

# MAPS OF RURAL ATTRACTIVENESS

Otakar Čerba, Karel Charvát, František Zadražil,  
Raitis Bērziņš, Ondřej Kaas



# Why?

- To present potential of Europe from the perspective of rural attractiveness
- To compare rural attractiveness of particular regions
- To have a pan-European overview
- To find clusters and homogeneous groups
- As a part of Digital Innovation Hub (DIH)

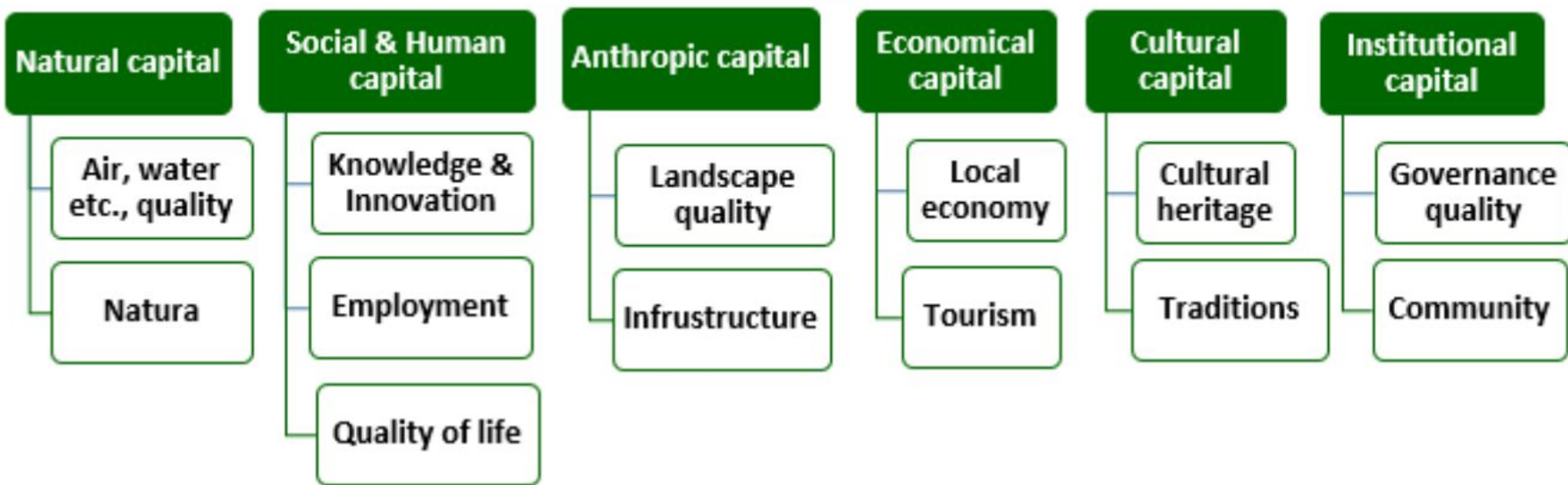
# Rural Attractiveness

- D 1.1 Envisioning More Attractive Rural Places & Professions (AREI)

“Rural attractiveness is practically not defined, but instead limits itself to descriptions and explanations from various authors.”

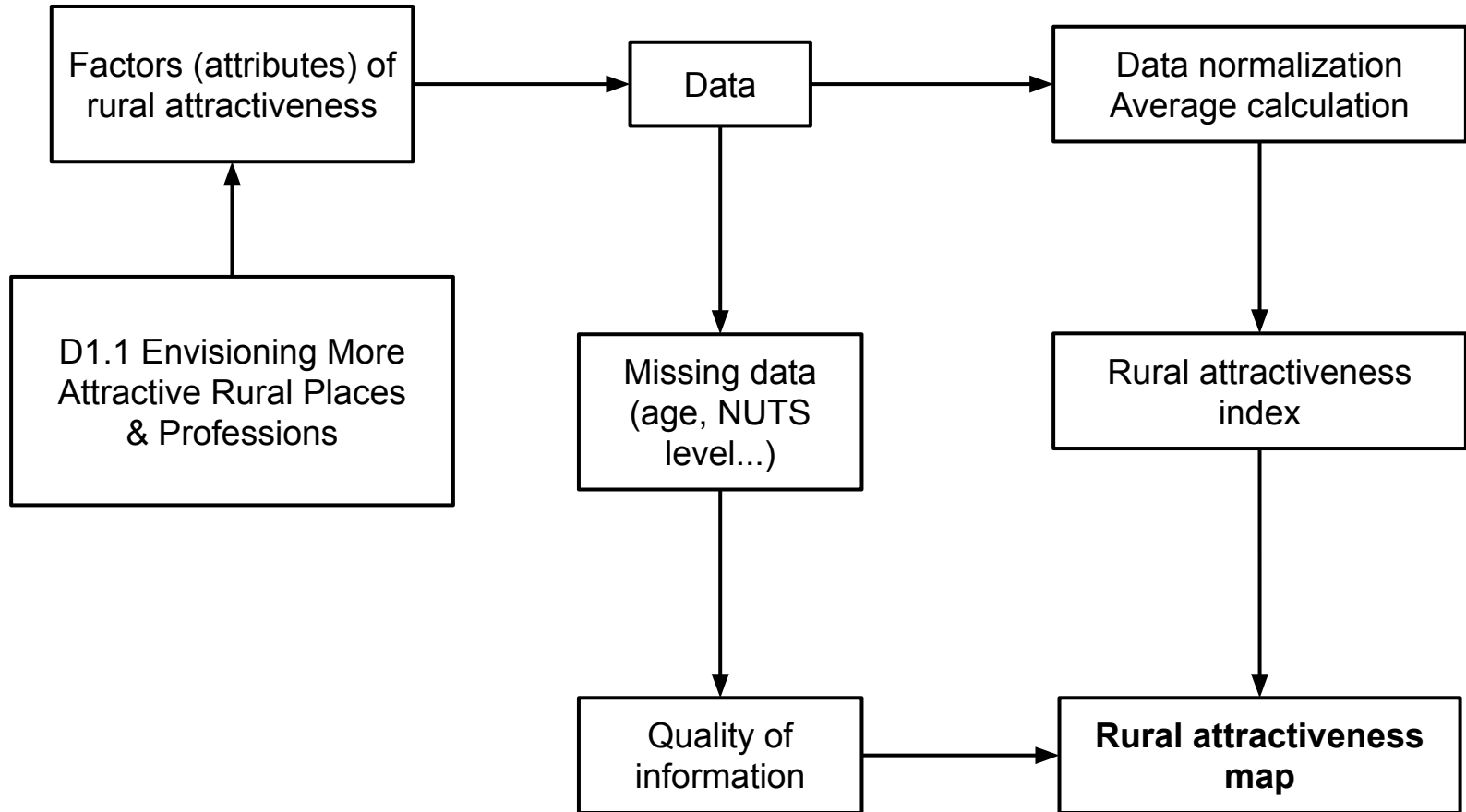
How to map something what is not defined?

## Rural attractiveness



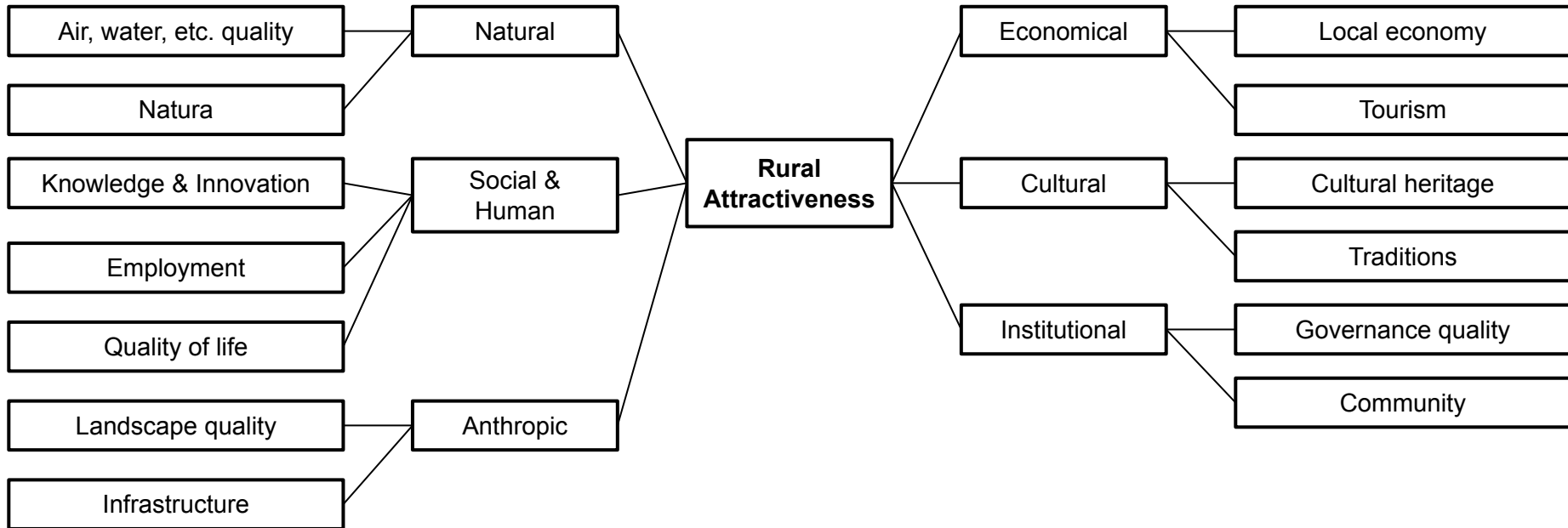
# Process of Rural Attractiveness Mapping





