

National Information Exchange Model (NIEM)

*NIEM Biometrics Domain Working Group Brief-out to
ANSI/NIST Biometrics Workshop*

Wednesday, 2 March 2011

Thank you WG Participants



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Justin Stekervetz	DHS	4
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Key WG objectives



- **DONE:** Develop a joint concept-of-operations between the NIST/ITL ANS Process (as implemented for biometric standard) and the NIEM Domain Model Management Process
- **DONE:** Map the existing ANSI/NIST ITL Biometrics governance activities to NIEM domain governance framework
- **DONE:** Review of NIST/ITL ANS process
- **DONE:** Review NIEM concept-of-operations, tools and processes
- **DONE:** Develop cross-process mapping

WG work plan



Review of NIST/ITL ANS process



Review NIEM concept-of-operations, tools and processes



Develop cross-process mapping



Document findings
& joint concept-of-operations



Develop findings and summary out-brief

Key consensus points



The *establishment of a NIEM Biometrics Domain* that would be chartered under NIST or some other entity that could effectively facilitate commercial industry and government stakeholders in the stewardship of the domain

The *general management processes* that would be necessary within NIEM Domain Stewardship (e.g. the management of changes, errata updates, publication processes, etc.) by incorporating concepts from both the NIEM Domain Model Management process and the ANSI/NIST ITL ANS process

Key consensus points (cont.)



The *three business triggers* or types of events that could initiate some form of change request or update to the NIEM Biometrics Domain

- 1) When the A/N standard changes
- 2) When a bug is found (i.e. the content therefore does not accurately reflect the standard and hence would be changed)
- 3) External content; i.e. the possibility of supporting “external” change requests for the NIEM Biometrics Domain that originate from sources other than from the ANSI/NIST ITL Biometrics Workshops (e.g. change requests associated with EBTS)

Next steps



- Develop plans to Biometrics Domain development work – working via DHS NPPD/USVISIT leadership
- Maintain strong alignment and support for A/N

Backup slides

Objectives and Mission Comparison



NIST-ITL ANS

NIEM

Process Objective

Procedures develop evidence of consensus for the approval, reaffirmation, revision, or withdrawal of American National Standards through the use of a canvass process

Organization or body that works with NIEM governance to manage data component definitions for some COI or agency; is independent of NIEM and has its own rules, procedures, schedules, and priorities

Organization Mission

“Standards and guidelines for information exchange relating to automatic data processing and related systems.”

An inter-agency initiative providing a foundation for seamless information exchange. NIEM is more than a data model, it is a community and has a technical and support framework.

Process Comparison



NIST-ITL ANS Process

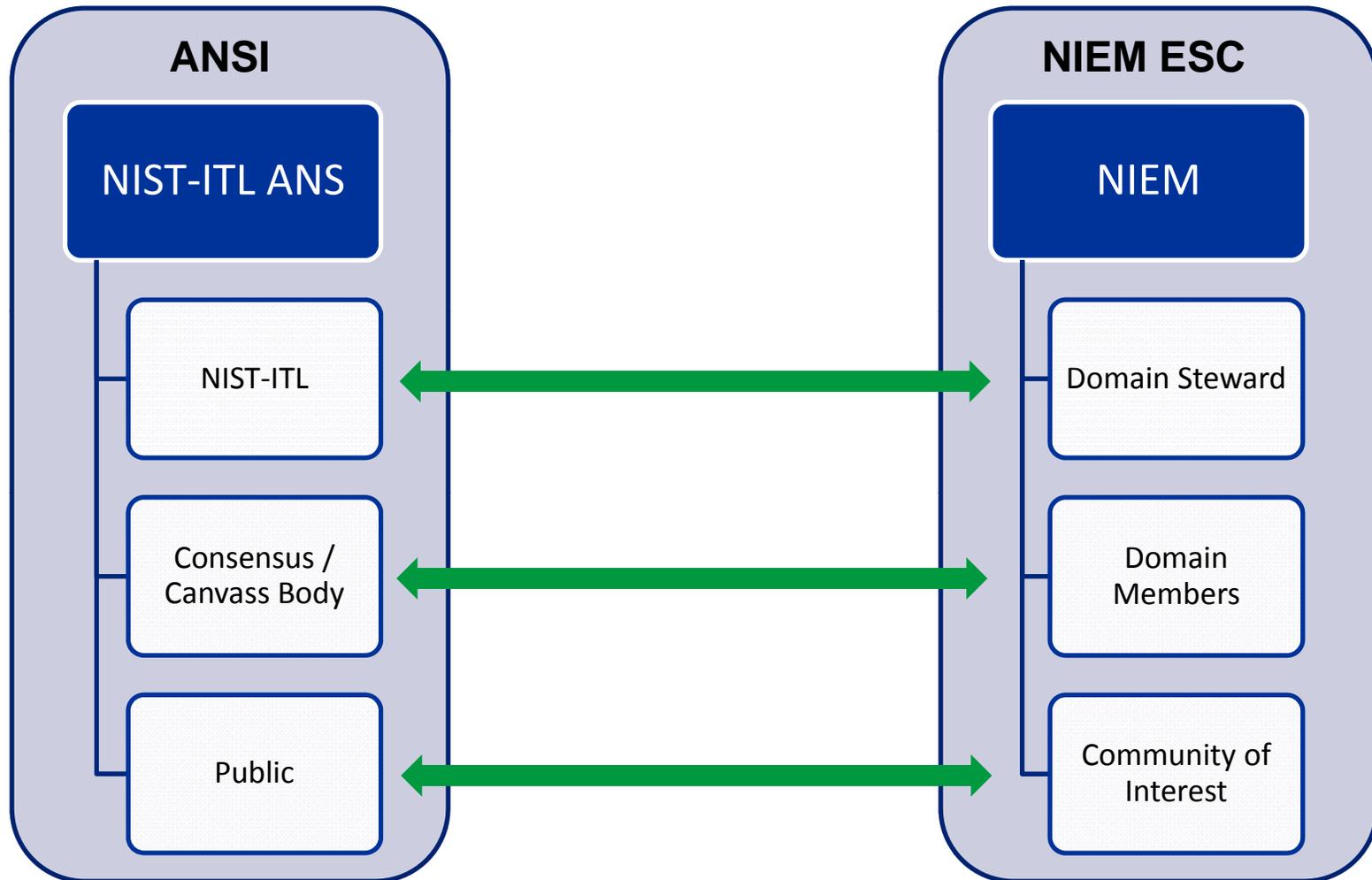
- Submit PINS Form (Standards Action Public Review Request)
- List PINS Announcement w/ 30-day Public Comment Period
- Consensus Body Developed
- Workshop(s) Held to Determine Requirements
- Respond to PINS Comments; Canvass List Developed
- Develop and Issue ANS for Ballot
- Submit to ANSI for 45-day Public Review
- Submit Draft ANS to ANSI BSR for Approval
- Publish Approved ANS

