UNIVERSITY OF BRADFORD
MAKING KNOWLEDGE WORK

Preventing Biological Threats, What You Can Do: A Guide to Biological Security Issues and How to Address Them

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Funded by Canada and the UK under the Global Partnership

Preventing Biological Threats, What You Can Do: A Guide to Biological Security Issues and How to Address Them

- Mr Chairman, Ladies and Gentlemen, Distinguished Representatives, we are delighted to announce the launch of the above Biological Security Guide…
- The Guide is Jointly funded by Canada and the UK under the Global Partnership
- It is an open-source Guide freely available online in English and Arabic
- Is designed as a training resource that can easily be adapted to different audiences and educational settings
- Accompanied by a Biosecurity Handbook – open-source training material that combines biological security with active learning training approaches

University of Bradford Press Release

- "… to help scientists prevent the hostile misuse of their work [and is…] primarily aimed at undergraduates studying life science courses and their lecturers, but it is hoped that the material will be useful to scientists at any stage of their career."

- and it is hoped that the Guide "…will help scientists understand how their important, benignly-intended work may be misused by others in a hostile way…", and it seeks to understand how this might be prevented.

University of Bradford Press Release

- In terms of its structure the Guide "…provides an overview of … potential biological threats from States and sub-State groups…" and it addresses "…what States, Organisations, Scientists and the International Community as a whole are doing, and can do, to deal with such threats."

Biological Security Guide: Content

Threats and Responses

- Hostile misuse (e.g. bioterrorism); biosecurity and natural disease outbreaks
- The BTWC
- Web of Prevention

Role of Scientists and Organisations

- Dual-use debate
- Role of industry and international scientific organisations
- Review of S&T

Biosecurity Education

Role of Law Enforcement Agencies

- Engagement with law enforcement agencies: FBI, INTERPOL

Role of States

Case Studies on
- Denmark
- Jordan
- South Africa
- Canada

Part 1: Threats and Responses

Chapter 2: Biosecurity challenges in 21st century: the case of gain-of-function experiments (Koos van der Bruggen)

- Chapter 3: Advances in science and technology and the evolution of bioweapons capability (Kathryn Nixdorff)
- Chapter 4: Biological weapons as weapons of terror: perspectives on the threat (Catherine Jefferson)
- Chapter 5: Natural outbreaks and biosecurity: the 2014 Ebola outbreak (Maureen Ellis)
- Chapter 6: The BTWC: structure and development (Jez Littlewood)
- Chapter 7: The idea of a web of prevention (Graham Pearson)

Part 2: Scientists, Organisations, and Biosecurity

- Chapter 8: Dual use and the progress of life sciences: a case for promoting biosecurity and the responsible conduct of research (Gerald Walther)
- Chapter 9: The role of industry in promoting biosecurity: a case study of the convergence of chemistry and biology (Ralf Trapp)
- Chapter 10: The role of scientific organisations in promoting biosecurity: a case study on IAP (Jo Husbands and Katherine Bowman)
- Chapter 11: Review of science and technology: a case study on the Biological and Toxin Weapons Convention Implementation Support Unit (Piers Millett)

Part 3: Biosecurity and Law Enforcement

- Chapter 12: The Federal Bureau of Investigation Biosecurity Programme: a case study of law enforcement and outreach (Will So)

- Chapter 13: Multisectoral coordination for biosecurity preparedness: a case study on INTERPOL (Guy Collyer)

Part 4: States and Biosecurity

- Chapter 14: The Danish biosecurity system (Robert Peterson)
- Chapter 15: Fostering biosecurity in Jordan (Jwan Ibbini)
- Chapter 16: National implementation of biosecurity in South Africa (Louise Bezuidenhout)
- Chapter 17: National implementation of biosecurity in Canada (Public Health Agency – Canada)
- Chapter 18: The future governance of biotechnology (Catherine Rhodes)

Part 5: Biosecurity and Active Learning

- Chapter 19: Immersing students in responsible science through active learning pedagogies: lessons from educational institutes in the MENA region (Lida Anestidou and Jay Labov)

- Chapter 20: Interactive biosecurity: Team-Based Learning in action (Tatyana Novossiolova)

