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A Foursquare Quality of Life Agenda: Governing European Neighbourhood Policy, Open Specialisation, and an Adaptive Synchronous European Strategic Energy Technology Plan

Specialisation, and an Adaptive Synchronous European Strategic Energy Technology Plan

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A Foursquare Quality of Life Agenda: Governing European Neighbourhood Policy, Open Method of "Neighbourhoods" Coordination, Smart "Cross-Continental Regions" Specialisation, and an "Adaptive Synchronous" European Strategic Energy Technology Plan

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Abstract

In this paper, we re-construct the sphere of European Neighbourhood Policy (ENP) with respect to the empirical evidence collected from Web of Science and systematically meta-analysed. This analysis provides us the dynamics of the ENP knowledge asset in terms of stock and flow in temporal, spatial (geographical), organisational and contextual dimensions. The same meta-analysis is applied to Quality of Local Governance (QoLG) and dynamics of the re-constructed sphere of Quality of Local Governance is analysed, with cross-comparison to the ENP sphere. The main result indicates the sphere of Environment, Energy and Ecology (EEE) form the main sectoral gateway between the ENP and QoLG in a multi-level (international, national, regional) setting. We constructed our conceptual framework based on these evidence bases that gathered from spheres of the ENP and QoLG with comparison to analysis of temporal evolution of governance studies, and checked for theoretical debates of Bureaucratic Planning, Public Choice Theory and Structuralist Critiques, which are shown as incomplete to grasp this emerging EEE sphere. Although promising, New Regionalism concept is discussed with the condition of those current or potential future developmentalist tendencies in the European Neighbourhood with respect to triangulated tensions between economic, social and environmental development. We listed and concluded that technological and social innovation are the vital enablers to activate this EEE Bridge in the governance of a foursquare quality of life agenda, with "enhanced" information and finance-based intelligent and interactive instruments between i) European Neighbourhood Policy, ii) Open Method of "Neighbourhoods" Coordination, iii) Smart "Cross-Continental Regions" Specialisation, and iv) "Adaptive Synchronous" European Strategic Energy Technology Plan (ASSET-Plan).

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1. Introduction

After introduction of the European Neighbourhood Policy (ENP), a body of knowledge is created and accumulated around the topic of ENP. This body of literature as a knowledge asset still continues to be accumulated and absorbed throughout Europe, neighbourhood countries and the world. The same situation applies for the topic of Quality of Local Governance (QoLG). But what are the dynamics of these knowledge assets? Can these dynamics help us to enlarge our understanding of what is possible to expand or improve within the framework of the ENP (as the explicit focus of the SEARCH project)?

In this paper, other than following a top-down approach (starting with a theoretical framework, with pre-defined sub-research questions, related structured hypotheses, hypotheses testing with use of theoretically-relevant and collected data to be able to discuss the findings, and conclude on policy recommendations), we simply start with the analysis of actual data on these knowledge assets (bottom-up). In each step, if data propose interesting details in findings, we ask newly emerging questions and look for potential answers. By doing so, we construct our evidence-based, bottom-up framework and detect similarities or points of departure with the theoretical debates around the topics of ENP and QoLG.

2. The European Neighbourhood Policy: Spatial, Temporal, Organisational and Contextual Dimensions

In this section, scientific publications in the field of European Neighbourhood Policy are queried with respect to *topic* and *title* features over Thomson Reuters Web of Science services and databases. Only the publications listed by these databases of Science Citation Indices are taken into the account for this situation represents a reliable quality criterion. Timespan of the query below covers publications until 25 June 2013 (Default base year: 1988).

Topic=(European SAME Neighbourhood SAME Policy) OR Title=(European SAME Neighbourhood SAME Policy)
Timespan=All years. Databases=SCI-EXPANDED, SSCI, A&HCI.

The query above returned 292 items. Dataset of 292 items is manually re-checked. This process reduced the initial dataset to 175 publications for irrelevant (such as housing neighbourhood and related policies in European cities) publications are dropped. Table 1 shows the temporal features and dynamics of the ENP knowledge asset.

Table 1 – Temporal dimension of the ENP knowledge asset

Field: Publication Years	Record Count	% of 175	Bar Chart
2004	1	0.571 %	
2005	6	3.429 %	
2006	6	3.429 %	
2007	27	15.429 %	
2008	22	12.571 %	
2009	25	14.286 %	
2010	15	8.571 %	
2011	43	24.571 %	
2012	25	14.286 %	
2013	5	2.857 %	

As it is seen from the data in Table 1, the initial finding is that *"There is a fluctuating trend in the field of ENP"*` after its launch in 2004. We observe two booms for the years of 2007 (from 3.429% to 15.429%) and of 2011 (from 8.571% to 24.571%), and a relatively small increase in the year 2009 (from 12.571% to 14.286%). What is special about these dates and what can we learn from these booms?

2007 was the year of the establishment of the European Neighbourhood and Partnership Instrument (ENPI) for the "2007–2013" budgetary period. In the year 2011, at May 25th, "*Catherine Ashton, EU High Representative for Foreign Affairs and Security Policy/Commission Vice-President and Štefan Füle, EU Commissioner for Enlargement and Neighbourhood Policy, launched a new and ambitious European Neighbourhood Policy (ENP) -- confirming the EU's determined and reinforced engagement with its neighbours"* (EUROPA RAPID, 2011). It is also announced that *"The renewed ENP builds on the achievements the EU's Neighbourhood Policy since it was first launched in 2004, and responds to partner countries' quests for more freedom and a better life"* (EUROPA RAPID, 2011). The year 2009 was the year that the European Neighbourhood and Partnership Instrument (ENPI) Info Centre was launched in January.

These results, to a degree, indicate that scholarly response in the field of ENP is highly synchronous with and sensitive to (not necessarily as immediate content) to the developments in the realm of ENP. While this feature is a positive one, approximately 2 publications-per-month routine on the aggregate level of the field, to a degree, indicate that scholarly response is challenged by the lack of funding, which is a statement backed by the evidence that none of the 175 publications reported a funding source. For the most optimist case possible, EU-funded research and related publications should be required to explicitly state their funding sources.

Why does the spatial (geographical) feature of the ENP knowledge asset matter? When we check for spatial (geographical) dimension of "European" Neighbourhood Policy, Table 2 below shows that only researchers in Germany (22.288%), England (17.143%) are the most active ones in the ENP topic. On the other hand, the response rate of sixteen countries which are covered by the ENP, falling into two regional groups: The ENP-East countries: Armenia, *Azerbaijan (0.571%),*

Belarus, *Georgia (0.571%)*, Moldova and *Ukraine (1.714%)*. For the ENP-South countries: Algeria, *Egypt (0.571%)*, *Israel (1.714%)*, Jordan, Lebanon, Libya, Morocco, the occupied Palestinian territory, Syria and Tunisia.

The main finding is "*Responsiveness to the ENP knowledge asset is low in ENP countries"*. Researchers in Ukraine and Israel are relatively more responsive. These results, to a degree, indicate the need for initiation and/or enhancing the conditions of cooperation/co-creation for widening and deepening the ENP knowledge asset in both EU and European Neighbourhoods.

Table 2 – Spatial dimension of the ENP knowledge asset

Field: Countries/Territories	Record Count	% of 175	Bar Chart
GERMANY	39	22.286 %	
ENGLAND	30	17.143 %	
BELGIUM	16	9.143 %	
NETHERLANDS	12	6.857 %	
SWITZERLAND	11	6.286 %	
ITALY	10	5.714 %	
FINLAND	9	5.143 %	
TURKEY	9	5.143 %	
USA	9	5.143 %	
CANADA	8	4.571 %	
SPAIN	8	4.571 %	
HUNGARY	4	2.286 %	
IRELAND	4	2.286 %	
ESTONIA	3	1.714 %	
FRANCE	3	1.714 %	
ISRAEL	3	1.714 %	
PORTUGAL	3	1.714 %	
UKRAINE	3	1.714 %	
WALES	3	1.714 %	
CZECH REPUBLIC	2	1.143 %	
DENMARK	2	1.143 %	
GREECE	2	1.143 %	
ROMANIA	2	1.143 %	
AUSTRIA	1	0.571 %	
AZERBAIJAN	1	0.571 %	
BULGARIA	1	0.571 %	
EGYPT	1	0.571 %	
INDIA	1	0.571 %	
PEOPLES R CHINA	1	0.571 %	
REP OF GEORGIA	1	0.571 %	
RUSSIA	1	0.571 %	
SCOTLAND	1	0.571 %	
SLOVAKIA	1	0.571 %	
SWEDEN	1	0.571 %	

But which organisations could take the lead in coordination of co-creation of further ENP knowledge asset? To answer this question we check for organisational aspects. Table 3 below shows that University of London (6.286%), London School of Economics (4.571%) in England, Free University of Berlin (4.571%) in Germany, and Ghent University (4.571%) in Belgium are the most active organisations in the ENP topic. These results represent the visible capacities developed by University of London, London School of Economics, Free University of Berlin, Ghent University and the other top organisations listed in Top 10 in the field of ENP.