# Factors of Rural Attractiveness

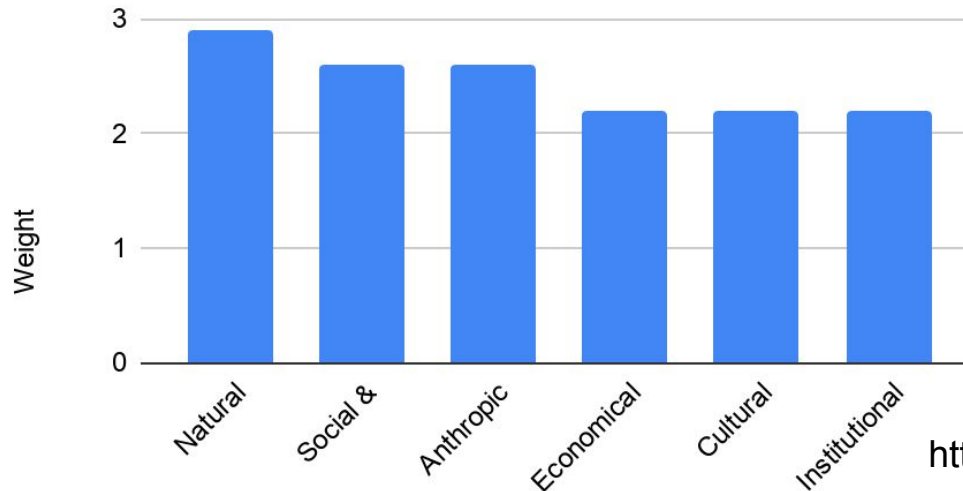
Source: *Polirural 1.1 D Envisioning More Attractive Rural Places & Professions*, p.15



# Factors of Rural Attractiveness - Weights

- Current version - equivalent weights of all input data and factors
  - $RAI = (D_1 + D_2 + D_3 + \dots + D_n) / n$  (n - number of datasets)
- Future - weights based on various perspectives

Weights of Factors (User survey)





# Factors of Rural Attractiveness - Weights (PoliRural Meeting Survey, January 2020)

Go to **www.menti.com** and use the code **41 68 63**

**How important are following factors of rural attractiveness**

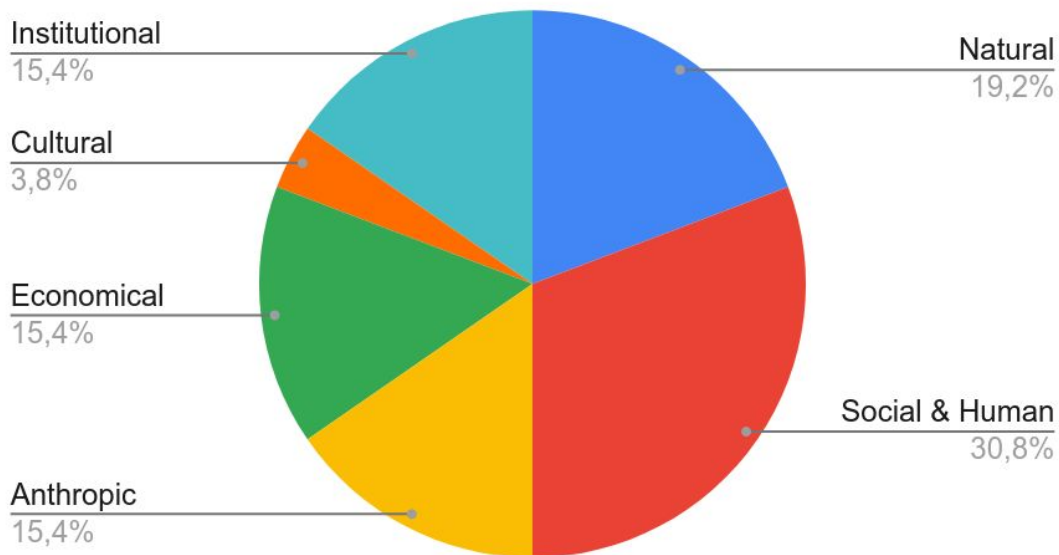
Mentimeter



20

# Factors of Rural Attractiveness & Data

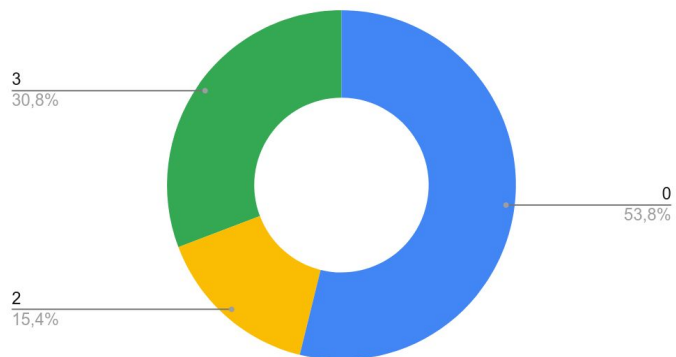
Number of datasets



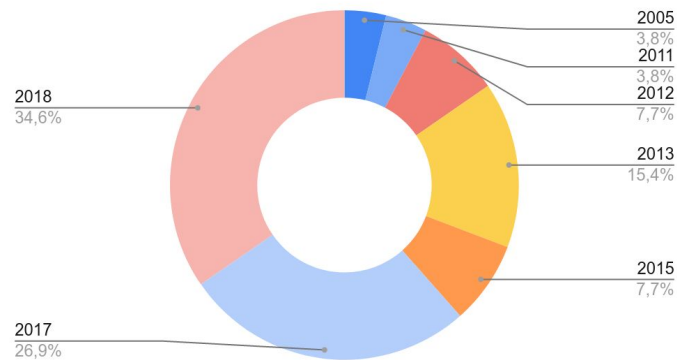
Factors	Number of datasets
Natural	5
Social & Human	8
Anthropic	4
Economical	4
Cultural	1
Institutional	4
Total	26

