

Grant Agreement n° 822735, Research and Innovation Action





TRIGGER

TRends in Global Governance and Europe's Role

Deliverable number:							
Deliverable name:	D2.4. Database on implementation and enforcement mechanisms within EU multi-level governance						
WP / WP number:	2						
Delivery due date:	Month 12 (30 November 2019)						
Actual date of submission:	29.11.2019						
Dissemination level:	Public						
Lead beneficiary:	CEPS						
Contributor(s):							

Changes with respect to the DoA

Not applicable

Dissemination and uptake

Public

Evidence of accomplishment

Report

Content

1. Introd	uction	1
2. EU ag	encies and multi-level governance: a qualitative overview	3
3. Quant	itative datasets	5
3.1.	The Eurlex dataset	5
3.2.	Multi-level governance and the Eurlex legal acts dataset	6
4. Concl	usion	10
Index	c of Figures	
Figure 1	.: Qualitative overview of EU Multi-level Governance	4
Figure 2	.: Excerpt from the 148.000 EU legal acts Eurlex dataset	6
Figure 3	.: Total number of legal sentences mentioning agencies in EU directives	7
Figure 4	.: Mean number of legal sentences mentioning agencies in EU regulations	8
•	.: Mean number of sentences per law mentioning NGOs in EU directives	
Figure 6	.: Share of laws mentioning agencies per policy area	9
	a—	
Index	c of Tables	
Table 1.	: Statistical analysis of agency-related sentences in EU regulations per year	11
Table 2.	: Statistical analysis of agency-related sentences in EU regulations per policy area	14
Table 3.	: Statistical analysis of NGO-related sentences in EU regulations per year	24
Table 1	Statistical analysis of NGO-related sentences in ELL regulations per subject matter	27

1. Introduction

This report is a brief explanation of the work conducted for deliverable 2.4 of work package two of the TRIGGER project. The overall focus of the work package is, *intra alia*, to analyse the governance of the European Union, and in particular its various modes of governance and its internal policies. Another important goal of the work package is to understand the existing and upcoming trends in EU governance, including the analysis and classification of the EU's various multi-level governance arrangements. Hence, the focus of this deliverable was on the implementation and enforcement mechanisms within EU multi-level governance. The EU's regulatory system and the implementation of these regulations are heterogeneous at different levels and in different policy areas. Moreover, a growing number of elements add to the complexity of EU multi-level governance e.g. agencification, new types of regulatory bodies, gold plating and "customising the EU" that reveal the underlying fragmentation and divergence of national interests.

Thus, this deliverable, in line with other parallel work going on for TRIGGER deliverables, seeks innovative approaches to tackle the issue of the complexity of EU multi-level governance. The outcome of this deliverable is not only crucial for research but it is a complementary part for the AGGREGATOR database on EU governance. For this deliverable, we use a combination of qualitative and quantitative methods. The first part of the report represents a qualitative overview of EU multi-level governance in different policy areas. The qualitative data is presented in an excel sheet-format as they will be incorporated with the other datasets in the AGGREGATOR database. For each policy area, certain agencies are chosen to be studied thoroughly as specific schemes for multilevel governance. The chosen schemes are plainly relevant to the TRIGGER project's general goals in different policy areas. For every scheme, we chose a number of variables that show complexities of multi-level governance at different levels. The variables are in fact the specifications of the agencies such as their main tasks, area of function, members, dates of adoption and enforcement, development overtime, the competence of agencies, legal basis and the links to agency's website or reliable information sources. This information will give the beneficiaries of AGGREGATOR a solid overview of EU agencies and their relevance to different levels of EU multi-level governance. Understanding the complexities of the EU multi-level governance will help us with the evaluation of the EU's role in the global governance.

Additionally, another important goal of this deliverable was to build a quantitative database on implementation and enforcement mechanisms within EU multi-level governance. This quantitative database and analysis were developed based on 148.000+ legal acts collected for WP2. We show in a novel way that the role of agencies and NGOs in EU governance has grown more and more important over the past years (see chapter 3.).

