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SS ZG622: Software Project Management (Lecture #13)

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Text Books



T1: Bob Hughes, Mike Cotterell, and Rajib Mall, Software Project Management, 5th Edition, McGraw Hill, 2011

T2: Pressman, R.S. Software Engineering : A Practitioner's Approach, 7th Edition, McGraw Hill, 2010

R1: Sommerville, I., Software Engineering, Pearson Education, 9th Ed., 2010

R2: Persuasive Business Proposals: Writing to Win More Customers, Clients, and Contracts, Third Edition by Tom Sant
AMACOM © 2012

R3: Gower Handbook of People in Project Management by Dennis Lock and Lindsay Scott (eds) Gower Publishing Limited © 2013

R4: Scrum in Action: Agile Software Project Management and Development by Andrew Pham and Phuong-Van Pham Cengage Learning © 2012

R5: A Guide to the Project Management Body of Knowledge (PMBOK® Guide), Fifth Edition by Project Management Institute
Project Management Institute © 2013



L13: Software Project Management –

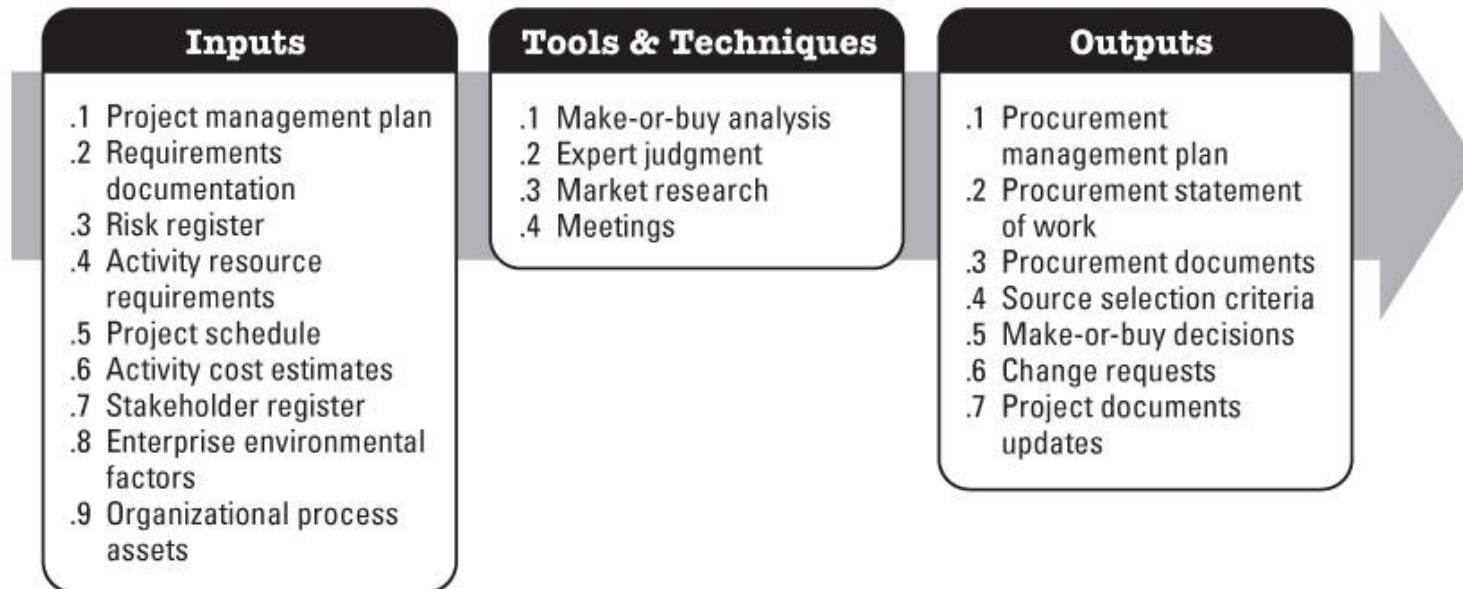
Writing Business Proposals

Source Courtesy: Some of the contents of this PPT are sourced from materials provided by publishers of prescribed books

