I. Introduction

1. Rapid scientific and technological developments in Life Sciences and Biotechnology have underscored the relevance of the Biological and Toxin Weapons Convention (“BWC”). Furthermore, the decision by the Ninth Review Conference to establish a Working Group on the strengthening of the convention, including on measures on compliance and verification (BWC/CONF.IX/P, Part II, para 8), have highlighted the need to advance discussions on compliance and verification.

2. Technological advances have also tremendously increased capabilities in the biological domain and continuously decreased the resource- and infrastructure requirements associated with advanced biology. As a consequence, the range of actors that have the capacity to engage in advanced biology is increasing. The decreasing resource and infrastructure requirements to potentially produce biological weapons could render malign activities cheaper and harder to detect. This is important to keep in mind when discussing the question of verifying compliance with the BWC.

3. The purpose of this working paper is to contribute to the deliberations on agenda item d) measures on compliance and verification, by taking into account the numerous formal and informal processes that have helped shape the discussions on verification and compliance over the years. To increase the chances of a successful, constructive and tangible outcome during the Working Group Sessions, we believe that it is essential for States Parties to build a shared understanding of why compliance and verification is important and how it can contribute to the strengthening of the BWC. Furthermore, there is a need to reflect on various aspects when discussing what to verify. Underpinning those questions are some key aspects outlined in this paper that we believe the working group should consider.
II. How can compliance and verification contribute to the strengthening of the BWC?

4. The sponsors of this paper believe it is important to focus the initial conversation on purposes and positive aspects of compliance and verification. The purpose of compliance and verification could include, but should not be limited to, creating trust; building confidence that States Parties are complying with the provisions contained in article I-IV of the Convention; avoiding misunderstandings and dispelling potential misgivings; helping address allegations of non-compliance; and creating safeguards that enable and encourage safe innovation.

5. Discussing potential threats and risks together with acknowledging the dilemma of distinguishing between legitimate and malign intentions could help States Parties build a shared understanding of how compliance and verification can contribute to the strengthening of the BWC, which could then feed into discussions about the scope of verification, i.e. what to verify and how.

6. Furthermore, developing shared understandings of overarching purposes can provide States Parties with arguments when explaining to national constituencies, as well as to other stakeholders such as industry, academia, and civil society, how development of BWC verification could contribute to global biosecurity.

III. Aspects for consideration when discussing what could be verified

7. An important aspect for State Parties will be to consider whether to focus on potential state-led programs and governmental laboratories only or also consider private actors, as well as ensuring compliance with article IV. It would be important to try to separate legitimate actors from those with harmful intent and to prevent non-state actors from using biology for non-peaceful purposes. The substantial growth in the number of laboratories and actors dealing with biological agents and toxins of concern globally should be taken into account. It would also be useful to consider how existing databases of laboratories may be utilized.

8. Much has changed since the States Parties last discussed compliance and verification in the 1990s and early 2000s. While measures identified in VEREX (1994-1995) and the Ad Hoc Group (1995-2001) are still relevant today, new tools and approaches must be considered given the technological developments in Life Sciences and Biotechnology in recent years. Many of the original verification measures proposed by VEREX have evolved significantly. Our suggestion would be to structure discussions so that they reflect the current biotechnological realities. In our view, verification would necessarily imply a range of different measures encompassing both new and old technologies and tools. We need to ensure that the convention is strengthened so that reflects biotechnological realities in the 21st century. Assessing what should be verified depends on a range of factors which include, but are not limited to, the following:

(a) The purpose that verification is supposed to meet;
(b) The assessed risks and threats that verification should respond to;
(c) The desired level of confidence to achieve;
(d) The technical, financial, political and national security feasibility of any proposed measure.

9. States Parties will have to decide if the aim of verification is to focus on prevention and the absence of bio-weapon programs, on compliance/non-compliance in a broader sense— or on all of them. The measures to be developed will depend on what States Parties wish to verify. Inspiration and lessons learned can be drawn from verification and compliance efforts carried out by the UN through SSOD1 and Panel of Government Experts on verification in all its aspects, the different Groups of Governmental Expert on Nuclear Disarmament
Verification and the FMCT, international organizations such as OPCW and IAEA and verification mechanisms associated with other disarmament treaties. It will be important to keep in mind previous efforts on verification, including the suggestions for verification measures by VEREX. It will also be important to avoid overlap of BWC verification with other existing bodies and mechanisms e.g. WHO and the UNSGM, including what will be developed in the context of the negotiations of the pandemic treaty and the updated International Health Regulations. It will also be important to consider women and youth involvement and participation.

10. Possible guiding questions could be:
   • What is already in place and are there measures that could be built upon?
   • What can be verified and how?
   • What is technically feasible and what is not?
   • How can emerging technologies be used in verification?
   • Who should verify?

11. There may be several types of suitable surveillance methods that can be considered. When discussing these and other types of measures, considerations around intellectual property rights also need to be taken into account.

IV. Engagement and collaboration

12. In order to ensure compliance and verification there is a need for close cooperation with industry and commercial stakeholders, as well as technical experts and scientific communities. An iterative development based on an interplay between these stakeholders is likely to be the most fruitful approach. The WG meetings should facilitate and encourage interactions with and between technical experts from all countries party to the Convention, as well as women’s and youth participation. Meetings between capital-based technical experts in-between formal sessions should be encouraged.

13. The sponsors of this paper see a clear link between compliance and verification and the enhancement of national implementation. If gaps in national implementation are identified as part of a verification process, this should be viewed as an opportunity to strengthen national implementation, including through capacity building and international cooperation. Furthermore, when considering the added obligations that any verification enhancements would require State Parties to live up to, it would be important to consider State Parties’ existing capacities, including how these capacities if necessary may be strengthened through international cooperation. The sponsors of this paper therefore view the Science and Technology Mechanism and the International Cooperation and Assistance Mechanism as linked to verifying compliance.

14. The issues of compliance and verification also have clear linkages to other agenda points such as b) measures on scientific and technical developments relevant to the Convention, c) measures on confidence-building and transparency and g) measures on organizational, institutional, and financial arrangements.

15. Though there are many issues that need to be addressed and examined, the sponsors of this paper are optimistic that the WG’s discussions will lead to more clearly defined shared understanding of the aim, purpose and feasibility of BWC verification.