# Data Overview

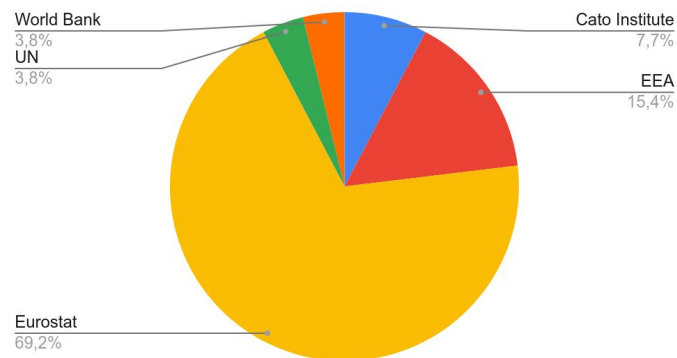
NUTS level



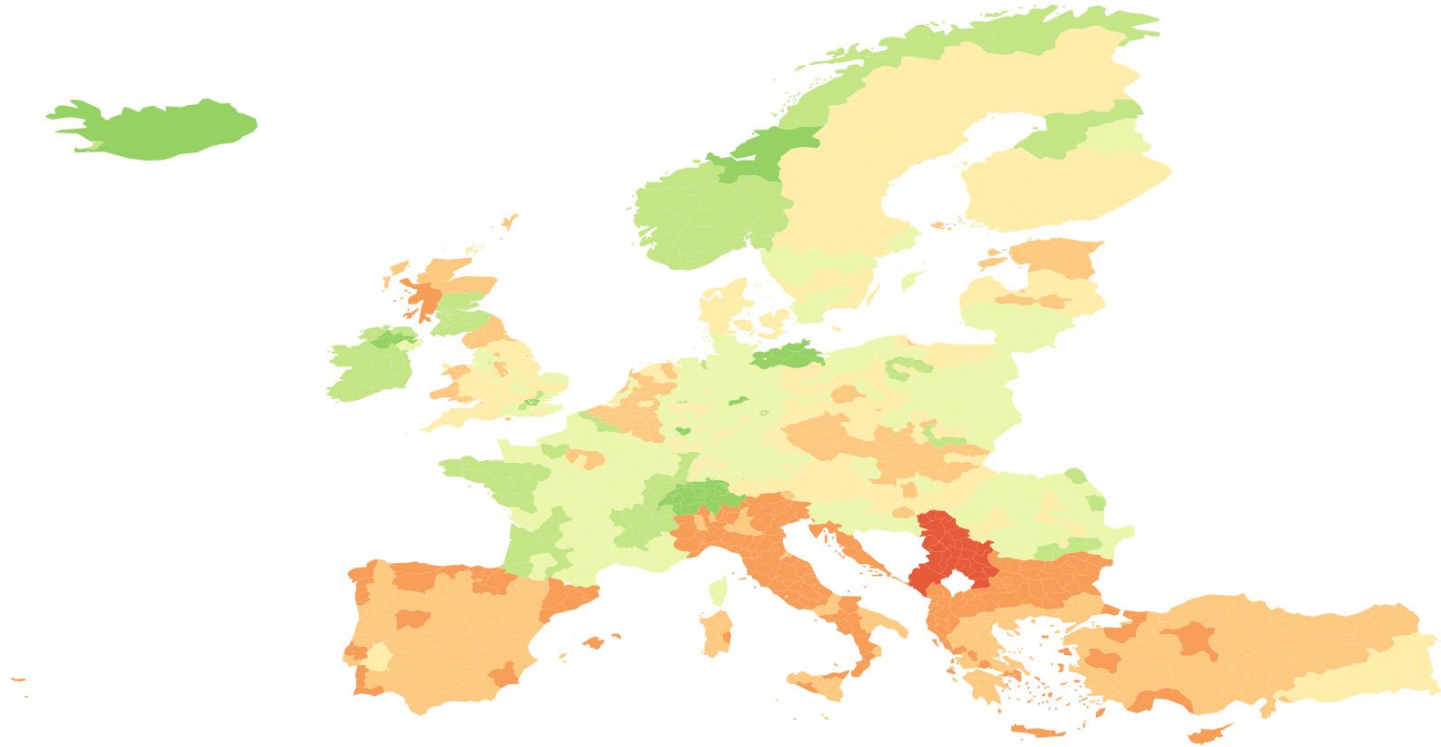
Age of data



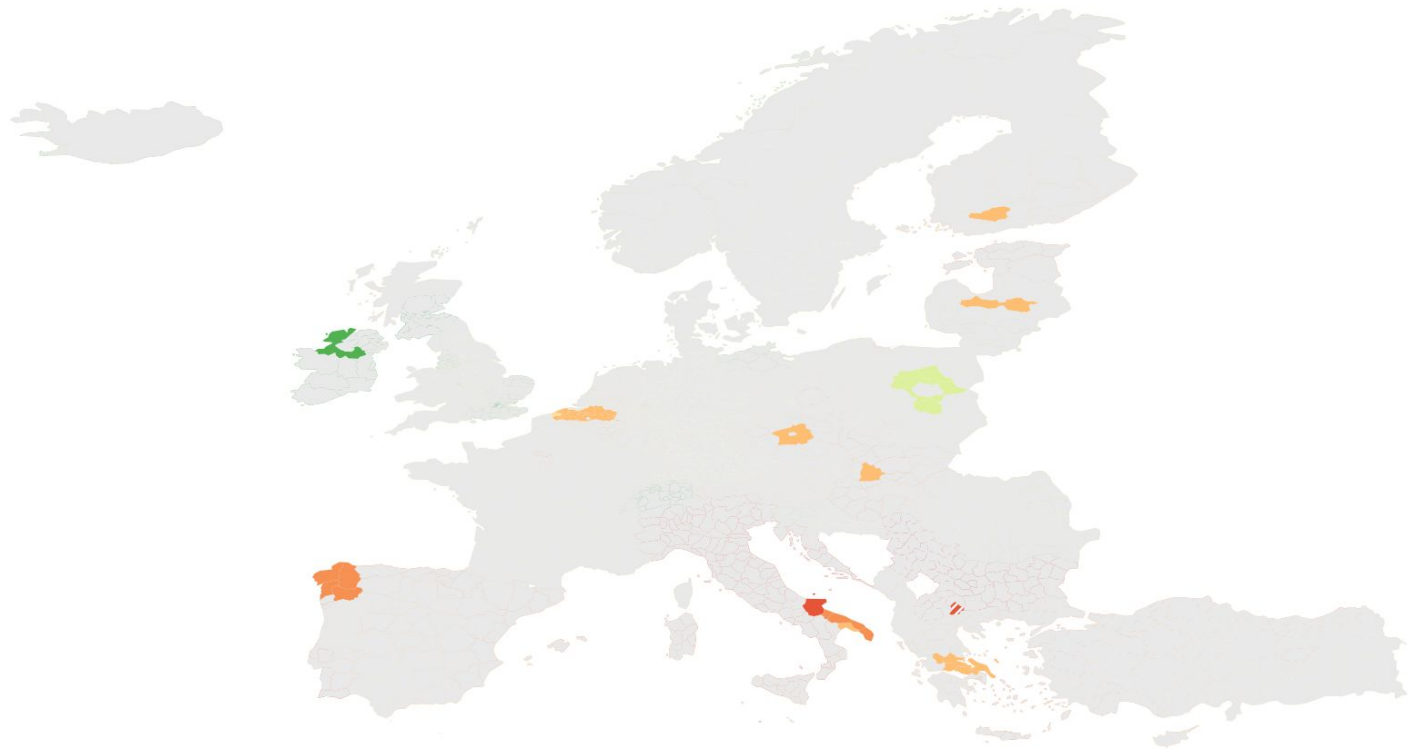
Data providers



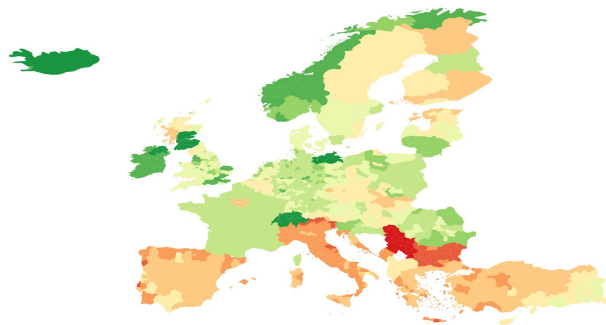
# Rural Attractiveness - Index (26 datasets)



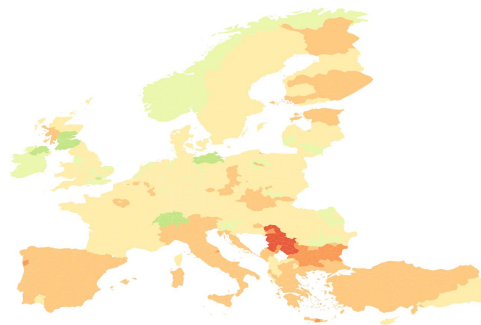
# PoliRural pilot areas



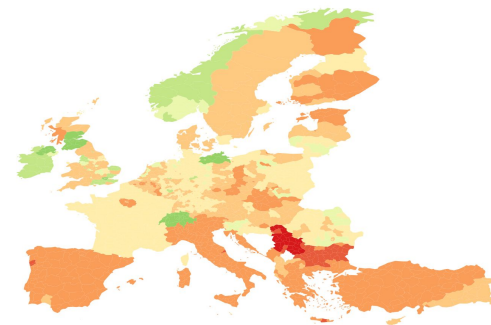
# Rural Attractiveness - Index / Data classifications



Natural breaks

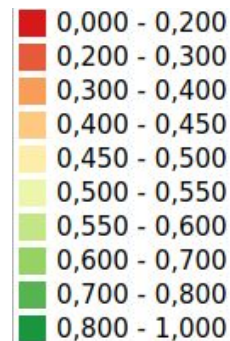
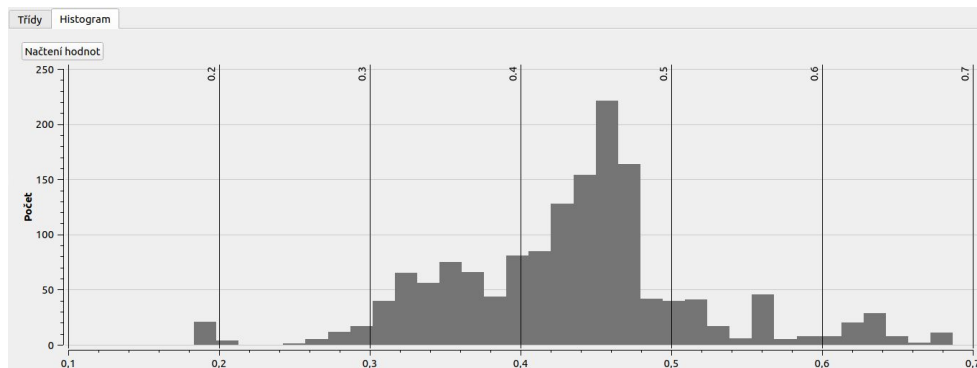


Equal intervals

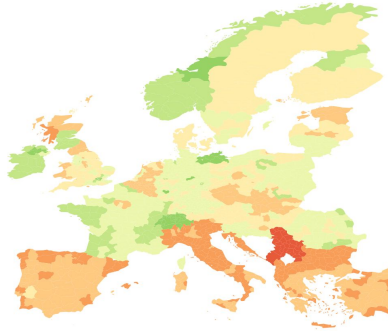


Classification based on histogram

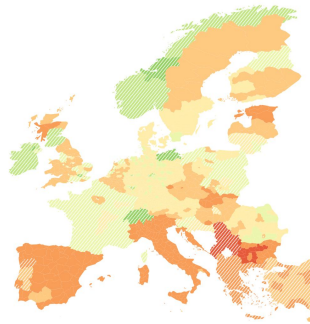
Mean: 0,48  
Median: 0,49



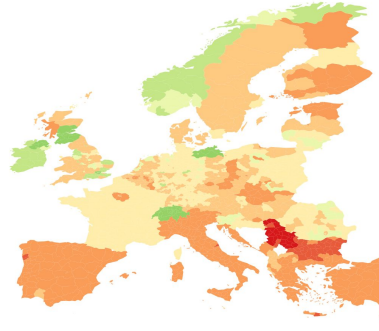
# Rural Attractiveness - Index (History)



