BKCASE: Successful transition

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www.sercuarc.org
• The Body of Knowledge and Curriculum to Advance Systems Engineering (BKCASE) project, initiated in 2009, delivered two products to the SE community in 2012:

2. Graduate Reference Curriculum for Systems Engineering
BKCASE Sponsors / Stewards

• 2009 – 2012

Office of the Deputy Assistant Secretary of Defense (ODASC)
Systems Engineering

• 2013 -

Systems Engineering Research Center
INCOSE
IEEE Computer Society
SEBoK Governance

- 2013 -

Diagram:
- Editor- and Co-Editor-in-Chief
- BKCASE Governing Board
- BKCASE Editorial Board
- BKCASE Authors
SEBoK Users

2013 Usage Statistics

Cumulative since SEBoK v. 1.0 release
Total visits > 60,000  Page views > 201,000

1. United States 24,932
2. United Kingdom 3,968
3. France 2,790
4. Australia 1,952
5. India 1,931
6. Canada 1,900
7. Brazil 1,510
8. Germany 1,342
9. Russia 1,083
10. Netherlands 956
INCOSE and SEBoK

• Co-Steward, along with SERC and IEEE-CS

• Represented in the BKCASE Governing Board

• INCOSE Working Groups review and contribute articles

• INCOSE Handbook sources material from the SEBoK (next version expected later this year)

• SEBoK and GRCSE: INCOSE Products of the Year 2012
SEBoK vs. INCOSE Handbook vs. ISO/IEC/IEEE 15288

• They complement each other; information cross-flow

• Nature of content:
  — INCOSE Handbook & IEEE 15288: **Prescriptive**
  — SEBoK: **Descriptive**

• Update cycles:
  — IEEE 15288: **5 to 10 years**
  — INCOSE Handbook: **~ 2 years**
  — SEBoK: **2 updates every year**

• Overlap of Authors / Editors

• Influencing each other
• Influencing curricular discussions across the world

• Influential in the design of new curricula in the US and in Italy

• Influencing curricular reviews of existing curricula across US and the world
  — Content checklist and weighting
  — Especially the addition of systems science to SE curricula.

• Informing the discussion of program criteria for graduate systems engineering accreditation
  — Used in the UK for the review of the Cranfield program by the UK Council on Engineering
Conclusion

• OSD funded the initial phase on the expectation sustainment would be transitioned to professional societies
  — This has occurred and is working. New governance structure and funding models in place. New EIC selected and installed.

• OSD desired to positively influence the practice of SE through BKCASE
  — This has also occurred. Influencing standards, handbooks, and curricula world-wide.

• Products were delivered on time and on budget, and exceeded expectations for quality and content.

• Conclusions:
  — Success for RT1!
  — Follow-on projects (e.g. SEEK) likely to be equally as successful