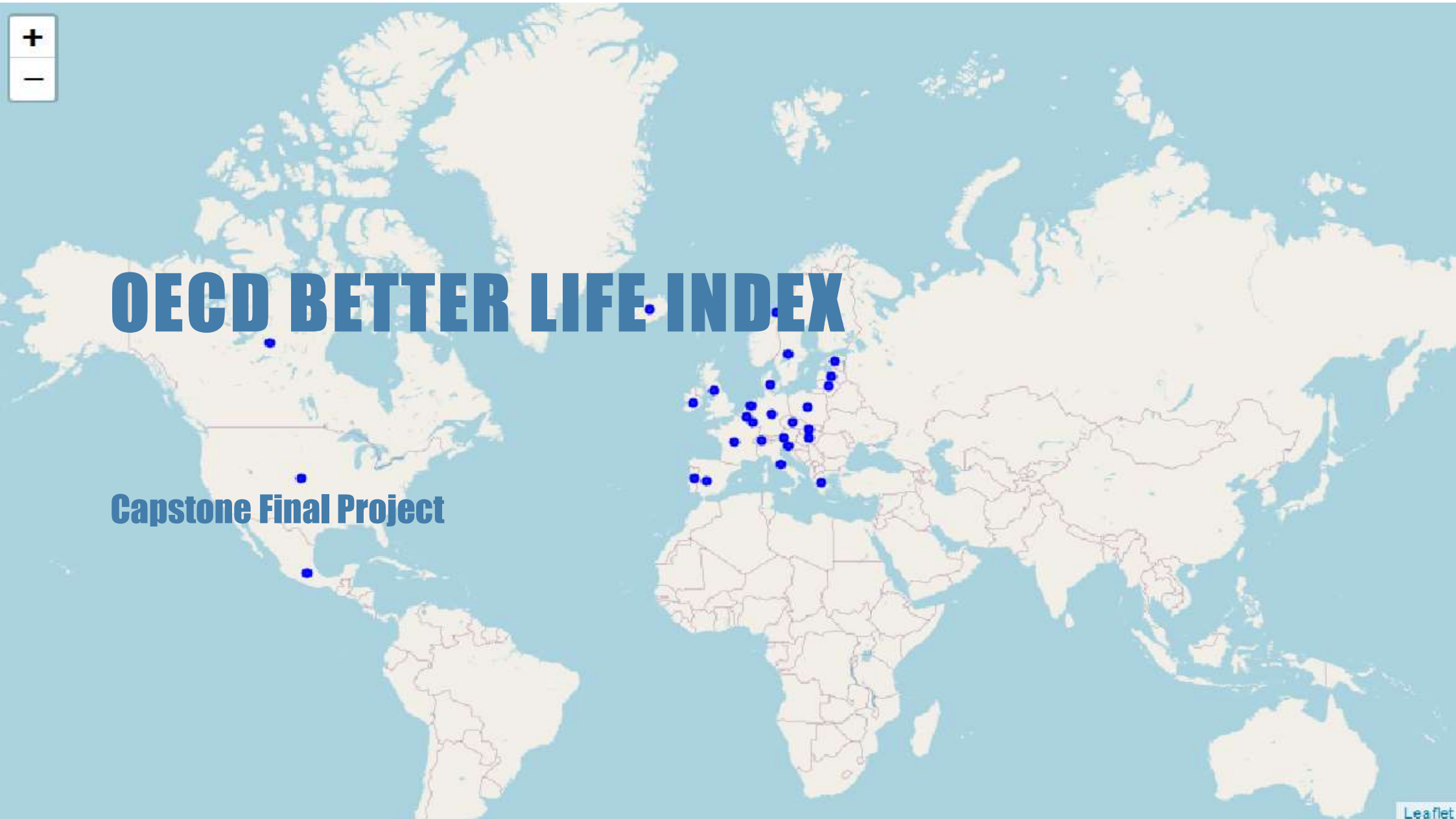




OECD BETTER LIFE INDEX

Capstone Final Project





I. MOTIVATIONS

- Can GDP gives true account of people's current and future well-being ?
- What's matter for happiness of life ?
- Do venues of “happier” country share similarities ?

