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NOTE BY THE DIRECTOR-GENERAL

REPORT ON THE ACTIVITIES OF THE ADVISORY BOARD ON EDUCATION AND OUTREACH COVERING THE PERIOD 1 SEPTEMBER 2020 TO 31 AUGUST 2021

1. The Terms of Reference of the Advisory Board on Education and Outreach (ABEO), as adopted by the Conference of the States Parties (hereinafter “the Conference”) at its Twentieth Session (Annex to C-20/DEC.9, dated 3 December 2015), provide, in paragraph 18, for the submission by the Director-General of an annual report to the Executive Council (hereinafter “the Council”) and to the Conference on the Board’s activities. This is the sixth such annual report, covering the activities of the ABEO in the period 1 September 2020 to 31 August 2021. This includes the Ninth, Tenth, and Eleventh Sessions of the ABEO, the reports¹ of which serve as the basis for this report.
2. In accordance with its Terms of Reference, the Board at its Ninth Session appointed Dr Johannes-Georg Weinig of Germany as its Chairperson and Mr Shahab Ud Din of Pakistan as its Vice-Chairperson for 2021.

Ninth Session of the Board

3. The Ninth Session of the ABEO was held virtually on 11 December 2020, with the customary assistance of the Technical Secretariat (hereinafter “the Secretariat”).
4. During the Ninth Session of the Board, the Chairperson of the ABEO’s Temporary Working Group (TWG) on e-Learning, Prof. Rocael Hernández Rizzardini, briefed the members of the Board on the first meeting of the TWG that was held virtually on 10 and 12 November 2020. The Board was informed that the review of the Secretariat’s e-Learning offer had started. The Board highlighted the need to correlate the work of the TWG with the various relevant OPCW target audiences.
5. The content of the Strategic Plan of the ABEO and the next activities were discussed by Board members, who agreed to transition the Strategic Plan into an operational plan.
6. Given the mutual interest of the ABEO and the Scientific Advisory Board (SAB) in collaborating further and in channelling communication between the two Boards, the ABEO appointed Prof. Alastair Hay and Dr Craig Cormick as points of contact for SAB-related matters.

¹ ABEO-9/1 (dated 11 December 2020); ABEO-10/1 (dated 10 February 2021); and ABEO-11/1* (dated 27 July 2021).



Tenth Session of the Board

7. At the Tenth Session of the ABEO, the Director-General highlighted that the advice of the ABEO TWG on e-Learning would be crucial for the OPCW to reach wider audiences and build capacity within Member States. The Director-General noted that the current international environment had accelerated the digitalisation of societies, and e-Learning provided a unique opportunity to spread knowledge and skills across geographical boundaries. The Director-General further added that the OPCW Centre for Chemistry and Technology (ChemTech Centre) would continue to be a major priority for 2021 in the context of the adaptation and evolution of the OPCW. The Director-General conveyed to the Board that its work could contribute to the goal of the ChemTech Centre to increase the OPCW's capabilities in several fields related to the implementation of the Chemical Weapons Convention (hereinafter "the Convention"). Regarding the e-Learning offering of the Secretariat, the Director-General added that the concrete recommendations being prepared by the TWG on e-Learning would be very useful.
8. The Board discussed and adopted the ABEO Strategic Plan (Annex 2 to ABEO-10/1) by consensus, following the inclusion of the priorities mentioned by the Director-General. In the Strategic Plan, the ABEO agreed to focus on enhancing e-Learning opportunities, to foster the impact of capacity building, and to continue to work on raising awareness about chemical safety and security.
9. In the framework of Project 5B on translation and dissemination of education and outreach tools and materials, co-funded by the European Union and the OPCW,² the Board discussed several suggestions for drawing up a list of existing education and outreach materials to be translated.³

Eleventh Session of the Board

10. At the Eleventh Session of the Board, the Director of the International Cooperation and Assistance Division (ICA) welcomed the ABEO members and highlighted the ongoing cooperation between the ICA and the Board. The Director of the ICA further emphasised that her Division and the ABEO shared the goal of ensuring that the OPCW's education and outreach activities that were aimed at promoting the implementation of the Convention, were impactful, sustainable, and cost-effective, and that they benefitted from the latest advances in the fields of learning and stakeholder engagement. The Director of the ICA affirmed that the provision by the ICA of capacity-building support to the States Parties was essential to enhancing the implementation of the Convention. She further added that while the in-person activities would continue to be the core and preferred modality for the delivery of training, online learning could be leveraged, as appropriate, to supplement, complement, and thereby further enhance future in-person courses. The Director of the ICA stressed that the ChemTech Centre would offer a unique and

² See "Council Decision (CFSP) 2019/538 of 1 April 2019 in support of activities of the Organisation for the Prohibition of Chemical Weapons (OPCW) in the framework of the implementation of the EU Strategy against Proliferation of Weapons of Mass Destruction". Project 5B – Translation and dissemination of education and outreach tools and materials.

