

# 1540: CODES OF CONDUCT AND EFFECTIVE PRACTICES

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# Summary

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- What are codes?
- 1540 relevant codes?
- The issue of intangibles
- Codes to prevent intangible transfers
- Linked initiatives
- Strengths of this approach
- Weaknesses: Need for management and ownership

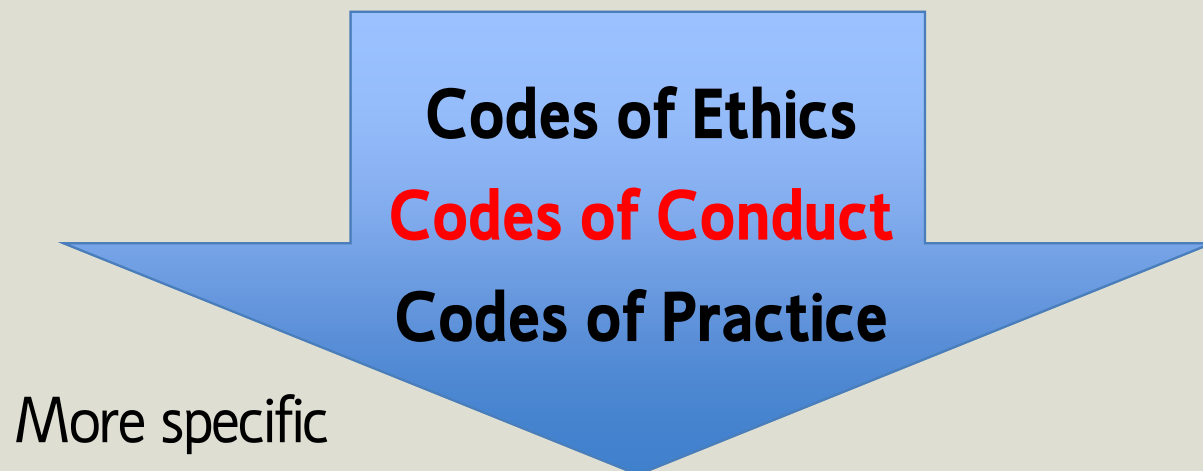
# What are Codes?

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- Set of principles/instructions that are adopted by members of a particular group, profession or industry:
- E.g. Hippocratic Oath & Declaration of Geneva



- Different types of code, vary depending on:
  - Content & target group



# 1540 Relevant Codes

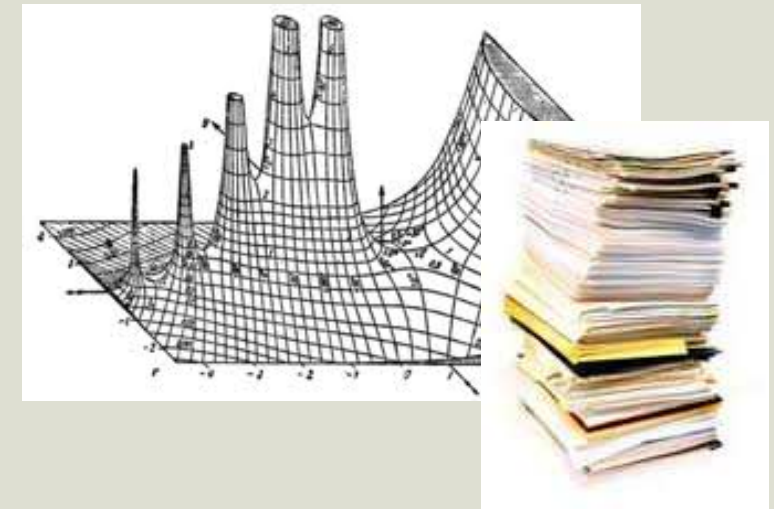
- A number of codes are relevant given the objectives of UNSCR 1540
  - NSG Good Practice Corporate Guidelines
    - Developed by industry and Alpha for industry
    - Endorsed by the NSG in mid-2013
  - Export Code of Conduct for Nuclear Power Plant exporters
    - Developed by the Carnegie Endowment for International Peace with nuclear vendors
    - Safety, **Physical Security**, Environmental Protection, **Non-proliferation** and Ethics
  - Code of Conduct on the Safety and Security of Radioactive Sources
    - For states - revised code approved by IAEA BOG in 2003



# The Intangible Challenge I

## Technology

- Tangibles
  - **Related intangibles**
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- Crucial for states to acquire new capabilities
  - Difficult in the information age
  - Relevant across 1540 — Nuclear Security or Non-proliferation
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- Need to build a culture
    - Everyone an actor?
      - Have a computer / email access



# The Intangible Challenge II

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- Difficult for industry / academia to understand?
  - Abstract, poorly explained
- Poor state-level implementation?
  - Viewed by some states as less important than controls on tangibles
  - Even in developed economies, license applications relating to intangibles can be very low
- How to build a culture?
- Tensions
  - Scientific / academic freedom
  - Transparency
  - (Part of this solved by how it is presented)



# Synergies

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- There are synergies between protecting intangibles, and other industry objectives:
- Protecting profit
  - Intellectual Property Rights (IPR)
  - E.g. ‘please ship in kit form with instructions /diagrams’
- Working with others (defence community)
  - Physical security – E.g. List X sites in the UK
- Mitigating risk
  - Information Communications Technology (ICT) security
  - Secure systems required
- Responsibility
  - Corporate Social Responsibility (CSR)
  - (newer concern?)

