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## Case Study

# New Hospital Development : Project Management

Presented by

Keith Bonsall, Director

Halcyon Management Services

Specialists in Hospital Management



# Competition Commission Inquiry into Private Healthcare



- How does the industry work?
- Who are the price setters?
- Are there any ant-competitive activities in the industry?

# SUMMARY OF RESULTS FROM THE HEALTHCARE CONSUMER SURVEY 18 November 2016

Associations that come to mind when thinking about 'private hospitals' for most participants were positive across all focus groups. 'Quality service' was the most prominent theme, which was sub-divided into 'medical service' (i.e. quality of medical care and technology) and 'non-medical services' (i.e. hospitality, individualised attention). This was true for private out-of-hospital healthcare as well. **The single negative theme, which emerged, was 'high costs'.**

# MARKET DEFINITION FOR FINANCING OF HEALTHCARE 18 November 2016

Following the assessment phase of the inquiry the HMI will make **recommendations on how competition within the private healthcare sector can be promoted.**

# METHODOLOGY PAPER: APPROACH TO ASSESSING MARKET POWER OF HEALTH FACILITIES 26 August 2016

The main data layers required for the GIS (geographic information system) mapping are:

- 42.1. Master facility data for all facilities, facility types, number of registered beds, and service offerings.
- 42.2. Medical claims data which includes admission and discharge dates, patient addresses (de-identified — see below) and diagnostic codes.
- 42.3. Geographical spatial data which includes socio-demographic data, road networks and Statistics SA spatial data layers.

# Impact of Implementing IUSS in the Private Sector for New Builds

# Impact of Implementation of IUSS in Private Sector – Basic Assumptions (High Level Generic Model – Independent Greenfield Private Hospital)

Assumptions - High Level	Scenario A Today	Scenario B Tomorrow?	Variation Value	Variation %
Internal rate of Return (IRR over 10 years)	20%	20%		
No. of beds	100	100		
Average occupancy %	65%			
Average length of stay (days)	3.2	3.2		
Increase in area (IUSS Impact)		20%		
M <sup>2</sup> per bed	85	102		
Total area m <sup>2</sup> for footprint	8 500	10 200		
Parking bays	250	250		
M <sup>2</sup> per bed	25	25		
Total land Area required	14 750	16 450	-1 700	-12%
Building cost m <sup>2</sup>	R 18 000	R 19 000		
Professional fees	14%	14%		
Land cost m <sup>2</sup>	R 1 000	R 1 000		
Equipment cost per bed	R 500 000	R 500 000		
Commissioning expenses (capitalised) % of construction and equipment	3.5%	3.5%		
Funding structure Debt ratio	70%	70%		

**NOTE:** These variables are all subject to substantial other variables such as discipline and case mix

# Impact of Implementation of IUSS in Private Sector – Capex (High Level generic Model – Independent Greenfield Private Hospital)

	Scenario A Today	Scenario B Tomorrow?		
Capex	Value	Value	Variation Value	%
Construction cost	R 153 000 000	R 193 800 000	R -40 800 000	-27%
Professional fees	R 21 420 000	R 27 132 000	R -5 712 000	-27%
Land cost	R 14 750 000	R 16 450 000	R -1 700 000	-12%
Equipment cost	R 50 000 000	R 50 000 000	R 0	0%
Commissioning expenses	R 7 105 000	R 8 533 000	R -1 428 000	-20%
<b>Total Capital Cost</b>	<b>R 246 275 000</b>	<b>R 295 915 000</b>	<b>R -49 640 000</b>	<b>-20%</b>
Cost per bed	R 2 462 750	R 2 959 150	R -496 400	-20%

# Impact of Implementation of IUSS in Private Sector – Funding Challenge (High Level Generic Model – Independent Greenfield Private Hospital)

<b>Project Funding</b>	<b>Value</b>	<b>Value</b>	<b>Variation Value</b>	<b>%</b>
Debt	R 172 392 500	R 207 140 500	R -34 748 000	-20%
Equity	R 73 882 500	R 88 774 500	R -14 892 000	-20%
<b>Total Funding Required</b>	<b>R 246 275 000</b>	<b>R 295 915 000</b>	<b>R -49 640 000</b>	<b>-20%</b>

