



OPCW

**Advisory Board on Education and
Outreach**

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**REPORT OF THE SIXTEENTH 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, Prof. Magda Bauta Solés, opened the Sixteenth Session of the Advisory Board on Education and Outreach (ABEO) on 16 April 2024 at 10:00. She welcomed all Board members and observers to this session in The Hague and thanked the Deputy Director-General of the OPCW, Ambassador Odette Melono, for delivering opening remarks on behalf of the Director-General.
 - 1.2 The Deputy Director-General welcomed the ABEO members and observers to the Sixteenth Session of the Board and thanked Ms Jayashri Wyatt from the Department of Global Communications of the United Nations in New York, Ms Alina Josan and Ms Anna Grigoryan from the International Atomic Energy Agency (IAEA), and Mr William Yotive from the World Federation of United Nations Associations (WFUNA) for participating in this session. She also extended her gratitude to Prof. Lijun Shang, Prof. Malcolm Dando, Prof. María Espona, and Dr Jean Pascal Zanders for their participation.
 - 1.3 The Deputy Director-General, noting the completion of destruction of all declared chemical weapons in July 2023, emphasised the key role that the Board continues to play with regard to the Organisation's intensified focus on preventing the re-emergence of chemical weapons, as highlighted by States Parties in the preparatory process for the Fifth Special Session of the Conference of the States Parties to Review the Operation of the Chemical Weapons Convention (the Fifth Review Conference).
 - 1.4 In addition, the Deputy Director-General highlighted the importance of international cooperation support to States Parties, including in national implementation and assistance and protection in cases of chemical incidents.
 - 1.5 The Deputy Director-General informed the Board of the ongoing monitoring by the Technical Secretariat (the Secretariat) of the impact of scientific and technological developments, including artificial intelligence (AI), on the implementation of the Chemical Weapons Convention (the Convention). Noting the benefits and opportunities of AI, as well as its potential risks to the Convention and the OPCW's work, she informed the Board that the Director-General would soon hold a meeting with experts to discuss the scientific aspects relevant to AI, with a view to providing States Parties with a paper outlining the main scientific considerations and findings to assist further decision-making.



- 1.6 The Deputy Director-General recalled the need for the Organisation to demonstrate its resilience and relevance in order to adapt to evolving circumstances, and welcomed the Board's update of its Strategic Plan (Annex 2 to ABEO-10/1, dated 10 February 2021), underlining the criticality of identifying the best strategies to reach out to external target audiences and diverse stakeholders such as international organisations, academic institutions, the scientific community, policymakers, and the chemical industry. She stressed the key role played by the OPCW Centre for Chemistry and Technology (ChemTech Centre), which had been hosting inspectorate training, laboratory exercises, proficiency testing, and international cooperation and assistance activities, while enhancing the global network of designated laboratories and serving as a knowledge repository on chemical weapons and a hub for scientific exchange. In this regard, the Deputy Director-General expressed appreciation for the Board's ongoing work on the "blue book" of individuals to promote activities at the ChemTech Centre.
- 1.7 The Deputy Director-General also commended the Board for preparing a list of academic institutions with courses on the Convention and the OPCW, the academic advice it had provided on the course on the Convention and peaceful uses of chemistry offered by the National Autonomous University of Mexico, and for its ongoing work to develop a general syllabus. In addition, the Deputy Director-General underlined the importance of the ongoing collaboration between the Board and the International Cooperation and Assistance Division (ICA) on the engagement of youth in disarmament and non-proliferation matters, highlighting the participation of the ABEO's Chairperson at the training event for youth held in Rio de Janeiro in 2024 and commending the Board's contribution to digital learning opportunities and the Secretariat's e-learning offering.
- 1.8 The Deputy Director-General stressed the importance of enacting national legislation for the effective implementation of the Convention, and underlined the Board's role in assisting, upon the request of States Parties, National Authorities through the provision of tailor-made webinars, academic advice, and strategies to connect with critical stakeholders involved in the national legislative process.
- 1.9 The Chairperson thanked the Deputy Director-General for closely following the Board's work as it enters a new phase, and underlined the importance of educational initiatives and outreach activities that engage wider audiences to prevent the re-emergence of chemical weapons, as well as the role of the ChemTech Centre in this area. The Chairperson also highlighted the successful collaboration with the ICA, in particular regarding youth engagement, and noted that the Board's future recommendations would be adapted to the evolving context in the post-destruction phase.
- 1.10 The Board expressed its appreciation for the Deputy Director-General's remarks and reflections on priority areas of the work of the Board.

2. AGENDA ITEM TWO – Adoption of the agenda and appointment of a drafting committee

2.1 The ABEO adopted the following agenda for its Sixteenth 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. Adaptation of the Strategic Plan of the ABEO: Short-term, mid-term and long-term goals in the Board's work – Discussion among Board members
4. Sustainability of educational programmes and strategies for better outreach in the new context of blended learning methodologies. Lessons learned for the continuity and adaptation of the Strategic Plan – Dr Jean Pascal Zanders
5. General updates on developments at the OPCW since the last session of the Board, with a special focus on educational projects – Secretary to the ABEO
6. Model United Nations and lessons learned to effectively reach out to youth – Mr William Yotive, Model United Nations Coordinator, World Federation of United Nations Associations
7. African educational programmes and interregional projects at the IAEA – Ms Anna Grigoryan, Programme Management Officer, IAEA Department of Technical Cooperation, Division for Africa
8. Dissemination of educational resources and development of a biosecurity network – Malcolm Dando, Emeritus Professor at the Faculty of Management, Law and Social Sciences, University of Bradford and Lijun Shang, Professor of Biomedical Sciences at the London Metropolitan University
9. The new Marie Skłodowska-Curie fellowships at the IAEA – Ms Alina Josan, Partnership and Resource Mobilization Coordinator, IAEA Department of Nuclear Energy
10. Contribution of the ABEO to the National Autonomous University of Mexico course and educational projects in other regions – Prof. Magda Bauta Solés
11. East African educational programmes, interregional projects, and CHEMEX Africa – Dr Ladislava Navrátilová
12. Update on SAB work – Dr Matteo Guidotti, SAB observer to the ABEO
13. Appointment of new ABEO observers to the SAB
14. United Nations Academic Impact, challenges and opportunities of working with a network of academic institutions – Ms Jayashri Wyatt, Chief of the Education Outreach Section at the Outreach Division of the United Nations Department of Global Communications, United Nations New York
15. Availability of new educational resources – Prof. Vicente Garrido Rebolledo
16. Status update on the OPCW's digital strategy – Prof. Rocael Hernández Rizzardini and Dr Jason Openo
17. Ethical perspective of the impact of scientific and technological advances on the implementation of the Convention. Follow-up – Prof. Graciela González

18. Bridging the gap: Empowering youth for advancing peaceful uses of chemistry – Mr Saurabh Bandhari, Programme Officer in the International Cooperation Branch, International Cooperation and Assistance Division
 19. Overview of National Authorities’ activities. Engagement and discussion on possible avenues of cooperation with the Board – Ms Elena Gjoreska, Programme Officer in the Implementation Support Branch, International Cooperation and Assistance Division
 20. Lessons learned from the Central Asian network of academic institutions within the framework of implementation of the “European Union Targeted Initiatives on export controls for CBRN-relevant dual-use technologies” in Central Asia – Prof. María Espona
 21. Network of academic institutions: Inventory of universities with courses on the OPCW and/or the Convention. Role of the ChemTech Centre as a centre of excellence – Prof. Magda Bauta Solés
 22. Update on the ICCE 2024 Conference – Prof. Supawan Tantayanon
 23. Update on the blue book register of individuals and institutions that can promote the ChemTech Centre – Prof. Rocael Hernández Rizzardini
 24. Topics identified for further consideration at the Seventeenth Session of the ABEO
 25. Report on intersessional activities of Board members
 26. Any other business
 27. Wrap-up and main conclusions
 28. Closure of the meeting
- 2.2 The Board appointed Prof. Magda Bauta Solés, Mr Shahab Ud Din, Prof. Jamil Maah, and Dr Richard Guthrie as drafting committee members.
- 3. AGENDA ITEM THREE – Adaptation of the Strategic Plan of the ABEO: Short-term, mid-term, and long-term goals in the Board’s work – Discussion among Board members**
- 3.1 The Chairperson of the ABEO commented on the importance of the adaptation of the Strategic Plan of the ABEO. The importance of assessing the current context and of aligning the Strategic Plan priorities with the Medium-Term Plan of the OPCW 2024 – 2028 (EC-104/S/1* C-28/S/1, dated 14 August 2023) and the Programme and Budget of the OPCW for 2024 – 2025 (C-28/DEC.9, dated 29 November 2023).
- 3.2 In the context of the current Strategic Plan of the ABEO, the Chairperson addressed the need for a critical reflection on existing strategic priorities to reconsider whether prior objectives were still certain, relevant, realistic, significant, and achievable. The ABEO members were encouraged to reflect on the current strategic priorities through a “SMART” framework—by examining whether each objective was specific, measurable, achievable, relevant, and timely—bearing in mind that prioritisation was key given the limited available resources.

