

Target: PMP® Certification



P Project Procurement Management

43 PLAN PROCUREMENT MANAGEMENT



44 CONDUCT PROCUREMENTS



45 CONTROL PROCUREMENTS



Project Procurement Management

Project Procurement Management is discussed within the perspective of the **buyer-seller** relationship

* **Project Procurement Management** includes the processes necessary to purchase or acquire products, services, or results needed from outside the project team.

“**Project Procurement Management** also includes

- The contract management and change control processes required to develop and administer contracts or purchase orders issued by authorized project team members.
- Controlling any contract issued by an outside organization (the buyer) that is acquiring deliverables from the project from the performing organization (the seller), and administering contractual obligations placed on the project team by the contract.”

Project Procurement Management

- “Depending on the application area, **the seller** may be identified as a **contractor, subcontractor, vendor, service provider, or supplier**.
- Depending upon the application area, **a contract** can also be called **an agreement, an understanding, a subcontract, or a purchase order**.
- Depending on the buyer’s position in the project acquisition cycle, **the buyer** may be called **a client, customer, prime contractor, contractor, acquiring organization, service requestor, or purchaser**.
- The seller will typically manage the work as a project if the acquisition is not just for shelf material, goods, or common products. In such cases:
 - The buyer becomes the customer, and is thus a key project stakeholder for the seller.
 - The seller’s project management team is concerned with all the processes of project management, not only with those of this Knowledge Area.
 - Terms and conditions of the contract become key inputs to many of the seller’s management processes. The contract can actually contain the inputs or it can limit the project team’s options.”

43

PLAN PROCUREMENT MANAGEMENT



* **Plan Procurement Management.** The process of **documenting** project procurement decisions, **specifying** the approach, and **identifying** potential sellers.

Plan Procurement Management process determines:

- Whether to procure
- How to procure
- What to procure
- How much to procure
- When to procure it

43

PLAN PROCUREMENT MANAGEMENT



INPUTS

- » Project charter
- » Business documents
 - Business case
 - Benefits management plan
- » Project management plan
 - Scope management plan
 - Quality management plan
 - Resource management plan
 - Scope baseline
- » Project documents
 - Milestone list
 - Project team assignments
 - Requirements documentation
 - Requirements traceability matrix
 - Resource requirements
 - Risk register
 - Stakeholder register
- » Enterprise environmental factors
- » Organizational process assets

TOOLS & TECHNIQUES

- ✓ Expert judgment
- ✓ Data gathering
 - Market research
- ✓ Data analysis
 - Make-or-buy analysis
- ✓ Source selection analysis
- ✓ Meetings

OUTPUTS

- Procurement management plan »
- Procurement strategy »
- Bid documents »
- Procurement statement of work »
- Source selection criteria »
- Make-or-buy decisions »
- Independent cost estimates »
- Change requests »
- Project documents updates »
 - Lessons learned register
 - Milestone list
 - Requirements documentation
 - Requirements traceability matrix
 - Risk register
 - Stakeholder register
- Organizational process assets updates »

43**PLAN PROCUREMENT MANAGEMENT****INPUTS****» Enterprise environmental factors**

Some examples of EEF that can influence the Plan Procurement Management process:

- Conditions from the marketplace;
- Products, services, and results that are available in the marketplace;
- Potential Suppliers and their history (past performance, reputation);
- Typical terms and conditions for what will be acquired or for the specific industry.

43**PLAN PROCUREMENT MANAGEMENT****INPUTS**» **Organizational process assets**

Some examples of OPA that can influence the Plan Procurement Management process:

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

43

PLAN PROCUREMENT MANAGEMENT



INPUTS

» Organizational process assets

* A contract is a mutually binding agreement that obligates the seller to provide the specified product or service or result and obligates the buyer to pay for it.

