

Sentinel-1A Products

Product format specification

ASF engineering

ABSTRACT

This product format specification defines the ISO compliant XML metadata for ESA's Sentinel-1A data.



Document Preparation

The document was prepared with contributions from
Rudi Gens

Document Change Log

Revision	Date	Page	Change Description	Reason for change
1.0 Draft	01/31/2015	all	Initial Draft	
1.1	01/06/2015		Updated ESA contact information Added additional links for reference	

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1 Document structure

The document is structured as follows:

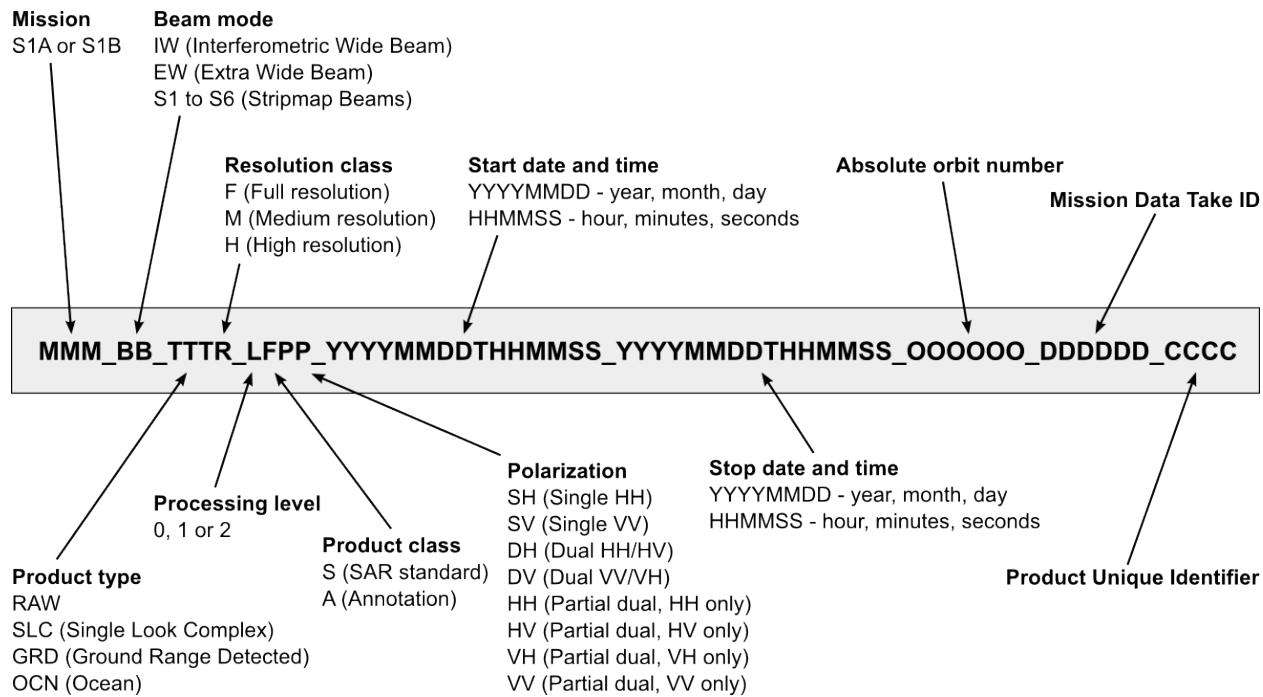
Chapter 1 introduces the structure and scope of the document.

Chapter 2 summarizes the product packaging.

Chapter 3 defines the elements of the ISO compliant XML metadata.

2 Product packaging

The naming convention for the Sentinel products follows as base name of this pattern:



The product comes as a zip file of a directory structure that follows the Standard Archive Format for Europe (SAFE) [<http://earth.esa.int/SAFE/>].

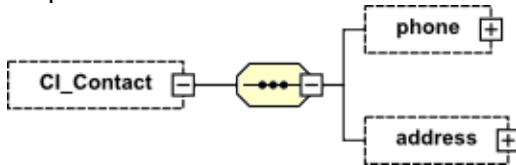
3 ISO XML metadata

The metadata is stored in an ISO metadata compliant XML format.

```
<?xml version="1.0" encoding="utf-8"?>
<gmd:DS_Series
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:gmd="http://www.isotc211.org/2005/gmd"
  xmlns:gco="http://www.isotc211.org/2005/gco"
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  xmlns: eos="http://earthdata.nasa.gov/schema/eos"
  xmlns:echo="http://www.echo.nasa.gov/ingest/schemas/operations"
  xmlns:xlink="http://www.w3.org/1999/xlink"
  xmlns:gml="http://www.opengis.net/gml/3.2"
  xmlns:gmi="http://www.isotc211.org/2005/gmi"
  xmlns:gmx="http://www.isotc211.org/2005/gmx">
  <gmd:composedOf>
    <gmd:DS_DataSet>
      <gmd:has>
        <gmi:MI_Metadata>
          <gmd:fileIdentifier>
            <gco:CharacterString>
S1A_IW_GRDH_1SDH_20140919T234039_20140919T234104_002468_002AE7_9AF7.iso.xml</gco:CharacterString>
            </gmd:fileIdentifier>
          <gmd:language>
            <gco:CharacterString>eng</gco:CharacterString>
          </gmd:language>
          <gmd:characterSet>
            <gmd:MD_CharacterSetCode
              codeList="http://www.isotc211.org/2005/resources/Codelist/gmxCodelists.xml#MD_CharacterSetCode"
              codeListValue="utf8">utf8</gmd:MD_CharacterSetCode>
          </gmd:characterSet>
          <gmd:hierarchyLevel>
            <gmd:MD_ScopeCode
              codeList="http://www.isotc211.org/2005/resources/Codelist/gmxCodelists.xml#MD_ScopeCode"
              codeListValue="dataset">dataset</gmd:MD_ScopeCode>
          </gmd:hierarchyLevel>
          <gmd:contact>
            <gmd:CI_ResponsponsibleParty>
              <gmd:organisationName>
                <gco:CharacterString>
                  European Space Agency – Copernicus Services Coordinated Interface (SCI)
                </gco:CharacterString>
              </gmd:organisationName>
            </gmd:CI_ResponsponsibleParty>
          </gmd:contact>
        </gmi:MI_Metadata>
      </gmd:has>
    </gmd:DS_DataSet>
  </gmd:composedOf>
</gmd:DS_Series>
```

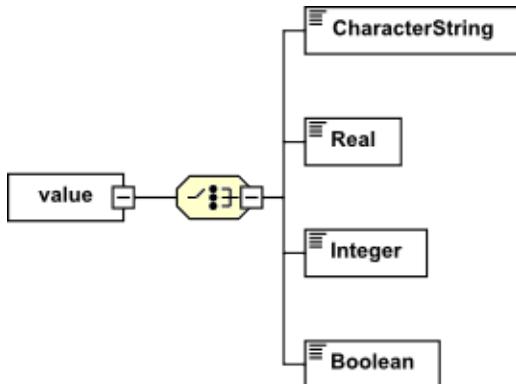
The graphical representation contains a number of compositors and components:

- Sequence



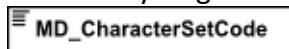
A sequence requires all child elements to be present in the given order, i.e. in this case the **phone** component needs to be in XML file before the **address** component.

- Choice



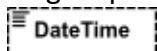
A choice allows only one of the child elements to be present, i.e. value can be a character string, floating point number, integer number or Boolean.

- Mandatory single element



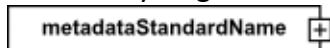
An element with solid border indicates that the element is required. The absence of a number range implies a minimum and maximum occurrence of the element of 1.

- Single optional element



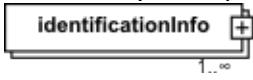
An element with dashed border indicates that the element is optional. The absence of a number range implies a minimum occurrence of 0 and a maximum occurrence of 1.

- Mandatory single element containing children



The solid border indicates a mandatory element. The plus sign means complex content, i.e. it contains at least one child element.

- Mandatory multiple element containing child elements



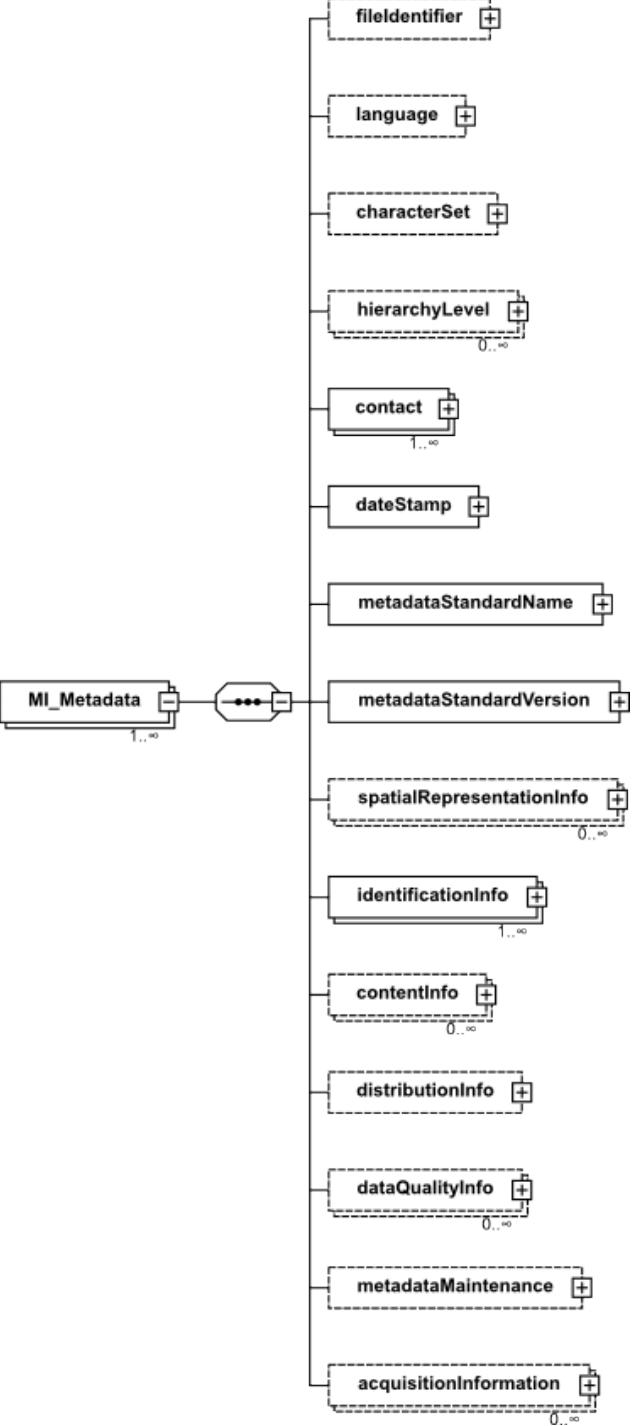
The solid border indicates a mandatory element. The plus sign means complex content, i.e. it contains at least one child element. The number range 1..∞ indicates a minimum occurrence of 1 and an unbounded maximum occurrence.

The structure is outlined in more detail below.



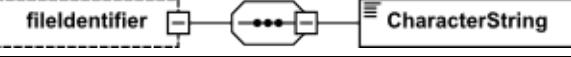
3.1 MI_Metadata

element MI_Metadata

diagram	 <p>The diagram illustrates the structure of the MI_Metadata element. It is a class that inherits from another MI_Metadata class (indicated by a generalization arrow) and has the following associations:</p> <ul style="list-style-type: none">fileIdentifier: A dashed line association with a multiplicity of 0..1.language: A dashed line association with a multiplicity of 0..1.characterSet: A dashed line association with a multiplicity of 0..1.hierarchyLevel: A dashed line association with a multiplicity of 0..1.contact: A dashed line association with a multiplicity of 1..∞.dateStamp: A dashed line association with a multiplicity of 0..1.metadataStandardName: A dashed line association with a multiplicity of 0..1.metadataStandardVersion: A solid line association with a multiplicity of 1..∞. This association is marked with three dots between the two boxes, indicating it is part of a sequence or list.spatialRepresentationInfo: A dashed line association with a multiplicity of 0..1.identificationInfo: A dashed line association with a multiplicity of 1..∞.contentInfo: A dashed line association with a multiplicity of 0..∞.distributionInfo: A dashed line association with a multiplicity of 0..∞.dataQualityInfo: A dashed line association with a multiplicity of 0..∞.metadataMaintenance: A dashed line association with a multiplicity of 0..∞.acquisitionInformation: A dashed line association with a multiplicity of 0..∞.
annotation	documentation contains the metadata for the terrain corrected product

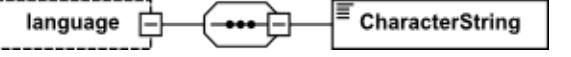
3.1.1 fileIdentifier

element MI_Metadata/fileIdentifier

diagram	
type	xs:string
annotation	documentation file name of the terrain corrected product XML file

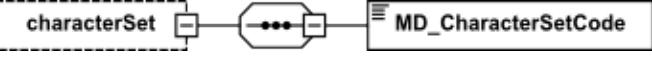
3.1.2 language

element MI_Metadata/language

diagram	
type	xs:string
annotation	documentation language of the metadata record

3.1.3 characterSet

element MI_Metadata/characterSet

diagram	
type	characterSetCode
facets	enumeration ucs2 enumeration ucs4 enumeration utf7 enumeration utf8 enumeration utf16 enumeration 8859part1 enumeration 8859part2 enumeration 8859part3 enumeration 8859part4 enumeration 8859part5 enumeration 8859part6 enumeration 8859part7 enumeration 8859part8

	enumeration	8859part9		
	enumeration	8859part10		
	enumeration	8859part11		
	enumeration	8859part12		
	enumeration	8859part13		
	enumeration	8859part14		
	enumeration	8859part15		
	enumeration	8859part16		
	enumeration	jis		
	enumeration	shiftJIS		
	enumeration	eucJP		
	enumeration	usAscii		
	enumeration	ebcdic		
	enumeration	eucKR		
	enumeration	big5		
	enumeration	GB2312		
attribute	Name	Type	Use	Annotation
	codeList	xs:string	required	MD_CharacterSetCode
	codeListValue	characterSetCode	required	value from code list
annotation	documentation	name of the character coding standard used in the resource		

