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# Integrating KOS Registries with Metadata Registries

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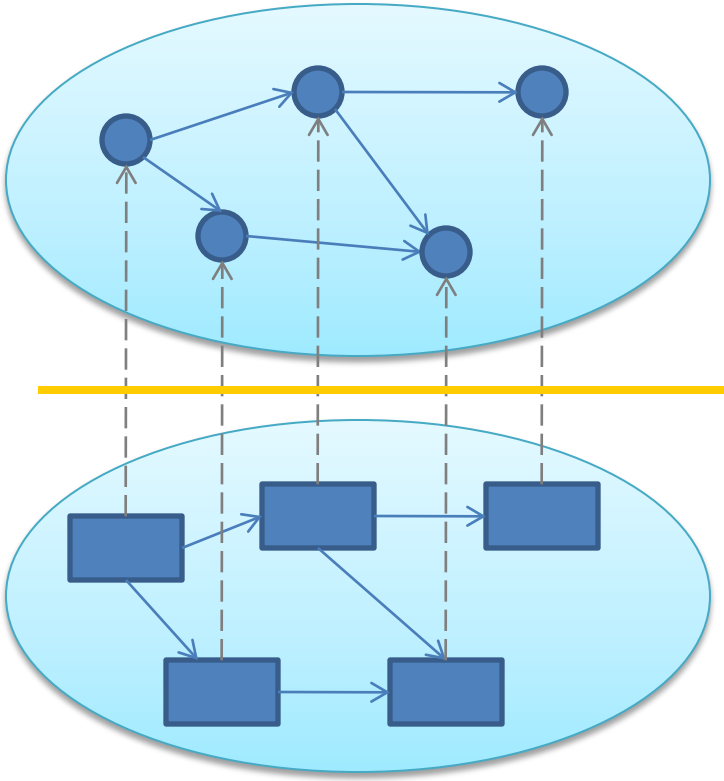
# Introduction

- **Interoperability**, is a requirement when there is a need to exchange information between two Information Systems

- **Question:** What happens if there is a need to exchange information that is described in a data model different from the receiver?

- **Possible Solution:** Interoperability can be achieved by crossing-walking data into a data model expected by the receiver

# Information and Data Models



## Information Model

The abstract description of how information is represented in a specific context (a business area, an organization or a community)

## Data Model

How an Information Model is represented for a specific syntax (XML Schema, SQL-DDL, etc.) and/or storage method (file, database, etc.)

