Unit 2
ERP Implementation Lifecycle

Project Preparation

Meaning of Project:

- Specifically Evolved Work Plan' devised to achieve specific objective within a specified period of time
- It is a scheme,design,a proposal of something intended to achieve
- Each project differs in size,nature,objective & complexity

Classification of "PROJECT"

1. Quantifiable & non-quantifiable Projects
2. Sectoral Projects
3. Techno-Economic projects

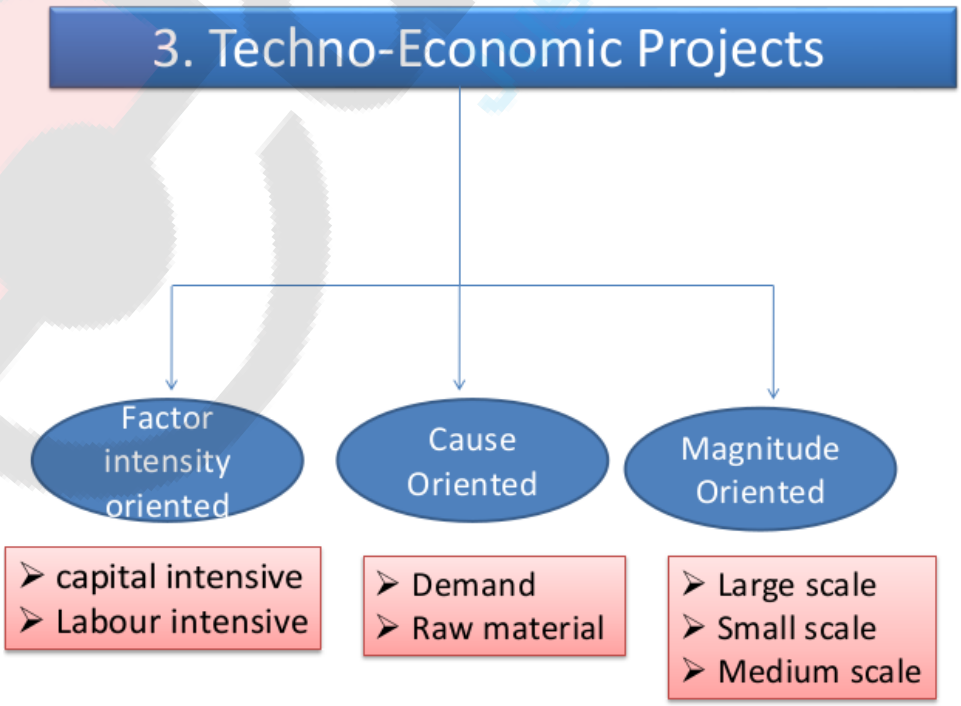
1.Quantifiable & non-quantifiable Projects

- Projects for which a right quantitative assessment of benefits can be made are termed as quantifiable projects
- Ex: power generation,mineral,development,industrial development etc.,
- Projects for which quantitative assessment cannot be made are termed as non-quantifiable projects Ex: health,education,defence etc.,

2.Sectoral Projects

Automobile sector, Agricultural sectoral, Power sector, Health sector, Education sector, Transport sector, Manufacturing sector, Food processing sector, Mining sector, Irrigation sector, Miscellaneous sector etc.,

3.Techno-Economic projects



PROJECT IDENTIFICATION

- A ‘project’ having a good market is generally selected by an entrepreneur
- Project identification is concerned with collection of economic data, compiling & analyzing it
- A/C to peter F.Drucker : 3 types of opportunities : Additive, complimentary & break through
- Hence identifying project is a crucial step in any business
- Ways of identifying a ‘PROJECT’
  - Observation
  - Trade & professional magazines
  - Bulletins of Research Institutions
  - Government sources

PROJECT SELECTION

- ‘Project selection’ starts from where project identification ends
- Existing economic conditions,the govt policies,target markets,profit,availibility of raw materials & skills ect,.
- SWOT & SCOT Analysis { analysis of strength, weakness or constraints, opportunities & threats } with respect to product
- Studies: market share,profit,life of product, export possibilities etc,.
- Finally the threats like competition, import of similar product into market, government policies, technological obsolescence etc,.
- Points to be considered in selection of a project
  1. Technology
  2. Equipment
  3. Investment size
  4. Location
  5. Marketing

1.Technology

The technology required to develop the project should be available within or preferably available indigenously. It makes life easier to start with.

