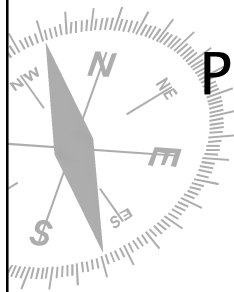


# Chapter 12



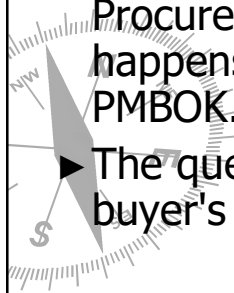
## Project Procurement Management

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## Introduction

- ▶ Procurement management is currently the third-hardest knowledge area on the exam (after Integration and Time)
- ▶ You must memorize the steps of Procurement management and what happens during each step as outlined in the PMBOK.
- ▶ The questions on Procurement are from the buyer's perspective.



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## Introduction (Cont.)

Keep in mind these general rules:

- ▶ A contract is a formal agreement
- ▶ All requirements should be specifically stated in the contract.
- ▶ All contract requirements must be met.
- ▶ Changes must be in writing and formally controlled.
- ▶ Most governments back all contracts by providing a court system for dispute resolution.

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## Definition

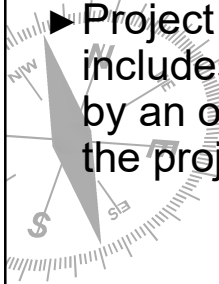
- ▶ **Project Procurement Management includes the processes required to acquire goods and services (products) from outside the performing organization, to attain project scope**

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## Procurement Management & Contract Management

- ▶ Project Procurement Management includes the contract management and change control processes required to administer contracts or purchase orders issued by the project team.
- ▶ Project Procurement Management also includes administering any contract issued by an outside organization that is acquiring the project from the project team.



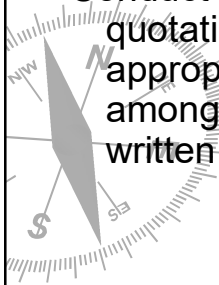
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## Processes

**Plan Procurements-** Determining what to purchase or acquire and when. Documenting material, products, goods and services requirements and identifying potential sellers.

**Conduct Procurements -** Obtaining information, quotations, bids, offers, or proposals, as appropriate. Reviewing offers, choosing from among potential sellers, and negotiating a written contract with seller.

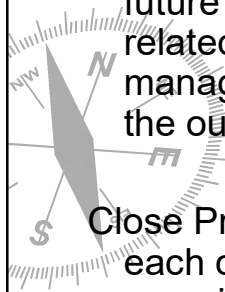


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## Processes (Cont.)

Administer Procurements- managing the contract and the relationship between the buyer and the seller, reviewing and documenting how a seller is performing or has performed to establish required corrective actions and provide a basis for future use of the seller, managing contract related changes and, when appropriate, managing the contractual relationship with the outside buyer of the project.



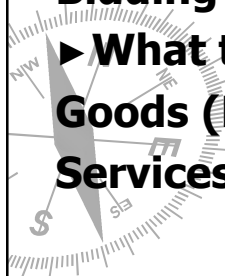
Close Procurements - completing and settling each contract, including the resolution of any open items.

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## Procurement Management Anchors

- ▶ **Whether to procure? make or buy?, Break-even analysis.**
- ▶ **How to procure?**
- Bidding and Contract type selection.**
- ▶ **What to procure?**
- Goods (Material and Equipment), Services, combination of them.**

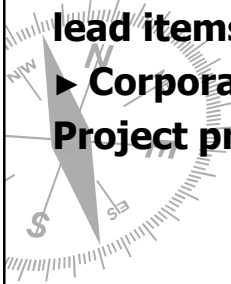


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## Procurement Management Anchors (cont'd)

- ▶ **How much to procure?**  
Project incl. Finance, Phase (s) (Design, PM implementation, testing), Work packages
- ▶ **When to procure?** Time schedule, long lead items, market conditions
- ▶ **Corporate procurement strategy vs. Project procurement strategy**