³ Such materials include "The Hague Ethical Guidelines Jigsaw Exercise", created by Prof. Alastair Hay and based on active learning theory and practice, and the "Supplemental Paper on Current Theory and Practice in Education and Outreach", available at: https://www.opcw.org/sites/default/files/documents/2019/02/ABEO-05-1_Supplemental%20Paper%202017.pdf.

unprecedented opportunity to significantly scale up capacity-building support for the benefit of States Parties, and encouraged ABEO members to provide concrete inputs and fresh ideas on the potential that the Centre presents, particularly in regard to outreach and raising awareness of the OPCW's mission.

11. The Chairperson of the TWG on e-Learning provided an update on the final report to be submitted to the ABEO for its review. He briefed the Board on the main recommendations identified by the TWG members and the structure of the final report. The Board agreed to review the TWG final report by correspondence. According to Rule 6 of the Rules of Procedure for the ABEO and its Temporary Working Groups (Annex to EC-81/DG.14, dated 4 March 2016), the final report is hereby attached (see Annex hereto) to this annual report on ABEO activities, to be submitted to the Ninety-Eighth Session of the Council.
12. The Board endorsed a proposal on the creation of an "ABEO Alumni Network", with the aim of preserving as much knowledge and expertise as possible in the realm of the OPCW. The alumni network would be open to former ABEO members who could then volunteer their expertise and knowledge to the Secretariat at no cost. The alumni network would not entail any formal agreement and would not interfere with the ABEO's role. Network members could be available to provide advice on an as-needed basis, or to review project proposals and project outcomes, among others.
13. A proposal on the creation of regional online modules for National Authorities was discussed by the ABEO with the aim of better focusing on building a dialogue with National Authorities in each separate region. The ABEO could provide advice on how the National Authorities in each region could go about relating to other stakeholders (academia, professional associations, etc.) in cases where they have not yet built a network with those stakeholders. The ABEO could further provide advice on the topics and educational resources in a (virtual) regional meeting with the National Authorities. Subsequently, this information could be used to produce one or two brochures for National Authorities or a set of regional online courses that could be translated into all official OPCW languages. Board members endorsed the proposal and agreed to start the work in an open-ended working group during the intersessional period.

Intersessional activities

14. ABEO members conducted multiple activities related to education and raising awareness about the Convention and the OPCW during the reporting period, either individually or as a group.
15. Dr Adriana Bernacchi participated as an invited professor at the graduate chemical forensic analysis course at the Faculty of Exact and Natural Sciences of the University of Buenos Aires on 27 October 2020. The Conference entitled "Role of the Chemical Weapons Convention and the OPCW", was held in online synchronous learning mode.
16. Dr Bernacchi participated in the "Talks about governing dual-use chemical knowledge; Social responsibility of scientists and academics". The course, which was coordinated by the Faculty of Chemical Science at the Córdoba National University as part of the National Project on Education on Responsible and Secure Use of Chemical Sciences and Technologies for Argentina's Scientific, Economic, and Social Development, was held from 6 to 27 November 2020 via online synchronous and asynchronous learning.

