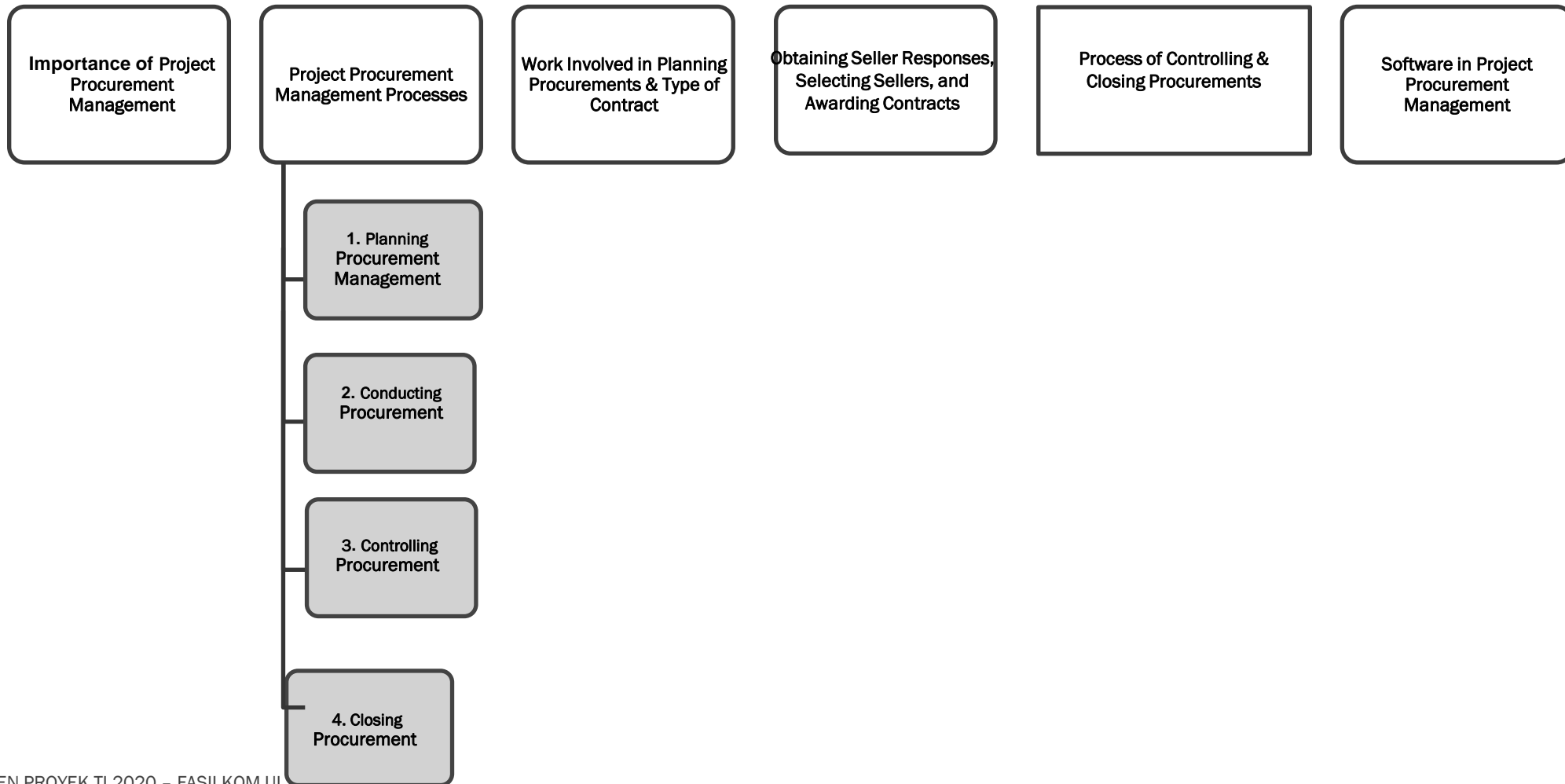


Note:
Adapted from slide of the textbook: Schwalbe, Kathy. *Managing Information Technology Project – Eight Edition*. Boston, MA: Thomson Course Technology, 2016.
See the text itself for full citations.

