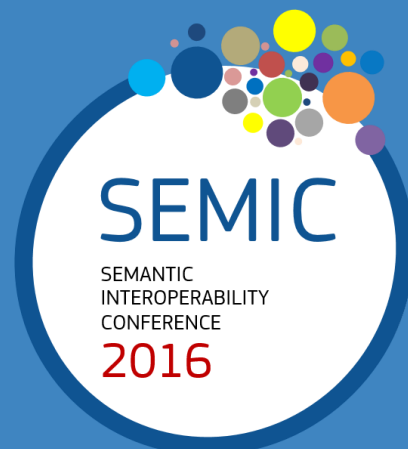


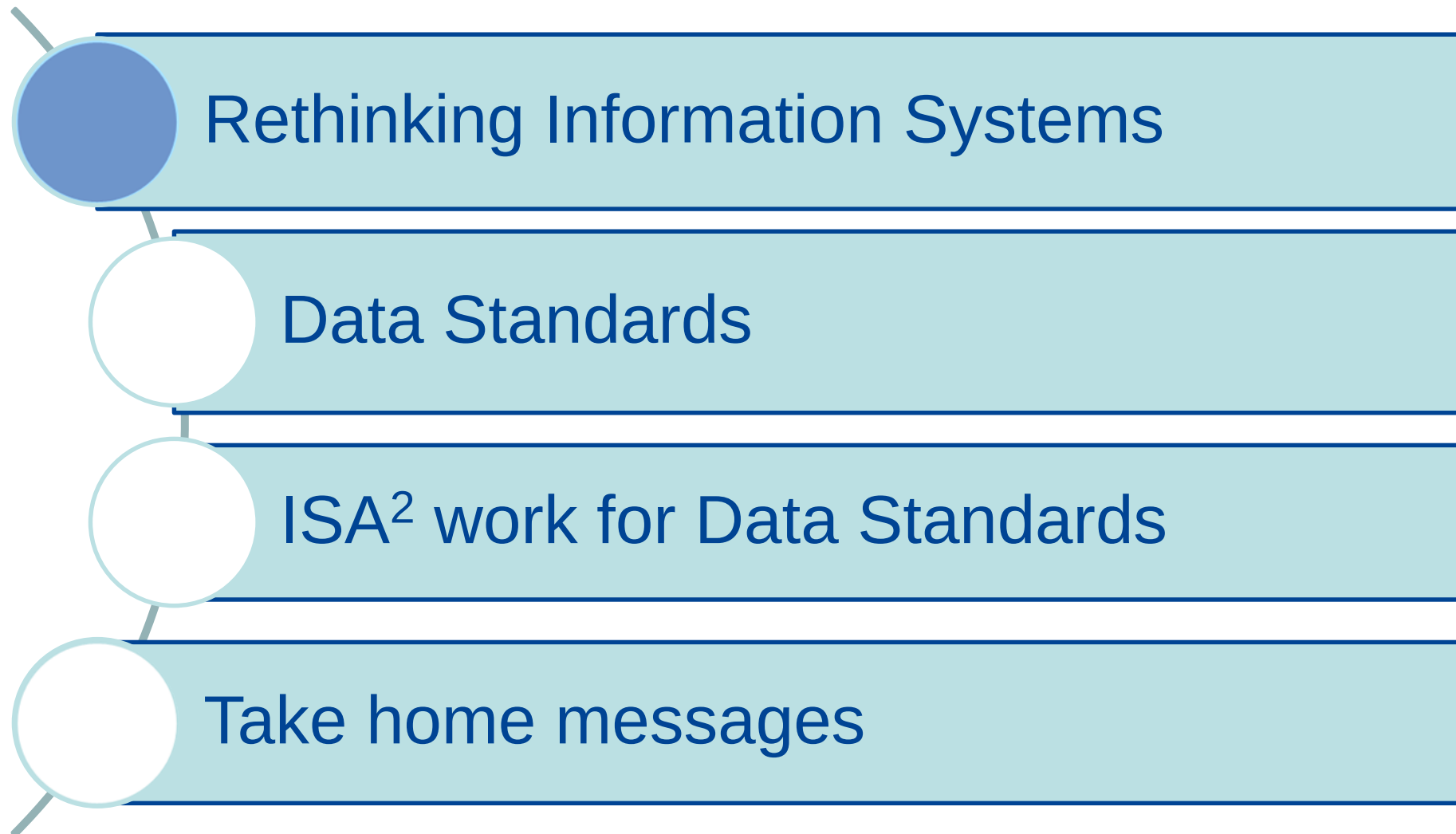


# *THE ROLE OF DATA STANDARDS IN SEMANTIC INTEROPERABILITY*



12 May 2016  
Rome – Italy

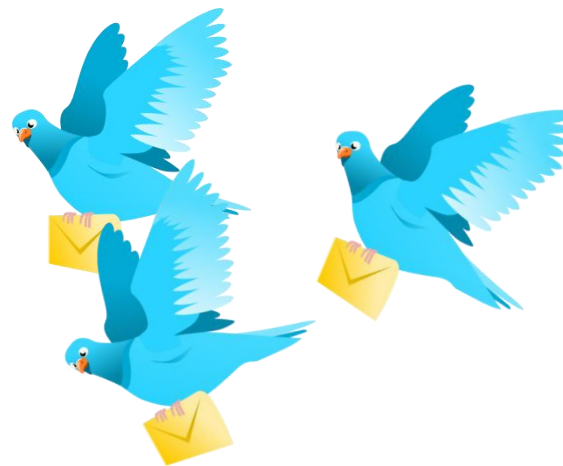
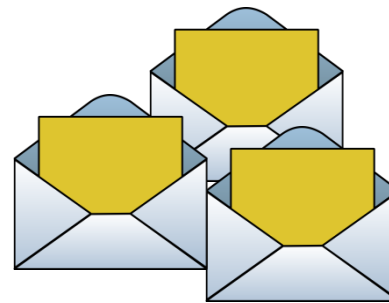
Dr. Vassilios Peristeras  
European Commission, DG Informatics, ISA<sup>2</sup> Programme



## Information Systems



## Information Systems





- **IT is a means not an end**
- **Information is neither an IT nor an IS by-product**
- **Information Management should become a Core Corporate policy**