2.Equipment

The availability of equipment should be studied. The Entrepreneur should select the best equipment available for the project.

3.Investment Size

The study of investment required is to be made rationally & accurately. Wrong estimation may lead to shortage of funds in the middle of ‘project’.

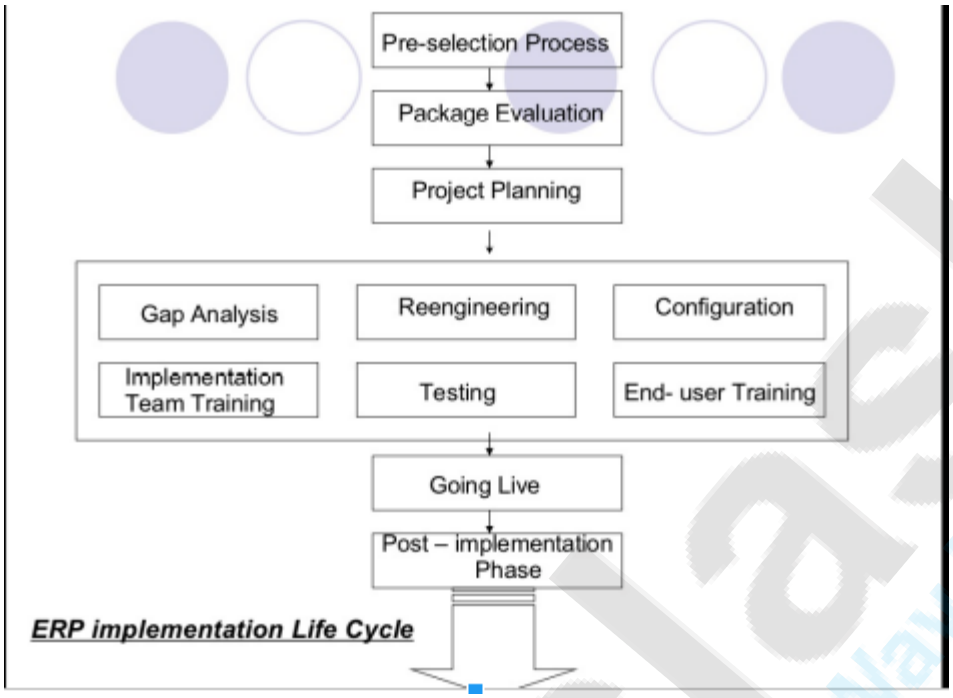
4.Location

Suitable location of project is very important. The entrepreneur should locate the project where resources & raw materials are available. setting up the project at notified area by Government.

5.Marketing

Marketing plays an important role. The prepared product should be marketable. One should estimate the correct/reliable & market share for his product.

ERP Implementation Lifecycle



Enterprise resource planning

- ERP covers the technique and concepts employed for the integrated management of business as a whole,
- ERP packages are integrated software packages that support the above ERP concepts.

ERP LIFE CYCLE

ERP lifecycle is in which highlights the different stages in implementation of An ERP. Different phases of ERP

1. Pre evaluation Screening
2. Evaluation Package
3. Project Planning
4. GAP analysis
5. Reengineering
6. Team training
7. Testing
8. Post implementation

1. Pre evaluation screening

- Decision for perfect package
- Number of ERP vendors
- Screening eliminates the packages that are not at all suitable for the company's business processes.
- Selection is done on best few package available.

2. Package Evaluation
   - Package is selected on the basis of different parameter.
   - Test and certify the package and also check the coordination with different department
   - Selected package will determine the success or failure of the project.
   - Package must be user friendly
   - Regular up gradation should available.
   - Cost

3. Project planning
   - Designs the implementation process.
   - Resources are identified.
   - Implementation team is selected and task allocated.
   - Special arrangement for contegencies.

4. Gap analysis
   - Most crucial phase.
   - Process through which company can create a model of where they are standing now and where they want to go.
   - Model help the company to cover the functional gap

5. Reengineering
   - Implementation is going to involve a significant change in number of employees and their job responsibilities.
   - Process become more automated and efficient.