IT PROJECT MANAGEMENT

WEEK 14: PROJECT
PROCUREMENT MANAGEMENT

MIND MAP



LEARNING OBJECTIVES,

- a. Understand the **importance** of **project procurement** management and the increasing use of outsourcing for information technology (IT) projects
- b. Describe project **procurement management processes**
- c. Describe the work involved in **planning procurements** for projects, including determining the proper type of contract to use and preparing a procurement management plan, statement of work, source selection criteria, and make-or-buy analysis
- d. Discuss how to **conduct procurements** and strategies for obtaining seller responses, selecting sellers, and awarding contracts
- e. Understand the process of **controlling procurements** by managing procurement relationships and monitoring contract performance
- f. Describe the process of **closing procurements**
- g. Discuss types of software that are available to assist in project procurement management



A: IMPORTANCE OF PROCUREMENT MANAGEMENT





IMPORTANCE OF PROJECT PROCUREMENT MANAGEMENT

- **Procurement** means acquiring goods and/or services from an outside source
- Other terms include purchasing and outsourcing
- Experts predict that global spending on computer software and services will continue to grow
- Garner estimated the value of the global IT industry in 2014 at \$3.8 trillion
- People continue to debate whether offshore or outsourcing helps their own country or not

DEBATES ON OUTSOURCING

- Some companies, such as Wal-Mart, prefer to do no outsourcing at all, while others do a lot of outsourcing. GM recently announced plans to switch from outsourcing 90% of IT service to only 10%
- Most organizations do some form of outsourcing to meet their IT needs and spend most money within their own country
- The U.S. temporary workforce continues to grow as people work for temporary job agencies so they can more easily move from company to company

IT Outsourcing Market Continues to Grow

- U.S. companies are transferring more work abroad, especially in the areas of IT infrastructure, application development and maintenance, and innovation processes
- India, China, and the Philippines are the preferred locations for outsourcing, and Latin America is growing in popularity
- A shortage of qualified personnel, not cost savings, is the top reason for global outsourcing of IT services

WHY OUTSOURCE?

To access skills and technologies

To reduce both fixed and recurrent costs

To allow the client organization to focus on its core business

To provide flexibility

To increase accountability

CONTRACTS

- A **contract** is a mutually binding agreement that obligates the seller to provide the specified products or services and obligates the buyer to pay for them
- Contracts can clarify responsibilities and sharpen focus on key deliverables of a project
- Because contracts are **legally binding**, there is more accountability for delivering the work as stated in the contract



B: PROJECT PROCUREMENT MANAGEMENT PROCESSES



PROJECT PROCUREMENT MANAGEMENT PROCESSES

- **Project procurement management:** Acquiring goods and services for a project from outside the performing organization
- Processes include:
 1. **Planning procurement management:** Determining what to procure and when and how to do it
 2. **Conducting procurements:** Obtaining seller responses, selecting sellers, and awarding contracts
 3. **Controlling procurements:** Managing relationships with sellers, monitoring contract performance, and making changes as needed
 4. **Closing procurements:** Completing and settling each contract or agreement, including resolving of any open items

PROJECT PROCUREMENT MANAGEMENT SUMMARY

Planning

Process: **Plan procurement management**

Outputs: Procurement management plan, procurement statements of work, procurement documents, source selection criteria, make-or-buy decisions, change requests, project documents updates

Executing

Process: **Conduct procurements**

Outputs: Selected sellers, agreements, resource calendars, change requests, project management plan updates, project documents updates

Monitoring and Controlling

Process: **Control procurements**

Outputs: Work performance information, change requests, project management plan updates, project documents updates, organizational process assets updates

Closing

Process: **Close procurements**

Outputs: Closed procurements, organizational process assets updates

Project Start

Project Finish



C: PLANNING PROCUREMENT MANAGEMENT





PLANNING PROCUREMENT MANAGEMENT

- Identifying which project needs can best be met by using products or services outside the organization
- If there is no need to buy any products or services from outside the organization, then there is no need to perform any of the other procurement management processes

TYPES OF CONTRACTS

- Different types of contracts can be used in different situations:
 - **Fixed price or lump sum** contracts: Involve a fixed total price for a well-defined product or service
 - **Cost reimbursable** contracts: Involve payment to the seller for direct and indirect costs
 - **Time and material** contracts: Hybrid of both fixed price and cost reimbursable contracts, often used by consultants
- **Unit price:** Require the buyer to pay the seller a predetermined amount per unit of service
- A single contract can actually include all of these categories, if it makes sense for that particular procurement

POINT OF TOTAL ASSUMPTION

- The **Point of Total Assumption (PTA)** is the cost at which the contractor assumes total responsibility for each additional dollar of contract cost
- Contractors do not want to reach the point of total assumption, because it hurts them financially, so they have an incentive to prevent cost overruns
- The PTA is calculated with the following formula:

$$\text{PTA} = (\text{ceiling price} - \text{target price}) / \text{government(buyer) share} + \text{target cost}$$