Contract Types:

- **Fixed-price** or lump sum contracts: * An agreement that sets the fee that will be paid for a defined scope of work regardless of the cost or effort to deliver it.
- **Cost reimbursable** contracts: * A type of contract involving payment to the seller for the seller's actual costs, plus a fee typically representing seller's profit.
- **Time and Material (T&M)** contracts: * A type of contract that is a hybrid contractual arrangement containing aspects of both cost-reimbursable and fixed-price contracts. The full value of the arrangement is not defined at the time of the award but the unit rates are preset by the buyer and seller
- **Purchase order** – used only for simple commodity procurements

43

PLAN PROCUREMENT MANAGEMENT



INPUTS

» Organizational process assets

Fixed-price contracts:

- The most common form of contract
- Appropriate when buyer can describe the scope of work
- Has the least cost risk for the buyer
- Has three forms:
 - * **Firm-Fixed-Price Contract (FFP)**. A type of fixed price contract where the buyer pays the seller a set amount (as defined by the contract), regardless of the seller's costs.
 - * **Fixed Price Incentive Fee Contract (FPIF)**. A type of contract where the buyer pays the seller a set amount (as defined by the contract), and the seller can earn an additional amount if the seller meets defined performance criteria.
 - * **Fixed Price with Economic Price Adjustment Contracts (FP-EPA)**. A fixed-price contract, but with a special provision allowing for predefined final adjustments to the contract price due to changed conditions, such as inflation changes, or cost increases (or decreases) for specific commodities.

43

PLAN PROCUREMENT MANAGEMENT



INPUTS

» Organizational process assets

Fixed Price Incentive Fee Contract (FPIF)

- “This fixed-price arrangement gives the buyer and seller some flexibility in that it allows for deviation from performance, with financial incentives tied to achieving agreed upon metrics. Typically such financial incentives are related to cost, schedule, or technical performance of the seller. Performance targets are established at the outset, and the final contract price is determined after completion of all work based on the seller’s performance. Under 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.”
- Point of Total Assumptions (PTA) is the cost above all the overspends will be in seller’s responsibility.
- In a FPIF contract the items negotiated includes but not limited to: Target Cost, Target Fee, Share Ratio and Ceiling Price.
- **$PTA = ((\text{Ceiling Price} - \text{Target Price}) / \text{buyer's Share Ratio}) + \text{Target Cost}$**

43

PLAN PROCUREMENT MANAGEMENT



INPUTS

» Organizational process assets

Cost-reimbursable contracts:

- All seller's cost are reimbursed by the buyer
- The cost is unknown at the beginning
- The buyer has the most cost risk
- It is used when precise description of goods or services cannot be developed
- The seller is responsible for detailing the scope of work
- Has three forms:
 - *** Cost Plus Fixed Fee Contract (CPFF).** A type of cost-reimbursable contract where the buyer reimburses the seller for the seller's allowable costs (allowable costs are defined by the contract) plus a fixed amount of profit (fee).
 - *** Cost Plus Incentive Fee Contract (CPIF).** A type of cost-reimbursable contract where the buyer reimburses the seller for the seller's allowable costs (allowable costs are defined by the contract), and the seller earns its profit if it meets defined performance criteria.
 - *** Cost Plus Award Fee Contracts (CPAF).** A category of contract that involves payments to the seller for all legitimate actual costs incurred for completed work, plus an award fee representing seller profit.

43

PLAN PROCUREMENT MANAGEMENT



TOOLS & TECHNIQUES

✓ Make-or-buy analysis

* **Make-or-Buy Analysis.** The process of gathering and organizing data about product requirements and analyzing them against available alternatives including the purchase or internal manufacture of the product.

