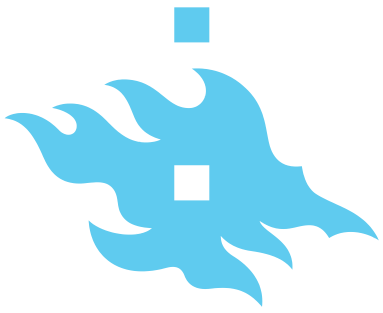




■ “Value based human capital” and level of economic performance in European regions

- comparing perspectives from spatial economics and economic geography



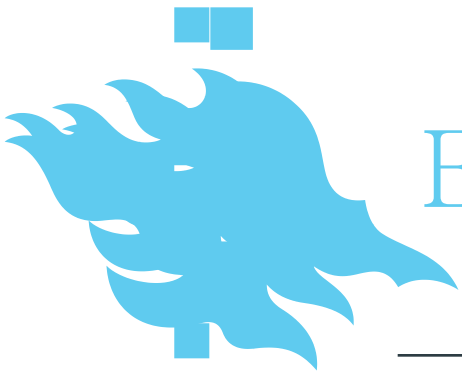
Outline

1. Aim of the study - what, how and why
2. Economy and (place-based) culture?
3. Interdisciplinary analysis and disciplinary interfaces
4. Human values scale by S.Scwartz
5. Theoretical toolbox for interpreting the results -what to expect?
6. Data and descriptives
7. Spatial economic approach
8. (Evolutionary) economic geography approach
9. Conclusions and future research



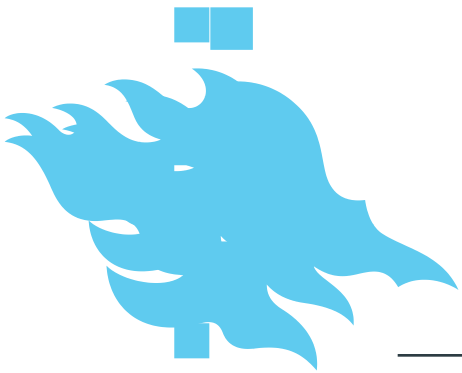
Aim of the study

- ▶ Visualize the spatial variance of value orientations “*Self-direction*”, “*Achievement*”, and “*Power*”
- ▶ Look at the spatial interdependence between values and the level of GDP per capita
- ▶ Linear regression model predicting a level of regional GDP with aggregated values orientations in 289 NUTS 1-3 regions (European Social Survey)
- ▶ Control variables “R&D, employment rate etc.” Eurostat
- ▶ Focus on interdisciplinary analysis rather than specific economic growth model



Economy and (place based) culture

- Culture vs. economy interaction is perennial theme within social sciences
- Weber: *institutional and cultural conditions define incentive structure of economic agents*; Bourdieu: *social, economic, and cultural capital*; Geert Hoffstede: *'collective programming of the mind' or 'shared system of meanings'*
- More novel concept in regional studies and geography: Huggins and Thompson (2015, 149) *"Culture - be it community or economic - forms a part of the place-based development systems linking economic performance with societal well-being"*.
- *'people's climate'* by Florida (2005) *'regional self'* by Syssner (2009) and *'values in place'* by Horlins (2015)



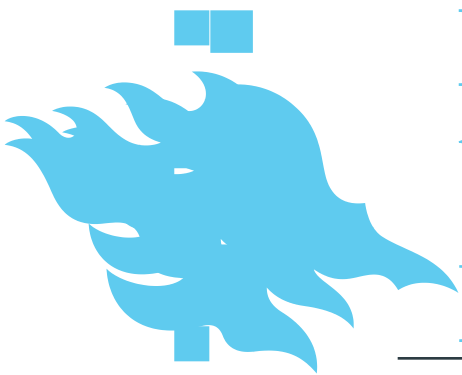
Interdisciplinary approach

“The value concept [is] able to unify diverse interest of all the social sciences concerned with human behavior” (Rokach 1973)

