



Top priority capabilities

Update for 2024-2025*

The Department in 2022 published the *Enhancing Capabilities for Nuclear Verification: Resource Mobilization Priorities (RMP)* identifying and communicating the set of needed capabilities that are of the highest priority to the Department and especially reliant on external support. In 2024, these were reviewed and updated to reflect the most pressing support needs (replacing page 2 of the 2022 version of the RMP). While all the capabilities reflected in the 2022 RMP remain relevant to the Department, the following table highlights the top priority capabilities¹, covering the period 2024-2025.

Priority objective	ID	Capability
V.1 Strengthen information collection, integration and analysis	V.1.C2	Ability to receive/collect, process, analyze and evaluate all safeguards-relevant information efficiently and effectively through innovation, integration, and governance
	V.1.C4	Ability to leverage emerging technologies, such as artificial intelligence and machine-learning, for exploiting large volumes of safeguards-relevant data to enhance prioritization, change detection and consistency verification
	V.1.C5	Ability to enhance the sharing, aggregation, visualization and analysis of geo-based information (e.g. verification data, satellite imagery)
V.3 Advance State-level safeguards	V.3.C3	Ability to enhance acquisition path analysis and development of State-level safeguards approaches
V.6 Ensuring preparedness to implement SG	V.6.C2	Ability to implement effective and efficient safeguards for SMRs and microreactors
T.1 Strengthen instrumentation capabilities for verification	T.1.C1	Ability to more efficiently verify and maintain knowledge of spent fuel in shielding/storage/transport containers at all points in their life cycle, including through remote means
	T.1.C5	Ability to develop, deploy and maintain new sealing system technologies with improved security and efficiency
	T.1.C12	Ability to expand the use of robotic technology for verification activities
T.2 Enhance sensitivity, reliability and timeliness in sample analysis	T.2.C2	Ability to determine age of U and Pu in environmental samples through techniques and evaluation methods
	T.2.C8	Ability to deliver timely environmental sample analysis results through the qualification of new laboratories to the NWAL and by requesting additional capacity from existing NWAL
T.3 Ensure resilient, secure and up-to-date SG IT systems	T.3.C1	Ability to secure information and quickly detect and respond to security events in the Department’s information systems using the latest advances in technology such as artificial intelligence
T.6 Enhance remote sensing, monitoring and verification capabilities	T.6.C1	Ability to leverage emerging technologies, such as artificial intelligence and machine-learning, to develop and deploy improvements to instrumentation data analysis
M.2 Manage SG assets strategically	M.2.C1	Ability to strategically plan, maintain and improve safeguards IT tools, information assets, and associated infrastructure
M.4 Increase organizational resilience	M.4.C2	Ability to carry out mission-critical functions – needed for continued delivery of safeguards conclusions – in case of disasters (e.g. disruptive, massive cyber-attack or physical loss of critical infrastructure)
S.2 Enhance States’ safeguards capacity	S.2.C1	Ability to strengthen the capacity of SSACs/SRAs and monitor and measure progress
W.4 Advance workforce diversity, including gender parity	W.4.C1	Ability to attract and retain a diverse and balanced workforce in terms of geographic origin, gender, and age

* Update to page 2 of the RMP.

¹ The order in which these are presented does not imply any order in their importance.