



C B R N
**Centres
of Excellence**
A Global Initiative of the European Union

15 years of international cooperation through the EU CBRN Risk Mitigation Centres of Excellence Initiative



Funded by
the European Union



With the support of

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United Nations
Interregional Crime and Justice
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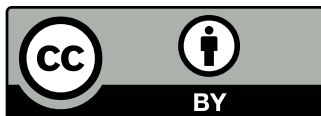
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Foreword

Fifteen years ago, the European Union launched the EU CBRN Risk Mitigation Centres of Excellence Initiative (EU CBRN CoE) with a clear goal to support our international partners in strengthening their capacity to prevent, detect, and respond to chemical, biological, radiological and nuclear (CBRN) risks. What began as a strategic vision has since grown into the world's largest platform for voluntary cooperation in the domain of CBRN risk mitigation, spanning 63 Partner Countries across eight regions.

This Initiative is grounded in a unique model of partnership, one that promotes national ownership, regional coordination and international dialogue. It is not about finding one-size-fits-all solutions. It is about working together to understand risks, define priorities and build systems that endure. Every country, region and stakeholder contributes to this collective effort because, in today's world, CBRN safety and security can only be achieved together.

The stories in this booklet show what can be accomplished when we invest in trust, knowledge, and cooperation. From legal reforms and laboratory upgrades to cross-border exercises and outbreak preparedness, these achievements speak to the strength of our shared commitment.

With over 100 projects implemented to date, the Initiative has become the EU's largest external civilian security programme, underscoring the breadth of its reach and the depth of its impact.

As we look ahead, the EU, with the support of UNICRI, remains deeply committed to cooperate with Partner Countries and regions in addressing tomorrow's challenges. We will continue to strengthen coordination between national authorities and international partners, and to expand cooperation with regional organisations, academic institutions, and the private sector. These partnerships are vital to harness emerging technologies, foster innovation, and scale the impact of our joint work.

At a time when global threats are becoming more complex and interconnected, the EU CBRN CoE offers a model of what international cooperation can be: pragmatic, inclusive, and future-oriented. We are proud of what we have built together over the past 15 years, and even more inspired by what we can achieve in the years to come.

Maria Rosa Sabatelli

Head of Unit, Global and Transregional Threats and Challenges
Service for Foreign Policy Instruments (FPI)
European Commission

1. Working together

Fifteen years ago, the European Union launched the EU CBRN Risk Mitigation Centres of Excellence Initiative (EU CBRN CoE) to help countries work together to reduce the risks posed by chemical, biological, radiological and nuclear materials. Today, it is the world's largest platform for voluntary CBRN cooperation, uniting 63 Partner Countries across eight regions to strengthen safety, security and resilience.

Built on long-term partnership, the Initiative brings together national institutions, regional actors and international expertise to prevent, detect and respond to CBRN threats of any origin. It supports countries in defining their own priorities, promotes coordination across borders and sectors, and fosters sustained engagement anchored in trust.

A new model of partnership for CBRN risk mitigation

The Initiative was launched in 2010 as a response to a clear gap. For years, CBRN-related assistance was fragmented, delivered through donor-driven projects with limited alignment to national strategies and little scope for lasting impact. While well-intentioned, these efforts did not sufficiently create the conditions for long-term capacity or coordination.

The EU CBRN CoE introduced a new cooperation model. Instead of trying to find one-size-fits-all solutions, it promotes national ownership and regional dialogue. Partner Countries are not passive recipients, but active contributors in identifying their needs, leading their engagement, and working with their neighbours to address shared challenges.

This bottom-up, country-led approach became the cornerstone of the Initiative's design. It made cooperation more relevant, more inclusive, and better suited to realities on the ground.

Building a global network through regional leadership

The Initiative was formally established in May 2010, with the European Commission leading its creation in close collaboration with the United Nations Interregional Crime and Justice Research Institute (UNICRI).

From the beginning, the Initiative was designed as a decentralised global network. Countries were invited to join voluntarily, nominate National Focal Points, and help shape regional coordination structures. By 2013, the first four Regional Secretariats had opened in Amman, Manila, Rabat and Tbilisi. These were later joined by Abu Dhabi, Algiers, Tashkent and Nairobi, together forming the backbone of the Initiative's regional architecture.

Each Secretariat is composed of a Head of Secretariat, nominated by the host country and a UNICRI Regional Coordinator and functions as a regional coordination hub. Since 2015, these Secretariats have been supported by On-site Technical Assistance Experts, CBRN professionals deployed by the EU to provide daily technical support and help develop CBRN plans and actions.

Connecting institutions, delivering impact

The Initiative is powered by a core partnership between the European Union and the United Nations. Each actor brings a distinct strength to the table – policy, funding, science, coordination and diplomacy – and it is this complementarity that makes the cooperation both strategic and operational.

The European Commission leads the Initiative through its Service for Foreign Policy Instruments (FPI), supported by the diplomatic coordination of the European External Action Service (EEAS) and the scientific expertise of the Joint Research Centre (JRC), under the Euratom Research and Training programme. On the ground, UNICRI ensures inclusive implementation and sustained engagement with Partner Countries.

EU Member State agencies also play a central role, translating priorities into action by delivering projects that respond to the needs identified by Partner Countries and regions. In addition, a number of projects have been implemented by the International Science and Technology Center (ISTC) and the Science and Technology Center in Ukraine (STCU).

Together, these partners form an adaptable, multi-level engine for international cooperation, one that links local needs to global frameworks and keeps the Initiative responsive, inclusive and future-oriented.

As the European Court of Auditors noted in 2014, while the Initiative's structure is complex, this reflects its deliberate design: "comprehensive, bottom-up and regional."

Reinforcing the EU's global security vision

Over the past 15 years, the Initiative has grown into a key element of the EU's external action. It reflects the Union's long-standing commitment to civilian security, international stability and international peace.

The 2020 EU Security Union Strategy identified the Initiative as a strategic tool for addressing external threats, emphasising that Europe's internal security depends on the resilience of its partners. By building long-term partnerships in a sensitive area of global risk, the Initiative contributes to both regional and international safety.

It also creates space for dialogue and cooperation, even in politically complex environments, offering countries a platform to engage constructively on shared risks and to exchange expertise and align efforts.

Building lasting capacity through cooperation

After 15 years, the EU CBRN CoE remains a unique model of international cooperation, one that continues to evolve as risks shift and needs change. It does not offer ready-made solutions, but frameworks for partnership. It enables countries to lead, adapt, and connect.

With over 100 projects implemented to date, the Initiative stands as the EU's largest external civilian security programme. Yet its success lies not just in its scale, but in the trust it has built, the systems it has supported, and the long-term capacity it has helped put in place.

In a world where CBRN risks know no borders, the Initiative demonstrates that cooperation is not just an option, but a necessity for building lasting trust, resilience, and global safety and security.

[SUCCESS STORIES]

Rapid support in the face of crisis: CBRN assistance to Ukraine

Following Russia's full-scale invasion of Ukraine, CBRN risks escalated, from threats to critical infrastructure to the safety of frontline responders. The EU CBRN CoE responded rapidly, delivering personal protective equipment, detection devices, and targeted training to Ukrainian authorities.

Support included capacity-building for law enforcement, coordination workshops to counter misinformation and hybrid threats, and the translation and dissemination of the *Prosecutor's Guides to Chemical, Biological and Radiological and Nuclear Crimes*, practical tools that help investigators and prosecutors address CBRN-related offences. So far, more than 30 projects have reinforced cross-border cooperation in Southeast and Eastern Europe, strengthening collective preparedness and response.

This experience underscores the Initiative's ability to provide both rapid assistance and sustained engagement in times of crisis, supporting Partner Countries in building long-term resilience to CBRN threats.

Key principles

01

Voluntary participation: Engagement is based on the willingness of partners to collaborate.

02

Trusted community: The Initiative fosters a reliable and cooperative network of stakeholders.

03

Technical and non-political: Focused on expertise, capacity-building, and practical solutions.

[SUCCESS STORIES]**Responding together: mobilising the network against COVID-19**

When the COVID-19 pandemic swept across the globe, the management of the public health emergency became a priority for the EU CBRN CoE. The Initiative quickly adapted to meet the moment, mobilising its global network to support Partner Countries in strengthening their pandemic response.

Through rapid reallocation of resources, the Initiative funded targeted measures to help mitigate the spread of the virus and protect frontline workers. This included delivering personal protective equipment, enhancing laboratory capacity, and supporting risk communication and public health coordination. In many regions, the Initiative helped partners align their emergency response efforts with international standards, reinforcing trust and cooperation in the midst of uncertainty.

By acting quickly and collaboratively, the Initiative demonstrated the flexibility of its model and the strength of its partnerships, showing that, in the face of global challenges, shared action saves lives.

04**Civilian-oriented:**

Dedicated to enhancing public safety and security.

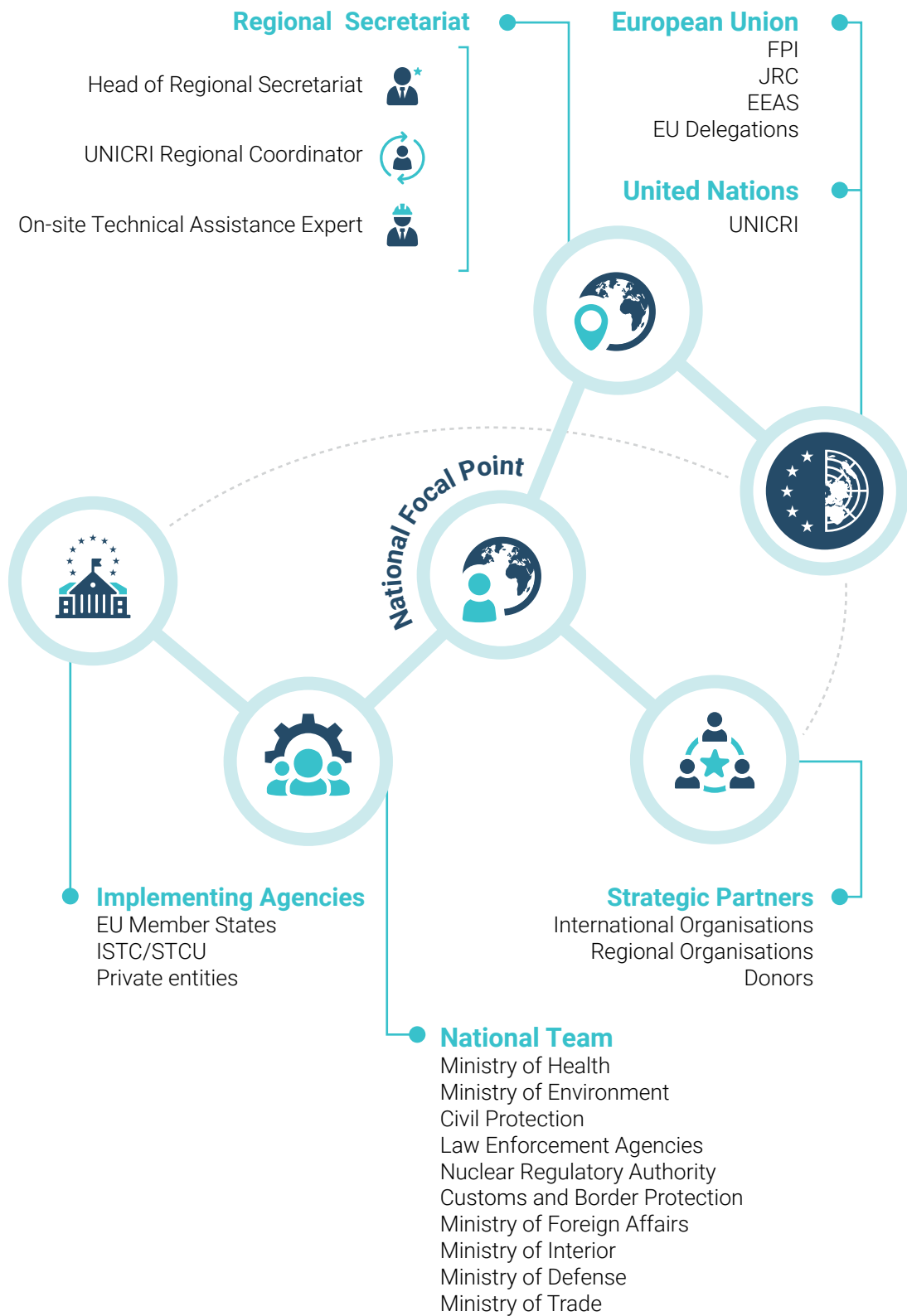
05**Flexible, decentralised structure:**

A dynamic network that can quickly adapt to evolving threats and shifting priorities.

06**Agile resource allocation:**

Enables targeted deployment of resources in response to emerging threats.

The Network



“The European Union Chemical, Biological, Radiological and Nuclear Risk Mitigation Centers of Excellence Initiative, launched in response to the need to strengthen the institutional capacity of countries outside the Union to mitigate CBRN risks.”

”

EU General statement during UN General Assembly First Committee Seventy-Ninth session (2024)

“The Initiative creates a network that grows stronger every year—through trust, collaboration, and shared goals. It’s more than just projects, it’s a community of practice.”