POINT OF TOTAL ASSUMPTION

- Supposed that:
 - Expected cost = \$100,000
 - Fee = \$10,000
 - Ceiling Price = \$175,000
 - Buyer share = 85%
 - $PTA = (\$175,000 - (\$100,000 + \$10,000)) / 85\% + \$100,000 = \$ 176,470.59$
- If the actual cost:
 - Cost = \$100,000 -> Seller received = \$100,000 + \$10,000 = \$110,000
 - Cost = \$ 80,000 -> Seller received = \$80,000 + 15%(\$20,000) + \$10,000 = \$93,000
 - Cost = \$180,000 (**greater than PTA**) -> Seller received = \$180,000 + 15%*(-\$80,000) + \$10,000 = \$178,000 which is greater than ceiling price, thus seller **only received \$175,000**
 - Cost = \$160,000 (**less than PTA**) -> Seller received = \$160,000 + 15%*(-\$60,000) + \$10,000 = \$161,000

COST REIMBURSABLE CONTRACTS

- **Cost plus incentive fee (CPIF):** The buyer pays the supplier for allowable performance costs plus a predetermined fee and an incentive bonus
- **Cost plus fixed fee (CPFF):** The buyer pays the supplier for allowable performance costs plus a fixed fee payment usually based on a percentage of estimated costs
- **Cost plus percentage of costs (CPPC):** The buyer pays the supplier for allowable performance costs plus a predetermined percentage based on total costs
- **Cost plus award fee (CPAF):** the buyer pays the supplier for allowable performance costs plus an award fee based on the satisfaction of subjective performance criteria

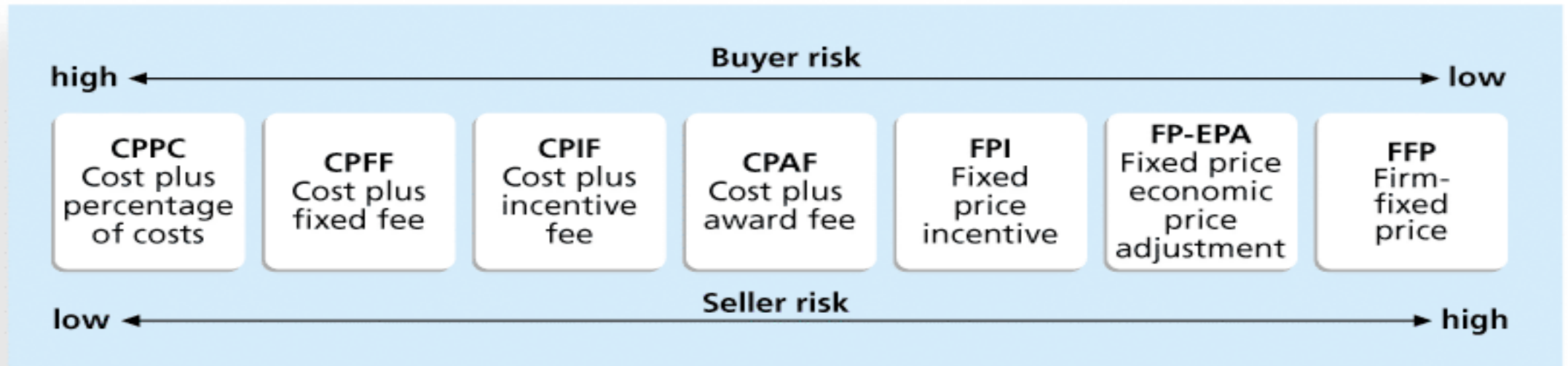
COST PLUS INCENTIVE FEE (CPIF)

- Suppose that:
 - the expected cost of a project is \$100,000,
 - the fee to the supplier is \$10,000
 - the share formula is 85/15, meaning that the buyer absorbs 85 percent of the uncertainty and the supplier, absorbs 15 percent.
- If the final price is \$80,000, the cost savings are \$20,000.
- The supplier would be paid the final cost and the fee plus an incentive of \$3,000 (15 percent of \$20,000), for a total reimbursement of \$93,000.

COST PLUS FIXED FEE (CPFF)

- suppose that:
 - the expected cost of a project is \$100,000
 - the fixed fee is \$10,000.
- If the actual cost of the contract rises to \$120,000 and the scope of the contract remains the same, the contractor will still receive the fee of \$10,000.

