

# Project Procurement Management

**Project Skills**

Team FME

[www.free-management-ebooks.com](http://www.free-management-ebooks.com)

ISBN 978-1-62620-987-1

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ISBN 978-1-62620-987-1

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# Table of Contents

<b>Preface</b> .....	<b>2</b>
<b>Visit Our Website</b> .....	<b>3</b>
<b>About this Knowledge Area</b> .....	<b>4</b>
<b>Introduction</b> .....	<b>5</b>
The PMBOK® Project Procurement Management Processes.....	<b>7</b>
<b>12.1 Plan Procurement Management</b> .....	<b>8</b>
12.1.1 Plan Procurement Management: Inputs.....	<b>9</b>
Contract Types.....	<b>12</b>
12.1.2 Plan Procurement Management: Tools and Techniques.....	<b>16</b>
12.1.3 Plan Procurement Management: Outputs.....	<b>18</b>
<b>12.2 Conduct Procurements</b> .....	<b>23</b>
12.2.1 Conduct Procurements: Inputs.....	<b>24</b>
12.2.2 Conduct Procurements: Tools and Techniques.....	<b>25</b>
12.2.3 Conduct Procurements: Outputs.....	<b>28</b>
<b>12.3 Control Procurements</b> .....	<b>29</b>
12.3.1 Control Procurements: Inputs.....	<b>31</b>
12.3.2 Control Procurements: Tools and Techniques.....	<b>32</b>
12.3.3 Control Procurements: Outputs.....	<b>34</b>
<b>12.4 Close Procurements</b> .....	<b>35</b>
12.4.1 Close Procurements: Inputs.....	<b>36</b>
12.4.2 Close Procurements: Tools and Techniques.....	<b>36</b>
12.4.3 Close Procurements: Outputs.....	<b>37</b>
<b>Summary</b> .....	<b>39</b>
<b>Other Free Resources</b> .....	<b>41</b>
<b>References</b> .....	<b>42</b>

## Preface

Project Procurement Management describes the processes required to obtain products or services from outside of the project. This covers buying, leasing or hiring products or services from suppliers as well as requisitioning them from other departments within the organization.

You will learn:

- What procurement management involves and how it relates to the project
- Why a structured approach to buying in products and services is essential
- How to apply standards and procedures to improve your effectiveness
- The benefit of treating procurement management as a distinct knowledge area

The Free Management eBooks 'Project Skills' series are structured around the ten key knowledge areas of project management detailed in the 'Project Management Institute, A Guide to the Project Management Body of Knowledge, (PMBOK® Guide)—Fifth Edition, Project Management Institute Inc., 2013'. ISBN-13: 978-1935589679.

The eBooks in this series follow the structure of the PMBOK® Guide because it represents a tried and tested framework. We have tried to ensure full alignment of our eBooks with the Guide by using the numbering convention as well as the naming convention.

If you need more detailed explanation of a particular subject then you can simply refer to the related chapter and paragraph number in the PMBOK® Guide. Remember, many of the generic project management methodologies available refer to the PMBOK® Guide as a basic framework.

A knowledge of the PMBOK® processes will go a long way towards giving you an understanding of almost any project management methodology that your organization may use.

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## About this Knowledge Area

Almost all projects will require some external resources, services or products to be able to meet their objective. Those that cannot be provided internally will need to be purchased from an external source. The more complex a project is the more likelihood it will need outside specialists to meet its objective.

Outsourcing has become one of the most popular and efficient ways to procure these additional and specialist resources. The nature of traditional fixed price contracts is not always suitable to the project environment where creative input from suppliers and partners is required as the contract scope evolves.



Procurement of services, products and resources involves the need for legal contracts and each organization will have their own policies and procedures that must be followed when making any purchases on their behalf. PMBOK® defines the knowledge area of Project Procurement Management as:

***‘Project Procurement Management includes the processes to purchase or acquire the products, services or results needed from outside the project team to perform the work’ (PMBOK® Guide)***

Such specialist knowledge often requires a person (‘the buyer’) to be included on the project team. This individual is responsible for ensuring every item procured for the project follows the Project Procurement Management processes as shown in the table below.

Process	Project Phase	Key Deliverables
12.1 Plan Procurement Management	Planning	Procurement Management Plan
12.2 Conduct Procurements	Execution	Selected Sellers, Agreements
12.3 Control Procurements	Monitoring & Controlling	Change Requests
12.4 Close Procurements	Closure	Closed Procurements

These processes interact with each other and with the processes in the other Knowledge Areas. Each process is presented here as a discrete element with well-defined interfaces, although in practice they will overlap and interact.

### Introduction

Projects can rarely be resourced completely from internal expertise and personnel, so external resources need to be found. Once the requirements have been defined, suppliers are invited to bid for the work and from these responses a supplier must be chosen to provide the service, product or result.

Throughout this process, the project manager will call upon experts in the procurement department to assist and where necessary assigned to the project team. Decisions as to whether to outsource and whom are made by the relevant stakeholder(s) with the assistance of the project manager.

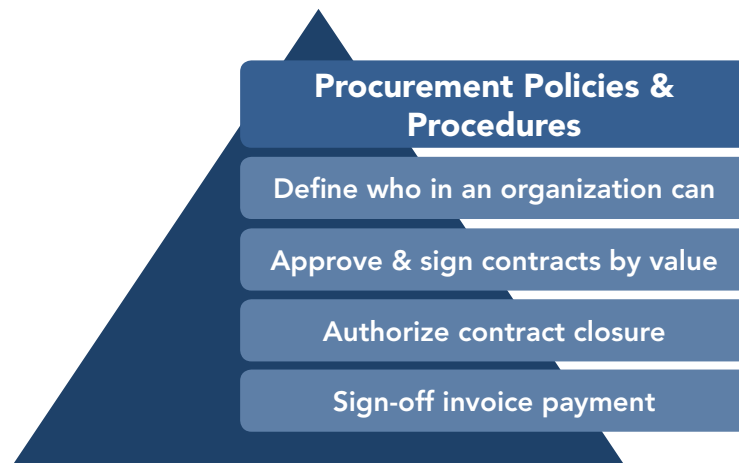


When dealing with suppliers, there will inevitably be a legally binding contract involved that represents a mutually binding agreement. This obligates the supplier to provide the specified products, services, or results, and obligates the buyer to provide payment in return.

These contractual obligations are the way in which risks the project faces can be alleviated or transferred to the provider. Knowing how to identify, assess and minimize risks is a separate knowledge area and is not covered within this eBook. To find out more about Project Risk Management please see our 'Project Risk Management' eBook.

The legally binding nature of a contract means that it needs to be subjected to an approval process. This ensures that it not only describes the products, services, or results that will satisfy the identified project need but that it complies with organizational procurement policies.

Most organizations will have documented policies and procedures describing who has authority to sign and administer such agreements on behalf of the organization. In addition, the project management team may be required to take advice from the organization's legal representatives.