- **We do a lot for IT management**
- **What about information management ?**



- **We do a lot with IT standards**
- **What about data standards?**



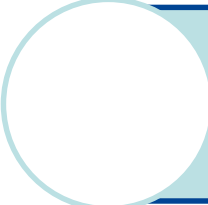




Rethinking Information Systems



Data Standards



ISA<sup>2</sup> work for Data Standards



Take home messages





## Data standards:

Social agreements on how we describe the world



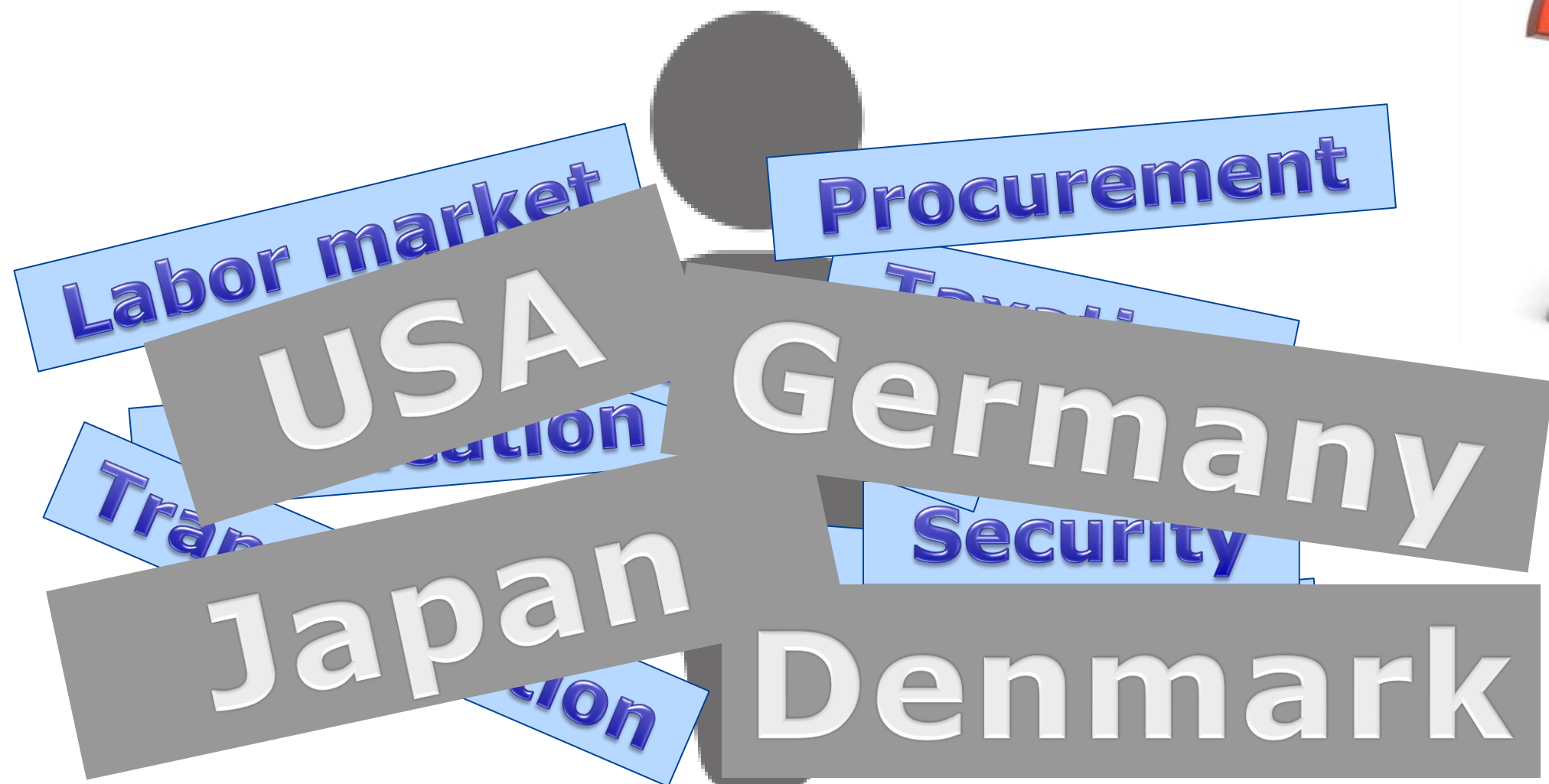
**MIND THE LEXICAL GAP**

**EuroVoc** Building block of the semantic

*Lists of values*

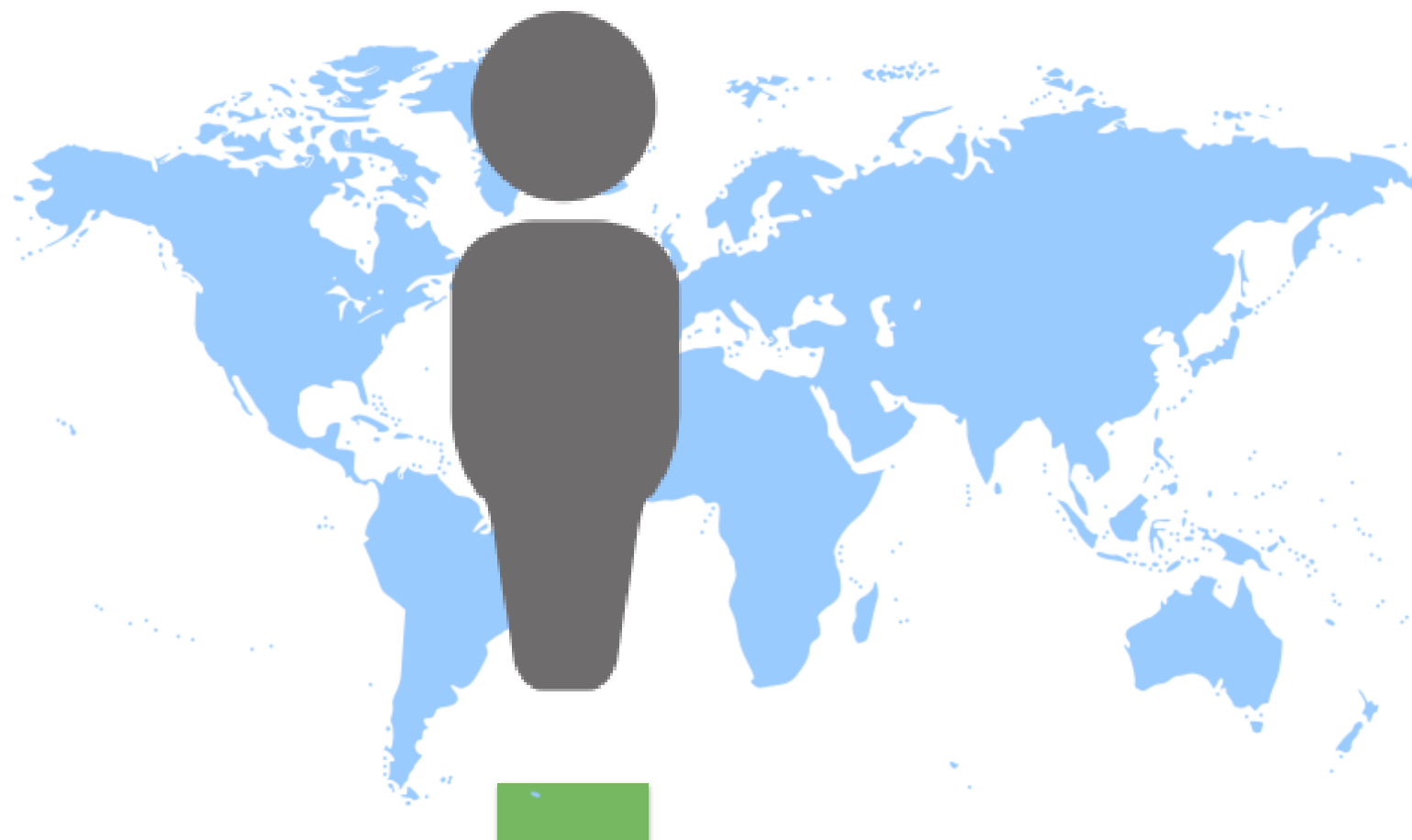
|                | A                   | C                   |
|----------------|---------------------|---------------------|
| <b>Country</b> | <b>Alpha-2 code</b> | <b>Alpha-3 code</b> |
| Afghanistan    | AF                  | AFG                 |
| Aland Islands  | AX                  | ALA                 |
| Albania        | AL                  | ALB                 |
| Algeria        | DZ                  | DZA                 |
| American Samoa | AS                  | ASM                 |
| Andorra        | AD                  | AND                 |
| Angola         | AO                  | AGO                 |
| Anguilla       | AI                  | AIA                 |
| Antarctica     | AQ                  | ATA                 |