6. Team Training
   - Takes place along with the process of implementation.
   - Company trains its employees to implement and later, run the system.
   - Employee become self sufficient to implement the software after the vendors and consultant have left.
   - End User Training
     - The employee who is going to use the system are identified and trained.

7.Testing
   - This phase is performed to find the weak link so that it can be rectified before its implementation.

8. Going Live
   - The work is complete, data conversion is done, databases are up and running, the configuration is complete & testing is done.
   - The system is officially proclaimed.
   - Once the system is live the old system is removed

9. Post Implementation

- This is the maintenance phase.
- Employees who are trained enough to handle problems those crops up time to time.
- The post implementation will need a different set of roles and skills than those with less integrated kind of systems.
- An organization can get the maximum value of these inputs if it successfully adopts and effectively uses the system.

Change Management and Training Plan

Prosci's research has shown that change management is most effective when it is a holistic set of tools aimed at supporting individuals though changes. In Prosci's change management methodology, that set of tools is called the five organizational change management levers:

- Communication plan
- Sponsorship roadmap
- Coaching plan
- Training plan
- Resistance management plan

Below is a definition of each lever and description of how it supports the successful transition of the individuals impacted by the change, outlined in the Prosci ADKAR® Model: awareness, desire, knowledge, ability and reinforcement®.

1. COMMUNICATION PLAN

- Communication is more than just telling someone something. While many organizations have communication departments and many project teams build communication plans, there is often a missing component: recognizing how communication fits into the larger change process.
- Sometimes people mistakenly equate change management with communication. Communication is a critical component of implementing change, but is by no means the only requirement for successful change (in fact, best practices research shows that the active and visible role of the sponsor of change is the number one contributor to success).
- Effective communication does not mean an attractive newsletter, the use of a standard template or even a high frequency of messages. Effective communication is targeted for each of the different audiences impacted by the change and focuses on what they care about and what they need to know.
- A structured communication plan presents the right messages at the right time, in the right format or channel, and comes from the right sender.

Communication impact on ADKAR

Communication is a tool used to build awareness of the need for change and desire to participate in and support the change. When ADKAR is used as this foundation, communication is more effective and provides information in the correct sequence to help employees understand and internalize the change.

2. SPONSORSHIP ROADMAP

Effective sponsorship was cited as the number one contributor to project success in all eight of Prosci's change management benchmarking studies, completed over the last two decades. Best practices show three high-level roles of the sponsor:

1. Participating actively and visibly
2. Building a coalition of support with other senior leaders and managers
3. Communicating directly with employees about the business reasons and nature of the change

Unfortunately, sometimes even the best senior leaders do not demonstrate effective sponsorship. Some may not have experience in this role and do not know what it looks like. Others may find that competing priorities result in less than optimal involvement. It is the role of the change management resource on a project team to provide support and structure for the specific actions needed from these senior leaders.

The sponsorship roadmap provides this structure, removing the mystique around sponsoring a change and making it real and concrete. A comprehensive sponsorship roadmap lays out what the sponsor needs to be doing with:

1) The project team
2) Peers and other senior managers
3) Frontline employees

Sponsorship assessments and ADKAR

When senior leaders demonstrate their and the organization's commitment to a change, employees take notice. Benchmarking research indicates that the sponsor is the preferred sender of messages related to the business reasons and organizational implications for a particular initiative; therefore, effective sponsorship is crucial in building an awareness of the need for change. Sponsorship is also critical in building the desire to participate and support the change with each employee and in reinforcing the change.

3. COACHING PLAN

Coaching takes place between an employee and their direct supervisor. The managers and supervisors in an organization play a critical role in successful change:

- They communicate messages about the change and how it directly impacts employees
- Their attitudes toward the change filter directly and immediately to how their employees react to the change
- They identify and manage resistance
- They provide recognition and reinforcement during an implementation

The coaching plan outlines the steps for involving managers in change management activities. First, it lays out how the project team and change management resource will build commitment, train and prepare managers and supervisors related to their role in a change. Once onboard, managers and supervisors then conduct both group and individual coaching sessions to engage

frontline employees. These coaching sessions are crucial to getting employees and the organization moving forward with change adoption.

