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Forensics Sub-Committee TOWN HALL

12.08.2025



NIST

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WELCOME

AGENDA

- NIEMOpen Introduction
- Forensics Subcommittee Introduction
- Operational Responsibilities
- Baseline Data Set
- Next Steps



FORENSICS SUBCOMMITTEE

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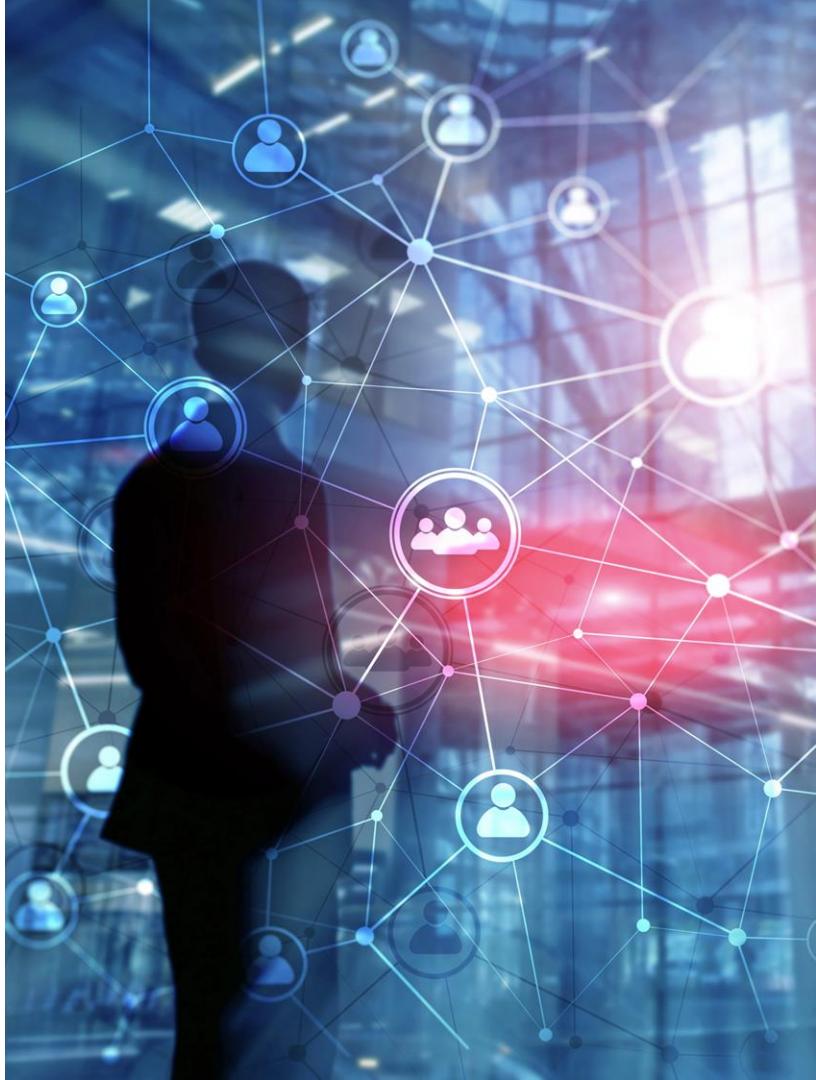
 NIEMOPEN

The NIEM OPEN logo consists of a stylized blue 'N' shape composed of interconnected circles, followed by the word "NIEMOPEN" in a blue sans-serif font.

NIEMOPEN

NIEMOpen is:

An open source framework
for building a consensus on
data standards that facilitate
information sharing
across domains



