Smart specialization prioritization choices in EU regions: the case of tourism

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A.I.S.Re.

Motivations

- Smart specialization has become a key concept within the reformed European Cohesion policy (Foray, 2014; McCann and Ortega-Argilés, 2015)
- This new place-based policy is based on a bottom-up approach where stakeholders play a relevant role
- Tourism is a growing sector; international tourist arrivals are increasing over time
- In this context, a growing number of European regions are choosing the tourism sector as S3 strategic priority

A new approach

- **2009-2010**: debate between the supporters of the so-called space-blind (or place-neutral) vs. place-based policies (Barca, McCann, Rodríguez-Pose, 2012)

"**space matters** and shapes the potential for development not only of territories, but, through externalities, of the individuals who live in them" (Barca *et al*., 2012, p. 139).

"The solution need to be **place-sensitive**, that is policies that are informed by theory and empirical evidence, but that, at the same time, respond to the structural opportunities, potential, and constraints of each place" (Iammarino *et al.* 2017)

Literature review

- **2001** Boldrin-Canova: immediate and drastic revision of regional economic policies
- **2009** Barca*:* A place-based approach to meeting EU challenges and expectations
- **2011** Foray & Hall: complexity of the process
- **2012** Barca *et al.:* Place-based vs place-neutral approaches
- **2013** McCann & Ortega-Argilés: importance of regional innovation policies
  Boshma: Constructing Regional Advantage and Smart Specialization
- **2015** McCann & Ortega-Argilés: SS concept and application
- **2016** McCann & Ortega-Argilés: SS implementation and examples
- **2017** Crescenzi *et al.:* case study of Italian Mezzogiorno
- **2018** Balland *et al.*: regional diversification, quality of governments

Literature review / 2

The contribution to the literature of the relationship between tourism and smart policies is very limited:

- tourism innovation and regional economic resilience (Bellini *et al.*, 2017)
- tourism agglomeration and smart specialisation policies in three cases in the Mediterranean countries (Benner, 2017)

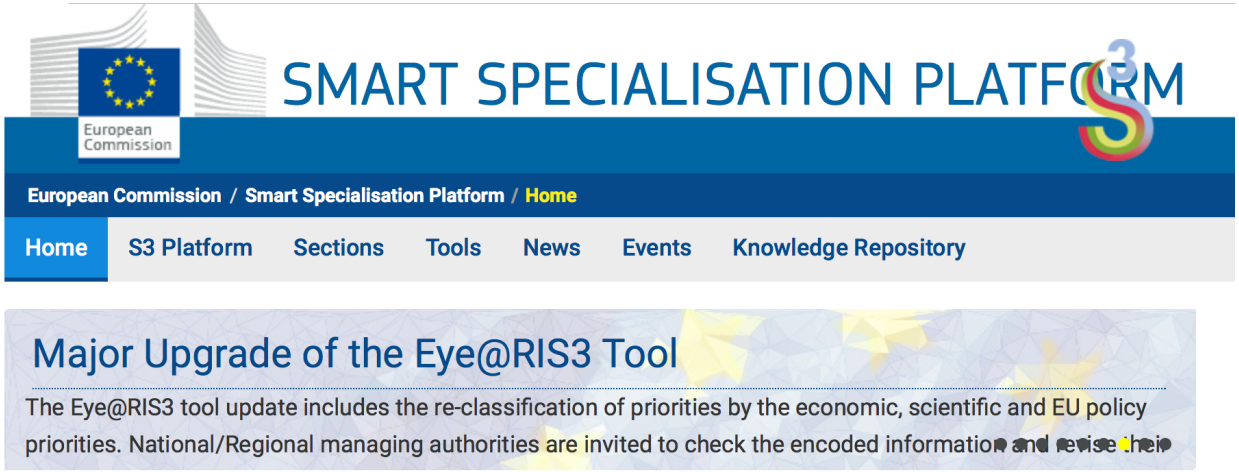
Aim

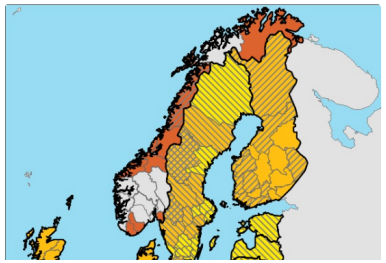
Based on previous literature and on data provided by the RIS3 Smart Specialization Platform, our contribution is twofold:

1. to study the regions that have chosen tourism-related strategies as SS priority
2. to understand regional determinants affecting the probability to choose tourism as one of their priorities

RQ#: Given the socio-economic and location characteristics of these regions, is tourism a rational policy choice?