We apply measures and concepts from social psychology to analysis on economic outcomes (*“motivation based human capital”*)

Study aims on two disciplinary interfaces

- 1. ”Education or culture based measures of human capital (Florida vs Glaeser)
- 2. Perspective and empirical strategy between New Urban Economics and Evolutionary Economic geography



Basic Human Values

by Shalom H.Schwartz

- Schwartz's universal human value scale is the most commonly used in social sciences (Hofstede, Inglehart etc.)
- Values are personal beliefs but also motivational constructs as they refer to desirable goals of individual
 - **Self-Direction** Independent thought and action; choosing, creating, exploring
 - **Achievement** Personal success through demonstrating competence according to social standards
 - **Power** Social status and prestige, control or dominance over people and resources.

Description of the variables

Variable	Scale	Description
<i>Value orientations</i>		
Self-Direction	1 - 6	<i>'Important to think new ideas and being creative'*</i> <i>'Important to make own decisions and be free'*</i>
Achievement	1 - 6	<i>'Important to show abilities and be admired'*</i> <i>'Important to be successful and that people recognize achievements'*</i>
Power	1 - 6	<i>'Important to be rich, have money and expensive things'*</i> <i>'Important to get respect from others'*</i>

* Q; "Now I will briefly describe some people. Please listen to each description and tell me how much each person is or is not like you. For he/she it is..." A; (very much like me/not at all like me)



What to expect?

- Creative cities thesis: High "self-direction" can be found in certain creative urban centers
- Neoclassical economic theory thesis: "achievement" and "power" are associated with high economic performance through competition and self-interest
- Ingleharts modernization thesis: "achievement" and "power" have negative and "self-direction" positive association to GDP (national level)
- EEG thesis: larger historical and institutional path-dependent structures define current economic landscape
- Spatial economics thesis: none of the cultural characteristics have significant effect (education based human capital and density dominate)

Description of the variables

Variable	Unit	Year	Source	Description
<i>Dependent variable</i>				
GDP	€ / inhab.	2011	Eurostat	GDP at current market prices by NUTS 2 & 3 regions
<i>Control variables</i>				
Tertiary education	% of pop.	2011	Eurostat	Population aged 25-64 with ISCED levels 5-8 attainment
Density	pop./ km2	2011	Eurostat	Population per square kilometre
R&D	€ / inhab.	2009	Eurostat	Total intramural R&D expenditure
Employment	% of pop.	2011	Eurostat	Employed persons / total population.
EQI	Std. index	2010	EQI	Survey data on the level of corruption and governance

Descriptive statistics

Variable	Obs	Mean	Min	Max	Std. Dev.
<i>Dependent variable</i>					
GDP	289	22905	2600	72600	14429.7
GDP log	289	4.25	3.41	4.86	0.35
<i>Value orientations</i>					
Self-direction	289	0.31	-0.96	0.93	0.24
Achievement	289	-0.38	-1.20	0.40	0.34
Power	289	-0.91	-1.70	0.08	0.36
<i>Control variables</i>					
Density	289	241.51	1.20	7131	646.0
R&D expenditure	282	412.47	4.10	2596	448.5
Employment rate	289	64.07	39.40	81	7.4
Tertiary education	287	27.09	9.90	55.7	8.5
EQI-index	273	0.17	-2.48	1.90	0.9



Spatial economic approach

- Control for "objective economic" variables
- Add control for spatial autocorrelation in the data (spatial lag, error or filter)
- Control for "omitted" and unobserved heterogeneity in the data (country specific fixed effects) by adding country dummies

Table 3*Parameter estimates from linear regression models*

	Bivariate	OLS	Lag	OLS
Intercept	3,895 ***	1,627 ***	0,109	1,373 ***
<i>Value orientations</i>				
Self-direction	1,156 ***	0,290 ***	0,120 ***	0,057
Achievement	-0,598 ***	-0,090 **	-0,021	0,021
Power	-0,481 ***	-0,038	0,002	0,008
<i>Control variables</i>				
Density	0,131 ***	0,073 ***	0,069 ***	0,114 ***
R&D expenditure	0,467 ***	0,310 ***	0,139 ***	0,019
Employment rate	4,463 ***	0,995 ***	0,491 ***	1,289 ***
Tertiary education	1,199 ***	-0,128 *	0,111 **	0,249 **
EQI-index	0,265 ***	0,002	-0,015	-0,005
Country fixed effects	No	No	No	Yes
AIC	-72,2	-343,93	-507.98	-646,86
Adjusted R ²		0,857		0,930