Data standards suffer from domain and country-based fragmentation





We need universal data standards  
in a similar way  
we need universal technology standards



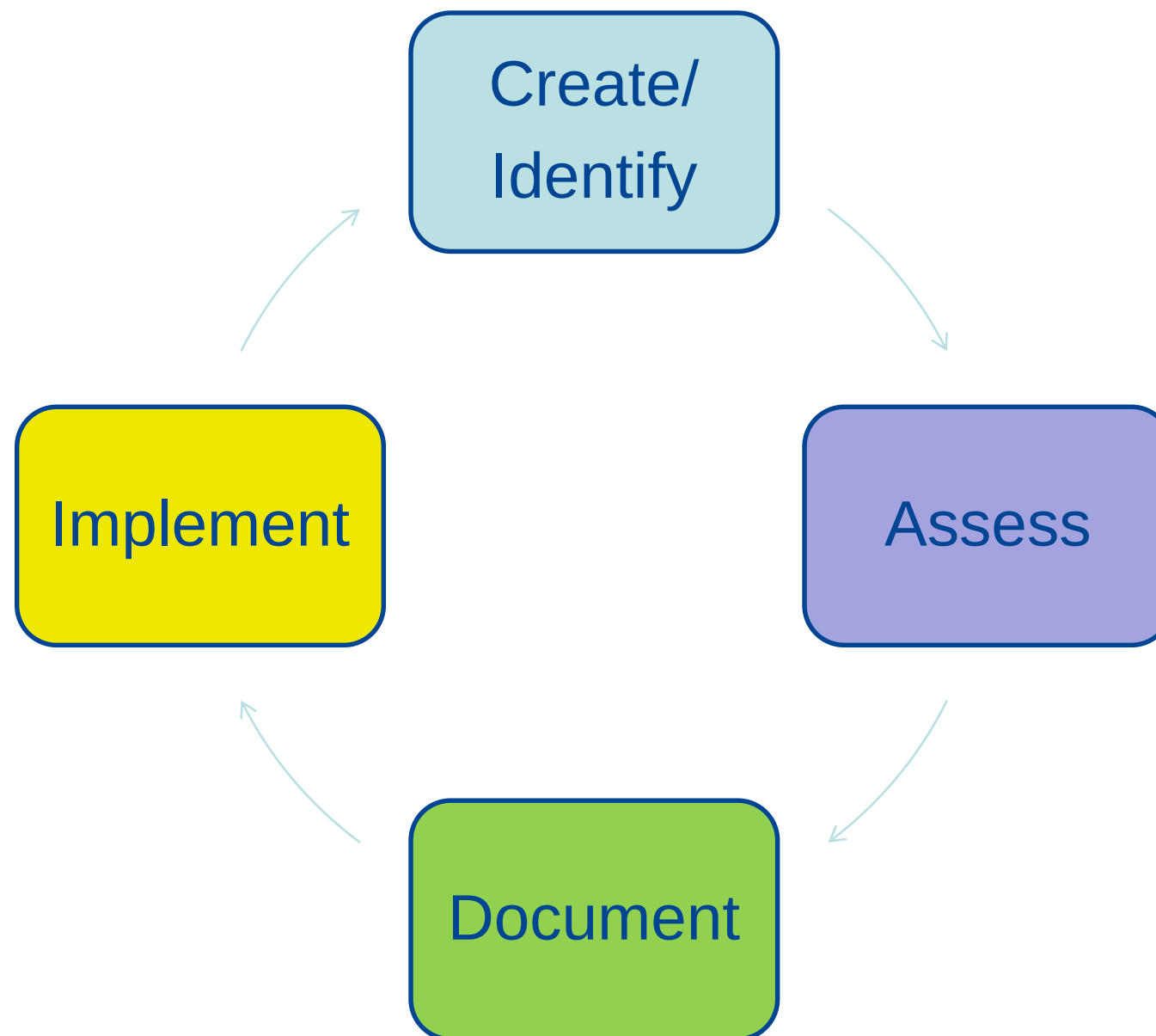
Rethinking "Information Systems"