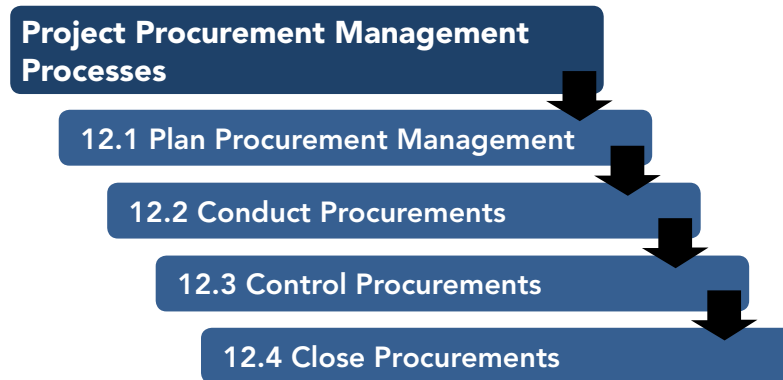
All contracts have a lifecycle in which the supplier is first viewed as a bidder, then as the selected provider, and finally as the contracted supplier. By actively managing this lifecycle and carefully wording the terms and conditions of the contract, some identifiable project risks can be avoided, mitigated, or transferred to the supplier.

This eBook discusses procurement in terms of a customer/supplier relationship where the customer is part of the project management team and the supplier is an external organization. However, most of the information is equally applicable to non-contractual work, entered into with other departments within the performing organization.

In order to keep things simple this eBook refers to the parties involved in procurement as the buyer and the seller/supplier. The buyer is the party who are purchasing or procuring the goods or services, the seller or supplier is the party that provides or delivers the products or services to the buyer. This is the case even where no money is involved or where the parties are part of the same performing organization.



## The PMBOK® Project Procurement Management Processes



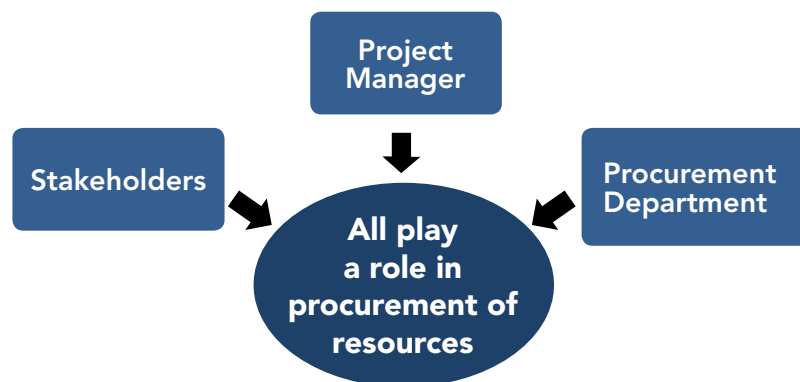
There are four PMBOK® Project Procurement Management processes in this knowledge area:

- 12.1 Plan Procurement Management
- 12.2 Conduct Procurements
- 12.3 Control Procurements
- 12.4 Close Procurements

These are dealt with in detail in the following chapters of this eBook.

## 12.1 Plan Procurement Management

This process determines which products or services a project will need to procure from an external source. Once this has been decided the project manager will determine the appropriate types of contracts that will need to be used on the project.



The decision being made here is either to 'make or buy', and the requirements of the project schedule and consideration of the resources available will both have an influence on this. Part of these decision-making processes involves the project manager liaising with the relevant stakeholder(s) for each potential procurement. The questions that need to be answered as part of this process include:

- What products or services is it best to buy in?
- How could this best be done?
- How much is needed?
- When does this need to be done?

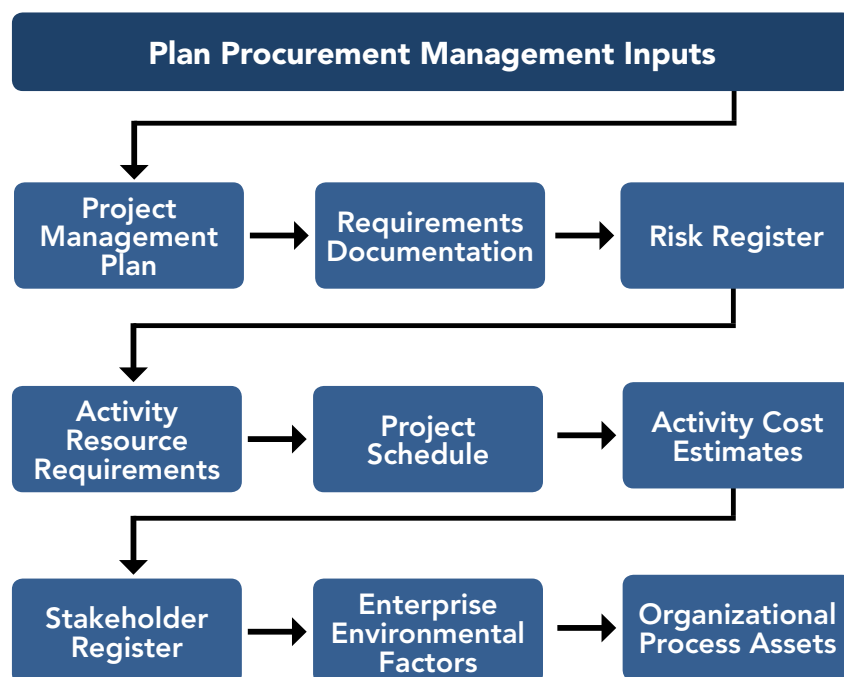
This process includes consideration of the risks involved with each 'make-or-buy' decision. It also includes reviewing the type of contract planned to be used with respect to mitigating risks, sometimes transferring risks to the seller. (To learn more about understanding how to manage risks associated with a project download our free eBook on this topic <http://www.free-management-ebooks.com/skills-project.htm>.)

The inputs, tools and techniques, and outputs of this process are summarized in the table below.

Inputs	Tools & Techniques	Outputs
Project Management Plan	Make-or-buy Analysis	Procurement Management Plan
Requirements Documentation	Expert Judgment	Procurement Statement of Work
Risk Register	Market Research	Procurement Documents
Activity Resource Requirements	Meetings	Source Selection Criteria
Project Schedule		Make-or-buy Decisions
Activity Cost Estimates		Change Requests
Stakeholder Register		Project Documents Updates
Enterprise Environmental Factors		
Organizational Process Assets		

### 12.1.1 Plan Procurement Management: Inputs

This process requires the following inputs:



### **12.1.1.1 Project Management Plan**

This contains the scope statement, which provides the product description, acceptance criteria, key deliverables, project boundaries, assumptions, and constraints about the project.

It also contains the work breakdown structure (WBS) and the WBS dictionary. This shows the relationships among all the components of the project and the project deliverables as well as a description of the work in each WBS component required to produce each deliverable.

### **12.1.1.2 Requirements Documentation**

Requirements with contractual and legal implications that may include:

- Health & safety
- Security
- Performance
- Environmental
- Insurance
- Intellectual property rights
- Equal employment opportunity
- Licenses & permits

All of which are considered when planning for procurements.

### **12.1.1.3 Risk Register**

The risk register that is created in process '11.2 Identify Risks' contains the list of all known risks and may include any that are relevant to the procurement process.

### **12.1.1.4 Activity Resource Requirements**

The availability of resources will be an important input into the decision about whether to 'make or buy'.

### **12.1.1.5 Project Schedule**

The project schedule is created in process '6.5 Develop Schedule' and contains the duration and timing for the project work to be performed. It can also influence the 'make or buy' decision.

