CBWNet

Strengthening the norms against chemical and biological weapons

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Launching the Competence Network CBWNet: Achievements of the Chemical Weapons Convention and Future Challenges

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Celebrating 25 years of Chemical Weapons Convention: The launch of the *CBWNet* competence network

Alexander Kelle / Oliver Meier,
Institute for Peace Research and Security Policy at the University of Hamburg

On 29 April 2022, the Chemical Weapons Convention (CWC) turned 25. More than 40 decision-makers, experts from civil society, think tanks, industry and media reviewed CWC accomplishments during a high-level meeting at the Berlin representation of the Free Hanseatic City of Hamburg. The event was also an opportunity to launch the new Competence Network *CBWNet*. This first *CBWNet Working Paper* collates most of the statements made at the meeting, in order to make them accessible to experts and the broader public.

The conference also provided an opportunity to discuss ways to tackle current and future challenges to the norms against chemical weapons. UN High Representative for Disarmament Affairs, Izumi Nakamitsu, in her video message, argued that the CWC has demonstrated the tangible security benefits that multilateral disarmament instruments provide and stated "it is inarguable that the world is a safer place because of the Convention."

Many participants pointed out that the achievements in outlawing chemical weapons cannot be taken for granted. State Secretary Susanne Baumann of the German Federal Foreign Office warned that the "centerpiece of the CWC, the universally accepted and undisputed global ban of chemical weapons, is under ever-increasing pressure, just like our entire international rules based order". She said that "we are today in a battle to keep it alive" and warned that the international community had won "a few skirmishes" but not yet the battle.

The high-level event was also the occasion to launch the Competence Network *CBWNet*, a new, joint endeavour aimed at strengthening the norms against chemical and biological weapons. The four-year project is carried out jointly by the Berlin office of the Institute for Peace Research and Security Policy at the University of Hamburg (IFSH), the Chair for Public Law and International Law at the University of Gießen, the Peace Research Institute Frankfurt (PRIF) and the Carl Friedrich von Weizsäcker-Centre for Science and Peace Research (ZNF) at the University of Hamburg.

Project partners will scrutinize the forms and consequences of norm contestations within the CBW prohibition regimes from an interdisciplinary perspective. This includes a comprehensive analysis of the normative order of the regimes as well as an investigation of the possible consequences, which technological developments, international security dynamics or terrorist threats might yield for the CBW prohibition regimes. Wherever research results point to challenges for or a weakening of CBW norms, the project partners will develop options and proposals to uphold or strengthen these norms and to enhance their resilience. The project is guided by a prestigious group of advisors in its transfer network. The German Federal Foreign Office and the Joint Committee on the Handling of Security-Relevant Research of the German Academy of Sciences Leopoldina and the German Research Foundation (DFG) will be partners in project implementation.

The Director-General of the Organisation for the Prohibition of Chemical Weapons (OPCW), Fernando Arias, at the event said that in order "to prevent the re-emergence of chemical weapons we will need all stakeholders to play their part". Arias commended "the Federal Ministry of Education and Research for funding the Competence Network, *CBWNet* and the four prestigious academic institutions that will be in charge of developing it over the next four years".

We at *CBWNet* are grateful to the many institutions and persons who have helped to get his project off the ground and are excited about the opportunity to work with them over the next four years. We would like to thank the German Ministry of Education and Research, which is funding *CBWNet*. We are grateful for the support and cooperation of the German Federal Foreign Office, which made the 29 April high-level event possible. We also thank all those who participated in the event and have expressed an interest in working with us in the future.

Preventing the re-emergence of chemical and biological weapons has to be a collective effort. From this perspective, the presentations made at the conference and the ensuing discussions were a good start. Former OPCW Director-General Ahmet Üzümcü, who is also a member of the *CBWNet* transfer network, recommended that "relevant civil society organizations should be further developed." Üzümcü believes "that there is a greater potential in this domain which is mutually beneficial." In this spirit, *CBWNet* members look forward to working with all those interested in strengthening the norms against chemical and biological weapons!

Part 1: 25 Years Chemical Weapons Convention: What has (not) been achieved

Izumi Nakamitsu,
United Nations High Representative for Disarmament Affairs

I want to thank the Competence Network *CBWNet* and the German Federal Foreign Office for organizing this high-level event on the occasion of the 25th anniversary of entry into force of the Chemical Weapons Convention.

At the quarter of a century mark, few instruments deserve as much praise as the CWC. Adopted at the UN Conference on Disarmament in Geneva after 12 hard years of negotiations, the CWC has been a bastion of the disarmament and non-proliferation regime.

Its many successes – including near universality with 193 States Parties and the destruction of 99% of the world's declared chemical weapons stockpiles – are a testament to the world's determination to eliminate these dreadful weapons and the efficacy of the CWC and the Organization for the Prohibition of Chemical Weapons in achieving those goals.

The CWC has demonstrated the tangible security benefits that multilateral disarmament instruments provide.

It is inarguable that the world is a safer place because of the Convention. However, the re-emergence of these weapons of terror is one of the most worrying developments in international security.

The use of chemical weapons in the Syrian Arab Republic, Malaysia, Iraq, the United Kingdom and the Russian Federation has threatened the norms embedded in the Convention and profoundly damaged disarmament and non-proliferation efforts.

The heinous consequences of the use of these weapons have been compounded by divisions and tensions over how to ensure the integrity of the norm against chemical weapons. This in turn has created significant difficulties in holding accountable the perpetrators of their use. This is not a situation the international community should allow to persist.

Secretary-General Guterres has repeatedly stressed that the use of chemical weapons anywhere by anyone, and under any circumstances, is unacceptable and has urged the international community to act. Yet, the Security Council has not fulfilled its responsibility to hold accountable the perpetrators of these atrocious acts.

It is alarming that more than a century after the end of World War I and despite the adoption of the 1925 Geneva Protocol and the entry into force of the Chemical Weapons Convention in 1997, the use of chemical weapons continues to recur.

The pursuit of the elimination of chemical weapons requires a cooperative approach and the United Nations and the OPCW Secretariat have a longstanding partnership working to achieve this goal. This partnership was made official by the relationship agreement concluded in 2000. It codified our fruitful cooperation and the establishment of good working relations.
The close cooperation between the United Nations and the OPCW and the mutually reinforcing nature of our work was exemplified by the United Nations Investigation into the Allegation of the Use of

Chemical Weapons in the Syrian Arab Republic (so-called "Sellström Investigation"), the OPCW-UN Joint Mission and the work of the OPCW-UN Joint Investigative Mechanism (JIM).

In that spirit, let me take this opportunity to thank Director-General Fernando Arias and Ambassador Ahmet Üzümcü for their years of dedicated service to the OPCW and for their strong support to the Office for Disarmament Affairs.

The norm against chemical weapons has been subjected to repeated and fundamental challenges, driven by the lack of strict compliance by some, a deteriorating international security environment, the rise of dangerous non-state actors capable of acquiring and using chemical weapons, and developments in science and technology.

The international community must act together to shore up the norm against the use of chemical weapons, to hold to account anyone who would stoop to using them and to revive the global regime.

An immediate challenge facing the health of the CWC is the use, with impunity, of toxic chemicals as weapons in the Syrian Arab Republic. The gaps, inconsistencies and discrepancies in Syria's initial and subsequent declarations to the OPCW must be resolved. The Syrian Arab Republic must also allow immediate and unfettered access for the OPCW Secretariat. Without the Syrian Arab Republic cooperation, the international community cannot have confidence that Syria is abiding by its commitments.

I welcome the on-going work of the OPCW Declaration Assessment Team, the Fact-Finding Mission, as well as the OPCW Investigation and Identification Team. The impartial and professional work of these bodies is crucial to re-establishing the taboo against the use of chemical weapons and bringing to justice the perpetrators of chemical weapons use.

If we fail to both identify the perpetrators of chemical weapon attacks and hold them accountable, we will further damage the norm against the use of chemical weapons. Such profound violations of international law cannot continue to go unaddressed and unresolved.

As we have seen in the past years, chemical weapons are not confined to one region and the potential for chemical weapons to become a weapon of terror and intimidation must cease.

All States parties to the Chemical Weapons Convention must strictly abide by their obligations under that treaty and renewed efforts must be made to universalize the Convention.

Going forward, we need to preserve the integrity of the Convention and of the OPCW Technical Secretariat work. Challenges to the OPCW's technical authority could undermine the entire disarmament and non-proliferation regime. I take this opportunity to reiterate my full support for the integrity, professionalism, impartiality, objectivity, and independence of the work of the OPCW.

The use of chemical weapons is a grave violation of international law and an affront to our shared humanity. Vigilance is required to ensure that these awful weapons are eliminated once and for all.

The identification of those responsible for the use of chemicals weapons is not the ultimate objective. There is a step beyond that, wherein those who are responsible for the use chemical weapons are then held accountable.