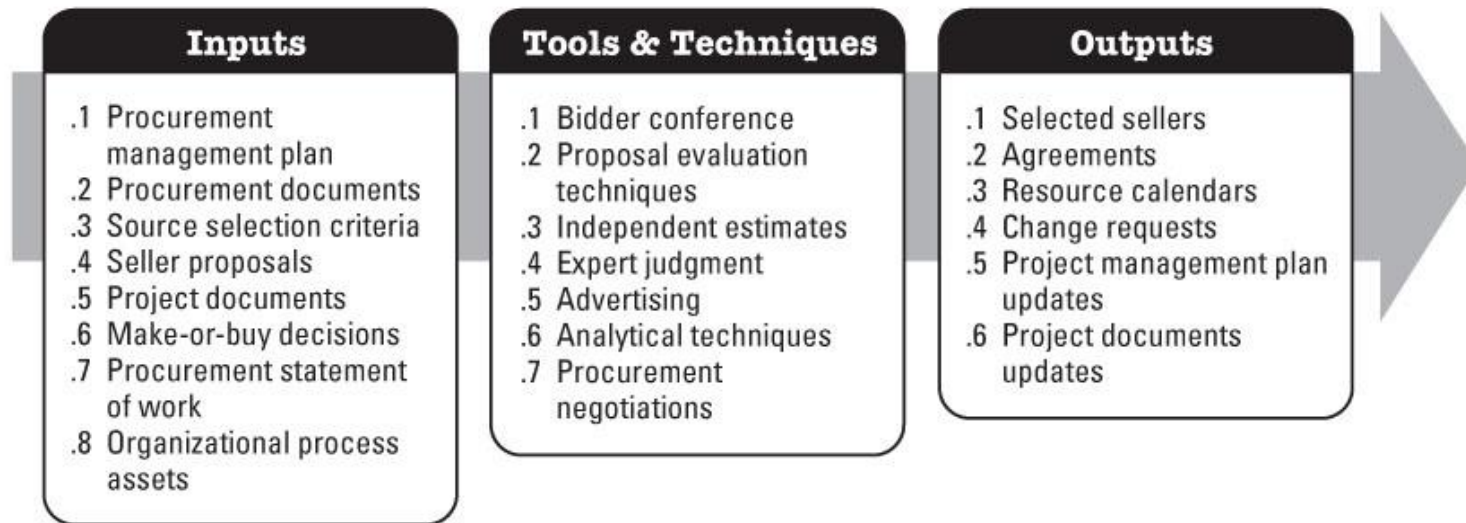
Project Procurement Management - PMBOK

- **Plan Procurement Management** The process of documenting project procurement decisions, specifying the approach, and identifying potential sellers
- **Conduct Procurements** The process of obtaining seller responses, selecting a seller, and awarding a contract.
- **Control Procurements** The process of managing procurement relationships, monitoring contract performance, and making changes and corrections as appropriate.
- **Close Procurements** The process of completing each project procurement

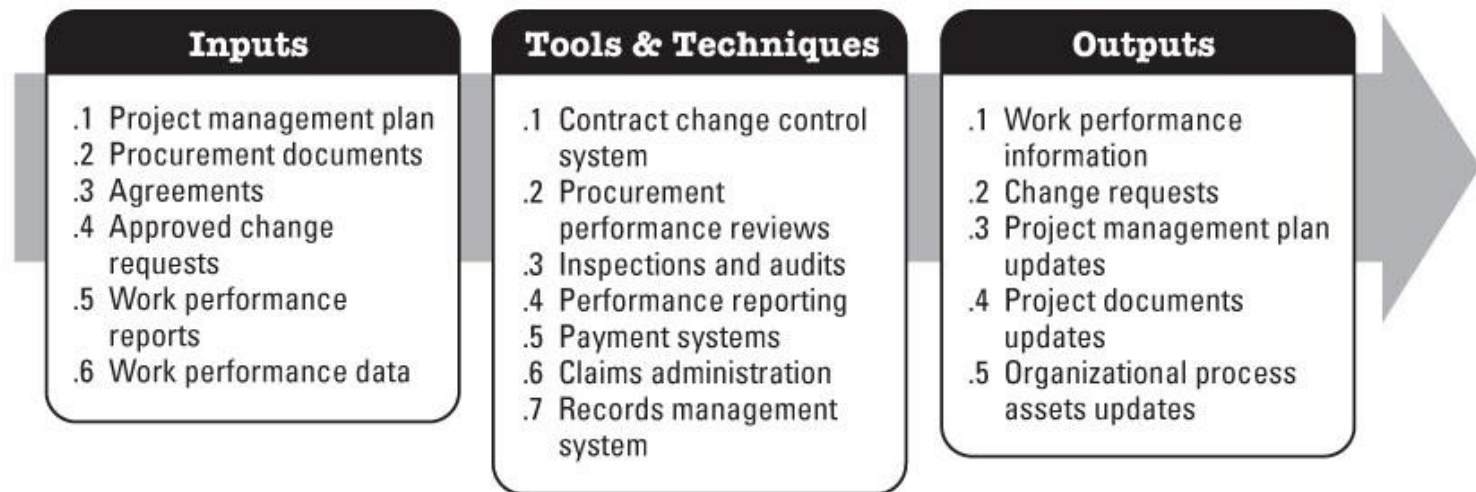
Plan Procurement Management - PMBOK



Conduct Procurements - PMBOK



Control Procurements - PMBOK



Close Procurements - PMBOK



Writing Business Proposals

The Value of Proposals to Clients

- A proposal helps the decision maker
 - Compare vendors, offers, or prices in order to make an informed decision
 - Clarify complex information
 - Make the buying process more “objective”
 - Slow down the sales process
 - Solicit creative ideas, become educated, or get free consulting

The Value of Proposals to Seller

- A proposal helps the seller
 - *Sell on value instead of price*
 - *Compete successfully without having personal contact with every member of the decision team*
 - *Demonstrate your competence and professionalism*
 - *Offer a bundled solution*
 - *Sell the “smarter” buyer*
 - Smart buyers want to gain as much as possible while spending as little as possible. If you don't show them how much they gain by choosing your recommendations, they will inevitably focus on the other half of the equation: spending very little
 - *Sell a complex, technical product to nontechnical buyers*
 - **The proposal as a marketing tool**
 - **The proposal as a means of influencing clients**

Seven Questions for a Client-Centered Proposal

- What is the client's problem or need?
- Why is this problem worth solving?
- What results does the customer seek?
- Which specific result is the most important?
- What products or services can I offer that will solve the problem and deliver the right results?
- Of the solutions I can offer, which one is the best fit for this client?
- Why are we the right choice?

