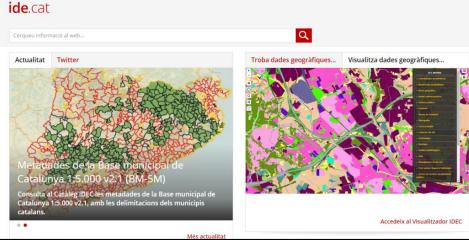
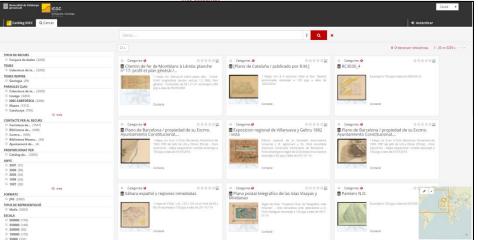


Inici





# **ide.cat IDEC Catalogue Experience**

Jordi Escriu

IDEC Support Centre

jordi.escriu@icgc.cat







### IDEC Regional SDI - Catalonia

Infraestructura de Dades Espacials de Catalunya

Irid

ide.Cat

https://www.ide.cat



#### Temes destacats









## IDEC The origins



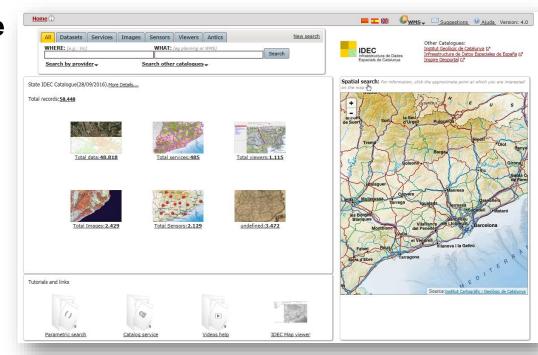






#### **Previous Metadata catalogue**

- http://catalegidec.icgc.cat
- Galdós INDICIO EbRIM
- OASIS ebXML Registry Information Model v3.0
- Ad-hoc user interface
- ~ 129.000 Monolingual metadata (ca, es, en)
- ISO 19139:2007
- Lack of update

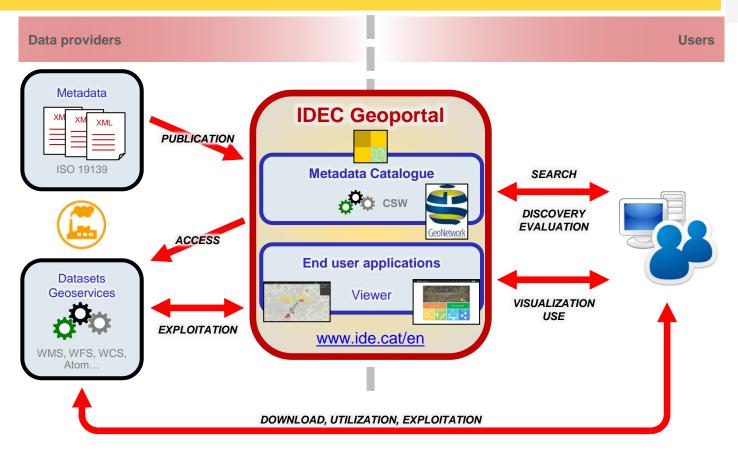






### **IDEC – Current SDI Structure**

ide.cat







### **IDEC – Current SDI Catalogue**



- Access to the Catalogue
   <a href="https://www.ide.cat/en/catalogue">https://www.ide.cat/en/catalogue</a>
   Based on GeoNetwork v3.0.6
- CSW Service (GetCapabilities)
   <a href="https://www.ide.cat/servei/catalunya/cataleg-idec/csw?">https://www.ide.cat/servei/catalunya/cataleg-idec/csw?</a>





### **IDEC – Why GeoNetwork?**

- Web interface, visual design
- Customizable user interface
- Integration of metadata editing and management
- Support to multilingual metadata ca, es, en
- Implementation of different metadata profiles
- Validation tools (XML, INSPIRE)
- Metadata templates
- Tools for connecting and federating other SDI catalogues