”

Ms. Diana Tsutskiridze, National Focal Point, Georgia

“The EU CBRN Centres of Excellence Initiative has the potential of becoming a true EU flagship programme with an effective project delivery approach based on risk and needs assessment in partner countries around the EU. It entails a networking methodology that has shown to be able to create sustainable relationships with partners in a highly sensitive field.”

”

Study ‘EU preparedness and responses to Chemical, Biological, Radiological and Nuclear (CBRN) threats’, requested by the European Parliament’s (EP) Subcommittee on Security and Defence (SEDE), 2021

Partner Countries joining the Initiative

2010

-  Albania
-  Algeria
-  Armenia
-  Bosnia and Herzegovina
-  Georgia
-  Libya
-  Mauritania
-  Moldova
-  Montenegro
-  Morocco
-  North Macedonia
-  Serbia
-  Tunisia
-  Brunei Darussalam
-  Cambodia
-  Indonesia
-  Lao PDR
-  Malaysia
-  The Philippines
-  Singapore
-  Thailand
-  Viet Nam

2011

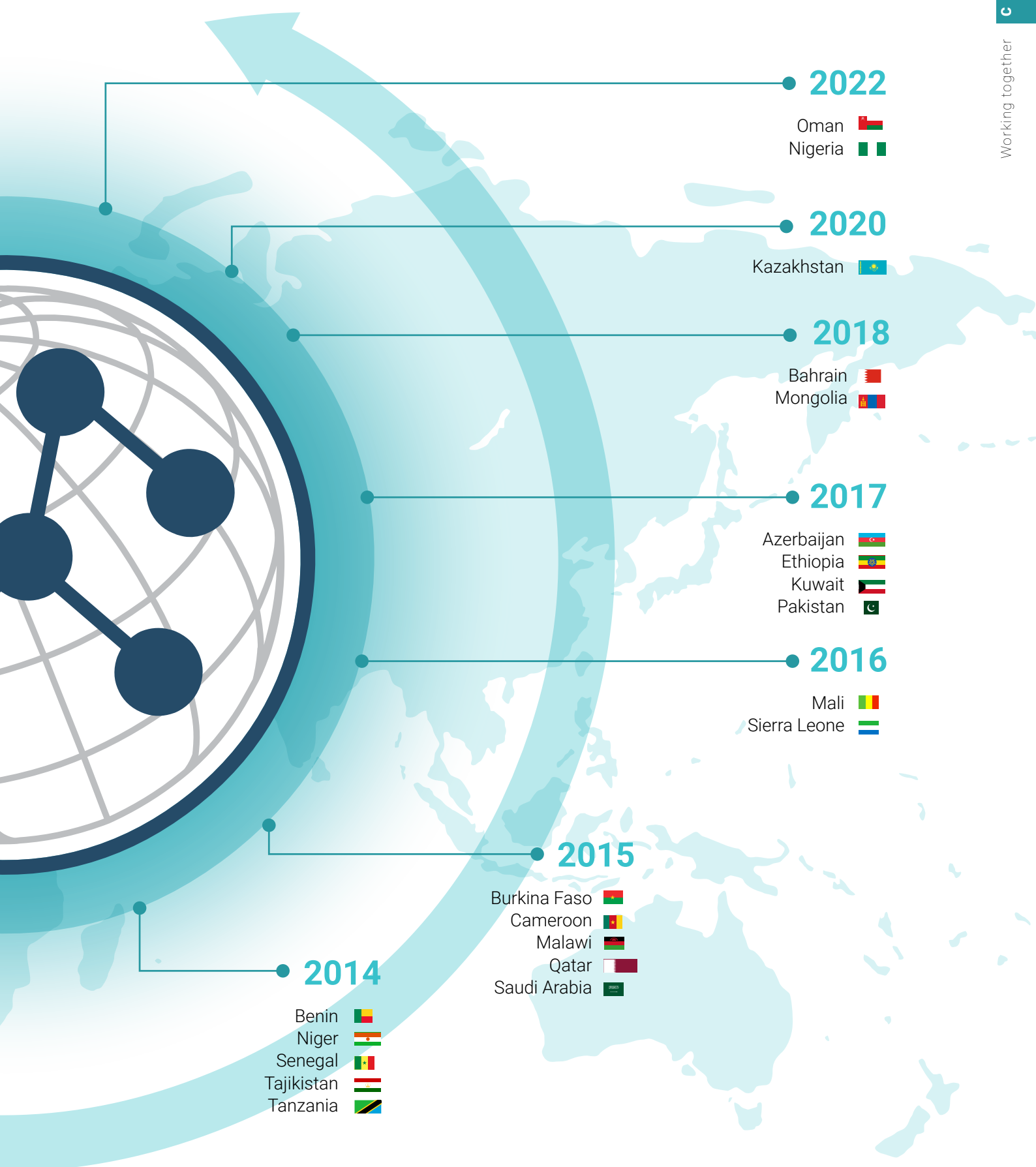
-  Gabon
-  Iraq
-  Jordan
-  Kyrgyz Republic
-  Ukraine
-  Uzbekistan

2012

-  Kenya
-  Myanmar
-  Rwanda
-  Uganda
-  United Arab Emirates

2013

-  Burundi
-  Cote d'Ivoire
-  DRC
-  Ghana
-  Lebanon
-  Liberia
-  Seychelles
-  Togo
-  Zambia



2. Chemical, biological, radiological and nuclear (CBRN)

Throughout history, chemical, biological, radiological and nuclear (CBRN) materials have reshaped the way we live. They have enabled medical breakthroughs, powered industry, and supported modern agriculture, energy and scientific discovery. Responsibly managed, they continue to improve lives and strengthen societies around the world.

But the same potential that drives progress can also pose serious risks. Whether misused deliberately, released by accident or triggered by natural hazards, CBRN incidents can have wide-reaching consequences, affecting health, the environment, economies, and security across borders and sectors. In an interconnected world, no country can manage CBRN incidents alone.

Over the decades, international frameworks have helped reduce CBRN threats by establishing rules, responsibilities and safeguards for the peaceful and safe use, control and non-proliferation of these materials. Still, transforming these global commitments into sustainable national capacities requires constant investment, trust building and adaptability, especially in rapidly evolving or resource-limited settings.

Keeping pace with a changing CBRN threat landscape

From the Geneva Protocol after World War I to landmark treaties like the Nuclear Non-Proliferation Treaty (1968), the Biological Weapons Convention (1972), and the Chemical Weapons Convention (1993), the world has steadily strengthened its governance of CBRN risks.

Yet many of these instruments were designed to address security challenges connected to a different era, when threats came primarily from states. In the 21st century, the landscape has changed, and priorities have shifted. The terrorist attacks of September 2001 and the subsequent anthrax letters in the United States brought a new sense of urgency to the risk posed by non-state actors. In response, the United Nations Security Council adopted Resolution 1540 in 2004, requiring all UN member states to prevent the spread of weapons of mass destruction to non-state groups.

This evolution highlighted a pressing need: global cooperation had to keep pace with increasingly complex risks.

The EU's all-hazards vision for stronger CBRN preparedness

Recognising that CBRN threats can emerge from deliberate attacks, accidental failures or natural events, the European Union adopted a more integrated and flexible strategy. The 2009 EU CBRN Action Plan introduced an “all-hazards” approach, emphasising that effective preparedness relies on systems and coordination capable of responding across a range of scenarios.

Whether a chemical release results from criminal intent, equipment failure or human error, the response often depends on the same fundamentals: trained professionals, clear procedures, functional institutions and coordination between sectors. The all-hazards approach brings together stakeholders from civil protection, health, science, law enforcement and security, helping to build a shared culture of readiness.

This philosophy laid the groundwork for a more ambitious vision of international cooperation.

EU CBRN CoE: a unique model for strengthening global cooperation

Launched in 2010, the EU CBRN Risk Mitigation Centres of Excellence Initiative (EU CBRN CoE) brings together 63 Partner Countries across 8 regions to strengthen how the world prevents, detects and responds to CBRN risks. It is the European Union's largest external civilian security programme, and a unique model for long-term, inclusive cooperation.

What sets the Initiative apart is its enduring focus on systems and people. Rather than prescribing solutions, it empowers countries to identify their own priorities and supports them through tailored projects, regional networks and expert advice. Governments, scientists, first responders, and civil society actors work together to reinforce national frameworks and strengthen cross-border preparedness.

The Initiative complements global conventions and strategies by helping Partner Countries develop the skills, institutions and coordination mechanisms that turn shared commitments into operational capacity. It demonstrates that building resilience is not only about technology and procedures. It is about trust, collaboration and sustained investment in people.

Adapting to emerging CBRN risks

CBRN risks continue to evolve, driven by scientific innovation, global mobility, urbanisation and environmental pressures. As these forces converge, they test the capacity of national and regional systems to remain responsive and resilient.

In this changing landscape, the EU CBRN CoE remains a vital contributor to global CBRN governance. It fosters cooperation across regions, strengthens preparedness at all levels, and evolves to meet new challenges, helping to shape a safer, more coordinated international response to CBRN threats.

In a world of shared risks, shared responsibility is the foundation of global safety and resilience.

[SUCCESS STORIES]

Burundi establishes its first legal framework for nuclear safety

Burundi took a significant step towards strengthening radiological risk governance by adopting its first-ever national law on the peaceful use of nuclear energy. With support from the EU CBRN CoE, the new legislation introduces robust provisions for licensing, inspection, and enforcement in full alignment with international standards. It provides a solid legal foundation for regulating radiological sources in medical, industrial and research settings, ensuring their safe and secure use while enabling future scientific and technological applications. This milestone illustrates how national commitment, combined with targeted support, can turn global principles into effective local safeguards.

[SUCCESS STORIES]

Lao PDR strengthens BWC implementation and inspires regional peers

In 2022, Lao PDR submitted a Confidence-Building Measure (CBM) report under the Biological Weapons Convention (BWC) for the first time in 13 years, marking a renewed commitment to transparency and reinforcing the global norm prohibiting the use of biology for malicious purposes. With targeted support from the EU CBRN CoE, including mentoring from the Philippines, Lao PDR built the capacity needed to meet reporting obligations and engage more actively in the BWC.

The achievement has had ripple effects across Southeast Asia. Lao PDR is now sharing its experience with neighbouring countries like Vietnam and Timor-Leste, reinforcing a regional culture of collaboration and leadership in treaty compliance.





[SUCCESS STORIES]

From Morocco to Singapore: Partner Countries lead on dual-use export controls

In today's interconnected world, controlling the trade of dual-use items, goods and technologies with both civilian and military applications, is essential to prevent their misuse in the development of CBRN weapons. Through the EU P2P Export Control Programme, closely associated with the EU CBRN CoE, Partner Countries worldwide have showcased how strategic trade management systems can be strengthened through international cooperation.

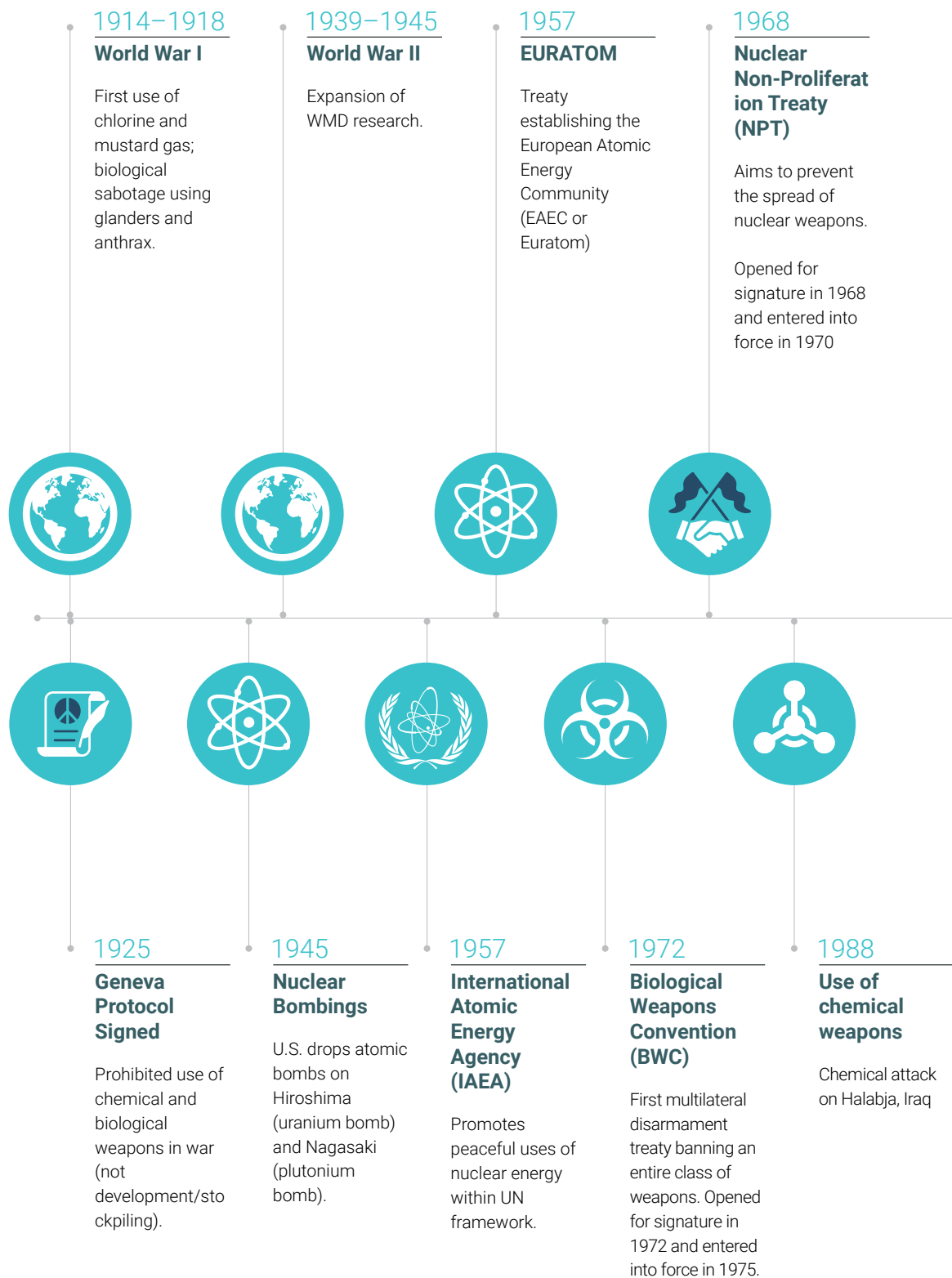
More than 20 Partner Countries of the EU P2P have made significant strides in aligning their export control systems with international standards and adopting the EU Control Lists of Dual-use Goods. These countries enhanced legislation, improved risk analysis and licensing procedures, and built stronger coordination between government authorities and the private sector.

