



Scientific Advisory Board Briefing to Conference of States Parties

OPCW
1997-**2017**
YEARS

Dr Christopher Timperley (SAB Chair)
and Mr Cheng Tang (SAB Vice-Chair)

Science and technology in the Convention

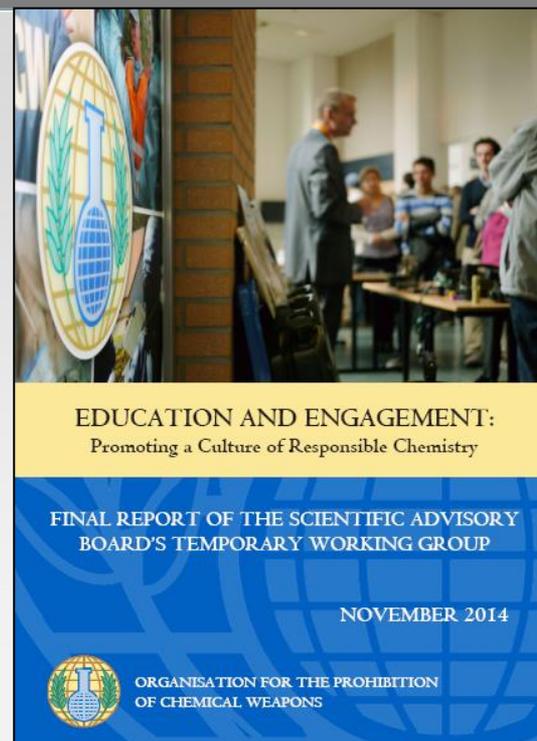
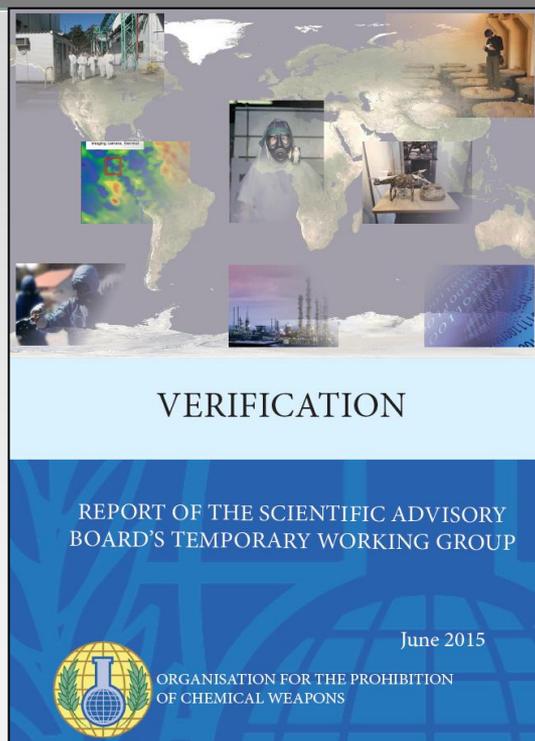
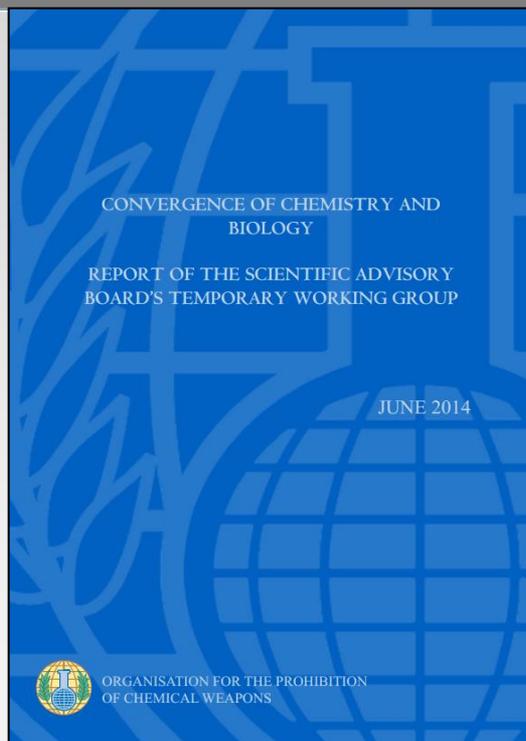


The Conference of States Parties shall:

“Review scientific and technological developments that could affect the operation of this Convention and, in this context, direct the Director General to establish a Scientific Advisory Board to enable him, in the performance of his functions, to render specialized advice in areas of science and technology relevant to this Convention, to the Conference, the Executive Council or States Parties.”