Q1. What is the client's problem or need?

- “You can be 100 percent compliant to the RFP and 100 percent wrong because you don’t know the real reasons it was issued.” - Tom Amrhein
- Most companies, government agencies, and other organizations prefer to keep their shortcomings to themselves.
- An RFP can quickly get into the hands of a competitor

Q1. What is the client's problem or need?

P(Proposal Writer) :“What is the customer's key need?”

S(Sales Team) :“Well, they need real-time verification of credit cards on their Web site.”

P: “But I’m curious—why do they need to verify credit cards online?”

S: “So they can sell stuff on the Web.”

P: “Oh, of course. So this is an e-commerce strategy.”

S: “Yes”

P: “Why they want to sell stuff on the Web. They have stores in every mall in North America. Why are they so concerned about having an Internet presence?”

S: “their two biggest competitors have e-commerce sites and are selling products over the Web!”

P: “But from what I know of this company, they’re bigger than their two main competitors put together. So why do they want to copy what those guys are doing?”

S: “Because they’ve lost over 20 percent of their market share over the past year, that’s why!”

That sounds like a need statement

Q2 : Why is this problem worth solving?

- Why? Why now?
- Who in the organization is being affected by the problem?
- What corporate objectives are being blocked?
- What outside pressures are making this problem something that cannot be ignored?
 - Every business confronts all kinds of problems and needs almost daily. Most of them will never get fixed, because they're just not important enough. So what makes this situation one that can't be ignored?

Q3 : What results does the customer seek?

- *Delivering the right results through your solution is usually more important than quoting the lowest price.*
In fact, that's a definition of value.
- What is the client trying to accomplish?
 - Knowing the client's goals will help you shape the right solutionWhat corporate objectives are being blocked?
- What are results?
 - You can define them as the impact your services or solutions have on the customer's organization. Sometimes a desirable result is simply the elimination of a problem
- Outcomes that meet three criteria
 - *Measurable or quantifiable*
 - *Organizational in nature* (not help a single individual or department)
 - *Directly linked to the solution you will provide*

Q4 : Which specific result is the most important?

- You need to present ideas in the same order that they matter to the client
 - The customer will assume that what you mention first is what you think is most important. If that matches what the customer thinks matters the most, you have just reduced cognitive dissonance and increased rapport.
 - It may not work if you talk about quality when customer is keen on market share.

