



Fifteenth Session
20 – 22 June 2023

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**REPORT OF THE FIFTEENTH SESSION
OF THE ADVISORY BOARD ON EDUCATION AND OUTREACH**

- 1. AGENDA ITEM ONE – Opening of the session and welcome address by the Deputy Director-General**
 - 1.1 The Chairperson, Professor Magda Bauta Solés, opened the Fifteenth Session of the Advisory Board on Education and Outreach (ABEO) on 20 June 2023 at 10:00. She welcomed all Board members and observers to this session in The Hague, and added that the ABEO was honoured to have the Deputy Director-General of the OPCW, Ambassador Odette Melono, deliver opening remarks.
 - 1.2 The Deputy Director-General welcomed the ABEO members and observers to the Fifteenth Session of the Board and referred to the inauguration of the Centre for Chemistry and Technology (ChemTech Centre) in May 2023, which will allow the OPCW to contribute to the prevention of the re-emergence of chemical weapons by enhancing its research, operational, analytical, and capacity-building capabilities. The Deputy Director-General encouraged the Board to contribute to the activities and programmes at the ChemTech Centre.
 - 1.3 The Deputy Director-General mentioned that during the Fifth Review Conference,¹ States Parties had expressed the importance that they continued to attach to educational activities and to raising awareness about the Chemical Weapons Convention (hereinafter “the Convention”) and the OPCW by engaging with youth, policy makers, and educators, among others. She also highlighted the upcoming milestone of the complete destruction of declared chemical weapons and the need for the OPCW to closely monitor rapid scientific and technological developments in order to evolve and adapt to address new and emerging challenges.
 - 1.4 The Deputy Director-General referred to the importance of sharing knowledge and best practices among international organisations, agencies, and entities with a view to achieving synergies to work together towards a common goal. She thanked Ms Rebecca Jovin, Chief of Office at the United Nations Office for Disarmament Affairs (UNODA) in Vienna, for participating in this session and for sharing UNODA’s disarmament education strategy with the Board.

¹ Review Conference = Special Session of the Conference of the States Parties to Review the Operation of the Chemical Weapons Convention.



- 1.5 The Deputy Director-General further referred to the Board's advice on developing a network with academic institutions, its continuous collaboration with the International Cooperation and Assistance Division, and the role of the Board in preventing the re-emergence of chemical weapons.
- 1.6 Furthermore, the Deputy Director-General supported the resumption of the briefings to States Parties on ABEO activities, following the suspension thereof during the pandemic. She also thanked the Permanent Representation of Germany for sponsoring the event. She acknowledged the importance of informing States Parties of the ABEO's priorities in order to facilitate their deliberations and the decisions of the policy-making organs.
- 1.7 The Chairperson of the Board underlined the importance of the new ChemTech Centre for the work of the ABEO. She further highlighted the benefits of developing a network with universities and think tanks, as well as the role played by National Authorities and the International Cooperation and Assistance Division.
- 1.8 The Board expressed its appreciation for the Deputy Director-General's remarks and reflections on priority areas of the Board's work.
2. **AGENDA ITEM TWO – Adoption of the agenda and appointment of a drafting committee**
- 2.1 The ABEO adopted the following agenda for its Fifteenth Session:
 1. Opening of the session and welcome address by the Deputy Director-General
 2. Adoption of the agenda and appointment of a drafting committee
 3. Debrief on the Fifth Review Conference, Mr Marcin Wroblewski
 4. Debrief on the side event on the ABEO's priorities of work, Professor Magda Bauta Solés
 5. An inventory of international organisations that have synergies with the OPCW and recommendations by the Board, Dr Ladislava Navrátilová
 6. General update on developments at the OPCW since the last session of the Board, with a special focus on educational projects, ABEO Secretary
 7. The United Nations Office for Disarmament Affairs' disarmament education strategy and subsequent exchange of views with Board members, Ms Rebecca Jovin, Chief of Office, Vienna
 8. An ethical perspective on scientific and technological developments with an impact on the implementation of the Convention, followed by a discussion by the Board, Professor Graciela González
 9. Distribution of work among Board members for the next intersessional period, based on strategic plan priorities
 10. Election of the ABEO Chairperson and Vice-Chairperson for 2024, statement by the elected Chairperson
 11. Cooperation of the ABEO with the Public Affairs Branch in outreach activities, Ms Elisabeth Waechter

12. Enhancing the Technical Secretariat's educational resources and their dissemination in different regions
 13. Preparation of the briefing to States Parties on ABEO activities and future priorities
 14. Summary and main conclusions related to the feedback received from States Parties during the briefing
 15. Update on the work of the Scientific Advisory Board, Dr Matteo Guidotti, SAB observer to the ABEO
 16. Areas of ABEO collaboration with the International Cooperation and Assistance Division, Ms Kazumi Ikeda-Larhed
 17. Road map to developing educational methodologies, Professor Maria Espona
 18. Future priorities of the OPCW and influence on the ABEO's work
 19. Development of academic partnerships and networks with research institutions to promote the ChemTech Centre
 20. Topics identified for further consideration and suggested dates for the Sixteenth Session of the Board
 21. Report on the intersessional activities of Board members
 22. Any other business
 23. Summary, conclusions, and closure of the meeting
- 2.2 The Board appointed Mr Shahab Ud Din, Prof JaneFrances Ihedioha, and Prof Christopher Daase as drafting committee members.
- 3. AGENDA ITEM THREE – Debrief on the Fifth Review Conference, Mr Marcin Wroblewski**
- 3.1 Mr Marcin Wroblewski, the Director of the Office of Strategy and Policy, greeted the Board and introduced himself, as he had started his official duties at the OPCW in April 2023. He highlighted the importance of the Board's work based on its expertise and composition. He briefed the Board on the most relevant elements of the Fifth Review Conference, such as the role of the Open-Ended Working Group for the Preparation of the Fifth Review Conference and the input received from different stakeholders in the preparatory stage, particularly the input from States Parties on the role of education and outreach in preventing the re-emergence of chemical weapons, and the report submitted by the Scientific Advisory Board (SAB) to the Review Conference. Mr Wroblewski commented that the Fifth Review Conference concluded without an outcome document due to diverging views of States Parties on a certain number of political issues, which can also be observed at other forums.
- 3.2 Mr Wroblewski added that although a final document could not be adopted, the preparatory process allowed for a thorough and comprehensive review of the Convention. In the absence of an outcome document, the Technical Secretariat (hereinafter "the Secretariat") continues to be guided in its activities by the recommendations of the Third Review Conference and the relevant programmatic decisions of the policy-making organs adopted since 2013.