Table 3 – Organisational dimension of the ENP knowledge asset (Top 10)

Field: Organizations-Enhanced	Record Count	% of 175	Bar Chart
UNIVERSITY OF LONDON	11	6.286 %	
FREE UNIVERSITY OF BERLIN	8	4.571 %	
GHENT UNIVERSITY	8	4.571 %	
LONDON SCHOOL ECONOMICS POLITICAL SCIENCE	8	4.571 %	
SWISS FEDERAL INSTITUTE OF TECHNOLOGY ZURICH	7	4.000 %	
UNIVERSITY OF LUCERNE	7	4.000 %	
UNIVERSITY OF EAST FINLAND	6	3.429 %	
UNIVERSITY OF OXFORD	5	2.857 %	
UNIVERSITY OF AMSTERDAM	4	2.286 %	
UNIVERSITY OF BIRMINGHAM	4	2.286 %	

EUROSTAT states that "*Through the ENP, the EU offers its neighbours a privileged relationship, building upon a mutual commitment to common values (democracy and human rights, rule of law, good governance, market economy principles and sustainable development). The ENP goes beyond existing relationships to offer a deeper political relationship and economic integration, with the objective of avoiding the emergence of new dividing lines between the enlarged EU and its neighbours to the South and East, and of strengthening the prosperity, stability and security of all concerned" (EUROSTAT, 2011).* Therefore, we check for content categories of the ENP knowledge asset. Table 4 below shows that the topic is of Political Science (58.857%) and Government Law (66.286%). This dominating cluster is followed by Area Studies (16.571%) and International Relations (16.571%). Economics (11.429%) and Geography (9.143%) constructs the following third cluster, whereas Law (7.429%) and Public Administration (7.429%) form the fourth cluster. These are broad categories and research areas. Therefore, we check for sector-wise information.

Interestingly, *environmental studies*, *environmental sciences/ecology* emerges as the first sectorial indicator, and *urban studies*, *social issues* and *interdisciplinary social sciences* follow

this sectorial indication. Considering environmental/energy/ecology (EEE) sectorial indication, urban studies and interdisciplinary social sciences, we claim that environment, energy and ecology (EEE) form an important gateway for quality of local (such as urban studies) of governance (such as interdisciplinary social sciences around social issues). Therefore, the main finding is that ‘’*Environment/Energy/Ecology (EEE) form the initial sectorial layer of ENP and should be the focal sectorial gateway to the quality of local governance, as well”.* We will test this finding in the following sections.

Table 4 – Content dimension of the ENP knowledge asset

Field: Web of Science Categories	Record Count	% of 175	Bar Chart
POLITICAL SCIENCE	103	58.857 %	
AREA STUDIES	29	16.571 %	
INTERNATIONAL RELATIONS	29	16.571 %	
ECONOMICS	20	11.429 %	
GEOGRAPHY	16	9.143 %	
LAW	13	7.429 %	
PUBLIC ADMINISTRATION	13	7.429 %	
ENVIRONMENTAL STUDIES	4	2.286 %	
URBAN STUDIES	4	2.286 %	
DEMOGRAPHY	3	1.714 %	
HUMANITIES MULTIDISCIPLINARY	3	1.714 %	
SOCIAL ISSUES	3	1.714 %	
SOCIAL SCIENCES INTERDISCIPLINARY	3	1.714 %	
ENVIRONMENTAL SCIENCES	2	1.143 %	
HISTORY	2	1.143 %	
SOCIOLOGY	2	1.143 %	
BIOTECHNOLOGY APPLIED MICROBIOLOGY	1	0.571 %	
ENGINEERING CHEMICAL	1	0.571 %	
PLANNING DEVELOPMENT	1	0.571 %	
SOCIAL WORK	1	0.571 %	
WATER RESOURCES	1	0.571 %	
WOMEN S STUDIES	1	0.571 %	

Field: Research Areas	Record Count	% of 175	Bar Chart
GOVERNMENT LAW	116	66.286 %	
AREA STUDIES	29	16.571 %	
INTERNATIONAL RELATIONS	29	16.571 %	
BUSINESS ECONOMICS	20	11.429 %	
GEOGRAPHY	16	9.143 %	
PUBLIC ADMINISTRATION	13	7.429 %	
ENVIRONMENTAL SCIENCES ECOLOGY	6	3.429 %	
URBAN STUDIES	4	2.286 %	
ARTS HUMANITIES OTHER TOPICS	3	1.714 %	
DEMOGRAPHY	3	1.714 %	
SOCIAL ISSUES	3	1.714 %	
SOCIAL SCIENCES OTHER TOPICS	3	1.714 %	
HISTORY	2	1.143 %	
SOCIOLOGY	2	1.143 %	
IOTECHNOLOGY APPLIED MICROBIOLOGY	1	0.571 %	
ENGINEERING	1	0.571 %	
SOCIAL WORK	1	0.571 %	
WATER RESOURCES	1	0.571 %	
WOMEN S STUDIES	1	0.571 %	

Journal base of ENP knowledge asset indicates the geographical dimensions of this initial sectorial layer (EEE) exceeds the EU-borders. *Osteuropa* is the most active journal. *Southeast European and Black Sea* Studies, Geopolitics, Journal of European Public Policy, *Mediterranean Politics* constructs the following journal cluster.

Table 5 – Journal Base of ENP

Field: Source Titles	Record Count	% of 175	Bar Chart
OSTEUROPA	27	15.429 %	
SOUTHEAST EUROPEAN AND BLACK SEA STUDIES	11	6.286 %	
GEOPOLITICS	10	5.714 %	
JOURNAL OF EUROPEAN PUBLIC POLICY	10	5.714 %	
MEDITERRANEAN POLITICS	9	5.143 %	
COMPARATIVE EUROPEAN POLITICS	8	4.571 %	
DEMOCRATIZATION	8	4.571 %	
EUROPE ASIA STUDIES	7	4.000 %	
JCMS JOURNAL OF COMMON MARKET STUDIES	7	4.000 %	
INTERNATIONAL AFFAIRS	5	2.857 %	

To trace for EEE and Mediterranean dimension, EUROSTAT states that *"Electricity production in the Mediterranean Partner Countries (Algeria, Egypt, Israel, Jordan, Lebanon, Morocco, the occupied Palestinian territory, Syria and Tunisia) is around 22 Mtoe, of which 97% comes from conventional thermal power stations and just 3% from hydroelectric plants. Renewable energy*

(not including hydroelectricity) accounts for no more than 0.1%." in the document titled "*Energy: A Key Sector for Mediterranean Partner Countries"* (EUROSTAT, 2009).

3. Quality of Local Governance: Spatial, Temporal, Organisational and Contextual Dimensions

In this section, scientific publications in the field of Quality of Local Governance (QoLG) are queried with respect to *topic* and *title* features over Thomson Reuters Web of Science services and databases to observe to what extent we can confirm the findings in the section 2. Only the publications listed by these databases of Science Citation Indices are taken into the account for this situation represents a reliable quality criterion. Timespan of the query below covers publications until 25 June 2013 (Default base year: 1988).

Topic=(quality SAME local SAME governance) OR Title=(quality SAME local SAME governance)
Timespan=All years. Databases=SCI-EXPANDED, SSCI, A&HCI.

The query above returned 450 items. Dataset is manually controlled. Table 6 shows the temporal dimension of the aggregated Quality of Local Governance knowledge asset. The main finding is that *"There is an increasing trend in the field of Quality of Local Governance".*

Table 6 – Temporal dimension of the Quality of Local Governance knowledge asset

Field: Publication Years	Record Count	% of 450	Bar Chart
1992	1	0.222 %	
1994	2	0.444 %	
1995	1	0.222 %	
1996	1	0.222 %	
1997	1	0.222 %	
1998	5	1.111 %	
1999	6	1.333 %	
2000	14	3.111 %	
2001	13	2.889 %	
2002	9	2.000 %	
2003	17	3.778 %	
2004	24	5.333 %	
2005	17	3.778 %	
2006	19	4.222 %	
2007	17	3.778 %	
2008	42	9.333 %	
2009	46	10.222 %	
2010	56	12.444 %	
2011	59	13.111 %	
2012	74	16.444 %	
2013	26	5.778 %	

It is interesting that approximately 60% of the production in the field of QoLG is realized in the last 4 years (2008-2013). This finding indicates that the quality of local governance is a dynamic field. The boom is of 2008 reminds of the global financial crisis and its effects in the middle of 2007 and into 2008 (Reuters, 2009).

