



PROJECT PROCUREMENT MANAGEMENT

PLAN PROCUREMENT

PROCESSES BY PROCESS GROUP

Planning	Executing	Monitoring and controlling	Closing
12.1 Plan Procurements	12.2 Conduct Procurements	12.3 Control Procurements	12.4 Close Procurements

PLAN PROCUREMENTS

HOW DO WE PLAN PROCUREMENTS?

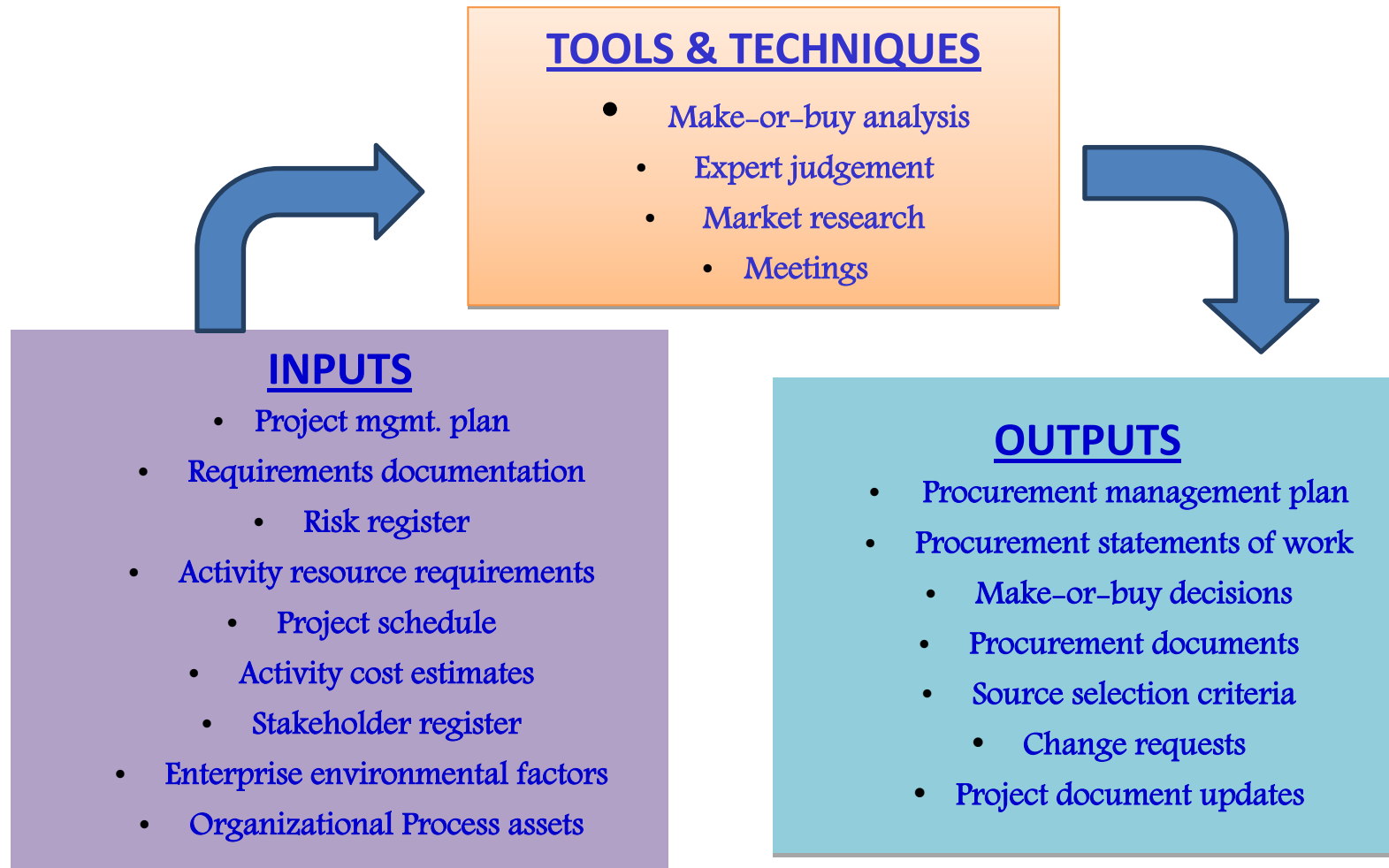
Identify which project needs that can best be:

- project needs which can be, must be, met by *acquiring* products, services or results outside the Project organization.
- accomplished by the project team during project execution.