In facing the growing challenges posed by chemical weapons in this century, I assure you that the UN will continue working with the OPCW Secretariat and all Member States to forge an ever-stronger collaboration to restore the taboo against chemical weapons. Let us use this anniversary to reaffirm our support for the Chemical Weapons Convention and its essential work to build a safer, more secure world for all. Together, let us work harder, until we can finally consign those dreadful weapons to the pages of history. I wish you all a successful and productive event.

Fernando Arias,
Director-General, Organisation for the Prohibition of Chemical Weapons

I am pleased to be part of this event organised by the Institute for Peace Research and Security Policy for the start of the Competence Network, *CBWNet*.

I also wish to commend the German Federal Foreign Office and the Federal Ministry of Education and Research for their support to the Network and for this timely event.

This year is a momentous time for the OPCW.

We mark the 25th anniversary of the entry into force of the Chemical Weapons Convention and the establishment of the Organisation.

In reflecting on the Convention's achievements over the past two and half decades, we recognise that it was the outcome of thorough diplomatic negotiations in Geneva, at the end of the 1980s, beginning of the 1990s, when it was possible to work in a very constructive atmosphere.

The success of the very long negotiations was also the result of many years of preparatory work involving academia, civil society and governments.

The international community's determination to ban the use of this abhorrent method of warfare has a long history.

The first international agreement limiting the use of chemical weapons dates back to the 17th century, when France and Germany prohibited the use of poisoned bullets.

Other attempts followed such as the first and second Hague Conferences at the end of the 19th and beginning of the 20th centuries.

The Geneva Protocol of 1925 prohibiting the use of asphyxiating, poisonous or other gases was another important step.

The signature of the Chemical Weapons Convention in Paris in 1993 was the culmination of a very long process.

It meant a great achievement in the field of disarmament.

The destruction of the declared chemical weapons by States Parties will come to an end next year, in 2023.

However, current global events underscore that preventing the re-emergence of chemical weapons is an agenda that will remain open after the end of the period of destruction that I have just mentioned.

Today, there are fears and threats of the use of weapons of mass destruction, including chemical weapons, in Ukraine.

The OPCW has been closely following this serious situation.

I recall that all 193 States Parties to the Convention, including the Russian Federation and Ukraine, have solemnly and voluntarily committed, never under any circumstances to develop, produce, acquire, stockpile, transfer or use chemical weapons.

Looking back – What has been achieved?

The accomplishments of the Convention are clear, concrete, and lasting.

Today, the Organisation counts 193 countries as States Parties to the Convention.

This implies that 98% of the world's population is protected by the Convention.

In addition, to date more than 99% of all declared chemical weapon stockpiles have been verifiably destroyed.

The United States of America, the last chemical weapons possessor State Party, is on track to complete its chemical demilitarisation process in 2023.

During this process of destruction, the Organisation has conducted 3,379 inspections of chemical weapon destruction facilities to make certain the possessor States Parties are destroying their declared chemical arsenals.

There has also been significant progress in efforts to destroy chemical weapons abandoned in the last period of World War II by Japan on the territory of China.

China and Japan have carried out the excavation, removal, and destruction of more than 60,000 out of 89,000 items declared as abandoned chemical weapons.

The OPCW has strictly supervised the destruction of all these weapons.

In addition to the destruction just mentioned, one of the main challenges for the Organisation is to reduce the risks of dangerous chemicals falling into the wrong hands.

The chemical industry frequently uses, for peaceful purposes, and in a legal way, chemicals of dual use.

In this respect, the Organisation has conducted some 4,232 industry inspections in over 80 States Parties.

These inspections verify that the production of relevant chemicals remains solely for authorised purposes.

Accordingly, the inspectors of the OPCW travel every week all over the world to conduct specific inspections at chemical industry facilities.

Beyond its activities in disarmament and non-proliferation, the Organisation continues to support the peaceful uses of chemistry through a wide range of practical programmes of international cooperation.

These include training in different fields and courses to enhance the skills of first responders in chemical emergency response and management.

The task that the Organisation has accomplished has not gone unnoticed by the international community.

In 2013 the OPCW was awarded the Nobel Peace Prize for its "extensive efforts to eliminate" chemical weapons.

Despite the huge task that I have already referred to, the long-standing and new threats we currently face demonstrate the formidable challenges that persist.

Our response to them is shaping the present and will shape the future of the Organisation.

Current and future challenges: preventing the re-emergence of chemical weapons

Over the course of the past decade, we have witnessed repeated violations of the global norm against the use of chemical weapons in Iraq, Malaysia, the Russian Federation, the Syrian Arab Republic, and the United Kingdom.

The Syrian Arab Republic accession to the Convention in 2013, generated a special and at present not yet finished task.

This is the ninth year of our engagement on the Syrian chemical weapons dossier.

It is worrisome that this matter is still not closed.

The OPCW's Conference of the States Parties and the Executive Council, have consistently demanded that Syria redress its failure to declare and destroy all its chemical weapons and chemical weapons production facilities.

To this end, our work in Syria continues on multiple fronts, as we implement the mandates provided by decisions of the OPCW's policy-making organs and the United Nations Security Council Resolution.

The Secretariat of the Organisation has also been active in providing advice and assistance to other States Parties in cases of chemical incidents.

Technical assistance visits, provided for under Article VIII, paragraph 38(e) of the Convention, have helped the United Kingdom and Germany, to find and identify chemical warfare agents used in those cases.

Incidents of chemical weapons use highlight another issue of serious concern:

– the potential acquisition and use of toxic chemicals by non-State actors.

It has been documented that ISIL used chemical weapons in Syria and Iraq on several occasions.

Accordingly, the OPCW has been addressing the use of chemical weapons by non-State actors in a more comprehensive manner, through its Open-Ended Working Group on Terrorism and through a dedicated decision adopted in 2017.

Moreover, the OPCW has been cooperating with agencies such as the United Nations Office of Counter Terrorism and the UN Security Council Resolution 1540 Committee.

A rapidly expanding chemical industry adds further risks, because of the use of dangerous chemicals in the chemical cycle, from research, development, production, to commercialisation and transportation, storage and use.

Unfortunately, the risk of diversion of those chemicals exists, and they can fall in the wrong hands to cause a catastrophe.

The challenge lies in how these risks are being managed.

Dual-use chemicals are frequently components used in the production of, inter-alia, pesticides, plastics, pigments, herbicides, pharmaceuticals, automobile and aviation industry.

Some of them are extremely toxic, some others are not particularly toxic but can be used as precursors for the production of nerve agents.

The goal, therefore, must be to prevent these substances from being diverted to cause harm to people and the environment.

Tackling chemical terrorism requires the States Parties to reinforce their approach to chemical safety and security.

In this respect, the Hague Ethical Guidelines promote the need to apply the highest ethical standards in research and innovation in the field of chemistry.

The Hague Ethical Guidelines were an initiative of Germany at the OPCW.

They were taken up by many stakeholders, including the International Union of Pure and Applied Chemistry (IUPAC), the International Council of Chemical Associations (ICCA), and the International Chemical Trade Association (ICTA).

The implementation of the Convention is mainly carried out by the States Parties with the active support of the Secretariat of the OPCW.

There is no doubt that strengthening the extensive implementation of the Convention at the national level is our first line of defence.

In this vein, States Parties have the responsibility to enact and implement necessary legislation in line with national constitutional processes.

It requires the involvement and commitment of different national actors and institutions, including parliaments, the judiciary, law enforcement agencies, customs officials and ministries of foreign affairs, defence, interior, trade, industry, and science, among others.

The OPCW is addressing the hurdles I have mentioned while keeping pace with the impressive speed of developments in science and technology and its negative effects.

We constantly work to maintain and develop the knowledge and skills of our teams.

If we are successful at training and capacity building programmes for our staff members, I have no doubt that we will be able to continue delivering efficiently.

We find strong and wide support of the States Parties in this undertaking.

The construction, near The Hague, of the OPCW's new Centre for Chemistry and Technology, the ChemTech Centre, is a demonstration of this endeavour.

The Centre will be a unique tool to contribute to international peace and security.

Three and a half years ago, the ChemTech Centre was only an idea.

The majority of the States Parties understood that new premises were required to address the new threats we are facing.

The facility that will allow us to conduct research, analysis, training, and all kinds of international cooperation and assistance activities, with a view to better implementing the Convention.

Today, the construction of the building of the ChemTech Centre is progressing on schedule and respecting the budget.

We expect to complete the construction at the end of this year and to inaugurate the facility in the spring of 2023.

This project will be a testimony of the international community's efforts to achieve peace and security, and is a demonstration that despite the difficulties we have had to face in the last two years, the Secretariat of the OPCW has delivered.

On this occasion, I would like to express my sincere appreciation to Germany for its strong political and financial support to the project of the ChemTech Centre.

