
UK GEMINI: A **Geo-spatial Metadata Interoperability Initiative**

**ISO 19115: METADATA STANDARD
PROPOSED ELEMENT SET**

Draft for Public Consultation

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Introduction

UK GEMINI is a programme of work to define an element set for describing geospatial, discovery level metadata. This will enable organizations to create, for any given resource, a single set of metadata that will be compliant with relevant national and international standards, specifically ISO 19115 and UK eGMS. It will be created for use by United Kingdom organisations, but will be openly available to all, and will be suitable for describing resources covering any geographic area.

The Office of the e-Envoy, in conjunction with the UK Data Archive and the Association for Geographic Information (AGI), propose that a new set of metadata elements be identified to support the creation of geo-spatial metadata across the United Kingdom. The ISO 19115 standard for geo-spatial metadata, which was approved in March 2003, will serve as the source for these elements.

The GEMINI Committee comprises representatives from the Office of e-Envoy, the UK Data Archive and the Association of Geographic Information (AGI).

The Association for Geographic Information, a professional, member-supported organisation, plays a pivotal role in developing and promulgating geographic information policy in the UK so as to maximise the use of geographic information for the benefit of the country. The AGI also manages the GIGateway[®], a gateway service for metadata discovery and, ultimately, access to complex geospatial datasets

Since the late 1990s, the National Geospatial Data Framework's (NGDF) metadata standard has served the United Kingdom's geo-spatial community. The NGDF standard is a derivative of the Federal Geographic Data Committee's (FGDC) Content Standard for Digital Geospatial Metadata (CSDGM), which has been the source for the creation of many application profiles. The recent approval of the ISO 19115 geo-spatial metadata standard introduced a new geo-spatial standard and led to the current consideration of a new group of elements. Upon completion of the ISO 19139 Dataset Implementation Model and Schema development phase, which is currently under way and is expected to be finished in early 2004, it is expected that the adoption of the ISO 19115 will become ubiquitous internationally as a standard and it therefore be necessary to adopt it here in the United Kingdom

This draft has been produced by Rob Walker for GIGateway.

1. Scope

This draft standard specifies a set of metadata elements for describing geographic datasets. It is a profile of the International Standard ISO 19115, Geographic information – Metadata for data discovery purposes in the UK. The standard provides a match of these metadata elements to the metadata set used by the GIGateway metadata service run by the Association for Geographic Information (AGI) and also to the UK government metadata standard eGMS, which is based on Dublin Core. It is designed for use in GIGateway, and for other metadata applications in the UK.

2. Normative References

ISO 1915: Geographic information – Metadata

3. Metadata elements

The following elements shall be used to record metadata for geographic datasets:

1. Title
2. Alternative title
3. Originator
4. Abstract
5. Date
6. Frequency of update
7. Presentation type
8. Access constraint
9. Use constraints
10. Topic category
11. West bounding coordinate
12. East bounding coordinate
13. North bounding coordinate
14. South bounding coordinate
15. Extent
16. Spatial reference system
17. Spatial resolution
18. Supply media
19. Data format
20. Additional information source
21. Supplier
22. Date of update of metadata
23. Sample of the dataset
24. Dataset reference date
25. Dataset language
26. Vertical extent information
27. Spatial representation type
28. Lineage
29. Online resource

Details of these elements are given in Annex A. This also provides a mapping between the elements in the proposed metadata set and the corresponding metadata sets:

- The present GIGateway;
- ISO 19115;
- e-Government Metadata Standard (e-GMS).

For each element, the following is given:

- The metadata element name;
- The definition;
- The current GIGateway identifier and element name;
- Details of any changes from the current element;
- The equivalent ISO 19115 element number and element name;
- A comparison between the new element and the corresponding ISO 19115 element;
- The equivalent e-GMS metadata element name;
- A comparison between the element and the corresponding e-GMS element;
- The obligation, whether the element is mandatory (M) or optional (O);
- The maximum number of occurrences of the element – 1 or N (many);
- The data type of the element – character string, real, date or abstract class (either a defined set of values or an enumerated code);
- The domain of the element – the allowable set of values (which may be taken from a pre-defined list);
- Any other comments.

The changes from the current GIGateway are given in Annex B.

