

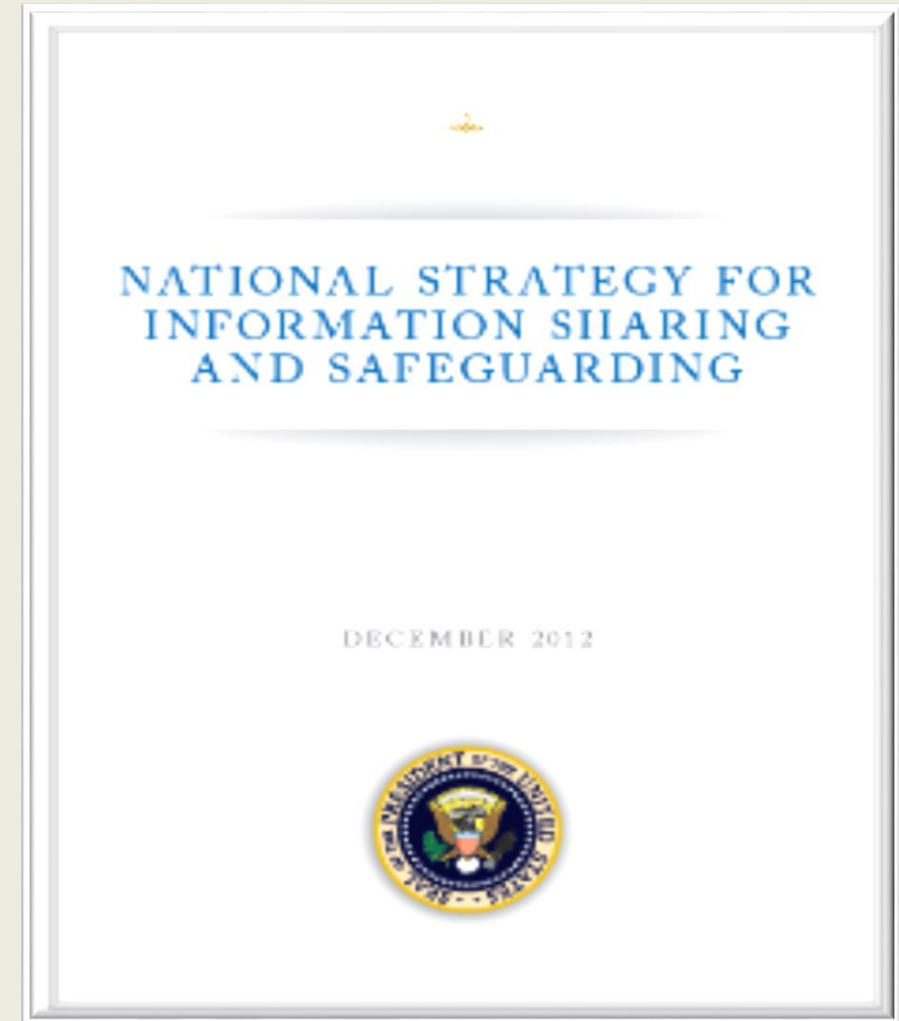
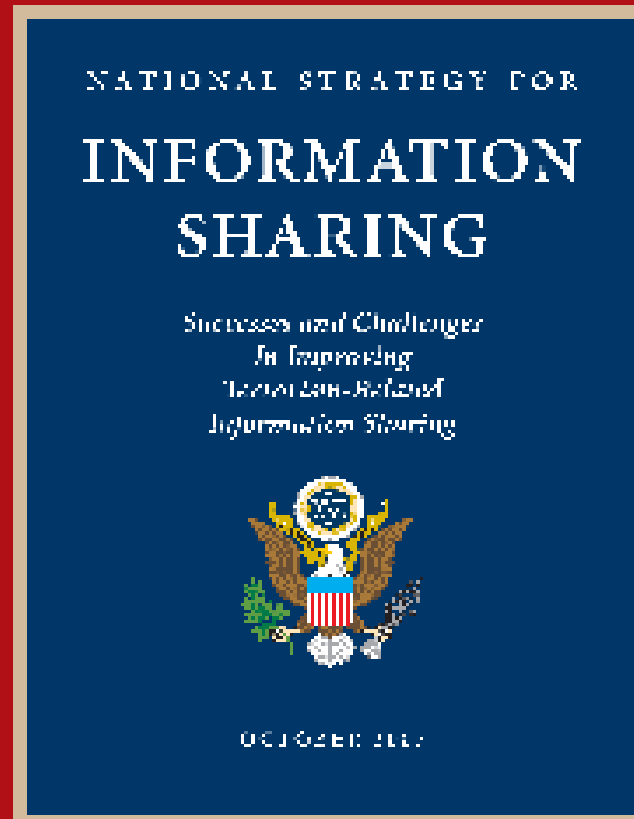
SEMIC