3.1.4 hierarchyLevel

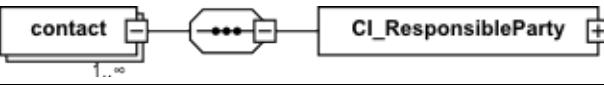
element MI_Metadata/hierarchyLevel

diagram	<pre> classDiagram class hierarchyLevel class MD_ScopeCode hierarchyLevel "0..*" --> "..." MD_ScopeCode </pre>														
type	scopeCode														
facets	<table border="1"> <tr> <td>enumeration</td> <td>attribute</td> </tr> <tr> <td>enumeration</td> <td>attributeType</td> </tr> <tr> <td>enumeration</td> <td>collectionHardware</td> </tr> <tr> <td>enumeration</td> <td>collectionSession</td> </tr> <tr> <td>enumeration</td> <td>dataset</td> </tr> <tr> <td>enumeration</td> <td>series</td> </tr> <tr> <td>enumeration</td> <td>nonGeographicDataset</td> </tr> </table>	enumeration	attribute	enumeration	attributeType	enumeration	collectionHardware	enumeration	collectionSession	enumeration	dataset	enumeration	series	enumeration	nonGeographicDataset
enumeration	attribute														
enumeration	attributeType														
enumeration	collectionHardware														
enumeration	collectionSession														
enumeration	dataset														
enumeration	series														
enumeration	nonGeographicDataset														

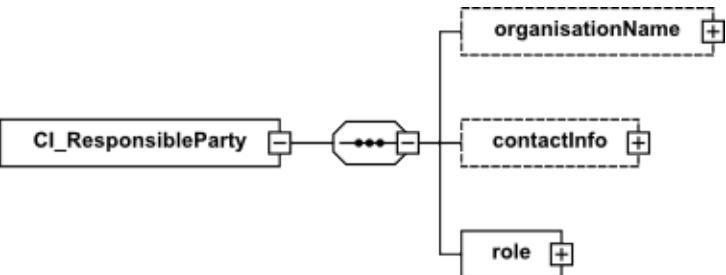
	enumeration	dimensionGroup		
	enumeration	feature		
	enumeration	featureType		
	enumeration	propertyType		
	enumeration	fieldSession		
	enumeration	software		
	enumeration	service		
	enumeration	model		
	enumeration	tile		
attribute	Name	Type	Use	Annotation
	codeList	xs:string	required	MD_ScopeCode
	codeListValue	scopeCode	required	value from code list
annotation	documentation	class of information to which the referencing entity applies		

3.1.5 contact

element MI_Metadata/contact

diagram	
annotation	documentation contact information

element MI_Metadata/contact/CI_ResponsibleParty

diagram	
annotation	documentation responsible party details

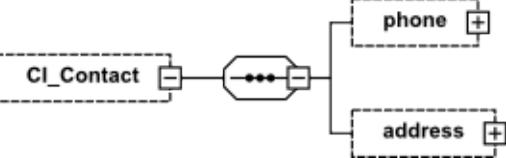
element MI_Metadata/contact/CI_ResponsibleParty/organisationName

diagram	
type	xs:string
annotation	documentation name of the responsible organization

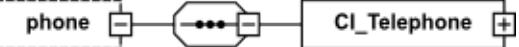
element MI_Metadata/contact/CI_ResponsibleParty/contactInfo

diagram	
annotation	documentation contact information

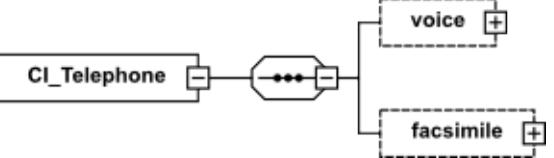
element MI_Metadata/contact/CI_ResponsibleParty/contactInfo/CI_Contact

diagram									
attribute	<table> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Annotation</th> </tr> <tr> <td>id</td> <td>xs:string</td> <td>required</td> <td>ID for ASF contact information</td> </tr> </table>	Name	Type	Use	Annotation	id	xs:string	required	ID for ASF contact information
Name	Type	Use	Annotation						
id	xs:string	required	ID for ASF contact information						
annotation	documentation contact information details								

element MI_Metadata/contact/CI_ResponsibleParty/contactInfo/CI_Contact/phone

diagram	
annotation	documentation contact phone information

element MI_Metadata/contact/CI_ResponsibleParty/contactInfo/CI_Contact/phone/CI_Telephone

diagram	
annotation	documentation contact telephone information details

element **MI_Metadata/contact/CI_ResponsibleParty/contactInfo/CI_Contact/phone/CI_Telephone/voice**

diagram	
type	xs:string
annotation	documentation contact phone number

element **MI_Metadata/contact/CI_ResponsibleParty/contactInfo/CI_Contact/phone/CI_Telephone/facsimile**

diagram	
type	xs:string
annotation	documentation contact fax number

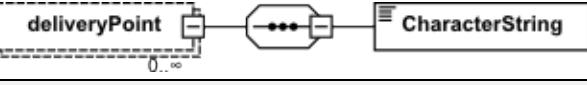
element **MI_Metadata/contact/CI_ResponsibleParty/contactInfo/CI_Contact/address**

diagram	
annotation	documentation contract address

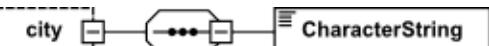
element **MI_Metadata/contact/CI_ResponsibleParty/contactInfo/CI_Contact/address/CI_Address**

diagram	
annotation	documentation contact address details

element **MI_Metadata/contact/CI_ResponsibleParty/contactInfo/CI_Contact/address/CI_Address/deliveryPoint**

diagram	
type	xs:string
annotation	documentation contact address: street

element **MI_Metadata/contact/CI_ResponsibleParty/contactInfo/CI_Contact/address/CI_Address/city**

diagram	
type	xs:string
annotation	documentation contact address: city

element **MI_Metadata/contact/CI_ResponsibleParty/contactInfo/CI_Contact/address/CI_Address/administrativeArea**

diagram	
type	xs:string
annotation	documentation contact address: administrative area

element **MI_Metadata/contact/CI_ResponsibleParty/contactInfo/CI_Contact/address/CI_Address/postalCode**

diagram	
type	xs:string
annotation	documentation contact address: postal code

element **MI_Metadata/contact/CI_ResponsibleParty/contactInfo/CI_Contact/address/CI_Address/country**

diagram	
type	xs:string
annotation	documentation contact address: country

element **MI_Metadata/contact/CI_ResponsibleParty/contactInfo/CI_Contact/address/CI_Address/electronicMailAddress**

diagram	<pre> classDiagram class electronicMailAddress { xs:string } class CharacterString { string } electronicMailAddress "0..*" --> "..." CharacterString </pre>
type	xs:string
annotation	documentation contact address: email address

element **MI_Metadata/contact/CI_ResponsibleParty/role**

diagram	<pre> classDiagram class role { xs:string } class CI_RoleCode { string } role "0..*" --> "..." CI_RoleCode </pre>												
type	roleCode												
facets	enumeration resourceProvider enumeration custodian enumeration owner enumeration sponsor enumeration user enumeration distributor enumeration originator pointOfContact enumeration principalInvestigator enumeration processor enumeration publisher enumeration author enumeration collaborator												
attribute	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>codeList</td> <td>xs:string</td> <td>required</td> <td>CI_RoleCode</td> </tr> <tr> <td>codeListValue</td> <td>roleCode</td> <td>required</td> <td>value from code list</td> </tr> </tbody> </table>	Name	Type	Use	Annotation	codeList	xs:string	required	CI_RoleCode	codeListValue	roleCode	required	value from code list
Name	Type	Use	Annotation										
codeList	xs:string	required	CI_RoleCode										
codeListValue	roleCode	required	value from code list										
annotation	documentation function performed by the responsible party												

3.1.6 dateStamp

element MI_Metadata/dateStamp

diagram	
type	xs:date
annotation	documentation date that the metadata was last updated

3.1.7 metadataStandardName

element MI_Metadata/metadataStandardName

diagram	
type	xs:string
annotation	documentation name of the metadata standard

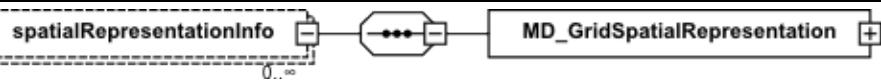
3.1.8 metadataStandardVersion

element MI_Metadata/metadataStandardVersion

diagram	
type	xs:string
annotation	documentation version of the metadata standard

3.1.9 spatialRepresentationInfo

element MI_Metadata/spatialRepresentationInfo

diagram	
annotation	documentation spatial representation information

element MI_Metadata/spatialRepresentationInfo/MD_GridSpatialRepresentation

diagram	<pre> classDiagram class MD_GridSpatialRepresentation class numberOfDimensions class axisDimensionProperties class cellGeometry class transformationParameterAvailability MD_GridSpatialRepresentation < --> * numberOfDimensions MD_GridSpatialRepresentation < --> * axisDimensionProperties MD_GridSpatialRepresentation < --> * cellGeometry MD_GridSpatialRepresentation < --> * transformationParameterAvailability </pre>
annotation	documentation grid spatial representation details

element MI_Metadata/spatialRepresentationInfo/MD_GridSpatialRepresentation/numberOfDimensions

diagram	<pre> classDiagram class numberOfDimensions class Integer numberOfDimensions < --> * Integer </pre>
type	xs:int
annotation	documentation number of dimensions

element MI_Metadata/spatialRepresentationInfo/MD_GridSpatialRepresentation/axisDimensionProperties

diagram	<pre> classDiagram class axisDimensionProperties class MD_Dimension axisDimensionProperties < --> * MD_Dimension </pre>
annotation	documentation axis dimension properties

element MI_Metadata/spatialRepresentationInfo/MD_GridSpatialRepresentation/axisDimensionProperties/MD_Dimension

diagram	<pre> classDiagram class MD_Dimension class dimensionName class dimensionSize class resolution MD_Dimension < --> * dimensionName MD_Dimension < --> * dimensionSize MD_Dimension < --> * resolution </pre>
annotation	documentation dimension details

element **MI_Metadata/spatialRepresentationInfo/MD_GridSpatialRepresentation/axisDimensionProperties/MD_Dimension/dimensionName**

diagram	<pre> classDiagram class dimensionName class MD_DimensionNameTypeCode dimensionName "2" --> MD_DimensionNameTypeCode </pre>			
type	dimensionNameTypeCode			
facets	enumeration row enumeration column enumeration vertical enumeration track enumeration crossTrack enumeration line enumeration sample enumeration time			
attribute	Name	Type	Use	Annotation
	codeList	xs:string	required	MD_DimensionNameTypeCode
	codeListValue	dimensionName	required	value of code list TypeCode
annotation	documentation	name of the dimension		

element **MI_Metadata/spatialRepresentationInfo/MD_GridSpatialRepresentation/axisProperties/MD_Dimension/dimensionSize**

diagram	<pre> classDiagram class dimensionSize class Integer dimensionSize "2" --> Integer </pre>			
type	xs:int			
annotation	documentation	size of the dimension		

element **MI_Metadata/spatialRepresentationInfo/MD_GridSpatialRepresentation/axisProperties/MD_Dimension/resolution**

diagram	<pre> classDiagram class resolution class Distance resolution "2" --> Distance </pre>			
type	xs:float			
annotation	documentation	resolution		

element **MI_Metadata/spatialRepresentationInfo/MD_GridSpatialRepresentation/cellGeometry**

diagram				
type	cellGeometryCode			
facets	enumeration point enumeration area			
attribute	Name codeList	Type xs:string	Use required	Annotation MD_CellGeometryCode
	codeListValue	cellGeometryCode	required	value of code list
annotation	documentation	cell geometry		

element **MI_Metadata/spatialRepresentationInfo/MD_GridSpatialRepresentation/transformationParameterAvailability**

diagram				
type	xs:Boolean			
annotation	documentation	transformation parameter availability		

3.1.10 identificationInfo

element **MI_Metadata/identificationInfo**

diagram				
annotation	documentation	dataset identification information		

element MI_Metadata/identificationInfo/MD_DataIdentification

diagram	<pre> classDiagram class MD_DataIdentification { citation abstract status *{ 0..∞ } resourceMaintenance *{ 0..∞ } graphicOverview *{ 0..∞ } resourceConstraints *{ 0..∞ } spatialRepresentationType *{ 0..∞ } spatialResolution *{ 0..∞ } language *{ 1..∞ } characterSet *{ 0..∞ } topicCategory *{ 0..∞ } environmentDescription extent *{ 0..∞ } } MD_DataIdentification < -- CI_Citation MD_DataIdentification < -- CI_Identifier MD_DataIdentification < -- CI_Maintenance MD_DataIdentification < -- CI_SpatialRepresentationType MD_DataIdentification < -- CI_SpatialResolution MD_DataIdentification < -- CI_Language MD_DataIdentification < -- CI_CharacterSet MD_DataIdentification < -- CI_TopicCategory MD_DataIdentification < -- CI_EnvironmentDescription MD_DataIdentification < -- CI_Extent </pre>
annotation	documentation data identification details

element MI_Metadata/identificationInfo/MD_DataIdentification/citation

diagram	<pre> classDiagram class citation class CI_Citation citation < -- CI_Citation </pre>
annotation	documentation data citation

element MI_Metadata/identificationInfo/MD_DataIdentification/citation/CI_Citation

diagram	<pre> classDiagram class CI_Citation class title class date class identifier class citedResponsibleParty class presentationForm class series CI_Citation "1..oo" --> title CI_Citation "1..oo" --> date CI_Citation "0..oo" --> identifier CI_Citation "0..oo" --> citedResponsibleParty CI_Citation "0..oo" --> presentationForm CI_Citation "0..oo" --> series </pre>
annotation	documentation data citation details

element MI_Metadata/identificationInfo/MD_DataIdentification/citation/CI_Citation/title

diagram	<pre> classDiagram class title class FileName title "1..oo" --> FileName </pre>
type	xs:string
annotation	documentation data citation: title