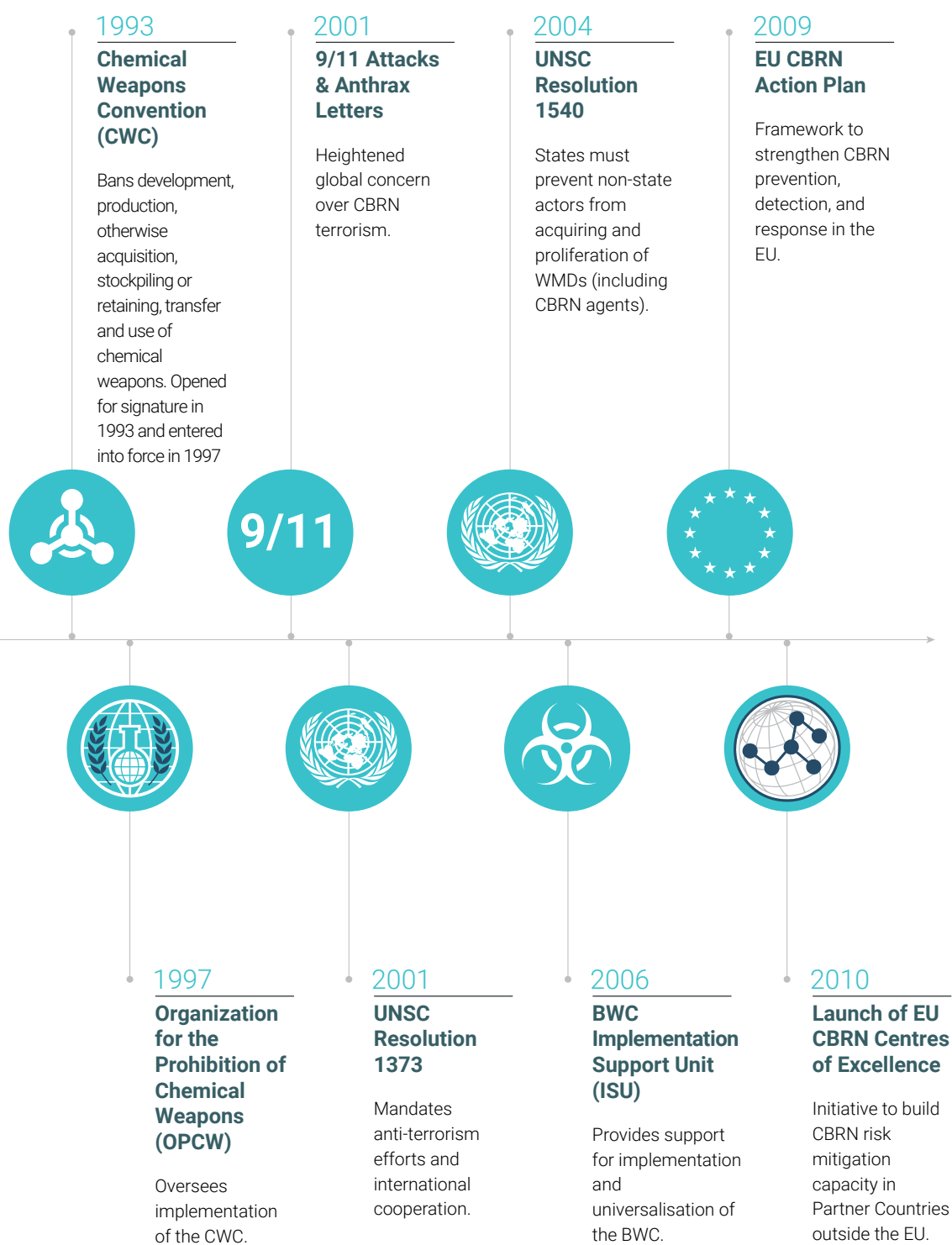
The practical guide *Elaborating a Strategic Trade System of Dual-Use Items*, released in 2024, is based on the experiences of Morocco, the Philippines, Serbia, Singapore, and Ukraine. The publication serves as a model for other countries navigating challenges of strategic trade management. By turning national successes into shared guidance, these countries have helped shape a global standard, demonstrating that effective non-proliferation begins with local ownership and international partnership.

 <p>C CHEMICAL</p>	 <p>B BIOLOGICAL</p>	 <p>R RADIOLOGICAL</p>	 <p>N NUCLEAR</p>
<p>Toxic substances that can cause harm or death through poisoning, corrosive or incapacitating effects</p>	<p>Pathogens or toxins that can cause disease in humans, animals, or plants.</p>	<p>Radioactive substances that emit ionizing radiation, harmful through exposure or contamination.</p>	<p>Fissile materials used in nuclear weapons or reactors, capable of massive explosive power and long-term contamination.</p>
<p>Nerve Agents: Disrupt nervous system function irreversibly (e.g., Sarin (GB))</p> <p>Blister Agents: Cause skin and eye irritation in the form of chemical burns (e.g., Mustard Gas)</p> <p>Blood Agents: Interfere with cellular respiration by absorption into blood (e.g., Hydrogen Cyanide)</p> <p>Choking Agents: Cause suffocation and lung damage (e.g., Phosgene)</p>	<p>Bacteria: (e.g., Anthrax, Plague)</p> <p>Viruses: (e.g., Smallpox, Ebola, Covid, Influenza)</p> <p>Toxins: Poisonous compounds from living organisms (e.g., Botulinum toxin, Ricin, Staphylococcal enterotoxin B)</p> <p>Rickettsiae & Fungi: Less commonly used but still studied for bioweapon potential</p>	<p>Radioactive Isotopes: Used in dirty bombs or for sabotage (e.g., Cesium-137, Cobalt-60, Iridium-192)</p> <p>Radiological Dispersal Devices (RDDs): "Dirty bombs" that combine conventional explosives with radioactive material</p> <p>Orphan Sources: Lost or stolen radiological sources from medical or industrial settings</p>	<p>Fissile Materials: Can sustain a chain reaction (e.g., Uranium-235, Plutonium-239)</p> <p>Enriched Uranium: Used in nuclear weapons and fuel</p> <p>Spent Fuel / Reactor Byproducts: Can be repurposed for weapons (e.g., Plutonium from reactors)</p> <p>Improvised Nuclear Devices (INDs): Hypothetical weapons made from stolen fissile material</p>

Timeline

Key events leading to the creation of the EU CBRN Centres of Excellence





“The proliferation of nuclear, chemical and biological weapons, as well as their means of delivery, constitutes a threat to international peace and security. The Security Council, therefore, acting under Chapter VII of the Charter of the United Nations, decides that all States shall refrain from providing any form of support to non-State actors that attempt to develop, acquire, manufacture, possess, transport, transfer or use nuclear, chemical or biological weapons and their means of delivery.”

”

UN Security Council Resolution 1540 (2004)

“Before this initiative, many of us were unaware of the chemical, biological, and radiological risks in our country. Now, we are equipped with the knowledge and tools to address these challenges.”

”

Ms. Séraphine Ciza, National Focal Point, Burundi

Best practices



Applying an all-hazards approach that addresses both safety and security aspects of CBRN risks



Aligning national systems with international treaties and standards to ensure consistent and effective risk mitigation



Investing in sustainable capacity-building through legal frameworks, scientific training, and institutional development



Encouraging regional cooperation and cross-border coordination to improve early warning, information sharing, and crisis response

“Chemical, biological, radiological and nuclear weapons remain one of the main challenges faced by the world today. The National Strategy and Action plan for combating Chemical, Biological, Radiological and Nuclear (CBRN) threats were developed to reduce and eventually eliminate these threats”

”

Mr. Aleks Batiashvili, Interagency Coordination Council, Georgia (2022)



Engaging multiple sectors—including government, academia, and private industry—in developing comprehensive mitigation strategies



Promoting community outreach and public awareness to strengthen societal resilience and responsible practices



Fostering innovation and adaptability to keep pace with evolving technologies and emerging CBRN threats

3. Risk mitigation

Mitigating CBRN risks is not just about reacting to emergencies. It is about strengthening every phase of the risk cycle: from prevention and protection to preparedness, detection and response. The EU CBRN Risk Mitigation Centres of Excellence Initiative (EU CBRN CoE) embraces this comprehensive logic, helping Partner Countries build integrated systems that reduce the likelihood of CBRN incidents, minimise their impact, and accelerate recovery.

CBRN threats take many forms: accidental chemical leaks, deliberate biological attacks, radiological exposure, the uncontrolled spread of emerging diseases, among others. Their effects often cross borders, and require an adaptable, multi-sectoral response.

The Initiative promotes an all-hazards, cross-cutting approach that brings together health, security, civil protection, justice, science and education sectors. This integrated vision ensures that each stage of risk mitigation is connected and mutually reinforcing because building resilience today is the key to preventing crises tomorrow.

Prevention

Preventing CBRN incidents starts long before a threat materialises. It requires strong governance, sound policies, and a culture of awareness and responsibility.

The Initiative supports countries in developing and strengthening legislative and regulatory frameworks for the safe and secure management of CBRN materials.

Through legal reviews, peer-to-peer exchanges and capacity-building, countries have, for example, improved licensing systems and implemented stronger export control and oversight of dual-use goods.

The comprehensive review of existing laws has also led to the adoption of a new regulatory frameworks for biosafety and biosecurity aligned with international standards.

By promoting best practices, standardizing procedures, enhancing laboratory biosafety and biosecurity, improving infrastructure, and providing targeted training to build national and regional capacity for effective biological risk management, the Initiative has played a vital role in preventing outbreaks and the misuse of dangerous pathogens.

Protection

While not all CBRN risks can be prevented, their impact can be significantly reduced with proper protective measures.

The Initiative has helped Partner Countries strengthen the physical protection of sensitive sites, secure the transport of hazardous materials, and improve the safety of those who work with or may be exposed to CBRN materials and agents.

In several regions, projects have helped upgrade security at medical facilities using radiological sources and helped develop national strategies for radioactive source management.

Efforts have equally helped protect people. The Initiative supports the development of safety protocols, occupational health measures, and decontamination capabilities to ensure that first responders, laboratory workers and the public are protected in the event of exposure.

In several countries, personal protective equipment (PPE) stockpiles and guidelines for their use were established in response to lessons learned from previous health emergencies.

Preparedness

Preparedness turns policy into action. It ensures that institutions know their roles, that professionals are trained, and that crisis plans are ready to deploy.

The Initiative supports the development of national and regional training programmes, simulation exercises and standard operating procedures (SOPs) tailored to different types of CBRN scenarios. These activities bring together actors from multiple sectors, such as health, law enforcement, civil protection and customs to rehearse coordination and identify gaps.

Joint simulation exercises have brought together numerous responders across agencies to test national and regional response to CBRN incidents. Lessons learned from such exercises have fed directly into the revision of emergency response plans and improved inter-agency cooperation.

Awareness is also key. The Initiative promotes education and outreach efforts, working with international organisations, scientists, medical professionals and the private sector

to embed good practices and reduce the likelihood of accidental or intentional misuse. Several projects have worked with academic institutions to introduce CBRN-related content into higher education curricula, helping embed a culture of safety and security.

Detection

Early detection is critical to stopping the spread of harmful agents and launching a timely response.

The Initiative helps strengthen laboratory networks, biosurveillance systems, field detection capabilities, and data-sharing mechanisms. It supports the development of national laboratory strategies, training for safe sample handling, and procurement of equipment suited to local needs. In several regions, mobile laboratories and cross-border early warning systems have been introduced. Specific scenario-based trainings were conducted to practice with detection and protective equipment purchased in the framework of the Initiative.

Detection also depends on timely information exchange. The Initiative promotes regional coordination and joint protocols to enable countries to rapidly notify one another of threats reducing delays and enabling swift action.

