WMO Core Profile 1.3

Specifics and differences from ISO

WMO Core Metadata Profile Purpose

- Discovery Metadata
- Allow to build catalogue of collection of products allow to access and retrieve the information
- What need to be expressed in the Metadata
  - What data ?
  - Where to find the data ?
  - How to access the data ?
  - Use constraints, Data policies ?

Which ISO Standard

WIS Discovery Metadata shall be compliant with:

- ISO 19115:2003 'Geographic information – Metadata';
- ISO 19115:2003/Cor. 1:2006 'Geographic information – Metadata – Corrigendum 1'; and

It is based on the ISO/TS 19139:2007 XML encoding

WMO Core Profile 1.3

- No extensions on the existing ISO model
  - No additional namespaces

Only add:
- Constraints on the XML encoding
- Constraints on the usage of existing elements
- additional code lists that have to be used for specific elements

Two Categories of Products (1)

- Data intended for global exchange
  - Those are the data circulating on the GTS
  - Subject to particular WMO Data policies
    - WMO Essential (freely accessible to anybody)
    - WMO Additional (freely accessible to NMS and associated organisations)
  - This data is directly accessible from the GISC
- The rest: Non Global Exchange Data
  - Data that do not circulate on the GTS
  - Typical case for a Satellite Data Provider
  - A large quantity of EUMETSAT products belong to that category

Two Categories of Products (2)

- WMO Core Profile 1.3 reflects these 2 different categories of products
- This differentiation makes it difficult to understand the documentation

DCPC Data Mandatory Elements (1)

- Provide a unique identifier
  - location gmd:MD_Metadata/gmd:fileIdentifier
  - it shall be unique in the WIS
  - treated as case insensitive
  - recommended to use urn notation:
    - urn:x-wmo:md:organisation::identifier
    - urn:x-wmo:md:int.eumetsat::EO:EUM:CM:MFG: MSA1-ADC
- It is used by the GISCs to perform the catalogue synchronisation

DCPC Data - Mandatory Elements (2)

- Title
  - /gmd:MD_Metadata/gmd:identificationInfo//gmd:citation//gmd:title
  - No recommendation on what the title should contain
- creationDate, modificationDate
  - location: /gmd:MD_Metadata/gmd:identificationInfo//gmd:citation//gmd:date

DCPC Data - Mandatory Elements (3)

- Abstract
  - /gmd:MD_Metadata/gmd:identificationInfo//gmd:abstract
  - Recommendations for the Abstract

  Note that the abstract should provide a clear and concise statement that enables the reader to understand the content of the dataset. For guidance when completing the abstract, consider these points:

  (a) State what the "things" are that are recorded.

  (b) State the key aspects recorded about these things.

  (c) State what form the data takes.

  (d) State any other limiting information, such as time period of validity of the data.

  (e) Add purpose of data resource where relevant (e.g. for survey data).

  (f) Aim to be understood by non-experts.

  (g) Do not include general background information.

  (h) Avoid jargon and unexplained abbreviations.

- We can go further in our recommendations

DCPC Data - Mandatory Elements (4)

- Author
  - /gmd:MD_Metadata/gmd:contact
  - using a specific element for specifying the contact:
    - CI_ResponsibleParty entity /gmd:MD_Metadata/gmd:contact element should use the CI_RoleCode "pointOfContact"
    - e.g./gmd:MD_Metadata/gmd:contact//gmd:role = "pointOfContact"
- Bounding Box defining the spatial extent of the data
  - gmd:MD_Metadata/gmd:identificationInfo/gmd:MD_DataIdentification/gmd:extent/gmd:EX_Extent/gmd:geographicExtent/
  - Only mandatory for geographic data

DCPC Data - Mandatory Elements (5)

- Use of keywords to categorize products
- WIS discovery metadata shall include a least one keyword from the WMO_CategoryCode code list
  - gmd:MD_Metadata/gmd:identificationInfo/gmd:MD_Identification/gmd:descriptiveKeywords
  - Type for keyword from WMO_CategoryCode shall be "theme"
- Can use different thesaurus but
  - group all keyword from a particular thesaurus in a single instance of MD_Keywords class

DCPC Data - Mandatory Elements (6)

- Scope fo Distribution
  - GlobalExchange
    - Essential or additional data
  - RegionalExchange
    - i.e, Data exchanged on the GTS regionally
    - Billateral echange using the GTS
  - OriginatingCentre
    - Data available from the OriginatingCentre
    - Usually the case for Satellite data providers

DCPC Data - Mandatory Elements (7)

