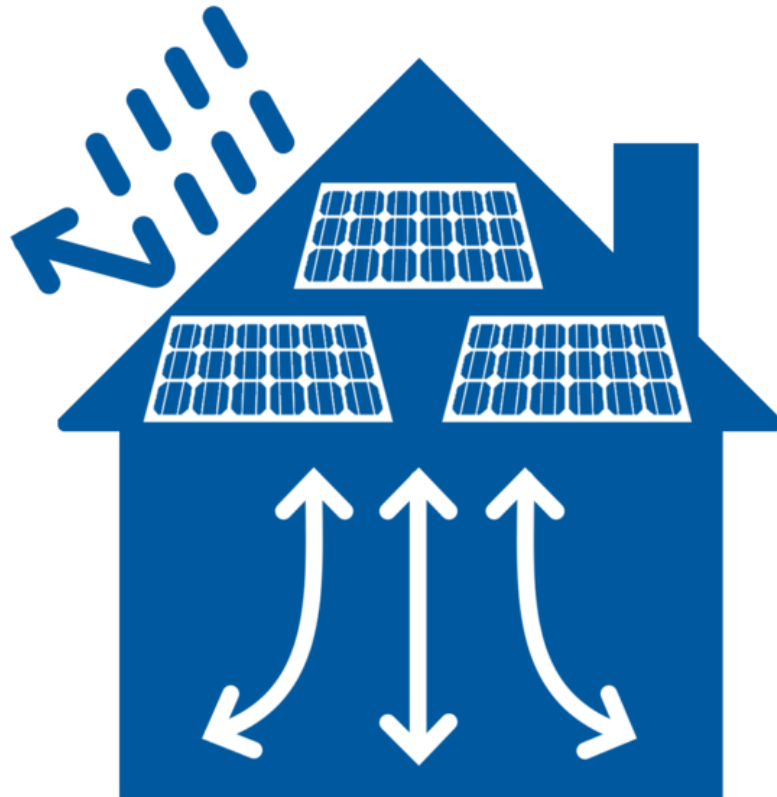
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# Energy Efficiency Approach



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- SOLAR PHOTOVOLTAICS (ELECTRICITY)
- SOLAR THERMAL COLLECTORS (WATERS)
- GROUND SOURCE HEAT PUMPS
- HEAT RECOVERY SYSTEMS
- COGENERATION SYSTEM
- RAINWATER COLLECTION POND
- ENVELOPE HIGH U RATING

# Visualisations – General View Street Level



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# Visualisations – Main Entrance View



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# Visualisations – Main Entrance View



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# Visualisations – Polyclinics View



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# Visualisations – Emergency Entrance View