The spatial dimension of the QoLG topic is interesting for two reasons. First, we can compare the country capacities with respect to the ENP; secondly, we are able to check for presence or absence of the ENP countries in the field of quality of local governance knowledge stock. Interestingly, England is the most active country in the field of Quality of Local Governance, whereas Germany loses its position with respect to the performance shown in the field of ENP.

Table 7 – Spatial dimension of Quality of Local Governance Knowledge asset

Field: Countries/Territories	Record Count	% of 450	Bar Chart				
ENGLAND	123	27.333 %		BANGLADESH	2	0.444 %	
USA	117	26.000 %		FINLAND	2	0.444 %	
NETHERLANDS	30	6.667 %		HUNGARY	2	0.444 %	
CANADA	28	6.222 %		ISRAEL	2	0.444 %	
AUSTRALIA	24	5.333 %		LAOS	2	0.444 %	
SCOTLAND	17	3.778 %		LEBANON	2	0.444 %	
WALES	17	3.778 %		LITHUANIA	2	0.444 %	
ITALY	16	3.556 %		MALI	2	0.444 %	
SPAIN	16	3.556 %		MOROCCO	2	0.444 %	
SWEDEN	15	3.333 %		NEPAL	2	0.444 %	
GERMANY	13	2.889 %		POLAND	2	0.444 %	
PEOPLES R CHINA	12	2.667 %		ROMANIA	2	0.444 %	
NORWAY	11	2.444 %		RUSSIA	2	0.444 %	
BELGIUM	9	2.000 %		TANZANIA	2	0.444 %	
FRANCE	9	2.000 %		VIETNAM	2	0.444 %	
DENMARK	8	1.778 %		AFGHANISTAN	1	0.222 %	
INDIA	8	1.778 %		ARGENTINA	1	0.222 %	
INDONESIA	7	1.556 %		COLOMBIA	1	0.222 %	
SOUTH AFRICA	6	1.333 %		CONGO	1	0.222 %	
SOUTH KOREA	6	1.333 %		CZECH REPUBLIC	1	0.222 %	
TURKEY	6	1.333 %		GHANA	1	0.222 %	
BRAZIL	5	1.111 %		MADAGASCAR	1	0.222 %	
JAPAN	5	1.111 %		MALAYSIA	1	0.222 %	
NEW ZEALAND	5	1.111 %		MOZAMBIQUE	1	0.222 %	
PORTUGAL	5	1.111 %		NORTH IRELAND	1	0.222 %	
AUSTRIA	4	0.889 %		PAKISTAN	1	0.222 %	
TAIWAN	4	0.889 %		SERBIA	1	0.222 %	
CHILE	3	0.667 %		SLOVENIA	1	0.222 %	
GREECE	3	0.667 %		UGANDA	1	0.222 %	
IRELAND	3	0.667 %		ZAMBIA	1	0.222 %	
MEXICO	3	0.667 %		ZIMBABWE	1	0.222 %	

Low response rates of sixteen countries which are covered by the ENP to quality of local governance, falling into two regional groups: The ENP-East countries: Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine. For the ENP-South countries: Algeria, *Egypt (0.571%)*, *Israel (0.444%)*, Jordan, *Lebanon (0.444%)*, Libya, *Morocco (0.444%)*, the occupied Palestinian territory, Syria and Tunisia.

But which organisations could take the lead in coordinating of co-creation of further QoLG knowledge asset? To answer this question we check for organisational aspects. Table 8 below shows that, University of London (6.222%) is the most active organisation in the QoLG topic, London School of Economics (1.556%), University of Amsterdam and University of Oxford reappear in the Top 10 for both ENP and QoLG. These results represent the visible capacities developed by these universities.

Table 8 – Organisational dimension of QoLG Knowledge Asset

Field: Organizations-Enhanced	Record Count	% of 450	Bar Chart
UNIVERSITY OF LONDON	28	6.222 %	
CARDIFF UNIVERSITY	12	2.667 %	
UNIVERSITY COLLEGE LONDON	9	2.000 %	
UNIVERSITY OF CALIFORNIA SYSTEM	8	1.778 %	
HARVARD UNIVERSITY	7	1.556 %	
LONDON SCHOOL ECONOMICS POLITICAL SCIENCE	7	1.556 %	
NEWCASTLE UNIVERSITY	7	1.556 %	
UNIVERSITY OF AMSTERDAM	7	1.556 %	
UNIVERSITY OF BIRMINGHAM	7	1.556 %	
UNIVERSITY OF OXFORD	7	1.556 %	

In this section, we just let the "Quality" define itself through analysing what is actually created under this topic. Table 9 below shows that the topic QoLG is of Environmental Studies (17.556%), Public Administration (13.778%) and Planning Development (14.889%). This cluster is followed by Economics (18.889%) and Urban Studies (10.889%) and Geography (10.667%).

When we check for sector-wise information, interestingly we see that *environmental studies*, *environmental sciences/ecology* emerges as the first sectorial indicator again and *urban studies*, *social issues* and *interdisciplinary social sciences* follow this sectorial indication also in the field of QoLG. Environmental/energy/ecology (EEE) sectorial indication is followed by a vector of health research and then educational research, based on this evidence we claim that the sphere of environment, energy and ecology (EEE) form an important gateway for introduction of an increase in quality of local (such as urban studies) of governance (such as interdisciplinary social sciences around social issues).

Table 9 – Content dimension of QoLG Knowledge asset

Field: Web of Science Categories	Record Count	% of 450	Bar Chart
ENVIRONMENTAL STUDIES	79	17.556 %	
PLANNING DEVELOPMENT	67	14.889 %	
PUBLIC ADMINISTRATION	62	13.778 %	
ECONOMICS	49	10.889 %	
URBAN STUDIES	49	10.889 %	
GEOGRAPHY	48	10.667 %	
POLITICAL SCIENCE	36	8.000 %	
ENVIRONMENTAL SCIENCES	29	6.444 %	
HEALTH CARE SCIENCES SERVICES	28	6.222 %	
HEALTH POLICY SERVICES	24	5.333 %	
PUBLIC ENVIRONMENTAL OCCUPATIONAL HEALTH	24	5.333 %	
MEDICINE GENERAL INTERNAL	18	4.000 %	
MANAGEMENT	16	3.556 %	
WATER RESOURCES	15	3.333 %	
SOCIOLOGY	14	3.111 %	
BUSINESS	11	2.444 %	
AREA STUDIES	10	2.222 %	
ENGINEERING CIVIL	10	2.222 %	
SOCIAL SCIENCES INTERDISCIPLINARY	10	2.222 %	
ECOLOGY	9	2.000 %	
INTERNATIONAL RELATIONS	8	1.778 %	
NURSING	8	1.778 %	
AGRONOMY	7	1.556 %	
EDUCATION EDUCATIONAL RESEARCH	7	1.556 %	
AGRICULTURE MULTIDISCIPLINARY	6	1.333 %	

Field: Research Areas	Record Count	% of 450	Bar Chart
PUBLIC ADMINISTRATION	116	25.778 %	
ENVIRONMENTAL SCIENCES ECOLOGY	92	20.444 %	
BUSINESS ECONOMICS	74	16.444 %	
URBAN STUDIES	49	10.889 %	
GEOGRAPHY	48	10.667 %	
GOVERNMENT LAW	40	8.889 %	
HEALTH CARE SCIENCES SERVICES	39	8.667 %	
PUBLIC ENVIRONMENTAL OCCUPATIONAL HEALTH	24	5.333 %	
GENERAL INTERNAL MEDICINE	19	4.222 %	
ENGINEERING	17	3.778 %	
SOCIAL SCIENCES OTHER TOPICS	17	3.778 %	
WATER RESOURCES	15	3.333 %	
AGRICULTURE	14	3.111 %	
SOCIOLOGY	14	3.111 %	
AREA STUDIES	10	2.222 %	
EDUCATION EDUCATIONAL RESEARCH	9	2.000 %	
INTERNATIONAL RELATIONS	8	1.778 %	
NURSING	8	1.778 %	
MARINE FRESHWATER BIOLOGY	6	1.333 %	
SOCIAL ISSUES	6	1.333 %	
OCEANOGRAPHY	5	1.111 %	
FOOD SCIENCE TECHNOLOGY	4	0.889 %	
PHYSICAL GEOGRAPHY	4	0.889 %	
PSYCHOLOGY	4	0.889 %	
SOCIAL WORK	4	0.889 %	

Journal base of QoLG knowledge asset indicates the geographical dimensions of this initial sectorial layer of EEE embedded in local/regional level, while for ENP it exceeds the EU-

borders. *International Journal of Urban and Regional Research* is the most active journal followed by World Development. These findings suggest that the EEE Sphere is a topic that exceeds the EU borders, it is international, the ENP tries captures this situation, but at the same time, Environment is regionally embedded in the local frameworks, QoLG tries to capture this situation. The main finding of this section is that *"ENP and QoLG can integrate their knowledge bases over Environment/Energy and Ecology (EEE) issues and research, over the sphere of EEE."*

Table 10 – Journal Base of QoLG Knowledge Asset

Field: Source Titles	Record Count	% of 450	Bar Chart
INTERNATIONAL JOURNAL OF URBAN AND REGIONAL RESEARCH	10	2.222 %	I
WORLD DEVELOPMENT	8	1.778 %	I
LAND USE POLICY	7	1.556 %	I
ENVIRONMENT AND URBANIZATION	6	1.333 %	I
GEOFORUM	6	1.333 %	I
HABITAT INTERNATIONAL	6	1.333 %	I
INTERNATIONAL REVIEW OF ADMINISTRATIVE SCIENCES	6	1.333 %	I
JOURNAL OF RURAL STUDIES	6	1.333 %	I
LOCAL GOVERNMENT STUDIES	6	1.333 %	I
ECOLOGICAL ECONOMICS	5	1.111 %	I

3. Citing Items for ENP and QoLG: A Broader Influence Field

In this section, citing articles for ENP and QoLG are analysed. Figure 1 below shows the published items in each year, and citations in each year. Average citation per an ENP item is 3.83.

