

Creating a Core Reference Dataset



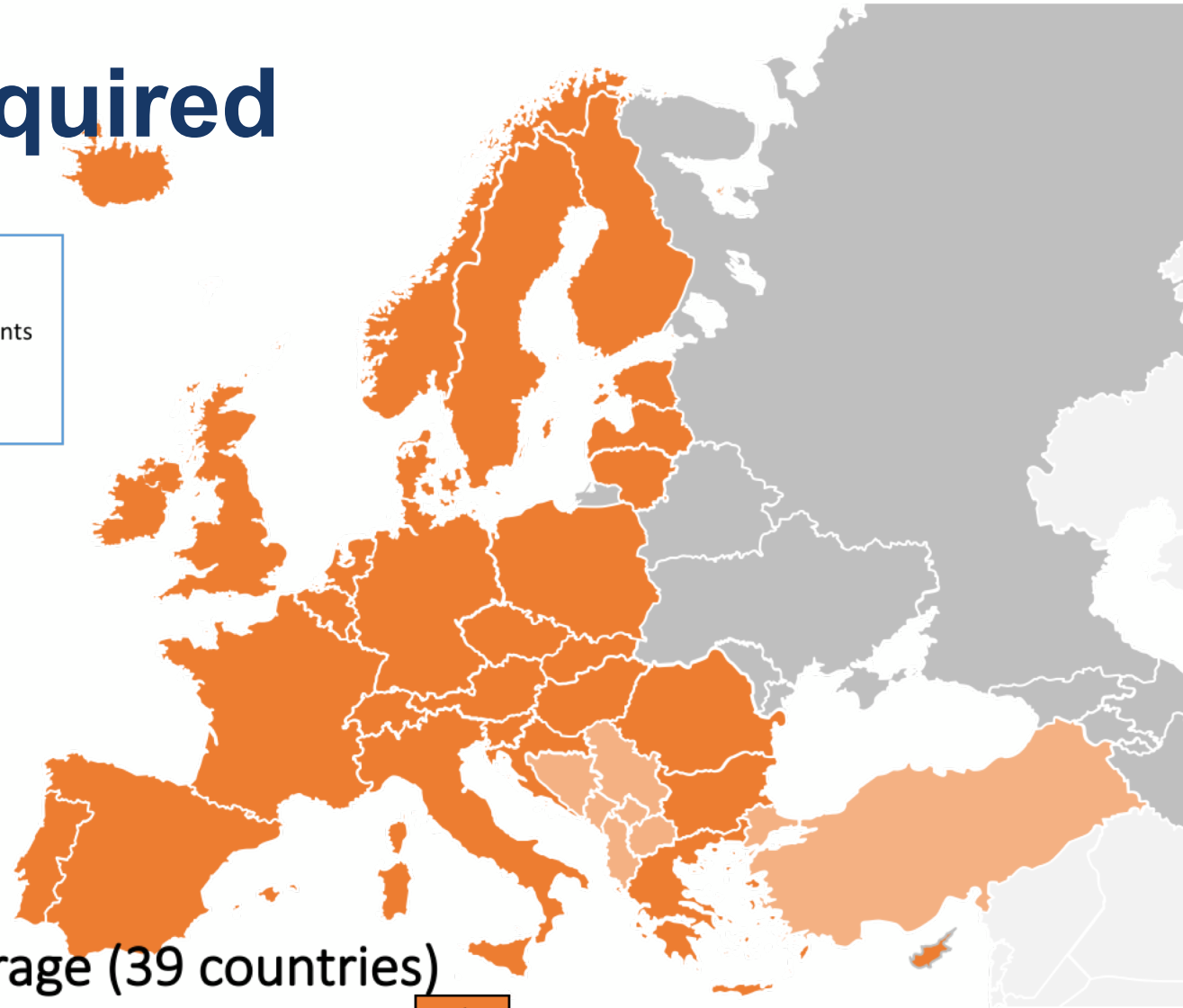
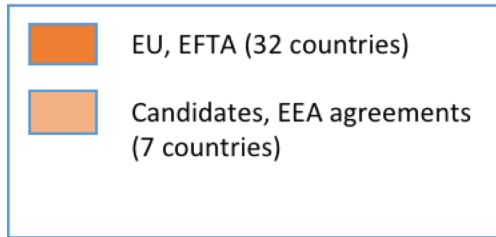
Background