- Analysis includes both direct and indirect costs
- Influenced by:
 - Existing capabilities of the organization
 - Resource availability within the organization
 - Budget Constraints
 - Available contract types

43**PLAN PROCUREMENT MANAGEMENT****TOOLS & TECHNIQUES****✓ Expert judgment**

Expert judgement may involve:

- Legal expertise
- Business expertise
- Technical expertise
- Purchasing expertise

43

PLAN PROCUREMENT MANAGEMENT



TOOLS & TECHNIQUES

✓ Market research

* **Market Research.** The process of gathering information at conferences, online reviews, and a variety of sources to identify market capabilities.

43

PLAN PROCUREMENT MANAGEMENT



OUTPUTS

Procurement management
plan »

* **Procurement Management Plan.** A component of the project or program management plan that describes how a project team will acquire goods and services from outside the performing organization.

43

PLAN PROCUREMENT MANAGEMENT



OUTPUTS

Procurement management
plan »

"The procurement management plan can include guidance for:

- Types of contracts to be used;
- Risk management issues;
- Whether independent estimates will be used and whether they are needed as evaluation criteria;
- Those actions the project management team can take unilaterally, if the performing organization has a prescribed procurement, contracting, or purchasing department;
- Standardized procurement documents, if needed;
- Managing multiple suppliers;
- Coordinating procurement with other project aspects, such as scheduling and performance reporting;
- Any constraints and assumptions that could affect planned procurements;
- Handling the long lead times to purchase certain items from sellers and coordinating the extra time needed to procure these items with the development of the project schedule;
- Handling the make-or-buy decisions and linking them into the Estimate Activity Resources and Develop Schedule processes;
- Setting the scheduled dates in each contract for the contract deliverables and coordinating with the schedule development and control processes;
- Identifying requirements for 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 work breakdown structure (WBS);
- Establishing the form and format to be used for the procurement/contract statements of work;
- Identifying prequalified sellers, if any, to be used; and
- Procurement metrics to be used to manage contracts and evaluate sellers."

43

PLAN PROCUREMENT MANAGEMENT



OUTPUTS

Procurement statement of work »

* **Procurement Statement of Work.** Describes the procurement item in sufficient detail to allow prospective sellers to determine if they are capable of providing the products, services, or results. Procurement Statement of Work can include:

- Specifications
- Quantity desired
- Quality levels
- Performance data
- Period of performance
- Work location
- Performance reporting
- Post-project operational support

Procurement Statement of Work needed attributes:

- Clear
- Complete
- Concise

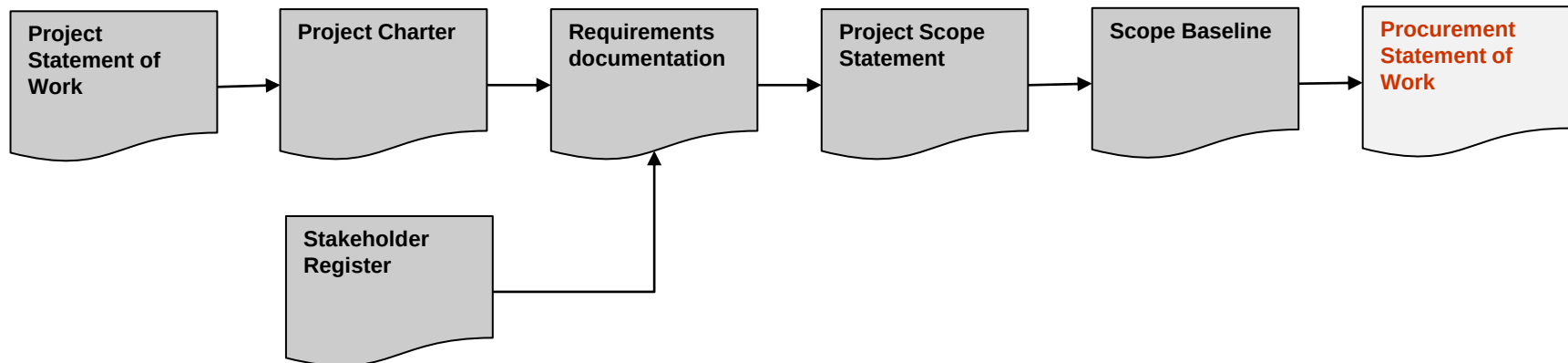
43

PLAN PROCUREMENT MANAGEMENT



OUTPUTS

Procurement statement of work »