Figure 1. Citations for ENP

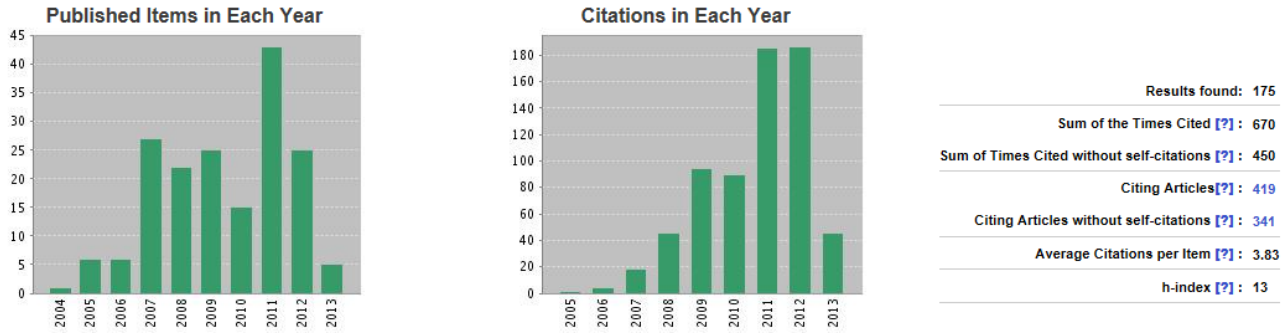

Table 11 – Temporal dimension of Citations for ENP

Field: Publication Years	Record Count	% of 319	Bar Chart
2005	1	0.313 %	
2006	3	0.940 %	
2007	8	2.508 %	
2008	28	8.777 %	
2009	39	12.226 %	
2010	44	13.793 %	
2011	79	24.765 %	
2012	92	28.840 %	
2013	25	7.837 %	

Table 11 above represents the increasing trend in citing the ENP items. But what are the spatial geographical dimensions of these citations? Table 12 below list all citing countries. The response rate of sixteen countries which are covered by the ENP, falling into two regional groups: The ENP-East countries: Belarus, Georgia, and Ukraine emerge in the listings. For the ENP-South countries: Israel and Tunisia appear in the listings. When we deepen the analysis, we can detect at least citation level responses from Belarus and Tunisia for ENP.

Table 12 – Spatial dimension of Citation for ENP

Countries/Territories	**records**	**% of 319**
ENGLAND	72	22.571
GERMANY	45	14.107
USA	44	13.793
NETHERLANDS	27	8.464
SWITZERLAND	23	7.210
SPAIN	20	6.270
CANADA	16	5.016
SWEDEN	15	4.702
BELGIUM	13	4.075
FINLAND	12	3.762
TURKEY	12	3.762
ITALY	11	3.448
SCOTLAND	9	2.821
AUSTRALIA	6	1.881
FRANCE	6	1.881
IRELAND	5	1.567
AUSTRIA	4	1.254
CZECH REPUBLIC	4	1.254
PORTUGAL	4	1.254
SINGAPORE	4	1.254
DENMARK	3	0.940
HUNGARY	3	0.940
NORTH IRELAND	3	0.940
POLAND	3	0.940
RUSSIA	3	0.940
WALES	3	0.940
ISRAEL	**2**	**0.627**
PEOPLES R CHINA	2	0.627
ROMANIA	2	0.627
TUNISIA	**2**	**0.627**

UKRAINE	**2**	**0.627**
BULGARIA	1	0.313
BELARUS	**1**	**0.313**
ESTONIA	1	0.313
GREECE	1	0.313
INDIA	1	0.313
JAPAN	1	0.313
MACEDONIA	1	0.313
NEW ZEALAND	1	0.313
REP OF GEORGIA	**1**	**0.313**
ZAIRE	1	0.313

When we check for the content dimension, we cannot observe a different pattern than cited ENP knowledge asset. Environmental Studies, Environmental Sciences and Ecology (EEE) sphere still form the initial sectorial field.

Table 14 – Content dimension of Citations for ENP

Field: Web of Science Categories	Record Count	% of 319	Bar Chart
POLITICAL SCIENCE	172	53.918 %	
INTERNATIONAL RELATIONS	75	23.511 %	
ECONOMICS	49	15.361 %	
GEOGRAPHY	47	14.734 %	
AREA STUDIES	45	14.107 %	
PUBLIC ADMINISTRATION	30	9.404 %	
ENVIRONMENTAL STUDIES	23	7.210 %	
LAW	15	4.702 %	
URBAN STUDIES	15	4.702 %	
SOCIAL SCIENCES INTERDISCIPLINARY	9	2.821 %	

Field: Research Areas	Record Count	% of 319	Bar Chart
GOVERNMENT LAW	187	58.621 %	
INTERNATIONAL RELATIONS	75	23.511 %	
BUSINESS ECONOMICS	53	16.614 %	
GEOGRAPHY	47	14.734 %	
AREA STUDIES	45	14.107 %	
PUBLIC ADMINISTRATION	35	10.972 %	
ENVIRONMENTAL SCIENCES ECOLOGY	24	7.524 %	
URBAN STUDIES	15	4.702 %	
SOCIAL SCIENCES OTHER TOPICS	10	3.135 %	
SOCIOLOGY	8	2.508 %	

Top 10 of the journal base that broadens the influence sphere of ENP literature is shown in Table 15.

Table 15 – Journal Base of Citations for ENP Knowledge Asset (Top 10)

Field: Source Titles	Record Count	% of 319	Bar Chart
JOURNAL OF EUROPEAN PUBLIC POLICY	25	7.837 %	
JCMS JOURNAL OF COMMON MARKET STUDIES	22	6.897 %	
EUROPE ASIA STUDIES	13	4.075 %	
GEOPOLITICS	13	4.075 %	
WEST EUROPEAN POLITICS	13	4.075 %	
DEMOCRATIZATION	12	3.762 %	
COMPARATIVE EUROPEAN POLITICS	11	3.448 %	
EURASIAN GEOGRAPHY AND ECONOMICS	11	3.448 %	
MEDITERRANEAN POLITICS	11	3.448 %	
EUROPEAN URBAN AND REGIONAL STUDIES	9	2.821 %	

Citing articles for QoLG are analysed. Figure 2 below shows the published items in each year, and citations in each year. Average citation per a QoLG item is 6.74.

Figure 2. Citations for QoLG

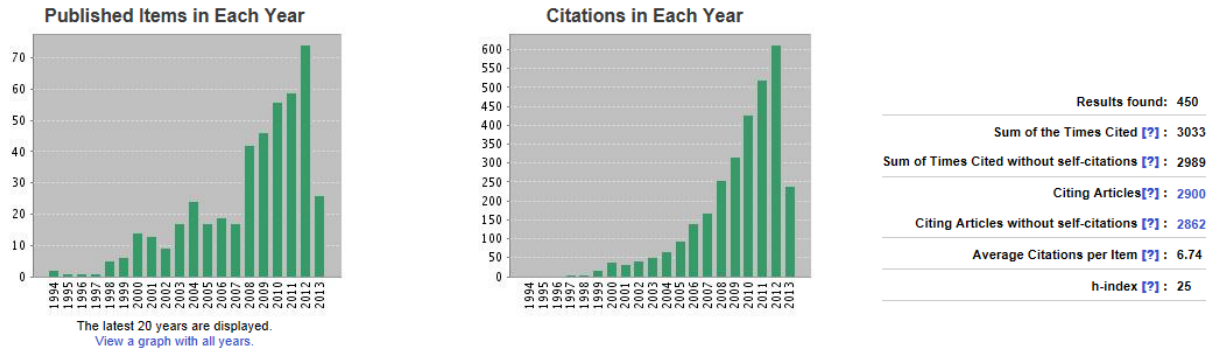

Table 16 below represents the increasing trend in citing the QoLG items. But what are the spatial geographical dimensions of these citations?