The process

- involves consideration of whether, how, what, how much & when to acquire.
- includes reviewing the risks involved in each make or buy decision.
- includes reviewing the type of contract planned to be used with respect to mitigating or transferring risks to the Seller.

PLAN PROCUREMENTS



PLAN PROCUREMENTS

INPUTS

Enterprise Environmental Factors

- Marketplace conditions: what products, services & results are available, at what prices, under what terms & conditions?
- If the performing organization does not have a purchasing or contracting group, then project team will have to supply both resources & expertise to perform all procurement activities.

Organizational Process Assets

- Formal & informal procurement-related policies, procedures, forms, guidelines & management systems that are considered in developing Procurement Management Plan & selecting contract types to be used.

Existing organisation policies frequently constrain procurement decisions. Though many a times those policies are devised based on lessons learned from past projects.

PLAN PROCUREMENTS - INPUTS

Requirements Documentation

Requirements documentation may include:

- Important information about project requirements that is considered during planning procurements.
- Requirements with contractual and legal implications that may include health, safety, security, performance, environmental, insurance, intellectual property rights, equal employment opportunity, licenses, and permits – all of which are considered when planning for procurements.

PLAN PROCUREMENTS - INPUTS

Risk Register (Section 11.2.3.1)

Activity Resource Requirements (Section 6.4.3.1)

Project Schedule

Project Management Plan

Stakeholder Register (section 13.1.3.1)

PLAN PROCUREMENTS – INPUTS

Activity Cost Estimates

- Cost estimates developed by the procuring activity are used to evaluate the reasonableness of the bids or proposals received from potential sellers

Enterprise Environmental Factors

EEF that can influence the Plan Procurements process include, but are not limited to:

- Marketplace conditions;
- Products, services, and results that are available in the marketplace;
- Suppliers, including past performance or reputation;
- Typical terms and conditions for products, services, and results or for the specific industry; and
- Unique local requirements.

PLAN PROCUREMENTS - INPUTS

Organizational Process Assets

OPA that influence the Plan Procurement process include, but are not limited to:

- Formal Procurement policies, procedures, and guidelines.
- Management systems that are considered in developing the procurement management plan and selecting the contract types to be used.
- An established multi-tier supplier system of pre-qualified sellers based on prior experience.

PLAN PROCUREMENTS -T&T

TOOLS & TECHNIQUES

Expert Judgment

Make or Buy Analysis

Price is not the only consideration. Also consider:

- Exposure of proprietary information
- Difficulty in defining deliverables and communicating externally
- Is this work your core competency?
- Work you want to do in parallel
- Amount of change contemplated
- Time to manage several procurement processes/find sellers
- Skills available within your team/company and their moral if you outsource
- Special resource requirement–time duration for training, learning curve etc.

PLAN PROCUREMENTS -T&T

Questions on Make or Buy decisions: can include buy or lease questions like this.

It costs \$300/day to lease an item. It would cost \$2000 plus \$100/day on maintenance to buy it. When will lease and purchase costs be equal (in Days)?