43

PLAN PROCUREMENT MANAGEMENT



OUTPUTS

Procurement documents »

*** Procurement Documents.** The documents utilized in bid and proposal activities, which include the buyer's Invitation for Bid, Invitation for Negotiations, Request for Information, Request for Quotation, Request for Proposal, and seller's responses.

Procurement terminology:

- Tender, Bid, Quotation – used when the seller selection decision is based on price.
- Proposal – used when the seller selection decision is based first on other considerations then price.

Types of Procurement documents:

- Request for Information (RFI)
- Request for Proposal (RFP)
- Request for Quotation (RFQ)
- Invitation for Bid (IFB)
- Tender notice
- Invitation for negotiation
- Invitation for seller's initial response

43**PLAN PROCUREMENT MANAGEMENT****OUTPUTS****Procurement documents »****Procurement Documents include:**

- A description of the desired form of the response
- Procurement statement of work (SOW)
- Any required contractual provisions

43

PLAN PROCUREMENT MANAGEMENT



OUTPUTS

Source selection criteria »

*** Source Selection Criteria.** A set of attributes desired by the buyer which a seller is required to meet or exceed to be selected for a contract.

Some possible source selection criteria are:

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

43

PLAN PROCUREMENT MANAGEMENT



OUTPUTS

Make-or-buy decisions »

* **Make-or-Buy Decisions.** Decisions made regarding the external purchase or internal manufacture of a product.

“Factors that influence make-or-buy decisions may include:

- Core capabilities of the organization,
- Value delivered by vendors meeting the need,
- Risks associated with meeting the need in a cost-effective manner, and
- Capability internally compared with the vendor community.”

44

CONDUCT PROCUREMENTS

* **Conduct Procurements.** The process of obtaining seller responses, selecting a seller, and awarding a contract.

44

CONDUCT PROCUREMENTS



INPUTS

- » Project management Plan
 - Scope management plan
 - Requirements management plan
 - Communications management plan
 - Risk management plan
 - Procurement management plan
 - Configuration management plan
 - Cost baseline
- » Project documents
 - Lessons learned register
 - Project schedule
 - Requirements documentation
 - Risk register
 - Stakeholder register
- » Procurement documentation
- » Seller proposals
- » Procurement statement of work
- » Organizational process assets

TOOLS & TECHNIQUES

- ✓ Expert judgment
- ✓ Advertising
- ✓ Bidder conference
- ✓ Data analysis
 - Proposal evaluation
- ✓ Interpersonal and team skills
 - Negotiation

OUTPUTS

- Selected sellers »
- Agreements »
- Change requests »
- Project management plan updates »
 - Requirements management plan
 - Quality management plan
 - Communications management plan
 - Risk management plan
 - Procurement management plan
 - Scope baseline
 - Schedule baseline
 - Cost baseline
- Project documents updates »
 - Lessons learned register
 - Requirements documentation
 - Requirements traceability matrix
 - Resource calendars
 - Risk register
 - Stakeholder register
- Organizational process assets updates »

44

CONDUCT PROCUREMENTS



TOOLS & TECHNIQUES

✓ Bidder conference

* **Bidder Conference.** The meetings with prospective sellers prior to the preparation of a bid or proposal to ensure all prospective vendors have a clear and common understanding of the procurement. Also known as contractor conferences, vendor conferences, or pre-bid conferences.

44

CONDUCT PROCUREMENTS



TOOLS & TECHNIQUES

✓ Proposal evaluation techniques

* **Proposal Evaluation Techniques.** The process of reviewing proposals provided by suppliers to support contract award decisions.