CWC Article VIII, Section B, paragraph 21(h)

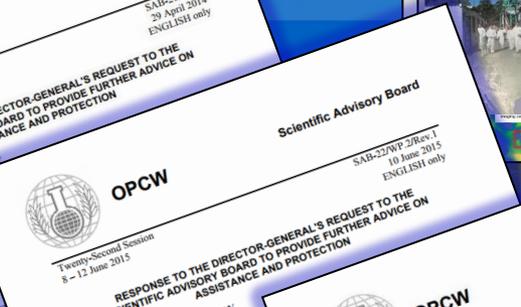
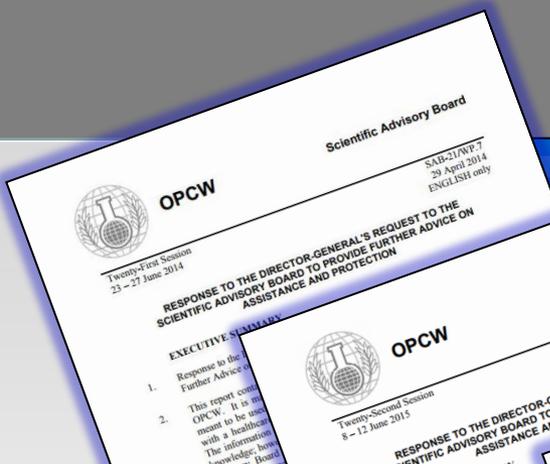
The scientific review



The scientific review



The scientific review



(b) What are the aforementioned types...

CS-2016-9798(1) distributed 20052016

1.4 The list of 17 RCAs (Appendix 4) has previously been provided to support of these declarations (see S/111... point of reference in Appendix 4). The additional 42 additional chemicals considered by the (Appendix 5) might also be provided as a reference list of substances that do not meet the criteria of an RCA and thus should not be declared as such but have historically been considered for use as an RCA.

1.5 This original list of 59 has been reviewed and an additional chemical (pipernite) that meets the inclusion criteria was identified. This chemical does not meet the definition of an RCA and is included at the end of the table of Appendix 5.

Available at www.opcw.org/fileadmin/OPCW/SAB/2016/WP.1/2016_04_28.pdf

The scientific review



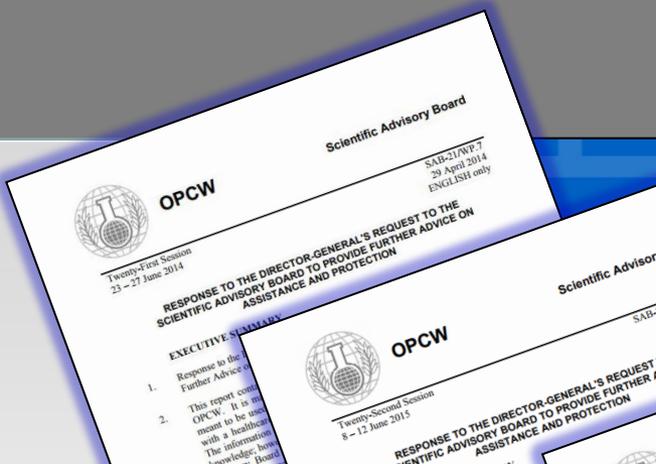
25 events
676 attendees

- 256 individuals
- 56 nationalities

405 speakers

- 191 individuals
- 56 nationalities

30 reports



(b) What are the additional types of...
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1.4 The list of 17 RCAs (Appendix 4) has previously been provided...
1.5 This original list of 59 has been reviewed and an additional chemical (pipernite) that...
Available at www.opcw.org/fileadmin/OPCW_Secretariat/Work/117-2014_e.pdf

