Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects

Group of Governmental Experts on Emerging Technologies in the Area of Lethal Autonomous Weapons Systems
25.-29.3.2019

Statement Austria

5(c) Review of the potential military applications of related technologies in the context of the Group's work

Mr. Chair,

Allow me to congratulate you on your assumption of this important role, as the GGE enters a critical year in the CCW. My delegation looks forward to achieving progress under your able leadership. Austria assures you of its full support in this endeavour.

We appreciate your focus on international law and IHL, including the Martens clause, which is not only explicitly mentioned in the preamble of the CCW, but which is also of is particular relevance in LAWS context. [1] As Japan just mentioned all perspectives are connected, so IL and IHL should inform also the consideration of the discussion.

Austria aligns itself with the EU statement delivered earlier. In our national capacity, we wish to share the following points.

Emerging technologies have and will have an impact on the battle ground and thus on regional and international security. We are at historic cross roads of potentially seeing new military capabilities with wide-ranging implications. Beyond doubt, once again in history, we are faced with a situation where technology has the potential to change the future of armed conflict. We will thus focus our four observations on **the interrelation between military application and compliance of autonomous weapon systems with IL and IHL**.

---

[1] PP5 of the Convention, which reads as follows:
*Confirming their determination that in cases not covered by this Convention and its annexed Protocols or by other international agreements, the civilian population and the combatants shall at all times remain under the protection and authority of the principles of international law derived from established custom, from the **principles of humanity and from the dictates of public conscience**,*

First, human control by weapons design and by use is a prerequisite to ensure IL and IHL compliance of LAWS. We agree with Germany that the key question is how can human control over critical functions be ensured. We will elaborate further on this under the relevant agenda item.

My following points relate to some statements earlier, which conveyed the notion of potential beneficial applications of emerging technologies in the context of modern warfare. Any potential military value needs also to be assessed against its risks.We believe that substantial legal and ethical risks posed by LAWS, must be taken into consideration in this debate, to allow an overall evaluation. Let me reiterate that my delegation fundamentally believes that machines should not take decisions over life and death.

So my **second point** concerns **data availability, accuracy and bias**. **Any autonomous system is ultimately based on data input**. It is well-known that **in armed conflict or active hostilities accurate data collection is a particular challenge**. This is due to many factors such as unavailability of data, the constantly evolving context, time constraints on documentation, communication impediments, the conflict situation per se, which might require restraint on information sharing on the sides of conflict parties even after hostilities seized. As a matter of fact, over the past decades the UN has initiated numerous initiatives to enhance data collection during armed conflict.

While biases are a familiar problem in civilian big data use, the consequences of flawed data and bias in armed conflict deserve further attention and action. Information availability and transparency in armed conflict is even more difficult than in any other situation. AI algorithms could be heavily biased or inaccurate, which is especially dangerous in situations that are extremely context-specific, such as armed conflict. As UNIDIR importantly noted in its AI weaponization paper last year: "*Algorithmic bias can arise at every stage of development and deployment, with each stage bringing its own set of considerations and possibilities for the outcome of bias.*"

In order to adequately program a system for complex situations it is evident that huge amount of data will be critical. Given the shortcoming of incomplete

data collection during active hostilities, there is a concern that potential bias in the data would lead to an incomplete, biased analysis. All the more, since we know that self –learing would lead to a multiplication of the negative impact of a wrong information. We believe that in the area of armed conflict, which directly affects human lives it is indicated to be particularly responsible and mindful. The **targeting process, especially selecting and engaging targets**, seems particularly sensitive in this regard and my delegation will further elaborate on the issue during this week.

The fourth and last point we wish to address is a concept intensely discussed in other fora dealing with emerging technologies: the **black box of Artificial Intelligence**. This is when humans based on the information that was provided to an AI system cannot explain why a system took certain conclusions, choices or even decisions. Algorithms that make inexplicable decisions relating to target selection and engagement are morally unacceptable and raise fundamental questions to responsibility and accountability under IHL. My delegation believes that any choices made by an autonomous weapon system must be retraceable and comprehensible for humans. The risk of a nLAWS selecting and engaging targets, especially if the potential targets are human, is a key risk that needs to be considered in the debate about military applications of emerging technologies. Decisions relating to target selection and engagement require human judgement. We cannot accept that a system might choose to attack humans.

To conclude, these substantial concerns about adequateness, accuracy and completeness of data in conflict, as well as the related bias, underline that **human control over the targeting process**, especially when it comes to target selection and engagement, are key criteria when assessing an autonomous weapon system. Target profiles are critical. It is essential that the human operator understands profiles an autonomous system would use. Self-learning systems which change their target profiles are unacceptable due to a multitude of legal and ethical concerns.