NIEM Domain Management Process

- Establish Domain*
- Define Domain Leadership*
- Sign a Domain Stewardship Agreement (DSA)*
 - NBAC Approval of DSA*
- Define Domain Content
- Map Domain Content to NIEM
- Run Quality Checks
- Generate Domain Artifacts
- Request NIEM Inclusion*
 - ESC Approval of New Domain*
- Publish Domain
- Name NBAC Representatives*
- Maintain Domain

** Refers to tasks related to initial domain stand-up activities*

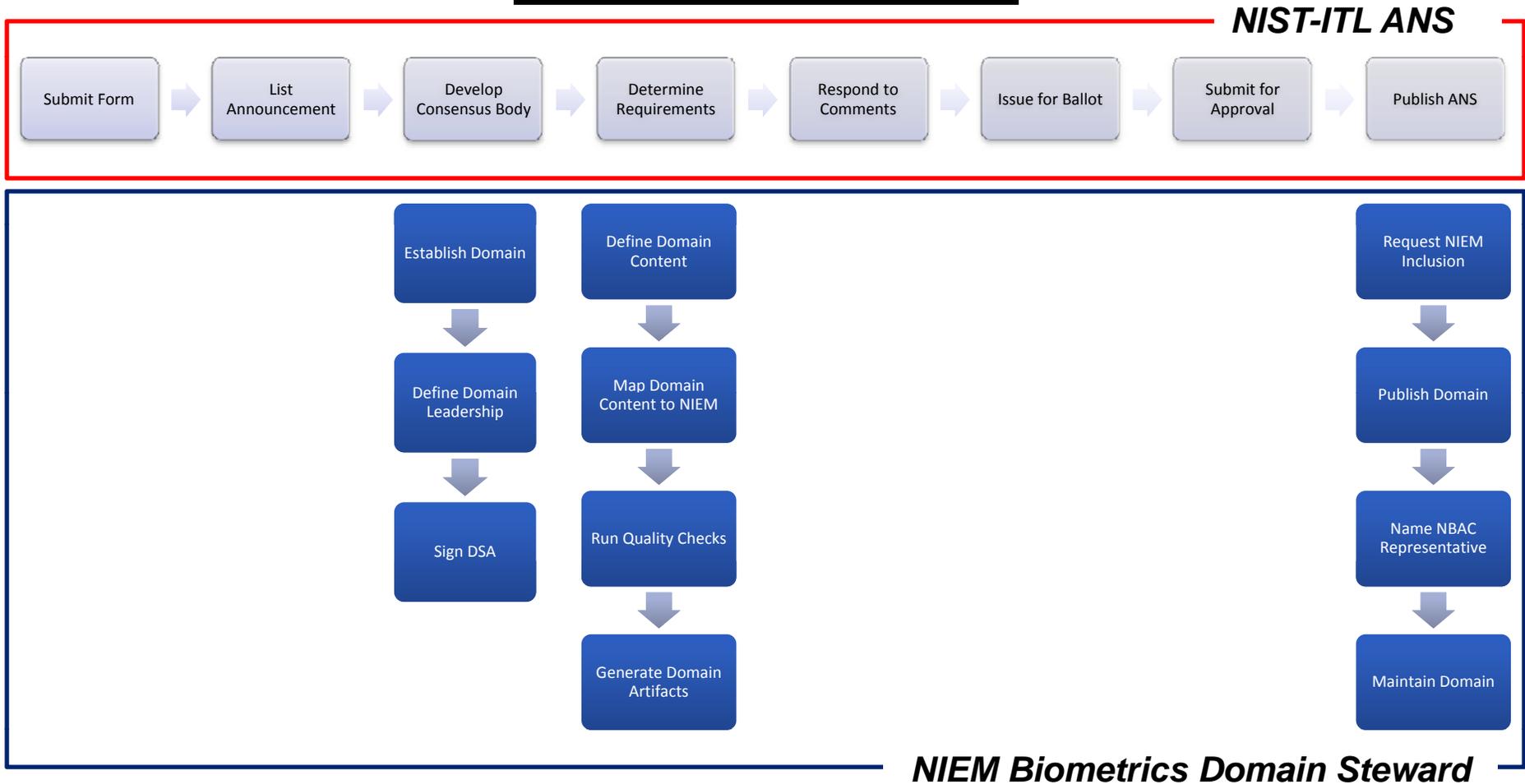
