CBRN Centres of Excellence
A Global Initiative of the European Union

EU GLOBAL THREATS PROGRAMME

OVERALL GOAL: Mitigate chemical, biological, radiological and nuclear (CBRN) risks of natural, accidental or deliberate origin

African Atlantic Façade | Central Asia | Eastern and Central Africa | Gulf Cooperation Council Countries | Middle East | North Africa and Sahel | Southeast Asia | South East and Eastern Europe

63 National Focal Points

51 National Teams

46 National Action Plans

3 Regional Action Plans

110+ Projects implemented

Prevention
- Biosafety & Biosecurity
- Export Controls & Dual-Use Goods
- Legal & Regulatory Frameworks

Response
- Public Health Capacities
- Medical Preparedness & Response
- Trainings & Exercises

Protection
- Chemical Industrial Safety
- Safe Transport of CBRN Materials
- CBRN Waste Management
- Critical Infrastructure & Information Security

Detection
- Threat Detection
- Border Monitoring

Preparedness
- Public Health Capacities
- Medical Preparedness & Response
- Trainings & Exercises

Funded by the European Union

with the support of unicri United Nations Interregional Crime and Justice Research Institute

An expanded network of partnerships

Working together to mitigate CBRN risks

C
CHEMICAL

Toxic substances that can cause harm or death through poisoning, corrosive or incapacitating effects.

Nerve Agents: Disrupt nervous system function irreversibly (e.g., Sarin (GB))

Blister Agents: Cause skin and eye irritation in the form of chemical burns (e.g., Mustard Gas)

Blood Agents: Interfere with cellular respiration by absorption into blood (e.g., Hydrogen Cyanide)

Choking Agents: Cause suffocation and lung damage (e.g., Phosgene)

B
BIOLOGICAL

Pathogens or toxins that can cause disease in humans, animals, or plants.

Bacteria:
(e.g., Anthrax, Plague)

Viruses:
(e.g., Smallpox, Ebola, Covid, Influenza)

Toxins: Poisonous compounds from living organisms (e.g., Botulinum toxin, Ricin, Staphylococcal enterotoxin B)

Rickettsiae & Fungi:
Less commonly used but still studied for bioweapon potential

R
RADIOLOGICAL

Radioactive substances that emit ionizing radiation, harmful through exposure or contamination.

Radioactive Isotopes:
Used in dirty bombs or for sabotage (e.g., Cesium-137, Cobalt-60, Iridium-192)

Radiological Dispersal Devices (RDDs): "Dirty bombs" that combine conventional explosives with radioactive material

Orphan Sources:
Lost or stolen radiological sources from medical or industrial settings

N
NUCLEAR

Fissile materials used in nuclear weapons or reactors, capable of massive explosive power and long-term contamination.

Fissile Materials:
Can sustain a chain reaction (e.g., Uranium-235, Plutonium-239)

Enriched Uranium:
Used in nuclear weapons and fuel

Spent Fuel / Reactor Byproducts:
Can be repurposed for weapons (e.g., Plutonium from reactors)

Improvised Nuclear Devices (INDs):
Hypothetical weapons made from stolen fissile material