### Multilingual metadata

```
▼<gmd:MD Metadata xmlns:gml="http://www.opengis.net/gml" xmlns:gmd="http://www.isotc211.org/2005/gmd" xmlns:srv="http://www.isotc211.org/2005/srv"
xmlns:gco="http://www.isotc211.org/2005/gco" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" id="ID0001" xsi:schemaLocation="http://www.isotc211.org/2005/gco
http://idec.icc.cat/schema/gco/gco.xsd http://www.isotc211.org/2005/gmd http://idec.icc.cat/schema/gmd/gmd.xsd http://idec.icgc.cat/schema/idec
http://idec.icgc.cat/schema/idec/idec.xsd">
 ▼<gmd:fileIdentifier>
    <gco:CharacterString:base-topografica-5000-v2r0</gco:CharacterString>
  </gmd:fileIdentifier>
 ▼<gmd:language>
    <gmd:LanguageCode codeList="http://www.loc.gov/standards/iso639-2/" codeListValue="cat"/>
  </gmd:language>
 . . .
                                                                                                           Language definition
 ▼<gmd:locale>
  ▼<gmd:PT_Locale id="es">
    ▼<gmd:languageCode>
        <gmd:LanguageCode codeList="http://www.loc.gov/standards/iso639-2/" codeListValue="spa"/>
      </gmd:languageCode>
                                                                                                    MD Metadata.language
    ▼<gmd:characterEncoding>
        <gmd:MD CharacterSetCode</pre>
       codeList="http://standards.iso.org/ittf/PubliclvAvailableStandards/ISO 19139 Schemas/resources.
       codeListValue="utf8"/>
      </gmd:characterEncoding>
    </gmd:PT Locale>
  </gmd:locale>
 ▼<gmd:locale>
  ▼<gmd:PT Locale id="en">
                                                                                                                    PT Locale
    ▼<gmd:languageCode>
        <gmd:LanguageCode codeList="http://www.loc.gov/standards/iso639-2/" codeListValue="eng"/>
      </gmd:languageCode>
    ▼<gmd:characterEncoding>
       <gmd:MD_CharacterSetCode</pre>
       codeList="http://standards.iso.org/ittf/PubliclyAvailableStandards/ISO 19139 Schemas/resources/codelist/ML gmxCodelists.xml#MD CharacterSetCode"
       codeListValue="utf8"/>
     </gmd:characterEncoding>
    </gmd:PT Locale>
  </gmd:locale>
 ▼<gmd:spatialRepresentationInfo>
```

https://www.ide.cat/servei/catalunya/cataleg-

idec/csw?Service=CSW&Version=2.0.2&Request=GetRecordById&outputSchema=http://www.isotc211.org/2005/gmd&ElementSetName=full &ID=base-topografica-5000-v2r0

