

## National Underground Asset Register (NUAR)

### NUAR Data Model Publication

## Mapping of NUAR Harmonised Data Model Submission metadata to the UK GEMINI Metadata Specification V2.3 for Datasets and Services

### Publication History

Date	Version	Description
12/08/2024	0.1	First publication of the NUAR Data Model
10/03/2025	1.0	Publication of the NUAR Data Model – V2.1.3

### Purpose of this document

It is beneficial for NUAR datasets (Submissions) and potential future NUAR data services to conform to the UK GEMINI metadata standard<sup>1</sup>, to maximise opportunities arising from the adherence to FAIR principles.

This document outlines how this conformance will be achieved by mapping existing, and planned, metadata items in the NUAR Data Model to UK GEMINI elements.

### Key Concepts

While there is no intent for the NUAR platform to expose entire datasets or dataset series for viewing and/or download, it is likely that individual data submissions will be downloadable by the submitting organisation, and it is possible that some datasets may be downloadable in some form in the future.

It is also possible that NUAR data may in future be exposed via web services, and therefore compliance with the UK GEMINI metadata requirements for such services is beneficial.

Metadata will be returned at the level of the NUAR Submission as represented by the NUARSubmissionEvent Feature Type, and related Feature Types.

Any future services should expose a suitable endpoint allowing UK GEMINI compliant metadata to be returned for a specified Submission ID or a feature ID (with metadata being derived from the related submission for that feature), with an optional language code being supplied (with English being the default).

---

<sup>1</sup> <https://www.agi.org.uk/uk-gemini/>



A **nuargemini23metadata** Feature Type has been added to the NUAR Harmonised Data Model which will contain fixed values for specified metadata items in records for English and Welsh.

## GEMINI V2.3 Elements<sup>2</sup> (Services<sup>3</sup>) and NUAR Harmonised Data Model Conformance

UK GEMINI id	Element name	Obligation	No. occurrences	Compliant?	(D)ataset, (S)ervice, (B)oth	Details
1	Title	(M)andatory	Single	Y	B	nuarsubmissionevent::eventname
2	Alternative title	(O)ptional	Multiple	N	B	Not required
3	Dataset language	M	Multiple	N	D	Standardised text about NUAR data in the <b>nuargemini23metadata</b> table
4	Abstract	M	Single	N	B	Standardised text about NUAR data in the <b>nuargemini23metadata</b> table
5	Topic category	M	Multiple	N	D	From ISO 19115: 007 (environment); 018 (transportation); 019 (utilitiesCommunication)
6	Keyword	M	Multiple	N	B	Standardised text about NUAR data in the <b>nuargemini23metadata</b> table

<sup>2</sup> <https://agiorguk.github.io/gemini/1250-element-summary>

<sup>3</sup> <https://agiorguk.github.io/gemini/1063-gemini-services.html>



UK GEMINI id	Element name	Obligation	No. occurrences	Compliant?	(D)ataset, (S)ervice, (B)oth	Details
7	Temporal Extent	M	Multiple	Y	B	nuarsubmissionsourcedataset::dateofextract or nuarsubmissionevent::dateofsubmission
8	Dataset reference date	M	Multiple	Y	B	nuarsubmissionevent::dateofsubmission
10	Lineage	M	Single	Y	D	nuaractor::displayname; nuarsourcedataset::sourceFeatureClassValue (multiple)
15	Extent	O	Multiple	N	B	Not required
16	Vertical extent information	O	Multiple	N	B	Not required
17	Spatial reference system	M	Multiple	N	B	nuarsubmissionevent::spatialreferencesystem



UK GEMINI id	Element name	Obligation	No. occurrences	Compliant?	(D)ataset, (S)ervice, (B)oth	Details
18	Spatial resolution	(C)onditional	Multiple	N	B	Not required
19	Resource locator	C	Multiple	N	B	Included in <b>nuargemini23metadata</b> table - URI of the service in question (URI of the main NUAR portal for datasets)
21	Data format	M	Multiple	Y	D	nuarsourcedataset::type (multiple)
23	Responsible organisation	M	Multiple	Y	B	For the record linked by nuarsubmissionevent::dataproducerid_fk: nuaractor::displayname nuarcontactdetails::address_singlelineaddress (business contact) nuarcontactdetails::telephonenumber (business contact) nuarcontactdetails::emailaddress (business contact) nuaractor::websiteurl



UK GEMINI id	Element name	Obligation	No. occurrences	Compliant?	(D)ataset, (S)ervice, (B)oth	Details
25	Limitations on public access	M	Multiple	N	B	Standardised text about NUAR data in the <b>nuargemini23metadata</b> table
26	Use constraints	M	Multiple	N	B	Standardised text about NUAR data in the <b>nuargemini23metadata</b> table
27	Additional information	O	Single	N	D	Not required
30	Metadata date	M	Single	Y	B	nuarsubmissionevent::dateofsubmission
33	Metadata language	M	Single	N	B	In the <b>nuargemini23metadata</b> table
35	Metadata point of contact	M	Single	N	B	In the <b>nuargemini23metadata</b> table
36	Resource identifier	M	Multiple	Y	D	nuarsubmissionevent::systemid



UK GEMINI id	Element name	Obligation	No. occurrences	Compliant?	(D)ataset, (S)ervice, (B)oth	Details
37	Spatial data service type	M	Single	N	S	In the <b>nuargemini23metadata</b> table
38	Coupled resource	C	Multiple	N	S	Not required
39	Resource type	M	Single	N	B	In the <b>nuargemini23metadata</b> table
41	Conformity	M	Multiple	N	B	In the <b>nuargemini23metadata</b> table
43	Equivalent scale	O	Multiple	N	B	Not required
44	Bounding box	M	Multiple	N	B	Bounding box of the union of geometries used to clip areas in NUAR
45	File identifier	M	Single	Y	B	nuarsubmissionevent::systemid
47	Hierarchy level name	C	Single	N	B	In the <b>nuargemini23metadata</b> table



UK GEMINI id	Element name	Obligation	No. occurrences	Compliant?	(D)ataset, (S)ervice, (B)oth	Details
48	Quality scope	M	Multiple	N	B	In the <b>nuargemini23metadata</b> table
49	Parent identifier	O	Single	N	B	Not required
50	Spatial representation type	M	Multiple	N	D	In the <b>nuargemini23metadata</b> table
51	Character encoding	C	Multiple	N	D	Not required
52	Data quality	C	Multiple	N	D	Not required (at this time. Could be used in future to specify a Data Quality range for a Submission in time, or an indication of Maturity level for the submitting organisation)
53	Maintenance information	O	Single	N	D	Not required





UK GEMINI id	Element name	Obligation	No. occurrences	Compliant?	(D)ataset, (S)ervice, (B)oth	Details
54	Metadata standard name	O	Single	N	B	In the <b>nuargemini23metadata</b> table
55	Metadata standard version	O	Single	N	B	In the <b>nuargemini23metadata</b> table