Business Models and Procurement-in Government
94’th FC Batch

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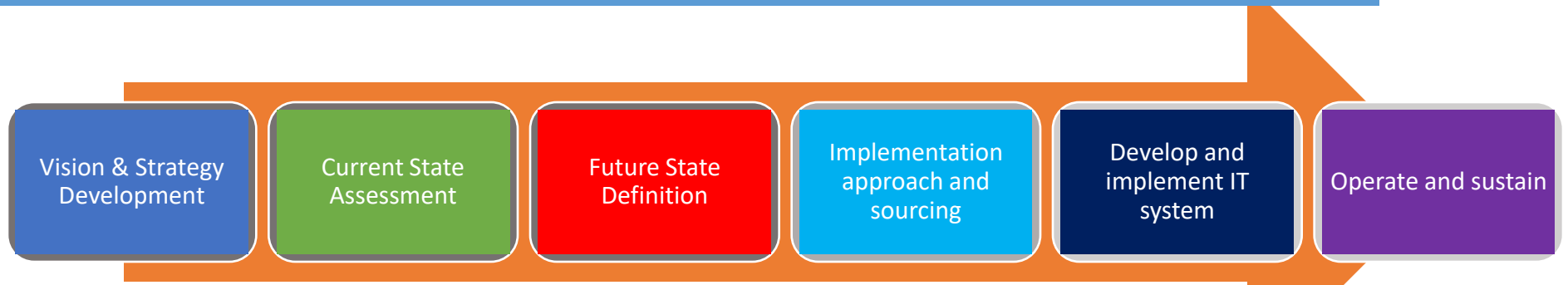
* *Source for many slides-NeGD/NISG*

e-Governance Project Lifecycle



Stakeholder Needs Assessment

Define clear vision & objectives

Prioritization of services and projects

Incorporate domestic and global learnings

Identify institutional structures & capacities for implementation

Define funding requirements

Define monitoring and evaluation approach.

Critical assessment of current business processes and pain areas

Best practices in similar environments

Assess legal framework and current limitations

Assess current ICT systems and their ability to support future plans

Assessment of current capacities at all levels and their preparedness for e-governance.

Process reengineering and to –be process definition

Identity IT enablement opportunities and requirements

Define changes to the legal and regulatory environment

Develop People change and capacity building plan

Develop project awareness and communication requirements…

Define implementation approach and phasing plan (functional and geographic)

Assess detailed funding requirements and business model

Prepare DPR

Develop vendor evaluation and selection criteria

Develop KPIs and performance levels for services and systems

Develop RFP

Bid evaluation and vendor selection

Definition of detailed functional and technical requirements

System design and development

Software quality assurance, acceptance testing and auditing

Training and capacity building

Change management and project communications

Project documentation

Project go-live

System operations and maintenance

Software change management

Rollout services and systems (functionality and geography)

Objectives and benefits evaluation and reinforcement

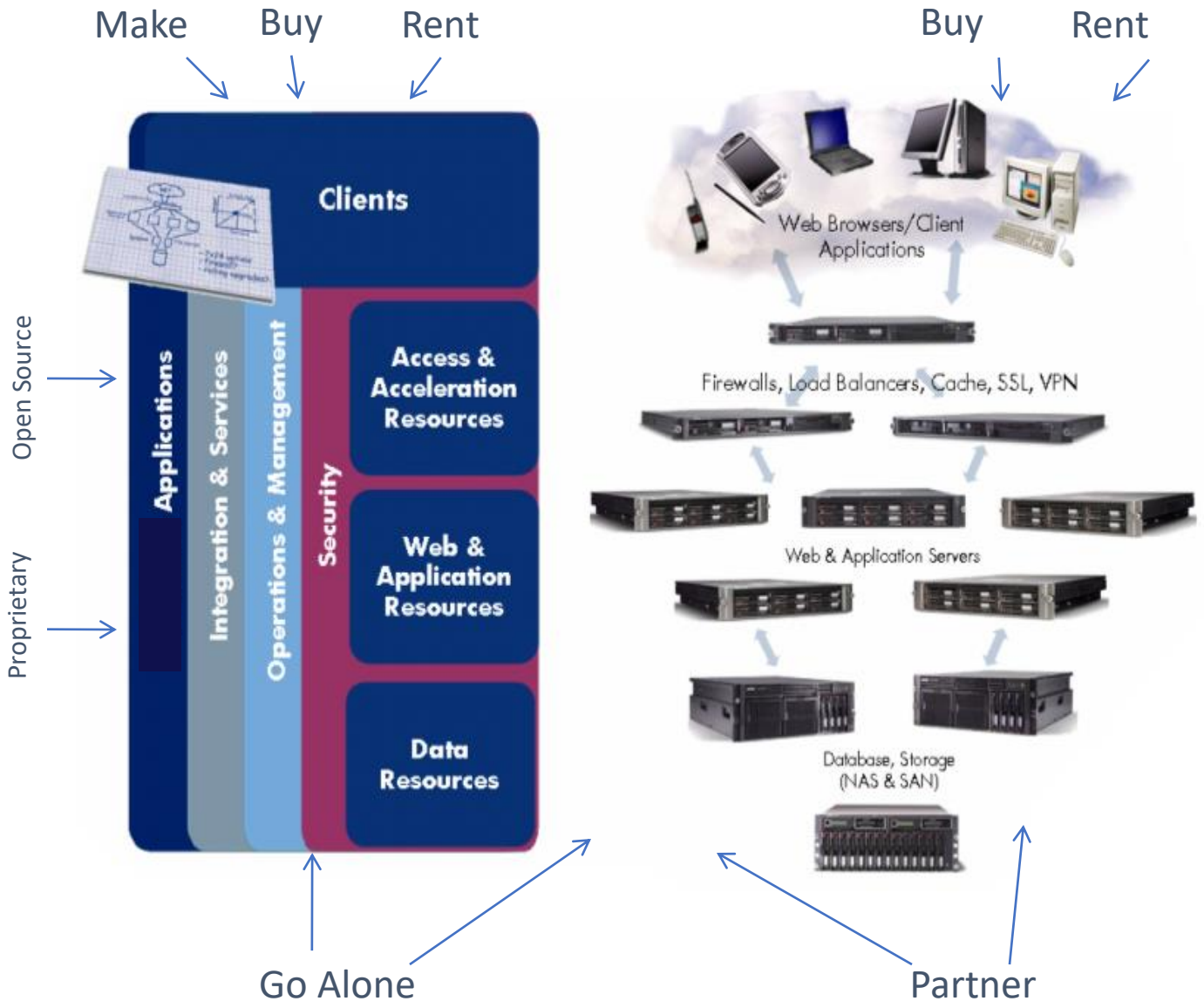
Sustained change, capacity building and communications..