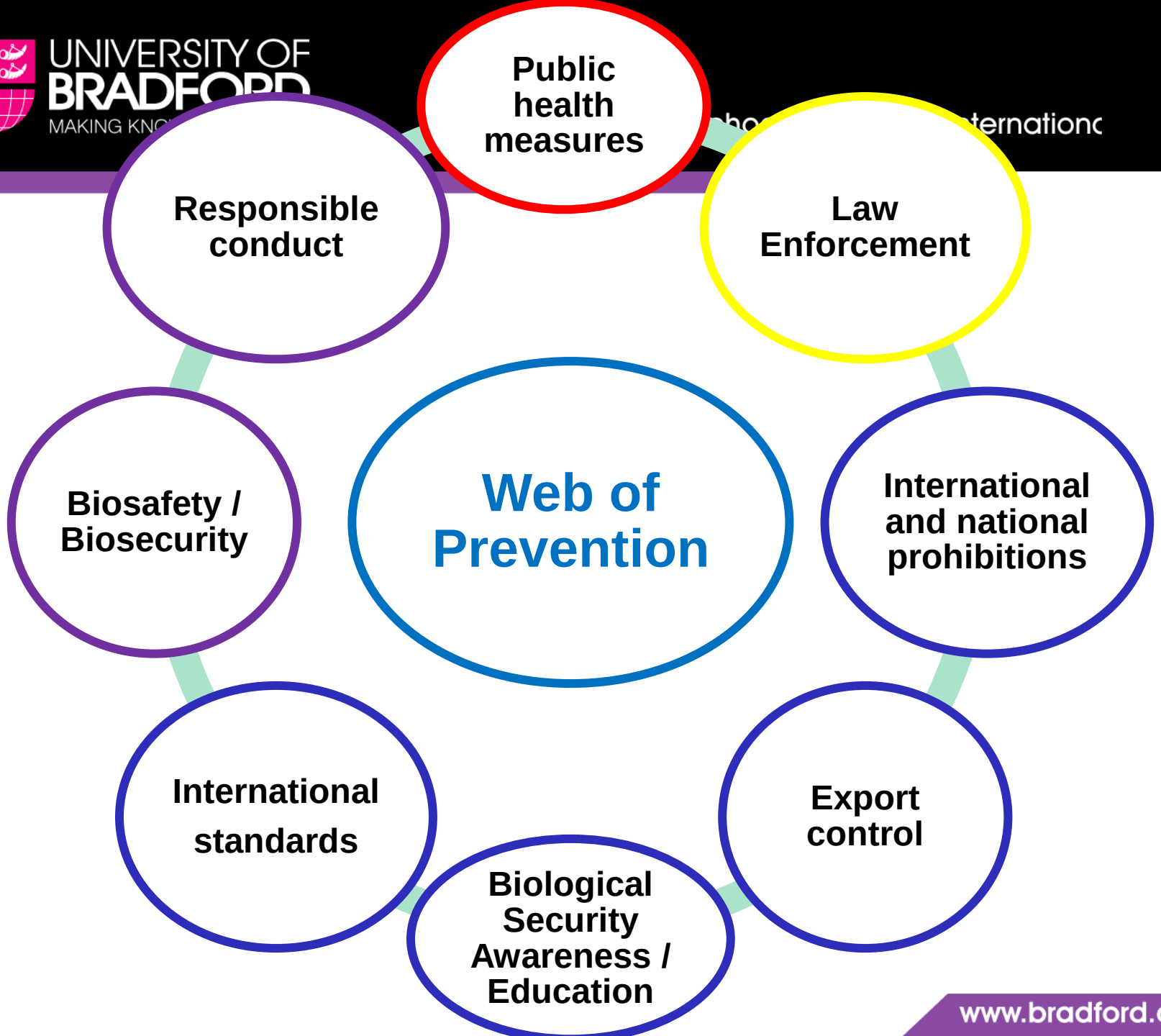
BWC, Article IV, Seventh Review Conference

13. The Conference notes the value of national implementation measures, as

- appropriate, in accordance with the constitutional process of each State Party, to:

- **(c) promote amongst those working in the biological sciences awareness of the obligations of States Parties under the Convention, as well as relevant national legislation and guidelines; (emphasis added)**

- **(d) promote the development of training and education programmes for those granted access to biological agents and toxins relevant to the Convention and for those with the knowledge or capacity to modify such agents and toxins; (emphasis added)**


Public health measures
Responsible conduct
Law Enforcement
Biosafety / Biosecurity
Web of Prevention
International and national prohibitions
International standards
Export control
Biological Security Awareness / Education

The Guide
- Biological Security Awareness

The Handbook
- Team Based Learning

The Standard
- Competence (IFBA)

What next?

Thank you for the attention!

Next…

Tatyana Novossiolova: the TBL Handbook

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http://www.brad.ac.uk/bioethics/