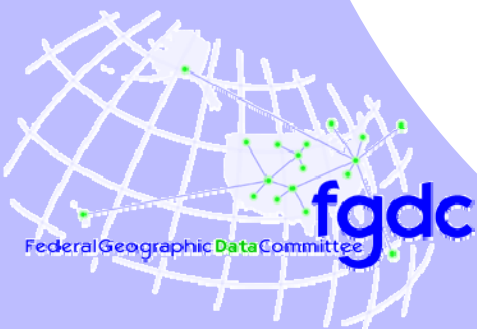


Geospatial Metadata

Coastal Zone Profile Development for Geospatial Metadata

An overview of efforts to adapt and implement geospatial metadata standards for use by the Coastal Zone geospatial community



vers. 20080331



Why Have a Standard?

Standards help determine:

- ▶ if a set of data is available
- ▶ If a set of data is fit for use
- ▶ how to transfer and access data sets



Why Have a Standard?

A standard helps to create:

- ▶ Common terms
- ▶ Common definitions
- ▶ Common language
- ▶ Common structure

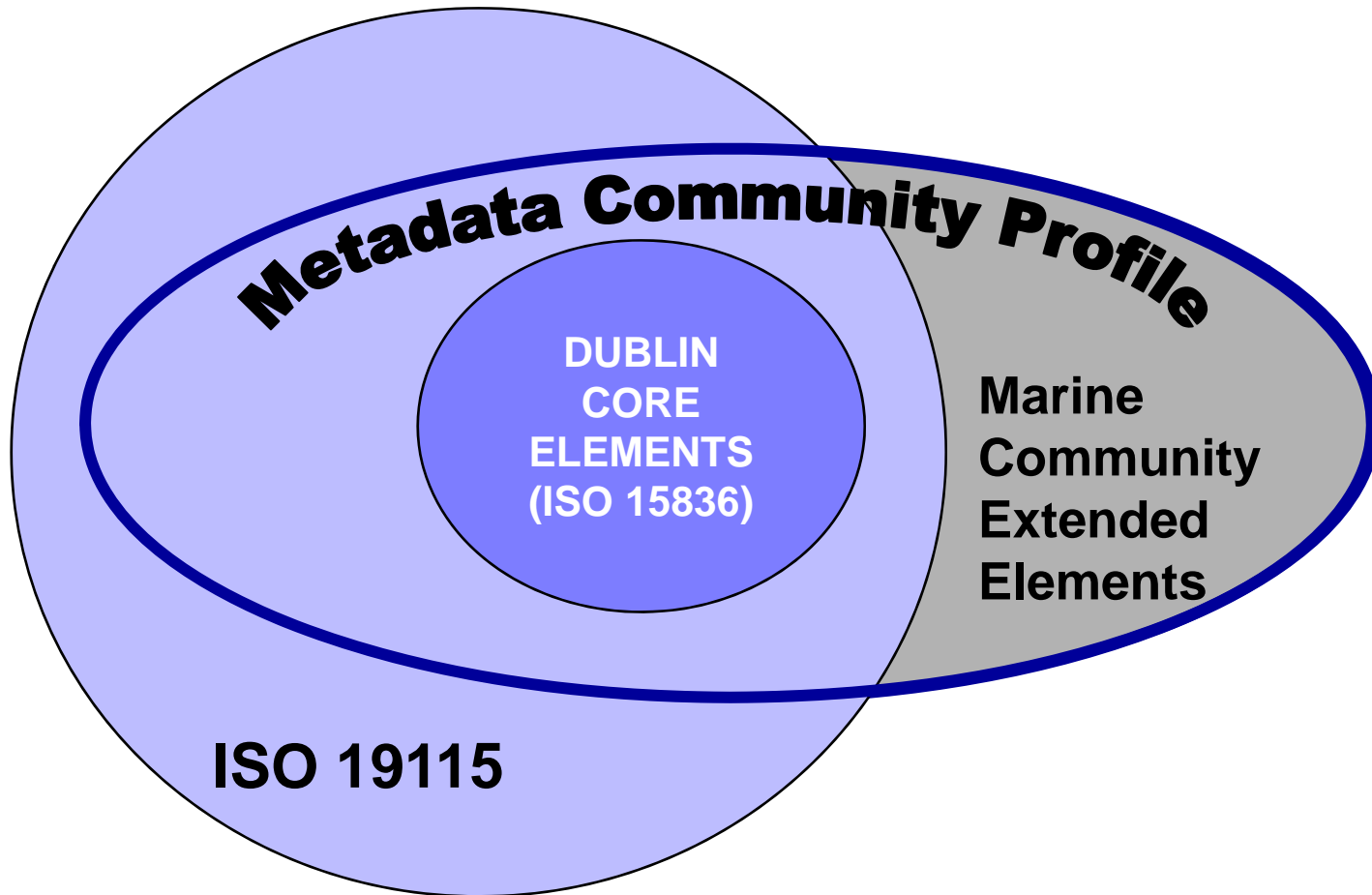


Why Have a Standard?