Understanding business model in simple terms…

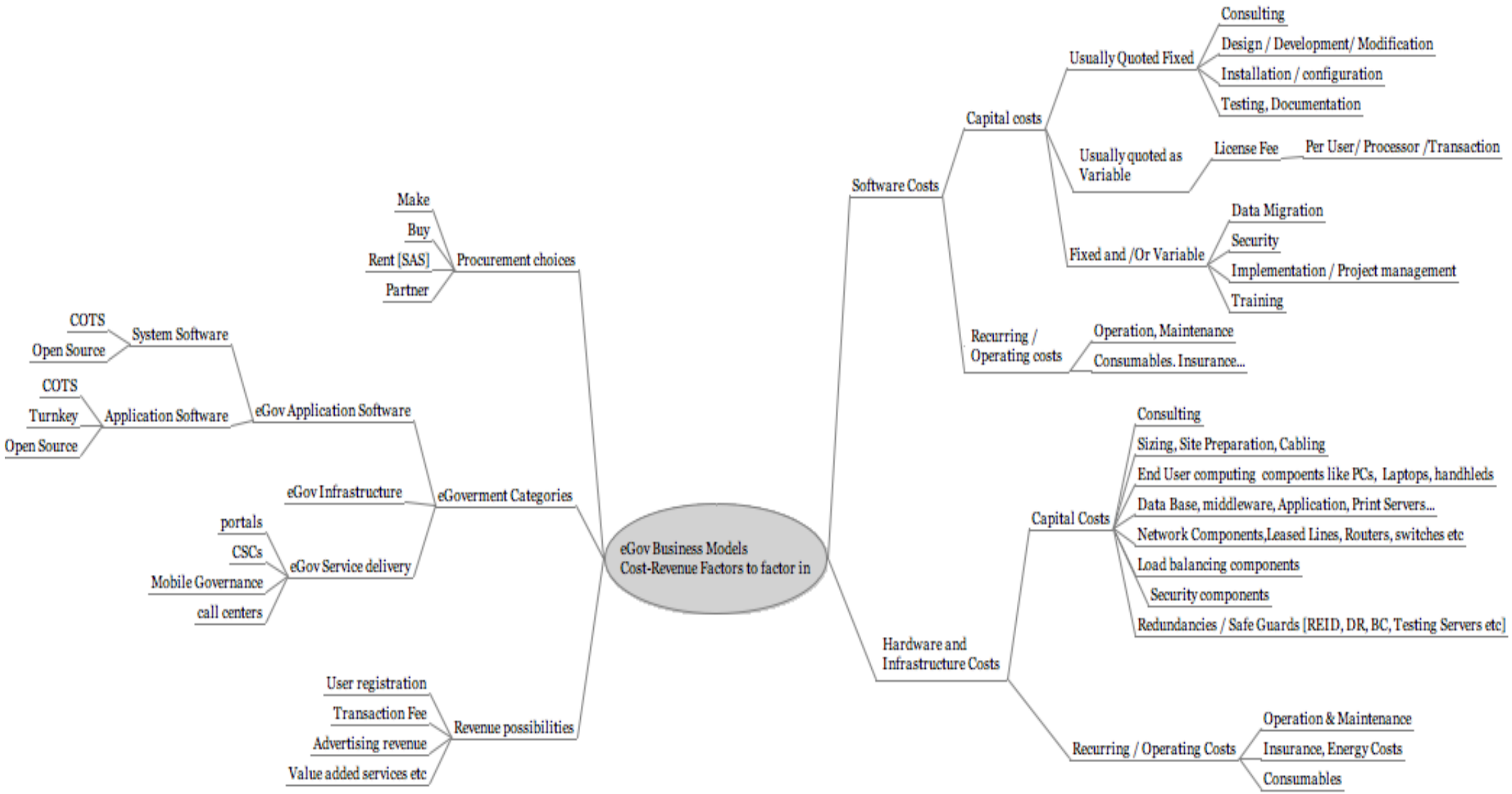
A Business model for a project should address/answer the following

- How much does it cost to create and maintain the project?
- Is the project feasible?
- Who is funding for the Project?
- Who is developing or implementing the project?
- What are payment terms?
- Roles and responsibilities of the parties concerned with the business model
- Duration of the contract.... Etc…

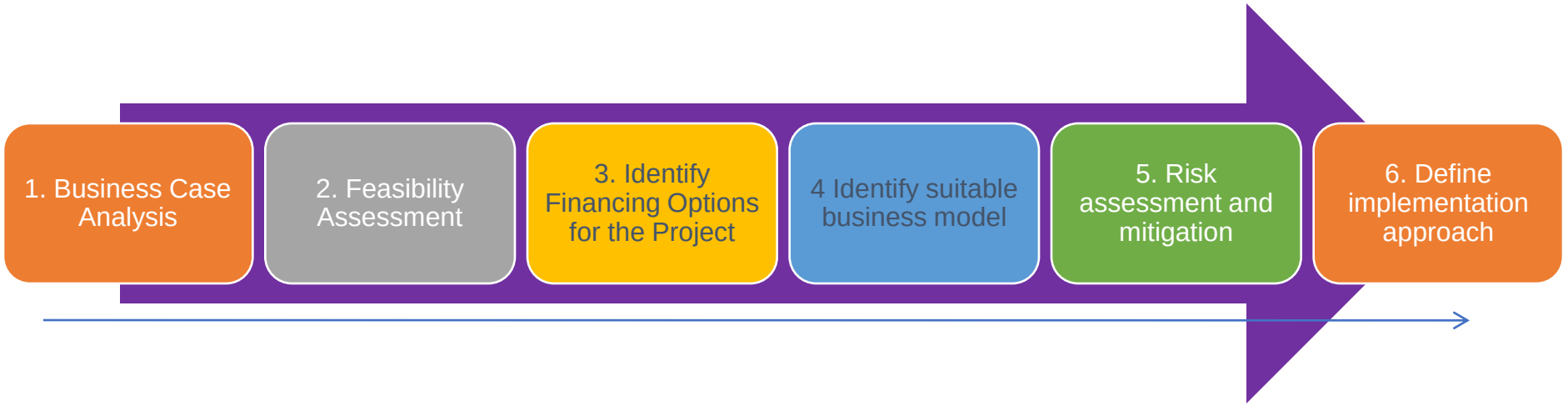
Business Models help make Informed decisions



Mind Map – Big Picture



Approach for Development of a Business Model



Business Case Analysis (BCA)

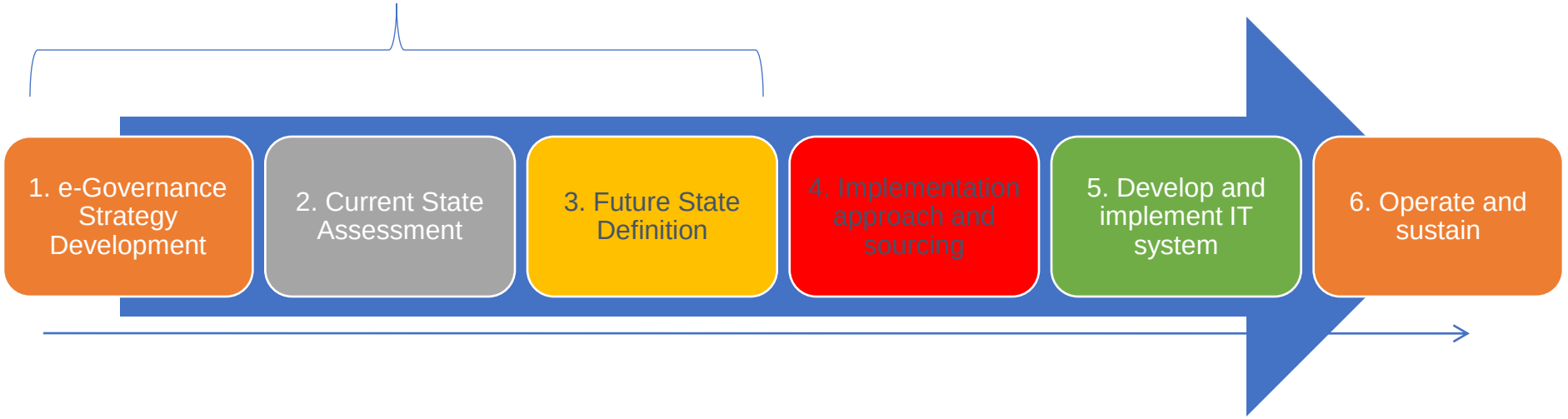
BCA is aimed to:

- Assess the needs of the stakeholder
- Assess the need for the project
- Identify the project objectives and project benefits
- To define the outputs and outcomes of the project
- Assess the learnings from similar implementations in the country and globally…..
- Define the requirements and scope of the project

in summary, to establish the business case for undertaking the project

When is BCA performed in e-Governance Project Lifecycle

Business Case Establishment and project definition happens during these phases



Feasibility Assessment

- Technical feasibility of the project – addressed through solution evaluation and benchmarking with domestic and global experiences in similar context
- Financial feasibility
  - **Is the planned budget sufficient for the expected investments** needed for the project (creation and maintenance) Or **Can the project be undertaken within the available budgets?**
  - Are project budget, expected funding (including external funding sources) and revenues (services charges, transaction fees..) sufficient for project creation and maintenance?
  - **Is there sufficient market size for the private partner?**
  - **Will this project be profitable** for the private partners and will there be sufficient interest from private partners in the project?
  - What should be viability **gap funding** to address the profit requirements of the private partners to achieve the minimum/standard Internal Rate of Return…