Role Comparison



Process Integration



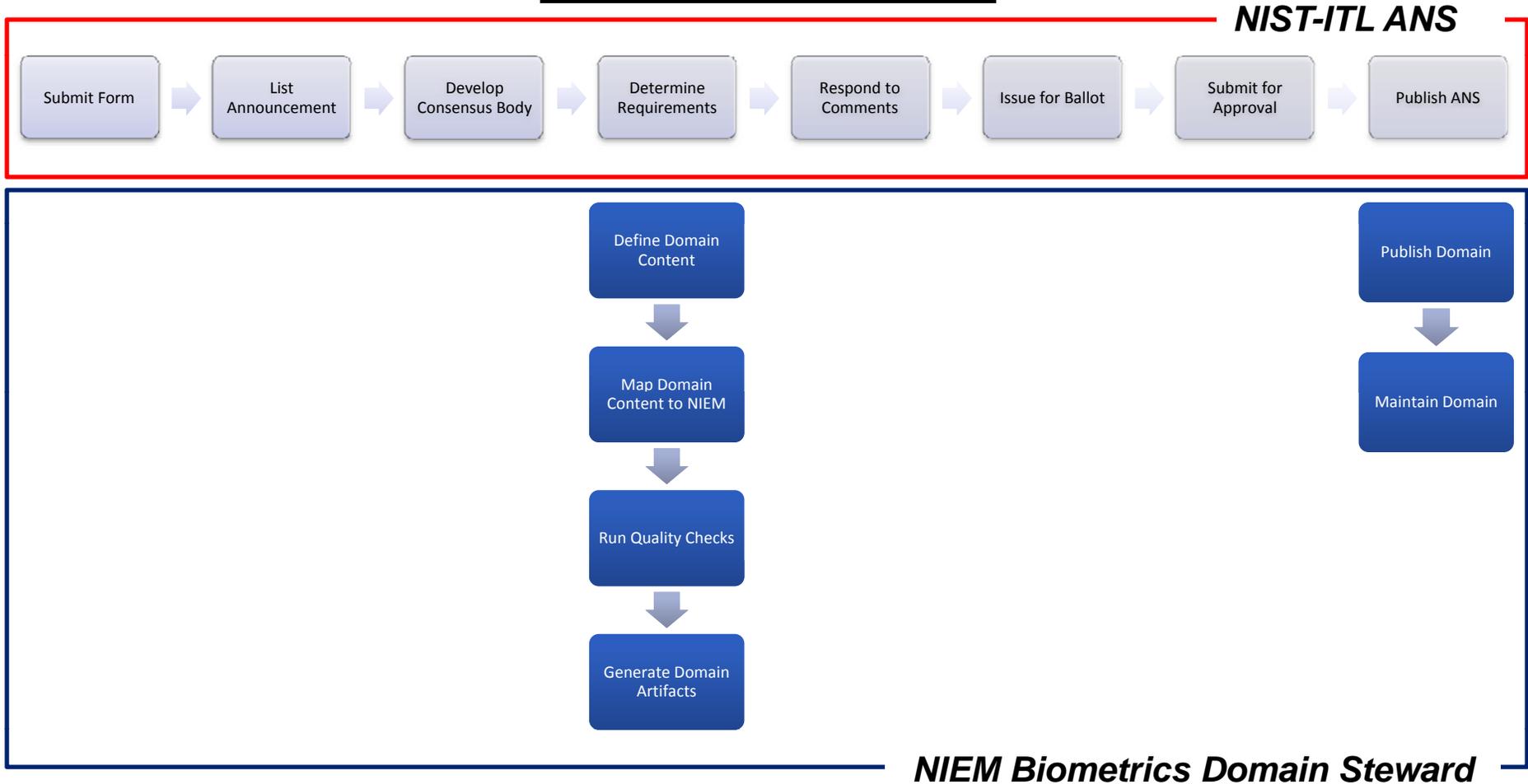
Domain Stand-up



Process Integration



Domain Update

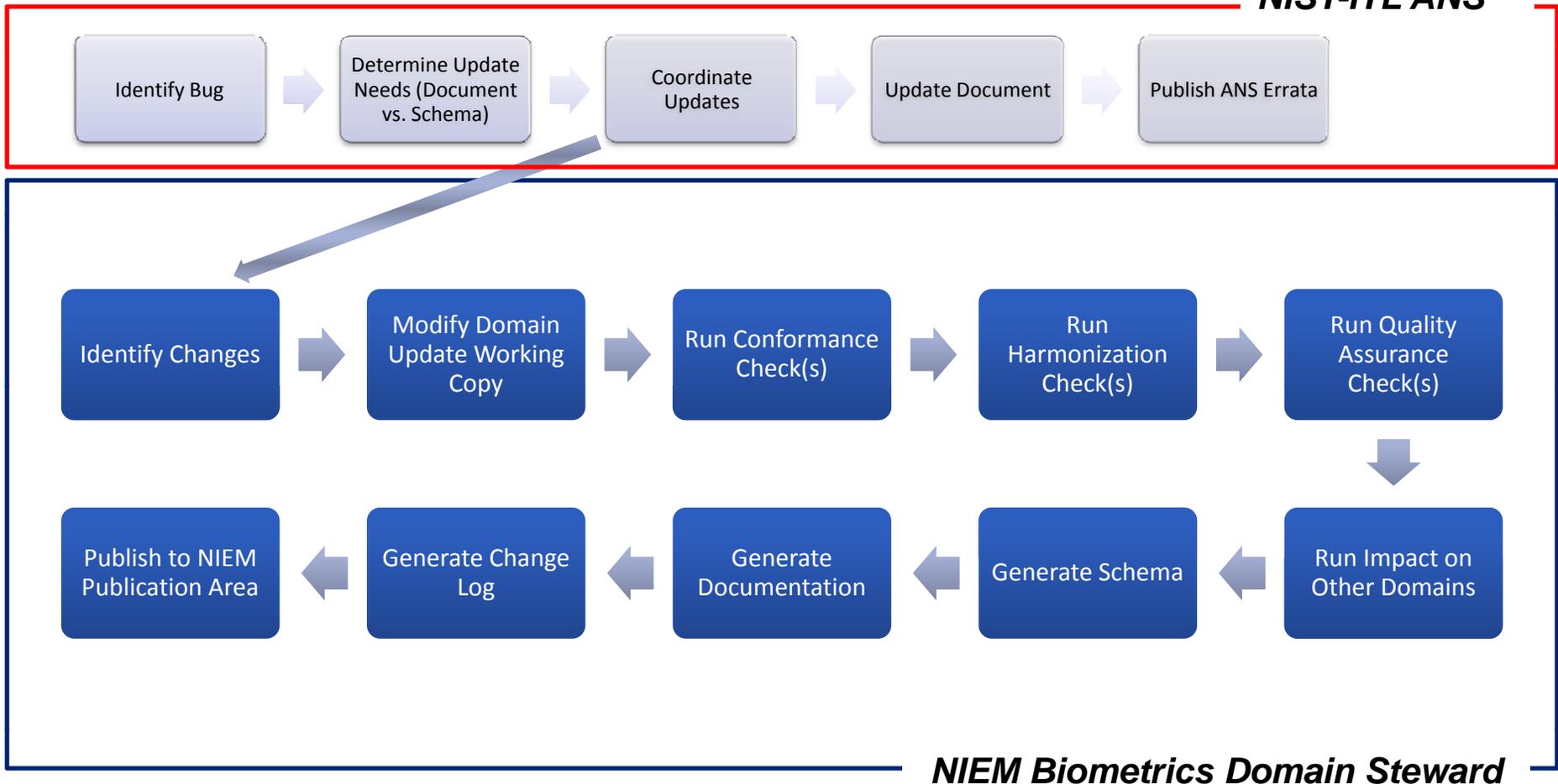


Process Integration



Domain Update: Bug Fix

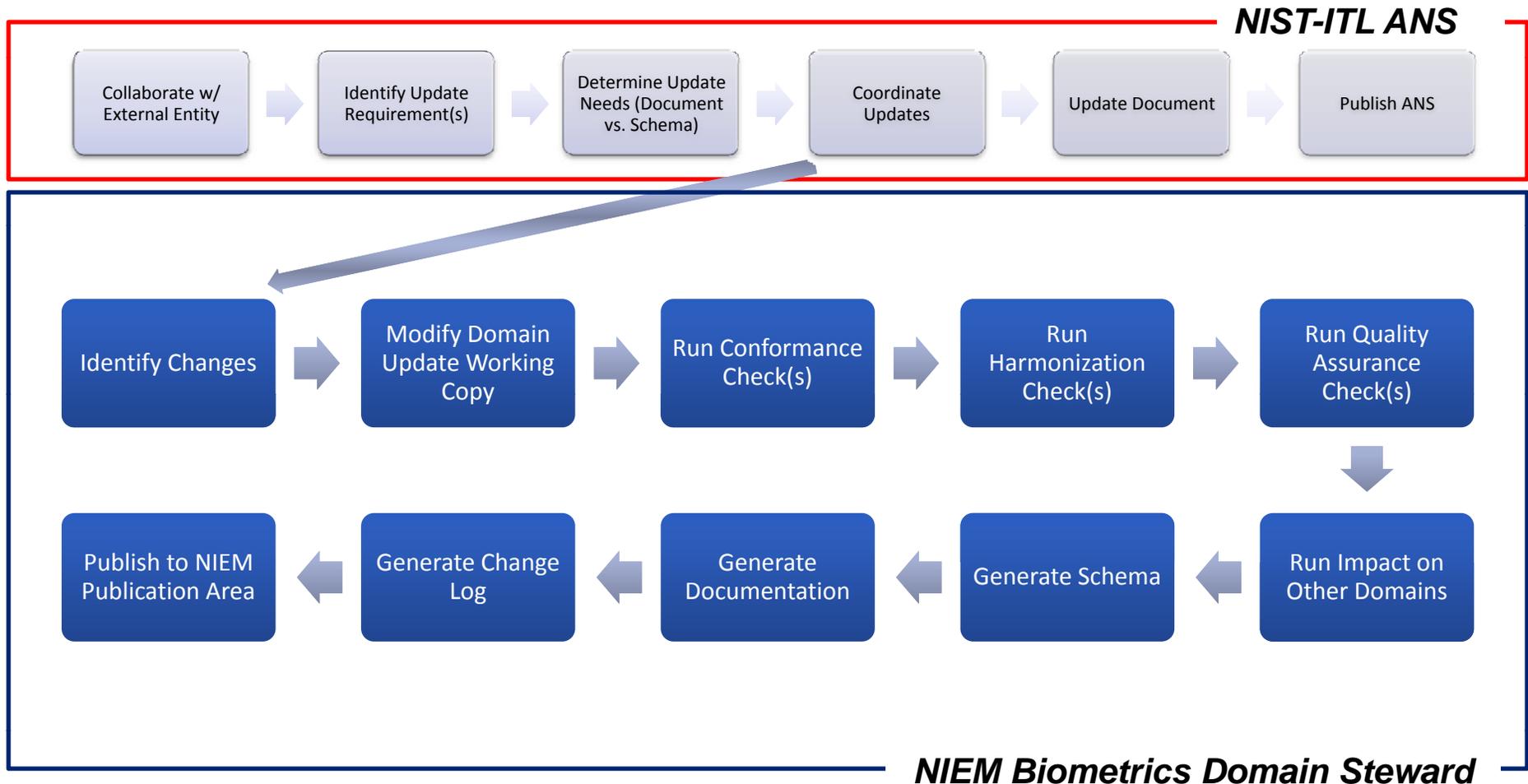
NIST-ITL ANS



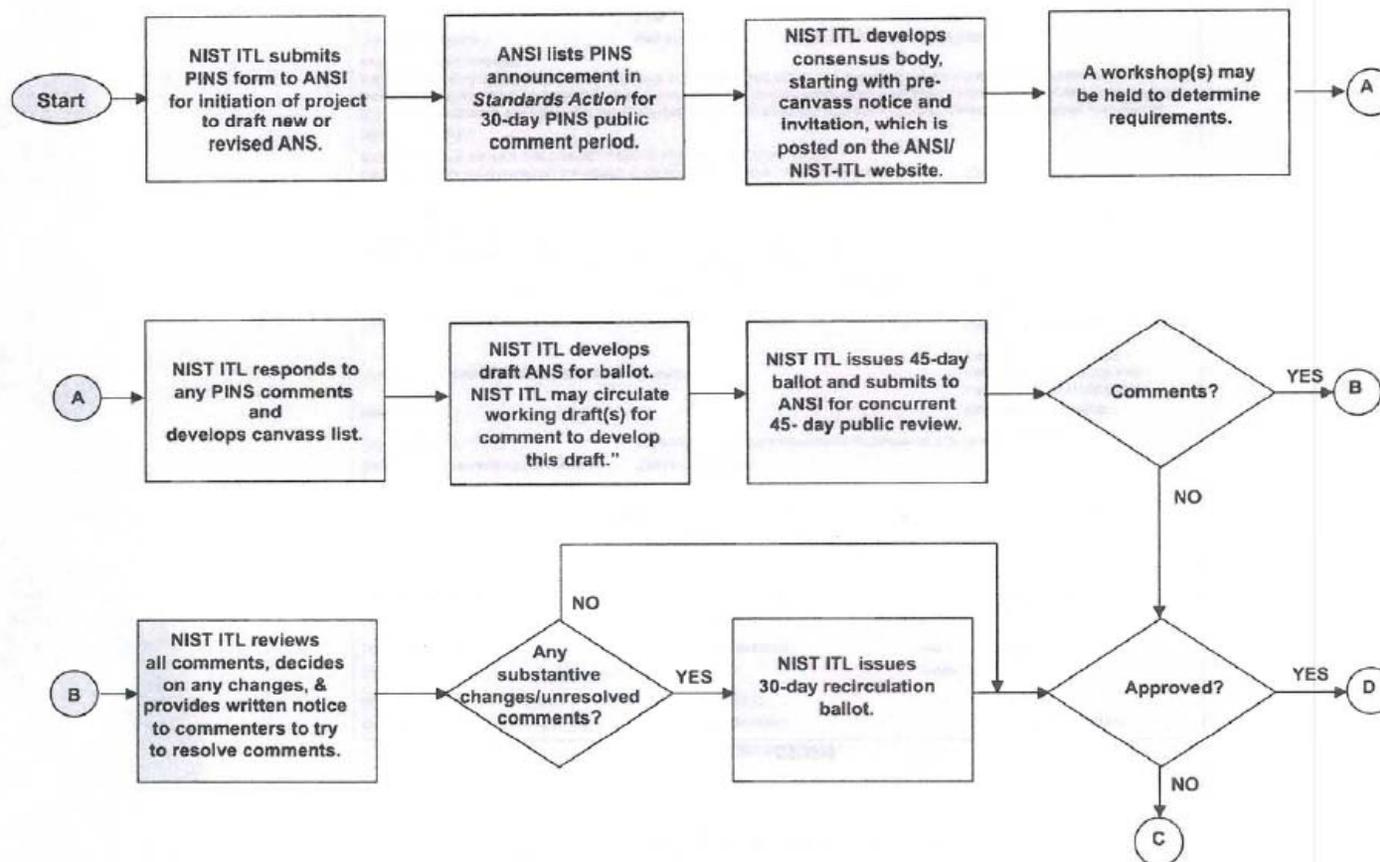
Process Integration



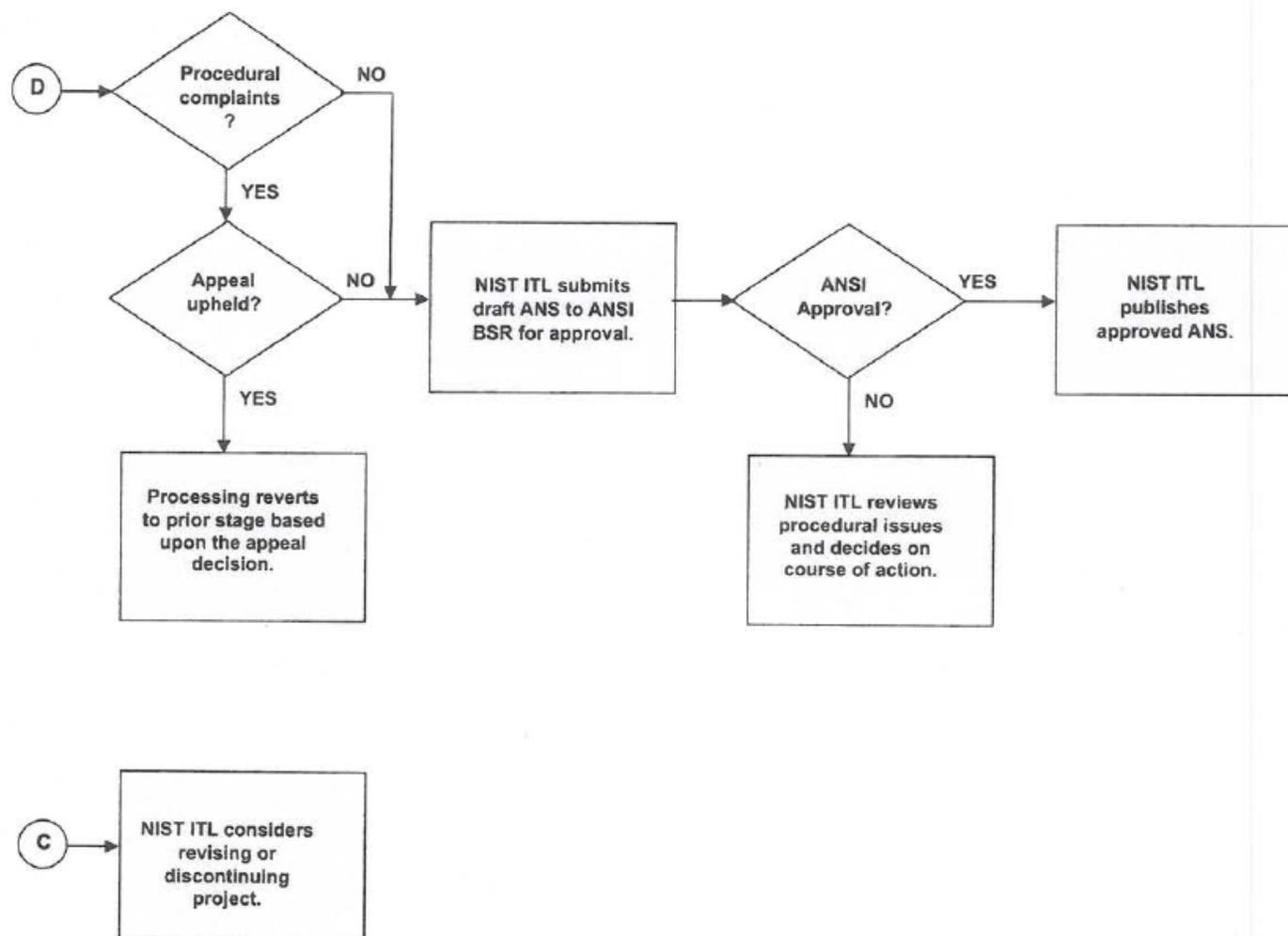
Domain Update: External Alignment



ANSI/NIST informational slides



