



### INCOSE Certification Provides Common Framework for Systems Engineering Communication and Personnel Development







<sup>™</sup> The INCOSE SEP Logos are trademarks of INCOSE

© 2006-2013 International Council on Systems Engineering Subject to the restrictions on Copyright Page What this project needs is a **SYSTEMS ENGINEER**.



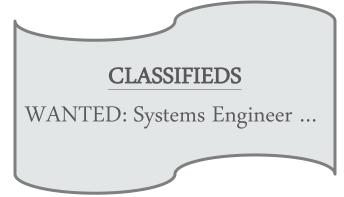
I think I'm a systems engineer.

I'm a **systems engineer**, too.



### Communications

- Hiring
- Staffing a team
- Writing proposals



?



I think

I'm a

systems

engineer.



### **Common Framework**



### INCOSE

The International Council on Systems Engineering (INCOSE) is a not-for-profit membership organization founded in 1990 to develop and disseminate the interdisciplinary principles and practices that enable the realization of successful systems.

### Systems Engineering Handbook

The Systems Engineering Handbook (SEHB) shows what each systems engineering process activity entails, in the context of designing for affordability and performance. Allows for tailoring to a variety of projects.

SYSTEMS ENGINEERING HANDBOOK

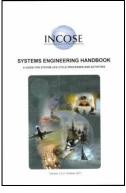


## Even If You Disagree ...



Ways our organization agrees with the SEHB

- Emphasis on upfront requirements development
- Standard milestone reviews
- Lifecycle perspective



# Ways our organization differs from the SEHB

- Different names for milestone reviews
- Shorter list of specialty engineering areas

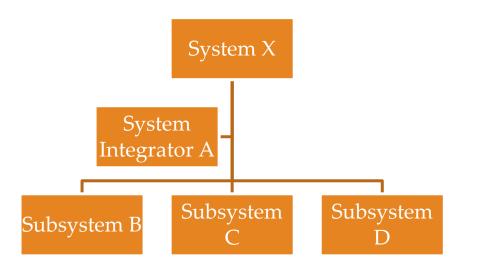


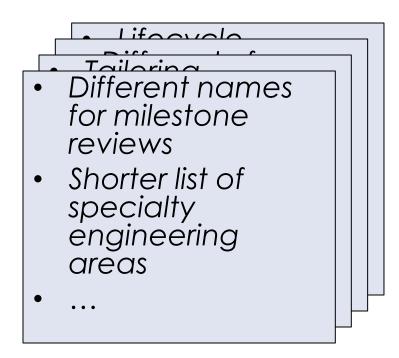
### **Team Communication**



### Integrating Diverse Teams

Ways Organization R Ways Organization R Ways Organization R differs from the SEHB







# Examples: Contracts Tied to INCOSE Certification



- U.S. Department of Defense, Office of the Undersecretary, Acquisition & Technology, Systems and Software Engineering
- Federal Aviation Administration, SE-2020 RFP
- U.S. Department of Homeland Security, Secure Border Initiative RFP
- National Research Council, Committee on Pre-Milestone A Systems Engineering: A Retrospective Review and Benefits for Future Air Force Systems Acquisition
- Federal Highway Administration and the California Department of Transportation Systems Engineering Guidebook





## Examples: Organizations Supporting INCOSE



- EADS
- Booz Allen Hamilton
- ManTech
- MITRE
- Lockheed Martin
- TASC
- BAE Systems
- Jacobs Technology
- ASTER Technology & Engineering
- LinQuest
- Thales

- OPS Consulting
- L-3 Communications
- The SI Organization
- Stevens Institute of Technology
- University of Texas El Paso
- École Polytechnique
- ISAE/Supaero
- University of New South Wales
- Worcester Polytechnic Institute



## Organizational Use for Professional Development



- Measurable actions for employees
- Well-defined path for increased expertise
- Renewal requirements drive continued professional learning



## SE Development Path



INCOS

Expert Systems Engineering Professional focused on: - LEADERSHIP - SE ACCOMPLISHMENTS

- SIGNIFICANT SE EXPERIENCE

Certified Systems Engineering Professional focused on: - SE EXPERIENCE - APPLIED SE KNOWLEDGE

Associate Systems Engineering Professional focused on: - SE KNOWLEDGE



#### SEP Candidates

JCO



## Certification Renewal Requirements

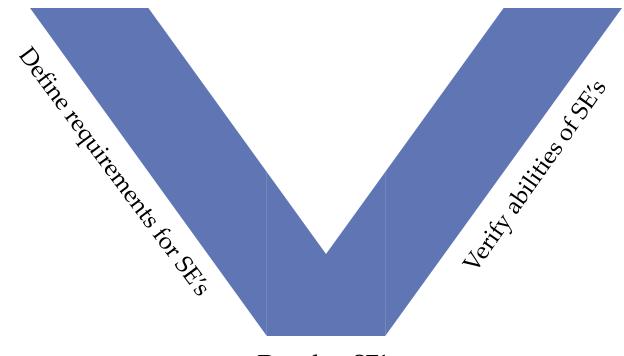


- Technical Society participation
- Graduate courses
- Technical publications
- Receive patents
- Technical leadership job functions
- STEM volunteer activities



### Obligatory "Vee"





Develop SE's

# INCOSE Certification is a process for developing Systems Engineers.

Development Framework







### **Email Contacts**

Certification Office: <u>certification@incose.org</u>

Courtney Wright, CSEP Certification Program Manager: Courtney.Wright@incose.org

> For more information visit: <u>www.incose.org/educationcareers/certification/</u>