- 3.3 The Chairperson highlighted that strategic priorities could be distinguished into short-, mid-, and long-term goals. This was to assess the duration, resources, and effort required to achieve each strategic objective. Prioritisation of strategic objectives and the necessary allocation of resources to each needed to be realised to achieve a realistic implementation.
- 3.4 The Chairperson of the Board further added, as the Deputy Director-General had commented in her opening remarks, that it had become increasingly important to have quality contributions from the Board in the field of education and outreach to multiply the relevance of the OPCW's work. An important aspect was being able to measure the usefulness of the activities suggested and their impact.
- 3.5 Important areas of the Board's ongoing work were highlighted. These included synergies with capacity-building activities, the blue book to promote the ChemTech Centre as a centre of excellence, including among other things the suggestion of educational programmes to be delivered at the Centre, the identification of strategic partners, the development of a stable, growing, and sustained working relationship with National Authorities, and the development of a core syllabus to provide support to universities that wish to have courses on the Convention. This core syllabus would be based on the National Autonomous University of Mexico syllabus and could be posted on the OPCW website to motivate academic institutions to offer courses on the OPCW and the Convention. In reference to the evaluation of knowledge acquired, the ABEO Chairperson mentioned that, in the interest of sustainability, the ICA was testing the knowledge of participants both before and after events or trainings take place.
- 3.6 The discussion among Board members also focused on the division of the Board's current tasks among three different working groups: Working Group 1 (update of the Strategic Plan); Working Group 2 (inventory of academic institutions and core syllabus to encourage universities to offer courses on the OPCW); and Working Group 3 (ChemTech Centre blue book to promote the Centre through academic programmes or fellowships).
- 3.7 The results of Working Group 1 (update of the Strategic Plan) would have an impact on Working Group 2 (inventory of academic institutions) and Working Group 3 (ChemTech Centre). The Board commented that the ChemTech Centre was an excellent tool to host educational activities and programmes to foster scientific education and project the relevance of the OPCW's work, taking advantage of the momentum as objectives were being defined. The Board agreed that the identification of universities with courses on the Convention was key to identifying a universe that could be approached to multiply, among others, the OPCW's outreach.
- 3.8 For each working group, it was agreed to meet during the intersessional period to exchange ideas on the subject matter and to identify a coordinator of the work for each one, with the goal of presenting concrete results reflected in living documents at the Seventeenth Session of the ABEO.

4. AGENDA ITEM FOUR – Sustainability of educational programmes and strategies for better outreach in the new context of blended learning methodologies. Lessons learned for the continuity and adaptation of the Strategic Plan – Dr Jean Pascal Zanders

- 4.1 Dr Jean Pascal Zanders, former ABEO member, began by referring to the six-year project funded by the European Commission that consisted in establishing a full credit master's programme on chemical, biological, radiological, and nuclear (CBRN) dual-use technology. More specifically, he underscored how the outreach and network building components of this programme were essential. He referred to the ABEO report on educational strategies (ABEO-5/1, dated 12 February 2018) that had been of great influence to the project. The European Union Targeted Initiative had been implemented through two regional centres, the International Science and Technology Center in Kazakhstan and the Science and Technology Center in Ukraine. The success in establishing the master's programme depended on various aspects. In all of the countries where the centres were active, the educational authorities had officially accredited these programmes at the respective universities. Since 31 December 2023 the programme had been completed. Local ownership had translated into continuation of these educational initiatives and the ability of universities to raise their own funds, no longer dependent on European Union funds. As key objectives, Dr Zanders highlighted multiplication and expansion based upon the overall organising theme "building a culture of responsibility". Engagement was a key element in this initiative, particularly that of different stakeholders and key decision-makers in universities and government. As an example, important questions were "why is this course important to you?" and "how can you contribute to this?".
- 4.2 The outreach activities had been run in parallel to the development of the educational package, which had been tested in several guest lectures. Part of the necessary activities included identifying professors to teach the programme contents. Dr Zanders commented that the outreach process had been a major educational activity. Educational authorities, decision-makers, industry associations, professional associations, and scientific communities, among other stakeholders, had been involved. Many of them were not aware of their own contribution to the prevention of the re-emergence of chemical weapons.
- 4.3 Dr Zanders referred to a number of challenges, including bureaucratic resistance, and to the best strategies for universities to reach out to other stakeholder communities. One important aspect was the engagement of industry and professional associations, because when such associations indicated to universities that they needed certain qualifications, the universities would be stronger advocates for approving the master's credits. Regarding the requirement to have a certain number of students in the master's programme, outreach efforts had targeted them and, at the same time, offering subsidies to students proved an effective strategy to ensure wide participation: for example, 100% of students had been subsidised during the first year, 50% during the second year, and 25% during the third year. Over 300 students enrolled for the programme in universities. Another important element underlined by Dr Zanders was that the local social entrepreneur needed to build educational and research networks: there was a need to find a person willing to fulfil the role of social entrepreneurship. That person needed to perform outreach work with other institutions throughout the country.

- 4.4 Dr Zanders highlighted the requirements and different stages for network building, which was the stage at which the ABEO was currently working. Five stages towards programme ownership and sustainability had been identified: programme preparation, programme support, setting future priorities, course sustainability, and expansion of research and teaching capabilities. People needed to identify their needs based on local features.
- 4.5 As a main conclusion, Dr Zanders recommended that there needed to be clarity of objectives, that the foundations for strategic objectives needed to be laid and objectives clarified, and that targets needed to evolve to the project sponsors. One important lesson learned was that project funders needed to be engaged in a similar way. Sustainability was key to ensuring a long-lasting impact of acquired knowledge, especially when professors in universities retired or changed university, for example. The same applied to the OPCW staff and leadership who separate from the Organisation after reaching their tenure, and to the staff from delegations of the States Parties.
- 4.6 In the subsequent discussion with the Board, different aspects were highlighted, such as the evaluation against the original goals of the project, the criteria used to select the centres, the different approaches between targeting a public university and a for-profit academic institution, which required a more complex approach, how to measure the success of the project, and how to choose the best university to implement the project.
- 5. AGENDA ITEM FIVE – General updates on developments at the OPCW since the last session of the Board, with a special focus on educational projects – Secretary to the ABEO**
- 5.1 The Secretary to the ABEO updated the Board on recent developments at the OPCW, focusing on educational projects. She referred to the Moodle-based new Learning Management System (LMS) that the Secretariat had acquired thanks to European Union funds, and informed the Board that the ICA had been entrusted with the overall governance of the LMS, assisted by an ad hoc cross-divisional working group. This centralised governance would ensure alignment with strategic objectives and overall coherence of the criteria under which e-learning resources were being developed.
- 5.2 The Secretary added that the first set of three introductory modules for universities was accessible in the new LMS and that the ICA had developed nine general e-learning modules and six e-learning modules for customs officials, accessible to National Authorities and the general public. In addition, several e-learning modules had been developed as part of the training cycles in assistance and protection, which were accessible to first responders.
- 5.3 The ABEO Secretary updated the Board on her attendance at the “For More Women in Nuclear” event organised by the IAEA in Vienna on 7 and 8 March 2024, and the policy workshop held in London on 16 March 2024 to foster a collaborative network promoting a culture of responsible uses in science.
- 5.4 The ABEO Chairperson highlighted that the roughly 500 persons had been trained thanks to the OPCW Associate Programme and recommended that the Board reflect about the opportunities provided by the ChemTech Centre to host similar fellowships, as appropriate.
- 5.5 The Board thanked the ABEO Secretary for her update.

6. AGENDA ITEM SIX – Model United Nations and lessons learned to effectively reach out to youth – Mr William Yotive, Model United Nations Coordinator, World Federation of United Nations Associations

- 6.1 Mr William Yotive, the Model United Nations Coordinator at WFUNA, gave the Board an overview of Model United Nations.¹ Model United Nations simulations could happen at very different scales and at all educational levels, from small local simulations to large international Model United Nations conferences, involving students of all ages from elementary all the way up to graduate school. Mr Yotive commented that Model United Nations had been taking place for over 80 years, since 1943.
- 6.2 Mr Yotive highlighted that approximately 300,000 students participated in over a thousand Model United Nations simulations or clubs annually. Despite the differences between Model United Nations and the actual United Nations, some of the benefits of Model United Nations activities included building leadership skills and inspiring young people to become more involved in the work of the United Nations or to even seek a career within the United Nations system.
- 6.3 Mr Yotive added that from the very start, Model United Nations never accurately represented the way the United Nations functioned and had not kept up with how it had changed over time, since Model United Nations used parliamentary rules of procedure which were not used anywhere in the United Nations system. He commented that one of the challenges this pedagogical tool was facing was that it was drifting further and further away from how the United Nations actually worked. Only in 2009, at the Palais des Nations in Geneva, Switzerland, did the United Nations itself become directly involved in organising a Model United Nations conference. This was followed by other conferences in 2010 and 2011, in Kuala Lumpur, Malaysia and Incheon, the Republic of Korea, respectively. From 2012 onwards there was a shift instead towards organising workshops for interested Model United Nations organisers to show them how to organise a more authentic simulation of United Nations meetings.
- 6.4 In contrast to traditional Model United Nations, the conferences organised by WFUNA were differentiated by three main points: they aimed to adopt outcome documents by consensus instead of exclusively by voting; they included different kinds of outcome documents, not just resolutions; and they took into consideration the variations in rules of procedure used by each entity, creating a more authentic environment for the simulation of each United Nations body.
- 6.5 Subsequently, Mr Yotive referred to a historic moment for Model United Nations when, on 1 September 2023, the United Nations General Assembly adopted the first ever resolution on Model United Nations in its history (A/RES/77/336), a resolution that recognised the contribution of Model United Nations to diplomacy and international cooperation and encouraged Member States, the United Nations system, civil society, and all relevant stakeholders to support and promote Model United Nations and to organise Model United Nations simulations “as a means of engaging youth with multilateralism and international cooperation, in line with the United Nations core principles and values”.