- 3.3 In the subsequent exchange with Board members, the Chairperson emphasised the fact that the current context presents both challenges and opportunities, and that the ABEO has an important role to play in preventing the re-emergence of chemical weapons and strengthening the implementation of the Convention. She added that the Board will work to achieve concrete results in these areas. Other members of the Board referred to the role of the Board in terms of engaging different stakeholders, both internally and externally, the new opportunities that the ChemTech Centre will offer, the importance of considering the ethical aspects of scientific and technological developments, and bilateral interaction between the Board and the Secretariat towards developing effective working relationships.
- 3.4 The Board thanked Mr Wroblewski for his talk and his support for the Board's work.
- 4. AGENDA ITEM FOUR – Debrief on the side event on the ABEO's priorities of work, Professor Magda Bauta Solés**
- 4.1 Professor Magda Bauta Solés debriefed the Board on the side event held during the Fifth Review Conference on the ABEO's work and future priorities in light of the challenges facing the Convention. The side event had a successful level of attendance, comprising approximately 40 persons in total from States Parties, non-governmental organisations, professional associations, and the chemical industry, among others. This proves the high level of interest in the ABEO's work. The active participation of Board member Dr Richard Guthrie and former ABEO member Dr Jean Pascal Zanders in the side event was instrumental, especially during the subsequent discussion.
- 4.2 The subsequent discussion touched upon different subject matters, including the need to build a culture of responsibility with regard to the importance of understanding chemistry, ensuring that more educational resources are made available in more languages beyond the OPCW's official languages, developing academic networks with the OPCW, and ensuring broad outreach to the public through participation in international events. Exploring the possibilities for working with the media and the Public Affairs Branch to increase outreach was also emphasised by several attendees.
- 4.3 The Board highlighted the need to build a network of institutions, and considered how to institutionalise links between the OPCW, academic institutions, and think tanks. Another important aspect that the Board considered is how to bring students closer to the Convention and at what age engagement should begin. The Board concluded that the question of how to make the Convention more attractive to youth and students is key to achieving a higher degree of engagement. The Board agreed that Model United Nations could include one module or unit devoted to the Convention.
- 5. AGENDA ITEM FIVE – An inventory of international organisations that have synergies with the OPCW and recommendations by the Board, Dr Ladislava Navrátilová**
- 5.1 Dr Ladislava Navrátilová explained the categorisation of different international organisations and other entities that have synergies with the ABEO's mandate, and discussed how she identified initial areas of relevance for cooperation. The inventory is a living document that encompasses international organisations, including regional organisations, professional associations, and relevant academic institutions and forums where potential collaboration could be explored. In the process of drafting this

inventory, Dr Navrátilová consulted with the External Relations Division to ensure that the relevant international organisations had been taken into consideration by the OPCW in relation to the ABEO's mandate.

- 5.2 Next steps would include the Board's identification of essential organisations that have synergies with the OPCW's mandate and the compilation of a final inventory with an annex listing other entities with which the Board would recommend that the Secretariat explore avenues of cooperation. The main question concerns identifying areas within the mandate of the ABEO that might need further focus, and which international organisations would have synergies with the ABEO's mandate. Among other areas for cooperation, the Chairperson of the Board referred to the example demonstrated by the Inter-Parliamentary Union in outreach.
- 5.3 The Board thanked Dr Navrátilová for compiling the inventory and coordinating the work within the Board. It also agreed to review the inventory and contribute its input with the understanding that this will be a living document that requires regular updates.
6. **AGENDA ITEM SIX – General update on developments at the OPCW since the last session of the Board, with a special focus on educational projects, ABEO Secretary**
 - 6.1 The ABEO Secretary updated the Board on recent developments at the OPCW, focusing on the current implementation status of educational projects. She referred to the project on the set of three introductory modules for universities, co-financed by the European Union and the OPCW, and mentioned that modules 2 and 3 had been delivered in April and that final adjustments are being implemented. Regarding the first draft of module 1 on the OPCW and its mission, it is expected to be delivered in a few weeks. The Secretariat has undertaken a content review of the modules, and the Board will also contribute to the peer review of content and quality control, as well as to dissemination at a later stage. Regarding the translation of educational resources, the Public Affairs Branch had facilitated the implementation of the multilingual versions of several OPCW Basics videos: "What is a chemical weapon?"; "What is the Chemical Weapons Convention?"; "What is a dual-use chemical?"; and "OPCW: A look inside". These videos are now available in all the OPCW's official languages, and several of them will be re-used in the e-learning modules for universities. The cost of these multilingual versions has been funded by the European Union.
 - 6.2 The Board thanked the ABEO Secretary for her presentation and reaffirmed its commitment to review content and perform quality control with the agreed learning outcomes in mind. The Board added that it stands ready to contribute to dissemination, and that National Authorities can play an important role in dissemination in some countries.
7. **AGENDA ITEM SEVEN – The United Nations Office for Disarmament Affairs' disarmament education strategy and subsequent exchange of views with Board members, Ms Rebecca Jovin, Chief of Office, Vienna**
 - 7.1 Ms Jovin thanked the Board and the Secretariat for the invitation to this session of the Board and mentioned that she is keen to explore avenues of collaboration with the ABEO. She introduced herself and gave an overview of UNODA's existing, long-standing collaboration with the OPCW based on the Relationship Agreement

