

Operationalization of the 11 guiding principles at national level - Comments by France

The Group of Governmental Experts on “Emerging Technologies in the Area of Lethal Autonomous Weapons Systems (LAWS)” mandated by the Convention on Certain Conventional Weapons (CCW) endorsed eleven guiding principles by consensus. These guiding principles are intrinsically **interdependent** and **derive from international humanitarian law (IHL)** which, as recalled by the first guiding principle *“continues to apply fully to all weapons systems, including the potential development and use of lethal autonomous weapons systems”*.

It is thus from this general guiding principle (“a”) which recalls the obligations of States as regards IHL that stem two main principles for addressing more specifically the challenges posed by weapons systems based on emerging technologies in the area of LAWS:

- the use of such systems should remain the **responsibility of the human command**, which must remain accountable in the event of serious violations of international humanitarian law, as highlighted by the guiding principles “b”¹ and “d”².
- **Human-machine interaction** should be maintained in order to ensure that the use of future weapons systems, including weapons systems based on emerging technologies in the area of LAWS, remains compliant with international humanitarian law and remains under human command (see guiding principle “c”³). This human-machine interaction may take various forms and be implemented at various stages of the life cycle of a weapon. It can, for example, take place:
 - i. in the **development** phase of the system (legal review; technical certification; confirmation of commissioning following experimentation and tests),
 - ii. in the phase of **appropriation** of the weapon system by the armed forces (drawing up a doctrine of use; training on the system and the system itself; training on using AI-based command systems; training on keeping the system operational; staff training;; feedback on training),
 - iii. in the **deployment** phase (planning an operation using the system by setting out a framework for it; running an operation within this framework; feedback on operations; maintaining operational conditions).

Therefore, the measures aimed at operationalizing the eleven guiding principles must above all be based on the general principle of applying existing IHL: setting out the application of existing IHL for the weapons systems based on emerging technologies in the area of LAWS must remain the main focus of our discussion. It is for this reason that the Convention on Certain Conventional Weapons (CCW) – whose work is based on the principles of IHL and the purpose of which is to ensure its

¹ “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.”

² “Accountability for developing, deploying and using any emerging weapons system in the framework of the Convention on Certain Conventional Weapons 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.”

³ “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 international humanitarian law. 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.”

effective implementation – remains the most appropriate forum for responding to both ethical and legal issues raised by the systems based on emerging technologies in the area of LAWS (as recalled in guiding principle “k”⁴).

In concrete terms, in order to ensure that IHL is fully applied to weapons systems based on emerging technologies in the area of LAWS – in compliance with guiding principle “a”⁵ and in line with their existing obligations– **High Contracting Parties (HCPs) should, for the purposes of operationalizing the eleven guiding principles at national level:**

1) **not develop or use lethal weapons systems that would be fully autonomous**, i.e. systems capable of acting without any form of human supervision or dependence on a command chain by setting their own objectives or by modifying, without any human validation, their initial programme (rules of operation, use, engagement) or their mission framework. Such systems would run contrary to guiding principles “b” (human responsibility for the use of weapons systems), “c” (human-machine interaction) and “d” (accountability);

2) **implement, in compliance with guiding principle “e”⁶, a national procedure to review the legality of weapons systems that they develop or acquire, including those based on emerging technologies in the area of LAWS, in line with their international obligations, in particular under IHL, and in compliance with the provisions of Article 36 of Additional Protocol I to the Geneva Conventions;**

3) **define and implement, in compliance with guiding principle “g”⁷, strict verification, assessment and validation procedures to ensure the reliability** of the weapons systems based on emerging technologies in the area of LAWS which they develop, acquire or use. HCPs should also undertake **to train operators and the human command in using** weapons systems based on emerging technologies in the areas of LAWS which they develop, acquire or use;

4) ensure, in compliance with guiding principles “b”, “c”, “d” and “g”, that **humans will remain responsible for designing, programming, defining and validating the rules of engagement, the rules for use and the operating rules of** weapons systems based on emerging technologies in the area of LAWS;

5) ensure that when using a weapon system based on emerging technologies in the area of LAWS, **the human command remains in a position to assess, in accordance with guiding principle “c”, compliance with the rules and principles of IHL within the framework of and with regard to the specific circumstances of each attack.** To this end, HCPs should, at national level, commit to ensuring that:

- i. **human command will continue to take critical decisions with regard to the use of lethal force**, remaining in charge of the decision to deploy a weapons system based on emerging

⁴ “The Convention on Certain Conventional Weapons 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.”

⁵ “International humanitarian law continues to apply fully to all weapons systems, including the potential development and use of lethal autonomous weapons systems.”

⁶ “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.”

⁷ “Risk assessments and mitigation measures should be part of the design, development, testing and deployment cycle of emerging technologies in any weapons systems.”

technologies in the area of LAWS to launch an attack, as well as to define and validate missions assigned to it;

- ii. **they will provide lethal weapons systems featuring autonomy with a specific mission framework, which must be limited in time, space and by determined objectives.** These restrictions must be set by the human command in such a way as to ensure, more specifically, compliance with the principles of distinction and proportionality established by IHL;
- iii. **they will implement all possible measures, in compliance with the principle of precaution, to spare the civilian population and civilians objects while using weapons systems based on emerging technologies in the area of LAWS.** Provided they are feasible, these measures can take several forms, such as: warning populations; technical measures enabling the deactivation, self-destruction or ending of these systems' missions under certain circumstances; or maintaining sufficient communication capabilities, even intermittent ones, between human command and the system;

6) **Investigate, in compliance with principles “b”⁸ and “d”⁹, the allegations of war crimes** potentially perpetrated by their armed forces and nationals, or on their territory, or by any person under their authority, through a weapon system based on emerging technologies in the area of LAWS and, where appropriate, to prosecute the suspected perpetrators;

HCPs should also be encouraged, for the purposes of the operationalization of the eleven guiding principles at national level, to:

7) join, if they have not yet done so, Additional Protocol I to the Geneva Conventions, and **exchange information on their national legal review procedures** as well as to jointly define best practices, while prioritizing those which would be most pertinent for weapons systems based on emerging technologies in the area of LAWS;

8) **adopt and implement, in compliance with guiding principle “f”¹⁰, measures to prevent the diversion of** weapons systems based on emerging technologies in the area of LAWS to unauthorized end-users, including terrorist groups, by regulating in their respective territories the production, acquisition and transfer of these systems, in compliance with their national control mechanisms and relevant international instruments to which they are parties. HCPs could require that these activities only take place with government authorization and under its control;

9) **step up national discussion on ethical and legal issues** linked to military applications for emerging technologies in the area of LAWS.

⁸ “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.”

⁹ “Accountability for developing, deploying and using any emerging weapons system in the framework of the Convention on Certain Conventional Weapons 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.”

¹⁰ “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 cybersecurity against hacking or data spoofing), the risk of acquisition by terrorist groups and the risk of proliferation should be considered.”