2. EU agencies and multi-level governance: a qualitative overview

The EU evolves by featuring different multi-level governance arrangements in different sectors and policy areas. Their evolution add to the complexity of multi-level governance, for instance, moving beyond the classical horizontal and vertical consideration, the "sideways" angle of multi-level governance in the EU is also of high importance (Renda, forth). In the EU, the sideways dimension of multi-level governance is known to be the agencification, deossification, private regulations, etc. This further exacerbates the difficulty of coordination on different levels of governance. Considering all aspects of multi-level governance, we conducted extensive desk research on the most relevant schemes that affect EU's multi-level governance, to represent the complexity of multilevel governance phenomena. We chose the schemes or cases where the agencies affect the different levels of EU governance. Based on the analysis of the chosen schemes, we developed a qualitative overview (figure 1) for the AGGREGATOR database. The variables used to analyse the schemes are a combination of standard indicators used for all datasets in AGGREGATOR and additional variables to scrutinise the complexities added due to sideways factors. The chosen schemes encompass the EU agencies and actors covering a broad range of policy areas like the Agency for the Cooperation of Energy Regulators (ACER), the Body of European Regulators for Electronic Communications (BEREC), the European Competition Network (ECN), the European Banking Authority (EBA), the European Union Aviation safety agency (EASA), etc. For each of these schemes, there is a brief description of its functionality, the agenda-setter or administrative authorities of the organisation, participanting member states and indication of non-EU member state participants, the evolvement of the scheme overtime and possible amendments and the legal basis for the given scheme within the European legislations. Moreover, if the scheme is regulatory, the overview considers the level of implementation of the produced legislations, monitoring authorities and organisations, the competence of the organisation, whether the organisation is selffunded or EU funded, how many observers there are, and possible key events that the organisation went through or the events that resulted in the creation of an EU agency. These factors will help us with the analysis of the implementation and enforcement mechanisms of EU multi-level governance.

Figure 1.: Qualitative overview of EU Multi-level Governance

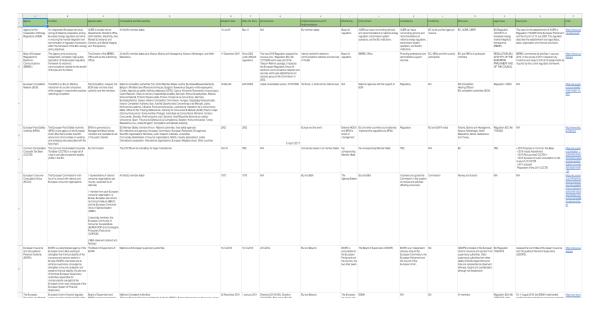


Figure 1. illustrates a screenshot of the first page of the qualitative dataset on implementation and enforcement mechanisms of the EU multi-level governance based on specific case studies. The full list of the schemes and the components inside will be available for public in the AGGREGATOR database and a PDF of worksheets is attached to this report as an annex.

3. Quantitative datasets

Multi-level governance is a notoriously vague term: "Despite its widespread use in European studies and beyond, the concept of multi-level governance (MLG) still suffers from a considerable degree of uncertainty as to its precise meaning, which in turn hinders the cumulative development of this research programme" (Tortola 2017: 1). This poses a particular challenge for quantitative research, for which complex concepts need to be broken down into concrete, measurable elements.

The quantitative part of this deliverable contributes to solving this challenge in two ways: First, we created a large dataset of 148.000+ EU legal acts with 23 meta-data variables and the full text of the acts scraped from the Eurlex website. A smaller version of the Eurlex dataset was first developed for D2.2 and it was substantially extended to become a fruitful basis for analysing MLG and other questions in D2.3 of the TRIGGER project (see chapter 3.1). Second, this deliverable showcases how the dataset can be used to analyse the 'actor dimension' of MLG (see chapter 3.2).