between the United Nations and the OPCW approved by the Conference of the States Parties (hereinafter “the Conference”) in 2001 and subsequently adopted by the United Nations General Assembly. She referred to the participation of UNODA in all Conferences since 2001, including Review Conferences. With regard to concrete collaborative activities with the OPCW, she mentioned the Disarmament and Non-Proliferation Education Partnership, the Organisation’s hosting of United Nations Disarmament Fellows, the joint development of e-learning tools, and the programme on disarmament and non-proliferation of weapons of mass destruction.

- 7.2 Ms Jovin referred to the concept of disarmament education and explained that the overall objective of disarmament and non-proliferation education is to impart skills and knowledge to individuals and to empower them to make their own contributions as national and world citizens towards achieving disarmament. This definition, reflected in the United Nations study on disarmament and non-proliferation education of 2002, highlights the active engagement of citizens in disarmament. She further mentioned past efforts of the United Nations to promote disarmament education, referred to the biennial reports of the Secretary-General on disarmament and non-proliferation education, and mentioned that several of them include the contribution of the OPCW’s efforts in this realm. Ms Jovin explained that disarmament education has evolved and entails empowering people. Therefore, engaging many audiences, such as women and youth, is increasingly important.
- 7.3 Ms Jovin further explained the four outcome areas of UNODA’s new disarmament education strategy. Outcome Area 1 focuses on educational partnerships and the capacities of others to deliver authoritative content. The impartial perspective of the United Nations is key, as is utilising partners for the delivery of this content. The identification of educational partners and training educators are two important components of this outcome area. Outcome Area 2 focuses on outreach that leads to empowered and critical citizens who are capable of promoting disarmament goals. A key aspect is building critical thinking skills: how to think, rather than what to think. A good example would be the relationship between human rights and weapons of mass destruction, a topic in which youth is very interested. Outcome Area 3 focuses on inclusive and diverse disarmament processes, such as the ongoing “Youth for Biosecurity” initiative, which seeks to impart knowledge and skills to young life scientists from the Global South. Programmes that have combined virtual and in-person training have proven to be efficient. Outcome Area 4 focuses on building mutually beneficial partnerships and expert networks, in a changing world characterised by a different approach to education and the impact of artificial intelligence (AI). With regard to best practices, Ms Jovin emphasised the importance of engagement, empowerment, and sustainability in education. Awareness of the fact that one size does not fit all due to regional and local differences is a challenge that needs to be taken into account, including the need for the availability of educational resources in more languages. Ms Jovin mentioned that this is probably a possible area for collaboration with the OPCW, as the development of partnerships and expert networks in disarmament education is a common area of interest. She added that she is keen to listen to the expert views of the Board and have a fruitful discussion.
- 7.4 The subsequent discussion with the Board touched upon various subject matters: how young people are selected for UNODA’s educational programmes, how to make disarmament more attractive to young audiences, the fact that teaching will become

more focused on experiences, and the need to incentivise academic institutions to create a network. Other key aspects were discussed, such as linguistic obstacles in educational strategies and how to overcome them, potential collaboration with the UNODA in the dissemination of e-learning modules for universities through its platform, and the impact of AI on education and outreach efforts, as well as the opportunities and challenges it presents.

- 7.5 The Board thanked Ms Jovin for her comprehensive talk and exchange of views. Ms Jovin offered to remain in contact with Board members and the ABEO Secretary regarding possible future areas of collaboration.

8. AGENDA ITEM EIGHT – An ethical perspective on scientific and technological developments with an impact on the implementation of the Convention, followed by a discussion by the Board, Professor Graciela González

- 8.1 Professor Graciela González delivered a presentation on challenges and opportunities stemming from new technological and scientific developments.

- 8.2 The Board commented that AI is a powerful technology that is having a profound impact globally on research and development in chemical sciences. Its relevance to the Convention cannot be overemphasised, as it increases both the possibilities of designing new chemicals that could be used for mass destruction, and the need to successfully enforce the prohibition thereof. Because AI is evolving rapidly, it is important to continuously monitor its development, assess its impact on the Convention, and prepare the next generation of professionals in chemistry and beyond for this challenge. The ABEO emphasises that education and outreach should increasingly address this aspect in the future, especially with regard to ethical values among researchers.

- 8.3 More specifically, generative AI such as ChatGPT provides a wide range of opportunities for scientific research, review, and for connecting relevant information that might otherwise remain dispersed. Additionally, AI in general will help automate processes, improve decision making and provide information to a wider audience. However, AI brings a set of challenges or risks of generating inaccurate information, and possibly providing potentially misleading information. Thus, the ABEO agreed that the ethical perspective of this impact on the implementation of the Convention should be assessed by the Board in order to strengthen the responsible use of knowledge and instil a culture of responsible use, particularly among young professionals. Consideration should be given to combining ABEO and SAB expertise in this regard, in line with their respective mandates. The Board highlighted the need to exchange views with the Secretariat on technical decisions where the Board can contribute an ethical perspective. The Board offered to collaborate with the SAB to discuss and address the impact of AI on the implementation of the Convention, with a special focus on ethical perspectives.