### Multilingual metadata

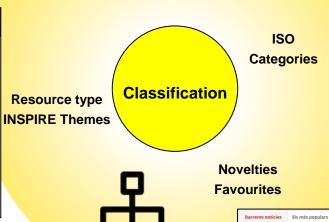
```
▼<gmd:MD Metadata xmlns:gml="http://www.opengis.net/gml" xmlns:gmd="http://www.isotc211.org/2005/gmd" xmlns:srv="http://www.isotc211.org/2005/srv"
 xmlns:gco="http://www.isotc211.org/2005/gco" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" id="ID0001" xsi:schemaLocation="http://www.isotc211.org/2005/gco
 http://idec.icc.cat/schema/gco/gco.xsd http://www.isotc211.org/2005/gmd http://idec.icc.cat/schema/gmd/gmd.xsd http://idec.icgc.cat/schema/idec
 http://idec.icgc.cat/schema/idec/idec.xsd">
   ▼<gmd:identificationInfo>
    ▼<gmd:MD DataIdentification id="ID0003">
      ▼<gmd:citation>
        ▼<gmd:CI Citation>
          ▼<gmd:title xsi:type="gmd:PT FreeText PropertyType">
            ▼<gco:CharacterString>
               Base topogràfica de Catalunya 1:5 000 - Full "Begur" (314099)
                                                                                                              Language use
             </gco:CharacterString>
            ▼<gmd:PT FreeText>
             ▼<gmd:textGroup>
               ▼<gmd:LocalisedCharacterString locale="#en">
                                                                                                                    locale
                  Topographic database of Catalonia 1:5 000 - Sheet "Begur" (314099)
                 </gmd:LocalisedCharacterString>
               </gmd:textGroup>
             ▼<gmd:textGroup>
               ▼<gmd:LocalisedCharacterString locale="#es">
                  Base topográfica de Cataluña 1:5 000 - Hoja "Begur" (314099)
                </gmd:LocalisedCharacterString>
               </gmd:textGroup>
             </gmd:PT FreeText>
           </gmd:title>
          ▼<gmd:date>
           ▼<gmd:CI Date>
```

https://www.ide.cat/servei/catalunya/cataleg-

idec/csw?Service=CSW&Version=2.0.2&Request=GetRecordById&outputSchema=http://www.isotc211.org/2005/gmd&ElementSetName=full &ID=base-topografica-5000-v2r0

### **GeoNetwork Catalogue – Classifications**





Situació acústica existent

WMS cartografia topogràfica

Servet , service-view

Mapa dels sòls de pendent

(263092)

superior al 20% - Full "Covet"

ide.cat

Base topogràfica de Catalunya

1:25 000 - Full "Begur" (7925)

Estat RCC: REGISTRADA OFICIAL

Mapa dels sòls de pendent

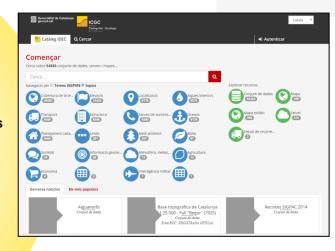
superior al 20% - Full "Can

Salvà" (298110)

WMS Àmbits de l'Aiuntament

de Barcelona

Conjunt de dades Estat RCC: REGISTRADA OFICIAL



Model d'Elevacions del Terreny

de Catalunya 15 x 15 metres -

Full "Montblanc" (0418A)

Confunt de dades

Estat RCC: REGISTRADA OFICIAL

Model d'Elevacions del Terreny

2) v1.0

Conjunt de dades

Mapa topogràfic de Catalunya

1:10 000 - Full "Alsamora"

(127047)