Annex A. Metadata elements

A.1 Title

New GIGateway element name		title	
Definition		name given to the dataset	
Current GIGateway identifier	Current GIGateway element name	1	title
Change from current GIGateway		none	
Equivalent ISO 19115 element number	Equivalent ISO 19115 element name	360	MD_DataIdentification.citation > CI_Citation.title
Comparison with ISO 19115 element		identical	
Equivalent e-GMS element		Title	
Comparison with e-GMS element		Equivalent	
Obligation		M	
Occurrence		N	
Data type		CharacterString	
Domain		Free text	
Comment			

A.2 Alternative title

Metadata element name		alternative title	
Definition		Short name, other name, acronym or alternative language title	
Current GIGateway element identifier	Current GIGateway element name	2	alternative title
Change from current GIGateway		None	
Equivalent ISO 19115 element number	Equivalent ISO 19115 element name	361	MD_Identification > CI_Citation.alternateTitle
Comparison with ISO 19115 element		equivalent – slight change to name	
Equivalent e-GMS element		Title	
Comparison with e-GMS element		Is a refinement of Title	
Obligation		O	
Occurrence		N	
Data type		CharacterString	
Domain		Free text	
Comment			

A.3 Originator

Metadata element name		originator	
Definition		Person or organisation having primary responsibility for the intellectual content of the data	
Current GIGateway element identifier	Current GIGateway element name	3	originator
Change from current GIGateway		none	
Equivalent ISO 19115 element number	Equivalent ISO 19115 element name	27	MD_Identification.credit
Comparison with ISO 19115 element		equivalent	
Equivalent e-GMS element		Creator	
Comparison with e-GMS element		equivalent	
Obligation		O	
Occurrence		N	
Data type		Character String	
Domain		Free text	
Comment			

A.4 Abstract

Metadata element name		abstract	
Definition		Brief narrative summary of the dataset	
Current GIGateway element identifier	Current GIGateway element name	4	abstract
Change from current GIGateway		none	
Equivalent ISO 19115 element number	Equivalent ISO 19115 element name	25	MD_Identification.abstract
Comparison with ISO 19115 element		identical	
Equivalent e-GMS element		Description	
Comparison with e-GMS element		equivalent	
Obligation		M	
Occurrence		1	
Data type		Character String	
Domain		Free text	
Comment			

A.5 Date

Metadata element name		Date	
Definition		Date and time for the content of the dataset	
Current GIGateway element identifier	Current GIGateway element name	5	Data capture period
Change from current GIGateway		Currently, GIGateway specifies status and date of start and end of data capture period	
Equivalent ISO 19115 element number	Equivalent ISO 19115 element name	351	EX_TemporalExtent.extent
Comparison with ISO 19115 element		identical	
Equivalent e-GMS element		Coverage, Temporal	
Comparison with e-GMS element		equivalent	
Obligation		M	
Occurrence		1	
Data type		Date	
Domain		Duration of period as specified by ISO 8601	
Comment		Either date may be to any degree of precision, or may be left blank to indicate uncertainty. Examples are 20010101, 1939-1945, -20030331, 2000-.	

A.6 Frequency of update

Metadata element name		Frequency of update	
Definition		frequency with which modifications and deletions are made to the data after it is first produced	
Current GGateway element identifier	Current GGateway element name	10	frequency of update
Change from current GGateway		Equivalent – modification to code list, and made mandatory	
Equivalent ISO 19115 element number	Equivalent ISO 19115 element name	143	MD_MaintenanceInformation.maintenanceAndUpdateFrequency
Comparison with ISO 19115 element		identical	
Equivalent e-GMS element		Updating frequency	
Comparison with e-GMS element		Is refinement of Date	
Obligation Occurrence		M 1	
Data type		Enumerated list	
Domain		Code list from ISO 19115 (MD_MaintenanceFrequencyCode)	
Comment			

MD_MaintenanceFrequencyCode

Name	Domain code	Definition
continual	001	data is repeatedly and frequently updated
daily	002	data is updated each day
weekly	003	data is updated on a weekly basis
fortnightly	004	data is updated every two weeks
monthly	005	data is updated each month
quarterly	006	data is updated every three months
biannually	007	data is updated twice each year
annually	008	data is updated every year
asNeeded	009	data is updated as deemed necessary
irregular	010	data is updated in intervals that are uneven in duration
notPlanned	011	there are no plans to update the data
unknown	012	frequency of maintenance for the data is not known

A.7 Presentation type

Metadata element name		Presentation type	
Definition		Mode in which the data is represented	
Current GIGateway element identifier	Current GIGateway element name	11	presentation type
Change from current GIGateway		Extended code list from ISO 19115	
Equivalent ISO 19115 element number	Equivalent ISO 19115 element name	368	MD_Identification.citation > CI_Citation.PresentationForm
Comparison with ISO 19115 element		identical	
Equivalent e-GMS element		Format	
Comparison with e-GMS element		equivalent	
Obligation		O	
Occurrence		N	
Data type		Enumerated list	
Domain		Code list from ISO 19115 CI_PresentationFormCode	
Comment			

