



# National Security Through Responsible Information Sharing

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information sharing standards fusion security mission

# AGENDA



- PM-ISE's Mission, Scope, and Background
  - National Strategy for Information Sharing and Safeguarding
  - National Information Exchange Model
  - ISE Project Interoperability
  - Potential Collaboration Between ISA & ISE

# VISION

National security through responsible information sharing

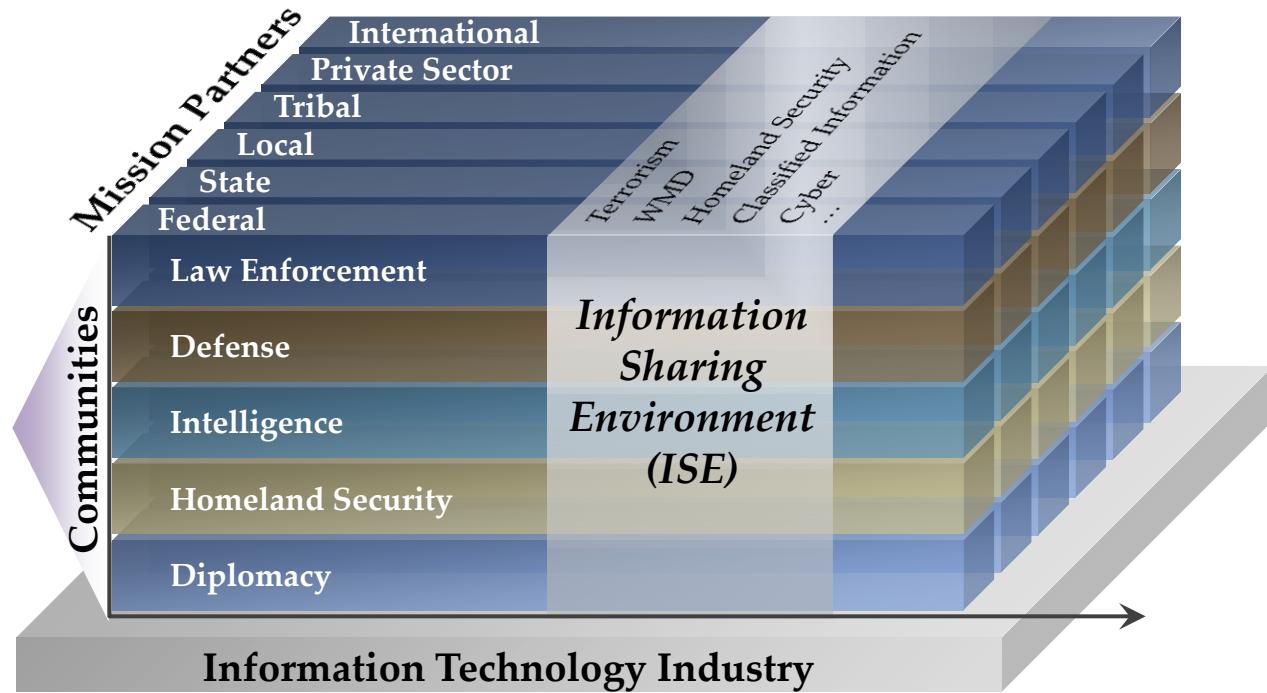
# MISSION

Advance responsible information sharing to further counterterrorism and homeland security, and cybersecurity missions

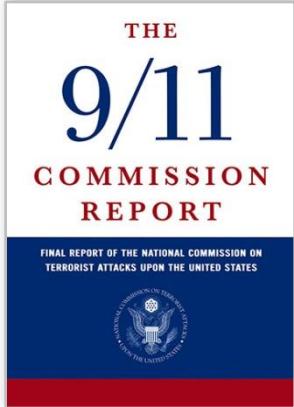
Improve nationwide decision making by transforming information ownership to stewardship

Promote partnerships across federal, state, local, and tribal governments, the private sector, and internationally

# SCOPE



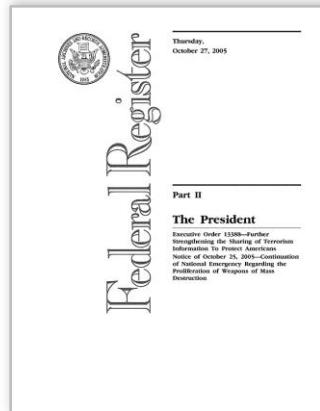
# FOUNDATION



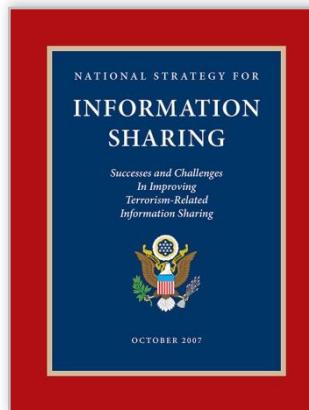
## IRTPA: Intelligence Reform and Terrorism Protection Act of 2004