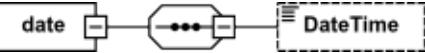
element MI_Metadata/identificationInfo/MD_DataIdentification/citation/CI_Citation/date

diagram	<pre> classDiagram class date class CI_Date date "1..oo" --> CI_Date </pre>
annotation	documentation data citation: date

element MI_Metadata/identificationInfo/MD_DataIdentification/citation/CI_Citation/date/CI_Date

diagram	<pre> classDiagram class CI_Date class date class dateType CI_Date "1..oo" --> date CI_Date "1..oo" --> dateType </pre>
annotation	documentation data citation: date details

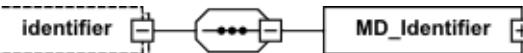
element **MI_Metadata/identificationInfo/MD_DataIdentification/citation/CI_Citation/date/CI_Date/date**

diagram	
type	xs:date
annotation	documentation date time stamp – e.g. 2014-01-29T23:47:03.000000Z

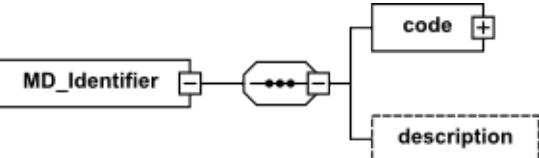
element **MI_Metadata/identificationInfo/MD_DataIdentification/citation/CI_Citation/date/CI_Date/dateType**

diagram	
type	dateTypeCode
facets	enumeration creation enumeration publication enumeration revision
attribute	Name Type Use Annotation codeList xs:string required CI_DateTypeCode codeListValue dataTypeCode required value of code list
annotation	documentation type of date stamp

element **MI_Metadata/identificationInfo/MD_DataIdentification/citation/CI_Citation/identifier**

diagram	
annotation	documentation data citation: identifier

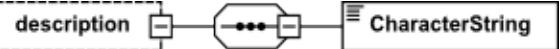
element **MI_Metadata/identificationInfo/MD_DataIdentification/citation/CI_Citation/identifier/MD_Identifier**

diagram	
annotation	documentation data citation: identifier details

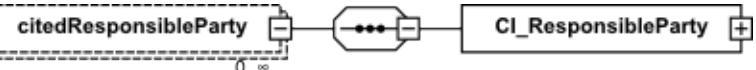
element **MI_Metadata/identificationInfo/MD_DataIdentification/citation/CI_Citation/identifier/MD_Identifier/code**

diagram	
annotation	documentation identifier code

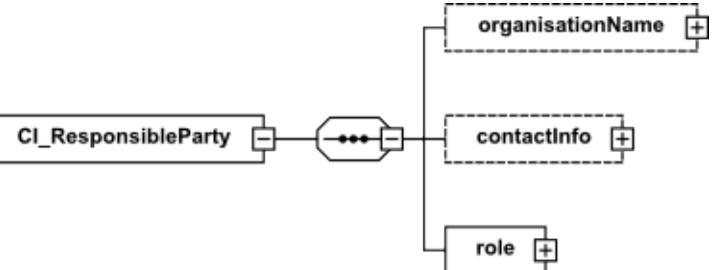
element **MI_Metadata/identificationInfo/MD_DataIdentification/citation/CI_Citation/identifier/MD_Identifier/description**

diagram	
annotation	documentation identifier description

element **MI_Metadata/identificationInfo/MD_DataIdentification/citation/CI_Citation/citedResponsibleParty**

diagram	
annotation	documentation data citation: cited responsible party

element **MI_Metadata/identificationInfo/MD_DataIdentification/citation/CI_Citation/citedResponsibleParty/CI_ResponsibleParty**

diagram	
annotation	documentation data citation: cited responsible party details

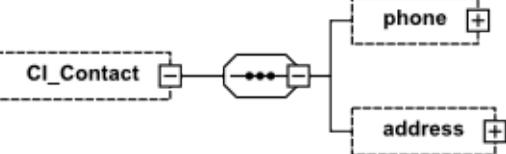
element **MI_Metadata/identificationInfo/MD_DataIdentification/citation/CI_Citation/citedResponsibleParty/CI_ResponsibleParty/organisationName**

diagram	
type	xs:string
annotation	documentation name of the responsible organization

element **MI_Metadata/identificationInfo/MD_DataIdentification/citation/CI_Citation/citedResponsibleParty/CI_ResponsibleParty/contactInfo**

diagram	
annotation	documentation contact information

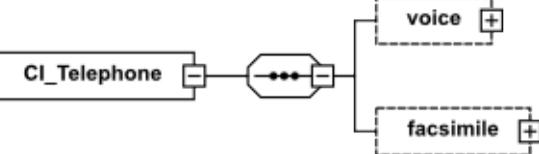
element **MI_Metadata/identificationInfo/MD_DataIdentification/citation/CI_Citation/citedResponsibleParty/CI_ResponsibleParty/contactInfo/CI_Contact**

diagram	
annotation	documentation contact information details

element **MI_Metadata/identificationInfo/MD_DataIdentification/citation/CI_Citation/citedResponsibleParty/CI_ResponsibleParty/contactInfo/CI_Contact/phone**

diagram	
annotation	documentation contact phone information

element **MI_Metadata/identificationInfo/MD_DataIdentification/citation/CI_Citation/citedResponsibleParty/CI_ResponsibleParty/contactInfo/CI_Contact/phone/CI_Telephone**

diagram	
annotation	documentation contact telephone information details

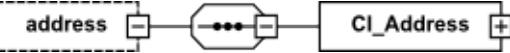
element **MI_Metadata/identificationInfo/MD_DataIdentification/citation/CI_Citation/citedResponsibleParty/CI_ResponsibleParty/contactInfo/CI_Contact/phone/CI_Telephone/voice**

diagram	
type	xs:string
annotation	documentation contact phone number

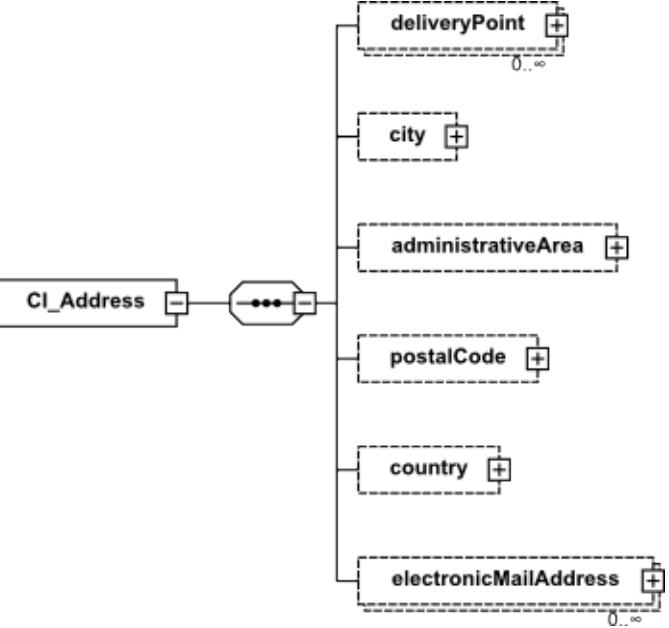
element **MI_Metadata/identificationInfo/MD_DataIdentification/citation/CI_Citation/citedResponsibleParty/CI_ResponsibleParty/contactInfo/CI_Contact/phone/CI_Telephone/facsimile**

diagram	
type	xs:string
annotation	documentation contact fax number

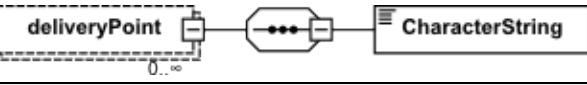
element **MI_Metadata/identificationInfo/MD_DataIdentification/citation/CI_Citation/citedResponsibleParty/CI_ResponsibleParty/contactInfo/CI_Contact/address**

diagram	
annotation	documentation contact address information

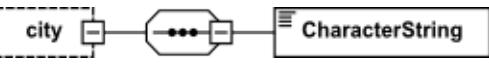
element **MI_Metadata/identificationInfo/MD_DataIdentification/citation/CI_Citation/citedResponsibleParty/CI_ResponsibleParty/contactInfo/CI_Contact/address/CI_Address**

diagram	
annotation	documentation contact address information details

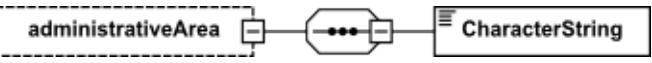
element **MI_Metadata/identificationInfo/MD_DataIdentification/citation/CI_Citation/citedResponsibleParty/CI_ResponsibleParty/contactInfo/CI_Contact/address/CI_Address/deliveryPoint**

diagram	 A UML class diagram showing a class named 'deliveryPoint' with a multiplicity of '0..*'. It has a directed association to another class represented by a rectangle with three dots, which then connects to a 'CharacterString' class.
type	xs:string
annotation	documentation contact address: street

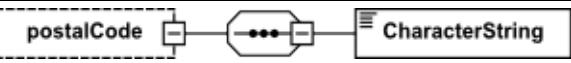
element **MI_Metadata/identificationInfo/MD_DataIdentification/citation/CI_Citation/citedResponsibleParty/CI_ResponsibleParty/contactInfo/CI_Contact/address/CI_Address/city**

diagram	 A UML class diagram showing a class named 'city' with a multiplicity of '0..*'. It has a directed association to another class represented by a rectangle with three dots, which then connects to a 'CharacterString' class.
type	xs:string
annotation	documentation contact address: city

element **MI_Metadata/identificationInfo/MD_DataIdentification/citation/CI_Citation/citedResponsibleParty/CI_ResponsibleParty/contactInfo/CI_Contact/address/CI_Address/administrativeArea**

diagram	 A UML class diagram showing a class named 'administrativeArea' with a multiplicity of '0..*'. It has a directed association to another class represented by a rectangle with three dots, which then connects to a 'CharacterString' class.
type	xs:string
annotation	documentation contact address: administrative area

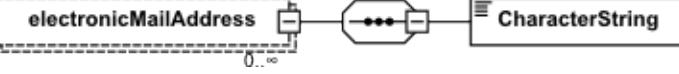
element **MI_Metadata/identificationInfo/MD_DataIdentification/citation/CI_Citation/citedResponsibleParty/CI_ResponsibleParty/contactInfo/CI_Contact/address/CI_Address/postalCode**

diagram	 A UML class diagram showing a class named 'postalCode' with a multiplicity of '0..*'. It has a directed association to another class represented by a rectangle with three dots, which then connects to a 'CharacterString' class.
type	xs:string
annotation	documentation contact address: postal code

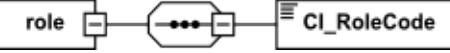
element **MI_Metadata/identificationInfo/MD_DataIdentification/citation/CI_Citation/citedResponsibleParty/CI_ResponsibleParty/contactInfo/CI_Contact/address/CI_Address/country**

diagram	
type	xs:string
annotation	documentation contact address: country

element **MI_Metadata/identificationInfo/MD_DataIdentification/citation/CI_Citation/citedResponsibleParty/CI_ResponsibleParty/contactInfo/CI_Contact/address/CI_Address/electronicEmailAddress**

diagram	
type	xs:string
annotation	documentation contact address: email address

element **MI_Metadata/identificationInfo/MD_DataIdentification/citation/CI_Citation/citedResponsibleParty/CI_ResponsibleParty/role**

diagram	
type	roleCode
facets	enumeration resourceProvider enumeration custodian enumeration owner enumeration sponsor enumeration user distributor enumeration originator enumeration pointOfContact enumeration principalInvestigator enumeration processor enumeration publisher enumeration author enumeration collaborator

attribute	Name	Type	Use	Annotation
	codeList	xs:string	required	CI_RoleCode
	codeListValue	roleCode	required	value from code list
annotation	documentation	function performed by the responsible party		

element **MI_Metadata/identificationInfo/MD_DataIdentification/citation/CI_Citation/presentationForm**

diagram	
type	presentationFormCode
facets	enumeration documentDigital enumeration documentHardcopy enumeration imageDigital enumeration imageHardcopy enumeration mapDigital enumeration mapHardcopy enumeration modelDigital enumeration modelHardcopy enumeration profileDigital enumeration profileHardcopy enumeration tableDigital enumeration tableHardcopy enumeration videoDigital enumeration videoHardcopy
attribute	Name Type Use Annotation codeList xs:string require CI_PresentationFormCode codeListValue presentationFormCode require value of code list
annotation	documentation presentation form

element **MI_Metadata/identificationInfo/MD_DataIdentification/citation/CI_Citation/series**

diagram	
annotation	documentation series the dataset belongs to

element **MI_Metadata/identificationInfo/MD_DataIdentification/citation/CI_Citation/series/CI_Series**

diagram	
annotation	documentation series details

element **MI_Metadata/identificationInfo/MD_DataIdentification/citation/CI_Citation/series/CI_Series/name**

diagram	
type	xs:string
annotation	documentation name of the data series

element **MI_Metadata/identificationInfo/MD_DataIdentification/abstract**

diagram	
type	xs:string
annotation	documentation abstract describing the data

element **MI_Metadata/identificationInfo/MD_DataIdentification/status**

diagram													
type	progressCode												
facets	enumeration completed enumeration historicalArchive enumeration obsolete enumeration onGoing enumeration planned enumeration required enumeration underdevelopment												
attribute	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>codeList</td> <td>xs:string</td> <td>required</td> <td>MD_ProgressCode</td> </tr> <tr> <td>codeListValue</td> <td>progressCode</td> <td>required</td> <td>value of code list</td> </tr> </tbody> </table>	Name	Type	Use	Annotation	codeList	xs:string	required	MD_ProgressCode	codeListValue	progressCode	required	value of code list
Name	Type	Use	Annotation										
codeList	xs:string	required	MD_ProgressCode										
codeListValue	progressCode	required	value of code list										
annotation	documentation status of the dataset or progress of a review												

