

# Science Advice, Science Diplomacy and Science Communication at the Organisation for the Prohibition of Chemical Weapons

## Scientific Advisory Board



The Chemical Weapons Convention is built on a scientific foundation, requiring technical expertise for effective implementation, and scientific literacy for decision making.

Scientific principles provide the definitions for what is, and what is not a chemical weapon; ensure completeness of declarations; guarantee the robustness of sampling and analysis and other verification methodologies; guide the processes and methods used for inspections, investigations and destruction; inform approaches to assistance and protection; and benefits outreach to scientific communities."

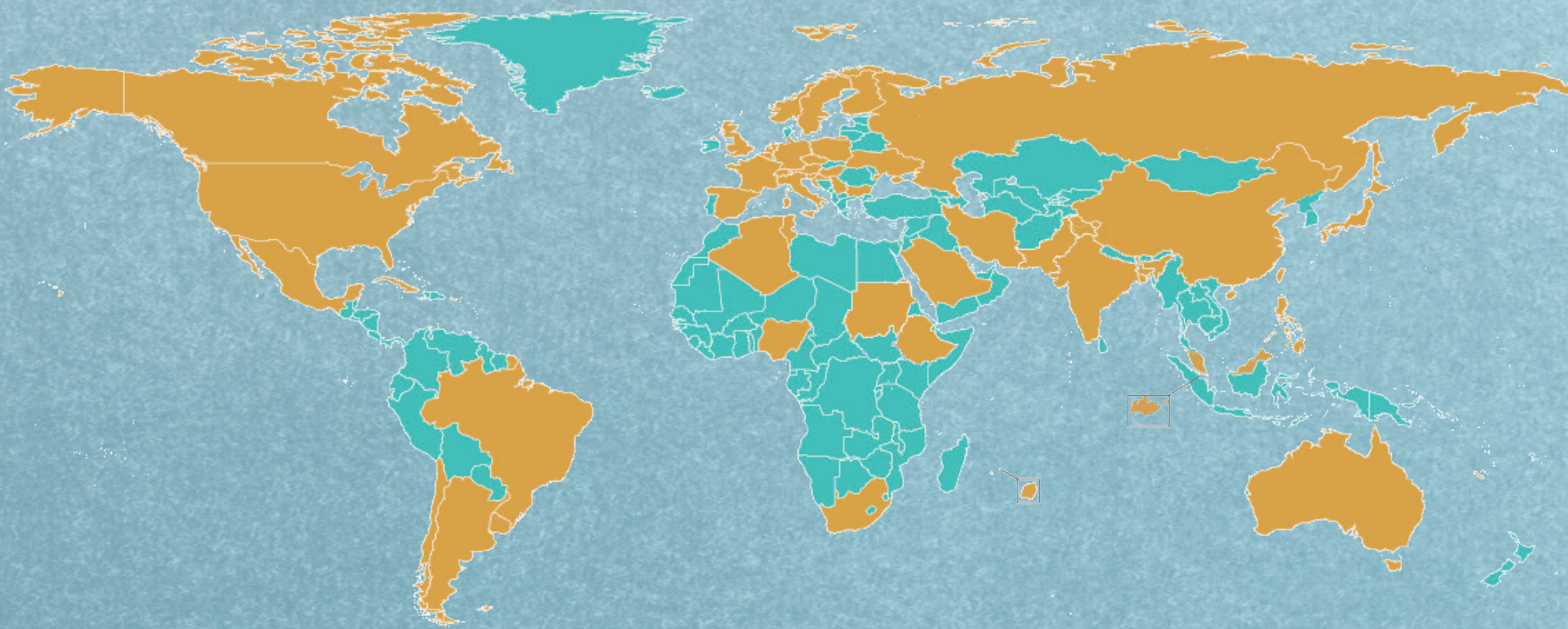
The Scientific Advisory Board (SAB) is a subsidiary body of the OPCW serving as an independent science advisory mechanism to provide advice to inform the work and processes of the OPCW, and to bring scientific literacy into the policymaking process.

The SAB was established in accordance with the Chemical Weapons Convention to enable the Director-General to render specialized advice in areas of science and technology relevant to the Convention, its State Parties, the Conference of States Parties, and the Executive Council.

For the basis of the SAB in the Chemical Weapons Convention, see Article VIII Paragraph 21 (h).