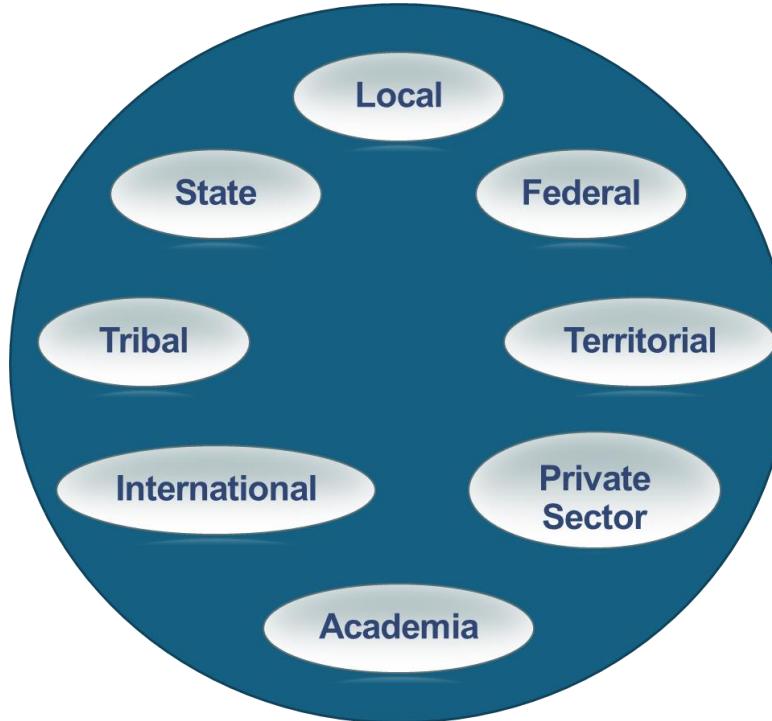
THE VOICES OF NIEMOPEN

COLLABORATION

CONSENSUS

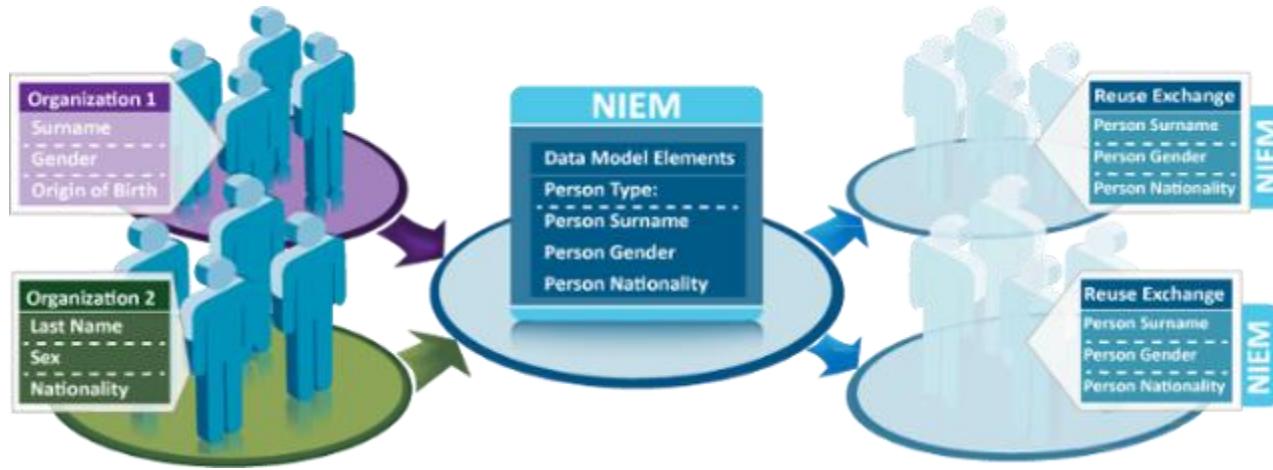
EQUALITY

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FORENSICS SUBCOMMITTEE

WHAT IS “NIEMOPEN”?



The National Information Exchange Model (NIEMOPEN) is a collaborative, standards-based framework that allows organizations to efficiently and consistently share information. By providing a common vocabulary and standardized processes, NIEMOPEN helps break down information silos and improve data interoperability among diverse groups.