Coaching and ADKAR

Coaching touches all of the elements of ADKAR. Research shows that employees want to hear the personal awareness of the need for change from the person they report to. A manager's desire to change directly influences an employee's desire to support the change. In on-the-job support and coaching, managers and supervisors help build knowledge and ability. Finally, by showing their own support and commitment to the long-term adoption of a change, managers and supervisors provide reinforcement to keep a change in place.

4. TRAINING PLAN

- Training is an intervention to build skills and capabilities. In addition to communication, training is probably the most common of the change management plans.
- Without the larger context of change management, training can be used in place of other critical activities like sponsorship and coaching. One of the biggest errors a team can make when introducing a change is to simply send employees to training. This is poor change management.
- The change manager's role in training is to identify the skills and capabilities that employees need and to recognize any gaps that exist in the training requirements.
- Don’t forget about the training specifically on change management. We’ve already identified sponsors and coaches as important participants in change management. These two groups likely need training about their roles and responsibilities in change management.

Training and ADKAR

- Training is focused on building knowledge. It is not effective for building awareness and desire. Think about experiences where you sat through an entire day of training, rolling your eyes and wondering why you just wasted a day in training you didn't need.
- The people delivering the training, and those who wanted you to take the training, both thought it was a valuable and necessary experience. But since you did not have the awareness or desire, you were not enthusiastic about the knowledge transfer (and most of it probably did not sink in).
- Training is an important part of creating successful change, but it must come after sufficient awareness and desire.

5. RESISTANCE MANAGEMENT PLAN

- Resistance to change has been one of the top obstacles to successful change throughout Prosci's research over the last two decades.
- You may view dealing with resistance as primarily reactive, but there are some significant and meaningful steps that you can take early in a project to

address resistance. This is what Prosci calls proactive resistance management.

- What steps can you take to prevent or mitigate resistance before it emerges and impacts the project and the organization? Begin by identifying what resistance might look like and where it is likely to come from.
- Typically people involved in a project know where resistance is likely to come from based on past experience and the nature of the change. Next, develop a set of steps that you can take to answer these objections before they manifest themselves and impact the project.
- The resistance management plan also identifies who will be involved in managing resistance and how you will prepare them to intervene.

Resistance management and ADKAR

- Any missing ADKAR element can result in resistance to a change. A lack of awareness of the need for change can directly result in resistance to change. When an employee does not have a desire to change, they oftentimes resist the initiative.
- Fear of not having the knowledge or ability to be successful in the future state is another main source of resistance. Without reinforcement, employees will not sustain the change and will revert back to the old way of doing work.
- The important point to remember about resistance is that you need to identify and address the root cause of the resistance, and not just the symptom. For this reason, ADKAR can be used in both proactive and reactive approaches as a guide for effectively engaging and overcoming resistance to change.

Implementation and Deployment Planning

The Implementation Plan describes how the information system will be deployed, installed and transitioned into an operational system. The plan contains an overview of the system, a brief description of the major tasks involved in the implementation, the overall resources needed to support the implementation effort (such as hardware, software. facilities, materials, and personnel), and any site-specific implementation requirements. The plan is developed during the Design Phase and is updated during the Development Phase; the final version is provided in the Integration and Test Phase and is used for guidance during the Implementation Phase. The outline shows the structure of the Implementation Plan.

1.INTRODUCTION

This section provides an overview of the information system and includes any additional information that may be appropriate.

1.1 Purpose

This section describes tile purpose of the Implementation Plan. Reference the system name and identify information about the system to be implemented.

1.2 System Overview

This section provides a brief overview of the system to be implemented, including a description of the system and its organization.

1.2.1 System Description

This section provides an overview of the processes the system is intended to support. If the system is a database or an information system, provide a general discussion of the description of the type of data maintained and the operational sources and uses of those data.

1.2.2 System Organization

This section provides a brief description of system structure and the major system components essential to the implementation of the system. It should describe both hardware and software, as appropriate. Charts, diagrams, and graphics may be included as necessary.