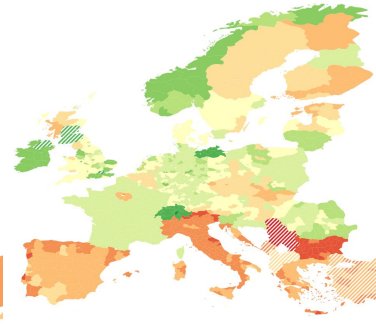
26 datasets



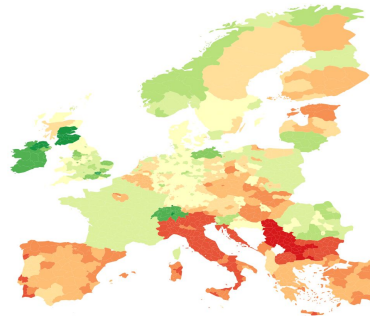
24 datasets



22 datasets



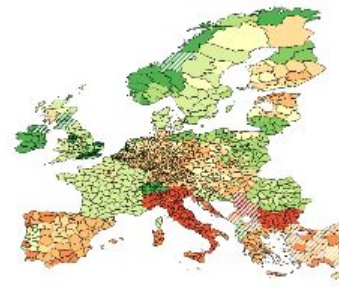
20 datasets



18 datasets

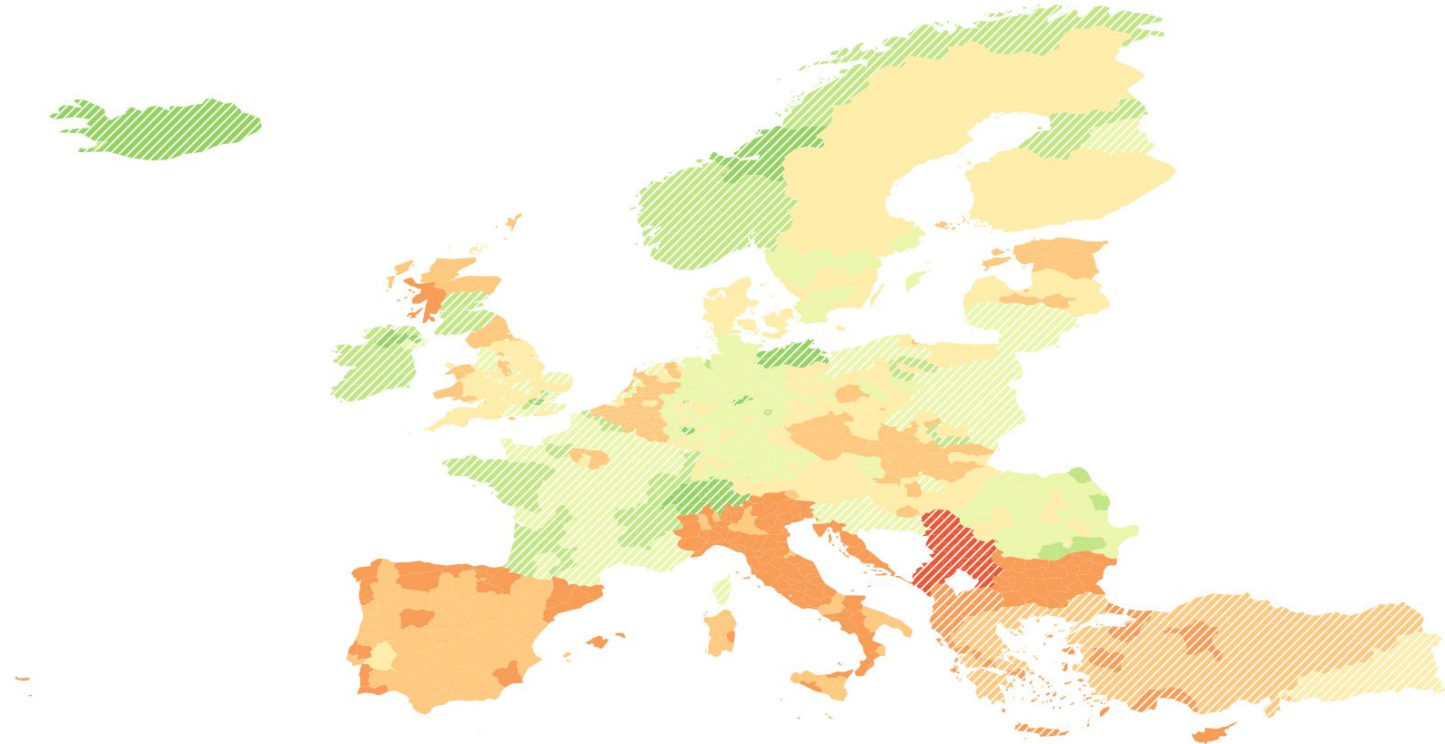


16 datasets



14 datasets

# Rural Attractiveness - Index & Data Quality



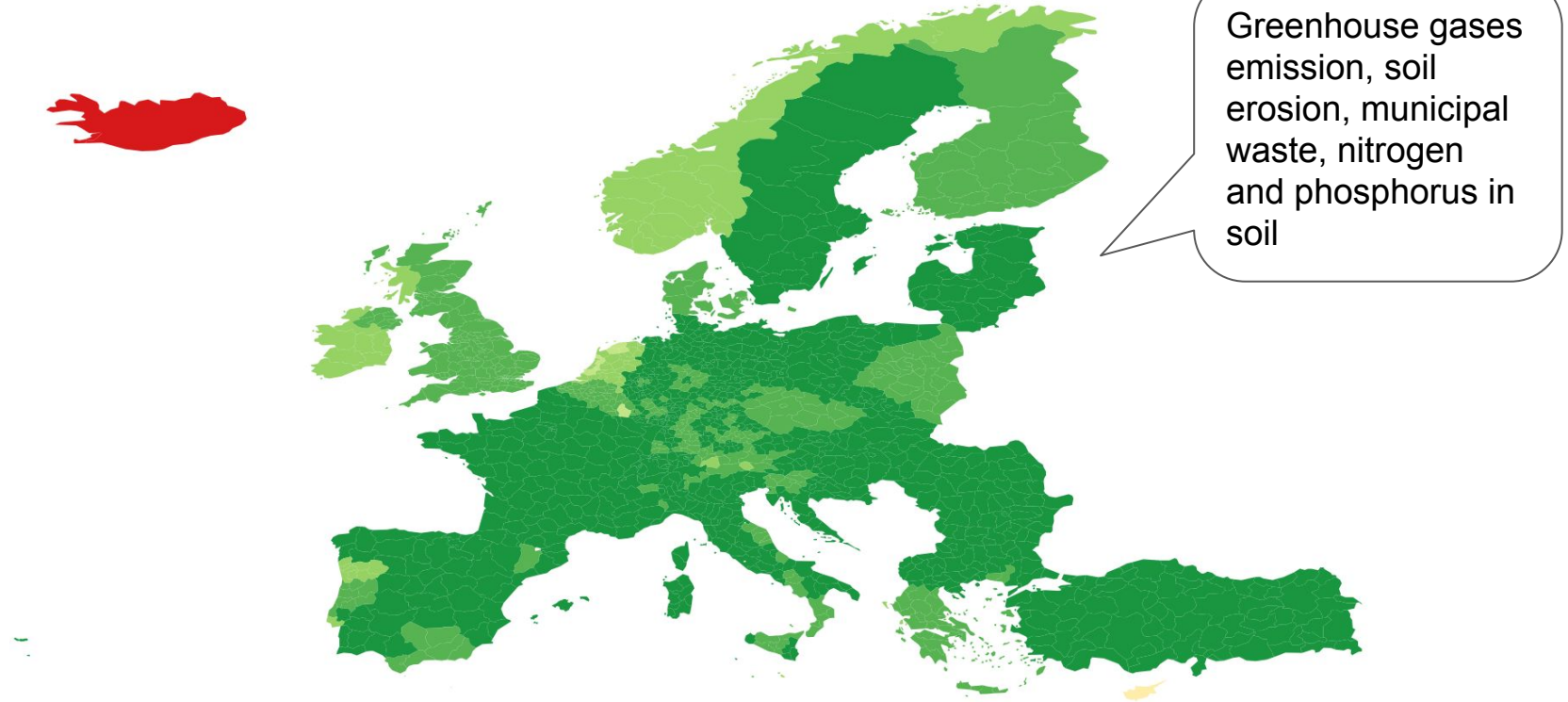