Lease cost = \$300/day Investment = \$2000 + \$100/day

D = # of days when purchase & lease costs will be equal

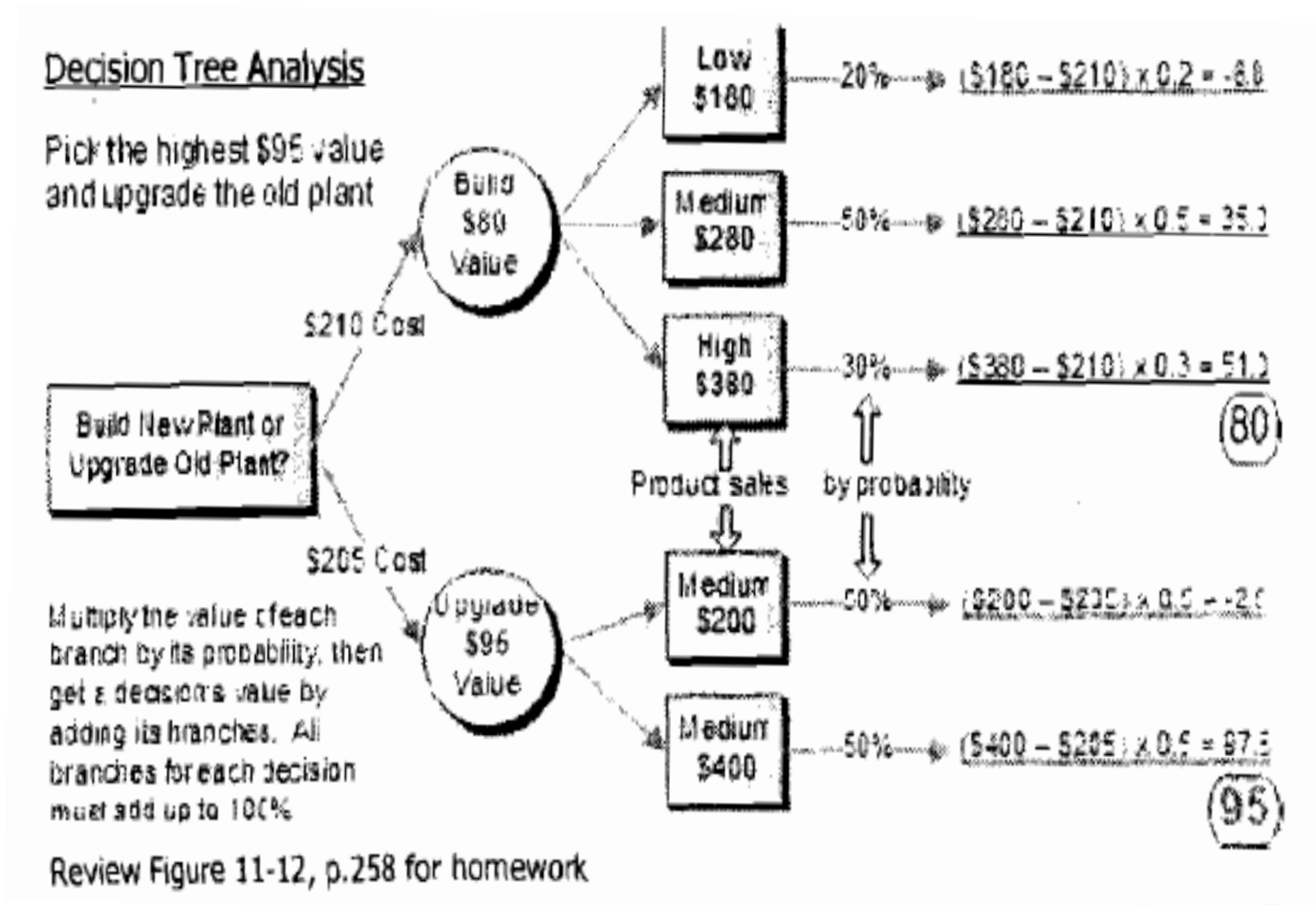
$$\$300D = \$2000 + \$100D \quad (\text{No. of days})$$

$$\$300D - \$100D = \$2000 + \$100D - \$100D \quad (\text{subtract } \$100D \text{ from both sides})$$

$$\$200D = \$2000$$

$$D = 10 \quad \text{i.e. 10 days}$$

PLAN PROCUREMENTS -T&T



CONTRACT TYPES

Contract Types

FIXED-PRICE (FP) CONTRACTS

Firm Fixed Price Contracts (FFP)

- Seller to complete the job within a fixed total price.
- The Product has to be well defined (both seller & buyer are at risk)

Fixed Price Plus Incentive Fee -FPIF

- Seller completes within a fixed total price, plus an extra incentive for meeting or exceeding certain objectives

e.g. fixed price of \$100,000 + \$25,000 for completing by a target date

CONTRACT TYPES

Fixed Price Incentive Fee Contracts (FPIF)

- Incentive is based on sellers performance tied to achieving agreed to metrics.
- Typically such financial incentives are related to cost, schedule, or technical performance of the seller
- In FPIF contracts, a price ceiling is set, and all costs above the price ceiling are the responsibility of the seller, who is obligated to complete the work.

CONTRACT TYPES

Fixed price with Economic Price Adjustment (FP-EPA)

- The contract type is used whenever the seller's performance period spans a considerable period of years, as is desired with many long-term relationships.
- It is Fixed price contract, but with a special provision allowing for pre-defined final adjustments to the contract price due to changed conditions, such as inflation changes, or cost increases (or decreases) for specific commodities.
- The EPA clause must relate to some reliable financial index which is used to precisely adjust the final price. The FP-EPA contract is intended to protect both buyer and seller from external conditions beyond their control.

