

# Project Procurement Management

Paul Vesey

Limerick Institute of Technology

*paul.vesey@lit.ie*

2015-2016

# Project Procurement Management

- 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.
- Project Procurement Management includes the contract management and change control processes required to administer contracts or purchase orders.

# Project Procurement Management

## Processes

### **Plan Procurements**

- What, When and How - Documenting requirements and identifying potential sellers

### **Conduct Procurements**

- Request Seller Responses

### **Obtaining information, bids, quotations, proposals**

- Select Sellers
- Reviewing offers, choosing potential sellers, negotiating written contract with sellers

### **Administer Procurements**

- Managing Contract Relationships; reviewing and documenting seller performance; change management

### **Close Procurements**

- Completing and Settling each contract

# Contractual Obligation

## Contract

- Legally Binding
- Product, Service, Result, in exchange for Consideration
- Can be simple or complex
- All contracts should be tailored to the specific needs of the project;
- Contracts require a more rigorous internal approval procedures
- Contracts present an opportunity for the performing organisation to avoid; mitigate; or transfer risk.
- When using standard forms of contract (MF1, FIDIC, etc.), any amendments need to be very carefully considered.
  - Change may introduce unanticipated errors

# Contracts

- Complex Projects typically include multiple contracts.
- These contracts can come into effect and be discharged at any time during the project
- The buyer-seller relationship can exist at many levels on any one project
- Sellers will typically manage their work as a project; unless their work is restricted to supply only

# Plan Procurements

## Part of the Planning Process Group

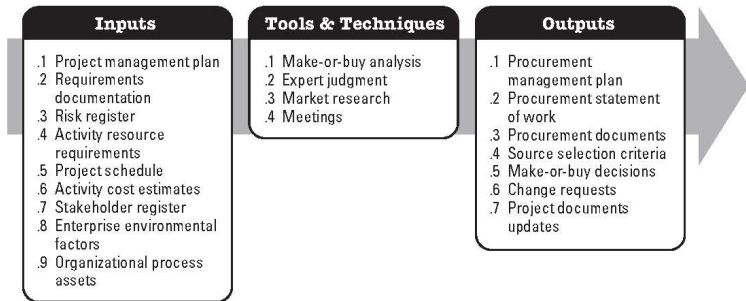


Figure 12-2. Plan Procurements: Inputs, Tools & Techniques, and Outputs

# Plan Procurements

- Identifies which project needs can best be met by purchasing or acquiring products, services or results from outside the project organisation, and which project needs can be accomplished by the project team
- Also includes detailing who is responsible for obtaining and holding permits, licences, etc. - i.e. main contractor or sub-contractor
- The process also includes reviewing the risks involved in each make-or-buy decision; reviewing the type (form) of contract that will be used for mitigating, avoiding or transferring risk

# Plan Purchases and Acquisitions Inputs (Incomplete list)

## **Enterprise Environmental Factors**

- Market Place Conditions
- Availability of products and services

## **Organisational Process Assets**

- Formal and Informal procurement policies
- Approval procedures; approved suppliers; contract terms

## **Project Scope Statement - information on:**

- How much money is available
- Required by dates
- Health & Safety, Security, Performance, Insurances, etc.
- Deliverables and Acceptance Criteria



# Plan Purchases and Acquisitions Inputs (Incomplete list)

- WBS & Dictionary: Provides the relationship amongst components of the project and detailed description of the works within each WBS element.
- PM Plan: Provides guidance and direction for procurement planning
- Risk Register: Risk Related contractual Agreements
- Activity Resource Requirements
- Project Schedule
- Activity Cost Estimates
- Cost Baseline

# Plan Purchases and Acquisitions Techniques

## Tools and

### **Make-or-Buy Analysis**

- Produced by the project team or bought in
- Needs to consider short-term and long-term business planning. Purchase of Assets; Acquisition of Corporate Capability and Knowledge etc.