A weighted criteria may be applied to seller proposals in order to evaluate them.

44

CONDUCT PROCUREMENTS



TOOLS & TECHNIQUES

✓ Independent estimates

* **Independent Estimates.** A process of using a third party to obtain and analyze information to support prediction of cost, schedule, or other items.

- It's a tool for benchmarking and validate that the proposals from the potential sellers

44**CONDUCT PROCUREMENTS****TOOLS & TECHNIQUES****✓ Advertising****Why:**

- to expand the existing list of potential sellers
- it's required for public procurements

How

- Placing advertisement for the procurement in newspapers, magazines, and other publications or online

44

CONDUCT PROCUREMENTS



TOOLS & TECHNIQUES

✓ Analytical techniques

“**Analytical techniques** can help organizations identify the readiness of a vendor to provide the desired end state, determine the cost expected to support budgeting, and avoid cost overruns due to changes. By examining past performance information, teams may identify areas that may have more risk and that need to be monitored closely to ensure success of the project.”

44**CONDUCT PROCUREMENTS****TOOLS & TECHNIQUES**✓ **Procurement negotiations**

Subjects of procurement negotiations include but not limited to:

- responsibilities,
- authority to make changes,
- applicable terms and governing law,
- technical and business management approaches,
- proprietary rights,
- contract financing,
- technical solutions,
- overall schedule,
- payments,
- Price

Procurement negotiations result in mutual agreement and conclude with a contract document

Procurement negotiations —————> **Mutual agreement** —————> **Contract document**

44

CONDUCT PROCUREMENTS



OUTPUTS

Selected sellers »

* **Selected Sellers.** The sellers which have been selected to provide a contracted set of services or products.

There are some noncompetitive procurements cases:

- When seller has unique qualifications or holds a patent
- When there is only one seller
- Two forms:
 - Single Source - a preferred provider
 - Sole Source - only one provider

44

CONDUCT PROCUREMENTS



OUTPUTS

Agreements »

*** Agreements.** Any document or communication that defines the initial intentions of a project. This can take the form of a contract, memorandum of understanding (MOU), letters of agreement, verbal agreements, email, etc.

May include the following:

- Statement of work or deliverables,
- Schedule baseline,
- Performance reporting,
- Period of performance,
- Roles and responsibilities,
- Seller's place of performance,
- Pricing,
- Payment terms,
- Place of delivery,
- Inspection and acceptance criteria,
- Warranty,
- Product support,
- Limitation of liability,
- Fees and retainer,
- Penalties,
- Incentives,
- Insurance and performance bonds,
- Subordinate subcontractor approvals,
- Change request handling, and
- Termination clause and alternative dispute resolution (ADR) mechanisms.