CI_PresentationFormCode

Name	Domain code	Definition
documentDigital	001	digital representation of a primarily textual item (can contain illustrations also)
documentHardcopy	002	representation of a primarily textual item (can contain illustrations also) on paper, photographic material, or other media
imageDigital	003	likeness of natural or man-made features, objects, and activities acquired through the sensing of visual or any other segment of the electromagnetic spectrum by sensors, such as thermal infrared, and high resolution radar and stored in digital format
imageHardcopy	004	likeness of natural or man-made features, objects, and activities acquired through the sensing of visual or any other segment of the electromagnetic spectrum by sensors, such as thermal infrared, and high resolution radar and reproduced on paper, photographic material, or other media for use directly by the human user
mapDigital	005	map represented in raster or vector form
mapHardcopy	006	map printed on paper, photographic material, or other media for use directly by the human user
modelDigital	007	multi-dimensional digital representation of a feature, process, etc.
modelHardcopy	008	3-dimensional, physical model
profileDigital	009	vertical cross-section in digital form
profileHardcopy	010	vertical cross-section printed on paper, etc.
tableDigital	011	digital representation of facts or figures systematically displayed, especially in columns
tableHardcopy	012	representation of facts or figures systematically displayed, especially in columns, printed on paper, photographic material, or other media
videoDigital	013	digital video recording
videoHardcopy	014	video recording on film

A.8 Access constraint

Metadata element name		Access constraint	
Definition		Restrictions and legal prerequisites for the access of the data	
Current GIGateway element identifier	Current GIGateway element name	12	access constraint
Change from current GIGateway		Change to domain	
Equivalent ISO 19115 element number	Equivalent ISO 19115 element name	70	MD_Constraints.accessConstraints
Comparison with ISO 19115 element		identical	
Equivalent e-GMS element		Rights	
Comparison with e-GMS element		equivalent	
Obligation		O	
Occurrence		N	
Data type		Enumerated list	
Domain		Code list from ISO 19115 (MD_RestrictionCode)	
Comment			

MD_Restriction Code

Name	Domain code	Definition
copyright	001	exclusive right to the publication, production, or sale of the rights to a literary, dramatic, musical, or artistic work, or to the use of a commercial print or label, granted by law for a specified period of time to an author, composer, artist, distributor
patent	002	government has granted exclusive right to make, sell, use or license an invention or discovery
patentPending	003	produced or sold information awaiting a patent
trademark	004	a name, symbol, or other device identifying a product, officially registered and legally restricted to the use of the owner or manufacturer
license	005	formal permission to do something
intellectualPropertyRights	006	rights to financial benefit from and control of distribution of non-tangible property that is a result of creativity
restricted	007	withheld from general circulation or disclosure
otherRestrictions	008	limitation not listed

A.9 Use constraints

Metadata element name		Use constraint	
Definition		Restrictions and legal restraints on using the data	
Current GIGateway element identifier	Current GIGateway element name	13	use constraint
Change from current GIGateway		GIGateway currently has free text rather than an enumerated list	
Equivalent ISO 19115 element number	Equivalent ISO 19115 element name	71	MD_Constraints.useConstraints
Comparison with ISO 19115 element		Identical	
Equivalent e-GMS element		Rights	
Comparison with e-GMS element		Rights also includes access constraints	
Obligation		O	
Occurrence		N	
Data type		Enumerated list	
Domain		Code list from ISO 19115 (MD_RestrictionCode)	
Comment			

For MD_RestrictionCode, see access constraints

A.10 Topic category

Metadata element name		Topic category	
Definition		Main theme(s) of the dataset	
Current GIGateway element identifier	Current GIGateway element name	14	keywords
Change from current GIGateway		Change name from Keywords to Topic category, which is equivalent element in ISO 19115. Modified topic code list from ISO 19115 has some categories combined	
Equivalent ISO 19115 element number	Equivalent ISO 19115 element name	41	MD_DataIdentification.topicCategory
Comparison with ISO 19115 element		identical	
Equivalent e-GMS element		Subject	
Comparison with e-GMS element		equivalent	
Obligation		M	
Occurrence		N	
Data type		Class	
Domain		Code list MD_TopicCategoryCode from ISO 19115	
Comment			

MD_Topic Category

Name	Domain code	Definition
farming	001	rearing of animals and/or cultivation of plants Examples: agriculture, irrigation, aquaculture, plantations, herding, pests and diseases affecting crops and livestock
biota	002	flora and/or fauna in natural environment Examples: wildlife, vegetation, biological sciences, ecology, wilderness, sealife, wetlands, habitat
boundaries	003	legal land descriptions Examples: political and administrative boundaries
climatology Meteorology Atmosphere	004	processes and phenomena of the atmosphere Examples: cloud cover, weather, climate, atmospheric conditions, climate change, precipitation
economy	005	economic activities, conditions and employment Examples: production, labour, revenue, commerce, industry, tourism and ecotourism, forestry, fisheries, commercial or subsistence hunting, exploration and exploitation of resources such as minerals, oil and gas
elevation	006	height above or below sea level Examples: altitude, bathymetry, digital elevation models, slope, derived products