# Codes and Intangibles

- Two key examples:
- Dutch Bio-Security Code (2007)
  - Royal Netherlands Academy of Arts and Sciences
  - H5NI issue
- Nuclear Information Security Code of Conduct
  - King's College London / Institute of Physics
  - Protection of sensitive nuclear information
    - E.g. Sensitive technical / design information
    - E.g. Layout of facilities

## BASIC PRINCIPLES

The aim of this code of conduct is to prevent life-sciences research or its application from directly or indirectly contributing to the development, production or stockpiling of biological weapons, as described in the Biological and Toxin Weapons Convention (BTWC), or to any other misuse of biological agents and toxins.

## TARGET GROUP

The Biosecurity Code of Conduct is intended for:

1. professionals engaged in the performance of biological, biomedical, biotechnological and other life sciences research;
2. organisations, institutions and companies that conduct life sciences research;
3. organisations, institutions and companies that provide education and training in life sciences;
4. organisations and institutions that issue permits for life sciences research or which subsidise, facilitate and monitor or evaluate that research;
5. scientific organisations, professional associations and organisations of employers and employees in the field of life sciences;
6. organisations, institutions and companies where relevant biological materials or toxins are managed, stored, stockpiled or shipped;
7. authors, editors and publishers of life sciences publications and administrators of websites dedicated to life sciences.

## Rules of conduct

### RAISING AWARENESS

- ✓ Devote specific attention to the education and further training of professionals in the life sciences to the risks of misuse of biological, biomedical, biotechnological and other life sciences research and the constraints imposed by the BTWC and other regulations in that context.
- ✓ Devote regular attention to the theme of biosecurity in professional journals and on websites.

### RESEARCH AND PUBLICATION POLICY

- ✓ Screen for possible dual-use aspects during the application and assessment procedure and during the execution of research projects.
- ✓ Weigh the anticipated results against the risks of the research if possible dual-use aspects are identified.
- ✓ Reduce the risk that the publication of the results of potential dual-use life sciences research in scientific publications will unintentionally contribute to misuse of that knowledge.

## Code of Conduct for Nuclear Information Security

International action on nuclear security focuses primarily on improving the physical security of nuclear and radiological materials. However, the acquisition of specialist information and technical expertise is essential for terrorist groups looking to carry out acts of nuclear terrorism (see Appendix A). One way in which this knowledge might be obtained is through it being unwittingly transferred from individuals working within academia and research institutions.

A number of studies have indicated that there is a low-level of awareness by individuals within the academic and research communities as to how their specialist knowledge could be misused.<sup>1</sup> These Principles provide basic guidance for individuals and organisations on developing a strong nuclear information security culture. They are of interest to:

- individuals engaged in physical science research, education and training, including but not limited to: nuclear physics; nuclear chemistry; nuclear engineering; metallurgy; electrochemistry; physical chemistry; materials science; medical physics; computational physics; plasma physics; and detonics;
- organisations and institutions that carry out research or conduct education or training in the physical sciences; and, that fund, facilitate or evaluate the results of research in the physical sciences;
- associations and societies of professionals from the physical sciences; and
- authors, editors and publishers of physical science papers and administrators of websites dedicated to physical sciences.

It is not the intention to restrict the activities of those carrying out legitimate work in the nuclear and related fields, but instead to increase awareness of the risks of transmitting certain aspects of their work.

### RAISING AWARENESS

Institutions should undertake activities that raise awareness of specialist knowledge could be misused. These might include:

- including security specific modules into undergraduate and/or graduate degree courses on nuclear terrorism and the international regulations in this area, such as UNSCR1540 and ICSANT (Appendix A);
- attending or hosting nuclear security professional development courses; integrating discussion of information security with physical security issues at, for example, nuclear security conferences, workshops, in journals and on physical science websites; and

<sup>1</sup> J. Kidd and C. Hobbs, 'Report on the Adequacy of the United Kingdom's Export Controls to Prevent the Proliferation of Weapons of Mass Destruction', Memorandum to the Quadrupartite Select Committee (July 2007)  
<http://www.publications.parliament.uk/jns/cm200607/jnsselect/cmquad/117/117we40.htm>



# Linked Initiatives? Guidance for Academia

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Where are intangible transfers likely to take place?

- Industry
- **Universities / academia (less aware?)**

Package of guidance for this sector: Link together with. . .

- Export controls
- Sensitive information / publishing
- Physical protection?
- Admissions (student vetting)
- Projects / Consultancy work
- NB — potentially relevant to different depts.



# Strengths of Codes

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- Length/ detail (not too long, not too short)
- Allow for top level-buy in?
- Cascade effect / plays on reputation

# Difficulties Associated with Codes

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- Efforts sometimes too specific (e.g. Carnegie code)
  - Need to ensure there is relevant practical guidance for implementation
- Multiple codes
- Who to operationalise codes?
  - National authorities?
  - Alpha role in the UK?
  - Industry? Supply chain linkages?
- Who to manage codes? Role for the 1540 Committee?
- Need coordination
  - Framework to map out?

# Conclusions:

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- Codes are (potentially) a useful tool
- Several relevant to UNSCR 1540
- Utility of codes in building cultures – relating to intangibles
- Although codes need to be:
  - Linked to appropriate guidance materials
  - Operationalized
- Above all – need to manage codes (avoid duplication)

# QUESTIONS

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