



## **National commentary by the Kingdom of the Netherlands regarding the national interpretation and implementation of the Guiding Principles affirmed by the Group of Governmental Experts on Emerging Technologies in the Area of Lethal Autonomous Weapons System**

### ***Preamble***

The commentary below serves to provide an overview of the ongoing reflection process in the Netherlands regarding the implementation of the 11 Guiding Principles as identified by the GGE LAWS. This commentary should be seen as a working document, intended to contribute to the debate within the GGE LAWS, as our interpretation may further develop as technological developments advance and the debate regarding LAWS progresses.

### ***Commentary***

(a) International humanitarian law continues to apply fully to all weapons systems, including the potential development and use of lethal autonomous weapons systems;

**The Netherlands considers this a key principle for the debate on LAWS and a clear acknowledgement that there is an existing legal and normative framework, which fully applies to LAWS. The normative framework that applies to LAWS incorporates not only the entire body of international humanitarian law (IHL) but also includes other relevant legal provisions of international law, including Human Rights Law.**

(b) Human responsibility for decisions on the use of weapons systems must be retained since accountability cannot be transferred to machines. This should be considered across the entire life cycle of the weapons system;

**See commentary under (c) and (d)**

(c) Human-machine interaction, which may take various forms and be implemented at various stages of the life cycle of a weapon, should ensure that the potential use of weapons systems based on emerging technologies in the area of lethal autonomous weapons systems is in compliance with applicable international law, in particular IHL. In determining the quality and extent of human-machine interaction, a range of factors should be considered including the operational context, and the characteristics and capabilities of the weapons system as a whole;

**In the view of the Netherlands, a lethal autonomous weapons system may only be deployed under Meaningful Human Control. In such cases, humans make informed, conscious choices regarding the use of weapons, on the basis of their assessment of the information from all sources which is available to them at the relevant time. The Netherlands considers the concept of Meaningful Human Control to be relevant throughout the weapons systems' entire lifecycle, including the various stages of the targeting cycle.**

**In summary, in guaranteeing Meaningful Human Control, the following elements are important:**

- **Humans make informed, conscious decisions about the use of weapons;**

- Humans have sufficient information to ensure that force is used in accordance with the requirements of international law, given what they know about the target, the weapon, and the context in which the weapon is deployed;
- The weapon is designed and tested in a realistic operational environment, and humans are properly trained, to ensure that the weapon is deployed in a judicious manner.

In current practice, Meaningful Human Control is implemented in existing processes, such as Air Control and the Targeting Process. In these processes, Meaningful Human Control is operationalized at various command levels and by means of a wide variety of tasks, procedures and decisions. The necessary type and degree of control is context-specific and may vary according to the specific environment in which the weapon is deployed as well as the type of weapon system itself.

(d) Accountability for developing, deploying and using any emerging weapons system in the framework of the CCW must be ensured in accordance with applicable international law, including through the operation of such systems within a responsible chain of human command and control;

Human-machine interaction and meaningful human control are vital, to ensure humans remain accountable for decisions about the use of force. The Netherlands recognizes the importance of appropriate and effective accountability mechanisms for decisions on the use of force, regardless of the type of weapons system. Accountability in connection with the development, deployment and decision-making concerning the use of LAWS must be retained and cannot be transferred to machines. In the view of the Netherlands, the existing legal regime is adequate to ensure accountability.

While there may be a shift within the responsible chain of human command and control on where accountability lies, there is no accountability gap as regards the deployment of LAWS, because the decision to deploy, taken in the framework of the targeting process, remains with humans. In the Netherlands, in accordance with the applicable legal framework on all levels of decision-making, the targeting process guides decisions about the selection and attack of targets.

At the moment, there is no reason to assume that there will be an erosion of the accountability under criminal law of commanders, subordinates or those in positions of political or administrative responsibility, nor is there a gap in state responsibility as regards the deployment of LAWS.

The Netherlands emphasizes the importance of training and education for military personnel who are responsible for the deployment of autonomous weapons systems. The Ministry of Defence already sets such training and education as a precondition for the operational deployment of weapons systems that operate with a high degree of autonomy, such as the shipborne Goalkeeper system and the Patriot surface-to-air missiles. The same will apply to future weapons systems.