Name	Domain code	Definition
environment geoscientificInformation	007 008	environmental resources, protection and conservation Examples: environmental pollution, waste storage and treatment, environmental impact assessment, monitoring environmental risk, nature reserves, landscape information pertaining to earth sciences Examples: geophysical features and processes, geology, minerals, sciences dealing with the composition, structure and origin of the earth's rocks, risks of earthquakes, volcanic activity, landslides, gravity information, soils, permafrost, hydrogeology, erosion
health	009	health, health services, human ecology, and safety Examples: disease and illness, factors affecting health, hygiene, substance abuse, mental and physical health, health services
imageryBaseMapsEarth Cover	010	base maps Examples: land cover, topographic maps, imagery, unclassified images, annotations
intelligenceMilitary	011	military bases, structures, activities Examples: barracks, training grounds, military transportation, information collection
inlandWaters	012	inland water features, drainage systems and their characteristics Examples: rivers and glaciers, salt lakes, water utilization plans, dams, currents, floods, water quality, hydrographic charts
location	013	positional information and services Examples: addresses, geodetic networks, control points, postal zones and services, place names
oceans	014	features and characteristics of salt water bodies (excluding inland waters) Examples: tides, tidal waves, coastal information, reefs
planningCadastre	015	information used for appropriate actions for future use of the land Examples: land use maps, zoning maps, cadastral surveys, land ownership
society	016	characteristics of society and cultures Examples: settlements, anthropology, archaeology, education, traditional beliefs, manners and customs, demographic data, recreational areas and activities, social impact assessments, crime and justice, census information
structure	017	man-made construction Examples: buildings, museums, churches, factories, housing, monuments, shops, towers
transportation	018	means and aids for conveying persons and/or goods Examples: roads, airports/airstrips, shipping routes, tunnels, nautical charts, vehicle or vessel location, aeronautical charts, railways
utilitiesCommunication	019	energy, water and waste systems and communications infrastructure and services Examples: hydroelectricity, geothermal, solar and nuclear sources of energy, water purification and distribution, sewage collection and disposal, electricity and gas distribution, data communication, telecommunication, radio, communication networks

A.11 West bounding coordinate

Metadata element name		West bounding coordinate	
Definition		Western-most coordinate of the limit of the dataset extent, expressed in longitude in decimal degrees (positive east)	
Current GIgateway element identifier	Current GIgateway element name	19	west bounding coordinates
Change from current GI gateway		Current GIgateway allows for values in (National) grid coordinates	
Equivalent ISO 19115 element number	Equivalent ISO 19115 element name	344	MD_DataIdentification.geographicBox > EX_GeographicBoundingBox.westBoundLongitude
Comparison with ISO 19115 element		identical	
Equivalent e-GMS element		Coverage	
Comparison with e-GMS element		Coverage includes all aspects of spatial location	
Obligation		M	
Occurrence		1	
Data type		Real	
Domain		- 180.0 <= value <= 180.0	
Comment			

A.12 East bounding coordinate

Metadata element name		East bounding coordinate	
Definition		Eastern-most coordinate of the limit of the dataset extent, expressed in longitude in decimal degrees (positive east)	
Current GIGateway element identifier	Current GIGateway element name	20	east bounding coordinates
Change from current GIGateway		Current GIGateway allows for values in (National) grid coordinates	
Equivalent ISO 19115 element number	Equivalent ISO 19115 element name	345	MD_DataIdentification.geographicBox > EX_GeographicBoundingBox.eastBoundLongitude
Comparison with ISO 19115 element		Identical	
Equivalent e-GMS element		Coverage	
Comparison with e-GMS element		Coverage includes all aspects of spatial location	
Obligation		M	
Occurrence		1	
Data type		Real	
Domain		- 180.0 <= value <= 180.0	
Comment			

A.13 North bounding coordinate

Metadata element name		North bounding coordinate	
Definition		Northern-most coordinate of the limit of the dataset extent, expressed in longitude in decimal degrees (positive north)	
Current GIGateway element identifier	Current GIGateway element name	21	North bounding coordinates
Change from current GIGateway		Current GIGateway allows for values in (National) grid coordinates	
Equivalent ISO 19115 element number	Equivalent ISO 19115 element name	347	MD_DataIdentification.geographicBox > EX_GeographicBoundingBox.northBoundLatitude
Comparison with ISO 19115 element		identical	
Equivalent e-GMS element		Coverage	
Comparison with e-GMS element		Coverage includes all aspects of spatial location	
Obligation		M	
Occurrence		1	
Data type		Real	
Domain		- 180.0 <= value <= 180.0	
Comment			

A.14 South bounding coordinate

Metadata element name		South bounding coordinate	
Definition		Southern-most coordinate of the limit of the dataset extent, expressed in longitude in decimal degrees (positive north)	
Current GIGateway element identifier	Current GIGateway element name	22	South bounding coordinates
Change from current GIGateway		Current GIGateway allows for values in (National) grid coordinates	
Equivalent ISO 19115 element number	Equivalent ISO 19115 element name	346	MD_DataIdentification.geographicBox > EX_GeographicBoundingBox.southBoundLatitude
Comparison with ISO 19115 element		identical	
Equivalent e-GMS element		Coverage	
Comparison with e-GMS element		Coverage includes all aspects of spatial location	
Obligation		M	
Occurrence		1	
Data type		Real	
Domain		- 180.0 <= value <= 180.0	
Comment			