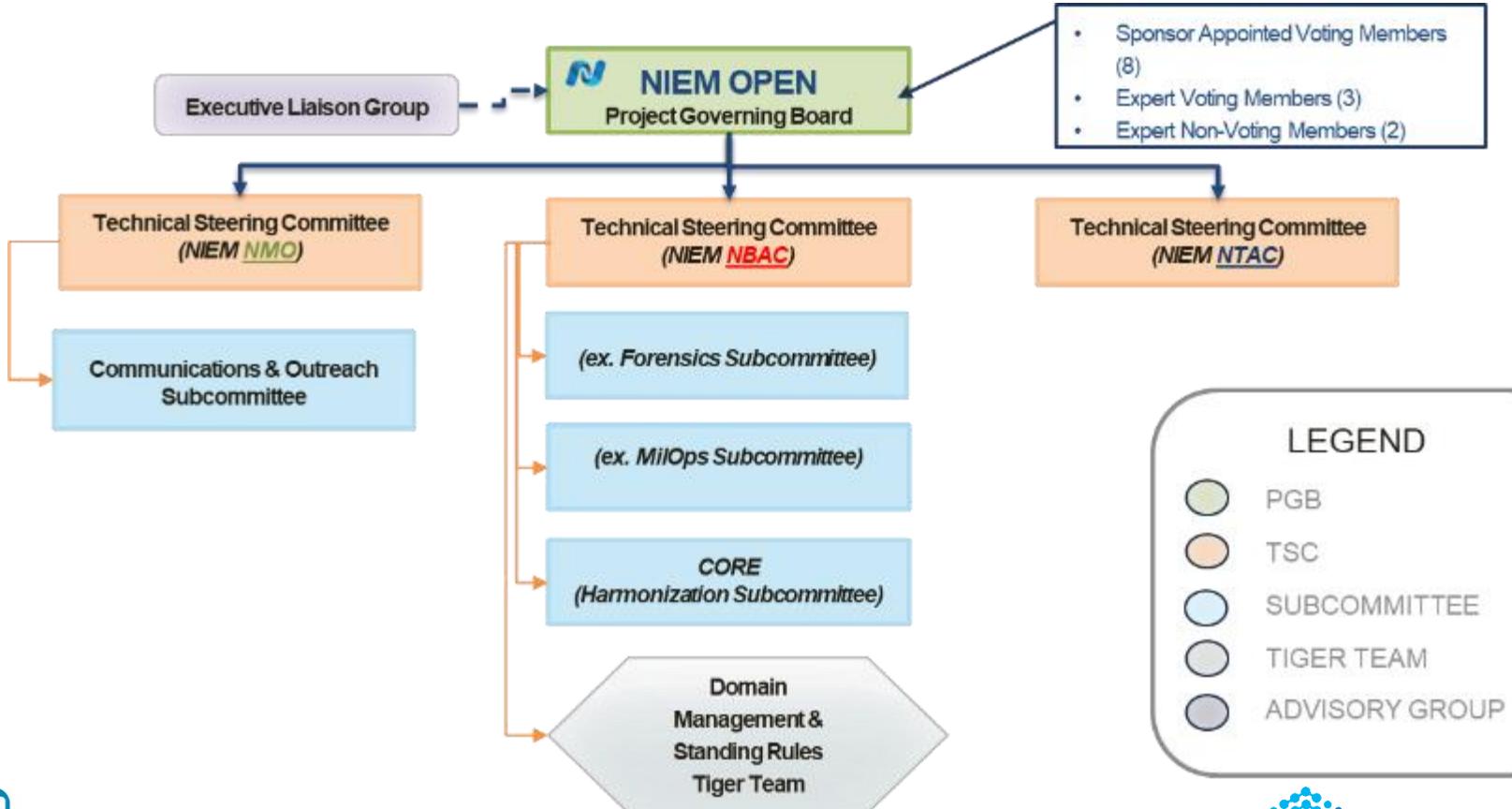


NIEMOPEN: AN OASIS OPEN PROJECT

- ≈ 2003 - DoJ – created Global Justice XML Data Model (GJXDM)
- ≈ 2005 - NIEM was established by DoJ and DHS – Building on GJXDM
- 2008 - Stewardship of the NIEM PMO was transitioned to DHS HQ
- 2018 - DoD Joint Staff J6 office was officially designated as the NIEM PMO
- 2022 - NIEM was transitioned to OASIS as an Open Project
 - Community development of standards and software
 - Through a defined and managed process that is open, balanced, consensus-based
 - Producing new OASIS standards (like SAML, STIX, etc.)
 - With a path to international recognition (ISO)
- 2025 - NIEMOpen 6.0 - OASIS standards
 - NIEMOpen model (core and domains) – a shared semantic reference model for the NIEMOpen community – NIEMOpen Code list (like State or Country Code)
 - NIEMOpen technical framework – usable by anyone to specify data content and meaning