Conjunt de dades Estat RCC: REGISTRADA OFICIAL

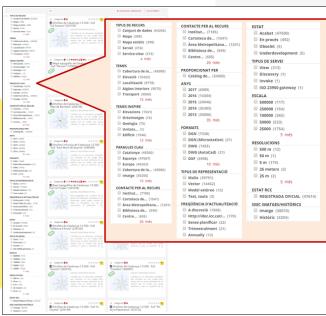
Catalunya 2x2 metres (MET-





### **GeoNetwork Catalogue – Search**

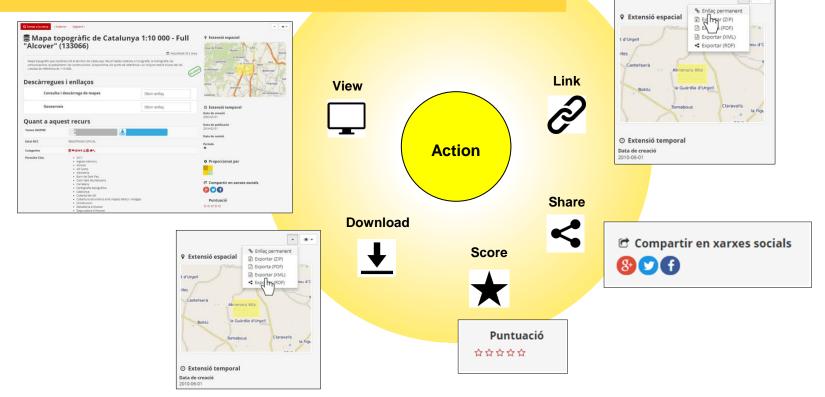






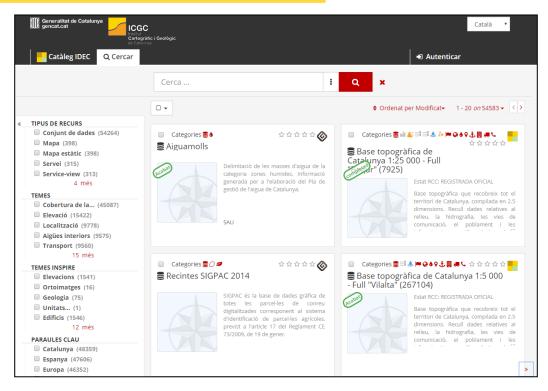


### **GeoNetwork Catalogue – User interaction**





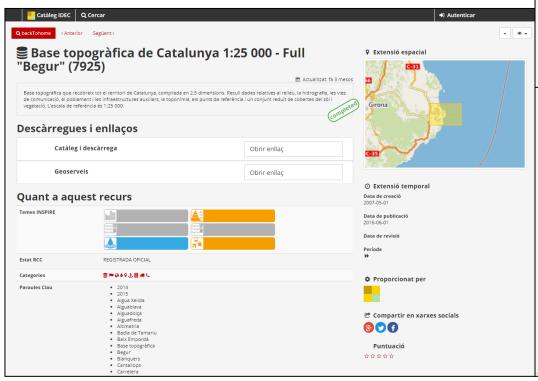
### GeoNetwork Catalogue – Locate metadata







### GeoNetwork Catalogue – View metadata







## GeoNetwork Catalogue – Export metadata

```
gmd:HD_Hetadata xmlns:gml="http://www.opengis.net/gml" xmlns:gmd="http://www.isotc211.org/2005/gmd" xmlns:srv="http://www.isotc211.org/2005/srv
xmlns:gco="http://www.isotc211.org/2005/gco" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" id="ID0001" xsi:schemaLocation="http://www.isotc211.org/2005/gco
http://idec.icc.cat/schema//gco/gco.xsd http://www.isotc211.org/2005/gmd http://idec.icc.cat/schema//gmd/gmd.xsd">
   <gco:CharacterString>bt25mv10f7925c1r030ca6</gco:CharacterString>
 </gmd:fileIdentifier>
w<gnd:language>
  <gmd:LanguageCode codeList="http://www.loc.gov/standards/iso639-2/" codeListValue="cat"/>
 </gmd:language>
▼ < gnd: characterSet>
   <gmd:MD CharacterSetCode</pre>
  codeList="http://standards.iso.org/ittf/PubliclyAvailableStandards/ISO_19139_Schemas/resources/codelist/ML_gmxCodelists.xml#HD_characterSetCode"
   codeListValue="8859part1"/>
 </gnd:characterSet>
▼ <gmd:hierarchyLevel>
   <gmd:ND_ScopeCode codeList="http://standards.iso.org/ittf/PubliclyAvailableStandards/ISO_19139_Schemas/resources/codelist/ML_gmxCodelists.xml#MD_ScopeCode"</p>
   codeListValue="dataset"/>
 </gmd:hierarchyLevel>
▼ <gmd:contact>
 ♥<gmd:CI_ResponsibleParty>
   ♥ <gmd:organisationName>
     ▼ <gco:CharacterString>
        Institut Cartogràfic i Geològic de Catalunya (ICGC)
      </gco:CharacterString>
    </gmd:organisationName>
   ▼ <gmd:contactInfo>
    V <gmd:CI Contact>
       ▼ < gmd: phone>
        ▼<gmd:CI Telephone>
          v<gmd:voice>
              <gco:CharacterString>+34 93 567 15 00</gco:CharacterString>
            </gmd:voice>
          </gmd:CI_Telephone
        </gmd:phone>
       ▼ <gmd:address>
         ▼ <gmd:CI_Address>
          ▼<gmd:deliveryPoint>
              <gco:CharacterString>Parc de Montjuïc</gco:CharacterString>
            </gmd:deliveryPoint>
          ▼<gmd:city>
              <gco:CharacterString>Barcelona</gco:CharacterString>
            ♥ < gmd: postalCode:
              <gco:CharacterString>E-08038
            </gmd:postalCode>
           w < gmd: electronicMailAddress>
              <gco:CharacterString>icgc@icgc.cat</gco:CharacterString>
            </gmd:electronicMailAddress>
          </gmd:CI Address>
        </gmd:address>
       ▼ <gmd:onlineResource
         ▼ <gmd:CI_OnlineResource>
           v<gmd:linkage>
              <gmd:URL>http://www.icgc.cat</gmd:URL>
            </gmd:linkage>
           ▼ <gmd:function>
              <gmd:CI OnLineFunctionCode</pre>
              codeList="http://standards.iso.org/ittf/PubliclyAvailableStandards/ISO_19139_Schemas/resources/codelist/ML_gmxCodelists.xml#CI_OnLineFunctionCode"
             codel istValues"information"/>
            </gmd:function>
          </gmd:CI_OnlineResource>
```

