

Risk based thinking in measurement & testing workshop – Scope

Management system standards are a one size fits all solution, tailorable through statements such as to the extent necessary, as appropriate, sufficient to...

Risk based thinking has been a growing trend spreading to all aspects of the economy and society for many years. It will become more prominent for laboratories with the adoption of the upcoming ISO/IEC 17025 revision.

This one day workshop will help those involved planning, managing, implementing and reviewing any aspect of laboratory management systems to apply risk based thinking to determine what the emphasis on risk means to their laboratory.

Tools and techniques to identify, analyze, respond to, monitor and review risks will be introduced. Participants will have the opportunity to put them into practice during class room exercises.

Intended audience

Anyone with responsibilities for decision making, quality, measurement assurance, auditing or an interest in managing risks in the laboratory.

Learning objectives

After this tutorial participants will be able to:

- Identify the components of risk as they apply in metrology,
- List common sources of measurement related risks and
- Evaluate actions and maintain current knowledge of risks in a measurement system

After this tutorial participants will be able to apply:

- Qualitative and quantitative risk analysis techniques for measurement related risks and
- Apply risk based decision making in a measurement or testing environment.

Participants will be better prepared for the transition when ISO/IEC 17025:2017 is published.

Biographical note

Andy Oldershaw works for the National Research Council of Canada (NRC) in the Scientific Support for the National Measurement System Program as the leader of the Measurement Systems Engagement Sector. As part of the NRC Measurement Science and Standards portfolio, his sector focuses delivering coherent scientific advice to improve national decision-making for commerce, standards development, regulation, and trade agreements. Andy is an



assessment team leader for the Calibration Laboratory Assessment Service (CLAS) at NRC. CLAS works in partnership with the Standards Council of Canada (SCC) to accredit calibration laboratories to support Canadian industrial and regulatory measurement requirements. Andy's technical background is in systems engineering and systems assurance. He started his career in the UK Royal Air Force, after completing 12 years of service, he took up a role in quality assurance within Augusta Westland Helicopters. In 2001 he moved back to the UK Ministry of Defence, where he spent the next 12 years developing system and quality assurance policies and representing the UK at NATO on quality assurance matters. In 2013, he then moved to Canada where he spent 2 years with the SCC, Accreditation Services Branch, before taking up his role with the NRC in early 2015. Andy holds a B.Sc. (hons) in manufacturing and production engineering from the University of Wales, College Newport and a post grad diploma in Systems Engineering from the Defence Academy of the United Kingdom. He is a certified quality auditor. Andy is an enthusiastic proponent of systems thinking and risk based decision making. He is the program director of INCOSE (International Council on System Engineering) Canada. His association with NCSLI started with attending the 2014 Canadian regional meeting and representing the accreditation body view, on the ISO/IEC 17025 panel discussion. He presented his first Paper at the NCSLI regional meeting in 2015 and delivered his first tutorial at the NCSLI Technical exchange in 2017.

Standards Council of Canada, UK Ministry of Defence and Augusta Westland Helicopters. He led a NATO multinational team of experts to develop a multilateral agreement including related processes and training for the reciprocal exchange of risk based assurance.