



# The United Kingdom's Experience in Developing and Delivering Physical Protection Workshops



**Dr Christopher Hobbs**

**Co-Director, Centre for Science and Security Studies (CSSS)**

[christopher.hobbs@kcl.ac.uk](mailto:christopher.hobbs@kcl.ac.uk)

# Introduction

---

- Focus of this presentation is on UK efforts to develop and deliver physical protection workshops for an international audience
- Supported by UK's Global Threat Reduction Programme (GTRP)
- Workshop originally developed to complement on-going in-country nuclear security upgrade work:
  - Initially Russia => FSU countries => Wider international audience
- Currently managed by the UK Department for Business, Energy and Industrial Strategy:
  - Implemented by King's College London in a university-industry consortium



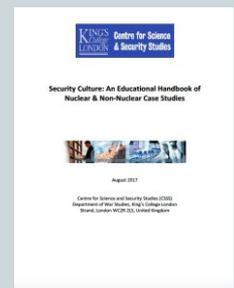
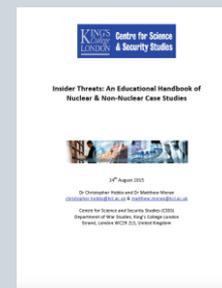
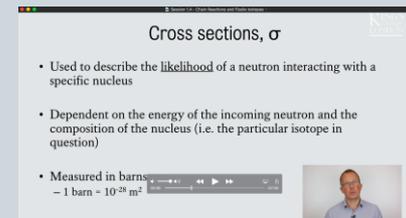
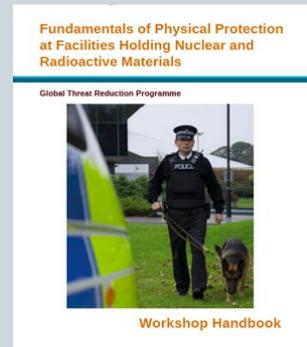
# Workshop Overview

---

- ‘Fundamentals of Physical Protection’ Workshop:
  - Running for more than a decade, continuously evolving
  - 6-day workshop in London, including one day site visit
  - Provides a broad overview of key physical protection issues
- Audience:
  - Typically 14-16 international participants:
    - Operators, regulators, government officials & academics
  - Focus on those directly responsible for nuclear security:
    - Offer a separate Radiological Source Security Workshop

# Approach

- Introduce key physical protection concepts and explore their application:
  - Use of real-life case studies & a detailed table-top exercise involving a hypothetical facility
  - Presenters from industry, the regulator and academia:
    - ~ 12 SME per workshop including current practitioners
  - Site visit to Dungeness B Nuclear Power Station
- Prolonged engagement via accompanying resources:
  - Pre-reading & introductory video lectures
  - Course handbook (summaries, learning objectives & further reading)
  - Case study handbooks (insider threats & security culture)
- Materials reviewed by IAEA to ensure consistency with international guidance



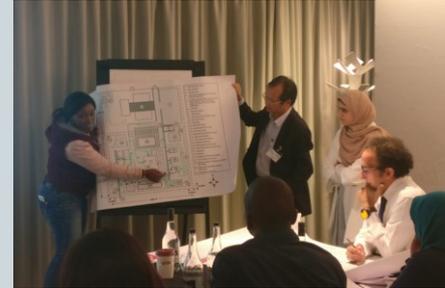
# Challenges

- Catering to the learning needs of participants with a broad range of professional experience, technical backgrounds and from different national contexts:
  - Mitigate this through use of pre-reading and video lectures
  - Anonymous electronic voting used to clarify areas of misunderstanding
  - Formal content reduced to ensure time for Q&A and sharing of experiences
- Ensuring longer term impact:
  - Follow-up in country activities under broader UK Nuclear Security Culture Programme, developed & delivered with local partners
  - KCL Nuclear Security Fellowship Programme



# Lessons learnt

- Table-top exercises using hypothetical facility & case studies help ground concepts in practice
- Stimulating active learning is key:
  - Interactive elements make up ~ 30-40% of the workshop
  - Participant numbers limited to a maximum of 16
  - Small group presentations by participants every day
- Site visit consistently viewed as a course highlight by participants
- Parallel radiological source security programme enabled focus of this workshop to be placed on needs of practitioners at nuclear related facilities



# Summary

---

- UK have been offering physical protection workshop internationally for more than 20 years
- Evolution over time into an highly interactive workshop employing a range of teaching techniques focused on promoting participant centric learning
- Has proved a useful vehicle for building relationships and launching further activities with partners
- For more information please see <https://www.kcl.ac.uk/sspp/departments/warstudies/research/groups/csss/csss-practitioner-engagement.aspx>

# Questions?

---