



THE UNIVERSITY OF
MELBOURNE

SWEN90016

Software Processes & Project Management

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Lecture 9

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Intended Learning Objectives

Outsourcing.

Procurement.

Contracts.

What is Outsourcing

Definition: *The practice of engaging an external party (under contract) to perform services or create goods that are traditionally performed in-house by the company's own employees.*



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Types of Outsourcing:

1. Onshoring:
 - Relocating activities inside national borders to access targeted benefits.
2. Nearshoring:
 - Activities relocated to another country with close proximity e.g. New Zealand, Indonesia.
3. Offshoring:
 - Activities relocated to another country irrelevant of geographical location and time zones.

Examples

Various activities are better suited to the type of Outsourcing:

- Architecture
- Change Management
- Project Management
- Business Analysis
- Design
- Software Development Testing
- Operational (Application & Infrastructure) Support
- All the above

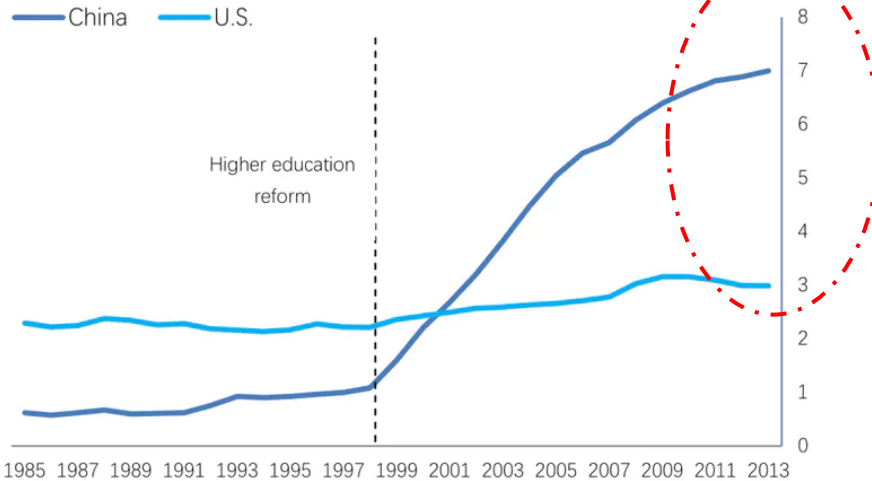
Why Outsource?

Accessing a broader skills base at a lower cost



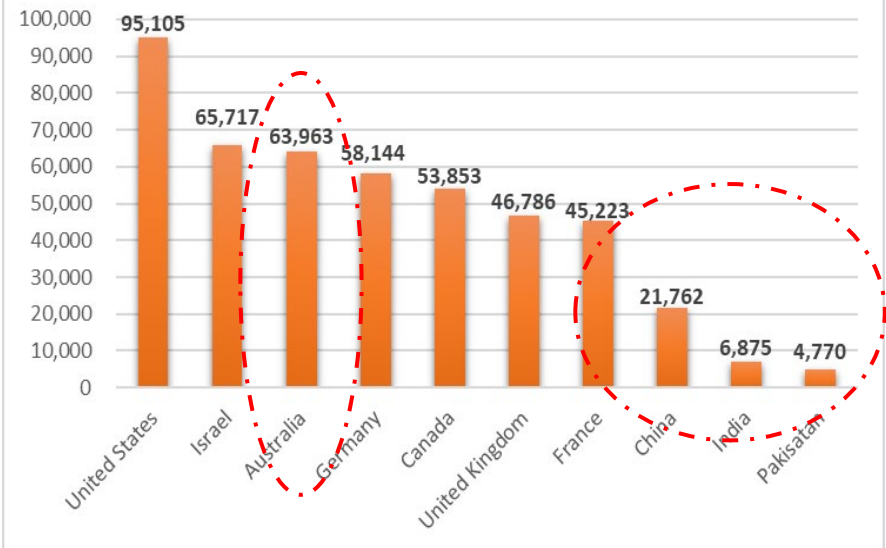
Annual enrolment of new students in higher education institutions

Millions



Source: China National Bureau of Statistics and US Department of Education

Software Engineer Avg Salary (USD)