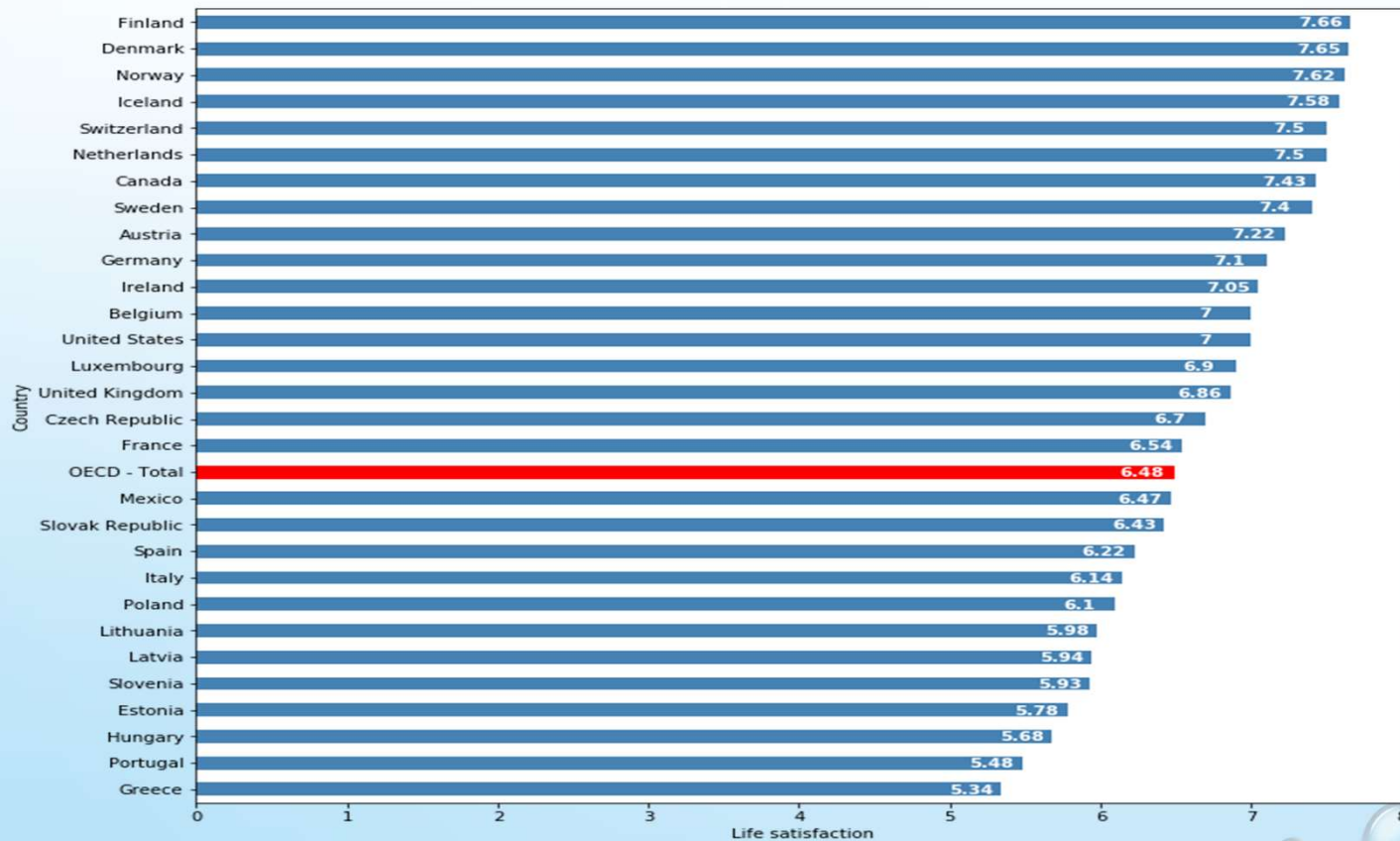




II. DATA AND METHODOLOGY

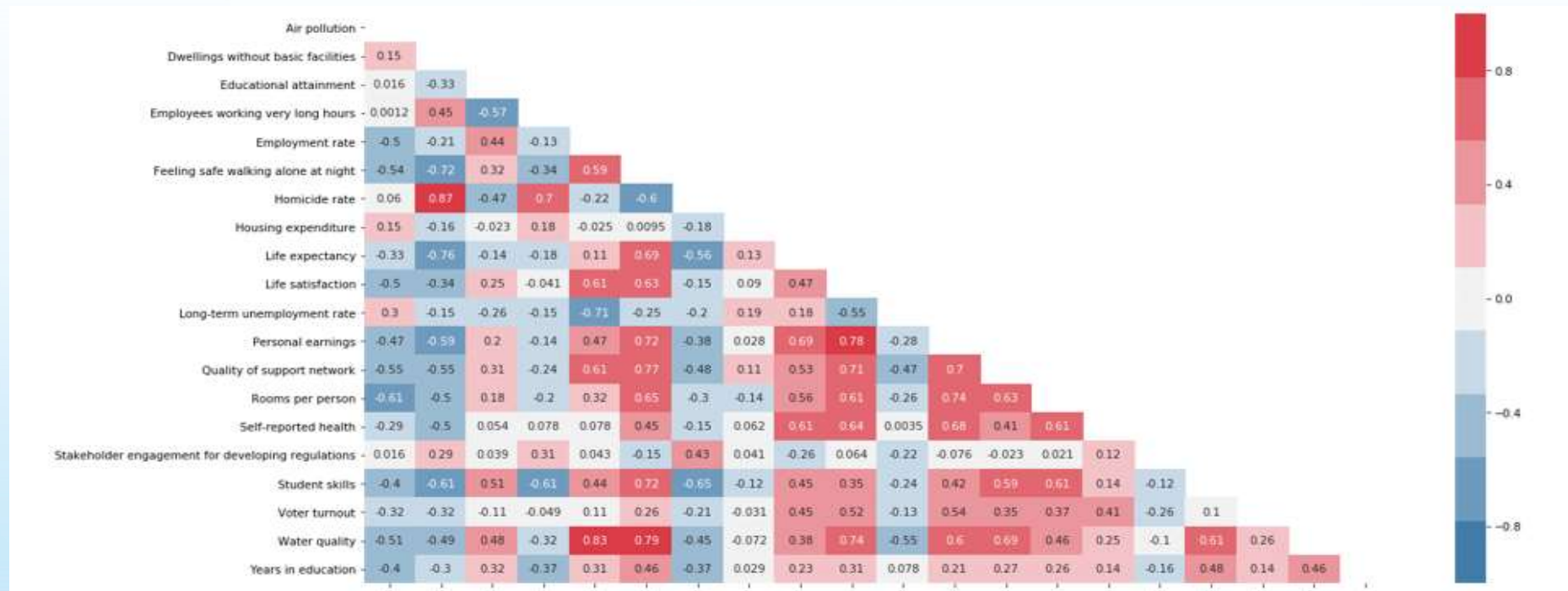
- **OECD Better Life Index**
 - 25 Indicators covers 11 topics in terms of material living conditions (housing, income, jobs) and quality of life (community, education, environment, governance, health, life satisfaction, safety and work-life balance) and 41 countries.
 - 21 indicators and 30 County retained after data wrangling
 - **FourSquare API**
 - **Linear Regression**
 - **K-means clustering**
- 

III. RESULTS (1) – OECD LIFE SATISFACTION INDICATOR



- Life satisfaction is not evenly shared across the OECD countries.
- Scandinavians countries and Switzerland have the highest score. While Greece, Portugal, Hungary and Estonia – have a relatively low level of overall life satisfaction.
- People across the OECD gave an evaluation of 6.49.

III. RESULTS (2) – CORRELATION HEATMAP



- The variables with the highest Correlation coefficient with life satisfaction is Personal Earnings (but NOT WEALTH).

