

The Core Reference Dataset (CRD) initiative and organizational arrangements

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Background

- End 2017 – Summer 2018. European Environment Agency and DG GROW proposals for 2nd generation of Corine Land Cover (CLC) products to develop a “CLC-Backbone” of persistent spatial objects for European Commission.
- “Soft bones” – raster product, pixel-based (Sentinel-2 based), 10*10m², pure land cover classes.
- “Hard bones” – vector product, themes: Hydrography (Rivers, channels), and Transport (Roads, Railroads), 1 ha MMU, 20 m MMW
- Source: National reference data from MS; Open street map data; Commercially available navigation data.
- The specification has been postpone to Autumn 2018, the production by a contractor is expected at 2019

Corine Land Cover + products development



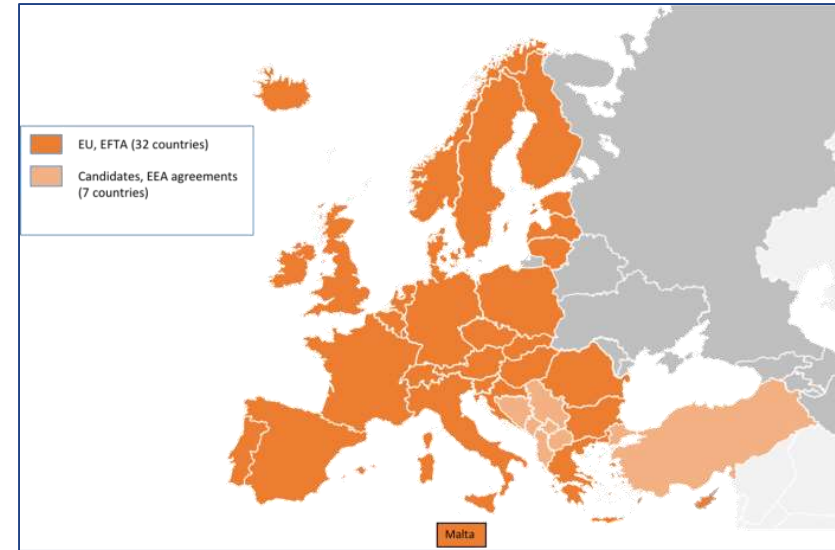
1. **CLC-Backbone** is a spatially detailed, large scale inventory in vector format providing a geometric spatial structure for landscape features with limited, but robust EO-based land cover thematic detail on which to build other products.
2. **CLC-Core** is a consistent, multi-use grid³ database repository for environmental information populated with a broad range of land cover, land use and ancillary data, forming the information engine to deliver and support tailored thematic information requirements.
3. **CLC+** is the end point for this specific exercise and is a derived vector and raster product from the **CLC-Core** and **CLC-Backbone** and will be a LULC monitoring product with improved spatial and thematic performance, relative to the current CLC, for reporting and assessment.
4. The final element of the conceptual design, although not strictly a new product, is the ability to continue producing the existing CLC, which may be referred to as **CLC-Legacy** in the future, which already has a well-established and agreed specification.



“Hard bone” reference features are needed for CLC-Backbone land cover polygon formation