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## Tools & Techniques

- ▶ **Risk Make or buy analysis**– Determining if the product can be produced cost-effectively by the performing organization
- ▶ **Expert judgment** – Groups or individuals with specialized knowledge or training
- ▶ **Contract types**

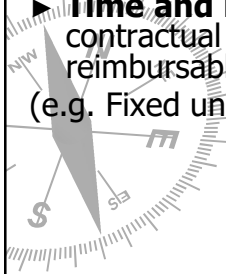


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## Contracts Types

- ▶ **Fixed-price or lump-sum contracts:** involve a fixed total price for a well-defined product. They **may** include **incentives** for meeting or exceeding selected project objectives.
- ▶ **Cost-reimbursable contracts:** involves payment (reimbursement) to the seller for its actual costs, plus typically a fee representing seller profit. They **often** include **incentives** for meeting or exceeding selected project objectives.
- ▶ **Time and Material contracts:** are a hybrid type of contractual arrangement that contains aspects of both cost-reimbursable and fixed-price-type arrangements. (e.g. Fixed unit rates + variable quantities)



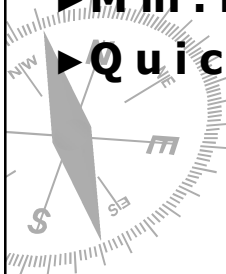
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## Fixed Price Contract

### Advantages

- ▶ **Firm assurance of cost**
- ▶ **Control of changes/delays**
- ▶ **Min. Buyer follow up**
- ▶ **Quick completion incentive**



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## Fixed Price Contract (cont'd)

### Disadvantage

- ▶ Must have clear requirements
- ▶ Delayed solicitation documents
- ▶ High bidding costs
- ▶ Increased prices to cover seller risks (contingencies)

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## Cost Reimbursement Contract

### Advantages

- ▶ Max. flexibility to buyer
- ▶ Min. profit to seller
- ▶ Min. negotiations
- ▶ Min. preliminary specs costs
- ▶ Min. start time
- ▶ early completion
- ▶ Min. risk of not qualified bidders with lowest price

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## Cost Reimbursement Contract (Cont'd)

### Disadvantage

- ▶ **No assurance of actual cost**
- ▶ **No financial incentive**
- ▶ **Excessive changes in design and (high) specs by buyer staff = more cost + time**
- ▶ **Auditing by Buyer required**



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## Cost Reimbursable Contract

- ▶ **Cost-Plus-Fee (CPF) or Cost-Plus-Percentage of Cost (CPPC).**

Seller is reimbursed for allowable costs for performing the contract work and receives a fee calculated as an agreed-upon percentage of the costs. The fee varies with the actual cost.

- ▶ **Cost-Plus-Fixed-Fee (CPFF).**

Seller is reimbursed for allowable costs for performing the contract work and receives a fixed fee payment calculated as a percentage of the estimated project costs. The fixed fee does not vary with actual costs unless the project scope changes.

- ▶ **Cost-Plus-Incentive-Fee (CPIF).**

Seller is reimbursed for allowable costs for performing the contract work and receives a predetermined fee, an incentive bonus, based upon achieving certain performance objective levels set in the contract. In some CPIF contracts, if the final costs are less than the expected costs, then both the buyer and seller benefit from the cost savings based upon a pre-negotiated sharing formula.

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## Outputs

- ▶ **Procurement management plan** –  
Describes how the remaining procurement processes will be managed
- ▶ **Procurement Statement of work** –  
Describes the procurement items in sufficient detail for prospective sellers to determine if they are capable of providing the item

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## Procurement Management Plan

- ▶ Types of contracts to be used
- ▶ Who will prepare independent estimates and if they are needed as evaluation criteria
- ▶ Those actions the project management team can take on its own, if the performing organization has a procurement, contracting, or purchasing department
- ▶ Standardized procurement documents, if they are needed
- ▶ Managing multiple providers
- ▶ Coordinating procurement with other project aspects, such as scheduling and performance reporting
- ▶ Handling the lead times required to purchase or acquire items from sellers and coordinating them with the project schedule development