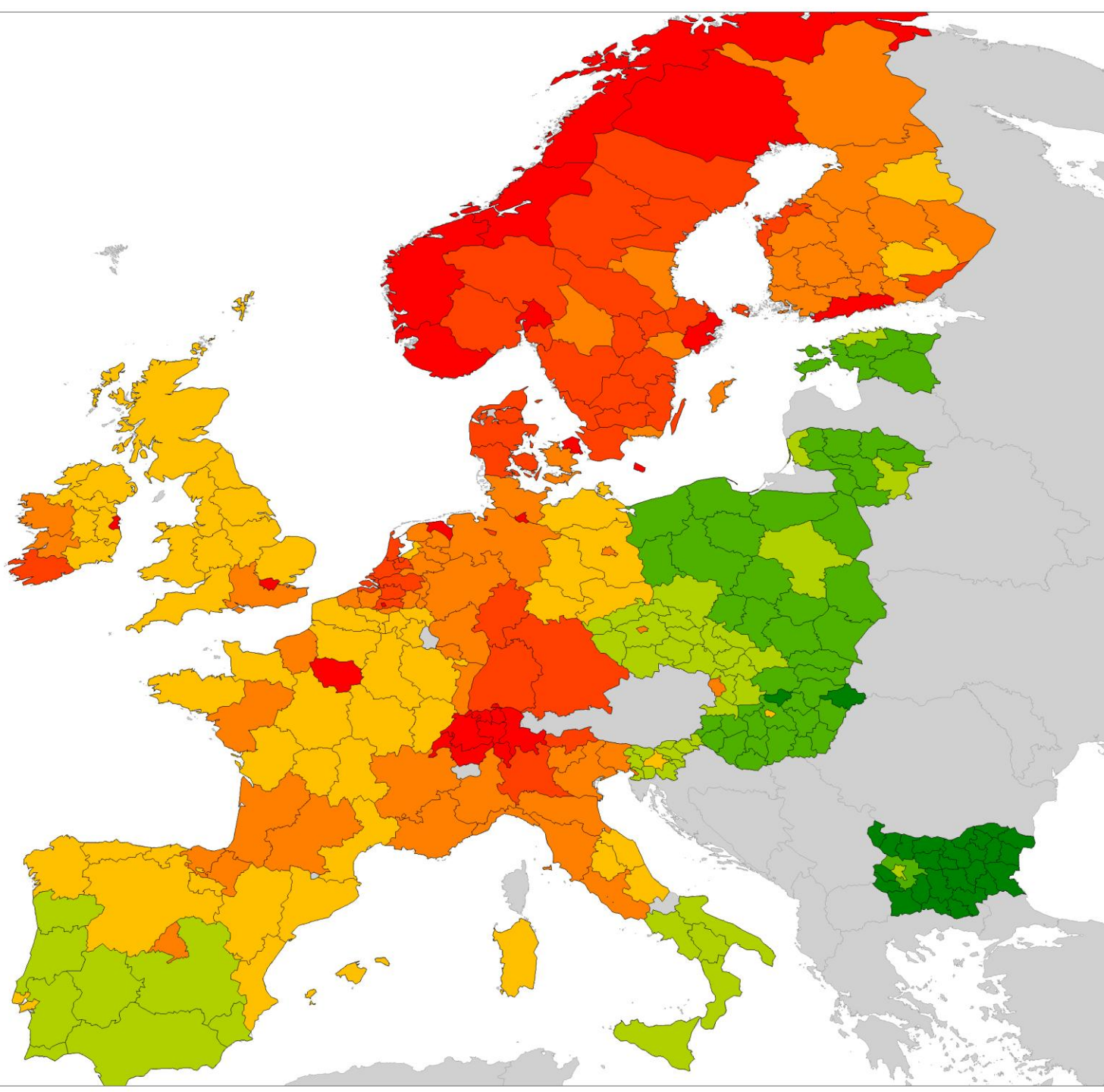
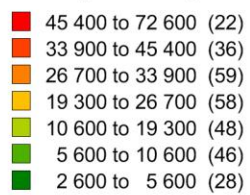
Signif. codes: '***' < 0.01 '**' < 0.05 '*' < 0.1