Table 16 – Temporal dimension of Citations for QoLG

Field: Publication Years	Record Count	% of 2593	Bar Chart
1993	1	0.039 %	
1995	2	0.077 %	
1996	3	0.116 %	
1997	4	0.154 %	
1998	6	0.231 %	
1999	14	0.540 %	
2000	40	1.543 %	
2001	33	1.273 %	
2002	42	1.620 %	
2003	51	1.967 %	
2004	61	2.352 %	
2005	86	3.317 %	
2006	114	4.396 %	
2007	133	5.129 %	
2008	190	7.327 %	
2009	265	10.220 %	
2010	359	13.845 %	
2011	419	16.159 %	
2012	549	21.172 %	
2013	221	8.523 %	

Table 17 below list all citing countries. The response rate of sixteen countries, which are covered by the ENP, to quality of local governance (QoLG), when we deepen the analysis, is detected, citation responses are from Israel, Egypt, Libya, Tunisia, Ukraine for QoLG.

Table 17 – Spatial dimension of Citation for ENP

Countries/Territories	records	% of 2593
USA	712	27.459
ENGLAND	647	24.952
AUSTRALIA	248	9.564
CANADA	185	7.135
NETHERLANDS	161	6.209
SPAIN	111	4.281
GERMANY	110	4.242
PEOPLES R CHINA	102	3.934
SCOTLAND	93	3.587
SWEDEN	92	3.548
WALES	79	3.047
ITALY	73	2.815
FRANCE	54	2.083
DENMARK	49	1.890
NEW ZEALAND	47	1.813
SOUTH AFRICA	45	1.735
NORWAY	44	1.697

SWITZERLAND	44	1.697
BELGIUM	42	1.620
BRAZIL	36	1.388
INDONESIA	26	1.003
IRELAND	26	1.003
GREECE	25	0.964
SINGAPORE	23	0.887
FINLAND	22	0.848
INDIA	22	0.848
JAPAN	19	0.733
PORTUGAL	19	0.733
AUSTRIA	18	0.694
TAIWAN	18	0.694
NORTH IRELAND	15	0.578
THAILAND	14	0.540
LITHUANIA	13	0.501
MEXICO	13	0.501
CHILE	12	0.463
HUNGARY	11	0.424
SOUTH KOREA	11	0.424
POLAND	10	0.386
TURKEY	10	0.386
ARGENTINA	9	0.347
ISRAEL	**9**	**0.347**
KENYA	9	0.347
PHILIPPINES	9	0.347
TANZANIA	9	0.347
RUSSIA	7	0.270
VIETNAM	7	0.270
NEPAL	6	0.231
CZECH REPUBLIC	5	0.193
ESTONIA	5	0.193
ROMANIA	5	0.193
BANGLADESH	4	0.154
CAMEROON	4	0.154
COLOMBIA	4	0.154
GHANA	4	0.154
IRAN	4	0.154
LAOS	4	0.154
MALAYSIA	4	0.154
PERU	4	0.154
SAUDI ARABIA	4	0.154
UGANDA	4	0.154
BOLIVIA	3	0.116
BURKINA FASO	3	0.116
COSTA RICA	3	0.116
CUBA	3	0.116
EGYPT	**3**	**0.116**
MALI	3	0.116
OMAN	3	0.116
QATAR	3	0.116
SLOVAKIA	3	0.116
SLOVENIA	3	0.116
U ARAB EMIRATES	3	0.116
ZAIRE	3	0.116
AFGHANISTAN	2	0.077
CAMBODIA	2	0.077

CYPRUS	2	0.077
ECUADOR	2	0.077
LATVIA	2	0.077
PAKISTAN	2	0.077
SENEGAL	2	0.077
SERBIA	2	0.077
BENIN	1	0.039
COTE IVOIRE	1	0.039
CROATIA	1	0.039
ETHIOPIA	1	0.039
GAMBIA	1	0.039
JAMAICA	1	0.039
KUWAIT	1	0.039
LIBYA	**1**	**0.039**
LUXEMBOURG	1	0.039
MADAGASCAR	1	0.039
MALAWI	1	0.039
MONGOL PEO REP	1	0.039
MONTENEGRO	1	0.039
MOZAMBIQUE	1	0.039
MYANMAR	1	0.039
NAMIBIA	1	0.039
NIGERIA	1	0.039
PANAMA	1	0.039
PAPUA N GUINEA	1	0.039
RWANDA	1	0.039
SIERRA LEONE	1	0.039
TRINID TOBAGO	1	0.039
TUNISIA	**1**	**0.039**
UKRAINE	**1**	**0.039**
URUGUAY	1	0.039
W IND ASSOC ST	1	0.039
YEMEN	1	0.039
ZAMBIA	1	0.039
ZIMBABWE	1	0.039

When we check for the content dimension, we cannot observe a different pattern than of cited QoLG knowledge asset. Environmental Studies, Environmental Sciences and Ecology (EEE) form the initial sectorial field. E*nvironmental studies, environmental sciences/ecology* emerges as the first sectorial indicator and *urban studies, social issues* and *interdisciplinary social sciences* follow this sectorial indication. Environmental/energy/ecology (EEE) sectorial indication is followed by a vector of health issues and research, and then educational issues and research.

Table 18 – Content dimension of Citation for QoLG

Field: Web of Science Categories	Record Count	% of 2593	Bar Chart
GEOGRAPHY	489	18.858 %	
ENVIRONMENTAL STUDIES	454	17.509 %	
URBAN STUDIES	327	12.611 %	
PLANNING DEVELOPMENT	301	11.608 %	
PUBLIC ADMINISTRATION	235	9.063 %	
ECONOMICS	207	7.983 %	
ENVIRONMENTAL SCIENCES	159	6.132 %	
POLITICAL SCIENCE	141	5.438 %	
PUBLIC ENVIRONMENTAL OCCUPATIONAL HEALTH	140	5.399 %	
MANAGEMENT	119	4.589 %	
HEALTH CARE SCIENCES SERVICES	110	4.242 %	
MEDICINE GENERAL INTERNAL	98	3.779 %	
SOCIOLOGY	95	3.664 %	
BUSINESS	87	3.355 %	
HEALTH POLICY SERVICES	69	2.661 %	
LAW	69	2.661 %	
ECOLOGY	61	2.352 %	
NURSING	52	2.005 %	
WATER RESOURCES	50	1.928 %	
BUSINESS FINANCE	36	1.388 %	
AREA STUDIES	34	1.311 %	
SOCIAL SCIENCES INTERDISCIPLINARY	33	1.273 %	
INTERNATIONAL RELATIONS	30	1.157 %	
ETHICS	29	1.118 %	
FOOD SCIENCE TECHNOLOGY	29	1.118 %	

Field: Research Areas	Record Count	% of 2593	Bar Chart
ENVIRONMENTAL SCIENCES ECOLOGY	594	22.908 %	
PUBLIC ADMINISTRATION	493	19.013 %	
GEOGRAPHY	489	18.858 %	
BUSINESS ECONOMICS	379	14.616 %	
URBAN STUDIES	327	12.611 %	
GOVERNMENT LAW	203	7.829 %	
PUBLIC ENVIRONMENTAL OCCUPATIONAL HEALTH	140	5.399 %	
HEALTH CARE SCIENCES SERVICES	128	4.936 %	
GENERAL INTERNAL MEDICINE	108	4.165 %	
SOCIOLOGY	95	3.664 %	
SOCIAL SCIENCES OTHER TOPICS	82	3.162 %	
AGRICULTURE	67	2.584 %	
ENGINEERING	53	2.044 %	
NURSING	52	2.005 %	
WATER RESOURCES	50	1.928 %	
AREA STUDIES	34	1.311 %	
INTERNATIONAL RELATIONS	30	1.157 %	
FOOD SCIENCE TECHNOLOGY	29	1.118 %	
EDUCATION EDUCATIONAL RESEARCH	26	1.003 %	
MARINE FRESHWATER BIOLOGY	26	1.003 %	
SOCIAL ISSUES	24	0.926 %	
SCIENCE TECHNOLOGY OTHER TOPICS	22	0.848 %	
BIOMEDICAL SOCIAL SCIENCES	20	0.771 %	
MEDICAL INFORMATICS	20	0.771 %	
OCEANOGRAPHY	20	0.771 %	

Top 25 of the journal base that broadens the influence sphere of QoLG literature is shown in Table 19.