#### 12.1.1.6 Activity Cost Estimates

Cost estimates are used to evaluate the reasonableness of the bids or proposals received from potential sellers.

#### 12.1.1.7 Stakeholder Register

This is created in process '13.1 Identify Stakeholders' and provides details on the project participants and their interests in the project.

#### 12.1.1.8 Enterprise Environmental Factors

These include formal procurement policies, procedures, and guidelines, as well as management systems that should be considered. There may also be an established pool of preferred suppliers based on prior experience.

#### 12.1.1.9 Organizational Process Assets

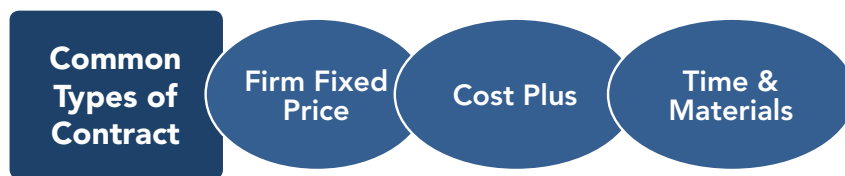
These may include standard terms and conditions, policies and procedures or guidelines, legal frameworks, procurement tools or lessons learned.



However, the most important assets are usually contract templates based on contracts that have been used successfully on previous similar projects.

## Contract Types

There are several different types of contract that can be used, although the most common is the fixed-price type, which involves setting a fixed total price for a precisely defined product or service to be provided. Changes in scope can be accommodated, but generally at an increase in the contract price. Sellers under fixed-price contracts are legally obligated to complete such contracts, with possible financial damages if they do not.



This type of contract has three variants:

- Firm Fixed Price (FFP)
- Cost Reimbursable or Cost Plus
- Time & Material Contracts (T&M)

All legal contractual relationships generally fall into one of the two types described, either fixed-price or cost reimbursable. However, there is a third hybrid-type commonly in use called the time and materials (T&M) contract.

### **Firm Fixed Price (FFP)**

The FFP is the most commonly used contract type. The three most popular are:

- Firm Fixed Price (FFP)
- Fixed Price Incentive Fee (FPIF)
- Fixed Price with Economic Price Adjustment (FP-EPA)

### ***Firm Fixed Price (FFP)***

Fixed price is favored by most organizations because the price is set and is not subject to change unless the scope of work changes. Any cost increases due to adverse performance would be the responsibility of the seller.

**Fixed Price Incentive Fee (FPIF)**

A FPIF contract gives the buyer and seller some flexibility in that it allows for deviation from performance, with a financial incentive for achieving certain metrics. Generally the incentives are related to cost, schedule, or the technical performance of the seller. A price ceiling is set and any costs above that ceiling are the responsibility of the seller.

**Fixed Price with Economic Price Adjustment (FP-EPA)**

FP-EPA contracts are used for long-term contracts and they allow for pre-defined adjustments to the contract price due to changed conditions. This could include inflation changes or increased or decreased costs for specific commodities.

The contract is intended to protect both the buyer and seller from external conditions over which they have no control. This is often used where interest rates or exchange rates may affect the project, and this contract types will describe such economic adjustments based on some form of indices such as interest or currency exchange rates.

Although the firm-fixed-price type of contractual arrangement is typically the preferred type that is encouraged and often demanded by most organizations, there are times when another contract form may be in the best interests of the project. If a contract type other than fixed-price is intended, it is incumbent on the project team to justify its use. The type of contract to be used and the specific contract terms and conditions fix the degree of risk being assumed by the buyer and seller.

## Cost Plus Contracts



This type of contract involves payment to the seller for seller's actual costs, plus a fee typically representing seller profit. Cost-reimbursable contracts place more risk on the buyer. Three common types:

- Cost Plus Fixed Fee (CPFF),
- Cost Plus Incentive Fee (CPIF),
- Cost Plus Award Fee (CPAF)

### **Cost Plus Fixed Fee (CPFF)**

In a CPFF contract the seller is reimbursed for allowable costs for performing the work and also receives a fixed fee payment that is calculated as a percentage of the initial estimated project costs.



The fee amount would only change if there were a change to the project scope.

### **Cost Plus Incentive Fee (CPIF)**

In a CPIF contract the seller is reimbursed for allowable costs and the seller receives an incentive fee based on achieving certain performance objectives.





If the final costs differ from the original estimated costs, then both the buyer and seller share costs based upon a pre-negotiated formula (such as 60/40). Generally the first number in the split refers to the buyer's portion, the second number to the seller's portion.

### **Cost Plus Award Fee (CPAF)**

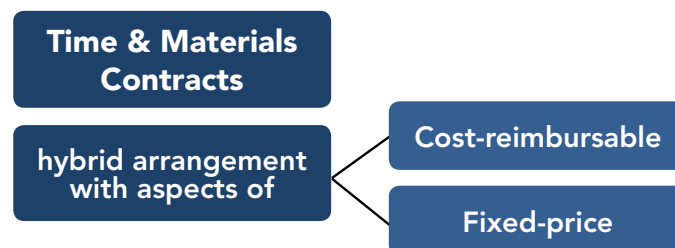
In a CPAF contract the seller is reimbursed for allowable costs. The majority of the fee is only earned based on the satisfaction of identified broad subjective performance criteria.



The performance criteria is defined and included in the contract and the fee determination is based solely on the determination of seller performance by the buyer and is usually not subject to appeals.

### **Time and Material Contracts (T&M)**

Time and material contracts are a hybrid type of contractual arrangement that contain aspects of both cost-reimbursable and fixed-price contracts. They are often used for staff augmentation, acquisition of experts, and any outside support when a precise statement of work cannot be quickly prescribed.



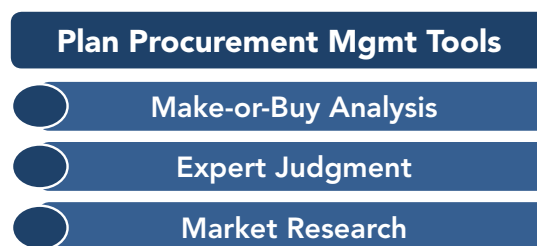
These types of contracts resemble cost-reimbursable contracts in that they can be left open ended and may be subject to a cost increase for the buyer. The buyer may not define the full value of the agreement and the exact quantity of items to be delivered at the time of the contract award.

Thus, T&M contracts can increase in contract value as if they were cost-reimbursable contracts. Many organizations require not-to-exceed values and time limits placed in all T&M contracts to prevent unlimited cost growth.

Conversely, T&M contracts can also resemble fixed unit price arrangements when certain parameters are specified in the contract. Unit labor or material rates can be preset by the buyer and seller, including seller profit, when both parties agree on the values for specific resource categories, such as senior engineers at specified rates per hour, or categories of materials at specified rates per unit.