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Model United Nations is a simulation of United Nations meetings, where the participants assume the role of ambassadors, ministers, or secretariat staff, in any of its different bodies like the United Nations General Assembly, Security Council, or Economic and Social Council, among others.

- 6.6 Mr Yotive further added that Model United Nations were one of the best educational activities to engage children and youth in the work of United Nations, that the United Nations needed to foster their realisation to further develop a spirit of multilateralism, and lastly, that the emphasis should be on incorporating procedures that teach students about the collaborative and inclusive spirit of negotiation at the United Nations. Furthermore, Mr Yotive mentioned the shift from in-person to online simulations during the COVID-19 pandemic, which had allowed students from the Global South to participate more easily in these activities, which was often more difficult given the financial and other barriers that occurred when conferences were held in person. The topic of exploring hybrid environments was briefly mentioned along with the current challenges, as well as the need to further reflect on overcoming these.
- 6.7 In his closing remarks, Mr Yotive mentioned some scientific studies on Model United Nations which illustrated the following positive impacts on the academic abilities of students who had participated in Model United Nations as compared to traditional classroom environments: a better ability to retain information, higher graduation rates, critical thinking, teamwork, problem solving, effective communication, creativity, and development of important transferable skills such as global knowledge and attitudes towards other human beings.
- 6.8 The ABEO Chairperson commented that this was not the first time that the Board had discussed Model United Nations, since they were a powerful tool to engage youth. In the subsequent discussion with the Board, it was commented that Model United Nations was indeed a resource that generated opportunities for networking and career development, and that it also had a positive impact on gender balance, since Model United Nations could be easily adapted and provide young women with opportunities to develop their skills in decision-making. Other aspects that were discussed included the need to engage more students from the Global South, with a particular focus on selection processes and funding opportunities. It was suggested that the Board maintain contact with the United Nations Institute for Disarmament Research (UNIDIR) regarding any initiative of this kind in order to take advantage of its experience in this area, especially since this autonomous institution within the United Nations organised, at the Palais des Nations together with the Geneva Branch of the United Nations Office for Disarmament Affairs (UNODA), the “Disarmament Orientation Course” for Geneva-based disarmament diplomats, in which certain simulations also took place.
- 6.9 The Board also enquired about the main aspects to be considered if a Model United Nations simulation were to be adapted to the OPCW context, and about the possibility of including chemical disarmament issues in any of the Model United Nations in The Hague. Mr Yotive explained that, based on his own experience, with the International Labour Organization, Model United Nations were adaptable to fit the circumstances of the institution that wished to organise a conference. Nonetheless, he stated that more detailed information on the OPCW specifically would be needed in order to make a proper assessment. He added that based on the experience gathered from the Office of the United Nations High Commissioner for Refugees (UNHCR) Model UN Refugee Challenge—fostered by the UNHCR itself—there was a way to introduce topics related to chemical disarmament in order to reach youth.

- 6.10 Mr Yotive noted that apart from the age requirement (14 to 30 years), there were no other requirements for being part of Model United Nations. Regarding funding, Mr Yotive clarified that the United Nations did not have the means to subsidise the participation of students who wanted to participate in Model United Nations and that, as a result, the securing of sources of funding was a constant issue. He further added that these types of conferences were often organised by individuals rather than institutions, requiring a high expenditure for their realisation, but that after the General Assembly's resolution on Model United Nations, it was expected that Member States and civil society would show stronger support for Model United Nations.
- 6.11 Mr Yotive referred to two models that had been successful in making participation more accessible: one in which a German university funded a Lebanese delegation at a recent conference simulation at the World Health Assembly, and a second in which a South African delegation was paired with participants from different socio-economic backgrounds to make it possible for students from lower socio-economic settings to participate in these conferences. This twinning concept was worthy of being explored as an option for future conferences.
- 6.12 Prof. Vicente Garrido Rebolledo informed the Board that at his institution, Rey Juan Carlos University in Madrid, a session devoted to the Convention and chemical disarmament could be organised in March 2025. He offered the Board the possibility of having Ms Lucía Mantecón Díaz, expert in the implementation of Model United Nations at Rey Juan Carlos University, join the next session of the Board to share lessons learned.
- 6.13 The Board agreed to continue analysing the opportunities and challenges in organising a Model United Nations exercise or reaching out to an existing Model United Nations organisation with a view to assessing the feasibility of implementing a model Convention within the OPCW or running a simulation within academic institutions in The Hague.
- 6.14 The Board thanked Mr Yotive for his presentation.
- 7. AGENDA ITEM SEVEN – African educational programmes and interregional projects at the IAEA – Ms Anna Grigoryan, Programme Management Officer, IAEA Department of Technical Cooperation, Division for Africa**
- 7.1 Ms Anna Grigoryan, Programme Management Officer at the IAEA Department of Technical Cooperation, Division for Africa, provided a presentation summarising the technical cooperation programmes using nuclear technologies and techniques between the IAEA and Member States. The main focus of the presentation was on educational programmes, particularly regional and interregional projects between the IAEA and African countries. The IAEA technical programmes were linked to regional and national priorities focusing on the needs of 47 participating African Member States. The IAEA technical cooperation programme contributed directly to nine of the 17 Sustainable Development Goals (SDGs) by helping countries use cutting-edge science with a focus on nuclear and isotopic techniques. In the area of nutrition and health-related SDGs, the work of the programme was relevant to ending hunger and reducing non-communicable diseases by 30% by 2030.

- 7.2 The objective of the IAEA Human Health Programme was to enhance Member States' capabilities in the prevention, diagnosis, and treatment of health problems through the application of nuclear techniques, such as applied radiation biology, nuclear medicine, and diagnostic imaging. Additionally, the programmes focused on nutrition for improved human health, using stable isotopes to combat malnutrition throughout life. Besides technical cooperation programmes, the IAEA supported nutrition and nuclear medicine through coordinated research projects.
- 7.3 Capacity-building, through the contribution of long-term training of radiological specialists through the IAEA Human Health Programme, was a central tenet of the programme. Additionally, the development of unified educational curriculum and long-term fellowships to train nutrition professionals in Africa (host universities for French- and English-speaking countries) had been established to further develop educational capabilities (for example, a new master's degree programme in nutrition with nuclear techniques). Ms Grigoryan recognised the gaps and challenges of medical physics and nuclear medicine in Africa, including the lack of nuclear medicine facilities and the "brain drain" of trained nuclear medical professionals from Africa.
- 7.4 The Board thanked Ms Grigoryan for her comprehensive talk and exchange of views and Ms Grigoryan offered to remain in contact with Board members through the ABEO Secretary for future collaboration.
- 8. AGENDA ITEM EIGHT – Dissemination of educational resources and development of a biosecurity network – Malcolm Dando, Emeritus Professor at the Faculty of Management, Law and Social Sciences, University of Bradford and Lijun Shang, Professor of Biomedical Sciences at the London Metropolitan University**
- 8.1 Prof. Lijun Shang and Prof. Malcolm Dando updated the Board on the International Biological Security Education Network (IBSEN). Prof. Dando referred to a two-decade long interest of a group of professors from Bradford University in ethical codes of conduct, which culminated in the publication of a book by the Royal Society of Chemistry in 2018.² There were three main themes in the book that deserved reflection. First, the Chemical Weapons Convention and the Biological and Toxin Weapons Convention (BTWC) needed to be considered together. Prof. Dando commented that he was well aware that this was not the orthodox policy, but that this approach was based on the convergence of chemistry and biology and technological change. The second relevant theme was that scientific and technological change was critical, and the third referred to the role that civil society could play in strengthening the Convention.
- 8.2 Prof. Shang and Prof. Dando commented that the need for biological security education network was not new, given dual uses and the lack of knowledge of most life scientists in biosecurity. In light of the COVID-19 pandemic and the World Health Organization (WHO) Global Framework of 2022,³ it had become even more apparent that there was a need to educate young scientists worldwide to foster a culture of responsible uses.

² "Preventing Chemical Weapons: Arms Control and Disarmament as the Sciences Converge"; edited by Michael Crowley, Malcolm Dando, and Lijun Shang.

³ In 2022, the Seventy-Fifth World Health Assembly requested the WHO Director-General to develop a framework for achieving well-being, building on the 2030 Agenda for Sustainable Development with its 17 SDGs and to identify, in consultation with Member States, the role that health promotion plays within this.

Following the adoption of the Tianjin Biosecurity Guidelines for Codes of Conduct for Scientists in 2021, the project to build an international biological security education network—IBSEN—started in early 2024, tapping into decades of research in the field. The main administrative steps undertaken at the beginning of the implementation of the IBSEN project were the identification and appointment of a research assistant to assist Prof. Lijun Shang, Director of the Biological Security Research Centre at the London Metropolitan University in February 2024. Afterwards, a very small international oversight board was set up to receive the strategic plan to build, contribute to, and finalise the biosecurity education network.