Chemical forensics



OPCW

Scientific Advisory Board

Twenty-Fourth Session
25 – 28 October 2016

SAB-24 WP 1
14 July 2016
ENGLISH only

REPORT OF THE SCIENTIFIC ADVISORY BOARD'S WORKSHOP ON CHEMICAL FORENSICS

1. EXECUTIVE SUMMARY

- 1.1 The OPCW Scientific Advisory Board (SAB) in cooperation with VERIFIN held a workshop, "Chemical Forensics: Capabilities across the Field and the Potential Applications in Chemical Weapons Convention Implementation", from 20 to 22 June 2016 in Helsinki, Finland. The workshop is one of a series intended to inform the report of the SAB on developments in science and technology to the Fourth Review Conference¹ of the Chemical Weapons Convention to be held in 2018. Interest in chemical forensics, and its relevance to the work of the OPCW, has been described through Recommendation 17 of the OPCW SAB's Temporary Working group on Verification.²
- 1.2 Forensic science is defined as the study of traces (remnants of presence and/or activity).^{3,4,5} These are silent witnesses that need to be detected, seen, and understood to make reasonable inferences about criminal phenomena, investigation or demonstration for intelligence, investigation and court purposes.
- 1.3 Chemical forensics aims to obtain information from chemical remnants that is relevant to investigative, legal and intelligence questions. Just as fingerprints and DNA can provide unique signatures that can be used to identify individuals, chemical samples can provide distinctive signatures (for example through their impurities

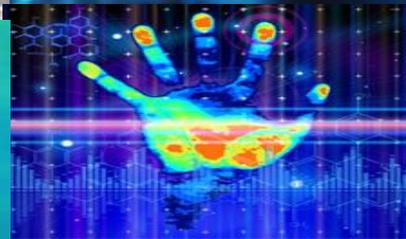
¹ Funding for the workshop was provided in part through project III (Science and Technology: Assessment of Developments in Science and Technology) of the Central Decision (CFSD) 2012/29 dated 17 February 2015. http://eu-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2015.043.01.0014.01.ENG

² Fourth Special Session of the Conference of the States Parties to Review the Operation of the Chemical Weapons Convention.

³ Verification, Report of the Scientific Advisory Board's Temporary Working Group (SAB REP/1/15, dated June 2015). Available at www.opcw.org/fileadmin/OPCW/SAB/wp/Final_Report_of_SAB_TWG_on_Verification_-_as_presented_to_SAB.pdf

⁴ Forensic science on trial. Proceedings of the Plenary presentations from the 20th ANZFSI International Symposium on the forensic sciences, Sydney 2010. *Australian Journal of Forensic Sciences*, 2011, 43:2-3, 89-103. <http://www.tandfonline.com/doi/10.431-3>

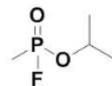
⁵ C. Roux, F. Crispino, O. Ribaux. *Current Issues in Criminal Justice*, 2012, 24(1), 7-24. <http://www.austlii.edu.au/au/other/au-ia/journals/CJC/vol24/16.pdf>



Medical countermeasures and emergency response



Tabun (GA)



Sarin (GB)



Innovative technologies for chemical security



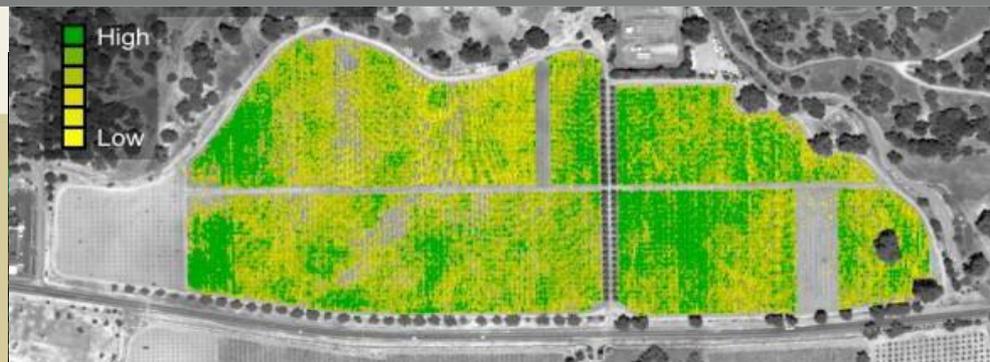
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INTERNATIONAL WORKSHOP ON INNOVATIVE TECHNOLOGIES FOR CHEMICAL SECURITY

Science for Peace
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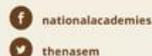


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IMPACT OF SCIENTIFIC DEVELOPMENTS ON THE CHEMICAL WEAPONS CONVENTION

(IUPAC Technical Report)

Prepared for publication by
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IMPACT OF SCIENTIFIC DEVELOPMENTS ON THE CHEMICAL WEAPONS CONVENTION

(IUPAC Technical Report)

Prepared for publication by[#]
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Impact of scientific developments on the Chemical Weapons Convention

(IUPAC Technical Report)[#]

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Abstract: This document represents the final report of discussions and conclusions arising from the workshop on Developments in Science and Technology Relevant to the Chemical Weapons Convention, held in Spiez, Switzerland in February 2012.