12/05/2016

# Enabling Information Interoperability

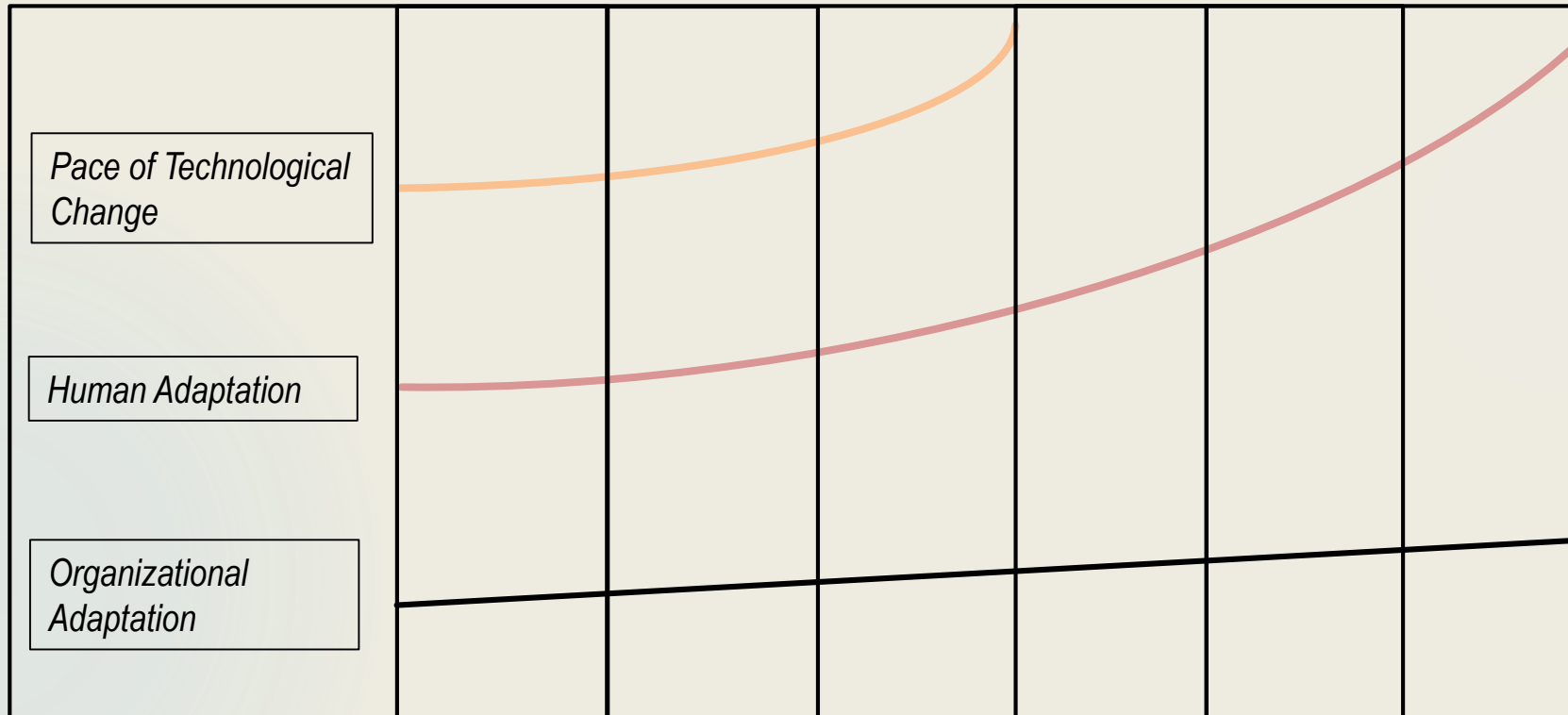
STEVEN AMBROSINI  
EXECUTIVE DIRECTOR  
IJIS INSTITUTE

# INFORMATION SHARING AND SAFEGUARDING VISION



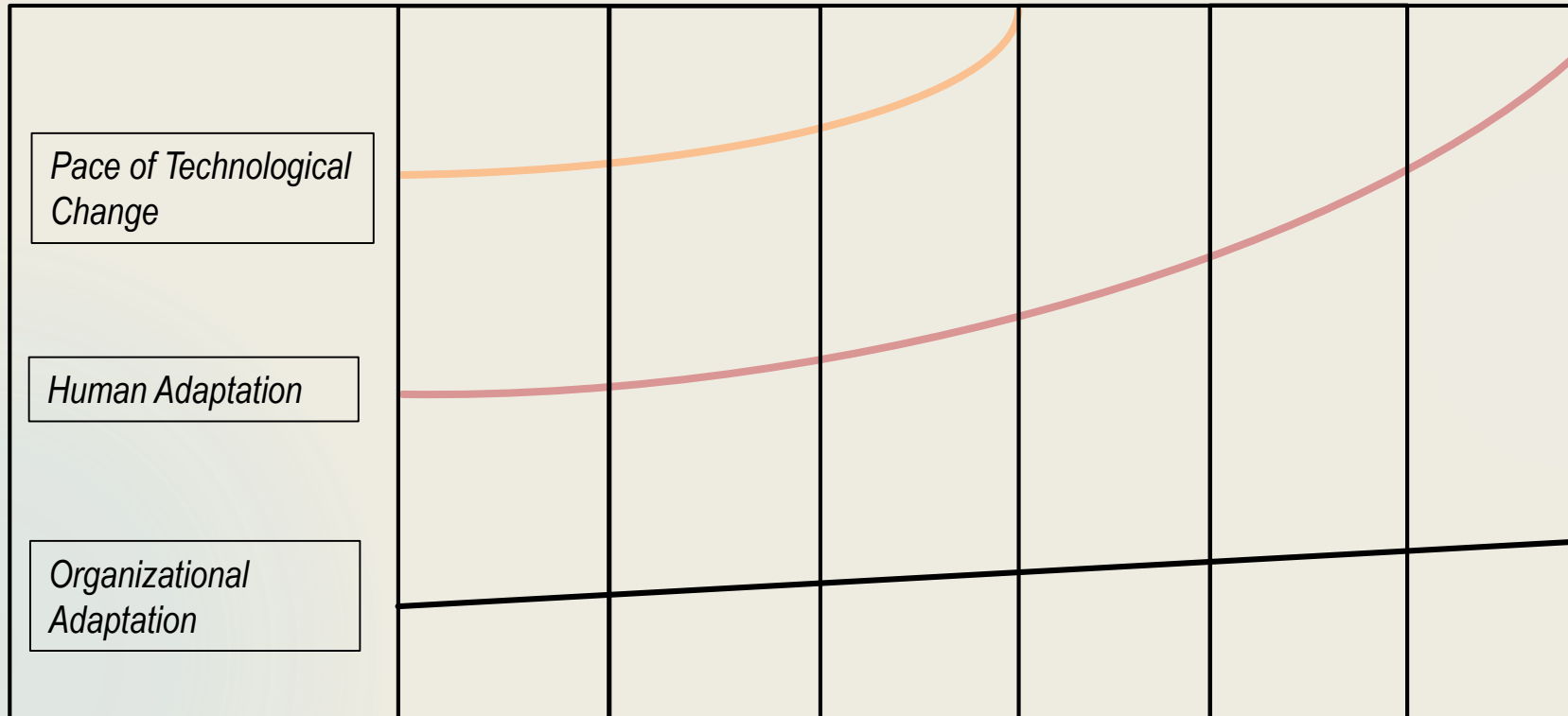
# Technology Innovation – The Challenge

## Adaptability to Technological Change



# Technology Innovation – The Challenge

## Adaptability to Technological Change



Data Use  
Policy

InfoSec/  
Safeguarding

Digital  
Integrity

# Standards Coordinating Council



Standards Coordinating Council

HOME ABOUT TERMINOLOGY SCC INITIATIVES PROJECT INTEROPERABILITY STANDARDS NEWS EVENTS CONTACT

Help me find out about...

- Information Sharing Standards
- The Standards Coordinating Council
- SCC's Information Sharing and Interoperability Initiatives
- Project Interoperability
- What is Happening in Information Sharing
- Interoperability Tools
- ISE Information Interoperability Framework (IF)
- Contacting the SCC

Welcome to the Standards Coordinating Council website!