1.3 Project References

This section provides a bibliography of key project references and deliverables that have been produced before this point in the project development.

1.4 Glossary

Provide a glossary of all terms and abbreviations used in the manual. If it is several pages in length, it may be placed in an appendix.

2. MANAGEMENT OVERVIEW

The subsequent sections provide a brief description of the implementation and major tasks involved in this section.

2.1 Description of Implementation

This section provides a brief description of the system and the planned deployment, installation, and implementation approach.

2.2 Points of Contact

In this section, identify the System Proponent, the name of the responsible organization(s), and titles and telephone numbers of the staff who serve as points of contact for the system implementation. These points of contact could include the Project Manager. Program Manager, Security Manager. Database Administrator, Configuration Management Manager, or other managers with responsibilities relating to the system implementation. The site implementation representative for each field installation or implementation site should also he included, if appropriate. List all managers and staff with whom the implementation must be coordinated.

2.3 Major Tasks

This section provides a brief description of each major task required for the implementation of the system. Add as many subsections as necessary to this section to describe all the major tasks adequately. The tasks described in this section are not site-specific, but generic or overall project tasks that are required to install hardware and software, prepare data, and verify the system.

Include the following information for the description of each major task, if appropriate:

- What the task will accomplish
- Resources required to accomplish the task
- Key person(s) responsible for the task
- Criteria for successful completion of the task
- Examples of major tasks are the following:
- Providing overall planning and coordination for the implementation
- Providing appropriate training for personnel
- Ensuring that all manuals applicable to the implementation effort are available when needed
- Providing all needed technical assistance
- Scheduling any special computer processing required for the implementation
- Performing site surveys before implementation
- Ensuring that all prerequisites have been fulfilled before the implementation date
- Providing personnel for the implementation team
- Acquiring special hardware or software
- Performing data conversion before loading data into the system
- Preparing site facilities for implementation

2.4 Implementation Schedule

In this section, provide a schedule of activities to be accomplished during implementation. Show the required tasks (described in Section 2.3, Major Tasks) in chronological order, with the beginning and end dates of each task.

2.5 Security

If appropriate for the system to be implemented, include an overview of the system security features and requirements during the implementation.

2.5.1 System Security Features

In this section, provide an overview and discussion of the security features that will be associated with the system when it is implemented. It should include the primary security features associated with the system hardware and software. Security and protection of sensitive bureau data and information should be discussed, if applicable. Reference the sections of previous deliverables that address system security issues, if appropriate.

2.5.2 Security During Implementation

This section addresses security issues specifically related to the implementation effort, if any. For example, if LAN servers or workstations will he installed at a site with sensitive data preloaded on non-removable hard disk drives, address how security would be provided for the data on these devices during shipping, transport, and installation because theft of the devices could compromise the sensitive data.

3. IMPLEMENTATION SUPPORT

This section describes the support software, materials, equipment, and facilities required for the implementation, as well as the personnel requirements and training necessary for the implementation. The information provided in this section is not site-specific. If there arc additional support requirements not covered by the subsequent sections, others may be added as needed.

3.1 Hardware, Software, Facilities, and Materials

In this section, list support software, materials, equipment, and facilities required for the implementation, if any.

3.1.1 Hardware

This section provides a list of support equipment and includes all hardware used for testing time implementation. For example, if a client/server database is implemented on a LAN, a network monitor or “sniffer” might be used, along with test programs. to determine the performance of the database and LAN at high-utilization rates. If the equipment is site-specific, list it in Section 4, Implementation Requirements by Site.

3.1.2 Software

This section provides a list of software and databases required to support the implementation. Identify the software by name, code, or acronym. Identify which software is commercial off-the-shelf and which is State-specific. Identify any software used to facilitate the implementation process. If the software is site-specific, list it in Section 4.

3.1.3 Facilities

In this section, identify the physical facilities and accommodations required during implementation. Examples include physical workspace for assembling and testing hardware components, desk space for software installers, and classroom space for training the implementation stall. Specify the hours per day needed, number of days, and anticipated dates. If the facilities needed are site-specific, provide this information in Section 4, Implementation Requirements by Site.

3.1.4 Material

This section provides a list of required support materials, such as magnetic tapes and disk packs.