CONTRACT TYPES

COST-REIMBURSABLE (CR) CONTRACTS

- Involves payment (reimbursement) to the seller for seller's actual costs, plus a fee typically representing seller profit
- May also include financial incentive clauses whenever the seller exceeds, or falls below, defined objectives such as costs, schedule, or technical performance targets.
- Three or more common types in use are as given below:

Cost Plus Fixed Fee (CPFF)

- Buyer pays all costs plus a fixed fee
- Cost over runs will not increase the fixed fee
- e.g. cost of \$100,000 + fixed fee of \$15,000 (as profit)

CONTRACT TYPES

Cost Plus Incentive Fee (CPIF)

- Buyer pays all costs plus an incentive to beat some criteria
- Criteria might be a cost or time target with a certain formula
- e.g. cost of \$100,000 + a pre-determined fee \$5000 as incentive for early delivery

Cost Plus Award Fee contracts (CPAF)

- The seller is reimbursed for all legitimate costs, but the majority of the fee is only earned based on the satisfaction of certain broad subjective performance criteria defined and incorporated into the contract.
- The determination of fee is based solely on the subjective determination of seller performance by the buyer, and is generally not subject to appeals.

CONTRACT TYPES

TIME & MATERIAL (T&M) CONTRACTS

- Hybrid type of contractual agreement that contains aspects of both cost-reimbursable & fixed-price contracts.
- The full value of the agreement and the exact quantity of items to be delivered is not known when the agreement is made (like a cost reimbursement contract)
- Based upon unit rates or hourly rates as preset by the Buyer & Seller for a specific resource category (like a fixed-price contract)

CONTRACT TYPES

Question

Contract cost is estimated to be \$210,000 and a fee of \$10,000 is offered to the supplier for completing the contract on or before time.

If the contractor beats the cost, both the buyer and the seller will share the savings at 40:60 ratio.

If the actual cost of the work comes out to \$180,000, what will the Seller get if the contract is completed before time?

CONTRACT TYPES

ANSWER:

Target cost" \$210,000

Seller's fee" \$10,000

Sharing ratio = 40% buyer / 60% seller

seller Actual cost" \$180,000

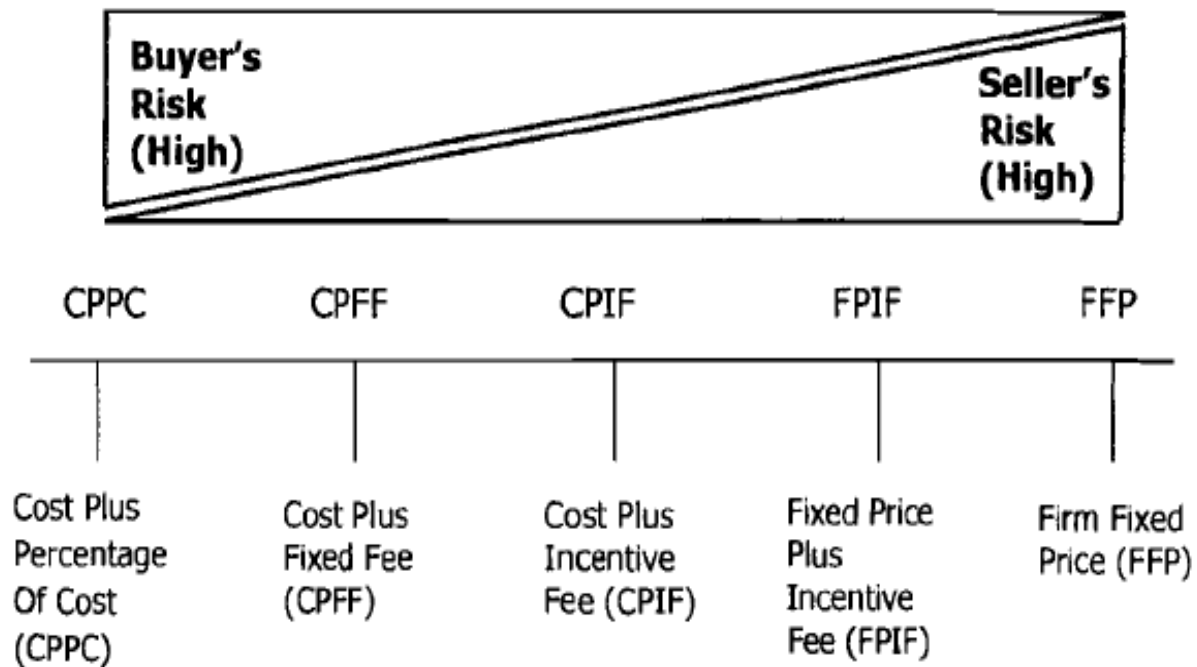
$$\text{Cost savings} = \$210,000 - \$180,000 = \$30,000$$