Information sharing and safeguarding is enabling organizations to do amazing and effective work in a variety of disciplines, including criminal justice, public safety, homeland security, public health, and transportation, just to name a few. These information sharing and safeguarding projects are supported by standards – these standards ensure that all the parties working towards information sharing are doing so in the same way, using the same terminology, and working towards the same goals.

Information sharing standards are numerous. They are generated by multiple different types of organizations for a variety of audiences. These broad and far-reaching efforts require oversight and coordination, which is the purpose of the Standards Coordinating Council.

The Standards Coordinating Council (SCC) is an advisory working group to the White House interagency policy council. The SCC provides advice and counsel on matters related to information sharing and safeguarding standards and other related issues in responsible information sharing. This site has been created to educate readers about the SCC and also provide resources about information sharing standards, guidance on common terminology, and information about current and planned information sharing and safeguarding initiatives.

[www.standardscoordination.org](http://www.standardscoordination.org)

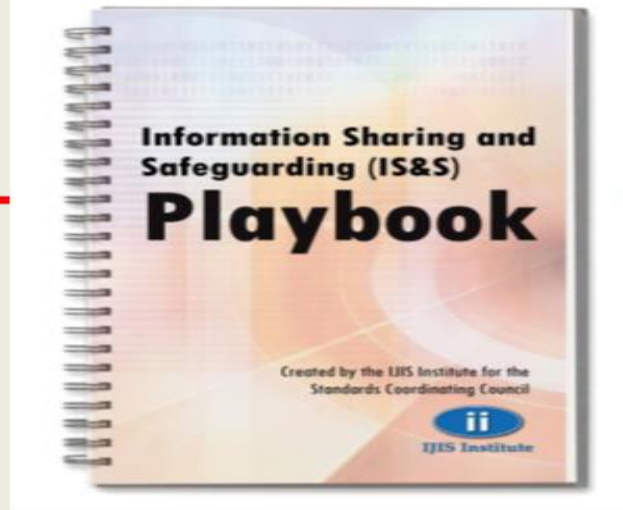


IJIS Institute





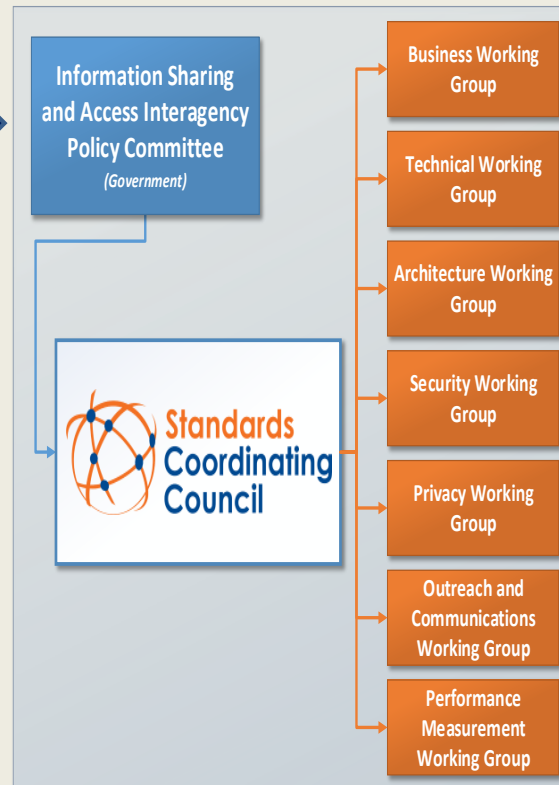
Mission



Enablement

SCC

- Mission Centric – IS&S Strategic
- Policy Automation
  - Info Security/Safeguarding
  - Services Adaptability
  - Standards-based Acquisition
  - Viability and Sustainability



Project Interoperability

- Enablement Centric – ICIF
- Reference Implementation
  - Standards Normalization – Project Prototyping
  - Common Profile
  - Taxonomies
  - Crosscutting Capabilities
  - IS&S Products (Ops/Tech)

# Standards Coordinating Council (SCC)

The Standards Coordinating Council (SCC) as a public / private partnership shall advise, and support the Program Manager of Information Sharing Environment (PM-ISE) by addressing needs for information sharing standards, enablers and issues related to information sharing.

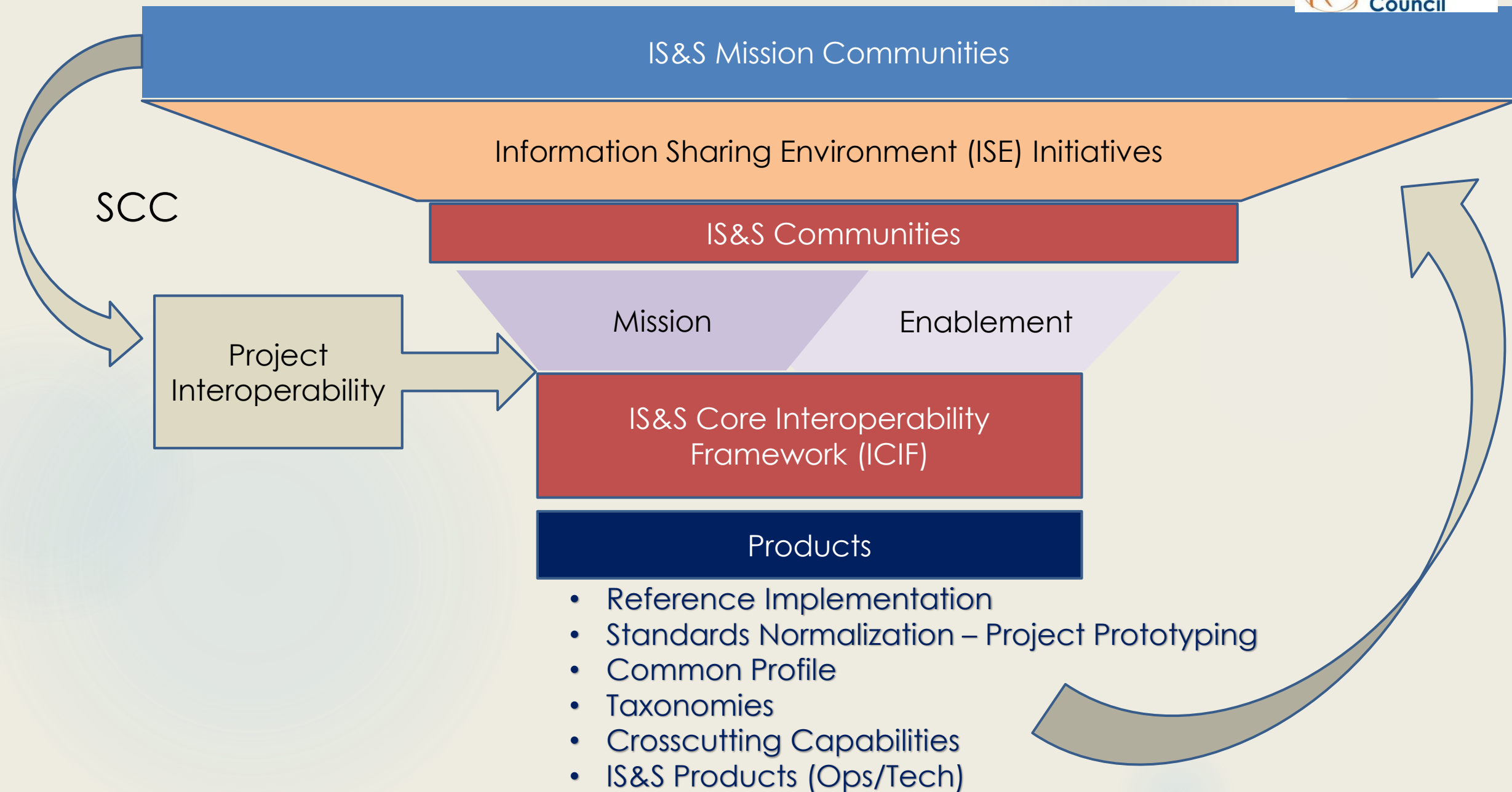
- ▶ Advocacy
- ▶ Engagement
- ▶ Community Building