3.1. The Eurlex dataset

Figure 2 below shows an excerpt of the extended Eurlex dataset, containing 148.000+ EU legal acts with 23 meta-data variables and the full text of the acts for most of them, which was developed in D2.3 of the TRIGGER project. We invested a significant amount of time in creating the dataset as a 'multi-purpose' dataset which is not tailored to a specific policy area or research question. It contains almost the entire historical corpus of EU secondary law, from all policy areas and time periods. The dataset was scraped with the programming language R from the Eurlex website² and was cleaned and transformed into tabular format (see figure 2) to enable machine analyses of both the meta data variables and the full legal text. This deliverable shows how the dataset can be used to analyse MLG, but it will also be used as a basis to answer other research questions. The dataset is too big to be attached to this PDF document, but it will be available in CSV and Excel format in the AGGREGATOR database.

¹ Tortola, Pier Domenico (2017): "Clarifying multilevel governance", European Journal of Political Research 56: 234–250, 2017, doi: 10.1111/1475-6765.12180

² For more details, see: https://eur-lex.europa.eu/

Figure 2.: Excerpt from the 148.000 EU legal acts Eurlex dataset

	ELEX	Act name	Act type	Status	FUROVOC	Subject matte	r Treaty	Legal basis	Author	Procedur	Date docu	Date nublic	First entry	Temporal s	Act cites	Cites links	Act ammend	Ammends link	Furley link	FII link	Propos	Oeil	Additiona
1			,,,,			,	,	_celex	s	e_numbe		ation	into_force				s	s			al_link		
2 3	2019R12	Regulation	Regulation	In Force	fishing regu	fisheries; envi	rc TFEU	1.20E+47	Europea	2016/007	20/06/2019	25/07/2019	14/08/2019	NA	32013R1	http://dat	a 32007R809; 3	http://data.euro	https://eur	http://d	a https://e	http:/	NA
3 3	2019R11	Regulation	Regulation	In Force	ban on sale	marketing; po	III TFEU	1.20E+118	Europea	2018/010	20/06/2019	11/07/2019	2021-02-01;	NA	32013R9	http://dat	a 32017R215; 3	http://data.euro	https://eur	http://d	a https://e	http:/	EEA releva
4 3	2016R07	Regulation	Regulation	In Force	Community	trade; interna	tic TFEU	1.20E+211	Europea	2014/016	11/05/2016	24/05/2016	13/06/2016	NA	32001L8	http://dat	a 32004R1876;	http://data.euro	https://eur	http://d	a https://e	http:/	NA
5 3	2018R20	Commissio	Regulation	Not in F	catch by sp	fisheries; inter	n TFEU	32009R122	DG MAF	NA	17/12/2018	21/12/2018	22/12/2018	31/12/2018	32018R1	http://dat	a NA	NA	https://eur	http://d	a NA	NA	NA
6 3	2011R07	Commissio	Implemen	NA	Community	trade; plant pi	o TFEU (232007R123	Europea	NA	22/07/2011	23/07/2011	23/07/2011	NA	NA	NA	NA	NA	https://eur	http://d	a NA	NA	NA
7 3	2011R07	Commissio	Implemen	NA	Community	trade; foodstu	ff TFEU (232006R095	Europea	NA	22/07/2011	23/07/2011	23/07/2011	NA .	32011R6	http://dat	a 32010R867	http://data.euro	https://eur	http://d	a NA	NA	NA
8 3	2011R07	Commissio	Implemen	In Force	France; pro	Europe; consu	n TFEU (232006R051	(Europea	NA	20/07/2011	23/07/2011	12/08/2011	NA .	52010XC	http://pub	I NA	NA	https://eur	http://d	a NA	NA	NA
9 3	2011R07	Commissio	Implemen	In Force	PDO; Italian	marketing; Eu	rc TFEU (232006R051	Europea	NA	20/07/2011	23/07/2011	12/08/2011	NA .	31996R1	http://dat	a NA	NA	https://eur	http://d	a NA	NA	NA
10 3	2011R07	Commissio	Implemen	In Force	biscuit; pro	foodstuff; con	si TFEU (232006R051	Europea	NA	20/07/2011	23/07/2011	12/08/2011	NA	52010XC	http://pub	I NA	NA	https://eur	http://d	a NA	NA	NA
11 3	2011R07	Commissio	Implemen	In Force	phytosanita	agricultural po	licTFEU (232009R110	Europea	NA	20/07/2011	21/07/2011	2012-01-01;	NA	32008D6	http://dat	a 32010L56; 32	(http://data.euro	https://eur	http://d	a NA	NA	EEA releva
12 3	2011R07	Commissio	Implemen	In Force	ban on sale	marketing; me	a TFEU (232009R110	Europea	NA	20/07/2011	21/07/2011	2011-08-10;	NA	31991L4	1 http://dat	a 32011R540; 3	http://data.euro	https://eur	http://d	a NA	NA	EEA releva
13 3	2011R07	Commissio	Implemen	In Force	ban on sale	marketing; me	a TFEU (232009R110	Europea	NA	20/07/2011	21/07/2011	2011-08-10;	NA	31992R3	http://dat	a 32011R540; 3	http://data.euro	https://eur	http://d	a NA	NA	EEA releva
14 3	2011R07	Commissio	Implemen	In Force	ban on sale	marketing; ag	rk TFEU (232009R110	Europea	NA	20/07/2011	21/07/2011	2011-08-10;	NA	31991L4	1 http://dat	a 32010L54; 32	(http://data.euro	https://eur	http://d	a NA	NA	EEA releva
15 3	2011R07	Commissio	Implemen	In Force	fungicide; b	means of agric	ul TFEU (232009R110	Europea	NA	20/07/2011	21/07/2011	2011-08-10;	NA	31991L4	1 http://dat	a 32011R540; 3	http://data.euro	https://eur	http://d	a NA	NA	EEA releva