S3 Platform

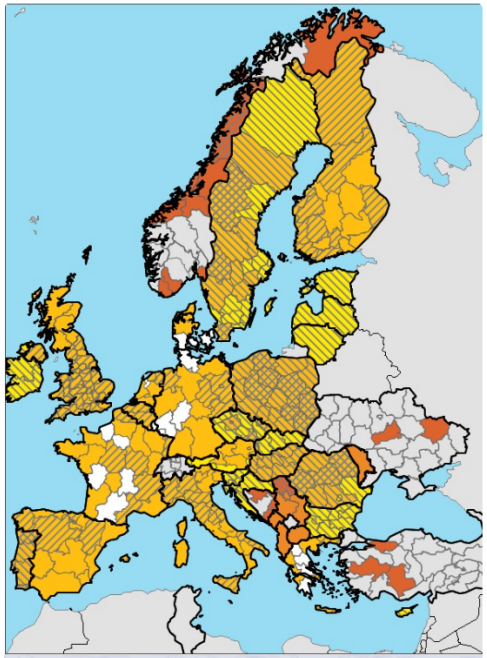




What we can do for you

The S3 Platform provides advice to EU countries and regions for the design and implementation of their Smart Specialisation Strategy (S3):

- Provide guidance material and good practice examples
- Inform strategy formation and policy-making
- Facilitate peer-reviews and mutual learning
- Support access to relevant data
- Train policy-makers



- **EU Countries registered in S3P: 18**
- **EU Regions registered in S3P: 174**
- Non-EU Countries registered in S3P: 5
- Non-EU Regions registered in S3P: 15
- S3P Peer-reviewed Countries: 16
- S3P Peer-reviewed Regions: 70

First step: selection of regions

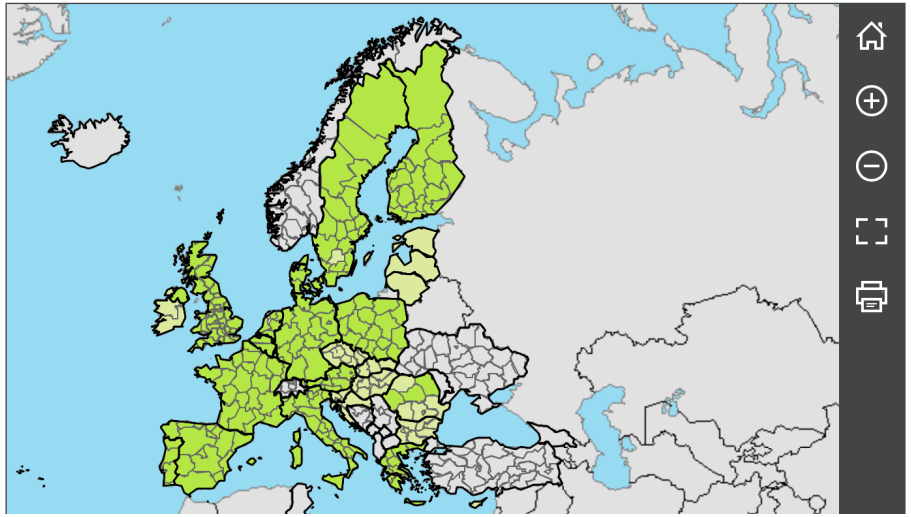
Eye@RIS3: Innovation Priorities in Europe

Eye@RIS3 visualises public investment priorities for innovation across Europe. It enables public managers and stakeholders to position their territory in comparison to other territories and to find potential partners for collaboration. Inside the EU, priorities are linked to the use of the European Regional and Development Funds (ERDF). Data are based on the information found in Smart Specialisation Strategies and related strategic frameworks. Outside the EU, they depict R&I priorities reported in various government strategy documents.

To allow for easy comparisons with established classifications, priorities are classified using the Statistical Classification of Economic Activities in the European Community (NACE rev. 2) and the Nomenclature for the Analysis and Comparison of Scientific Programmes and Budgets (NABS 2007).

Last updates: The tool has been fully upgraded in October 2017. Data are continuously updated based on inputs from European regional and national authorities and their stakeholders (also called the "entrepreneurial discovery process" in the literature on smart specialisation).

More Information



Match All of the following domains filters:

Economic Domains: None selected

Scientific Domains: None selected

Policy Objectives: None selected

Macro-region/Country: None selected

Region: None selected

Description of Priority: Tourism

Refined Search

Approximated Search

Country/Region type

EU Countries with Encoded S3 Priorities

EU Regions with Encoded S3 Priorities

Non-EU Countries with Encoded R&I Priorities

Regions registered in S3 Platform

The choice of Tourism in S3 Platform:

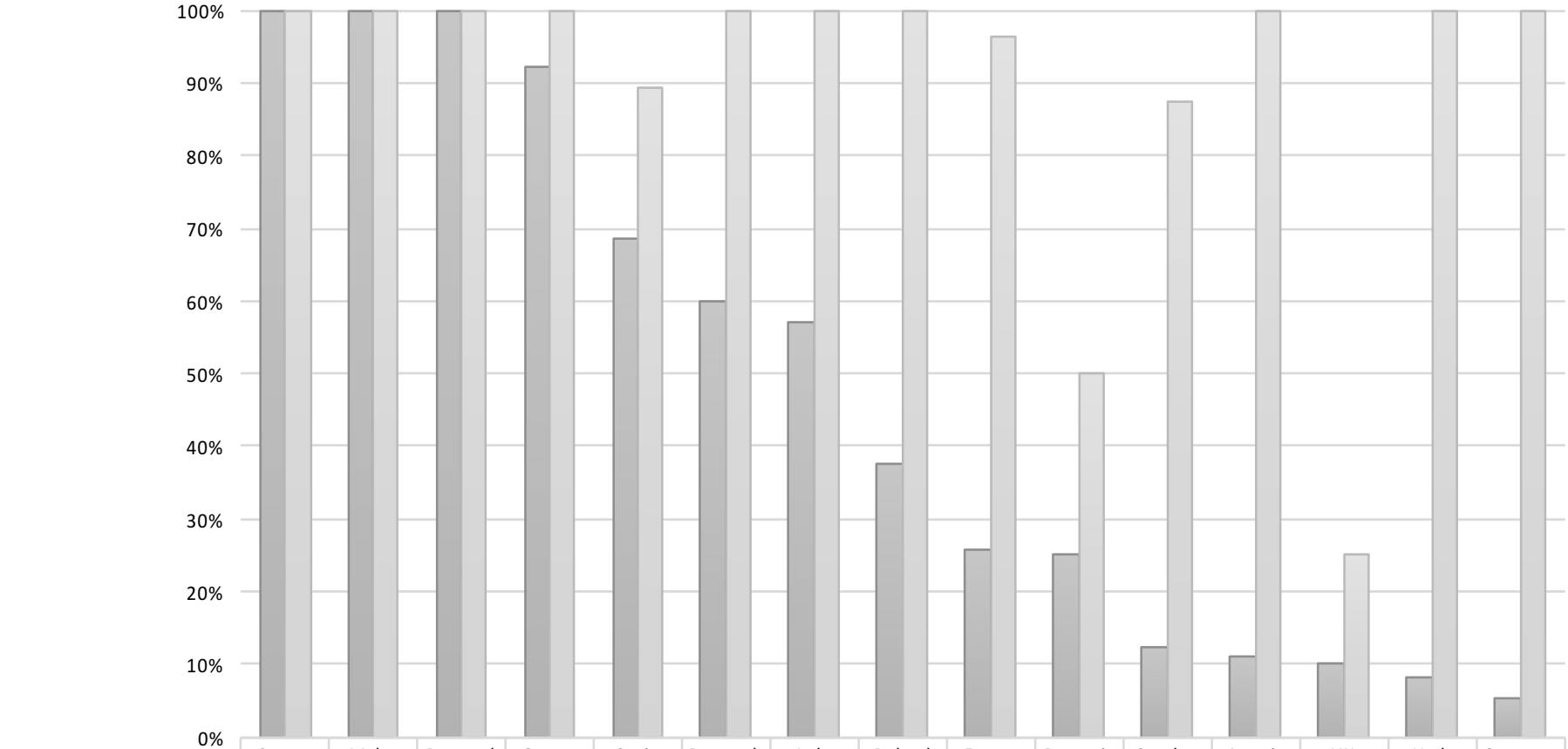
- 73/174 (42%) regions (NUTS2)
- 174/276 (63%) regions registered in the S3 Platform