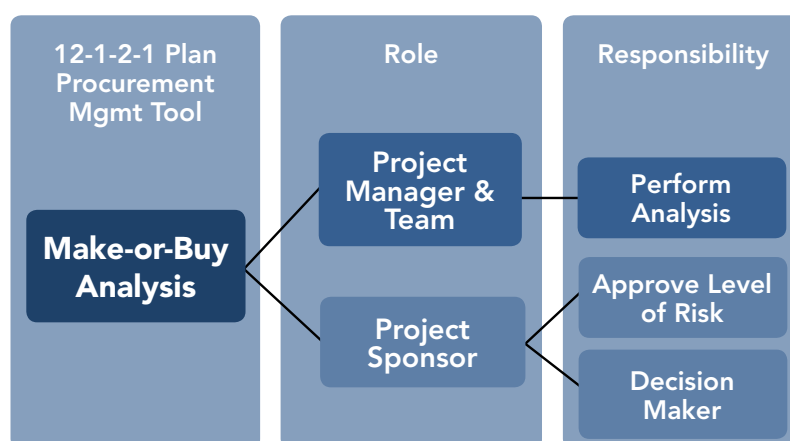
### 12.1.2 Plan Procurement Management: Tools and Techniques

There are four tools and techniques that can be used.



#### 12.1.2.1 Make-or-buy Analysis

A 'make or buy' decision will need to be taken where the option exists to do the work in-house as part of the project or to purchase some products or services from outside suppliers. The most important thing to note about these decisions is that the project manager should **not** be the one to take them.

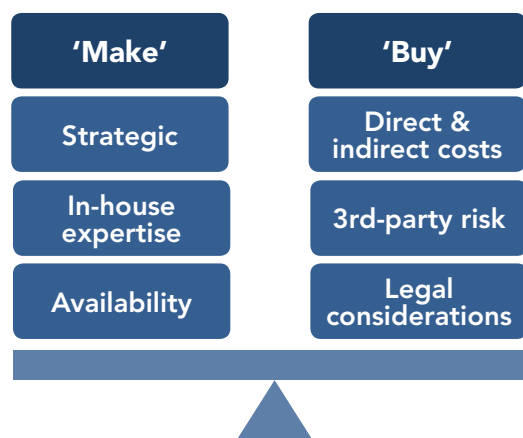


It is the project manager's responsibility (along with the project management team) to perform the analysis in each case, but the actual decision must be taken by the project sponsor and documented as such. The reason why this is so important is because of the potential risk involved in passing work to a third party over whom the project manager has no direct control.

This 'make or buy' analysis weighs the many factors that could influence the decision including:

- Cost
- Risk factors
- In-house skills
- Knowledge or experience
- Sharing of confidential information & other security matters
- Etc.

Sometimes a capability may exist within the project organization, but may be already committed to working on other projects, in which case the project may need to out-source the work in order to meet its schedule commitments.



The analysis should consider all related costs; both direct costs as well as indirect support costs. For example, the buy-side of the analysis includes both the actual out-of-pocket costs to purchase the product, as well as the indirect costs of supporting the purchasing process.

### 12.1.2.2 Expert Judgment

This would typically be sought from both the purchasing department and the legal department.

### 12.1.2.3 Market Research

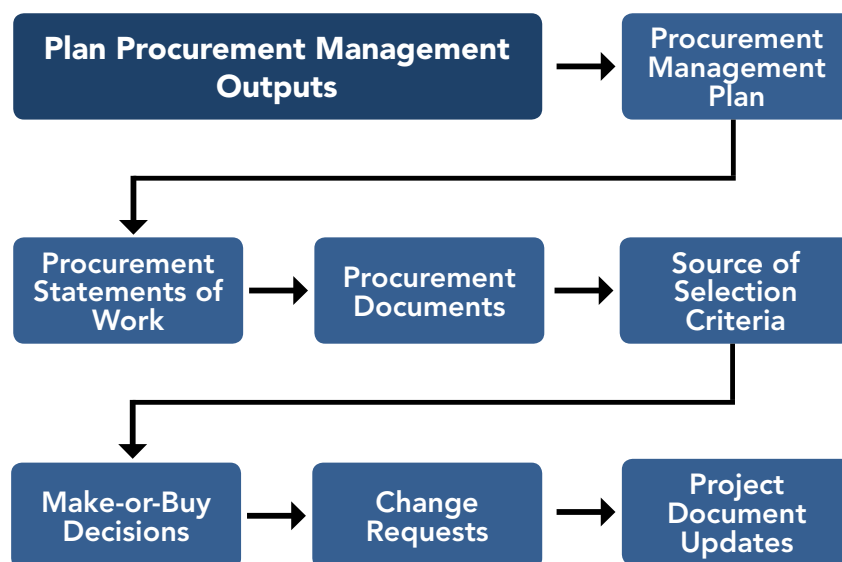
Market research includes examination of industry and specific vendor capabilities. Procurement teams may use information gained at conferences, online reviews and a variety of sources to identify market capabilities.

### 12.1.2.4 Meetings

Research alone may not provide specific information to formulate a procurement strategy without additional information interchange meetings with potential bidders. By collaborating with potential bidders, the organization purchasing the material or service may benefit while the supplier can influence a mutually beneficial approach or product.

## 12.1.3 Plan Procurement Management: Outputs

This process will create the following outputs:



### 12.1.3.1 Procurement Management Plan

This is a subsidiary component of the project management plan and describes how all of the other procurement management processes are to be carried out. It describes in detail:

- What will be procured for the project
- Type of contract used
- How they will be selected & managed
- How their performance will be measured
- How procurement risk is to be managed.

### 12.1.3.2 Procurement Statements of Work

The scope of the project will have already being defined at this point in time, and this will be used to prepare procurement statements of work. Each statement of work (SOW) describes and explains the appropriate section of the project scope for use by potential Sellers. It should be in sufficient detail so that such Sellers can make an informed choice about whether they are able to, or want to bid for the work.



Sufficient detail can vary based on the nature of the item, the needs of the buyer, or the expected contract form. Information included in a SOW can include specifications, quantity desired, quality levels, performance data, period of performance, work location, and other requirements. The procurement SOW can be revised and refined as required as it moves through the procurement process until incorporated into a signed contract award.

### 12.1.3.3 Procurement Documents

These are used to solicit proposals from prospective sellers and may include:

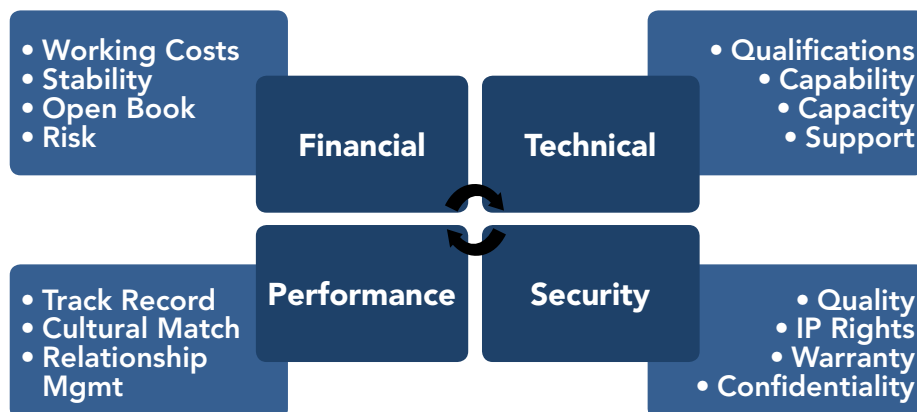
- Requests for Information (RFI)
- Invitations for Bids (IFB)
- Requests for Proposals (RFP)
- Requests for quotations (RFQ)
- Tender notices
- Invitations for negotiation,
- Invitations for seller's initial response.