- 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.
- Unauthoritative data sources (Open Street Map, HERE) were prioritised as a source
- EuroGeographics and NMCA's response to public consultation on the draft technical requirements, expressing concern:
 - they are not using INSPIRE compliant authoritative data from Member States, and asking
 - to remove the references to unauthoritative sources and
 - list Member State INSPIRE compliant national geospatial data as the primary source for producing the data
- Updated 'Technical Specification' (v4.0) issued (March 2017)
- The document refers to “National INSPIRE data set provision ...” as potential source for Roads and Railway features in the CLC backbone product.

Summary specification of CLC-Backbone

- "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
 - Scale: 1:10.000 or better;
Geometric quality: +/- 5m positional accuracy
 - Geometric representation: centre line, parallel lines
 - Spatial completeness: >95% of network covered
 - Thematic completeness: all types of roads from highway down to agricultural tracks covered; All rivers within catchments larger than 10 km².
 - CRS: ETRS89 Lambert Azimuthal Equal-Area (EPSG: 3035)
 - Reference year: 2018 plus/minus 1 year (2017-2019)
 - Source: National reference data from MS; Open street map data; Commercially available navigation data.
 - No stated compliancy to INSPIRE

Coverage Required



CLC-Backbone – target coverage (39 countries)

Malta

EuroGeographics Position on CLC proposal

- EuroGeographics' members' significant investment in INSPIRE
- Societal benefits and economic value ONLY realised if widely used both by Member States and European Commission.
- EuroGeographics therefore supports:
 - the developments of 2nd generation CLC products
 - respecting the INSPIRE principles
 - extending the usefulness of CLC products to a wider community, at national, regional and even local levels in particular.
- In order to ensure this wider utility, CLC-Backbone must be consistent with other core reference data, from our members and from other public authorities.
- To create the CLC-Backbone from non-authoritative geospatial sources will require a significant and wasteful duplication of effort.

Engagement

To summarise EGHO actions:

- Consulted with a number of members
- Members asked to brief their National contact points, highlighting their concern.
- It is unclear how many have done so - some contact points hold a contrary view from their National mapping agency and EuroGeographics.
- European Commission asked to prioritise authoritative geospatial data from Member States as a source for the CLC-Backbone.
- Written to EEA, DG Environment, DG Grow.

DG ENV response

- Confirmed spatial reference data required for the CLC project are within the scope of annex 1 of the INSPIRE Directive.
- Spatial data should by now be accessible through network services in all Member States
 - without obstacles at the point of use for other public organisations, including the EU institutions and bodies such as our agencies or programmes like Copernicus.
- However, there are still gaps in the implementation of INSPIRE which are still being addressed in collaboration with the countries concerned.
- Should this (INSPIRE) data not meet the operational requirements of the CLC project then have to assess what is needed to make this happen or consider alternative, eventually intermediate solutions, to timely meet the projects requirements.

EEA Response

- Implementation of the Inspire Directive ... not ... sufficient ... in order to be used in the Copernicus core land monitoring service at European level.
- The EEA ... trusts the EAGLE experts have done a careful and fact based assessment of options before proposing OSM as the most feasible and cost-effective solution.
- EEA in its capacity as coordinator of the Copernicus In Situ Component, is of course ready to explore alternative, operational, cost-effective and realistic solutions in close collaboration with EuroGeographics and its members, with a view to a future complementing or replacing OSM with authoritative geospatial reference data from the Member States.
- EEA will ask the experts to further deepen their analysis on the best possible choice for ancillary data in support of the CLC-backbone production from 2018 onwards, for the benefit of the Copernicus services and in particular CLMS.

EuroGeographics Response

- EuroGeographics position is - “to prioritise authoritative geospatial data (INSPIRE compliant) from Member States as a source for the CLC-Backbone”
- Not using INSPIRE must be an issue for Member States to raise with the Commission
- CLC+ approach is a threat to NMCAs role as the definitive geospatial data providers to the European Commission and its institutions.
- However, we recognize EEA and DG Environment: demand for data NOW...
Quote heard - “*deliver or die!*”
- Informal interest from other stakeholders in Commission (EEA in-situ data coordinator, DG Connect and Eurostat) for a basic (core-reference) INSPIRE dataset.
- Our response must be to create a Core reference Dataset – urgently!