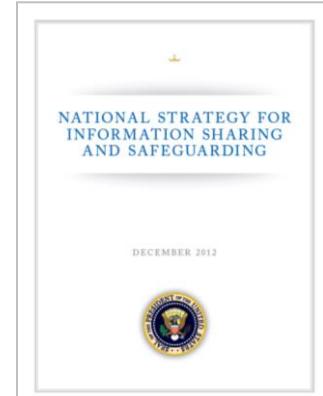
## Executive Order 13388



## 2007 National Strategy



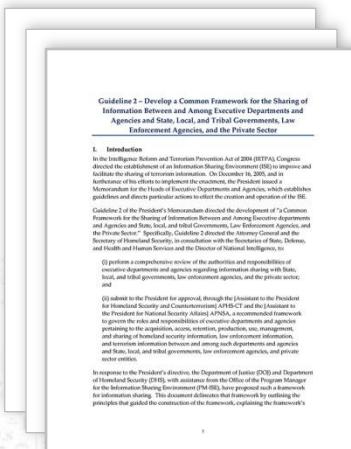
## 2012 National Strategy



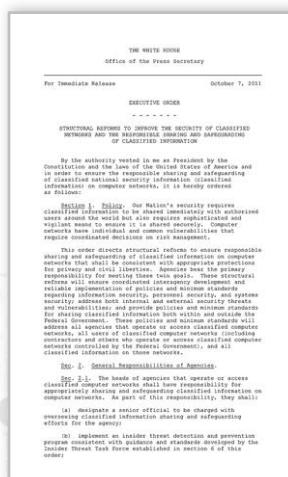
## Markle Task Force



## Presidential Guidelines



## Executive Order 13587



By the authority vested in me as President by the Constitution and the laws of the United States of America and in accordance with the National Security Act of 1947, the National Defense Authorization Act for Fiscal Year 2009, and the Homeland Security Act of 2002, I hereby issue this Executive Order to improve the security of classified national security information (classified information), enhance information sharing and dissemination of classified information, and facilitate the use of unclassified equivalents.

**Section 1. Policy.** Our Nation's security requires classified information to be shared immediately with authorized users in a timely manner through secure, reliable, and vigilant means to ensure it is shared securely. Computer networks and systems must be designed to support rapid, reliable, and secure communication and decision making, and prevent unauthorized access to classified information.

This order directs structural reform to ensure responsible sharing of classified information among the executive branch, the private sector, and state, local, and tribal governments. Agencies bear the primary responsibility for the security of their own classified information. Defense will ensure coordinated interagency development and risk-based management of classified information, including regarding information security, personnel security, and systems security. The Director of National Intelligence (DNI) will lead the effort to develop and implement policies and minimum standards for the protection of classified information across the Federal Government. These policies and minimum standards will address the classification of information, its handling, its declassification, its destruction, its transfer to contractors and subcontractors, and those who operate or access classified computer networks and systems (including cloud computing), and will disseminate information on these networks.

**Sec. 2. General Responsibilities of Agencies.**

(a) The heads of agencies that operate or access classified information shall establish a program for appropriately sharing and safeguarding classified information on computer networks and systems. The program shall:

(i) designate a senior official to be charged with general responsibility for classification sharing and safeguarding efforts for the agency;

(ii) implement an incident threat detection and prevention system, including a system for reporting incidents to the Incident Threat Task Force established in section 6 of this order;

# NATIONWIDE CHALLENGES

Multiple Missions & Authorities → National Approaches to Interoperability

Crushing Financial Pressures → Integrated Capabilities & Shared Services

Evolving & Converging threats → Common Operating Models

**300+** million  
People

**750,000+**  
Officers

**1.2** million  
Firefighters

**2.2** million  
Security Officers

**18** CI/KR Sectors

\* Numbers are estimates

**80,000**  
Agencies

**250,000**  
911 Operators

**77** Fusion Centers

**6** RISS Centers

**28** HITDAs

**FBI**

NCIJTF □ CJIS □ FIGs □ JTTFs □ JRIGs □ TSC

**DHS**

I&A □ ICE □ CBP □ TSA □ DNDI □ NPPD

**DOJ**

ATF □ DEA □ USMS □ OJP

**Maritime**  
Domain

**Nlets**

**NCTC**  
JCAT

**State**

**DoD**

**Air**  
Domain

## Protection of Privacy, Civil Rights, and Civil Liberties

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# NATIONAL STRATEGY FOR INFORMATION SHARING AND SAFEGUARDING



## Principles:

- Information as a national asset.
- Information sharing and safeguarding requires shared risk management.
- Information informs decision making.