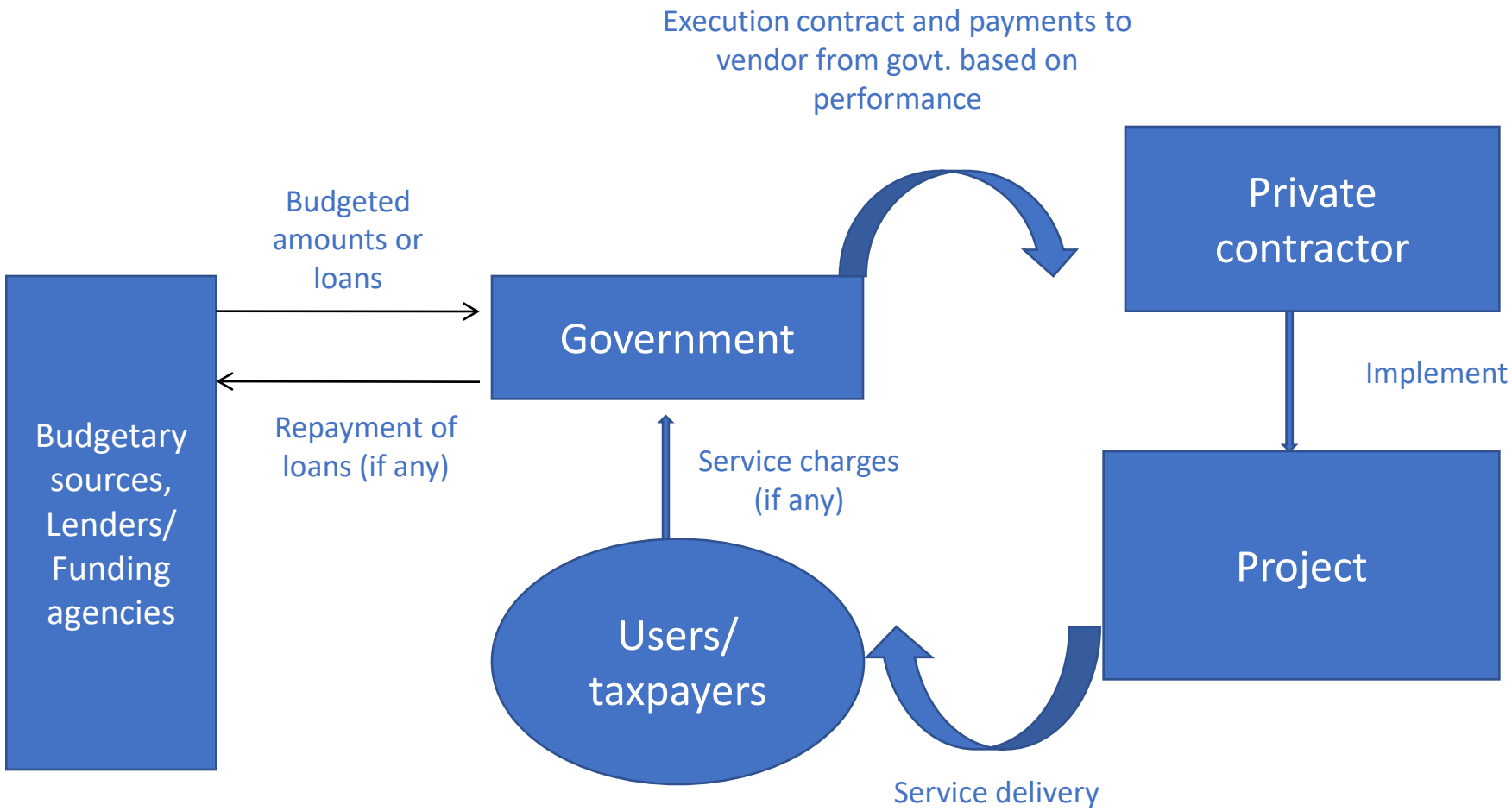
Feasibility Assessment

- Financial feasibility
  - In most e-Governance projects **financial feasibility assessment is not performed**
  - The project costs are estimated and necessary budgetary provisions are made based on the project cost or project features are **modified to suit the budgeted project cost**
  - Financial feasibility assessment **plays key role** in
    - When a project is **expected to provide returns** to the government or the private implementation partner through user/service charges and
    - The investments and profits are expected **to be realized through the services delivered through the created project etc…**

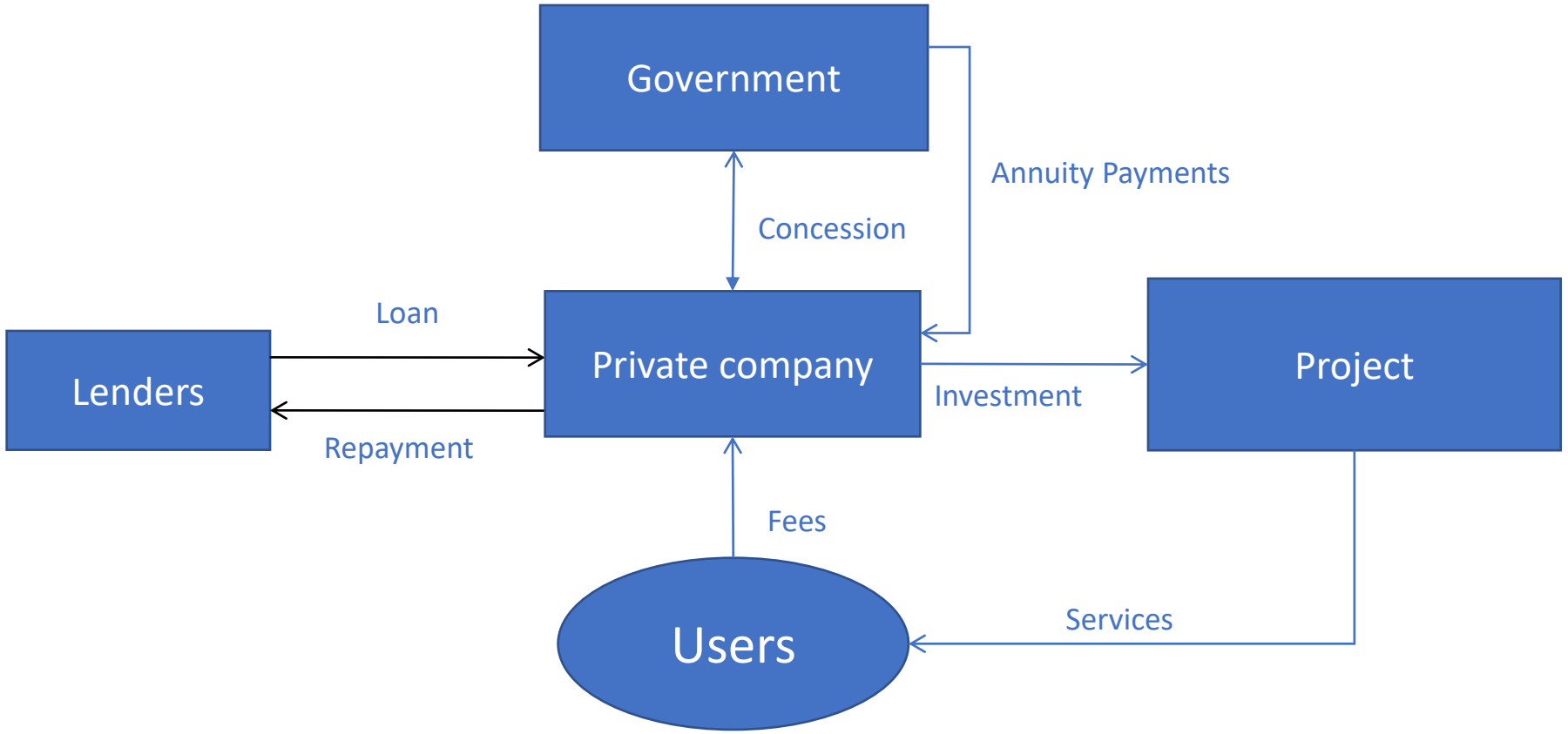
Understanding Project Financing Options

- Project Finance Options:
    - **Public Finance**
    - **Private Finance**
    - **Project Finance**