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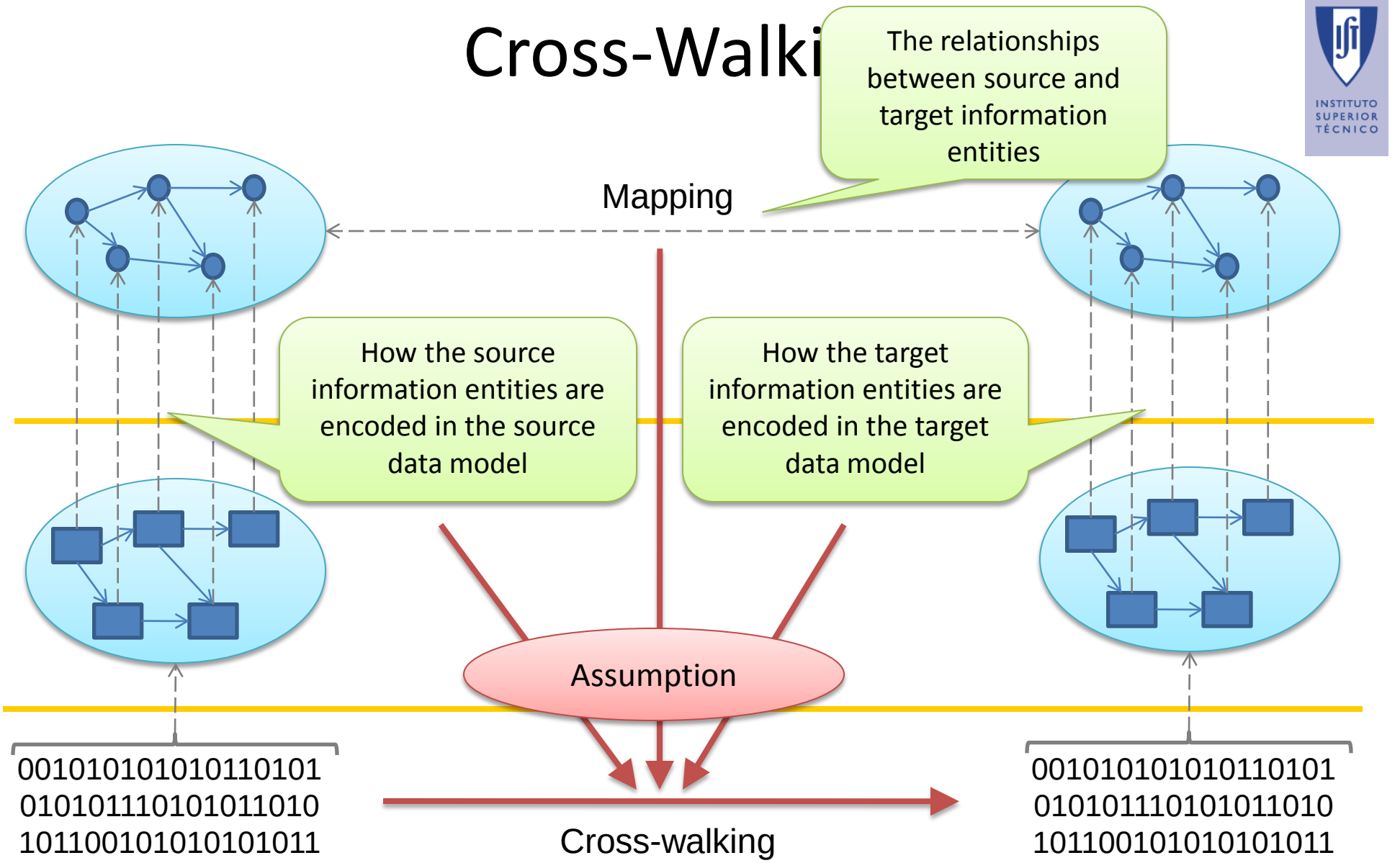
## Data

# Cross-Walki


The relationships between source and target information entities
Mapping
How the source information entities are encoded in the source data model
How the target information entities are encoded in the target data model
Assumption
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Cross-walking
0010101010101101010101110101011010101100101010101011
Source
Target

# About Metadata Registries

- The information needed to describe these models has been called **metadata**
  - In opposition to the term “data”, to refer to the data objects representing the instances of the data model.