3.2. Multi-level governance and the Eurlex legal acts dataset

MLG is a multi-dimensional concept that can be analysed from the perspectives of actors, processes and levels (see Tortola 2016; Abbott, Snidal 2009).³ From the actor perspective, researchers investigating MLG argue that new actors (such as agencies, NGOs, private firms) have become more important in the EU's policy process. This hypothesis can be tested by analysing European law. If agencies and NGOs are mentioned more often in EU legal texts, this is a clear indication of their growing importance, for example in the implementation and enforcement of EU law. The Eurlex dataset provides the full text of most of the 148.000 EU laws in a machine-readable format and provides the ideal basis to test this hypothesis.

The analysis was conducted in several steps: In a first step, two dictionaries with search keywords were created with so called 'regular expressions' that allow for the search for specific word patterns in text: (a) Agency-related keywords including the full names and abbreviations of all EU agencies ("Agency|Agencies|union agencies|ACER|BEREC..."). (b) NGO/civil society-related key words ("public interest group|public interest organi|public interest bod|public interest association|\bNGO\b|\bNGO\b|non-governmental organi|not-for-profit organi|..."). These dictionaries of search keywords were created in an iterative, explorative process where different keywords and spellings were tested to catch the highest amount of sentences mentioning agencies/NGOs (reduce false negatives), while at the same time remining conservative to prevent unrelated sentences from being counted (reduce false positives). It was, for example, important to spell the search word 'Agency' with capital 'A', because a small letter 'a' would return sentences on agencies from private banks, which are not relevant for this analysis.