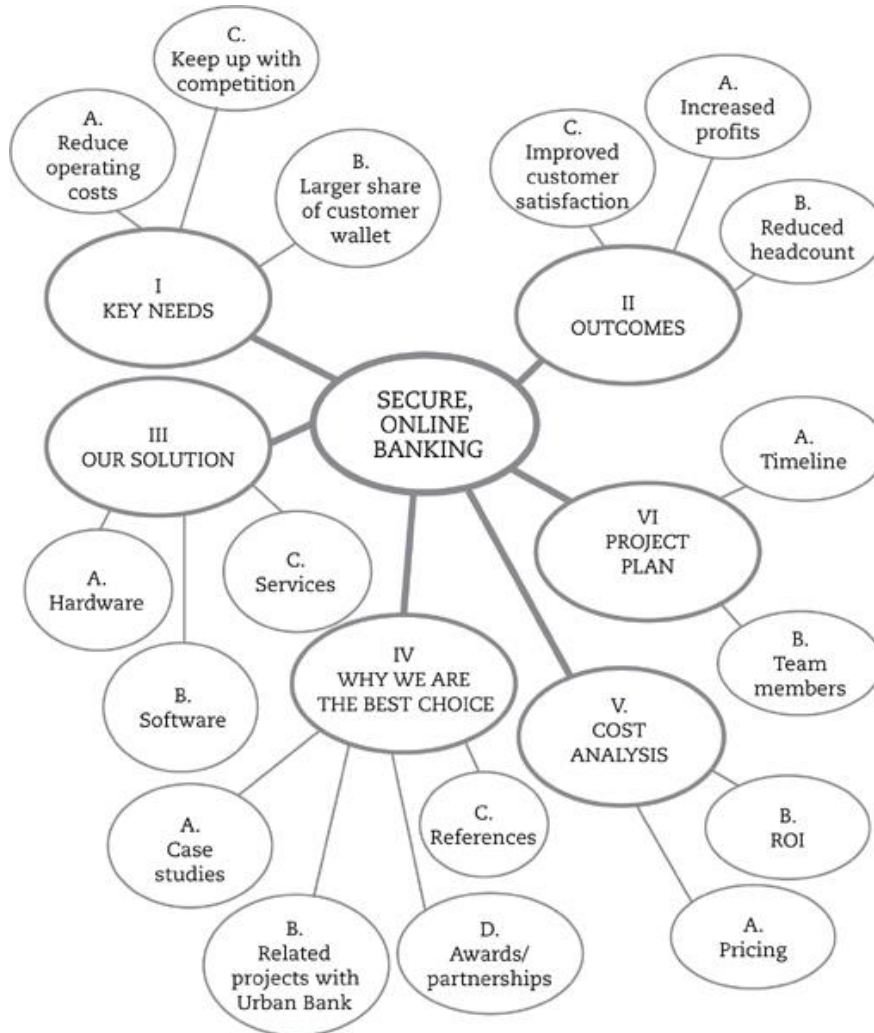
Other Questions

- Q5. What products or services can I offer that will solve the problem and deliver the right results?
 - The more creative you can be in combining what you know about the client's needs and goals and what you have to offer, the more likely you are to separate yourself from the pack and develop a truly client-centered solution.
- Q6. Of the solutions I can offer, which one is the best fit for this client?
- Q7. Why is my company the right choice?
 - If the client is trying to save money, mention those aspects of your product or service that make it cost effective. If the client is trying to eliminate errors and improve quality, focus on that.

NOSE pattern for Persuasion

- **Needs:** The customer's key business needs, problems, issues, pains, or opportunities: the drivers behind the deal
- **Outcomes:** The positive impact that will come from meeting those needs: the motivation to move forward
- **Solutions:** A recommendation for a product or service that will solve the problem and deliver the outcomes
- **Evidence:** Proof you can do the job on time and on budget: your differentiators

NOSE pattern for Persuasion



Sample Cognitive Web after prioritizing

The prioritized list can become outline for the proposal.

Adjusting for Personality Type

- *“If you wish to persuade me, you must think my thoughts, feel my feelings, and speak my words.”* - Roman orator and statesman Cicero
- The first factor about your decision maker is his or her personality type
 - if you don’t consciously think about the customer’s personality, you will inevitably create a proposal that is exactly the kind you would like to receive

Adjusting for Personality Type

<u>Analytical</u>	<u>Pragmatic</u>
<p>Facts, accuracy Detail oriented Charts, schematics dislike emotional terms and inexact language</p>	<p>Bottom-line driven Values brevity Prefers graphics to words For them, the dominant issue isn't accuracy or thoroughness, it's impact.</p>
<u>Consensus-seeker</u>	<u>Visionary</u>
<p>Feelings, values Concerned about people Responds to color they are likely to focus on how everyone else is likely to feel about the decision rather than the details or facts.</p>	<p>Concepts, big ideas Long-term view Loves "splash" They tend to have strong egos and to believe that their ideas are fundamentally sound.</p>

The Art of Saying What You Mean

- It is a good idea to be
 - Clear
 - Concise
 - Simple
- Avoid
 - *Fluff* : grandiose claims, vague assertions, and hype
 - *Guff* : the language of bureaucrats
 - *Geek* : language that's too technical or too obscure for the intended reader
 - *Weasel* : language that sounds wishy-washy, even sneaky

The Art of Saying What You Mean

Guff

The dimensionality of expected project problems coupled with the limited time available for preparation means that choices will have to be made to assure viability of the most critical analytical processes. Thus, a leveraging of problem similarities and process relationships to allow sharing of resources and solutions, will be needed to contain cost and staff expenditures and assure maximum payoff from effected solutions.



Geek

We propose a method that gives evolved programs the incentive to strategically allocate computation time among fitness cases. Specifically, with an aggregate computation time ceiling imposed over a series of fitness cases, evolved programs dynamically choose when to stop processing each fitness case with minimal damage to domain performance.



Weasel

We believe that we have proposed an effective solution, based on the information we have at this time. We look forward to exploring details of the project at greater depth in the future, but for now we hope that this initial proposal will suggest that there is a compelling case for considering us to receive this contract.



The Art of Saying What You Mean

Here are some examples of words and phrases typical of Fluff.

World class
Best of breed
State of the art
Compelling
Leading edge
Quality focused
Uniquely qualified
Innovative
Highly available



High performance
Commitment to excellence
Synergy
User friendly
Integrated
Partnership
Seamless
Robust
Proven

The Art of Saying What You Mean

Example from a real proposal observed by the author of R2 (Company name masked)	Would be easier to understand and more convincing if it read
<p><i>Nova, Inc. has been an industry leader in strategic business programs related to the interaction of the needs of our customers and our philosophies towards Total Quality Management. Our goal is to be able to provide a business program that meets two specific criteria:</i></p> <p><i>To meet the business requirements of the customer by providing complete flexibility, the highest level of customer service and responsiveness, decreased operating expense, increased profit and,</i></p> <p><i>To provide a financial benefit to Nova which will assure Nova's ability to be a long-term business partner</i></p>	<p><i>We will provide you with a Help Desk program that delivers the following:</i></p> <ul style="list-style-type: none"> <i>• Flexibility in setting up and managing the program so that it meets your needs</i> <i>• The highest level of customer service</i> <i>• Fast answers to your employees' questions and problems</i> <i>• An overall decrease in your operating costs by providing you with a quality service at a lower price than you could do it yourself</i> <i>• Increased profitability for your organization through higher employee productivity</i>