III. RESULTS (3) – MULTI-LINEAR REGRESSION

OLS Regression Results

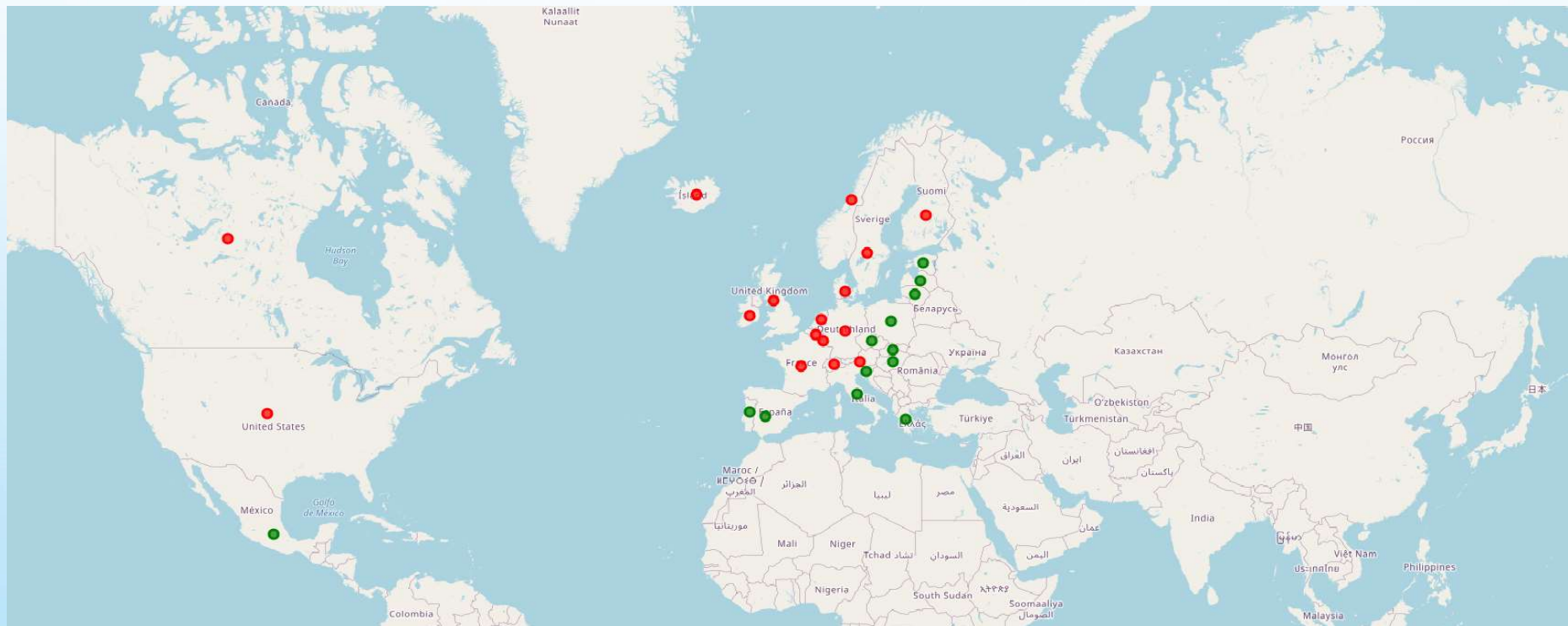
Dep. Variable:	Life satisfaction	R-squared:	0.847			
Model:	OLS	Adj. R-squared:	0.821			
Method:	Least Squares	F-statistic:	33.09			
Date:	Tue, 04 Aug 2020	Prob (F-statistic):	1.91e-09			
Time:	09:31:34	Log-Likelihood:	-3.9320			
No. Observations:	29	AIC:	17.86			
Df Residuals:	24	BIC:	24.70			
Df Model:	4					
Covariance Type:	nonrobust					
=====						
	coef	std err	t	P> t	[0.025	0.975]

const	2.0600	0.907	2.272	0.032	0.189	3.931
Personal earnings	1.05e-05	7.09e-06	1.480	0.152	-4.14e-06	2.51e-05
Water quality	0.0292	0.010	2.967	0.007	0.009	0.050
Self-reported health	0.0279	0.008	3.555	0.002	0.012	0.044
Long-term unemployment rate	-0.0712	0.023	-3.123	0.005	-0.118	-0.024
=====						
Omnibus:	2.130	Durbin-Watson:	2.030			
Prob(Omnibus):	0.345	Jarque-Bera (JB):	1.324			
Skew:	-0.521	Prob(JB):	0.516			
Kurtosis:	3.106	Cond. No.	6.82e+05			
=====						

