



# **FBI'S INTEREST IN RADIOISOTOPES**

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## **BRIEF TO THE WORKSHOP ON ISOTOPE FEDERAL SUPPLY AND DEMAND**

November 3, 2014



# FBI Mission

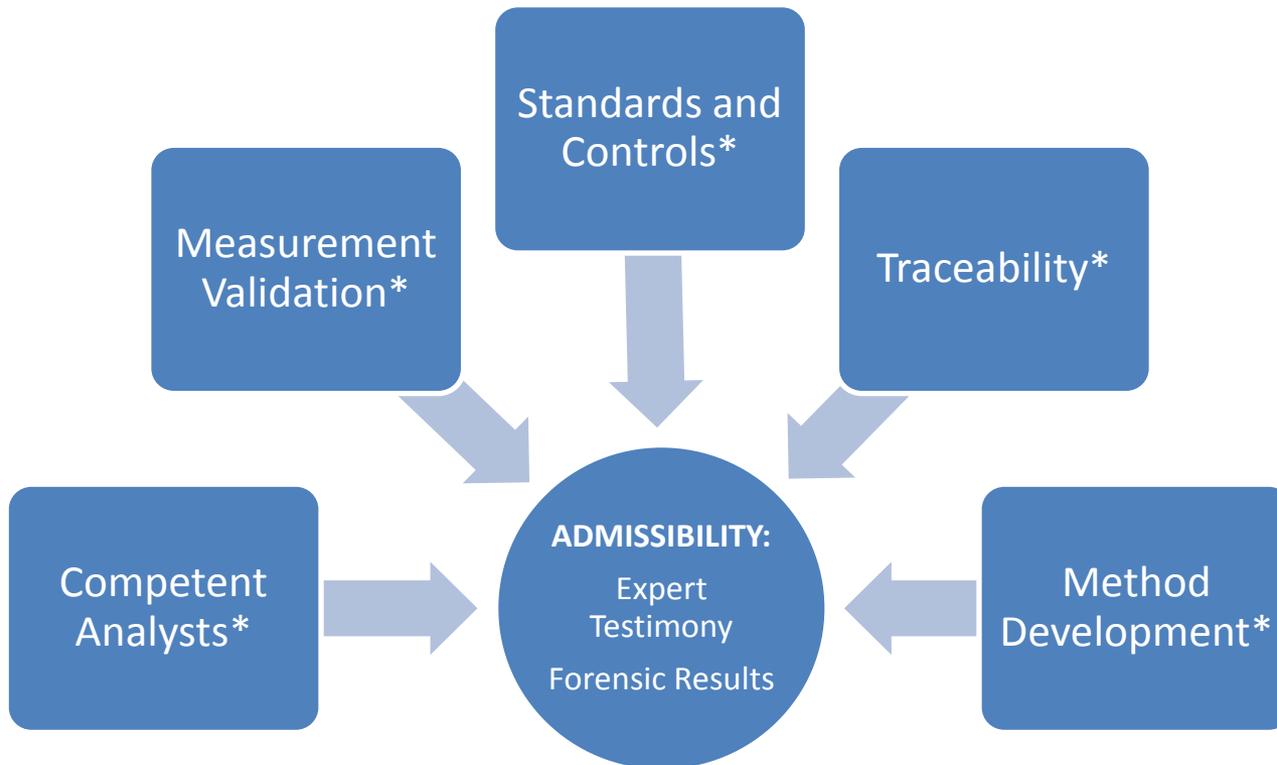
**As an intelligence-driven and a threat-focused national security organization with both intelligence and law enforcement responsibilities, the mission of the FBI is to protect and defend the United States against terrorist and foreign intelligence threats, to uphold and enforce the criminal laws of the United States, and to provide leadership and criminal justice services to federal, state, municipal, and international agencies and partners.**





# Forensic Examination Objective

**Perform measurements that are admissible in court, support admissible expert testimony, and provide high confidence technical assessments for attribution.**



**\*Require the use of reference materials.**





# Certified Reference Materials

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- Certified Reference Materials (CRMs) support:
  - Radiochemical analytical method validation and certification;
  - Application of standards and controls within the analytical environment;
  - Traceability of forensics measurements to known values; and
  - Competency and proficiency of forensic examiners.





# Types of R/N Forensic Examinations

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- Smuggling/interdiction of radiological/nuclear (R/N) material
- Lost/stolen radiation sources
- Radiological Dispersal Devices
- Radiological Exposure Devices
- Improvised Nuclear Devices
- Nuclear forensics (post-nuclear detonation attribution)





# Analytical Methods

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- Plutonium dating
- Simulants (nuclear fall-out debris)
- Fission product measurements
- Identify mis-labeled radiological materials





# Bottom Line

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- CRM allows the FBI to perform measurements that are admissible in court and support admissible expert testimony.
- High confidence technical assessments for attribution.



# Questions?

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