17. Dr Craig Cormick attended the Thirtieth Session of the SAB, held virtually from 10 to 12 November 2020, to provide an update on the work of the ABEO over the past year. At that session, SAB members expressed their willingness to continue collaboration with ABEO members, with a view to deepening it.
18. Dr Cormick pre-recorded a video on education and outreach activities and the role of the ABEO for the Twenty-Second Annual Meeting of National Authorities, held virtually (owing to the COVID-19 pandemic) from 23 to 25 November 2020.
19. Dr Jean Pascal Zanders participated in the “Targeted Initiative (TI) on Export Controls of Dual-Use Materials and Technologies”, funded by the European Commission’s Directorate-General for International Cooperation and Development. Dr Zanders had designed a full master’s course on chemical, biological, radiological, and nuclear (CBRN) dual-use technology transfer controls. At an intersessional meeting held on 22 June 2021, Dr Zanders also shared his experiences with teaching during the COVID-19 pandemic.
20. Prof. Bin Maah participated in a meeting organised by the National Authority of Malaysia on 9 March 2020 and provided a briefing on the work of the ABEO.
21. The Vice-Chairperson of the Board, Mr Shahab Ud Din, acted as a resource person and delivered a number of lectures during an international (online) course on reconnaissance and sample operations in a highly contaminated environment, from 15 to 19 March 2021, which had been organised by Pakistan in collaboration with the OPCW. This online course was a capacity-building initiative to support full implementation of Article X of the Convention.
22. Mr Shahab Ud Din also acted as a resource person and executor in various events linked to training in Pakistan, such as the national assistance course against chemical weapons, a familiarisation workshop on protection against biological agents, and visits to universities and industries.
23. The Chairperson of the ABEO delivered a statement on behalf of the Board at the Twenty-Fifth Session of the Conference on 12 April 2021. Additionally, he generated support for the new OPCW ChemTech Centre from the German Chemical Society, as well as the European Chemical Society, the Royal Society of Chemistry, and the Royal Netherlands Chemical Society. Furthermore, the Chairperson gave a presentation entitled “The Hague Ethical Guidelines – Creation, Implementation and Impact” at the online conference “Dual Use in Chemical Research: Opportunities, Risks and Responsibility”, organised by the Leopoldina-DFG (German Research Foundation) Joint Committee on the Handling of Security-Relevant Research, in cooperation with the German Chemical Society, on 31 May 2021. The Chairperson also attended an online meeting of the European Chemical Society Working Party “Ethics in Chemistry” on 7 June.
24. The Vice-Chairperson of the ABEO acted as a member of the instructional team in the framework of the course on legislative and regulatory issues in chemical security in Pakistan, conducted on 27 and 28 May 2021. The course provided conceptual and technical knowledge to the participants on the legal and regulatory aspects of chemical security and how to address the related issues at the national level.

25. Dr Bernacchi participated in the Twenty-Second Regional Meeting of National Authorities of States Parties in Latin America and the Caribbean held virtually from 8 to 10 June 2021. She prepared a pre-recorded video and delivered a presentation on the following topic: “Strengthening the education and outreach efforts in the academic and industrial sectors aiming for a deeper implementation of the CWC”.
26. Dr Weinig, together with Prof. Alastair Hay, presented “How CWC implementation can foster scientific and economic development triggered by education and outreach activities” at the Nineteenth Regional Meeting of National Authorities in Africa, held virtually from 15 to 17 June 2021.
27. The Vice-Chairperson of the Board acted as one of the resource persons in the online chemical and biological emergency response management course held from 21 to 25 June 2021 in Pakistan. The course aimed to create and enhance the awareness of the participants about chemical and biological threats and to train them to effectively respond in cases of chemical or biological incidents or accidents.
28. Dr Jean Pascal Zanders participated in an educational project conducted as part of the European Union Targeted Initiatives concerning CBRN dual-use export controls.
29. On 7 July 2021, Prof. Alastair Hay gave a short presentation to the security subcommittee of the International Chemical Trade Association (ICTA) on The Hague Ethical Guidelines. After a question-and-answer session, the subcommittee decided to recommend to the full board of the ICTA that it endorse the guidelines and, should it do so, that it inform the Director-General of its decision.
30. Prof. Hay had been a member of one of three World Health Organization working groups that were producing guidance on biosecurity for the biological sciences. Prof. Hay’s working group was focused on awareness raising and many of the OPCW’s ABEO publications would be referenced and promoted. Prof. Hay had also been involved with a working group coordinated by Johns Hopkins University and China’s Tianjin University, in cooperation with the International Academy Partnership, which was producing a set of guidelines for the biological sciences similar in scope to The Hague Ethical Guidelines. The Tianjin Biosecurity Guidelines were now published and would be widely circulated.
31. Prof. Hay had also participated in a team producing a handbook for the OPCW on the long-term effects of exposure to chemical weapons.
32. Dr Bernacchi participated as a postgraduate professor at the Nonproliferation for Global Security Foundation (NPSGlobal). The eight modules on non-proliferation of chemical and biological weapons and export controls of dual-use materials and technology were delivered via online synchronous learning.
33. Dr Bernacchi facilitated the participation of eight chemistry students from the Faculty of Exact and Natural Sciences of the University of Buenos Aires and two postgraduates from NPSGlobal in the virtual OPCW visit on 21 May 2021.

