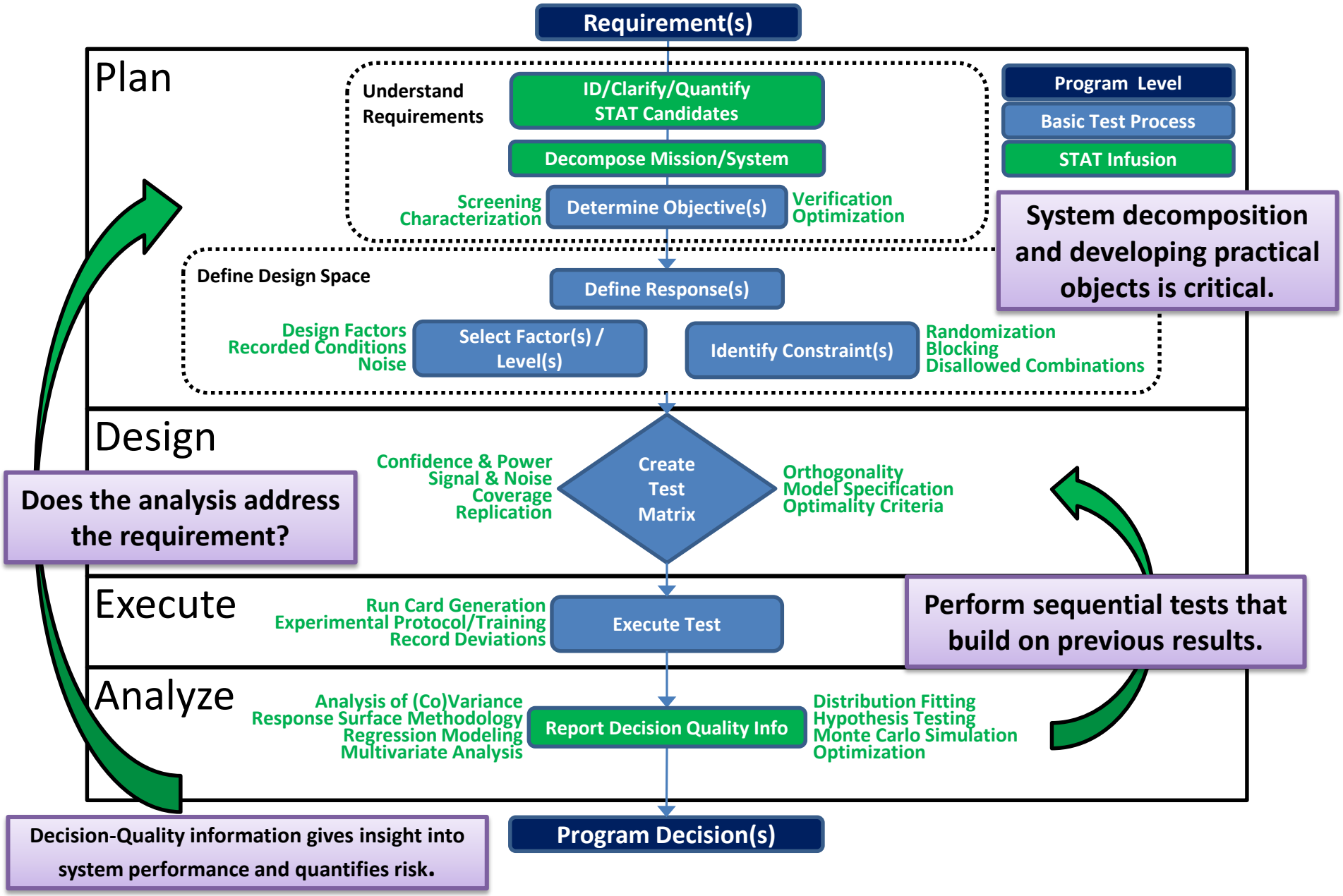
Requirement(s)
Plan
Understand Requirements
ID/Clarify/Quantify STAT Candidates
Decompose Mission/System
Screening
Characterization
Determine Objective(s)
Verification
Optimization
Program Level
Basic Test Process
STAT Infusion
System decomposition and developing practical objects is critical.
Define Design Space
Define Response(s)
Design Factors
Recorded Conditions
Noise
Select Factor(s) / Level(s)
Identify Constraint(s)
Randomization
Blocking
Disallowed Combinations
Design
Confidence & Power
Signal & Noise
Coverage
Replication
Create Test Matrix
Orthogonality
Model Specification
Optimality Criteria
Does the analysis address the requirement?
Execute
Run Card Generation
Experimental Protocol/Training
Record Deviations
Execute Test
Perform sequential tests that build on previous results.
Analyze
Analysis of (Co)Variance
Response Surface Methodology
Regression Modeling
Multivariate Analysis
Report Decision Quality Info
Distribution Fitting
Hypothesis Testing
Monte Carlo Simulation
Optimization
Decision-Quality information gives insight into system performance and quantifies risk.
Program Decision(s)