# Rural Attractiveness - Index (Anthropic)

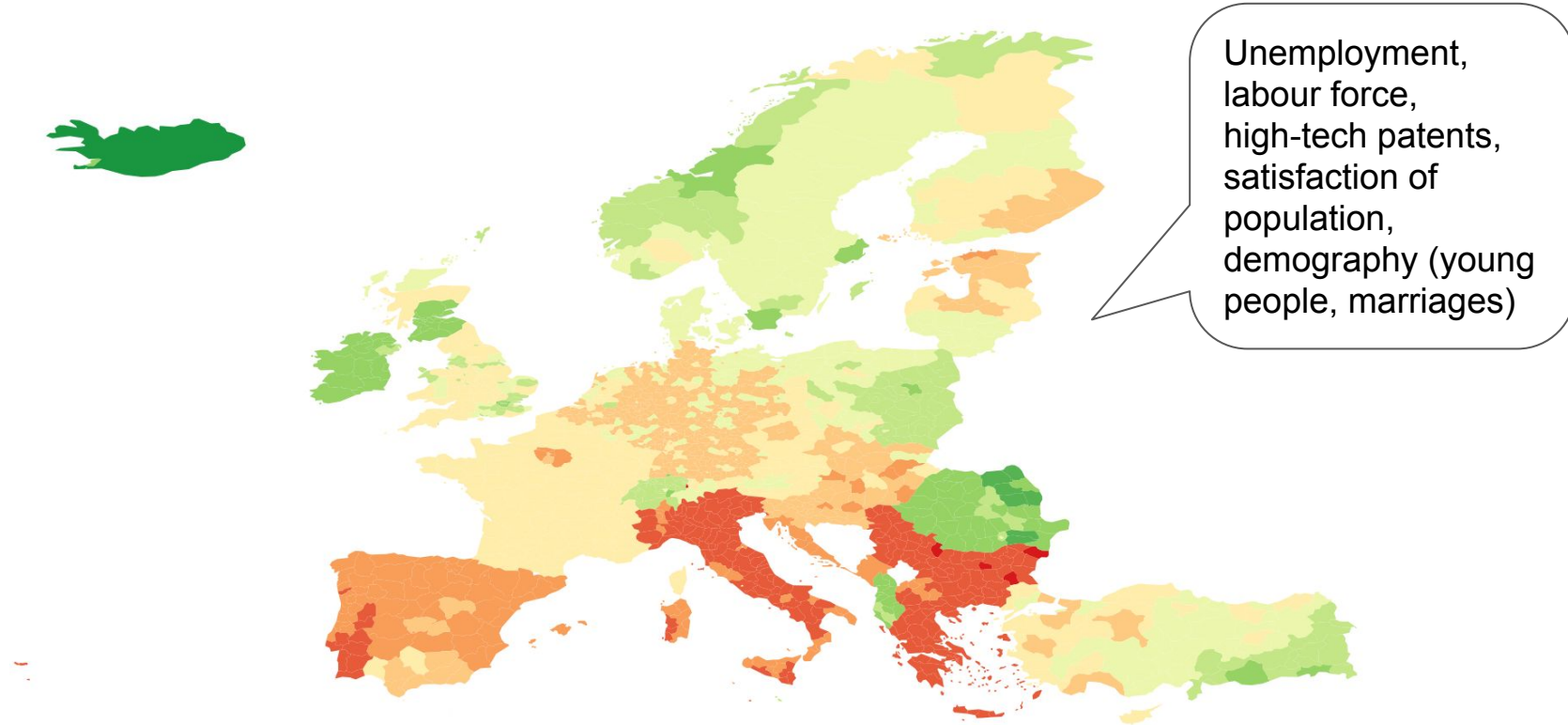


4 classes from  
CORINE land  
cover - arable land,  
fruit trees, pastures  
and water bodies

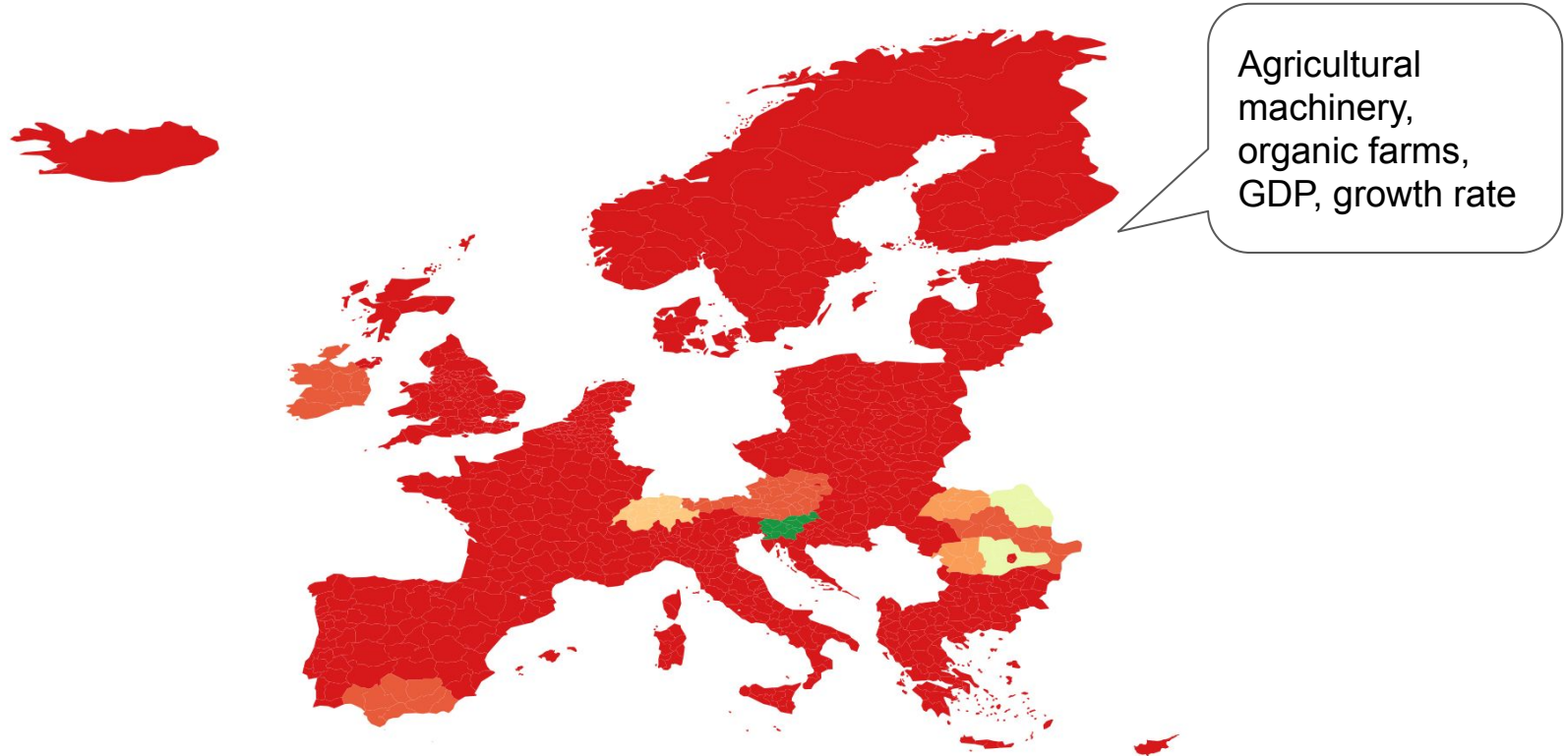
# Rural Attractiveness - Index (Natural)



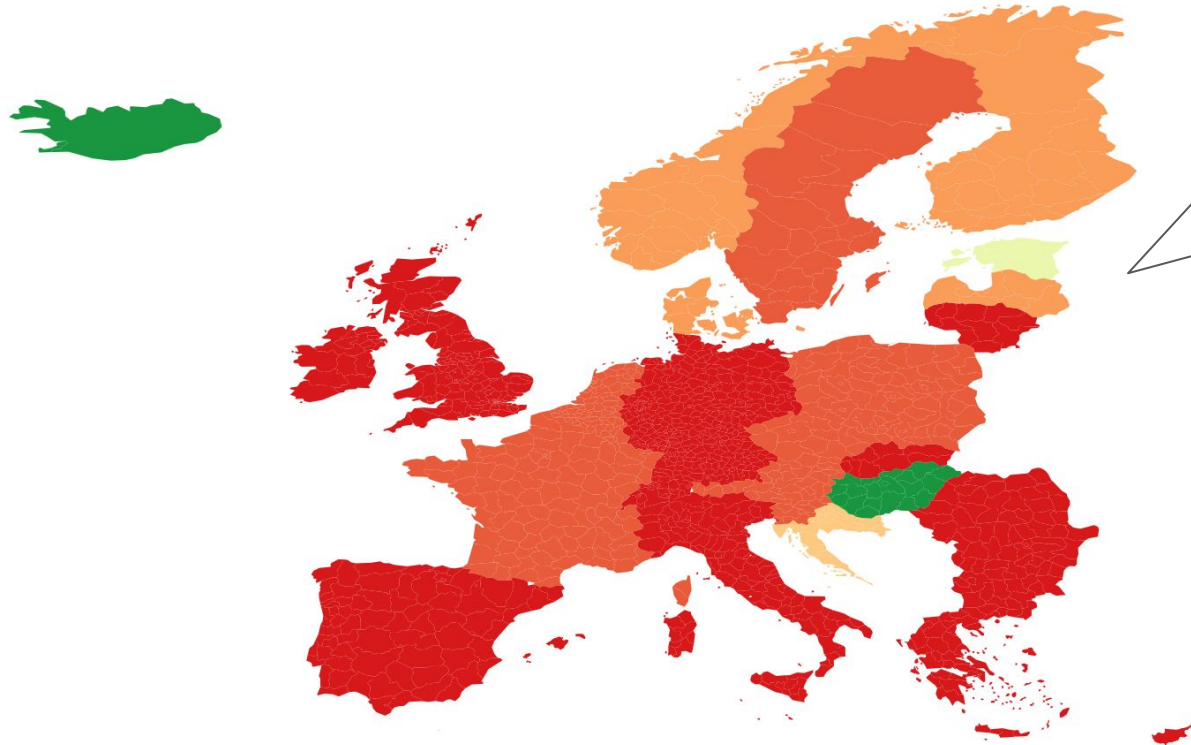
# Rural Attractiveness - Index (Social & Human)