Vision for a Core Reference Dataset

- Our vision for a Core Reference Data is much broader than CLC+,
- CRD should meet a number of demands within the EC and its Institutions, informed by proactive engagement with Commission users (under ELS)
- We will start with priority themes, but will add themes later, including buildings or settlement areas, addresses, elevation and even orthophotos.
- We would like to meet the demand from CLC+ but we must be mindful of the broader potential too.
- The CRD composition is based on the INSPIRE requirements – flatten INSPIRE data model.
- Development path for this dataset (and our others) is towards European Location Services.
- EGHO has therefore instigated an urgent project to create a core reference dataset for Europe with the aim of providing this to the EC and its agencies.

Project scope, objectives and deliverables

- Develop a prototype including all countries that deliver data in time
- Include themes Transportation (Road and Railway) and Hydrography.
- Include only a few feature types and attributes as defined in the draft data specification that seem appropriate for satisfying basic user needs.
- Explore how to create a buildings theme and options for orthoimagery, addresses and digital elevation models.
- Set up technical production.
- Manage stakeholder expectations
- Evaluate the outcome of the project
- Subject to evaluation - develop a strategy and implementation steps for further enhancement of the product to fulfil user needs

Project Risks

- **Risks of “not doing” the project**
- Without an alternative authoritative dataset the EEA / DGGROW proposal has the potential to seriously undermine our plans for European Location Services.
- Loss of importance of our members’ authoritative data for usage within the European Commission, prevent wider usage of INSPIRE compliant authoritative member data services.
- Undermining the INSPIRE activities and investments of member states, therefore loss of reputation for all involved parties
- Missed opportunity/ potential to extend the Eurostat contract and generate income

Project Risks

- **Risks of “doing the project”**
- EEA have indicated that they will begin to use INSPIRE compliant data when it is available and when there is complete coverage, therefore delivery is key success factor but bears the risk of not being able to deliver complete coverage
- EuroGeographics financial investment and Tech Coordinator’s resource investment lead not to the expected results and/ or the CRD product is not for interest for European Commission (demand not verified)
- Resources required are available

Critical success factors

- Delivery of data from our members
- Good project management
- Competent support and technical coordination
- Stakeholder management (members and EC institutions) on management level
- User demand!

Licensing

- We have a existing Framework Licensing Agreement (FLA) for current products with the majority of our members
- We have agreed that this is the most straightforward way to license the data
- We will create a new ANNEX for CRD, and if you were contributing to the product this is what you would sign;
- Existing terms and conditions would remain in place;
- Existing FLA grants EuroGeographics a right to create products with national data contributions.
- This will require that we agree the terms and conditions for data provisions to third parties (type of license, terms of use).

Pricing

- Not offering this as open data
- Intention is to make it available to the commission under same terms as current ESTAT contract
- Pricing model will:
 - Focus on the offering to the institutions of the European Commission,
 - Takes as a basis the collected base price (cost) of Data Provider's data, and work out the pricing levels of the product offerings applying the practice used in current EuroGeographics pan-European products,
 - Considers the calculation of data supply fee,
 - Takes into account the production cost.

Project Approach

- Timescale 12 months after signing the agreement between EuroGeographics and BKG.
- The result will be a prototype including the themes Road, Railway and Hydrography.
- Project and production process will be reviewed by the Project management Team and further enhancements to the dataset and / or the production process will be proposed at the end of the project.
- Depending on the result of the review the future development and production of the CRD Product composition has to be discussed and decided by the end of the project.
- The involved parties in the Project Management Team are:
 - The EuroGeographics Head Office
 - BKG as Technical Manager for CRD

Roles and responsibilities

EuroGeographics Head Office (EGHO):

- Ensure that the project is implemented consistent with the overall strategy of EuroGeographics.
- Overall Project Management and coordination, managing the strategic objectives, overseeing the implementation of the project plan
- Product management and marketing - Deciding on product direction
- Customer and user management - Investigating and understanding user requirements
- Stakeholder Management - users, members, contributing NMCAs and the Technical Production Manager..