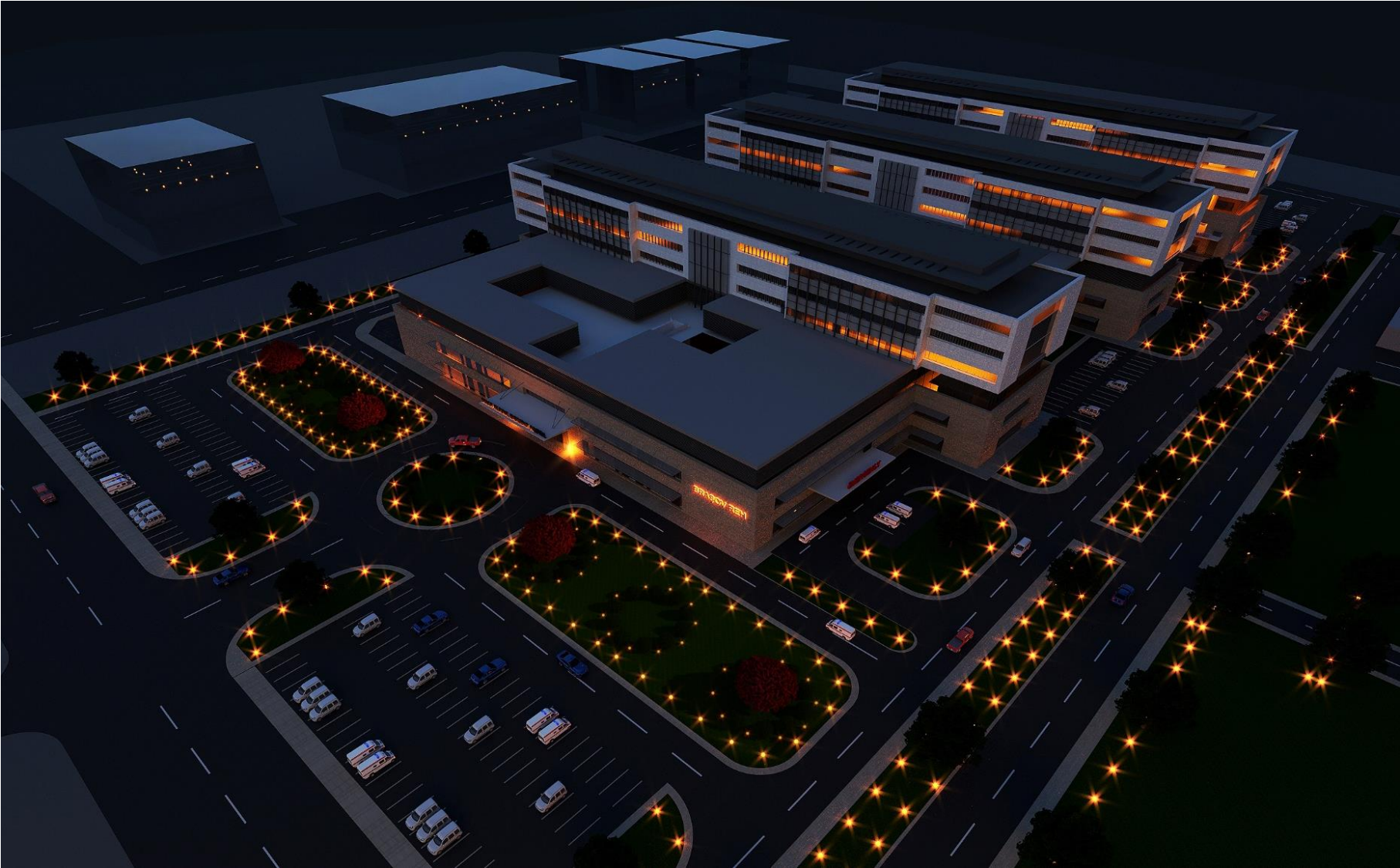
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# Visualisations – Night View