_

³ Tortola, Pier Domenico (2017): "Clarifying multilevel governance", European Journal of Political Research 56: 234–250, 2017, doi: 10.1111/1475-6765.12180

Abbott, Kenneth W.; Snidal, Kenneth (2009): "The Governance Triangle: Regulatory Standards Institutions and the Shadow of the State", Research Gate, available online: https://www.researchgate.net/publication/228677087_The_Governance_Triangle_Regulatory_S tandards Institutions and the Shadow of the State

Then, a script was written in the programming language Python, which searched through every sentence in every law to find sentences that mention agencies or NGOs. The script then counts the total amount of agency-/NGO-related sentences per law and enables the calculation of different statistical indices on the prominence of agencies or NGOs.

First, the indices were plotted over time. Figure 3, for example, shows, how the importance of agencies has developed over time in EU directives, by simply counting the total sentences per year. The prominence of agencies increased overtime, with the biggest peak in 2016. To account for the fact that the total amount of EU laws has decreased over the past years, figure 4 shows the mean number of sentences on EU agencies in the average EU regulation. The graph shows that the average amount of sentences has increase steadily, to a statistical peak of around 0.9 sentence per law. Table 1. provides an exemplary table showing the data underlying the graph on agencies in EU regulations over time. Every visualisation has a similar underlying data table.

Regarding NGOs, figure 5 shows how NGOs have also gained prominence in EU directives. The figure shows the mean number of sentences mentioning NGOs in the average EU directive and how this number increased over time. In 2018, for example, the average directive statistically contained 0.3 sentences mentioning NGOs. Table 3 shows the different statistical indicators for NGOs in EU Regulations. These analyses provide empirical proof of the MLG hypothesis that agencies and NGOs have gained in importance in the EU over time.

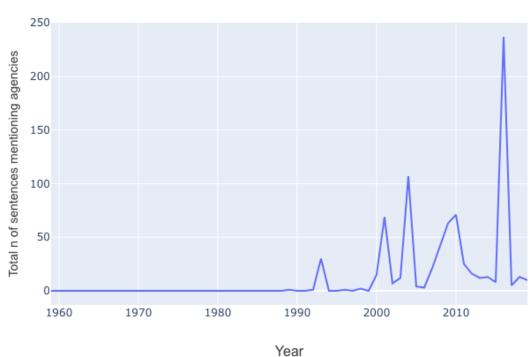


Figure 3.: Total number of legal sentences mentioning agencies in EU directives

Figure 4.: Mean number of legal sentences mentioning agencies in EU regulations

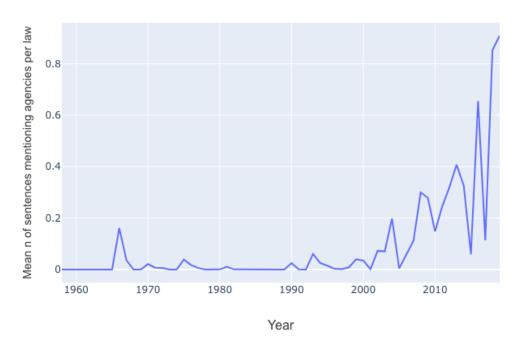
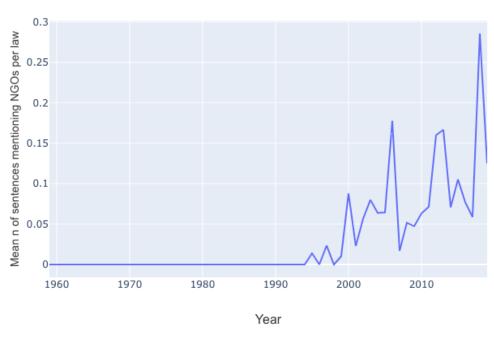


Figure 5.: Mean number of sentences per law mentioning NGOs in EU directives



In addition to this analysis over time, the importance of agencies and NGOs was also analysed across policy areas. The Eurlex dataset contains a variable "Subject_matter", which attributes every law to one or more out of 120+ policy area categories. The amount of agency- or NGO-

related sentences could therefore also be correlated with the respective subject matter of each law. When it comes go agencies, figure 6. shows that there are three policy areas, where more than 25% of the laws contain at least one agency-related sentence: Construction and Town Planning, Migration, European Organisations. The data shows that agencies are prominent in specific policy areas, while they don't play a role in other domains. Table 2. displays the underlying data table with the details for all domains.