# Project Interoperability

Operationalization and acceleration of the IS&S strategy through guidance, access and use of information sharing tools and resources built upon existing, well known enterprise architecture frameworks, and the principles of service-oriented architecture (such as reuse and intrinsic interoperability), to include widely used standards, tools, and methodologies.

- ▶ IS&S Core Interoperability Framework (ICIF)
- ▶ Start-up guidance - Playbook
- ▶ Resource index for capabilities, guidelines and standards for information interoperability;
- ▶ Engagement via IS&S Initiatives

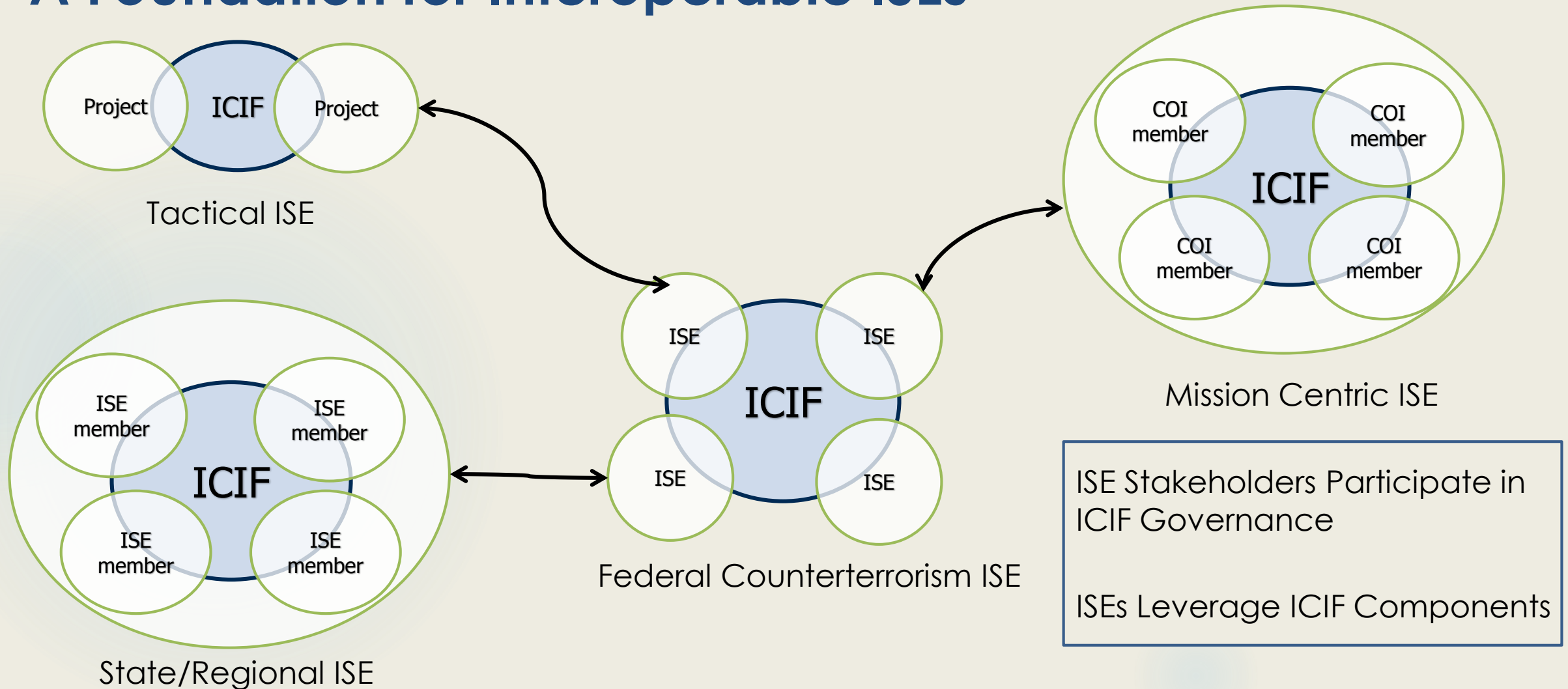




# IS&S Core Interoperability Framework (ICIF)

## Vision:

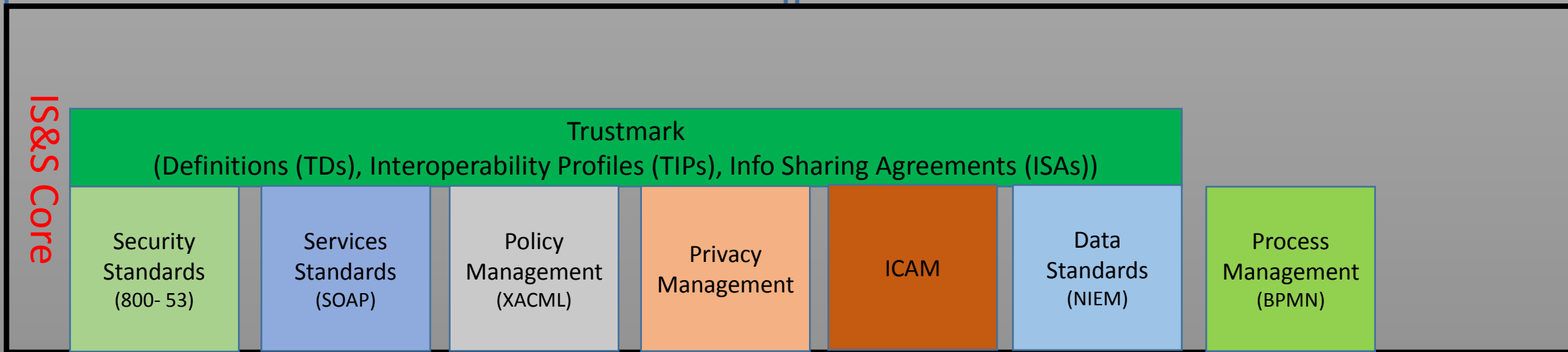
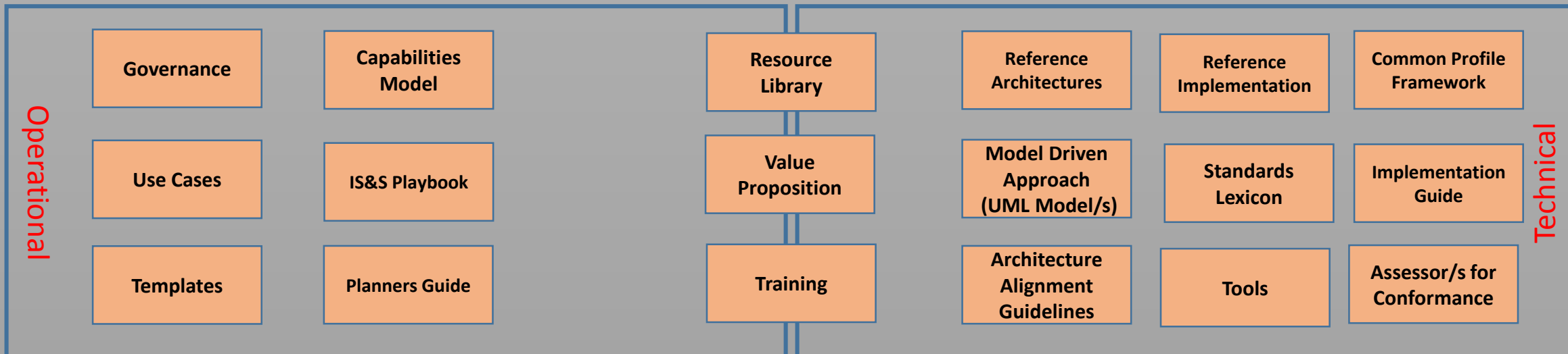
## A Foundation for Interoperable ISEs



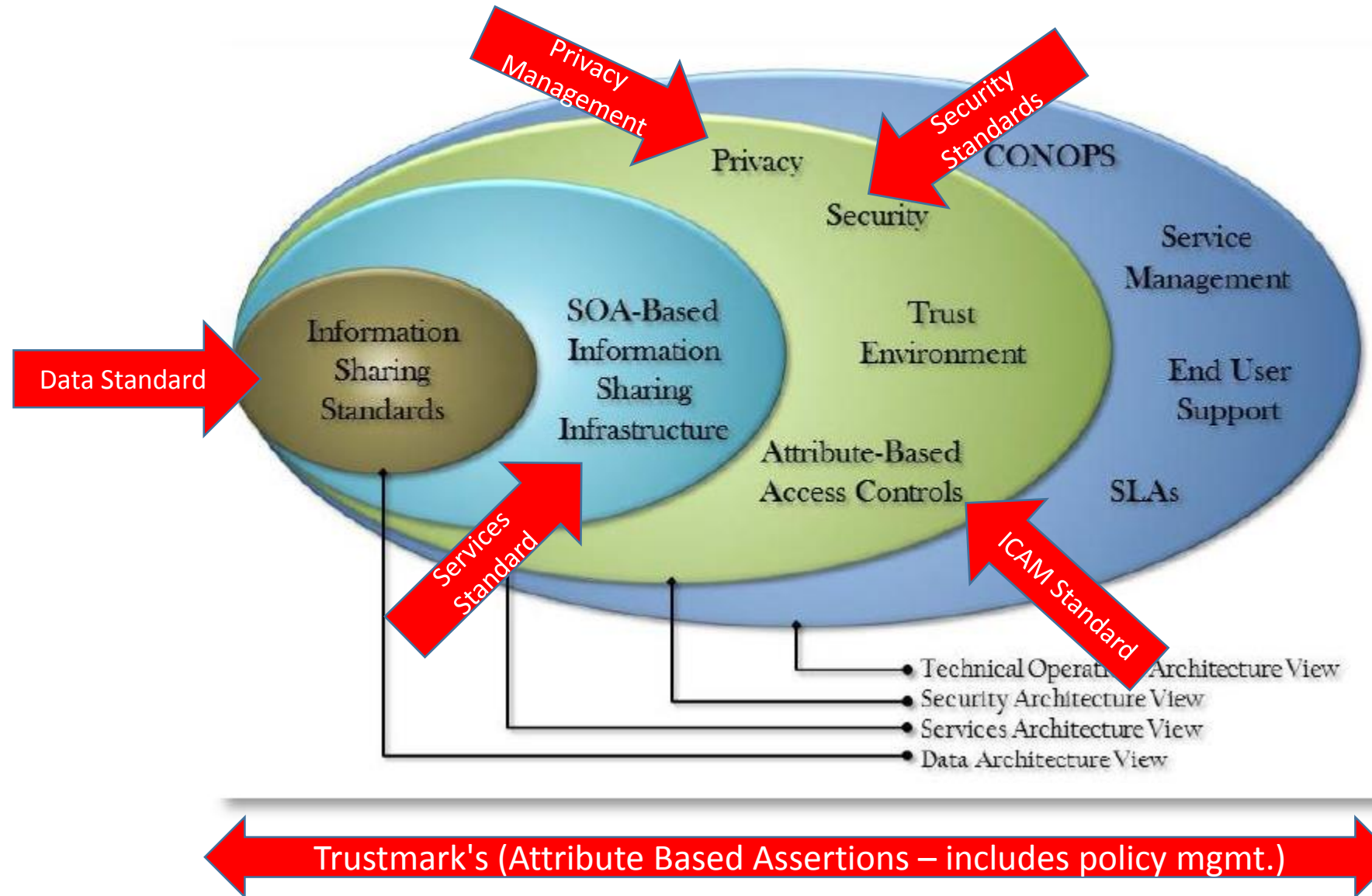
# Information Sharing & Safeguarding Environment