How to simplify a use of INSPIRE compliant data

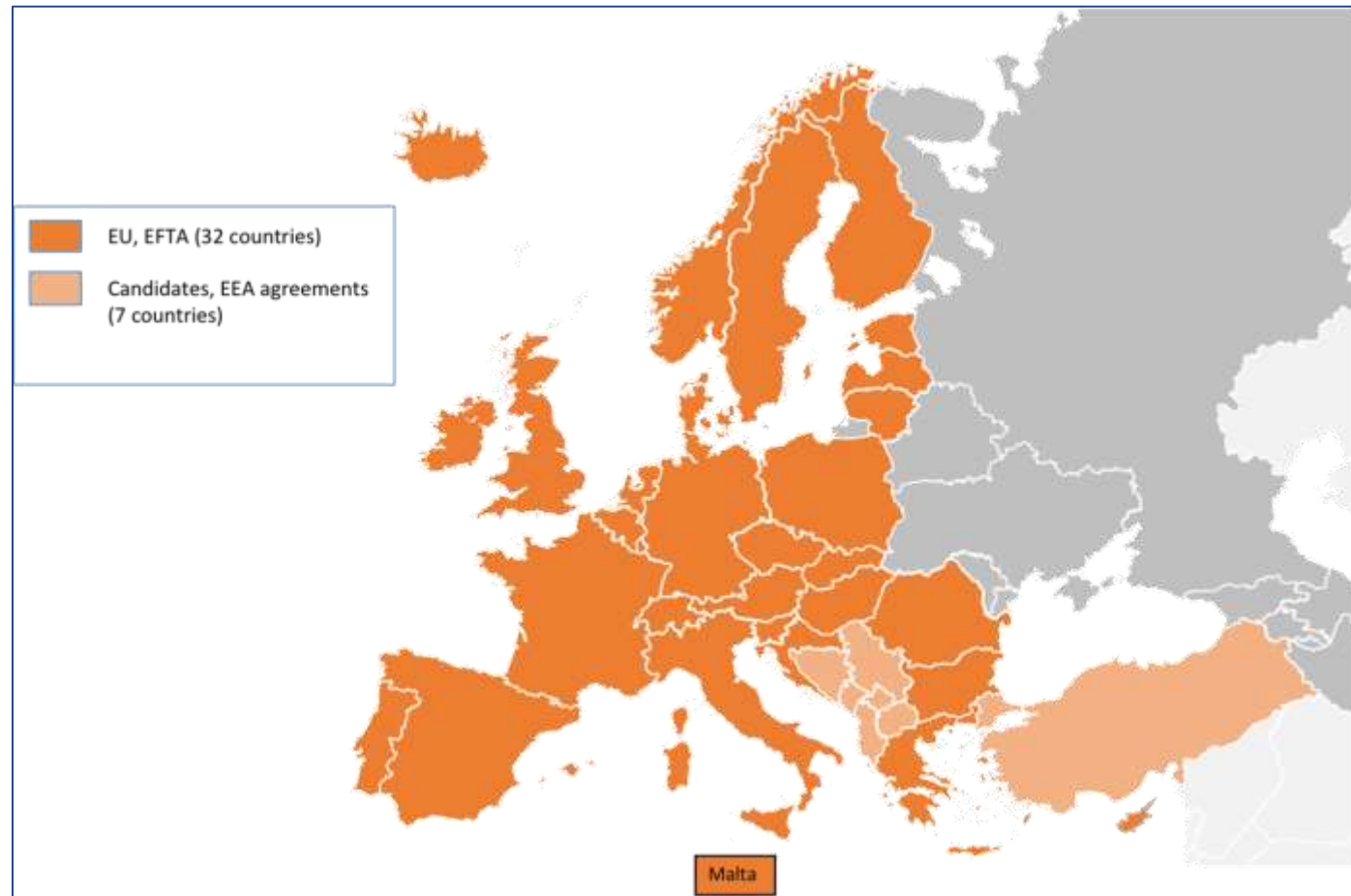
- European stakeholders demands
 - Datasets instead of web-services
 - Simplified INSPIRE specification
 - Harmonised pan-E coverage
 - Definitive location of “Core” features
- EuroGeographics initiated a compilation of **Core Reference Dataset (CRD)**
 - Themes: Transport Networks (Road, Rail), Hydrography
 - Harvest authoritative data used for INSPIRE web-services
 - Based on INSPIRE requirements but adjusted to an easier structure
 - Seamless and consistent across borders
 - Consistent between themes, so that different themes can be used together
 - Up-to-date, maintained and quality ensured