The key to using a standard is ...
To find fields pertinent to your data,
organization, field of work...
Build a template...
Use the template!



Why Have a Standard?





What is the Dublin Core?

The Dublin Core Metadata Element set:

- ▶ is a simple set of elements for describing digital resources
- ▶ consists of 15 metadata elements, all of which are optional and repeatable
- ▶ facilitates data retrieval in networked environments
 - <http://www.dublincore.org/>



What is the ISO?

The International Organization for Standardization (ISO) is a:

- ▶ network of national standards institutes of 157 countries
 - American National Standards Institute (ANSI) is the US member of ISO
- ▶ non-governmental organization
- ▶ consensus-building body tasked with meeting the standardization requirements of business and society
- ▶ ISO Technical Committee 211
 - Geomatics/Geographic Information



Goal of the ISO

Establish a family of international standards that:

- ▶ support understanding and use of geographic information
- ▶ increase the availability, access, integration and sharing of geographic information
- ▶ enable interoperability of geospatial enabled computer systems
- ▶ ease the establishment of Spatial Data Infrastructures (SDIs) on local, regional and global levels



Why ISO 19115 ?

ISO 19115 Implementation Goals

Establish an international, multilingual framework to:

- ▶ provide appropriate information to **characterize** geographic data properly
- ▶ facilitate the **organization and management** of geographic information
- ▶ enable users to efficiently **apply** geospatial data by knowing the data basic characteristics
- ▶ enable users to **locate, access, evaluate, deliver, and integrate** geographic data



ISO 19115 Geospatial Metadata

Provides a schema for describing:

- ▶ geospatial web services
- ▶ individual dataset descriptions
- ▶ data catalogs
- ▶ clearinghouse activities

Applies to multiple levels of geographic information:

- ▶ datasets
- ▶ dataset series
- ▶ individual data features
- ▶ individual feature properties (attributes)



ISO 19115 Geospatial Metadata

Provides information about the geographic data or service :

- ▶ identification
- ▶ extent
- ▶ quality
- ▶ spatial schema
- ▶ temporal schema
- ▶ spatial reference
- ▶ distribution



ISO 19115 Geospatial Metadata

Defines a core set of metadata required to serve the full range of applications:

- ▶ data discovery
- ▶ fitness for use
- ▶ data access
- ▶ data transfer
- ▶ application of data



ISO 19115 Geospatial Metadata

Establishes:

- ▶ terminology
- ▶ definitions
- ▶ conditionality
 - mandatory
 - conditional
 - optional
- ▶ a method for extending the metadata record to address specialized or custom needs