This Flow Chart is to be used as a reference guide only.
 The authoritative procedures shall be the NIST/ITL ANS Development Process posted on its website.



NIEM informational slides

NIEM Domain Governance



Domain refers to a business enterprise broadly reflecting the agencies, units of government, operational functions, services, and information systems that are organized or affiliated to meet common objectives.

NIEM domains are mission-based and organized to facilitate governance, and each has some measure of compliance

Domain stewards are community members responsible for actively managing and updating their community's data model

Each domain traditionally includes a cohesive group of domain stewards who are part of a Community of Interest

Domain Independence

- Specifications and processes that decouple a domain from other domains and from Core
- Allows:
 - Domains to publish updated content (domain updates) on their own timeline
 - IEPD developers to use that new content immediately, without waiting for the next major or minor release

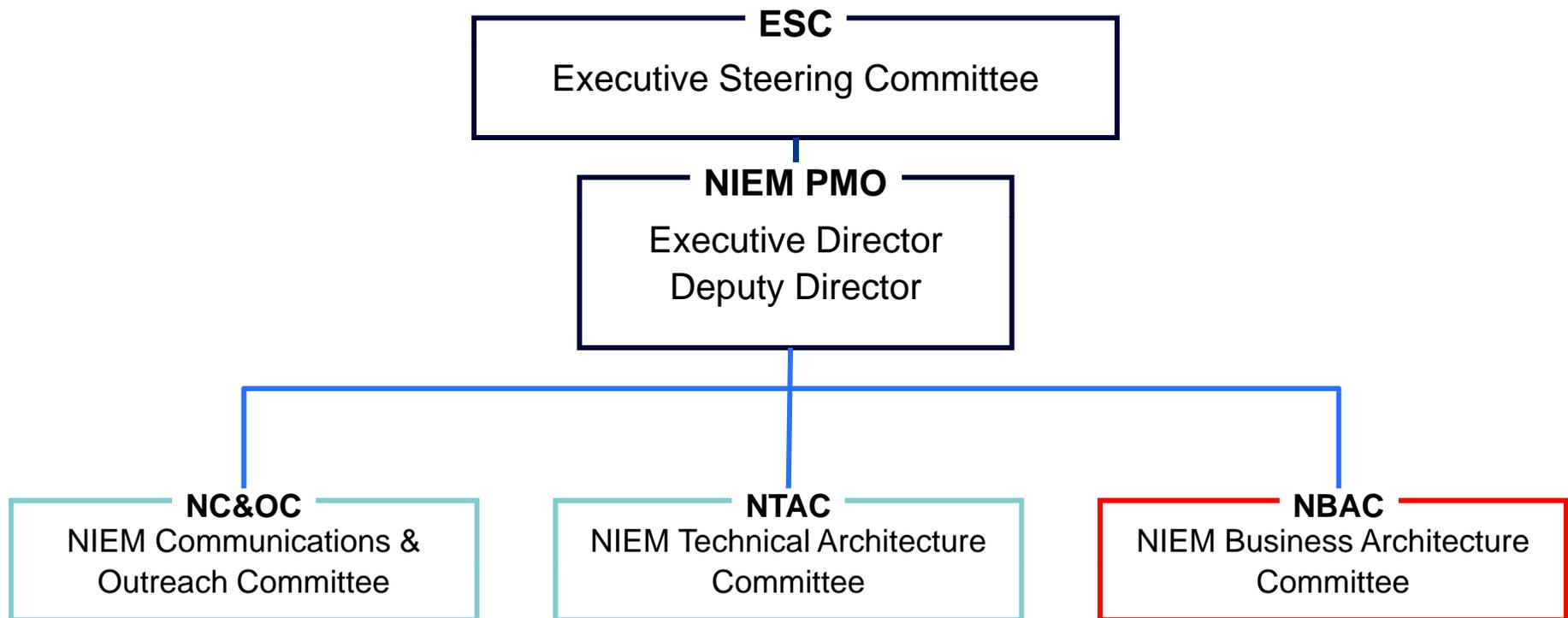
Domain Self-Service

- Development tools and collaboration areas that support domains in building and publishing their own content on their own timeline
- Allows:
 - Domains to use tools that assist in content development and management
 - NIEM to scale up more easily as the number of domains and the size of the model increase;

