Development of INSPIRE Data Specifications
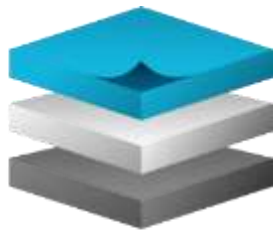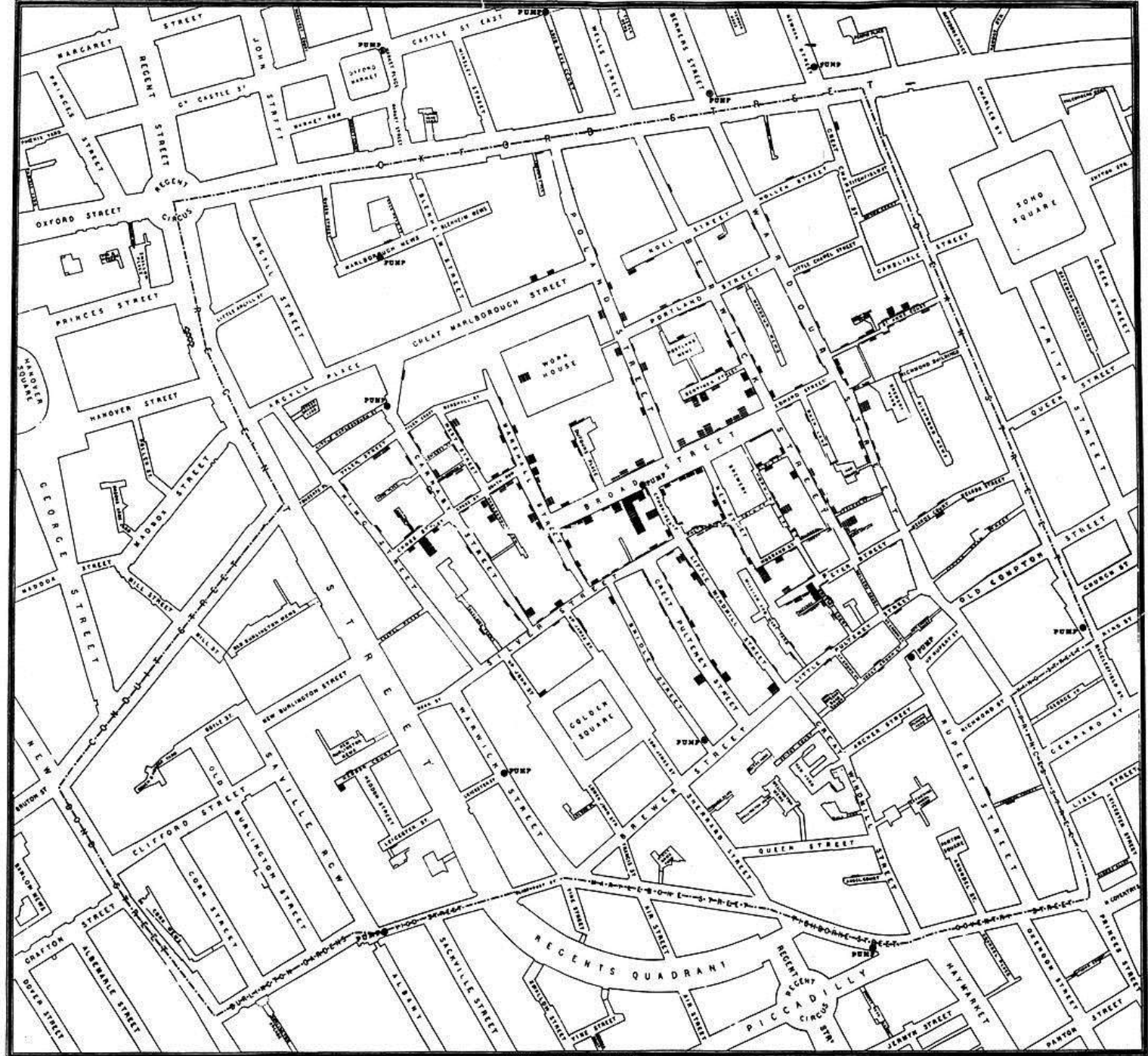
li:st
location intelligence
spatial technologies

dragan.divjak@li-st.net
Irena.mitton@li-st.net

MAP I.

SCALE 30 INCHES TO A MILE.