# Impact of Implementation of IUSS in Private Sector – Operational Challenge

(High Level Generic Model – Independent Greenfield Private Hospital)

<b>Likely Operational Impact</b>	<b>Increase</b>
Occupancy Increase	10%
Patient Number Increase per annum	1 493
Revenue PPD	R 1 000

# Project Management

# Projects are in 2 Health Sectors

- State/Public Sector
  - Fully state funded, owned and managed
  - Based on service to broad population – uninsured and indigent
  - Bed size based on WHO bed to population ratio of 2.8/1 000 (?)
  - Broad spectrum of services based on disease profile and case mix
  - Radiology, pathology and other supporting medical services employed directly
  - Training environment – doctors and nurses
  - Sited in middle of high level of population – easily accessible
  - PHC, District, referral and tertiary structures
  - Note necessarily state-of-the-art equipment
  - Design is (should be) functional, practical and cost efficient
  - Patient expectation of quality service ?
  - Free or minimum payment
  - Focus on operational cost efficiencies

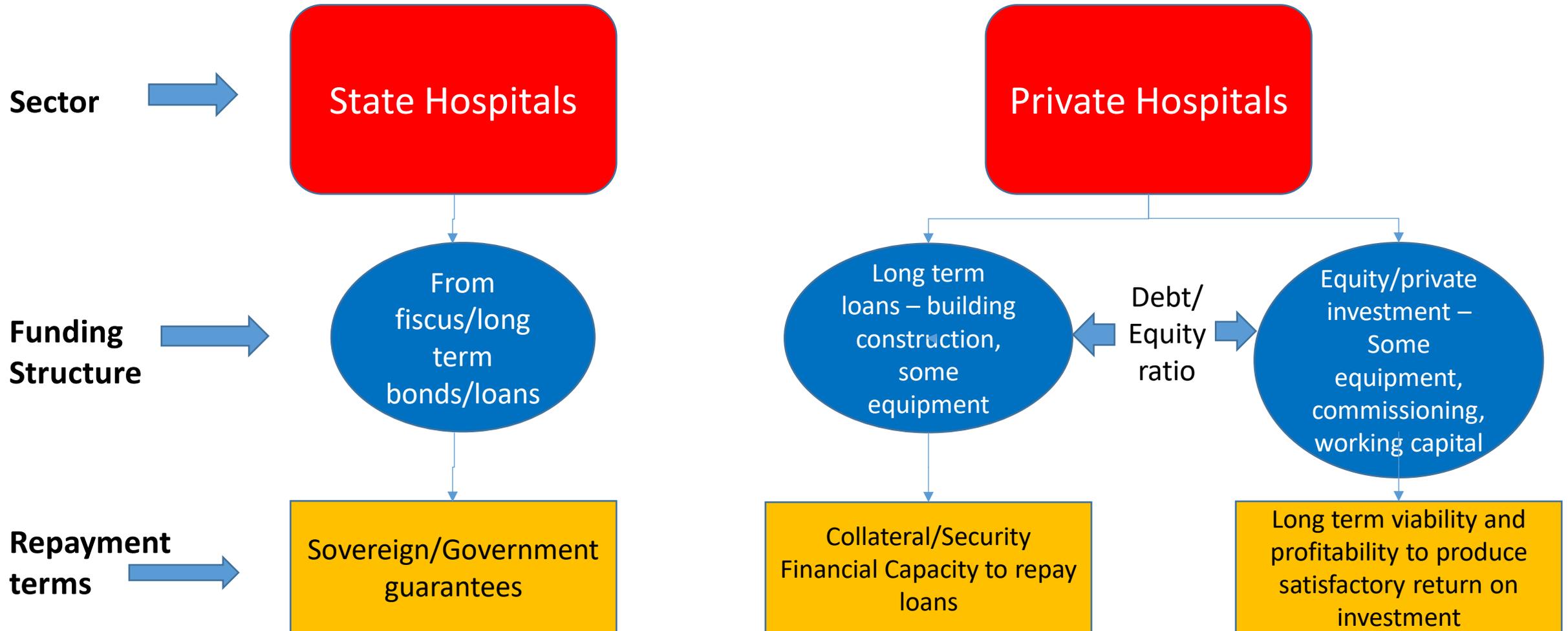
# Projects are in 2 Health Sectors

- Private sector
  - Privately funded, owned and managed
  - Investors expect a market related return, although medium to long term returns
  - Based on insured population and affordability
  - Bed size based on determined discipline need and application of bed/population ratio of 2.8 per 1 000 (economically active)
  - Focused on balancing discipline and case mix e.g. maternity, gynaecology, paediatrics, orthopaedic, general surgery, ENT etc. – optimal case mix
  - Radiology, pathology and other supporting services are contracted out
  - Sited for optimum accessibility by profiled patients
  - Most likely to have modest (latest technology?) equipment
  - Design has strong aesthetic features and creates a “value add” environment
  - Patients have high expectations as they are paying for the service