## Scientific Diplomacy in Support of the Convention



The SAB is made up of 25 experts from OPCW Member States. Members serve in their personal capacity (not as representatives of their respective States Parties) for up to two consecutive three-year terms. The SAB chair and vice-chair are elected annually.

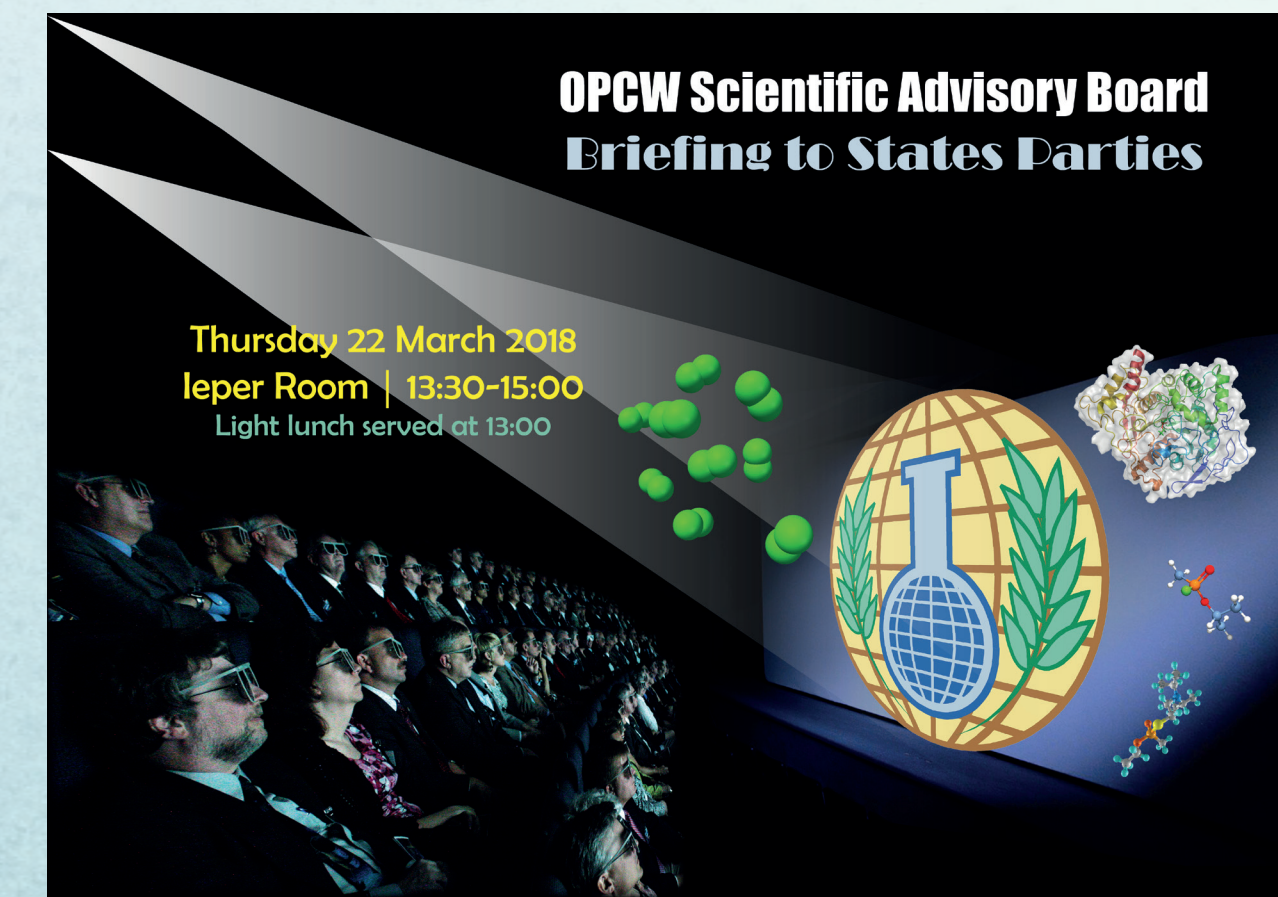
Scientists from more than 40 States Parties have served on the SAB and/or its working groups since its first session in 1998. Upholding the core values of the Convention, international cooperation and science for peace, the SAB exemplifies the value of science diplomacy.

International scientific collaboration to support the implementation of the Chemical Weapons Convention is further exemplified by the network of Designated Laboratories.