3.2 Personnel

This section describes personnel requirements and any known or proposed staffing requirements, if appropriate. Also describe the training, if any, to be provided for the implementation staff.

3.2.1 Personnel Requirements and Staffing

In this section, describe the number of personnel, length of time needed, types of skills, and skill levels for the staff required during the implementation period. If particular staff members have been selected or proposed for the implementation, identify them and their roles in the implementation.

3.2.2Training of Implementation Staff

This section addresses the training, if any, necessary to prepare staff for implementing and maintaining the system; it does not address user training, which is the subject of the Training Plan. Describe the type and amount of training required for each of the following areas, if appropriate, for the system:

- System hardware/software installation
- System support
- System maintenance and modification

Present a training curriculum listing the courses that will be provided, a course sequence. and a proposed schedule. If appropriate, identify which courses particular types of staff should attend by job position description.

If training will be provided by one or more commercial vendors, identify them, the course name(s), and a brief description of the course content.

If the training will be provided by State staff, provide the course name(s) and an outline of the content of each course. Identify the resources, support materials, and proposed instructors required to teach the course(s).

3.3 Performance Monitoring

This section describes the performance monitoring tool and techniques and how it will be used to help decide if the implementation is successful.

3.4 Configuration Management Interface

This section describes the interactions required with the Configuration Management (CM) representative on CM-related issues, such as when software listings will be distributed, and how to confirm that libraries have been moved from the development to the production environment.

4 IMPLEMENTATION REQUIREMENTS BY SITE

This section describes specific implementation requirements and procedures. If these requirements and procedures differ by site, repeat these subsections for each site; if they are the same for each site, or if there is only one implementation site, use these subsections only once. The “X” in the subsection number should be replaced with a sequenced number beginning with I. Each subsection with the same value of “X” is associated with the same implementation site. If a complete set of subsections will be associated with each implementation site, then “X” is assigned a new value for each site.

4.1 Site Name or identification for Site X

This section provides the name of the specific site or sites to be discussed in the subsequent sections.

4.1.1 Site Requirements

This section defines the requirements that must he met for the orderly implementation of the system and describes the hardware, software, and site-specific facilities requirements for this area.

Any site requirements that do not fall into the following three categories and were not described in Section 3, Implementation Support, may be described in this section, or other subsections may be added following Facilities Requirements below:

- Hardware Requirements - Describe the site-specific hardware requirements necessary to support the implementation (such as. LAN hardware for a client/server database designed to run on a LAN).

- Software Requirements - Describe any software required to implement the system (such as, software specifically designed for automating the installation process).

- Data Requirements - Describe specific data preparation requirements and data that must be available for the system implementation. An example would be the assignment of individual IDs associated with data preparation.

- Facilities Requirements - Describe the site-specific physical facilities and accommodations required during the system implementation period. Some examples of this type of information are provided in Section *3.*

4.1.2 Site implementation Details

This section addresses the specifics of the implementation for this site. Include a description of the implementation team, schedule, procedures, and database and data updates. This section should also provide information on the following:

- Team--If an implementation team is required, describe its composition and the tasks to be performed at this site by each team member.

- Schedule--Provide a schedule of activities, including planning and preparation, to be accomplished during implementation at this site. Describe the required tasks in chronological order with the beginning and end dates of each task. If appropriate, charts and graphics may be used to present the schedule.

- Procedures--Provide a sequence of detailed procedures required to accomplish the specific hardware and software implementation at this site. If necessary, other documents may be referenced. If appropriate, include a step-by-step sequence of the detailed procedures. A checklist of the installation events may he provided to record the results of the process.

If the site operations startup is an important factor in the implementation, then address startup procedures in some detail. If the system will replace an already operating system, then address the startup and cutover processes in detail. If there is a period of parallel operations with an existing system, address the startup procedures that include technical and operations support during the parallel cycle and the consistency of data within the databases of the two systems.