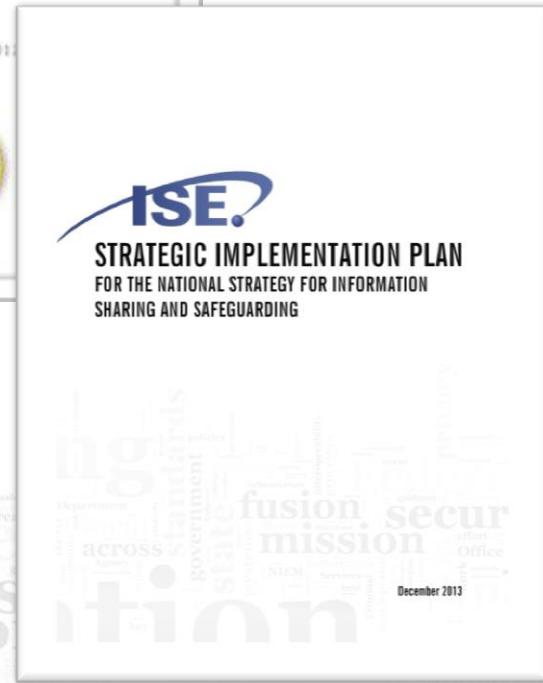
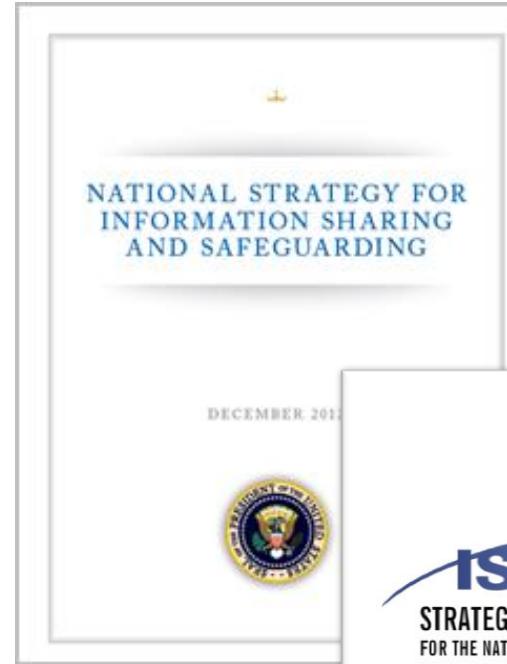
# STRATEGY GOALS

- Drive Collective Action through Collaboration and Accountability
- Improve Information Discovery and Access through Common Standards
- Optimize Mission Effectiveness through Shared Services and Interoperability
- Strengthen Information Safeguarding through Structural Reform, Policy, and Technical Solutions
- Protect Privacy, Civil Rights, and Civil Liberties through Consistency and Compliance