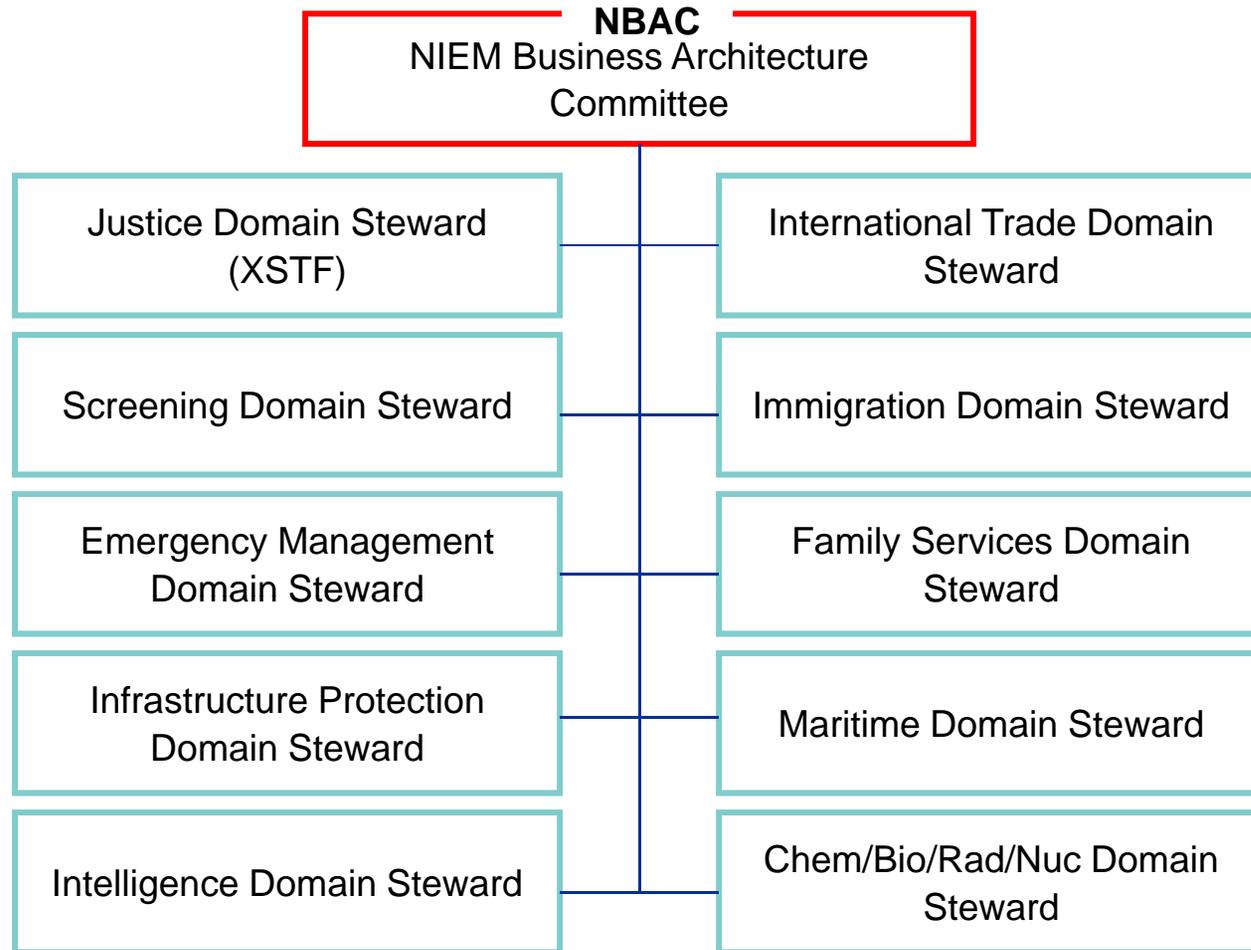
NIEM Governing Structure



- NIEM's governing structure is comprised of Federal, State, Local, Tribal and private organizations
- NIEM is jointly managed at an executive level by the Department of Homeland Security (DHS) and the Department of Justice (DOJ)



NBAC Structure



Communities of Interest



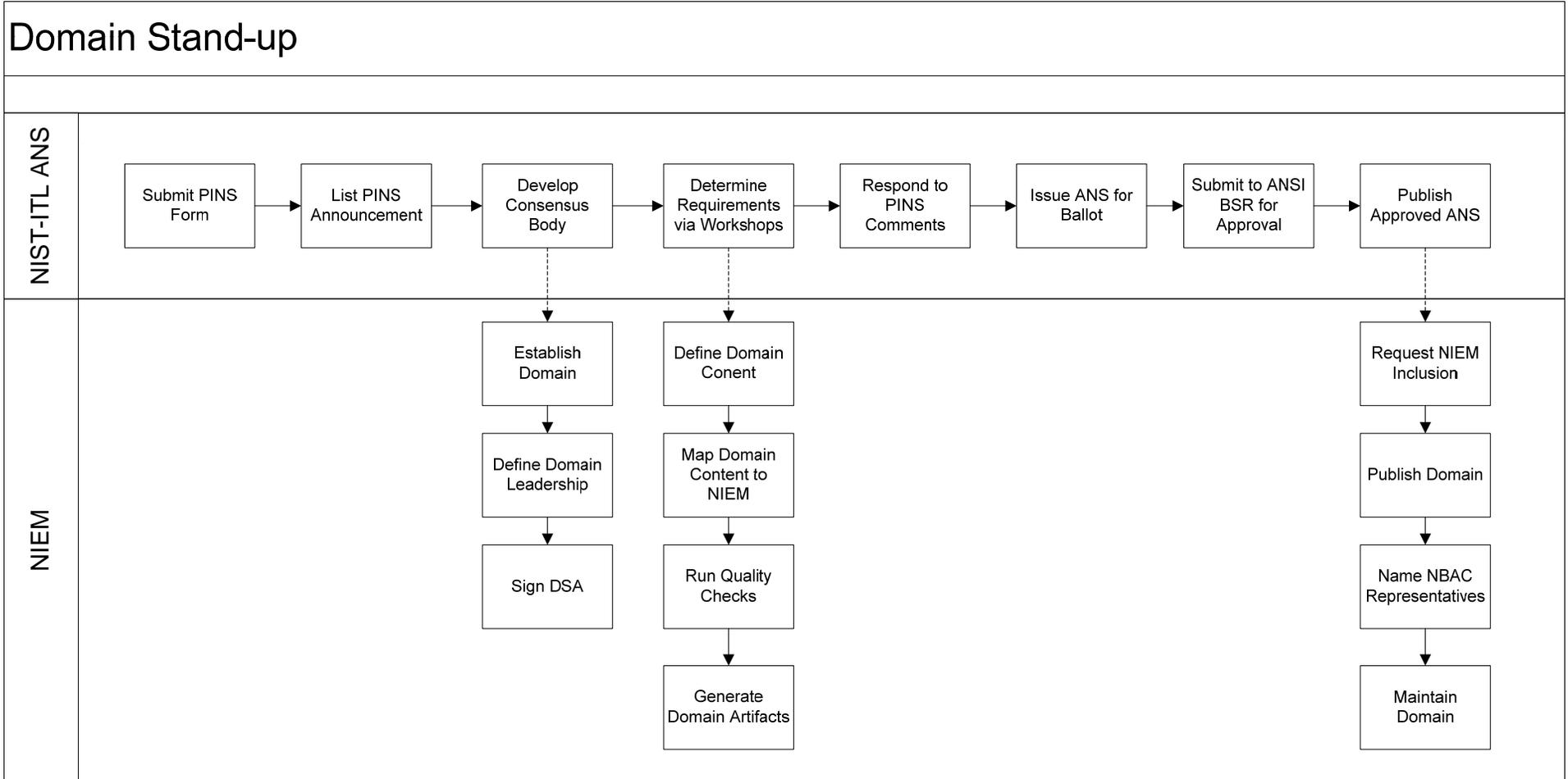
Communities of interest (COIs) are collaborative groups of users who exchange information in pursuit of shared goals, interests, missions, or business processes and who, therefore, must have a shared vocabulary for the information they exchange.