9. AGENDA ITEM NINE – Distribution of work among Board members for the next intersessional period, based on strategic plan priorities

The Board decided to review its strategic plan, prepare a blue book register of potential members who can promote the ChemTech Centre in line with one of the priorities of the strategic plan, follow up on ethical perspectives relating to AI, review the content of university modules, and explore avenues of collaboration with the Director of the International Cooperation and Assistance Division involving the meetings of National Authorities and other educational or capacity-building programmes.

10. AGENDA ITEM TEN – Election of the ABEO Chairperson and Vice-Chairperson for 2024, statement by the elected Chairperson

The Board re-elected Professor Magda Bauta Solés as its Chairperson for 2024, and elected Professor Graciela González as its Vice-Chairperson. Professor Magda Bauta Solés thanked the Board for its confidence and support, and stressed that this is another opportunity to continue working for the benefit of the Secretariat and fulfil the mandate of the Board to achieve concrete results.

11. AGENDA ITEM ELEVEN – Cooperation of the ABEO with the Public Affairs Branch in outreach activities, Ms Elisabeth Waechter

11.1 Ms Elisabeth Waechter provided some updates to the Board focused on multilingualism. She informed the Board that three OPCW Basics videos had been made fully multilingual in all the OPCW's official languages and would be launched within the next few weeks. The availability of more educational resources in different languages is something that the Organisation is striving to achieve. Afterwards, Ms Waechter suggested several areas in which the Board could play a role. The first area would be a focus on strategy. Ms Waechter mentioned that many wonderful activities are being conducted by the OPCW, but that a strategic vision would be necessary to connect youth engagement, capacity building, education, and outreach. The Board could consider this and reflect on the mechanisms that could enhance coordination. Ms Waechter referred to a second area that is increasingly important: information integrity— an existential threat to multilateralism. She further added that the United Nations Secretary-General had recently issued a policy brief on information security calling for a Code of Conduct. Ms Waechter mentioned a third possible area of collaboration with the Board consisting of achieving more structured cooperation in the broader multilateral system. This would entail, among other things, identifying potential partnerships in education.

11.2 Ms Waechter referred to the United Nations Academic Impact Initiative, which works with a hub of universities around the world to achieve the Sustainable Development Goals. She added that Model United Nations is a valid framework to engage people— especially youth—in peace, security, non-proliferation, and disarmament. Furthermore, Ms Waechter emphasised that the Board can do more to serve as multipliers of relevant news and interviews. She mentioned two fantastic collaborations with Board member Prof JaneFrances Ihedioha, who agreed to give two interviews on the role of women in science to share her personal experience. A LinkedIn article² with these interviews was published earlier this year and promoted gender equality, among other values. Ms Waechter further recalled that Prof Ihedioha had raised awareness about the OPCW in a workshop on women chemists held in Nigeria on 10 and 11 May 2023. This was important, as the audience was mainly composed of young professionals.

11.3 In the subsequent discussion, the Board mentioned that the Secretariat could benefit from enhanced internal coordination for a more structured vision of what the ABEO could contribute. The Board suggested that Ms Waechter share a note with her suggestions on possible ways in which the Board could contribute in outreach, so that the ABEO can consider the recommendations it can make. Ms Waechter agreed to share

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<https://www.linkedin.com/pulse/women-girls-science-striving-gender-parity-opcw-opcw>.

this note with a toolkit of what the Secretariat can contribute. After mentioning the idea of having the Board contribute a video based on members' respective areas of expertise to promote anniversaries or other relevant milestones achieved by the Organisation, the Chairperson assured Ms Waechter that the Board is willing to make contributions, to the best of its ability, to support education and outreach through all means available to the Secretariat. Another idea suggested by the Board was the organisation of digital open days to raise awareness about the OPCW among as many people as possible. Ms Waechter assured the Board that the Secretariat will use the expertise of Board members within the capacity available, with the goal of meeting audiences where they are and tapping into existing structures and networks.

- 11.4 The Board thanked Ms Elisabeth Waechter for her talk and insight, and agreed to continue this conversation in order to fully contribute to the Secretariat's needs.

12. AGENDA ITEM TWELVE – Enhancing the Technical Secretariat's educational resources and their dissemination in different regions

The Board discussed different strategies to enhance the educational resources of the Secretariat and the dissemination thereof in different regions. The Board members agreed that greater availability of materials in various languages will make it easier to disseminate them and ensure that they are broadly used. Another subject matter highlighted by the Board was outreach to academic institutions. The Board agreed that without the engagement of National Authorities, it will be difficult to disseminate OPCW educational resources in many countries. The Board acknowledged that many National Authorities are composed of a small team of experts and therefore, it might be challenging for them to raise awareness of the importance of connecting with academia and think tanks. Furthermore, the Board suggested another possible strategy based on identifying relevant universities in each region and having these universities play a role as multipliers of information in their respective regions through their connections. Some universities have a network with other universities in their region, and some may even have a network that extends beyond their own region. In parallel, professional associations could also play a key role in dissemination, and the inclusion of the OPCW in Model United Nations would also benefit the dissemination of educational resources and foster engagement with the OPCW among youth. The Board expressed its willingness to actively contribute to the dissemination of these resources, including university modules when they become available.