- 8.3 Prof. Shang and Prof. Dando informed the Board that the IBSEN website had been live since March 2024. This tool helped to engage academic community with policymakers. Another key tool was the IBSEN contact database which currently had 100 contacts, and was divided into four categories: high schools, universities, continuing professional education, and government and international organisations.
- 8.4 A workshop entitled “Toward a collaborative, collective and integrative international CBRN security education: coordination of international policy initiatives on biological security education” had been organised by Prof. Lijun Shang, Director of the Biological Security Research Centre, in London in March 2024, and was held under Chatham House Rules. The workshop, funded through a grant awarded to Prof. Lijun Shang by Research England, Policy Support Fund and the Joseph Rowntree Charitable Trust, gathered international and national experts from academia, relevant international organisations (OPCW, the Biological Weapons Convention-Implementation Support Unit, IAEA, UNIDIR), and civil society. The goal of the workshop was to provide participants with updated information on the implementation of the IBSEN project and to exchange ideas on possible avenues of cooperation regarding dissemination of educational resources worldwide and how to foster a sustainable culture of responsible uses in CBRN.
- 8.5 Prof. Dando and Prof. Shang referred to the strategic plan, which included the activities related to the development of the biosecurity education network, methodologies, and a contacts database with experts interested in biosecurity education in higher education, universities, and continuing professional education in different countries. Moreover, the main educational resource that laid the foundations of the biosecurity education network was the book “Essentials of Biological Security: A Global Perspective”, written by experts⁴ who had devoted decades of research to biological security. Additional resources that would contribute to building the network included cartoons translated into 13 different languages, e-learning modules, and newsletters. The methodologies to effectively disseminate these resources were based on active learning approaches, with a special mention to the team-based learning methodology, using individual tests and group collaboration to teach students.
- 8.6 The main challenges to building an educational network that were identified included the availability of funds, translation of resources into different languages, sensitisation and engagement of ministries of education, development of a network of trainers through train-the-trainer programmes to achieve sustainability, the definition of success, and the evaluation of the impact of educational activities.

⁴ Prof. Lijun Shang, Prof. Weiwen Zhang, and Prof. Malcolm Dando.

- 8.7 The subsequent discussion with the Board focused on the importance of training teachers and building local networks in regions, the usefulness of using cartoons as an educational resource to disseminate knowledge, the importance of considering cultural factors when designing the materials, and the potential of the United States of America's Centers for Disease Control and Prevention also for biosecurity education, based on IAEA experience.
9. **AGENDA ITEM NINE – The new Marie Skłodowska-Curie fellowships at the IAEA – Ms Alina Josan, Partnership and Resource Mobilization Coordinator, IAEA Department of Nuclear Energy**
- 9.1 Ms Alina Josan, Partnership and Resource Mobilization Coordinator at the IAEA, provided an overview of two key programmes aimed at addressing the under-representation of women in the nuclear sector.
- 9.2 Ms Josan emphasised how gender disparity persisted in the nuclear industry, with women vastly under-represented in science, technology, engineering, and mathematics (STEM) and leadership roles, as only 24.9% of the nuclear workforce comprised women, with even fewer in STEM (20.6%) and senior leadership (18.3%). Ms Josan stressed how attrition among women in the nuclear workforce was particularly concerning, with a significant loss occurring in non-managerial and lower management positions, hampering the leadership pipeline. Considering projections of tripling clean energy production, efforts needed to focus on enhancing accessibility for women through mentorship, targeted outreach, and comprehensive action plans to foster gender inclusivity, including support for education and capacity-building programmes and assurance of funding for such support.
- 9.3 Ms Josan highlighted the importance of the Marie Skłodowska-Curie Fellowship Programme in encouraging women to pursue careers in the nuclear field. Launched in March 2020 by IAEA Director General Rafael Mariano Grossi, this programme's aim was to close the persistent gender gap by providing scholarships for master's studies in nuclear-related fields and facilitating internships at the IAEA. The scholarship encompassed tuition coverage, a living stipend, internship support for up to 12 months, and networking opportunities. By the end of 2023, over 550 fellows had been enrolled in the programme, with more than 170 completing their master's studies and continuing to internships, PhD studies, or employment.
- 9.4 Ms Josan further presented the IAEA Lise Meitner Programme, launched on 8 March 2023. This programme focused on supporting career development and retention of women in the nuclear sector. It provided early and mid-career women professionals with opportunities to advance both technical and soft skills through tailored professional visits to centres of nuclear excellence globally. The Lise Meitner Programme offered specialised hands-on experiences, lectures, discussions, interactive training, project development, laboratory analyses, and visits to various nuclear facilities. Applications for the programme were on a rolling basis, with visits completed in different locations worldwide, including North Carolina State University and Idaho National Laboratories in the United States of America.

- 9.5 The follow-up discussion underscored the methods employed for promoting the call for applications. Principally, outreach initiatives targeting universities were engaged, complemented by the dispatch of formal correspondence to permanent missions of Member States and affiliated partners. Additionally, social media platforms served as a conduit for dissemination. Emphasis was placed on the imperative of active promotion to augment participant engagement. This would entail advocacy for multilingual materials, covering all six official languages of the IAEA, to thereby enhance accessibility and inclusivity.
- 9.6 The Board thanked Ms Josan for her talk and insights and she agreed to remain in contact with the Board through the ABEO Secretary.
- 10. AGENDA ITEM TEN – Contribution of the ABEO to the National Autonomous University of Mexico course and educational projects in other regions – Prof. Magda Bauta Solés**
- 10.1 The ABEO Chairperson referred to the academic advice provided by the ABEO regarding the syllabus for the National Autonomous University of Mexico (UNAM) course that had been shared with Prof. Benjamín Ruiz Loyola, a former ABEO member and academic coordinator of the diploma course at UNAM. All suggestions made by the Board were taken into consideration and reflected in the final syllabus of the diploma course, which would start in spring 2025 and would be accessible to mid-career professionals with an interest in non-proliferation and disarmament from Latin America and other regions.
- 10.2 The Chairperson mentioned that it would be very useful to use the UNAM syllabus as a basis to develop a general syllabus for universities wishing to introduce courses on the Convention, with the aim of providing them with guidance on which subject matter should be covered in such courses. This could be a tool to facilitate orientation, and the syllabus could be posted on the OPCW website to facilitate the support to academic institutions.
- 10.3 The Board supported this idea and agreed to use the UNAM syllabus to build a core syllabus on the OPCW website, with links to educational resources of interest for those institutions wishing to implement courses on the Convention and/or the OPCW. This recommendation by the ABEO would allow universities and other institutions to decide whether they wished to adapt it as they deemed fit and to cover some subject matter in more depth. To facilitate this initiative to universities, the Board agreed to identify the educational resources that offered information on the Convention and the OPCW, and to reflect links to these resources and other items of useful information by making them accessible on the OPCW website. The Board agreed to reflect links to OPCW Basics Videos, e-learning modules developed by the ICA, and modules for universities, currently accessible through the website and the LMS, respectively. The Board agreed to encourage its academic networks to share the syllabus with as many academic institutions as possible. It was decided that Working Group 2 would undertake this task along with compiling a list of academic institutions with courses on the Convention and/or the OPCW.

11. AGENDA ITEM ELEVEN – East African educational programmes, interregional projects, and CHEMEX Africa – Dr Ladislava Navrátilová

- 11.1 Dr Navrátilová shared a presentation on the East African Educational Project Strategy that started in 2016, and provided an overview of interregional projects and the implementation of educational programmes in East Africa, and of the multi-component chemical emergency response capacity-building exercise for the Africa region (CHEMEX Africa).
- 11.2 She highlighted that regional educational project implementation needed to take into account that there was an increasing need for preparedness and response to chemical incidents in Africa. When implementing educational projects in Africa, it was key to constantly harmonise the standard operating procedures in the region, to build local ownership, and to help develop a local network of trainers. One of the biggest achievements had been the establishment of a cohort of confident and educated African individuals able to train others in the future.
- 11.3 In the subsequent discussion with Board members, the need to build local ownership was underlined and several aspects, such as the possibility of extending these trainings to other areas of Africa, were highlighted.

12. AGENDA ITEM TWELVE – Update on SAB work – Dr Matteo Guidotti, SAB observer to the ABEO

- 12.1 Dr Matteo Guidotti provided an update on the work of the Scientific Advisory Board (SAB) since the last session of the Board, including on the Thirty-Seventh Session of the SAB held in August 2023 and the participation of SAB members in the 49th World Chemistry Congress of the International Union of Pure and Applied Chemistry (IUPAC), held in The Hague in August 2023.
- 12.2 Dr Guidotti highlighted that SAB member Prof. Syeda Sultana Razia of Bangladesh had been awarded the OPCW–The Hague Award in December 2023 for her work and commitment to the Convention.
- 12.3 Dr Guidotti summarised the main outcomes of the work carried out by the Temporary Working Group on the Analysis of Biotoxins, whose mandate had ended in April 2023, and described a set of recommendations of interest for ABEO members.
- 12.4 He also briefed the Board on the recently established SAB Temporary Working Group on Chemical Forensics and its objectives and noted that preparations were ongoing for the preparation of the Thirty-Eighth Session of the SAB (27 to 31 May).
- 12.5 The Board thanked Dr Guidotti for his presentation.

13. AGENDA ITEM THIRTEEN – Appointment of new ABEO observers to the SAB

The Board appointed Dr Richard Guthrie and Mr Shahab Ud Din as new ABEO observers to the SAB and thanked Prof. Graciela González and Dr Craig Cormick for their work as outgoing ABEO observers to the SAB.