NIEM OPEN: PROJECT GOVERNANCE



NIEM MODEL CONTENT

Think of the NIEM data model as a mature and stable data dictionary of agreed-upon terms, definitions, and formats independent of how information is stored inside individual IT systems.

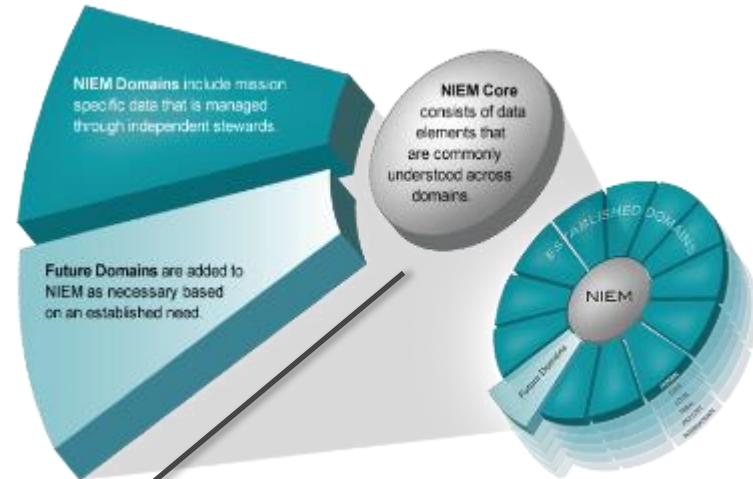
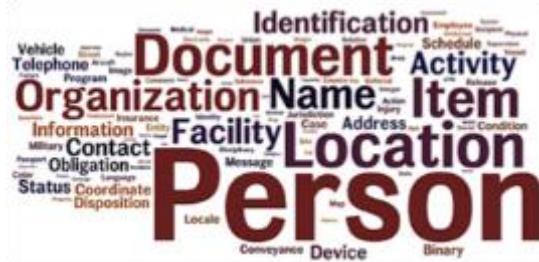
NIEM Domains

- Agriculture
- Biometrics
- Chemical, Biological, Radiological, & Nuclear
- Cyber
- Emergency Management
- Human Services
- Immigration
- Infrastructure Protection
- Forensics

- Intelligence
- International Human Services
- International Trade
- Justice
- Learning & Development
- Maritime
- Military Operations
- Screening
- Surface Transportation
- Analytical Laboratories

Emerging Domains

- Environmental
- Management
- Medical



Forensics Subcommittee Governance Leadership



Ryan Triplett
Chair

Mr. Triplett is a Management Analyst at the Defense Forensics and Biometrics Agency (DFBA), a Field Operating Agency under the Department of the Army. His current responsibilities include leading the standardization efforts of the DoD Executive Agent for Defense Forensics and Biometrics Enterprises.

Patricia Wolfhope, BSME
Co-chair

Ms. Wolfhope is an internationally recognized Investigative Sciences & Digital Forensics Senior Subject Matter Expert for the DHS S&T Directorate. She is the Founder & Chair for the FVEY 5RD Countering Child Exploitation Network and the Science Liaison to the DHS Human Trafficking Center.

Lucas Zarwell
Co-chair (tentative)

Mr. Zarwell is the Director of the Office of Investigative and Forensic Sciences at the National Institute of Justice (NIJ), having more than 20 years of experience in the forensic science field.

Michelle Martin
Co-chair (tentative)

Ms. Martin works in the FBI Laboratory Division's IT and Strategy Unit (ITSU) and has previous experience with casework, providing a broad knowledge base to the subcommittee.