### **Expert Judgement**

- Can be used to develop or modify criteria used to evaluate offers or proposals: Typical example, Legal Experts

# Plan Purchases and Acquisitions Techniques

## Tools and

### **Contract Types**

- Fixed Price or Lump-sum contracts
- Cost Reimbursable Contracts
  - Cost plus Fee
  - Cost plus Percentage of Cost
  - Cost plus Fixed Fee
  - Cost plus Incentive Fee
- Time and Material Contracts

# Plan Purchases and Acquisitions Techniques

## Tools and

- Standard Forms and Standard Contracts
- Standard Descriptions of Procurement Items
- Specifications
- Non Disclosure Agreements
- Proposal Evaluation Criteria
  - MEAT
- Intellectual Property Rights
- Expert Judgement
- Refer to Book and previous notes

# Plan Purchases and Acquisitions

## Outputs

### **Procurement Management Plan**

- Describes how the procurement processes will be managed from developing procurement documentation through contract closure. Includes:
  - Types of Contracts to be used
  - Standardised Procurement Documents
  - Co-ordinating Procurement with other project activities
  - Identifying Performance Bonds and/or Insurances
  - Establishing the form and format for contract statement of work
  - Prequal sellers
  - Procurement Metrics to be used to evaluate sellers

# Plan Purchases and Acquisitions

## Outputs

### **Procurement Statement of Work**

- Defines the work to be contracted.
- Based on the Scope and Primary Statement of Work
- Typically, elaboration is required
- Must be Clear, Complete and Concise
- Requirements, Acceptance Criteria, Bonds, Insurances, Completion Dates, Liquidated Damages
  - Beware of Back-to-Back
- Make or Buy Decisions
  - Documentation of what is to be bought in and why
- Requested Changes
  - Run through the Integrated Change Control Processes

# Plan Purchases and Acquisitions

## Outputs

### **Procurement Documents**

- Invitation to Bid, Request for Proposal
  - The complexity and level of detail of procurement documentation should be consistent with the value of, and risk associated with the planned purchase or acquisition

### **Procurement Statement of Work (Updates)**

- Modifications to contract statements of work identified during procurement documentation development

# Plan Purchases and Acquisitions

## Outputs

### **Source Selection Criteria**

- Does the seller understand the need?
- Overall or Life-cycle cost
- Does the seller have the technical capability?
- Seller Management Approach
- Financial Capacity
- Production Capacity
- Business size and type
- References
- Intellectual Property Rights



# Conduct Procurements

## Part of the Executing Process Group

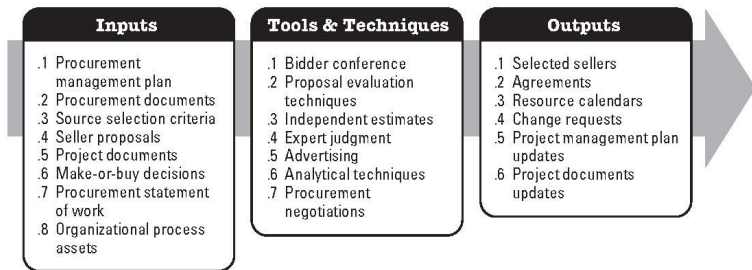


Figure 12-4. Conduct Procurements: Inputs, Tools & Techniques, and Outputs

# Conduct Procurements

- Process of obtaining responses from sellers, such as Quotations, Bids, and Proposals from Prospective Sellers.
- Sellers expend most of the effort in this process
  - Bidding can be expensive for sellers
  - Often 'quotations' are requested in the very early stages of a project to assist in budget formation.