Tourism-related policies: priorities keywords

www.wordclouds.com

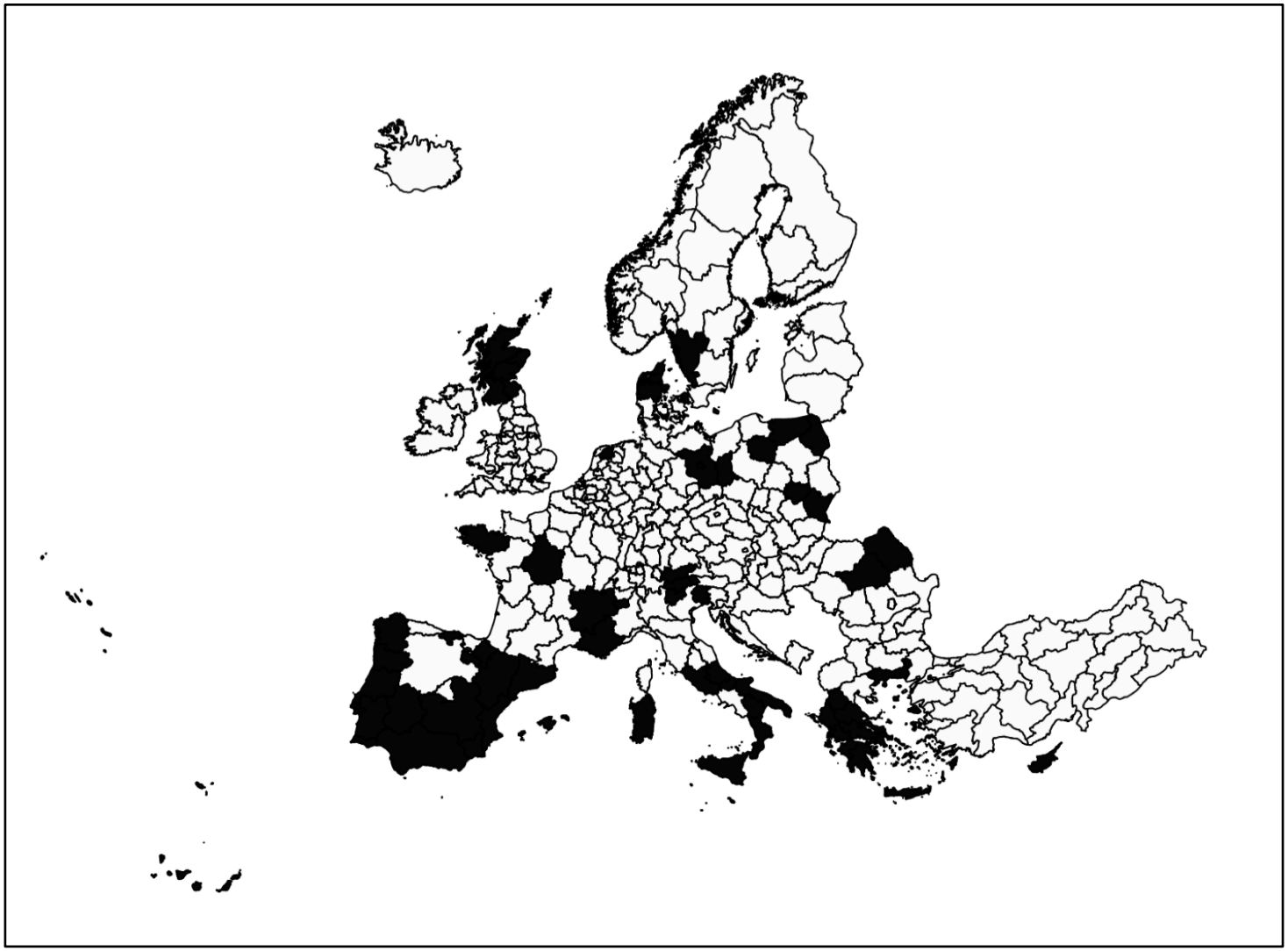
Descriptive statistics

Geographical distribution of S3 Tourism priorities and regions registered in S3 Platform



	Cyprus	Malta	Portugal	Greece	Spain	Denmark	Italy	Poland	France	Romania	Sweden	Austria	UK	Neth	Germany
Tourism priorities regions	100%	100%	100%	92%	68%	60%	57%	38%	26%	25%	13%	11%	10%	8%	5%
Registered regions	100%	100%	100%	100%	89%	100%	100%	100%	96%	50%	88%	100%	25%	100%	100%

Tourism as priority: NUTS2 regions (EU-28)