Jennifer Stathakis
Ombudsman

Ms. Stathakis has worked with NIEM since 2008, fifteen years at the FBI, and now two at NIST. During that time, she built the FBI XML IEPDs for NGI, was the editor for the NGI EBTS specification, and is now the editor for the ANSI/NIST-ITL standard.

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WHY HAVE A FORENSICS SUBCOMMITTEE?



DoD



DHS



DoJ



State



Local



Tribal

- Established 2025 after identifying the need for a unified forensic data framework
- Increase interoperability across organizations that exchange forensic information
- Develop a data model with consistent terminology for forensic data-sharing
- Promote community-based agreement on data element names and definitions
- Broaden accessibility of forensic terminology and guide industry
- Maintain consistent details about forensic material across multiple labs levels and jurisdictions
- Increase speed of analysis and prosecution



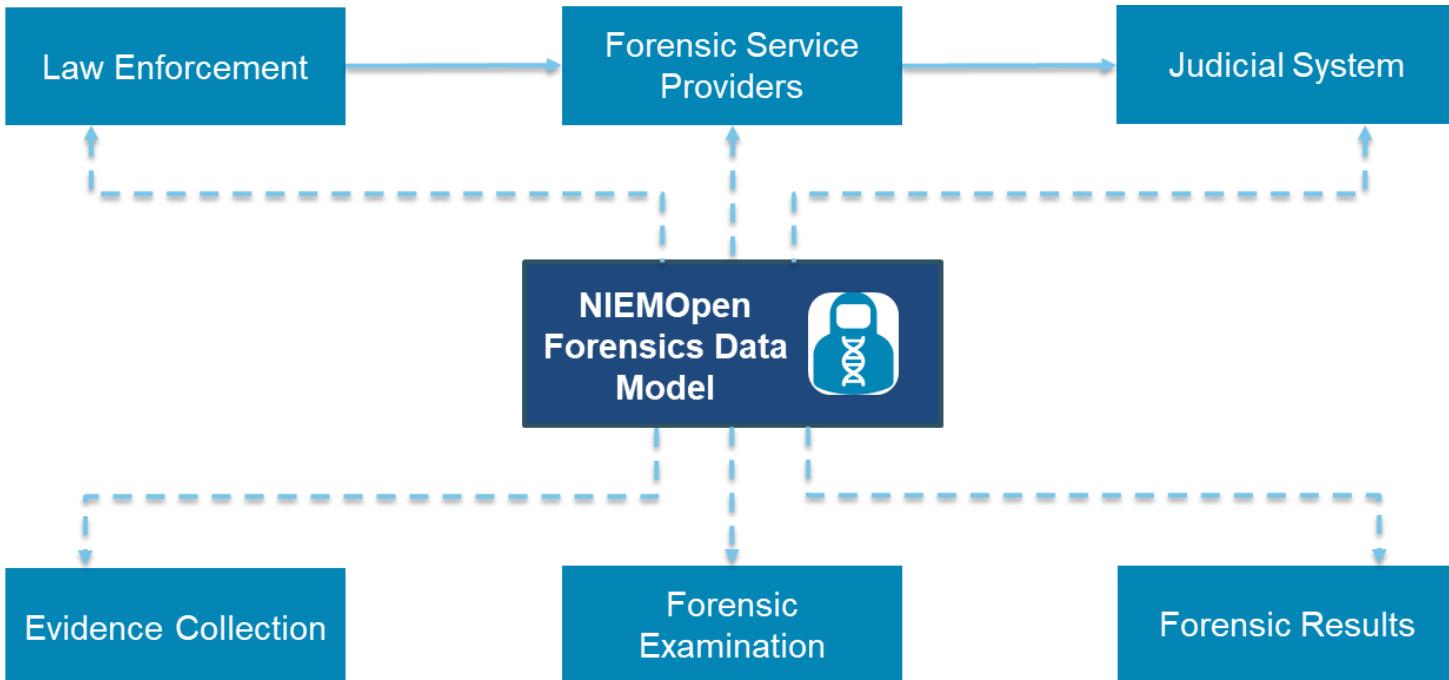
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DRAFT FORENSICS DATA MODEL