Response

Even the best-prepared systems are tested by the unexpected. When CBRN incidents occur, the difference between chaos and control lies in the strength of the response.

The Initiative helps countries build response capacities through crisis coordination workshops, national and regional simulations, and technical assistance to emergency planning. It supports the development of inter-agency coordination mechanisms and strengthens operational links to international support systems.

Recent projects have helped establish joint emergency operations centres, deploy expert trainers, and develop guidelines on crisis communication and resource mobilisation. As seen during the COVID-19 pandemic and other emergencies, rapid and coordinated action saves lives, and no country can act alone.

Strong response is about more than having a plan. It is about fostering trust, clarity and cooperation under pressure because in the face of CBRN risks, resilience is a collective effort.

'The important EU CBRN Centres of Excellence Initiative [...] aims at enhancing the institutional capacity of partner countries to mitigate CBRN risks, whether deliberate, accidental, or natural in origin'

”

Ms. Marjolijn van Deelen, the Ninth Review Conference of the BTWC (2022)

'The initiative enabled us to develop a clear national framework for managing CBRN risks, allowing for coordinated and effective action.'

”

Mr. Abdel Kader Touré, National Focal Point, Côte d'Ivoire

Building resilience across the risk cycle

CBRN Risk Mitigation Projects by Category

Prevention 25 projects



- Legal & Regulatory Frameworks: **4**
- Export Controls & Dual-Use Goods: **11**
- Biosafety & Biosecurity: **10**

Protection 20 projects



- Chemical Industrial Safety: **4**
- Safe Transport of CBRN Materials: **4**
- CBRN Waste Management: **6**
- Critical Infrastructure & Information Security: **6**

‘More than 30 projects have strengthened regional cooperation, helping Ukraine and its neighbors tackle cross-border CBRN threats effectively.’

”

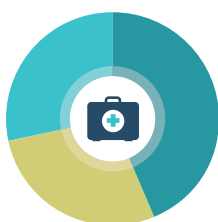
Mr. Maksym Ilchenko, Deputy National Focal Point, Ukraine

“The CBRN project is an example of successful international cooperation in addressing the risks posed by hazardous substances. It supports our country towards the adoption of a modernized legal framework and effective tools for integrated CBRN risk management.”

”

Colonel Papa Assane Ndiour, National Symposium of the P95 SAFETIC, Senegal (2025)

Preparedness 32 projects



- Public Health Capacities: **14**
- Medical Preparedness & Response: **9**
- Trainings & Exercises: **9**

Detection 10 projects



- Threat Detection: **6**
- Border Monitoring: **4**

Response 12 projects



- Emergency Response & Incident Management: **7**
- Crime Scene Forensics & Investigations: **5**

4. Responding to disease outbreaks

Infectious diseases know no borders. A single viral spillover from animals to humans can trigger far-reaching consequences, disrupting lives, destabilising economies, and overwhelming systems far beyond the outbreak's origin. These risks may emerge naturally, but their impact depends on how quickly and effectively we respond. The COVID-19 pandemic made this abundantly clear: even the most advanced systems can falter without early warning, strong coordination, and trusted networks. As biological threats become more frequent and complex — often emerging at the interface between human, animal, and environmental health — preparedness must be both national and collective, anchored in shared knowledge, integrated surveillance, and sustained regional cooperation.

COVID-19, Ebola, and other emerging infectious diseases

For more than 15 years, the EU CBRN Risk Mitigation Centres of Excellence Initiative (EU CBRN CoE) has played a decisive role in strengthening global preparedness against disease outbreaks such as COVID-19, Ebola, and other emerging infectious diseases. The Initiative has facilitated capacity-building, knowledge-sharing, laboratory enhancements, and emergency response mechanisms, ensuring that national and regional stakeholders are equipped to anticipate, detect, and respond to biological threats effectively.

The Initiative's long-term investments in biosafety and biosecurity, integrated surveillance systems, early warning and regional collaboration helped support a rapid and well-coordinated response to the COVID-19 pandemic. The ability to adapt on-going projects, mobilise expert networks, and redirect resources proved instrumental in mitigating the pandemic's impact across diverse geopolitical regions. Further resilience was rooted in earlier preparedness efforts, particularly those developed during and after the 2014–2016 Ebola crisis and gradually reinforced through years of sustained engagement.

At the core of the Initiative's approach is a strong focus on sustainability, ensuring that efforts to counter biological risks are not just reactive but also proactive and, to the extent possible, future-proofed. By enhancing biosafety and biosecurity awareness, epidemiology expertise, and multisectoral coordination based on One Health principles, the Initiative has helped establish capabilities that will support Partner Countries beyond the COVID-19 pandemic.

The power of multi-regional collaboration

While the EU CBRN CoE has implemented region-specific interventions to strengthen biosafety and biosecurity and outbreak preparedness, some of its most impactful efforts have been those that transcend national and regional borders, fostering collaboration, knowledge-sharing, and cross-sectoral training. These multi-regional programmes have been essential in strengthening laboratory networks, training field epidemiologists, and developing biosecurity governance frameworks.

The COVID-19 pandemic demonstrated the importance of intraregional and interregional cooperation, as interconnected regions shared resources, harmonised protocols, and exchanged best practices. These partnerships not only enhanced crisis response during the pandemic but also laid the foundation for longer-term cooperation, ensuring that expertise is retained, shared, and scaled across borders and regions.

A sustainable future: strengthening global health security

As biological risks continue to evolve, so too must preparedness efforts. Emerging zoonotic diseases, climate change-driven outbreaks, and cross-border health threats require an adaptable, science-driven approach rooted in coordination across sectors. The EU CBRN CoE is positioned to remain a global leader in this mission, with future priorities including:

- Scaling laboratory networks to anticipate future pandemics.
- Expanding epidemiological training for early outbreak detection.
- Addressing climate change-driven biological threats, such as zoonotic spillovers.
- Enhancing global crisis coordination for disease surveillance and outbreak containment.
- Embedding the One Health approach in national and regional biosecurity frameworks.

With over 30 projects dedicated to biological risk mitigation implemented, and thousands of biorisk management professionals trained, the Initiative continues to safeguard public health, reinforce resilience, and strengthen global biosafety and biosecurity governance.

The world must remain vigilant. Preparedness is not an option, it is a necessity. Through collaboration, scientific investment, and sustained commitment, the EU CBRN CoE ensures that Partner Countries remain proactive in confronting biological threats, now and in the future

Ebola and other viral haemorrhagic fevers

The 2014–2016 Ebola outbreak marked a turning point in how the world understands biological risk. It showed how a health emergency can escalate rapidly without strong coordination and response systems in place and underscored the importance of sustained preparedness. In both West and East Africa, the EU CBRN CoE supported immediate response efforts and long-term cooperation that continue to reinforce national and regional readiness today.

[SUCCESS STORIES]

Rapid response through mobile diagnostics in West Africa

Mobile laboratories were deployed within days of the outbreak to provide on-the-ground diagnostics in Nigeria, Guinea, and Liberia. These EU-supported labs tested over 22,000 samples, including 3,500 confirmed Ebola cases, and played a critical role in supporting global research on vaccines and treatments. Two of the labs remain operational today under national management, highlighting the long-term transfer of expertise and infrastructure.

[SUCCESS STORIES]

Coordinated multi-agency response in East Africa

National authorities applied early-warning tools and joint response protocols developed with EU CBRN CoE support. Ministries of health, defence, and agriculture worked together to respond to Ebola alerts using simulation exercises, coordination mechanisms, and harmonised procedures. These efforts not only supported outbreak containment but also laid the groundwork for more integrated management of future biological threats.

COVID-19

When COVID-19 hit, countries across the EU CBRN CoE network were able to act rapidly, not by improvising, but by activating systems and partnerships built over years of sustained engagement. Many of these capabilities stemmed from earlier outbreaks such as Ebola, which had already underscored the importance of crisis coordination, laboratory readiness, and cross-sector communication. During the pandemic, the Initiative's support translated into concrete action, enabling rapid testing, targeted training, and coordinated national responses.

[SUCCESS STORIES]

Expanding diagnostic reach and training leadership in the African Atlantic Façade

Countries across the African Atlantic Façade region mobilised coordination structures and technical capacities that had been developed and reinforced in response to earlier epidemics like Ebola. Senegal deployed mobile biosafety laboratories to deliver COVID-19 testing in remote areas, while the Institute Pasteur in Dakar, now a WHO reference laboratory, hosted biosafety training for regional scientists and laboratory personnel. In Cameroon, Cote d'Ivoire, Gabon, Liberia, Morocco, Senegal and Sierra Leone, 19 safe burial practices workshops and awareness raising campaigns were organised by CoE trained local experts, resulting in more than 400 persons trained, and risk communication tools were activated to support the pandemic response.

[SUCCESS STORIES]

Scaling surge capacity and regional coordination in the Middle East and Gulf

In Jordan, Lebanon, Iraq, and Kuwait, national training efforts helped prepare hundreds of medical professionals for the pandemic response, covering Intensive Care Unit (ICU) training, triage procedures, and emergency logistics. Field exercises tested operational readiness at the national level. In parallel, across the Gulf Cooperation Council countries — including Bahrain, Qatar, Saudi Arabia, and the UAE — regional coordination was strengthened through a train-the-trainers programme, high-level webinars, and crisis logistics planning. Over 1,000 frontline responders benefited from these efforts, reinforcing cross-border knowledge exchange and shared response capacity.

[SUCCESS STORIES]**Boosting mobile diagnostics and building capacities in toxicology in Central Asia**

In Uzbekistan, mobile laboratories supported through the Initiative and its partners were deployed by national teams to enable early COVID-19 testing in underserved regions. Across Central Asia, over 1,800 healthcare professionals received training in molecular diagnostics and biosafety procedures. Kazakhstan and Pakistan launched national Poison Information Centres with EU support, now integrated into their emergency health systems, to provide real-time guidance on chemical exposures and strengthen pandemic response.

[SUCCESS STORIES]**Peer-to-peer knowledge exchange in Southeast Asia**

In Southeast Asia, the EU CBRN CoE organised a COVID-19 peer-to-peer webinar series, which brought together over 1,000 participants from across the ASEAN region. These webinars allowed health experts, government officials, and epidemiologists to share strategies, lessons, and challenges, fostering intraregional collaboration and adaptive policy responses. The platform enabled key technical exchanges on COVID-19 containment measures, community-based testing sites, PPE management, and vaccine logistics.

Zoonotic and vector-borne diseases

Outbreaks of zoonotic (COVID-19, Ebola and avian influenza) and vector-borne (dengue, West Nile and Zika) diseases are becoming more frequent due to climate change, urbanisation, and increased trade and mobility. These threats neither respect borders nor sectoral silos: they demand early warning systems, coordinated surveillance, and integrated risk governance across human, animal, and environmental health sectors. Through a series of cross-regional initiatives, the EU CBRN CoE has supported Partner Countries in adopting and institutionalising the One Health approach, improving national capabilities to detect, track, and contain emerging diseases at their source.

[SUCCESS STORIES]

Institutionalising One Health through regional collaboration

The Initiative supported the integration of One Health principles across multiple countries by linking public health, veterinary, and environmental sectors through training, joint assessments, and cross-border coordination. In Serbia, the national health surveillance programme now integrates veterinary and public health systems to detect vector-borne outbreaks earlier. The country also launched a new Centre of Excellence on One Health, Vectors and Climate to develop future multisectoral expertise. Montenegro developed its first national action plan for vector-borne disease surveillance in humans and animals, alongside real-time entomological monitoring and education tools. In Tunisia, health and agriculture ministries conducted joint risk assessments and launched a coordination platform to formalise One Health practices, later expanded through a regional outbreak collaboration with Algeria and Libya. Armenia incorporated One Health into a new draft biosafety and biosecurity law, building on technical and policy support received through the Initiative. Georgia also credits early support with raising awareness of medical preparedness and climate-sensitive disease risks, laying the groundwork for future systems.

[SUCCESS STORIES]

Thailand's cross-sectoral biothreat simulation

In a landmark achievement, Thailand conducted its first national simulation exercise involving both human and animal health sectors. The scenario-based drill helped identify operational gaps, strengthen specimen handling procedures, and refine joint outbreak investigation protocols. By applying One Health principles to emergency preparedness, the country enhanced its ability to detect, contain, and mitigate zoonotic outbreaks, setting a model for integrated crisis response in the region.

[SUCCESS STORIES]**Turning collaboration into long-term ownership**

Several countries transformed technical cooperation into lasting partnerships. A peer-to-peer network initially formed to exchange biosurveillance practices has evolved into a twinning initiative that continues today, linking institutions from Georgia, Montenegro, Serbia, and Armenia. In Tunisia, support from the Initiative laid the groundwork for new investments from the World Bank and GiZ, advancing national strategies on One Health governance. These developments reflect how cross-border learning can turn short-term gains into sustainable institutional change.

Quotes

“The laboratory equipment provided through this initiative has been instrumental in strengthening our technical capabilities. It supports our professionals in delivering better outcomes and maintaining a higher standard of safety.”

Ms. Naranchimeg BAGDAI, National Expert, Mongolia

“The establishment of the Poison Information Centre is a milestone for Pakistan. It provides critical advice and strengthens our health emergency response system.”

Mr. Faheem Tahir, National Focal Point (2017-2024), Pakistan

“The project has enabled me to apply One Health principles and effective diagnostic methods for viral diseases, especially vector-borne diseases. The strong network remains highly valuable in my daily work.”