Learn more about Designated Labs

## Science Communication and Engagement

OPCW actively promotes scientific literacy for policymaking and treaty implementation. This requires productive discourse between scientific experts and diplomats from OPCW's State Parties.



The SAB regularly briefs States Parties on its work and the OPCW's Science for Diplomats initiative provides a forum for interactive engagement with diplomats involved in the implementation of the Chemical Weapons Convention.

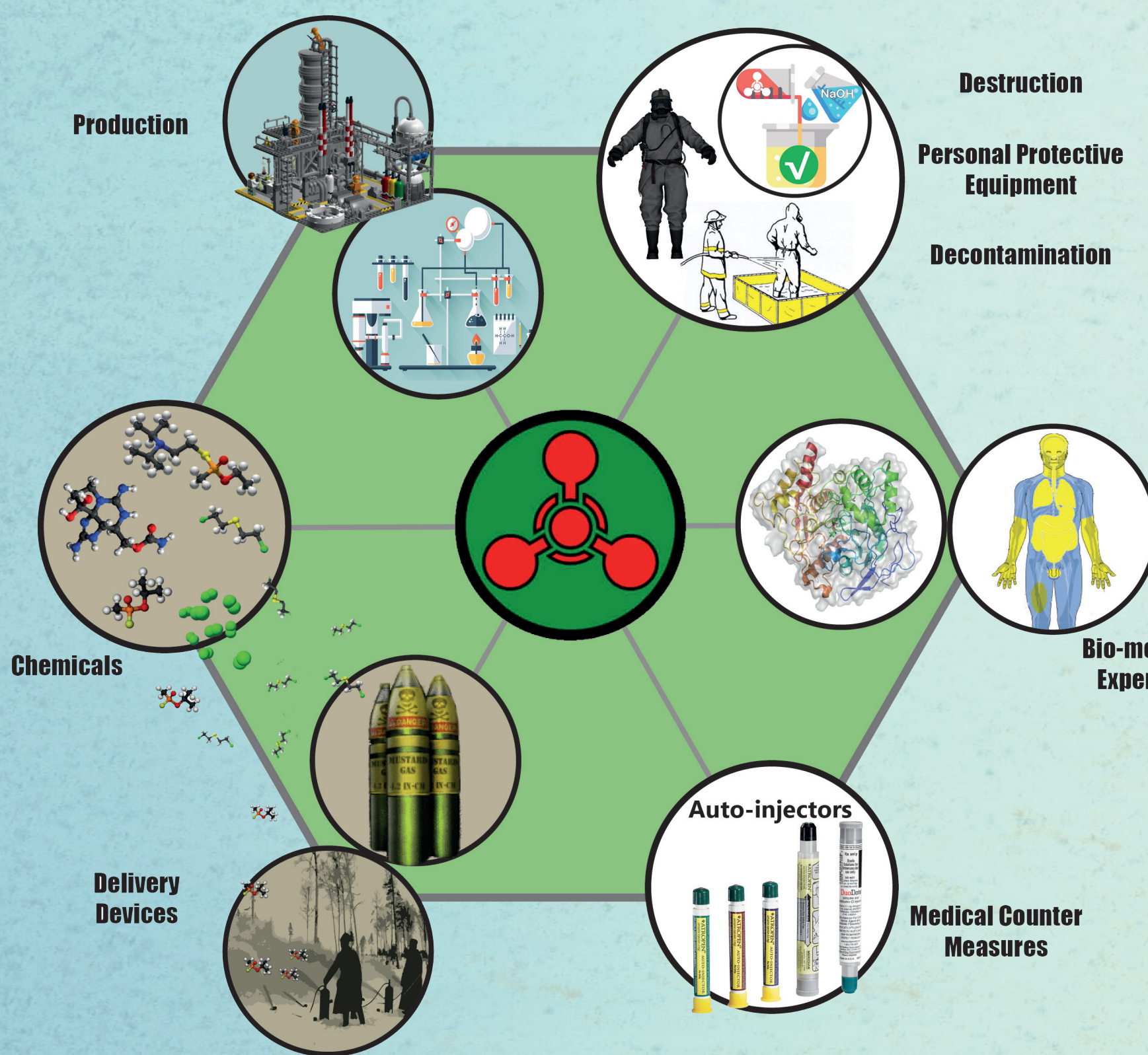
Learn more about the "Science for Diplomats Initiative"

To ensure effectiveness, the work of the SAB must be visible; SAB reports and informative materials must be easily accessible to stakeholders; and the promotion of scientific literacy must be interactive and engaging.