The Structure and Key Elements of Formal Proposals

- ***The Business Case***
- ***Solution and Substantiation***
- ***Attachments and Appendices***

The Business Case

<i>The Business Case</i>	<p>Cover letter Title page Table of contents Executive Summary</p> <ul style="list-style-type: none"> •Customer needs •Customer desired outcomes •High-level presentation of solution •Key value-added components or uniqueness factors <p>Pricing and payback analysis</p>	<p>Accessible: by all audiences, but focused on the top-level executives and financial buyers</p> <p>Content: Overview, high-level content focusing mainly on business issues, bottom-line factors.</p> <p>Graphics: ROI charts, payback analysis, focus boxes to highlight key text</p>
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Solution and Substantiation

<i>Solution and Substantiation</i>	<p>Solution in significant detail, including:</p> <ul style="list-style-type: none"> •Deliverables •Operational description of the equipment or system proposed •Training •Documentation •Implementation <p>Scope of work Project plan/master schedule Timeline Project team, resumes, organization chart Subcontractors Pricing/cost analysis ROI or payback calculation Value-added components Detailed evidence, including:</p> <ul style="list-style-type: none"> •References •Case studies •Testimonials •Uniqueness factors •Accolades and awards •Warranties, service-level agreements <p>RFP response Compliance matrix Question and Answer section</p>	<p>Accessible: primarily by technical reviewers Content: Details addressing how the system works, establishing value, differentiating your offering from competitors' Graphics:</p> <ul style="list-style-type: none"> •product illustrations •flow charts •process diagrams •schematics •CAD drawings •Gantt chart •cost comparison table •photos of team members •brief resumes of key team members •copies of testimonial letters •copies of certifications
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Effective solution recommendation

- Stay focused on the controlling strategy you established in the executive summary. Even though you stated your value proposition there, you need to repeat it and build on it in the body of your proposal. Repetition is the key to making certain the client sees it, understands it, and remembers it.
- Be careful about using language that implicitly guarantees results (unless you really are guaranteeing them contractually), or that predicts outcomes you're not sure you can deliver.
 - **(Note: There are legal implications to anything you write in a proposal. If you win the contract, your proposal becomes a legally binding document and you could be held to the promises or claims you have made in it.)**
- Use specific, concrete language. Use details. Simply saying that a system is “efficient” or “ideal for these purposes” is not enough. Go into detail: “This system achieves 99.96% up time, the best in the industry, as documented by the independent journal Manufacturing Monthly.”
- Support your claims with substantive evidence. Statistics, third-party validation, test results, awards, and other forms of evidence are more convincing than generic claims. Case studies that showcase successful applications of your products or services are very effective. References to satisfied customers also help, particularly if they come from well-known firms in the same industry as your prospective client.

Persuasive Answers to RFP Questions

Evaluate the questions being asked and divide them into three categories:

- ***Pro forma questions:*** This is stuff they have to ask, but won't make much of a difference to winning.
- ***Tactical or narrowly focused questions:*** These questions often address infrastructure, technical, or contractual requirements, but the client is often willing to overlook noncompliance on these matters as long as they are getting what they need otherwise.
- ***Strategic questions:*** These are the ones that really matter, the ones that get at the heart of the solution the customer seeks.

Spend most of your time on the strategic questions.

Persuasive Answers to RFP Questions

Here are twelve quick tips to help you get maximum points from evaluators when they read your answers to the questions in their RFP:

- ***Do not change the order of the questions and do not rewrite them***
- ***Repeat the question as written in your response, then answer it in a different format*** (font, bold etc.) Just make it obvious which is theirs and which is yours.
- ***Include a compliance matrix*** a table that lists the requirement or question, your level of compliance. includes the page number where the detailed answer can be found.
- ***Do not send your reader off to another part of your proposal to find the answer.***
- ***Answer the question. And answer it each time they ask it.***
- ***Focus on what the client cares about first, not on your product or service details.***
- ***Use the A / P / S format for important answers.*** Acknowledge that the question is significant, make a Persuasive statement about what you have done in this area, and then Substantiate with details
- ***Weave your value proposition into your answers and include key differentiators.***
- ***Keep the writing simple and clear.***
- ***Provide time to edit answers written by subject matter experts.***
- ***Watch your tone. Keep it friendly.***
- ***Simplify.*** Challenge the Geek and Guff

Writing Effective Case Studies

Keep your case studies short. Usually one or two pages is plenty. An example of a case study:

What our client needed: In the highly competitive executive recruiting business, success is based on who you know and what you know about them. REX Recruiting found that they were not able to keep track of their contacts and leads in a systematic way. As a result, opportunities to place executives were sometimes lost.