Table 19 – Journal Base of Citations for ENP Knowledge Asset (Top 25)

Field: Source Titles	Record Count	% of 2593	Bar Chart
ENVIRONMENT AND PLANNING A	76	2.931 %	
URBAN STUDIES	74	2.854 %	
INTERNATIONAL JOURNAL OF URBAN AND REGIONAL RESEARCH	56	2.160 %	
GEOFORUM	44	1.697 %	
JOURNAL OF RURAL STUDIES	43	1.658 %	
ENVIRONMENT AND PLANNING C GOVERNMENT AND POLICY	37	1.427 %	
PROGRESS IN HUMAN GEOGRAPHY	29	1.118 %	
CITIES	27	1.041 %	
EUROPEAN PLANNING STUDIES	26	1.003 %	
LOCAL GOVERNMENT STUDIES	24	0.926 %	
PUBLIC ADMINISTRATION REVIEW	24	0.926 %	
URBAN GEOGRAPHY	23	0.887 %	
REGIONAL STUDIES	19	0.733 %	
PUBLIC ADMINISTRATION	18	0.694 %	
EUROPEAN URBAN AND REGIONAL STUDIES	16	0.617 %	
PLOS ONE	15	0.578 %	
PUBLIC PERFORMANCE MANAGEMENT REVIEW	15	0.578 %	
WORLD DEVELOPMENT	15	0.578 %	
APPLIED GEOGRAPHY	14	0.540 %	
ECOLOGY AND SOCIETY	14	0.540 %	
JOURNAL OF PLANNING EDUCATION AND RESEARCH	14	0.540 %	
INTERNATIONAL REVIEW OF ADMINISTRATIVE SCIENCES	13	0.501 %	
JOURNAL OF ADVANCED NURSING	13	0.501 %	
JOURNAL OF PUBLIC HEALTH MANAGEMENT AND PRACTICE	13	0.501 %	
SOCIOLOGIA RURALIS	13	0.501 %	

4. Constructing the Framework: Analysis, Theories, Technologies

In this section, we approach local governance from a new perspective. Analysis of scientific literature around the keyword “governance” empirically sheds light on the famous buzzword governance, how it as a meta-concept continues evolving through time and its dominant sub research areas that empirically characterizes governance itself, such that we use these sub research areas as a quality criteria framework to analyse theories and practices in local “governance”. Basically, this perspective is of meta-analysis as the objects of discussion are the research areas as major constituents of what governance is for the time being and consists of.

Figure 3– 1988 – 1990 Constituent Research Sub-areas of Governance Research

1988	1988	1989	1989	1990	1990
% of 33	Research Areas	% of 47	Research Areas	% of 54	Research Areas
24.242	GOVERNMENT LAW	19.149	BUSINESS ECONOMICS	27.778	GOVERNMENT LAW
21.212	BUSINESS ECONOMICS	17.021	GOVERNMENT LAW	16.667	BUSINESS ECONOMICS
12.121	HISTORY	17.021	PUBLIC ADMINISTRATION	12.963	HISTORY
9.091	ARTS HUMANITIES OTHER TOPICS	14.894	EDUCATION EDUCATIONAL RESEARCH	7.407	EDUCATION EDUCATIONAL RESEARCH
9.091	SOCIAL SCIENCES OTHER TOPICS	10.638	HISTORY	5.556	AREA STUDIES
6.061	ENGINEERING	6.383	URBAN STUDIES	5.556	HEALTH CARE SCIENCES SERVICES
6.061	INTERNATIONAL RELATIONS	4.255	ARTS HUMANITIES OTHER TOPICS	5.556	SOCIOLOGY
6.061	PSYCHOLOGY	4.255	HEALTH CARE SCIENCES SERVICES	3.704	ARTS HUMANITIES OTHER TOPICS
6.061	PUBLIC ADMINISTRATION	2.128	AREA STUDIES	3.704	INTERNATIONAL RELATIONS

Source: Authors' analysis of Web of Science Data

Figure 3 above represents that in the year 1988, governance is studied under main research areas of "Government Law", "Business Economics", "History," "Arts Humanities Other Topics", "Social Sciences Other Topics", "Engineering", "International relations", "Psychology" and "Public Administration". It is one year after, 1990 that "Urban Studies" and "Area Studies" started to characterize governance and governance research. Through time, some of the sub research areas are declined, vanished and new research areas are emerged, or some strengthened in terms of its share in the governance literature that characterizes what governance was (in 1988 21 research areas increased to 126 research areas in 2012). This process is of evolution and structuration dynamics of governance itself. Therefore, we are also interested in current years.

Figure 4 - 2010 – 2012 Constituent Research Sub-areas of Governance Research

2010	2010	2011	2011	2012	2012
% of 3996	Research Areas	% of 4424	Research Areas	% of 4593	Research Areas
29.98	BUSINESS ECONOMICS	29.792	BUSINESS ECONOMICS	28.391	BUSINESS ECONOMICS
16.967	GOVERNMENT LAW	16.93	GOVERNMENT LAW	16.046	ENVIRONMENTAL SCIENCES ECOLOGY
15.791	ENVIRONMENTAL SCIENCES ECOLOGY	14.67	ENVIRONMENTAL SCIENCES ECOLOGY	15.415	GOVERNMENT LAW
12.963	PUBLIC ADMINISTRATION	14.512	PUBLIC ADMINISTRATION	14.196	PUBLIC ADMINISTRATION
7.007	GEOGRAPHY	6.352	INTERNATIONAL RELATIONS	6.88	INTERNATIONAL RELATIONS
6.857	INTERNATIONAL RELATIONS	5.832	SOCIAL SCIENCES OTHER TOPICS	6.858	GEOGRAPHY
5.731	SOCIAL SCIENCES OTHER TOPICS	5.696	GEOGRAPHY	5.574	SOCIAL SCIENCES OTHER TOPICS
3.403	URBAN STUDIES	3.752	SOCIOLOGY	3.571	URBAN STUDIES
3.203	SOCIOLOGY	3.21	URBAN STUDIES	3.375	SOCIOLOGY

Source: Authors' analysis of Web of Science Data

When we compare Figure 3 and Figure 4, we can easily observe that "Environmental Science Ecology" has gained the second place (16% in the year 2012) in Governance research, right after Business Economics 28.391%. For interaction of environmental issues, business economics and innovation please see Kemp, 2011, "Ten Themes of Eco-innovation policies for Europe". Geography (6.558%) in the last 20 years found itself contributing place. For the last three years, governance research is mainly characterized by the same, 9 research areas. In Figure 14 it is clear that "Urban Studies", "Geography" are directly related topics with "local" governance.

Though, we will introduce a new perspective by substituting "governance" in "local governance" by these sub research areas to indicate main quality criteria dimensions of a local governance framework. These dimensions are i) local areas and business economics, ii) local areas and

environmental ecology, iii) local areas and government law, iv) local areas and public administration, v) local areas and international relations, vi) local areas and geography, vii) local areas and social aspects, viii) local areas and urban aspects, and ix) local areas and sociological aspects, primary constituents of quality criteria for our local governance conceptual framework.

If we continue to analyse theories of local governance, and when we consider presence of these major dimensions for local governance, earlier approaches of Bureaucratic Planning (before and during 1950s); Public Choice Theory (1960s-1970s), Structuralist Critiques (1970s-1980s) become incomplete to grasp these dimensions listed (Brenner, 1999; Mollenkopf, 1992; Hutchinson, 2010). "New Regionalism" concept (literature entry 1980s-1990s) intends to portray these dimensions in local governance through stressing economic competitiveness (Business and Economics, *development of economic networks*), social equity (Sociological and social aspects; *socio-economic disparities among regions and social exclusion*), sustainable land use and infrastructure development (Business and Economics, Public Administration, Government Law, Environmental Sciences and Ecology, Urban Aspects, Geography, *public–private partnerships for urban development, debating or a bargaining mode between public and private actors*) (Wallis,2010). Moreover, restructuring/establishment of local governments (Public Administration, Government Law, *decentralisation, project-based decision-making processes other than bureaucratic planning*), the allocation of the sovereign authority with supra-national organizations (Government Law, International Relations, *the collaboration among the state and non-state (domestic, foreign, supra) actors, multi-level governance*) , the construction of new actor groups (Sociological and social aspects, *inclusive and participatory forms of governance with opening up to new actors*, *the complexity of new forms of citizenship*) (OECD, 2000; Boudrea, 2010; Mayer 1994) are in the conceptual framework of New Regionalism. However, the way that the man interacts with nature and environment, is a concrete indicator on the degree of democracy, human rights, governance, and principles of market-state, network interactions (Marcuse, 1964). The crisis of crisis management in environmental issues depending on layering of urbanization of nation-state, labor and capital are visible in the European Neighbourhood (Sengul, 2013). Onis, in his review article, *The logic of developmental state*, indicates a fundamental question that centers around the compatibility of developmental state with political liberalization and democratic form of governance (Onis, 1991) given that the quality of democracy not only directly related to political issues (such as free elections) but also directly related to social and environmental issues.