Additionally, I also want to express my gratitude to Germany for its cooperation in identifying future projects that will be carried out at the Centre.

This is particularly relevant at a time when we are preparing the activities to be conducted and we are deciding the best way to initiate the running of the Centre.

Conclusion

Although the norm against the use of chemical weapons has been challenged in recent years, it remains strong.

No actor has acknowledged any involvement in the use of chemical weapons, or has ever recognised their use.

The taboo is very strong.

Yet, we must remain vigilant to any violation of the norm and stand ready to take action.

The success of the Convention over the past quarter century is the result of the commitment and efforts of its States Parties.

For its part, despite the political difficulties and the pandemic, the Secretariat has continued to deliver, with conviction and loyalty, on all the mandates it receives.

In this common endeavour we need all stakeholders to play their part.

This includes governments, civil society, academia, the chemical industry, and the entire international community.

In this respect, I would like to commend the Federal Ministry of Education and Research for funding the Competence Network, *CBWNet* and the four prestigious academic institutions that will be in charge of developing it over the next four years.

I thank you for your attention.

Susanne Baumann,
Secretary of State, German Federal Foreign Office

The 25th anniversary of the Chemical Weapons Convention is a reason to celebrate.

When the CWC entered into force in 1997 it was a milestone for multilateral arms control. It was not the first ban of an entire class of weapons of mass destruction – that was the BWC in 1972. But it was the first which combined that ban with the obligation to destroy the huge stockpiles of chemical weapons that had been accumulated during the Cold War. There was the strong determination in the international community that we should not see the repetition of human tragedies such as the massive use of chemical weapons in the First World War or in the first Gulf War between Iran and Iraq.

The CWC was also the first WMD arms control instrument that combined the ban with a broad verification regime, including industry verification. This is fundamental in creating the necessary trust of all participants in universal compliance – something that has eluded us to this date in spite of serious efforts in the case of biological weapons. And finally, its use of the general purpose criterion in defining a chemical weapon maintains its all-encompassing character in spite of developments in technology.

The CWC is at its 25th birthday still a very modern and up to date instrument.

Another marker of success is that with 193 member states it has gained almost universality.

While these points are all good reasons to celebrate, especially with such a distinguished group of well-wishers assembled here today, we do not meet the 25th anniversary of the CWC in a state of cheerfulness. To the contrary: For several years, we have seen dark clouds assembling over the horizon. The centerpiece of the CWC, the universally accepted and undisputed global ban of chemical weapons, is under ever-increasing pressure, just like our entire international rules based order. We are today in a battle to keep it alive. While we – i.e. the international community – have won a few skirmishes, we have not yet won that battle.

The appalling, repeated use of chemical weapons in the atrocious conflict in Syria is the biggest reversal to the CWC's aspirations that we have seen so far. Although international pressure forced Syria to become a party to the CWC and renounce its chemical weapons, the Assad regime has been dodging these obligations from the start. Not only, in spite of the persistent and meticulous efforts of the OPCW's Technical Secretariat, has Syria never presented a complete and consistent initial declaration, but the regime has continued using chemical weapons after joining the Convention, and we have very good reason to fear that even today it still tries to continue a covert chemical weapons program in spite of its international obligations. That is utterly unacceptable.

What is even more worrisome is the fact that there was not a unified outcry by the entire international community to these developments, because a few countries, and in particular Russia, covered and shielded the Assad regime's action. Even worse, Russia has taken active steps to discredit the OPCW's action to investigate and publicly put its impartiality and professionalism into doubt. For us that is unacceptable.

Fortunately, the huge majority of the international community stood together to defend the global ban on chemical weapons. In the case of Syria, we have been successful in creating an ad hoc instrument to investigate the use of chemical weapons and in a second step to attribute these cases and name the perpetrators. In a third step we must put our legal systems to work in order to bring the

perpetrators to justice. Having stripped Syria of its rights and obligations under the CWC because of its on-going non-compliance was a historic step, but must not mark the end.

We must maintain pressure on the Assad regime to fulfill all of its obligations, and denounce all efforts to shield the breakers of international law.

Speaking of breaking international law: Russia's own compliance record with the CWC is more than doubtful. Its persistent refusal to investigate the attacks against Sergey Skripal and Alexey Navalny, the enormous efforts to dodge the international calls to come clean on these incidents makes it clear for us that Russia is not acting in good faith and is not in full compliance with its obligations. That is a serious concern for our security.

Against this background, Russia's unfounded claims regarding alleged plans to use chemical weapons by Ukraine, a country with an exemplary non-proliferation record, are all the more alarming in the current context. They may not just serve the attempt to justify Russia's war of aggression, but could prepare the ground for so-called false flag operations where toxic chemical weapons are used as a weapon and the blame put on the other side. This is a very real danger that Ukraine is currently facing. I am grateful to the OPCW for its readiness to assist its member Ukraine and for standing ready to deploy the full range of responses foreseen in the Convention in case chemical weapons would actually be used. I am also grateful that so many CWC member countries, including Germany, have responded to Ukraine's call for assistance in protecting itself against possible CW attacks.

We must respond by doing more to strengthen the CWC.

We need a strong and capable OPCW which can confront and counter future CW risks. The OPCW must retain the full extent of its expertise in the domain of chemical weapons verification and de-struction. We see with satisfaction that under the steadfast stewardship of its Director General the Organisation is taking the necessary steps, in particular with the creation of the ChemTech Centre. Germany has been a consistent supporter and we will continue to be a supporter. Only last year we dedicated another 1 mio Euros in addition to our regular budget contribution to bolster OPCW training activities: half a million to train OPCW personnel for non-routine missions, and another half million to train experts in African member countries and support capacity building there.

With regard to the upcoming CWC Review Conference next year, it is important to rekindle a sense of common purpose among States parties to uphold and defend the global ban against chemical weapons. We need to learn from the cases that I have just mentioned so that any use of a chemical weapon will be met by investigation, attribution and punishment. One point I would like to underline: There must be no impunity.

In addition to ensuring full national implementation of the Convention we should continue to assist other States parties in this task. We need to be able to analyze the challenges we face and will be facing in the future. We need to maintain the necessary expertise in political, legal and scientific analysis.

That is the reason why I have supported the creation of the German CBW-Network which we are launching today from the very start. You are an essential part in our line of defence against upcoming CW risks and against those who are undermining the global arms control infrastructure.

Thank you very much for your engagement.

Ralf Trapp, Consultant *CBWNet*

It is an honour and a pleasure to address you here today, on the 25th anniversary of the entry into force of the Chemical Weapons Convention.

The previous speakers have already addressed eloquently the achievements of twenty-five years of implementing this cornerstone arms control and disarmament agreement. Their focus has been on the Convention's contribution to strengthening international peace, security, and humanitarian affairs.

They have elaborated, too, on the challenges that the community of States Parties faces in light of the changing global political and security landscape, and as a result of a rapidly evolving implementation environment within which the Convention must function.

As a chemist – one who has been associated with the negotiations as well as the practical implementation of the Convention for more than 40 years as technical advisor, senior OPCW officer and now independent consultant – allow me to add my own observations and thoughts regarding the *scientific and technical dimensions* of this – a true - success story.

Chemical weapons and chemical warfare as we know them today would not exist without science and technology:

- Chemical knowledge and lab experimentation enabled the synthesis of poisons that were suitable as chemical warfare agents.
- The chemical industry of the early 20th century provided the technologies and equipment needed to manufacture these agents at industrial scale.
- Technical and engineering innovation, such as gas compression and aerosolization, made it possible to effectively disseminate these toxic agents on the battlefield.

On the other hand, scientific methods and instruments provided the tools needed to detect and identify chemical agents in the body and in the environment, to study and understand their behaviour after their release, to decontaminate people and equipment, and to treat their toxic effects in humans exposed to them.

It was only natural that science and technology were called upon also when it came to negotiating a chemical weapons treaty aimed at banning the use of chemical weapons as well as their possession and any further development.

Issues such as

- The timely destruction of the huge chemical weapons stockpiles accumulated during the Cold War in a manner that was safe for people and the environment,
- Ways in which this destruction and the elimination of chemical weapons production capabilities could be verified and any suspected breaches of the treaty investigated,
- The impact that the treaty would have on the peaceful uses of chemistry and on international cooperation and assistance in the chemical field,
- The composition of the Convention's control lists (the Schedules),
- The procedures and methods that inspectors would employ when inspecting chemical facilities in industry and the military,
- The definition of key terms of the Convention such as the meanings of "chemical weapon", "riot control agent" and "chemical weapons production facility".

All these and many more questions required scientific and technical advice, based on a thorough understanding of the scientific and technical principles underlying chemical warfare and chemical defence. But negotiators also needed to understand what impact the treaty might have on entirely legitimate activities involving chemical materials, equipment and technologies employed for peaceful purposes.

