



Statement delivered by Germany

on

Working Definition of LAWS / “Definition of Systems under Consideration”

- Germany is convinced that humans must maintain the ultimate decision in matters of life and death. Hence Germany rejects weapon systems that completely exclude human involvement in the decision about the use of lethal force.
- More specifically, Germany rejects autonomous weapon systems which are primarily designed to directly cause lethal effects or other damage to human beings, and which are designed to sense, rationalize, decide, act, evaluate and learn completely independently from human interaction or control.

Defining Autonomy in Weapon Systems through their Technical Attributes:

- Today we are facing an increased use of automated and remotely controlled systems. We are expecting to see a further development and refinement of these automated weapon systems. This process of automatisisation has been going on for decades and will continue to do so in the future. A proper distinction of automatisisation and autonomy is key for an improved understanding and an informed debate on the issue within this GGE as well as in the wider public.
- Autonomy is an operational mode of technical systems. It can be related to whole weapon systems, or more likely, individual functionalities of weapon systems.
- The characteristics of autonomous systems will primarily be the result of the application of information processing technologies based on algorithms.
- An understanding of autonomy - and its distinction from automatization - for the working purposes of the GGE on LAWS can be built by referring to autonomy as
 - the capacity to perceive (sense and interpret) an environment,
 - evaluate the circumstances of a changing situation without reference to a set of pre-defined goals,
 - reason and decide on the most suited approach towards their realization,
 - initiate actions based on these conclusions,
 - all of the above being executed without any human involvement once the system has been operationalized.
- A new quality of technology towards autonomy based on artificial intelligence is reached where systems or individual functionalities have the ability to learn and thus re-define their goals and/or develop new strategies to adapt their respective performance to different situations.

- Having the ability to learn and develop self-awareness constitutes an indispensable attribute to be used to define individual functions or weapon systems as autonomous.
- To a certain extent self-learning systems might also improve the leadership and decision-making performance of the "man in the loop". They may help to ensure the full implementation of international humanitarian law, including the principles of distinction and proportionality, minimize adverse effects of warfare and increase the protection of civilians.
- It is our view that humans have to maintain the ultimate decision in matters of life and death. As a consequence Germany does not intend to develop or to acquire weapon systems that completely exclude the human factor from decisions about the employment of weapon systems against individuals.