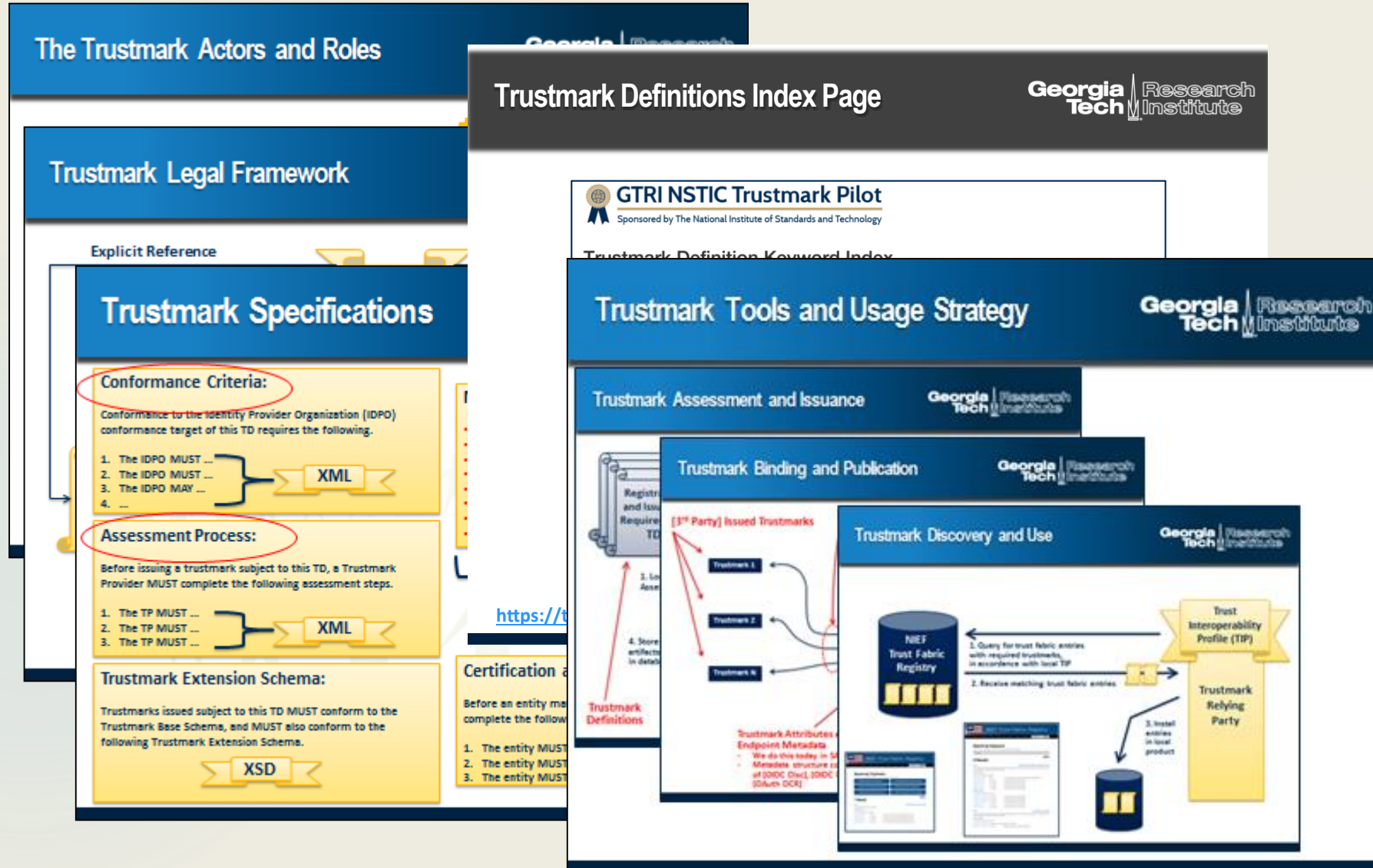
## Project Interoperability



# MISE Architectural View and ICIF Mapping

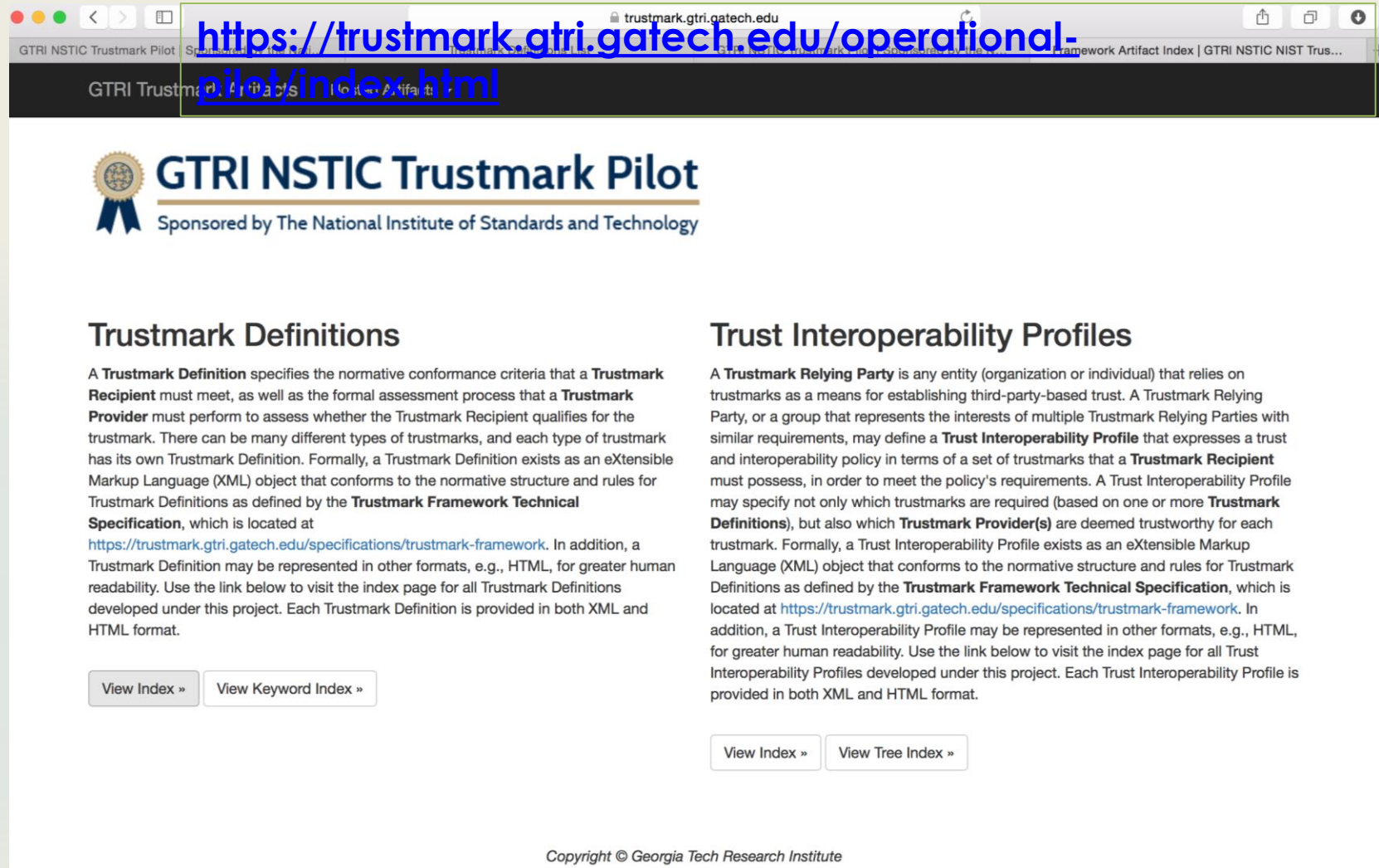


# Trustmark Framework





# Index for TDs and TIPS



<https://trustmark.gtri.gatech.edu/operational-pilot/index.html>

GTRI NSTIC Trustmark Pilot  
Sponsored by The National Institute of Standards and Technology

## Trustmark Definitions

A **Trustmark Definition** specifies the normative conformance criteria that a **Trustmark Recipient** must meet, as well as the formal assessment process that a **Trustmark Provider** must perform to assess whether the Trustmark Recipient qualifies for the trustmark. There can be many different types of trustmarks, and each type of trustmark has its own Trustmark Definition. Formally, a Trustmark Definition exists as an eXtensible Markup Language (XML) object that conforms to the normative structure and rules for Trustmark Definitions as defined by the **Trustmark Framework Technical Specification**, which is located at <https://trustmark.gtri.gatech.edu/specifications/trustmark-framework>. In addition, a Trustmark Definition may be represented in other formats, e.g., HTML, for greater human readability. Use the link below to visit the index page for all Trustmark Definitions developed under this project. Each Trustmark Definition is provided in both XML and HTML format.

[View Index »](#) [View Keyword Index »](#)