(Evolutionary) Economic Geography approach

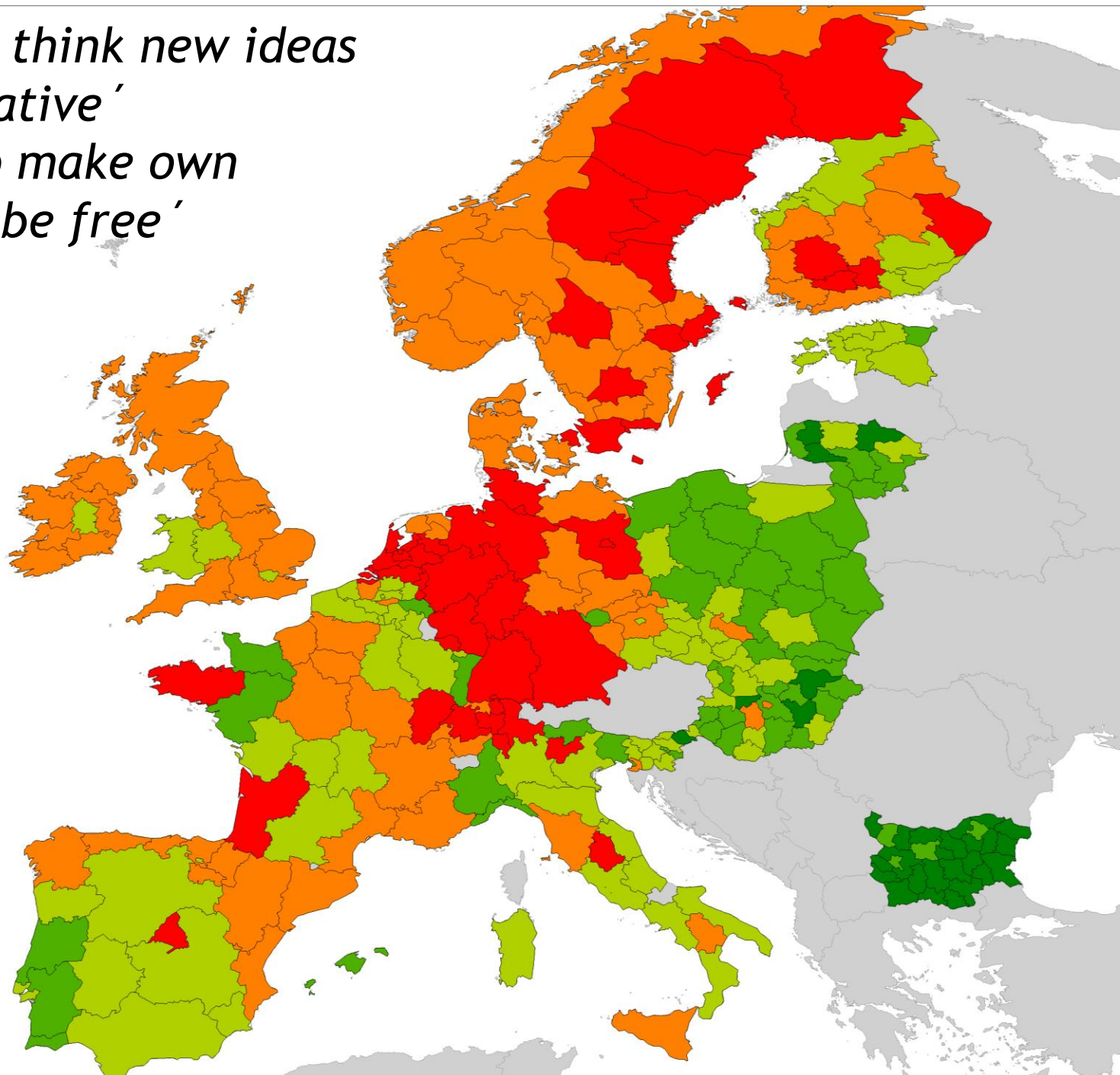
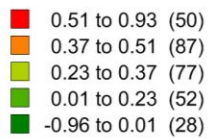
- Cultural and institutional heterogeneity should not be "filtered out" but instead further investigated
- Try to detect "path dependent" larger structures and processes defining the current socio-economic landscape
- Focus more on local characteristics and epistemologies rather than global models and universal theories
- Define and localize spatially varying coefficients in the model