# INSTITUTIONALIZING A MANAGEMENT FRAMEWORK



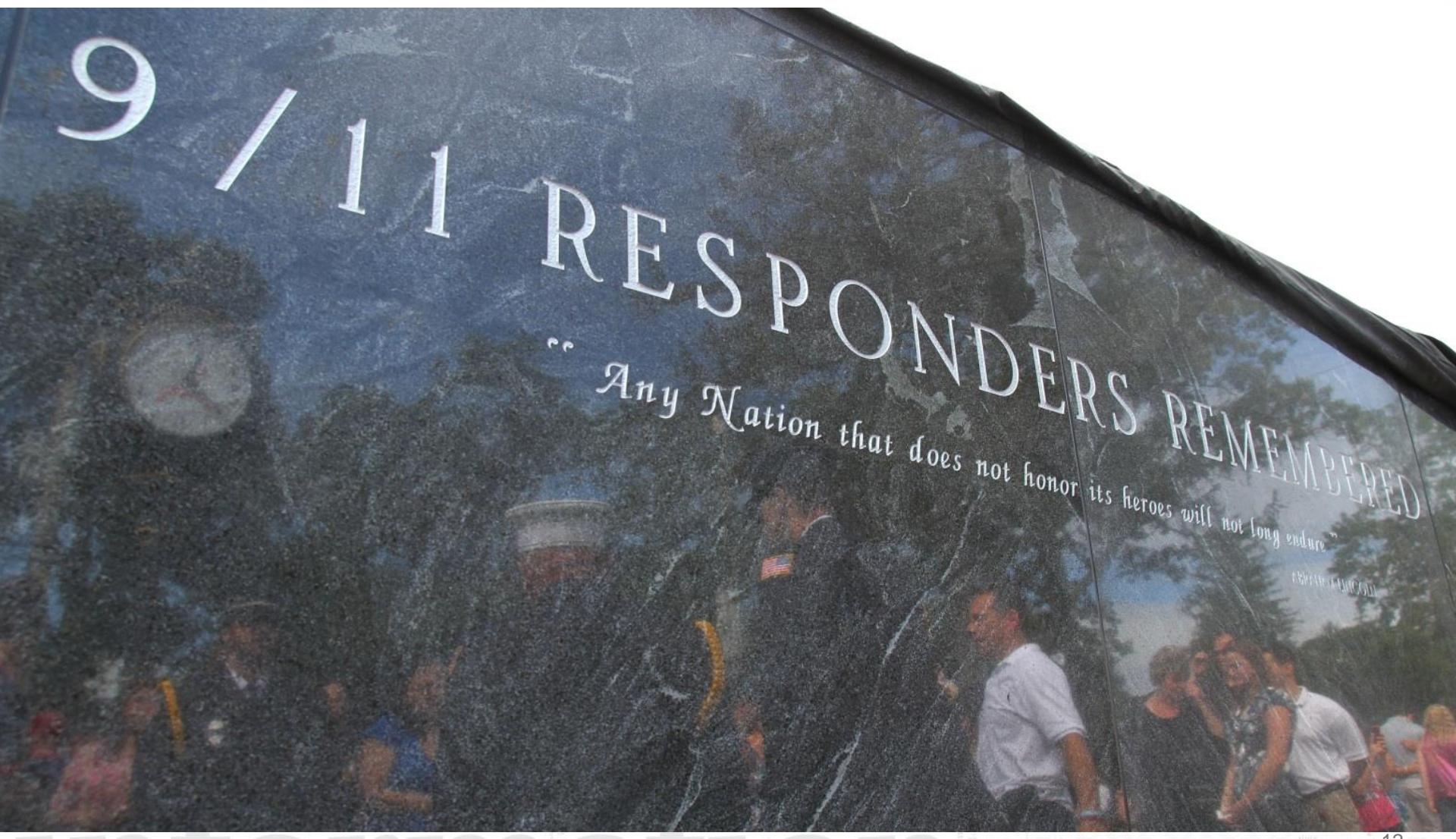
- White House-based Governance
- Strategic Implementation Plan
- Performance-Based Oversight



# AGENDA

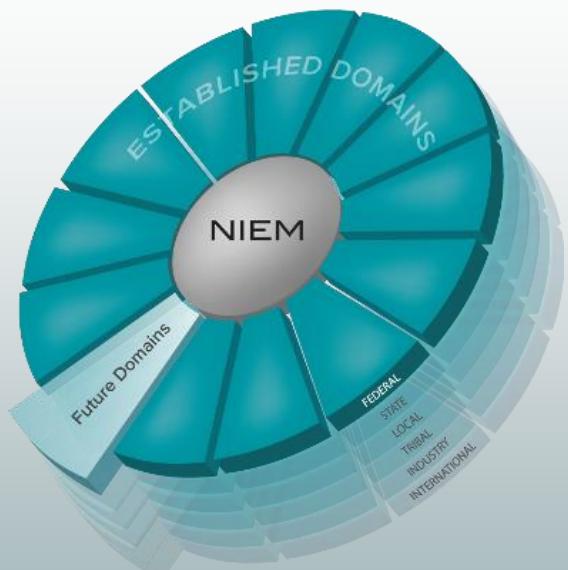
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# THE NEED FOR SEMANTIC INTEROPERABILITY



# WHAT IS NIEM?

## Common Language (Community-driven Data Model)



Built and governed by the business users at federal, state, local, tribal, international, and private sectors

## Repeatable, Reusable Process (Information Exchange Development Lifecycle)



# INTERNATIONAL INTERACTIONS

## ISA Programme

- Interoperability Solutions for European Public Administrations (ISA) Programme supports and facilitates cross-border electronic collaboration between European public administrations
- Explored potential alignment between NIEM & ISA Core Vocabularies via mapping exercise for:
  - Core Person
  - Core Business
  - Core Organization