## Trust Interoperability Profiles

A **Trustmark Relying Party** is any entity (organization or individual) that relies on trustmarks as a means for establishing third-party-based trust. A Trustmark Relying Party, or a group that represents the interests of multiple Trustmark Relying Parties with similar requirements, may define a **Trust Interoperability Profile** that expresses a trust and interoperability policy in terms of a set of trustmarks that a **Trustmark Recipient** must possess, in order to meet the policy's requirements. A Trust Interoperability Profile may specify not only which trustmarks are required (based on one or more **Trustmark Definitions**), but also which **Trustmark Provider(s)** are deemed trustworthy for each trustmark. Formally, a Trust Interoperability Profile exists as an eXtensible Markup Language (XML) object that conforms to the normative structure and rules for Trustmark Definitions as defined by the **Trustmark Framework Technical Specification**, which is located at <https://trustmark.gtri.gatech.edu/specifications/trustmark-framework>. In addition, a Trust Interoperability Profile may be represented in other formats, e.g., HTML, for greater human readability. Use the link below to visit the index page for all Trust Interoperability Profiles developed under this project. Each Trust Interoperability Profile is provided in both XML and HTML format.

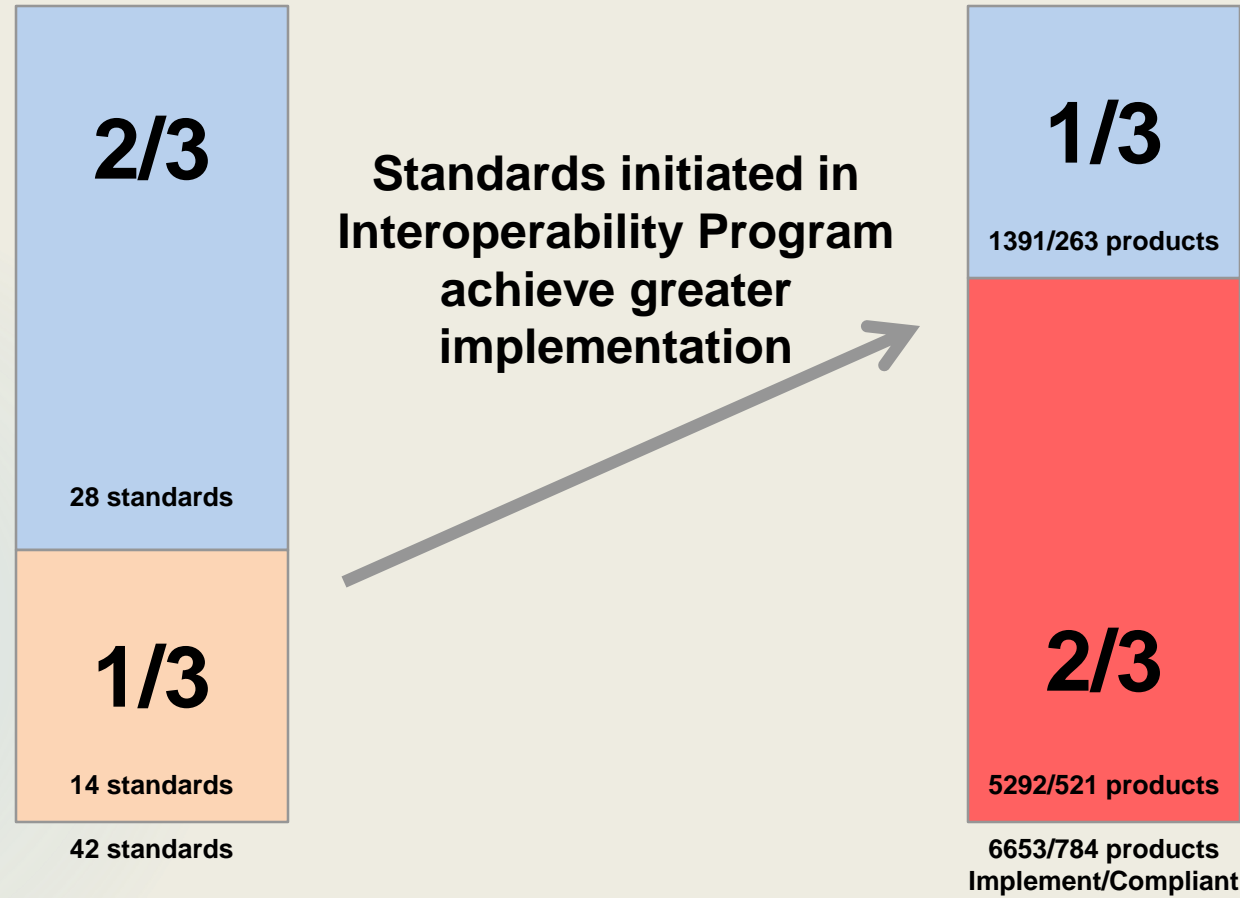
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# Effectiveness of Prototyping on Standards