Public Finance



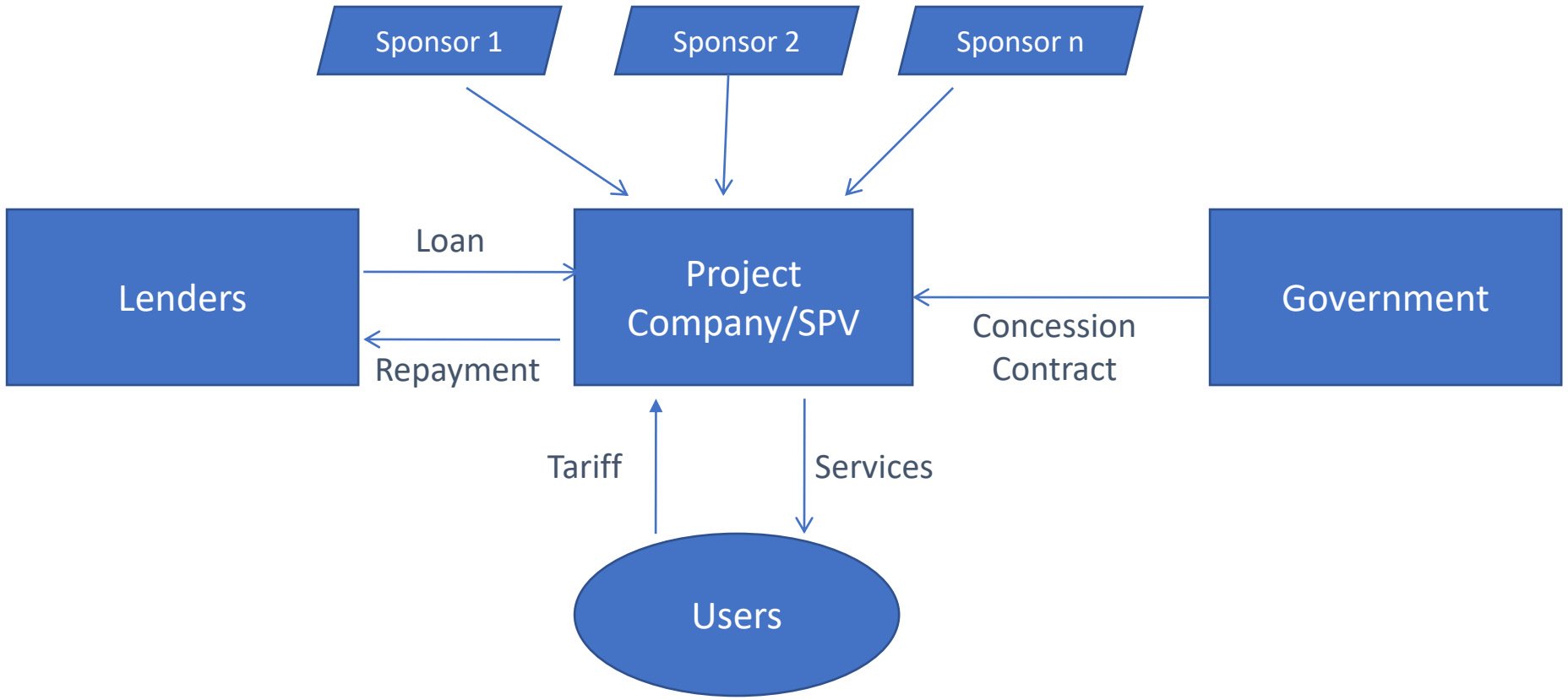
Private Finance



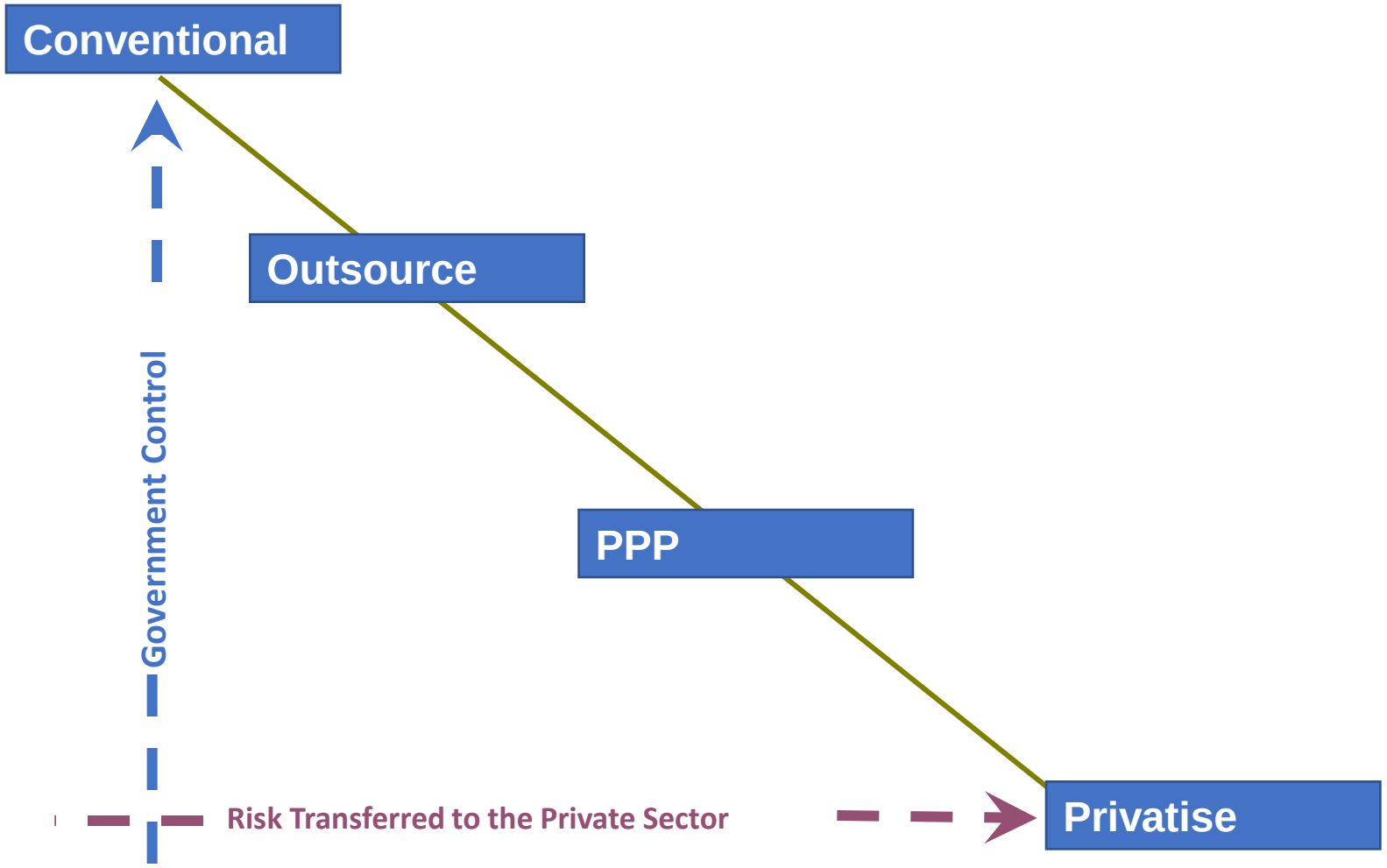
Examples of Private Finance

- State Wide Area Network (SWAN) and State Data Center (SDC)
  - Capital and operational costs for DC or SWAN are invested by the private partner
  - No upfront investment from the government in SWAN or SDC creation
  - The payment to the private partner are made by the government post go-live of SDC or SWAN based on a quarterly or annual basis inline with the defined SLAs and the vendor performance
- eProcurement (Andhra Pradesh), Bangalore One (Karnataka) or CSCs scheme
  - Capital and operational costs for systems/facilities creation are invested by the private partner
  - No upfront investment or no investment from the government in the project
  - Revenue to the private partner is accrued through service charges collected from the users and viability gap funding from the government…