Reference www.glassdoor.com.au/Salaries/index.htm

Why Outsource



Pros

- Reduces costs
- Access to difficult to find capabilities & skills
- Time savings – 24/7 based activities
- Freeing scarce internal resources to focus on core business activities
- Leverage best practice
- Access to better Technology
- Lower training costs in high turn over jobs
- Flexibility – Ramp up and down
- Increased Accountability - Contracts
- Risk mitigation – Access established and proven approaches e.g. Agile, Project Management etc

Cons

- Loss of control
- Process / supply chain fragmentation
- Security issues
- Employees feel threatened
- Additional effort and cost to engage and manage
- Lower quality work / work to contract
- Time zone, cultural & language challenges
- Location stability - Political, Economic, Religious
- Ethical standards - environment, slave / child labour
- Difficult to change
- Damages to the local job markets
- Loss of Relationship building opportunity with key stakeholders

Outsourcing

Why you should Outsource your IT- Infrastructure example

<https://www.youtube.com/watch?v=KjJ6PBkf0ss>

Why Outsourcing is bad for business:

https://www.youtube.com/watch?v=V7fsElp2r_8

What would you do? You are the CEO of a medium sized company and are looking to outsource a majority of a large project to get access to critical skills at a cheaper price.

I would outsource to any company that provided the best deal.

I would not outsource anything and would do higher people to do all activities.

I would consider all items and risks and only outsource items that had no impact to my business.

I would get someone else to make the decision in case it all went I had someone to fire.

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Negatives of outsourcing include:

- Loss of control **A**
- Security issues **B**
- Employees feel threatened **C**
- Additional effort and cost to engage and manage **D**
- Time zone, cultural & language challenges **E**
- Location stability - Political, Economic, Religious **F**
- Ethical standards - environment, slave / child labour **G**
- All of the above **H**

L9.2 - What is Outsourcing and why is it used

Contrary to what the sales people tell you it is NOT a Silver Bullet.

Outsourcing is a powerful tool for Project managers and organisations and it does add value.

Critical to understand your key drivers, risks you want to / can manage and ensure you look at and include the total picture.



Intended Learning Objectives

~~L9.2 – Outsourcing.~~

L9.3 – Procurement.

L9.4 – Contracts.

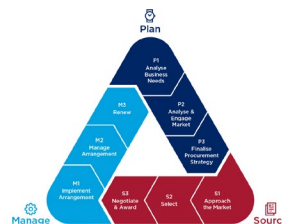
The Procurement Management Process

If there is no need to buy (outsource) any products or services from outside the organisation, then there is no need to perform any of the procurement management processes.

However you will find that most (if not all) projects will contain some sort of external sourcing which will require a procurement.