A.15 Extent

Metadata element name		Extent	
Definition		extent of dataset by subdivision of country	
Current	Current	24	national extent
GIGateway	GIGateway	25	administrative area
element identifier	element name	26	Postcode district
Change from current GIGateway		Combination of three extent elements, generalised to allow for extent outside the United Kingdom	
Equivalent ISO 19115 element number	Equivalent ISO 19115 element name	349	EX_GeographicDescription.geographicIdentifier > MD_Identifier.code
Comparison with ISO 19115 element		identical	
Equivalent e-GMS element		Coverage	
Comparison with e-GMS element		Coverage includes all aspects of spatial location	
Obligation		M	
Occurrence		N	
Data type		Enumerated class	
Domain		Code list as defined in ISO 3166 Codes for the representation of names of countries and their subdivisions	
Comment		see www.iso.org/iso/en/prods-services/iso3166	

List of UK codes from ISO 3166 to be added.

A.16 Spatial reference system

Metadata element name		Spatial reference system	
Definition		Name or description of the system of spatial referencing, whether by coordinates or geographic identifiers, used in the dataset	
Current GIGateway element identifier	Current GIGateway element name	27	spatial reference system
Change from current GIGateway		Change to code from list rather free text	
Equivalent ISO 19115 element number	Equivalent ISO 19115 element name	187	MD_ReferenceSystem.referenceSystemIdentifier
Comparison with ISO 19115 element		Equivalent	
Equivalent e-GMS element		None	
Comparison with e-GMS element		-	
Obligation		M	
Occurrence		1	
Data type		Class	
Domain		Code list SpatialReferenceSystem	
Comment			

SpatialReferenceSystem

Domain code	Definition
001	National Grid of Great Britain
002	Irish Grid
003	Irish Transverse Mercator
004	WGS84
005	postcode
006	ward
007	local authority
008	region
009	country
010	other area

A.17 Spatial resolution

Metadata element name		Spatial resolution	
Definition		Description of the granularity of the data	
Current GIGateway element identifier	Current GIGateway element name	28	level of spatial detail
Change from current GIGateway		Change name from level of spatial detail to spatial resolution to be consistent with ISO 19115	
Equivalent ISO 19115 element number	Equivalent ISO 19115 element name	61	MD_DataIdentification.spatialresolution > spatial resolution.distance
Comparison with ISO 19115 element		Equivalent	
Equivalent e-GMS element		None	
Comparison with e-GMS element		-	
Obligation		0	
Occurrence		1	
Data type		Integer	
Domain		Integer > 0	
Comment		Equivalent to ground sample distance	

A.18 Supply media

Metadata element name		Supply media	
Definition		Type of media in which the data can be supplied	
Current GIGateway element identifier	Current GIGateway element name	29	supply media
Change from current GIGateway		More extensive code list from ISO 19115	
Equivalent ISO 19115 element number	Equivalent ISO 19115 element name	292	MD_Distribution.offline > MD_Medium.name
Comparison with ISO 19115 element		-	
Equivalent e-GMS element		none	
Comparison with e-GMS element		-	
Obligation		O	
Occurrence		N	
Data type		Enumerated list	
Domain		Code list from ISO 19115 (MD_MediumNameCode)	
Comment			

MD_MediumNameCode

Name	Domain code	Definition
cdRom	001	read-only optical disk
dvd	002	digital versatile disk
dvdRom	003	digital versatile disk, read only
3halfInchFloppy	004	3,5 inch magnetic disk
5quarterInchFloppy	005	5,25 inch magnetic disk
7trackTape	006	7 track magnetic tape
9trackTape	007	9 track magnetic tape
3480Cartridge	008	3480 cartridge tape drive
3490Cartridge	009	3490 cartridge tape drive
3580Cartridge	010	3580 cartridge tape drive
4mmCartridgeTape	011	4 millimetre magnetic tape
8mmCartridgeTape	012	8 millimetre magnetic tape
1quarterInchCartridgeTape	013	0,25 inch magnetic tape
digitalLinearTape	014	half inch cartridge streaming tape drive
onLine	015	direct computer linkage
satellite	016	linkage through a satellite communication system
telephoneLink	017	communication through a telephone network
hardcopy	018	pamphlet or leaflet giving descriptive information

A.19 Data format

Metadata element name	Data format
Definition	Format in which the digital data can be provided
Current GIGateway element identifier	30
Current GIGateway element name	data format
Change from current GIGateway	none
Equivalent ISO 19115 element number	285
Equivalent ISO 19115 element name	MD_Distribution > MD_Format.name
Comparison with ISO 19115 element	ISO 19115 has this element mandatory and single valued
Equivalent e-GMS element	Format
Comparison with e-GMS element	equivalent
Obligation	M
Occurrence	N
Data type	Character String
Domain	Free text
Comment	