34. Dr Bernacchi also participated as an invited professor at the first workshop on chemical weapons in the “National Defense and CBRNe” series at the National Defense University. Her presentation was entitled “Chemical weapons and international control agreements” (online synchronous mode on 24 June 2021).
35. Dr Bernacchi delivered a presentation on “The Chemical and Biological and Toxins Weapons Conventions” at the “International Disarmament and Non-proliferation Regimes” national workshop, organised by the Government of Peru and the United Nations Regional Centre for Peace, Disarmament and Development in Latin America and the Caribbean (workshop held in online synchronous mode on 16 July 2021).
36. During the Eleventh Session of the Board, Prof. Fatima Lamchouri shared her experiences in using active learning during the COVID-19 pandemic to teach students at two universities in Morocco. This involved three modules for undergraduate students at the Polydisciplinary Faculty of Taza of the Sidi Mohamed Ben Abdellah University of Fez, and two modules for master’s degree students at the School of Agriculture, Fertilization and Environmental Sciences of the Mohammed VI Polytechnic University of Ben Guerir.

Next steps

37. The work of the ABEO will continue during the intersessional periods through two open-ended working groups. One will be tasked with preparing a contribution of the ABEO to the Secretariat’s submission to the United Nations Secretary-General’s Report on Disarmament Education for 2022 and the selection of educational resources that could be shared with the United Nations Office for Disarmament Affairs through its webpage. The second working group will work on a proposal to initiate a dialogue with National Authorities and create regional online courses for National Authorities or content for two brochures for National Authorities on the reasons why education and outreach can be useful to them in reaching out to academia and scientific associations, and on how education and outreach can contribute to the implementation of the Convention.
38. Other Board activities will include, among others, the preparation of a Statement by the Chairperson on behalf of the Board to be delivered at the Twenty-Sixth Session of the Conference.
39. The Director-General thanks all members of the ABEO and of the TWG on e-Learning for their work and for their review of the e-Learning courses of the Secretariat, with a view to improving the Secretariat’s e-Learning offering and fostering its capacity to reach wider audiences. The provision of concrete recommendations by experts in this field deserves the highest attention by the Secretariat. The Secretariat will assess the feasibility of the recommendations provided by the TWG on e-Learning in order to better structure its e-Learning efforts and to enhance its e-Learning offering to staff members and external audiences.

Annex (English only): E-Learning – Report of the Advisory Board on Education and Outreach’s Temporary Working Group

Annex

E-Learning

Report of the Advisory Board on Education and Outreach's Temporary Working Group

July 2021

Adopted by the Temporary Working Group on e-Learning in July 2021

Reviewed by the Advisory Board on Education and Outreach



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EXECUTIVE SUMMARY

In 2012, e-Learning was introduced in the OPCW Technical Secretariat (hereinafter “the Secretariat”) as part of an internal Learning Management System (LMS). Subsequently, modules were developed for external audiences and efforts were undertaken to standardise e-Learning across the Secretariat.

E-Learning content continued to be developed by different Divisions of the Secretariat with the aim of increasing knowledge and skills of staff members and as a capacity-building tool for States Parties. Moreover, some e-Learning modules available to external audiences have increased the awareness of the OPCW’s mission and the Chemical Weapons Convention (hereinafter “the Convention” or “the CWC”) among the wider public.

In 2016, an Advisory Board on Education and Outreach⁴ (hereinafter “the ABEO” or “the Board”) was established as a subsidiary body of the OPCW to provide advice on education and outreach activities and ensure that these activities, both of the Secretariat and of States Parties, benefit from the latest advances in education and outreach theory or practice. The specialised advice provided by the Board fosters awareness among different audiences on the OPCW and the Convention.

At the Seventh Session of the Board in February 2019, well before the outbreak of the COVID-19 pandemic, the ABEO decided to address the OPCW’s e-learning resources to align them with best practices. The discussion continued during the Eighth Session of the Board in August 2019. Board members identified the need to create within the ABEO an e-Learning Temporary Working Group (TWG), in order to review and improve the e-Learning offer of the Secretariat and recommend a common approach for the development of e-Learning modules.

The COVID-19 pandemic made the need of improving the current e-Learning offer by the Secretariat even more acute.

