

Will the SE Body of Knowledge (SEBoK) change INCOSE and Systems Engineering forever?

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Abstract. The vision of the Body of Knowledge and Curriculum to Advance Systems Engineering (BKCASE _pronounced _Book Case_) project is that 'Systems Engineering competency models, certification programs, textbooks, graduate programs, and related workforce development initiatives around the world align with BKCASE.' One key element of the project is to create a guide to the SE Body of Knowledge (SEBoK) that is becoming globally recognized by the SE community as the authoritative BoK for the SE discipline. The SEBoK is now moving under the joint stewardship of INCOSE and the IEEE Systems Council. It will be made available free to all, with the stewards responsible for guiding its future evolution and wider use. This panel will consider what the real benefits of a definitive SEBoK will be for the discipline of SE and the extent to which it will affect all aspects of INCOSE's technical work, e.g. working groups, SE Handbook, Certification, etc. The panel will start with three short presentations to seed the discussion: 1. What is the SEBoK? 2. How will SEBoK Stewardship work? 3. Impact of SEBoK on INCOSE technical activities. This Panel will focus on the role and impact of SEBoK in the future transformation of SE and INCOSE. If you want to know more about SEBoK and GRCSE content you should attend the free workshops on the Saturday before the IS.

Biography

Richard Adcock (Cranfield University) - r.d.adcock@cranfield.ac.uk

Rick has 20 years experience in defence, working in industry, consultancy and academia. He was a founder member of the Cranfield University Centre for Systems Engineering, at the UK Defence Academy College of Management and Technology (DA-CMT) in 2000 and help set up a Systems Engineering MSc to support MoD acquisition reforms. Rick is currently responsible for a range of other courses covering Awareness through to Practitioner and Expert level competencies in Systems Engineering. Rick has done research and published on Systems Engineering competencies, Network Enabled Capability (NEC), Enterprise Architecting and Model Based Systems Engineering (MBSE). He is currently engaged in doctoral research on Systems Engineering Competencies and Education and is working closely with the UK MoD Systems Engineering development partner on Systems Engineering competencies and skill assessment for the UK MoD Engineering Strategy. Rick has been a member of INCOSE for over 15 years and is INCOSE Associate Director for education. He was a lead author on the BKCASE Project (www.BKCASE.org), which is creating a Body of Knowledge (and associate Reference master Curriculum) for Systems Engineering and is a member of the newly formed SEBoK Editorial Board

Art Pyster (Stevens Institute) - Arthur.Pyster@stevens.edu

Dr. Art Pyster is a Distinguished Research Professor in the School of Systems and Enterprises at Stevens Institute of Technology and the Deputy Executive Director of the Systems Engineering Research Center, which is a Department of Defense's University Affiliated Research Center. During much of 2007 and 2008, he also served as the Director of the Software Engineering Program at Stevens Institute as well as the Stevens Director for the Applied Systems Thinking Institute. Before joining Stevens in March 2007, Dr. Pyster served as the Senior Vice President and Director of Systems Engineering and Integration for SAIC. Earlier, Dr. Pyster served as the Deputy Chief Information Officer for the Federal Aviation Administration, where he oversaw information technology investment and policy, created and operated the agency's information

security program, created the agency's enterprise architecture, operated their process improvement program, and achieved a green score on the President's Management Agenda. His professional and research activities emphasize systems and software engineering, especially the integration of those two disciplines and their application to enterprise operations. Dr. Pyster has authored many papers and one textbook Compiler Design and Construction. He is, Director of Academic Matters for the International Council on Systems Engineering (INCOSE), an INCOSE Fellow and a senior member of the IEEE. He was co-lead of the BKCASE project to create a body of knowledge for systems engineering as well as a reference curriculum for graduate systems engineering education and is editor in chief of the newly formed SEBoK Editorial Board.

Jean-Claude Roussel (EADS Innovation Works) - jean-claude.roussel@eads.net

Jean-Claude Roussel, ESEP, is a Senior Expert in Systems Engineering at EADS with 32 years of experience in different Aerospace Programs. He is currently working in the EADS Research Center (Toulouse, France) in charge of research projects on Systems Engineering. From 2001 to 2009, Jean-Claude was responsible for Systems Engineering within Airbus where he defined the related Systems Engineering Policy which has been deployed on new aircraft (A380, A400M and A350). From 1995 to 2001, he was in charge of Project Management within Airbus and wrote the directive for Aircraft Project Management while setting-up the related components for A380 Program. From 1995 to 1988, he was dedicated to Configuration Management and defined the CM Plan for aircraft (A400M, VLCT, A330/A340) and the Hermes Space Vehicle for the ESA Space Program. His career began at Airbus in 1981 by developing Product Data Management application and data exchange standard for CAD/CAM. He has been a member of INCOSE since 2001 where he took an active role in the Requirements Working Group, extending it to European members. He was President of AFIS, the French INCOSE Chapter in 2007 and 2008, and received the Gold Circle Award of INCOSE. Jean-Claude has been the Technical Director of INCOSE from Jan 2011 till Jan 2013 and he is a member and co-author of the BKCASE project (Body of Knowledge and Curriculum to Advance Systems Engineering) launched in Dec 2009. He is a graduated Engineer (1980) from Polytech Lille, France and has been certified by INCOSE as Expert Systems Engineering Professional (ESEP) in June 2012.

David Walden (Sysnovation, LLC) - Dave@sysnovation.com

David D. Walden, ESEP, is co-owner and principal consultant for Sysnovation, LLC, a company he formed in 2006. Sysnovation, based out of Shakopee, Minnesota, USA, is focused on Systems Engineering consulting and education/training. At Sysnovation, Mr. Walden has assisted numerous clients in Systems Engineering consulting and training/course development. He has served as a coach/mentor, independent reviewer, major review (e.g., PDR, CDR) coordinator, Systems Engineering Subject Matter Expert (SME), and process consultant. He has created and taught numerous Systems Engineering courses and tutorials, including a distance learning on-line variant of a Systems Engineering Principles course. Previously, Mr. Walden was with General Dynamics Advanced Information Systems for 13 years and worked at McDonnell Aircraft Company for 10 years. Mr. Walden is currently the Program Manager of the International Council on Systems Engineering (INCOSE) Certification Program and also serves as the INCOSE liaison to ISO/IEC JTC1/SC7 Working Groups 10 and 20 and has been a co-editor of the INCOSE SE Handbook versions 3.2.n. He has an M.S. in Management of Technology (MOT) from the University of Minnesota, an M.S. in Electrical Engineering and an M.S. in Computer Science from Washington University in St. Louis, and a B.S. in Electrical Engineering from Valparaiso University in Indiana. Mr. Walden was one of the first to earn the INCOSE Certified Systems Engineering Professional (CSEP) credential in 2004 and was awarded the INCOSE Expert Systems Engineering Professional (ESEP) credential in 2011.