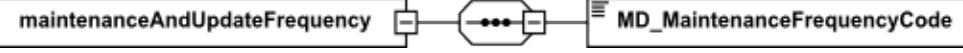
element **MI_Metadata/identificationInfo/MD_DataIdentification/resourceMaintenance**

diagram	
annotation	documentation resource maintenance information

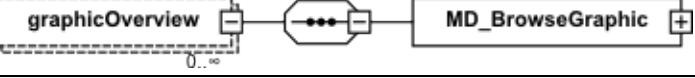
element **MI_Metadata/identificationInfo/MD_DataIdentification/resourceMaintenance/MD_MaintenanceInformation**

diagram	
annotation	documentation metadata maintenance details

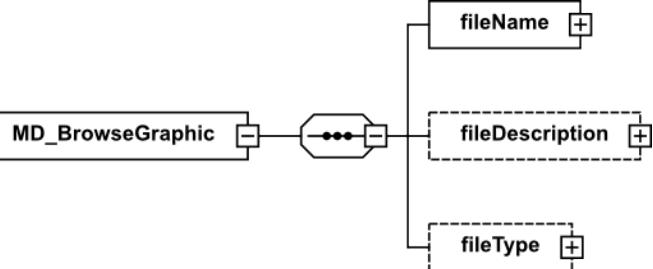
element **MI_Metadata/identificationInfo/MD_DataIdentification/resourceMaintenance/MD_MaintenanceInformation/maintenanceAndUpdateFrequency**

diagram													
type	maintenanceFrequencyCode												
facets	enumeration continual enumeration daily enumeration weekly enumeration fortnightly enumeration monthly enumeration quarterly enumeration biannually enumeration annually asNeeded enumeration irregular enumeration notPlanned enumeration unknown												
attribute	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>codeList</td> <td>xs:string</td> <td>required</td> <td>MD_MaintenanceFrequencyCode</td> </tr> <tr> <td>codeListValue</td> <td>maintenance FrequencyCode</td> <td>required</td> <td>value of code list</td> </tr> </tbody> </table>	Name	Type	Use	Annotation	codeList	xs:string	required	MD_MaintenanceFrequencyCode	codeListValue	maintenance FrequencyCode	required	value of code list
Name	Type	Use	Annotation										
codeList	xs:string	required	MD_MaintenanceFrequencyCode										
codeListValue	maintenance FrequencyCode	required	value of code list										
annotation	documentation frequency with which modifications and deletions are made to the data after it is first produced												

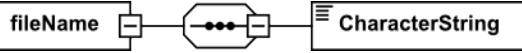
element MI_Metadata/identificationInfo/MD_DataIdentification/graphicOverview

diagram	
annotation	documentation browse image information

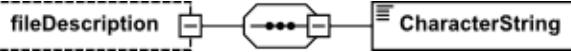
**element MI_Metadata/identificationInfo/MD_DataIdentification/graphicOverview/
MD_BrowseGraphic**

diagram	
annotation	documentation browse image information details

**element MI_Metadata/identificationInfo/MD_DataIdentification/graphicOverview/
MD_BrowseGraphic/fileName**

diagram	
type	xs:string
annotation	documentation browse image information: file name

**element MI_Metadata/identificationInfo/MD_DataIdentification/graphicOverview/
MD_BrowseGraphic/fileDescription**

diagram	
type	xs:string
annotation	documentation browse image information: file description

**element MI_Metadata/identificationInfo/MD_DataIdentification/graphicOverview/
MD_BrowseGraphic/fileType**

diagram	
type	xs:string
annotation	documentation browse image information: file type

element **MI_Metadata/identificationInfo/MD_DataIdentification/resourceConstraints**

diagram	<pre> graph LR resourceConstraints[resourceConstraints] -- "0..∞" --> MDLegalConstraints[MD_LegalConstraints] </pre>
annotation	documentation resource constraints

element **MI_Metadata/identificationInfo/MD_DataIdentification/resourceConstraints/MD_LegalConstraints**

diagram	<pre> graph LR MDLegalConstraints[MD_LegalConstraints] -- "0..∞" --> accessConstraints[accessConstraints] MDLegalConstraints -- "0..∞" --> useConstraints[useConstraints] MDLegalConstraints -- "0..∞" --> otherConstraints[otherConstraints] </pre>
annotation	documentation resource constraints details

element **MI_Metadata/identificationInfo/MD_DataIdentification/resourceConstraints/MD_LegalConstraints/accessConstraints**

diagram	<pre> graph LR accessConstraints[accessConstraints] -- "0..∞" --> MDRestrictionCode[MD_RestrictionCode] </pre>												
type	restrictionCode												
facets	enumeration copyright enumeration patent enumeration patentPending enumeration trademark enumeration license enumeration intellectualPropertyRights enumeration restricted enumeration otherRestrictions												
attribute	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>codeList</td> <td>xs:string</td> <td>required</td> <td>MD_RestrictionCode</td> </tr> <tr> <td>codeListValue</td> <td>restrictionCode</td> <td>required</td> <td>value of code list</td> </tr> </tbody> </table>	Name	Type	Use	Annotation	codeList	xs:string	required	MD_RestrictionCode	codeListValue	restrictionCode	required	value of code list
Name	Type	Use	Annotation										
codeList	xs:string	required	MD_RestrictionCode										
codeListValue	restrictionCode	required	value of code list										
annotation	documentation limitation(s) placed upon the access or use of the data												

element **MI_Metadata/identificationInfo/MD_DataIdentification/resourceConstraints/MD_LegalConstraints/useConstraints**

diagram	<pre> sequenceDiagram participant useConstraints participant MD_RestrictionCode useConstraints->>MD_RestrictionCode: 0..infinity activate MD_RestrictionCode ... deactivate MD_RestrictionCode </pre>			
type	MD_RestrictionCode			
facets	enumeration copyright enumeration patent enumeration patentPending enumeration trademark enumeration license enumeration intellectualPropertyRights enumeration restricted enumeration otherRestrictions			
attribute	Name	Type	Use	Annotation
	codeList	xs:string	required	MD_RestrictionCode
	codeListValue	restrictionCode	required	value of code list
annotation	documentation	limitation(s) placed upon the access or use of the data		

element **MI_Metadata/identificationInfo/MD_DataIdentification/resourceConstraints/MD_LegalConstraints/otherConstraints**

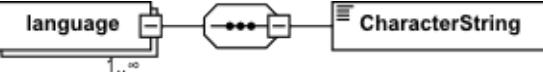
diagram	<pre> sequenceDiagram participant otherConstraints participant CharacterString otherConstraints->>CharacterString: 0..infinity activate CharacterString ... deactivate CharacterString </pre>			
type	xs:string			
annotation	documentation	resource constraints: other constraints		

element **MI_Metadata/identificationInfo/MD_DataIdentification/spatialRepresentationType**

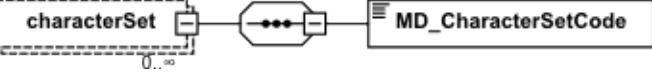
diagram	<pre> sequenceDiagram participant spatialRepresentationType participant MD_SpatialRepresentationTypeCode spatialRepresentationType->>MD_SpatialRepresentationTypeCode: 0..infinity activate MD_SpatialRepresentationTypeCode ... deactivate MD_SpatialRepresentationTypeCode </pre>			
type	MD_SpatialRepresentationTypeCode			
facets	enumeration vector enumeration grid enumeration textTable enumeration tin			

	enumeration	stereoModel		
	enumeration	video		
attribute	Name	Type	Use	Annotation
	codeList	xs:string	required	MD_SpatialRepresentation TypeCode
	codeListValue	spatialRepresentation	required	value of code list TypeCode
annotation	documentation	method used to represent geographic information in the dataset		

element **MI_Metadata/identificationInfo/MD_DataIdentification/language**

diagram	
type	xs:language
annotation	documentation language

element **MI_Metadata/identificationInfo/MD_DataIdentification/characterSet**

diagram																													
type	characterSetCode																												
facets	<table border="1"> <tr> <td>enumeration</td> <td>ucs2</td> </tr> <tr> <td>enumeration</td> <td>ucs4</td> </tr> <tr> <td>enumeration</td> <td>utf7</td> </tr> <tr> <td>enumeration</td> <td>utf8</td> </tr> <tr> <td>enumeration</td> <td>utf16</td> </tr> <tr> <td>enumeration</td> <td>8859part1</td> </tr> <tr> <td>enumeration</td> <td>8859part2</td> </tr> <tr> <td>enumeration</td> <td>8859part3</td> </tr> <tr> <td>enumeration</td> <td>8859part4</td> </tr> <tr> <td>enumeration</td> <td>8859part5</td> </tr> <tr> <td>enumeration</td> <td>8859part6</td> </tr> <tr> <td>enumeration</td> <td>8859part7</td> </tr> <tr> <td>enumeration</td> <td>8859part8</td> </tr> <tr> <td>enumeration</td> <td>8859part9</td> </tr> </table>	enumeration	ucs2	enumeration	ucs4	enumeration	utf7	enumeration	utf8	enumeration	utf16	enumeration	8859part1	enumeration	8859part2	enumeration	8859part3	enumeration	8859part4	enumeration	8859part5	enumeration	8859part6	enumeration	8859part7	enumeration	8859part8	enumeration	8859part9
enumeration	ucs2																												
enumeration	ucs4																												
enumeration	utf7																												
enumeration	utf8																												
enumeration	utf16																												
enumeration	8859part1																												
enumeration	8859part2																												
enumeration	8859part3																												
enumeration	8859part4																												
enumeration	8859part5																												
enumeration	8859part6																												
enumeration	8859part7																												
enumeration	8859part8																												
enumeration	8859part9																												

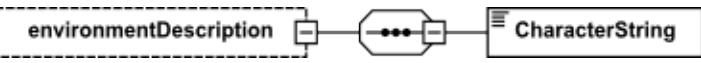
	enumeration	8859part10		
	enumeration	8859part11		
	enumeration	8859part12		
	enumeration	8859part13		
	enumeration	8859part14		
	enumeration	8859part15		
	enumeration	8859part16		
	enumeration	jis		
	enumeration	shiftJIS		
	enumeration	eucJP		
	enumeration	usAscii		
	enumeration	ebcdic		
	enumeration	eucKR		
	enumeration	big5		
	enumeration	GB2312		
attribute	Name	Type	attribute	Name
	codeList	xs:string	required	MD_CharacterSetCode
	codeListValue	characterSetCode	required	value of code list
annotation	documentation	name of the character coding standard used in the resource		

element **MI_Metadata/identificationInfo/MD_DataIdentification/topicCategory**

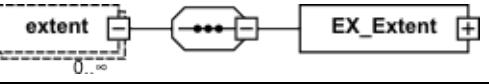
diagram	<pre> classDiagram class topicCategory class MD_TopicCategoryCode topicCategory "0..oo" --> MD_TopicCategoryCode </pre>
type	topicCategoryCode
facets	enumeration farming enumeration biota enumeration boundaries enumeration climatology enumeration Meteorology enumeration Atmosphere enumeration economy enumeration elevation enumeration environment geoscientificInformation enumeration health enumeration imageBaseMapsEarthCover

	enumeration	intelligenceMilitary		
	enumeration	inlandWaters		
	enumeration	location		
	enumeration	oceans		
	enumeration	planningCadastre		
	enumeration	society		
	enumeration	structure		
	enumeration	transportation		
	enumeration	utilitiesCommunication		
attribute	Name	Type	Use	Annotation
	codeList	xs:string	required	MD_TopicCategoryCode
	codeListValue	topicCategoryCode	required	value of code list
annotation	documentation	high-level geographic data thematic classification to assist in the grouping and search of available geographic data sets. Can be used to group keywords as well.		

element MI_Metadata/identificationInfo/MD_DataIdentification/environmentDescription

diagram	
type	xs:string
annotation	documentation description of the environment

element MI_Metadata/identificationInfo/MD_DataIdentification/extent

diagram	
annotation	documentation geographic extent of dataset

element **MI_Metadata/identificationInfo/MD_DataIdentification/extent/EX_Extent**

diagram	<pre> classDiagram class EX_Extent class geographicElement class description class temporalElement EX_Extent "0..1" *-- "0..1" geographicElement EX_Extent "0..1" *-- "0..1" description EX_Extent "0..1" *-- "0..1" temporalElement </pre>
annotation	documentation geographic extent details

element **MI_Metadata/identificationInfo/MD_DataIdentification/extent/EX_Extent/description**

diagram	<pre> classDiagram class description class CharacterString description *-- "3" CharacterString </pre>
type	xs:string
annotation	documentation geographic extent: description

element **MI_Metadata/identificationInfo/MD_DataIdentification/extent/EX_Extent/geographicElement**

diagram	<pre> classDiagram class geographicElement class EX_BoundingPolygon class EX_GeographicBoundingBox geographicElement "0..1" *-- "1..1" EX_BoundingPolygon geographicElement "0..1" *-- "1..1" EX_GeographicBoundingBox </pre>
annotation	documentation geographic extent: geographic elements

element **MI_Metadata/identificationInfo/MD_DataIdentification/extent/EX_Extent/geographicElement/Ex_BoundingPolygon**

diagram	<pre> classDiagram class EX_BoundingPolygon class polygon EX_BoundingPolygon *-- "3" polygon </pre>
annotation	documentation geographic extent: bounding polygon

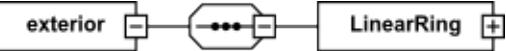
element **MI_Metadata/identificationInfo/MD_DataIdentification/extent/EX_Extent/geographicElement/Ex_BoundingPolygon/polygon**

diagram	<pre> classDiagram class polygon class Polygon polygon *-- "3" Polygon </pre>
annotation	documentation bounding polygon