In consultation with the ABEO, the Director-General established the Temporary Working Group on e-Learning in September 2020 (see Annex 1 for Terms of Reference and Annex 2 for membership) for a period of one year (expiring on 25 September 2021), with the following overall objectives: to allow for a more thorough review of best practices in e-Learning and their applicability to the education and outreach portfolio of the Secretariat; to engage with relevant units of the Secretariat and assist them in assessing and addressing their e-Learning needs; and to draw on a broad range of expertise to prepare a solid basis for further development of existing or new e-Learning modules by the responsible Divisions.

The Chair of the ABEO, with the approval of the Director-General, appointed an ABEO Member, Professor Rocael Hernández Rizzardini from Guatemala, as the Temporary Working Group’s Chairperson. Ten international experts, five of them ABEO members, made up the Temporary Working Group. The Knowledge Management Advisor participated in the meetings of the TWG to ensure coherence of the e-learning proposals with the

⁴ The Advisory Board on Education and Outreach (ABEO) was established by a decision of the Conference of the States Parties at its Twentieth Session (Annex to C-20/DEC.9, dated 3 December 2015). The ABEO is composed of 15 international experts who serve a three-year term with a maximum of two consecutive mandates.

knowledge-management objectives of the Secretariat. Technical and administrative support has been provided to the TWG through the Office of Strategy and Policy (OSP).

The work of the Temporary Working Group on e-Learning has been made possible thanks to the financial support of the European Union through Council Decision (CFSP) 2019/538 of 1 April 2019 in support of activities of the Organisation for the Prohibition of Chemical Weapons in the framework of the implementation of the EU Strategy against Proliferation of Weapons of Mass Destruction, under Project V on Universality and Outreach.

The TWG held two meetings virtually given the travel restrictions due to the COVID-19 pandemic.

During the first meeting, held on 10 and 12 November 2020, the TWG received briefings from several Board members and staff members of the Secretariat on the current features of e-Learning at the Secretariat and the needs of different Divisions. This included information on the structure of the OPCW, the TalentSoft platform and its functioning, current e-Learning landscape, e-Learning modules of the Inspectorate Division and issues identified by the International Cooperation and Assistance Division. Public Affairs Branch also briefed the TWG on its work on e-Learning initiatives and educational resources.

The TWG decided to review the content of e-Learning modules together with the inputs provided by different Divisions and concluded that the standardization of content production and correct OPCW branding remain some of the main challenges to overcome. The limitations with licensing to reach wider audiences and stakeholders were also identified.

The TWG decided to start a review of the Secretariat modules with the aim of providing advice on e-Learning with an interactive approach.

The TWG briefed the ABEO at its Ninth Session on 11 December 2020 where Board members highlighted the importance of correlating the work with the different relevant OPCW target audiences.

Addressing the Tenth Session of the ABEO held on 9 and 10 February 2021, the Director-General confirmed that “enhancing the e-Learning offering of the Secretariat would also continue to be in focus”.

Following different meetings of the Chairperson of the TWG with staff from Administration, Inspectorate, International Cooperation and Assistance and the Office of Strategy and Policy, it was concluded that the main actions should focus on the following areas:

- (a) The Secretariat should organise its e-Learning content in one digital location, ensuring easy maintenance and updates.
- (b) The Secretariat should keep an information file (having some sort of metadata on the courses) for each module or learning material.
- (c) The Secretariat should be able to provide access to all e-Learning modules and materials to its target audience and relevant stakeholders (by expanding the number of licenses or re-orienting itself to a license-free platform or an open-source platform).

- (d) The Secretariat should develop an introductory content pack about OPCW and CWC to increase outreach and foster alliances with academia.
- (e) The Secretariat should define and establish a central Knowledge Management/e-Learning role and ensure coordination and centralisation of the strategy on e-Learning.

During its second meeting held virtually on 28 April, the ABEO TWG discussed and finalized the drafting of five documents containing recommendations prepared during the intersessional period:

1. OPCW Course Catalogue
2. OPCW Current E-Learning Modules: Review, Findings and Recommendations
3. Recommendation on the Creation of an E-Learning Committee, Working Group or Unit
4. General Guidelines for Online Courses
5. Creation of a Content Pack for Academia and Alliances with Universities

During the review of the current e-Learning offer by the TWG, its members needed to overcome several challenges, including the lack of an organisation-wide list of e-Learning courses of the Secretariat and the unavailability of course contents, mainly due to the expiration of Adobe Flash Player at the end of 2020. One of the main conclusions highlighted by the TWG is that it is essential that all outward-facing modules are accessible for everyone. Raising awareness of the OPCW and the CWC will be enhanced if the different target audiences have access to the modules and are motivated to follow them. In view of garnering motivation of e-Learners, the content needs to be differentiated and interactive. Moreover, the design of the modules needs to be attractive and benefit from innovation.

