GeoZone – ISO tutorial
International standard for geographic information
Chapter 1

Istituto Zooprofilattico Sperimentale delle Venezie

Summary of the ISO tutorial:

- Chapter 1: Introduction to geographical standards

- Chapter 2: Standard specification for geographical elements

- Chapter 3: Application schema in geographical elements

- Chapter 4: Data quality and metadata

Standards Developing Organisation

OIE
It is the WTO reference organisation for standards relating to animal health and zoonoses.

ISO
It facilitates the exchange of goods and services through the elimination of technical trade barriers.

ISO technical committee 211

ISO 19100

Series of standards for defining, describing, and managing information concerning objects or phenomena directly or indirectly associated with a location relative to the Earth.
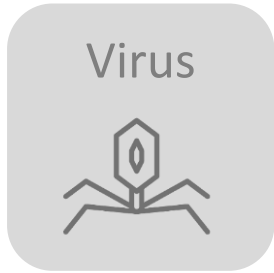
78 standards for
geographic information

ISO technical committee 211

Technical documents for the:

- definition of the basic semantics and structure of geographic information for data management and data interchange purposes

- definition of geographic information service components and their behaviour for data processing purposes

Geo-standards in veterinary fields

Virus

Law

Disease response

- **Identification of outbreaks**
- **Organizing response to a disease outbreak**
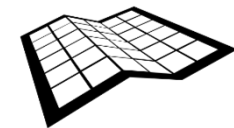- **Outbreak investigation process**
- **...**

Geographic information:

- **Outbreak location**
- **Spatial analysis (e.g., proximity, hot spot, and density analyses)**
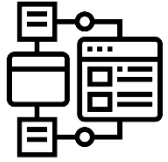- **...**

GIS software
GIS skills

Geospatial data model elements
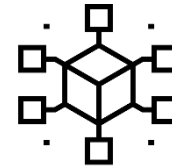
data modelling

object's representation

dataset quality and accuracy

geographic identifiers

geographic reference system

data structure

type of data container

type of sharing

etc.

Standards are useful to harmonize technical specifications
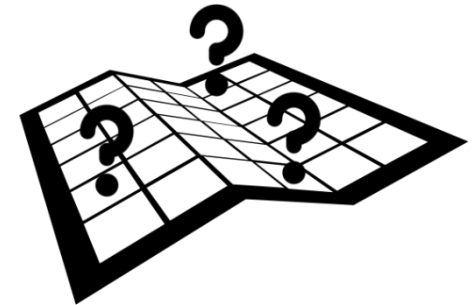
Example: providing coordinate values to a colleague.

ID	LAT	LON
001VE001	45.6500	12.1590
001PD005	45.2668	11.5419
099VI007	45.0070	12.2130

Standards are useful to harmonise technical specifications

Example: providing coordinate values to a colleague.

- Other software?
- Coordinate reference system ID?
- Latitude North or South of the Equator?
- Longitude East or West of prime meridian?
- Decimal mark full stop or comma?

To avoid misunderstandings use...

ISO 6709: Standard representation of geographic point location by coordinates.

Example: Mount Everest +27.5916+086.5640+8850crswgs_84/

Other important elements to consider for sharing data:
conceptual scheme; terminology; feature catalogue; encoding format; etc.

Link images & icons

- Slide 2: https://www.shutterstock.com/it/image-photo/magnetic-compass-on-world-map-conceptual-520402105
- Slide 6 virus by Firza Alamsyah from the Noun Project https://thenounproject.com/search/?q=virus&i=3334772
- Slide 7 GPS by Turkkub from the Noun Project https://thenounproject.com/search/?q=GIS&i=1748051
- Slide 7 vault by Eucalyp from the Noun Project https://thenounproject.com/search/?q=data%20model&i=3047456
- Slide 7 Geography by faisalovers from the Noun Project   https://thenounproject.com/search/?q=geographic&i=2087942
- Slide 7 data structure by Maxim Basinski from the Noun Project https://thenounproject.com/search/?q=data%20structure&i=1291336
- Slide 7 dots by Evgeniy Kozachenko from the Noun Project https://thenounproject.com/search/?q=dot&i=1215210
- Slide 7 global by Flatart from the Noun Project https://thenounproject.com/Flatart/collection/globe/?i=2883007
- Slide 7 web service by phi from the Noun Project https://thenounproject.com/search/?q=web%20service&i=1973610
- Slide 7 Assessment by Eucalyp from the Noun Project https://thenounproject.com/search/?q=data%20quality%20&i=2888429
- Slide 7 database by Kevin Woodland from the Noun Project https://thenounproject.com/search/?q=type%20of%20data%20container&i=282705
- Slide 8 excel by Robin Richards from the Noun Project https://thenounproject.com/search/?q=excel&i=317688
- Slide 9 User by Luis Prado from the Noun Project https://thenounproject.com/search/?q=pc%20user&creator=3490&i=13709
- Slide 9 question mark by Vectors Point from the Noun Project https://thenounproject.com/search/?q=question%20mark&i=2577616
- Slide 9 Map by Martin Vanco from the Noun Project https://thenounproject.com/search/?q=map&i=428957
- Slide 10: https://www.shutterstock.com/it/image-photo/panoramic-blue-colored-view-himalayas-mountains-708315895

Istituto Zooprofilattico
Sperimentale delle Venezie

OIE Collaborating Centre for
epidemiology, training and
control of emerging avian diseases