# Conduct Procurements

## Inputs

### **Organisational Process Assets**

- Lists and information on prospective or previously qualified sellers
- List should contain information on past performance and other characteristics of the seller
- Some organisations only use sellers they have vetted.
  - Achilles Supplier Qualification Databases  
<http://www.achilles.ie>

### **Procurement Management Plan**

- Refer to book and previous notes

### **Procurement Documents**

- Refer to book and previous notes

# Conduct Procurements

# Tools and Techniques

## **Bidder Conferences**

- Meetings with prospective sellers prior to preparation of a bid or proposal
- Used to ensure all sellers have a clear and common understanding of requirements
- In construction a tender procedure is normally followed.

## **Advertising**

- Advertising in publications
  - <http://www.etenders.gov.ie>

## **Develop Qualified Sellers List**

- Can be done with or without seller involvement

# Conduct Procurements

# Outputs

## **Qualified Sellers List**

## **Procurement Document Package**

- Buyer Prepared Document Package: ITT's Contract, Employers Requirements, General Specification, Particular Specifications, Drawings, Bills, EIS, Ground Investigations, etc.

## **Proposals**

- Seller Prepared Document Package: Form of Tender, Insurance Declarations, Bond Undertakings, Design Documents, Completed Bills, Safety Procedures, Environmental Procedures, Risk Procedures, Methods Statements, Drawings, etc.
- Usually Requires Clarification
- May also involve interview and/or presentation

# Selecting Sellers

Process of Receiving Bids, Proposals, Tenders, etc., and applying evaluation criteria as applicable, to select one or more sellers.

- Price can be a primary determinant for off the shelf items;
  - but beware, can the seller deliver?
- Proposals are normally evaluated under technical and financial criteria
- Multiple sources should be considered for critical elements;
  - reduces risk associated with supply
  - usually costs more in overhead and loss of quantity discounts

## Selecting Sellers

## Tools and Techniques

### **Weighting System**

- Minimise the effect of personal preference or prejudice
- Involved assigning a numerical weight to each evaluation criteria, and rating each seller or proposal against these criteria

### **Independent Estimates**

- AKA 'should-cost' estimate
- Significant deviation from this estimate gives an indication that something is wrong.. Either with the proposal or the request

### **Screening System**

- Minimum criteria that must be met prior to consideration of the proposal; Annual Turnover, Number of Employees, H&S History, etc.

# Selecting Sellers

# Tools and Techniques

## **Contract Negotiation**

- Clarifies structure and requirements for the contract
- Responsibilities, applicable laws and language, financing, etc.

## **Seller Rating System**

- Records of Sellers past performance
- Quality, Delivery Performance, Contractual Compliance, etc.



# Selecting Sellers

# Tools and Techniques

## **Expert Judgment**

- Multi-Discipline Review Team
- Legal, Financial, Technical, etc.
- Team prepares report on proposal and makes recommendations

## **Proposal Evaluation Techniques**

- Weighting Systems et. al.

# NRA Pavements and Minor Works Contracts

## 4. QUALIFICATION CRITERIA

For the Qualification Criteria headings, the Candidate's are assessed on the basis of either:

- The Minimum Requirements
- Both Minimum Requirement and Qualitative Assessment

The number of qualified Candidates that will be invited to submit tenders is limited to a range of 6 provided sufficient are qualified. Where more than this number satisfy the Minimum Requirements, the Candidates may be subject to a Qualitative assessment (PQQ. Section 5).

The Candidate's submissions in relation to

- Personal Position
- Financial and Economic Standing
- Technical Capability

will be used to determine if the Candidate satisfies the Minimum Requirements.