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## Procurement Management Plan

- ▶ Handling the make-or-buy decisions and linking them into the Activity Resource Estimating and Schedule Development processes
- ▶ Setting the scheduled dates in each contract for the contract deliverables and coordinating with the schedule development and control processes
- ▶ Identifying performance bonds or insurance contracts to mitigate some forms of project risk
- ▶ Establishing the direction to be provided to the sellers on developing and maintaining a contract work breakdown structure
- ▶ Establishing the form and format to be used for the contract statement of work
- ▶ Identifying pre-qualified selected sellers, if any, to be used
- ▶ Procurement metrics to be used to manage contracts and evaluate sellers.

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## Statement of Work (SOW)

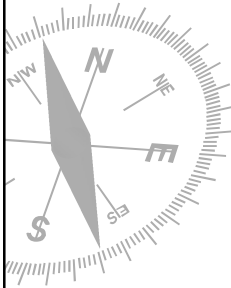
- ▶ The statement of work (SOW) for each contract is developed from the:
  - project scope statement,
  - the project work breakdown structure (WBS),
  - WBS dictionary.
- ▶ Information included in a contract SOW
  - specifications,
  - quantity desired,
  - quality levels,
  - performance data,
  - period of performance,
  - work location, and other requirements.
- ▶ The contract SOW can be revised and refined as required as it moves through the procurement process until incorporated into a signed contract.

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## Standard forms

- ▶ Include standard contracts, standard descriptions of procurement items, and standardized versions of all, or part, of the needed bid documents

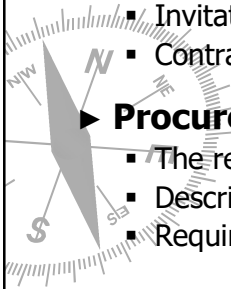


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## Outputs

- ▶ **Procurement documents** – Used to solicit proposals from potential buyers
  - Invitation for bid (IFB)
  - Request for proposal (RFP)
  - Request for quotation (RFQ)
  - Invitation for negotiation
  - Contractor initial response
- ▶ **Procurement documents should include:**
  - The relevant statement of work
  - Description of the desired form of the response
  - Required contractual provisions



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## Outputs (cont.)

- ▶ **Evaluation criteria** – Used to rate or score proposals (*objective or subjective*)
  - Understanding of the need
  - Overall or life-cycle cost
  - Technical capability
  - Management approach
  - Financial capacity
  - Business references
- ▶ **Statement of work updates** – Modifications to one or more statements of work may be identified during solicitation planning

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## Tools & Techniques

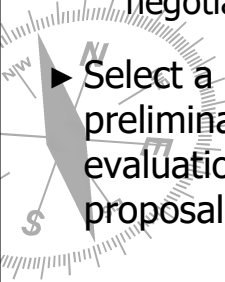
- ▶ **Bidders' conference** – Meetings with prospective sellers prior to preparation of a proposal
  - Ensure all prospective sellers have a clear, common understanding of the procurement
  - Responses to questions may be incorporated into the procurement documents as amendments
- ▶ **Advertising** – Placing advertisements in general-circulation publications, such as newspapers, or in specialty publications, such as journals

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## Weighting system

- Select a single source, who will be asked to sign a standard contract
- Rank and order all proposals to establish a negotiating sequence

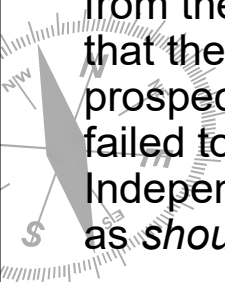


► Select a short list of qualified sellers, based on a preliminary proposals and, then, a more detailed evaluation of a more detailed and comprehensive proposal

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## Independent estimates

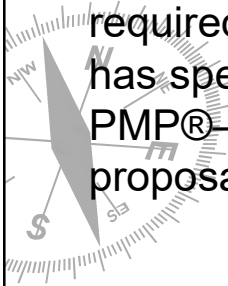
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- For many procurement items, the procuring organization may prepare its own independent estimates as a check on proposed pricing. Significant differences from these estimates may be an indication that the SOW was not adequate, or that the prospective seller either misunderstood or failed to respond fully to the SOW. Independent estimates are often referred to as *should cost* estimates.