The improvements in the methodology, focus, accuracy, consistency in the structure and re-usability of the modules should be complemented by a good maintenance of the content. Furthermore, the sequential aspect of courses, particularly the possibility to navigate without restrictions through the modules, should be enabled.

The TWG further identified the need for an evaluation of the modules by e-Learners with an easy system so that the Secretariat can assess and follow the degree of satisfaction and the impact on the target audiences.

The license model is a key aspect that can benefit from improvements. The current platform used for e-Learning modules, TalentSoft, complicates wide usage due to a limited number of external licenses and financial implications of purchasing additional ones. One possibility might be to transition to a license-free platform (such as Moodle) and/or licensing that is open source. Open source and flexibility are the two criteria that should be taken into account when making an informed decision. In TWG's view, there is a trend of evolution in e-Learning towards a license-free model and sticking to a proprietary and expensive platform would therefore not allow the Secretariat to adapt its e-Learning offer. Before making a commitment to a concrete platform in the future, the ABEO TWG recommends looking at what direction

platforms are trending to and to compare among them. At this moment (2021), Moodle is a good choice. What technology offers has to be utilized to the benefit of the Secretariat. The possibility of dramatic increases in prices in the future needs also to be taken into consideration when making an informed decision.

The absence of a common strategy on e-Learning at the Secretariat underlines the need for consolidating e-Learning approaches through a committee, working group or a unit with coordinating functions, depending on the availability of funding and the capacity of the Secretariat. For these reasons, the Secretariat should consider the creation of an e-Learning committee or a unit that is able to centralize the e-Learning offer and coordinate the e-Learning strategy across the Secretariat. Beyond the logical coordination function, expertise on technical requirements of the e-Learning modules as well as on software platforms is of the utmost importance for achieving good results.

Besides the proposal on centralization of the e-Learning strategy, the ABEO TWG prepared general guidelines for the development and maintenance of online courses to establish good practices in the Secretariat. The more modular the Secretariat can make the courses, the more advantages it will derive from it. Moreover, there is a need to define learning objectives and the course sequence, to have an evaluation of the modules, to design the material to be included and to define the course structure. In the TWG's view, having modules available in other official languages than English would have the advantage of spreading the reach to wider audiences in all regions of the world.

Taking into consideration the lack of knowledge on the OPCW and the Convention among students at universities and young professionals with backgrounds in chemistry and other fields, there is a unique opportunity to build alliances with universities in order to raise awareness on the OPCW and its mission, not only in scientific fields but also in social sciences. Academia is an audience enjoying authority and respect in societies, therefore the OPCW should consider creating a content pack for universities focusing among others, but not limited to, the OPCW and its mandate, peaceful uses of chemistry and responsible science, preventing the re-emergence of chemical weapons and chemical safety and security.

To this end, the Secretariat should consider:

- (a) Joining forces with one or more universities that could co-produce and publish an introductory Course about the OPCW and the CWC in a global learning platform such as Coursera, Future Learn, and/or edX (among other possible platforms). This is a two-fold approach with the objective of building a content-pack and reaching large audiences with that content-pack about the OPCW and the CWC.
- (b) Reaching out to National Authorities given the fact that they centralize all Convention-related efforts within each State Party and could play a capital role in reaching out to universities.

E-Learning can help build a more resilient Organisation adapted to new blended methodologies for learning. It can increase the skills and knowledge of its highly qualified staff and enhance the capacity-building of States Parties. Furthermore, e-Learning modules can contribute to positioning the OPCW as the global repository of chemical disarmament knowledge.

Awareness of the OPCW's work worldwide will strengthen the Chemical Weapons Convention implementation and consequently help achieve the prevention of the re-emergence of chemical weapons. Within education and outreach activities, e-Learning modules will play a central role in reaching out worldwide to the general public, particularly the next-generation, instilling an international culture of peace and security.

