

PROJECT CONFIGURATION

In large projects there is a need to DEFINE & ESTIMATE the value of some PERFORMANCE MEASURE for cost & effectiveness. Each configuration (design) is evaluated with respect to its expected performance. The problem is performance measures are PROJECT DEPENDENT.

e.g. Performance measures are different on a construction project from that of developing an electric vehicle (EV)

However, there are several common areas which are project independent.

1. Operational/Functional capability *construction: sq. ft., # of levels*
Systems ability to meet market or customer needs
e.g. payload, speed in EV project
2. Timeliness
When would the system be available *construction: inspection up to codes*
e.g. successful completion of tests
3. Quality
Degree to which a product or service meets its design specifications *construction: meets codes*
e.g. meets MIL-STD 105, SAE
4. Reliability
How well the system performs for a given period of time under SPECIFIC operating conditions. See definition of reliability in text
e.g. type of technology *e.g. Hybrid fully electric*
5. Compatibility *- APPLICABLE*
Systems ability to operate in harmony with existing or future systems
e.g. computer system updates, new gasoline composition
6. Safety
Minimize the risk of accidents
e.g. significant benefits over the long run
7. Maintainability
Providing adequate maintenance
e.g. Preventive maintenance vs. breakdown maintenance