

The background of the slide is an aerial photograph of a residential area with houses and trees. Overlaid on the right side of the image is a semi-transparent map showing a network of white lines forming polygons. Two of these polygons are filled with color: one is blue and the other is yellow. The text is overlaid on a dark grey rectangular area on the left side of the image.

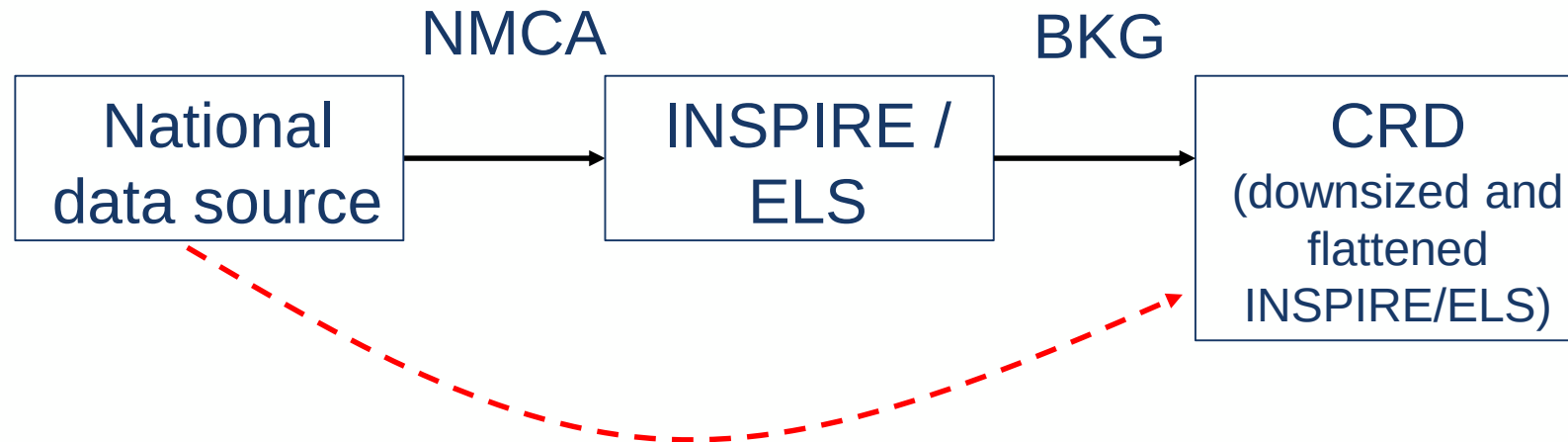
Edge matching experiences CRD project

Marcus Brühl / BKG
Webinar, 10.12.2018

Core reference data (CRD)

- Reference dataset at Master Level of Detail for Europe make use of INSPIRE/ELS data provided by NMCAs
- Easy to use, limited content
- Data content (scale 1:10.000 to 1:50.000)
 - Hydrography: Watercourse, StandingWater, LandWaterBoundary
 - Transport Network: Road Network, Railway Network including RailwayStationNode
- Simplified INSPIRE data model
- Harmonised at international boundaries
- Centralised data production (by BKG as production manager):
 - Transformation, quality checks, edge matching, final assembly