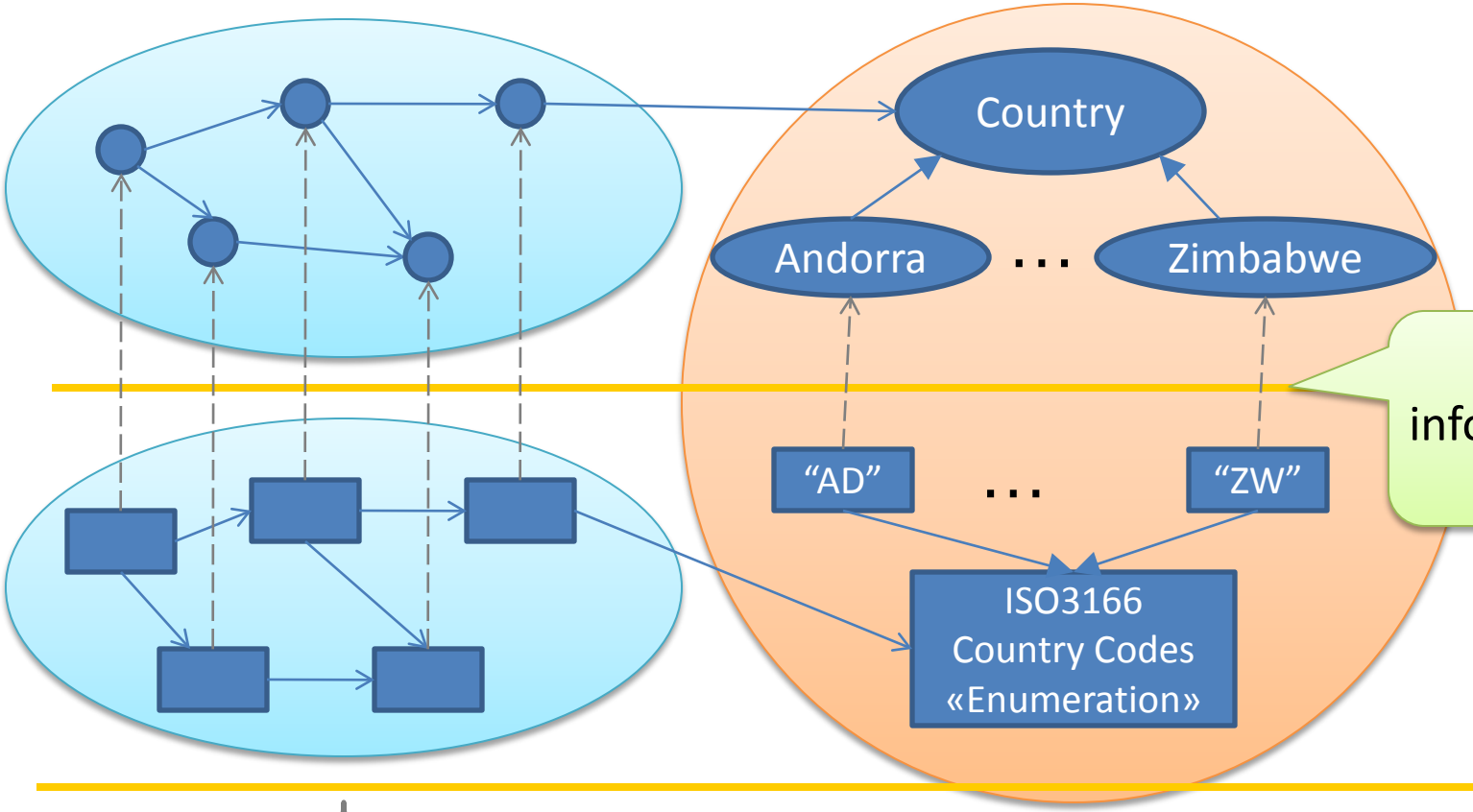
- Associated to that resulted the concept of **Metadata Registries** (MDR), defined as information systems to manage and publish metadata

# More about Metadata Registries

- A central location (e.g. repository) in an organization where metadata is stored and maintained in a controlled environment.

- Standards for Metadata Registries
  - ISO/IEC 11179 (main standard)
  - The ISO/IEC 20944 - Metadata Registries Interoperability and Bindings (MDR-IB)
  - The ISO/IEC 19763 - Metamodel Framework for Interoperability (MFI)