Data Standards

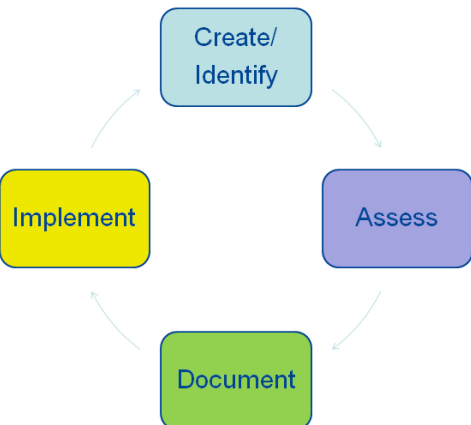
ISA<sup>2</sup> work for Data Standards

Take home messages

## What organisations should do with Data Standards...



## How ISA<sup>2</sup> can help you with Data Standards...



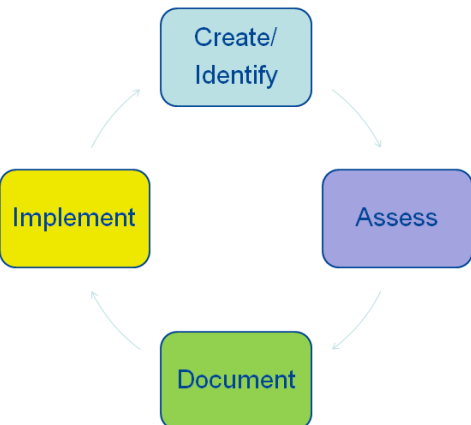
Create/  
Identify

- Core Vocabularies and ISA specs
- European Interoperability Framework
- EU Cartography
- EU Catalogue of Standards

Assess

- CAMSS
- Interoperability Maturity Model (IMM)

## How ISA<sup>2</sup> can help you with Data Standards...



Implement

- European Interoperability Strategy (EIS)
- European Interoperability Framework (EIF)
- Methodologies & Tools

Document

- ADMS
- DCAT-AP, GEO/DCAT-AP, STAT/DCAT-AP
- EIRA



Rethinking "Information Systems"

Information and Data Standards

ISA/ISA<sup>2</sup> work for Data Standards

Take home messages



## Agency level

- Refocus on the "I" part of your "Information System"
- Use existing data standards, do not start your data model from scratch (no excuse!)
- Find standards in catalogues/Joinup
- Assess candidate standards using CAMSS
- Check ISA<sup>2</sup> methodologies and tools for data standards

## National level

- Implement the EIF recommendations on information management/standards
- Use DCAT-AP for publishing open data
- Create Core Data Standards by reusing the ISA Core Vocabularies
- Create national catalogues of data standards
- Document and publish your standards using ADMS to describe them
- Contribute and support international data standards initiatives

# *THE ROLE OF DATA STANDARDS IN SEMANTIC INTEROPERABILITY*

Vassilios.Peristeras@ec.europa.eu

## Visit our initiatives

**ADMS**

ASSET  
DESCRIPTION  
METADATA  
SCHEMA

**DCAT**

APPLICATION  
PROFILE FOR  
EUROPEAN  
DATA PORTALS

**ADMS.  
SW**

REGISTERED  
ORGANIZATION  
VOCABULARY

**CORE  
PUBLIC  
ORGANISATION  
VOCABULARY**

eGOVERNMENT  
**CORE**  
VOCABULARIES

**CORE  
PUBLIC  
SERVICE  
VOCABULARY**

**CORE  
LOCATION  
VOCABULARY**

**CORE  
PERSON  
VOCABULARY**

**CORE  
CRITERION &  
EVIDENCE  
VOCABULARY**

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