International organisations of scientists and think tanks such as Pugwash and SIPRI, as well as national and international industry and trade associations were active partners in the negotiations of the Convention.

They did not merely observe the negotiation process from the outside - they helped framing its underlying concepts. Scientists and industry experts provided studies, position papers and technical advice on a wide range of practical issues that the implementation of the Convention needed to take account of.

The industry verification system of the Convention has been a success, amongst others, *because* the industry was able to make substantial contributions to its design:

- The elaboration of the Convention's verification system benefited from a series of test inspections conducted at the end of the 1980ies to validate inspection procedures and verification concepts – test inspections that were conducted at chemical plants offered by the industry to test the soundness of the verification procedures contemplated by negotiators;
- Immediately before the entry into force of the Convention, chemical industry offered its plants and training centres for the training of the first groups of future OPCW inspectors. This helped them acquire the necessary skills they would need to inspect chemical plants, but it also gave the industry the confidence it needed to support the Convention and its verification system.

The importance of taking advantage of the advances in science and technology for the effective implementation of the Convention has become more and more evident over the past 25 years.

This can be demonstrated in many ways. In no particular order, here are just a few examples:

- Conducting routine inspections of declared facilities as well as investigations of possible treaty violations requires highly qualified *people* - inspectors with up-to-date scientific and technical knowledge as well as diplomatic and legal skills in order to be able to discriminate correctly between legitimate activities and activities prohibited under the Convention;
- Analytical *instruments* and other *inspection equipment* used by the inspectors need to meet the technical and performance standards necessary to function properly when operated in chemical plants, military facilities and in the field;
- The network of *Designated Laboratories* supporting OPCW inspections and investigations must maintain the highest standards of scientific performance, quality assurance and chain of custody control.

A strong science and technology basis is critical for maintaining confidence in the dependability of the OPCW's verification conduct. Verification needs to be based on transparency and confidence:

- Confidence in the competence and integrity of OPCW inspectors;
- Confidence in the validity and robustness of the procedures, methods and instruments they use in conducting their inspections;

- Confidence in the findings of Designated Laboratories, based on their demonstrated high performance in proficiency tests and actual investigations;
- Confidence in the scientific and technical knowledge base that the OPCW applies when conducting its verification activities and drawing conclusions for the OPCW policy-making organs and the Member States, reporting its technical findings in ways that support effectively the political and legal scrutiny by these organs and Member States.

The network of the OPCW's Designated Laboratories is a particularly striking example for how such confidence can be created and maintained. It was developed based on agreed performance criteria. The OPCW Technical Secretariat and Member States with advanced laboratories made significant efforts to help laboratories from a wider range of Member States to reach the required standards to achieve designation. The Technical Secretariat organises exercises and Proficiency Tests to allow laboratories to demonstrate their scientific and technical competence as well as adherence to the procedural requirements of the Convention. This includes high standards of quality assurance and chain of custody control. This approach has created confidence in the reliability of the results reported by the Designated Laboratories as part of OPCW inspections and investigations, both for routine verification and in the case of investigations of possible treaty violations.

An important milestone in developing the partnership between the arms control and the science and industry communities was the establishment of the OPCW's Scientific Advisory Board (SAB) in 1998.

The SAB is a statutory organ of the OPCW that renders scientific advice to the Director-General and through him to the OPCW's policy-making organs and the States Parties. After its inauguration, the SAB was asked initially to address a number of very specific questions that had remained unresolved during the work of the Preparatory Commission. Some of these issues had immediate relevance to how States Parties would implement certain requirements of the Convention, and needed to be resolved without delay to ensure that the Convention was applied equally by all of them.

This included such issues as how to adapt the transfer notifications of the Convention for Schedule 1 chemicals to enable the timely transfers of small amounts of Saxitoxin for diagnostic purposes. These transfers are necessary for food safety testing of shellfish destined for export. The SAB's advice was critical for the adoption of the very first technical amendment of a provision of the Convention - an example for how treaty implementation can be adapted when necessary to ensure that the Convention can function properly when new requirements or implementation conditions emerge.

Another example of important advice received from the SAB was its guidance on how exactly to define and account for Ricin – another biological toxin listed in Schedule 1. This advice was necessary to ensure the correct application of the Convention's declaration and notification requirements for a chemical compound that differs from other scheduled chemicals in a fundamental way - it is a protein, a biomolecule with a complex structure that exists in a range of variants.

With the First Review Conference in 2003 approaching, the SAB adopted a broader and longer-term perspective, looking more generally at how advances in science, technology and industrial manufacturing affected the implementation of the Convention.

This signalled a shift towards a more strategic approach taken by the SAB. It began asking more general questions: how would the Convention operate in a changing implementation environment – an environment that was becoming increasingly different from the scientific and industrial worlds that had existed when chemical weapons had been invented first?

To do so, the SAB needed to reach back further and deeper into the global world of science and technology:

- It needed to get access to the cutting edges of scientific discovery as well as keep abreast of the rapid changes in chemicals manufacturing.
- It also needed to reach back into the world community of scientists and engineers, benefitting from its global diversity.
- The SAB needed to keep abreast of advances in a broad range of scientific and engineering disciplines – it could not limit itself to reviewing what was happening in chemistry and chemical engineering when investigative methods, theoretical concepts and computational capabilities were rapidly expanding and science and engineering disciplines were converging at the intersection of chemistry and the life sciences.

It was at this point that the idea emerged - from within the SAB - to partner with the International Union of Pure and Applied Chemistry (IUPAC). This partnership has been invaluable in the preparation of the First and all subsequent CWC Review Conferences, with IUPAC organising targeted international scientific symposia to screen the horizon for scientific developments that might affect the way in which the Convention was operating.

Here is not the place to list all the findings and recommendations that the SAB arrived at as a result of this partnership. Let me mention just a few examples:

- Studies on trends in the chemical industry have supported the review and adaptation of principles and procedures used to verify facilities and activities in the chemical industry to assure Member States that they are in conformity with the requirements of the Convention.
- The SAB, together with IUPAC and scientific institutions of certain Member States, have created a framework to discuss the convergence in the sciences at the intersection between chemistry, biology, the engineering sciences and computation technology, allowing them to better understand how this convergence might affect the functioning of the Convention:
    - Would we have to contemplate the possibility of entirely new forms of chemical warfare, or new ways of manufacturing known chemical warfare agents?
    - Would the lines between chemical and biological threats become blurred and what would that mean for the two global Conventions governing, respectively, the prohibitions of chemical, biological and toxin weapons?
    - At the same time, what would convergence mean for the strength of future defences against chemical and biological weapons?
- The SAB also studied in depths the evolving requirements in the field of sampling and analysis for verification purposes; this included such questions as:
    - Would the model that had been developed for the chemical analysis of environmental samples such as soil, weapons remnants or bulk chemicals have to be modified when biological samples such as blood, urine or tissue needed to be investigated after a suspected use of chemical weapons?
    - And could the principles and standards thus far developed for environmental sample analysis be applied also in analyses of biological toxins, or would adaptations become necessary?
- More broadly speaking, the SAB has helped the OPCW understand better how emerging issues affected the Convention and its implementation – dealing with such issues as investigative sciences and techniques or, more recently, the question of toxins in the context of the Convention.

The OPCW operations in Syria have posed new challenges that required timely input from scientists and engineers – be it from experts within the Technical Secretariat, the SAB, or from scientific and technical institutions of the Member States.

- New types of equipment were needed to allow inspectors to operate safely and effectively in hostile environments, or to conduct verification activities when direct access to certain locations was impossible.
- Analytical methods and instruments needed to be developed not only to confirm that a chemical weapon had been used, but also to gather forensic evidence that might allow identifying the perpetrators of such uses.
- Investigation methods had to be developed to deal with scenarios of the use of traditional chemical warfare agents as well as the employment of weapons to disseminate toxic industrial chemicals such as chlorine.

The establishment of the new OPCW Centre for Chemistry and Technology – which will become operational next year – will add a new dimension to the OPCW's scientific and technical support basis.

This OPCW ChemTech Centre is more than an expanded central laboratory and equipment store – it will expand the OPCW's capabilities in many programme areas.

In the true sense of the word, it can become a global Centre of Excellence, a global place of learning and of competence in all scientific and technical issues related to chemical weapons disarmament. Areas that would be particularly important at this stage include the strengthening of forensic capabilities of the OPCW and its laboratory networks, as well as its scientific reach-back capabilities to support its verification and investigation mandates.

But equally, the centre should play a significant role in supporting OPCW outreach and assistance activities, such as the training of experts of Member States in protection and response to chemical incidents.

It should become a true place of international collaboration in the field of protection against chemical weapons as well as more broadly in the strengthening of capabilities which countries need to safely and securely manage hazardous chemicals, and to respond to chemical incidents involving toxic chemicals.