  - Fees are charged for all services i.e. ward fees, theatre fees, drugs and surgicals
  - Payment made by either insurance/medical scheme structures or private
  - Focus on customer/patient service delivery and satisfaction at optimum cost efficiency per patient

# Why Detail the 2 Sectors?

- Each element has an impact on feasibility, viability, design, size, capital cost, utilisation, patient flow, operational efficiencies and, in the case of a privately funded project, investment returns
- There needs to be a comprehensive understanding of the dynamics of each sectors and the elements thereof
- Therefore, to start a project there needs to be a “driver” or “champion” who has the required operational knowledge so as to achieve the efficiencies and effectiveness of each element
- This “champion” needs to be fully involved and provide input from the start to the end of the project

# Sectors from Funding Point of View



# Ideally, There Are 4 Steps Before a Project is Commenced

- Step 1 : Develop a Concept
  - Understand the population demographics
  - Understanding exactly what the *need* is in the defined population
  - Understand the current status and discipline/case mix of existing facilities
  - Understand the level of resource availability – doctors, nurses etc.
  - Understand the required facilities and/or equipment that are needed to meet the defined need
  - Deeply understand the financial implications
  - Develop the core concept that will kick start a formal feasibility study

# Ideally, There Are 4 Steps Before a Project is Commenced

- Step 2 : Conduct a Feasibility Study
  - A feasibility study is an analysis of how successfully a project can be completed, accounting for factors that affect it such as economic, technological, legal and scheduling factors. Project managers use feasibility studies to determine potential positive and negative outcomes of a project before investing a considerable amount of time and money into it
  - Understanding exactly what the **need** is in the defined population