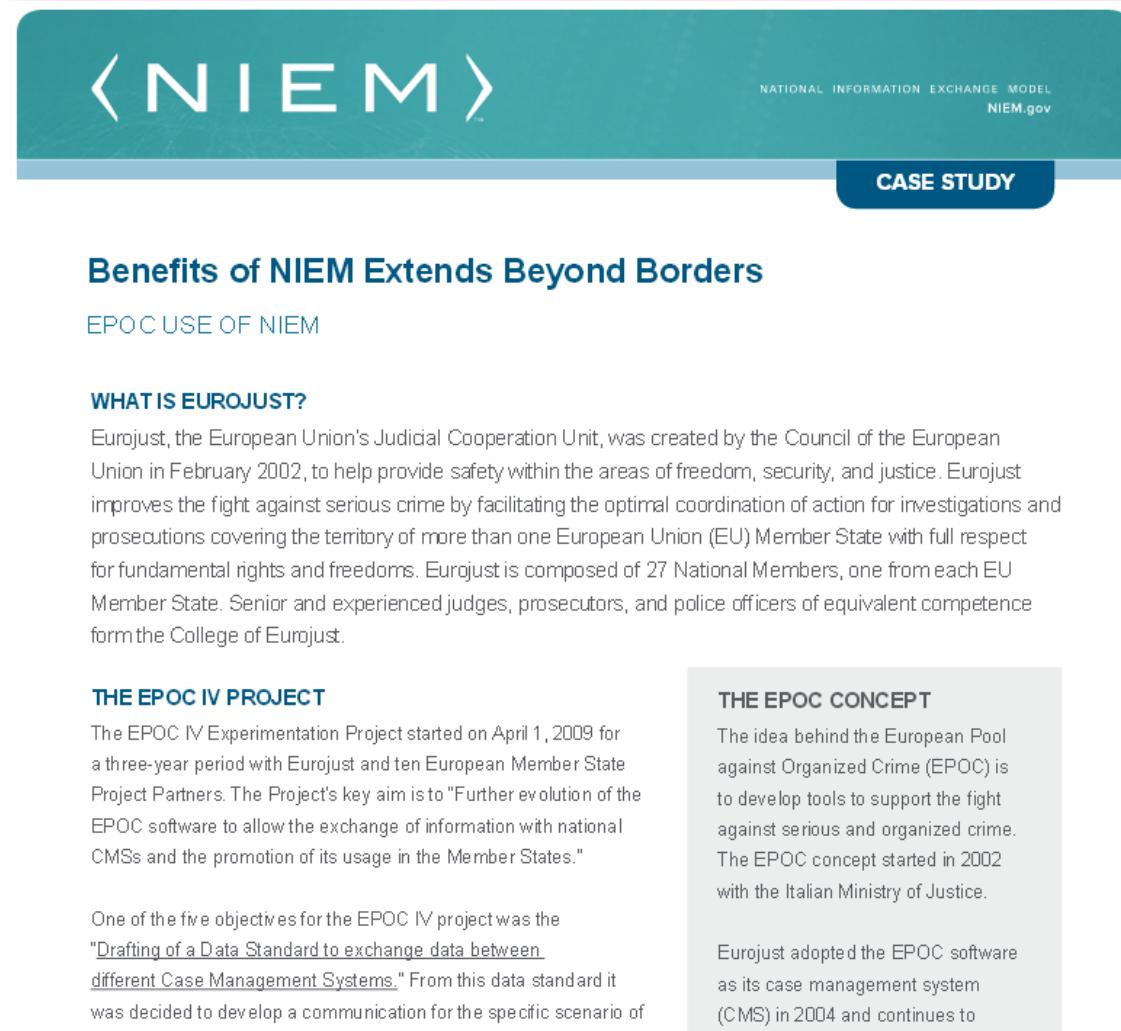
## Europol

- Create a common framework for structured information exchange between European Union (EU) law enforcement authorities
- Potential to leverage the NIEM framework to inform Europol's Universal Messaging Format (UMF2) development

## CrimTrac, Australia

- Responsible for national information sharing services between state, territory and federal law enforcement and national security agencies
- Objective to deepen understanding of NIEM in context specific to the Justice & Biometrics Domains
- Interest in NIEM expressed across several Australian agencies