44**CONDUCT PROCUREMENTS****OUTPUTS****Resource calendars »**

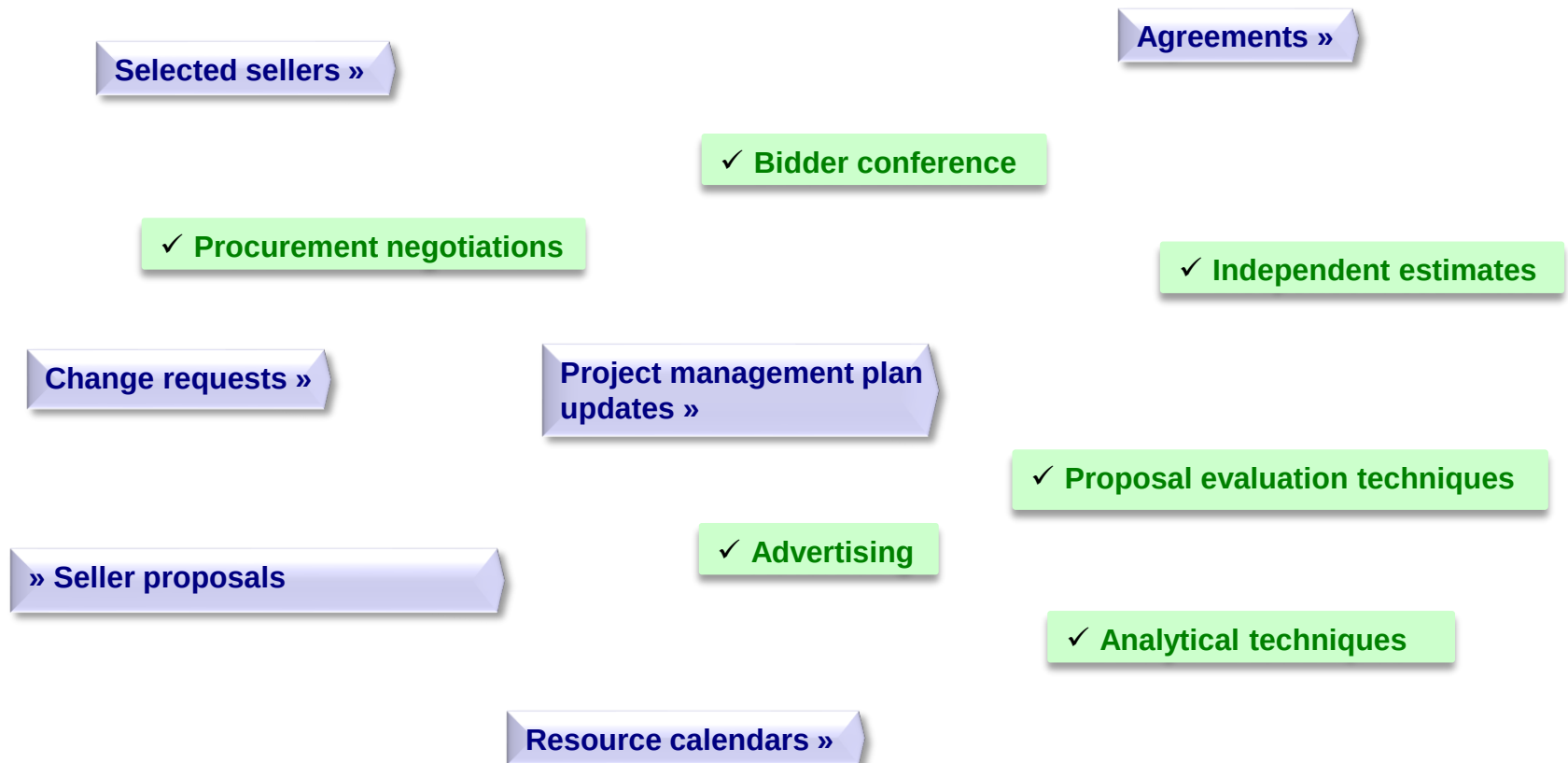
“The quantity and availability of contracted resources and those dates on which each specific resource or resource group can be active or idle are documented.”

44

CONDUCT PROCUREMENTS



Sequence in a logical order:

