

I Am a Systems Engineer and I Do...

Rob Black

Why did you choose to be a Systems Engineer?

I'm not sure that I had a role or career in mind when I was growing up. I enjoyed sports and music but have always had a particular interest in people and technology. Having completed a degree in Business Information Systems with industrial placements at British Nuclear Fuels Ltd and International Air Transport Association (IATA, Geneva), I started my employment in 2004 entering into the Nuclear Decommissioning sector properly. As a Safety Software Developer, I picked up early practical experience of engaging stakeholders, eliciting business and technical needs, deriving requirements, developing solutions, as well as driving and supporting change across varied people, processes, and systems. Opportunities to lead on wider capability and enterprise improvements have followed with contributions to Safety Case Learning and Performance, Geospatial, Requirements Management and Project Systems Engineering.

Most notably, I've had opportunity to lead development of people and process expectations for requirements specification, scope management, and V&V for all projects, studies and tasks across SL's £2bn/annum portfolio, coupled with organisation and wider industry drive on SE capability development, with design and facilitation of 8 cohorts to date, engaging over 150 people from across our supply chain and wider Nuclear Decommissioning estate. I'm happy also to be supporting the aims of INCOSE UK as Sellafield Ltd's representative to the INCOSE UK Advisory Board, as well as serving as North West Local Group Chair, Certification Application Reviewer, and mentor.

Reflecting now on 20 years in industry, I suppose that a mix of nature and nurture has kept me invested in creating valued and purposeful things with and for others, which would seem to be the essence of SE.

What education/qualifications do you have for Systems Engineering?

I hold a BSc (Hons) Business Information Systems degree from University of Salford and vaied professional certifications including: INCOSE Certified Systems Engineering Professional (CSEP), IREB Certified Professional for Requirements Engineering (CPRE), BCS



Business Analysis. I am a Chartered Manager (CMgr) and Fellow (FCMI) of the Chartered Management Institute (CMI) and hold qualifications in Project Management (APM-PMQ), Requirements Writing (UNSW), Six Sigma (CSSC), Psychological First Aid (John Hopkins University). I have also completed training and CPD in Systems Modelling (OU), Systems Thinking (OU), Systems Practise (Odymer Group / Acumen), and Leadership (Lane4).

My education continues with each new assignment and engagement. I maintain a list of choice learning and development resources at <https://www.systemspro.co.uk/> for use in mentoring. This includes a mix of webinars, guidebooks, templates, training, standards and more all aimed at promoting a systems perspective, process, and profession across industry.

What is it about Systems Engineering that you find so compelling?

SE provides opportunity for me and many more to conceive, create, connect, and perfect things with and for others. It is inherently principled, purposeful, planned, and productive combining many layered social and technical aspects, all of which appeals to my personal and professional values and characteristics.

SE and allied practises (e.g. Systems Thinking) also provide means to frame and tame the increasingly

complex problem and opportunity scenarios which we find ourselves engaged or entangled with.

SE serves to identify, engage, integrate, and satisfy all life cycle stakeholder interests through a clear collaborative process that works to define and deliver holistic and performant solutions. Who wouldn't want this?

What advice would you give a Systems Engineer just starting out in their career?

Firstly, I would recommend identifying opportunities to connect, develop, and engage with varied people, projects and products etc. Take time to read and reflect on publications, proceedings, and presentations of respected professional institutes such as INCOSE. Identify and engage subject matter experts; ask them questions and expect answers – most people are generous when asked to inform and advise on development and practise around shared interests. Lastly, I would encourage those in all stages of their career to embrace all relevant learning and development opportunities (e.g. professional certifications; local groups, special interest groups, working groups; conferences, mentoring, training development and delivery etc).