Dr. Arman Gevorgyan, National Expert, Armenia



Best practices



Strengthen regional preparedness through peer exchange



Build integrated early warning and surveillance systems



Institutionalise One Health in law and coordination mechanisms

"We are now operating with updated legislation and stronger compliance measures for hazardous materials transport."

”

Ms. Ramatoulaye Diop, National Focal Point, Senegal

"The tools and methods we applied, particularly in risk assessment and operational planning, were directly informed by the knowledge I gained through the CBRNe African Master's program."

”

Col. Serge Vital Oulai, CBRN Expert, Côte d'Ivoire

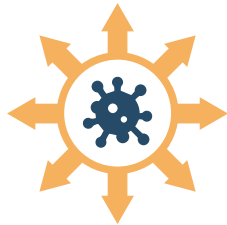


Test and refine response systems through multisectoral simulations

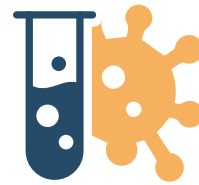


Develop national laboratory capacity and engage communities for sustainable impact

Facts & figures



Collectively improved epidemic preparedness across 5 CoE regions and over 30 countries



Institut Pasteur in Dakar and Institut Pasteur in Cambodia designated as WHO referral labs for COVID-19



5 mobile biosafety labs deployed in Africa and Central Asia, enabling on-site virus testing and rapid diagnostics



Over 22,000 Ebola samples tested during the 2014–2016 crisis, with 3,500 confirmed cases



Safe and dignified burial training reached 400 practitioners across 7 countries



Public awareness campaigns in Liberia reached over 4,000 citizens during COVID-19



An epidemiology training programme created a regional network of specialists across 18 Partner Countries



National Medical Training Centres established in Jordan, Lebanon, and Iraq as long-term capacity-building hubs



Kazakhstan's KazToxBase became the country's first Poison Information Centre



Over 1,800 medical and laboratory personnel trained in molecular diagnostics and biosafety procedures across Central Asia



Over 2,000 professionals attended expert-led COVID-19 webinars in the Gulf and Southeast Asia regions

5. Managing accidents

Unintended consequences of industrial development: more opportunities but also more risks

As more countries gain access to chemical, biological, radiological, and nuclear (CBRN) materials, knowledge, and technologies, the potential for innovation in medicine, energy, industry, and scientific research expands. However, this development also increases the risk of accidents, from chemical spills and industrial explosions to radiation leaks and hazardous waste mismanagement, biohazard exposure, and laboratory incidents.

CBRN accidents, whether due to human error, infrastructure failures, or unforeseen events, can have devastating effects, threatening public health, causing environmental damage, and disrupting economies. With hazardous materials increasingly used in manufacturing, healthcare, and energy production, the likelihood of accidental contamination and exposure grows, making preparedness, prevention, and rapid response critical priorities for countries worldwide.

15 years of strengthening capacities for safer societies

For 15 years, the EU CBRN Risk Mitigation Centres of Excellence Initiative (EU CBRN CoE) has worked alongside 63 Partner Countries to strengthen national, regional, and intra-regional capacities in preventing and managing CBRN accidents. Through policy support, training, and cross-border collaboration, the Initiative has helped create safer environments, better-equipped response mechanisms, and a strong culture of risk awareness.

By fostering cooperation between governments, emergency services, and industry, the Initiative has led to significant improvements in hazardous materials management, accident prevention strategies, and emergency preparedness frameworks. Countries have developed safer transport protocols, modernised high-risk facilities, and introduced new environmental monitoring systems to reduce the risks of CBRN-related incidents.

A major achievement has been the development of stronger institutional networks and long-term safety frameworks. By integrating best practices into national policies, Partner Countries are now better equipped to anticipate, contain, and mitigate accidental CBRN events, ensuring a proactive rather than reactive approach.

These efforts have set the foundation for lasting impact. As new challenges emerge, the Initiative remains committed to sustaining progress, adapting to evolving risks, and reinforcing preparedness through continuous learning, stronger cooperation, and innovation.

The road ahead: ensuring sustainable impact

As CBRN risks evolve, so must the systems designed to manage them. The EU CBRN CoE has shown that lasting impact comes not just from external support, but from national ownership, when countries train their own responders, embed safety and security in law, and support their neighbours in times of crisis.

Across regions, Partner Countries are translating temporary gains into long-term preparedness. This sustainability is driven by:

- Locally led training, embedded in national institutions.
- Regulatory and procedural reforms, anchored in law.
- National and regional coordination and peer support, tested in action.
- Use of real-time tracking tools to improve enforcement and oversight in hazardous materials storage and transport.

These practices are not isolated successes, they represent a deeper shift toward systems that endure, adapt, and grow. As CBRN risks continue to evolve, so too will the leadership, cooperation, and capacity of those working to manage them.

Enhanced safety in high-risk facilities

Preventing accidents at their source is the cornerstone of CBRN risk mitigation. From industrial plants and fuel depots to laboratories and medical centres, facilities that handle hazardous materials pose inherent risks. Without proper oversight and safety procedures, small errors can quickly escalate into major emergencies. Through policy support, regulatory strengthening, and targeted capacity-building, the EU CBRN CoE helps Partner Countries address safety challenges before accidents happen, turning risk zones into safer, better-governed environments.

[SUCCESS STORIES]**Strengthening industrial risk governance in Morocco**

To reduce the likelihood of major industrial accidents, the Initiative supported Morocco in aligning national practices with the Seveso III Directive, a European framework designed to prevent incidents involving dangerous substances. Technical assistance and peer-to-peer exchanges helped authorities improve risk zoning, safety inspections, and emergency preparedness around high-risk industrial sites. These efforts contributed to stronger national governance for chemical safety and reinforced Morocco's ability to manage accident prevention in line with international standards.

[SUCCESS STORIES]**A regional push for long-term chemical safety in West and Central Africa**

Across West and Central Africa, the Initiative has supported the development of comprehensive, long-term chemical risk governance frameworks in countries such as Senegal, Cameroon, Mauritania, Togo, and Gabon. These efforts include the adoption or drafting of national chemical safety strategies, the creation of interministerial coordination mechanisms, and the support of 10-year cycles for managing industrial and hazardous chemical risks. Regional cooperation played a key role, with peer-to-peer support and shared expertise helping countries address similar challenges, from limited legal frameworks to insufficient zoning and licensing systems. The result is a growing wave of countries embedding prevention into national law and policy, establishing a more consistent and proactive approach to managing high-risk facilities.

Safer transport of hazardous materials

Hazardous materials in transit pose unique and often underestimated risks. Unlike fixed facilities, the movement of dangerous goods by road, rail or sea cuts across jurisdictions and demands coordinated systems of prevention, monitoring, and response. Inadequate regulation, untrained handlers, and slow emergency reaction can turn minor incidents into major disasters. The EU CBRN CoE has helped Partner Countries address these challenges by strengthening national transport procedures, improving field-level readiness, and building a common foundation for the safe and secure movement of hazardous substances across between countries and across regions.

[SUCCESS STORIES]

Strengthening national frameworks and testing emergency readiness

Senegal and Côte d'Ivoire have taken a comprehensive approach to transport safety, combining regulatory reform with practical preparedness. In Senegal, over 200 officials from the public and private sectors were trained in hazard analysis and emergency planning for chemical transport corridors, contributing to the modernisation of national regulations and improved accident prevention. Côte d'Ivoire, meanwhile, validated its transport safety procedures through a large-scale simulation involving a hazardous materials incident during transit to a major petroleum storage site, where national teams rehearsed a coordinated emergency response. These actions reflect a growing integration of risk management into both policy and operational practice.

[SUCCESS STORIES]**Embedding training and digital enforcement in national systems**

Benin and Tunisia have advanced transport safety through sustained investment in capacity-building and monitoring tools. In Benin, national experts now lead regular training sessions for drivers, inspectors, and civil protection personnel, supported by updated legislation and a national CBRN expert network. Tunisia has enhanced its enforcement capacity by aligning transport regulations with international standards and deploying a digital tracking system that connects customs, police, and inspection authorities, allowing for real-time monitoring of dangerous goods in transit. Together, these examples show how countries are institutionalising transport safety and modernising control mechanisms to reduce risk.

[SUCCESS STORIES]**Building shared safety procedures across North and West Africa**

Recognising the cross-border nature of transport risks, twelve countries in the African Atlantic Façade and North Africa and Sahel regions — including Benin, Côte d'Ivoire, Ghana, Liberia, Mauritania, Morocco, Senegal, Sierra Leone, Togo, Tunisia, Cameroon and Gabon — worked together to harmonise procedures and raise regional preparedness. National instructors were trained to deliver context-specific safety courses, while reference materials, vulnerability diagnostics, and emergency planning tools were adopted across the network. This regional alignment has strengthened the consistency of inspections, improved communication across borders, and laid the groundwork for joint risk mitigation in the movement of hazardous materials.

Modernised hazardous waste management

Improperly managed hazardous waste presents a long-term risk to health, ecosystems, and development. Industrial by-products, obsolete pesticides, medical residues, and chemical stockpiles can remain dangerous for decades if not properly tracked, stored, or disposed of. In many countries, legacy waste has accumulated in unsecured locations, while regulatory systems have struggled to keep pace with industrial growth. As part of its preparedness agenda, the EU CBRN CoE has helped Partner Countries modernise hazardous waste governance, supporting inventory development, risk reduction strategies, and stronger national coordination mechanisms.

[SUCCESS STORIES]

Strengthening hazardous waste management across North and West Africa

Eight Partner Countries — Morocco, Tunisia, Côte d'Ivoire, Senegal, Gabon, Mauritania, Liberia, and Togo — improved their management of hazardous chemical and biological waste through national inventories, risk assessments, and laboratory upgrades. Over 1,000 professionals were trained, and teams took part in ISO 17025 courses, inter-laboratory testing, and knowledge exchange workshops. These efforts laid the groundwork for safer, more traceable waste handling systems aligned with international standards.

[SUCCESS STORIES]

Coordinating action on legacy stockpiles in Côte d'Ivoire

Côte d'Ivoire addressed the challenge of managing obsolete pesticide stockpiles stored under unsafe conditions. The Initiative supported efforts to assess the scale of the threat and clarify institutional responsibilities, leading to the creation of a multisectoral coordination platform involving the ministries of environment, agriculture, and public health. This structure has transformed a fragmented issue into a coherent national response, with clearer procedures for identifying, securing, and disposing of hazardous waste.

[SUCCESS STORIES]**Embedding sustainable chemical incident response capacity in Cambodia**

Cambodia has made chemical incident response a pillar of its national preparedness through a sustainable, locally led training model. Supported by the Initiative, a group of national master trainers was established to lead ongoing capacity-building efforts. Among them, Brigadier General Sat Chansovannary has played a key role in institutionalising training, mentoring national agencies, and integrating chemical threat response into Cambodia's public health security framework. These efforts have ensured lasting in-country capacity while setting a precedent for inclusive leadership and gender representation in CBRN risk governance.

Improved first response capabilities

When prevention fails, effective response is critical to containing harm and saving lives. CBRN emergencies unfold quickly and unpredictably, requiring skilled personnel, clear protocols, and coordinated action across multiple agencies. The EU CBRN CoE supports Partner Countries in strengthening this final line of defence through practical training, institutional reforms, and scenario-based exercises that translate plans into action.

[SUCCESS STORIES]**Deploying medical response leadership in Jordan**

The chlorine release in Aqaba in June 2022 tested Jordan's CBRN medical preparedness model. Trained medical teams were deployed within 30 minutes, and a nearby field hospital was repurposed for mass decontamination, enabling the treatment of over 350 patients. Supported by a newly established CBRN medical training centre at Al Zarqa hospital, this shift in leadership from civil protection to hospitals marked a major step forward in national response capability.

[SUCCESS STORIES]

Demonstrating regional leadership in Guinea's Kaloum explosion

The petroleum depot explosion in Kaloum, Conakry, in December 2023 triggered a large-scale emergency with dozens of fatalities and hundreds of injuries. An elite firefighting team from Côte d'Ivoire was deployed to support Guinean authorities in containing the disaster. The unit was led by Colonel Serge Vital Oulai, a graduate of the EU-supported CBRNe African Master's Programme, demonstrating how regional leadership development is contributing to faster, coordinated responses in real-world CBRN emergencies.

[SUCCESS STORIES]

Advancing multi-agency response in Cambodia

In December 2024, Cambodia strengthened its national response capacity through a two-week chemical hazard training exercise, with emphasis on identifying and eliminating risk of toxic chemicals affecting civilian populations. Teams from multiple ministries practised reconnaissance, field sampling and analysis, decontamination, medical countermeasures and coordinated decision-making under simulated emergency conditions. The programme enhanced operational cohesion across key institutions and marked a meaningful step toward embedding chemical emergency response into national practice.

Facts & figures

1,500+

1,500+ professionals trained in chemical safety, hazardous waste, and emergency response

10+

10+ countries developed long-term chemical safety frameworks or strategies

200+

200+ officials trained in risk assessment and emergency planning for hazardous materials transport

Quotes

"We are now operating with updated legislation and stronger compliance measures for hazardous materials transport."