$$\text{Seller's profit} = \$10,000 + (\$30,000 \times 60\%) = \$28,000$$

$$\text{Final price to buyer} = \$180,000 + \$28,000 = \$208,000$$

CONTRACT TYPES

Spectrum of Risk



CONTRACT TYPES

Spectrum of Risk

- Contract type should be chosen based on the degree of risk (do you know what will it cost to deliver?)
- Risk increases if scope is not well defined. So defining the scope better will get you a better contract with less risk for all.
- Risk can affect any/or all of them – time, cost, quality & scope

Contracts - buyer on high risk

- Buyer pays for what it costs to deliver if costs go up, buyer's price increases, but seller's costs are always covered.

Contracts - seller on high risk

- Buyer pays for agreed price no matter what it costs to deliver
If costs go up, seller has to absorb them, but buyer has fixed price & isn't affected.

PROCUREMENT DOCUMENTS

Procurement Documents

RFP (Request for Proposal or Request for Tender) – requests a price and details on how the work will be carried out, time frame, who will do it, biography of the team, company experience, etc.

IFB (Invitation for Bid or Request for Bid) –requests one price for all the work.

Request for Quote (RFQ) –requests a price quote per item, on hourly or per unit basis.

PLAN PROCUREMENTS - OUTPUTS

Procurement Management Plan

- Describes how the procurement processes will be managed from developing procurement documentation through contract closure
- The procurement management plan can include guidance for:
 - Types of contracts to be used;
 - Risk management issues;
 - Whether independent estimates will be used and if they are needed as evaluation criteria;
 - Those actions the PM team can take unilaterally, if the performing organization has a prescribed procurement, contracting, or purchasing department;
 - Standardized procurement documents, if they are needed;

PLAN PROCUREMENTS - OUTPUTS

Procurement Management Plan (Contd.)

- Managing multiple suppliers;
- Coordinating procurement with other project aspects, such as scheduling and performance reporting;
- Handling the required lead times
- Handling the make-or-buy decisions, etc.

PLAN PROCUREMENTS - OUTPUTS

Procurement Statements of Work

- Describes the procurement item in sufficient detail to allow prospective sellers to determine if they are capable of providing the item.
- Written to be clear, complete & concise.
- Information included in a contract SOW can include specifications, quantity desired, quality levels, performance data, period of performance, work location & other requirements.
- Include description of any collateral services required, i.e. performance reporting or post-project operational support for the procured item.
- Contract SOW can be revised as required as it moves through the procurement process until incorporated into signed contract. Seller may also modify the SOW by suggesting more efficient approach or a less costly product than that originally specified.

PLAN PROCUREMENTS - OUTPUTS

Procurement Documents

- Used to seek proposals from prospective sellers e.g. RFP/RFQ/IFB etc.
- Terms such as bid, tender or quotation are generally used when the seller selection decision will be based on price;
- RFP is used when other considerations such as technical capability or technical approach are paramount)
- These documents include,
 - Procurement SOW
 - Any required contractual provisions
 - With government contracting, some or all of the content and structure of procurement documents can be defined by regulation.

PLAN PROCUREMENTS – OUTPUTS

Make-or-Buy Decisions

Source Selection Criteria

Selection Criteria are often included as a part of the procurement solicitation documents.

Such criteria are developed and used to rate or score seller proposals, and can be objective or subjective (the proposed Project Manager should be a Certified PMP) or subjective (previous experience on similar projects)

Other selection criteria to support an assessment of a complex products, services, or results may include:

PLAN PROCUREMENTS – OUTPUTS

- Understanding of need
- Overall or life-cycle cost
- Technical capability
- Risk
- Management approach
- Technical Approach
- Warranty
- Financial capacity
- Production capacity and interest
- Business size & type
- Past performance of sellers
- References
- Intellectual property rights
- Proprietary rights