What we created: After investigating costly, high-end products designed for sales forces or customer service organizations, REX Recruiting contracted with Mustang Software to create a data storage and tracking tool that was right for them. REX Recruiting defined exactly what kind of information they wanted to store, how they wanted to use it, and how they needed to access it.

Mustang took it from there. Creating simple data screens that required no knowledge of databases, we created a user-friendly system that was compatible with REX Recruiting's Microsoft-centric environment. Each executive, each job opening, and each company for which REX has previously provided an executive is available in the system. For each of these categories the company defined significant attributes and details that needed to be tracked. The user can search on any of those categories or attributes or can combine any number of them to create a custom report format simply by clicking on the screen. When one of REX's recruiters receives an inquiry from a client, he or she can generate a report that lists all available candidates with the right qualifications. Recruiters can also generate candidate profiles and status reports to keep clients informed about the status of the search and document effort.

How it worked: REX Recruiting has seen 17% growth since the system was implemented, which is all the more remarkable since it coincided with a general downturn in the economy. With seven new offices on the West Coast, REX has grown to be the largest firm specializing exclusively in executive placements.

Attachments and Appendices

<i>Attachments and Appendices</i>	Terms and conditions Sample contract Glossary/nomenclature Relevant marketing materials Other attachments (digital media with sample code, video, photo tour of prospective facility, etc.)	Accessible: varies; usually a highly specialized reviewer Content: Specialized information to facilitate the decision process
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Audience for the Formal Proposal

- **Senior executives** will want the basics.
 - Are we getting what we need?
 - Do these recommendations make sense?
 - Is there a compelling reason for us to do this?
 - What do we gain from choosing these people?
 - What differentiates them? How much will it cost? What kind of ROI can we expect?
- **A gatekeeper**, who does the initial screen of all proposals to eliminate as many as possible.
 - Has this vendor answered all of the questions?
 - Did they follow our instructions?
 - Is their pricing realistic?
- **A technical evaluator** is looking at the proposed solution and all the factors surrounding it.
 - What are they proposing?
 - How does it work?
 - What are the risk factors?
 - Do they have sufficient experience?
 - How will it fit into our operation?

Protecting Your Proprietary Interests

- Limit the amount of specific technical detail you provide.
- If you provide aggregated pricing instead of line item, detailed pricing, you make it difficult to use the proposal as a shopping list
- Ask the client to sign a nondisclosure agreement in which they acknowledge your ownership of the content in your proposal.
- Mark your proposal “Proprietary” or “Business Confidential.” Put “Copyright <<year>> <<Your Company Name>>” on the title page or in the footer.
- Submit at deadline, do not be the early bird.
- Build your proposal on your differentiators, so that there’s no way a customer can do it themselves or give it to a competitor to do it.

Title Page

- The title page should include
 - a title for the proposal,
 - the name of the recipient,
 - the name of the preparer(s), and
 - the date of submission
- Never title your proposal “Proposal.”
- Some examples of effective titles
 - REDUCING DATA TRANSMISSION COSTS
 - IMPROVING PRODUCTIVITY THROUGH ONLINE INVENTORY ACCESS
 - INCREASING CUSTOMER LOYALTY THROUGH ENHANCED SERVICE OPTIONS
 - CUTTING COSTS IN THE ACCOUNTS PAYABLE AREA WITH AUTOMATED WORKFLOW PROCESSES