Mobile apps, mobile device retrievable documents and augmented reality provide useful tools with a great degree of flexibility to aid in communication and dissemination of information.



## Science of the Chemical Weapons Convention



Find infographics and resources here:



## Scientific Review for the Fourth Review Conference of the Chemical Weapons Convention

The Scientific Advisory Board serves as an independent body that assesses and reports to the Director-General on developments in scientific and technological fields relevant to the Convention. Recognising where technological change both benefits and challenges the implementation of the Convention is an important and continual aspect of this work (in particular for verification purposes).

To ensure the OPCW keeps pace with scientific and technological change, the SAB submits a substantive report on developments in science and technology which includes recommendations for the operation of the Convention to each 5-yearly Review Conference of the Chemical Weapons Convention. The upcoming Fourth Review Conference (RC-4) is to be held from 21 – 30 November 2018.

The SAB took inputs for its report to RC-4 from previous considerations to the first three Review Conferences, engagement within scientific conferences and meetings, review of scientific and patent literature, and a variety of new sources that included A-D below.

### A. The deliberations of the SAB during its eight regular sessions held from June 2013 to March 2018 (SAB-20 to SAB-27)

Report of the Scientific Advisory Board at its 27th Session (SAB-27/1, dated 23 March 2018)

Director-General's Response to the Report of the 27th Session of the Scientific Advisory Board (EC-88/DG.5, dated 9 May 2018)

Report of the Scientific Advisory Board at its 26th Session (SAB-26/1, dated 20 October 2017)

Director-General's Response to the Report of the 26th Session of the Scientific Advisory Board (EC-87/DG.11, dated 25 January 2018)

Report of the Scientific Advisory Board at its 25th Session (SAB-25/1, dated 31 March 2017)

Director-General's Response to the Report of the 25th Session of the Scientific Advisory Board (EC-85/DG.8, dated 19 May 2017)

Report of the Scientific Advisory Board at its 24th Session (SAB-24/1, dated 28 October 2016)

Director-General's Response to the Report of the 24th Session of the Scientific Advisory Board (EC-84/DG.9, dated 18 January 2017)

Report of the Scientific Advisory Board at its 23rd Session (SAB-23/1, dated 22 April 2016)

Director-General's Response to the Report of the 23rd Session of the Scientific Advisory Board (EC-82/DG.13, dated 7 June 2016)

Report of the Scientific Advisory Board at its 22nd Session (SAB-22/1, dated 21 July 2015)

Director-General's Response to the Report of the 22nd Session of the Scientific Advisory Board (EC-80/DG.7, dated 28 August 2015)