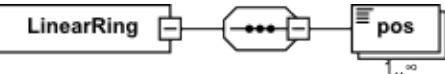
element **MI_Metadata/identificationInfo/MD_DataIdentification/extent/EX_Extent/geographicElement/Ex_BoundingPolygon/polygon/Polygon**

diagram	
annotation	documentation bounding polygon: exterior

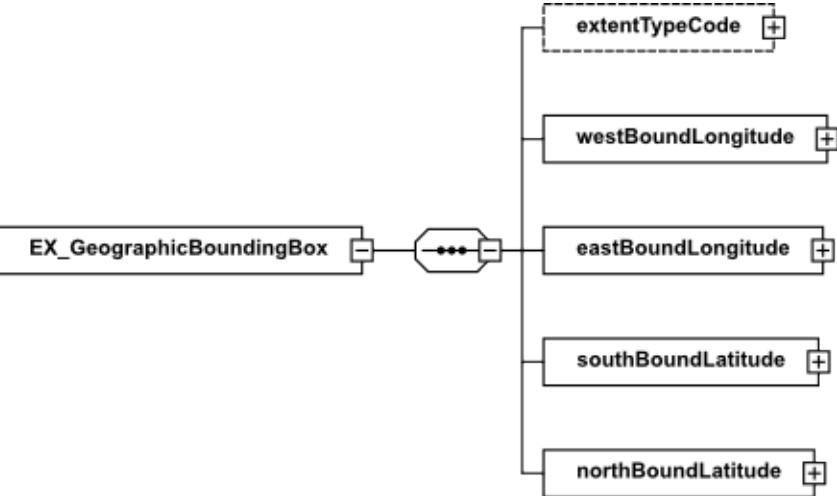
element **MI_Metadata/identificationInfo/MD_DataIdentification/extent/EX_Extent/geographicElement/Ex_BoundingPolygon/polygon/Polygon/exterior**

diagram	
annotation	documentation bounding polygon: exterior linear ring

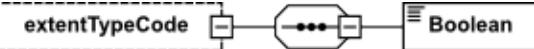
element **MI_Metadata/identificationInfo/MD_DataIdentification/extent/EX_Extent/geographicElement/Ex_BoundingPolygon/polygon/Polygon/exterior/LinearRing**

diagram	
annotation	documentation bounding polygon: exterior linear ring positions

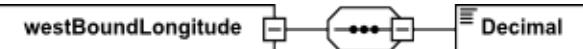
element **MI_Metadata/identificationInfo/MD_DataIdentification/extent/EX_Extent/geographicElement/EX_GeographicBoundingBox**

diagram									
attribute	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>id</td> <td>xs:string</td> <td>required</td> <td>identifier</td> </tr> </tbody> </table>	Name	Type	Use	Annotation	id	xs:string	required	identifier
Name	Type	Use	Annotation						
id	xs:string	required	identifier						
annotation	documentation geographic extent: bounding box								

element **MI_Metadata/identificationInfo/MD_DataIdentification/extent/EX_Extent/geographicElement/EX_GeographicBoundingBox/extentTypeCode**

diagram	
type	xs:Boolean
annotation	documentation geographic bounding box: extent type code

element **MI_Metadata/identificationInfo/MD_DataIdentification/extent/EX_Extent/geographicElement/EX_GeographicBoundingBox/westBoundLongitude**

diagram	
type	xs:decimal
annotation	documentation geographic bounding box: west bound longitude

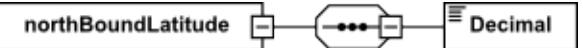
element **MI_Metadata/identificationInfo/MD_DataIdentification/extent/EX_Extent/geographicElement/EX_GeographicBoundingBox/eastBoundLongitude**

diagram	
type	xs:decimal
annotation	documentation geographic bounding box: east bound longitude

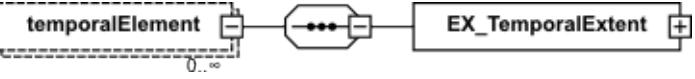
element **MI_Metadata/identificationInfo/MD_DataIdentification/extent/EX_Extent/geographicElement/EX_GeographicBoundingBox/southBoundLatitude**

diagram	
type	xs:decimal
annotation	documentation geographic bounding box: south bound latitude

element **MI_Metadata/identificationInfo/MD_DataIdentification/extent/EX_Extent/geographicElement/EX_GeographicBoundingBox/northBoundLatitude**

diagram	
type	xs:decimal
annotation	documentation geographic bounding box: north bound latitude

element **MI_Metadata/identificationInfo/MD_DataIdentification/extent/EX_Extent/temporalElement**

diagram	
annotation	documentation geographic extent: temporal element

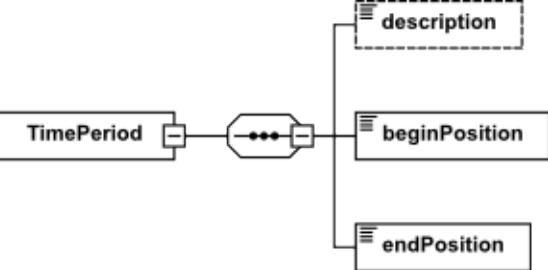
element **MI_Metadata/identificationInfo/MD_DataIdentification/extent/EX_Extent/temporalElement/EX_TemporalExtent**

diagram	
annotation	documentation temporal extent details

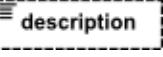
element **MI_Metadata/identificationInfo/MD_DataIdentification/extent/EX_Extent/temporalElement/EX_TemporalExtent/extent**

diagram	
annotation	documentation temporal extent

element **MI_Metadata/identificationInfo/MD_DataIdentification/extent/EX_Extent/temporalElement/EX_TemporalExtent/extent/TimePeriod**

diagram	
type	xs:string
annotation	documentation time period details

element **MI_Metadata/identificationInfo/MD_DataIdentification/extent/EX_Extent/temporalElement/EX_TemporalExtent/extent/TimePeriod/description**

diagram	
type	xs:string
annotation	documentation time period: description

element **MI_Metadata/identificationInfo/MD_DataIdentification/extent/EX_Extent/temporalElement/EX_TemporalExtent/extent/TimePeriod/beginPosition**

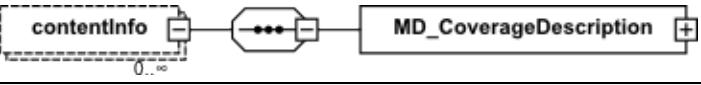
diagram	 beginPosition
type	xs:string
annotation	documentation time period: begin position

element **MI_Metadata/identificationInfo/MD_DataIdentification/extent/EX_Extent/temporalElement/EX_TemporalExtent/extent/TimePeriod/endPosition**

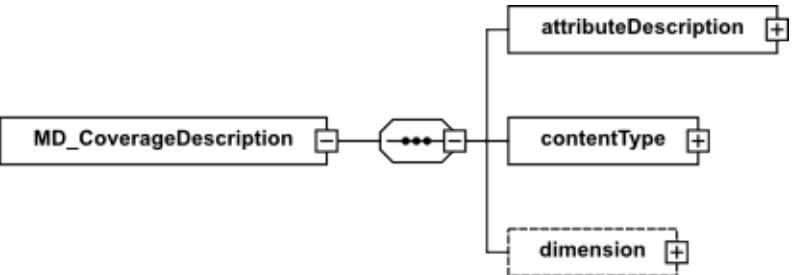
diagram	 endPosition
type	xs:string
annotation	documentation time period: end position

3.1.11 contentInfo

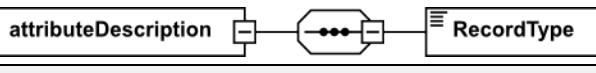
element MI_Metadata/contentInfo

diagram	
annotation	documentation content information

element MI_Metadata/contentInfo/MD_CoverageDescription

diagram	
annotation	documentation coverage description

element MI_Metadata/contentInfo/MD_CoverageDescription/attributeDescription

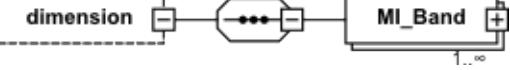
diagram	
type	xs:string
annotation	documentation attribute description

element MI_Metadata/contentInfo/MD_CoverageDescription/contentType

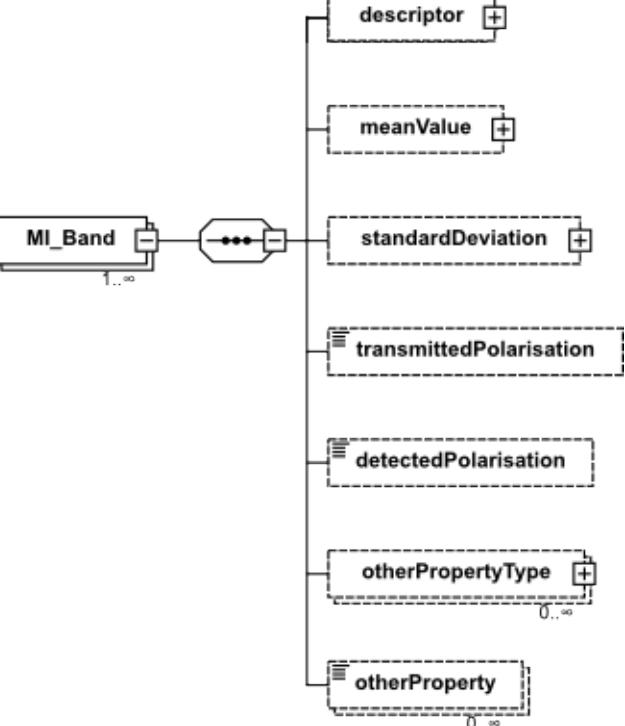
diagram															
type	coverageContentTypeCode														
facets	<table> <tr> <td>enumeration</td> <td>image</td> </tr> <tr> <td>enumeration</td> <td>thematicClassification</td> </tr> <tr> <td>enumeration</td> <td>physicalMeasurement</td> </tr> <tr> <td>enumeration</td> <td>referenceInformation</td> </tr> <tr> <td>enumeration</td> <td>auxiliaryData</td> </tr> <tr> <td>enumeration</td> <td>qualityInformation</td> </tr> <tr> <td>enumeration</td> <td>modelResult</td> </tr> </table>	enumeration	image	enumeration	thematicClassification	enumeration	physicalMeasurement	enumeration	referenceInformation	enumeration	auxiliaryData	enumeration	qualityInformation	enumeration	modelResult
enumeration	image														
enumeration	thematicClassification														
enumeration	physicalMeasurement														
enumeration	referenceInformation														
enumeration	auxiliaryData														
enumeration	qualityInformation														
enumeration	modelResult														

attribute	Name	Type	Use	Annotation
	codeList	xs:string	required	MD_CoverageContent TypeCode
	codeListValue	coverageContentTypeCode	required	value of code list
annotation	documentation	specific type of information represented in the cell		

element MI_Metadata/contentInfo/MD_CoverageDescription/dimension

diagram	
annotation	documentation band information

element MI_Metadata/contentInfo/MD_CoverageDescription/dimension/MI_Band

diagram	
annotation	documentation band parameters

element **MI_Metadata/contentInfo/MD_CoverageDescription/dimension/MI_Band/descriptor**

diagram	
type	xs:string
annotation	documentation band parameters: descriptor

element **MI_Metadata/contentInfo/MD_CoverageDescription/dimension/MI_Band/meanValue**

diagram	
type	xs:float
annotation	documentation band parameters: mean value

element **MI_Metadata/contentInfo/MD_CoverageDescription/dimension/MI_Band/standardDeviation**

diagram	
type	xs:float
annotation	documentation band parameters: standard deviation

element **MI_Metadata/contentInfo/MD_CoverageDescription/dimension/MI_Band/transmittedPolarisation**

diagram	
type	polarizationOrientationCode
facets	enumeration horizontal enumeration vertical enumeration leftCircular enumeration rightCircular enumeration theta enumeration phi
attribute	Name Type Use Annotation
	codeList xs:string required MI_PolarizationOrientationCode
	codeListValue polarizationOrientationCode required value of code list

annotation	documentation	band parameters: polarization of the antenna relative to the waveform
------------	---------------	-----------------------------------------------------------------------

element **MI_Metadata/contentInfo/MD_CoverageDescription/dimension/MI_Band/detectedPolarisation**

diagram													
type	polarizationOrientationCode												
facets	enumeration horizontal enumeration vertical enumeration leftCircular enumeration rightCircular enumeration theta enumeration phi												
attribute	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>codeList</td> <td>xs:string</td> <td>required</td> <td>MI_PolarizationOrientationCode</td> </tr> <tr> <td>codeListValue</td> <td>polarizationOrientationCode</td> <td>required</td> <td>value of code list</td> </tr> </tbody> </table>	Name	Type	Use	Annotation	codeList	xs:string	required	MI_PolarizationOrientationCode	codeListValue	polarizationOrientationCode	required	value of code list
Name	Type	Use	Annotation										
codeList	xs:string	required	MI_PolarizationOrientationCode										
codeListValue	polarizationOrientationCode	required	value of code list										
annotation	documentation band parameters: polarization of the antenna relative to the waveform												

element **MI_Metadata/contentInfo/MD_CoverageDescription/dimension/MI_Band/other.PropertyType**

diagram									
type	xs:string								
attribute	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>href</td> <td>xlink:href</td> <td>required</td> <td>EOS Additional Attributes</td> </tr> </tbody> </table>	Name	Type	Use	Annotation	href	xlink:href	required	EOS Additional Attributes
Name	Type	Use	Annotation						
href	xlink:href	required	EOS Additional Attributes						
annotation	documentation other property type – EOS additional attributes								