# NRA Pavements and Minor Works Contracts

The Minimum Requirements in respect of Financial and Economic Standing are as follows:

- (a) In relation to the three preceding complete financial years, the Candidate must have an annual turnover directly related to road paving activities of not less than €1,000,000 (eight hundred thousand euro) excluding VAT;
- (b) The Candidate shall have completed at least one single road resurfacing contract of value exceeding €350,000 (three hundred and fifty thousand euro) excluding VAT;
- (c) The Candidate must have an average annual manpower, which exceeds three persons per €1.3m of the Candidate's average annual turnover to civil engineering activities;

The Minimum Requirements in respect of Technical Capability are as follows:

Competence as contractor and project supervisor for the construction stage (If the Candidate's response to Appendix A1 indicates that it has been convicted of a relevant professional conduct offence, the Employer will consider the case made by the Candidate before arriving at a decision on whether to pass or fail it);

# NRA Pavements and Minor Works Contracts

## PART B – QUESTIONNAIRE FORMS

A1	Solemn Declaration in Relation to Bankruptcy, Professional Conduct.....	11
A2	Solemn Declaration in Relation to Payment of Taxes.....	13
A3	Confirmation and Acknowledgements.....	14
J	Declaration in relation to Notifiable Accidents and Dangerous Occurrences.....	15
K	Declaration in relation to PSCS Competency.....	16
L	Safety Policy.....	17
M	Training Courses.....	18
N	Safety Management Arrangements.....	19
Q	Evidence of Completion of Works of a Similar Nature.....	22
R	Plant and Technical Equipment.....	25
S	Staff and Management Resources.....	26
T	Quality Management Plan.....	27

# Selecting Sellers

# Outputs

## **Selected Sellers**

- Those sellers judged/determined to be within competitive range

## **Contract**

- May be a complex contract or a PO

## **Contract Management Plan**

- Plan to administer the contract
  - Who, What, When, etc; Resource Availability
  - Procurement Management Plan (Updates)
  - Requested Changes

# Select Sellers

# Outputs

## **Contract (cont.):**

May contain the following elements (no specific order):

Section Headings	Statement of Work	Schedule
Period of Performance	Roles & Responsibilities	Pricing & Payment
Inflation Adjustments	Acceptance Criteria	Warranty
Product Support	Limitation of Liability	Fees
Retention	Penalties & Incentives	Insurances
Performance Bonds	Subcontractor Approval	Change Request Handling
Termination and Dispute Handling Procedures		

# Administer Procurements

## Part of the Monitoring and Controlling Process Group

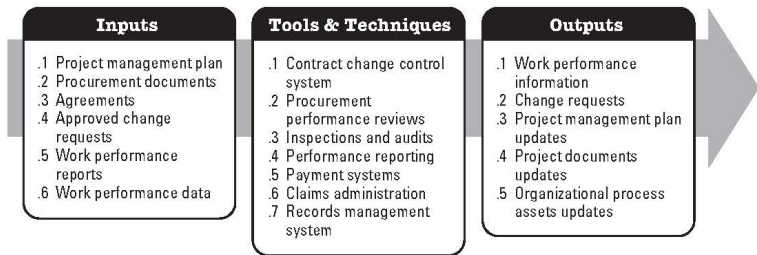


Figure 12-6. Control Procurements: Inputs, Tools & Techniques, and Outputs

# Contract Administration

- Each party to a contract needs to ensure that they are meeting their own contractual obligations, and that the other party is meeting theirs.
- Both parties need to ensure that their own legal rights are being protected
- The legal nature of contractual relationships makes it vital that the project management team is acutely aware of the legal implications of actions taken when administering contracts



# Contract Administration

Due to legal considerations, many organisations will treat contract administration as an administrative function.

- The 'contract administrator' may or may not be part of the project team
- This can lead to difficulty for the project management team

Contract Administration also has a financial component; monitoring payments made to the seller (such as a sub-contractor)

- Must ensure payments are within the terms defined by the contract, and that 'payment certification' is appropriate

# Contract Administration

Contract Administration also reviews and documents how a seller is performing, or has performed, based on the contract and established corrective actions

- Determine sellers competency or lack of competency  
Contract Administration includes managing early termination of contract
- Usually difficult to terminate a contract
- Limerick City Council v. Uniform Construction Limited:  
Clear grounds for termination must be established

# Contract Administration

## **BEWARE:** *Modification of Contract by Mutual Consent*

- Minutes of Meetings, Memo's, supposedly benign offers can, in effect, modify the contract.
- Usually caused by variations, or changes in scope, etc.