13. AGENDA ITEM THIRTEEN – Preparation of the briefing to States Parties on ABEO activities and future priorities

- 13.1 The Board agreed to focus on its main future priorities in a presentation to States Parties to be delivered by the Chairperson and followed by a short talk by each member of the Board on their contributions to the Board's work. This would enable States Parties to interact with individual Board members if they wish to do so, and receive details about the specific areas of the Board's work and future priorities. The Board decided to make full use of the available time to present accurate and updated information and leave sufficient time for questions and comments from States Parties.
- 13.2 The Board expressed its gratitude to the Permanent Representation of Germany to the OPCW for sponsoring this briefing.

14. AGENDA ITEM FOURTEEN – Summary and main conclusions related to the feedback received from States Parties during the briefing

- 14.1 The Chairperson of the Board commented that the level of participation in the ABEO's briefing was high, with all regional groups being represented. She also noted that States Parties expressed interest in receiving more frequent briefings on ABEO activities and in having a more structured dialogue with the Board. States Parties also commented that awareness raising and education is of critical importance, and that the Board has their support. Some States Parties highlighted support for the development of a network with academic institutions and the idea of connecting relevant universities with the ChemTech Centre.
- 14.2 The Board expressed interest in continuing to keep States Parties informed of its activities and priorities for future work, and commented that sufficient resources should be allocated to the work of the Board if States Parties request the ABEO to undertake more activities.

15. AGENDA ITEM FIFTEEN – Update on the work of the Scientific Advisory Board, Dr Matteo Guidotti, SAB observer to the ABEO

- 15.1 Dr Matteo Guidotti, SAB observer to the ABEO, provided an update on the SAB's recent activities, including its Temporary Working Group on the Analysis of Biotoxins and its recommendations of interest for the ABEO. He described the main goals of the Board and its composition, highlighting the presence of three new members from India, Germany, and Tunisia. In early 2023, the SAB had a relatively calm period after the intense preparation of the scientific report in the second half of 2022 ahead of its submission to the Fifth Review Conference. He summarised the main outcomes of the SAB's report, which contains a concise, topical account of the recent scientific and technological developments relevant to the Convention.
- 15.2 Dr Guidotti further briefed the Board on AI and its impact on the Convention. The SAB recommended that the OPCW closely monitor the rapid development in AI-assisted chemistry and machine learning, and consider not only the potential risks that it poses, but also the opportunities it presents in terms of the discovery of new countermeasures and the development of more efficient prevention and protection strategies. Furthermore, the SAB is paying attention to the rapid and restless advances of 3D printing and the potential relevance thereof to the Convention. He further informed the Board that the 49th IUPAC³ World Chemistry Congress would be held in The Hague from 20 to 25 August 2023, and that some SAB members will be participating. In particular, two focus sessions—one on the role of women in chemical security and safety, and another on ethics and dual use in chemistry—would be led by SAB experts in collaboration with IUPAC thematic divisions. Finally, work is in progress to prepare for the Thirty-Seventh Session of the SAB, scheduled to take place from 28 August to 1 September 2023.

³ IUPAC: International Union of Pure and Applied Chemistry.

- 15.3 The follow-up discussion highlighted the need to assess how AI will impact the educational and outreach objectives of the OPCW. The ABEO stands ready to collaborate with the SAB on the topic of AI, with a special focus on its ethical impact on the implementation of the Convention, and how it can and should be used in educational settings. Dr Guidotti agreed that closer collaboration between the two Boards in areas of convergence in line with their respective mandates will be beneficial in gaining a holistic overview.
- 16. AGENDA ITEM SIXTEEN – Areas of ABEO collaboration with the International Cooperation and Assistance Division, Ms Kazumi Ikeda-Larhed**
- 16.1 Ms Kazumi Ikeda-Larhed, Director of the International Cooperation and Assistance Division, shared some remarks with the Board, focusing on the Division's activities related to Articles VII, X, and XI of the Convention. She referred to the training activities and courses held most recently and mentioned that the Division is combining virtual segments with in-person training to reach out to wider audiences and ensure that capacity-building activities are providing the same level of preparedness to attendees. Ms Ikeda-Larhed highlighted that there might be some specific areas for potential collaboration based on a pragmatic approach: the Board could contribute peer review of course contents and materials, and provide advice as to where the Division could enhance education and outreach elements. Furthermore, Ms Ikeda-Larhed suggested that the Board contribute by making these materials more available among civil society, academia, youth, and the like. The Board assured her that it stands ready to cooperate with the Division and provide its expert advice on educational resources and methodologies in international training and activities as required.
- 16.2 Ms Ikeda-Larhed further mentioned that the International Cooperation and Assistance Division is looking to strengthen its regional and subregional approach, for which the ABEO's advice would be very useful. She asked if, for example, there is any possibility for ABEO members to help the Secretariat advocate the importance of the Convention in each region. Ms Ikeda-Larhed highlighted that raising awareness through education and outreach will meaningfully contribute to preventing the re-emergence of chemical weapons.
- 16.3 In the subsequent exchange of views, the Board noted that in its deliberations, a reference to the role of National Authorities was mentioned regarding the dissemination of educational materials and courses. It was noted that more can be done with the network of National Authorities to develop a network of academic institutions that the OPCW can work with. The Board commented that it could sensitise National Authorities to work with think tanks, civil society, and academia. Regarding the e-learning content developed by the International Cooperation and Assistance Division, the Board expressed its willingness to contribute to peer review and provide its expert advice. Furthermore, the Board mentioned that it is preparing an inventory of international organisations that have synergies with the OPCW's mandate, and that it will share this inventory, among other things, with the Division Director. On the role of the ChemTech Centre, the Board assured Ms Ikeda-Larhed that it stands ready to contribute to promote the ChemTech Centre, that it is preparing a blue book with a register of proposed institutions and individuals that can promote its work, and that the expertise of the Board is available to contribute to the Division's activities at the ChemTech Centre and elsewhere. Ms Ikeda-Larhed told the Board that youth and

women chemists are target audiences of increasing importance to the Division and asked the Board to contribute to the Education Training Programme for Youth on Peaceful Uses of Chemistry, which will be held in Rio de Janeiro from 2 to 5 October 2023. The Board assured the Division Director that it stands ready to contribute based on the areas of expertise required for this important training programme.