Keywords: Chemical Weapons Convention, CWC, implementation; science and technology; Third Review Conference.

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International Advisory Board: IUPAC Workshop, Bergen, 2012 (UK): Wataru Ando (Japan); Joseph F. Bunnett (USA); Wil Chen (China); Rita Corradi (Belgium); Claude Eon (France); (UK): Folke Ingman (Sweden); Detlef Munnig (Germany); Pearson (UK); Boris Myasodov (Russia); Norma S. Noldman (Norway); Thomas T. Tidwell (Canada).

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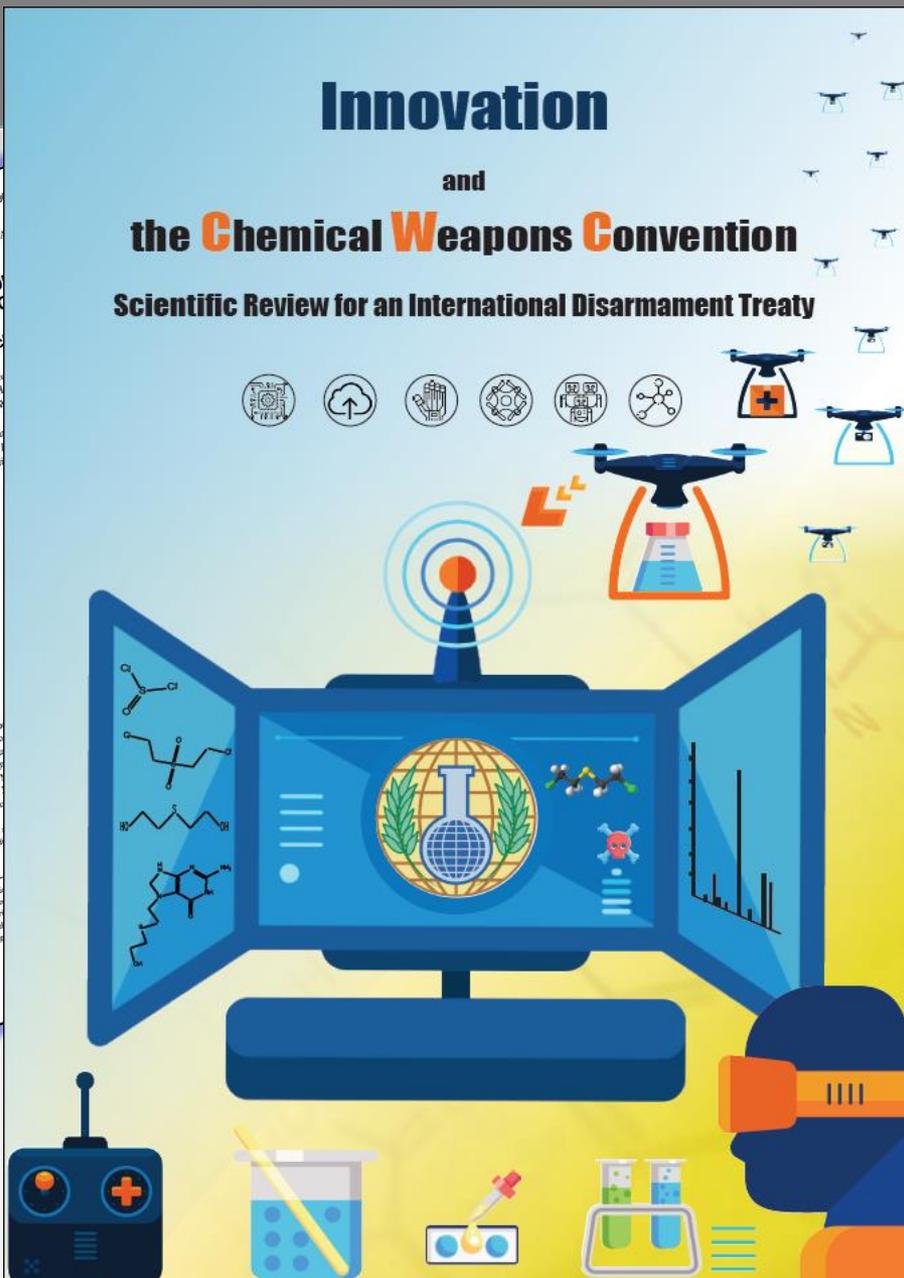