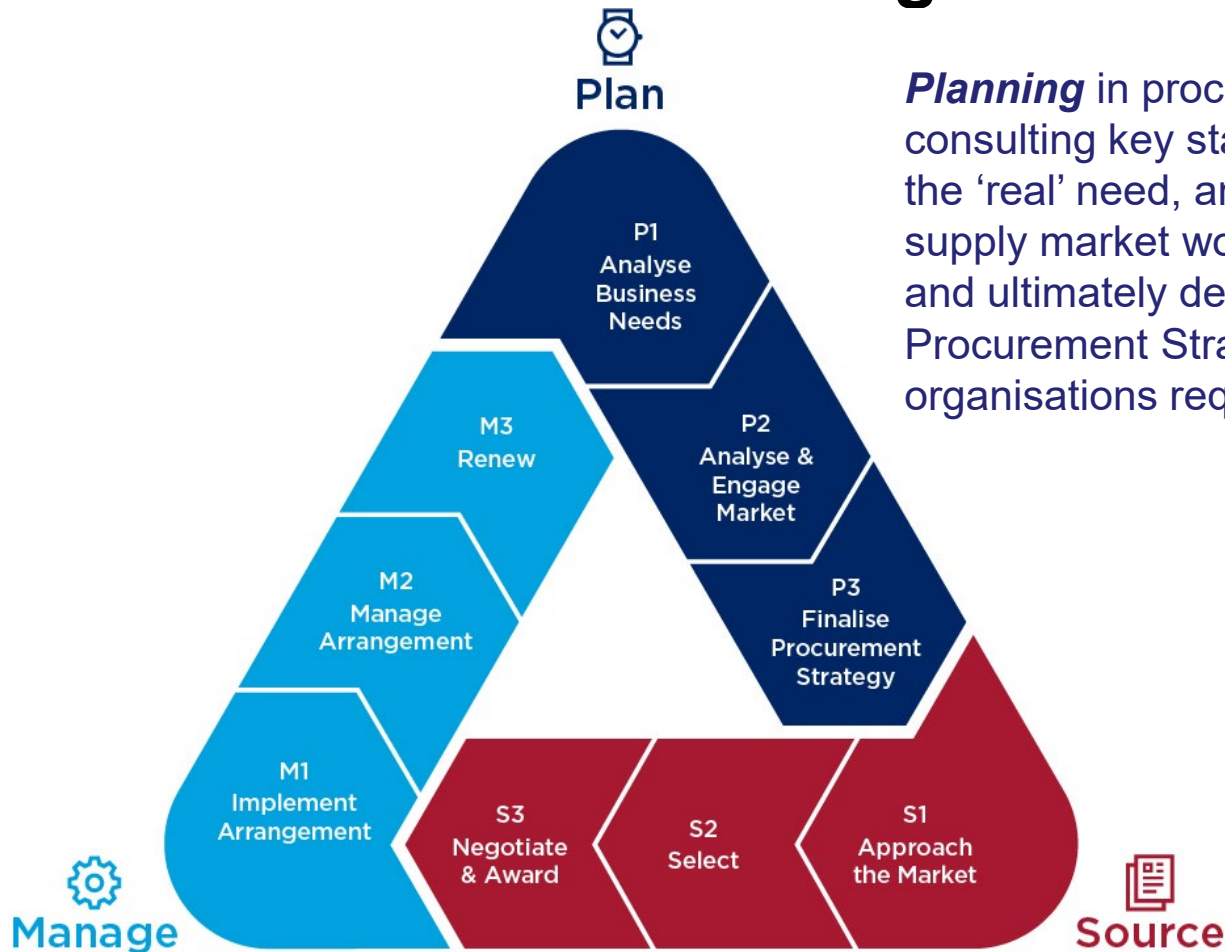
The Procurement Management Process consists of 3 broad stages:

1. Plan.
2. Source.
3. Manage.



Reference www.procurepoint.nsw.gov.au/policy-and-reform/nsw-government-procurement-information/nsw-procurements-approach