# EU CASE STUDY: EPOC IV USE OF NIEM



# NORTH AMERICA ADOPTION



# Temporary Resident Biometrics Project

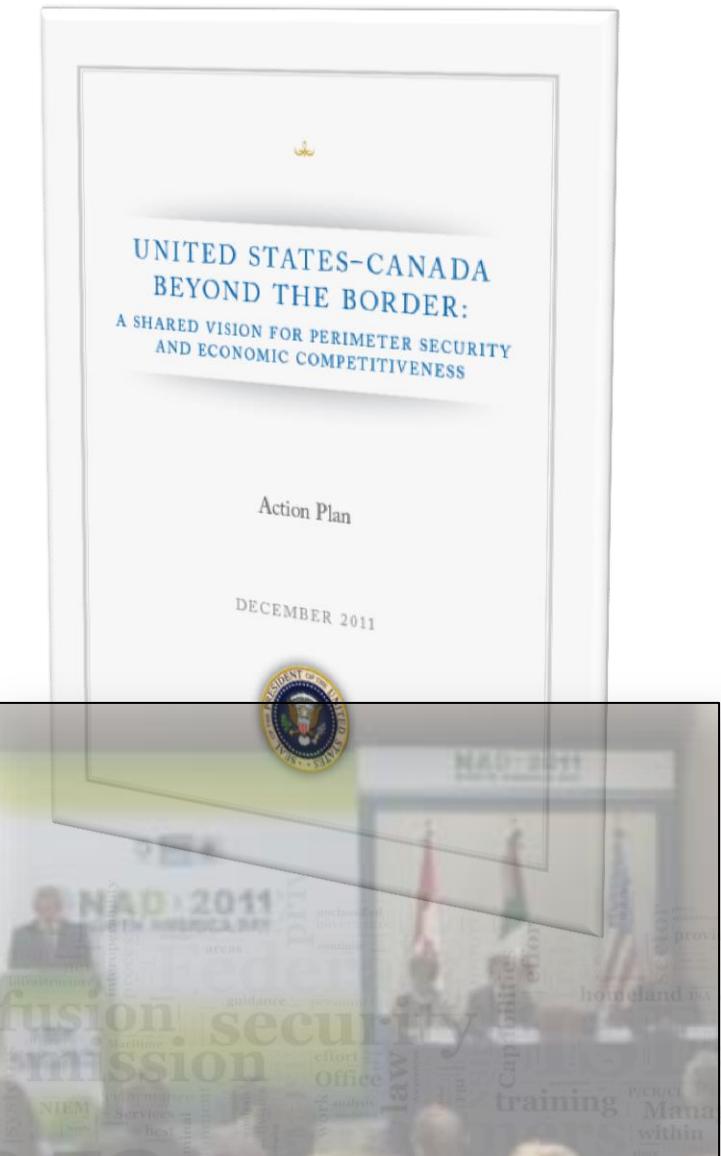
- Citizenship and Immigration Canada
  - US Citizenship and Immigration Services

## **Entry/Exit Data Exchange**

- Canada Border Services Agency
  - US Customs and Border Protection

## North American Day Pilots (US/Canada/Mexico)

- Public Health Pilot, Public Health Alerts
  - Public Safety Pilot, Stolen Vehicles



# CELEBRATING A MAJOR MILESTONE ANNOUNCING THE LAUNCH OF NIEM 3.0!

As we celebrate the launch of NIEM 3.0, the NIEM Program Management Office (PMO) would like to thank the NIEM community for their active participation and feedback.

## SO, WHAT DID IT TAKE TO LAUNCH 3.0?

### TIMELINE



13 months



5 stages



6 years since last major release



### CONTENT UPDATES



Architectural Enhancements



Existing data element definitions modified



Substitution list placeholders added



33 code list updates

### WEBSITE STATS



180 attendees  
for Beta Tech Talk  
in June 2013



12,513 page views  
to NIEM 3.0 web pages

### DOMAIN UPDATES



Biometrics added  
their first input to the model



Chemical, Biological, Radiological, Nuclear (CBRN);  
Children, Youth, and Family Services (CYFS);  
Justice; Maritime; Immigration; and Screening  
added and/or updated content

### COMMUNITY REVIEW



First ever public  
review of NIEM  
(three rounds)



20+ NBAC  
harmonization calls  
in the past year



70+ total  
NBAC review  
submissions



30 total  
NTAC review  
submissions



Comments received  
from federal, state,  
local, international, and  
industry partners

The PMO thanks the NIEM community for your dedication to advancing the program.