Support and Technical Coordination

BKG as Technical Manager for CRD:

- Responsible for all aspects of technical and quality management.
- Technical production management and coordination
- Quality Management, developing quality criteria, and tools, validating and correcting as required, quality checking of the final product
- Delivering a CRD prototype to EGHO, and
- Providing technical support and advice for EGHO,
- Developing maintenance and update plan.

Data Suppliers (NMCAs)

Two webinars have been organised for:

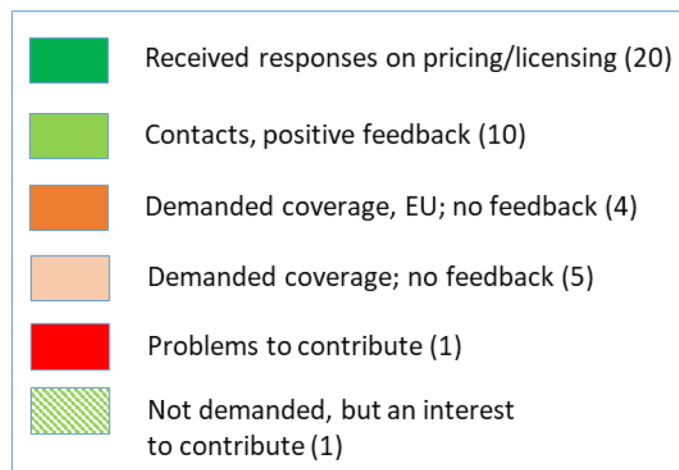
- ✓ Technical experts introducing CRD technical specification, 26th Febr
- ✓ Licensing experts introducing CRD licensing and pricing terms, 5th March

Consultation with NMCAs INSPIRE experts on the CRD technical specification:

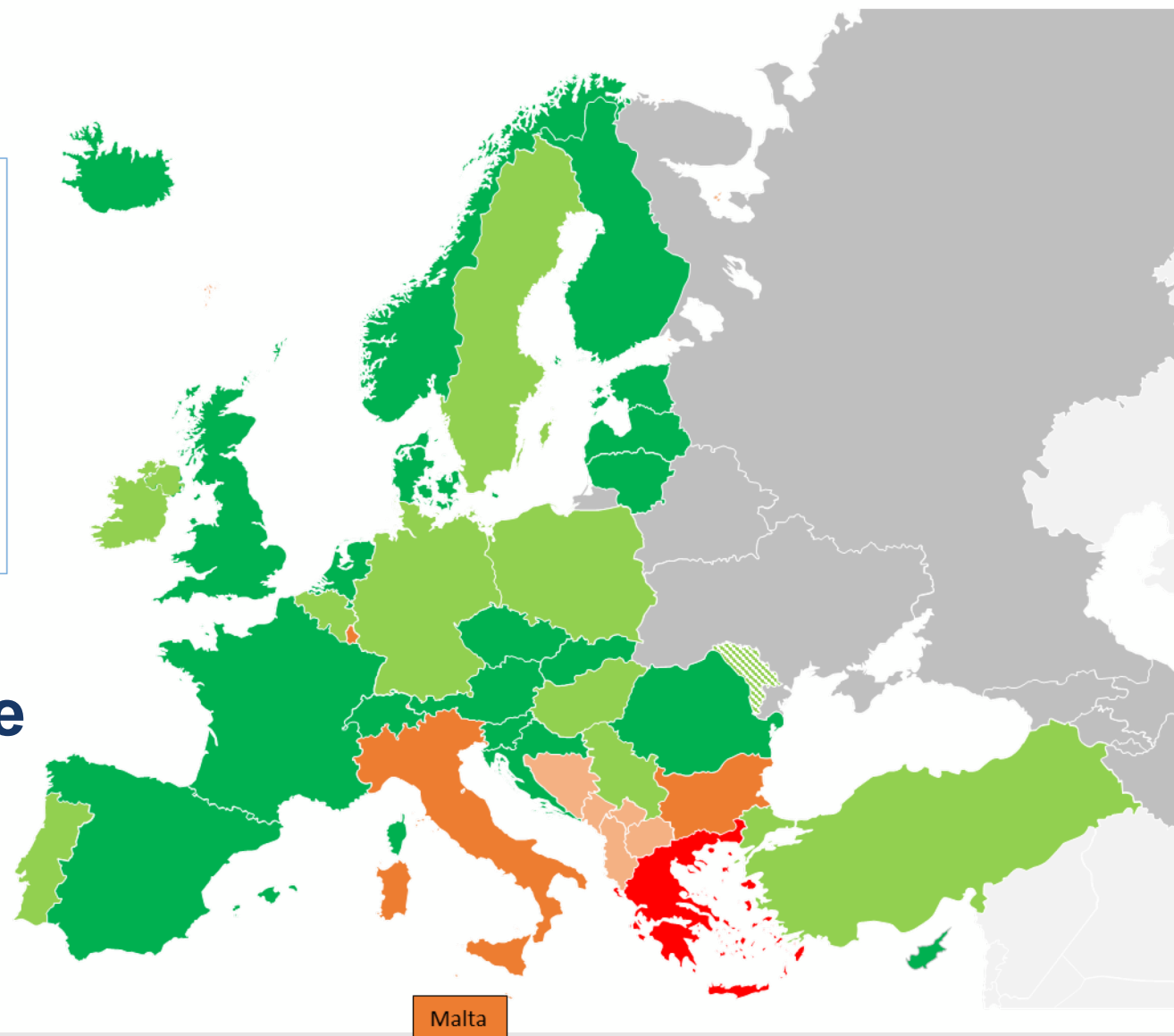
- ✓ Web-meetings: 29th April, 8th May

NMCAs have been asked to provide (letter, Feb 2018):

- Position regarding pricing/licensing – to fill the questionnaire
 - ✓ *20 NMCAs responded*
- Contact points for Technical production and supply
 - ✓ *28 NMCAs designated the contact persons*



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



Project Governance

- The CRD project will be part of the ELS Transition Programme
 - ELS is foreseen to be the infrastructure to efficiently maintain CRD and other pan-European products in the future
- Therefore the ELS Transition Programme governance model applies.
- Because of importance EuroGeographics Management Board is the responsible Steering Group for the project.
- The ELS Programme Board will be informed on the progress and has an advisory role.
- Project Manager to be secured

Management Milestones

Scheduled management milestones	Date	Explanation/reason
• Project agreed	20 April 2018	Approval of EG Management Board
• Project initiated	30 April 2018	Set up production team and processes by technical coordinator
• Sign the Project Management agreement and initiate production process	15 May 2018	Launch of production process by call NMCAs for data delivery during the Extraordinary General Assembly
• CRD technical specification finalised	1 June 2018	Detailed tech. requirements for data delivery
• Expected proposal to EuroStat	7 July 2018	
• 1st prototype available	30 September 2018	Prototype available
• Licensing framework available	30 September 2018	Licensing framework agreed and implemented
• Core reference dataset v1.0	30 April 2019	Launch the Core Reference dataset v1.0
• Project completed	15 May 2019	Project organization closed, transition to operational organisation

Eurostat Tender

- Issued 4 May 2018
- Response required 2 July 2018
- Seven products are requested:
 - EBM @ minimum 1:100,000 resolution
 - Postal codes or zones AND addresses
 - Hydro product @ minimum 1:100,000
 - Transport product @ minimum 1:100,000
 - Buildings, Built up Areas and Populated places (scale varies)
 - Points of Interest (economic activities and general interest)
 - Energy Infrastructure
- We are currently evaluating this to see how we might respond and incorporate CRD (and ELS) into our proposal



What you need to do!

- Designate the missing contact points for:
 - 1) CRD Pricing / Licensing complete the pricing annex if not already done so and return to Angela Baker,
 - 2) Technical production, to Saulius Urbanas
- Sign the ANNEX of the Framework License Agreement for the CRD production – It will issue soon and we need a quick turnaround
 - Grant EuroGeographics the right operating with the national data
 - CRD licencing / pricing terms
- Package the national data according to the CRD technical specification and send / provide BKG an access url to the national data sources
- Follow up the CRD technical production and the finalisation of the licensing framework
 - Response to questions, participation in the webinars, attend workshop this afternoon

17.35 – 18.15

Core Reference Data Workshop - providing a forum for questions to be answered, queries to be raised and to provide support and guidance the technical, legal and pricing aspect of creating a new EuroGeographics database from members' data.