Project Management Team must fully investigate the impact of variations, or changes in scope.

# Administer Procurements

## Inputs

- Procurement Documents
- Project Management Plan
- Contract
- Performance Reports
- Seller Related Performance Documentation includes:
  - Seller-developed technical documentation and other deliverables information developed in accordance with the contract
  - Seller Performance Reports
  - Approved Change Requests
  - Work Performance Information

# Administer Procurements

## Inputs

### **Approved Change Requests**

- Approved Change Requests can include modifications to the contract: Scope, Spec, Price, Time, etc.
- Beware of Verbal Changes or Agreements - Can modify the contract by mutual consent if it is recorded; including notes in a diary.

### **Work Performance Information**

- Extent to which quality standards are being met
- Costs / Certificates to date
- Deliverables Status
- Build in status reporting into contract, AND payment mechanism.

# Administer Procurements

# Tools and Techniques

## **Contract Change Control System**

- Defines the process by which the contract can be modified:  
May include review by lawyer, etc.

## **Buyer Conducted Performance Review**

- Performance Review is a structured review to determine the sellers progress to deliver project scope and quality, within cost and schedule, as compared to the contract

## **Inspections and Audits**

- Conducted by the buyer during the course of the contract to identify any weaknesses in the sellers work processes or deliverables
- Inspections and Audits should be built into the contract

# Administer Procurements

# Tools and Techniques

## **Performance Reporting**

- Provides management with information about how effectively the seller is achieving the contractual objectives

## **Payment System**

- Payment system includes appropriate reviews and approvals
- Must be made in accordance with the contract

## **Claims Administration**

- Contested and Constructive Changes
- PMBOK® refers to 'Claims' as being contested, or not agreed by the parties

## **Litigation, Arbitration, etc.**

- Normal 'Variations' are not considered part of this
- 'Claims' must follow the dispute procedure as set down in the contract.

# Administer Procurements

# Tools and Techniques

## **Records Management System**

- Part of the Project Management Information system
- Indexing of Project Documentation and Records

## **Information Technology**

- Use of Information Technology and Communications Technologies to enhance the efficiency and effectiveness of contract administration
- Payment Systems, Databases, etc.



# Administer Procurements

# Tools and Techniques

## Information Technology (cont.)

### ■ Biometric Information Systems

Site Access Control and Monitoring Donseed: Biometric Access systems etc.

<http://www.donseed.com>



# Administer Procurements

## Outputs

### **Procurement Documentation**

- Contract, and Supporting Documentation, etc.

### **Organisational Process Assets Updates**

- Correspondence
- Payment Schedules and Requests
- Seller Performance Evaluation Documentation

### **Change Requests**

### **Project Management Plan Updates**

- Procurement Management Plan
- Baseline Schedule

# Close Procurements

## Part of the Closing Process Group



Figure 12-8. Close Procurements: Inputs, Tools & Techniques, and Outputs

# Close Procurements

- Contract Closure Supports the 'Close Project or Phase' process
- Involves verification that all work and deliverables were acceptable
- Also involves administrative work such as:
  - Updating records to reflect final results
  - Archiving information for future use
- May also involve unresolved claims and disputes
- Contracts can also be closed by mutual agreement
  - Not the same as termination or discharge

# Close Procurements

## Inputs

- Project Management Plan
- Procurement Documentation

### **Tools and Techniques**

- Procurement Audits
- Negotiated Settlements
- Records Management System

# Close Procurements

# Outputs

## **Closed Procurements**

- Buyer provides seller with formal notification of completion of contract; TOC, etc.

## **Organisational Process Assets**

- Contract File
- Deliverable Acceptance
- Lessons Learned Documentation

## Next Lecture

Reading: 'A Guide to the Project Management Body of Knowledge'

Chapter 10 - Project Communications Management