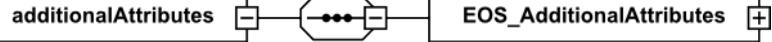
element **MI_Metadata/contentInfo/MD_CoverageDescription/dimension/MI_Band/otherProperty**

diagram	
annotation	documentation other property – additional attributes

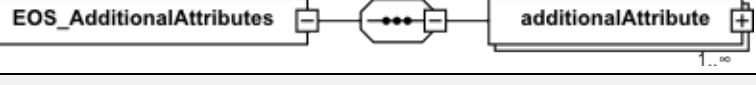
element **MI_Metadata/contentInfo/MD_CoverageDescription/dimension/MI_Band/otherProperty/Record**

diagram	
annotation	documentation other property record

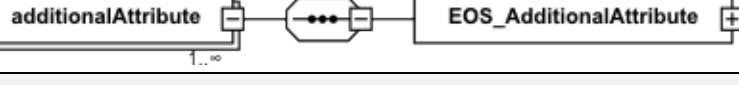
element **MI_Metadata/contentInfo/MD_CoverageDescription/dimension/MI_Band/otherProperty/Record/additionalAttributes**

diagram	
annotation	documentation additional attributes

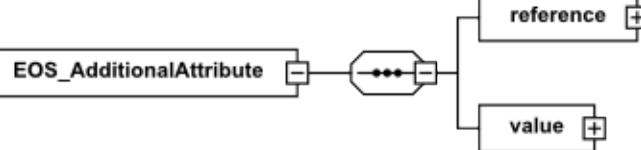
element **MI_Metadata/contentInfo/MD_CoverageDescription/dimension/MI_Band/otherProperty/Record/additionalAttributes/EOS_AdditionalAttributes**

diagram	
annotation	documentation EOS additional attributes

element **MI_Metadata/contentInfo/MD_CoverageDescription/dimension/MI_Band/otherProperty/Record/additionalAttributes/EOS_AdditionalAttributes/additionalAttribute**

diagram	
annotation	documentation additionalAttribute

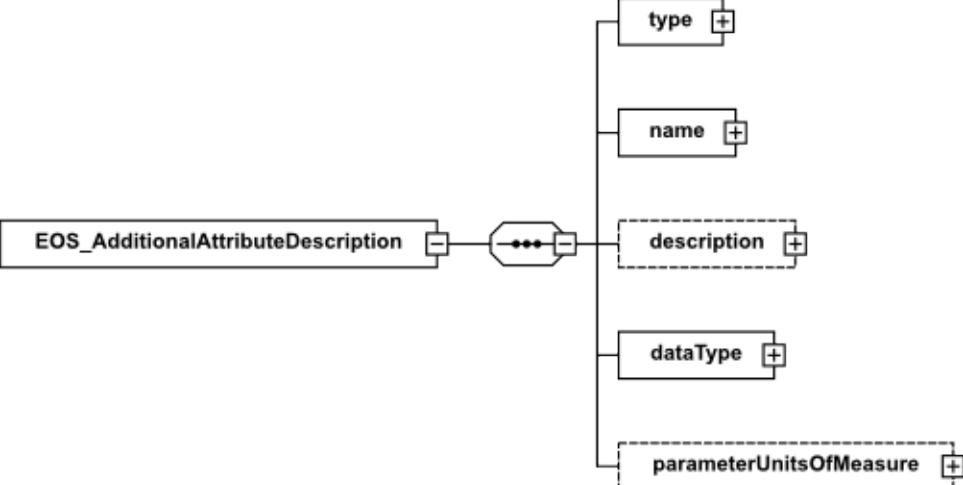
element **MI_Metadata/contentInfo/MD_CoverageDescription/dimension/MI_Band/otherProperty/Record/additionalAttributes/EOS_AdditionalAttributes/additionalAttribute/EOS_AdditionalAttribute**

diagram	
annotation	documentation EOS_AdditionalAttribute

element **MI_Metadata/contentInfo/MD_CoverageDescription/dimension/MI_Band/otherProperty/Record/additionalAttributes/EOS_AdditionalAttributes/additionalAttribute/EOS_AdditionalAttribute/reference**

diagram	
annotation	documentation additional attribute reference

element **MI_Metadata/contentInfo/MD_CoverageDescription/dimension/MI_Band/otherProperty/Record/additionalAttributes/EOS_AdditionalAttributes/additionalAttribute/EOS_AdditionalAttribute/reference/EOS_AdditionalAttributeDescription**

diagram	
annotation	documentation cell geometry

element **MI_Metadata/contentInfo/MD_CoverageDescription/dimension/MI_Band/otherProperty/Record/additionalAttributes/EOS_AdditionalAttributes/additionalAttribute/EOS_AdditionalAttribute/reference/EOS_AdditionalAttributeDescription/type**

diagram	
type	additionalAttributeTypeCode
facets	enumeration spatialInformation enumeration acquisitionInformation

	attribute	Name	Type	Use	Annotation
	codeList		xs:string	required	EOS_AdditionalAttributeTypeCode
	codeListValue		EOS_AdditionalAttributeTypeCode	required	value of code list
annotation	documentation	additional attribute: type			

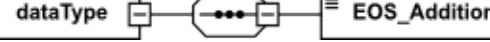
element **MI_Metadata/contentInfo/MD_CoverageDescription/dimension/MI_Band/otherProperty/Record/additionalAttributes/EOS_AdditionalAttributes/additionalAttribute/EOS_AdditionalAttribute/reference/EOS_AdditionalAttributeDescription/name**

diagram	
type	xs:string
annotation	documentation additional attribute: name

element **MI_Metadata/contentInfo/MD_CoverageDescription/dimension/MI_Band/otherProperty/Record/additionalAttributes/EOS_AdditionalAttributes/additionalAttribute/EOS_AdditionalAttribute/reference/EOS_AdditionalAttributeDescription/description**

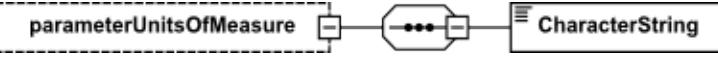
diagram	
type	xs:string
annotation	documentation additional attribute: description

element **MI_Metadata/contentInfo/MD_CoverageDescription/dimension/MI_Band/otherProperty/Record/additionalAttributes/EOS_AdditionalAttributes/additionalAttribute/EOS_AdditionalAttribute/reference/EOS_AdditionalAttributeDescription/dataType**

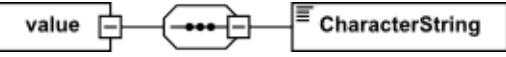
diagram	
type	additionalAttributeDataTypeCode
facets	enumeration STRING enumeration FLOAT enumeration INT enumeration BOOLEAN enumeration DATE

	enumeration	TIME		
	enumeration	DATETIME		
	enumeration	DATE_STRING		
	enumeration	TIME_STRING		
	enumeration	DATETIME_STRING		
attribute	Name	Type	Use	Annotation
	codeList	xs:string	required	EOS_AdditionalAttribute
		additionalAttribute		DataTypeCode
	codeListValue	DataTypeCode	required	value of code list
annotation	documentation	additional attribute: data type		

element **MI_Metadata/contentInfo/MD_CoverageDescription/dimension/MI_Band/otherProperty/Record/additionalAttributes/EOS_AdditionalAttributes/additionalAttribute/EOS_AdditionalAttribute/reference/EOS_AdditionalAttributeDescription/parameterUnitsOfMeasure**

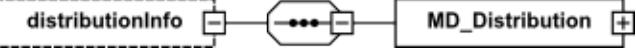
diagram	
type	xs:string
annotation	documentation additional attribute: parameter units of measure

element **MI_Metadata/contentInfo/MD_CoverageDescription/dimension/MI_Band/otherProperty/Record/additionalAttributes/EOS_AdditionalAttributes/additionalAttribute/EOS_AdditionalAttribute/value**

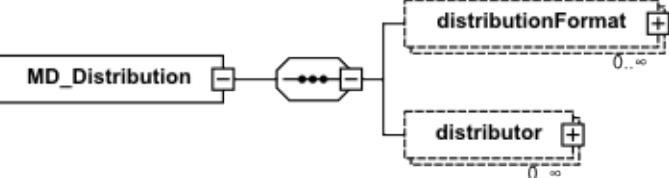
diagram	
type	xs:string
annotation	documentation additional attribute: value

3.1.12 distributionInfo

element MI_Metadata/distributionInfo

diagram	
annotation	documentation distribution information

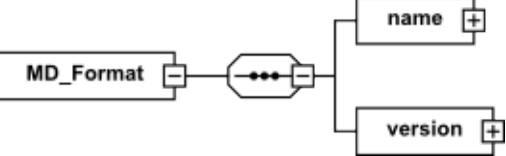
element MI_Metadata/distributionInfo/MD_Distribution

diagram	
annotation	documentation distribution information details

element MI_Metadata/distributionInfo/MD_Distribution/distributionFormat

diagram	
annotation	documentation distribution format

element MI_Metadata/distributionInfo/MD_Distribution/distributionFormat/MD_Format

diagram	
annotation	documentation distribution format details

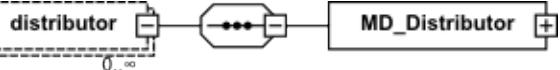
element MI_Metadata/distributionInfo/MD_Distribution/distributionFormat/
MD_Format/name

diagram	
type	xs:string
annotation	documentation name of the data format

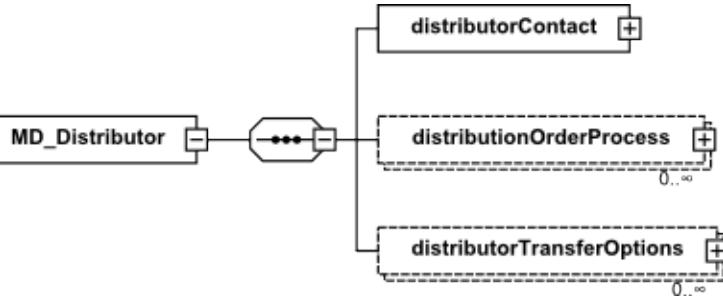
element **MI_Metadata/distributionInfo/MD_Distribution/distributionFormat/MD_Format/version**

diagram	
type	xs:string
annotation	documentation version of the data format

element **MI_Metadata/distributionInfo/MD_Distribution/distributor**

diagram	
annotation	documentation distributor information

element **MI_Metadata/distributionInfo/MD_Distribution/distributor/MD_Distributor**

diagram	
annotation	documentation distributor information details

element **MI_Metadata/distributionInfo/MD_Distribution/distributor/MD_Distributor/distributorContact**

diagram	
annotation	documentation distribution contact information

element **MI_Metadata/distributionInfo/MD_Distribution/distributor/MD_Distributor/distributorContact/CI_ResponsibleParty**

diagram	<pre> classDiagram class CI_ResponsibleParty class contactInfo class organisationName class role CI_ResponsibleParty "..." --> contactInfo contactInfo --> organisationName contactInfo --> role </pre>
annotation	documentation distribution: responsible party

element **MI_Metadata/distributionInfo/MD_Distribution/distributor/MD_Distributor/distributorContact/CI_ResponsibleParty/organisationName**

diagram	<pre> classDiagram class organisationName class CharacterString organisationName "..." --> CharacterString </pre>
type	xs:string
annotation	documentation distribution: name of organization

element **MI_Metadata/distributionInfo/MD_Distribution/distributor/MD_Distributor/distributorContact/CI_ResponsibleParty/contactInfo**

diagram	<pre> classDiagram class contactInfo class CI_Contact contactInfo "..." --> CI_Contact </pre>
annotation	documentation distribution contact information

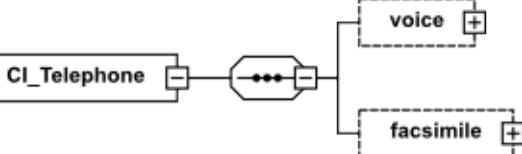
element **MI_Metadata/distributionInfo/MD_Distribution/distributor/MD_Distributor/distributorContact/CI_ResponsibleParty/contactInfo/CI_Contact**

diagram	<pre> classDiagram class CI_Contact class CI_Telephone class phone class address CI_Contact "..." --> CI_Telephone CI_Telephone --> phone CI_Telephone --> address </pre>
annotation	documentation distribution contact information details

element **MI_Metadata/distributionInfo/MD_Distribution/distributor/MD_Distributor/distributorContact/CI_ResponsibleParty/contactInfo/CI_Contact/phone**

diagram	<pre> classDiagram class phone class CI_Telephone phone "..." --> CI_Telephone </pre>
annotation	documentation distribution contact: phone information

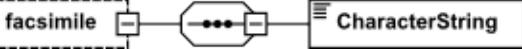
element **MI_Metadata/distributionInfo/MD_Distribution/distributor/MD_Distributor/distributorContact/CI_ResponsibleParty/contactInfo/CI_Contact/phone/CI_Telephone**

diagram	
annotation	documentation distribution contact: telephone information details

element **MI_Metadata/distributionInfo/MD_Distribution/distributor/MD_Distributor/distributorContact/CI_ResponsibleParty/contactInfo/CI_Contact/phone/CI_Telephone/voice**

diagram	
type	xs:string
annotation	documentation distribution contact: phone number

element **MI_Metadata/distributionInfo/MD_Distribution/distributor/MD_Distributor/distributorContact/CI_ResponsibleParty/contactInfo/CI_Contact/phone/CI_Telephone/facsimile**

diagram	
type	xs:string
annotation	documentation distribution contact: fax number

element **MI_Metadata/distributionInfo/MD_Distribution/distributor/MD_Distributor/distributorContact/CI_ResponsibleParty/contactInfo/CI_Contact/address**

diagram	
annotation	documentation distribution contact: address information

element **MI_Metadata/distributionInfo/MD_Distribution/distributor/MD_Distributor/distributorContact/CI_ResponsibleParty/contactInfo/CI_Contact/address/CI_Address**

diagram	<pre> classDiagram class CI_Address class deliveryPoint class city class administrativeArea class postalCode class country class electronicEmailAddress CI_Address "0..1" -- "0..1" deliveryPoint CI_Address "0..1" -- "0..1" city CI_Address "0..1" -- "0..1" administrativeArea CI_Address "0..1" -- "0..1" postalCode CI_Address "0..1" -- "0..1" country CI_Address "0..1" -- "0..1" electronicEmailAddress </pre>
annotation	documentation distribution contact: address information details

element **MI_Metadata/distributionInfo/MD_Distribution/distributor/MD_Distributor/distributorContact/CI_ResponsibleParty/contactInfo/CI_Contact/address/CI_Address/deliveryPoint**

diagram	<pre> classDiagram class deliveryPoint class CharacterString deliveryPoint "0..1" -- "0..1" CharacterString </pre>
type	xs:string
annotation	documentation distribution contact: physical address

element **MI_Metadata/distributionInfo/MD_Distribution/distributor/MD_Distributor/distributorContact/CI_ResponsibleParty/contactInfo/CI_Contact/address/CI_Address/city**

diagram	<pre> classDiagram class city class CharacterString city "0..1" -- "0..1" CharacterString </pre>
type	xs:string
annotation	documentation distribution contact: city

element **MI_Metadata/distributionInfo/MD_Distribution/distributor/MD_Distributor/distributorContact/CI_ResponsibleParty/contactInfo/CI_Contact/address/CI_Address/administrativeArea**

diagram	 A UML class diagram showing a class named "administrativeArea" with a multiplicity of 1..* at its end. It is connected via a directed association to another class represented by a rounded rectangle with three dots inside, which is then connected via another directed association to a class named "CharacterString".
type	xs:string
annotation	documentation distribution contact: administrative area