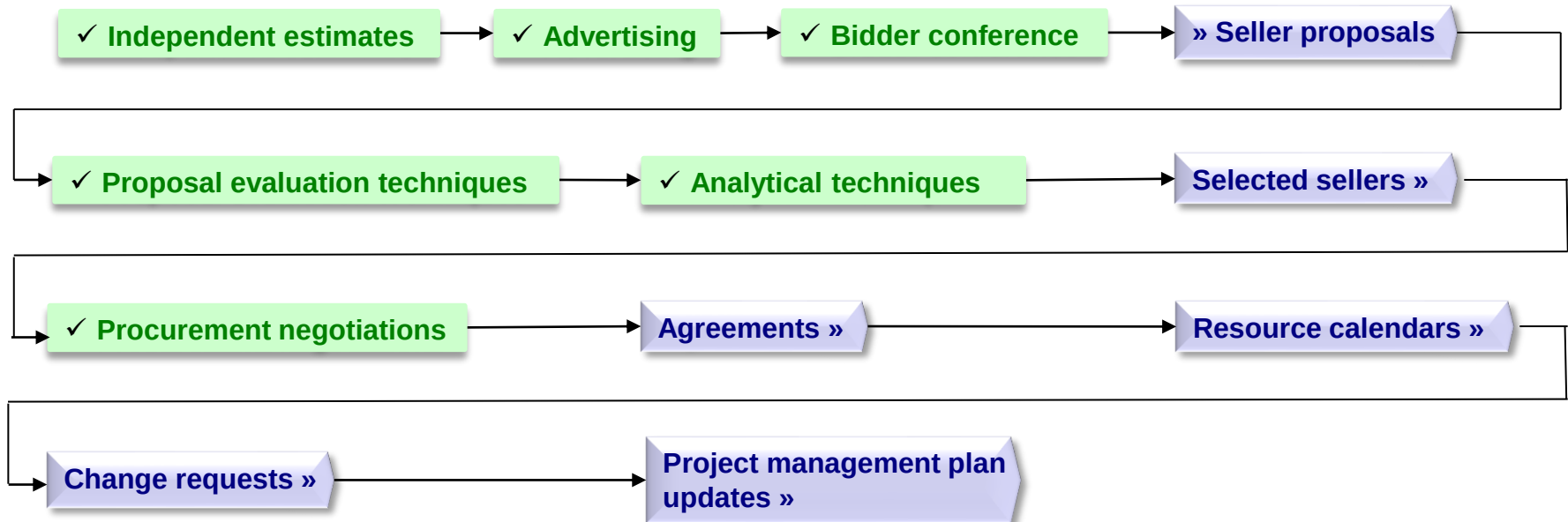


44

CONDUCT PROCUREMENTS



An example of sequencing in a logical order:



45

CONTROL PROCUREMENTS



*** Control Procurements.** The process of managing procurement relationships, monitoring contract performance, making changes and corrections as appropriate, and closing out contracts.

“ Control Procurements includes application of the appropriate project management processes to the contractual relationship(s) and integration of the outputs from these processes into the overall management of the project. The project management processes that are applied may include, but are not limited to:

- **Direct and Manage Project Work.** To authorize the seller's work at the appropriate time.
- **Control Quality.** To inspect and verify the adequacy of the seller's product.
- **Perform Integrated Change Control.** To assure that changes are properly approved and that all those with a need to know are aware of such changes.
- **Control Risks.** To ensure that risks are mitigated.”

Control Procurements other activities:

- monitoring payments to the seller.
- ensuring that seller compensation is linked to seller progress, as defined in the contract.
- reviewing and documenting how well a seller is performing.
- establishing corrective actions when needed.

**This definition is taken from the Glossary of the Project Management Institute, A Guide to the Project Management Body of Knowledge, (PMBOK® Guide) – Sixth Edition, Project Management Institute, Inc., 2017.*

Project Management Institute, A Guide to the Project Management Body of Knowledge, (PMBOK® Guide) – Sixth Edition, Project Management Institute, Inc., 2017, Page 381.

45

CONTROL PROCUREMENTS



INPUTS

- » Project management plan
 - Requirements management plan
 - Risk management plan
 - Procurement management plan
 - Change management plan
 - Schedule baseline
- » Project documents
 - Assumption log
 - Lessons learned register
 - Milestone list
 - Quality reports
 - Requirements documentation
 - Requirements traceability matrix
 - Risk register
 - Stakeholder register
- » Agreements
- » Procurement documentation
- » Approved change requests
- » Work performance data
- » Enterprise environmental factors
- » Organizational process assets

TOOLS & TECHNIQUES

- ✓ Expert judgment
- ✓ Claims administration
- ✓ Data analysis
 - Performance reviews
 - Earned value analysis
 - Trend analysis
- ✓ Inspection
- ✓ Audits

