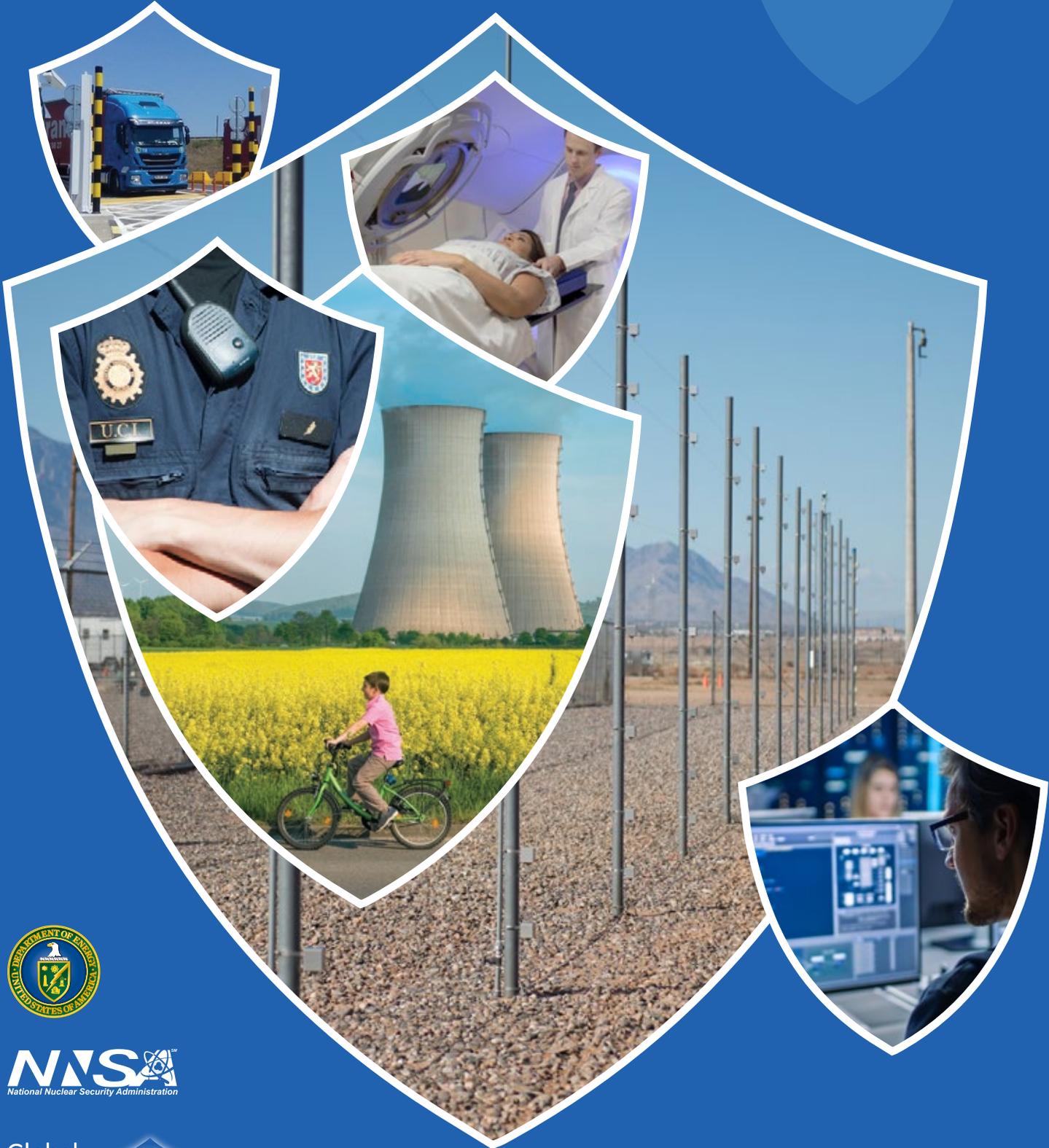


GMS-Partnering for a Better Tomorrow

Enhancing Global Material Security



Global
Material
Security





Global Material Security (GMS)

The Office of Global Material Security's mission is to prevent nuclear and radiological terrorism. GMS works with partners worldwide to enhance the security of nuclear and radioactive materials and strengthen the capacity to detect, disrupt, and investigate illicit trafficking of nuclear and other radioactive materials.

Partnering for a Better Tomorrow

An act of nuclear or radiological terrorism could have dire consequences that impact all countries. Such

an act, even if small, could undermine public confidence in nuclear energy and technology. In this regard, strong global nuclear security sustains access to peaceful uses and preserves its benefits, whether for energy security, environmental, global health, food security, or other sustainable development goals. In an increasingly interconnected and interdependent world, international cooperation on nuclear security is integral to building a better tomorrow where peaceful uses of nuclear technology are safe, secure, and sustainable.

How does GMS Implement its Mission?

GMS works with partners across the globe to reinforce a risk-informed strategy aimed at preventing nuclear and radiological terrorism. GMS, through its three offices—the Office of International Nuclear Security, the Office of Radiological Security, and the Office of Nuclear Smuggling Detection and Deterrence—provides nuclear and radiological security upgrades, training, regulatory peer review and support, security culture workshops, and a wide range of technical consultations on innovative security solutions. To address nuclear material out of regulatory control, GMS strengthens the capacity of partners to detect, disrupt, and investigate illicit trafficking of nuclear and radioactive materials and works with multilateral organizations and international partners to strengthen the global detection architecture.