C. F. Cheffins, Lith. Southampton B^s London

Legal framework for establishment of ESDI

to ensure compatibility of SDI

Implementing rules

1. <u>Metadata</u> for description of **spatial data**

2. <u>Network Services</u> for discovery, transformation, view and download of **spatial data**

3. **<u>Data</u>** and Service Sharing

4. **<u>Data</u>** Specifications

5. <u>Monitoring and Reporting</u>

Framework Documents

- D2.5 INSPIRE Generic Conceptual Model

- D2.3 Definition of Annex Themes and Scope

- D2.6 Methodology for the development of data specifications

- D2.7 Guidelines for the Encoding of Spatial Data

D2.3 Definition of Annex Themes and Scope

ANNEX I
1. Coordinate reference systems
2. Geographical grid systems
3. Geographical names
4. Administrative units
5. Addresses
6. Cadastral parcels
7. Transport networks
8. Hydrography
9. Protected sites

ANNEX II
1. Elevation
2. Land cover
3. Orthoimagery
4. Geology

ANNEX III
1. Statistical units
2. Buildings
3. Soil
4. Land use
5. Human health and safety
6. Utility and Government services
7. Environmental monitoring facilities
8. Production and industrial facilities
9. Agricultural and aquaculture facilities
10. Population distribution – demography
11. Area management / restriction / regulation zones & reporting units
12. Natural risk zones
13. Atmospheric conditions
14. Meteorological geographical features
15. Oceanographic geographical features
16. Sea regions
17. Bio-geographical regions
18. Habitats and biotopes
19. Species distribution
20. Energy resources
21. Mineral resources

- Framework document for development of INSPIRE data specifications of all themes
- Interoperability components:
  - Spatial schema
  - Temporal schema
  - Identifier management
  - Spatial objects lifecycle
  - Multi-lingual text and cultural adaptability
  - ...

D2.5 INSPIRE Generic Conceptual Model

Requirement 35 Every feature catalogue shall contain the information specified in the corresponding application schema in accordance with ISO 19110[7].

Requirement 11 Every spatial object type specified in an INSPIRE application schema shall be drawn from feature type concepts in the INSPIRE Feature Concept Dictionary Register with status "valid" or proposed as a new register item when no adequate spatial object type already exists.

Requirement 12 If no related concept exists in the INSPIRE Feature Concept Dictionary Register, that can be reused or amended, a concept from another international feature concept dictionary or feature catalogue shall be reused and proposed for adoption in the INSPIRE Feature Concept Dictionary Register, if possible.

In other words, whenever possible, a concept in an INSPIRE application schema shall be drawn from an established dictionary.

EXAMPLE   An example for such an established dictionary is the DFDD (DGIWG Feature Data Dictionary), see https://www.dgiwg.org/FAD/registers.jsp?register=DFDD.

D2.6: Methodology for the development of data specifications

- It provides a process model and tools to assist in the process of INSPIRE data specification development

- Based on the
  - user requirements
  - D2.5 INSPIRE Generic Conceptual Model
  - relevant international standards

D2.6: Methodology for the development of data specifications

„It is expected to influence modelling activities at the national level"

1. it adds value to the national spatial data infrastructure

2. simplifies synchronisation with the INSPIRE data specifications

D2.6: Methodology for the development of data specifications

- Based on ISO19131 – Data Product Specification – defines content of data specification:
    - General information
    - Reference system
    - Data quality
    - Data capture
    - Maintenance
    - Metadata
    - …

D2.8: Data Specifications

5.3.2 Feature catalogue

Table 5 – Feature catalogue metadata

Feature catalogue name	INSPIRE feature catalogue *Hydrography*
Scope	*Hydrography – Physical Waters*
Version number	3.0.1
Version date	2010-04-26
Definition source	INSPIRE Data specification *Hydrography*

Table 6 – Types defined in the feature catalogue

Type	Package	Stereotypes	Section
Crossing	Hydro - Physical Waters	«featureType»	5.3.2.1.1
CrossingTypeValue	Hydro - Physical Waters	«codeList»	5.3.2.3.2
DamOrWeir	Hydro - Physical Waters	«featureType»	5.3.2.1.2
DrainageBasin	Hydro - Physical Waters	«featureType»	5.3.2.1.3
Embankment	Natural Risk Zones	«featureType»	5.3.2.4.1
Falls	Hydro - Physical Waters	«featureType»	5.3.2.1.4
FluvialPoint	Hydro - Physical Waters	«featureType»	5.3.2.1.5
Ford	Hydro - Physical Waters	«featureType»	5.3.2.1.6
GlacierSnowfield	Land Cover	«placeholder,featureType»	5.3.2.4.2
HydrologicalPersistenceValue	Hydro - Physical Waters	«codeList»	5.3.2.3.3
HydroOrderCode	Hydro - Physical Waters	«dataType»	5.3.2.2.1
HydroPointOfInterest	Hydro - Physical Waters	«featureType»	5.3.2.1.7
HydroPowerPlant	Energy Resources	«featureType»	5.3.2.4.3
InundatedLand	Natural Risk Zones	«featureType»	5.3.2.4.4
InundationValue	Natural Risk Zones	«codeList»	5.3.2.4.5
LandWaterBoundary	Hydro - Physical Waters	«featureType»	5.3.2.1.8
Lock	Hydro - Physical Waters	«featureType»	5.3.2.1.9

In the end…

How much do you know your data?

Producers ⟷ Users

INSPIRE ≠ mean of coercion

RECOGNIZE BENEFITS!!!

Thank you for your attention…

dragan.divjak@li-st.net
Irena.mitton@li-st.net

li:st
location intelligence
spatial technologies