Next Linear Collider
Mechanical Systems Functions/Responsibilities

Mechanical Systems

Accelerator Technologies
- Magnets
- Vacuum Systems
- RF Systems
  - Distribution Systems RF and Mechanical
    - Single-Mode
    - Multi-Mode Launchers Extractors W/G
    - Klystrons S, L, X
- Accelerator Sections
- Mechanical Cooling Supports
- Assembly & Processing Welding Vacuum Processing RF Processing

Industrial Base Development
- Supplier Development
  - Long-Lead Items High $ Value Risk Reduction Acceptance/Test Planning Technology Demonstration Packaging/ Transportation Installation
- Contractor Development Timing/Cost/Staging Facility Coordination

Engineering Disciplines
- Manufacturability
  - DFA/DFM Design to Cost Supplier Feedback Assembly Tooling RMA
  - Reliability Maintainability Availability
  - Value Engineering Alignment
  - Assembly Handling Installed Stability

Project Management
- Project Schedules
- Project Costing
- Project Controls
- Configuration Management Change Control
- Project Life-Cycle Cost Analysis Risk Analysis ES&H

Engineering Processes
- Design Standards
  - Commonality Simplicity Standardization
  - Design Reviews
  - Drawing Standards
  - Material Standards and Processing
  - Document Control
  - Engineering Data Management
  - Needs Determination
    - System Selection Installation

Engineering Deliverables
- Drawings
  - Part Assembly Installation Maintenance
  - Bills of Material Procedures
  - Instructions
  - Logistical Info

Engineering Disciplines
- Analysis and Testing
  - Modeling (RF and Mechanical) Failure Analysis Mech./Thermal/Microwave/Magnet Testing

Engineering Processes
- Concurrent Engineering

Engineering Deliverables
- Drawings
  - Part Assembly Installation Maintenance
  - Bills of Material Procedures
  - Instructions
  - Logistical Info