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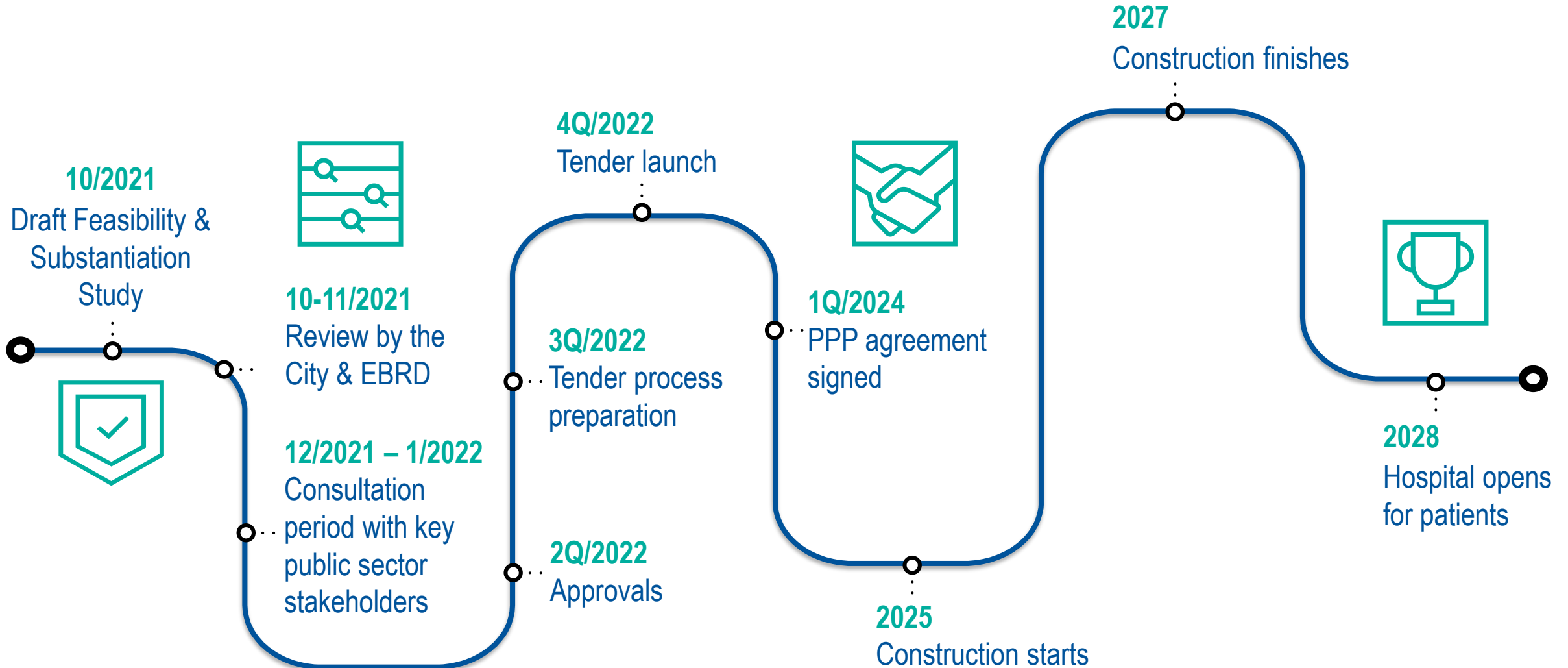
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# Estimated Timeline

# Anticipated timeline



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# PPP Solution

# Facility Management PPPs in Healthcare Sector

## PPP Preparation and Tender

- Public partner tenders and purchases a set of services as per specified output requirements, not just an asset.
- Private partner submits a bid for Design, Build, Finance, Construction, Operation and Maintenance (DBFOM), including infrastructure upkeep throughout entire duration of the PPP agreement.
- All risks are comprehensively allocated to a party that is best place to manage and mitigate those risks.



## Operations

- During the operational phase Private partner is responsible for building maintenance as well as non-clinical support services, i.e. cleaning, catering, laundry.
- Ministry of Health is responsible for clinical services.
- By including long term maintenance obligations private partner is incentivised to account for lifetime cost during design and construction phase.
- Payments to the private partner start only after completion of construction and are subject to performance against output requirements.



## Hand-back

- Hand-back of the asset takes place at the end of a contract at predefined standards.





# PPPs vs. traditional procurement



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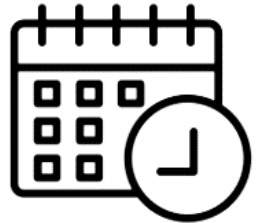
## Predictability

- Long-term contract, predetermined price
- Comprehensive risk allocation
- "no delivery, no payment" - strong incentive for private sector to deliver on time



## Value Added

- Innovation - design and technical solutions
- Cost effectiveness - life-cycle costs are considered
- Accountability - public sector payments are conditional on the private partner providing the specified outputs at the agreed quality, quantity and timeframe
- Payments and penalties - If performance requirements are not met, service payments to the Private partner are reduced.
- Off-balance sheet treatment - when structured in line Eurostat's methodology





**Thank you!**

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