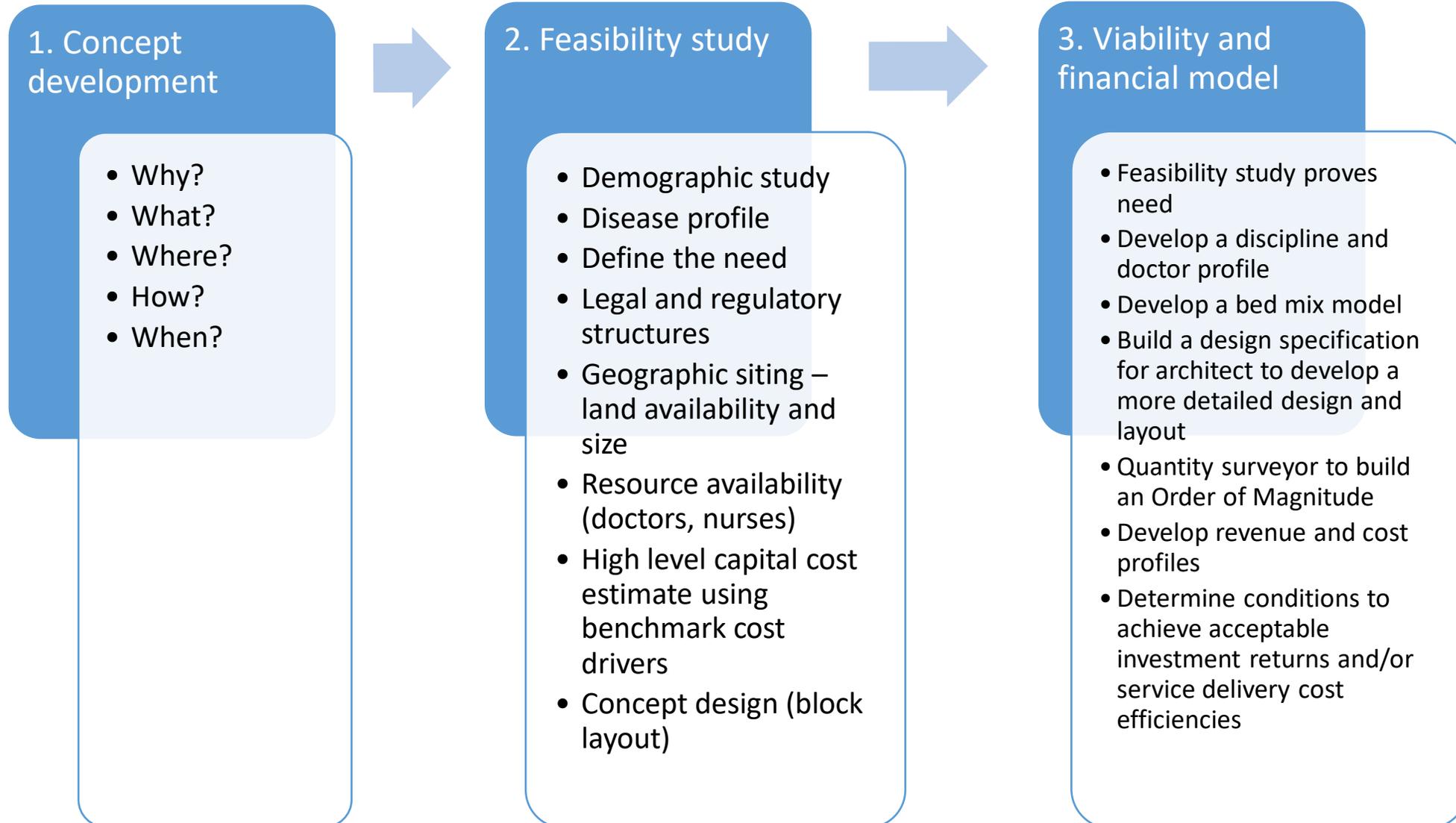
# Ideally, There Are 4 Steps Before a Project is Commenced

- Step 3 : Build a Viability Financial Model (Private Hospitals, Public?)
  - The *viability of a business* is measured by its long-term survival, and its ability to have sustainable profits over a period of time. If a *business is viable*, it is able to survive for many years, because it continues to make a *profit year after year*. The longer a *company* can stay profitable, the better it's *viability*.
  - **Viability is defined** as the ability to survive. In a **business** sense, that ability to survive is ultimately linked to *financial performance and position*
  - *The financial model:*
    - *should cover a period of at least 10 years broken down into 120 individual months and contain income statements, balance sheets, working capital and cash flows, ratio analysis and profit and cost centre performance*
    - *Industry benchmarks are used and tailored to local conditions to motivate every revenue and cost element*