Source: QGIS authors elaboration on S3 Platform data

Main characteristics/1

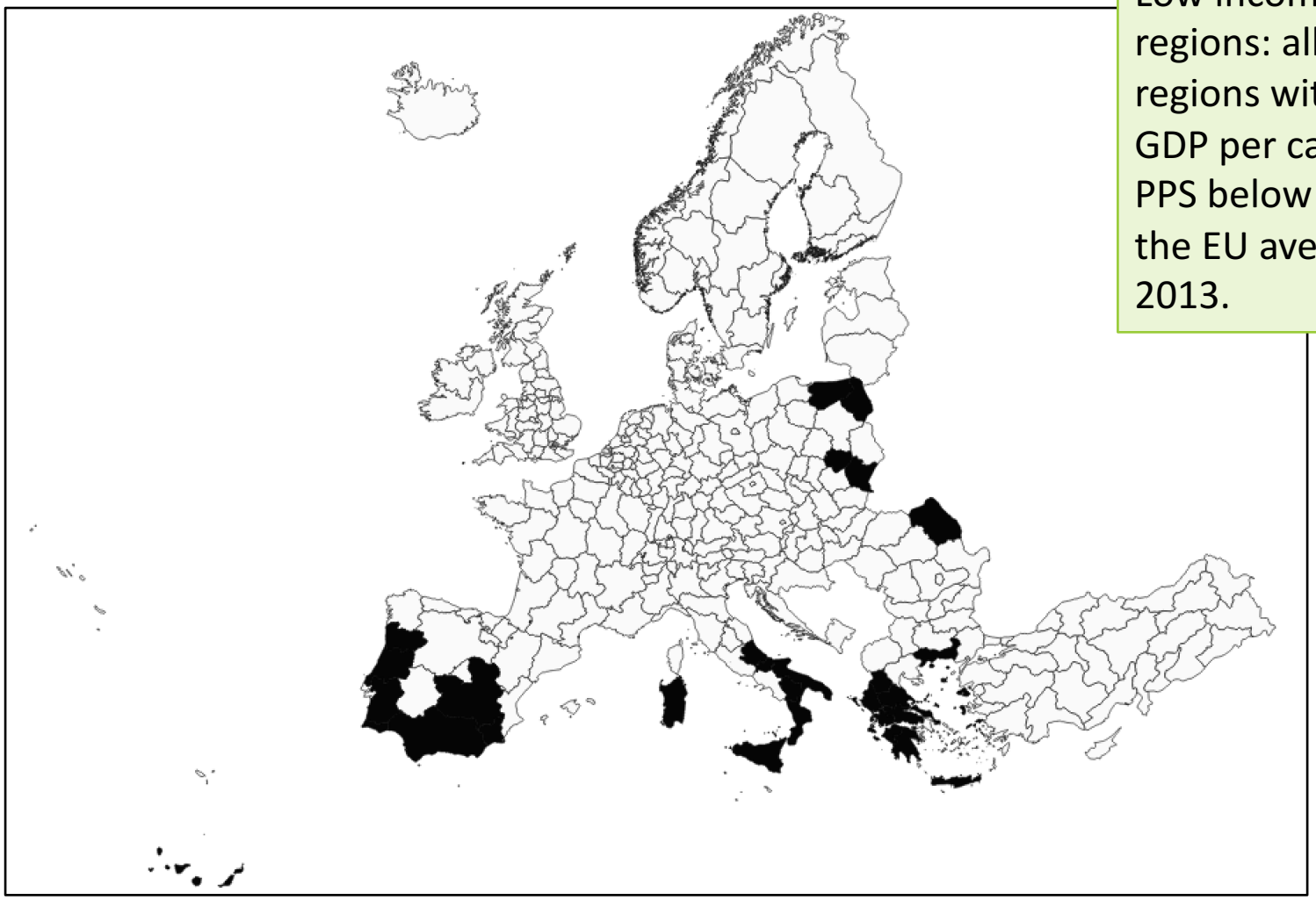
Variable	*Obs*	*Mean*	*Std. Dev.*	*Min*	*Max*
Population	73	1,781,791	1,787,346	128,298	8,399,618
Density	73	215.06	495.30	11.6	3918.1
GDP per capita	73	23,561.64	7,843.90	9,900	47,100
Club of regions	73	81.70	27.17	34	163
Lagging regions	73	.41	.50	0	1

With respect to the European average data, regions that chose Tourism have:

- lower density;
- lower GDP;
- higher percentage of lagging regions (41% vs. 17%)

Tourism as priority: NUTS2 regions (EU-28) Lagging regions

Low income regions: all regions with a GDP per capita in PPS below 50% of the EU average in 2013.



Source: QGIS authors elaboration on European Commission data

Club of regions

All European regions

Variable	Obs	Mean	Std. Dev.	Min	Max
Very High (VH)	276	.076087	.2656188	0	1
High (H)	276	.1123188	.3163319	0	1
Medium (M)	276	.5217391	.5004346	0	1
Low (L)	276	.2826087	.4510856	0	1

Regions that chose Tourism

Variable	Obs	Mean	Std. Dev.	Min	Max
Very High (VH)	73	.0273973	. 1643677	0	1
High (H)	73	.0684932	. 2543383	0	1
Medium (M)	73	.4109589	.4954127	0	1
Low (L)	73	.4931507	.503413	0	1

GDP per capita lower than 75% of EU average

Typology of regions based on resident population (OECD)

All European regions

Variable	Obs	Mean	Std. Dev.	Min	Max
Mostly Urban	276	.4456522	.4979404	0	1
Mostly Intermediate	276	.1956522	.3974225	0	1
Mostly Rural	276	.3188406	.4668737	0	1

Mostly Urban: more than 70% of the pop. lives in a MA
Mostly Intermediate: between 70% and 50% of the pop. lives in a MA
Mostly Rural: less than 50% of the pop. lives in a MA

Regions that chose Tourism

Variable	Obs	Mean	Std. Dev.	Min	Max
Mostly Urban	73	.2054795	.4068478	0	1
Mostly Intermediate	73	.2739726	.4490816	0	1
Mostly Rural	73	.5068493	.503413	0	1

less than 50% of their population lives in a MA

Typology of regions based on productivity (OECD)