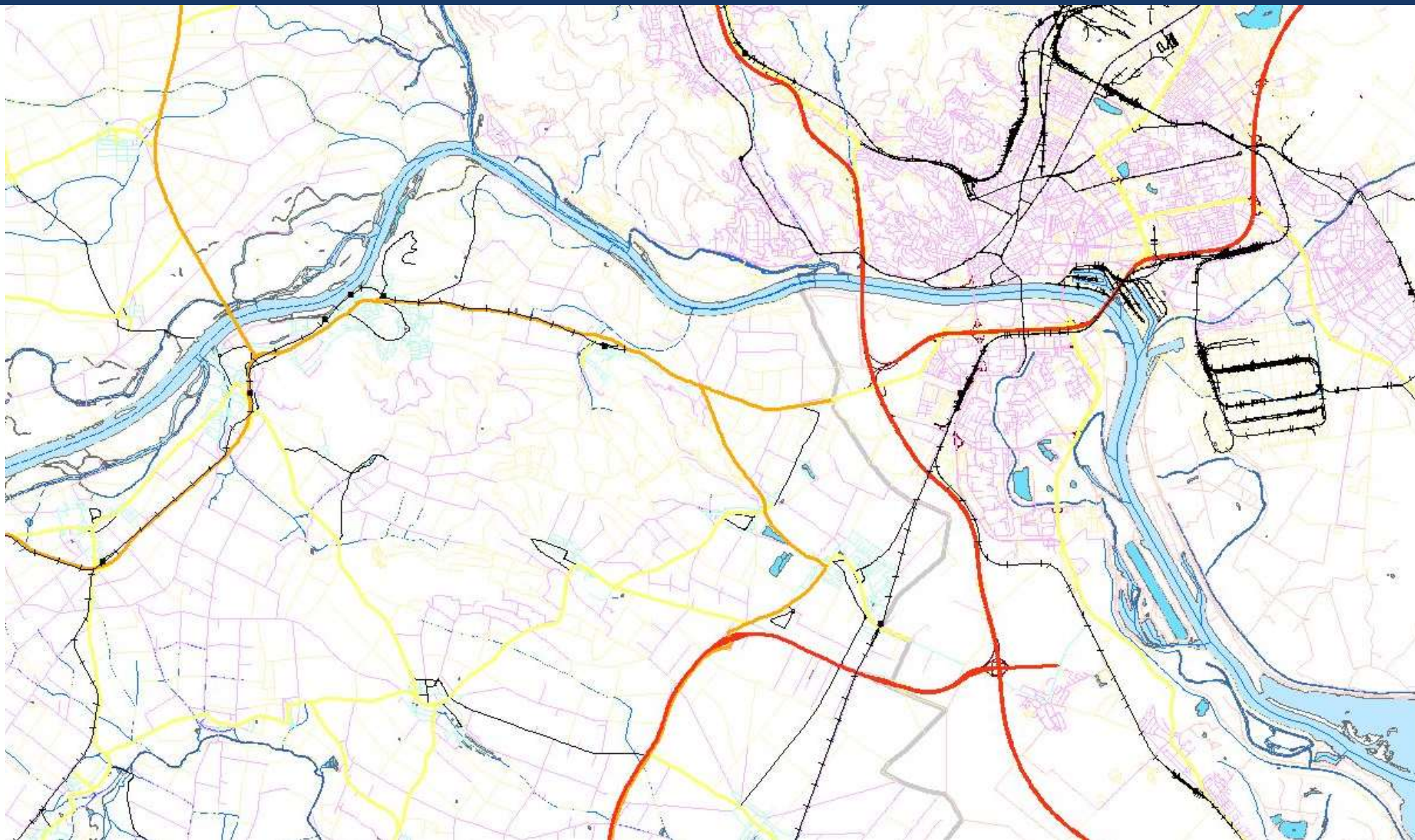
CRD workflow



some NMCA prefer direct transformation
into CRD data model

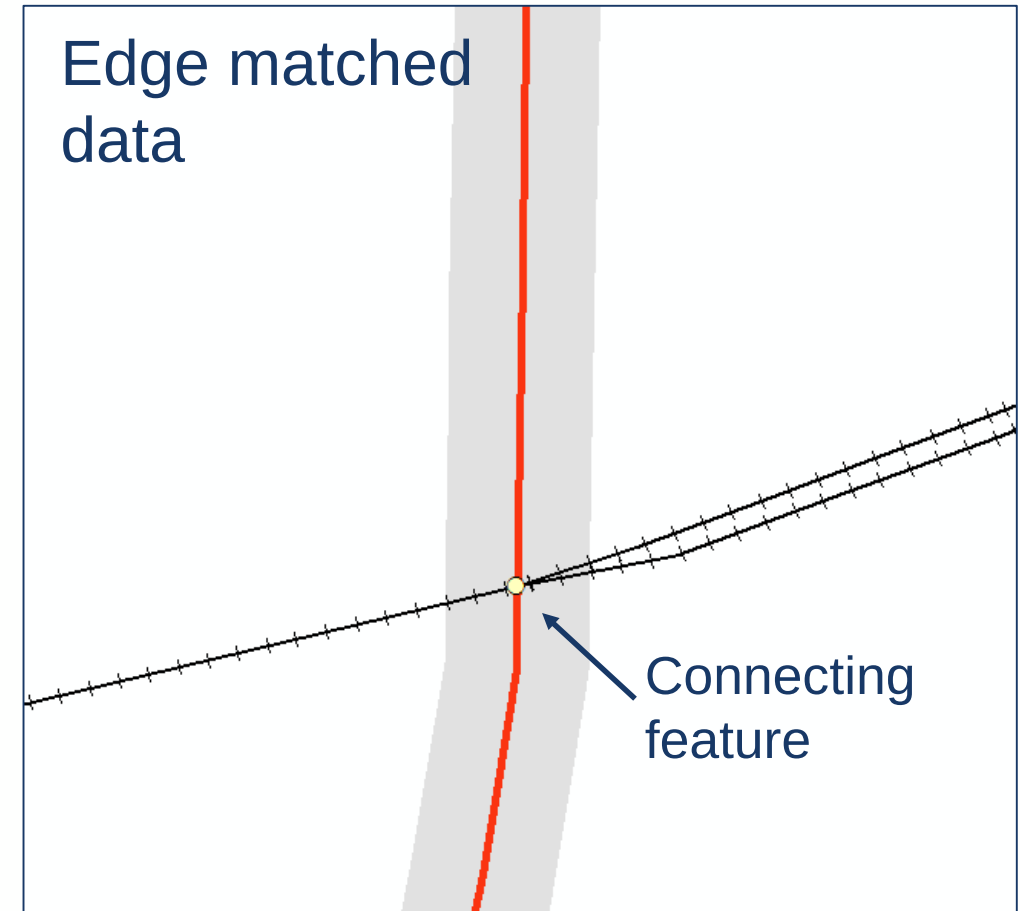
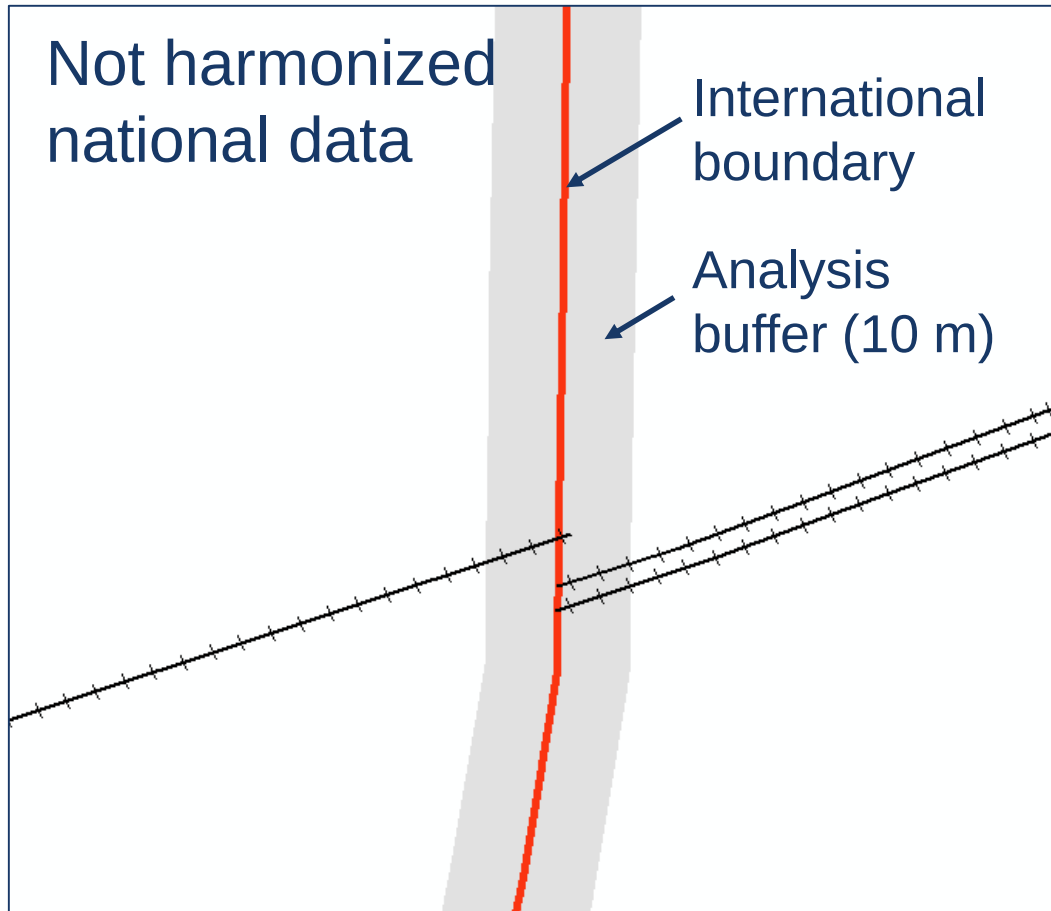
CRD prototype