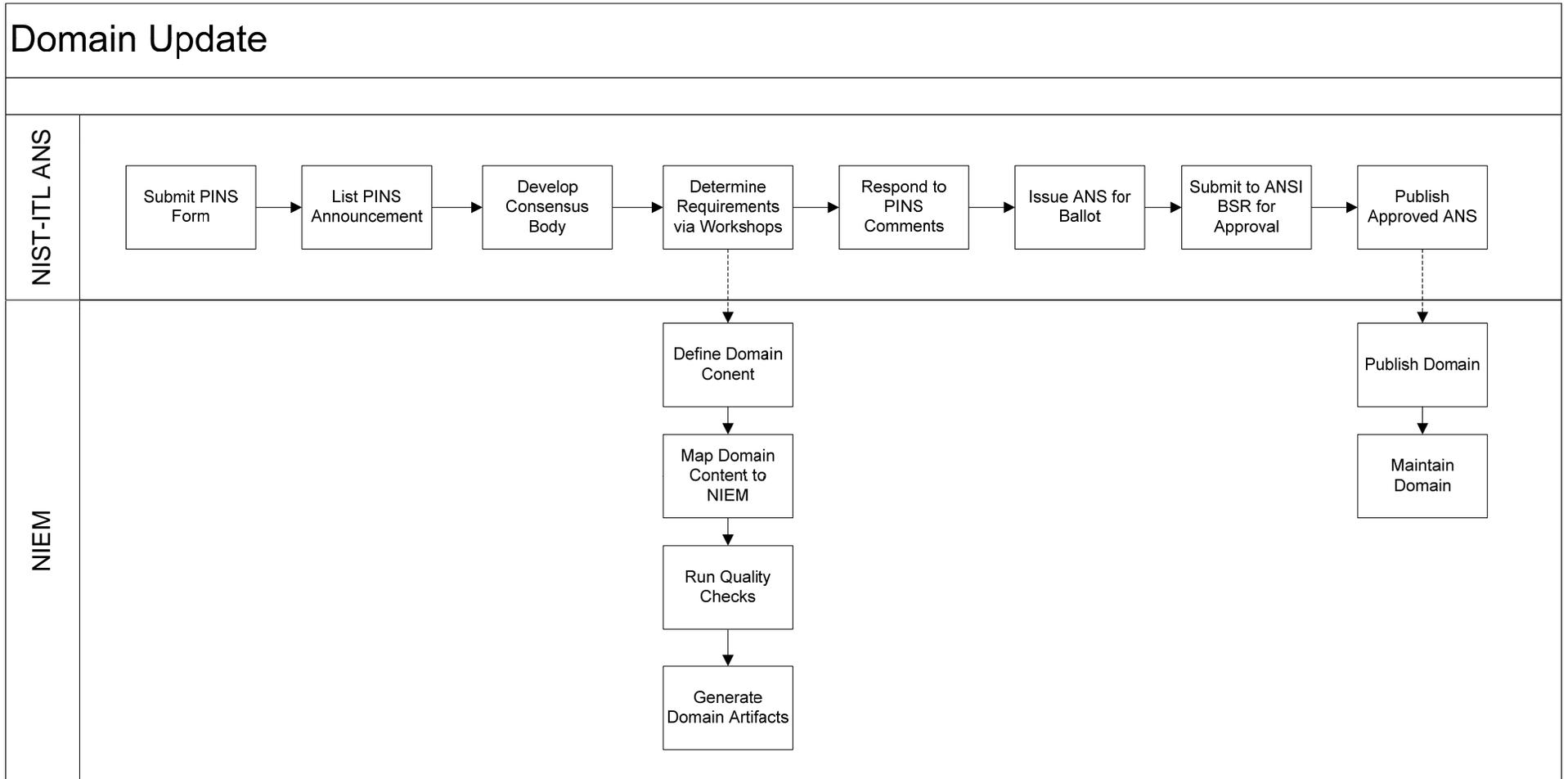
Coordination is an important aspect of NIEM

- COIs reuse data components and artifacts found in NIEM to document their information exchanges
- One or more COIs can coordinate to develop new domain content needed for documenting information exchanges

NIST-ITL ANS and NIEM Process Integration



NIST-ITL ANS and NIEM Process Integration



Version Architecture