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## Screening system

- ▶ A screening system involves establishing minimum requirements of performance for one or more of the evaluation criteria. For example, a prospective seller might be required to propose a project manager who has specific qualifications for example, a PMP®—before the remainder of the proposal would be considered.



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## Contract negotiation

- ▶ Involves clarification and mutual agreement on the structure and requirements of the contract, prior to the signing of the contract
  - Final contract language should reflect all agreements reached
  - Include responsibilities and authorities, applicable terms and laws, technical and business management approaches, contract financing, and price



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## Proposal evaluation techniques - Example

- **Request for proposal** **33 1/3 %**
  - **Technical** **50%**
  - **Company** **25%**
  - **Previous experience** **25%**

- ▶ **Presentation** **33 1/3 %**
  - **Team** **60%**
  - **Format** **40%**
- **Price** **33 1/3 %**
  - **Day rates** **85%**
  - **Expenses** **15%**



**Overall**

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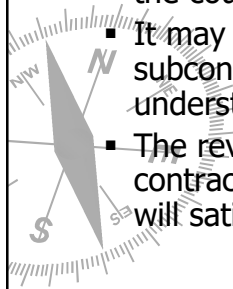
**100%**

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## Contract

A mutually binding agreement that obligates the seller to provide the specified product, and obligates the buyer to pay for it

- A contract is a legal relationship subject to remedy in the courts
- It may be called a contract, an agreement, a subcontract, a purchase order, or a memorandum of understanding
- The review-and-approval process should ensure that the contract language describes a product or service that will satisfy the need identified

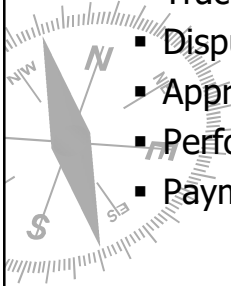


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## Contract change control system

- ▶ Defines the process by which the contract may be modified. It includes:
  - Paperwork
  - Tracking systems
  - Dispute-resolution procedures
  - Approval procedures
  - Performance reporting
  - Payment system

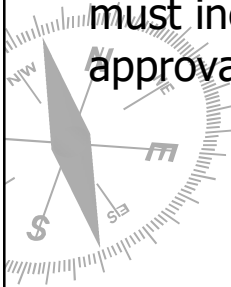


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## Payment system

- ▶ Handled by the accounts payable system of the performing organization. The system must include the appropriate reviews and approvals by the project management team.



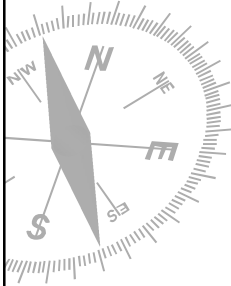
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## Procurement audits

Structured reviews of the procurement process, from procurement planning through procurement administration, conducted to identify successes and failures (*lessons learned*)



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## Formal acceptance and closure

- ▶ Person or organization responsible for procurement administration provides the seller with formal written notice that the contract has been completed.  
Normally specified in the contract.



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## Definitions

### ► Request for Proposal (RFP)

- Request for a price and a proposed method of meeting requirements
- Often used when both price and technical evaluation determine winners

### ► Request for Quote (RFQ)

- Request for materials or services
- Price-driven



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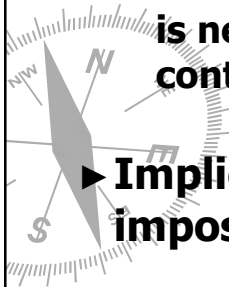
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## Definitions

### ► Warranty

- A promise about a product made by either a manufacturer or seller.
- Part of a contract, the truth of which is necessary to the validity of the contract