Ms. Ramatoulaye Diop, National Focal Point, Senegal

"The tools and methods we applied, particularly in risk assessment and operational planning, were directly informed by the knowledge I gained through the CBRNe African Master's program."

Col. Serge Vital Oulai, CBRN Expert, Côte d'Ivoire

8+	1	+++
High-risk chemical facilities assessed and secured in 8+ countries through risk diagnostics and emergency planning	1 national digital tracking system deployed for hazardous materials in transit	Several Partner Countries transitioned to nationally led training programmes

Emergency Incident Response

1



INCIDENT OCCURRENCE

A major incident such as a fire, explosion, or natural disaster occurs.

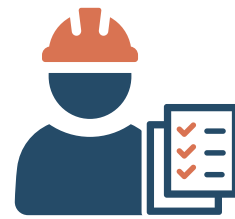
2



RAPID MOBILISATION

Specialists and emergency teams are quickly deployed.

3



ON-SITE ASSESSMENT AND COMMAND ESTABLISHMENT

The situation is evaluated, and a unified command structure is put in place.

Best practices



Train national instructors to lead recurring emergency preparedness exercises



Integrate hazardous materials management into national strategies and legal frameworks



Test and validate response protocols through full-scale, multi-agency simulations

4



INTERVENTION

Safety measures, containment, and response operations are carried out.

5



OUTCOME

The incident is contained, and impacts are mitigated.



Incorporate real-time tracking tools to strengthen enforcement in hazardous material transport



Leverage regional peer networks for rapid cross-border emergency response

6. Preventing criminal use

The urgency of prevention

CBRN materials — whether chemical precursors, radioactive isotopes, or biological agents — are integral to modern society, yet their misuse can have catastrophic consequences. From targeted assassinations using radioactive substances to terrorist plots involving homemade toxic agents, the criminal use of CBRN materials is a persistent and evolving threat. The globalised nature of today's world — with porous borders, increased trade, and rapid technological advances — means that these threats are not confined by geography.

Preventing the criminal use of CBRN materials is not only a matter of national security but also of international stability. The risk posed by malicious actors acquiring, trafficking, proliferating, or weaponising these materials calls for a multi-layered and coordinated response, one that spans sectors, disciplines, and borders. The EU CBRN Risk Mitigation Centres of Excellence Initiative (EU CBRN CoE) plays a pivotal role by equipping Partner Countries with the tools, frameworks, and partnerships needed to identify, disrupt, and deter criminal CBRN activities.

A holistic, impact-oriented approach

Over the past 15 years, the EU CBRN CoE has developed a broad, adaptable, and results-driven model to help countries prevent the criminal use of CBRN materials and any other use prohibited by the respective Conventions (NPT, BWC, CWC). Rather than addressing the threat in isolation, the Initiative promotes integrated risk mitigation, linking legislation, border security, investigation, crisis response, and international cooperation. Through more than 40 targeted projects, the Initiative has strengthened national resilience and enabled meaningful cross-border partnerships.

The EU CBRN CoE's support has spanned a wide range of areas, from training customs and border officials in detecting illicit CBRN shipments to building forensic investigation capabilities. It has helped law enforcement agencies conduct joint field exercises in urban and high-risk public settings and empowered prosecutors and judges to apply national laws to CBRN-related crimes. In many regions, it has supported the establishment of inter-agency coordination platforms and operational protocols that ensure rapid, synchronised responses to criminal incidents involving hazardous materials.

Crucially, the Initiative does not attempt to deliver one-size-fits-all solutions. Instead, it works with 63 Partner Countries to tailor responses to their specific risk profiles, whether that means developing regulatory roadmaps, strengthening port inspections, or advancing regional intelligence-sharing networks, to name but a few areas of cooperation. This tailored, country-driven approach has ensured that support is not only relevant but also sustainable, rooted in local ownership and aligned with international best practices.

Strengthening CBRN security at events & public spaces

Preventing the criminal use of CBRN materials starts with securing the spaces most vulnerable to public harm, such as stadiums, mass gatherings, transport hubs, and high-profile venues. These environments pose an attractive target for malicious actors, and their protection requires more than physical barriers. The EU CBRN CoE has supported Partner Countries in establishing multi-agency response teams, developing real-time operational protocols, and conducting realistic simulations to ensure preparedness is not theoretical but actionable. These efforts contribute directly to the deterrence and disruption of potential CBRN-related incidents before they occur.

[SUCCESS STORIES]

Strengthening emergency preparedness for major events in Cambodia

Ahead of the 2023 Southeast Asian Games, Cambodia created its first formal CBRN response team, integrating 22 ministries into a unified emergency response unit, and developed accompanying standard operating procedures. The team's readiness was successfully tested in a live chemical incident simulation at the national stadium, demonstrating rapid and organised response capabilities in a high-profile setting.

[SUCCESS STORIES]**Enhancing interagency coordination through field exercises in the Middle East**

Two large-scale field exercises conducted in Lebanon in 2021 and 2024 under the ARZ exercise series simulated CBRN terrorist incidents in public venues. These nationally led simulations enhanced large scale inter-agency collaboration, tested emergency protocols in real-time conditions and assessed remaining gaps in the CBRN risk mitigation structures of Lebanon. As part of a broader regional series involving Lebanon, Jordan, and Iraq, ARZ is strengthening operational coordination and fostering sustained cooperation across the region. A key feature of these exercises was the robust evaluation process, which included a substantial number of international evaluators and provided valuable insights to guide future capacity-building efforts.

[SUCCESS STORIES]**Demonstrating national response capabilities in Uzbekistan**

A full-scale simulation of a combined chemical and biological agents in possession of a terrorist group in a clandestine laboratory in 2019 enabled Uzbekistan to test its inter-agency procedures, crisis communication, and operational coordination. Named “Jeyran”, the exercise was observed by regional stakeholders, and reinforced national preparedness and contributed to broader CBRN resilience efforts across Central Asia.

[SUCCESS STORIES]**Responding to chemical threats in Iraq**

During the period of ISIS occupation, when chemical weapons (sulphur mustard) were used against civilian populations, Iraqi authorities were able to respond also thanks to prior support from the EU CBRN CoE. Equipment and training provided through the Initiative played a crucial role in enhancing Iraq’s preparedness and response capacities. National teams, previously trained also through CoE projects, were mobilised to manage incidents, mitigate harm, and protect civilian lives, demonstrating the tangible impact of long-term capacity-building in real crisis situations.

Disrupting trafficking & illicit trade

Once CBRN materials fall outside of regulatory control, the risk of criminal misuse increases significantly. Preventing illicit trafficking of these materials — whether across borders, through ports, or within domestic markets — requires constant vigilance, robust detection systems, and coordinated law enforcement action. The EU CBRN CoE has helped Partner Countries enhance border security, modernise customs procedures, and strengthen intelligence-sharing to intercept high-risk materials before they can be weaponised. These efforts play a crucial role in disrupting the pathways that facilitate criminal access to CBRN substances.

[SUCCESS STORIES]

Combating the trafficking of falsified medical products in Eastern and Central Africa

The EU CBRN CoE helped 11 Partner Countries align national legislation with international standards to address the trade in substandard and falsified medical products. By promoting legal harmonisation, regulatory coordination, and cross-border cooperation, the project strengthened national capacities to detect, prosecute, and prevent this form of chemical and biological crime.

[SUCCESS STORIES]

Strengthening border control of CBRN substances in North Africa and the Sahel

To address the growing risk of illicit trafficking and misuse of hazardous chemicals, Libya and Tunisia joined forces to enhance CBRN substance control at their shared borders. Through a series of bilateral training sessions, border security and customs officers strengthened their ability to detect, identify and safely manage CBRN materials. This collaboration formed part of a broader regional project across North Africa and the Sahel, which included Training-of-Trainers activities, national courses, and regional simulation exercises, including one held at Niamey airport in Niger. EU-provided equipment further supported these efforts, boosting national capacity to monitor chemical flows, strengthen border protection, and align with international CBRN safety and security standards.

[SUCCESS STORIES]

Strengthening radiological trafficking detection in Africa and Southeast Europe

Exercises at the Ports of Mombasa and Tema, in Kenya and Ghana respectively (2022), and the LIONSHIELD drill in Georgia (2018) focused on detecting and intercepting radiological materials trafficked through maritime routes and land borders. The exercises provided frontline teams — customs, border, and emergency officers — with hands-on training to identify high-risk materials and respond effectively. Participants from Eastern and Central Africa region joined at a key maritime checkpoint, while LIONSHIELD brought together agencies from across Southeast and Eastern Europe. These activities sharpened operational readiness, improved coordination, and reinforced detection procedures in high-risk transit environments.

[SUCCESS STORIES]

Enhancing regional response to radiological incidents in the Gulf Cooperation Council (GCC) region

In 2016, the six GCC countries, together with Jordan and Morocco, joined efforts for a milestone interregional tabletop exercise supported by the EU CBRN CoE and the Global Initiative to Combat Nuclear Terrorism. The FALCON exercise, hosted by the United Arab Emirates, aimed at promoting regional approaches in matters of nuclear detection and response, enhancing national and regional interagency coordination and cooperation, and encouraging information sharing.

[SUCCESS STORIES]

Scaling up national capacity to intercept radiological and nuclear materials in Georgia

Between 2006 and 2023, Georgian authorities conducted 31 successful interdiction operations targeting the illicit trafficking of radiological and nuclear materials, resulting in 88 arrests and the seizure of substances including uranium, caesium, europium, and strontium. These achievements reflect Georgia's long-term investment in CBRN crime prevention, supported over the years by EU CBRN CoE training and cooperation in the field.

Advancing CBRN forensics & investigations

Once a CBRN-related incident or crime has occurred, effective investigation and prosecution are essential to bring perpetrators to justice, disrupt criminal networks, and prevent recurrence. This requires specialised forensic tools, legal frameworks, and inter-agency cooperation capable of addressing the unique challenges posed by hazardous materials. The EU CBRN CoE has been supporting Partner Countries in building these capabilities by developing investigation manuals, enhancing laboratory infrastructure, and training prosecutors, judges, and forensic teams. These efforts will help turn complex CBRN cases into successful prosecutions while embedding lasting investigative know-how in national systems.

[SUCCESS STORIES]

Developing global guidance for the prosecution of CBRN crimes

The EU CBRN CoE, in collaboration with UNICRI and supported by the On-site Technical Assistance experts, developed a series of Prosecutors' Guides to support the investigation and prosecution of chemical, biological, radiological, and nuclear crimes. These globally relevant resources offer practical, scenario-driven guidance on crime scene management, evidence handling, and legal strategy, enabling prosecutors, investigators, and judges to navigate the complexities of CBRN-related offences. The guides have become central reference tools for legal practitioners and will be integrated into training activities across Partner Countries.

[SUCCESS STORIES]**Pioneering national training to strengthen CBRN criminal justice in Moldova**

Moldova was the first country to pilot a full training programme based on the Prosecutors' Guides, combining legal workshops, tabletop exercises, and moot courts for judges, prosecutors, and law enforcement officials. This national initiative has strengthened inter-agency cooperation and improved the ability to handle CBRN cases from investigation through to adjudication. Its institutional integration into Moldova's National Institute of Justice, Police Academy, and CBRN Forensics Centre ensures lasting impact and serves as a model for others seeking to embed CBRN criminal justice capacity.

[SUCCESS STORIES]**Supporting national CBRN forensic capacity in Tajikistan**

Tajikistan launched its first dedicated CBRN forensic laboratory in 2023. The EU CBRN CoE contributed with the provision of equipment for biological safety and security, delivery of training for staff on bio related issues and on the use of equipment for forensic tasks, among others. The facility will play a key role in supporting law enforcement investigations, enabling technically sound prosecutions, and serving as a national hub for crime scene training and coordination.

Quotes

"The National Focal Point of Burkina Faso, informed by his authorities about the theft of Radiological material in the country, he immediately informed the National Focal Point of Mali in order to discuss possible measures to address the issue and activate border cooperation via the CoE."

Court of Auditors report 2018 No 14

"For the first time, international organizations convened in one place to guide us on criminalizing CBRN crimes—a groundbreaking approach."

Mr. Veaceslav Iatco, National Focal Point, Moldova

From the CBRN
crime scene to the
courtroom

1

CRIME SCENE



2

LAB ANALYSIS



Overview of tabletop and field exercises (co) organized or supported by the EU CBRN CoE

2011

Chemshield 2011



The Hague

120

The Netherlands,
OPCW, Interpol

Scenario: International chemical security cooperation following the emission of “strange smoke” from a car that caught fire after a crash.

2012

@tomic 2012



The Hague

150

The Netherlands,
Interpol, IAEA

Scenario: Investigating and responding to cyber-attacks, made to acquire highly enriched uranium (HEU) to produce an improvised nuclear device, and responding to an irradiation attack.

2014

@tomic 2014



Maastricht

250

The Netherlands,
Interpol, IAEA

Scenario: decision-making in the event of an incident of nuclear terrorism

2016

Falcon



Abu Dhabi

200

GICNT, UAE, GCC
countries,
Jordan, Morocco

Scenario: Detection of transnational nuclear trafficking and first response to a related incident.