Users of the forensics model communicate through one common vocabulary

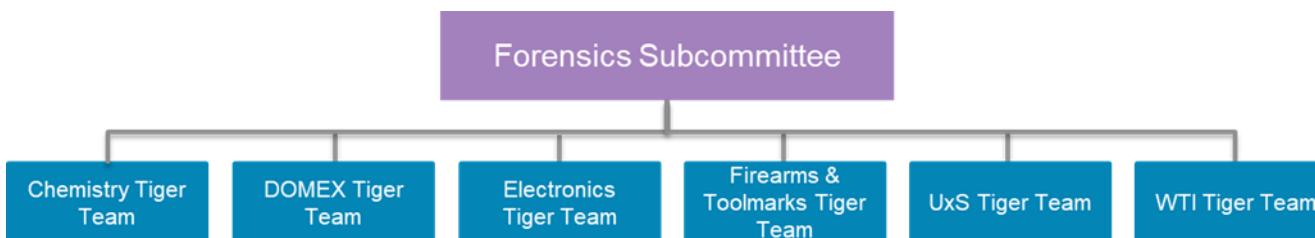


Forensic data is exchanged efficiently at each step in the the forensic process



FORENSICS SUBCOMMITTEE OPERATIONAL RESPONSIBILITIES

- Architect and maintain NIEM forensics data model through the subcommittee
- Identify new subject areas and terminology to add to the model
 - Identify subject matter experts in current subject areas to provide content
- Promote adoption of the NIEM forensics model
- Looking for volunteers to lead tiger teams
 - Run discipline-specific groups to develop model content
 - Facilitate meetings of SMEs
 - Review and build consensus on data attributes
 - Report input up to broader subcommittee



Forensics Domain Disciplines/Areas

- Chemistry
- Firearms & Toolmarks
- Electronics Exploitation
- Uncrewed Systems (UxS)
- Weapons Technical Intelligence (WTI)
- Weapons Exploitation (WEPEX)
- Document and Media Exploitation (DOMEX)
- Triage
- Chain of Custody