## OGC Standards

## Implementations of OGC



Source: "Innovation in OGC: The Interoperability Program," Percivall G., T. Idol, N. Alameh, J. Harrison; ISPRS Int. J. Geo-Inf. 2015, 4(4), 2362-2378; doi:10.3390/ijgi4042362

# Benefits – Return on Investment

## Participants

*Business potentials*

- Early insights
- Early skill building
- Early visibility
- Early market deployment
- Direct influence
- Broaden market reach

## Sponsors

*Significant efficiencies*

- Ability to Determine Market Interest*
- Accelerated process - workable interface specifications in 4-6 months*
- Vendors test, validate and demonstrate interface integrity – Rapid time to market*
- Extraordinary value

# DEaaS Environment

## Foundation - NIST Cloud Services Models

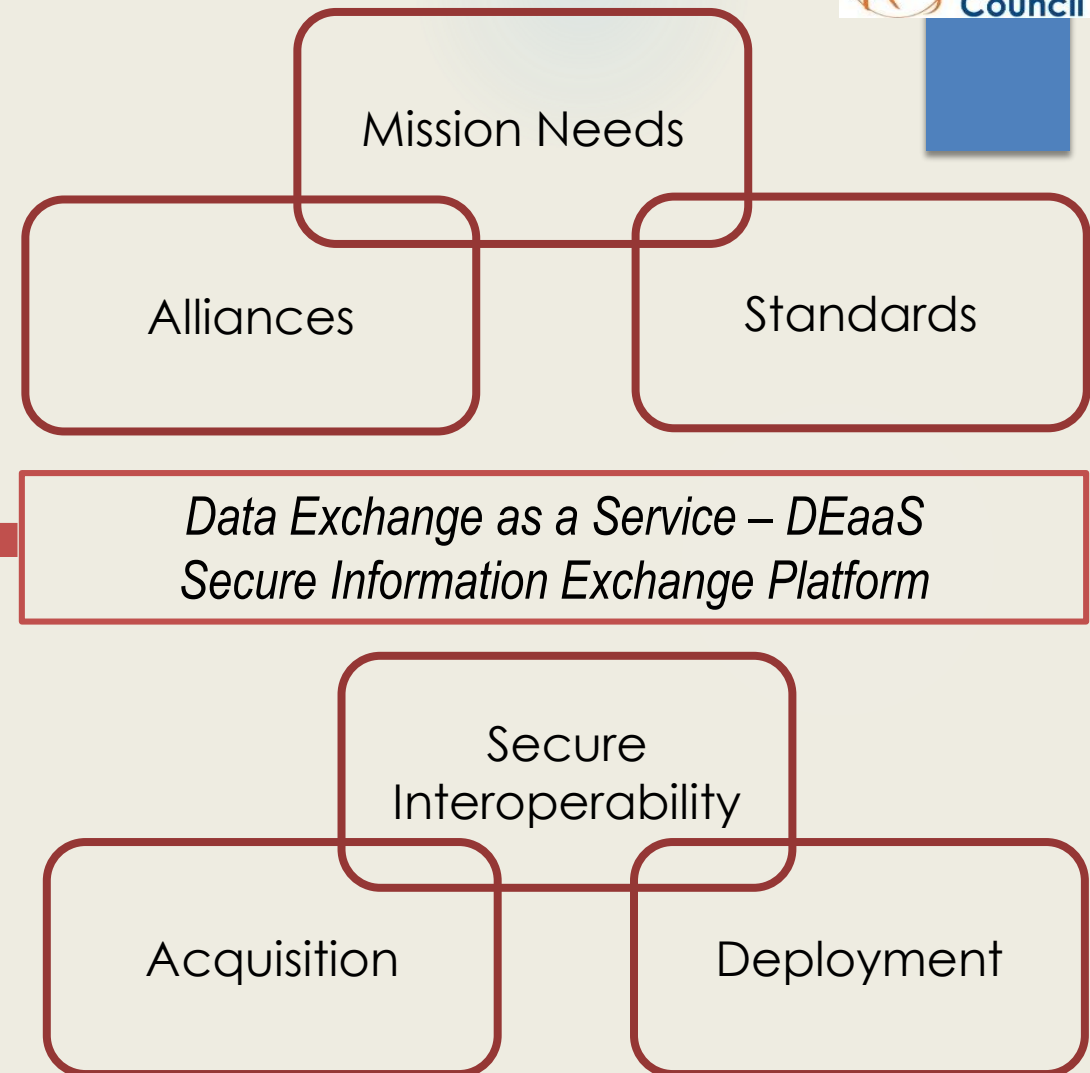
*Software as a Service – SaaS*  
*End User Application Services*

*Platform as a Service – PaaS*  
*Application Hosting Environment Services*

*Infrastructure as a Service – IaaS*  
*Network/Communications & Computing Services*

### Relevant NIST Publications

- Cloud Usability Framework – Reliability
- Cloud Computing Reference Architecture
- Cloud Security Reference Architecture



# For More Information:



- ▶ Standards Coordinating Council:  
<http://www.standardscoordination.org/>
- ▶ SCC Inquiries:  
[info@standardscoordination.org](mailto:info@standardscoordination.org)
- ▶ Project Interoperability:  
[http://www.standardscoordination.org/project\\_interoperability](http://www.standardscoordination.org/project_interoperability)
- ▶ ISE Interoperability Framework:  
[http://ise.gov/sites/default/files/FINAL%20-%20ISE\\_I2F\\_v0%205.pdf](http://ise.gov/sites/default/files/FINAL%20-%20ISE_I2F_v0%205.pdf)
- ▶ SCC Interoperability Tools/Resources (including the Geospatial Interoperability Reference Architecture):  
<http://www.standardscoordination.org/content/interoperability-tools>
- ▶ Open geospatial Consortium  
<http://www.opengeospatial.org/>
- ▶ NSI  
<http://www.ncirc.gov>



*Thank You*

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Executive Director  
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