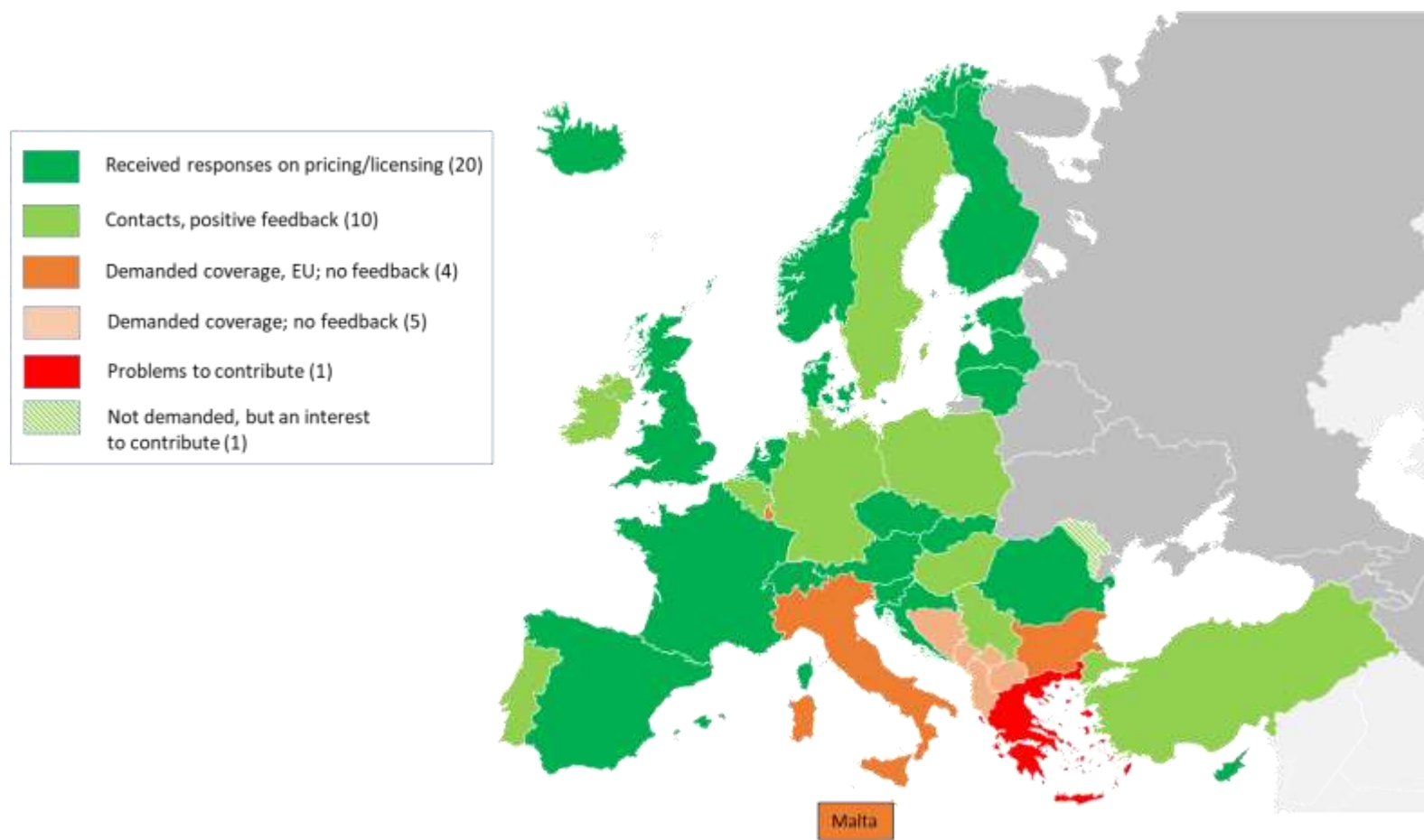
Interested pan-European stakeholders

- Eurostat – the tender for GISCO acquisition of topographic data layers (July 2018)
 - 4 years prospect
 - Themes: Administrative and statistical regions, Postal codes and addresses, **Hydrography**, **Transport networks and infrastructure** (road, railway, water, air), Buildings, built-up areas and populated places, Points of interest POIs, Energy infrastructure
 - Scale: Global (1:1m), Regional (1:250k), Medium (1:50k – 1:100k), Large (1:5k – 1:25k)
- Other demands from EC and European stakeholders
 - DG GROW (Copernicus Emergency Management Service, EU-DEM), JRC (EU Gazetteer), DG MOVE (Trans European Network), DG JUST (e-Justice)