GMS implements its mission in a constantly evolving environment, including emerging technologies and threats, and a growing demand for safe and secure peaceful nuclear technology. GMS leverages the extensive expertise residing in the U.S. National Laboratories to address complex nuclear security challenges.

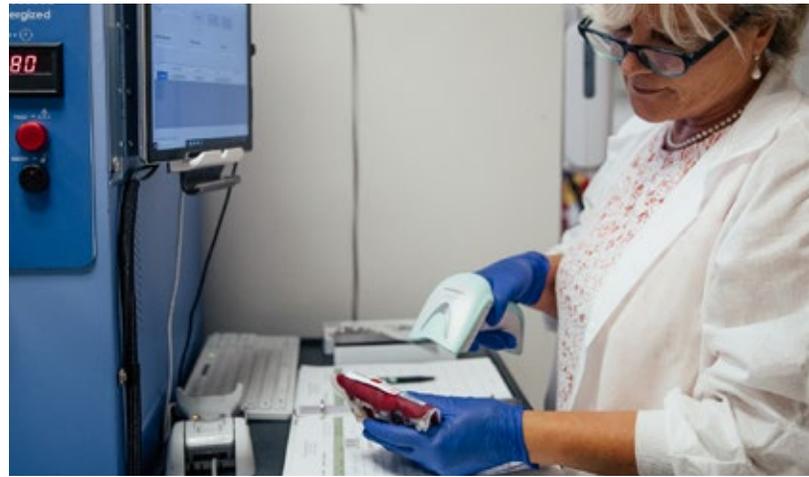
GMS Strategies

- **Secure and Reduce** – Enhance the security of nuclear and radioactive materials through effective practices, systems, and infrastructure. Where possible, consolidate nuclear and radioactive materials and reduce the need for such materials by incentivizing alternative technologies.
- **Detect and Disrupt** – Strengthen the capacity of partner countries to detect, disrupt, and investigate smuggling of nuclear and radioactive materials by employing a multilayered and flexible approach relying on three pillars of intelligence, law enforcement, and technology to provide comprehensive solutions to counter nuclear smuggling.
- **Build and Innovate** – Ensure the long-term viability of the nuclear security regime through innovative approaches that address current and emerging challenges and prepare for the next generation of users of nuclear technology and nuclear security experts.



GMS Priorities

- **Reinforce Resilient Security**
 - ◆ Invest long-term in sustained security and detection systems with emphasis on regulations, training, assessment and testing programs, budget planning, information sharing, exercises, and response planning.
 - ◆ Expand permanent risk reduction by incentivizing the replacement of radioactive source-based devices with machine-based radiation sources, where possible.
 - ◆ Increase defense-in-depth by working with law enforcement and intelligence to enhance capabilities from site alarm and illicit trafficking detection through prosecution.
 - ◆ Leverage new tools and approaches, such as virtual training developed during the global pandemic.
- **Support a Robust and Enduring International Security Framework**
 - ◆ Support universalization and strengthened implementation of A/CPPNM and other key components of the nuclear security regime.
 - ◆ Continue to support the development of the IAEA's Nuclear Security Series and nuclear security information circulars.
 - ◆ Reinforce multilateral institutions to enhance nuclear security, including IAEA, INTERPOL, GICNT, Global Partnership, and 1540.
 - ◆ Engage industry to support security by design and cost-effective security innovations and strengthen best practices and security standards.



- **Anticipate and Adapt to Emerging Threats and Opportunities**
 - ◆ Develop and implement innovative nuclear security and counter smuggling approaches that take into account the changing landscape, technological innovation, and emerging threats.
 - ◆ Bolster cybersecurity and insider threat mitigation strategies.
 - ◆ Advance nuclear security and counter smuggling through networked sensors, machine learning algorithms, and material science to enhance detection.
 - ◆ Build anticipatory resilience to future disruptive events and employ lessons learned from the pandemic to amplify outreach to partners.
- **Expand Partnerships and Network**
 - ◆ Expand and leverage a broad range of partnerships including the USG interagency, IAEA, INTERPOL, Nuclear Security Support Centers Network, industry, NGOs, and academic institutions.

GMS Supports A/CPPNM Implementation

The A/CPPNM is the only legally binding international agreement requiring physical protection of nuclear materials and facilities and is the cornerstone of the global nuclear security regime. The A/CPPNM provides a legal framework for preventing and prosecuting malicious acts involving the theft of nuclear material or the sabotage of a nuclear facility. It does this by requiring parties to establish a physical protection regime, to criminalize certain offenses, and to cooperate with one another to implement the A/CPPNM. Upon request, GMS can assist countries to provide cooperation and assistance implementing the A/CPPNM.

GMS also works closely with the IAEA to develop and maintain the set of recommendations and guidance contained in the IAEA Nuclear Security Series publications relevant to the implementation of the A/CPPNM. GMS also cooperates with INTERPOL and other multilateral organizations to strengthen counter nuclear smuggling capabilities from detection through prosecution.





About GMS

The Office of Global Material Security prevents nuclear and radiological terrorism.

For more information,
contact DL-gms.info@nnsa.doe.gov.



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