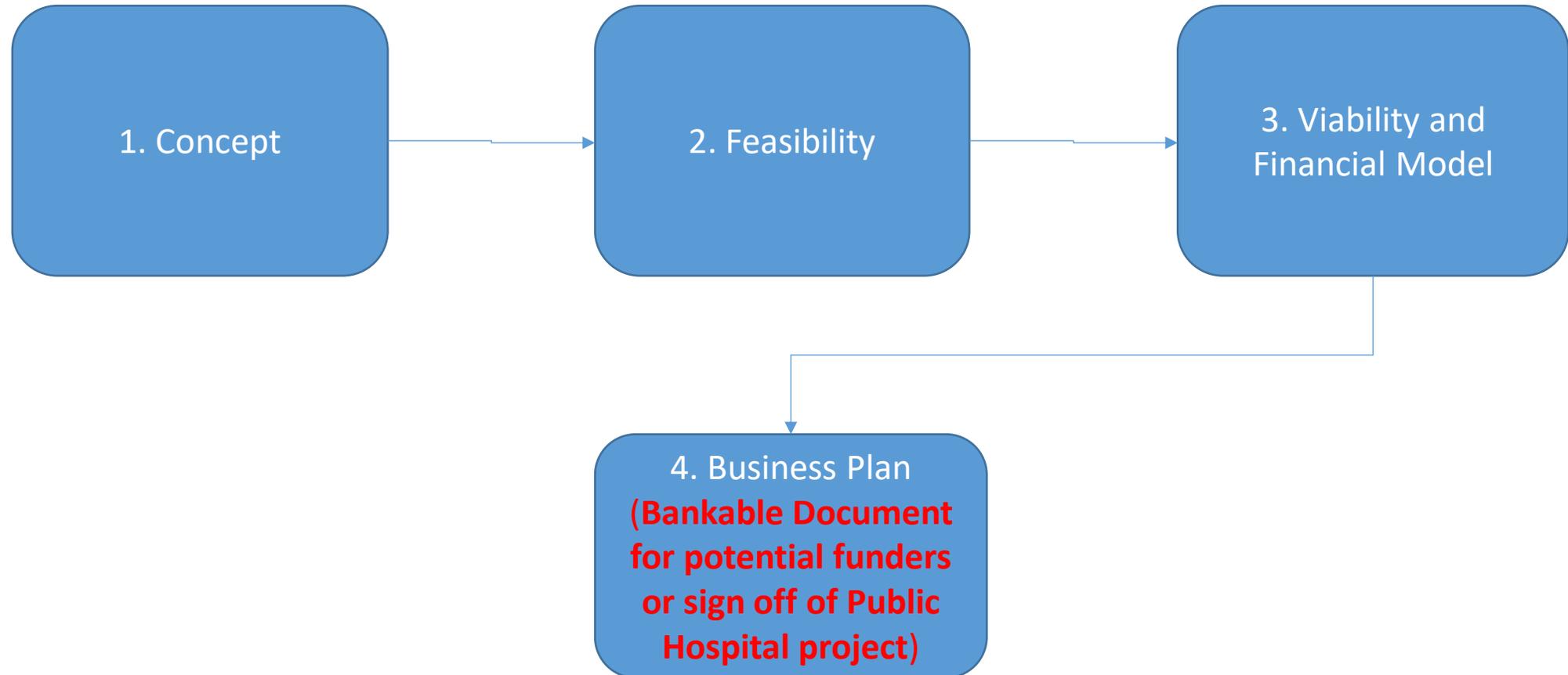
# Ideally, There Are 4 Steps Before a Project is Commenced

- Step 4 : Build a Business Plan
  - The business plan talks to the how the financial targets are to be achieved and is part of Risk Mitigation
    - Equity raising strategy – private investors (doctors and 3<sup>rd</sup> parties)
    - Medical professional strategy – recruitment and retention
    - Operational strategy – cost efficiencies
    - HR strategy – staff recruitment and retention
    - Marketing strategy – securing community support and creating awareness
    - Professional advisory board strategy – clinical professional structure, ethics committees, drug formulary committees, equipment committees
    - Financial strategy – audits, corporate governance, board/executive reporting, management accounting, cash flow forecasting
    - Procurement strategy – sourcing of equipment and consumables, supplier negotiation, local community support
    - Legal strategy – insurance cover, regulatory approvals, contracts