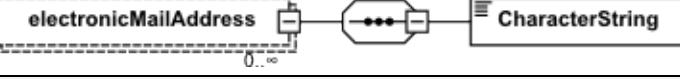
element **MI_Metadata/distributionInfo/MD_Distribution/distributor/MD_Distributor/distributorContact/CI_ResponsibleParty/contactInfo/CI_Contact/address/CI_Address/postalCode**

diagram	 A UML class diagram showing a class named "postalCode" with a multiplicity of 1..* at its end. It is connected via a directed association to another class represented by a rounded rectangle with three dots inside, which is then connected via another directed association to a class named "CharacterString".
type	xs:string
annotation	documentation distribution contact: postal code

element **MI_Metadata/distributionInfo/MD_Distribution/distributor/MD_Distributor/distributorContact/CI_ResponsibleParty/contactInfo/CI_Contact/address/CI_Address/country**

diagram	 A UML class diagram showing a class named "country" with a multiplicity of 1..* at its end. It is connected via a directed association to another class represented by a rounded rectangle with three dots inside, which is then connected via another directed association to a class named "CharacterString".
type	xs:string
annotation	documentation distribution contact: country

element **MI_Metadata/distributionInfo/MD_Distribution/distributor/MD_Distributor/distributorContact/CI_ResponsibleParty/contactInfo/CI_Contact/address/CI_Address/electronicMailAddress**

diagram	 A UML class diagram showing a class named "electronicMailAddress" with a multiplicity of 0..* at its end. It is connected via a directed association to another class represented by a rounded rectangle with three dots inside, which is then connected via another directed association to a class named "CharacterString".
type	xs:string
annotation	documentation distribution contact: email address

element **MI_Metadata/distributionInfo/MD_Distribution/distributor/MD_Distributor/distributorContact/CI_ResponsibleParty/role**

diagram	<pre> classDiagram class role class CI_RoleCode role "0..1" --> "1" CI_RoleCode </pre>			
type	roleCode			
facets	enumeration resourceProvider enumeration custodian enumeration owner enumeration sponsor enumeration user enumeration distributor enumeration originator enumeration pointOfContact enumeration principalInvestigator enumeration processor enumeration publisher enumeration author enumeration collaborator			
attribute	Name	Type	Use	Annotation
	codeList	xs:string	required	CI_RoleCode
	codeListValue	roleCode	required	value from code list
annotation	documentation	function performed by the responsible party		

element **MI_Metadata/distributionInfo/MD_Distribution/distributor/MD_Distributor/distributionOrderProcess**

diagram	<pre> classDiagram class distributionOrderProcess class MD_StandardOrderProcess distributionOrderProcess "0..1" --> "1" MD_StandardOrderProcess </pre>			
annotation	distribution order process information			

element **MI_Metadata/distributionInfo/MD_Distribution/distributor/MD_Distributor/distributionOrderProcess/MD_StandardOrderProcess**

diagram	<pre> classDiagram class MD_StandardOrderProcess class fees MD_StandardOrderProcess "0..1" --> "1" fees </pre>			
annotation	distribution order process details			

element **MI_Metadata/distributionInfo/MD_Distribution/distributor/MD_Distributor/distributionOrderProcess/MD_StandardOrderProcess/fees**

diagram	
type	xs:string
annotation	documentation distribution order process: fees

element **MI_Metadata/distributionInfo/MD_Distribution/distributor/MD_Distributor/distributerTransferOptions**

diagram	
type	xs:string
annotation	documentation distributor transfer options information

element **MI_Metadata/distributionInfo/MD_Distribution/distributor/MD_Distributor/distributerTransferOptions/MD_DigitalTransferOption**

diagram	
type	xs:string
annotation	documentation digital transfer option details

element **MI_Metadata/distributionInfo/MD_Distribution/distributor/MD_Distributor/distributerTransferOptions/MD_DigitalTransferOption/transferSize**

diagram	
type	xs:string
annotation	documentation digital transfer option: transfer size

element **MI_Metadata/distributionInfo/MD_Distribution/distributor/MD_Distributor/distributerTransferOptions/MD_DigitalTransferOption/onLine**

diagram	
type	xs:string
annotation	documentation digital transfer option: on line information

element **MI_Metadata/distributionInfo/MD_Distribution/distributor/MD_Distributor/distributerTransferOptions/MD_DigitalTransferOption/online/CI_OnlineResource**

diagram	<pre> graph LR A[CI_OnlineResource] --- B{...} B --- C[linkage] B --- D[protocol] B --- E[function] </pre>
type	xs:string
annotation	documentation digital transfer option: on line resource details

element **MI_Metadata/distributionInfo/MD_Distribution/distributor/MD_Distributor/distributerTransferOptions/MD_DigitalTransferOption/online/CI_OnlineResource/linkage**

diagram	<pre> graph LR A[linkage] --- B{...} B --- C[URL] </pre>
type	xs:string
annotation	documentation on line resource: linkage

element **MI_Metadata/distributionInfo/MD_Distribution/distributor/MD_Distributor/distributerTransferOptions/MD_DigitalTransferOption/online/CI_OnlineResource/protocol**

diagram	<pre> graph LR A[protocol] --- B{...} B --- C[CharacterString] </pre>
type	xs:string
annotation	documentation on line resource: protocol

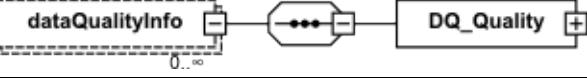
element **MI_Metadata/distributionInfo/MD_Distribution/distributor/MD_Distributor/distributerTransferOptions/MD_DigitalTransferOption/online/CI_OnlineResource/function**

diagram	<pre> graph LR A[function] --- B{...} B --- C[CI_OnlineFunctionCode] </pre>
type	onLineFunctionCode
facets	enumeration download enumeration information enumeration offlineAccess

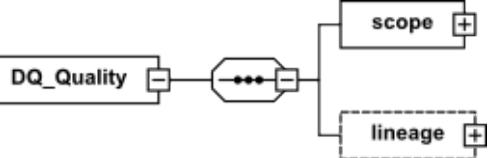
	enumeration	order		
	enumeration	search		
attribute	Name	Type	Use	Annotation
	codeList	xs:string	required	CI_OnLineFunctionCode
	codeListValue	onLineFunctionCode	required	value from code list
annotation	documentation	function performed by the resource		

3.1.13 dataQualityInfo

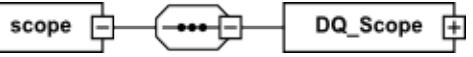
element MI_Metadata/dataQualityInfo

diagram	
annotation	documentation data quality information

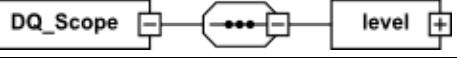
element MI_Metadata/dataQualityInfo/DQ_Quality

diagram	
annotation	documentation data quality information details

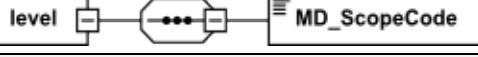
element MI_Metadata/dataQualityInfo/DQ_Quality/scope

diagram	
annotation	documentation data quality: scope

element MI_Metadata/dataQualityInfo/DQ_Quality/scope/DQ_Scope

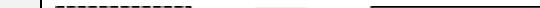
diagram	
annotation	documentation data quality: scope details

element MI_Metadata/dataQualityInfo/DQ_Quality/scope/DQ_Scope/level

diagram	
type	scopeCode

facets	enumeration	attribute		
	enumeration	attributeType		
	enumeration	collectionHardware		
	enumeration	collectionSession		
	enumeration	dataset		
	enumeration	series		
	enumeration	nonGeographicDataset		
	enumeration	dimensionGroup		
	enumeration	feature		
	enumeration	featureType		
	enumeration	propertyType		
	enumeration	fieldSession		
	enumeration	software		
	enumeration	service		
	enumeration	model		
	enumeration	tile		
attribute	Name	Type	Use	Annotation
	codeList	xs:string	required	MD_ScopeCode
	codeListValue	scopeCode	required	value from code list
annotation	documentation	class of information to which the referencing entity applies		

element **MI_Metadata/dataQualityInfo/DQ_Quality/lineage**

diagram	
annotation	documentation lineage information

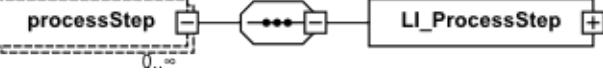
element MI_Metadata/dataQualityInfo/DQ_Quality/lineage/LI_Lineage

diagram	<pre> classDiagram class LI_Lineage class processStep class statement class source LI_Lineage "0..oo" --> processStep processStep "0..oo" --> statement processStep "0..oo" --> source </pre>
annotation	documentation lineage information details

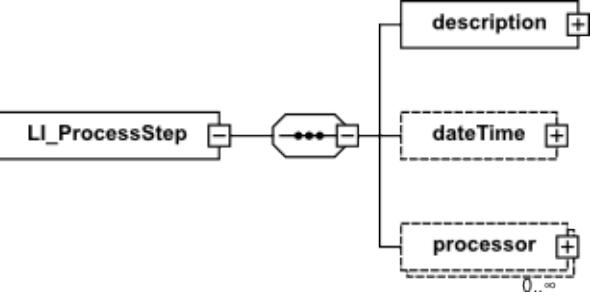
element **MI_Metadata/dataQualityInfo/DQ_Quality/lineage/LI_Lineage/statement**

diagram	
type	xs:string
annotation	documentation lineage: statement

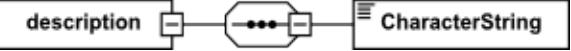
element **MI_Metadata/dataQualityInfo/DQ_Quality/lineage/LI_Lineage/processStep**

diagram	
annotation	documentation lineage: processing step information

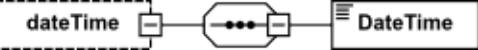
element **MI_Metadata/dataQualityInfo/DQ_Quality/lineage/LI_Lineage/processStep/LI_ProcessStep**

diagram	
annotation	documentation lineage: processing step information details

element **MI_Metadata/dataQualityInfo/DQ_Quality/lineage/LI_Lineage/processStep/LI_ProcessStep/description**

diagram	
type	xs:string
annotation	documentation processing step: description

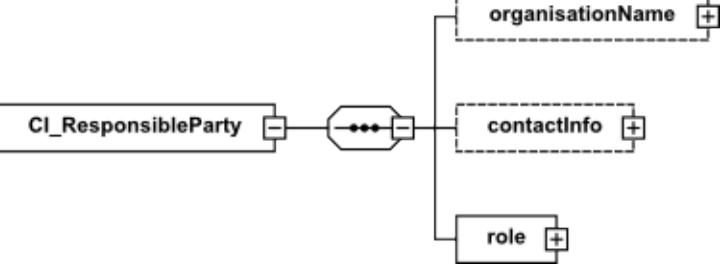
element **MI_Metadata/dataQualityInfo/DQ_Quality/lineage/LI_Lineage/processStep/LI_ProcessStep/dateTime**

diagram	
type	xs:date
annotation	documentation processing step: time stamp

element **MI_Metadata/dataQualityInfo/DQ_Quality/lineage/LI_Lineage/processStep/LE_ProcessStep/processor**

diagram	
annotation	documentation processing step: processor

element **MI_Metadata/dataQualityInfo/DQ_Quality/lineage/LI_Lineage/processStep/LE_ProcessStep/processor/CI_ResponsibleParty**

diagram	
annotation	documentation processing step: responsible party

element **MI_Metadata/dataQualityInfo/DQ_Quality/lineage/LI_Lineage/processStep/LE_ProcessStep/processor/CI_ResponsibleParty/organisationName**

diagram	
type	xs:string
annotation	documentation

element **MI_Metadata/dataQualityInfo/DQ_Quality/lineage/LI_Lineage/processStep/LE_ProcessStep/processor/CI_ResponsibleParty/role**

diagram																	
type	roleCode																
facets	<table> <tr> <td>enumeration</td> <td>resourceProvider</td> </tr> <tr> <td>enumeration</td> <td>custodian</td> </tr> <tr> <td>enumeration</td> <td>owner</td> </tr> <tr> <td>enumeration</td> <td>sponsor</td> </tr> <tr> <td>enumeration</td> <td>user</td> </tr> <tr> <td>enumeration</td> <td>distributor</td> </tr> <tr> <td>enumeration</td> <td>originator</td> </tr> <tr> <td>enumeration</td> <td>pointOfContact</td> </tr> </table>	enumeration	resourceProvider	enumeration	custodian	enumeration	owner	enumeration	sponsor	enumeration	user	enumeration	distributor	enumeration	originator	enumeration	pointOfContact
enumeration	resourceProvider																
enumeration	custodian																
enumeration	owner																
enumeration	sponsor																
enumeration	user																
enumeration	distributor																
enumeration	originator																
enumeration	pointOfContact																

	enumeration	principalInvestigator									
	enumeration	processor									
	enumeration	publisher									
	enumeration	author									
	enumeration	collaborator									
attribute	Name	Type	Use	Annotation							
	codeList	xs:string	required	CI_RoleCode							
	codeListValue	roleCode	required	value from code list							
annotation	documentation	function performed by the responsible party									
diagram											
type	xs:string										
annotation	documentation	processing information: identifier code									

element **MI_Metadata/dataQualityInfo/DQ_Quality/lineage/LI_Lineage/source**

diagram	
annotation	documentation lineage: source

element **MI_Metadata/dataQualityInfo/DQ_Quality/lineage/LI_Lineage/source/LI_Source**

diagram	
annotation	documentation lineage: source details

element **MI_Metadata/dataQualityInfo/DQ_Quality/lineage/LI_Lineage/source/LI_Source/description**

diagram	
type	xs:string
annotation	documentation lineage: source description

3.1.14 metadataMaintenance

element MI_Metadata/metadataMaintenance

diagram	
annotation	documentation metadata maintenance information

element MI_Metadata/metadataMaintenance/MD_MaintenanceInformation

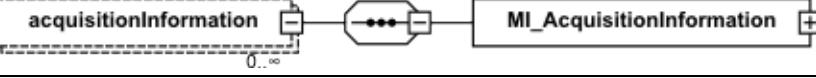
diagram	
annotation	documentation metadata maintenance details

element MI_Metadata/metadataMaintenance/MD_MaintenanceInformation/maintenanceAndUpdateFrequency

