

Mission specifications and requirements

1.1 Requirements

Front end engineering design (FEED), is a design stage before bid submissions, that is used to bring down costs. It is carried out after conceptual design stages and feasibility studies, and before construction and detailed engineering. Its goal is to conceptualize a project, and will usually constitute around 2% of the time spent working on a project. Good front end design will bring down costs of a project up to 30%. The main purpose is

- Define technical and project-specific requirements to understand clearly the scope
- Develop a cost estimate
- Reduce risk factors
- Estimate duration of project

Mission requirements should not include overzealous, needless constraints but should specify what is necessary and essential to perform the mission and operate the system. Words like 'optimize', 'maximize', 'sufficient' etc. are non-quantifiable, unverifiable requirements or goals and have no place in the requirements.