CONTRACT TYPES VERSUS RISK



CONTRACT CLAUSES

- Contracts should include specific clauses to take into account issues unique to the project
- Can require various educational or work experience for different pay rights
- A **termination clause** is a contract clause that allows the buyer or supplier to end the contract

TOOLS AND TECHNIQUES FOR PLANNING PURCHASES AND ACQUISITIONS

- Expert judgment
- Market research
- **Make-or-buy analysis:** General management technique used to determine whether an organization should make or perform a particular product or service inside the organization or buy from someone else

MAKE-OR-BUY EXAMPLE

- Assume you can lease an item you need for a project for \$800/day. To purchase the item, the cost is \$12,000 plus a daily operational cost of \$400/day
- How long will it take for the purchase cost to be the same as the lease cost?
 - Set up an equation so both options, purchase and lease, are equal
 - In this example, use the following equation. Let d be the number of days to use the item:
 - $\$12,000 + \$400d = \$800d$
 - Subtracting $\$400d$ from both sides, you get:
 - $\$12,000 = \$400d$
 - Dividing both sides by $\$400$, you get:
 - $d = 30$
 - If you need the item for more than 30 days, it is more economical to purchase it

PROCUREMENT MANAGEMENT PLAN

- Describes how the procurement processes will be managed, from developing documentation for making outside purchases or acquisitions to contract closure
- Contents varies based on project needs

CONTRACT STATEMENT OF WORK (SOW)

- A **statement of work** is a description of the work required for the procurement
- If a SOW is used as part of a contract to describe only the work required for that particular contract, it is called a **contract statement of work**
- A SOW is a type of scope statement
- A good SOW gives bidders a better understanding of the buyer's expectations

Statement of Work (SOW)

- I. **Scope of Work:** Describe the work to be done in detail. Specify the hardware and software involved and the exact nature of the work.
- II. **Location of Work:** Describe where the work must be performed. Specify the location of hardware and software and where the people must perform the work.
- III. **Period of Performance:** Specify when the work is expected to start and end, working hours, number of hours that can be billed per week, where the work must be performed, and related schedule information.
- IV. **Deliverables Schedule:** List specific deliverables, describe them in detail, and specify when they are due.
- V. **Applicable Standards:** Specify any company or industry-specific standards that are relevant to performing the work.
- VI. **Acceptance Criteria:** Describe how the buyer organization will determine if the work is acceptable.
- VII. **Special Requirements:** Specify any special requirements such as hardware or software certifications, minimum degree or experience level of personnel, travel requirements, and so on.

PROCUREMENT DOCUMENTS

- **Request for Proposals:** Used to solicit proposals from prospective sellers
 - A **proposal** is a document prepared by a seller when there are different approaches for meeting buyer needs
- **Requests for Quotes:** Used to solicit quotes or bids from prospective suppliers
 - A **bid**, also called a tender or quote (short for quotation), is a document prepared by sellers providing pricing for standard items that have been clearly defined by the buyer

Example of Request for Proposal (RFP) Template

Request for Proposal Template	
I.	Purpose of RFP
II.	Organization's Background
III.	Basic Requirements
IV.	Hardware and Software Environment
V.	Description of RFP Process
VI.	Statement of Work and Schedule Information
VII.	Possible Appendices
	A. Current System Overview
	B. System Requirements
	C. Volume and Size Data
	D. Required Contents of Vendor's Response to RFP
	E. Sample Contract