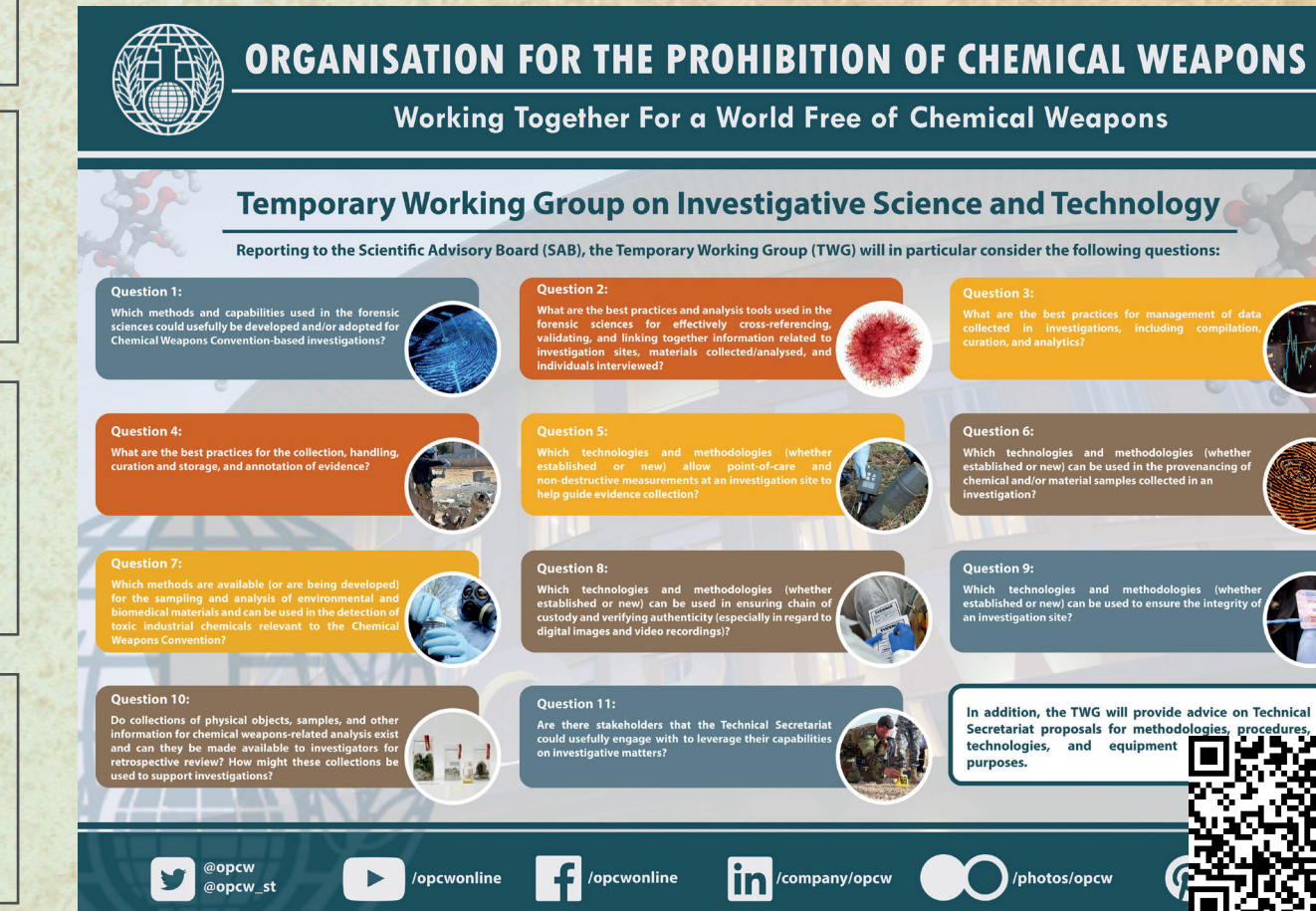
Report of the Scientific Advisory Board at its 21st Session (SAB-21/1, dated 27 June 2014)

Director-General's Response to the Report of the 21st Session of the Scientific Advisory Board (EC-77/DG.10, dated 5 September 2014)