14. AGENDA ITEM FOURTEEN – United Nations Academic Impact, challenges, and opportunities of working with a network of academic institutions – Ms Jayashri Wyatt, Chief of the Education Outreach Section at the Outreach Division of the United Nations Department of Global Communications, United Nations New York

- 14.1 Ms Jayashri Wyatt shared her experience in working with the United Nations Academic Impact, an initiative started by Mr Ban Ki Moon during his time as Secretary-General of the United Nations, which engages institutions of higher education with the United Nations system in supporting and contributing to the realisation of the organisation's purposes and principles. This initiative encompasses 1,600 universities worldwide based on important principles such as global citizenship through education and promotion of intercultural dialogue. The Education Outreach Section led by Ms Wyatt acted as a sort of “broker” between the network of 1,600 universities and the United Nations system as a whole. A very important part of the work of the Section was oriented towards the achievement of the SDGs, on which special emphasis was placed.
- 14.2 Some of the most recent activities that were highlighted included the 43 trainings and the current work to save webinar files so that people could follow them in a self-paced way. In terms of engagement, important tools were highlighted, such as the multilingual website, the newsletter sent once per week, and the focus on social networks, especially LinkedIn. Panels and discussions were also part of the engagement work to achieve concrete results as outcome documents that help crystallise what had been discussed in the panels. Ms Wyatt referred to the current work with the International Science Council (ISC) to have a conversation on science policy with a view to preparing for the Summit of the Future that would be held on 22 and 23 September 2024. Six case studies were being prepared for presentation at the Summit, with a view to demonstrating that science diplomacy could help promote the SDGs. Ms Wyatt and her team were working with the ISC to prepare a working paper following the event which would crystallise what had been agreed, and what the best practices were.
- 14.3 Ms Wyatt highlighted the importance of partnerships not only with academic institutions but also with students, who had a high level of energy, enthusiasm, and capacity to contribute to the goals of the United Nations. She mentioned the Millennium Campus Network (MCN), which encompassed undergraduate and graduate students who participate in a one-year programme, comprising 10 workshops and a project on an SDG in that academic year. Since 2018, a memorandum of understanding had been signed with the MCN. Also since 2018, there had been an increase in the number of applicants—44,000 in 2023, of which 4,000 had been selected as Millennium Fellows. Statistics showed that 80% of these Millennium Fellows worked in social impact careers.
- 14.4 A special mention was made of the compilation of 25 best practices of the United Nations Academic Impact and of the evolution of the partnership with academic institutions that had become more complex. For each hub devoted to different SDGs, the objective was to move from one to at least three academic institutions (in a consortium) and make them work together.

- 14.5 Ms Wyatt mentioned some of the current challenges and opportunities, such as the small size of her team (herself, one P-4 and one P-2 position), bridging the gap between policymaking and research by encouraging evidence-based approaches, representing scholarship of the Global South, and bringing together Global North and Global South scholars. She concluded that the work between academia and the United Nations Academic Impact was multilateralism at work and that even though it was challenging to create this multilateral space in academia, it was valuable.
- 14.6 The ABEO Chairperson commented that this discussion with the Board was very timely given the fact that one of the current priority areas of work was related to the development of a network of academic institutions. She added that the importance of identifying universities and academic institutions that could serve as partners was of the utmost importance, and that her experience with United Nations Academic Impact was very valuable to the Board's work and showed that the ABEO's advice was correctly interpreting the way ahead.
- 14.7 The subsequent discussion with the Board focused on the administrative steps to build these partnerships, the best practices to select universities and bring them to work together, the importance of a detailed description of roles and responsibilities of universities within a hub, the creation of North-South inclusiveness in the hubs to achieve better knowledge-sharing, and the need to be strategic when working with a small team. The Board highlighted that other international organisations, with mandates much wider in scope than the OPCW, have a permanent structure of staff members to follow up and implement networks with academia to better achieve the organisational objectives. The Board agreed that this aspect could be a suggestion for consideration by the Director-General, as appropriate and adapted to the OPCW characteristics.
- 14.8 The Board thanked Ms Jayashri Wyatt for her presentation and talk and agreed to remain in contact with her.
- 15. AGENDA ITEM FIFTEEN – Availability of new educational resources – Prof. Vicente Garrido Rebolledo**
- 15.1 Prof. Vicente Garrido Rebolledo delivered a presentation on the availability of new educational resources related to the OPCW and the Convention. He mentioned the set of three e-learning modules for universities, for which the ABEO had provided its academic advice and peer reviewed the content, and highlighted the active learning approach that included case studies, quizzes, and videos. The guide for educators included with the modules and accessible in the LMS provided guidance to professors should they wish to adapt the modules for their own courses. The interdisciplinary content was an asset, as the content covered subject matter related to history, biology, international relations, and art, among others. The importance of the videos being available in the OPCW official languages so as to reach out to more external audiences was also underlined. Prof. Garrido Rebolledo encouraged Board members to reply to the survey to evaluate the modules and to use them as much as possible. He also encouraged Board members to disseminate the recently developed ICA modules, in particular the general ones that cover a wide range of issues related to the Convention.

15.2 Prof. Garrido Rebolledo further updated the Board about the availability of a new educational resource in Spanish that also contained English summaries: the manual “Retos y respuestas frente a la amenaza química” (Challenges and responses to the chemical threat) published recently by the Ministry of Defence. The publication was based on a multidisciplinary approach to the challenges and responses to the chemical threat. The foreword was written by the Ambassador and Permanent Representative of Spain to the OPCW, Ms Consuelo Femenia Guardiola, and different ministries and national entities had contributed to the manual with a chapter, including the Ministry of Defence, the Ministry of Foreign Affairs, the Department of Homeland Security, and the Ministry of Industry and Tourism (the National Authority in Spain). Prof. Garrido Rebolledo mentioned that he also had the honour to contribute to the manual with an introductory chapter. The manual’s content was divided into three main parts: the nature of the threat, the non-proliferation and disarmament architecture, and the response. It also covered the threat of chemical terrorism from the perspective of experts from the Ministry of Defence and the Department of Homeland Security.

15.3 The Board appreciated the presentation by Prof. Vicente Garrido Rebolledo and agreed to promote the use of these resources among students.

16. AGENDA ITEM SIXTEEN – Status update on the OPCW’s digital strategy – Prof. Rocael Hernández Rizzardini and Dr Jason Openo

16.1 Dr Jason Openo delivered a presentation on the evolution of the concept of the “digital learning strategy” in the last few years and referred to its main features as follows: convergence of learning modalities with face-to-face learning turning increasingly digital; the use of open educational resources to support face-to-face learning; the philosophy behind this strategy; the need to invest resources; and the “double helix” approach that currently applied to the digital learning strategy. He referred to the following main aspects that a digital learning strategy should set forth: expressing priorities and outcomes; identifying strategic partnerships; considering sustainability; and including realistic projects with enough value for partners to be willing to provide funding. This connected with the opportunities that the ChemTech Centre offered in terms of educational activities and promotion. Dr Openo commented that when developing in-person learning opportunities for the ChemTech Centre on technological developments or chemical forensics, these modular lesson plans had been consciously made as open educational resources, available to blue book members as open educational resources for local integration into their academic courses, programmes, and institutions.

16.2 The second part of the presentation was shared by Prof. Rocael Hernández Rizzardini, who updated the Board on the latest developments regarding the e-learning developments at the Secretariat, assessing whether the recommendations by the ABEO Temporary Working Group on E-learning had been implemented. Prof. Hernández Rizzardini welcomed the fact that the overall governance of the e-learning strategy (including the new LMS) has been entrusted to the ICA, and suggested that the Board should be able to get in touch directly with that Division in order to be able to provide tailor-made advice regarding e-learning strategy. He further referred to the three main components that a digital strategy should have: increasing awareness of the OPCW and chemical weapons; the impact that AI might have on the educational activities of the Secretariat; and some digital learning initiatives to extend the impact of the ChemTech Centre.

- 16.3 Regarding the goal of increasing awareness of the OPCW and chemical weapons, Prof. Hernández Rizzardini referred to the need to develop materials, networks, and new partnerships, and to define key audiences. One of the biggest challenges was having key messages that resonated with target audiences and how to deliver these messages to create engagement with limited resources. Referring to the second component of a digital strategy and the impact of AI on education and outreach, Prof. Hernández Rizzardini mentioned that any strategy had to take into account the use of AI and raise awareness through webinars, discussions, trainings, and workshops. Prof. Hernández Rizzardini mentioned the possibility for the Secretariat to have an ABEO temporary working group on the impact of AI on education and outreach to formulate a strategy that took into consideration the evolution of technology.
- 16.4 Prof. Hernández Rizzardini highlighted some digital learning initiatives that could enhance the impact of the ChemTech Centre, such as the creation of a series of expert interviews, video discussions, podcasts, the use of social media platforms, and the design of interactive quizzes, games, and puzzles as well as e-books. Furthermore, he stressed the need to partner with schools, colleges, and universities to develop collaborative projects and e-learning activities that integrated real-world issues and challenges into the curriculum.
- 16.5 In the subsequent discussion with the Board, it was agreed that the OPCW was a unique organisation that could not “import” the digital strategies of other institutions, but it could benefit from the best practices and strategies used by other international organisations. The ABEO considered it essential to be able to communicate directly with the divisions of the Secretariat implementing digital strategies, to assess them and to provide these divisions in charge with tailor-made advice in order to ensure efficiency and sustainability.
- 17. AGENDA ITEM SEVENTEEN – Ethical perspective of the impact of scientific and technological advances on the implementation of the Convention. Follow-up – Prof. Graciela González**
- 17.1 Prof. Graciela González referred to her most recent update to the Board at its Fifteenth Session on the ethical perspective of the impact of scientific and technological advances on the implementation of the Convention, when the Board agreed to follow up closely on this subject. The fact that scientists had themselves been surprised by the synthetic routes to produce chemical agents was just one of the many possible facets to this complex subject matter.
- 17.2 Prof. Graciela González highlighted the webpage of the United Nations Educational, Scientific and Cultural Organization (UNESCO) as a valuable tool to access educational tools and obtain information about the ethical guidelines on the governance of the development of AI. She informed the Board about the Global Forum on the Ethics of AI, which had been hosted by the Government of Slovenia in Kranj, Slovenia on 5 and 6 February 2024. The Forum gathered representatives from governments, civil society, academia, and the private sector. The Forum included on the first day the sharing of best practices in AI by high-level decision-makers. The second day, with the participation of leaders and experts, had been devoted to exploring opportunities and challenges posed by AI. Discussions also covered emerging best practices in AI supervision. Prof. González noted that the Forum had featured the launch of various UNESCO initiatives, including the Global AI Ethics Observatory and the UNESCO AI Ethics Experts Without Borders network.