GDP by NUTS regions



*'Important to think new ideas
and being creative'*
*'Important to make own
decisions and be free'*

Creativity

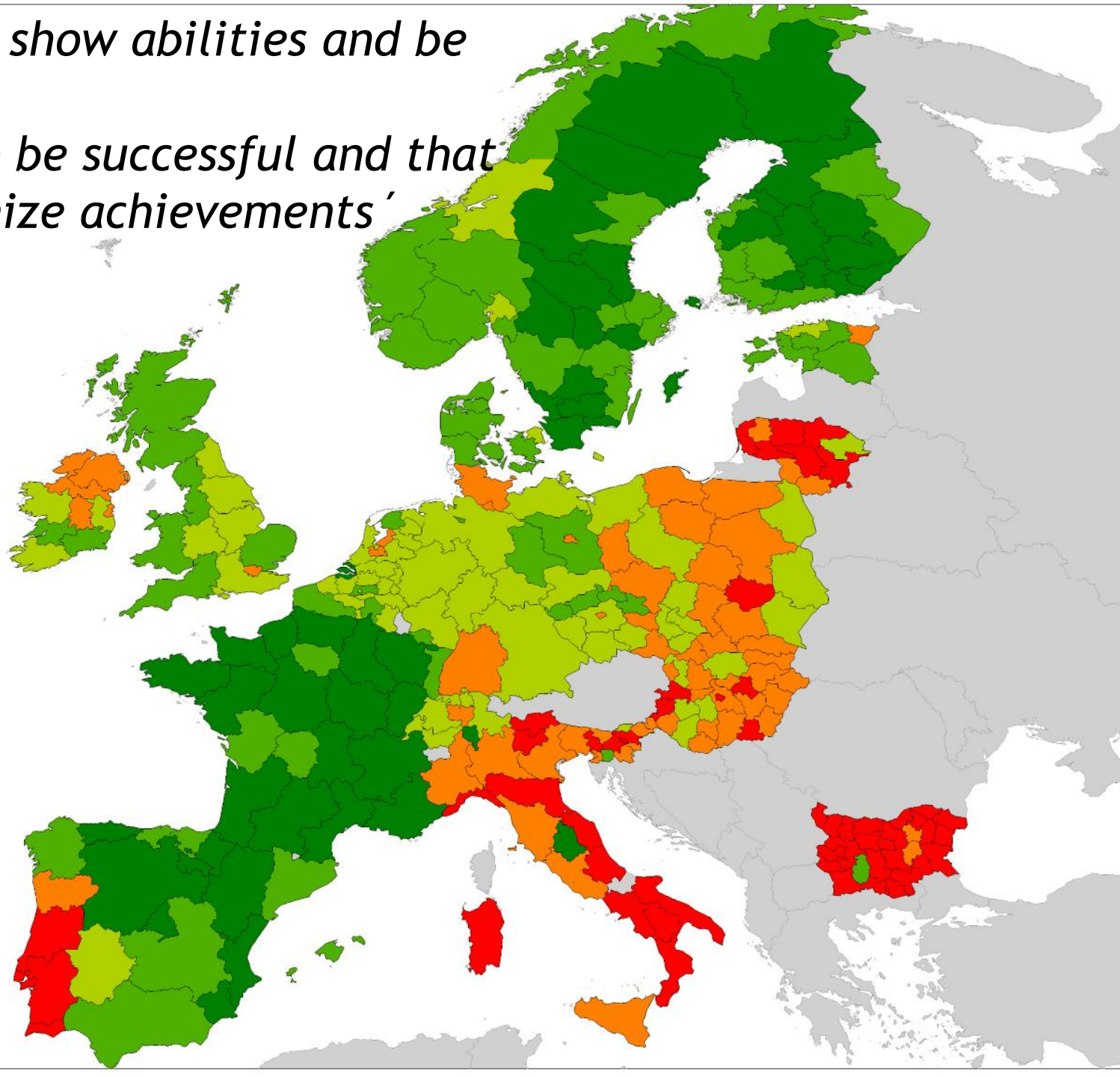


'Important to show abilities and be admired'