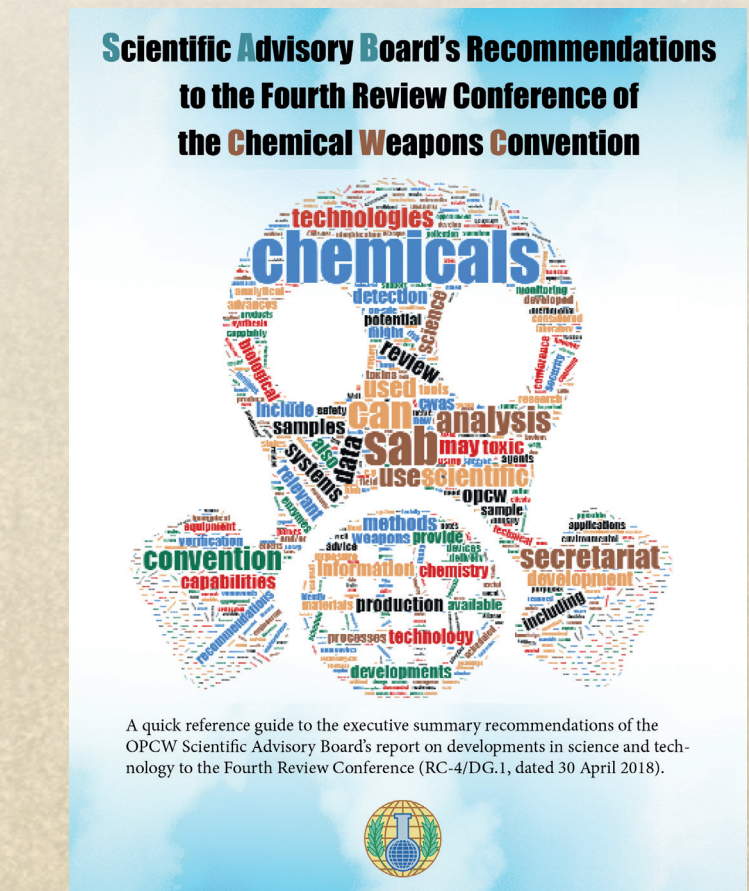
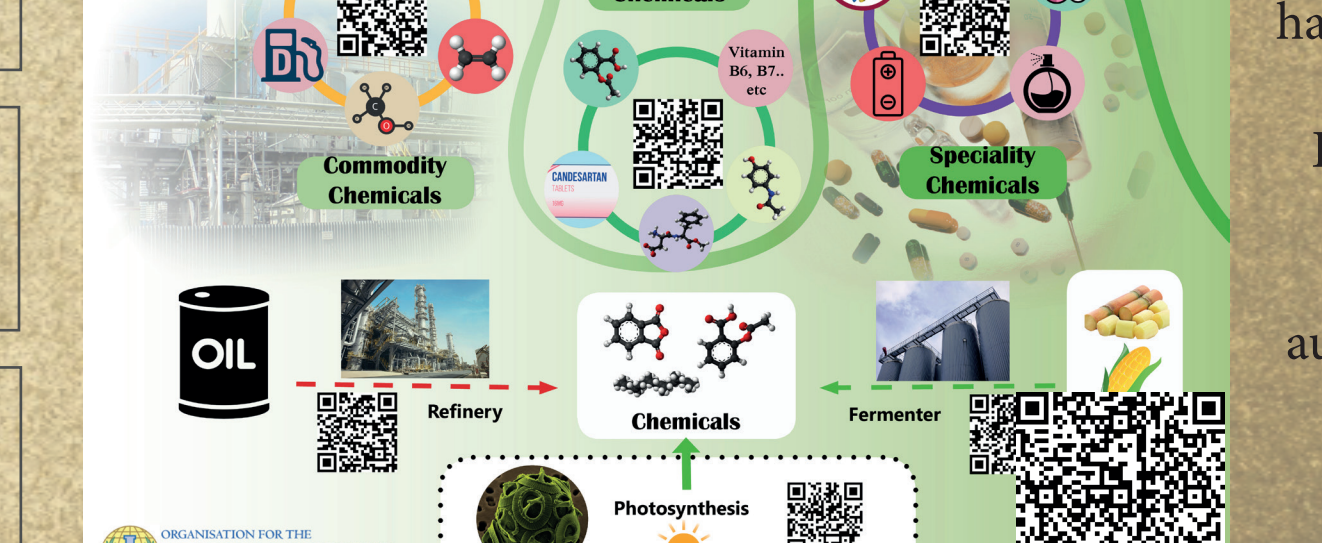
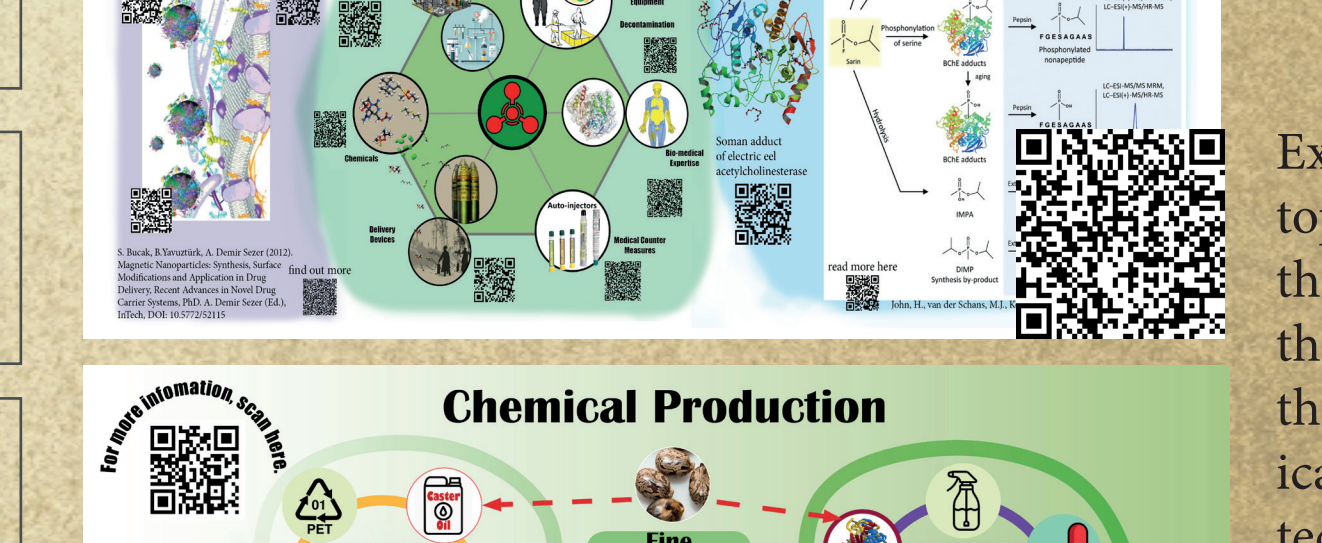
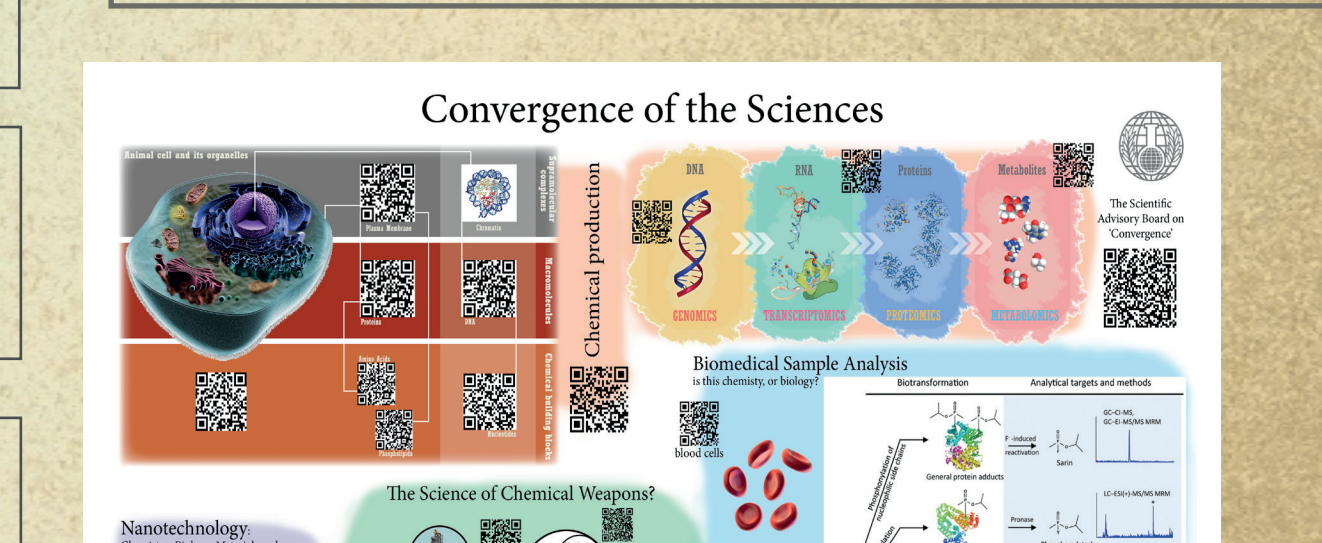