Project Finance



Various Models for Private Sector Participation



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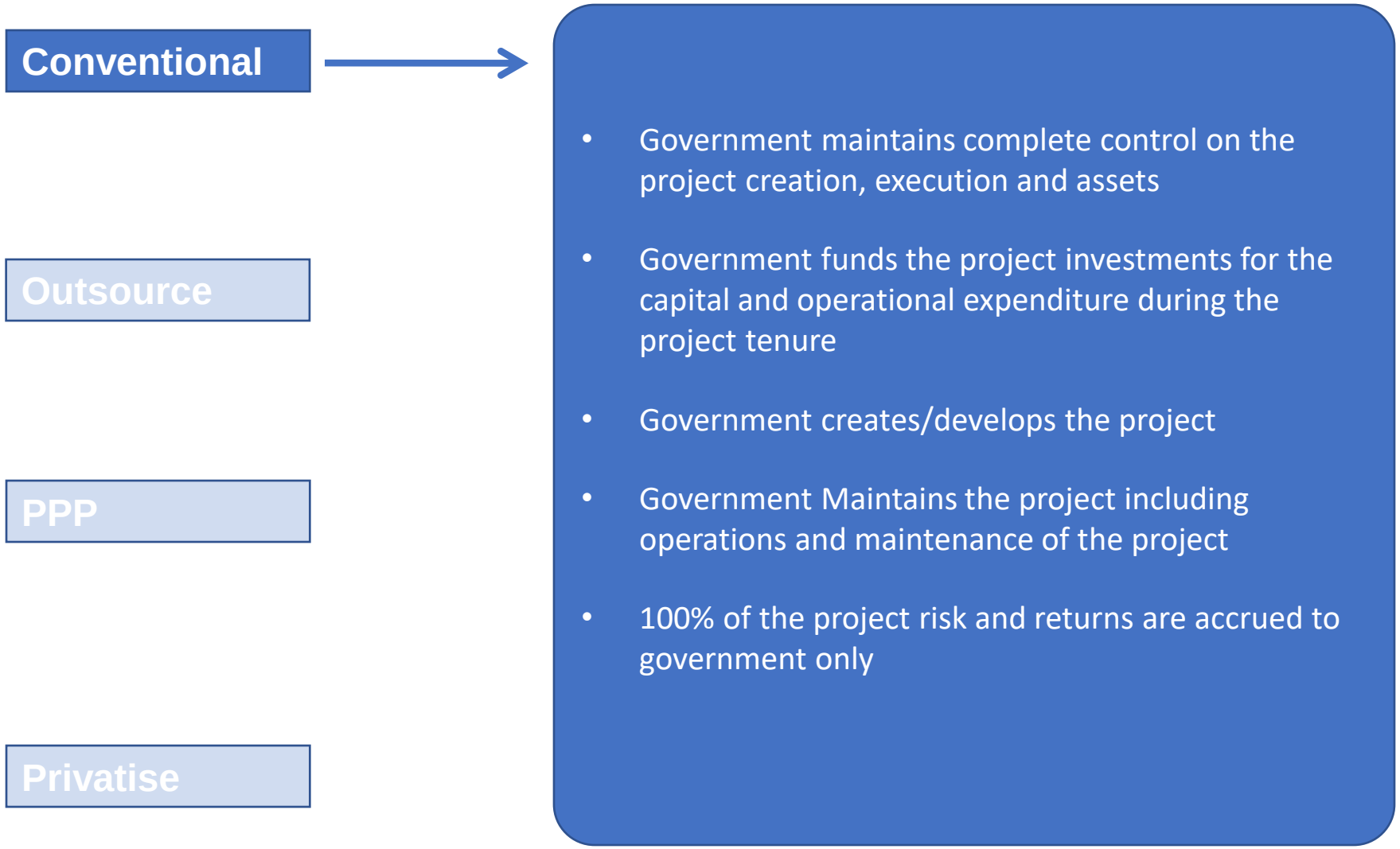


Various Models for Private Sector Participation

Conventional

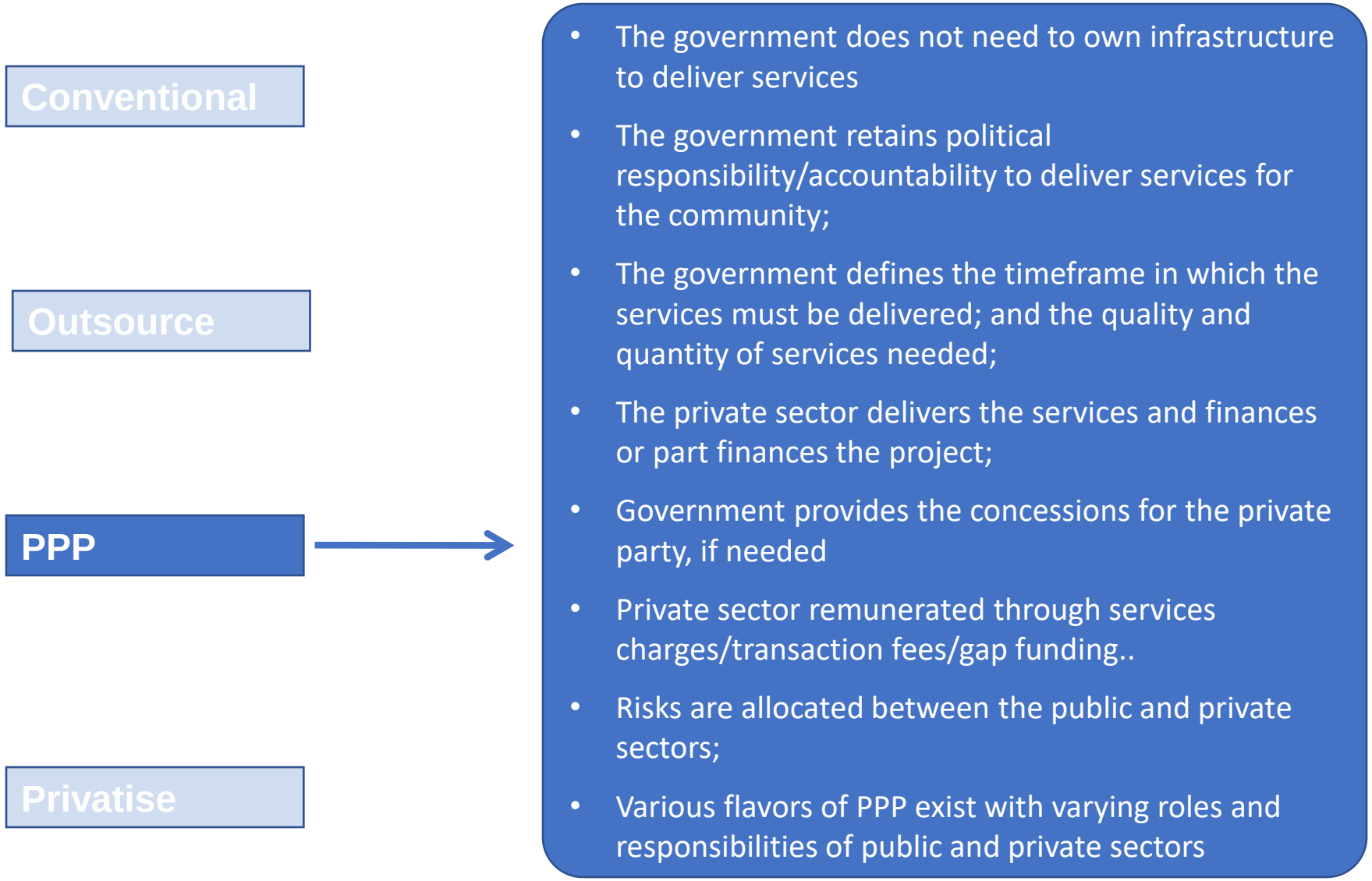
Outsource

PPP

Privatise

- Government maintains complete control on the project creation, execution and assets
- Government funds the project investments for the capital and operational expenditure during the project tenure
- Government leverages private sector strengths for creation of the project or maintenance of the project or both
- Risks are allocated to the government and private sector based on the responsibilities (e.g. government will have the risk of project demand, the private sector will carry the risk of performance and quality of the services delivered to the government)