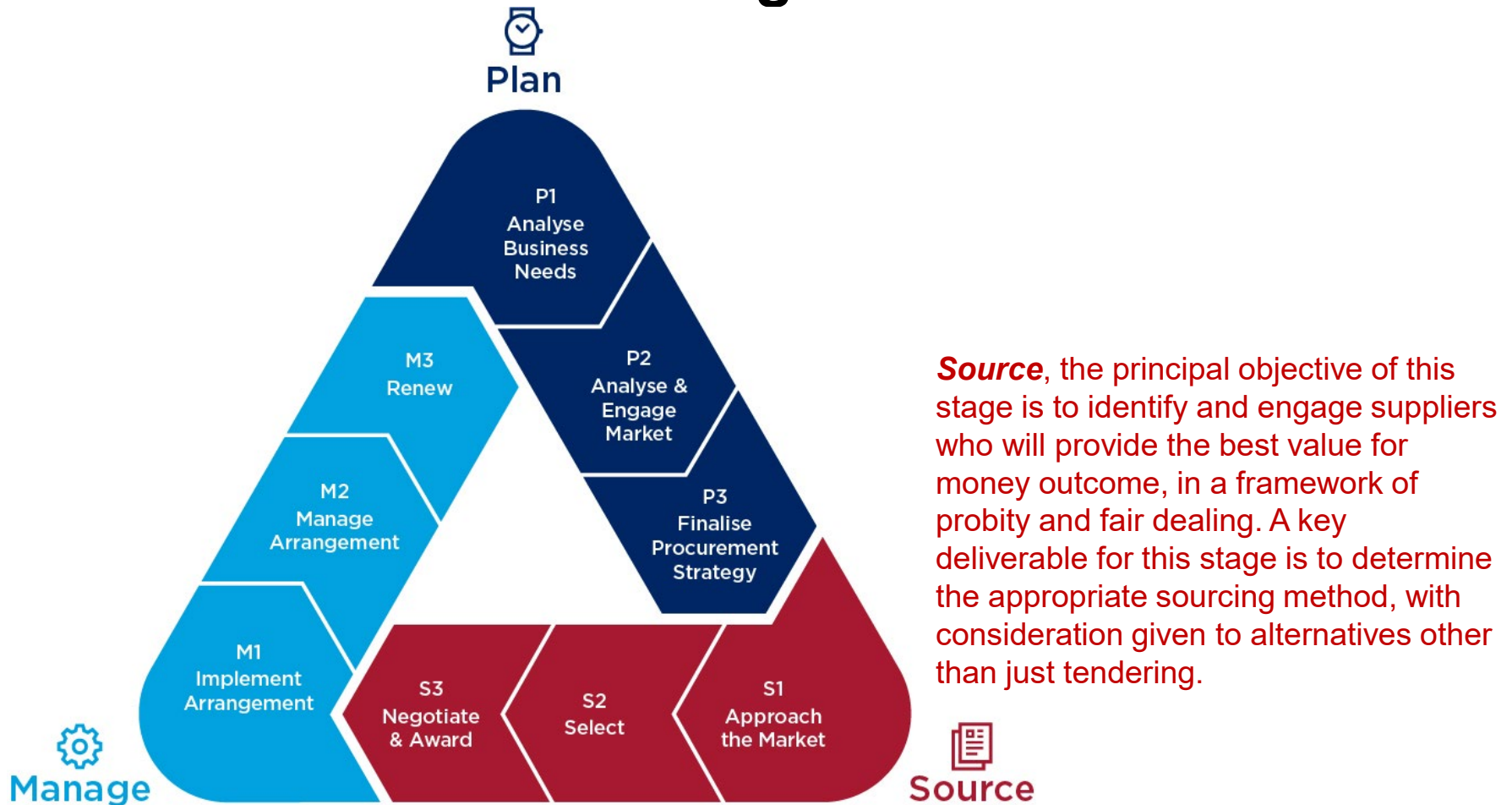
The Procurement Management Process



Planning in procurement involves consulting key stakeholders to define the 'real' need, analysing how the supply market works, assessing risks and ultimately defining the best Procurement Strategy to meet the organisations requirements.

Reference www.procurepoint.nsw.gov.au/policy-and-reform/nsw-government-procurement-information/nsw-procurements-approach

The Procurement Management Process



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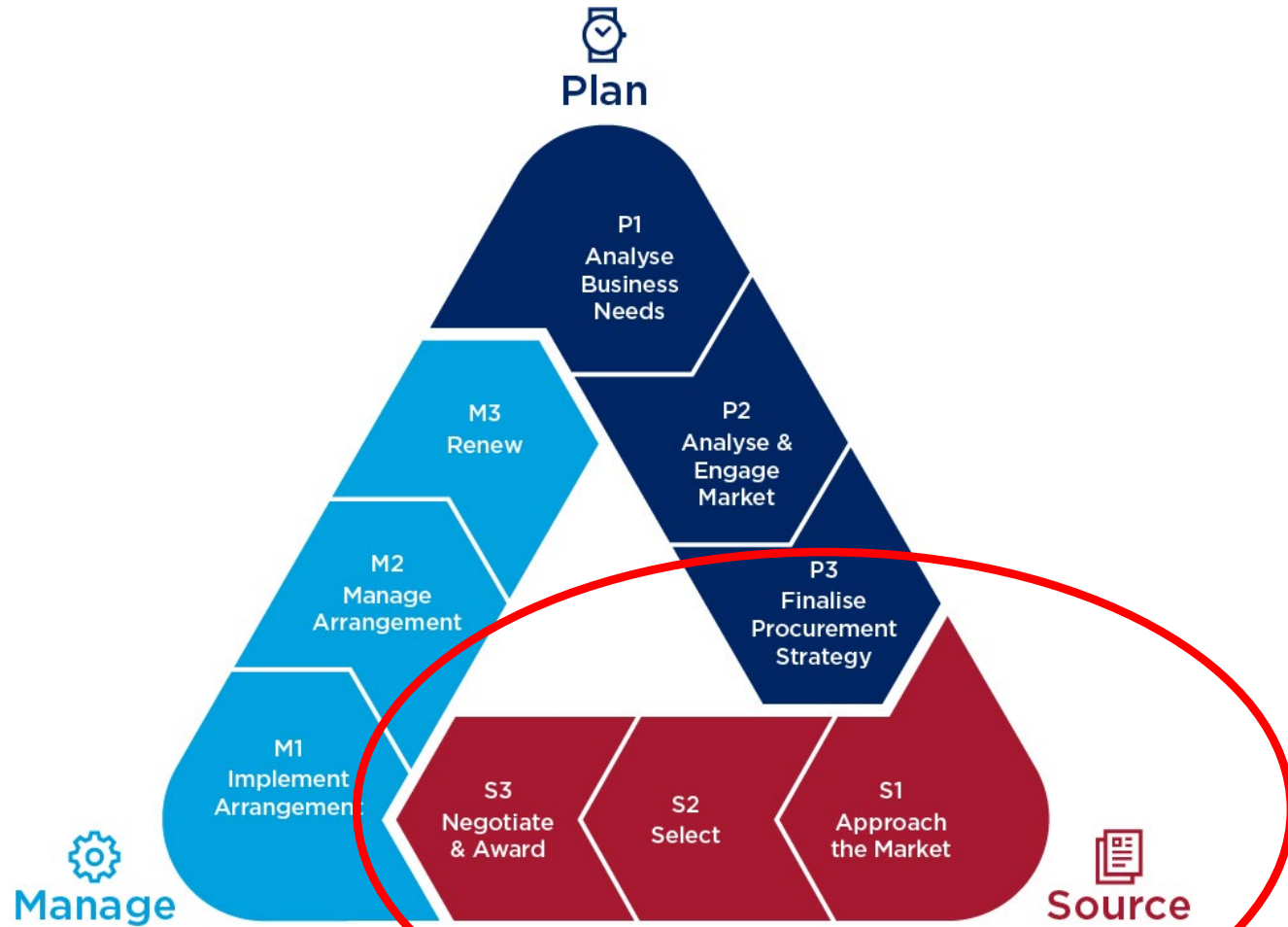
L9.3 - The Procurement Management Process