#### Base topogràfica de Catalunya 1:25 000 - Full "Begur" (7925) Metadades (extensió IDEC) Identificador del fitxer bt25mv10f7925c1r030ca6 Codi d'idioma ISO Catalan; Valencian Conjunt de caràcters 8859 Part 1 Codi de l'abast Conjunt de dades 06-03-2018 09:27:53 Nom estàndard de la metadada ISO 19115:2003/Cor.1:2006 Geographic Information - Metadata Versió estàndard de la metadada Autor de la metadada Adreça Punt de lliurament General Parc de Montjuïc Nom de l'Organització Barcelona Institut Cartogràfic i Geològic de Catalunya (ICGC) E-08038 Tipus de rol Punt de contacte Adreça de correu electrônic iege@iege.cat Telèfon Recurs en línia +34 93 567 15 00 http://www.jegc.cat Funció del recurs en línia Altre idioma · Spanish: Castilian (UTF) English (UTF) Camps IDEC Data d'alta o actualizació a l'RCC 2016-09-22 Estat del registre a l'RCC Estat del registre a l'RCC REGISTRADA OFICIAL Categoria RCC CARTOGRAFIA TOPOGRAFICA01 Subcategoria RCC Subcategoria DERIVADA012 Informació de la representació espacial Representació vectorial espacial





### **Categorization of Official data**

- IDEC Central SDI Node of Catalonia
- Connected with INSPIRE through the IDEE Geoportal



- Categorization of official geographic information:
   Pla Cartogràfic de Catalunya (PCC)
- Coordination body:
   Comissió de Coordinació Cartogràfica de Catalunya (CCCC)