- 17.3 Furthermore, Prof. González recommended the development of collaboration channels with UNESCO and highlighted the content and information provided by Ms Gabriela Ramos, Assistant Director-General for the Social and Human Sciences of UNESCO, as a valuable source of information regarding AI governance. Ms Ramos stated that without ethical guidelines, the rapid development of AI could pose threats to human rights and freedoms. UNESCO had played a key role in promoting six ethical rules, and in 2021 introduced a recommendation on the ethics of AI. The conclusions of UNESCO were consistent with the impact of AI on the implementation of the Convention, which highlighted the importance of responsible education and knowledge.
- 17.4 The Chairperson of the ABEO mentioned that the subject matter needed to be followed up by the Board and that AI was here to stay; therefore there was a need to ensure that a proper governance framework was implemented to ensure that these developments benefit mankind.
- 17.5 The Board highly appreciated this update by Prof. Graciela González and commented that it was of the utmost importance to achieve balance between development and ethical guidelines so that opportunities could be beneficial and challenges adequately addressed. One of the biggest challenges highlighted by the Board was the control of big tech companies and the control of the market in this realm.
- 17.6 The ABEO thanked Prof. González for her presentation and agreed to follow up on this complex subject.
- 18. AGENDA ITEM EIGHTEEN – Bridging the gap: Empowering youth for advancing peaceful uses of chemistry – Mr Saurabh Bandhari, Programme Officer in the International Cooperation Branch, International Cooperation and Assistance Division**
- 18.1 Mr Saurabh Bhandari, Programme Officer in the International Cooperation Branch, delivered a presentation updating the members of the Board on the progress and recent achievements in the Education and Training Programme for Youth on the Peaceful Uses of Chemistry, an OPCW initiative financially supported by the European Union. Mr Bhandari briefed the Board on the Programme, its objective and scope, as well as its intended target audience. The training aimed to educate young people aged 18 to 24, who were pursuing university education in chemistry, chemical engineering, or other chemistry-related scientific fields, and were keen on pursuing a career in chemistry, chemical disarmament, or research roles in chemistry within an academic or scientific institution. The training was intended to build awareness on the history of chemical weapons and the Convention, The Hague Ethical Guidelines, dual-use chemicals, chemical safety and security management, chemical risk assessment and incident management, green chemistry and gender, and chemical disarmament and non-proliferation. A field visit to a chemical plant was also included in the training in order to provide a practical demonstration of chemical risk and incident management measures.
- 18.2 The Programme initially launched in April 2022 and held its first successful in-person training later that year, from 31 October to 4 November, in Kenitra, Morocco. The second in-person session had recently concluded in Rio de Janeiro, Brazil, from 8 to 11 April 2024. This training featured lectures by experts from national

laboratories, academia, and international organisations, as well as table-top exercises. Participants also visited a leading petrochemical plant and the Fire and Civil Defense Centre in Rio de Janeiro. The Chairperson had contributed to the expert deliberations during the training, discussing the crucial role of education and outreach in preventing the re-emergence of chemical weapons. She also shared valuable educational resources and best practices for promoting peaceful and responsible chemistry. Additionally, the training provided a valuable networking opportunity for participating students, researchers, and young professionals to forge professional relationships and advance their future careers.

18.3 Mr Bhandari thanked the Chairperson and the Board for its generous support to the Programme and reported that the feedback from event participants had been overwhelmingly positive. Attendees praised the overall organisation, content quality, and opportunities for personal and professional growth. Many also highlighted the excellence of the speakers and the value derived from the event. Additionally, the Youth Alumni Network on LinkedIn had received broad recognition for facilitating networking and knowledge-sharing among alumni and other interested youth.

18.4 In closing, the Board expressed its gratitude to Mr Bhandari for his presentation and commended the continuous efforts being made in the Programme.

19. AGENDA ITEM NINETEEN – Overview of National Authorities’ activities. Engagement and discussion on possible avenues of cooperation with the Board – Ms Elena Gjoreska, Programme Officer in the Implementation Support Branch, International Cooperation and Assistance Division

19.1 Ms Elena Gjoreska provided an update on the most recent activities and priority focus areas of work in the Implementation Support Branch (IPB), namely, legislation, the development of robust cooperative networks, and supporting the sustainability of national capacities to comply with industry and trade-related Convention obligations. She referred to the National Implementation Framework as a strategic tool to enhance the implementation of the provisions of the Convention and noted the usefulness of bilateral support to National Authorities. Ms Gjoreska highlighted the importance of regional meetings of National Authorities and review forums held three to four times per year. Other activities implemented included peer-to-peer trainings, including interactive ones, workshops (for example the workshop on illicit traffic of chemicals held at the beginning of March), and an outreach forum to increase awareness and understanding of the Convention (in October). She further mentioned the Mentorship/Partnership Programme for National Authorities as a flagship programme of the IPB. Upcoming Mentorship/Partnership Programmes were planned in 2024 for Kenya and India, Cuba and the Bolivarian Republic of Venezuela, and the United States of America and Lebanon, among others. Lastly, Ms Gjoreska referred to an outreach event held in Geneva with the Inter-Parliamentary Union (IPU) in March 2024.

19.2 The Board conveyed congratulations to the IPB team for the event organised by the OPCW on the sidelines of the 148th IPU Assembly and commented that this event was in line with the ABEO’s previous recommendations on fostering cooperation with relevant international organisations to enhance outreach and strengthen the implementation of the Convention. Furthermore, the ABEO Chairperson conveyed the message of the Board that it stood ready to contribute to regional and annual meetings

of National Authorities and other events, as appropriate, and the wish of the Board to have effective, sustainable links or working relationships with National Authorities. The Board mentioned that it could contribute to sensitising about the importance of enacting legislation to implement the Convention. Ms Gjoreska expressed appreciation for the ABEO's offer and noted that the IPB would consider the specific contributions that the Board could make.

20. AGENDA ITEM TWENTY – Lessons learned from the Central Asian network of academic institutions within the framework of implementation of the “European Union Targeted Initiatives on export controls for CBRN-relevant dual-use technologies” in Central Asia – Prof. María Espona

20.1 Prof. María Espona delivered a presentation on lessons learned from the Central Asian network of academic institutions within the framework of implementation of the “European Union Targeted Initiatives” project. She emphasised the need to create local ownership and ensure sustainability.

20.2 One of the lessons learned was the need to deliver to students what they needed and make an impact assessment of the knowledge acquired. The engagement of civil society as well as the availability of resources in multiple languages, especially in the local language, were elements that determined success.

20.3 The subsequent discussion with the Board covered different aspects such as the identification of target audiences and reasons for not including professional schools and the police, the budget for the development of such a network, and best criteria for evaluation.

20.4 The Board thanked Prof. Espona for her presentation.

21. AGENDA ITEM TWENTY-ONE – Network of academic institutions: Inventory of universities with courses on the OPCW and/or the Convention. Role of the ChemTech Centre as a centre of excellence – Prof. Magda Bauta Solés

21.1 The Chairperson updated the Board on the current status of the inventory of academic institutions with courses on the OPCW and/or the Convention, highlighting that universities from all regions had been identified, and that this was positive since the network of universities offered great potential for the OPCW. Regarding the Board's talk with Ms Jayashri Wyatt, Chief of the Education Outreach Section at the Outreach Division of the United Nations Department of Global Communications, the Chairperson mentioned that invitation letters had been sent to universities as a first action, and that perhaps this could be a first administrative step towards developing a partnership with this network. The role of National Authorities in reaching out to universities was stressed, hence the need to build a continuous and sustainable system.

21.2 The Board agreed that this task was key for the Board's work and that it was of the utmost importance that this inventory be posted on the OPCW website with the general syllabus on the Convention. It was highlighted that the general syllabus should contain links to educational resources such as the e-learning modules to help professors initiate courses on the Convention and/or the OPCW. The discussion of the Board focused on technical aspects, such as a template to reflect the same data for all universities, including points of contact and website links, the need to gather information on courses

regardless if they last two days or three months, and the importance of considering the possibility of including PhDs on the subject matter, as well as courses by think tanks potentially at a later stage. The aim was to have the inventory and syllabus ready for the next session of the Board in June, thanks to the coordination of this task within Working Group 2, on the understanding that it would be a living document that could be updated in the future whenever additional information was gathered or new courses on the Convention were created in universities.