NIEM  
in November

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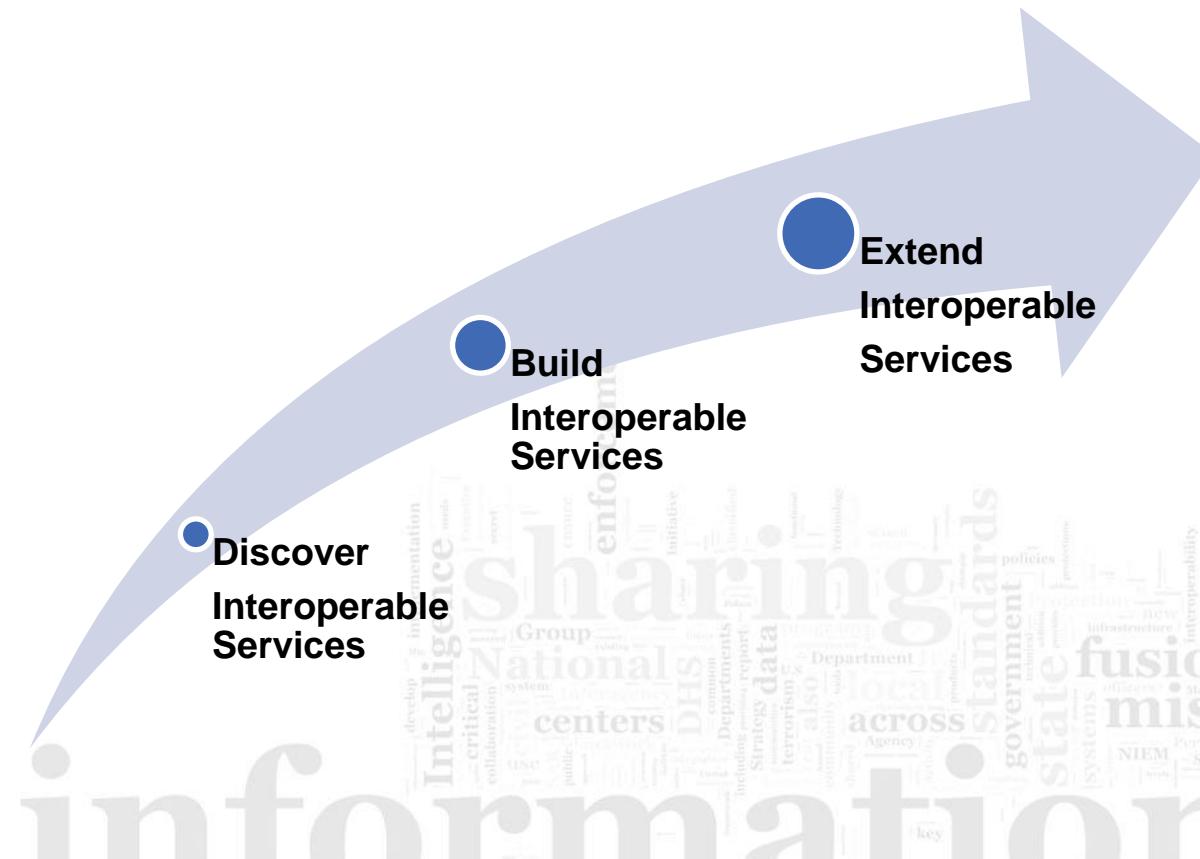
# PROJECT INTEROPERABILITY



- Focused on the white-space between Agencies
  - Mission & framework agnostic
  - Modular development extending existing capability
  - Practitioner-focused integration of best practices

## ISE Interoperability Tools

- Architecture Alignment
- Attribute Exchange
- Common Profile
- Data Aggregation
- Exchange Patterns
- Geospatial
- Identity and Access Management
- Maturity Model
- National Information Exchange  
Model
- Reference Architecture
- Standards and Specification  
Framework
- Springboard



# MISSION USE: NEW JERSEY INFORMATION SHARING ENVIRONMENT



# TOOL EXAMPLE: ADVANCING FEDERATED IDENTITY MGMT

- National Strategy for Trusted Identities in Cyberspace
- Federation to Inter-Federation
- Managed Attribute Federations
- Integrate into Standards-Based Acquisition efforts



# STANDARDS COORDINATING COUNCIL



WE SET THE STANDARD®



The Organization for the Advancement of Structured Information Standards



IJIS Institute



*The Association for Enterprise Information  
People – Process –Technology*



NATIONAL STRATEGY FOR  
TRUSTED IDENTITIES  
IN CYBERSPACE

Enhancing Online Choice, Efficiency,  
Security, and Privacy



Open Geospatial Consortium, Inc.