LIST OF ANNEXES

- Annex 1: Terms of Reference of the Temporary Working Group on e-Learning
- Annex 2: Members of the Temporary Working Group on e-Learning

CONCLUSIONS

The E-learning for imparting necessary knowledge and skills to staff within the Secretariat and to States Parties are here to stay. However, its viability, effectiveness, and potential to return tangible benefits to the OPCW depend on how it is designed, delivered, and evaluated.

The ABEO TWG's review shows that although some progress has been made in the e-Learning approaches, much remains to be done.

The ABEO TWG on e-Learning hopes that the recommendations reflected in the executive summary and in the detailed documents prepared by the TWG offer practical recommendations and clear guidelines, and will motivate and assist the Secretariat to further improve its e-Learning approaches. The ABEO TWG on e-Learning looks forward to seeing its advice used to build a more resilient Organisation adapted to new blended methodologies for learning by increasing the skills and knowledge of its highly qualified staff and by enhancing the capacity-building of States Parties.

ANNEX 1: TERMS OF REFERENCE OF THE TEMPORARY WORKING GROUP ON E-LEARNING

1. In its role of global authority on threats related to chemical weapons, the OPCW is committed to strengthening the e-learning that it offers to specialist and non-specialist external audiences.
2. For this reason, a Temporary Working Group (TWG) on e-learning shall be established, reporting to the Advisory Board on Education and Outreach (ABEO or the Board) and through the ABEO to the Director-General.
3. The overall objectives of the TWG are to:
 - (a) Allow for a more thorough review of best practises in e-learning and their applicability to the education and outreach (E&O) portfolio of the OPCW Technical Secretariat;
 - (b) Engage with relevant units of the Technical Secretariat and assist them in assessing and addressing their e-learning needs; and
 - (c) Draw on a broad range of expertise to prepare a solid basis for further development of existing or new e-learning modules by the responsible Divisions.
4. The TWG will be chaired by a member of the ABEO appointed for that purpose by the Chair of the Board, with the approval of the Director-General. The TWG will consist of up to 10 individuals (including the Chair) who have expertise in theory and practice of e-learning: the membership can include both current members of the ABEO and external experts. Additionally, external and internal guest speakers may be invited to individual sessions of the TWG.
5. Reporting to the ABEO and, through the Board, to the Director-General, the TWG will have the following responsibilities:
 - (a) To provide advice in the form of recommendations to relevant units of the Secretariat on theories, methods, and best practices to improve and enhance their existing e-learning modules (consultative approach);
 - (b) To identify and define relevant audiences for the outward-facing OPCW e-learning offer, in consultation with the Public Affairs Branch (PAB) of the External Relation Division (ERD). In this regard, a dissemination strategy to promote the OPCW's new e-learning offer towards these new audiences, such as partnering with universities/educational programmes or with other organisations, shall also be suggested.
 - (c) To identify, in cooperation with the relevant units of the Technical Secretariat, additional needs for new e-learning modules.

6. The Senior Knowledge Management Officer of the OPCW will also sit in the TWG as an observer to ensure the overall coherence of approaches related to knowledge management, retention and transfer.
7. The mandate of the TWG is one year, starting with the date of its establishment by the Director-General. The mandate can be extended beyond 12 months by the Director-General in consultation with the members of the ABEO, if needed and depending on availability of funding.

**ANNEX 2: MEMBERS OF THE TEMPORARY WORKING GROUP ON
E-LEARNING**

Member	Affiliation
Dr Rocael Hernández Rizzardini	Director, Galileo Educational System, Galileo University, Guatemala
Dr Adriana Silvina Bernacchi	Institute of Scientific and Technical Research for Defence, Buenos Aires, Argentina
Dr Craig Cormick	Think Outside The, Canberra, Australia
Mr Dhawal Shah	CEO of Class Central, San Francisco, United States of America
Mr Shahab Ud Din	Defence Science & Technology Organisation (DESTO), Pakistan
Professor Oscar Jerez	Director of Teaching and Learning Center, School of Economics and Business, University of Chile, Santiago, Chile
Professor David Joyner	Executive Director Online Education, Faculty of Information Technology, Georgia Institute of Technology, Atlanta, United States of America
Prof. Dr. Carlos Delgado Kloos	Vice-President for Strategy and Digital Education, Universidad Carlos III de Madrid, Spain
Professor Fatima Lamchouri	Director of LMSNEM, University of Sidi Mohamed Ben Abdellah-Fez, Morocco
Professor Daniella Suger	Galileo University, Guatemala

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