



Federal Agency for  
Cartography and Geodesy



Co-funded by  
the European Union



# User-driven redefinition of quality requirements and specification: How to make EuroRegionalMap future-proof

Tim Trautmann (Production Manager ERM, EBM and OG BKG)

Victoria Persson (Project Manager – Data Access and Integration, EuroGeographics)

EuroRegionalMap is a **pan-European dataset** containing **topographic information** at **medium scale** resolution. It is a seamless and **harmonised** dataset ideal for a wide range of uses, including *spatial analysis*, *cartographic publishing* and *backdrop visualisation*, or in combination with other datasets for marketing planning and socio-economic analysis, environmental analysis, and transport management.

# EuroRegionalMap (ERM)

- 25 years of legacy
- Increased Quality and information requirements
- Well-established production process
- 7 million objects, 60 layers, 7 themes
- Over 340 tests
- Users from european institutions, research and private sector
- Open since 2021

# User-driven redefinition of quality requirements and specification

## User survey

- 10 Questions short survey
- Asking for use cases, quality assessment, suggestions for improvement
- Open from 22nd August to the 30th of September -> 46 answers
- Answers from public authorities, research and teaching institutions and the private sector

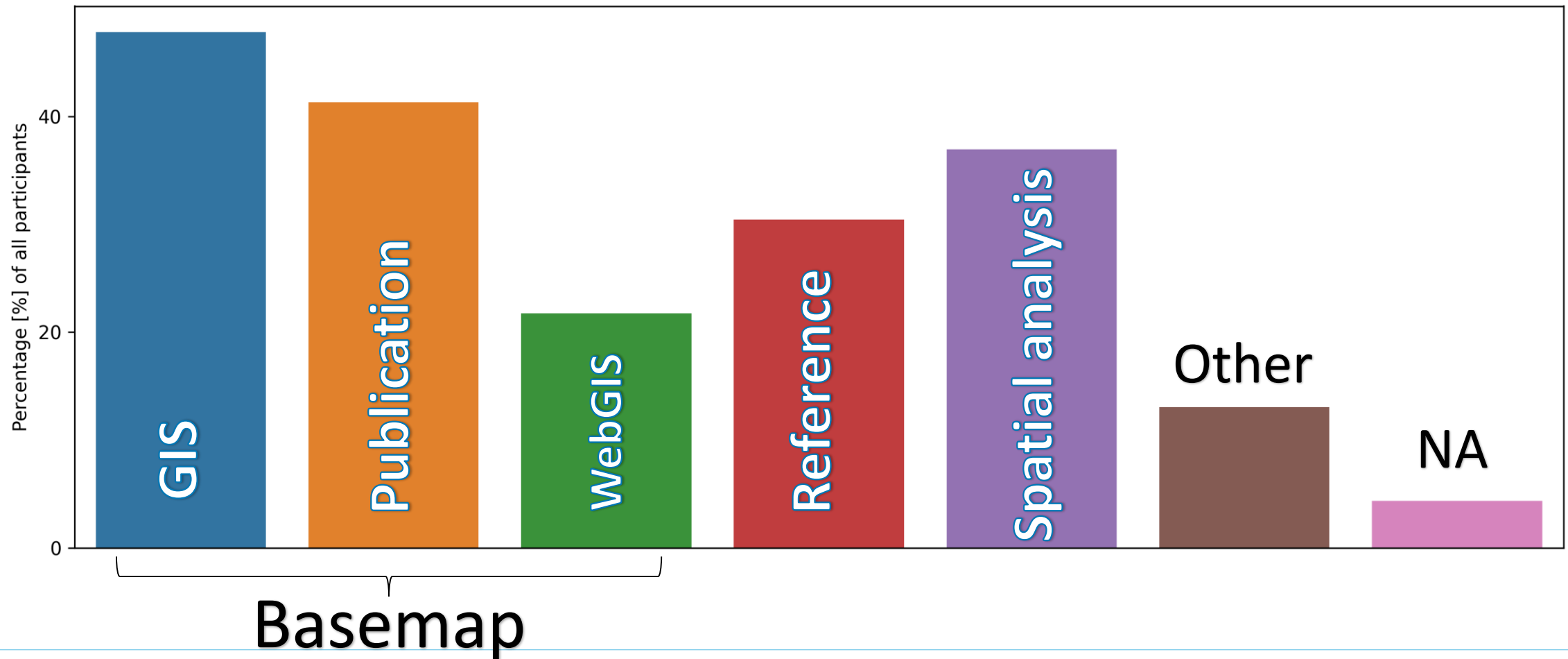
## Drafting of three user stories

- Concept from software development and product management
- „User stories are written by or for users to influence the functionality of the system or products being developed.“ ([https://en.wikipedia.org/wiki/User\\_story](https://en.wikipedia.org/wiki/User_story))