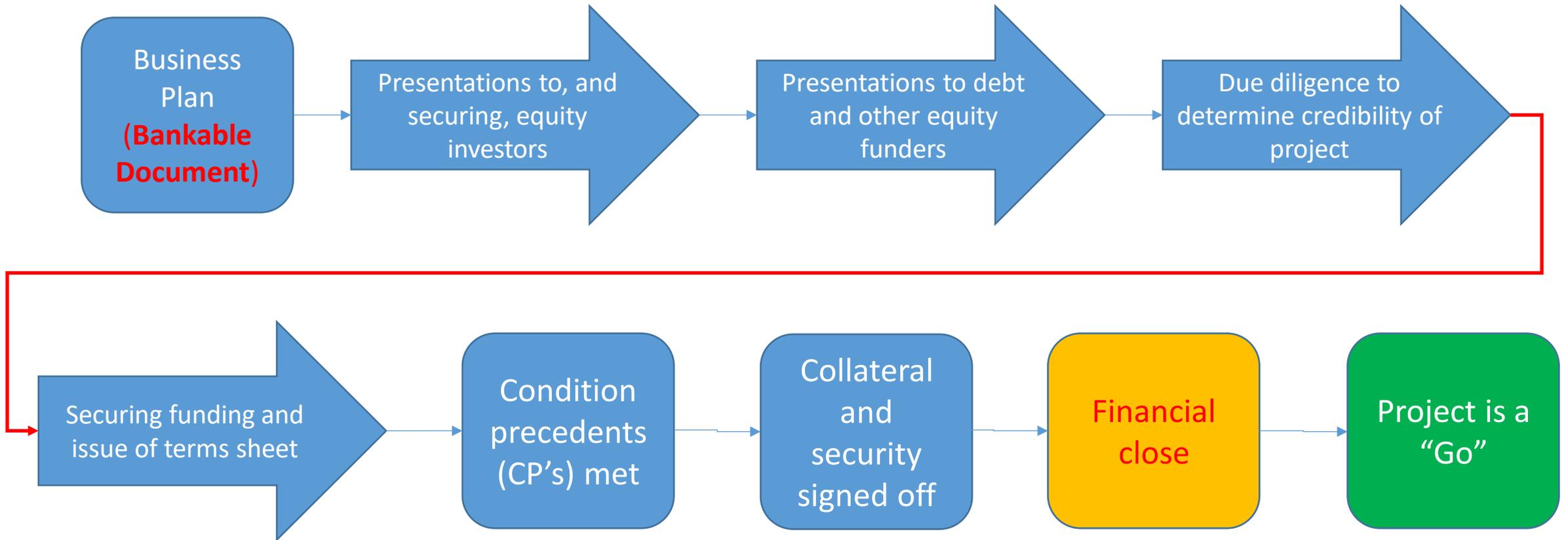
# In Summary -The First 3 of 4 Steps Towards Project Development



