1 PURPOSE

The purpose of the Cost Engineering Working Group is to bring together System Engineers that have a concern for the affordability issues faced during the life of a product and to work toward acknowledging these issues toward the front end of the life cycle and to integrate cost engineering into the System Engineering discipline.

Cost Engineering is the process oriented discipline of total cost management over the life cycle of a system of interest (e.g. project, program, facility, manufacturing or support operation). This may include performing cost estimations and/or projections, supporting the realization of cost goals, analysis, studies, independent cost estimates / studies supporting cost control activities over other related activities within the engineering domain.

2 GOAL

To work toward the development of a SE Cost Engineering Standard

3 SCOPE

This WG will address affordability initiatives as it relates to Systems Engineering (SE) throughout the acquisition life-cycle. This includes cost-performance trade studies, CAIV and DTC, cost
modeling and parametric modeling, life-cycle costs, and the metrics used to define affordability success.

This does not cover Modeling and simulation.

This does require interfacing heavily with other working groups as cost touches, or should touch, every area within System Engineering.

4 SKILLS AND EXPERTISE REQUIRED

Knowledge of the System Engineering process, customer affordability issues, and life-cycle costs are needed.

5 MEMBERS, ROLES AND RESPONSIBILITIES

List the names of members and briefly describe their responsibilities.

- Lead: Ed Casey
  - Try to revitalize WG.
- Co-Lead(s): Beth McDonald
  - Try to revitalize WG
  - (e.g. The co-lead shall be responsible to act in the absence of the lead.)
- Board Sponsor(s)/Champion(s): ????

6 OUTCOMES (PRODUCTS/SERVICES)

1. Would be recommendations for areas within the SE Handbook where cost and affordability need to be emphasized.
2. Given approval to proceed – write-ups to be added to SE Handbook
3. Alternative to 1 and 2 would be 1 plus the development of a stand-alone publication that would supplement the SE Handbook and focus on Affordability as a SE Requirement.

7 APPROACH

The first thing that needs to happen is to revitalize the WG. The WG has never really been recognized as having anything to do with the SE Process. Various other WG’s (Metrics, M&S) have argued that Cost should be a subset of their group. As such, membership in the group has remained small. In all honesty, the CE WG might actually have better success under another area.

8 MEASURES OF SUCCESS

1. Increase in membership from 2 semi-active to at least a core group of 10.
2. Invitation to participate with other WG’s from none to any.
3. Recognition by leadership that cost is vital to the success of SE. Given current budgets, we have failed the community by ignoring cost issues.
9 RESOURCE REQUIREMENTS
   No resources required at this time.

10 DURATION
   No end date is planned. This Charter will remain in effect until rescinded by the signatory.

11 SIGNATURES

   Ed Casey                     Date 11/29/2010

   1st Level of Approval

   [Signature]

   Date  August 23, 2011

   Technical Director, INCOSE

   2nd Level of Approval (Note this will be added by the INCOSE Technical Director when deemed appropriate.)

   Chairman, INCOSE Board of Directors  Date

Revision History

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