- Create Scope of Distribution
- Add a keyword
  - /gmd:MD_Metadata/gmd:identificationInfo//gmd:descriptiveKeywords//gmd:keyword
- of type "dataCentre"
  - /gmd:MD_Metadata/gmd:identificationInfo//gmd:descriptiveKeywords//gmd:type
- from a Thesaurus "WMO_DistributionScopeCode"
  - /gmd:MD_Metadata/gmd:identificationInfo//gmd:descriptiveKeywords//gmd:thesaurusName

```xml
<gmd:descriptiveKeywords>
  <gmd:MD_Keywords>
    <gmd:keyword>
      <!--keyword OriginatingCentre applies for DCPC Data -->
      <gco:CharacterString>OriginatingCentre</gco:CharacterString>
    </gmd:keyword>
    <gmd:type>
      <gmd:MD_KeywordTypeCode
          codeList="http://wis.wmo.int/2012/codelists/WMOCodeLists.xml#MD_DistributionScopeCode"
                          codeListValue="dataCentre">dataCentre</gmd:MD_KeywordTypeCode>
    </gmd:type>
    <gmd:thesaurusName>
      <gmd:CI_Citation>
        <gmd:title>
          <gco:CharacterString> WMO_DistributionScopeCode, WMOCodelists dictionary Version 1.3
          [http://wis.wmo.int/2012/codelists/WMOCodeLists.xml#WMO_DistributionScopeCode]</gco:Charac
          terString>
        </gmd:title>
        <gmd:date>
          <gmd:CI_Date>
            <gmd:date>
              <gco:Date>2013-02-14Z</gco:Date>
            </gmd:date>
            <gmd:dateType>
              <gmd:CI_DateTypeCode
              codeList="http://wis.wmo.int/2012/codelists/WMOCodeLists.xml#CI_DateTypeCode"
                          codeListValue="publication">publication</gmd:CI_DateTypeCode>
            </gmd:dateType>
          </gmd:CI_Date>
        </gmd:date>
        <gmd:citedResponsibleParty>
          <gmd:CI_ResponsibleParty>
            <gmd:organisationName>
              <gco:CharacterString>WMO Secretariat
              </gco:CharacterString>
            </gmd:organisationName>
            <gmd:contactInfo>
              <gmd:CI_Contact>
                <gmd:onlineResource>
                  <gmd:CI_OnlineResource>
                    <gmd:linkage>
                      <gmd:URL>http://www.wmo.int/pages/about/sec/sg_en.html
                      </gmd:URL>
                    </gmd:linkage>
                    <gmd:protocol>
                      <gco:CharacterString>WWW:LINK-1.0-http-link</gco:CharacterString>
                    </gmd:protocol>
                  </gmd:CI_OnlineResource>
                </gmd:onlineResource>
              </gmd:CI_Contact>
            </gmd:contactInfo>
            <gmd:role>
              <gmd:CI_RoleCode
              codeList="http://standards.iso.org/ittf/PubliclyAvailableStandards/ISO_19139_Schemas/
              resources/codelist/gmxCodelists.xml#CI_RoleCode"  codeListValue="publisher">publisher
              </gmd:CI_RoleCode>
            </gmd:role>
          </gmd:CI_ResponsibleParty>
        </gmd:citedResponsibleParty>
      </gmd:CI_Citation>
    </gmd:thesaurusName>
  </gmd:MD_Keywords>
</gmd:descriptiveKeywords>
```

DCPC Data - Data Policy

- WMO Core Metadata Profile specifies how the "ISO 19115 Data Policy" part has to be created on for data for global exchange
- But for non global exchange data, additional information needs to be provided to be visible at the GISC
- Add a ResourceConstraint to create the data policy
  - /gmd:MD_Metadata/gmd:identificationInfo//gmd:resourceConstraints

DCPC Data - Data Policy (2)

- Qualify the resourceConstraint with "WMOOther"
  - /gmd:MD_Metadata/gmd:identificationInfo//gmd:resourceConstraints//gmd:otherConstraints

Is that all ?

- Only described the mandatory information for non global exchange data
  - 70 % of the Satellite Data provider data
- We also need to explain how to create data intended for global exchange
  - change scope of distribution
  - add different information in the data policy
    - /gmd:MD_Metadata/gmd:identificationInfo//gmd:resourceConstraints

CGMS TF-MI Work (1)

- Create documentation to create satellite product WIS metadata records
  - As clear and simple as possible
  - cover non global and global exchange cases
  - Available on a web site
- Provide XML examples that different types of products
- Provide templates to help data centres filling the information

CGMS TF-MI Work (2)

- Do we want to add more information concerning the satellite data products ?
  - product type, instument, format, satellite info, …
  - another categorisation
- Where do we recommend to put that information and under which ISO XML elements ?
- Do we want to recommend more precisely how to structure the Title, the Abstract
  - Provide consitency amongst the records
  - Easier to understand/compare for the users

CGMS TF-MI Work

- Create a WIS WMO record validator for satellite products
  - web service
  - command line client for operational environement that do not have access to internet