(e) In accordance with States' obligations under international law, in the study, development, acquisition, or adoption of a new weapon, means or method of warfare, determination must be made whether its employment would, in some or all circumstances, be prohibited by international law;

The Netherlands is a State Party to Additional Protocol I of the Geneva Conventions (AP I) and has a standing legal review process for all new weapons, means and methods of warfare as well as for all modifications to existing weapons, means and methods of warfare already in use by the Netherlands armed forces. These legal reviews, in line with article 36 of AP I, are a legal obligation for the 174 States Party to AP I and provide a sufficient framework to determine whether a new weapons system, means or method of warfare can be used in compliance with international law. The low number of States that conduct legal weapons reviews is a concern and the Netherlands is of the view that increasing the number of States that fulfil their existing legal obligations in this context would be an important step in operationalizing this guiding principle.

Although the Netherlands recognizes that not all information gathered under the review procedure is suitable to be shared amongst international partners – i.a. for reasons of national security – the Netherlands is of the view that sharing information regarding the modus operandi and underlying principles of national Article 36 API procedures would be of added value.

(f) When developing or acquiring new weapons systems based on emerging technologies in the area of lethal autonomous weapons systems, physical security, appropriate non-physical safeguards (including cyber-security against hacking or data spoofing), the risk of acquisition by terrorist groups and the risk of proliferation should be considered;

In the Netherlands, the export of all military items as per the Common Military List of the Member States of the EU to non-EU Member States and non-NATO allies, as well as Australia, New Zealand, Japan and Switzerland, is subjected to a rigorous review procedure in line with the 8 criteria of the EU Common Position on Arms Exports. The risk of the diversion of the goods or technology in question to an unauthorized recipient – including terrorist groups – is explicitly considered during this review procedure. In order to be able to issue an export license, Netherlands requires the exporter to submit an authorized end-user statement in which the intended end-user of the goods/technology *inter alia* declares that it will not re-export or divert the goods/technology to another actor.

(g) Risk assessments and mitigation measures should be part of the design, development, testing and deployment cycle of emerging technologies in any weapons systems;

Risk assessments and mitigation measures are part of verification, validation and certification reviews, including the robust article 36 API legal reviews conducted by the Netherlands, which is carried out throughout the procurement process of any weapons system.

The obligation to conduct an Article 36 procedure applies when a state intends to acquire or adopt a new method/means of warfare. The word “new” means “new for the State in question” whether or not bought from other States. Means/methods of warfare should also be subjected to a review procedure following modification, even if the method or means of warfare was previously approved. A weapon must be reviewed not only “as such”, but also in relation to its intended use, making the review of “methods of warfare” in relation to that weapon to be an integral part of the weapon review. However, it is of considerable importance that the review is limited to the normal, expected or

**intended use of the weapon. Almost all of the relevant sources identify the possibility of misuse or inventive abuse of any weapon and the review need not take all of those possible alternatives into consideration.<sup>1</sup>**

(h) Consideration should be given to the use of emerging technologies in the area of lethal autonomous weapons systems in upholding compliance with IHL and other applicable international legal obligations;

**States must ensure that the use of their weapons, means and methods of warfare are compatible with their obligations under international law. Prohibitions in treaty and customary law to employ certain weapons, means and methods of warfare and the obligation to respect and apply international law in good faith include an obligation to review (new) weapons, means and methods of warfare.**

(i) In crafting potential policy measures, emerging technologies in the area of lethal autonomous weapons systems should not be anthropomorphized;

**The Netherlands considers that it is not beneficial to the discussion to attribute human characteristics or behaviour to emerging technologies in the area of lethal autonomous weapons systems. Especially, since humans must remain accountable for the use of weapons systems, it is not helpful to ascribe human characteristics, such as conscious decision-making and judgement to emerging technologies in the area of lethal autonomous weapons systems.**

(j) Discussions and any potential policy measures taken within the context of the CCW should not hamper progress in or access to peaceful uses of intelligent autonomous technologies;

**The Netherlands is committed to the further development of autonomous technologies for peaceful and societally beneficial purposes, including in the field of humanitarian assistance, early warning-systems or sustainable agriculture.**

(k) The CCW offers an appropriate framework for dealing with the issue of emerging technologies in the area of lethal autonomous weapons systems within the context of the objectives and purposes of the Convention, which seeks to strike a balance between military necessity and humanitarian considerations;

**The Netherlands remains committed to continue discussions on the emergence of technologies in the area of lethal autonomous weapons systems under the CCW framework.**

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<sup>1</sup> A more elaborated outline of our national position regarding the review procedure is contained in working paper [CCW/GGE.1/2017/WP.5](#) submitted by the Netherlands and Switzerland.