# Rural Attractiveness - Index (Economical)

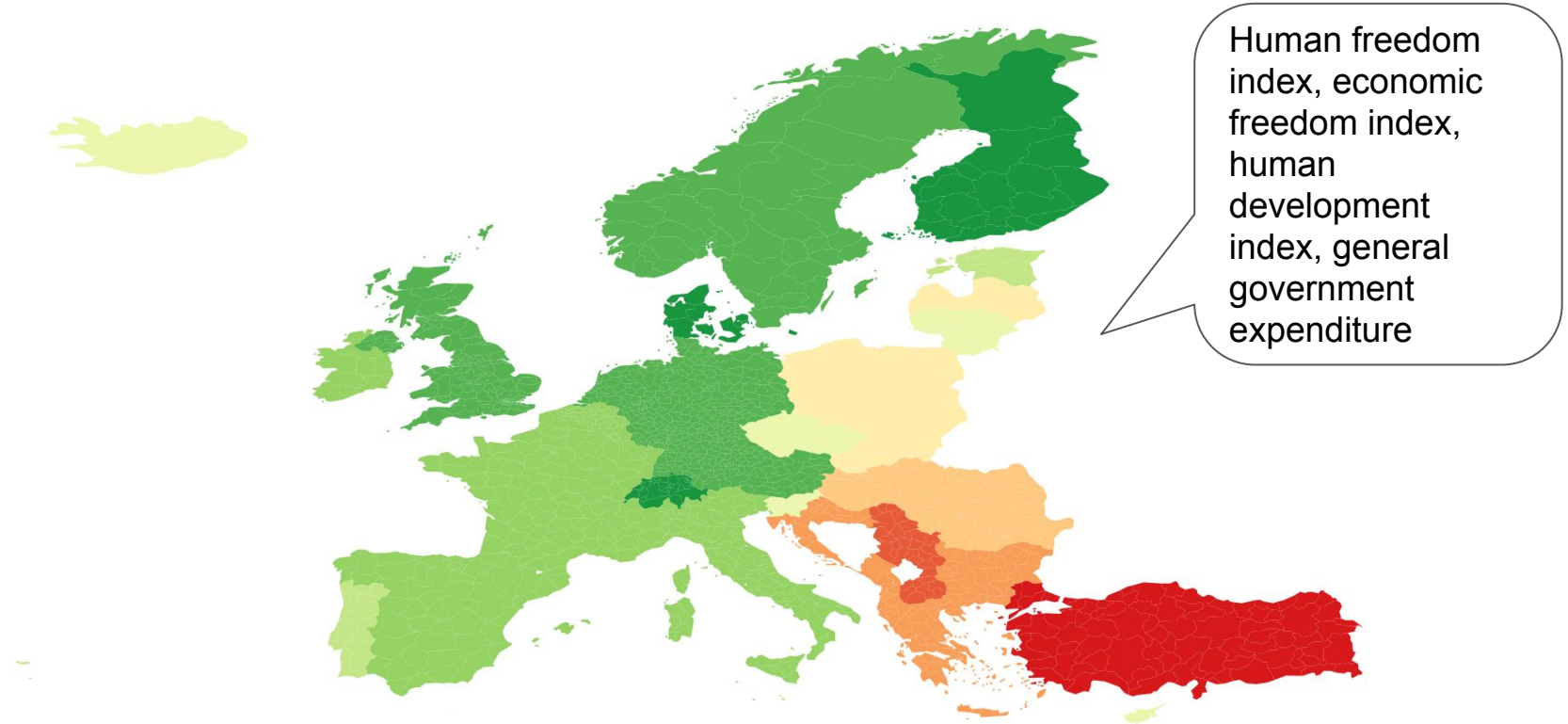


# Rural Attractiveness - Index (Cultural)



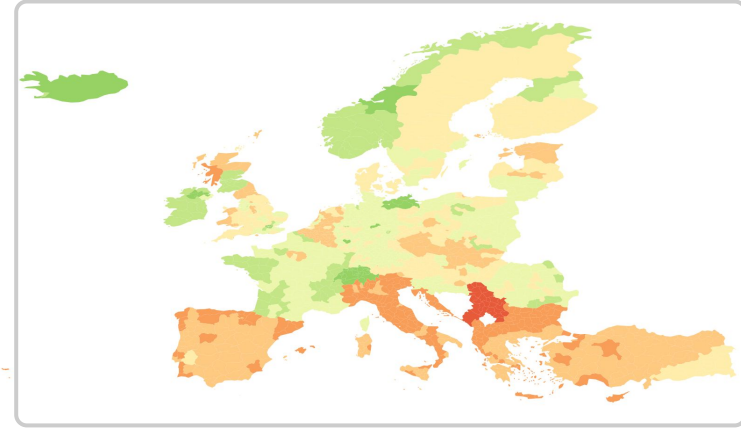
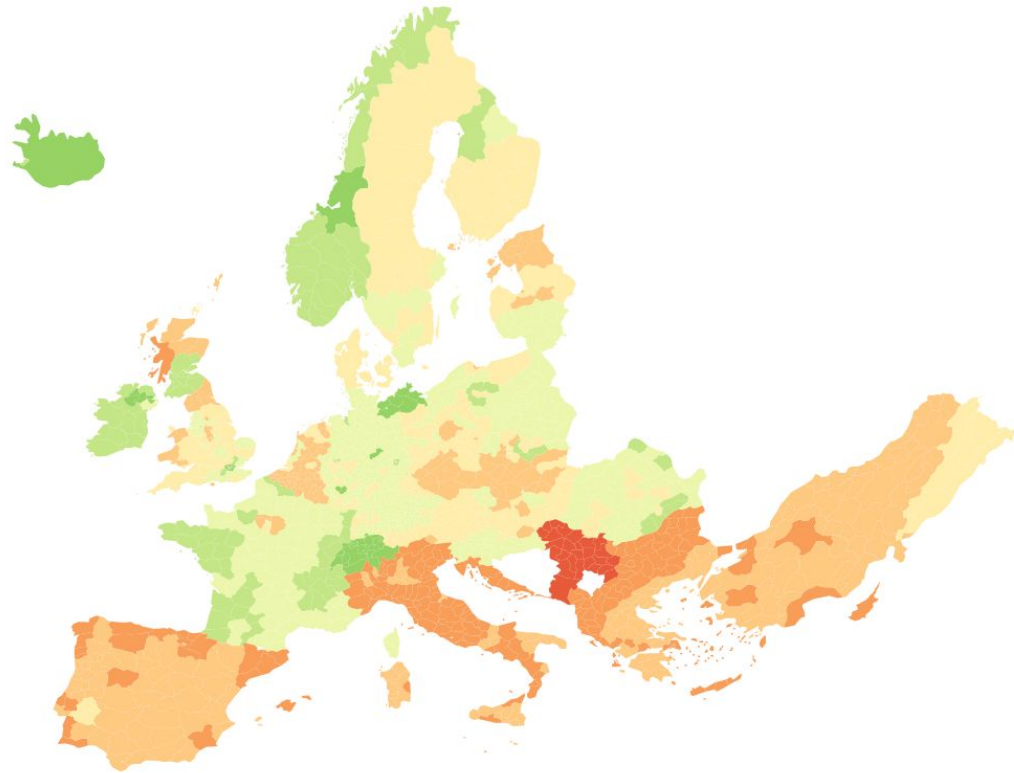
Government expenditure for recreation, culture and religion