The important thing is that these documents tell the seller exactly what is required of them. They must be detailed enough to ensure consistent, appropriate responses, but flexible enough to allow consideration of any seller suggestions for better ways to satisfy the same requirements. In addition, the complexity and level of detail should be consistent with the value of, and risks associated with, the planned procurement.

It is common practice to limit the number of suppliers invited to bid for your SOW so that you have sufficient time to read and understand each suppliers offering within the assigned timescales of the project management plan. Generally organizations' will only engage between three to five suppliers in more in-depth discussion and negotiation.

### 12.1.3.4 Source Selection Criteria

These criteria must be defined before the work is outsourced and fits into four broad areas—financial, technical, security and performance. Although it could be something as simple as purchase price or delivery dates if the item being procured is readily available from a range of sellers. In more complex scenarios there are other factors that could be considered within each area.



### *Financial*

It is important to know how financially stable any organization is that you are considering working with. Using the financial statements—Balance Sheet, Cash Flow Analysis and Income Statement—will enable you to calculate the solvency, performance and profitability for each of your potential suppliers. To learn more about the financial calculations you need to make visit our free online library finance skills <http://www.free-management-ebooks.com/skills-finance.htm>.

Many organizations now use open-book accounting when working with partners and this offers total financial disclosure between the parties. Anyone looking at these accounts would be able to discern the cost of materials and operations. It enables the project manager to make a detailed analysis of how much a working partnership would cost.

Knowing the financial capacity of your supplier helps you assess the level of risk involved in such a relationship. You can determine how financially able they are to meet the promises they have made contractually. It may mean that you stipulate the size and type of business of potential suppliers in order to reduce the level of risk associated with outsourcing the SOW and to make price comparisons.

### ***Technical***

The technical capabilities of any potential supplier are critical part of the selection process. Your short-list of suppliers (usually two or three) must be able to illustrate that they have the right level of technical competency, skills and knowledge required by the project.

This should include a thorough understanding of the methodologies that they will be use, plus an assessment of how compatible their procedures are with yours. The closer the match the lower your level of technical exposure will be.

Another aspect of technical selection criteria concerns the supplier's ability to 'make' the quantities of the product, to the required quality standard needed for the project. For some projects another the criteria supplier need to demonstrate is their technical ability to respond to potential future requirements that arise as a result of approved change requests.

### ***Security***

This area of your supplier selection is quite broad, going from physical security of the product and place of production to intellectual property (IP) rights. It is vital that you understand how much control the potential provider has over its supply chain. This may include understanding how the seller enforces s terms of the reliability and quality of the supplies it buys in for the project needs, for example, warranty coverage, quality standards, length guarantees etc.

An essential aspect of checking your potential suppliers' security is their commitment to quality.

How well does their product or service match up to its sales claims?

How do they ensure and monitor quality?

Do such claims match or exceed your project requirements?

Any provider should be able to demonstrate their adherence to a recognized quality standard, such as, ISO9001, QS9000, ASTM, DIN, EN, IEC etc.

Making sure that you clearly define what exactly constitutes your IP is essential. It is imperative to ask suppliers if they want, or demand, to retain certain property rights. This can be in terms of the work processes or in the services they provide as part of the project.

### ***Performance***

Any supplier you short-list must be able to demonstrate their ability to deliver their contractual obligations in their track record and by supplying references. These will give insight into how well each supplier met their contractual obligations and managed their supplier relationship (SRM) throughout the project lifecycle.

This helps the project manager assess each supplier's ability to keep to costs and schedules. It also signifies how well they managed communications giving an indication of how well the cultural fit is between your two organizations'. The actual bid a supplier submits to your organization will reflect how well they have understood the project requirements and reveal the type of relationship they want to create.

The most effective style of SRM is the collaborative approach where both sides work as one team fully sharing information. This type of relationship is not always possible due to strategic and competitive nature of many projects so a co-operative supplier relationship management style is adopted.

### **12.1.3.5 Make-or-buy Decisions**

This documents the conclusions reached regarding what project products, services, or results will be acquired from outside the project and which ones will be performed internally. This document can be as simple as a listing that includes a short justification for the decisions, which may be altered as the project progresses.

### **12.1.3.6 Change Requests**

As a consequence of plan procurements, some changes to the activities or products may be needed. These will form an input into the 'perform integrated change control' processes so that their impacts on the rest of the project can be evaluated.



### 12.1.3.7 Project Documents Updates

These include, requirements documentation, requirements traceability matrix, and risk register.

## 12.2 Conduct Procurements

This is the process of obtaining seller responses, selecting a seller, and awarding a contract. It may need to occur multiple times if there are multiple contracts and for each instance it will include issuing the bid package to potential sellers, evaluating potential seller proposals and finally selecting the winning seller proposal.



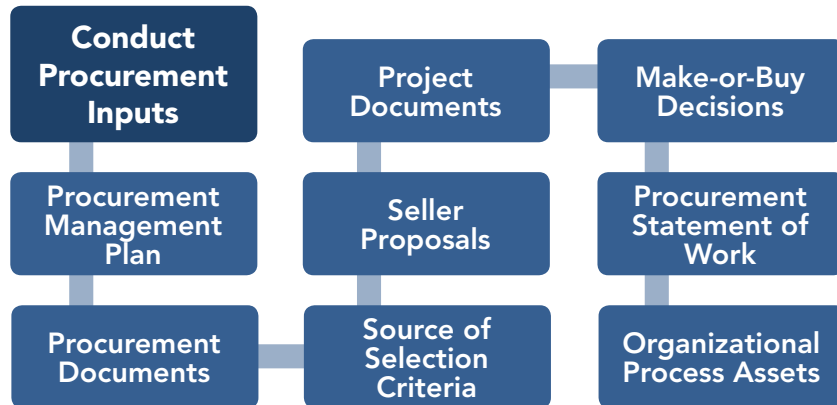
For major procurement items, a short list of qualified sellers can be established based on a preliminary proposal before a more detailed evaluation is conducted based on a more specific and comprehensive requirements document requested from the sellers on the short list.

The inputs, tools and techniques, and outputs of this process are summarized in the table below.

Inputs	Tools & Techniques	Outputs
Procurement Management Plan	Bidder Conferences	Selected Sellers
Procurement Documents	Proposal Evaluation Techniques	Agreements
Source Selection Criteria	Independent Estimates	Resource Calendars
Seller Proposals	Expert Judgment	Change Requests
Project Documents	Advertising	Project Management Plan Updates
Make-or-buy Decisions	Analytical Techniques	Project Documents Updates
Procurement Statement of Work	Procurement Negotiations	
Organizational Process Assets		

### 12.2.1 Conduct Procurements: Inputs

This process requires the following inputs:



#### 12.2.1.1 Procurement Management Plan

This will contain relevant information such as scope, resources, time and cost.

#### 12.2.1.2 Procurement Documents

These are a output from the previous process, and are used to solicit proposals from prospective sellers and may include requests for information (RFI), invitations for bids (IFB), requests for proposals (RFP), requests for quotations (RFQ), tender notices, invitations for negotiation, and invitations for seller's initial response.