# The 4 Steps Towards Project Development



# The Phases to Financial Close and Project “GO”



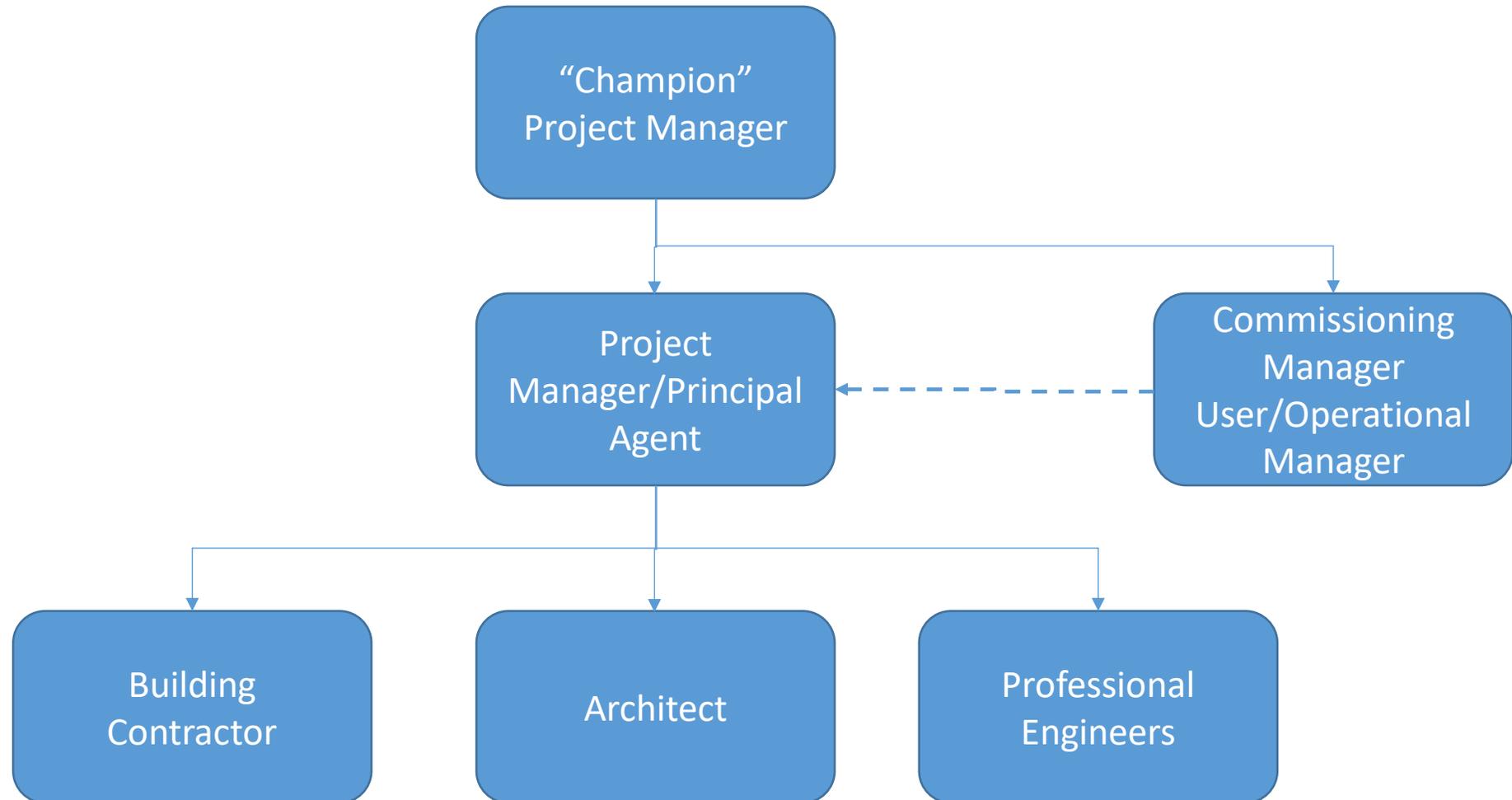
# Role of the “Champion” Project Manager

- Acts as the “client” and has oversight of the entire project – working with the professional team and contractor – ensure no silos
- Simple targets : On budget and on time
- Balance all aspects of the project costs i.e. construction costs, equipment costs etc. (see table)
- Coordinate and liaison with all members of the project team
- Provide strategic and operational input at meetings
- Makes decisions to achieve on time, on budget and design issues