# Rural Attractiveness - Index (Institutional)



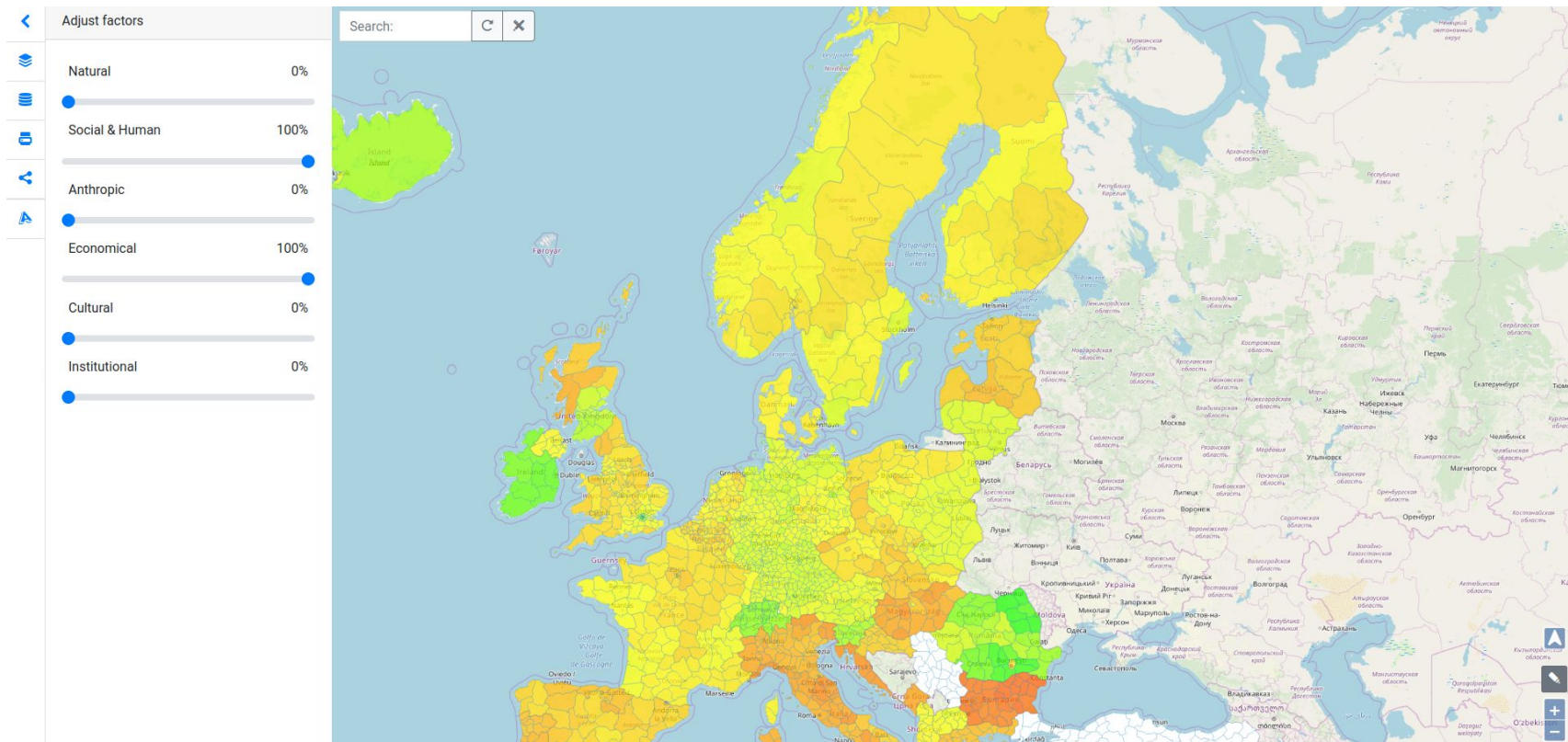


# Lambert Azimuthal **Equal-area** Projection



# Web map

Available at: <https://tinyurl.com/rural-attractiveness>





# Future works

- Input data assessment, optimization and refining
- Data quality issues
- Web application development, including server installation of QGIS
- Clustering
- Testing & feedback
- Promotion & publication

# Correlation Matrix (Factors)

	Natural	Social	Anthropic	Economical	Cultural
Natural	1,00	-0,15	0,06	0,06	0,15
Social	-0,15	1,00	0,28	0,20	0,01
Anthropic	0,06	0,28	1,00	0,10	0,12
Economical	0,06	0,20	0,10	1,00	-0,18
Cultural	0,15	0,01	0,12	-0,18	1,00
Institutional	-0,43	0,17	-0,03	0,42	-0,21

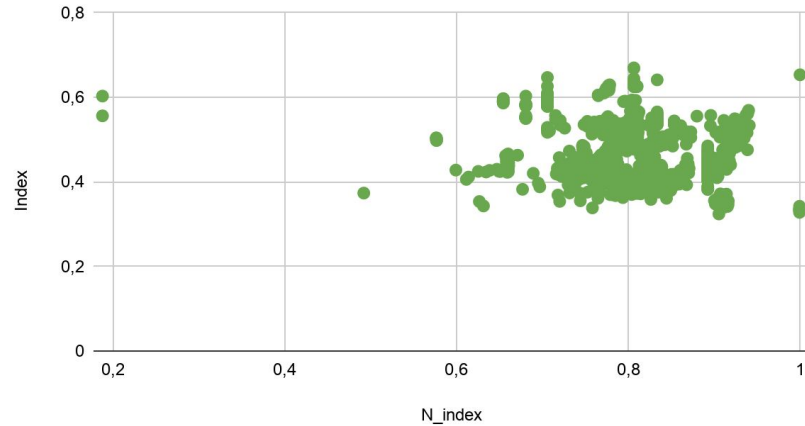
# Correlation Matrix (Anthropic data)

	A_CLC_211	A_CLC_231	A_CLC_222	A_CLC_512
A_CLC_211	1,00	-0,07	-0,05	0,00
A_CLC_231	-0,07	1,00	-0,10	0,00
A_CLC_222	-0,05	-0,10	1,00	-0,06
A_CLC_512	0,00	0,00	-0,06	1,00

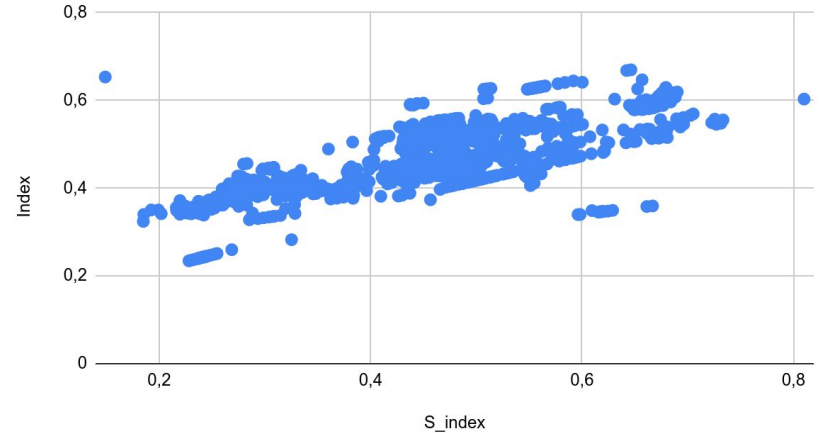


# Correlation with Rural Attractiveness Index

Natural Factors & Rural Attractiveness Index



Social & Human Factors & Rural Attractiveness Index



# Quality of information

## Quality of data resource

- Data age
- NUTS level
- Number of data values

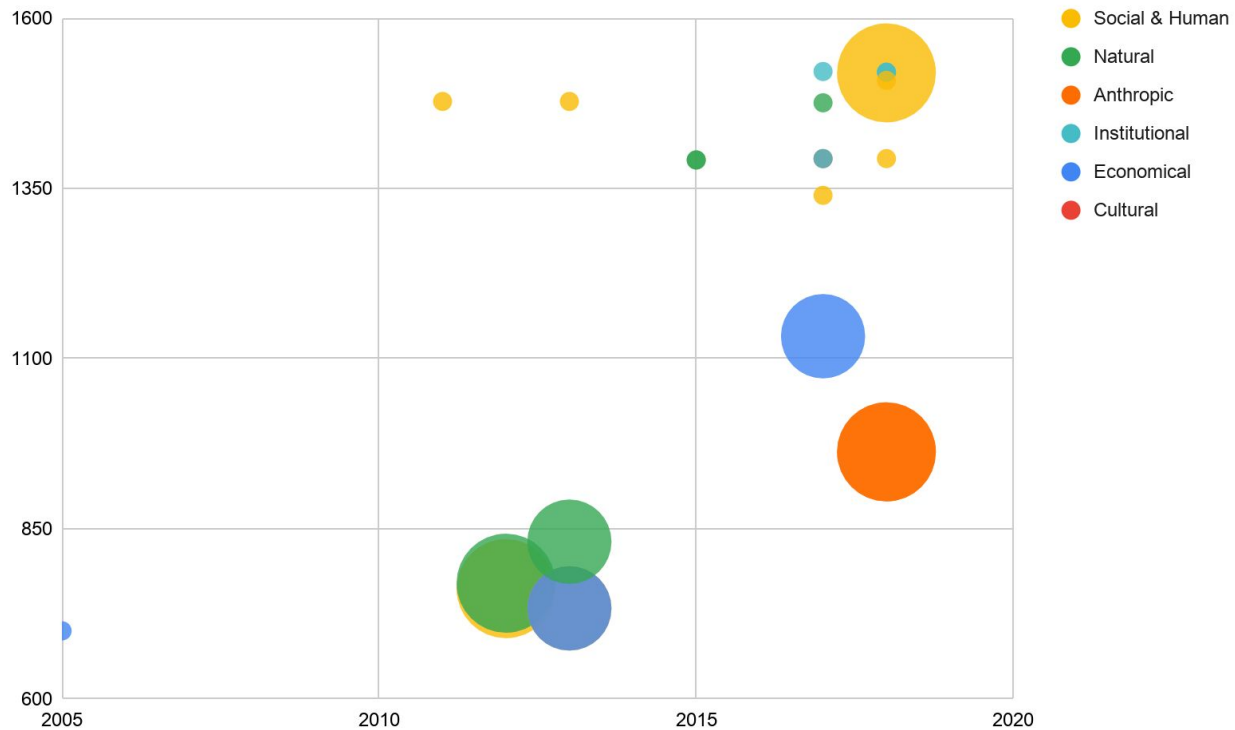
Important from the view of weights definition of particular datasets.

