



A joint Research Councils Programme co-sponsored by Defra and SEERAD

## **Data resources for rural sustainability research: realising their combined potential.**

### **Annex E**

#### **Review of key Metadata Standards**

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### Dublin Core

The Dublin Core metadata element set is a standard for cross-domain information resource description. Three formally endorsed versions exist of the Dublin Core Metadata Element Set, version 1.1:

- ISO Standard 15836-2003 (February 2003):  
<http://www.niso.org/international/SC4/n515.pdf>
- NISO Standard Z39.85-2001 (September 2001):  
<http://www.niso.org/standards/resources/Z39-85.pdf>
- CEN Workshop Agreement CWA 13874 (March 2000, no longer available)

The original 15 elements are:

1. Title
2. Creator
3. Subject
4. Description
5. Publisher
6. Contributor
7. Date
8. Type
9. Format
10. Identifier
11. Source
12. Language
13. Relation
14. Coverage
15. Rights

Descriptions of each of the above are found at: <http://dublincore.org/documents/dces/>

### e-GMS

The e-Government Metadata Standard (e-GMS) lays down the elements, refinements and encoding schemes to be used by government officers when creating metadata for their information resources or when designing search systems for information systems. The e-GMS forms part of the e-GIF. The e-Government Interoperability Framework (e-GIF) mandates the adoption of XML and the development of XML schemas as the cornerstone of the government interoperability and integration strategy. A key element in the development of XML schemas is an agreed set of data standards. The Government Data Standards Catalogue sets out the rationale, approach and rules for setting and agreeing the set of Government Data Standards (GDS) to be used in the schemas and other interchange processes. It also contains the standards agreed to date. These standards are also recommended for data storage at the business level.

## Annex E. Review of metadata standards.

The 25 elements in alphabetical order are (M denotes mandatory elements, R recommended and O optional):

1. Accessibility M
2. addressee O
3. aggregation O
4. audience O
5. contributor O
6. coverage R
7. creator M
8. Date M
9. Description O
10. Digital signature O
11. Disposal O
12. Format O
13. Identifier M
14. Language R
15. Location O
16. Mandate O
17. Preservation O
18. Publisher M
19. Relation O
20. Rights O
21. Source O
22. Status O
23. Subject M
24. Title M
25. Type O

Descriptions of each element are given in:

[http://www.govtalk.gov.uk/documents/eGovMetadataStandard\\_20040429.pdf](http://www.govtalk.gov.uk/documents/eGovMetadataStandard_20040429.pdf)

### **UK GEMINI**

UK GEMINI (Geo-spatial Metadata Interoperability Initiative) will replace the GIGateway Discovery Metadata Specifications (related to ISO 15046–15). It will follow the new international standard ISO 19115/19139 Geographic Information: Metadata.

MetaGenie is GIGateway's specially developed metadata creation software . This tool enables creation of geographic metadata compliant with the GIGateway Discovery Metadata Specifications. GIGateway is currently working on redevelopment of MetaGenie so that it creates metadata in line with UK GEMINI.

The 42 nested metadata elements each have eight attributes: Element Name, Identifier, Element Definition, Obligation, Maximum Occurrence, Data Type, and Domain.

1. Title
2. Alternative Title
3. Originator
4. Abstract
5. Data capture period
6. Status of Start Date of Capture
7. Start Date of Capture
8. Status of End Date of Capture
9. End Date of Capture
10. Frequency of update
11. Presentation type
12. Access constraint

## Annex E. Review of metadata standards.

13. Use constraints
14. Keywords
15. Geographic extent
16. Spatial referencing by co-ordinates
17. System of spatial referencing by co-ordinates
18. Bounding rectangle
19. West bounding coordinate
20. East bounding coordinate
21. North bounding coordinate
22. South bounding coordinate
23. Spatial referencing by geographic identifiers
24. National extent
25. Administrative area extent
26. Postcode district extent
27. Spatial reference system
28. Level of spatial detail
29. Supply media
30. Data format
31. Additional information source
32. Dataset association
33. Supplier
34. Contact name or title
35. Full postal address of supplier
36. Postcode of supplier
37. Telephone number of supplier
38. Fax number of supplier
39. E-mail address of supplier
40. Web address of supplier
41. Date of update of metadata
42. Sample

Descriptions of elements are given in:

[http://www.gigateway.org.uk/metadata/pdf/GIgateway\\_Discovery\\_Metadata\\_Specifications\\_v3.pdf](http://www.gigateway.org.uk/metadata/pdf/GIgateway_Discovery_Metadata_Specifications_v3.pdf)

### **SPIRE**

Mandatory elements:

1. Title
2. Language
3. Abstract
4. Themes
5. Subject
6. Date dataset collected
7. Date dataset published
8. West bounding co-ordinate
9. East bounding co-ordinate
10. North bounding co-ordinate
11. South bounding co-ordinate
12. Extent (by political units)
13. Spatial Reference System (e.g. GB National Grid)
14. Data format (e.g. ArcView Shapefile)
15. Distributor (where to get the dataset)
16. Distributor contact
17. Name of distributor (organization supplying dataset)Frequency of update
18. Date of update of metadata

SPIRE also uses the UK GEMINI Optional Metadata elements.

## **DDI**

<http://www.icpsr.umich.edu/DDI/codebook/index.html>

The Data Documentation Initiative (DDI) is an effort to establish an international XML-based standard for the content, presentation, transport, and preservation of documentation for datasets in the social and behavioral sciences.

DDI features over 300 different tags (most of them optional), but it is unlikely that anyone would make use of all of them.

The DDI has five main sections:

- \* Document Description -- This is essentially "header" or citation information about the marked up DDI instance itself. You may decide to use only a few of the elements in this section.
- \* Study Description -- This section describes the study at a broad level and includes information on geographic and temporal scope as well as methodological information.
- \* Files Description -- This section is a description of the physical data file(s) in terms of record and variable counts, logical record length, etc.
- \* Data (Variables) Description -- This section presents detailed information on each data item, including question text, variable label, category labels and values, etc.
- \* Other Related Materials -- Other documents or files related to the study.