Meeting of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction

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BENELUX BTWC Peer Review — Initial observations

Submitted by Belgium, Luxembourg and the Netherlands

1. Between June and November 2015, Belgium, the Netherlands and Luxembourg (BENELUX) conducted a peer review exercise of their respective national implementation of the Biological and Toxin Weapons Convention (BTWC). The key features and objectives of this exercise are set out in the BENELUX-working paper that was submitted to the BTWC Meeting of Experts of August 2015 (BWC/MSP/2015/MX/WP.13). This working paper presents some initial observations that were recorded from participants of the peer review exercise.

Brief summary of context and format of the BENELUX BTWC Peer Review

2. Inspired by the French proposal (BWC/CONF/VII/WP.28) and peer review initiative of December 2013 (BWC/MSP/2013/WP.8, BWC/MSP/2014/WP.3), the BENELUX countries decided to conduct a peer review exercise among themselves based on a mutually developed and agreed format.

3. The **scope** of the BENELUX Peer Review exercise included two aspects of national implementation: (1) national biological defence research programs, research and development programs of national research centres and laboratories as declared in Form A of the BTWC Confidence-Building Measure (CBM) and (2) national legislation, regulations and other measures as declared in Form E of the BTWC CBM with particular focus on national oversight of biosafety and biosecurity measures and standards.

4. The main **actors** were three national Peer Review Teams that consisted of national experts from Defence, (Scientific Institutes of) Public Health and Foreign Affairs. Most participating national experts knew the BTWC via their annual contributions to the national BTWC CBM.

5. The **method** was an assessment of each country by the Peer Review Teams of the other two countries, that consisted of a "**written phase**" and a "**meeting + visit phase**". The assessment was based on the countries' **declarations** (Forms A and E of the 2015 CBM), on **meetings** in the participating countries and visits to Form A facilities. The

meetings allowed further clarification of questions already touched upon during the written consultation. The visits allowed a review of the conformity between the declaration of the relevant parts of Form A and the on-site reality.

6. The **written phase** took place between June and September and produced 12 documents: each country drafted two question lists directed to the other two countries and two documents answering the questions.

7. The **meeting + visits phase** consisted of one full-day activity per country:

- 9 November in Belgium with a visit to the Centre for Applied Molecular Technologies (CTMA - part of DLD Defence Laboratories) in Brussels;
- 17 November in Luxembourg with visits to Laboratoire National de Santé (LNS) in Dudelange and the Luxembourg Institute of Health (LIH) in Esch-Sur-Alzette;
- 27 November in the Netherlands with visits to TNO Defence and Security in Rijswijk and the National Institute of Public Health and the Environment (RIVM) in Bilthoven.

Initial observations of the BENELUX BTWC Peer Review of 2015

8. The objectives of the BENELUX Peer Review are listed in working paper BWC/MSP/2015/MX/WP.13. Most observations below refer to these objectives.

9. The BENELUX Peer Review format will clearly contribute to the following objectives: **improving national implementation, increasing international cooperation and raising awareness of the BTWC among national stakeholders**. The Peer Review required a considerable investment of time by busy professionals who do not count the BTWC among their core-responsibilities. Nonetheless they considered their participation professionally rewarding and worth the effort. Most experts had already been in contact with some of their BENELUX-counterparts. But the Peer Review's format with specific focus on biosecurity fitted well with the current professional needs and interests of the participants. Some participants even suggested that the respective one-day visit per country was too short and were interested in an even more thorough exchange.

10. In general, the assessment was that **biosafety** standards were high and implemented at satisfactory levels. The relevant measures are implemented in all three countries and supported by laws and regulations. **Biosecurity** showed a different picture. The Netherlands, having a national Biosecurity Office, is more advanced in this field than Belgium and Luxembourg. Representatives from the Netherlands presented the following tools to increase biosecurity awareness:

- A biosecurity toolkit and a movie (presented by the Dutch Biosecurity Office);
- An online self-scan toolkit to control collections of micro-organisms (TNO);
- A code of conduct for life scientists (NLD Min of Education);
- A biosecurity awareness-raising day for life-scientists.