Chemical security has the potential to grow as a field on international cooperation among OPCW Member States, facilitated by the Technical Secretariat and closely coordinated with other international organisations that have mandates and capabilities in this field. This will strengthen the efforts of Member States to nationally implement the Convention, and complement the security assurances offered by the OPCW and its verification system.

National implementation of Convention requirements, national security measures in the chemical field, and international verification by the OPCW *combine* to a framework of policies and practical measures that are critical to ensure that hazardous chemicals will not be diverted and used for hostile purposes.

This reflects a shift in the CW threat landscape: without ignoring threats that may emanate from certain States actors, threats associated with non-State actors such as terrorists, criminal groups or even certain individuals must not be ignored today. To a large degree, the response to such threats falls to the States and their internal security measures. But the OPCW can provide a platform for political, judicial and scientific/technical cooperation among its Member States on these matters.

But there is yet another dimension: Strengthening the resilience against such evolving chemical threats requires the active participation of people who work with chemicals on a daily basis – scientific researchers, school and university teachers, operators and managers of chemical facilities, traders in chemical goods, and users of chemical products, technologies and solutions.

To exclude completely the possibility of the use of chemical weapons (to use a phrase from the Convention's preamble) – can only be achieved when the objectives and principles of the Convention become an integral part of the professional culture and ethos of the chemical profession.

This is why I feel that the establishment of the OPCW's Advisory Board on Education and Outreach has been so important. The ABEO creates an opportunity for the OPCW to systematically and globally embed the Convention's principles into the value systems and behaviour of future generations of scientists and engineers who work with chemicals and chemical technologies. It is yet another important tool for the OPCW to reach out to scientists, engineers, educators and students – current and future practitioners alike.

What Graham Pearson once called "extended compliance", in the context of biological weapons arms control, applies equally to CW disarmament. This concept captures well the impact of attitudes and behavioural norms of individuals, civil society and professional organisations on the strength of the norm against chemical weapons.

In the second part of today's meeting, you will hear more about the plans of our new CBW competence network and its focus on resilience of the norm against the use of chemical and biological weapons. With this in mind, I wanted to use this opportunity at the end of my talk to highlight that engagement with and involvement of scientists, engineers, professionals from industry, and other civil society actors plays an important role in protecting and strengthening the norms against chemical and biological warfare.

Part 2: How to Move Forward? Strengthening the Chemical Weapons Convention in Times of Polarization

Stefan Mogl, Spiez Laboratory, *CBWNet* Transfer Network

Thank you for your kind invitation to the launch of the Competence Network *CBWNet* today – on the 25th anniversary of the Entry into Force of the Chemical Weapons Convention. It is an honour to be speaking here together with such highly esteemed disarmament experts.

The invitation contained three questions: *Why is the CWC so successful? What challenges lie ahead?* and *How unity in the international community can be strengthened in dealing with treaty violations?* I am confident that you do not expect me to answer the questions comprehensively in 15 minutes, but I will try to explain my perspective to you.

„Determined for the sake of all mankind, to exclude completely the possibility of the use of chemical weapons, through the implementation of the provisions of this Convention…"

You will recognize this quote from the Preamble of the Convention. I read it for the first time in 1994, before submitting my application as OPCW Inspector. While I would not call the Convention a "page-turner", these words still touch me to this day, and I use them to frame my remarks.

Which brings me to the first question: *Why is the CWC so successful?*

One simple answer is, because of its objectives. Helping the world to destroy Chemical Weapons and making sure they will never be used again is a noble cause. A cause that motivates countries to join and people from around the world to dedicate many years of their professional life aiming towards this goal.

But this does not explain, why the OPCW Technical Secretariat – who is responsible for implementing the provisions of the Convention – has been so successful for 25 years!

Allow me to take you back a few years to January 1997. Approximately 150 scientists from over 60 countries met for the first time in The Netherlands to embark on a five months training program, after which they would become the first OPCW inspectors, called inspector Group A.

Analytical chemists, chemical logisticians, industrial chemists and weapons experts from around the world came together in The Hague to put the text of the Convention into operation. But how should things be done in practice? How to count chemical munitions in storage facilities? How to monitor destruction facilities in order to prevent diversion of chemical weapons: which doors should be sealed, where should cameras be placed, which areas needed continuous observation and which ones could be visited by inspectors at random? How to inspect chemical industry facilities: how to verify that a chemical plant is not producing prohibited or undeclared chemicals; how to review company records? Should inspectors ask for samples, and how should they be analysed? How to protect companies from losing proprietary information during sample analysis? All these questions and many more required practical answers. They were developed by the staff of the Technical Secretariat until all parties were satisfied – inspectors, verification officers and Member States representatives. The "How-To-Do Things" was then documented in Standard Operating Procedures, Guidelines and facility agreements.

The Secretariat could count on science advice early on. The OPCW Scientific Advisory Board became operational in 1998 and today is composed of 25 esteemed Scientists from around the world. The Board answers questions from the OPCW Director-General, and informs the Review Conference about relevant developments in Science and Technology. The Board is not static; membership is limited to six years to ensure new thinking.

Also in 1998, the OPCW Director-General designated the first laboratories for offsite analysis of samples. Ever since, the OPCW has relied on a network of laboratories from around the world – today there are 22. They demonstrate their competence annually in highly challenging proficiency tests and are today the most competent laboratories for chemical weapons analysis.

One last example before I make my point: shortly after the beginning of the New Millenium, the Technical Secretariat, as the first Multilateral Organisation, received an accreditation by the Dutch Accreditation Council as Testing Laboratory under ISO 17025 – a landmark achievement for the OPCW, which it upholds in regular audits to this day.

My answer to why has the OPCW been so successful therefore is – because the OPCW knows how to do its job. The Organisation works according to validated processes, applies proven methods and procedures that are based on solid science.

„Determined for the sake of all mankind, to exclude completely the possibility of the use of chemical weapons…" The Preamble came under attack on August 21, 2013. The use of Sarin in Ghouta shocked the world and the OPCW. Looking back, the year 2013 marked a new beginning for the Organisation.

We all remember the brave actions of the UN, the WHO and the OPCW Director-General with his Staff: supporting the UN Secretary General Mission of Prof. Sellström to Ghouta, and – once the Syrian Arab Republic had acceded to the Convention – immediately thereafter commencing verification activities to secure the stockpiles in a country at war. In the midst of this unprecedented challenge, the OPCW was awarded the Nobel Peace Prize for making the world a safer place – having verified the destruction of tens of thousands of tons of chemical weapons through the watchful eyes of its inspectors.

What challenges lie ahead? …was the second question, and today's challenges date back to 2013.

For its first 16 years, the Organisation implemented the Convention largely hidden from the public eye – and suddenly – it found itself centre stage. The successful UN-OPCW Joint Mission to remove Syria's chemical stockpile in 2014 was followed by new allegations of chemical weapons use in Syria. Then Director-General Ambassador Üzümcü created the Fact Finding Mission to investigate these allegations of use and he established the Declaration Assessment Team to clarify questions in Syria's Declaration. OPCW Inspectors were now operating regularly in a war zone. They were shot at and briefly kidnapped – their biggest risk was no longer an exposure to highly toxic chemicals but to be physically harmed in an armed conflict – much had changed for the work of the Secretariat's staff compared to the routine inspections they were used to. OPCW Inspectors volunteered for these high-risk missions and the Director-General had to weigh up the dangers he was willing to expose his staff to. Allow me to express my sincere gratitude: The OPCW was truly "Determined for the sake of all mankind"!

Then in 2015, responding to the repeated findings by the OPCW Fact Finding Mission of Chemical Weapons use in Syria, the UN Security Council created the OPCW-UN Joint investigative Mechanism, the JIM, to find out who was responsible. The JIM investigated for two years, under two different leadership panels and with two different teams. Both their findings were very similar – ISIL had used Sulfur Mustard, the Syrian Arab Republic had used Chlorine and the nerve agent Sarin. The newly established OPCW Investigation and Identification Team came to the same conclusions in 2020.

Which brings me back to the question: *What challenges lie ahead for the OPCW and the Convention?*

The UN Security Council and the OPCW Policy Making Organs were provided with concrete findings that a State Party was using Chemical Weapons. Syria denied them as did some of its supporters. Alternative narratives were fabricated and investigators publicly discredited, with the aim to diminish the evidence. However, none of this makes the factual findings any less true, and here I see the first challenge for the OPCW – which is Communication. How can the findings of an investigation be better communicated to the public? Findings that were established according to methods that have been proven to work. How can we successfully counteract streams of disinformation, in order for the OPCW message to stand out? The OPCW may have to do better, but it cannot do it alone – help from partner organisations, from Member States, from civil society and the classic media will be required.

The second important challenge that I see is, how to deal with impunity for chemical weapons use? The Technical Secretariat – the investigators, the Designated Laboratories and the scientists – all have completed their work. Impunity is a political challenge and the instruments of the Technical Secretariat that made the OPCW so successful are of no help.