3 countries

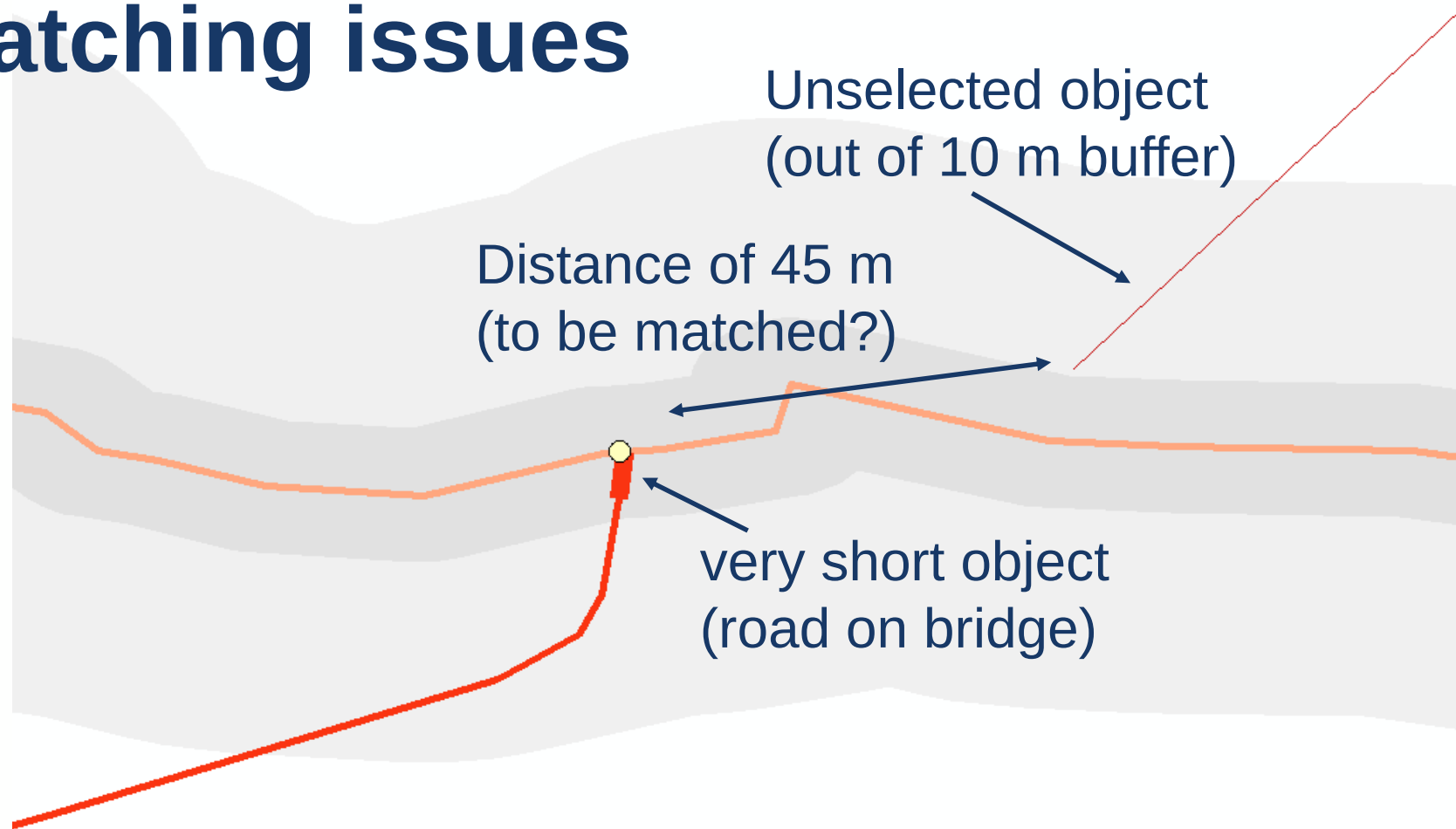


CRD edge matching

- Tool: ERM tool + manual workload
- International Boundaries:
 - Boundary representations collected in ELF project
 - Boundaries from SBE database
- Workflow:
 - 1) Automatic analysis of cross-border features
 - 2) Manual improvement of analysis results
 - 3) Automatic creation of connecting features
 - 4) Automatic edge matching
 - 5) Manual quality check of edge matching results

