The second of the Meetings of Experts (MXs), on the topic of ‘Review of Developments in the Field of Science and Technology Related to the Convention’, concluded its proceedings on Friday after the break caused by the public holiday in Switzerland on Thursday. Two substantive agenda items were discussed and the meeting went on to adopt its procedural report after a novel amendment had been proposed.

Risk and benefit assessment
This item had started in a brief session on Wednesday afternoon when the USA spoke to its working paper [WP.3] outlining risk assessment tools, followed by the UK on its paper [WP.6] which proposed that the MX explores the applicability of available frameworks that could be used in future. There was also a technical presentation by Japan on national approaches to risk assessment of leading-edge life sciences. On Thursday, the meeting started with technical presentations from Malaysia on their National Laboratory Biosecurity and Monitoring Checklist and outreach programme for the biosecurity checklist; from Belarus on biological risk assessment and management in that country; and from France on the Haut Conseil des Biotechnologies (HCB) which includes a scientific committee alongside an economic, social and ethics committee composed of a broader representation from society. Katie Bowman [as a Guest of the Meeting (GoM)] informed MX2 of the workshop that had been held on Thursday that had examined frameworks that could be used as qualitative tools for risk analysis. Owing to travel commitments, France gave a second technical presentation on gene drives relating to the later agenda item on developments; however, the juxtaposition was useful, as it put risk and benefit analysis in context with a real-world case study. Switzerland spoke to aspects of its paper [WP.2] that fell within this agenda item, noting that assessments had to be ongoing, highlighting newly available information on long-term effects of CRISPR techniques on genome instability which may alter the risk/benefit balance of potential applications. The interactive session was detailed. The value of identification of benefit useful for the implementation of Article X was identified.

Review of science and technology developments
Germany spoke to its paper [WP.1, co-sponsored by the Netherlands and Sweden] which proposed a Scientific and Technological Experts Advisory Forum (STEAF). Switzerland highlighted parts of its paper [WP.2] which included conclusions from the ‘Spiez Convergence’ conference in 2018. Australia outlined its paper [WP.4] looking at the implications of synthetic biology and policy responses. Iran spoke to elements of its paper [WP.5] not already covered. Russia gave a technical presentation on review of science in that country and concluded there was a need for a new scientific advisory body. Nancy Connell, Johns Hopkins Center for Health Security, [as a GoM] spoke of the challenges of global catastrophic biological risks and how developments could have positive and negative influences on them. In discussion there was broad agreement and much common ground on a need for effective review of scientific and technological developments, but divergences on what might be the best method. Most delegations expressed an interest in
some form of new meeting format or dedicated body; a notable exception was Iran which expressed skepticism in relation to anything new. A number of delegations expressed hopes that continued work could lead to a substantive proposal that might achieve consensus at the Ninth Review Conference.

Adoption of the procedural report
Discussion of the report for MX2 took the meeting past the availability of the plenary room, so the MX moved to Room XXVI, although it was only there for about about half an hour. In a new move, Russia had brought forward an amendment for the procedural report, citing the mandate from the 2017 Meeting of States Parties that MX reports should include ‘possible outcomes’. The amendment suggested that MX2 had been in favour of establishing the ‘Scientific Advisory Committee’ that Russia had initially proposed in 2016. A number of objections were raised to this amendment, from direct opposition to the concept within the proposal, to suggestions that this would set a difficult precedent as there could be long discussions in the future on possible recommendations. As the report is adopted by consensus, Russia withdrew the proposal. This report, as with that for MX1, contains footnotes relating to certain Latin American countries and NAM statements which are a reflection of regional politics and do not relate specifically to the BWC.

Reflections on MX2
As with MX1, MX2 had highly active sessions, full of detailed discussion, together with much more interaction than previous years. The level of detail was important as keeping on top of relevant scientific and technological developments underpins so much else – effective implementation of Article X relies on nuanced understandings of scientific and technological developments; Article VII is the same. National implementation relies on an understanding of the scientific and technological context. It was said in the room that scientific and technological developments cannot be seen in isolation, but delays in making progress on measures to get improved science and technology review bring with them risks that could impinge on effective implementation of Article VII and Article X.

A look forward to MX3
MX3 will be the first of the one-day MXs and its topic is ‘Strengthening National Implementation’. The importance of national implementation of Convention obligations has been regularly highlighted. There is widespread acknowledgement that there is much room for improvement, not only in countries where specific legislative measures are not yet in place, but also in ongoing review of existing legislation and enforcement activities in all countries to ensure they have kept pace with changing contexts. The emphasis this year in MX2 on risk and benefit analysis has been a useful prelude to MX3 as national implementation by each government can only be effective if it has a clear understanding of the risks and benefits of the life sciences activities that are taking place within the territorial jurisdiction relevant to that government. The background information document [BWC/MSP/2018/MX.3/2] produced by the Implementation Support Unit (ISU) for the 2018 MX3 remains relevant to the discussions this year.

Side Events
There were four side events held on Friday. Two at breakfast were convened by Russia on ‘Recent scientific findings in the sphere of biosecurity’; and by the InterAcademy Partnership and the US National Academies of Science, Engineering and Medicine on ‘Qualitative Frameworks to Assess Risks and Benefits of Advances in Science and Technology: Opportunities for the BWC’. Two at lunchtime were convened by Germany and the Stockholm International Peace Research Institute on ‘Monitoring scientific and technological developments – new approaches to the BTWC’; and by the Max Planck Society on ‘Going viral? Deliberately releasing GM viruses into the environment’.

This is the fifth report from the series of five Meetings of Experts for the BWC which are being held from 29 July to 8 August 2019 in Geneva. These reports are produced by the BioWeapons Prevention Project (BWPP). They are posted to <http://www.bwpp.org/reports.html> and <http://www.cbw-events.org.uk/bwc-rep.html>. An email subscription link is available on each page. The reports are prepared by Richard Guthrie, CBW Events <richard@cbw-events.org.uk>.