

in Geo-based Data Integration in the International Atomic Energy Agency Department of Safeguards

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The International Atomic Energy Agency Department of Safeguards deployed the Geo-based Data Integration (GDI) platform for information integration, analysis, and activity planning involving geospatially-related information used for nuclear safeguards verification. GDI provides interactive, layered maps in a secure, user-friendly collaborative environment for IAEA inspectors, analysts and managers to access, utilize and share geospatially-attributable information regarding nuclear facilities, sites and other locations and activities relevant to the implementation of States' safeguards agreements. GDI operates in the secure Integrated Safeguards Environment, and access to information in GDI is limited and controlled via the Safeguards Authorization Management system. As the IAEA is an on-site inspection agency that verifies nuclear materials and activities in physical locations in States in accordance with their safeguards agreements, nearly all safeguards-relevant information has geospatial attributes. This includes State-declared information; information collected by inspectors and instruments; and open-source information, including commercial satellite imagery. This paper reports progress achieved with GDI since 2018. It describes enhanced functionalities; automated data integration with the Additional Protocol System; planning and reporting integration with the Integrated Scheduler and Planner and Safeguards Field Reporting and Evaluation; and effectiveness and efficiency gains through applications of GDI analytical methodology to facilities and complex nuclear fuel cycle locations.

E-mail

m.barletta@iaea.org

Promotional text

The paper describes IAEA experiences using GDI to integrate and analyse diverse information collections and data streams, including from in-field verification.

Oral preference format

in-person

Primary authors: Mr BARLETTA, Michael (International Atomic Energy Agency (IAEA)); Mr BUSTOS, Patricia (International Atomic Energy Agency (IAEA)); Mr CAREY, Mark (International Atomic Energy Agency (IAEA)); Ms KAMINSKI, Ania (International Atomic Energy Agency (IAEA)); Mr KESKINEN, Antero (International Atomic Energy Agency (IAEA)); Mr SUMAROKOV, Nikolai (International Atomic Energy Agency (IAEA)); Mr TADJER, Djamel (International Atomic Energy Agency (IAEA)); Mr YEOH, Andrew (International Atomic Energy Agency (IAEA))

Presenter: Mr BARLETTA, Michael (International Atomic Energy Agency (IAEA))

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