Already in NIEM Biometrics

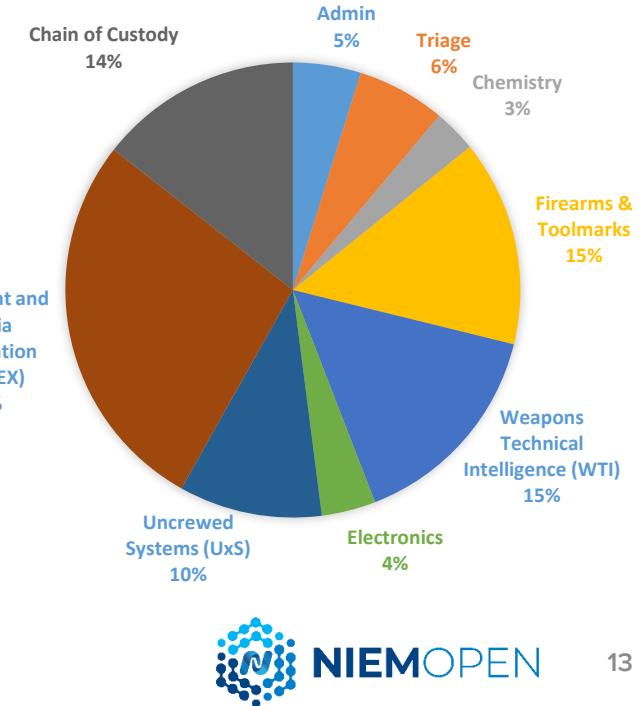
Domain

- DNA
- Facial Images
- Fingerprints



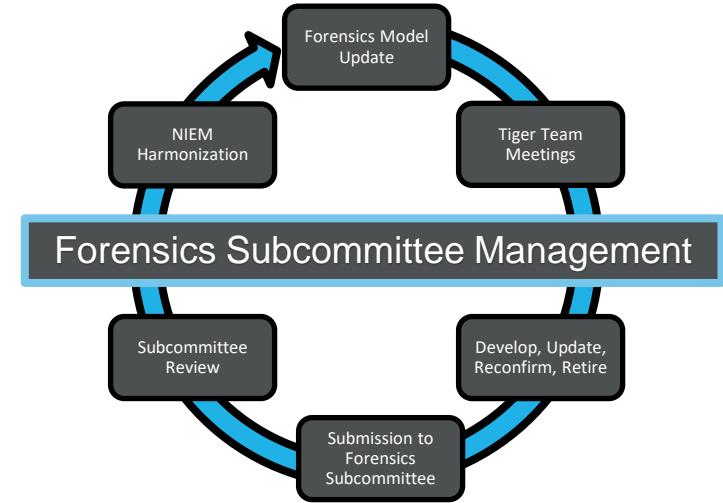
FORENSICS SUBCOMMITTEE BASELINE DATA SET

- 1312 data elements identified and defined
 - 910 new Forensics Domain elements
 - 402 already exist in NIEM Core or another domain
- Initial batch of 379 elements ready for subcommittee review
- Data sources
 - Most data attributes from DoD sources used to examine and report collected exploitable material
- Additional data attributes
 - Additional data attributes used outside DoD
 - Additional chemistry and electronics elements
 - Uncrewed maritime and ground vehicles
 - Additional document exploitation elements



FORENSICS SUBCOMMITTEE NEXT STEPS

- Identify tiger team leads and hold expert group meetings
 - To become a tiger team lead, email hqda.niemforensics@army.gov
- Distribution of baseline data set for member review and comment
- Adjudicate comments and add additional attributes to baseline
- Publish baseline data set
- Submission of additional discipline-specific attributes to Forensics Subcommittee
- Identification of additional areas/fields to include in forensics data model



GET INVOLVED!



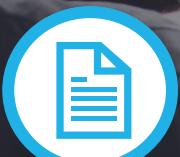
Website: [NIEMOpen Forensics Webpage](#)



To become a member, email: hqda.niemforensics@army.gov



Participate in Tiger Team meetings



Contribute to our newsletter

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THANK YOU



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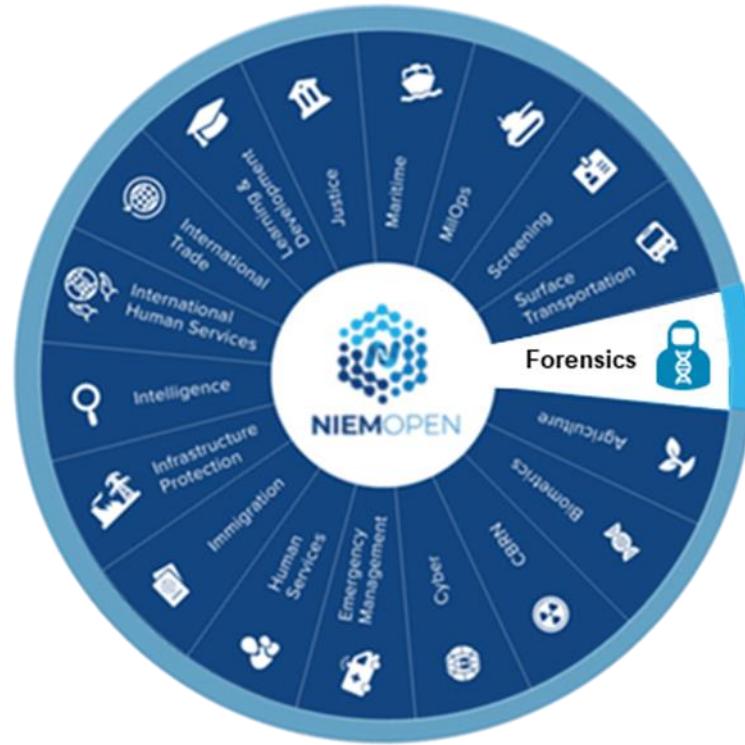
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NIEM NBAC Co-Chair:

Kamran Atri
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