

# BRONIC Individual NGO Statement to Biological Weapons Convention

## Ninth Review Conference

### Geneva

28 November – 16 December 2022

Mr President, Distinguished Representatives:

Thank you for providing the opportunity to make an individual statement. In the interest of time, I will keep this statement short but extend my invitation to our upcoming side event this Thursday 1<sup>st</sup> of December at 9AM local time for a more detailed account.

Mr President,

Today's integrated and converging technological landscape, makes article I on what is considered "hostile purpose" or misuse of biotechnology a practically incredible challenge.

Biological misuse at the intersection of the cyber / life science domains and its classification will have to be considered carefully, as biotechnology becomes more integrated, laboratories more internet-connected and scientific research more computer-dependent.

Biotechnology is not constrained to borders and will be exploited by nefarious actors regardless of country. In common with this, the inherent (and ongoing) challenge of unlocalised threats within cyberspace persists, both in terms of identifying the origin of the attack and the attacker's non-geographic cyber-identity. Similar issues may increasingly emerge for biological threats and consideration should be given to how to deal with such issues.

Over the course of the last five years, Bronic has been working across the public, private and civil society sectors, we have assessed various emerging technologies from ingestible biosensors as medical devices to consumer health living wearables identifying several potential misuses that lie at the intersection of the cyber / life science domains such as bio-malware, neuro-hacking, cyber-biocrime and the list goes on.

For a successful Ninth Review Conference, and the subsequent intersessional process, we must act now to keep the BWC relevant. There are two areas in particular that I would like to expand on with this statement.

- The first concerns Article IV of the BWC that requires all states parties to take any necessary measures to prohibit and prevent biological weapons in accordance with their constitutional processes. For this, I wish to highlight the significance of security design and the inclusion of non-traditional expertise in biotechnology ideation and manufacture, one that combines theoretical insight with practical suggestions to ensure peaceful use before a technology is even built. We encourage State Parties to consider the proposed relevant voluntary standards on biorisk management and

Guidelines for Codes of Conduct for Scientists, but to extend their attention to responsible innovation and security design from the outset; especially as we move from research in a lab to biological products at-home. To achieve this there is the need for BWC States Parties to ensure that they have communication channels open to “non-traditional” groups that are crucial to building a culture of safe, secure and responsible research and products. These include artists to encourage creative leaps for built-in security through an active design process and/or experts who have technical experience in either innovating, developing or using biotechnologies, but who may or may not have professional or academic qualifications, and practice science outside the traditional institutional premise. The inclusion of non-traditional experts in the iterative process of identifying and mitigating vulnerabilities through design may contribute to the prevention of biological and biotechnology misuse under article I of the convention and is worth pursuing internationally.

- Following this, the second point, I would like to expand on, is that the Convention needs a **mechanism to systematically monitor and review developments in science and technology**. For this, I encourage State Parties to consider implementing our **hyBrid hAckathon dElphi framework** – so called BAKE – that couples a theoretical scenario building exercise with practical suggestions through prototyping. The BAKE framework aims to proactively identify early warnings and integrate elicited opinions from diverse field experts. This – or a similar – framework can be used to aid national and international security decision-making for risks on emerging technology<sup>1</sup>, including biotechnology, and has been recognised and published by the UK’s National Security Machinery First Report<sup>2</sup>. A Scientific Advisory Board, constituting diverse and non-traditional expertise, as noted previously, can implement the BAKE framework to understand the impact of the advances in science and technology, providing a monitoring mechanism and early warning system. In short, we encourage Design Against Misuse as a biological security strategy to safeguard our science and society.

Mr President,

Cyberbiosecurity is neither a biology-only nor a cyber-only challenge. To identify novel risks that emerge at the interface of these two broad disciplines we must cultivate and exploit a wider ecosystem of non-traditional expertise. An approach that investigates biotechnology and security issues from multiple sources, both speculatively and experimentally, is pivotal in producing forward-thinking guidance to influence responsible State Parties, in order to head off future misuses.

Mr President,

I thank you for your attention and I wish you a productive and successful RevCon.

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<sup>1</sup> Elgabry, M. (2021) Written Evidence Submission to the UK Joint Committee on Biosecurity and National Security. Available at: <https://committees.parliament.uk/writtenevidence/26765/html/>

<sup>2</sup> Joint Committee on the National Security Strategy (2021) The UK’s national security machinery First Report of Session 2021–2. Available at : <https://publications.parliament.uk/pa/jt5802/jtselect/jtnatsec/231/231.pdf>