#### 12.2.1.3 Source Selection Criteria

These are output from the previous process, and must be agreed before the seller is selected to enable the process to be both objective and unbiased. The criteria may be chosen to cover any aspect of procurement such as price, competence, support and maintenance, track record, etc.

#### 12.2.1.4 Seller Proposals

Received from sellers in response to a procurement document package, these are used to make selection decisions. Such proposals will detail exactly how the seller intends to approach the work, how much they will charge, and any other relevant terms and conditions.

### 12.2.1.5 Project Documents

Depending upon when this process is carried out within the project, the range of documents may be small or large. But as a simple example, any documentation that lays out risk, scope, or the environment within which the project deliverables will need to operate, would be helpful as an input to this process.

### 12.2.1.6 Make-or-buy Decisions

This output from the previous process and it will have been generated with help from the make or buy analysis tool. The data from this analysis will have been gathered and decisions made providing sufficient information to justify such decisions.

### 12.2.1.7 Procurement Statement of Work

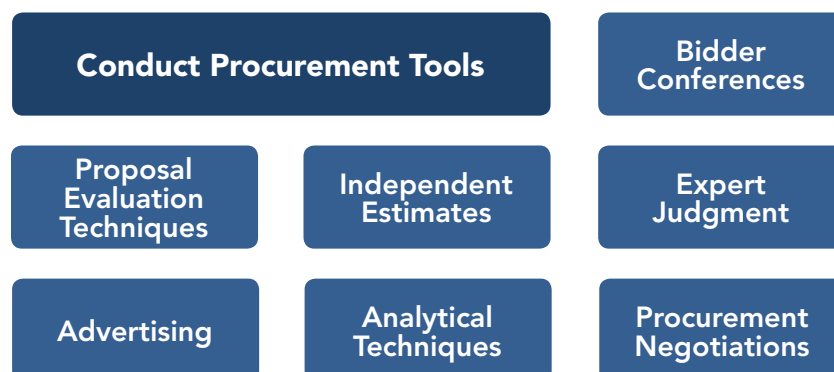
This is output from the previous process and provides suppliers with a clearly stated set of goals, requirements, and outcomes from which they can provide a quantifiable response. It includes specifications, quantity desired, quality levels, performance data, period of performance, work location, and other requirements.

### 12.2.1.8 Organizational Process Assets

These include listings of prospective and previously qualified sellers, and information on relevant past experience with sellers.

## 12.2.2 Conduct Procurements: Tools and Techniques

There are seven tools and techniques that can be used.



#### **12.2.2.1 Bidder Conferences**

These can be known by various other names, and are held by a buyer for all of the sellers to whom the buyer has sent a request for proposal (RFP) or a request for bid (RFB). These conferences, which may be discretionary or mandatory, provide an opportunity for bidders to meet the project management team, receive detailed instructions and ask proposal-related questions.

Where public money is being used, for example on government or local authority projects, it is vital that no bidders receive preferential treatment. The bidder conference provides equal information to all potential sellers including answers to questions posed by one bidder that are then shared with all of the others.

#### **12.2.2.2 Proposal Evaluation Techniques**

On complex procurements, where source selection will be made based on seller responses to previously defined weighted criteria, a formal evaluation review process will be defined by the buyer's procurement policies. The evaluation committee will make their selection for approval by management prior to the award.

#### **12.2.2.3 Independent Estimates**

The buyer may ask an independent group to prepare an estimate that is used as an objective source of information. Such estimates are often called 'should cost' estimates. These can be used as a benchmark against which to measure bids. Where there are significant differences, this can indicate that the prospective sellers misunderstood the procurement statement of work or that it was in some way unclear what was required.

#### **12.2.2.4 Expert Judgment**

This can include expertise from functional disciplines such as:

- Contracting
- Legal
- Finance
- Accounting
- Engineering & Design
- Research & Development
- Sales
- Manufacturing.

The objective is to evaluate seller proposals to make sure that the brief has been understood and that the cost and time estimates are realistic.

### **12.2.2.5 Advertising**

There may be a legal requirement to advertise procurement contracts where public money is involved. This is usually done in selected newspapers or in specialty trade publications.

### **12.2.2.6 Analytical Techniques**

These involve examining past performance information in order to identify areas that may have more risk and that need to be monitored closely to ensure success of the project. They aim to identify the readiness of prospective vendors to provide the product without cost overruns, and to identify risks to be monitored during procurement process.

### **12.2.2.7 Procurement Negotiations**

This is an activity where the objective is to reach a win-win outcome between both the buyer and seller. Negotiations can clarify the structure, requirements and other terms of the procurement so that mutual agreement can be reached prior to signing the contract.

For complex procurement items, contract negotiation can be an independent process covering:

- Responsibilities
- Authority to make changes
- Applicable terms & Governing law
- Technical & Business Management approaches
- Proprietary Rights & Intellectual Property
- Contract Financing
- Technical Solutions
- Overall Schedule
- Payments & Penalties
- Price.

### 12.2.3 Conduct Procurements: Outputs

This process will create the following outputs:



#### 12.2.3.1 Selected Sellers

This states which seller has been selected to deliver goods or services to the project.

#### 12.2.3.2 Agreements

These are legally binding documents that describe the work to be performed by the way it will be carried out. In addition, there is invariably a great deal of legal language describing 'what if' scenarios and how any disputes will be resolved. This is usually written, or at least reviewed by the organization's own legal representatives before the contract is signed.

#### 12.2.3.3 Resource Calendars

These cover the quantity and availability of contracted resources and those dates on which each specific resource can be active or idle are documented.

#### 12.2.3.4 Change Requests

Change requests to the project management plan, its subsidiary plans, and other components are processed for review and disposition through the Perform Integrated Change Control process.

#### 12.2.3.5 Project Management Plan Updates

These include the cost baseline, scope baseline, schedule baseline, and procurement management plan.

### 12.2.3.6 Project Documents Updates

These include requirements documentation, requirements traceability documentation, and risk register.

## 12.3 Control Procurements

This is the process of managing relationships with sellers, monitoring contract performance, taking corrective actions if required, and controlling change. This is the most time consuming of the procurement processes as far as the project management team is concerned as it covers monitoring the seller's performance against the terms specified in the contract.



The project management team needs to keep in mind the legal implications of any actions they take when dealing with the seller. If any changes are required to the work the seller is doing then this may not be covered under the contract terms and conditions, or the statement of work (SOW). If this is the case then the contract may need to be renegotiated.

Any changes, whether or not they require the contract to be amended need to go through to the Project Integrated Change Control process and incorporated into the project management plan and is a key aspect of project integration management. This process is defined by PMBOK® as:

*'integrated change control (Process)—the process of reviewing all change requests, approving changes and controlling changes to deliverables and organizational process assets'*

During this process, the project manager needs to monitor progress against the procurement plan:

- Are the goods or services being delivered on time?
- Is the quality as specified in the contract?
- Are the conditions of the contract being met?
- Is the relationship being properly managed?

If the organization has a purchasing department then it may be a good idea to have someone seconded from it to the project, specifically to handle contract administration, particularly if the project is dealing with multiple sellers.