All European regions

Variable	Obs	Mean	Std. Dev.	Min	Max
Frontier	276	.1086957	.3118224	0	1
Catching-up	276	.2644928	.4418639	0	1
Diverging	276	.2463768	.4316833	0	1
Keeping pace	276	.3550725	.4794045	0	1

Regions that chose Tourism

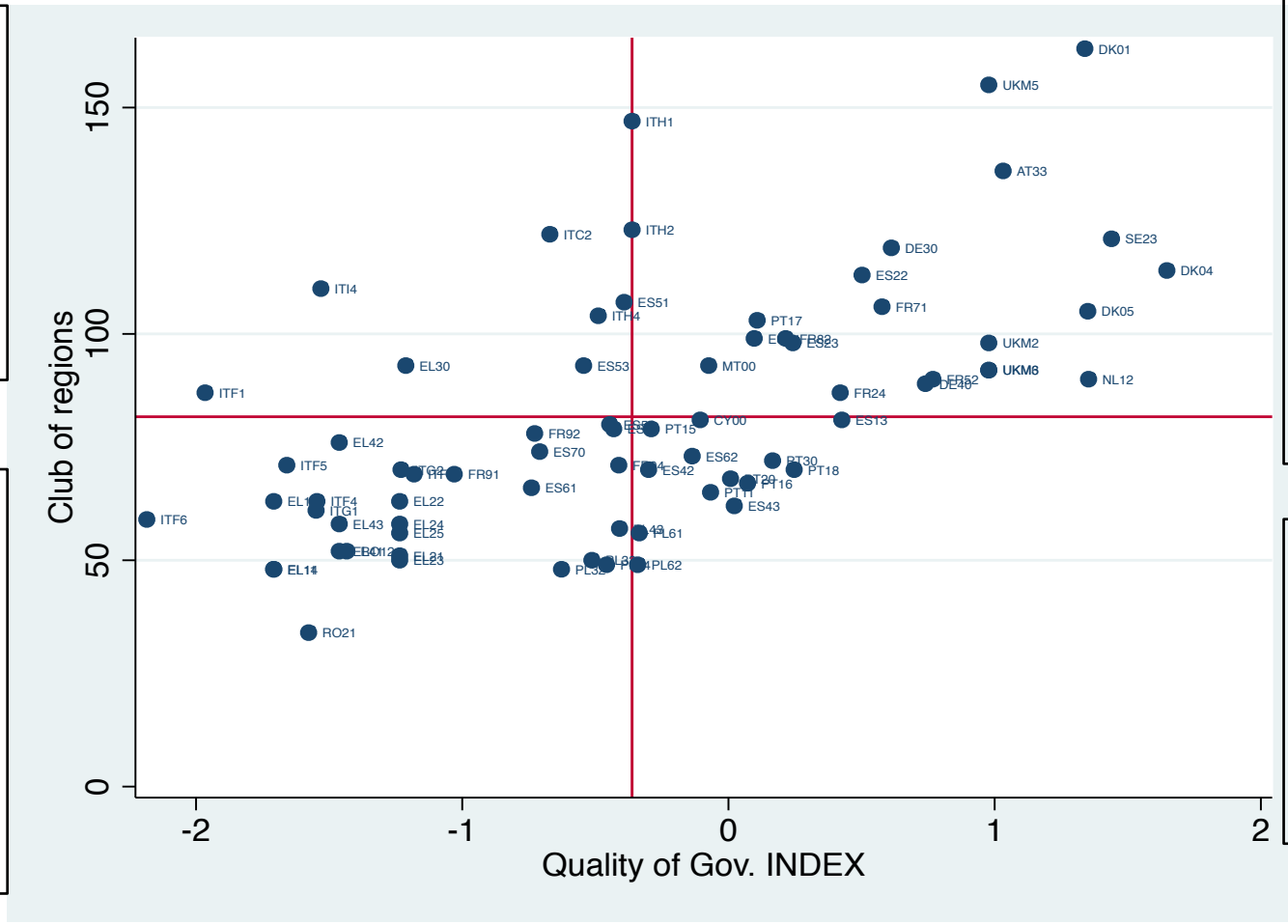
Variable	Obs	Mean	Std. Dev.	Min	Max
Frontier	73	.0547945	.2291537	0	1
Catching-up	73	.3424658	.4778185	0	1
Diverging	73	.2876712	.4558098	0	1
Keeping pace	73	.2739726	.4490816	0	1