SOURCE SELECTION CRITERIA

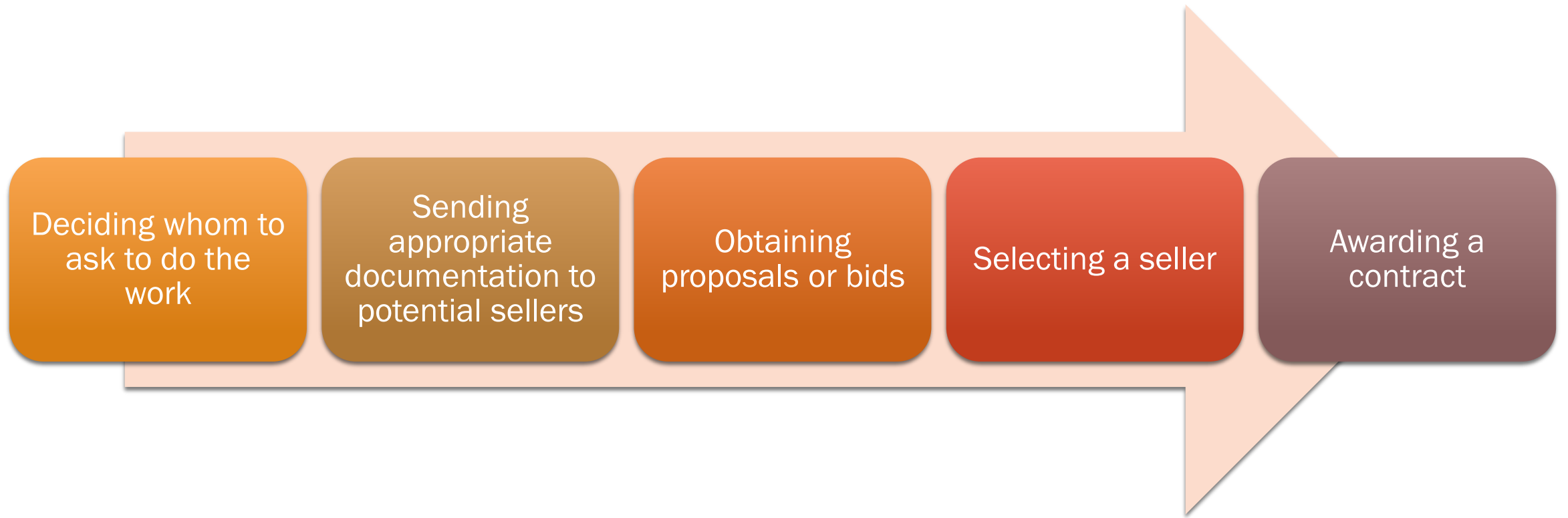
- It's important to prepare some form of evaluation criteria, preferably before issuing a formal RFP or RFQ
- Beware of proposals that look good on paper; be sure to evaluate factors, such as past performance and management approach
- Can require a technical presentation as part of a proposal



D: CONDUCTING PROCUREMENT



CONDUCTING PROCUREMENTS



APPROACHES FOR PROCUREMENT

- Organizations can advertise to procure goods and services in several ways:
 - Approaching the preferred vendor
 - Approaching several potential vendors
 - Advertising to anyone interested
- A bidders' conference can help clarify the buyer's expectations

SAMPLE PROPOSAL EVALUATION SHEET

		Proposal 1		Proposal 2		Proposal 3, etc.	
Criteria	Weight	Rating	Score	Rating	Score	Rating	Score
Technical approach	30%						
Management approach	30%						
Past performance	20%						
Price	20%						
Total score	100%						

SELLER SELECTION

- Organizations often do an initial evaluation of all proposals and bids and then develop a short list of potential sellers for further evaluation
- Sellers on the short list often prepare a **best and final offer** (BAFO)
- Final output is a contract signed by the buyer and the selected seller



E: CONTROLLING PROCUREMENT



CONTROLLING PROCUREMENTS

- Ensures that the seller's performance meets contractual requirements
- Contracts are legal relationships, so it is important that legal and contracting professionals be involved in writing and administering contracts
- It is critical that project managers and team members watch for **constructive change orders**, which are oral or written acts or omissions by someone with actual or apparent authority that can be construed to have the same effect as a written change order

SUGGESTIONS FOR CHANGE CONTROL IN CONTRACTS

- Changes to any part of the project need to be reviewed, approved, and documented by the same people in the same way that the original part of the plan was approved
- Evaluation of any change should include an impact analysis. How will the change affect the scope, time, cost, and quality of the goods or services being provided?
- Changes must be documented in writing. Project team members should also document all important meetings and telephone phone calls
- Project managers and teams should stay closely involved to make sure the new system will meet business needs and work in an operational environment
- Have backup plans
- Use tools and techniques, such as a contract change control system, buyer-conducted performance reviews, inspections and audits, and so on



F: CLOSING PROCUREMENT



CLOSING PROCUREMENTS

- Involves completing and settling contracts and resolving any open items
- The project team should:
 - Determine if all work was completed correctly and satisfactorily
 - Update records to reflect final results
 - Archive information for future use
- The contract itself should include requirements for formal acceptance and closure



G: TOOLS TO ASSIST PROCUREMENT



USING SOFTWARE TO ASSIST IN PROJECT PROCUREMENT MANAGEMENT

- Word processing software helps write proposals and contracts, spreadsheets help evaluate suppliers, databases help track suppliers, and presentation software helps present procurement-related information
- E-procurement software does many procurement functions electronically
- Organizations also use other Internet tools to find information on suppliers or auction goods and services



TOOLS TO ASSIST IN CONTRACT CLOSURE

- Procurement audits identify lessons learned in the procurement process
- Negotiated settlements help close contracts more smoothly
- A records management system provides the ability to easily organize, find, and archive procurement-related documents

CHAPTER SUMMARY

- Project procurement management involves acquiring goods and services for a project from outside the performing organization
- Processes include:
 - Plan procurement management
 - Conduct procurements
 - Control procurements
 - Close procurements