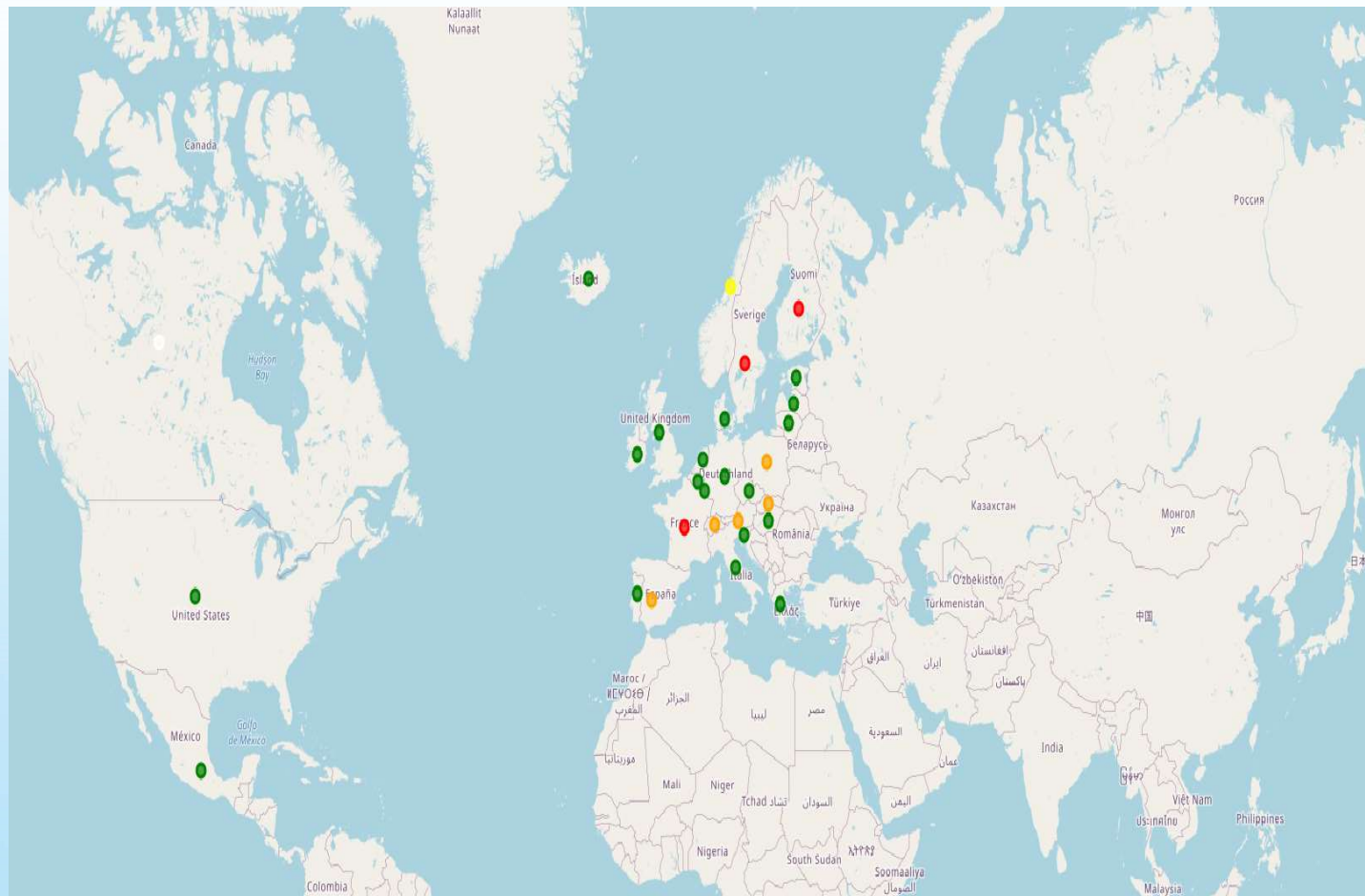
- However, the personal earning coefficient is not significant.
- Environment and health aspect account most for happiness of people.
- Long-term unemployment rate are also significant and has a negative impact on life satisfaction index.

III. RESULTS (4) – OECD BETTER LIFE INDEX WITH K-MEANS CLUSTERING

- Two Clusters : above-average life satisfaction scoring countries and below-average life satisfaction scoring countries.



III. RESULTS (5) – COUNTRIES'S VENUES WITH FOURSQUARE



- **Cluster 1 :** Holiday and nature destination.
- **Cluster 2 :** Supermarkets and stores intensely presented.
- **Cluster 3 :** Norway.
- **Cluster 4 :** The others.



IV. CONCLUSION

- Environment and health aspect account for happiness of people. These indicators should be included besides GDP in economist work.
 - No evidence shows venues of “happier” country share similarities. However, a more detailed study can be considered.
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