For this balance, OECD, 2000 underlines these economic and social dimensions of local (especially metropolitan) governance under "competitiveness" and the "liveability" and indicates the need for "adaptation and promotion of use of new technologies for the benefits of whole society, the mobilization of social, political and economic resources in a coherent institutional framework and the strategic planning in order to support sustainable urban development" (OECD, 2000). But what can be these new technologies?

Research areas related to sciences and technology in the field of Governance in 2012 can give us insights about technology fields which can be candidates for technological and social innovation projects in local or regional level for they have already introduced governance concept in their fields. These technologies are other than general engineering, Information Communication Technologies (ICT), Environmental / Energy Technologies, Transportation Technologies, Health Technologies, Food Technologies.

These scientific research areas are indeed inline with the societal challenges defined by Horizon 2020, Inclusive, innovative and secure societies (ICT, e-governance technologies), Secure, clean and efficient energy; Smart, green and integrated transport; Climate action, resource efficiency and raw materials; Health, demographic change and wellbeing; Food security, sustainable agriculture, marine and maritime research& the bio-economy.

Table 20 – Technology Research Area Distribution in Governance related Publications, 2012

Research Areas	records	% of 4593
ENGINEERING	112	2.438
INFORMATION SCIENCE LIBRARY SCIENCE	86	1.872
COMPUTER SCIENCE	80	1.742
BIOMEDICAL SOCIAL SCIENCES	54	1.176
ENERGY FUELS	30	0.653
TRANSPORTATION	28	0.61
METEOROLOGY ATMOSPHERIC SCIENCES	22	0.479
TELECOMMUNICATIONS	16	0.348
FOOD SCIENCE TECHNOLOGY	14	0.305
CHEMISTRY	10	0.218
BIOTECHNOLOGY APPLIED MICROBIOLOGY	9	0.196
CELL BIOLOGY	9	0.196
CONSTRUCTION BUILDING TECHNOLOGY	9	0.196
PHARMACOLOGY PHARMACY	9	0.196
ARCHITECTURE	8	0.174
BIOCHEMISTRY MOLECULAR BIOLOGY	8	0.174
MEDICAL INFORMATICS	8	0.174
MATERIALS SCIENCE	5	0.109
METALLURGY METALLURGICAL ENGINEERING	5	0.109

REMOTE SENSING	5	0.109
FILM RADIO TELEVISION	2	0.044
MINING MINERAL PROCESSING	2	0.044
AUTOMATION CONTROL SYSTEMS	1	0.022
MECHANICS	1	0.022
MEDICAL LABORATORY TECHNOLOGY	1	0.022

5. Findings and Discussions

European Neigbourhood Policy, Quality of Local Governance, Technology research areas in Governance indicate the multi-level (international, supranational, national and regional) importance of the sphere of Environment / Energy and Ecology (EEE), and technological and social innovation. . A Foursquare Quality of Life Agenda is constructed as follows:

There is a fluctuating trend in the field of ENP knowledge asset.

Scholarly response in the field of ENP is highly synchronous with and sensitive to (not necessarily as immediate content) to the developments in the realm of ENP.

Approximately 2 publications-per-month routine on the aggregate level of the field to a degree, indicate that scholarly response is challenged by the lack of funding, which is a statement backed by the evidence that none of the 175 publications reported a funding source.

Researchers in Germany (22.288%), England (17.143%) are the most active ones in the ENP topic.

Responsiveness to the ENP knowledge asset is low in ENP partners/countries.

Although with low percentages, researchers in Ukraine and Israel are relatively more responsive.

There is a need for initiation or enhancing the conditions of cooperation/co-creation for widening and deepening the ENP knowledge asset in both EU and European Neighbourhood.

University of London (6.286%), London School of Economics (4.571%), in England and Free University of Berlin (4.571%), in Germany, and Ghent University (4.571%) in Belgium are the most active organisations in the ENP topic.

These results represent the visible capacities developed by University of London, London School of Economics, Free University of Berlin, Ghent University and the other top 10 organisations in the field of ENP.

The ENP topic is of Political Science (58.857%) and Government Law (66.286%). This dominating cluster is followed by Area Studies (16.571%) and International Relations (16.571%). Economics (11.429%) and Geography (9.143%) constructs the following third cluster, whereas Law (7.429%) and Public Administration (7.429%) form the fourth cluster.

Environmental studies, environmental sciences/ecology (EEE) emerges as the first sectorial indicator and urban studies, social issues and interdisciplinary social sciences follow this sectorial indication for ENP.

Environment/Energy/Ecology (EEE) form the initial sectorial layer of ENP and should be the focal sectorial gateway between ENP and quality of local governance.

The geographical dimensions of EEE sphere as an initial sectorial layer exceeds the EU-borders.

There is an increasing trend in the field of Quality of Local Governance.

Approximately 60% of the production is realized in the last 4 years (2008-2013) in the field of QoLG..

England is the most active country in the field of Quality of Local Governance, whereas Germany loses its position with respect to the performance shown in the ENP.

The response rate of sixteen countries which are covered by the ENP to quality of local governance, falling into two regional groups: The ENP-East countries: Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine. For the ENP-South countries: Algeria, Egypt (0.571%), Israel (0.444%), Jordan, Lebanon (0.444%), Libya, Morocco (0.444%), the occupied Palestinian territory, Syria and Tunisia.

University of London (6.222%) is the most active organisation in the QoLG topic; London School of Economics (1.556%), University of Amsterdam and University of Oxford reappear in the Top 10 for both ENP and QoLG. These results represent the visible capacities developed by these universities.

Environmental studies, environmental sciences/ecology (EEE) emerges as the first sectorial indicator and urban studies, social issues and interdisciplinary social sciences follow this sectorial indication also in the field of QoLG.

Environmental/energy/ecology (EEE) sectorial indication is followed by a vector of health issues and research, and then educational issues and research

Sphere of environment, energy and ecology (EEE) form an important gateway for introduction of an increase in quality of local (such as urban studies) governance (such as interdisciplinary social sciences around social issues).

These findings suggest that the EEE Sphere is a topic that exceeds the EU borders, it is international, the ENP tries captures this situation, but at the same time, Environment is regionally embedded in the local frameworks, and QoLG tries to capture this situation. The main finding is the ENP and the QoLG can integrate their knowledge bases over Environment/Energy and Ecology (EEE) sphere.

There is an increasing trend in citing the ENP items.

When we deepen the analysis into citations, Average citation per an ENP item is 3.83. We can detect at least citation level responses from Belarus and Tunisia for the ENP.

We cannot observe a different pattern than cited ENP knowledge asset. Environmental Studies, Environmental Sciences and Ecology (EEE) form the initial sectorial field.

There is an increasing trend in citing the QoLG items.

Average citation per a QoLG item is 6.74. Citation responses are from Israel, Egypt, Libya, Tunisia and Ukraine for QoLG.

We cannot observe a different pattern than of cited QoLG knowledge asset. Environmental Studies, Environmental Sciences and Ecology (EEE) form the initial sectorial field. Environmental studies, environmental sciences/ecology emerges as the first sectorial indicator and urban studies, social issues and interdisciplinary social sciences follow this sectorial indication. Environmental/energy/ecology sectorial indication is followed by a vector of health issues and research, and then educational issues and research.

"Environmental Science Ecology" has gained the second place (16% in the year 2012) in Governance research, in the last 20 years, just after Business Economics (28%) of produced knowledge asset.

Primary constituents of quality criteria for our local governance conceptual framework are i) local areas and business economics, ii) local areas and environmental ecology, iii) local areas and government law, iv) local areas and public administration, v) local areas and international relations, vi) local areas and geography, vii) local areas and social aspects, viii) local areas and urban aspects, and ix) local areas and sociological aspects. Bureaucratic Planning (before and during 1950s); Public Choice Theory (1960s-1970s), Structuralist Critiques (1970s-1980s) become incomplete to grasp these dimensions listed. (Brenner, 1999; Mollenkopf, 1992; Hutchinson, 2010).