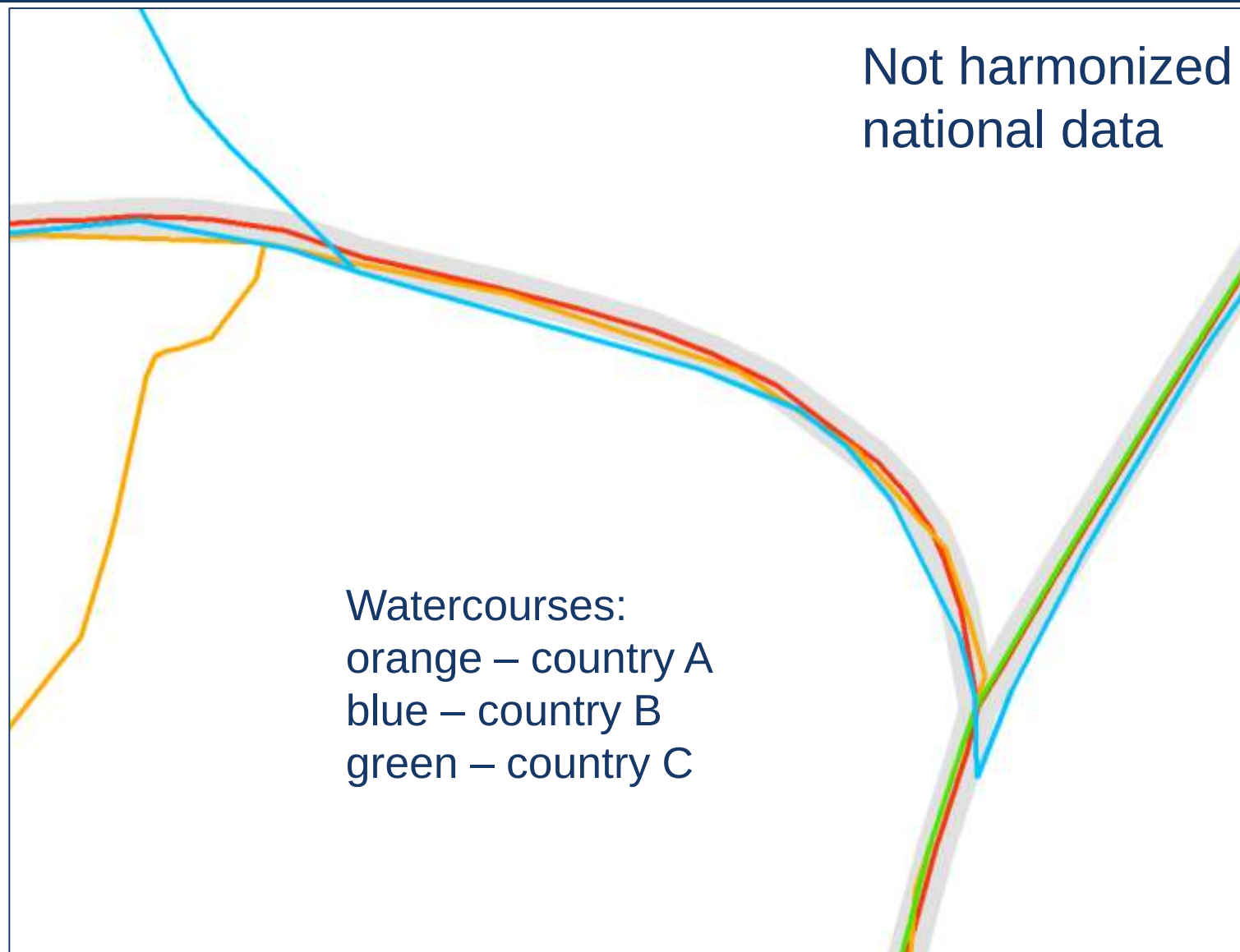


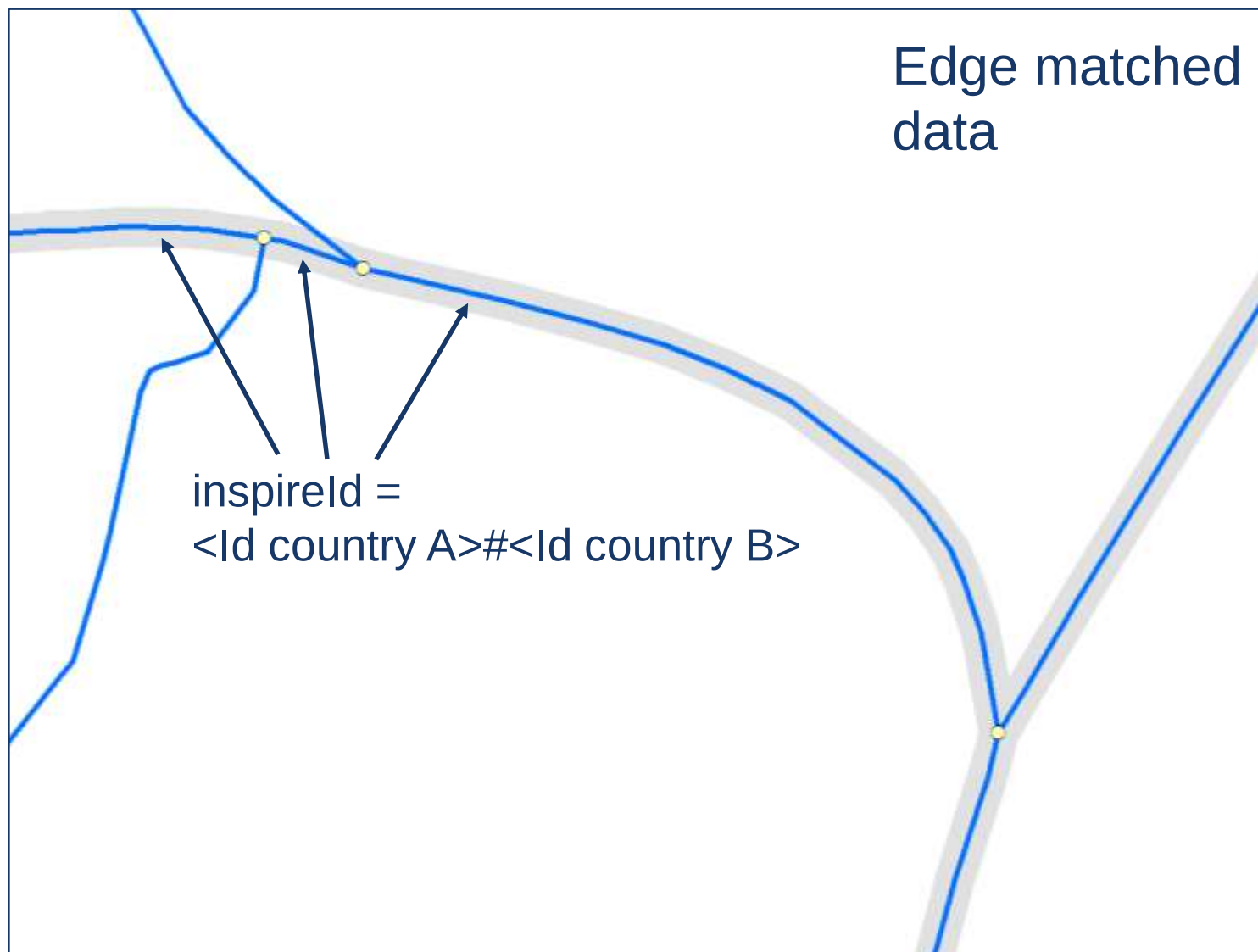
Edge matching issues

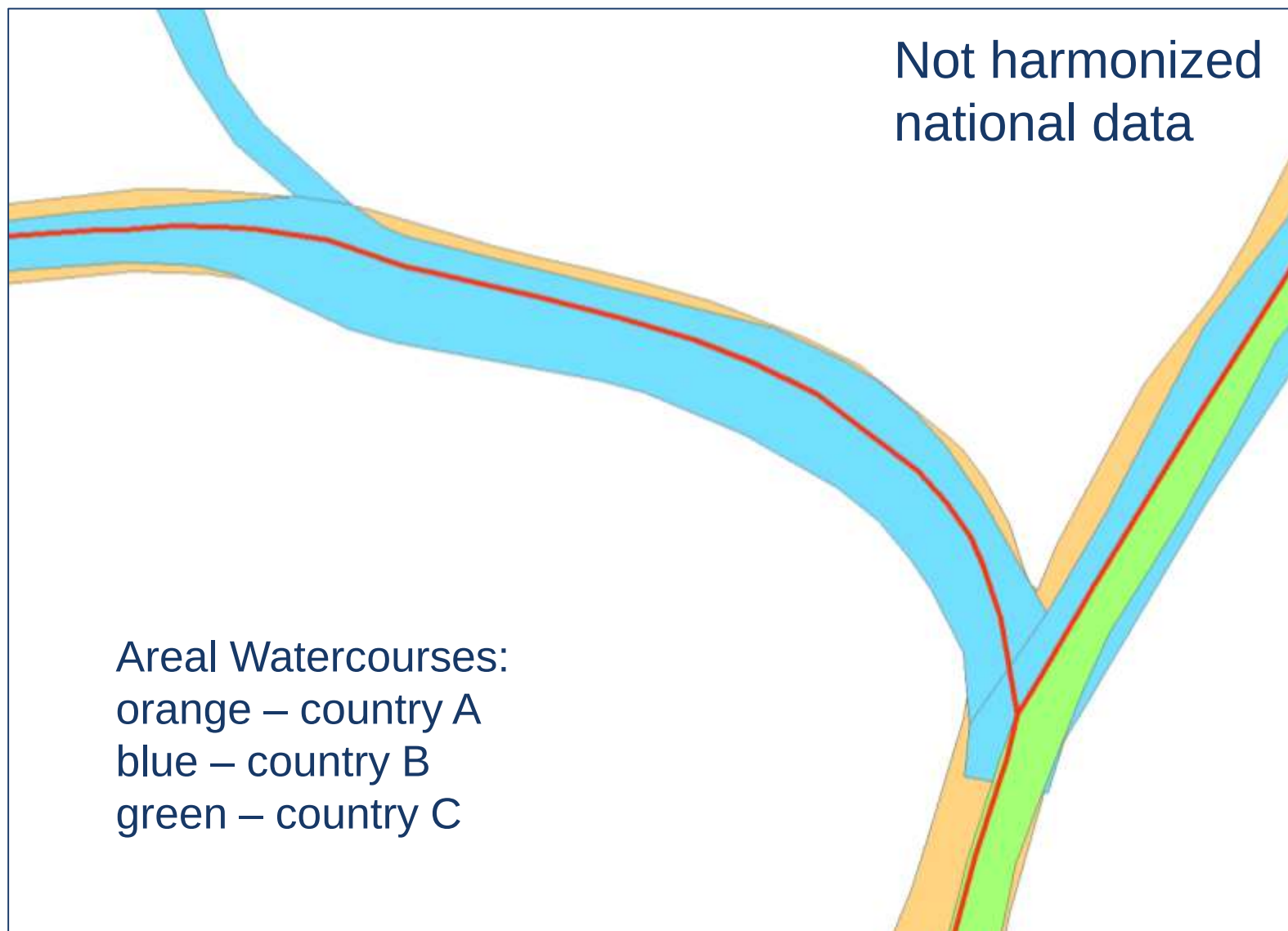


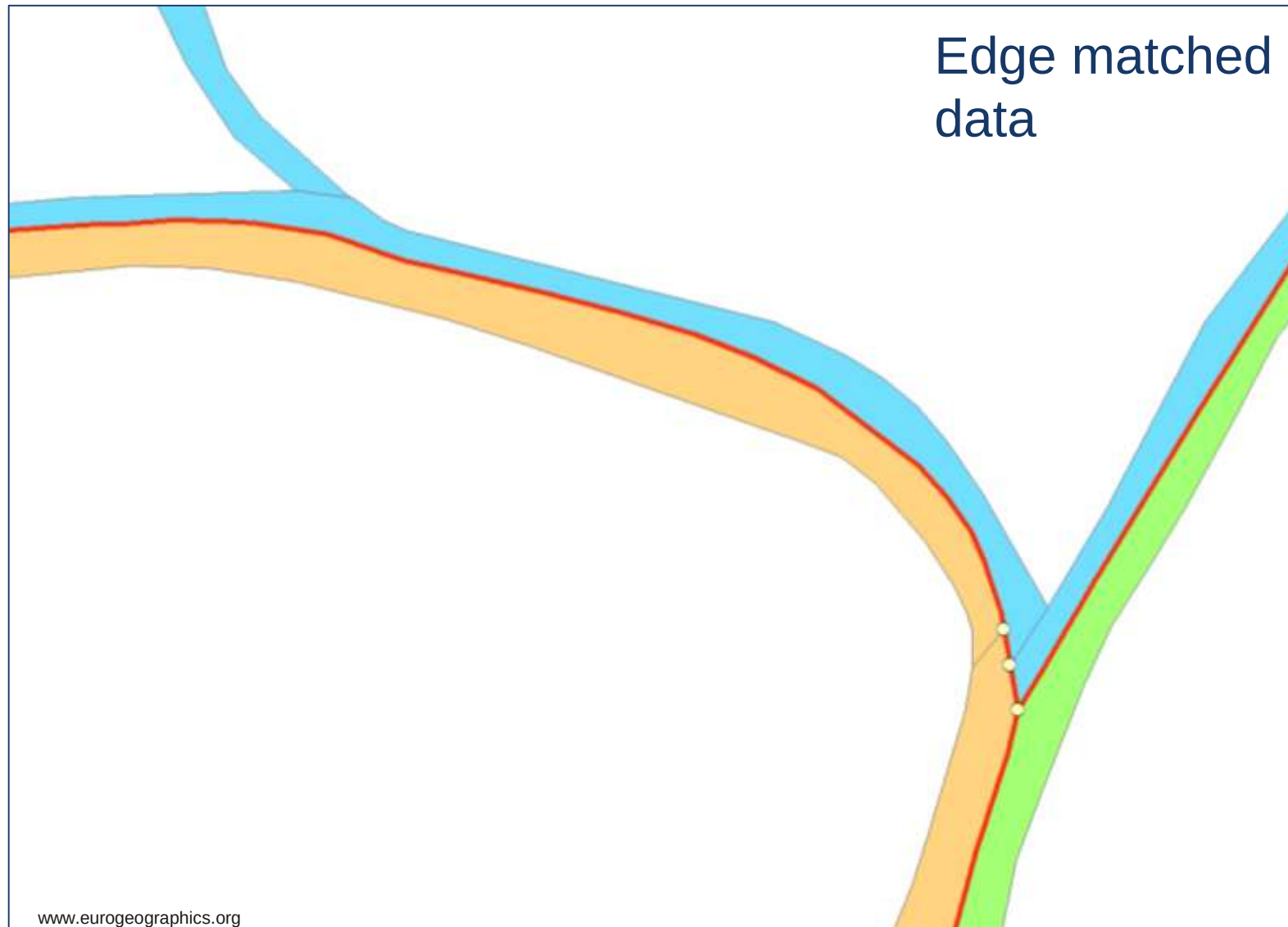
Edge matching issues

- National objects extended into neighbouring country
- National objects not split at border
- Course of national roadlinks (ways, paths) very close to border
- Wrong attribution
- Watercourses on border difficult to match
- Areal watercourses on border not split at border (whole watercourse polygon in each of the national dataset), objects sometimes very narrow