- 21.3 Ms Anna Grigoryan from the IAEA mentioned that there was a good representation of important universities, for example in African countries such as Morocco, which implemented South-South cooperation, and in Nigeria which had a significant population. She also suggested taking into consideration the potential offered by Mauritius, since both English and French were spoken there, noting that this country could serve as a platform to facilitate dissemination of educational resources and courses in the region.
- 21.4 The list of universities with courses on the Convention was related to the ChemTech Centre blue book, and the Board agreed to reflect on ways to engage with these universities and recommend the best strategies to the Secretariat. As examples of ways to engage, contacts with presidents of universities were mentioned, along with written articles on educational resources or newsletters.
- 22. AGENDA ITEM TWENTY-TWO – Update on the ICCE 2024 Conference – Prof. Supawan Tantayanon**
- 22.1 Prof. Supawan Tantayanon provided an update on the International Conference on Chemistry Education (ICCE) 2024, to be held in Pattaya, Thailand in July, explaining that this conference would be an opportunity to disseminate information about the ABEO's work and that she was in contact with the ICA regarding the possibility to benefit from the Conference Support Programme. In addition, she informed the Board about the "Workshop on Enhancing Chemical Safety and Security for the Chemical Weapons Convention", which would be led in collaboration with Prof. Alastair Hay at the conference. Subject to the final decision by the Secretariat, Prof. Tantayanon suggested to name it the IUPAC-OPCW workshop.
- 22.2 Prof. Tantayanon informed the Board of the interest in ensuring the participation of various ABEO experts and the need to take advantage of the broad attendance to provide information about responsible education and to engage young professionals.
- 22.3 Prof. Marietjie Potgieter commented that the ICCE 2024 Conference would provide a great opportunity to disseminate information on the available educational resources of the Secretariat, for example the set of three modules for universities, particularly the third module on chemical safety and security and ethics.
- 22.4 The Board agreed that this international conference would be an opportunity for the ABEO's work to be disseminated, with a focus on the current priorities of work.

23. AGENDA ITEM TWENTY-THREE – Update on the blue book register of individuals and institutions that can promote the ChemTech Centre – Prof. Rocael Hernández Rizzardini

- 23.1 Prof. Rocael Hernández Rizzardini delivered a presentation on the ChemTech Centre's blue book. He began by recalling the concept of this strategic tool, which was a meticulously curated compilation that served as a strategic repository of key experts and institutions pivotal to advancing the Centre's mission in the field of chemical technology. He explained that this comprehensive document brought together a diverse array of individuals and organisations, including professors, inspectors, chemical industry professionals, politicians, diplomats, governments, universities, foundations, non-governmental organisations, think tanks, and potential ambassadors for the Centre, such as Nobel laureates.
- 23.2 He highlighted that the primary purpose of the blue book was to facilitate and strengthen the ChemTech Centre's networks, collaborations, and outreach efforts. He added that by centralising a wealth of expertise and influential entities, the blue book aimed to serve as a dynamic resource that enhanced the centre's capabilities in fostering advancements and promoting innovation in the realms of chemical technology and non-proliferation and chemical disarmament.
- 23.3 Prof. Hernández Rizzardini suggested that a possible structure for the ChemTech Centre's blue book could encompass the following sections: introduction; table of contents; executive summary; experts section; institution section; ambassadors section; criteria for inclusion; networking opportunities; usage guidelines; appendices; and acknowledgements.
- 23.4 The goal of the experts section was to facilitate knowledge-sharing and collaboration among experts from diverse fields in chemical technology, safety, security, and disarmament. The institution section would strengthen partnerships and collaboration between governmental, academic, philanthropic, and non-governmental institutions working in the field of chemical disarmament. The ambassadors section would engage ambassadors for the Centre and Nobel laureates in advocacy campaigns, public awareness initiatives, and high-level dialogues on chemical disarmament.
- 23.5 Prof. Hernández Rizzardini further added that, subject to available resources and funding, the ChemTech Centre ideally should have a project coordinator, subject matter experts, information specialists, a content developer, and a graphic designer.
- 23.6 Following his presentation, Prof. Hernández Rizzardini organised a 15-minute practical exercise among Board members, who worked together in small groups with the goal of gathering data and identifying the most relevant criteria for each section: the experts section, the institution section, and the ambassadors section for the ChemTech Centre's blue book.
- 23.7 Each working group presented its recommendations to the ABEO. The main aspects mentioned were that the blue book would be an evolving document that needed to be updated at least once a year. It would compile contact data for each section and thus would not be a public document, but rather a document submitted to the Director-General accompanied by a memorandum that explained the rationale and criteria for inclusion. The Chairperson reminded the Board that the ABEO Strategic

Plan explained that the blue book was priority of the Director-General with which the Board had aligned itself. To begin, names would be mentioned as examples. It was suggested to include in the ambassadors section, ambassadors for peace, ambassadors of good will, and ambassadors to promote responsible uses of chemistry. There was agreement to include in the experts section scientists, Nobel laureates, OPCW–The Hague Award laureates, professors, chemical industry professionals, and former SAB and ABEO members, among others. Within the institution section, chemical societies should be included along with non-governmental organisations, universities, think tanks, research institutes, and National Authorities.

- 23.8 The Board agreed with the structure suggested by Prof. Hernández Rizzardini for the ChemTech Centre's blue book and agreed to coordinate the related work within Working Group 3, in order to be able to present a document and memorandum to the Director-General after its Seventeenth Session.

24. AGENDA ITEM TWENTY-FOUR – Topics identified for further consideration at the Seventeenth Session of the ABEO

- 24.1 The Board agreed to present results of the work undertaken in each of the three working groups, as follows: the update to the ABEO Strategic Plan, coordinated by Prof. Vicente Garrido Rebolledo; the inventory of academic institutions with courses on the Convention, coordinated by Prof. Graciela González; and the blue book to promote the ChemTech Centre, coordinated by Prof. Rocael Hernández Rizzardini. The Board considered it critically important to allocate sufficient time to the discussions and internal work of the Board during its Seventeenth Session and to keep the presentations as short as possible to ensure the Board would have more time to advance work and deliver results.
- 24.2 Considering the offer of Prof. Vicente Garrido Rebolledo to complete the information on this subject matter, the ABEO agreed to consider including an agenda item on fellowships as well as presentations by Ms Dorine van der Wal from the WHO on the implementation of a Model WHO and youth initiatives and by an expert of Rey Juan Carlos University in Spain on implementation of Model United Nations.
- 24.3 A briefing to the States Parties would also be held in June, taking into consideration that it had been nearly a year since the last briefing. The ABEO briefings helped delegates to the OPCW stay updated on the Board's work.
- 24.4 In line with past practice, the election of the Chairperson and Vice-Chairperson for 2025 would take place at the last Board session of the year.
- 24.5 The Board also agreed to receive an update on engagement with civil society as well as the main themes regarding current outreach conversations.

25. AGENDA ITEM TWENTY-FIVE – Report on intersessional activities of Board members

- 25.1 The Chairperson provided a statement on behalf of the ABEO to the Conference of the States Parties at its Twenty-Eighth Session. She also delivered a briefing in December 2023 on ABEO activities at the request of the Latin American and Caribbean Group. She attended preparatory meetings online with the WHO, UNODA, and WFUNA. She attended the Erlangen Conference in Germany in November 2023, the workshop on Article XI organised at the OPCW by the ICA in November 2023, and the Education and Training Programme for Youth on Peaceful Uses of Chemistry held in Rio de Janeiro, Brazil, in April 2024. She additionally led tutorials of PhD theses on the Convention and provided contacts within the National Authority of Cuba and the University of Havana Faculty of Chemistry on the inclusion of contents related to the Convention.
- 25.2 During the intersessional period Prof. Graciela González gave a conference entitled “OPCW: 30th Anniversary of the Chemical Weapons Convention” at the XII Argentine Congress of Analytical Chemistry in September 2023. At a conference at Feevale University in Brazil in November 2023, she provided a lecture entitled “Dual Use of Scientific Knowledge, Case Study: The Chemical Weapons Convention (CWC)”. Prof. González also taught the undergraduate and graduate course at the Faculty of Exact and Natural Sciences (University of Buenos Aires, Argentina) on “Chemical Analysis in Forensic Investigation” which included, among others, topics such as the Convention and chemical warfare agents. At the request of the Ministry of Security of Argentina, she was a member of the team responsible for the development of the scanning electron microscopy analysis protocol in forensic applications.
- 25.3 Dr Ladislava Navrátilová delivered specialised presentations and training activities within the framework of the OPCW basic training course in Germany from 10 to 15 September 2023. She also participated as a supervisor and coordinator for the East African team of instructors during CHEMEX Africa in Algeria from 23 September to 5 October 2023. Her active educational activities for that team continued during the OPCW operational training course on chemical emergency response, planning, and management for East African Community (EAC) partner States, held in Uganda from 4 to 13 December 2023, and during the OPCW assistance and protection online refresher course for EAC instructors on 26 and 27 March 2024.
- 25.4 Dr Nezha Barakate held a workshop on “Chemical Security Curriculum Development for Algeria, Morocco and Tunisia” for the Sandia National Laboratories in Tunis, Tunisia from 13 to 17 November 2023. She provided courses and participated in conferences organised by the United Nations Secretary-General’s Mechanism for Investigation of the Alleged Use of Chemical, Biological or Toxin Weapons and the Joint CBRN Defence Centre of Excellence. Additionally, she participated in a working group at the Sandia National Laboratories in Mombasa, Kenya in August 2023 and in the Swiss Basic Course in July 2023 in Spiez, Switzerland.
- 25.5 Prof. Janefrances Ihedioha attended the 19th Biennial Conference of the Chemical Society of Nigeria, Enugu Chapter (COALCITYCHEM 2023) at the Centre for Environmental Management and Control (CEMAC) in Enugu, Nigeria in July 2023. Prof. Ihedioha presented at the 46th Annual International Conference, Workshop, and

Exhibition of the Chemical Society of Nigeria (AWKA 2023) in September 2023. She participated as a coordinator and member of the IUPAC 2024 Global Women's Breakfast (GWB2024) and at the International Conference on Water in Africa (ICWA).