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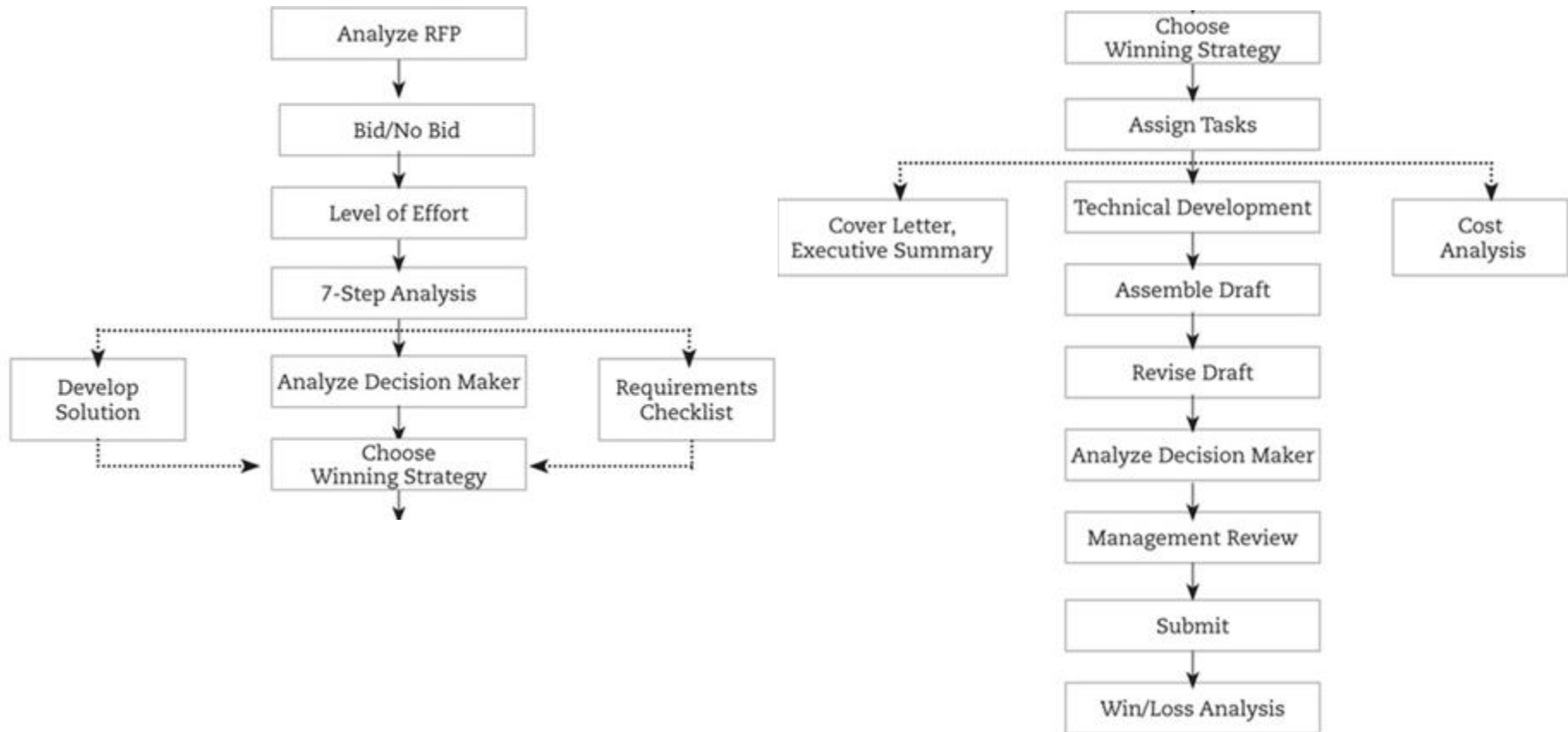
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The Compliance Matrix: Simplifying the Evaluator's Job

Question	Extent of Compliance				Page	Comments
	EX	F	P	N		
Urban Bank Corporation needs to streamline the proposal generation process.		✓			21	Our recommendations will eliminate 11 steps from the current proposal process at Urban Bank.
Internet accessible and mobile proposal and presentation generation capability integrated with a product and price configuration system.		✓			22	We offer a Web-based (not merely Web-enabled) system that includes presentation capabilities. We provide built-in integration with the pricing tools Urban is considering.
Automated interface to configuration systems.		✓			25	Our system accepts output from configuration systems if formatted as an Excel or Word file.
Knowledge transfer.		✓			26	
Guidance leading to a prospect/customer needs analysis.		✓			27	Our system coaches the user to define the opportunity, including needs and solution.
Supplemental product support.		✓			29	We provide exceptional technical and customer support.

Sequence of Activities in Managing a Proposal Project



Acquiring software from external supplier

Acquiring software from external supplier

This could be:

- a *bespoke system* - created specially for the customer
- *off-the-shelf* - bought 'as is'
- *customised off-the-shelf* (COTS) - a core system is customised to meet needs of a particular customer

Acquiring software from external supplier

When software is provided by supplier, what are they providing:

- *Goods ?* or
- *Service ?*

Globally these two entities are treated differently for the purpose of legal obligations and taxation