ISO 19115 Community Profiles

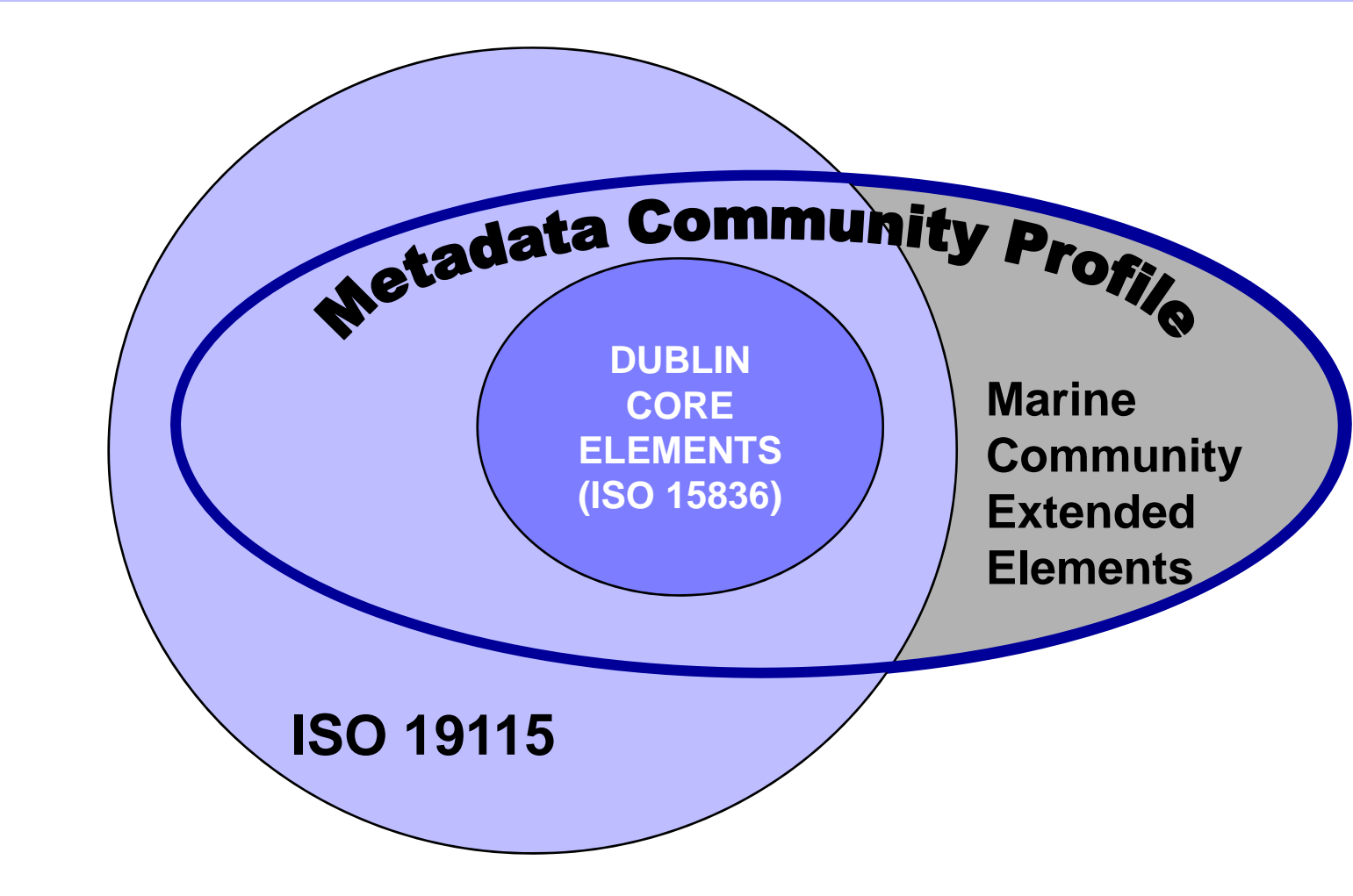
What is an ISO 19115 Profile?

A custom implementation of ISO 19115 that:

- ▶ adopts the ISO 'core' metadata for geographic datasets
- ▶ removes ISO optional components that do not apply to the community
- ▶ increases the obligation of ISO 'optional' elements of strong significance to the community
- ▶ creates new metadata entities, sections or elements to improve characterization of community geospatial data or services
- ▶ adds to or amends the domain of an existing ISO element to include community specific descriptors



ISO 19115 Community Profiles





ISO 19115 Community Profiles

What is a Profile 'Community'?

Any group of individuals or organizations that share a common interest such as:

- ▶ nationality or other administrative unit
- ▶ geography
- ▶ professional disciplinary
- ▶ data theme
- ▶ geospatial application or service



The Marine Community Profile

Developed by the Australian Ocean Data Centre

Objectives of the Marine Community Profile

- ▶ support the documentation and discovery of marine spatial datasets
- ▶ form foundation of a marine data catalog
 - <http://www.aodc.org.au/index.php?id=37>



Coastal and Inland Water Standard

Developed by the National Spatial Data Infrastructure (NSDI)

Objectives of the NSDI Standard

- ▶ develop a nationally focused hydrographic data content standard for spatial data that supports safety of navigation
- ▶ provide a catalog of hydrographic feature terms and definitions pertaining to navigation of coastal and inland waterways
 - <http://www.fgdc.gov/standards>



Geospatial Metadata for the Coastal Zone

- ▶ establish a cooperative effort to create a common geospatial metadata standard that meets the needs of of the Great Lakes Coastal Zone community
- ▶ adopt established standards on which to build
- ▶ is fully compliant with the ISO 19115 Geospatial Metadata Standard
- ▶ follows ISO rules for the development of a community profile