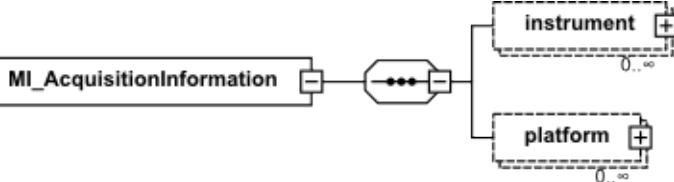
diagram													
type	maintenanceFrequencyCode												
facets	enumeration continual enumeration daily enumeration weekly enumeration fortnightly enumeration monthly enumeration quarterly enumeration biannually enumeration annually enumeration asNeeded enumeration irregular enumeration notPlanned enumeration unknown												
attribute	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>codeList</td> <td>xs:string</td> <td>required</td> <td>MD_MaintenanceFrequencyCode</td> </tr> <tr> <td>codeListValue</td> <td>maintenance FrequencyCode</td> <td>required</td> <td>value of code list</td> </tr> </tbody> </table>	Name	Type	Use	Annotation	codeList	xs:string	required	MD_MaintenanceFrequencyCode	codeListValue	maintenance FrequencyCode	required	value of code list
Name	Type	Use	Annotation										
codeList	xs:string	required	MD_MaintenanceFrequencyCode										
codeListValue	maintenance FrequencyCode	required	value of code list										
annotation	documentation frequency with which modifications and deletions are made to the data after it is first produced												

3.1.15 acquisitionInformation

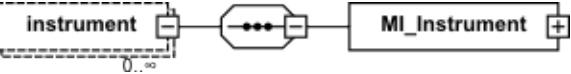
element **MI_Metadata/acquisitionInformation**

diagram	
annotation	documentation acquisition information

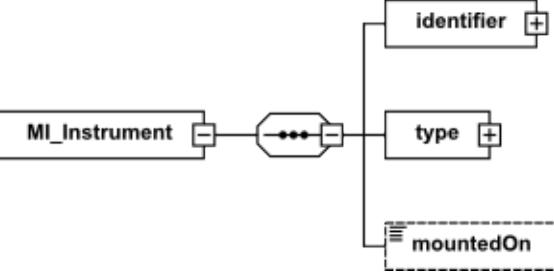
element **MI_Metadata/acquisitionInformation/MI_AcquisitionInformation**

diagram	
annotation	documentation acquisition information details

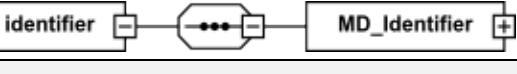
element **MI_Metadata/acquisitionInformation/MI_AcquisitionInformation/instrument**

diagram	
annotation	documentation acquisition information: instrument

element **MI_Metadata/acquisitionInformation/MI_AcquisitionInformation/instrument/MI_Instrument**

diagram	
attribute	Name Type Use Annotation id xs:string required instrument ID
annotation	documentation acquisition information: instrument details

element **MI_Metadata/acquisitionInformation/MI_AcquisitionInformation/instrument/MI_Instrument/identifier**

diagram	
annotation	documentation instrument: identifier

element **MI_Metadata/acquisitionInformation/MI_AcquisitionInformation/instrument/MI_Instrument/identifier/MD_Identifier**

diagram	
annotation	documentation instrument: identifier details

element **MI_Metadata/acquisitionInformation/MI_AcquisitionInformation/instrument/MI_Instrument/identifier/MD_Identifier/code**

diagram	
type	xs:string
annotation	documentation instrument: code

element **MI_Metadata/acquisitionInformation/MI_AcquisitionInformation/instrument/MI_Instrument/type**

diagram	
type	xs:string
annotation	documentation instrument: type

element **MI_Metadata/acquisitionInformation/MI_AcquisitionInformation/instrument/MI_Instrument/mountedOn**

diagram	
attribute	Name Type Use Annotation href xs:string required link to platform ID
annotation	documentation instrument: mounted on

element **MI_Metadata/acquisitionInformation/MI_AcquisitionInformation/platform**

diagram	
annotation	documentation acquisition information: platform

element **MI_Metadata/acquisitionInformation/MI_AcquisitionInformation/platform/EOS_Platform**

diagram	<pre> classDiagram class EOS_Platform { <<1..1>> } class identifier { <<1..1>> } class description { <<1..1>> } class instrument { <<1..infinity>> } class otherPropertyType { <<1..1>> } class otherProperty { <<1..1>> } EOS_Platform "1..1" -- "1..1" identifier EOS_Platform "1..1" -- "1..1" description EOS_Platform "1..1" -- "1..infinity" instrument EOS_Platform "1..1" -- "1..1" otherPropertyType </pre>			
attribute	Name	Type	Use	Annotation
	id	xs:string	required	platform ID
annotation	documentation acquisition information: platform details			

element **MI_Metadata/acquisitionInformation/MI_AcquisitionInformation/platform/EOS_Platform/identifier**

diagram	<pre> classDiagram class identifier { <<1..1>> } class MD_Identifier { <<1..1>> } identifier "1..1" -- "1..1" MD_Identifier </pre>
annotation	documentation platform: identifier

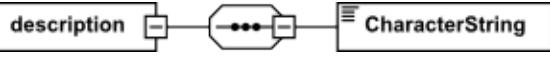
element **MI_Metadata/acquisitionInformation/MI_AcquisitionInformation/platform/EOS_Platform/identifier/MD_Identifier**

diagram	<pre> classDiagram class MD_Identifier { <<1..1>> } class code { <<1..1>> } MD_Identifier "1..1" -- "1..1" code </pre>
annotation	documentation platform: identifier details

element **MI_Metadata/acquisitionInformation/MI_AcquisitionInformation/platform/EOS_Platform/identifier/MD_Identifier/code**

diagram	<pre> classDiagram class code { <<1..1>> } class CharacterString { <<1..1>> } code "1..1" -- "1..1" CharacterString </pre>
type	xs:string
annotation	documentation platform: identifier code

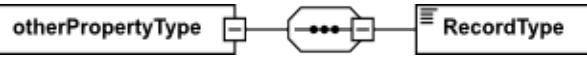
element **MI_Metadata/acquisitionInformation/MI_AcquisitionInformation/platform/**
EOS_Platform/description

diagram	
type	xs:string
annotation	documentation platform: description

element **MI_Metadata/acquisitionInformation/MI_AcquisitionInformation/platform/**
EOS_Platform/instrument

diagram	
attribute	Name Type Use Annotation href xs:string required link to instrument ID
annotation	documentation platform: link to instrument

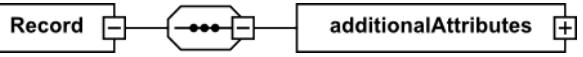
element **MI_Metadata/acquisitionInformation/MI_AcquisitionInformation/**
EOS_Platform/otherPropertyType

diagram	
type	xs:string
attribute	Name Type Use Annotation href xlink:href required EOS Additional Attributes
annotation	documentation other property type – EOS additional attributes

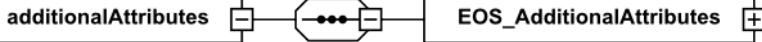
element **MI_Metadata/acquisitionInformation/MI_AcquisitionInformation/**
EOS_Platform/otherProperty

diagram	
annotation	documentation other property – additional attributes

element **MI_Metadata/acquisitionInformation/MI_AcquisitionInformation/**
otherProperty/Record

diagram	
annotation	documentation other property record

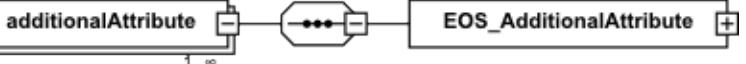
element **MI_Metadata/acquisitionInformation/MI_AcquisitionInformation/**
EOS_Platform/otherProperty/Record/additionalAttributes

diagram	
annotation	documentation additional attributes

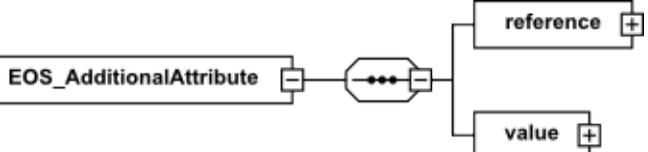
element **MI_Metadata/acquisitionInformation/MI_AcquisitionInformation/**
EOS_Platform/otherProperty/Record/additionalAttributes/
EOS_AdditionalAttributes

diagram	
annotation	documentation EOS additional attributes

element **MI_Metadata/acquisitionInformation/MI_AcquisitionInformation/**
EOS_Platform/otherProperty/Record/additionalAttributes/
EOS_AdditionalAttributes/additionalAttribute

diagram	
annotation	documentation additionalAttribute

element **MI_Metadata/acquisitionInformation/MI_AcquisitionInformation/**
EOS_Platform/otherProperty/Record/additionalAttributes/
EOS_AdditionalAttributes/additionalAttribute/
EOS_AdditionalAttribute

diagram	
annotation	documentation EOS_AdditionalAttribute

element **MI_Metadata/acquisitionInformation/MI_AcquisitionInformation/**
EOS_Platform/otherProperty/Record/additionalAttributes/
EOS_AdditionalAttributes/additionalAttribute/
EOS_AdditionalAttribute/reference

diagram	
annotation	documentation additional attribute reference

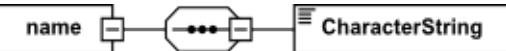
element **MI_Metadata/acquisitionInformation/MI_AcquisitionInformation/**
EOS_Platform/otherProperty/Record/additionalAttributes/
EOS_AdditionalAttributes/additionalAttribute/
EOS_Attribute/reference/
EOS_AttributeDescription

diagram	<pre> classDiagram class EOS_AttributeDescription { type name description dataType parameterUnitsOfMeasure } EOS_AttributeDescription "1..*" --> "dashed line" </pre>
annotation	documentation cell geometry

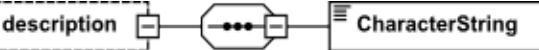
element **MI_Metadata/acquisitionInformation/MI_AcquisitionInformation/**
EOS_Platform/otherProperty/Record/additionalAttributes/
EOS_AdditionalAttributes/additionalAttribute/
EOS_Attribute/reference/
EOS_AttributeDescription/type

diagram	<pre> classDiagram class EOS_AttributeTypeCode type --> EOS_AttributeTypeCode </pre>												
type	additionalAttributeTypeCode												
facets	enumeration spatialInformation enumeration acquisitionInformation												
attribute	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>codeList</td> <td>xs:string</td> <td>required</td> <td>EOS_AttributeTypeCode</td> </tr> <tr> <td>codeListValue</td> <td>EOS_AttributeTypeCode</td> <td>required</td> <td>value of code list</td> </tr> </tbody> </table>	Name	Type	Use	Annotation	codeList	xs:string	required	EOS_AttributeTypeCode	codeListValue	EOS_AttributeTypeCode	required	value of code list
Name	Type	Use	Annotation										
codeList	xs:string	required	EOS_AttributeTypeCode										
codeListValue	EOS_AttributeTypeCode	required	value of code list										
annotation	documentation additional attribute: type												

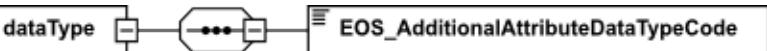
element **MI_Metadata/acquisitionInformation/MI_AcquisitionInformation/**
EOS_Platform/otherProperty/Record/additionalAttributes/
EOS_AdditionalAttributes/additionalAttribute/EO_S_additionalAttribute/
reference/EO_S_additionalAttributeDescription/name

diagram	
type	xs:string
annotation	documentation additional attribute: name

element **MI_Metadata/acquisitionInformation/MI_AcquisitionInformation/**
EOS_Platform/otherProperty/Record/additionalAttributes/
EOS_AdditionalAttributes/additionalAttribute/EO_S_additionalAttribute/
reference/EO_S_additionalAttributeDescription/description

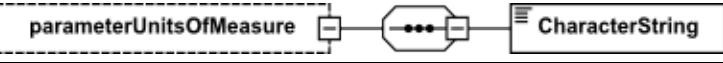
diagram	
type	xs:string
annotation	documentation additional attribute: description

element **MI_Metadata/acquisitionInformation/MI_AcquisitionInformation/**
EOS_Platform/otherProperty/Record/additionalAttributes/
EOS_AdditionalAttributes/additionalAttribute/EO_S_additionalAttribute/
reference/EO_S_additionalAttributeDescription/dataType

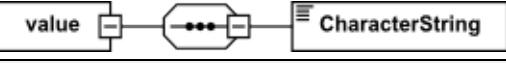
diagram	
type	additionalAttributeDataTypeCode
facets	enumeration STRING enumeration FLOAT enumeration INT enumeration BOOLEAN enumeration DATE enumeration TIME enumeration DATETIME enumeration DATE_STRING enumeration TIME_STRING enumeration DATETIME_STRING

	Name	Type	Use	Annotation
	codeList	xs:string	required	EOS_AdditionalAttribute Data Type Code
	codeListValue	additionalAttribute DataTypeCode	required	value of code list
annotation	documentation	additional attribute: data type		

element **MI_Metadata/acquisitionInformation/MI_AcquisitionInformation/
EOS_Platform/otherProperty/Record/additionalAttributes/
EOS_AdditionalAttributes/additionalAttribute/EOS_AdditionalAttribute/
reference/EOS_AdditionalAttributeDescription/parameterUnitsOfMeasure**

diagram	
type	xs:string
annotation	documentation additional attribute: parameter units of measure

element **MI_Metadata/acquisitionInformation/MI_AcquisitionInformation/
EOS_Platform/otherProperty/Record/additionalAttributes/
EOS_AdditionalAttributes/additionalAttribute/EOS_AdditionalAttribute/value**

diagram	
type	xs:string
annotation	documentation additional attribute: value