Various Models for Private Sector Participation



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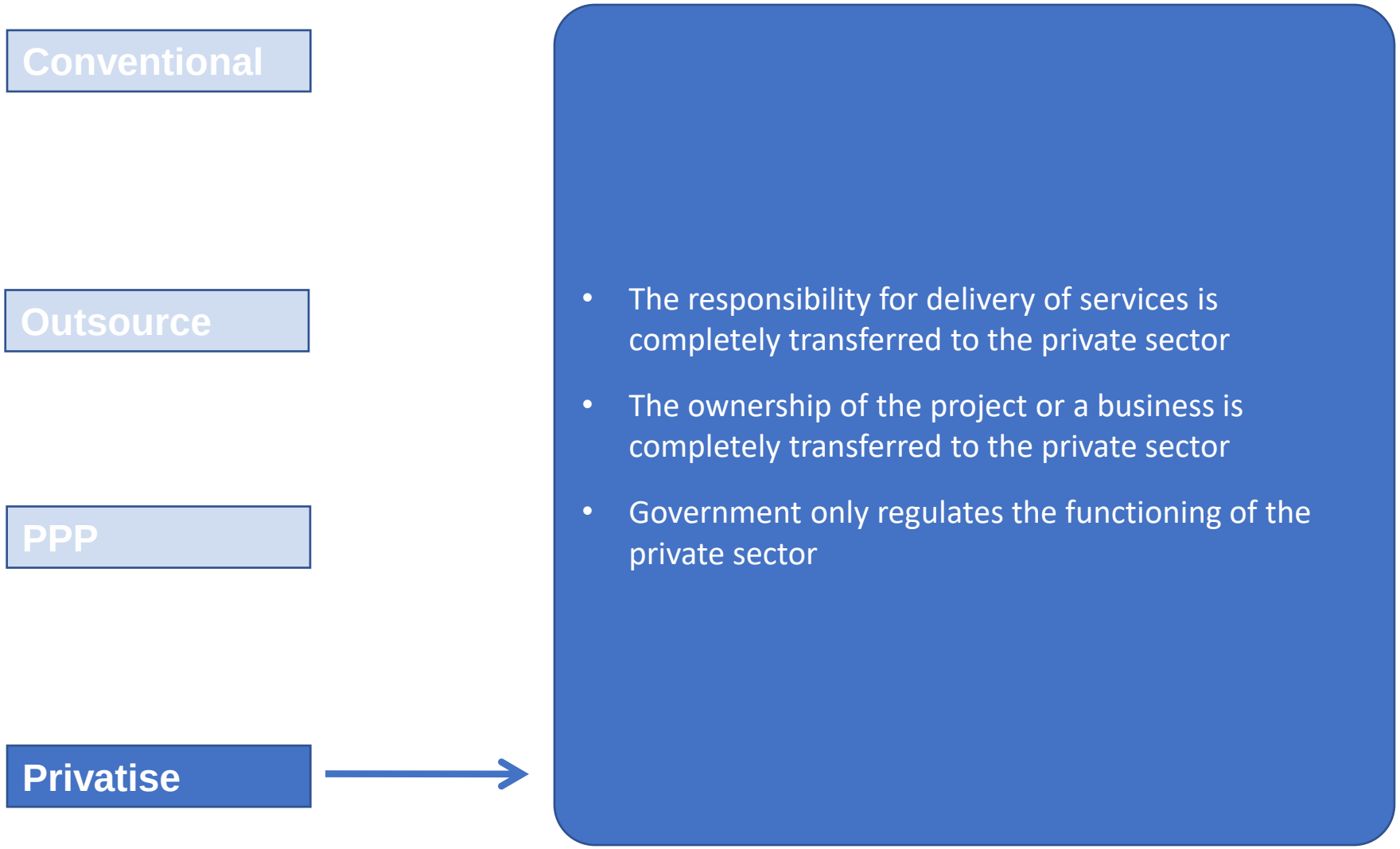


Typical Project Risks

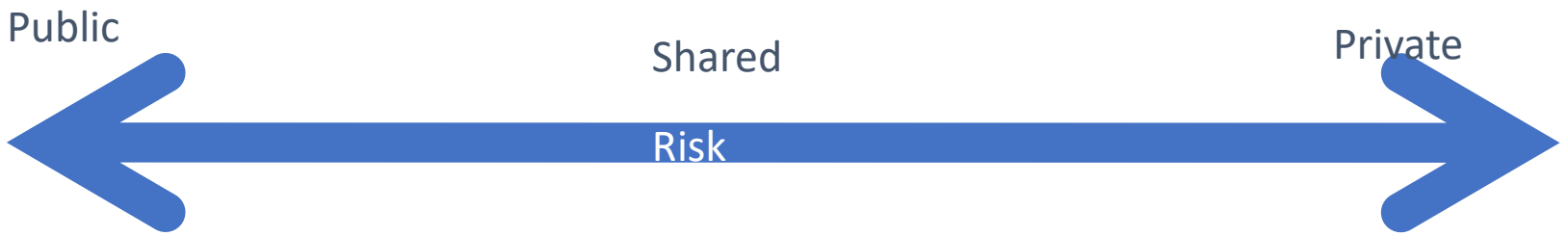
- Land acquisition, planning and permissions
- Design
- Construction
- Commissioning
- Latent defects
- Operating performance
- Operating and maintenance costs
- Third party revenue
- Demand (volume)
- Residual value
- Inflation
- Regulatory
- Taxation
- Force Majeure
- Changes in requirement

Risk effects

- **Increase in costs**
- **Delays**
- **Resource constraints**
- **Loss of revenue**
- **Political consequences**

Risk Allocation

Risks should be allocated to the party best able to understand and manage them..



- Land acquisition, planning/permissions
- Demand risk (?)
- Changes in requirements
- Latent defects (existing)

- Inflation
- Regulatory
- Taxation
- Force majeure

- Design and construction
- Commissioning
- Operating and maintenance costs
- Operating performance
- Latent defects (new)
- Third party revenue

Government Procurement

- Government or public procurement is the purchase, lease or rental of products and services by government entities. The size of the government procurement market and its share of the economy differs from country-to-country, but estimates generally place it between 10 percent and 15 percent of GDP.

- Governments tend to favour procurement of their own country's goods and services for reasons ranging from national security to the promotion of domestic industry.