labour productivity grew by at least 5% more than Frontier

Relationship between GDP and quality of government

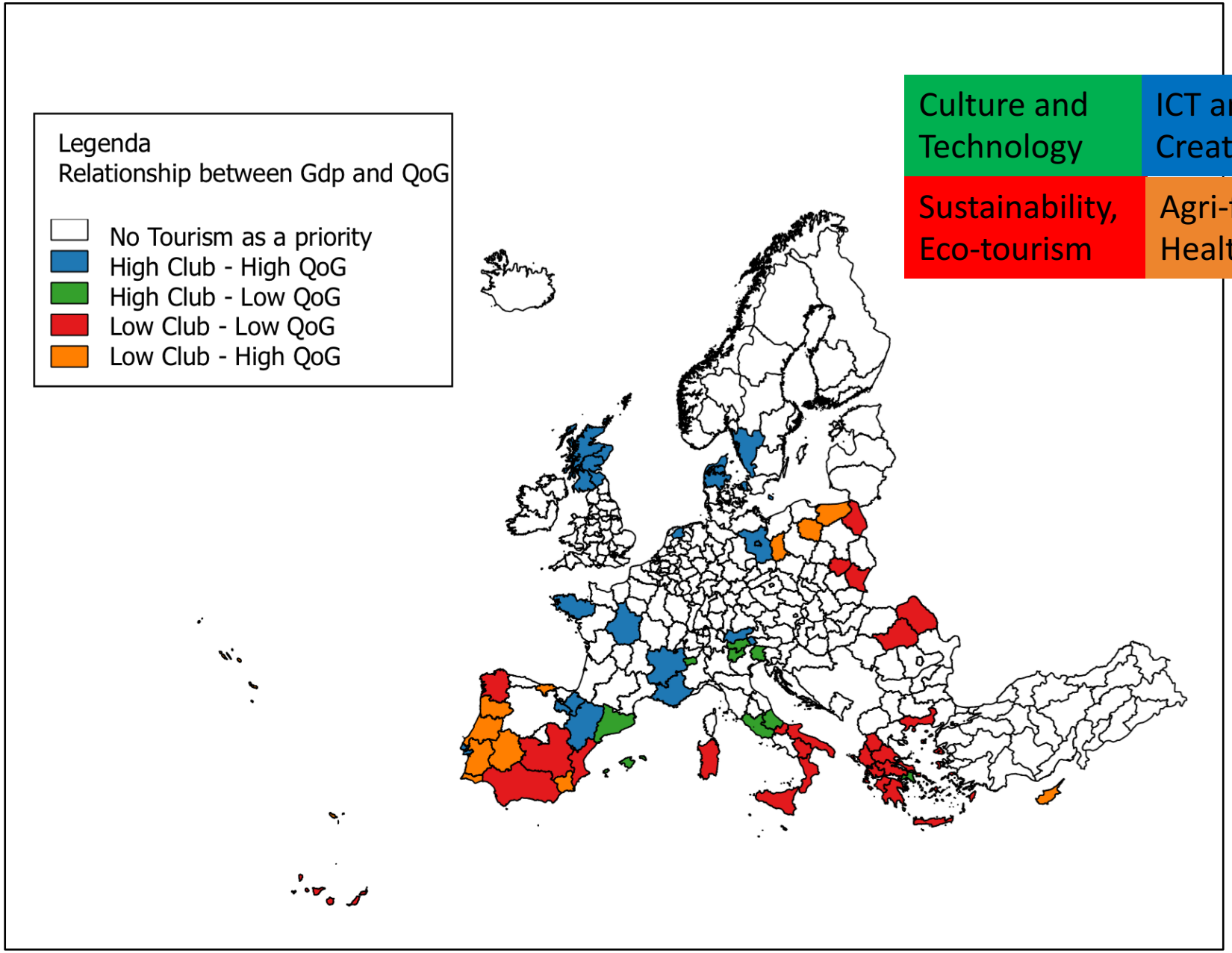
High-Low:
Lazio
Bolzano
Trento
Attica
Catalonia
Balearic Isl.

Low-Low:
Canarias
Martinique
Reunion
Guadalupe
Sardinia
Sicily
Crete



High-High:
All Denmark
All Scotland
Tirol
Berlin
French metr.
Malta
Lisbon
Friesland

Low-High:
Cyprus
Extremadura
All Portugal



Source: QGIS authors elaboration on Eurostat and Quality of Government Institute data

Second step: probabilistic model

By using the variable “tourism priority” as a dummy variable that values 1 if a region chose a tourism-related strategy in the S3 Platform (0 otherwise), we are able to estimate which are the main variables that affect the probability for a region to choose this kind of strategy.

The model

$$TouPr_i = \beta_1 Density_i + B_2 GDP_i + \beta_3 Clubof Regions_i$$
$$+\beta_4 GDP\_Tourismi + \beta_5 Accommodation_i + \beta_6 Overnights_i$$
$$+\beta_7 InstitutionalQuality_i + \beta_8 MI_i + \beta_9 MR_i + \beta_{10} Lagging_i$$
$$+ \beta_{11} Islands_i + \beta_{12} MD\_Foudi + \beta_{13} T\_Foud_i + \varepsilon_i$$

where the dependent variable:
***TouPr*$_i$ values 1 if the region *i* chose Tourism as priority in S3 Platform and 0 otherwise.**

The estimations are run by using a logit.