A.20 Additional information source

Metadata element name		additional information source	
Definition		Source of further information about the dataset	
Current GIGateway element identifier	Current GIGateway element name	31	additional information source
Change from current GIGateway		Made single valued	
Equivalent ISO 19115 element number	Equivalent ISO 19115 element name	46	MD_DataIdentification.supplementalInformation
Comparison with ISO 19115 element		identical	
Equivalent e-GMS element		none	
Comparison with e-GMS element		-	
Obligation		O	
Occurrence		1	
Data type		Character String	
Domain		Free text	
Comment		Include information regarding Dataset Association (from current GIGateway) within this	

A.21 Supplier

Metadata element name		Supplier	
Definition		Details of the organisation(s) from which the resource can be obtained	
Current GGateway element identifier	Current GGateway element name	33	supplier
Change from current GGateway		none	
Equivalent ISO 19115 element number	Equivalent ISO 19115 element name	280	MD_Distribution > MD_Distributor.distributorContact
Comparison with ISO 19115 element		Similar high level class	
Equivalent e-GMS element		Publisher	
Comparison with e-GMS element		equivalent	
Obligation		M	
Occurrence		N	
Data type		Class	
Domain		<p>Contains the following elements</p> <ul style="list-style-type: none"> • Contact name or title • Full postal address of supplier • Postcode of supplier • Telephone number of supplier • Facsimilie number of supplier • email address of supplier • web address of supplier 	
Comment			

Supplier contact title

Metadata element name		Supplier Contact title	
Definition		Role or position of the responsible person	
Current GIGateway element identifier	Current GIGateway element name	34	contact name or title
Change from current GIGateway		Modification of name to emphasise role. Restriction to contact title	
Equivalent ISO 19115 element number	Equivalent ISO 19115 element name	377	MD_Distribution > MD_Distributor.distributorContact > CI_ResponsibleParty.positionName
Comparison with ISO 19115 element		Identical	
Equivalent e-GMS element		Publisher	
Comparison with e-GMS element		Publisher includes all details	
Obligation		M	
Occurrence		1	
Data type		Character String	
Domain		Free text	
Comment			

Name of supplier

Metadata element name		Name of supplier	
Definition		Name of organisation supplying the dataset	
Current GIGateway element identifier	Current GIGateway element name	35	Full postal address of supplier
Change from current GIGateway		separation of supplier name from postal address	
Equivalent ISO 19115 element number	Equivalent ISO 19115 element name	376	MD_Distribution > MD_Distributor.distributorContact > CI_ResponsibleParty.organisationName
Comparison with ISO 19115 element		Equivalent	
Equivalent e-GMS element		Publisher	
Comparison with e-GMS element		Publisher includes all details	
Obligation		M	
Occurrence		1	
Data type		Character String	
Domain		Free Text	
Comment			

Postal address of supplier

Metadata element name		postal address of supplier	
Definition		postal address of supplier	
Current GIGateway element identifier	Current GIGateway element name	35 36	Full Postal Address of Supplier Postcode of Supplier
Change from current GIGateway		separation of supplier name from postal address, and inclusion of postcode	
Equivalent ISO 19115 element number	Equivalent ISO 19115 element name	389	MD_Distribution > MD_Distributor.distributorContact > CI_ResponsibleParty.contactInfo > CI_Contact.address
Comparison with ISO 19115 element		ISO 19115 has structured address	
Equivalent e-GMS element		Publisher	
Comparison with e-GMS element		Publisher includes all details	
Obligation		O	
Occurrence		1	
Data type		Character String	
Domain		Free Text	
Comment			

Telephone number of supplier

Metadata element name		telephone number of supplier	
Definition		Telephone number by which individuals can talk to the organisation or individual	
Current GIGateway element identifier	Current GIGateway element name	37	telephone number of supplier
Change from current GIGateway		none	
Equivalent ISO 19115 element number	Equivalent ISO 19115 element name	408	MD_Distribution > MD_Distributor.distributorContact > CI_ResponsibleParty.contactInfo > CI_Contact.phone > CI_Telephone.voice
Comparison with ISO 19115 element		identical	
Equivalent e-GMS element		Publisher	
Comparison with e-GMS element		Publisher includes all details	
Obligation		O	
Occurrence		1	
Data type		Character String	
Domain		Free text	
Comment			

Facsimilie number of supplier

Metadata element name		facsimilie number of supplier	
Definition		Facsimilie number which individuals can use to contact the organisation or individual	
Current GIGateway element identifier	Current GIGateway element name	38	facsimilie number of supplier
Change from current GIGateway		None	
Equivalent ISO 19115 element number	Equivalent ISO 19115 element name	409	MD_Distribution > MD_Distributor.distributorContact > CI_ResponsibleParty.contactInfo > CI_Contact.phone > CI_Telephone.facsimilie
Comparison with ISO 19115 element		identical	
Equivalent e-GMS element		Publisher	
Comparison with e-GMS element		Publisher includes all details	
Obligation		0	
Occurrence		1	
Data type		Character String	
Domain		Free text	
Comment			