## Development of simplification of specification and prioritisation of quality requirements

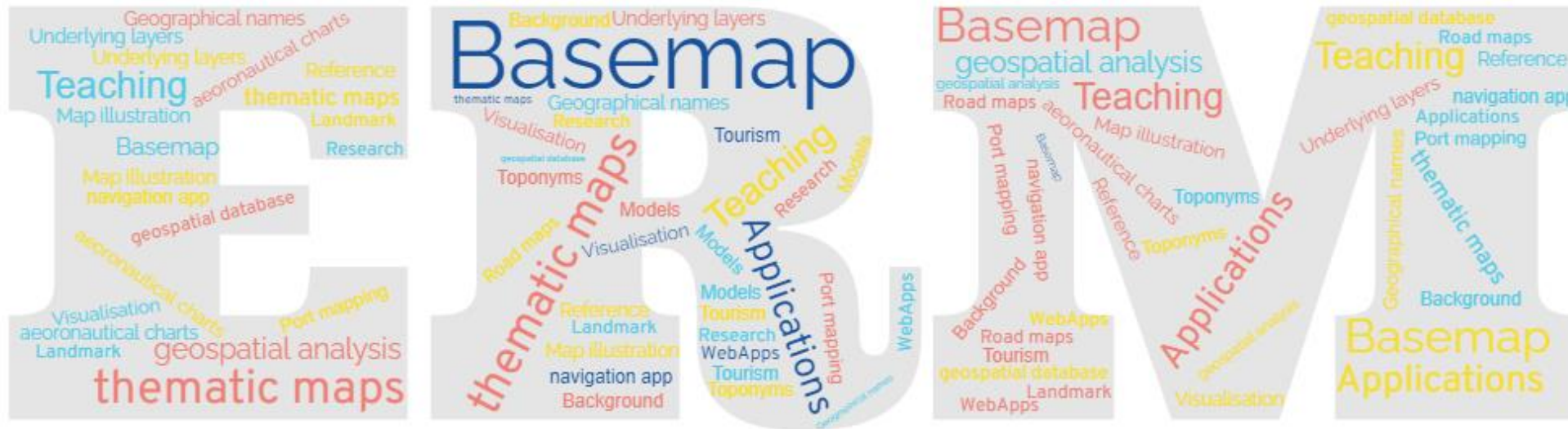
- Exemplary changes for TRANS

# For which use cases do you use ERM?

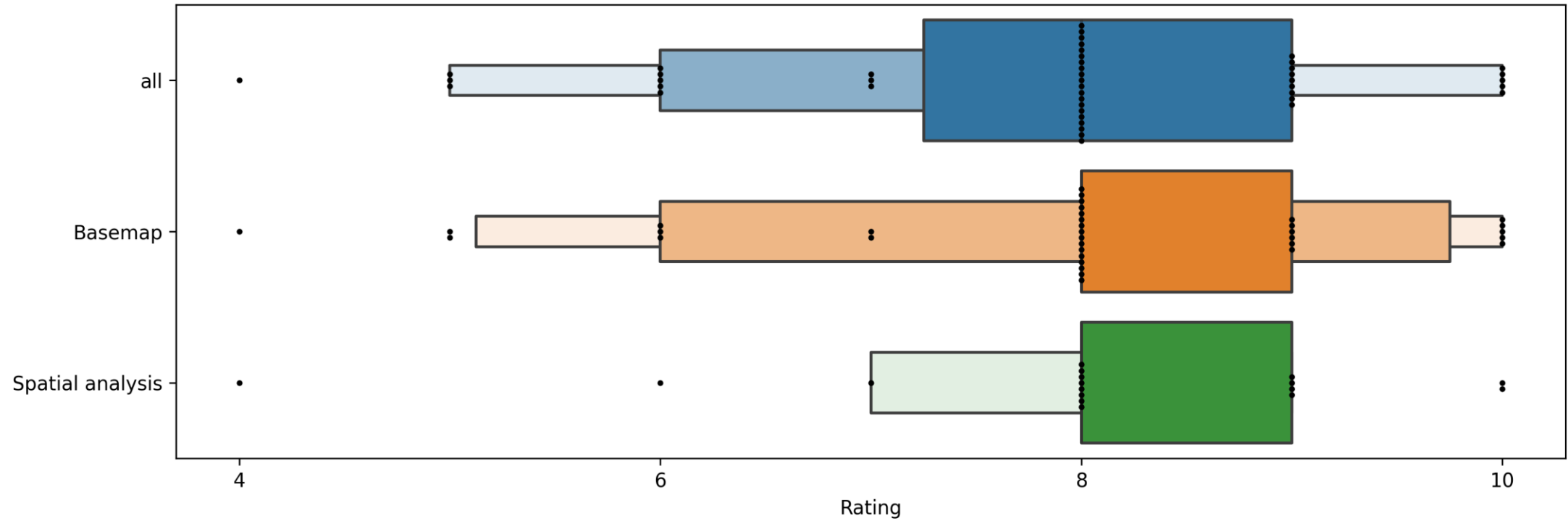




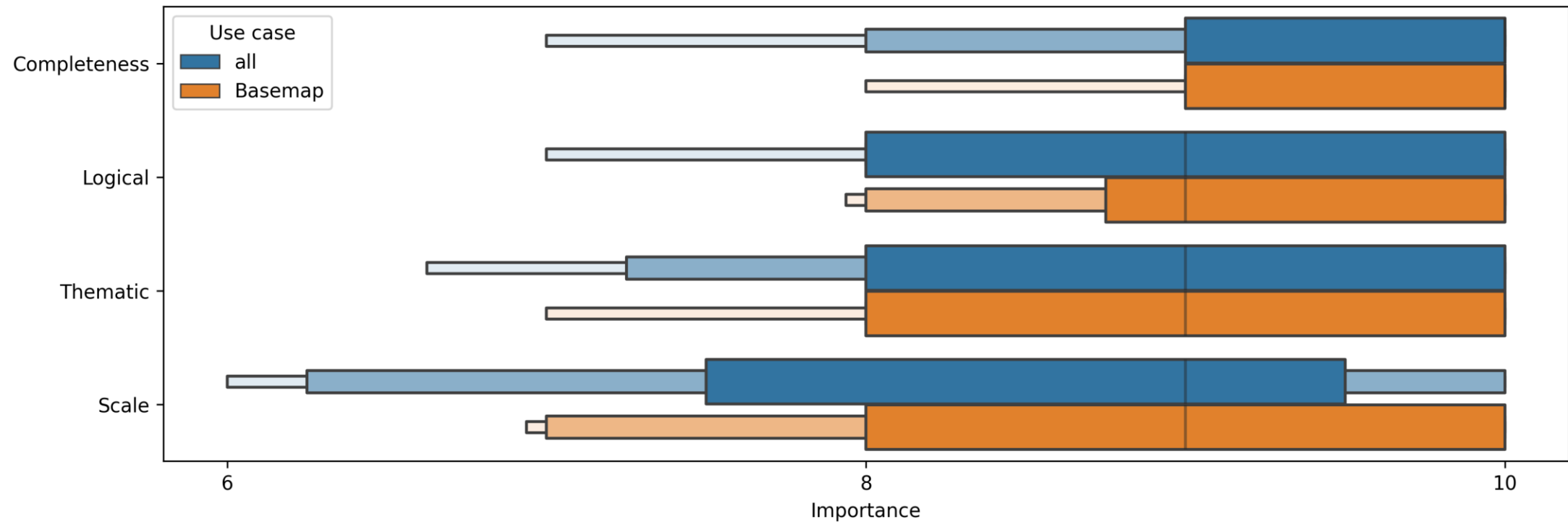
# Description of main use cases



# Overall quality rating

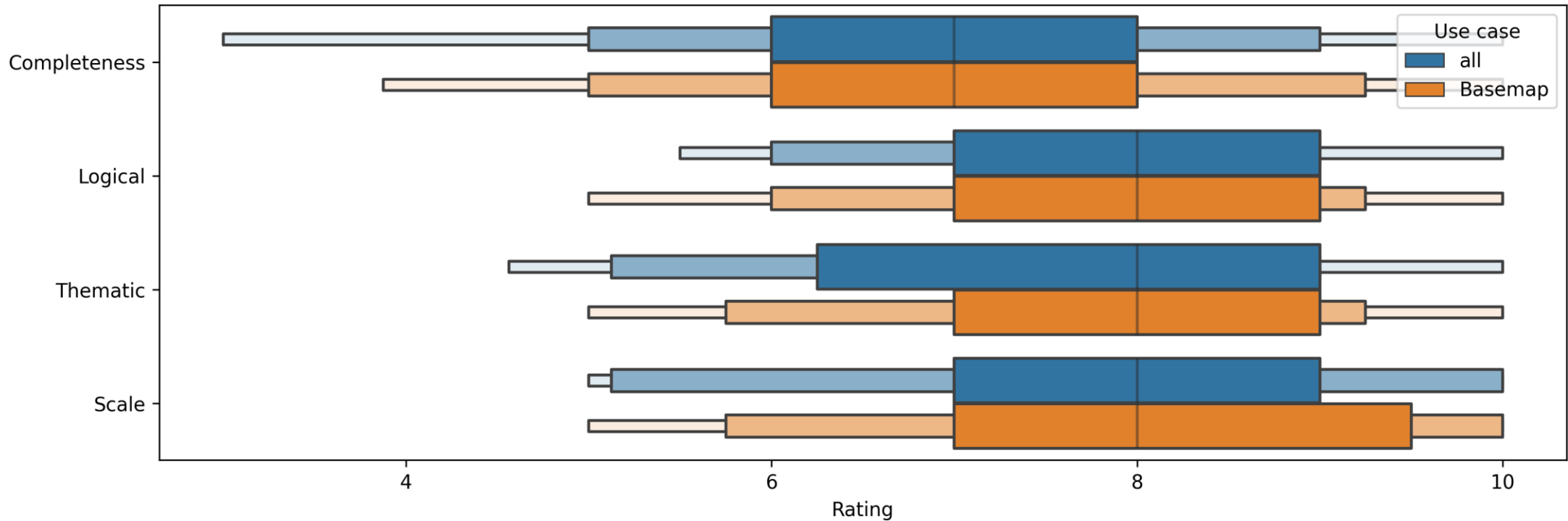


# Aspect importance





# Quality aspect rating



# User story – Basedata for maps

We (Mapping John Doe Inc.) want to use ERM as base data for my road maps and we use for this mainly the TRANS theme. We display roads with national motorways with labels.

Quality requirements:

- Complete dataset
- Harmonised level of generalisation and included streets
- Correct attributisation of the street (Route Intended Use)
- For correct labeling we route numbers for national motorways

# User story – Basemap WebGIS

We the EU institution for cycling (EUROcyc) offer a WebMap and need a basemap for visualizing long distance road routes. We use ERM to create our own basemap. We use BND, TRANS, NAME and VEG to create this basemap.

Quality requirements:

- Logical consistency
- Thematic consistency
- Harmonisation on international borders (edge matching)
- Sufficient information for labeling of landmarks
- Harmonised generalisation level

# User story – Spatial analysis

We (StatIndicator Company) want to use the European administrative boundaries to calculate indicators per administrative unit and use for this ERM data as well as external data.