What the Secretariat should do in the absence of a political solution is to continue defending and explaining the findings, and preserve the evidence as well as the knowledge of how it came about; the OPCW must be ready, when the time for justice has arrived.

The OPCW is building a new Centre for Chemistry and Technology, which is financed by voluntary contributions from many countries, including large donations from Germany. This new Chemtech Centre will allow new interactions with Member States to advance the understanding of the underlying science of chemical weapons investigations. It will also become the new OPCW training centre and as such, support capacity building in Member States; and, it will help further developing the technical capabilities of the OPCW, to meet new and emerging threats from chemical weapons.

The third and final question for today is: *How unity in the international community can be strengthened in dealing with treaty violations?*

My allocated time is almost up and I limit myself to one suggestion: discussions of how to penalize violations should be more clearly separated from the question of accepting the findings presented by the investigators. – Why? The OPCW applies best practices, it maintains an internationally accredited quality system, it employs impartial staff from around the world, and it subcontracts sample analysis to the most qualified chemical weapons laboratories to date. If a State Party has doubts about an investigation, it should specify what additional information it requires to be convinced. It is one thing for a Member State to abstain, when penalizing is decided, and another, when the question is about accepting the findings. In order for the OCPW to move forward, accepting an investigation report should be the result of a critical review of the evidence and hence, independent from political affiliation.

The Verification Regime of The Convention is there for the benefit of all Member States. We only have one OPCW – it took us a long time to build it, and we hope it is there for us – Determined for the sake of all mankind, to exclude completely the possibility of the use of chemical weapons – for the next 25 years!

HAPPY BIRTHDAY, and Thank You, OPCW!

Ahmet Üzümcü, former Director-General, OPCW (2010-2018), *CBWNet* Transfer Network

I wish to thank the organizers for inviting me to this event.

The OPCW is very dear to me for my stint of eight years as the organisation's Director-General was professionally rewarding and morally uplifting. This was a period of serious challenges and we were able to meet them, thanks to the hard work and dedication of our staff as well as the support of a great number of member countries, including Germany. I should take this opportunity to congratulate the CWC for the 25th anniversary of its entry into force today.

When I arrived at the OPCW in July 2010, there was an ongoing debate about the deadline for the destruction of stockpiles of chemical weapons (CW). It had become clear then that neither Russia nor the US would be able to meet the agreed deadlines. Another debate, but rather latent one, was about the future of the Organization. Some countries were thinking that the OPCW as it stood would become redundant soon after all declared CW stocks would be destroyed. A much smaller organization or a structure similar to the BWC Implementation Support Unit in Geneva would be sufficient. In November the same year, I called on Ambassador Rolf Ekeus from Sweden and we put together an Advisory Group of fifteen people, many of whom already worked on CW matters. Dr Ralf Trapp was one of them. The group met three times in The Hague and prepared its report by July 2011. The report concluded that the OPCW should continue to exist as a global repository of knowledge and expertise in the field of CW and contribute to international peace and security by preventing the re-emergence of these weapons. It should be fully equipped to fulfil this mission.

I shared the report with member states. I organized a series of informal brainstorming meetings, retreats with the representatives of States Parties and encouraged them to share their views on the future of the OPCW. A broad consensus emerged among the States Parties. They seemed to agree that the Organization should be maintained as such, at least for the near to medium term. The involvement of the OPCW in Syria later on had of course strengthened this view.

First, the support for the United Nations Secretary General's Mechanism to investigate the use of chemical and biological weapons in Ghouta in August 2013, then the OPCW-UN Joint Mission for the elimination of the Syrian CW Program, later the establishment of the OPCW Fact-Finding Mission and Declaration Assessment Team, and finally the Investigation and Identification Team (IIT) have all been successfully carried out. We stretched the CWC a little and invented some new mechanisms, but all were within the object and purpose of the Convention. The OPCW Secretariat fulfilled all these missions with a high degree of professionalism, impartiality and objectivity.

If there is now a stalemate on declaration related issues, it is due to the position taken by the Syrian Government, which Russia and a few other countries support. Unfortunately, Syria does not seem to care much about the consequences of its attitude.

The States Parties demonstrated remarkable resolve and determination by adopting the decision on "Addressing the Threat From CW Use", in June 2018 at the 4th Special Session of the Conference of the States Parties. The establishment of the IIT was a bold step in the history of the CWC regime. It is now equipped with a significant deterrent, particularly with the universal coverage of the IIT mechanism deriving from paragraph 19 of the June decision. Nevertheless, the identification of those who ordered or used the CWs will not be sufficient. They must be held accountable, prosecuted and punished. The

fact that some German courts are prosecuting Syrian officials who committed war crimes is a welcome development.

The polarization at the OPCW, which emerged following the military involvement of Russia in Syria in 2015, is likely to continue. It may even get worse due to the Russian invasion of Ukraine. We don't know how long this war will go on and what will happen in its aftermath; whether a new Cold War will surface or not. A great deal of uncertainty exist at this stage.

The member countries and other stakeholders who value the CWC regime should make an extra effort to preserve its credibility and integrity. This requires a coordinated and cohesive stand against the Russian led campaign to discredit the work of the Secretariat in Syria.

In particular, the third countries, which waver between the two camps, should be persuaded that it would be in their interest to keep this institution intact. Veiled threats by some States Parties that they would leave the organization didn't materialize and I don't think that will happen in the foreseeable future.

In addition to the ongoing work related to Syria, I have identified a few priorities for the future.

- Routine verification

I believe that the verification of the chemical industrial plants under Article VI of the CWC could be approached from a different angle and be adapted to counter new threats. For instance, the access of non-state actors to dual use chemical products remains as a potential security risk and measures must be taken to prevent it. Certainly, it is the responsibility of States Parties to ensure the control of production and supply chains of such material. Nevertheless, the OPCW could develop, in cooperation with the global chemical industry some standards to be implemented by the industry and include this issue in the Article VI verification regime.

- Universality of the CWC

There are four countries that are still not party to the CWC. Recent developments in the Middle East may be conducive to a breakthrough for the membership of Israel and Egypt. I don't believe that this is going to happen in the context of the Weapons of Mass Destruction Free Zone in the Middle East, which is unlikely to be realized in the foreseeable future. Therefore, we should develop some incentives for Egypt and Israel to encourage them to join the CWC without delay. North Korea, which is suspected to possess large stocks of CW, is a specific case. I don't think that we have a chance to succeed in the near future in convincing the North Korean Leadership, unless some unexpected developments unfold. But, at some stage the OPCW will have to assume the task of coordinating the elimination of the North Korean CW program. South Soudan will probably join the CWC when the country will be stabilized.

- National Implementation

A significant number of SPs have not yet developed the necessary legislation to enforce the CWC at national level. This situation must be remedied. The efforts of the Secretariat hitherto were not adequate. Bilateral aid programs by the EU or Western countries might be a more effective channel to improve the situation. Without getting into conditionality, suggestions accompanied with technical support might produce tangible results. Implementation loopholes, which exist in different countries, will continue to pose threats to the rest of the world.

- International Cooperation

There is a special department in the Secretariat which deals with the implementation of Article X of the CWC; international cooperation. This unit coordinates the capacity building activities, among them training programs, fellowships for the peaceful use of chemistry. I recognize that the OPCW is not a development agency and its focus should be the prevention of use of CW. However, in order to

ensure an effective regime of prevention and response we need the engagement of all States Parties and their full implementation of the CWC. Countries which have no chemical weapons, nor any declarable chemical plant, would not see the implementation of the CWC as a priority. Therefore, it is in the interest of all, to allocate more resources to cooperation activities which are perceived as incentives by a large number of countries for their closer engagement in the CWC regime. This may be considered as the soft power of the OPCW.

- Chemical Weapon Use by Non State Actors or Terrorists

There is no mention of such a threat in the CWC. Nevertheless, there is general agreement among member countries that the OPCW should contribute to the international efforts to counter the chemical terrorist threat. Indeed, in addition to the work of the Open-Ended Working Group on terrorism, "countering chemical terrorism" has become a standing agenda item of the Executive Council, which provides the opportunity to exchange views and share best practices. I believe that the cooperation begun with other relevant institutions, which might be interrupted due to the pandemic, should be deepened. The United Nations Security Council 1540 Committee, Interpol, Europol, World Customs Organisation are relevant examples. Relevant national authorities should also share their knowledge and expertise with other States Parties.

The OPCW Secretariat should continue to offer capacity-building support to countries, which are interested. A few counter terrorism experts may be hired and employed as instructors by the Technical Secretariat. Prevention and response go hand in hand. The Rapid Response Assistance Mission (RRAM) is a useful mechanism for response. The team members are employed as instructors to train national experts. These efforts could be stepped up.