"New Regionalism" concept (literature entry 1980s-1990s) intends to portray these dimensions in local governance through stressing economic competitiveness (Business and Economics, *development of economic networks*), social equity (Sociological and social aspects; *socio-economic disparities among regions and social exclusion*), sustainable land use and infrastructure development (Business and Economics, Public Administration, Government Law,

Environmental Sciences and Ecology, Urban Aspects, Geography, *public–private partnerships for urban development, debating or a bargaining mode between public and private actors*) (Wallis,2010). Moreover, restructuring/establishment of local governments (Public Administration, Government Law, *decentralisation, project-based decision-making processes other than bureaucratic planning*), the allocation of the sovereign authority with supra-national organizations (Government Law, International Relations, *the collaboration among the state and non-state (domestic, foreign, supra) actors, multi-level governance*) , the construction of new actor groups (Sociological and social aspects, *inclusive and participatory forms of governance with opening up to new actors, the complexity of new forms of citizenship*) (OECD, 2000; Boudrea, 2010; Mayer 1994) are in the conceptual framework of New Regionalism. However, the way that the man interacts with nature and environment, is a concrete indicator on the degree of democracy, human rights, governance, and principles of market-state, network interactions (Marcuse, 1964). The crisis of crisis management in environmental issues depending on layering of urbanization of nation-state, labor and capital are visible in the European Neighbourhood (Sengul, 2013). Onis, in his review article, *The logic of developmental state*, indicates a fundamental question that centers around the compatibility of developmental state with political liberalization and democratic form of governance (Onis, 1991) given that the quality of democracy not only directly related to political issues (such as free elections) but also directly related to social and environmental issues.

For this balance, OECD, 2000 underlines these economic and social dimensions of local (especially metropolitan) governance under "competitiveness" and the "liveability" and indicates the need for "adaptation and promotion of use of new technologies for the benefits of whole society, the mobilization of social, political and economic resources in a coherent institutional framework and the strategic planning in order to support sustainable urban development" (OECD, 2000).

Candidates for technological and social innovation projects in local or regional level for they have already introduced governance concept in their fields are other than general engineering, Information Communication Technologies (ICT), Environmental / Energy Technologies, Transportation Technologies, Health Technologies, Food Technologies.

These research areas are indeed inline with the societal challenges defined by Horizon 2020, Inclusive, innovative and secure societies (ICT, e-governance technologies), Secure, clean and efficient energy; Smart, green and integrated transport; Climate action, resource efficiency and raw materials; Health, demographic change and wellbeing; Food security, sustainable agriculture, marine and maritime research& the bio-economy.

European Neighbourhood Policy, Quality of Local governance, Technology research areas in Governance indicates the multi-level (international, supranational, national and regional) importance of the sphere of Environment / Energy and Ecology (EEE) and technological and social innovation in this EEE sphere.

Given the global, international/intergovernmental and supranational, national and local/regional features of EEE sphere (with social and technological aspects), the main question is how European Neighbourhood Policy, Open Method of Coordination in governance, Smart Specialisation in technological cooperation, and European Strategic Energy Technology Plan may interact and be enhanced/expanded?

ENP partners, regions of ENP partners can be accepted / invited as observers, partners for Open Method of Coordination, and ENP Partners can actually form an *Open Method of EU Neighbourhood Coordination*. Analysed dynamics indicate that these two policy instruments can be recommended at cross-continental regions levels.

Technological and social innovation through modernization cooperation can be extended by *Smart "cross-continental regions" specialisation.* Smart Specialisation can be an instrument for modernization between European and ENP regions. External (technological and social) dimension of the Strategic Energy Technology Plan can be enlarged to ENP partners by adaptation and synchronization with the ENP. Analysed dynamics indicate that these two policy instruments can be recommended at cross-continental regions level, towards an *Adaptive Synchronous SET PLAN* (ASSET Plan).

For a foursquare quality of life agenda, the sphere of EEE should be an active component in direct political (political science, government law), economic (business economics) and social (urban studies, interdisciplinary social sciences) negotiation and cooperation agenda of the European Union.

Politics of Environment (with respect to democracy and human rights), Public Administration of Environment (with respect to rule of law, network governance), Economics of Environment (with respect to state-market or network economy principles) and Technology of Environment (with respect to new generations for sustainability, transitions, modernizations) construct the main sphere which defines a foursquare Quality of Life agenda for both EU and European Neighbourhood, as well as for their interaction between.

EEE sphere goes beyond and could integrate existing political, public administrative, economic, and technological relationships with its active environmental, energy, and ecology related (EEE) content and offer a deeper and innovative political relationship and economic integration, therefore, social progress for the EU and European Neighbourhood Countries.

6. Conclusions

Given the global, international/intergovernmental and supranational, national and local/regional features of EEE sphere (with social and technological aspects), the main question is how European Neighbourhood Policy, Open Method of Coordination in governance, Smart Specialisation in technological cooperation, and European Strategic Energy Technology Plan may interact and be enhanced/expanded?

ENP partners, regions of ENP partners can be accepted / invited as observers, partners for Open Method of Coordination, and ENP Partners can actually form an *Open Method of EU Neighbourhood Coordination*. Analysed dynamics indicate that these two policy instruments can be recommended at cross-continental regions levels.

Technological and social innovation through modernization cooperation can be extended by *Smart "cross-continental regions" specialisation.* Smart Specialisation can be an instrument for modernization between European and ENP regions. External (technological and social) dimension of the Strategic Energy Technology Plan can be enlarged to ENP partners by adaptation and synchronization with the ENP. Analysed dynamics indicate that these two policy instruments can be recommended at cross-continental regions level, towards an *Adaptive Synchronous SET PLAN* (*AS*SET Plan).

For the SET-Plan, *"The European Community Steering Group on Strategic Energy Technologies, The SET-Plan Steering Group (SET-Group), is established to provide a high level discussion platform and a flexible framework for strategic planning and implementation, to maximise the cost effective contribution of technology to the achievement of the Energy Policy for Europe objectives"* (EC, 2008; Ferrer et. al., 2008). The SET-Plan Steering Group (SET-Group) comprising of high-level representatives from the EU member states, chaired by the European Commission; Iceland, Norway, Switzerland and Turkey participate as observers (EC, 2008). As outlined in the European Strategic Energy Technology Plan (SET-Plan) framework, *"fifteen leading European Research Institutes have taken up the challenge to found a European Energy Research Alliance (EERA). The key objective of the EERA is to accelerate the development of new energy technologies by conceiving and implementing Joint Research Programmes in support of the SET-Plan pool and integrate activities and resources, combining national and Community sources of funding and maximising complementarities and synergies"*. (EERA, 2008) Iceland, Norway, Switzerland and Turkey are EERA members. Moreover, the European Commission presented an update of the EU's international cooperation, according to the European Strategic Energy Technology Plan (SET-Plan) update of EU International Cooperation activities in the framework of the SET-Plan, 25 November 2009, Brussels:

"Energy research should not stop at our European borders. The energy 'problems' are global problems and the EU needs to go that extra mile if we want to be serious about addressing them. This means working together internationally. This is also an essential part of the SET Plan." (EC, 2009)

In this respect, countries and the technology fields are listed by this update document (EC, 2009) as:

- Cooperation with the U.S. (Bioenergy, solar energy, CCS, hydrogen and fuel cells, nuclear fusion and nuclear fission; energy efficiency in buildings, smart grids and advanced materials for energy applications)

• Cooperation with Japan (carbon capture and storage; power storage and photovoltaics solar power technologies)

• Cooperation with India (solar power (photovoltaics and concentrated solar power), clean coal technologies); Russia (biomass for power generation and smart grids, CCS and 2nd generation biofuels,); Canada (biofuels, CCS and smart grids), Brazil (second generation biofuels); China (CCS research through Phase I of NZEC (the near zero emissions coal) (EC, 2009)

In this respect, technological cooperation for initiation and modernization with ENP Partners is recommended. The European Neigbourhood Policy, Open Method of Coordination, Smart Specialisation and the European Strategic Energy Technology Plan should synchronously interact with each other and be instrumentally (information and finance-based instruments) expanded to cross-continental regions with policy intelligence and institutional interaction.

For a foursquare quality of life agenda, the sphere of EEE should be an active component in direct political (political science, government law), economic (business economics) and social (urban studies, interdisciplinary social sciences) negotiation and cooperation agenda of the European Union. The way that man interacts with nature and environment, is a concrete indicator on the degree of democracy, human rights, governance, and principles of market-state, network interactions. Politics of Environment (with respect to democracy and human rights), Public Administration of Environment (with respect to rule of law, network governance), Economics of Environment (with respect to state-market or network economy principles) and Technology of Environment (with respect to new generations for sustainability, transitions, modernizations) construct the main sphere which defines a foursquare Quality of Life agenda for both EU and European Neighbourhood, as well as for their interaction between. This EEE sphere goes beyond and could integrate existing political, public administrative, economic, and technological relationships with its active environmental, energy, and ecology related (EEE) content and offer a deeper and innovative political relationship and economic integration, therefore, social progress for EU and European Neighbourhood Countries. Concrete policy actions *of avoiding the emergence of new dividing lines between the EU and its neighbours to the South and East, and of strengthening the prosperity, stability and security of all concerned* as EUROSTAT, 2009 puts into the perspective, should take the sphere of EEE in an active political and economic design and delivery agenda.

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