Email address of supplier

Metadata element name		email address of supplier	
Definition		Internet email address which individuals can use to contact the organisation or individual	
Current GIGateway element identifier	Current GIGateway element name	39	email address of supplier
Change from current GIGateway		None	
Equivalent ISO 19115 element number	Equivalent ISO 19115 element name	386	MD_Distribution > MD_Distributor.distributorContact > CI_ResponsibleParty.contactInfo > CI_Address.electronicMailAddress
Comparison with ISO 19115 element		identical	
Equivalent e-GMS element		Publisher	
Comparison with e-GMS element		Publisher includes all details	
Obligation		0	
Occurrence		1	
Data type		Character String	
Domain		Free text	
Comment			

Web address of supplier

Metadata element name		Web address of supplier	
Definition		Supplying organisation's World Wide Web address	
Current GGateway element identifier	Current GGateway element name	40	web address of supplier
Change from current GGateway		None	
Equivalent ISO 19115 element number	Equivalent ISO 19115 element name	397	MD_Distribution > MD_Distributor.distributorContact > CI_OnlineResource.linkage
Comparison with ISO 19115 element		identical	
Equivalent e-GMS element		Publisher	
Comparison with e-GMS element		Publisher includes all details	
Obligation		O	
Occurrence		1	
Data type		Character String	
Domain		Free text	
Comment			

A.22 Date of update of metadata

Metadata element name		date of update of metadata	
Definition		Date on which the metadata was last changed	
Current GIGateway element identifier	Current GIGateway element name	41	date of update of metadata
Change from current GIGateway		Identical	
Equivalent ISO 19115 element number	Current GIGateway element name	9	MD_Metadata.dateStamp
Comparison with ISO 19115 element		Identical	
Equivalent e-GMS element		none	
Comparison with e-GMS element			
Obligation		M	
Occurrence		1	
Data type		Date	
Domain		Single date as specified by ISO 8601	
Comment			

A.23 Sample of the dataset

Metadata element name	sample of the dataset	
Definition	Location of a sample of the dataset	
Current GIGateway element identifier	Current GIGateway element name	42 a sample of the dataset
Change from current GIGateway	Change type from Image or text to free text identifying a browse graphic	
Equivalent ISO 19115 element number	Equivalent ISO 19115 element name	31 MD_Identification.graphicOverview > MD_BrowseGraphic
Comparison with ISO 19115 element	ISO 19115 has a class which describes where the sample file may be found, rather than containing the sample itself	
Equivalent e-GMS element	none	
Comparison with e-GMS element	-	
Obligation	O	
Occurrence	N	
Data type	Character String	
Domain	Free text	
Comment		

A.24 Dataset reference date

Metadata element name		Dataset reference date	
Definition		Reference date for the dataset	
Current GIGateway element identifier	Current GIGateway element name	none	none
Change from current GIGateway		New element	
Equivalent ISO 19115 element number	Equivalent ISO 19115 element name	362	MD_Identification.citation > CI_Citation.date
Comparison with ISO 19115 element		Identical	
Equivalent e-GMS element		Date	
Comparison with e-GMS element		Equivalent	
Obligation		M	
Occurrence		N	
Data type		Class	
Domain		Date	
Comment		Date formats are defined in ISO 8601	

A.25 Dataset language

Metadata element name		Dataset language	
Definition		Language used in dataset	
Current GIGateway element identifier	Current GIGateway element name		none
Change from current GIGateway		New element	
Equivalent ISO 19115 element number	Equivalent ISO 19115 element name	3	MD_Metadata. > MD_DataIdentification.language
Comparison with ISO 19115 element		identical	
Equivalent e-GMS element		Language	
Comparison with e-GMS element		Equivalent	
Obligation		M	
Occurrence		N	
Data type		CharacterString	
Domain		Free text	
Comment		Recommended to select a value from a controlled vocabulary, for example that provided by ISO 639-2 which uses three-letter primary tags with optional subtags	

A.26 Vertical extent information

Metadata element name	vertical extent information		
Definition	Vertical domain of the dataset		
Current GIGateway element identifier	Current GIGateway element name		none
Change from current GIGateway	New element		
Equivalent ISO 19115 element number	Current GIGateway element name	354	MD_Metadata > MD_DataIdentification.extent > EX_Extent > EX_VerticalExtent
Comparison with ISO 19115 element	identical		
Equivalent e-GMS element	none		
Comparison with e-GMS element	-		
Obligation	O		
Occurrence	N		
Data type	Class		
Domain	See below		
Comment	Is the detail required, or will a free text description suffice?		