In terms of strengthening the capabilities of the OPCW the construction of the ChemTech Center is a major step forward. I am particularly pleased that a large number of States Parties have contributed to the special fund for that purpose. This shows the strong sense of ownership by them. I believe that this center will significantly enhance the ability of the OPCW to provide training to relevant national authorities.

Another issue which may appear as administrative at first glance is closely related to the technical capabilities of the Secretariat. The tenure policy.

I believe that the Director-General must be authorized to extend the tenure of some staff, up to a certain percentage, as it happens to be in some other organizations.

We saw the advantage of having experienced staff during the OPCW-UN Joint Mission in Syria. We had inspectors who were about to be tenured but we were allowed to keep them for a longer period because of the prospect of sharp reduction in the verification of destruction of CWs. Since it wouldn't make sense to hire new inspectors we were authorized to extend the contracts for another few years of existing ones. This helped us in Syria. I know that tenured inspectors may now be rehired after a recess but I am not sure that this is an ideal solution.

Finally, the partnership between the OPCW and the chemical industry, academia, the scientific community, chemical societies and other relevant civil society organizations should be further developed. I believe that there is a greater potential in this domain, which is mutually beneficial. States Parties should continue to support such cooperation schemes. That is why I welcome the launching of this network initiative by four German institutions with the support of the Federal Ministry of Education and Research.

Una Jakob, Senior Researcher, Peace Research Institute Frankfurt, *CBWNet*

Thank you for the kind introduction. It is a great pleasure and honour to be part of this panel and to have such knowledgeable and distinguished co-panelists. In my contribution, I will address the guiding questions from the programme: Why has the CWC been so successful? What challenges lie ahead? And what can be done to strengthen unity in the international community?

Why has the CWC been so successful?

We have heard many arguments today supporting the assumption that the CWC has indeed been successful, and I fully share this assessment. In my remarks, I will first focus on one specific aspect: The CWC has been successful, because - among many other things - it is built on a strong and widely shared conviction, or norm, that chemical weapons should never be used and should not exist.

This conviction predates the CWC. It was already codified in the earliest documents of modern humanitarian law drafted in the 19th century, and it is now also part of international criminal and customary law. This means it is valid not only for CWC members, but for all states. So even withdrawal from the CWC would not exempt a state from the prohibition to use chemical weapons.

The CWC has also been successful because the norms it contains are non-discriminatory, meaning they equally pertain to all states parties, and because its prohibitions are comprehensive: toxic chemicals are banned as weapons, full stop.

Last but not least, the CWC's past successes are to a large extent due to the work of the OPCW and its Technical Secretariat, and I also fully subscribe to the praise and admiration which the other speakers have expressed for its work. We have also heard impressive examples of the OPCW's work and flexibility to adapt to changing circumstances.

Why do I emphasise the distinction between the norms against chemical weapons and the organisation? I do this not only because norms are part of the mission statement of the *CBWNet* project – it is also because I believe that this helps us understand the current situation and identify possible paths forward. And I believe it is important to keep in mind that the current troubles of the OPCW are not necessarily troubles of the norms against chemical weapons.

What challenges lie ahead?

Let me start with the latter and move to the second question about the challenges ahead: As I said, the ban on chemical weapons is based on an old and universal taboo against their use. In recent years, we have seen violations of this ban, and this is deeply troubling. But does that mean that the norm has been seriously damaged? I believe not.

No CWC state party has openly admitted to possessing or having used chemical weapons. And no state at all has justified such use by anyone.

To the contrary, even Russia and Syria refer to the CW prohibition when they blame others, and they have themselves condemned the use of chemical weapons. This is of course cynical, considering their own behaviour and disrespect for the norm, but it also shows that even those states who have used, or covered up for the use of, chemical weapons recognise the strength and validity of the prohibition norms.

What is more, there has been clear and unequivocal condemnation of the use of CW by a large majority of states world-wide, and OPCW members have applied some of the compliance measures available under the CWC against Syria. It is such reactions to a norm violation, not necessarily the

violation itself, that prove and determine the viability of a norm. For the moment, I consider the prohibition norm against chemical weapons as still strong. One challenge ahead is to keep it that way.

While I would thus argue that the norm against CW is still in sufficiently good shape, the OPCW is in more dire straits.

The challenges facing the OPCW have been expressed clearly in the other contributions. So I will only briefly recapitulate some issues and then move straight to possible ways forward. In the current situation, any proposals for "ways forward" can only be modest and probably still need a pinch of idealism. But being an outside observer, rather than decision-maker, a bit of idealism and optimism seems to be alright.

'Polarisation', as in the title of this panel, is one of the key words when describing the situation in the OPCW policy-making organs. Ever since international inspections have yielded evidence that Syria had indeed used chemical weapons, Russia has supported Syria in calling this evidence into question, and it has blocked any attempts to address and penalise the treaty violations collectively and consensually. This has resulted in a deep divide between Russia, Syria and a few supporters on the one hand, and Western and other states on the other. This polarisation has already affected other areas of work, such as the decisions about the OPCW budget. The budget used to be agreed by consensus, but since the addition of the Investigation and Identification team (IIT) to the Technical Secretariat had to be put to a vote.

Devising a way forward here is tricky and resembles a "catch-22" situation: In order to maintain the viability of the OPCW, it is essential that this conflict be contained as much as possible to compliance issues. Reducing the rift further than that would entail some sort of rapprochement with the very states that have caused the problems in the first place. At the same time, to strengthen the norm against chemical weapons, it will be important to maintain a firm stance on compliance issues – which in turn might reinforce the existing polarisation. Any way out of this dilemma will require careful balancing between maximum use of the CWC compliance procedures (to support the norm), and maximum cross-regional cooperation (to support the OPCW).

One other challenge is closely related to the problem of polarisation and non-compliance: The disinformation spread mainly by Russia about the work of the Technical Secretariat and its inspectors. The only way Russia and Syria could maintain their denial of chemical weapons use - after the OPCW had proved Syria's responsibility for chemical weapons attacks - was to discredit and undermine the credibility of these investigations and their results. Russia in particular did so quite actively, using disinformation tactics vis-à-vis other states parties, but also vis-à-vis the public through social and traditional media channels. It may have succeeded in sowing certain doubts in some quarters regarding the impartiality and professionalism of the Technical Secretariat, especially with its campaign in the wake of the FFM report on the chlorine attack in Douma. So that is another issue that needs to be addressed.

What could be done to strengthen unity in the international community in view of these challenges?

Not even an outside observer can be idealistic enough to assume that the polarisation over compliance issues could be overcome any time soon, especially given Russia's own doubtful state of compliance and its current behaviour in the war against Ukraine. Moreover, both Russia and Syria have become so deeply entrapped in their rhetoric that it would be extremely difficult for them to reverse this stance in a face-saving way. Therefore I think we have to accept the fact that this situation will remain for the time being.

So what could be done? First of all, states parties would need to continue to show their support of the norm against chemical weapons. This can be done rhetorically through statements, but also practically by employing the means available under the CWC to address non-compliance concerns. This should also include exploring possible ways to hold CW users accountable in political and legal terms. This whole complex relates to what I said earlier in more abstract terms about the importance of determined reactions to norm violations.

What else could be done? As I said, the polarisation will not be overcome any time soon. But to prevent it from spilling over to other issue areas, especially at the upcoming Fifth Review Conference, international and cross-regional cooperation will be crucial. States parties could identify topics and projects for which there is broad support from as many states parties and regional groups as possible. It would also be important to express confidence in and support for the work of the Technical Secretariat, and to counter disinformation – for example with information not only about investigation results, but also about investigation procedures and contexts.

The new ChemTech Centre could enable collaboration among delegations, joint training sessions, and collective work on international projects. This would underline the many benefits the CWC brings to states all around the world. And it could help provide better understanding for the work of the Technical Secretariat.

The Open-Ended Working Group tasked with preparing the Fifth Review Conference will be a forum in which cross-regional cooperation and the development of shared understandings can and should be fostered.

To conclude, I hope that in 25 years' time, for the 50th anniversary of the CWC and OPCW, someone will look back and say: "Phew, that must have been tough back then in the 2020s - but luckily the OPCW pulled through and became one of the most successful international institutions ever".