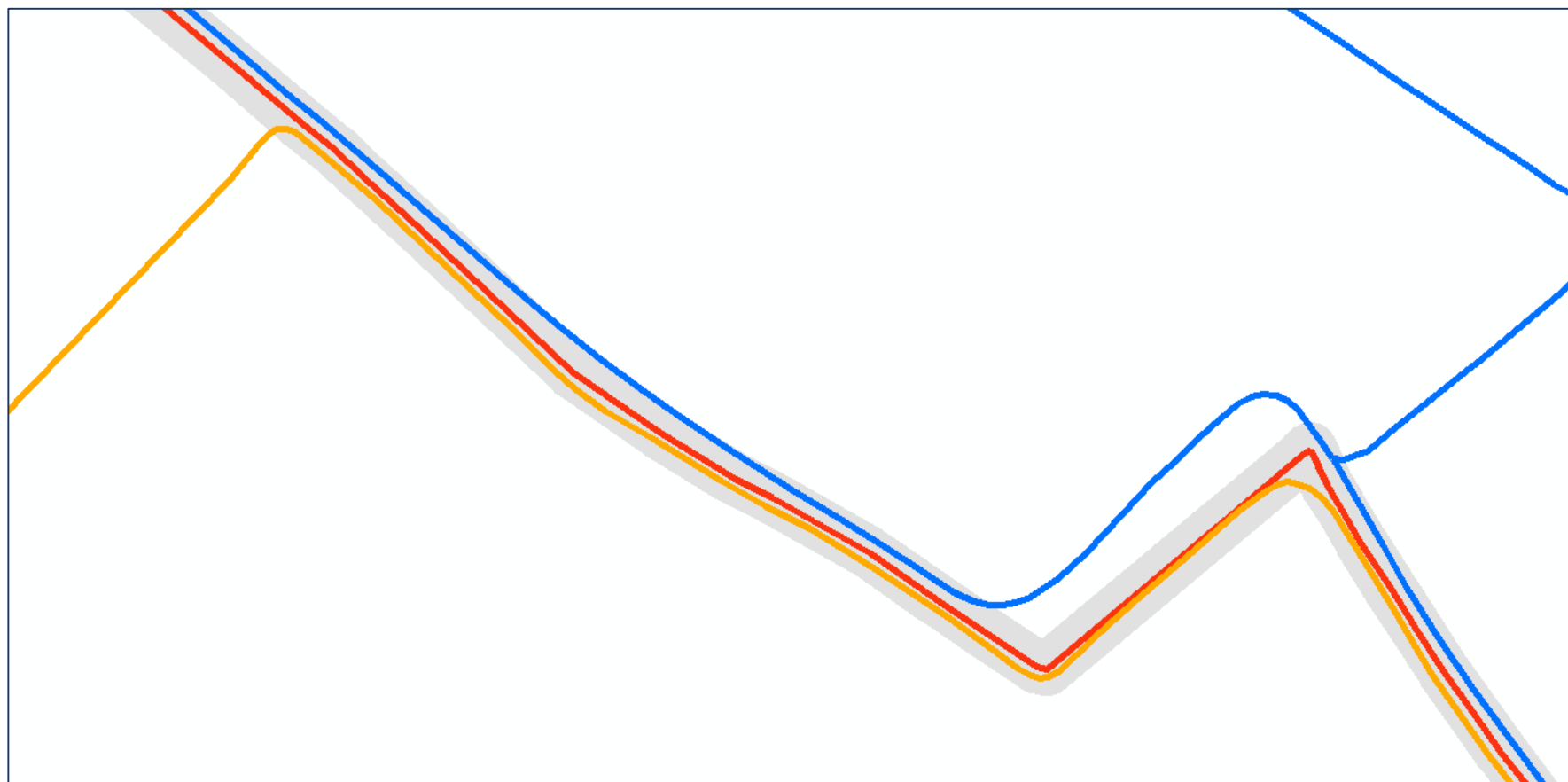




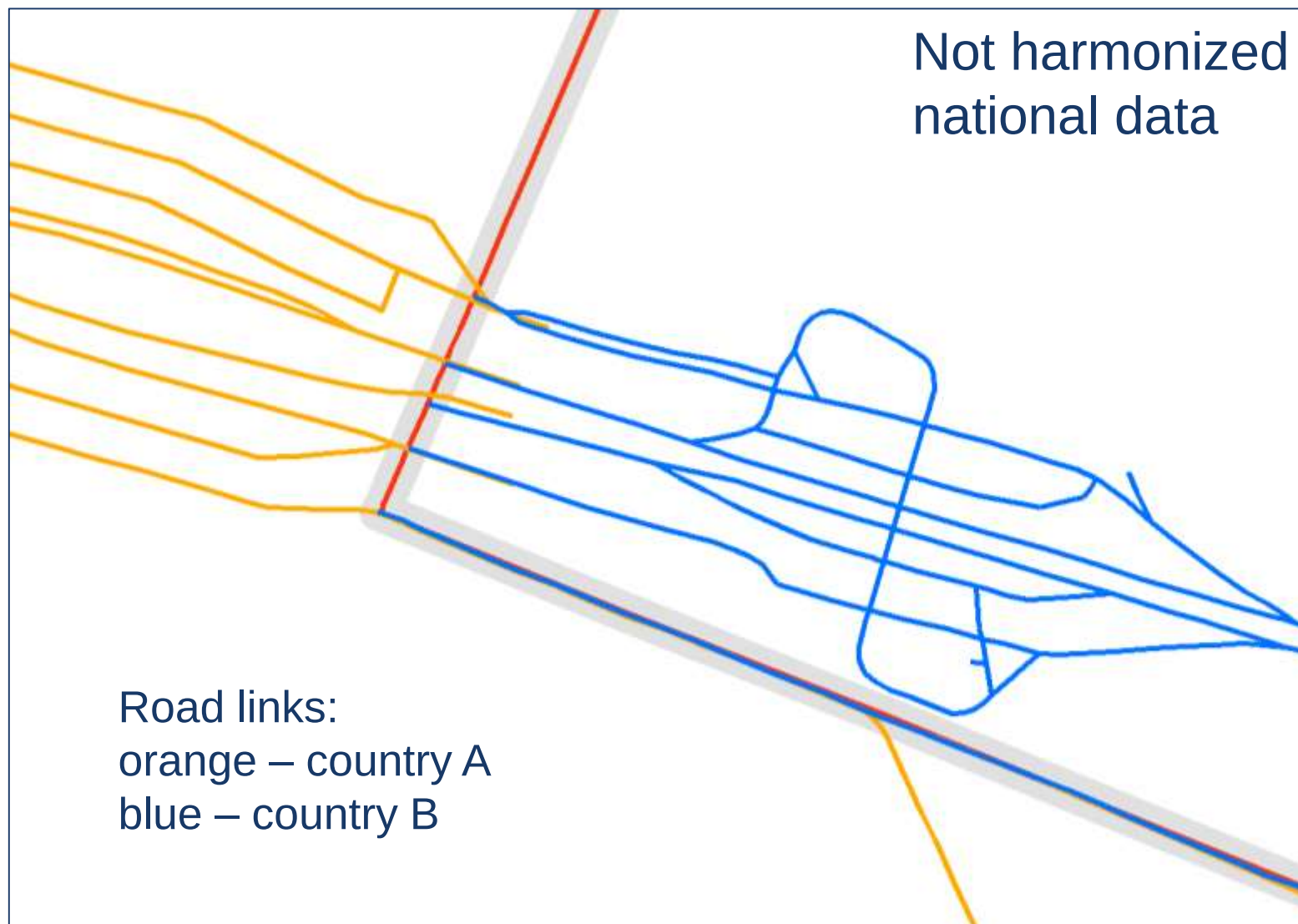


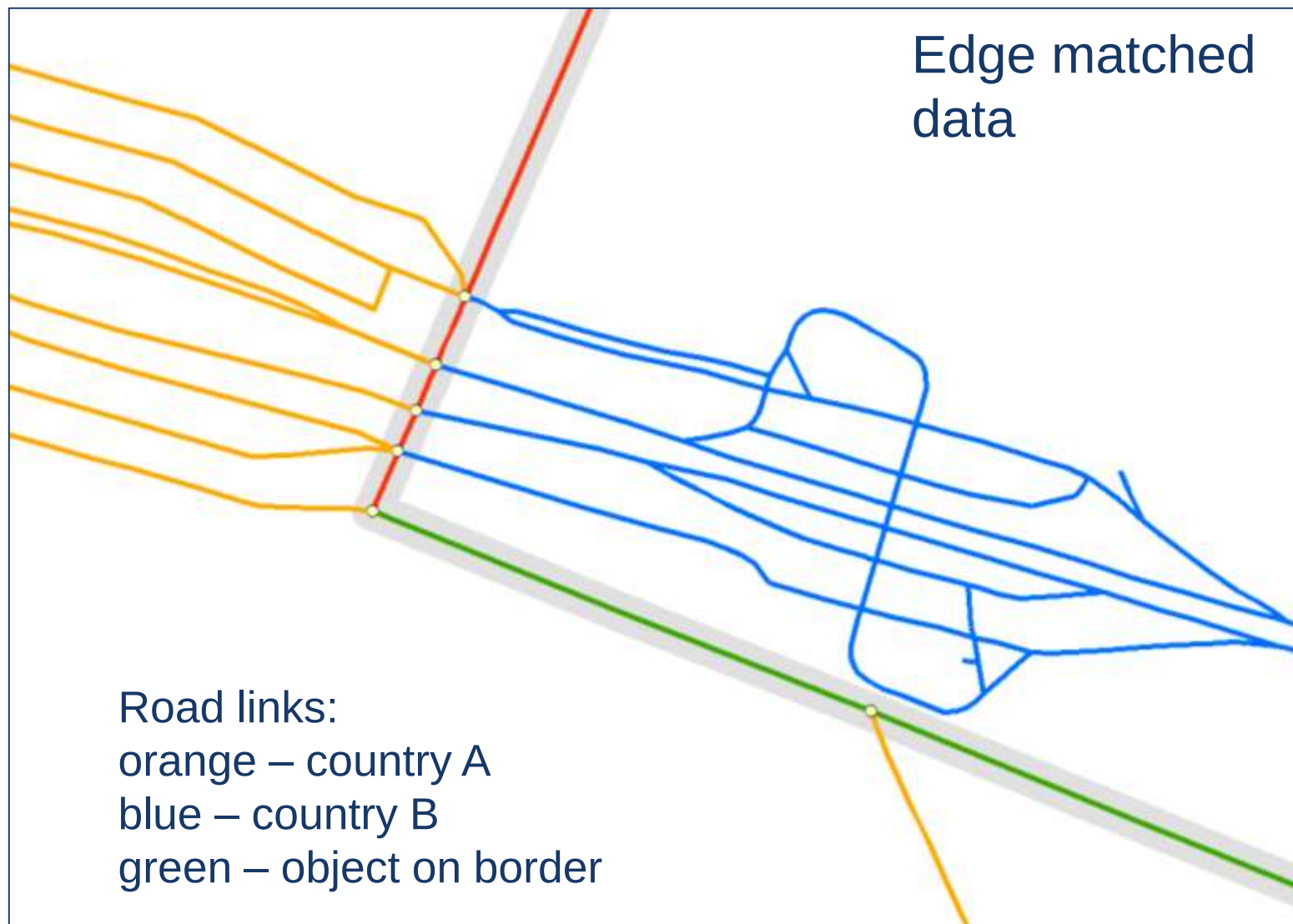


Objects close to border → but no edge matching needed



Road links:
orange – country A
blue – country B





Thanks for your attention

Marcus Brühl

Federal Agency for Cartography and Geodesy (BKG)

Telephone: +49 (0)69 6333 209

Email: Marcus.Bruehl@bkg.bund.de