- 25.6 Mr Shahab Ud Din organised various awareness-raising sessions, training courses, and seminars related to chemical and biological threats and response. He served as a resource and instructional team member in a number of events including: a seminar on chemical and biological threats and response on 5 and 6 July 2023; a familiarisation session for a cadre of individuals on the Secretary-General's Mechanism on 23 August; a first aid course for treating on-site chemical incidents from 17 to 21 July 2023; a CBRNE defence course from 11 to 15 September 2023; a national advanced course and exercise on assistance and protection against chemical weapons from 13 to 17 November 2023; an integrated international advanced course and exercise on assistance and protection against chemical weapons from 13 to 17 November 2023; a course on hospital emergency management and treatment of victims by first responders from 18 to 22 December 2023; a Biological and Toxin Weapons Convention (BWC) familiarisation and basic biosafety course for first responders from 22 to 26 January 2024; and a course on consequence management of chemical incidents or accidents and decontamination operations from 12 to 23 February 2024.
- 25.7 Prof. Zhou Ying delivered a lecture entitled "Introduction to the ABEO's Activities and The Hague Ethical Guidelines" at the National Training Course on Capacity Enhancement for Implementation of the Chemical Weapons Convention, which had been organised by the Chinese National Expert Committee for the Implementation of the Convention for 520 participants in Kunming, China (10 to 14 April 2024). She also promoted the OPCW's educational resources, including how to access the LMS as an external user and use the online OPCW e-learning modules for universities. At the Zhejiang University of Technology, Prof. Zhou offered a 32-hour postgraduate course on chemical ethics in the autumn semester of 2023. She participated in several outreach activities on the implementation of the Convention and provided technical assistance to declared facilities, such as Nouryon Chemicals (Ningbo) Co., Ltd and Ningbo Yuanli Chemical Co., Ltd on 8 August 2023. She also attended the 12th National Conference on Environmental Chemistry on the theme "Healthy Environment and Habitable Earth", in Wuhan, China, from 17 to 21 November 2023.
- 25.8 Prof. Vicente Garrido Rebolledo was a guest speaker in several courses and seminars. The master's degree, higher intelligence, and national defence courses concerned the nuclear, biological, and chemical threat and the proliferation of weapons of mass destruction, and were given at several universities and colleges including: the Centre for Advanced National Defence Studies (CESEDEN) of the Spanish Ministry of Defence, the NATO Defense College, the University of the Basque Country, and the Diplomatic School of Spain. Additionally, Prof. Garrido Rebolledo had been the president of a multidisciplinary working group established at the Spanish Institute for Strategic Studies of the Ministry of Defence, where he had published a book entitled "Challenges and Responses to the Chemical Threat".
- 25.9 During the intersessional period, Prof. Jamil Maah was a keynote speaker at the 9th Network of Inter-Asian Chemistry Educators (9NICE) Conference 2023 in Sarawak, Malaysia, where he presented a paper entitled "Raising Awareness: Multiple Uses of Chemicals and the Chemical Weapons Convention". He attended the first meeting of

the National Scientific Advisory Board (NSAB) of Malaysia under the National Authority of Malaysia (NACWC), during which updates were given about the latest activities of the ABEO and the recent opening of the ChemTech Centre. Prof. Maah had been reappointed for another term as member of the NSAB.

- 25.10 During the intersessional period, Prof. Christopher Daase developed a chemical weapons module to be introduced at the Arms Control Negotiation Academy (ACONA) in Reykjavik, Iceland. Additionally, he established the Cluster for Natural Science and Technical Science Arms Control Research (CNTR) at the Peace Research Institute Frankfurt and established a research group on chemical and biological weapons control.
- 25.11 Dr Richard Guthrie⁵ assisted in a training provided by the National Authority of the United Kingdom of Great Britain and Northern Ireland to its counterparts from Zambia as part of the OPCW National Authority Mentorship/Partnership Programme (September 2023). He participated in meetings of the United Kingdom Chemical Weapons Convention Advisory Committee, including a transparency visit in November 2023 to a site declared to the OPCW and subject to inspection by the Secretariat. Dr Guthrie attended the Twenty-Eighth Session of the Conference in 2023. He also attended three sessions of the Working Group on the Strengthening of the Biological Weapons Convention, from which he produced his usual reports. Furthermore, Dr Guthrie participated in a variety of workshops and conferences raising awareness about the Convention and the OPCW's work. He was currently working on a project to preserve the papers of the late Prof. Julian Perry Robinson, which formed the core of the data resources of the Harvard Sussex Program.
- 25.12 During the intersessional period Prof. Tantayanon coordinated two workshops directly involving chemical safety and security. The workshops, organised in Bangkok, Thailand by the Pacific Northwest National Laboratory (PNNL) were on the theme of "Countering Diversion of Pharmaceutical-Based Compounds Along the Chemical Supply Chain" (18 and 19 March 2024) and "On-Site Chemical Activity and Analysis Signatures for Recognizing Toxic Chemical Threat Agents". Prof. Tantayanon was helping to prepare the workshop on "Enhancing Chemical Safety and Security for the Chemical Weapons Convention", which would be led in collaboration with Prof. Alastair Hay during the 27th IUPAC International Conference on Chemistry Education on 18 July 2024 in Pattaya, Thailand. In Bangkok during the Eurasia Conference on Chemical Sciences, she organised a workshop on "Sustainable Energy Transformation: The Green Chemistry Solution for Carbon Neutrality and Climate Change Mitigation" on 14 December 2023, and a symposium on "Sustainable Industry Transformation: The Green Chemistry Solution for Carbon Neutrality and Climate Change Mitigation" on 15 December. In addition, she was involved in the workshops on small-scale chemistry, green chemistry, and chemical safety and security. In addition, during the intersessional period Prof. Tantayanon presented at various schools in Asia lectures on small-scale chemistry, new approaches to teaching laboratory chemistry, the application of green chemistry principles in chemical industry, and the applications of sustainable chemistry in industry.

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Dr Richard Guthrie attended the Fifth Review Conference in May 2023 and produced daily reports in the framework of his editorial work. He also participated in a side event on ABEO activities on 15 May 2023 in the margins of the Fifth Review Conference.

26. AGENDA ITEM TWENTY-SIX – Any other business

The Board requested information regarding the process for the reappointment of Board members able to serve a second term. The ABEO Secretary informed the Board that the call for nominations for ABEO membership indicated that “nominations should be submitted both for reappointments and for new members” by 30 June 2024.

27. AGENDA ITEM TWENTY-SEVEN – Wrap-up and main conclusions

- 27.1 The key takeaways of the session were the need to raise the profile of the OPCW’s mission through academic networks and the possibility of enhancing the educational portfolio of the Secretariat for the benefit of the States Parties and the general public, while at the same time promoting the ChemTech Centre as a centre of excellence.
- 27.2 The main areas of focus of the Board were complementary: the inventory of academic institutions with courses on the Convention would help promote the ChemTech Centre and would be complemented by the core syllabus to provide support to professors to start courses on the Convention at their universities. At the same time, the network of academic institutions in all regions had the reach to improve outreach activities and build local ownership.
- 27.3 The main conclusion was that collaboration with relevant international organisations was essential to reach out effectively to target audiences. Another important takeaway was the possibility of considering the implementation of fellowships, adapted to the specific circumstances of the OPCW, to foster engagement of youth in the areas of non-proliferation and chemical disarmament.

28. AGENDA ITEM TWENTY-EIGHT – Closure of the meeting

The Chairperson closed the Sixteenth Session of the ABEO on 18 April 2024 at 17:10.

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

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

1.	Prof. Magda Bauta Solés
2.	Prof. Graciela González
3.	Dr Craig Cormick
4.	Dr Jason Openo (online participation)
5.	Dr Ladislava Navrátilová
6.	Prof. Christopher Daase
7.	Prof. Rocael Hernández Rizzardini
8.	Prof. Mohd Jamil Maah
9.	Dr Nezha Barakate
10.	Prof. Janefrances Ngozi Ihedioha
11.	Mr Shahab Ud Din
12.	Prof. Zhou Ying
13.	Prof. Vicente Garrido Rebolledo
14.	Prof. Supawan Tantayanon
15.	Dr Richard Guthrie
16.	Prof. Marietjie Potgieter (observer: IUPAC)
17.	Mr William Garcia (observer: European Chemical Industry Council)
18.	Dr Matteo Guidotti (observer: Scientific Advisory Board)
19.	Ms Jayashri Wyatt, Chief of the Education Outreach Section at the Outreach Division of the United Nations Department of Global Communications, United Nations New York (online participation)
20.	Ms Alina Josan, Partnership and Resource Mobilization Coordinator, IAEA Department of Nuclear Energy
21.	Ms Anna Grigoryan, Programme Management Officer, IAEA Department of Technical Cooperation, Division for Africa
22.	Mr William Yotive, Model United Nations Coordinator, World Federation of United Nations Associations (online participation)
23.	Malcolm Dando, Emeritus Professor at the Faculty of Management, Law and Social Sciences, University of Bradford
24.	Prof. Lijun Shang, Professor of Biomedical Sciences at the London Metropolitan University
25.	Dr Jean Pascal Zanders, The Trench
26.	Prof. María Espona, European Union Targeted Initiative on Export Controls of Dual-Use Materials and Technologies in Central Asia
27.	Mr Saurabh Bandhari, Programme Officer in the International Cooperation Branch, International Cooperation and Assistance Division
28.	Ms Elena Gjoreska, Programme Officer in the Implementation Support Branch, International Cooperation and Assistance Division
29.	Ms Luisa Sánchez-Bravo, ABEO Secretary