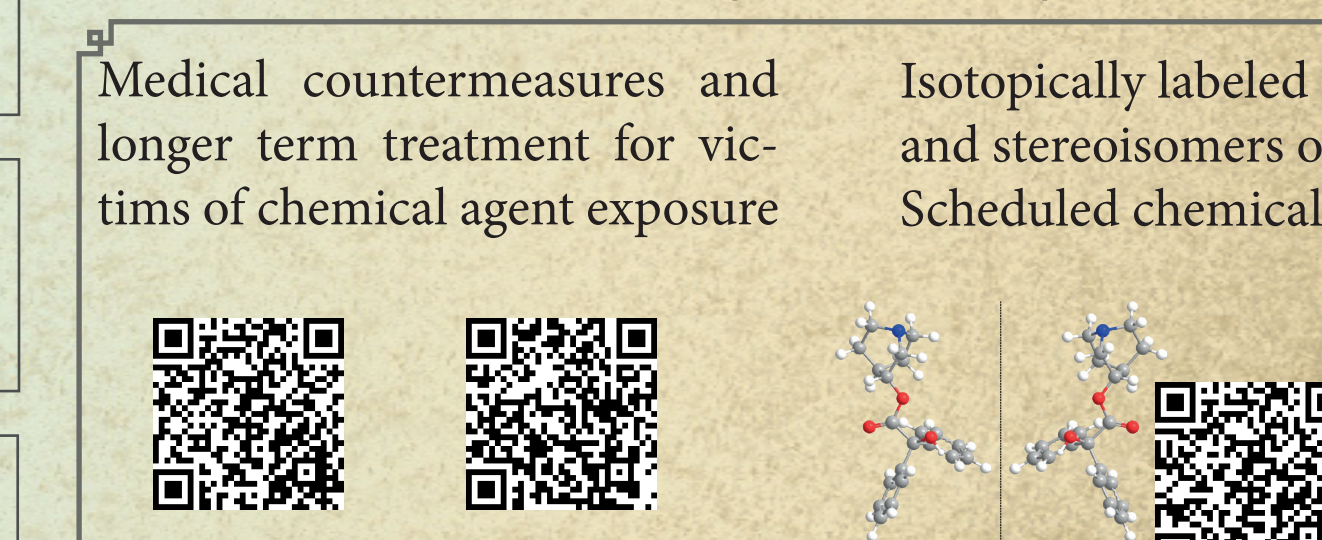
Report of the Scientific Advisory Board at its 20th Session (SAB-20/1, dated 14 June 2013)