17. AGENDA ITEM SEVENTEEN – Road map to developing educational methodologies, Professor Maria Espona

- 17.1 Professor Maria Espona, a professor and project manager with the European Union's Targeted Initiative on Export Control of Dual-Use Materials and Technologies in Central Asia through the International Science and Technology Centre and the Science and Technology Centre in Ukraine, respectively, shared her experience within the framework of this programme and provided updated information on how to best develop educational methodologies and strategies, while taking into account the needs of different regions. Professor Espona referred to the design of the educational programme where it is important to consider how the educational system works in a given country. She added that the identification of professors and the provision of adequate training to them, among other learning strategies, is essential. Furthermore, she highlighted the stage devoted to the development of syllabi and course materials, as well as the importance of attracting students to the field of export controls and CBRN,⁴ which is not always easy. To provide some incentives, scholarships are sometimes provided to attract students to an educational programme. Professor Espona explained that students are encouraged to do research, collaborate among themselves, and give presentations at conferences, among other activities. In the long term, the goal is to create regional ownership and have an impact. Sustainability is of the utmost importance in this regard. With regard to responsible science, Professor Espona highlighted the importance of values and ethical standards in education on CBRN, export control, and dual use. She further added that engaging relevant universities helps generate programme sustainability. One conclusion is that education and training complement each other. She added that with these considerations in mind, and after making an accurate diagnosis and interacting with local authorities, it will be possible to design a plan that fits a region's needs. She also referred to the possibility of working with professional academies (such as police and firefighters) and other capacity-building institutions (such as chemical security and standards organisations, among others) to build tailor-made educational programmes for them.
- 17.2 In the subsequent discussion with the Board, the importance of combining both training and education was highlighted as a current methodology, and the Board touched upon important challenges such as connecting with university authorities to institutionalise programmes and attract students to study non-proliferation and disarmament issues. The Board highlighted the need for the Secretariat to have a glossary of terms in all the OPCW's official languages.

⁴ CBRN: chemical, biological, radiological, and nuclear.

18. AGENDA ITEM EIGHTEEN – Future priorities of the OPCW and influence on the ABEO's work

- 18.1 The Board emphasised that with the completion of the destruction of all declared chemical weapons and an international context characterised by its complexity and rapid evolution, the focus on the prevention of the re-emergence of chemical weapons will increase, which will also have an impact on the interpretation of the mandated tasks of the Board. The Board needs to adapt to this context and work while bearing in mind the Organisation's future challenges and priorities, and while making full use of its expertise and reach to fulfil its role in an effective and sustainable manner.
- 18.2 The decision by the Board to consider the ethical perspectives of the impact of scientific and technological developments on the implementation of the Convention is in line with the evolution of advances and the need to instil a culture of the responsible use of knowledge for the benefit of humankind.
- 18.3 The Chairperson of the Board mentioned the Organisation's medium-term priorities as highlighted by the Director-General in the lecture at the International Affairs and Foreign Policy Institute (INCIPE) earlier this year and recommended that Board members view it again. The Board should play an active role in strengthening the norm against the use of chemical weapons and foster the engagement of youth in chemical disarmament.

19. AGENDA ITEM NINETEEN – Development of academic partnerships and networks with research institutions to promote the ChemTech Centre

- 19.1 The Board congratulated the Director-General and the Secretariat on the equipment at the OPCW Laboratory and the design of the ChemTech Centre. The ABEO members appreciated their visit to the ChemTech Centre and the comprehensive briefings provided by Mr Jakub Milczarek, Senior Analytical Chemist at the OPCW Laboratory, and Mr Tamás Eles, Head of Logistics, which helped the Board understand the possibilities for educational programmes and training, as well as the capacity of the ChemTech Centre. Regarding future activities, the Board needs more details about the next series of activities planned at the ChemTech Centre in order to make more effective contributions to them.
- 19.2 The Board agreed to prepare a blue book register of individuals, research centres, and other academic institutions that can promote the ChemTech Centre's activities. The members of the Board mentioned a possible strategy of selecting universities in each region that could act as a lever for other institutions in the region. The Board agreed that more consideration should be given to the strategic objectives to be achieved with the activities and educational programmes at the ChemTech Centre in order to better identify institutions and individuals that can advocate its activities.
- 19.3 The Board also requested more detailed feedback on what the Secretariat needs in terms of the ABEO's expertise and the contribution it is expected to make. If there is not yet any outreach material to be distributed among international organisations in the field of security, the chemical industry, and researchers, the Board agreed to recommend that the Secretariat have an outreach brochure or similar material for distribution.

20. AGENDA ITEM TWENTY – Topics identified for further consideration and suggested dates for the Sixteenth Session of the Board

- 20.1 The Board identified the following topics for further consideration at its Sixteenth Session: an ethical perspective of the impact of scientific and technological advances on the implementation of the Convention, with a particular focus on AI; a blue book register of individuals and institutions that can promote the ChemTech Centre; an update of its strategic plan, including a status update on the OPCW's digital strategy; and, a follow-up on the Board's collaboration and work with the International Cooperation and Assistance Division and synergies with other international organisations.
- 20.2 The dates for the Sixteenth Session of the Board would be set up once the availability of rooms is confirmed. The Secretary of the Board agreed to e-mail two alternative dates for the session, most likely to be held in April 2024.