Manage, Every arrangement articulates the rights and responsibilities of the parties so it is important to identify, understand and manage them in order to better ensure you 'get what we contracted for'. Signing an arrangement is not the end of a process, but rather the start of an on-going relationship with the supplier. It needs to be managed in order to deliver the best outcome for the organisation.



Reference www.procurepoint.nsw.gov.au/policy-and-reform/nsw-government-procurement-information/nsw-procurements-approach

The Procurement Management Process



Reference www.procurepoint.nsw.gov.au/policy-and-reform/nsw-government-procurement-information/nsw-procurements-approach

Sourcing Procurements



The procurement process is typically conducted with the issuing of a Request For X (RFx), where x = Bid, Information, Proposal, Tender or Quote.

RFx (request for x)

RFB (request for bid)	RFI (request for info)	RFP (request for proposal)	RFQ (request for quotation)	RFT (request for tender)
<ul style="list-style-type: none"> ■ Invitation for prospective suppliers to bid on service ■ It is not a binding agreement ■ Also called "invitation to bid" 	<ul style="list-style-type: none"> ■ Gathers information for potential suppliers ■ Used for major IT purchases ■ Usually precedes RFP or request for offer 	<ul style="list-style-type: none"> ■ Document posted to elicit bids from potential vendors ■ Specifies evaluation criteria ■ Used for complex IT projects or to boost competition 	<ul style="list-style-type: none"> ■ Document eliciting quotes for a product or service ■ Seeks itemized list of prices ■ Used for simpler IT projects 	<ul style="list-style-type: none"> ■ Invitation for suppliers to submit sealed bid ■ Specifies services and timeframe ■ Usually expected to conform to legally standardized structure

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Reference www.searchcrm.techtarget.com/definition/RFx

Sourcing Procurements - RFx



The RFx document is prepared by the buyer and will have specific information depending on the what it is (RFI, RFP, RFT/Q). It will typically include:

1. Purpose of RFx.
2. Organisation's Background.
3. Basic Requirements.
4. Hardware and Software Environments.
5. Description of RFx Processes & Evaluation.
- 6. *Statement of Work and Scheduled Information.***
7. Appendices:
 - a. Current Systems Overview.
 - b. Systems Requirements.
 - c. Volume and Size data.
 - d. Required Contents of Vendor's Response to RFx.
 - e. Sample Contract.

Sourcing Procurements - SOW



A key component of the RFX document is to analyse the business needs and establish a detailed **Statement of Work** (SOW).