EX_VerticalExtent:

Element name	Element Definition	Obligation	Maximum Occurrence	Data Type	Domain
minimum value	lowest vertical extent contained in the dataset	M	1	Real	Real
maximum value	highest vertical extent contained in the dataset	M	1	Real	Real
unit of measure	vertical units used for vertical extent	M	1	Character String	Free Text
vertical datum	the origin from which the elevation values are measured	M	1	Character String	Free Text

A.27 Spatial representation type

Metadata element name		Spatial representation type	
Definition		method used to represent the spatial aspect of the data	
Current GIgateway element identifier	Current GIgateway element name	-	none
Change from current GIgateway		new element	
Equivalent ISO 19115 element number	Current GIgateway element name	37	MD_DataIdentification.spatialRepresentationType
Comparison with ISO 19115 element		identical	
Equivalent e-GMS element		none	
Comparison with e-GMS element		-	
Obligation		O	
Occurrence		N	
Data type		Enumerated class	
Domain		Code list MD_SpatialRepresentationTypeCode	
Comment			

MD_SpatialRepresentationTypeCode

	Name	Domain code	Definition
1.	vector	001	vector data is used to represent geographic data
2.	grid	002	grid data is used to represent geographic data
3.	textTable	003	textual or tabular data is used to represent geographic data
4.	tin	004	triangulated irregular network
5.	stereoModel	005	three-dimensional view formed by the intersecting homologous rays of an overlapping pair of images
6.	video	006	scene from a video recording

A.28 Lineage

Metadata element name	Lineage		
Definition	information about the events or source data used in the construction of the dataset		
Current GGateway element identifier	Current GGateway element name	-	none
Change from current GGateway	new element		
Equivalent ISO 19115 element number	Current GGateway element name	83	DQ_DataQuality.lineage>LI_Lineage.statement
Comparison with ISO 19115 element	identical		
Equivalent e-GMS element	none		
Comparison with e-GMS element	-		
Obligation	O		
Occurrence	1		
Data type	Character String		
Domain	Free Text		
Comment			

A.29 Online resource

Metadata element name		Online resource	
Definition		information about the online sources from which the resource can be obtained	
Current GIGateway element identifier	Current GIGateway element name	-	none
Change from current GIGateway		new element	
Equivalent ISO 19115 element number	Current GIGateway element name	277	MD_Distribution>MD_DigitalTransfeOption.onLine>CI_OnlineResource
Comparison with ISO 19115 element		identical	
Equivalent e-GMS element		none	
Comparison with e-GMS element		-	
Obligation		O	
Occurrence		N	
Data type		Character String	
Domain		Free text	
Comment			

Annex B. (Informative) Changes from the present Glgateway

The main modifications from the current Glgateway metadata set are as follows:

- i) Replace data capture period with a single field that may be either an instant or a range.
- ii) Change the domain of the bounding rectangle to be latitude/longitude.
- iii) Change name of element keywords to topic category.
- iv) Modify the domain for National Extent to use a code for the country as defined in ISO 3166 *Codes for the representation of names of countries and their subdivisions*.
- v) Modify the domain for Spatial Reference System to use a code.
- vi) Modify Level of Spatial Detail to be Spatial Resolution as defined in ISO 19115.
- vii) Drop element Dataset Association.
- viii) Change Contact Name or Title to Contact Title.
- ix) Separate Full postal address of supplier into two elements "Name of supplier" and "Postal address of supplier".
- x) Change the data type for Sample to free text identifying a browse graphic.
- xi) Replace code lists with comparable code lists from ISO19115.
- xii) Add new metadata elements for dataset reference date, dataset language and vertical extent.

As part of the implementation programme, a crosswalk is required to migrate data from other formats into Glgateway.

The following elements are to be deleted from the Glgateway element set:

6. status of start date of capture – replaced by single date element
7. start date of capture – replaced by single date element
8. status of end date of capture – replaced by single date element
9. end date of capture – replaced by single date element
16. spatial referencing by coordinates – no data entry required (heading only)
17. system of spatial referencing by coordinates – used only for bounding box, which should now be described in lat/long
18. bounding rectangle - no data entry required (heading only)
23. spatial referencing by geographic identifiers – no data entry required (heading only)
24. national extent - combined into a single element extent
25. administrative area extent - combined into a single element extent
26. postcode district extent - combined into a single element extent
32. dataset Association – included within Additional Information Source (This element is not included in ISO 19115, but has some use in Glgateway)
36. Postcode of Supplier – included within Postal Address of Supplier

The following elements are added to the metadata set:

- dataset reference date,
- dataset language,
- vertical extent,
- spatial representation type,
- lineage,
- online resource.

Annex B Form for comments

Please submit any comments on this draft in the following form format:

GEMINI Metadata Standard 21 Dec 03

Comments from

Comment number	Clause/section	Type of comment (Editorial/ Technical/ General)	Comment	Proposed change

References

NGDF_elements/metguide

ISO 8601: 2000 Data elements and interchange formats – Information interchange – Representation of dates and times

ISO 3166 Codes for the representation of names of countries and their subdivisions
e-Government Metadata Standard