21. AGENDA ITEM TWENTY-ONE – Report on the intersessional activities of Board members

- 21.1 Prof Magda Bauta Solés participated in the general debate of the Fifth Review Conference on behalf of the Board and delivered a statement on the ABEO's work and future priorities. She also shared a talk with Board member Dr Richard Guthrie and former ABEO member Dr Jean Pascal Zanders at the side event on the ABEO's activities and future areas of work, held on 15 May 2023 during the Fifth Review Conference.
- 21.2 Prof González gave two lectures during the intersessional period: "The Thirtieth Anniversary of the Chemical Weapons Convention: Challenges and Possibilities", as part of the seminars of the Institute of Physicochemistry of Materials, Environment and Energy (INQUIMAE) (Department of Inorganic and Analytical Chemistry and Physicochemistry) in April 2023, and "Dual use of scientific knowledge, a case study: The Weapons Convention Chemistry", as part of the Colloquia of the Department of Physics in May 2023. Both events were held at the Faculty of Exact and Natural Sciences of the University of Buenos Aires.
- 21.3 Dr Ladislava Navrátilová delivered a presentation on "Operational training to strengthen chemical emergency response" at the international CBRNe Summit Europe conference in Lisbon, Portugal, in March 2023. She also provided support to the Assistance and Protection Branch of the International Cooperation and Assistance Division in the roles of course leader, coordinator, and lecturer for the international course for incident commanders, which was held in the Czech Republic in May 2023.
- 21.4 Dr Nezha Barakate accompanied OPCW experts on an inspection mission at the "Sources Chimiques" industrial site from 21 to 24 May 2023 in Nouaceur, Morocco. She organised training sessions on chemical safety and security for 60 researchers from different Moroccan universities, which included an introduction to the OPCW and its new e-learning platform, on 9 and 10 May 2023 at the Institut National d'Hygiène in Rabat. Furthermore, she organised additional training sessions on chromatographic techniques of chemical analysis for 40 researchers from different Moroccan universities on 17 and 18 May 2023, also at the Institut National d'Hygiène in Rabat.

- 21.5 Prof Ihedioha was one of the coordinators of the IUPAC 2023 Global Women's Breakfast meeting on "Breaking Barriers in Sciences" on 14 February 2023 at the University of Nigeria, Nsukka, which was organised by Women in Chemistry of the Chemical Society of Nigeria, Enugu State Chapter. She also participated in the Women in Chemistry Fifth Training Workshop, organised online by the Chemical Society of Nigeria with the theme "Empowering female chemists with smarter techniques in a digital world" (10 and 11 May 2023). She also facilitated a virtual visit of Women in Chemistry in Nigeria under the themes "Our work and opportunities for female chemists" and "Talent acquisition at the OPCW" on each day of the workshop.
- 21.6 Mr Shahab Ud Din remained involved in the national activities of education and outreach of the National Authority of Pakistan to the Convention. He served as a resource for the "Awareness course on the Chemical Weapons Convention, its implementation and introduction to OPCW inspection procedures" (13 – 17 February 2023). Mr Shahab Ud Din also delivered the following lectures: "Procedures of OPCW industrial inspections for smooth conduct of future inspections in Pakistan" and "Chem-bio incident management course for response planners" (6 – 10 March 2023), which was devoted to the topic of response planning in case of a chemical incident. He also participated in the coordinating team of the decontamination operations exercise within the framework of the course on decontamination operations, which was held from 22 to 26 May 2023, and delivered a lecture on "Requirements of an effective response and the challenges involved in consequence management".
- 21.7 Prof Zhou Ying was one of the coordinators of the symposium on "Enhancing the cultivation of talents for implementation of the Convention", which was organised by the Chinese National Expert Committee for the Implementation of the Convention at the Zhejiang University of Technology, in Hangzhou, China, on 10 March 2023. In April 2023, Prof Zhou Ying mentored undergraduate students from the Zhejiang University of Technology to design seven posters on the themes of "Working together for a world free of chemical weapons" and "Achievements in the field of chemistry should be used exclusively for the benefit of mankind" in response to a call for posters by the Chinese National Authority's Office for the Implementation of the Convention to commemorate the thirtieth anniversary of the signature of the Convention and the Eighth International Day for the Foundation of the Organisation for the Prohibition of Chemical Weapons (OPCW Day).
- 21.8 Prof Vicente Garrido Rebolledo was a guest speaker in several courses and seminars on the nuclear, biological, and chemical threat and the proliferation of weapons of mass destruction at the Superior School of the Armed Forces of the Spanish Ministry of Defence (higher intelligence and national defence courses); Senior Course 142 at the NATO Defense College in Rome (for army officers and diplomats); the master's degree programme in international relations at the University of the Basque Country, in Bilbao; and the master's degree programme in diplomacy and international relations at the Spanish Diplomatic School. He also organised an online event with the participation of the OPCW Secretariat Director-General, H. E. Ambassador Fernando Arias, on the theme "The OPCW: Disarmament and the impact of progress in science and technology" at INCIPE in March 2023. In addition, he chaired a Spanish inter-ministerial working group, established by the Spanish Institute for Strategic Studies under the Ministry of Defence, on the chemical threat.