## Quality of description of area

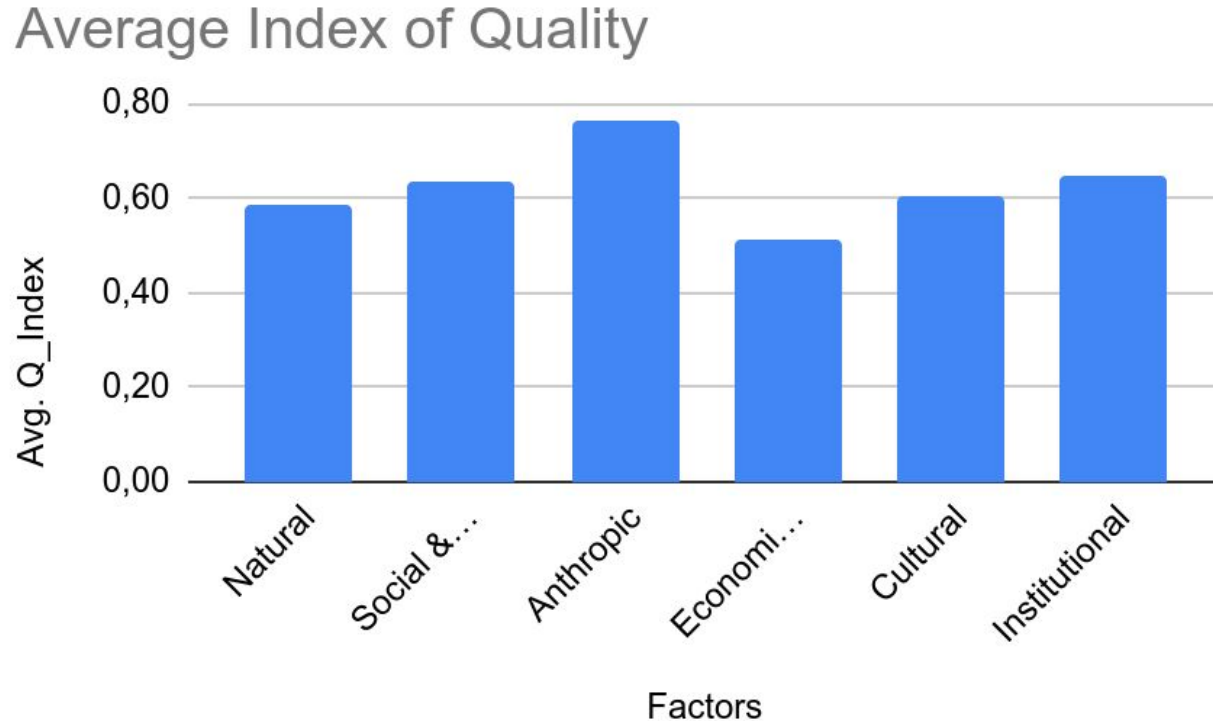
- Average data age
- Average NUTS level
- Number of data values

Important from the perspective of reliability and trustworthiness of RAI for particular area.

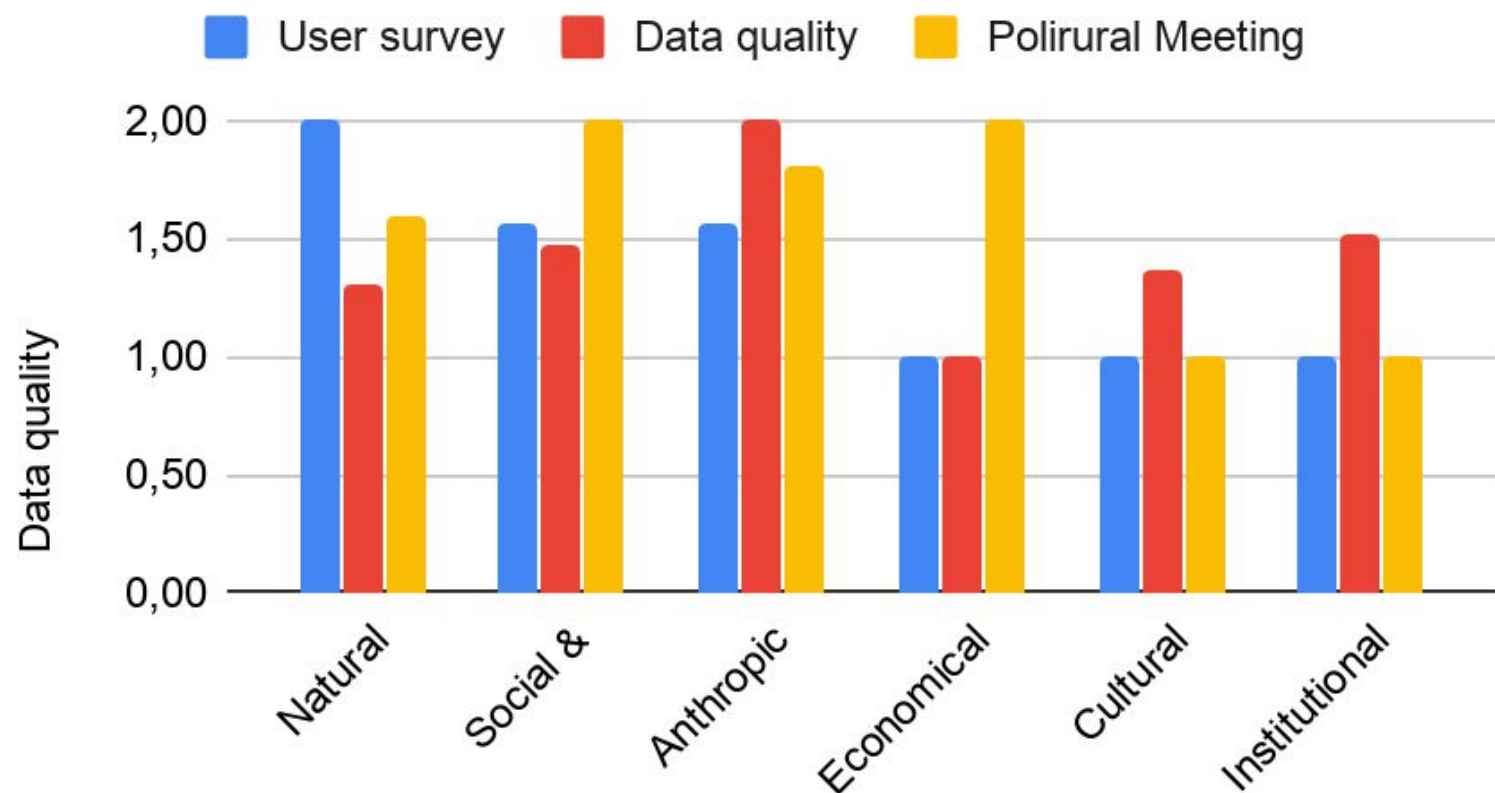
# Quality of Data Resource



# Quality of data in particular factors

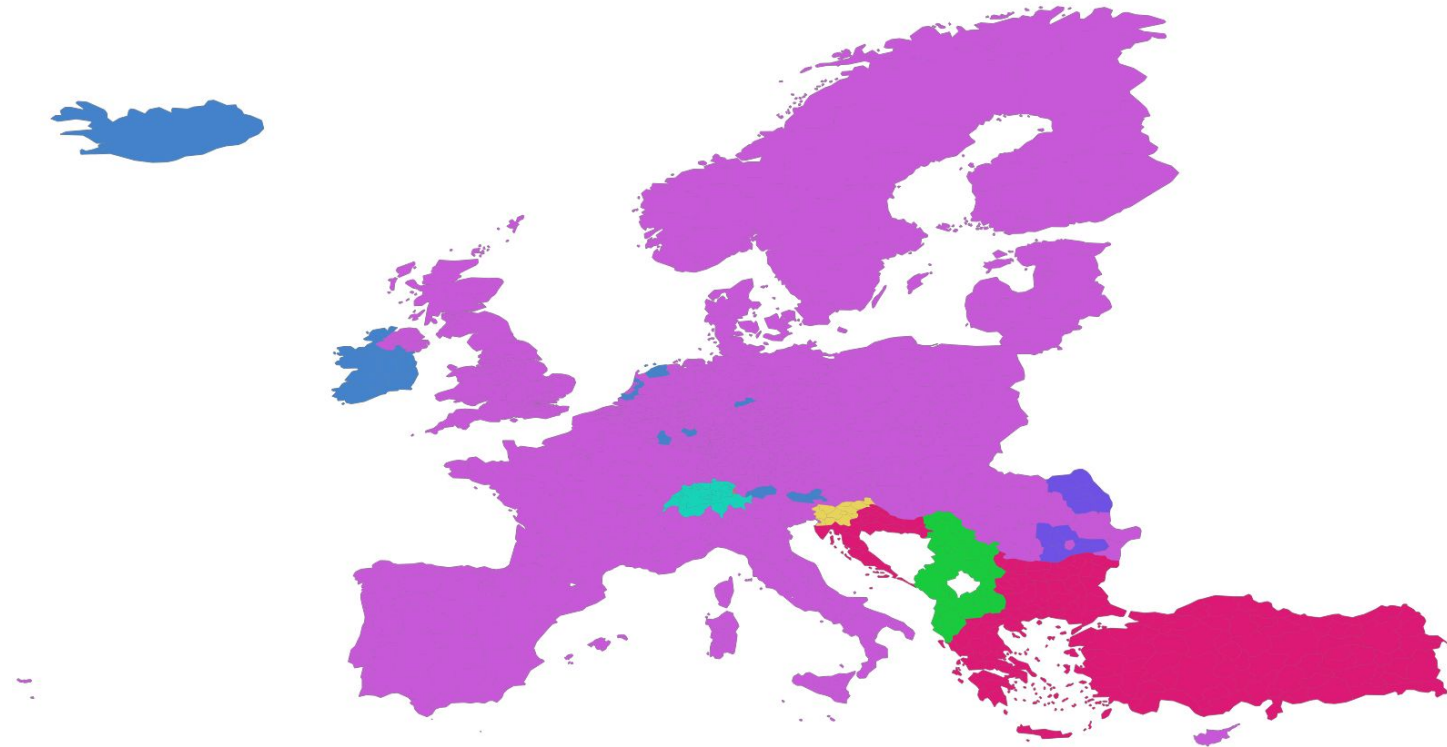


# Weights of Factors





# Rural Attractiveness - Clusters





# POLIRURAL

[http://bit.ly/RAI\\_map](http://bit.ly/RAI_map)