11. Participants also were eager to improve the existing measures in their respective countries and signalled that the national reports that will result of the peer review, will offer the opportunity to promote these topics on the national political agenda.

12. Among the facilities visited were BSL2 and BSL3 laboratories, some with a broad public health and general scientific function and others with a specific biological defence function. Participants observed that **differences in the laboratories**' remits, functions and

daily practices (e.g. handling many samples from many sources having many different micro-organisms in a public health infectious disease context, versus exploratory research on pathogens for defence and security) required distinctive approaches in delivering biosecurity. Although all laboratories shared the overall objective to achieve biosecurity, the function of a laboratory dictates the type of measures needed and their respective feasibility. And even though the BENELUX countries are close neighbours, each nation has a unique institutional architecture and administrative culture. Any international strategy to implement biosecurity measures should take these differences into account.

13. Several experts noted that the limited probability of a biosecurity incident requires a biosecurity policy that is **cost-effective and minimally hampering research activities or the respective laboratories' "daily business"**.

14. Another observation broadly shared by participants was the importance of the **role of the "human in the loop"**: the professional, who needs to do his/her work with required quality and efficiency, must be aware of his/her responsibility towards the security-sensitive parts of the profession. He/she must be willing to work accordingly. The organisation must make sure the employee is aware of the risk and must provide the relevant infrastructure, procedures, training, clearance, incentives and enforcement to have the employee behave in accordance with the regulations. Physical security measures (access control to dual-use agents and technologies) are important and essential but the human aspect is the most crucial. During the visits to biodefense facilities, it became apparent that the securing of **tacit knowledge** of handling biological agents by scientists is a crucial element in biosecurity.

15. Many of the presentations given during the meetings of the peer review exercise mentioned the **importance of standards** on laboratory practices (WHO laboratory Biosafety and Biosecurity Guidelines) and certification (ISO 17025, ISO 9001, CWA 15793, CWA 16335). Several participants noted the desirability of a biorisk approach that addresses both biosafety and biosecurity concerns in a risk-based way.

16. Initiatives in response to the **Ebola-crisis in 2014-2015** were a recurring topic during the discussions. In Belgium, the Peer Review Teams were briefed about the deployment of a light mobile analysis unit, part of the Belgian biodefense capacity laboratory, in Guinea. In Luxembourg, the Peer Review Teams were briefed about a recently developed capacity to transport suspected Ebola patients by air (medical evacuation).

17. One of the reasons for the BENELUX-countries to organise the peer review was to make sure that the **BTWC remains a living instrument**, not only on paper and in Geneva, but also among experts and practitioners within States Parties.

18. The people who compile CBM's received **in-depth feedback for the first time on the national CBM's**. The peer review will therefore improve the accessibility and relevance of the CBMs of the participating countries.

19. One of the **lessons learned** was that the peer review format would gain in effectiveness if visiting Peer Review Teams could meet ahead of a visit to a host country in order to run through the issues that would require special attention and make the visit more effective. Several participants also stressed the importance of sufficient time for Q&A and exchange.

20. The Peer review was not motivated by any concrete suspicion of non-compliance on the part of any of the three BENELUX countries. This said, the opportunity of having unlimited access to all declared national facilities where biological defence research is conducted certainly contributed to increasing transparency and strengthening mutual confidence in compliance.

Way ahead

21. Apart from the national needs of the three countries involved, the Peer review exercise has the ambition to contribute to the debate in the **run up to the 2016 BTWC Review Conference** by testing the concept of a peer review, involving declarations, consultations and on-site visits and by consolidating the role of the BTWC CBMs as a declaration tool.

22. The BENELUX-countries sincerely believe that a peer review can increase States Parties' ability to demonstrate compliance through enhanced transparency about capabilities, intentions and actions, by means of declarations, consultations and on-site visits. A more thorough analysis of the effectiveness of the chosen format of the Peer Review and elements for discussion at the Review Conference will be presented later in the process.