- 21.9 Professor Supawan Tantayanon participated in the review of annual declarations of past activities for 2022 and the National Protective Programme for 2023 on behalf of the Dean of the Faculty of Science, Chulalongkorn University, as a National Board member for all practices corresponding to the Convention. She was a keynote speaker at the symposium entitled “The role of science academies towards the future of basic sciences”, held on 28 and 29 April 2023 in Istanbul, Türkiye. In her lecture on “Inclusive and equitable quality education in basic sciences in secondary schools in Asia: Small-scale chemistry experimentation”, she talked about her promotion of chemical safety and security across Asia. She also participated in the planning and preparation of small-scale chemistry workshops in 2023 for high school teachers in Thailand, which were implemented online for 150 teachers on 20 and 21 May 2023.

22. AGENDA ITEM TWENTY-TWO – Any other business

- 22.1 The Board emphasised the need to find ways to maintain its pace and advance its work in order to achieve concrete results. In this regard, it added that online consultations cannot replace in-person meetings, which allow enough time to work without being affected by time differences. Online meetings should be used as an option to further in-person contacts. Therefore, the Board expressed the need to keep the same number of in-person meetings next year, confirming that it will be flexible about holding meetings in periods when flights are less expensive and costs can be reduced, and to invite external speakers to participate online to keep expenses as low as possible.
- 22.2 The Secretary of the Board mentioned that budget consultations with States Parties are expected to be held in September and the first days of October 2023, and that the Secretariat will fulfil its mandated activities following the decision of States Parties on the Programme and Budget for 2024–2025 at the Twenty-Eighth Session of the Conference. The Secretary added that she appreciates the flexibility shown by the Board.
- 22.3 The Board discussed the need to appoint new ABEO observers to the SAB due to different time zones.
- 22.4 Professor Tantayanon commented that she is the Chairperson of the 27th IUPAC International Conference on Chemistry Education, which will be held in Pattaya, Thailand, from 15 to 19 July 2024. Professor Tantayanon mentioned that she will be in touch with the International Cooperation and Assistance Division to explore OPCW sponsorship opportunities and that her intention is to get the Board involved in this important conference. The Board expressed its willingness to contribute to this event.
- 22.5 Board members asked about the expected timelines for the next call for nominations for members of the Board to serve in the 2025–2027 term. The Secretary of the Board informed ABEO members that the corresponding Note is expected to be issued in 2024.

23. AGENDA ITEM TWENTY-THREE – Summary, conclusions, and closure of the meeting

- 23.1 The Board concluded by noting the importance of considering the current international context, as well as the completion of the destruction of all declared chemical weapons in the fulfilment of the OPCW’s mandate. Furthermore, the Board stressed the importance of the ChemTech Centre, which is already operative and will offer unprecedented opportunities for research and training. The Board also underscored the need to receive feedback on what contribution is expected from the Board in promoting the ChemTech Centre.

- 23.2 The Board highlighted the importance of considering the ethical framework in relation to new scientific and technological advances that might have an impact on the implementation of the Convention and collaborating with the SAB in this regard.
- 23.3 Furthermore, the development of networks with academic institutions will be an area of focus for the Board, especially in terms of the dissemination of educational materials in all regions. In this regard, coordination with other international organisations will be considered by the Board. The Board welcomed the offer by the Director of the International Cooperation and Assistance Division to work on the youth educational programme to be held in Rio de Janeiro in October 2023 and expressed its willingness to contribute its expertise in other areas.
- 23.4 Following the resumption of briefings to the States Parties after their suspension during the pandemic, the Board acknowledged that the need for a more structured dialogue, stressed by several States Parties, would benefit education and outreach activities and foster engagement in the field of chemical disarmament.
- 23.5 The Chairperson of the Board closed the meeting on 22 June 2023 at 16:20.

Annex: List of Participants at the Fifteenth Session of the Advisory Board on Education and Outreach

Annex**LIST OF PARTICIPANTS AT THE FIFTEENTH SESSION OF THE ADVISORY BOARD ON EDUCATION AND OUTREACH**

1.	Prof Magda Bauta Solés
2.	Prof Graciela González
3.	Dr Ladislava Navrátilová
4.	Prof Christopher Daase
5.	Prof Rocael Hernández Rizzardini
6.	Prof Mohd Jamil Maah
7.	Dr Nezha Barakate
8.	Prof Janefrances Ngozi Ihedioha
9.	Mr Shahab Ud Din
10.	Prof Zhou Ying
11.	Prof Vicente Garrido Rebolledo
12.	Prof Supawan Tantayanon
13.	Mr William Garcia (observer: European Chemical Industry Council)
14.	Dr Matteo Guidotti (observer: Scientific Advisory Board)
15.	Ms Rebecca Jovin, Chief, UNODA Office, Vienna
16.	Prof Maria Espona, Project Manager with the European Union's Targeted Initiative on Export Control of Dual-Use Materials and Technologies in Central Asia
17.	Ms Kazumi Ikeda-Larhed, Director, International Cooperation and Assistance Division
18.	Mr Marcin Wroblewski, Director, Office of Strategy and Policy
19.	Ms Elisabeth Waechter, OPCW Spokesperson and Head, Public Affairs Branch
20.	Mr Tamás Eles, Head of Logistics (visit to the ChemTech Centre)
21.	Mr Jakub Milczarek, Senior Analytical Chemist, OPCW Laboratory (visit to the ChemTech Centre)
22.	Ms Luisa Sánchez-Bravo, ABEO Secretary

Apologies: Dr Craig Cormick
Dr Jason Openo
Dr Richard Guthrie
Prof Marietjie Potgieter (observer: IUPAC)