'Important to be successful and that people recognize achievements'

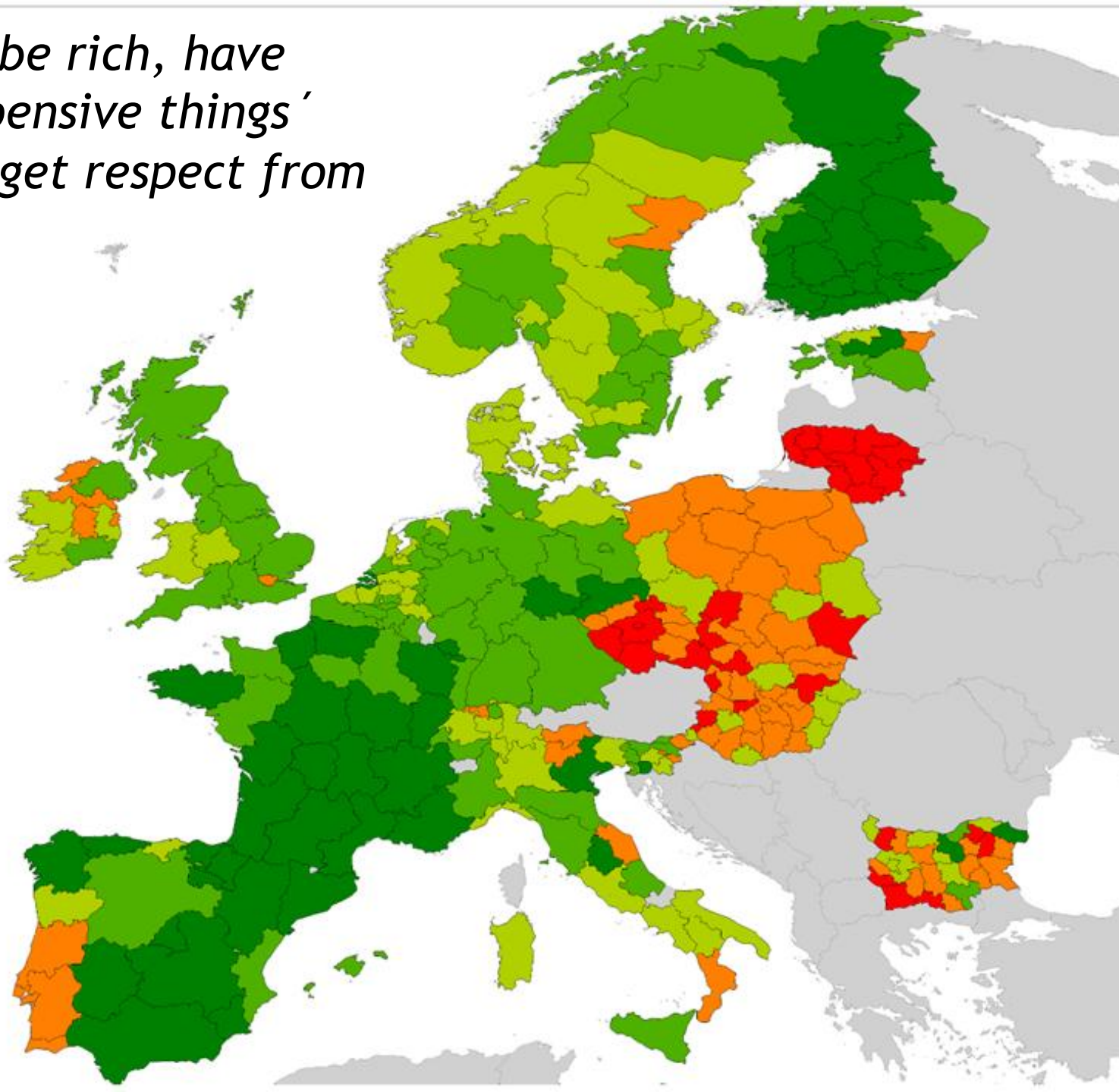
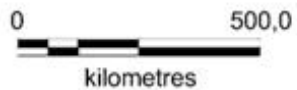
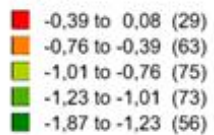
Achievement

