A Case Study on how GEMINI, the UK profile of ISO 19115:2003, has been implemented for marine data

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Who are MEDIN?

- Open partnership (50+ partners)
- 16 sponsors
- Budget ~£500K

Work with academia, government and industry
The genesis of MEDIN

> 200 holders of marine data and information in the UK (circa. 2008)

Three challenges needed solving:

• Being able to locate the data
• Being able to secure the data for the long term
• Being able to deliver data to users in interoperable formats with usage metadata
Conceived in 2009 as v1.0 (now at 3.0)
Required to locate marine dataset information online – if information not online, it effectively doesn’t exist!

UK and regional requirements to be accounted for
**GEMINI as basis for MEDIN**

Details of GEMINI are available at https://www.agi.org.uk/agi-groups/standards-committee/uk-gemini

GEMINI was considered suitable by MEDIN as it meets

- EU INSPIRE Technical Regulations 2.0.1
- UK government and legal obligations such as data.gov.uk

MEDIN is not a duplicate of GEMINI

MEDIN should be best considered as an adjustment of GEMINI to better discover marine-specific geospatial data
The MEDIN standard specifies use of certain controlled vocabularies to distinguish a record as ‘marine specific’

Keywords → P02

Coordinate System
Datum
Coordinate Reference System
<gmd:descriptiveKeywords>
  <gmd:MD_Keywords>
    <gmd:keywod>
      <gmx:Anchor xlink:href="http://vocab.nerc.ac.uk/collection/P02/current/MFAB/">Zooplankton generic abundance</gmx:Anchor>
    </gmd:keywod>
  </gmd:MD_Keywords>
</gmd:descriptiveKeywords>

<gmd:thesaurusName>
  <gmd:CI_Citation>
    <gmd:title><gco:CharacterString>SeaDataNet P021 parameter discovery vocabulary</gco:CharacterString></gmd:title>
    <gmd:date>
      <gmd:CI_Date>
        <gmd:date><gco:Date>2009-11-16</gco:Date></gmd:date>
        <gmd:dateType>
          <gmd:CI_DateTypeCode codeList="http://standards.iso.org/ittf/PubliclyAvailableStandards/ISO_19139_Schemas/resources/codelist/gmxCodeLists.xml#CI_DateTypeCode" codeListValue="revision">revision</gmd:CI_DateTypeCode></gmd:dateType>
      </gmd:CI_Date>
    </gmd:date>
  </gmd:CI_Citation>
</gmd:thesaurusName>
| URI | http://vocab.nerc.ac.uk/collection/P02/current/MFAB/ |
| Identifier (en) | SDN:P02::MFAB |
| Preferred label (en) | Zoobenthos generic abundance |
| Alternative label (en) | ZoobenthGenAbund |
| Definition (en) | Any enumeration (e.g. count, number per square metre) of animals living on or near the seabed during the reporting period. |
| Version Info (en) | 5 |
| Has Current Version | http://vocab.nerc.ac.uk/collection/P02/current/MFAB/5/ |
| Has Version | http://vocab.nerc.ac.uk/collection/P02/current/MFAB/4/ |
| Has Version | http://vocab.nerc.ac.uk/collection/P02/current/MFAB/3/ |
| Has Version | http://vocab.nerc.ac.uk/collection/P02/current/MFAB/2/ |
| Has Version | http://vocab.nerc.ac.uk/collection/P02/current/MFAB/1/ |
| PAV Version (en) | 5 |
| PAV Authored On (en) | 2010-10-22 10:08:34.0 |
| Deprecated (en) | false |
| Broader | http://vocab.nerc.ac.uk/collection/P04/current/G458/ |
| Broader | http://vocab.nerc.ac.uk/collection/P05/current/014/ |
| Broader | http://vocab.nerc.ac.uk/collection/P05/current/002/ |
| Broader | http://vocab.nerc.ac.uk/collection/P03/current/G055/ |
| Broader | http://vocab.nerc.ac.uk/collection/P03/current/B070/ |
| Broader | http://vocab.nerc.ac.uk/collection/P22/current/32/ |
| Broader | http://vocab.nerc.ac.uk/collection/L19/current/005/ |
| Broader | http://vocab.nerc.ac.uk/collection/D01/current/D0100001/ |
| Narrower | http://vocab.nerc.ac.uk/collection/P01/current/MFABSBLTL/ |
| Related | http://vocab.nerc.ac.uk/collection/P04/current/G840/ |
| Related | http://vocab.nerc.ac.uk/collection/P04/current/H386/ |
| Related | http://vocab.nerc.ac.uk/collection/P64/current/H386/ |
| Date (en) | 2010-10-22 10:08:34.0 |
Other MEDIN differences

- Parent Identifier element present in earlier MEDIN but not GEMINI before v2.3
- Metadata Standard name present in MEDIN but not GEMINI before v2.3
- Differences in requirement level: MEDIN requirements can be tighter than GEMINI e.g. Responsible Party
  - GEMINI mandates ‘distributor’ only
  - MEDIN mandates ‘distributor’, ‘owner’, ‘originator’, ‘custodian’
MEDIN implementation

- Work with Marine Science Coordination Committee
- Data clause promotion
- Pro-active engagement across UK marine community

MEDIN website with a page on standards (https://www.medin.org.uk/medin-discovery-metadata-standard)

3 components make up the Standard
Discovery Metadata Standard
- Smart Tools

https://www.medin.org.uk/medin-discovery-metadata-standard

MEDIN Discovery Metadata Editor
The Discovery Metadata Editor is an online tool to create, export and validate an XML metadata record, or to upload directly to the MEDIN Data Discovery Portal →

The Editor is suitable for generating metadata for a small number of data sets.

On-line metadata generation and editing tool

Metadata Maestro
Metadata Maestro allows users to create, edit, validate and transform discovery metadata records to MEDIN, GEMINI and ISO standards.

Metadata Maestro operates in desktop standalone mode as well as using a web service to access required vocabularies when an internet connection is available.

By downloading the Metadata Maestro tool you are agreeing to the licence conditions for this application, which specify that your contact details will be passed to the application developers, HR Wallingford.

Please note: the Metadata Maestro is currently not configured to operate by default with Microsoft Windows 10. If you have a Windows 10 PC, please contact Sean for guidance as to how to proceed.

Desktop tool. Can work in stand alone mode.
The MEDIN portal
(portal.medin.org.uk)

Governed by MEDIN Discovery Metadata Standard

Hub – the single point of access to find out about marine data

Public funded data available under OGL
MEDIN and the standards community

MEDIN Standards Working Group

MEDIN Standard

GEMINI Working Group

IST/36

TC/211
Summary

- MEDIN standard is a marine-specific profile of GEMINI

- Advantage of MEDIN for marine stakeholders is that one metadata instance complies with MEDIN, GEMINI, EU INSPIRE and ISO 19115:2003

- MEDIN standard makes extensive use of controlled vocabularies with resolvable URLs, thus enabling Linked Data to be used with MEDIN records

- MEDIN are pro-active in the UK marine community, ensuring that use of the MEDIN standard continues to grow

- MEDIN are active in the standards community, nationally and internationally, ensuring the MEDIN standard continually reflects best practice
Thank you

“Data is a precious thing and will last longer than the systems themselves.”

Tim Berners-Lee
Inventor of the World Wide Web

Any questions?