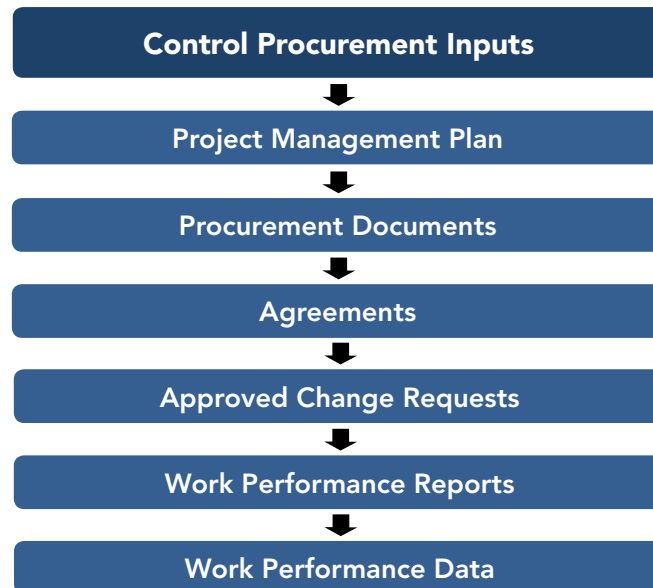
The inputs, tools and techniques, and outputs of this process are summarized in the table below.

Inputs	Tools & Techniques	Outputs
Project Management Plan	Contract Change Control System	Work Performance Information
Procurement Documents	Procurement Performance Reviews	Change Requests
Agreements	Inspections and Audits	Project Management Plan Updates
Approved Change Requests	Performance Reporting	Project Documents Updates
Work Performance Reports	Payment Systems	Organizational Process Assets Updates
Work Performance Data	Claims Administration	
	Records Management System	



### 12.3.1 Control Procurements: Inputs

This process requires the following inputs:



#### 12.3.1.1 Project Management Plan

This describes how the procurement processes will be managed from developing procurement documentation through contract closure.

#### 12.3.1.2 Procurement Documents

These contain complete supporting records for administration of the procurement processes. This includes procurement contract awards and the statement of work.

#### 12.3.1.3 Agreements

This is an input if the project is being done for an external customer.

#### 12.3.1.4 Approved Change Requests

These can include modifications to the terms and conditions of the contract including the statement of work, pricing, and description of the products, services, or results to be provided.

### 12.3.1.5 Work Performance Reports

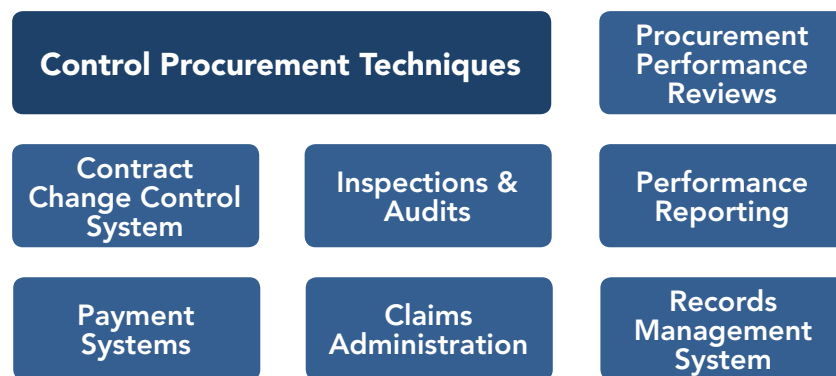
These include work performance information that indicates to what extent each deliverable has been completed. They also include technical documentation developed by the seller in accordance with the terms of the contract.

### 12.3.1.6 Work Performance Data

This includes the extent to which quality standards are being satisfied, what costs have been incurred, and what payments have been made.

## 12.3.2 Control Procurements: Tools and Techniques

There are seven tools and techniques that can be used.



### 12.3.2.1 Contract Change Control System

The purpose is to establish a formal system for processing contract change requests in cases where the contract needs to be modified to reflect the evolving needs of the project. It includes a description of the process and information about how changes will be recorded and disputes resolved as well as specifying the authority levels necessary for authorizing changes.

### 12.3.2.2 Procurement Performance Reviews

This is a structured review of the seller's progress to deliver products or services in line with the contract. The aim is to make a judgment about how well the seller has fulfilled the requirements and met their scope, cost, time, and quality targets.

### 12.3.2.3 Inspections and Audits

Either the buyer or a designated third party will inspect the vendor's work, and perform audits to check for any deficiencies.

### 12.3.2.4 Performance Reporting

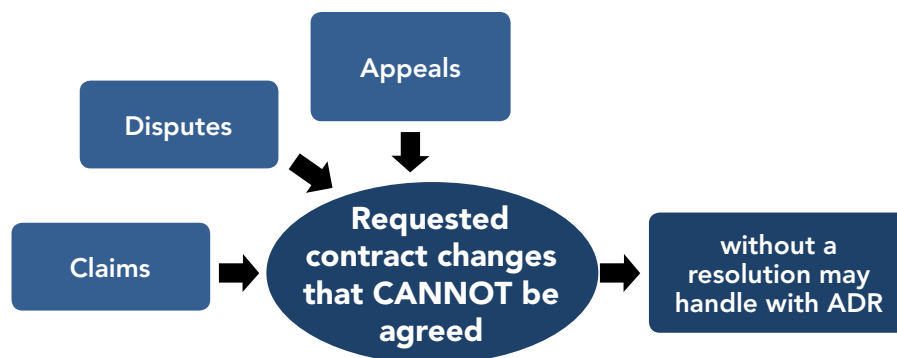
This provides management with information about how effectively the seller is achieving the contractual objectives.

### 12.3.2.5 Payment Systems

Payments to the seller are typically processed by the accounts payable system of the buyer after certification of satisfactory work by an authorized person on the project team. All payments should be made and documented in strict accordance with the terms of the contract.

### 12.3.2.6 Claims Administration

Requested changes to the contract that cannot be agreed are called claims, disputes, or appeals. These are documented, processed, monitored, and managed throughout the contract life cycle, usually in accordance with the terms of the contract.



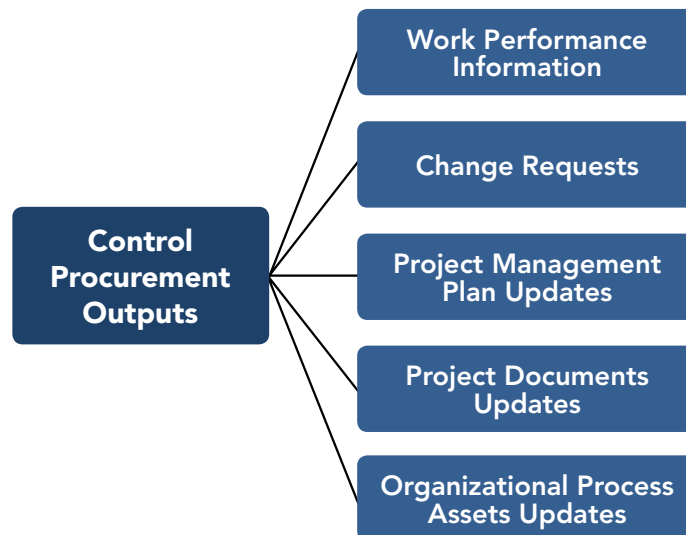
If the parties themselves do not resolve a claim, it may have to be handled in accordance with alternative dispute resolution (ADR) typically following procedures established in the contract.