Director-General's Response to the Report of the 20th Session of the Scientific Advisory Board (EC-74/DG.1, dated 24 July 2013)

### B. Findings from four Temporary Working Groups



### C. Intersessional responses to requests for advice from the Director-General (2013 to 2017)



Read the Executive Summary of Recommendations to RC-4

RC4 report RC-4/DG.1 30 April 2018

DG response RC-4/DG.2 1 June 2018



### D. A series of workshops, co-organised by external partners and kindly funded by the European Union

#### A European Union Funded Project

Chemical Forensics: Capabilities across the Field and the Potential Applications in Chemical Weapons Convention Implementation  
Helsinki, Finland, 20 - 22 June 2016  
SAB-24/WP.1, dated 14 July 2016.  
Coorganizer: VERIFI

Chemical Warfare Agents: Toxicity, Emergency Response and Medical Countermeasures  
Paris, France, 26 - 27 September 2016  
SAB-24/WP.2, dated 14 October 2016.  
Coorganizer: SCDSSN

Innovative Technologies for Chemical Security  
Rio de Janeiro, Brazil, 3 - 5 July 2017  
SAB-26/WP.1, dated 21 July 2017.  
Coorganizers: The National Academy of Sciences, Engineering, and Medicine

International Workshop on Trends in Chemical Production  
Zagreb, Croatia, 3 - 5 October 2017  
SAB-26/WP.2, dated 19 October 2017.  
Coorganizers: Institute of Technology, Zagreb

In the RC-4 Review Process, the SAB held 27 meetings and workshops with 747 Attendees (289 individuals of 58 Nationalities) and 453 Speakers (201 individuals of 58 Nationalities) producing a total of 33 Reports

Examples of the topics covered in the report include the convergence of the sciences, chemical production and technology to enhance capability.

Download these graphics and explore with augmented reality!

### OPCW Designated Laboratory network in April 2018

Summary of the First Meeting of the Scientific Advisory Board's Temporary Working Group on Investigative Science and Technology (SAB-27/WP.1, dated 26 February 2018)

Report of the Scientific Advisory Board at its Twenty-Seventh Session (SAB-27/1, dated 23 March 2018)

Director-General's Response to the Report of the Twenty-Seventh Session of the Scientific Advisory Board (EC-88/DG.5, dated 9 May 2018)

Report of the Scientific Advisory Board on Developments in Science and Technology for the Fourth Special Session of the Conference of the States Parties to Review the Operation of the Chemical Weapons Convention (RC-4/DG.1, dated 30 April 2018)

Response by the Director-General to the report of the Scientific Advisory Board on Developments in Science and Technology for the Fourth Special Session of the Conference of the States Parties to Review the Operation of the Chemical Weapons Convention (EC-87/DG.11, dated 1 June 2018)

Response To The Director-General's Request To Provide Advice On New Types Of Nerve Agents (SAB-28/1, dated 3 July 2018)

The SAB reports to the Director-General, who provides responses and views on its work and recommendations. States Parties receive the reports and the responses through the Director-General.

#### Find out more

SAB Reports of SAB Other documents



OPCW

Organisation for the Prohibition of Chemical Weapons

Work of the SAB from January to July 2018