Annex 1: Programme of the Event

Launching the Competence Network CBWNet: Achievements of the Chemical Weapons Convention and Future Challenges
A high-level event on the occasion of the 25th anniversary of the entry into force of the Chemical Weapons Convention
April, 29, 2022, Landesvertretung Hamburg in Berlin

Opening/Welcome

- *Rüdiger Bohn, Deputy Government Commissioner for Disarmament and Arms Control, Federal Foreign Office*
- *Bernhard Klingen, Federal Ministry of Education and Research*
- *Oliver Meier, IFSH / CBWNet*

25 Years Chemical Weapons Convention: What has (not) been achieved

- *H.E. Izumi Nakamitsu, UN High Representative for Disarmament Affairs (video message)*
- *H.E. Fernando Arias, Director General, OPCW*
- *Susanne Baumann, Secretary of State, German Federal Foreign Office*
- *Ralf Trapp, Consultant / CBWNet*

Chair: Barry de Vries, University Giessen

The new Competence Network CBWNet

-Presentation by Gunnar Jeremias, ZNF / CBWNet

How to move forward? Strengthening the CWC in Times of Polarisation

- *Stefan Mogl, Head of Chemistry, Spiez Laboratory / CBWNet transfer network*
- *Ahmet Üzümcü, former Director General, OPCW / CBWNet transfer network*
- *Una Jakob, HSFK / CBWNet*

Chair: Alexander Kelle, IFSH / CBWNet

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Annex 2: Synopsis of the *CBWNet* Project

CBWNet is a cooperative effort of four leading German research institutes in the area of chemical and biological weapons prohibition: the Berlin office of the Institute for Peace Research and Security Policy at the University of Hamburg (IFSH), the Professorship for Public Law and International Law at the Justus Liebig University Gießen (JLU), the Leibniz Institute Peace Research Institute Frankfurt (PRIF) and the Carl Friedrich von Weizsäcker Center for Science and Peace Research (ZNF) at the University of Hamburg. The partners work closely together in the project and share the main responsibilities across the project's ten work packages (WP).

WP 1 (JLU): Multinormativity - Categorization of the different types of norms constituting and shaping the CBW prohibitions, their interactions and their effectiveness.

WP 2 (JLU): Multi-level perspective - Analysis of the interactions between the different norms created at different levels, with particular reference to national law.

WP 3 (IFSH): Norm contestation and resilience - Analysis of the CBW prohibition norms, assessment of their weakening, and formulating options to increase their resilience.

WP 4 (PRIF): Compliance and Enforcement - Analysis of the framework conditions and practice of compliance and enforcement of norms in the CBW regimes, discourse analysis of state positions.

WP 5 (IFSH): Security policy framework - analysis of changing interests and the actions of key actors and their effects on the two CBW prohibition regimes.

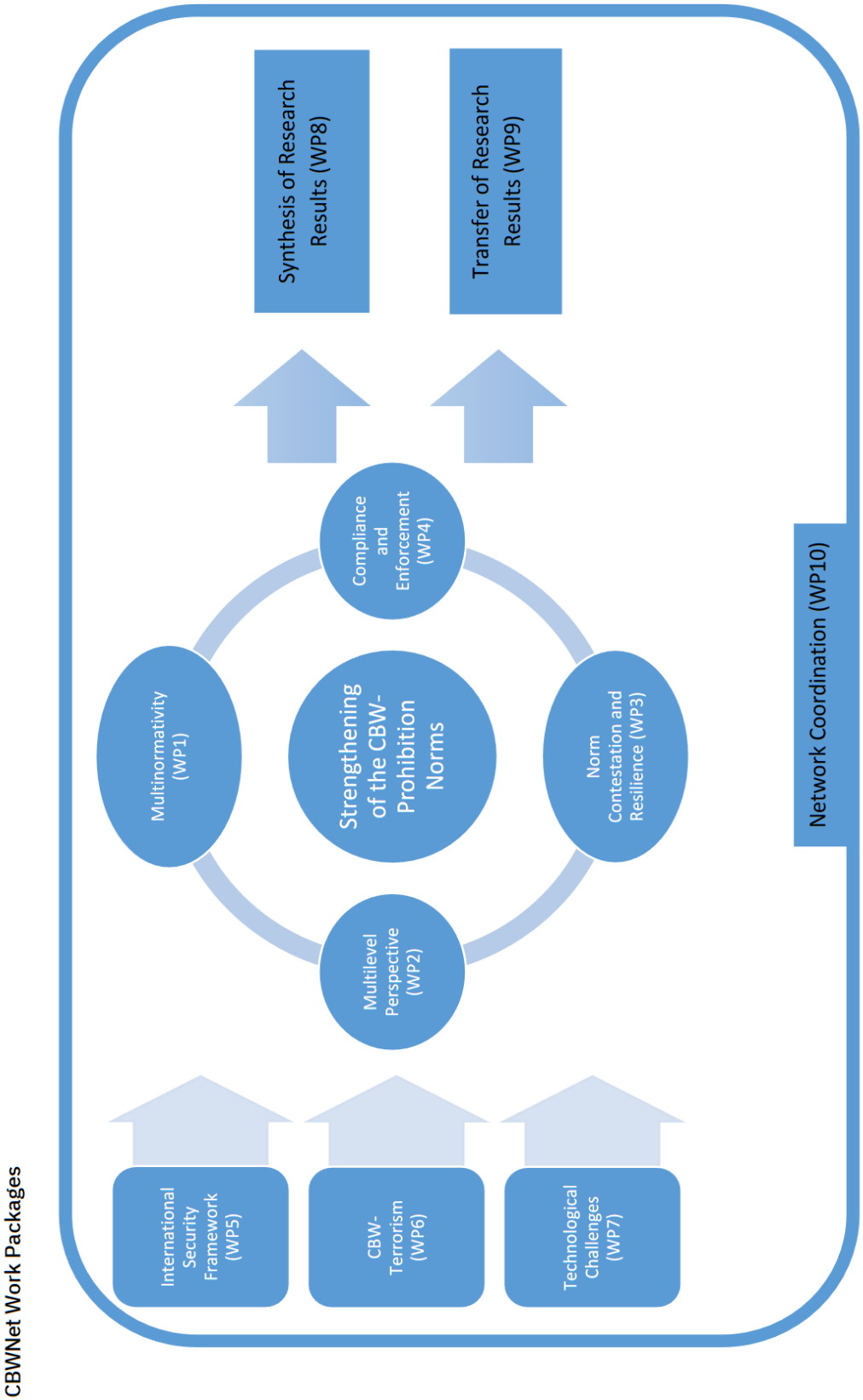
WP 6: (IFSH): CBW Terrorism - Analysis of the emergence of CBW terrorism, its impact on the CBW prohibition regimes, and evaluation of measures taken to strengthen regime implementation.

WP 7 (ZNF): Technological challenges - S&T mapping, creation of scenarios, proposals for education and training in various R&D facilities.

WP 8 (PRIF): Synthesis of research results - Merging and synthesis of the results of all WPs, publication in edited volume.

WP 9 (IFSH): Transfer and policy advice - Transfer of research results to political actors, to the academic specialist audience, and the interested public.

WP 10 (IFSH): Project coordination - Coordination of the network activities and the exchange with the implementation partners from the Federal Foreign Office and Leopoldina as well as the *CBWNet* transfer network through the Berlin IFSH office.


CBWNet Work Packages
Synthesis of Research Results (WP8)
Transfer of Research Results (WP9)
Compliance and Enforcement (WP4)
Multinormativity (WP1)
Strengthening of the CBW-Prohibition Norms
Norm Contestation and Resilience (WP3)
Multilevel Perspective (WP2)
International Security Framework (WP5)
CBW-Terrorism (WP6)
Technological Challenges (WP7)
Network Coordination (WP10)

The Comprehensive Strengthening of the Norms Against Chemical and Biological Weapons: the competence network *CBWNet*

The *CBWNet* project is carried out jointly by the Berlin office of the Institute for Peace Research and Security Policy at the University of Hamburg (IFSH), the Professorship for Public Law and International Law at the Justus Liebig University Gießen, the Leibniz Institute Peace Research Institute Frankfurt (PRIF) and the Carl Friedrich von Weizsäcker Center for Science and Peace Research (ZNF) at the University of Hamburg. Its goal is to identify ways in which the norms against chemical and biological weapons (CBW) can be comprehensively strengthened.

These norms have come under increasing pressure over the past two decades, for example due to the repeated use of chemical weapons in Syria. The project examines the influencing factors, characteristics and effects of norm contestation in the CBW prohibition regimes from an interdisciplinary perspective. This includes the comprehensive investigation of their normative structures as well as the analysis of the possible consequences for the CBW prohibition regimes that result from technological developments, global security policy dynamics and risks from terrorist actors. Where the research results indicate challenges or a weakening of the norms, network members will develop proposals for norm maintenance, strengthening and their increased resilience.

The *CBWNet* project has a duration of four years (April 2022 to March 2026) and is funded by the Federal Ministry of Education and Research (BMBF).

Legal Notice

Institute for Peace Research and Security Policy at the University of Hamburg (IFSH) c/o Berlin office

Reinhardtstr. 7, 10117 Berlin, Germany

Responsible for Content §55, Abs.2 RStV:

Oliver Meier, IFSH

Phone: +49 (0) 30-240 4775 14

Mail: CBWNet@ifsh.de

Web: www.cbwnet.org

Twitter: @CBWNet

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