# Information managed within a MDR




Relates to information managed within a KOS

**Information Model**

**Data Model**

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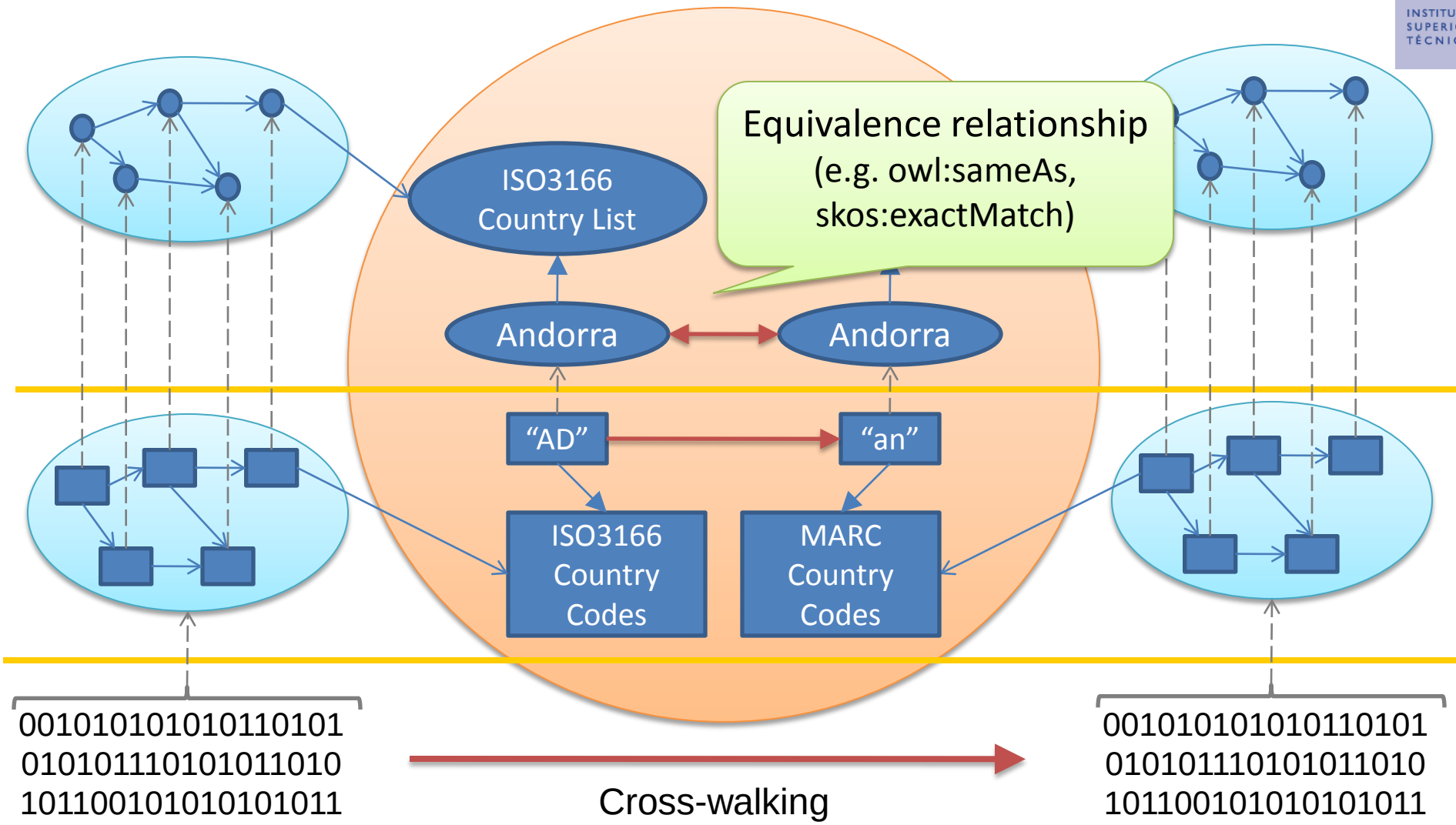
**Data**

# Relevance of KOS information for Cross-walking



# KOS Registries and MDRs

- KOS registries can be a valuable source of information for MDRs

- Making KOS Registries and MDRs interoperable would be beneficial for both communities!

# Possible approaches to Interoperability

- Build KOS registries compliant with the ISO11179 series of standards
  - Immediate integration through MDR-IB interface
- Provide support for MDR-IB compliant interfaces in KOS registries
  - By extending the services interfaces or building a wrapper service
  - Easiest approach to implement
- Provide support for the integration of KOS Registry service interfaces in a MDR
  - Harder approach if no standard interface for KOS registries is defined

# Thank You !!!