A Statement Of Work is a description of the work required. A good SOW is detailed and gives bidders an understanding of buyer's expectations, key items include:

- Scope of Work to be completed
- Location of where the Work is to be completed from
- Measurement and Performance criteria
- Deliverables, milestones and schedule
- Applicable Standards and Acceptable Criteria
- Any Special Requirements

Sourcing Procurements



Approach the Market, Select, Negotiate and Award:

- Deciding whom to ask and potentially do the work
- Sending appropriate documentation to potential sellers / bidders
- Obtaining proposals / bids
- Evaluating responses and selecting a preferred supplier
- Negotiating the contract
- Awarding a contract

Sourcing Procurements



Evaluation Processes:

1. Evaluation team review of RFX response and evaluate against predetermined criteria.
2. Schedule short-listed vendor presentations.
3. Check vendor references.
4. Short-listed vendor presentations.
5. Evaluation team site visits to short-listed vendors / references.
6. Evaluation team finalises evaluation and selects short-listed firms.
7. Best and Final Offer (BAFO) with short-listed firms.
8. Conduct final negotiation with preferred supplier.



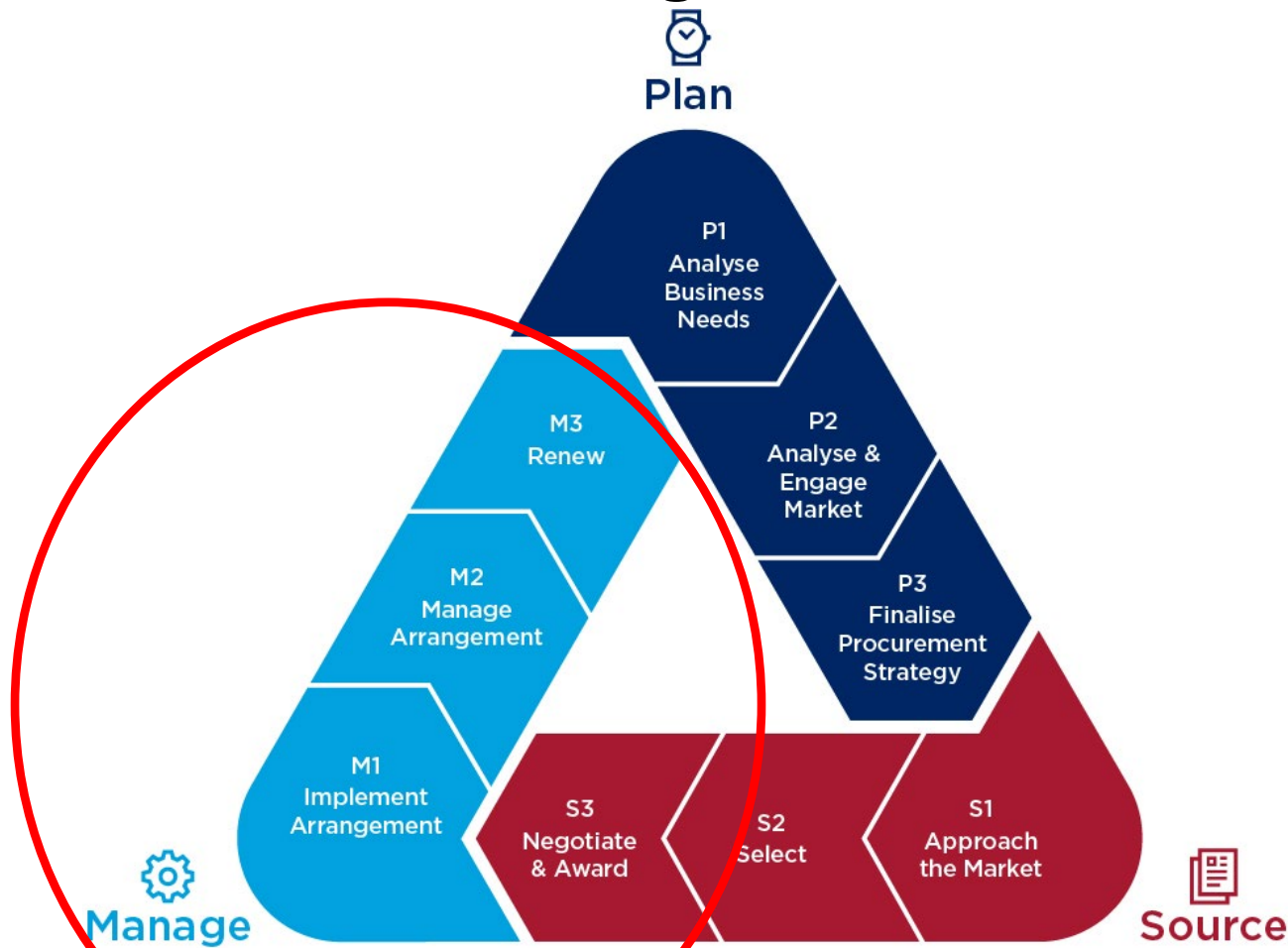
Sourcing Procurements

Sample Evaluation Sheet:

		Proposal 1		Proposal 2		Proposal 3	
Criteria	Weight	Rating	Score	Rating	Score	Rating	Score
Technical Approach	25%						
Management Approach	25%						
Past Performance	20%						
Price	30%						
Total Score	100%						

To calculate the score multiply the weight of the criterion by the rating for the proposal

The Procurement Management Process



Reference www.procurepoint.nsw.gov.au/policy-and-reform/nsw-government-procurement-information/nsw-procurements-approach

Managing Procurements



Implement, Manage & Renew:

- Implement the agreement & services as per the contract and SOW
- Manage the agreement to ensures the seller's performance meets contractual requirements
- Review and control all changes - It is critical that project managers and team members watch for Constructive Change Orders
 - If change is **requested** then contractor can legally bill the buyer for additional work

Managing Procurements



Renew / Closing Procurements:

- Involves completing, settling contracts and resolving issues
- The project team should:
 - Determine if all work was completed correctly and satisfactorily
 - Resolve any issues or outstanding items
 - Up date records to capture all lessons learnt & outcomes
 - Archive information
 - Capture all knowledge and lessons learnt
- The contract itself should include requirements for formal acceptance and closure

**The procurement process is typically
conducted with the issuing of a Request For
X (RFx)**

True

False

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The 3 stages of procurement are:

Plan, Manage and
hope it works

Plan, Source and
Manage

Source, Manage
and Contract

All of the above

Intended Learning Objectives

~~Outsourcing.~~

~~Procurement.~~

Contracts.

Contracts



Contracts are the one source of truth for all activities that are to delivered by the external parties.

What is a Contract?

- A mutually binding agreement that obligates the seller to provide the specified products or services and obligates the buyer to pay for them
- A document that clarifies responsibilities and sharpens focus on key requirements – deliverables, quality, timeframes etc
- A document that must be detailed and and accurately as they are used as the final position (you get out of them what you put to them)
- It is rarely used or relied on and seen as a last point of call.

Contracts



Different types of Contracts are used in different situations with all having pros and cons:

- **Fixed Price** contracts: involve a fixed total price for a well-defined product or service.
- **Time & Material** contracts: involve payment to the seller for actual time spent and any materials used in providing the service.

Contracts



Fixed Price

Time & Material

LOW

BUYER'S RISK

HIGH

HIGH

SELLER'S RISK

LOW

Fixed Price model

When to choose:



Clear deadlines



Detailed specification



Short project duration



Optional client's control



No changes planned

Pros

- ✓ No overpayments
- ✓ No distrust
- ✓ No supervision
- ✓ No turn-ups
- ✓ Low risk

Cons

- ✗ Longtime preparation
- ✗ Minor control over the process
- ✗ Lack of communication

Time and Materials model

When to choose:



Raw project concept



Workflow can change



Innovative idea



Little known target market



Intention to take control

Pros

- ✓ Flexible budget
- ✓ Easy start
- ✓ Part-payment opportunity
- ✓ No costs for preparations
- ✓ Agile orientation

Cons

- ✗ No deadlines
- ✗ Low budget control
- ✗ Time for participation

Contracts



Contracts should include specific clauses that take into account issues that are unique to the project – Quality, Time, Location etc

Key contractual conditions should include

- Intellectual Property Ownership and Indemnities
- Milestones and Deliverables
- Quality Criteria / Performance and Acceptance testing
- Variations / Change request process
- Non-Performance / Termination - Convenience, Breach etc
- Disengagement & Transition
- Liquidated Damages
- Fees and Penalties
- Warranties

Reference www.mdplaw.com.au/insights-publications/software-development-agreement

Contracts are the one source of truth for all activities that are to delivered by the external parties

Yes

No

Sometimes

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