2018

Lionshield



Tbilisi

60

Georgia,
STCU

Scenario: Incidents involving trafficking of RN materials in different settings (including green border and airport terminal)

2019

Jeyran



Tashkent

200

Uzbekistan

Scenario: The surveillance of terrorists in possession of CB agents and their subsequent arrest; detection of illicit storage and a clandestine laboratory; neutralisation of explosive material; and search for improvised chemical devices in a public place.

3

INVESTIGATION



4

COURTROOM



2021 ARZ I	 Beirut	250	Lebanon, Italy, ISTC
Scenario: Emergency and law enforcement response to a chemical spill in a clandestine lab and chemical attack on VIP convoy.			
2022 Mombasa Exercise	 Mombasa	20	Kenya, ISTC
Scenario: Detecting and intercepting of illicit radiological and nuclear trafficking through maritime routes and land borders.			
2023 CHEMEX Africa	 Algiers	80	Algeria, OPCW
Scenario: Emergency response to criminal incident with toxic industrial chemicals.			
2024 ARZ II	 Beirut	250	Lebanon, Italy, ISTC
Scenario: Managing chemical leaks triggered by terroristic attacks; identifying CBRN materials; medical treatment and decontamination of casualties; VIP protection and rescue in a CBRN-contaminated environment.			
2024 ARF TTX	 Singapore	80	Singapore, ASEAN CBR Network
Scenario: Passengers on a cruise ship begin exhibiting unexplained symptoms. The ship is suspected of carrying a radiological source smuggled by a criminal group.			

7. A coordinated approach

From local actions to global impact

Addressing CBRN risks effectively requires more than isolated national efforts or sector-specific responses. It demands a deeply coordinated approach that aligns actors and actions across local, national, regional, and international levels. The EU CBRN Risk Mitigation Centres of Excellence Initiative (EU CBRN CoE) was designed from the outset to serve as a platform for collaboration, enabling countries to work together in identifying threats, developing common strategies, and responding effectively to cross-border and global challenges.

Over the past 15 years, the Initiative has cultivated a unique network of national teams, regional hubs, and global partnerships that together form the backbone of CBRN risk mitigation. This structure ensures that every action — from assessing national needs to organising regional field exercises to engaging with international organisations — is rooted in shared understanding, mutual support, and strategic coherence.

National cooperation

At the heart of the EU CBRN CoE lies the principle that sustainable risk mitigation must be nationally owned and locally driven. Each Partner Country establishes a National CBRN Team — composed of representatives from relevant ministries, agencies, and technical bodies — which serves as the core coordination mechanism for all CBRN-related activities under the guidance of a National Focal Point.

This team leads the process of conducting a comprehensive Needs Assessment, with the support of the European Commission's Joint Research Centre and the On-site Technical Assistance experts, identifying existing capacities, vulnerabilities, and priorities across the spectrum of chemical, biological, radiological, and nuclear risks. The result is a clear, evidence-based picture of the national landscape, produced through structured dialogue and inclusive consultation.

Building on this assessment, the country develops a tailored National Action Plan (NAP), a strategic roadmap that guides CBRN policy, capacity development, and inter-agency coordination over the long term. These plans align national efforts with international standards, while remaining sensitive to local realities and priorities.

The process itself is a catalyst for cooperation: it fosters dialogue across sectors, strengthens institutional relationships, and enhances national preparedness. Once in place, the NAP becomes both a planning tool and a point of reference for partners and donors, ensuring that support is targeted, coherent, and sustainable.

[SUCCESS STORIES]

Institutionalising National CBRN Teams for lasting coordination

In several Partner Countries, National CBRN Teams have evolved into formalised, government-recognised structures integrated into the highest levels of national governance. Mauritania established a National CBRN Committee via Prime Ministerial decree, ensuring quarterly meetings and a dedicated budget for its operations. Lebanon's National Team was appointed as the official CBRN Commission in 2022, operating under the Prime Minister and empowered to coordinate all national efforts, including response to the Beirut port explosion. In Iraq, the National Team was established by the National Security Advisory in 2023, operating under the supervision of the country's Permanent Secretariat for Developing CBRN Preparedness.

Similarly, Tanzania embedded its CBRN coordination desk under the Prime Minister's Office, with plans to upgrade it to a permanent centre. The Democratic Republic of Congo has an established CBRN unit under the Ministry of Scientific Research and Technology Innovation. Georgia institutionalised its National Coordination Council under the State Security Council, ensuring strategic continuity and interagency integration, while also convening regular donor coordination meetings to align external support with national priorities.

[SUCCESS STORIES]

National institutions lead the way in sustaining training

Several countries have embedded EU CBRN CoE-acquired knowledge into national institutions and training curricula, ensuring continuity beyond project timelines. Georgia's National Centre for Disease Control adapted and delivered over 80 training sessions reaching more than 500 professionals, using content from EU CBRN CoE projects. In Morocco and Armenia, trained experts incorporated new risk assessment and biosafety materials into national academic and vocational programmes. Middle East and the GCC region replicated emergency preparedness training across multiple institutions, using national trainers and institutional funding to ensure reach and sustainability.

[SUCCESS STORIES]

Breaking new ground: first coordination structures and laws for CBRN

Many Partner Countries have achieved historic firsts through their engagement with the EU CBRN CoE, establishing new coordination mechanisms and enacting laws that anchor CBRN risk mitigation into national policy. Vietnam revised its Law on Chemicals to comply with five major international conventions. Tanzania and Rwanda introduced new regulations on radiological safety and material control, aligned with IAEA standards. Tajikistan developed its first-ever biosafety and biosecurity law, while Montenegro, and Burkina Faso adopted new biosafety legislation and interagency emergency plans informed by previous EU-supported efforts. In Armenia, legal reforms were advanced to strengthen the regulation of chemical and biological threats, aligning national measures with international norms and supporting cross-sector coordination.

"Thanks to the initiative, 22 ministries now work as one team under a cohesive strategy. It has transformed how we respond to CBRN risks."

”

Maj. Gen. Vitiea Noeun, National Team Member, Cambodia

"The transformation of the National CBRN Team into a formal National CBRN Committee has strengthened our ability to coordinate responses and make decisions rapidly in times of crisis."

”

Mr. Ahmed Bezeid Deida, Deputy National Focal Point, Mauritania

"The adoption of our first National Action Plan was a turning point. It consolidates our efforts across CBRN domains and ensures we move forward with a unified strategy."

”

Mr. Abels Mkandawire, National Focal Point, Malawi

"Our first NAP laid the foundation for major initiatives like the regional field exercise and mobile laboratories, enabling Uzbekistan to strengthen its CBRN preparedness."

”

Mr. Otabek Kasimov, National Focal Point, Uzbekistan

"Brunei Darussalam is developing its National CBRN Action Plan, which is expected to undergo further discussion this year between all the relevant national stakeholders and assisted by the European Union CBRN Risk Mitigation Centre of Excellence (CoE)."

”

Ms. Nurul Izzati Haji Mat Sani, Brunei Darussalam, at UN General 79 First Committee (2024)

Regional cooperation

CBRN risks often transcend borders, making regional coordination essential for effective prevention, preparedness, and response. The EU CBRN CoE has established eight Regional Secretariats that serve as strategic hubs, facilitating information exchange, aligning regional priorities, and supporting the implementation of joint activities.

These secretariats play a vital role in organising Regional Coordination Meetings, where National Focal Points and technical stakeholders convene to share updates, harmonise efforts, and build consensus on regional challenges. They also support the development of Regional Action Plans that reflect common concerns and define collective strategies, offering a roadmap for cooperation across multiple countries.

Regional organisations are closely involved in this process, ensuring that policies and practices are adapted to regional contexts and supported by relevant institutions. The Initiative also funds and coordinates regional projects that tackle shared priorities, from biosafety and dual-use goods control to cross-border detection and trafficking prevention. A defining feature of the regional model is the emphasis on peer-to-peer support, which fosters trust, knowledge-sharing, and practical problem-solving among countries facing similar risks.

Through this regional structure, the Initiative strengthens not only technical capacities, but also a sense of shared responsibility, ensuring that no country addresses CBRN threats alone.

[SUCCESS STORIES]

Fostering regional trust in Southeast and Eastern Europe

Through the EU CBRN CoE, countries with diverse political, linguistic, and institutional contexts have forged practical cooperation on CBRN risk mitigation. Georgia and Armenia enhanced nuclear emergency preparedness through coordinated training, while Georgian and Azerbaijani authorities jointly prevented the smuggling of radiological materials in 2023. Serbia and Montenegro strengthened joint public health response capacity. These examples demonstrate how the Initiative has become a trusted platform for building cross-border collaboration and shared security in complex regional settings.

[SUCCESS STORIES]

A decade of regional cooperation in Southeast Asia

In March 2023, the Southeast Asia Regional Secretariat celebrated its 10-year anniversary, marking a decade of regional leadership, capacity-building, and shared commitment to CBRN safety and security. The event brought together National Focal Points, EU representatives, and UN officials, and included a multi-agency simulation exercise led by the Philippines.

Over the past decade, the Secretariat has become a cornerstone of regional resilience, promoting information-sharing, joint training, and strategic planning among 10 Partner Countries. Collaboration has also deepened with regional bodies such as the ASEAN CBR Defence Experts Network, further enhancing the region's capacity to address shared CBRN challenges. The anniversary reaffirmed Southeast Asia's strong commitment to cooperation and mutual support in the face of evolving risks.

[SUCCESS STORIES]

The CBRN Regional Action Plans

In 2018, the Middle East Regional Secretariat established the first Regional Action Plan to define a common vision for CBRN risk mitigation among the Middle East Partner Countries, to identify key regional priorities, and to support communication with other partners and potential donors. This pioneering effort set an example later followed by other regions, including Southeast and Eastern Europe and Central Asia. While several regions are now in the process of developing their own Regional Action Plans, the Middle East has recently adopted the second version of its Regional Action Plan.

[SUCCESS STORIES]

Coordinating pandemic response through regional information exchange

During the COVID-19 pandemic, the EU CBRN CoE's regional structures played a crucial role in real-time crisis coordination, facilitating rapid information exchange on diagnostics, laboratory protocols, contact tracing, and outbreak management. Authorities across Middle East, Southeast Asia and Southeast and Eastern Europe engaged in peer-to-peer webinars, shared risk communication strategies, and supported one another through established networks. These efforts demonstrated how the Initiative's regional platforms could rapidly adapt to public health emergencies, reinforcing their relevance beyond traditional CBRN scenarios.

"The EU CBRN CoE Initiative connects us with global experts and international standards, significantly enhancing regional security and prosperity."

”

Brig. Eng. Hussein Al Harthi, Head of Secretariat for the GCC region, UAE

"The Regional Secretariat of the EU CBRN Center of Excellence in South-east Asia has been working to enhance the capacity of the ASEAN Member States in mitigating CBRN-related risks by ensuring cooperation and coordination in South-East Asia and supporting efforts to identify CBRN risk mitigation needs, develop National CBRN Action Plans and formulate and implement regional project proposals."

”

Mr. Daovy Vongxay, Lao PDR, on behalf of ASEAN at UN First Committee (WMD Cluster) (2023)

"We are not alone on this journey. The peer-to-peer exchanges and regional support structures helped us evolve, not only technically, but in how we think about cooperation."

”

Mr. Somsanouk Keobounsang, National Focal Point, Lao PDR

International cooperation

The EU CBRN CoE operates not only across regions, but as a fully integrated part of the global CBRN risk mitigation ecosystem. Its structure and reach enable Partner Countries to actively contribute to international security while benefitting from coordinated support and visibility.

Key to this is the regular organisation of the International National Focal Points Meeting (NFP Days) and the CBRN CoE Academy, flagship events that bring together National Focal Points, Regional Secretariats, project implementers, and international experts. These gatherings serve as high-level coordination platforms, enabling cross-regional dialogue, peer-to-peer learning, and strategic planning. The NFP Days unite over 100 representatives from the 63 Partner Countries to exchange lessons learned and shape the Initiative's strategic direction. The CBRN CoE Academy further strengthens this effort by offering structured, multi-module learning paths that help harmonise knowledge, support national teams, and foster long-term cooperation across regions.

The Initiative also maintains active collaboration with international organisations such as the IAEA, OPCW, WHO, INTERPOL, UN bodies, among others. These partnerships support aligned programming, complementary initiatives, and increased reach to national stakeholders. By working together, the Initiative helps bridge global mandates with local implementation.

Beyond technical collaboration, the Initiative plays an active role in international fora – from non-proliferation and biosafety summits to health security platforms – where it advocates for coordinated, locally owned solutions to global challenges. This includes regular engagement in meetings linked to UNSCR 1540, the Biological Weapons Convention, and the Chemical Weapons Convention, as well as active participation in nuclear security events organised by the IAEA. By connecting its 63 Partner Countries to the international stage, the Initiative ensures that CBRN risk mitigation is both globally supported and locally rooted.

[SUCCESS STORIES]

Strengthening Africa's voice in global CBRN dialogue: The African Union Forum

The first EU CBRN CoE – African Union Forum, held in Addis Ababa in 2023, showcased the growing leadership of African countries in shaping CBRN policy and cooperation. It brought together representatives from the African Union, Regional Economic Communities, international organisations, and CoE Partner Countries to explore joint solutions to shared challenges. With 28 African nations active in the Initiative, the Forum reinforced Africa's role in global discussions while deepening regional ownership of CBRN risk mitigation.