Variables description

Name	Description	Source
Geo-institutional variables		
Density	The ratio between the annual average population and the land area of the region (person per Km2)	Eurostat
Islands	Dummy variable that values 1 if the region is an island	
Mostly Intermediate	Region with between 50% and 70% of their pop. living in a MA	OECD
Mostly Rural	Regions with less than 50% of their pop. living in a MA	OECD
Quality of Government _Low	Index that measures perceptions and experiences with public sector corruption, impartiality and quality of public sector services. Dummy variables that values 1 if the quality is under the EU average, 0 otherwise.	The Quality of Government Institute

Economic variables		
GDP per capita	GDP purchasing power standard (PPS) per inhabitant	Eurostat
Club of regions	GDP per capita (PPS)/EU GDP per capita average (PPS)	Our elaborations on Eurostat data
Lagging regions	Regions with a GDP per capita (PPS) below 50% of the EU average in 2013	European Commission
Most Developed	Regions with GDP per capita higher than 90% of the EU-27 average in 2007-2009. Regional eligibility for the ERDF and ESF during the programming period 2014-2020	Eurostat
Transition	Regions with GDP per capita between 75% and 90% of EU-27 average in 2007-09. Regional eligibility for the ERDF and ESF during the programming period 2014-2020	Eurostat

Tourism variables		
Tourism GDP contribution	National average of tourism contribution to GDP	WEF
Accommodation	Number of hotels, holiday and other short-stay accommodation, camping grounds, recreational vehicle parks and trailer parks	Eurostat
Overnights	Nights spent at tourist accommodation establishments	Eurostat

Results/1

Dependent variable: Tourism Priority	Odds Ratio	Marginal Effects
Geo-Institutional Variables		
Density	1.000	-0.0000672
	(0.000282)	(0.000282)
Islands	9.301***	2.230***
	(7.052)	(0.758)
Mostly Intermediate	2.998**	1.098**
	(1.615)	(0.539)
Mostly Rural	3.760***	1.324***
	(1.860)	(0.495)
Quality of Government_Low	2.348*	0.853*
	(1.208)	(0.515)

Standard errors in parentheses

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Results/2

Dependent variable: Tourism Priority	Odds Ratio	Marginal Effects
Economic Variables		
GDP per capita	0.996*	-0.00440*
	(0.00231)	(0.00232)
Club of regions	3.524*	1.259*
	(2.357)	(0.669)
Lagging regions	7.449***	2.008***
	(4.784)	(0.642)
Most Developed	4.983**	1.606**
	(3.947)	(0.792)
Transition	1.615	0.479
	(1.229)	(0.761)

Standard errors in parentheses

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Results/3

Dependent variable: Tourism Priority	Odds Ratio	Marginal Effects
Tourism Variables		
Tourism GDP contribution	1.562***	0.446***
	(0.196)	(0.125)
Accommodation	1.000	-0.000116
	(0.0000737)	(0.0000737)
Overnights	1.000***	4.94e-08***
	(1.87e-08)	(1.87e-08)

Standard errors in parentheses
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Conclusions

1. A large number of regions have chosen a tourism-related priority as S3 strategy: 42% of the total regions registered in the platform
2. These regions are heterogeneous in terms of GDP, density, resident population distribution, institutional quality and productivity
3. The probability to choose Tourism as priority is positively and significantly affected by the variables: Islands, Mostly Rural, Lagging, Tourism GDP contribution and Overnights.
4. The QoG_Low is also significant and positive, meaning that lower the QoG is, higher the probability to choose Tourism is.

Comments

"*In economically strong regions with more robust institutional and governance systems, RIS3 often leads to a refining and sharpening of existing practices, while in many* ***Southern European*** *regions in particular, RIS3 activities appear to have led to real progress*" (McCann & Ortega-Argilés, 2016, p. 1423).

"For very isolated regions, however, the smart specialization argument appears to offer only very limited possibilities, because the lack of scale is likely to reduce the effectiveness of the policy approach. In these cases, rather than funding R&D, the priorities might centre on the promotion of connectivity in certain natural environmental or ***tourism activities****"* (McCann & Ortega-Argilés, 2016, p. 1298).

Further developments

- to construct a theoretical framework that explain the strategy to be a “winner”
  - to select some case studies (rural-peripheral-islands) accordingly

- to study the determinants of the 4 different groups of regions according to the relationship between GDP and quality of government.

Thank you!

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www.researchgate.net/profile/Maria_Brandano