Regulatory Framework for Public Procurement

Public Procurement operates on the backbone of a **broad framework of National laws dealing with relevant aspects of procurement.**

Indian Contract Act, 1872; Sale of Goods Act, 1930; Companies Act, 1956; Arbitration & Conciliation Act, 1996; Limitation Act, 1963; Right to Information Act, 2005; IT Act 2000

'General Financial Rules' **(GFR),** framed by the central financial ministry acts as the **guideline for public procurement**, but has only subordinate legislation status

Public Procurement in India is **a State subject**, and thereby the **Regulatory Framework governing Public Procurement varies from State to State**

Various states have adopted **their own Legal framework,** based on the GFR and other best practices

Procurement funded by external donors (World Bank, ADB etc) follows guidelines by the donor in this regard

Scenario in procurement legislation

Initially few states (e.g. Karnataka, Tamil Nadu) have adopted Procurement specific legislations, which has precedence over manuals / codes

- The Tamil Nadu Transparency in Tenders Act, 1998
- Karnataka Transparency in Public Procurement Act, 1999

In other cases, Public Procurement is largely regulated by a set of manuals or codes which are derived from the basic principles of the GFR

Core principles on which procurement legislation and regulation are based:

- **Ensuring Transparency & Accountability** in Public Procurement
- Achieving **Best Value for Money** for the government through efficient procurement and informed management
- **Equal Opportunity** to all qualified firms in participating in procurement opportunities and non discrimination
- **Development of indigenous / Local industries** (SSI Units)

Procurement of Information Systems is challenging…

Information Systems are highly affected by changing business objectives, organizational politics, and institutional capacity of the end-user

they are **subject to rapid technological change** over the project life-cycle

they entail mixtures of professional engineering services and supply of diverse hard and soft technologies

their technical content is diverse and difficult to define

Procurement in e-Governance projects are even more challenging….

Projects range from straightforward Supply and Installation of products to complex development, integration and operation of mission-critical Information Systems

Varied Business Models including Public Private Partnership

General perceptions of Government Procurement

- Long cycles for procurement - many a times it may take anywhere between 3-6 months for finalisation of vendor
- Unable to procure right product/right vendor
- Procured goods/services not inline with the business requirements
- Qualifications and evaluation criteria not inline with project objectives and requirements
- Lack of clarity in evaluation and selection criteria
- Open ended scope /ambiguous requirements - expected to be finalised post award of contract
- Unlimited liability of the implementation partners
- SLA's not realistic and not inline with the business requirements
- Ambiguity in SLAs - not measurable
- Penalty clauses
- payment schedules not inline with the efforts and investments expected from vendors during project phases

General perceptions of Government Procurement (contd..)

- Not guaranteeing timely payments
- Detailed contractual obligations/terms and conditions not known at the time of bidding (RFP doesn't include draft contract)
- Short procurement cycles in some cases
- Lack of clarity on right solution (COTS or Bespoke???)
- Expected to deliver best value solution at least cost – commercially not feasible

Outcomes

- **Ending up with wrong vendor**
- **Ambiguous requirements at RFP stage leading to conflict in understanding between govt and vendor - leading to delays and terminations**
- Long cycles for procurement
- **Procured goods/services not inline** with the business requirements
- Efforts of vendor and project costs overshooting budgets
- **Unable to measure SLAs** leading to delays in payments
- **Levying penalties leading to delays/terminations**
- delayed payments and loss to the vendors - leading terminations
- **Litigations/court cases** by vendors or government

Objectives not met, Investment loss, significant delays in projects - eventually leading to winding up projects and Creating negative trend/perceptions on IT/e-Governance

Procurement Approach determines project success

- ***It requires in clarity in getting what is needed***
- **Clarity** in what is needed from solution – **requirements**
- **Clarity** in what is expected from vendor – **scope of work**
- **Clarity** in capabilities needed to deliver solution – **qualification and evaluation criteria**
- **Clarity** in what matters – cost or quality **(L1 vs QCBS/QBS)**
- **Clarity** in how to measure solution and serviced delivered by vendor – **KPIs/SLAs**
- **Clarity** in investments needed in project lifecycle - **payment schedule & business model**
- **Clarity** in efforts needed in delivering solution – **project/implementation schedule…….**

Procurement Approach determines project success

- Should avoid hurrying up to get into RFP writing
- Like DPR, RFP is only a culmination of work performed in earlier stages of project development, but not an output on its own…

Deciding on Procurement Strategy

- Identify components of the project
- Segregate components that can be self managed and to be outsourced
- Identify opportunities to bundle components

- Consider alliances with other agencies
- Finalize procurement method for each component
- Determine Business Model / type of vendor relationship
- Determine business and service levels

- Develop Tender Document
- Finalize Eligibility and Technical Evaluation Criteria
- Finalize approach to arrive at best value bid
- Develop Draft Contract

Single vs. Multiple Vendors

Single sourcing:

- Optimum option if all the components for external sourcing can be bundled into one group
- Suited for smaller agencies and agencies in which ICT is not highly strategic or customized
- Subcontracting and Consortium arrangements may be used to bring in diverse capabilities with one single entity taking overall responsibility
- More cost effective than managing multiple vendors

Multiple Vendors

- Better suited for large agencies with highly specific and strategic ICT functions
- Provides greater control over vendor performance
- Requires higher capacities in the department and higher coordination risk
- Allows for best of the breed solutions in each component

Single Stage vs. Two Stage

Two Stage Process:

Most appropriate for systems with one or more of the below factors:

- Complex Business Applications (e.g. Creation of Land Records using GPS based techniques)
- Systems in which finalization of requirements will need industry inputs
- Extensive Software development
- Complex technologies (e.g. photographic equipment such as for advanced cadastres, large scale data processing equipment etc)

Single Stage Process

- Procurement of Standard Technical products / service specifications (e.g. packaged software like Accounting, HRMS etc)
- Requirements can be specified to great degree of accuracy and bidders have no major design discretion
- Market offerings are standardized and are comparable
- Comparison of offerings does not favour any particular technology / vendor

Two Stage Process – EoI Stage

Expression of Interest → **Refinement of Requirements**

- Client's high level understanding of the business requirement presented in the EoI document
- Solicits responses from bidders fulfilling certain eligibility criteria, detailing the following:
  - ✓Bidder's capabilities relevant to the business need
  - ✓Bidder's proposed solution
  - ✓Bidder's suggestions to refine the requirements

- Attractiveness of the procurement opportunity to the vendors is gauged (market's ability and desire to provide the requirements)
- Requirements are refined based on the valid suggestions from the EoI responses
- The refined RFP is published for final selection – open to bidders who responded to the EoI

Second Stage of the Two Stage process is the RFP processs

Request for Proposal

A Request for Proposal (RFP) an invitation for suppliers, often through a bidding process, to submit a proposal on a specific commodity or service

The RFP process brings structure to the procurement decision and allows the risks and benefits to be identified clearly upfront

The RFP will have to specify in great detail, the following requirements of the Buyer:

Technical and Functional Requirements

Bid Process and Commercial Specifications

Contractual and Legal Specifications

- The RFP is usually structured in 3 Volumes with one Volume for each one of the above requirements

Overview of selection through RFP

RFP Preparation and Publishing

Bidding Process

Bid Evaluation Process

General Statements on Scope and Requirements…

- *This is only a high level scope of work and detailed scope of work shall be finalized during execution*
- *The requirements indicated below are illustrative…the specific requirements shall be determined during execution…….*
- *The vendor shall develop system to address any additional requirements as they come up during project development…*
- *System should do …… "etc"*
- *Vendor shall not charge any additional costs for new requirements identified during implementation stage……*

Pre-Qualification Evaluation

Pre-qualification stage is used to ensure bids from those bidders who have the necessary technical and financial capabilities are evaluated

Pre-qualification criteria	Why is it important	Relevant documentation
Years in operation	To ensure company is an established player	Company Registration Certificate
Company Turnover (last 3 yrs) from relevant operations (e.g. IT / ITES projects)	Turnover should be around 5 times the estimated project cost	Audited Financial Reports
Company profit (last 3 yrs)	To ensure the company is not loss making	Audited Financial Reports
Experience of relevant previous projects	Capability to handle project of the same scale	Citations / Work Orders
Minimum professional strength	To ensure the company has the requisite skills	Undertaking from Authorised Signatory of company
Relevant Certifications (e.g. CMMI Level 5)	To ensure Software Standards	Relevant Certificate copy

Technical Evaluation

Technical bids of only those bidders who qualify the pre-qualification stage shall be opened