### 12.3.2.7 Records Management System

This is a system that the project manager can use to administer procurement documentation, contracts, tools, procedures, and policies.

### 12.3.3 Control Procurements: Outputs

This process will create the following outputs:



#### 12.3.3.1 Work Performance Information

These are reports on compliance with contracts. They provide the basis for the identification of any current or potential problems to be resolved.

#### 12.3.3.2 Change Requests

The Administer Procurements process may result in changes to the project plan and these changes must be processed for review and approval through the Perform Integrated Change Control process.

#### 12.3.3.3 Project Management Plan Updates

The procurement management plan is updated to reflect any approved change requests that affect procurement management. If there are slippages that impact overall project performance, the baseline schedule may also need to be updated.

#### 12.3.3.4 Project Documents Updates

These include the procurement contract with all supporting schedules, requested unapproved contract changes, and approved change requests. Procurement documentation also includes any seller-developed technical documentation and other work performance information such as:

- Deliverables
- Seller performance reports
- Warranties
- Financial documents including invoices & payment records
- Results of contract-related inspections.

#### 12.3.3.5 Organizational Process Assets Updates

These include correspondence, payment schedules and requests and seller performance evaluation documentation. Correspondence includes a written record of all written and oral contract communications between the buyer and seller, for example, the results of buyer audits and inspections.

All payments made and on what basis, need to be recorded. The PMBOK® states that payment schedules and requests are only used when the payment system is outside of the project. If it is internal it is simply called payments within the administer procurements process.

Seller performance evaluation documentation rates how well the seller has performed and can be used as input to decisions about performance bonuses and penalties, as well as whether or not to use their services again on future projects.

## 12.4 Close Procurements

This is the process of completing individual project procurements and involves verification that all work and deliverables were acceptable, as well as administrative activities such as finalizing open claims, updating records to reflect final results and archiving this information for future use.

The inputs, tools and techniques, and outputs of this process are summarized in the table below.

Inputs	Tools & Techniques	Outputs
Project Management Plan	Procurement Audits	Closed Procurements
Procurement Documents	Procurement Negotiations	Organizational Process Assets Updates
	Records Management System	

### 12.4.1 Close Procurements: Inputs

This process requires the following inputs:



#### 12.4.1.1 Project Management Plan

The project management plan integrates and consolidates all of the subsidiary management plans and baselines from the planning processes.

#### 12.4.1.2 Procurement Documents

All procurement documentation is collected, indexed, and filed. Information on contract schedule, scope, quality, and cost performance along with all contract change documentation, payment records, and inspection results are cataloged. This information can be used for lessons learned information and as a basis for evaluating contractors for future contracts.

### 12.4.2 Close Procurements: Tools and Techniques

There are three tools and techniques that can be used.



#### 12.4.2.1 Procurement Audits

This is a structured review of the whole procurement process with the aim of learning as much as possible from it so that these lessons can be applied to future projects.

### 12.4.2.2 Procurement Negotiations

Ideally, any outstanding disputes between the buyer and seller should be settled by negotiation. If this proves impossible, then mediation should be tried before the dispute descends into litigation, as this tends to cost both parties far more in terms of wasted time and lost productivity than either could gain from winning a legal action.

### 12.4.2.3 Records Management System

This is a system that the project manager can use to administer procurement:

- Documentation
- Contracts
- Tools,
- Procedures &
- Policies.

## 12.4.3 Close Procurements: Outputs

This process will create the following outputs:



### 12.4.3.1 Closed Procurements

Requirements for formal closure are usually defined in the terms and conditions of the contract and are included in the procurement management plan. This output is simply the formal notification from the buyer that the contract has been completed.

The closure process of a contract can occur in any phase of a multi-phase project if its term is only applicable to a given phase. Contracts that are applicable to a specific phase will have their particular procedures for contract closure included in the contract terms and conditions. If at the closure of a contract there are unresolved claims the procurement process will detail when and how litigation will be handled.

In some instances closure of a contract may have to be earlier than planned. Any project contract or agreement needs to specify in a terminations clause the parties' responsibilities and rights in the event of early termination. This special type of procurement closure can occur from:

- Mutual agreement of both parties
- Default of one party, or
- For convenience of the buyer (as long provision is made in the contract).

Early termination can be for the whole contract or just a particular section. It is common practice that the purchaser will have to compensate the supplier as defined in the contract for any work-in-progress (WIP) that has been undertaken.

This is especially important if the project is using teaming agreements where two or more organizations form a partnership or joint venture for the contract. Within the contract there are clear definitions of buyer-seller roles and responsibilities for each party. Many outsourcing specialists will have their own teaming agreement templates.

### **12.4.3.2 Organizational Process Assets Updates**

These include a complete set of indexed contract documentation, including the closed contract, formal written notice that the deliverables have been accepted or rejected and any lessons learned documentation.



## Summary

The PMBOK® framework described in this eBook gives you a proven standard to use for the procurement aspects of your project. It also enables a seamless interface between you and an organization's procurement department.



The processes in this knowledge area ensure that you retain control of any project purchases and that they are timely with effective and detailed contracts. They also enable you to create a good working relationship with the organization's buyers gaining first-hand knowledge of their skills, expertise and abilities.

Day-to-day purchases should be left to the procurement department. Your role as project manager is to ensure that sufficient time is planned and scheduled for these processes.

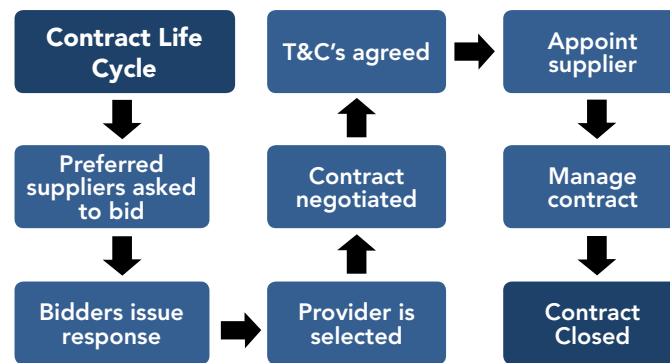
**12.1 Plan Procurements**—is the process of documenting project purchasing decisions, specifying the approach, and identifying potential sellers.

**12.2 Conduct Procurements**—is the process of obtaining seller responses, selecting a seller, and awarding a contract. Many organizations' will have preferred supplier lists.

**12.3 Administer Procurements**—is the process of managing procurement relationships, monitoring contract performance, and making changes and corrections as needed.

**12.4 Close Procurements**—is the process of completing each project procurement.

A key role for the project manager is liaising with and getting a final decision from the relevant stakeholder(s) for each project purchase. You must have a clear understanding of the risks associated with each purchase and the other options available to you.



Getting the necessary contracts signed is only part of your responsibility. Once this has been completed you use the contracts, service level agreements (SLA's) plus their terms and conditions to monitor and manage the service, product or resource supplied. Your final responsibility is to ensure properly closure is brought to each contract protecting the legal interests of all parties.

If you want to know more about project management the eBooks in this skill set available from <http://www.free-management-ebooks.com/skills-project.htm> are:

- Principles of Project Management
- Process Groups
- Integration Management
- Scope Management
- Time Management
- Cost Management
- Quality Management
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- Communications Management
- Risk Management
- Procurement Management
- Stakeholder Management

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