Innovation

and

the Chemical Weapons Convention

Scientific Review for an International Disarmament Treaty



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IMPACT OF SCIENTIFIC DEVELOPMENTS ON THE CHEMICAL WEAPONS CONVENTION (IUPAC Technical Report)

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of discussions and conclusions arising
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in February 2012.

CWC; implementation; science and technology;

RECOMMENDATIONS

as
the scope of the CWC
the implementation of the CWC
to verification
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via outreach and education

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logical analysis methods
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production methods
security: Possession, transfer, and acquisition
agents
security: Engaging the chemical sciences community

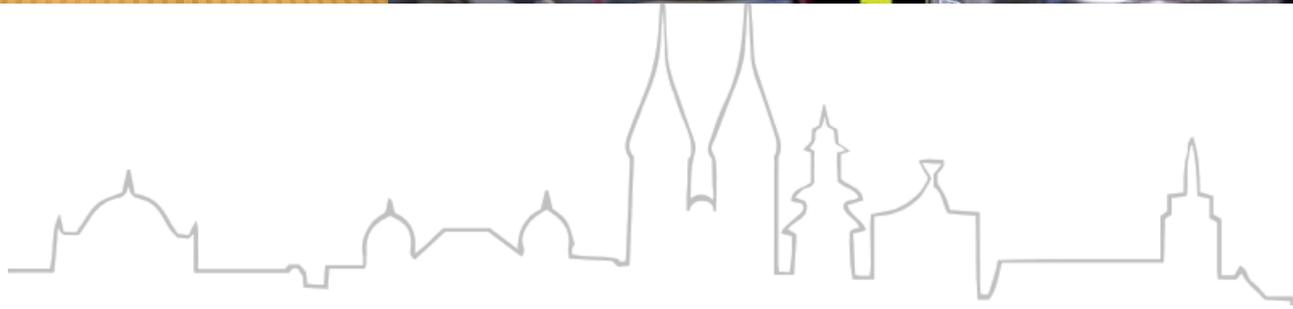
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Trends in chemical production



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Occupational
Health



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Thursday, 19 October 2017

leper Room | 13:30-15:00

Light lunch served at 13:00

OPCW Scientific Advisory Board Briefing to States Parties



Trends in Chemical Production

Science for Diplomats at CSP-22

The Report of the Scientific Advisory Board's Workshop

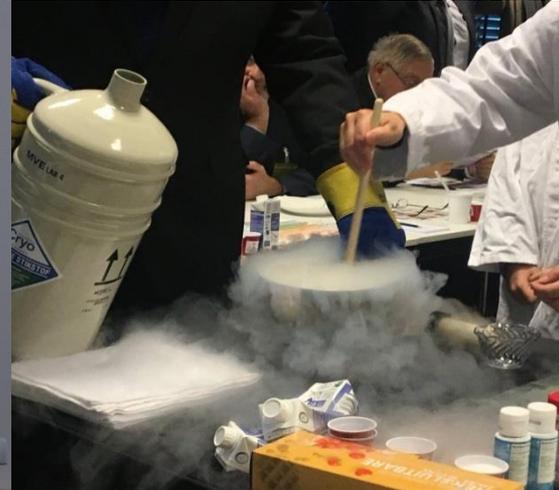


Wednesday, 29 November 2017
Antarctica Room, World Forum
13:15-14:45
Light lunch served at 13:00