- -0,05 to 0,4 (57)
- -0,3 to -0,05 (62)
- -0,48 to -0,3 (62)
- -0,72 to -0,48 (59)
- -1,2 to -0,72 (55)



'Important to be rich, have money and expensive things'
'Important to get respect from others'

Power





Welfare regimes as "frames"

- ▶ Data-driven clustering i.e. geo-social families (Ferrera, 1996) refer to larger structures
- ▶ Most obvious are Eastern Europe and the Nordic countries
- ▶ Welfare regime literature appears as relevant framing
- ▶ Welfare regime define both economic conditions and cultural characteristics ("value climate")
- ▶ Classification into 5 regimes: Anglo Saxon, Continental, Eastern European, Southern European, and Nordic (reference)

Parameter estimates from linear regression models		
Intercept	1,977	***
<i>Value orientations</i>		
Self-direction	0,249	***
Achievement	-0,092	***
Power	0,066	**
<i>Control variables</i>		
Density	0,089	***
R&D expenditure	0,213	***
Employment rate	1,033	***
Tertiary education	-0,105	*
EQI-index	-0,024	*
<i>Country Regimes</i>		
Anglo-Saxon	-0,078	**
Continental	-0,065	**
Eastern European	-0,318	***
Southern European	-0,059	*
AIC	-443,90	
Adjusted R ²	0,90	

Parameter estimates from linear regression models

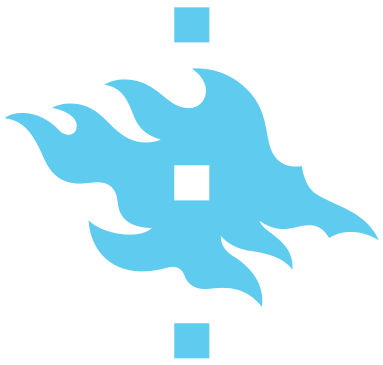
Interactions

Self-direction*Anglo-Saxon	0,261
Self-direction*Continental	0,088
Self-direction*Eastern European	0,499 ***
Self-direction*Southern European	0,070
Power*Anglo-Saxon	0,247 *
Power*Continental	0,093
Power*Eastern European	-0,188 **
Power*Southern European	-0,165
AIC	-481,74
Adjusted R ²	0,915



Summary

- Economic and cultural landscape is defined by larger evolutionary perspective
- After controls, “*Self-direction*”, has a strong and positive association to GDP while “*Achievement*”, and “*Power*” have small negative effect in “global” model.
- This global model localized into Eastern Europe (creative regions thesis)
- London in Anglo Saxon context appears as anomaly where high GDP is associated with “power”
- “*Value based human capital*” is theoretically grounded apparatus for cultural and economic analyses



Thank you!

Spasibo!