When it comes to NGOs, table 4 shows the subject matters in which NGOs are mentioned the most: In the subject matter "electoral procedure and voting" 26.6% of the laws mention NGOs; "political parties" (22.2%); and "rights and freedoms" (20.5%). The data shows that NGOs play a more important role in social and political subject matters, while they are less prominent in economic domains (with the exception of "economic conditions" 10.8%).

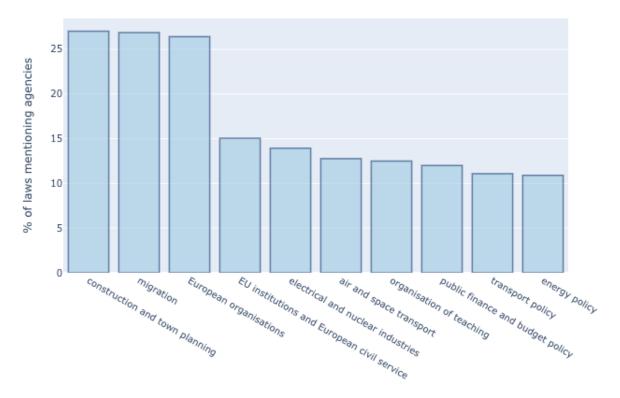


Figure 6.: Share of laws mentioning agencies per policy area

4. Conclusion

This deliverable provides both a qualitative and a quantitative analysis of EU multi-level governance by analysing the growing importance and the role of agencies and NGOs. The qualitative analysis provides an in-depth analysis of 17 agencies and their role in EU governance. The quantitative analysis provides a large-scale, but more superficial, analysis of the growing importance of agencies and NGOs in EU law.

In doing so, this deliverable provides a proof-of-concept for the potential of large-scale text analyses with the new Eurlex dataset. At the same time, there is still a lot of potential that remains untapped. A few ideas that will be explored in future scientific publications are: Going beyond searching and counting sentences and analyse their content and classify them into different categories; deepening the analysis of different policy areas; or investigating other actor groups, such as private companies and economic interest groups.

In this vain, the potential of the qualitative and quantitative datasets will be explored in future deliverables.

Table 1.: Statistical analysis of agency-related sentences in EU regulations per year

Sents_pattern_total_mean	Sents_pattern_share_mean_%	Sents_pattern_total	Sents_total	Laws_total	Date
0	0	0	623	15	1958
0	0	0	84	5	1959
0	0	0	311	5	1960
0	0	0	6	3	1961
0	0	0	952	38	1962
0	0	0	407	15	1963
0	0	0	442	22	1964
0	0	0	649	29	1965
0.161290323	1.836917563	5	961	31	1966
0.035714286	0.793650794	3	1480	84	1967
0	0	0	6079	181	1968
0	0	0	4432	217	1969
0.021276596	0.039915257	3	2822	141	1970
0.007246377	0.060386473	1	3134	138	1971
0.006024096	0.066934404	1	5552	166	1972
0	0	0	2413	167	1973
0	0	0	2424	116	1974
0.038610039	0.206031743	10	6871	259	1975
0.017985612	0.012238849	5	7860	278	1976