### **Categorization of Official data**

```
▼<idec:MD Metadata xmlns:idec="http://idec.icgc.cat/schema/idec" xmlns:gco="http://www.isotc211.org/2005/gco" xmlns:gmd="http://www.isotc211.org/2005/gmd"
 xmlns:gml="http://www.opengis.net/gml" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:geonet="http://www.fao.org/geonetwork" id="ID0001"
 gco:isoType="gmd:MD Metadata" xsi:schemaLocation="http://www.isotc211.org/2005/gco http://idec.icc.cat/schema/gco/gco.xsd http://www.isotc211.org/2005/gmd
 http://idec.icc.cat/schema/gmd/gmd.xsd http://idec.icgc.cat/schema/idec http://idec.icgc.cat/schema/idec/idec.xsd">
 ▼<gmd:fileIdentifier>
    -
<gco:CharacterString>base-topografica-5000-v2r0</gco:CharacterString>
   </gmd:fileIdentifier>
 ▼<gmd:language>
    <gmd:LanguageCode codeList="http://www.loc.gov/standards/iso639-2/" codeListValue="cat"/>
   </gmd:language>
. . .
                                                                                                       IDEC Extension
 ▼<idec:idecFields>
                             Date of officialization
   ▼<idec:rccStartDate>
      <gco:Date>2014-09-02</gco:Date>
                                                                                                     idec:idecFields
    </idec:rccStartDate>
                                             Status of officialization
   ▼<idec:rccState>
      <idec:rccStateCode>REGISTRADA OFICIAL</idec:rccStateCode>
    </idec:rccState>
   ▼<idec:rccCategory>
      <idec:rccCategoryCode>CARTOGRAFIA TOPOGRAFICA01</idec:rccCategoryCode>
    </idec:rccCategory>

    Classifications

   ▼<idec:rccSubCategory>
      <idec:rccSubCategoryCode>BASICA011</idec:rccSubCategoryCode>
    </idec:rccSubCategorv>
  </idec:idecFields>
                                                                                                                  Registre Cartogràfic
</idec:MD_Metadata>
                                                                                                                 de Catalunva
```

https://www.ide.cat/servei/catalunya/cataleg-

idec/csw?Service=CSW&Version=2.0.2&Request=GetRecordById&outputSchema=http://www.isotc211.org/2005/gmd&ElementSetName=full &ID=base-topografica-5000-v2r0

## GeoNetwork Catalogue – Filtering Official Data

**RCC - Registre Cartogràfic de Catalunya** 



- Filtering for metadata corresponding to Official data sets.
- Metadata view: Official data sets are appropriately highlighted.











#### **Federation of SDI Nodes**



#### Regional catalogue:

- Infraestructura de Dades Espacials de Catalunya (IDEC)
  - Responsible Organization: Institut Cartogràfic i Geològic de Catalunya (ICGC).
  - CSW Service:

https://www.ide.cat/servei/catalunya/cataleg-idec/csw?Request=GetCapabilities&Service=CSW&Language=spa

Local Catalogues:



- SDI Geoportal of Barcelona province (IDEBarcelona)
  - Responsible Organization: Diputación de Barcelona (DIBA).
  - CSW Service:

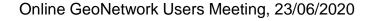
http://sitmun.diba.cat/csw/servlet?request=GetCapabilities&service=CSW&version=2.0.2

- SDI Geoportal of Barcelona council (Geoportalbon)
  - Responsible Organization: Ajuntament de Barcelona.
  - CSW Service:

http://w133.bcn.cat/CSWAJBCN/service.svc/get?request=GetCapabilities&service=CSW





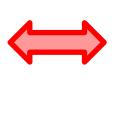


### **Federation of Open Data Nodes**

Open Data













### Summary of our experience

- Very positive feedback on multilingual metadata support.
- GeoNetwork documentation is improvable.
- Complexity of customized XML schemas and profiles.
- Difficulties to integrate such kind of customizations in the functionality of the catalogue.
- Internal organization processes (e.g. official data workflow) are not easily integrable.
- Some features (e.g. harvesting) yet to be explored.
- Willing to face an updated GeoNetwork version (3.10) soon.





### **Suggestions for GeoNetwork improvement**

- ISO dates (creation / revision / publication) are not always enough to manage internal organization processes - Possible integration in the underlying database.
- Make possible customization of faceted search based on specific user categories through UI.
- Simplify terminology of UI (i.e. not ISO-based), specially in the metadata editor, to make it accessible to non-technical users.
- Independency of metadata content storage from delivery format would probably be an asset (e.g. ISO XML).





### Thank you for your attention!

### Institut Cartogràfic i Geològic de Catalunya

Parc de Montjuïc, E-08038 Barcelona

41°22'12" N, 2°09'20" E (ETRS89)

- www.ide.cat
- idec@icgc.cat
- twitter.com/ide\_cat

Tel. (+34) 93 567 15 00 Fax (+34) 93 567 15 67