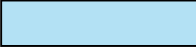


Quality requirements:

- Complete dataset of administrative units without holes
- Sufficient attributisation to calculate indicators
- Diverse data set for calculating indicators

- Distinction in specification and quality requirements into ERMcore and full ERM
- ERM data model is maintained to ensure the sustainable use of data production workflows
- Core requirements are communicated clearly through specification and production management process to data producers and users
- Core requirements are designed to meet the needs of our end users
- Restriction to core requirements may allow improvement in update frequencies in all themes

# TRANS simplifications & prioritization

## Types of simplification & prioritization:

- Make layer optional 
- Make attributes optional 
- Make validations optional 
- Delete validations 



# First iteration of suggestion list

Suggestions	Affected Layers	Affected Validationcodes	Description	Additional comments
ALL-S01	All with NAMN	several, T019	Automatically generate NAMA and generate it on European aggregation level	
ALL-S02	All		Allow submission of all themes per production year -> improvement on temporal quality and completeness	
All-S03	All		Create onboarding document for new data producers and staff changes	
TRANS-S01	LevelcC	T051, T052, T005, T082, T083	Automated creation of LevelcC	Evaluate feasibility and check potential false positives (potential add RJC in IntercC for non motorways)
TRANS-S02	RoadL	T066, T035	Automated calculation of COR based on BuiltupA and RTT / make COR optional	
TRANS-S03	RoadL	T066, T035	make RST, TEN, TENTEC_ID, TOL optional	

# First iteration of suggestion list - continuation

TRANS-S04	RailrdL	T033, T034, T065	make FCO, GAW, RGC, RRA, RRC, TEN optional	
TRANS-S05	AirfldP, AirfldC	T022, T023	make FUC, IATA, TEN, TENTEC_ID, TUC, ZV3	
TRANS-S06	RailrdC	T031	make TUC and RStationID optional	
TRANS-S07	several	T005, T008, T048, T050, T054, T080, T089	make validations not mandatory (not core) (based on mandatory column)	
TRANS-S08	several	T002, T003, T004, T015, T016, T075, T083, T084, T086, T087, T088	delete validations; T004 is covered by T071; T075, T088 now T097; T083 and T084 see TRANS-S01	Validations are covered by other validations or lost their relevance

# Development of suggestion list - aims

- Iterative process
- Feedback loop with PMT and users
- Until end 2023 suggestions for all themes
- After feedback -> simplified specification, technical guide and quality requirements for new production year
- Evaluate changes with complete dataset in Q4/2024



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# Thank you for your kind attention!

Bundesamt für Kartographie und Geodäsie  
Unit GD3 - Quality Management and Integration  
Richard-Strauss-Allee 11  
60598 Frankfurt am Main  
Tim Trautmann  
tim.trautmann@bkg.bund.de  
www.bkg.bund.de  
Phone +49 69 6333 – 3935