0.005830904	0.00092045	2	10904	343	1977
0	0	0	8649	430	1978
0	0	0	15744	740	1979
0.00052687	0.001033079	1	28573	1898	1980
0.01084991	0.009774693	30	33504	2765	1981
0.000559284	0.009829842	2	37405	3576	1982
0.000811249	0.002875145	3	41382	3698	1983
0.000268456	0.002065049	1	40609	3725	1984
0.000515198	0.025759918	2	48651	3882	1985
0	0	0	40245	3004	1986
0.000946074	0.01211436	4	56481	4228	1987
0.000229991	0.000425909	1	53967	4348	1988
0	0	0	57107	4180	1989
0.025332022	0.019477205	103	53361	4066	1990
0.000737101	0.001297101	3	51653	4070	1991
0.00023912	0.000771355	1	62011	4182	1992
0.060311781	0.027574219	236	59864	3913	1993
0.025605344	0.025429748	92	52641	3593	1994
0.015039811	0.036988485	51	48640	3391	1995
0.002823862	0.020858069	8	41722	2833	1996
0.001668335	0.038927817	5	43485	2997	1997
0.008682635	0.01445985	29	51189	3340	1998
0.039953339	0.053792732	137	47516	3429	1999

0.034785664	0.04682344	99	16372	2846	2000
0.001534919	0.013226221	4	17787	2606	2001
0.072842105	0.080185043	173	17929	2375	2002
0.070785071	0.15126362	165	19732	2331	2003
0.198416625	0.100525137	401	20571	2021	2004
0.00448682	0.009208958	8	12494	1783	2005
0.056037358	0.064734277	84	15541	1499	2006
0.111888112	0.082913851	160	21933	1430	2007
0.299552906	0.16578561	402	30861	1342	2008
0.278254092	0.174683062	357	33510	1283	2009
0.14853058	0.089860248	187	19545	1259	2010
0.245105149	0.17141782	338	19080	1379	2011
0.319587629	0.269160511	403	23510	1261	2012
0.407381121	0.327750727	574	43016	1409	2013
0.325867052	0.339582927	451	39212	1384	2014
0.059097978	0.041739171	76	25160	1286	2015
0.654670094	0.238533765	764	30194	1167	2016
0.113869863	0.103801705	133	34855	1168	2017
0.852974186	0.47928	760	28586	891	2018
0.908783784	0.688274009	538	30359	592	2019

Table 2.: Statistical analysis of agency-related sentences in EU regulations per policy area

Subject_matter	Total_laws	Total_sents	Total_pattern_sents	Share_of_laws_w_pattern	Share_of_sents_w_pattern
Africa	1729	15310	4	0.2313476	0.026126715
America	1593	14571	1	0.062774639	0.006862947
Asia and Oceania	3963	43708	9	0.201867272	0.020591196
EU finance	5305	118328	121	0.622054665	0.10225813
EU institutions and European civil service	1269	87176	4760	15.05122143	5.460218409
Europe	10573	124121	94	0.283741606	0.075732551
European Union law	1347	64436	688	3.043801039	1.067726116
European construction	2599	101829	1353	3.770681031	1.328698112
European organisations	53	4413	257	26.41509434	5.823702697
NA	940	23590	488	2.765957447	2.068673167
United Nations	117	2309	3	2.564102564	0.129926375
accounting	807	25813	302	3.22180917	1.169953124
agri-foodstuffs	949	20484	7	0.52687039	0.034173013
agricultural activity	6038	131463	61	0.761841669	0.046400888

agricultural	9899	164399	326	0.39397919	0.198298043
policy					
agricultural	3684	70851	4	0.108577633	0.005645651
structures and					
production					
air and space	462	20216	970	12.77056277	4.79817966
transport					
animal product	6273	90637	77	0.350709389	0.084954268
beverages and	5821	78759	3	0.051537537	0.003809088
sugar					
budget	456	51704	182	10.0877193	0.352003713
building and	99	1871	1	1.01010101	0.053447354
public works					
business	151	9460	20	3.311258278	0.21141649
classification					
business	307	17920	71	4.885993485	0.396205357
organisation					
character(0)	42304	440608	10	0.021274584	0.002269591
chemistry	1583	19197	489	1.642451042	2.547273011
civil law	1154	36895	165	1.733102253	0.44721507
coal and mining	141	1658	6	2.836879433	0.361881785
industries					
communications	607	19839	332	3.294892916	1.673471445
competition	1980	43864	71	0.454545455	0.161863943