[SUCCESS STORIES]

Transferring expertise through EU institutional partnerships

The Initiative has mobilised leading European scientific and technical institutions to deliver practical, locally tailored expertise to Partner Countries. Drawing on the strengths of EU-based public health institutes, research centres, and biosafety laboratories, it has supported advanced training in areas such as disease surveillance, epidemiology, diagnostics, and laboratory biosafety. These efforts have helped strengthen early warning systems, foster international scientific exchange, and promote sustainable knowledge transfer. Complementary engagement from development agencies further extended the reach of these activities, demonstrating how EU cooperation can directly support countries in meeting global technical standards.

[SUCCESS STORIES]

Armenia: building credibility through international accreditation

Armenia's Centre for Disease Control became the first institution in the country to receive ISO/IEC 17025 accreditation, following capacity-building support through the Initiative. The certification marked a significant milestone in the country's ability to participate in global diagnostic networks and ensure the reliability of its laboratory results.

[SUCCESS STORIES]

Strengthening international coordination through CHEMEX Africa

In October 2023, Algeria hosted CHEMEX Africa, a large-scale OPCW-led chemical emergency exercise involving 33 African countries. The EU CBRN CoE supported the event through participation of On-Site Technical Assistance experts, National Focal Points, and the North Africa and Sahel Regional Secretariat. Algerian authorities ensured strong national ownership and welcomed international partners, showcasing effective cooperation between the EU CBRN CoE network, OPCW, and host country. The exercise marked a milestone in advancing regional readiness and multilateral coordination, while reinforcing the bridge between operational response and long-term capacity building.



National Focal Points: 63



National Teams: 50

Best practices



Establish high-level coordination structures for strategic alignment and crisis response



Implement National Action Plans to clarify multisectoral roles and priorities

"The Initiative connects us to international best practices while tailoring support to our national context. That balance is what makes it so impactful."

”

Dr. Sittiporn Parnmen, National Team Member, Thailand

"There is one door through which all international partners can come."

”

Ms. Diana Tsutskiridze, National Focal Point, Georgia and Ms. Lela Lasareishvili, Head of Secretariat for South East and Eastern Europe

"This initiative to combat CBRN risks and threats has evolved into a truly global network of cooperation, as experience and good practices are shared within and between different regions, and successful actions are adapted and replicated in different places."

”

Mr. Hartmut Bühl and Ms. Nannette Cazaubon in The European Security & Defence Union (2022)



National Action Plans: 36



Regional Action Plans: 3



Strengthen regional collaboration via secretariats, joint exercises, and forums



Align national systems with international legal and technical standards

EU CBRN CoE

Regions, Secretariats map



MIDDLE EAST

Amman
Jordan



NORTH AFRICA AND SAHEL

Algers
Algeria



SOUTH EAST AND EASTERN EUROPE

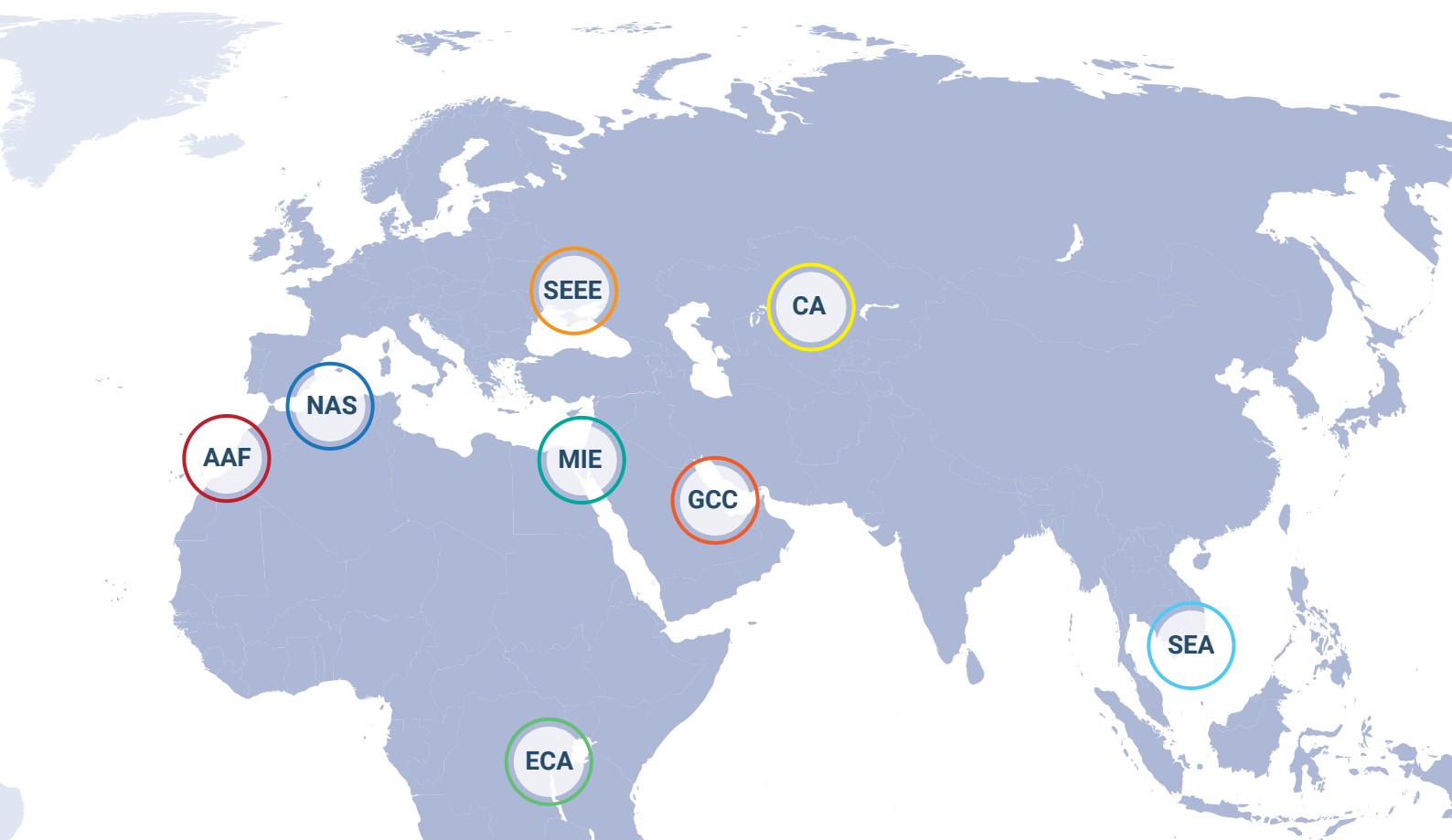
Tblisi
Georgia



GULF COOPERATION COUNCIL

Abu Dhabi
United Arab Emirates





AFRICAN ATLANTIC FAÇADE

Rabat
Morocco

Benin
 Cameroon
 Côte d'Ivoire
 Gabon
 Liberia
 Mauritania
 Morocco
 Senegal
 Sierra Leone
 Togo

EASTERN AND CENTRAL AFRICA

Nairobi
Kenia

Burundi
 DRC
 Ethiopia
 Ghana
 Kenya
 Malawi
 Rwanda
 Seychelles
 Tanzania
 Uganda
 Zambia

SOUTHEAST ASIA

Manila
The Philippines

Brunei Darussalam
 Cambodia
 Indonesia
 Lao PDR
 Malaysia
 Myanmar
 Philippines
 Singapore
 Thailand
 Viet Nam

CENTRAL ASIA

Tashkent
Uzbekistan

Afghanistan
 Kazakhstan
 Kyrgyzstan
 Pakistan
 Mongolia
 Tajikistan
 Uzbekistan

8. Enhancing CBRN safety and security worldwide

Over the past 15 years, the EU CBRN Risk Mitigation Centres of Excellence Initiative (EU CBRN CoE) has grown into the world's largest platform for international cooperation on chemical, biological, radiological and nuclear (CBRN) risk mitigation. From early support to national teams and legal frameworks to today's integrated systems of detection, preparedness and response, the Initiative has helped shape a shared architecture for global CBRN safety and security.

Across 63 Partner Countries and 8 regions, hundreds of institutions and thousands of professionals have worked together to raise awareness, transfer knowledge, and develop practical solutions to risks that know no borders. The stories throughout this booklet show the Initiative's greatest strength: its ability to bring people and systems together across sectors, disciplines and borders to anticipate CBRN risks, prevent incidents, and respond when needed.

A model of sustainable security

At the heart of this work lies a long-term vision: building national and regional capacity that endures beyond any single project or funding cycle. Sustainability is not an afterthought, it is embedded into the Initiative's DNA, through locally led needs assessments, nationally owned strategies, and coordinated regional action.

This model has proven that cooperative, civilian-driven CBRN risk mitigation works. It has also demonstrated that with the right support, countries can take the lead in defining their priorities and shaping solutions, strengthening both local resilience and global security.

Looking ahead: growing the partnership

As risks evolve, so must the tools and partnerships used to address them. The future of CBRN safety and security will rely on deepening the Initiative's reach, not only across borders, but across sectors.

The Initiative will continue to enhance coordination and forge stronger partnerships with international organisations, regional institutions, academic actors, and the private sector. By aligning efforts with other EU programmes, international donors and key stakeholders, it can amplify impact, avoid duplication, and unlock new opportunities for cooperation.

Through targeted engagement with like-minded actors, the Initiative is fostering new avenues for resource mobilisation, technical expertise, and strategic alignment. These efforts are aimed at enhancing the sustainability and impact of CBRN risk mitigation activities, while offering strategic partners meaningful opportunities to contribute to and benefit from a trusted, well-established multilateral platform. By strengthening these partnerships, the Initiative reinforces its role as a bridge between global ambitions and regional realities.

As part of this forward-looking agenda, the Initiative will also promote inclusive participation, gender equality, and the integration of emerging technologies – including digital tools and AI – to strengthen preparedness, detection and response capabilities.

A platform for collective action

Above all, the Initiative is more than a sum of projects. It is a living network of people, institutions and ideas. Its value lies in connecting countries, sectors and expertise to shape a safer, more resilient world.

As we look ahead, the mission remains unchanged: to prevent, detect and respond to CBRN risks of any origin. What evolves is how we do it: together, through partnerships that are stronger, smarter, and ready for tomorrow's challenges.

Quotes

“The value of the CBRN CoE goes beyond the transferring of knowledge and best practices through targeted projects. The creation of a trusted network of experts who deal with CBRN risks in the participating countries, within the regions, across regions, and between partner countries and the EU may be the most important aspect [of the Initiative].”

”

‘EU preparedness and responses to Chemical, Biological, Radiological and Nuclear (CBRN) threats’ requested by the European Parliament’s (EP) Subcommittee on Security and Defence (SEDE), 2021

"CBRN risk mitigation has become a part of how we govern. It's integrated in our policies, our education, and our institutions—that is the real legacy."

”

Ms. Séraphine Ciza, National Focal Point, Burundi

"Thanks to the Initiative, we've institutionalised CBRN practices that will last beyond any project. We now have the tools and systems to sustain our efforts."

”

Mr. Abels Mkandawire, National Focal Point, Malawi

"Through this program, we've become more than responders; we've become leaders, ready to tackle even the most complex crises."

”

Col. Serge Vital Oulai, CBRN Expert, Côte d'Ivoire

"This project has made a significant impact on gender inclusion, particularly in getting more women involved in emergency management leadership."

”

Major General Channa Oeur, National Focal Point, Cambodia

"We cannot manage tomorrow's risks with yesterday's tools. Cooperation must now include digital tools, universities, and private actors to stay ahead."

”

Mr. Faheem Tahir, National Focal Point (2017-2024), Pakistan

The way forward



**Strengthen national and regional
CBRN strategies**



**Expand cooperation with partners
and donors**



**NETWORK
OF UNIVERSITIES**

PPP
PUBLIC AND PRIVATE
PARTNERSHIP



Promote inclusive and
gender-balanced participation



Utilise emerging technologies to
enhance capabilities

ABOUT THE EU CBRN COE

The European Union (EU) Chemical, Biological, Radiological and Nuclear (CBRN) Risk Mitigation Centres of Excellence (CoE) is a global Initiative funded and implemented by the European Union as part of its goal to promote peace, stability and conflict prevention.

The aim of the Initiative is to mitigate risks and strengthen an all-hazards security governance in Partner Countries of the EU following a voluntary and demand-driven approach. The EU support is provided to implement a wide range of CBRN risk mitigation activities including needs and risk assessments, national and regional action plans, capacity building activities, legal framework reviews, table top and real time (including cross-border) field exercises, inter-regional exchange of best practices and lessons learnt.

The Initiative is led by the European Commission's Service for Foreign Policy Instrument (FPI), in close coordination with the European External Action Service (EEAS). The European Commission Joint Research Centre (JRC) provides technical support to Partner Countries, while the United Nations Interregional Crime and Justice Research Institute (UNICRI) ensures a coherent and effective national, regional and international cooperation. Other relevant International and/or Regional Organisations and experts also contribute to the Initiative, which represents the EU's largest civilian external security programme.

For more information visit the EU CBRN CoE website at <https://cbrn-risk-mitigation.network.europa.eu/>

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EU open data

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Notes

15
2010-2025
YEARS



C B R N
**Centres
of Excellence**
A Global Initiative of the European Union



Publications Office
of the European Union