

CBRN Weapons

Global Security Pulse, Strategic Monitor 2019-2020



Novel and Important Signals to Watch: Threats and Opportunities

- **Massive investments by all possessor states in nuclear weapons and related missiles**

- Modernization of nuclear weapon arsenals. [New York Times \(1\)](#); [SIPRI \(1\)](#)
- Development of low-yield weapons & new types of missiles (hypersonic & cruise missiles). [UNODA](#); [The Guardian \(1\)](#); [IISS \(1\)](#); [New York Times \(2\)](#)
- *How could the EU influence nuclear weapons states to prevent a dangerous nuclear arms race?*

- **Diffusing lines between CBRN and conventional weapons**

- Increasing number of delivery systems with dual use capabilities. [BBC \(1\)](#); [BASIC](#)
- Risks involved by entanglement of Command & Control systems. [Carnegie](#); [Arms Control Association \(1\)](#)
- *What measures could the EU propose to nuclear weapon states to prevent nuclear warfare due to misunderstandings?*

- **Developments in biotechnology with risk of creating new biological weapons**

- Rapid emerging new gen-editing technologies such as CRISPR. [Deccan Chronicle](#); [IDSA](#)
- Biological dual-use technologies become more easily available for non-state actors. [SIPRI \(2\)](#); [WEF](#); [IDSA](#)
- *What policies could the EU develop to prevent any weaponization of new biological technologies?*

- **Developments in chemical science with risk of creating new chemical weapons**

- Increasing convergence between pharmaceutical and military applications. (Frequently mentioned during expert discussion)
- Chemical dual-use technology becomes more easily available for non-state actors [SIPRI \(3\)](#)
- *How could the Organisation for the Prohibition of Chemical Weapons be strengthened to prevent any abuse of dual-use chemical technology?*

CBRN Weapons

Global Security Pulse, Strategic Monitor 2019-2020



Long Term Trends: Development of the Threat Multifactor Threat Assessment (10-year timespan)

Trends

Indicator

Arsenals

Number of CBRN weapons



Investments in modernisation of weapons



Investments in missiles



Policies

Political threshold for CBRN weapon use



Non-state actors' access to CBRN weapon technology



Clear lines between CBRN and conventional weapons



Trust in multilateral system regarding CBRN



■ Decreasing threat

■ Increasing threat

▲ Upward

▼ Downward

— Net-zero / Stable

CBRN Weapons

Global Security Pulse, Strategic Monitor 2019-2020



Novel and Important Signals to Watch: The International Order

• Demise of existing CBRN arms control agreements

- US & Russian withdrawal from INF Treaty & nearing end of New START. [IISS \(2\)](#); [Arms Control Association \(2\)](#); [Arms Control Association \(3\)](#); [Jane's 360](#)
- Problems with JCPOA & tensions within NPT, CWC, BTWC and CTBT context. [Politico](#); [CSIS](#); [BBC \(2\)](#); [The Guardian \(2\)](#)
- *How could the EU strengthen (trust in) existing arms control agreements?*

• Lowering threshold for nuclear weapon use

- Political rhetoric with implicit threats of nuclear war in of some nuclear weapon states. [Reuters](#)
- Perception in some nuclear weapon states that nuclear weapons are 'usable' in war. [The Bulletin of Atomic Scientists \(1\)](#); [The Bulletin of Atomic Scientists \(2\)](#)
- *What could the EU do to ensure that nuclear weapons will never be used again?*

• Proliferation of CBRN technology

- International concerns about the nuclear programs of Iran & Saudi Arabia. [Brookings](#); [Bulletin of Atomic Scientists \(3\)](#); [The Economist](#); [IISS \(3\)](#)
- Little control & knowledge regarding the spread of new biological & chemical technologies [SIPRI \(2\)](#); [IDSA](#)
- *How could the EU prevent any proliferation of CBRN technologies?*

• Impunity of chemical weapons use

- Chemical weapons were used in Syria, Malaysia and United Kingdom [SIPRI \(3\)](#)
- So far, few serious consequences were faced by perpetrators (state & non-state), which may encourage other actors to use chemical weapons as well. [Arms Control Association \(4\)](#); [SIPRI \(3\)](#)
- *In what way could the EU end the perception of impunity of actors using chemical weapons?*

CBRN Weapons

Global Security Pulse, Strategic Monitor 2019-2020



Long Term Trends: Development of the International Order Multiyear Regime Analysis (10-year timespan)

Norms

States should work towards a world without CBRN weapons

Trend



CBRN weapons should never be used



Rules

States should work towards a world without CBRN weapons

Trend



Arms control agreements should not be violated



Access of non-state actors to CBRN weapon materials should actively be prevented



▲ Upward ▼ Downward — Net-zero / Stable

Authors: Kevin de Raat, Sico van der Meer, Danny Pronk (Clingendael). **Contributors:** Dick Zandee (Clingendael); Tim Swejjs, Patrick Bolder, Hugo van Manen (HCSS). For a general methodological justification of horizon-scanning click [here](#) and for the methodology document specific to CBRN weapons click [here](#).

Disclaimer. The Global Security Pulse is part of the PROGRESS Program Lot 5, commissioned by the Netherlands' Ministries of Foreign Affairs and Defense. Responsibility for the content and for the opinions expressed rests solely with the authors; publication does not necessarily constitute an endorsement by the Netherlands Ministries of Foreign Affairs or Defense.