### ► Implied Warranty – a guarantee imposed by law in a sale

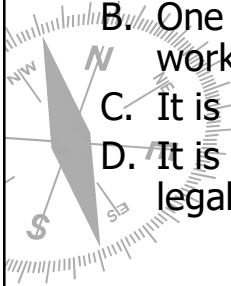


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## Question 1

- **Once signed, a contract is legally binding unless:**
- A. One party is unable to perform
  - B. One party is unable to finance its part of the work
  - C. It is in violation of applicable law
  - D. It is declared null and void by either party's legal counsel

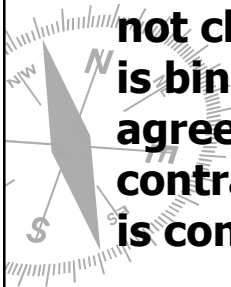


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## Answer C

- **Once signed, a contract is binding. Generally, the inability to perform, get financing or one party's belief that the contract is null and void does not change the fact that the contract is binding. If, however, both sides agree to terminate the contract, the contract can move into closure and it is considered completed.**

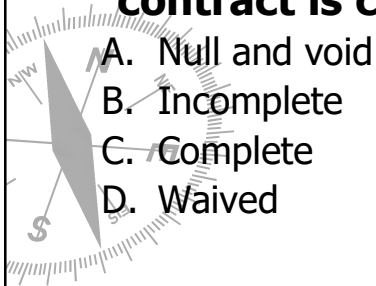


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## Question 2

- ▶ **With a clear contract statement of work, a seller completes work as specified, but the buyer is not pleased with the results. The contract is considered to be:**



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## Answer C

- ▶ **If the seller completes the work specified in the contract statement of work, the contract is considered complete. That does not mean the same thing as contract closed. Contract closure must still occur. However, in this situation, the contract work is completed.**



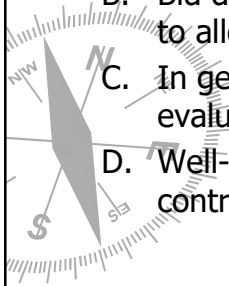
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## Question 3

► **All of the following statements concerning bid documentation are incorrect EXCEPT?**

- A. Well-designed bid documents can simplify comparison of responses.
- B. Bid documentation must be rigorous with no flexibility to allow consideration of seller suggestions.
- C. In general, bid documents should not include evaluation criteria.
- D. Well-designed bid documents do not include a contract statement of work.



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## Answer A

- **Often the seller is required to inform the buyer of anything that is missing or unclear in the bid documents (choice B). It is in the buyer's best interest to discover missing items, since it will save the buyer money and trouble to correct the problem early. Bid documents must contain terms and conditions and evaluation criteria (choice C) as well as the work that is to be done, including the contract statement of work (choice D). This is so the seller can price the project and know what is most important to the buyer. Choice A is an important point for the real world and is the best answer.**

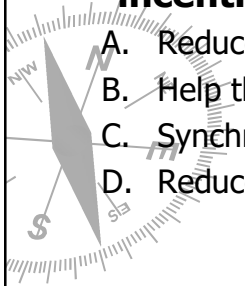


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## Question 4

- **A project manager for the seller is told by her management that the project should do whatever possible to be awarded incentive money. The primary objective of incentive clauses in a contract is to:**



- A. Reduce costs for the buyer.
- B. Help the seller control costs.
- C. Synchronize objectives.
- D. Reduce risk for the seller by shifting risk to the buyer.

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## Answer C

- **Incentives are meant to bring the objectives of the seller in line with those of the buyer. That way both are progressing toward the same objective.**



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## Question 5

► **All the following statements about change control are incorrect EXCEPT?**

- A. A fixed price contract will minimize the need for change control.
- B. Changes seldom provide real benefits to the project.
- C. Contracts should include procedures to accommodate changes.
- D. More detailed specifications eliminate the causes of changes.



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## Answer C

- **Since there can be changes in any form of contract, choice A is not the best answer. There are always ideas (changes) that can add benefit to the project, so choice B cannot be the best answer. In choice D, the word "eliminate" implies that changes will not occur. As that is not true, this can't be the best answer.**



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