OUTPUTS

- Closed procurements »
- Work performance information »
- Procurement documentation updates »
- Change requests »
- Project management plan updates »
 - Risk management plan
 - Procurement management plan
 - Schedule baseline
 - Cost baseline
- Project documents updates »
 - Lessons learned register
 - Resource requirements
 - Requirements traceability matrix
 - Risk register
 - Stakeholder register
- Organizational process assets Updates »

45

CONTROL PROCUREMENTS



INPUTS

» Approved change requests

Approved change request to the contract. They can refer to:

- T&C
- Procurement statement of work
- Pricing
- Milestones
- Quality exit criteria

45

CONTROL PROCUREMENTS



INPUTS

» Work performance reports

Work performance reports from the seller can include but not limited to:

- Technical documentation and other information provided in accordance with the contract
- Work performance information about completion of the deliverables

45**CONTROL PROCUREMENTS****INPUTS**

» Work performance data

Work performance data includes but not limited to:

- the extent to which quality standards are being satisfied.
- the costs that have been incurred or committed.
- identification of the seller invoices that have been paid.

45

CONTROL PROCUREMENTS



TOOLS & TECHNIQUES

✓ Contract change control system

* **Contract Change Control System.** The system used to collect, track, adjudicate, and communicate changes to a contract.

The contract change control system is integrated with the change control system of the organization.

45**CONTROL PROCUREMENTS****TOOLS & TECHNIQUES****✓ Inspections and audits**

“Inspections and audits required by the buyer and supported by the seller, as specified in the procurement contract, can be conducted during execution of the project to verify compliance in the seller’s work processes or deliverables.”

45

CONTROL PROCUREMENTS



TOOLS & TECHNIQUES

✓ Claims administration

* **Claims Administration.** The process of processing, adjudicating, and communicating contract claims.

If the claim is not resolved between the parties, it will be handled in accordance with alternative dispute resolution (ADR)

Contract Interpretation:

- Words over numbers
- Detailed terms over general terms
- Common definition over intended meaning
- Industry use of term over common use of term
- Special provisions over general provisions
- Initialed handwritten comment over typed-over wording
- Contract language over memos and agreements

45**CONTROL PROCUREMENTS****TOOLS & TECHNIQUES**✓ **Procurement audits**

*** Procurement Audits.** The review of contracts and contracting processes for completeness, accuracy, and effectiveness.

45

CONTROL PROCUREMENTS



OUTPUTS

Closed procurements »

* **Closed Procurements.** Project contracts or other procurement agreements that have been formally acknowledged by the proper authorizing agent as being finalized and signed off.

Usually a formal written notice is sent by the buyer to the seller that the contract has been completed.

Requirements for formal contract closure are usually defined in the contract

45**CONTROL PROCUREMENTS****OUTPUTS**

Organizational process assets
updates »

The updates include but are not limited to:

- Procurement file.
- Deliverable acceptance.
- Lessons learned documentation.

Project Procurement Management

43 PLAN PROCUREMENT MANAGEMENT



44 CONDUCT PROCUREMENTS



45 CONTROL PROCUREMENTS



P Project Procurement Management



- CPFF
- CPIF vs CPAF
- T&M
- FFP, FPIF, FPEPA
- $PTA = ((\text{Ceiling Price} - \text{Target Price}) / \text{buyer's Share Ratio}) + \text{Target Cost}$
- Types of procurement documents
- Source selection criteria
- Bidder Conference definition
- Agreement content
- Claims Administration
- ADR
- Conduct Procurement vs Control Procurement
- Contract Change Control System
- Records Management System
- Procurement negotiation in Conduct Procurement vs Procurement negotiation in Close Procurement
- Procurements audits
- Closed procurements

P Project Procurement Management

25 Questions/30 Minutes