# C.1.2 List of Work Packages

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| **Work Package No** | 1 |
| **Work Package Name** | **Project Feasibility and Pre-Research (SRS-Feasibility stage)** |
| **Start-End Date and Time** |  |
| **Related Organizations** |  |

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| **1- List the activities of work packages.** |
| **1.1 Project Process and Economic Feasibility:**  -Project Initiation  -Economic analysis- implementation cost as compared to costs of similar projects  -Analysis of similar products  -Market Research  -Identification of the requirements  -Analysis of workflow  **1.2 Technological Feasibility:**  **-**Determine Technological Resources needed for the project  -Patent and Literature Research  -Examination of similar national or international projects made  -Concept Design  -Software Requirements Analysis  -Process Modeling |
| **2- Describe the methods and parameters that will be used for work package.** |
| Project Process: Project Initiation & Planning method  The size, scope & complexity of a project will determine the scope of the project planning process and outcome documents.  Parameters:   1. system costs 2. system benefits   Project Feasibility:  Economic Feasibility  Method: The Time Value of Money is a concept that money available today is worth more than the same tomorrow, this method is used in cost-benefit analysis with regards to future cash flow.  Parameters:   1. Identify costs and benefits  * Tangible and intangible, one-time and recurring * Assign values to costs and benefits  1. Determine Cash Flow  * Project costs and benefits over time   Technological Feasibility: a process of assessing the development organization’s ability to construct a proposed system by assessment of the possible target hardware,software, and operating environments.  Parameters:   1. System size 2. Complexity 3. User group’s experience with similar systems |
| **3- List the experiments, tests and analysis in the work package.** |
| Project Process :  1.The Business Case – an analysis of the assumptions of the resource availability and potential problems, system costs and benefits.  Elements of Project Planning :   1. Describe project scope, alternatives, feasibility. 2. Divide project into tasks. 3. Estimate resource requirements and create resource plan. 4. Develop preliminary schedule. 5. Develop communication plan. 6. Determine standards and procedures. 7. Identify and assess risk. 8. Create preliminary budget. 9. Develop a statement of work. 10. Set baseline project plan.   Economic Feasibility:   1. Return on Investment (ROI) for comparing overall profitability by measuring the ratio of the value of an investment to its cost.   ROI = (Estimated lifetime benefits - Estimated lifetime costs ) / Estimated lifetime costs   1. Net Present Value uses discount rate to determine present value of cash outlays and receipts    1. PVn = present value of Y dollars n years from now based on a discount rate of i.    2. NPV = sum of PVs across years.    3. Calculates time value of money   CAP1   1. Break-even analysis: a type of cost-benefit analysis to identify at what point (if ever) benefits equal costs.   Break-Even Ratio = (Yearly NPV Cash Flow – Overall NPV Cash Flow) / Yearly NPV Cash Flow  Technological Feasibility:  Risk assessment:   1. Larger projects are riskier than smaller projects 2. A system in which the requirements are easily obtained and highly structered is less risky. 3. The development of a system employing standard technology will be less risky 4. A project is less risky when the user group is familiar with the systems development process. |
| **4- List the output of work package and its success criteria.** |
| **Outputs:**  From The Project Process:a Baseline Project Plan(BPP) and Project Scope Statement (PSS)  The BPP contains the best estimate of a project’s scope, benefits, costs, risks and resource requirements.  The PSS describes what the project will deliver.  From The Feasibility:  Economic:   * Ratio of the value of an investment to its cost (from ROI) * Net Present Value determines present value of cash outlays * Break-even analysis shows amount of time required for cumulative cash flow to equal initial & going investment   Technical   * Effects of degree of project structure, project size, and familiarity with application area on project implementation risk.   **Success Criteria:**   * The Economic feasability Solution with the highest ROI is the best alternative. Alternatively, a lower ROI with an earlier payback may be preferable. * The project benefits should outweigh the project costs. * Implementation risk should be low (with regards to available technology) |
| **5- Explain the relation of output with other work packages** |
| A good Return on Investment (ROI) determines how good of an investment the project is, if it is then it’s advisable to advance to the next work package (the SRS development).  Feasibility (especially economic) is reviewed after each work package in order to decide whether to continue, redirect or kill a project. |