Goods vs. Services

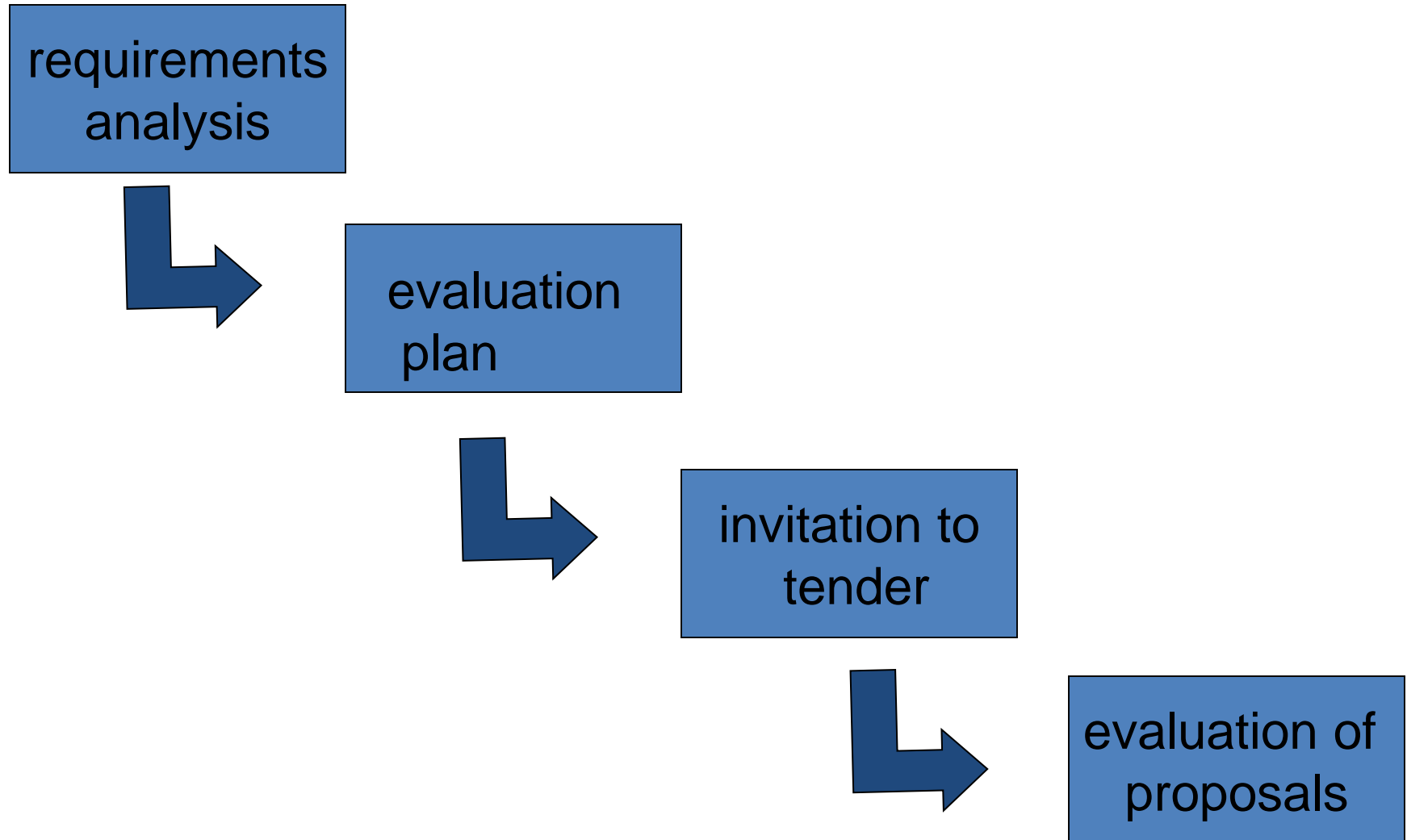
Classical view is that

- Goods are items that can be seen and touched, such as books, pens, television etc.
- Services are provided by other people, such as doctors, barbers and waiters

Many nations treat goods and services separately with respect to rights and liabilities.

Software is treated differently by different countries based on several factors in transaction

Stages in contract placement



Tendering Process

- Open tendering
 - any supplier can bid in response to the *invitation to tender*
 - all tenders must be evaluated in the same way
 - government bodies may have to do this by local/international law (WTO World Trade Organization, EU European Union requirements)

Tendering Process

- Restricted tendering process
 - bids only from those specifically invited
 - can reduce suppliers being considered at any stage
- Negotiated procedure
 - negotiate with one supplier e.g. for extensions to software already supplied

Requirements document: sections

- introduction
- description of existing system and current environment
- future strategy or plans
- system requirements -
 - mandatory/desirable features
- deadlines
- additional information required from bidders

Requirements

- These will include
 - functions in software, with necessary inputs and outputs
 - standards to be adhered to
 - other applications with which software is to be compatible
 - quality requirements e.g. response times

Bidder Conferences

- Bidder conferences (sometimes called contractor conferences, vendor conferences, and pre-bid conferences) are meetings between the buyer and all prospective sellers prior to submittal of a bid or proposal.
- Used to ensure that all prospective sellers have a clear and common understanding of the procurement requirements), and that no bidders receive preferential treatment.
- Buyers ensure that all prospective sellers hear every question from any individual prospective seller and every answer from the buyer. Typically fairness is addressed by techniques such as collecting questions from bidders or arranging visits in advance of the bidder conference.
- Responses to questions can be incorporated into the procurement documents as amendments.

Evaluation plan

- How are proposals to be evaluated?
- Methods could include:
 - reading proposals
 - interviews
 - demonstrations
 - site visits
 - practical tests

Off the shelf software clearly has an advantage here as there is actually product that can be evaluated in existence.

Evaluation plan -contd.

- Need to assess value for money (VFM) for each desirable feature
- VFM approach an improvement on previous emphasis on accepting lowest bid
- Example:
 - feeder file saves data input
 - 4 hours work a month saved at £20 an hour
 - system to be used for 4 years
 - if cost of feature £1000, would it be worth it?

Invitation to tender (ITT)

- Note that bidder is making an *offer* in response to ITT
- *acceptance* of offer creates a *contract*
- Customer may need further information
- Problem of different technical solutions to the same problem

ISO 12207 refers to an ITT as a Request for Proposal or RFP.

Memoranda of agreement (MoA)

- Customer asks for technical proposals
- Technical proposals are examined and discussed
- Leads to MoA between customer and prospective supplier
- Agreed technical solution incorporated in MoA
- Tenders are then requested from prospective suppliers based on MoA
- Tenders judged on price
- Fee could be paid for technical proposals by customer

Thank You

Any Questions?