Demanded coverage by EEA

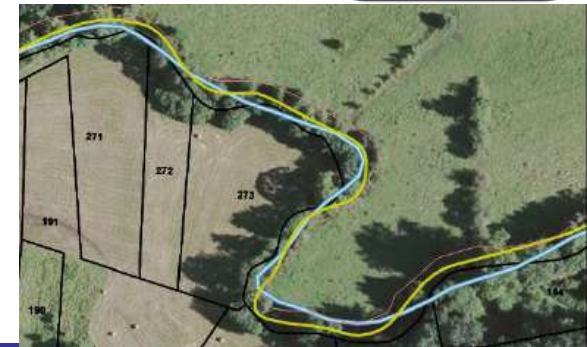
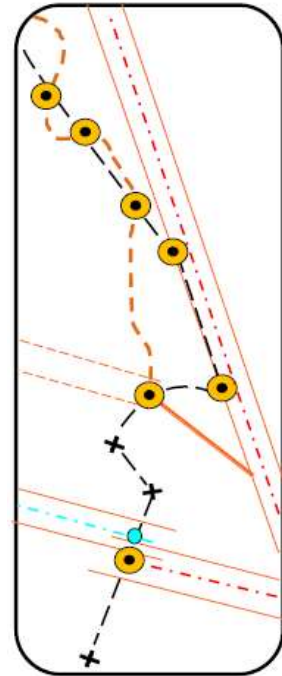


NMCAs' consultation regarding the production of Core Reference Dataset (CRD)



Core Reference Dataset (CRD) – harmonisation of national data along borders

- “bottom up approach” - Edge-matching of features by **two neighboring countries** (NMCAs)
 - EuroGeographics edge-matching guidelines
 - Actions to be performed by national authorities
 1. the agreed Connecting Features (CFs) and
 2. updated of national data assuring the cross-border content
- “top-down” approach - Edge-matching of features **centrally**
 - Assessment of discrepancies
 - Triggering the edge-matching tools
 - Use of the agreed CFs
 - Centrally defined CFs



Pricing and Licensing

- Data providers are asked to sign the **Annex to Framework License Agreement (FLA)**
- Intellectual Property Rights are compliant to other EG products
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- Data provider shall indicate the **base price**:
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 - the licence fee you would receive from the licensing of your national data by a reseller for an annual single user licence.
 - Your base price can be zero (e.g. if it is available as open data)

Core Reference Dataset (CRD) – Timetable

June 2018 → BKG has been appointed as Technical Coordinator

→ CRD specification and Guidelines for DPs

July 2018 → Call for contribution to CRD

Oct 2018 → CRD prototype v0.1

Oct 2018 – March 2019 → Data production process

- Compilation of the CRD from the contributions of NMCAs;
- Centralised edge-matching of the data along borders;
- Validation the edge-matched data, quality check and corrections.

April 2019 → Launch the Core Reference dataset v1.0

May 2019 → Evaluation of production process/lessons learned

- From data delivery by NMCAs
- From production process
- Feedback / requirements from (potential) users

Core Reference Dataset (CRD) – in summary

- CRD is much broader than a data source for CLC+
- CRD meets a number of demands within the EC and its Institutions
- The CRD composition is based on the INSPIRE requirements – flatten INSPIRE data model
- TN and HY are priority themes, but more themes considered for the future
- Developments towards ELS / Open ELS
 - National (INSPIRE) services for maintenance / updates
 - Centralised offering to users

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