American Council for Technology



Industry Advisory Council

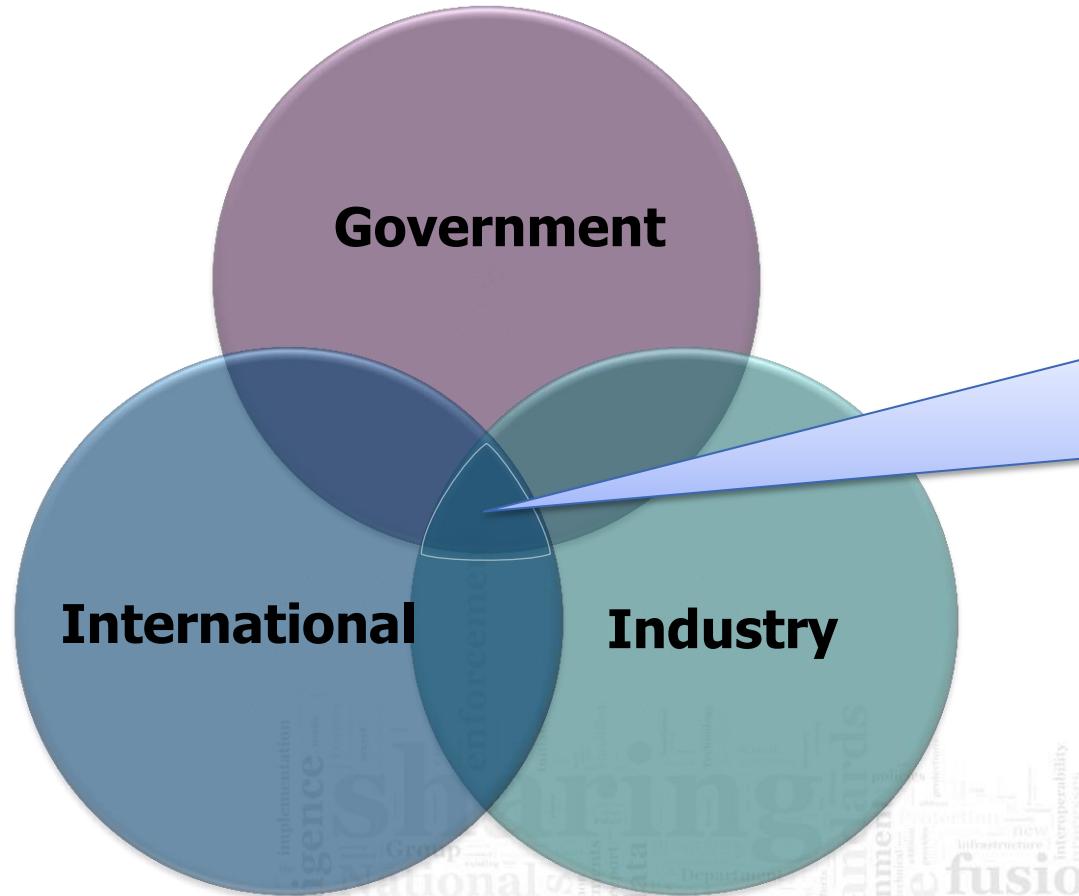


Bridging Information Systems

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# INTEROPERABILITY NEEDS COLLABORATION



## Collaboration Value

- Reduce standards fragmentation
- Accelerate industry adoption
- Lower risk and cost
- Increase mission agility

information

# NEXT STEPS

- Discuss and joint exploration of possibilities
  - Identify potential areas of collaboration and target outcomes
  - Gain stakeholder buy-in and engagement
  - Leverage mutual commitment to international voluntary consensus standards

# VISIT ISE.GOV

ISE.

An Official Website of the United States Government      Wednesday, April 02, 2014      Text A +A

 Information Sharing Environment      Get Email Updates | Contact Us

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**Project Interoperability** ↗

A community start-up guide to interoperability and info sharing. Help us edit and improve it on GitHub!

Project Interoperability      Help Improve this Content      View Revision History      Discuss

## PROJECT INTEROPERABILITY

Project Interoperability: A Start-Up Guide to Info Sharing

IMPORTANT: THIS IS A DRAFT AND STILL UNDER CONSTRUCTION.

1. Background

Project Interoperability is a start-up guide for information interoperability. The tools and resources

1   2

**What is ISE?**

The Information Sharing Environment (ISE) broadly refers to the people, projects, systems, and agencies that enable responsible information sharing for national security.

[Read More about ISE](#)

 **ISE on Twitter** ↗  
@shareandprotect

 **shareandprotect** ↗  
This is no April Fool's joke:  
We posted guides and  
resources for building info  
sharing on [@GitHub](#). Help  
improve it!  
[t.co/H69P3hnbWq](https://t.co/H69P3hnbWq) ↗  
14 hours 42 min ago. ↗

 **@shareandprotect**



[www.ise.gov](http://www.ise.gov)



RESPONSIBLE INFORMATION SHARING TO ENHANCE NATIONAL SECURITY