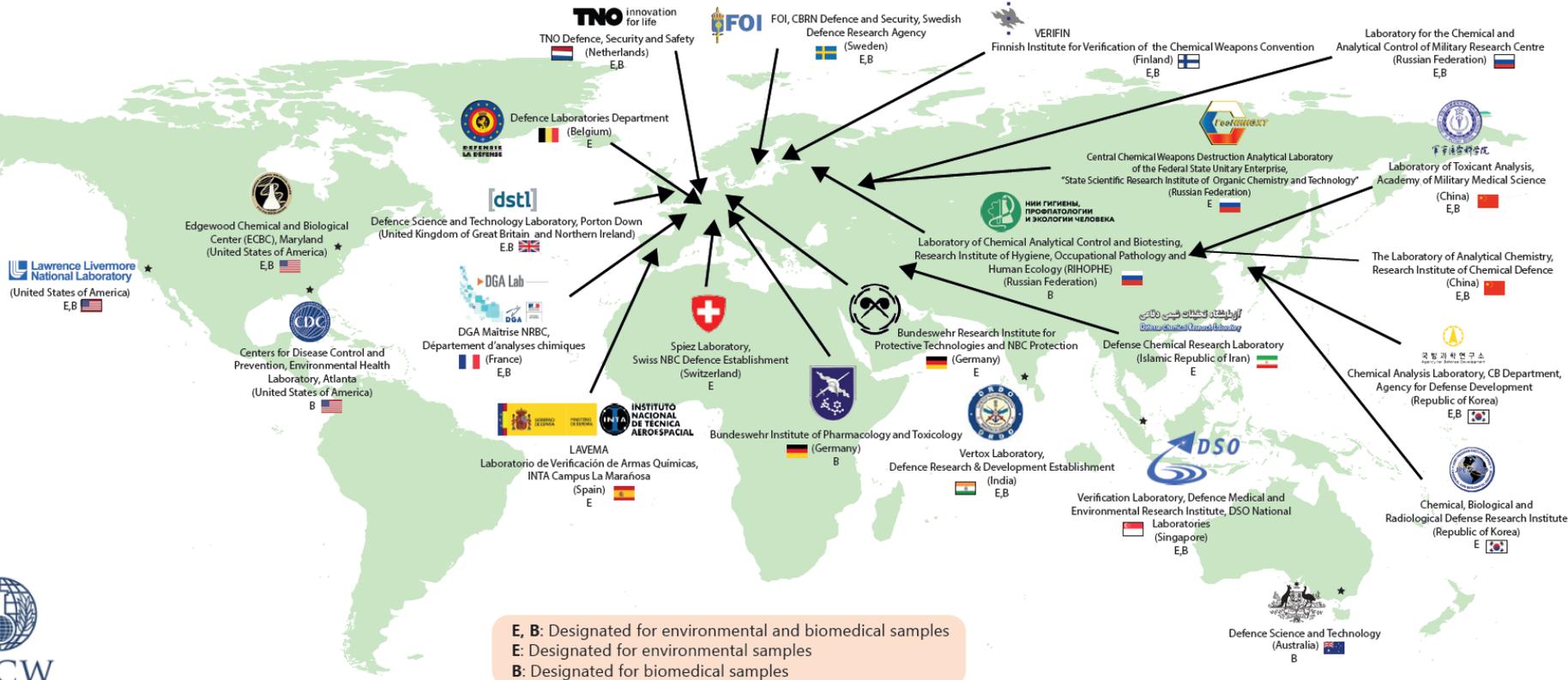


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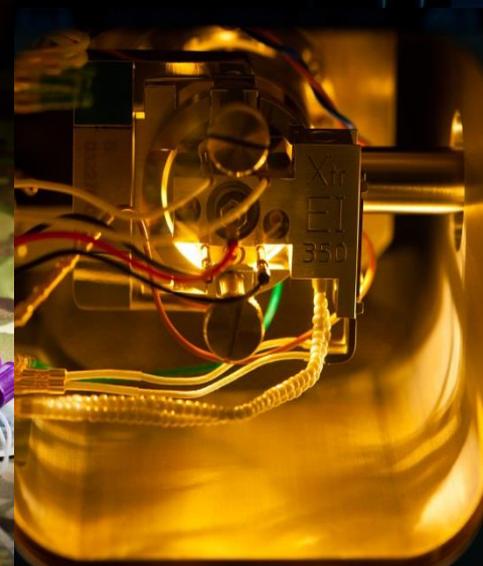
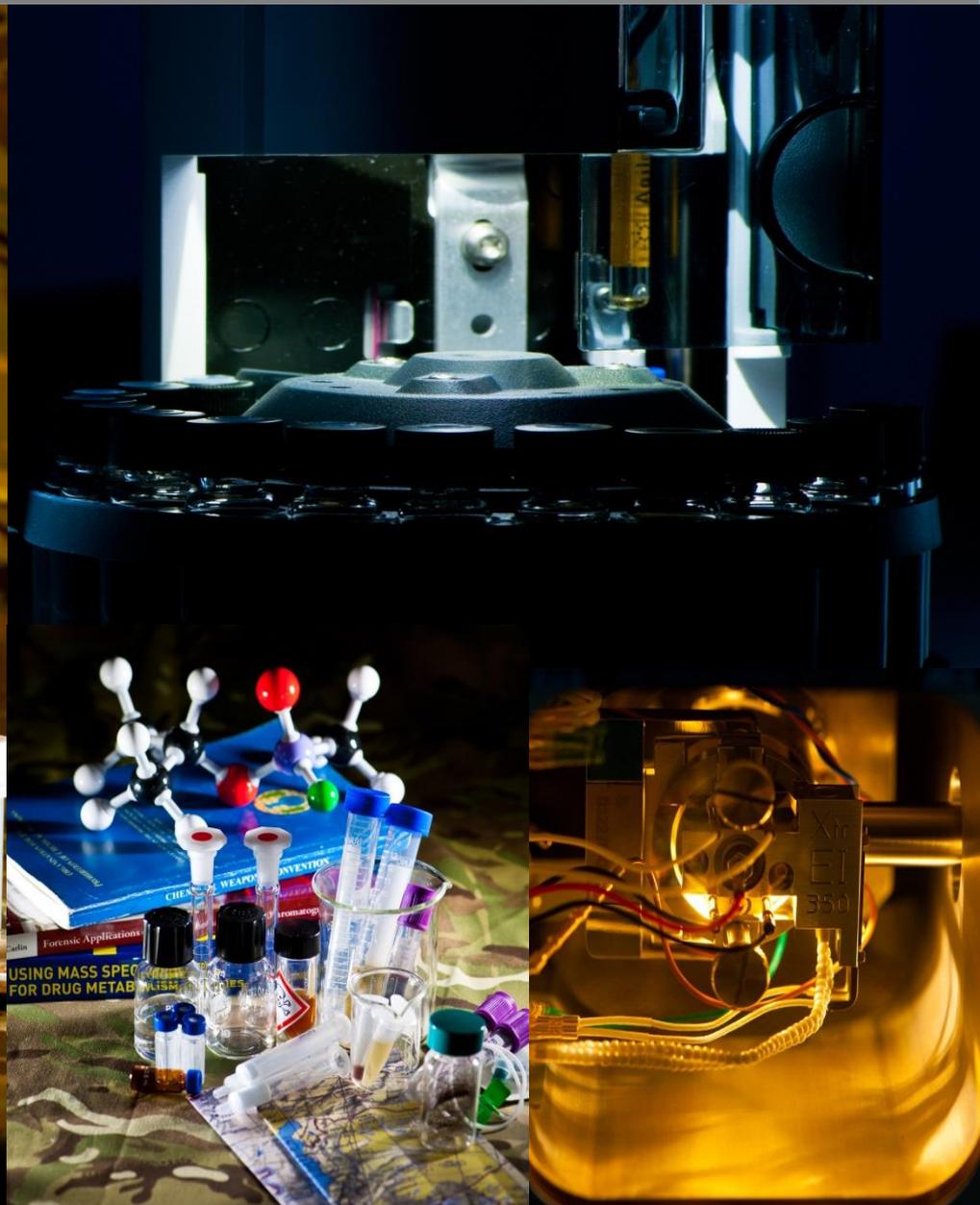
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Investigative Science and Technology



November 2018 : a time to review



November 2018 : a time to review

SAB Report:
Overview of scientific and technological changes during review period
Advice on relevant and emerging areas of science and technology
Recommendations for moving forward

Third Special Session of the
Conference of the States
Parties to Review the
Operation of the Chemical
Weapons Convention

8 - 19 April 2013

Organisation for the Prohibition of Chemical Weapons

Thank you for your attention



"Working together for a
world free of chemical weapons"