The Technical Bid is evaluated against pre-defined criteria. The following criteria are used to evaluate technical bids:

- Technical Solution proposed by the vendor
- Proposed solution and its compliance to functional requirements
- IT Infrastructure and Hardware Design
- Security Architecture
- Approach & Methodology
- Project Management, Risk Management & Quality Management approach
- Past Credentials
- Specific experience of projects similar to the current project
- Broad experience in related domains
- Proposed Personnel
- Quality of staff proposed for key roles
- Quality of manpower available with the company

Sample Technical Evaluation Matrix

No	Parameter	Max Score	Min Cut Off
1	**Proposed Technical Solution**	**40**	**30**
1.1	Technologies & s/w platforms proposed	10	
1.2	Solution design & approach	10	
1.3	H/W and Infrastructure design	10	
1.4	Security Architecture & Features	10	
2	**Approach & Methodology**	**20**	**15**
2.1	Implementation Approach	10	
2.2	Project Management	5	
2.3	Quality Management	5	
3	**Past Credentials**	**25**	**19**
3.1	Experience in implementing similar projects <to be defined>	15	
3.2	Experience In large Government Sector Projects in India	5	
3.3	Experience as a systems integrator	5	
4	**Proposed Personnel**	**15**	**11**
4.1	Quality of manpower of the firm	5	
4.2	Domain Exp. and Skill Sets of key personnel	7	
4.3	Proposed team structure	3	
Total		**100**	**75**

Defining Technical Evaluation Criteria

Break down each criteria into sub criteria and define objective parameters against each criteria

Sl. No.	Criteria	Marks awarded	Max marks
3.1	Experience in implementing Health Management Information Systems (HMIS) in India		10
	Bidder to submit 2 citations (max 5 marks per citation): a. For each citation with the following criteria (3 marks) • Web based solution with n-tier architecture • > 200 concurrent users b. If the citation is for government client, 1 bonus mark to be given c. If the project involved service delivery through PPP, 1 bonus mark to be given		

Illustrative

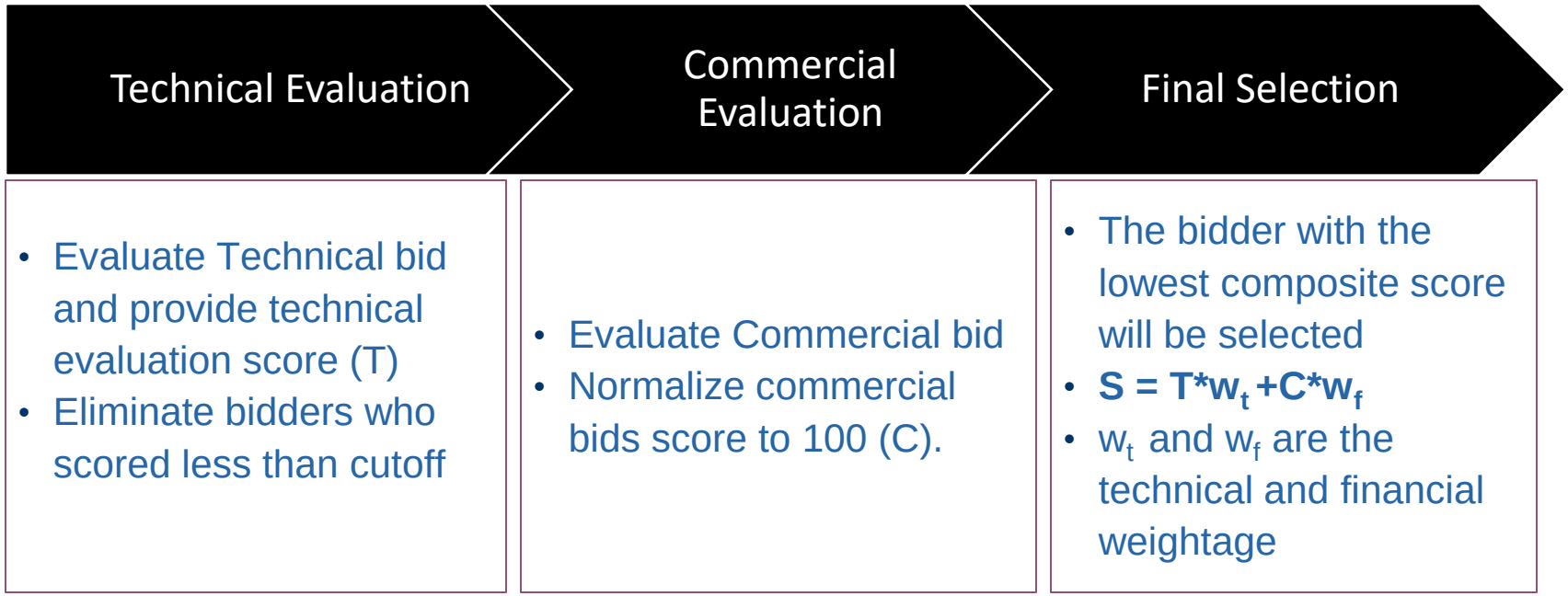
Selection Methods

Once the Technical Bids are evaluated and Technical score of each bidder is finalized, the final selection can be done based on a number of selection methods

Based on the requirement of the department, any of the following selection methods may be chosen

- Quality and Cost Based Selection (QCBS)
- Quality Based Selection (QBS)
- Least-Cost Selection (L1)
- Fixed Budget Selection (FBS)

Quality and Cost based Selection (QCBS)



QCBS takes into account both the quality of the technical proposal and the cost of the services to be provided

QCBS allows for a reasonable tradeoff between quality and cost

Technical proposals are given weightage of 60-90%, with minimum cut-off at 60-75%

Quality Based Selection (QBS)

Quality-based selection (QBS) is a method based on evaluating only the quality of the technical proposals and the subsequent negotiation of the financial proposal and the contract with the consultant who submitted the highest ranked technical proposal

QBS is appropriate when:

- assignments are complex or highly specialized making it difficult to define precise Terms of Reference and the requires input from the consultants
- assignments where the downstream impact is so large that the quality of the services is of overriding importance for the outcome of the project
- assignments that can be carried out in substantially different ways such that financial proposals maybe difficult to compare

The Technical Proposals are evaluated in the same way as in QCBS, and negotiations are carried out with the highest ranked bidder for arriving at the cost of services

Least Cost Selection

Least Cost Selection (LCS) is only appropriate for selecting vendors for very small assignments where well-established practices and standards exist

Consist in setting a minimum quality mark and selection of the lowest financial proposal from the companies that are above the minimal financial score

Technical proposals will be opened first and evaluated.

Bidders securing less than the minimum qualifying mark will be rejected, and the financial proposals of the rest will be opened and compared

The firm with the lowest price shall then be selected and invited to negotiate and finalize the contract.

Selection under Fixed Budget (SFB)

Selection under Fixed Budget (SFB) is based on disclosing the budget to the bidders and selection of the vendor with the highest technical score within the estimated budget

Having the financial constraint, the bidders will adjust methodology and quality to the available budget

Fixed budget selection (FBS) is appropriate when

- the TOR are precisely defined,
- the time and personnel inputs can be accurately assessed,
- the budget is fixed and cannot be exceeded

Technical Bids are evaluated and bidders are ranked based on the technical score. Financial bids of bidders with qualifying technical score are opened

Bidder with the highest technical score within the fixed budget is awarded the contract

Summary of Selection methods

SELECTION PROCEDURE	TECHNICAL EVALUATION	FINANCIAL EVALUATION	COMBINED EVALUATION	SELECTION OF THE WINNING FIRM
QCBS	Points and Scores	Scores	Weighted Scores (e.g. T-80/P-20)	Highest Combined Score
QBS	Points and Scores	Highest Technical Score	N.A.	Highest Technical Score
FIXED BUDGET	Points and Scores	Proposals Within Budget	N.A.	Highest Technical Score within budget
LEAST COST	Points and Scores	Minimum Technical Score	N.A.	Lowest Price among qualified technical bids