- Database--Describe the database environment where the software system and the database(s), if any, will be installed. Include a description of the different types of database and library environments (such as, production, test, and training databases).
- Include the host computer database operating procedures, database file and library naming conventions, database system generation parameters, and any other information needed to effectively establish the system database environment.
- Include database administration procedures for testing changes, if any, to the database management system before the system implementation.
- Data Update--If data update procedures are described in another document, such as the operations manual or conversion plan, that document may be referenced here. The following are examples of information to be included:

    - Control inputs
    - Operating instructions
    - Database data sources and inputs
    - Output reports
    - Restart and recovery procedures

4.1.3 Back-Off Plan

This section specifies when to make the go/no go decision and the factors to be included in making the decision. The plan then goes on to provide a detailed list of steps and actions required to restore the site to the original, pre-conversion condition,

4.1.4 Post-Implementation Verification

This section describes the process for reviewing the implementation and deciding if it was successful. It describes how an action item list will be

created to rectify any noted discrepancies. It also references the Back-Off Plan for instructions on how to back-out the installation, if, as a result of the post-implementation verification, a no-go decision is made.

Example: Implementation = Deployment:

- BRIEF DESCRIPTION | What is Covered in this Deployment Plan?
- OBJECTIVES | What Needs to be Accomplished?
- SUCCESS CRITERIA | How Will Others See We have Succeeded?
- POLICY/PROCESS | Are there Policies and Processes?
- ORGANIZATION | Who is Involved in this Deployment?
- DISTRIBUTION | How do you Plan to Distribute the Solution / Application?
- CHECK READINESS | Is the Infrastructure ready for the Deployment?
- SUPPORT | How Will You Prepare the Support Team?
- TRAINING | To Whom and How Will You Provide the Training?
- PILOT PHASE | Limited Deployment
- COMMUNICATION | Identify all Communication Vehicles
- SCHEDULE | Project Estimated Effort/Duration
- RISK ANALYSIS | What Could Go Wrong?

Custom Coding

- "Custom Code" (noun) - Any functionality integrated into a product that does not have committed resources and schedule for support and updates.
- It basically boils down to a simple concept: If there is a 3rd party that you can rely on for prompt ongoing updates (bug fixes and security patches) to the product, and that you can direct contact for support on questions, issues, problems, or recommendations, then it is NOT custom code. Anything that doesn't meet these specs is (or at least needs to be treated as if it is) custom code.
- To be clear, when we use the term "Custom Code", we're referring to any functionality that you must take direct ownership of for fixes or updates, or that you must compensate for because fixes and updates are not available.
- While you may understand clearly that this means any code you've written yourself, it also means that any open source code (i.e., Codeplex) solutions, software developed specifically to your business needs (non-packaged, custom developed functionality) by a 3rd party, and even packaged features/software from a 3rd party *that no longer exists* must be treated as "custom code".
- The outcome of all of these situations is that if you need an enhancements, changes, fixes, or updates to that functionality, you must either directly write

it, or pay someone else to write it for you. There is no real fall-back position or party that can serve as your "go to" resource for that functionality... no one that can back you up if something isn't meeting your needs.

- Lets use some examples:
  - You purchase a packaged product from a software development company that enhances the functionality of your SharePoint environment. Is that custom code? NO, as long as the vendor maintains a commitment to updates and patches (within the given version, perhaps), then you don't have to write or maintain the code yourself. (You do have to regularly check for and apply updates though.)
  - You download a SharePoint solution package from Codeplex. Is that custom code? YES. Maybe you didn't write it, but you have no guarantee that the code is well written or will be updated after that initial download of the WSP. You're dependent on an unknown 3rd party to provide updates and fixes if/when they have time, and there is no resource that can serve as an "expert" in that functionality. Further, you don't have any guarantee that the project owner isn't going to simply delete the download location for that WSP, eliminating your ability to even refer to ongoing discussions on issues found.

Go-live

- Project Go-Live refers to a period in the development process of a project when the goals of this project are accomplished, desired outcome is produced, and deliverables are accepted, so the project is ready for further realization and maintenance.
- It is an ending phase that embraces the timeframe between project completion and handover.
- The go-live phase can be presented as a methodological process that aims to introduce a project into all applicable areas of an organization. This process takes the following steps:
  - Handover: a project is executed, its deliverables are produced and its product is handed over to the customer
  - Deployment: the project is deployed and its product is in use
  - Maintenance: the project and its product are maintained to solve technical, financial or another issues