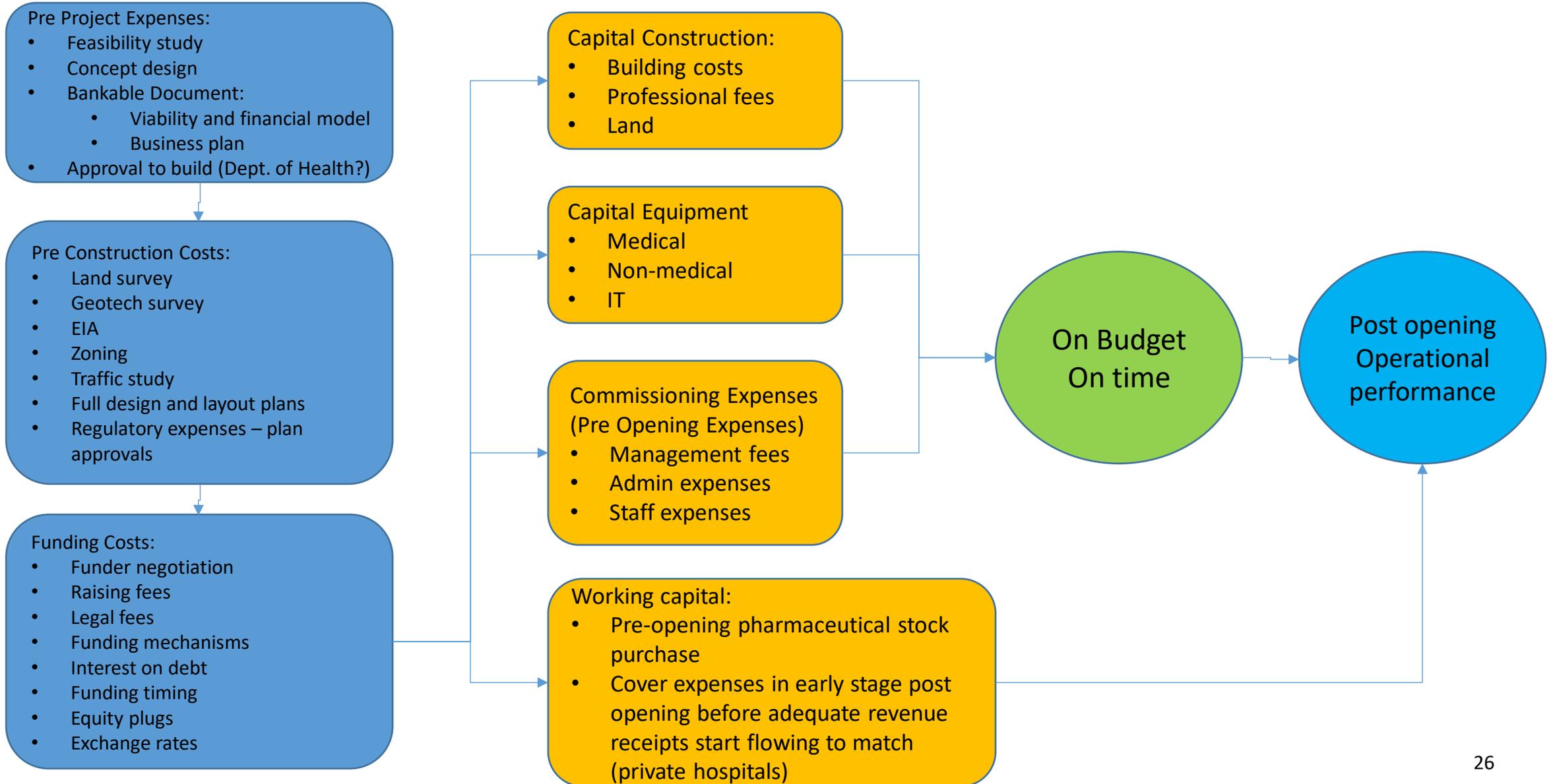
# “Champion” Project Manager Profile

- Essential to have a comprehensive understanding of:
  - Hospital operational dynamics and requirements
  - Design elements of adjacencies and patient flow e.g. CSSD/Theatre, Surgical wards/theatre, ICU/theatre, services/wards, pharmacy/other stock keeping units
  - Infection control requirements
  - Capex versus revenue flows
  - Ability to interact with all members of the project team, providing objective input and making prompt decisions
  - A practical and common sense view of project management (ideally a formal position)

# “Champion” Project Manager Role



# The Financial Balancing Act



# Some Challenges from Past Projects

- No “Champion” to oversee the total project – too many silos
- No feasibility study conducted, a gut feel approach is adopted (cart before the horse concept)
- Architects design hospital without a spec drawn up by, or receiving input from, the client or operator
- Size is often far too big to match the financial constraints and revenue streams
- No comprehensive financial model built that defines all revenue and expense elements
- Lack of understanding of all the financial funding elements, security, cash flow and repayment terms and costs
- Identification of key resources not fully defined and no supporting business plan
- Fixed price construction contracts limit optimum design and layout (unless a comprehensive design and layout that achieves all the core objectives and there is “some” flexibility in the case of needed changes)
- Construction project plan does not take into account the overlap of commissioning activities which, ideally, should be concurrent e.g. beneficial occupation
- Type of contract e.g. Fidic or fixed price, reduces flexibility and could cause medium term operational problems (design and layout limitations)

# Thank you for your interest!

Keith Bonsall  
+27 (0) 83 708 7292  
[keith@hosman.co.za](mailto:keith@hosman.co.za)  
[www.hosman.co.za](http://www.hosman.co.za)