construction	74	13836	410	27.02702703	2.963284186
and town					
planning					
consumption	3409	59613	112	1.290701085	0.187878483
cooperation	7525	162683	896	0.810631229	0.55076437
policy					
criminal law	255	13205	157	6.666666667	1.188943582
cultivation of	494	15498	3	0.607287449	0.019357336
agricultural land					
culture and	33	2074	0	0	0
religion					
defence	163	3820	332	1.226993865	8.691099476
demography	97	2059	1	1.030927835	0.048567266
and population					
deterioration of	1020	32680	467	4.901960784	1.429008568
the environment					
distributive	1083	29746	93	0.27700831	0.312647079
trades					
documentation	687	23991	286	4.949053857	1.192113709
economic	1003	23199	7	0.498504487	0.030173714
analysis					
economic	415	16409	175	2.168674699	1.066487903
conditions					

economic	1861	37819	57	0.967221924	0.150717893
geography					
economic policy	3912	105436	136	0.613496933	0.128988201
economic	184	5509	4	2.173913043	0.072608459
structure					
education	29	1502	7	10.34482759	0.466045273
electoral	15	1866	0	0	0
procedure and					
voting					
electrical and	165	12666	234	13.93939394	1.847465656
nuclear					
industries					
electronics and	379	4435	0	0	0
electrical					
engineering					
employment	258	18807	102	10.07751938	0.542351252
energy policy	321	22549	550	10.90342679	2.439132556
environmental	849	52234	1110	7.65606596	2.125052648
policy					
executive power	1328	56236	468	3.840361446	0.832207127
and public					
service					
extra-European	7	117	0	0	0
organisations					

family	36	4305	30	8.333333333	0.696864111
farming systems	833	29290	16	0.360144058	0.054626152
financial	618	38979	65	6.472491909	0.166756459
institutions and					
credit					
financing and	230	12601	17	6.086956522	0.134909928
investment					
fisheries	4284	76821	230	0.256769374	0.2993973
food technology	2227	38954	12	0.538841491	0.030805566
foodstuff	9189	104355	73	0.348242464	0.069953524
forestry	92	3389	5	3.260869565	0.147536146
free movement	943	46677	96	4.772004242	0.205668745
of capital					
health	2616	55931	1510	4.587155963	2.699755055
humanities	2	175	0	0	0
industrial	642	13531	3	0.46728972	0.02217131
structures and					
policy					
information and	1209	79241	1268	8.35401158	1.600181724
information					
processing					
information	1204	68975	1157	6.22923588	1.677419355
technology and					
data processing					

insurance	84	3681	1	1.19047619	0.027166531
international	2011	31544	97	0.795624068	0.307506974
affairs					
international law	1354	41559	1291	3.840472674	3.106427007
international	279	9521	583	3.584229391	6.123306375
security					
international	6902	111907	20	0.260793973	0.017871983
trade					
iron, steel and	782	12435	1	0.127877238	0.008041817
other metal					
industries					
justice	76	6093	33	6.578947368	0.541605121
labour law and	62	3433	15	6.451612903	0.436935625
labour relations					
labour market	212	15467	100	8.018867925	0.64653779
land transport	426	19017	753	10.56338028	3.959615081
leather and	1401	16715	1	0.071377587	0.00598265
textile industries					
legal form of	82	3681	0	0	0
organisations					
management	454	43121	39	6.387665198	0.090443172
maritime and	1778	24942	61	0.674915636	0.244567396
inland waterway					
transport					

marketing	6721	146044	1949	2.053265883	1.33452932
means of	2373	36133	143	0.758533502	0.395760108
agricultural					
production					
mechanical	407	9543	23	0.982800983	0.241014356
engineering					
migration	67	9205	931	26.86567164	10.11406844
miscellaneous	312	2794	1	0.320512821	0.035790981
industries					
monetary	499	23186	30	3.006012024	0.129388424
economics					
monetary	265	7489	6	1.509433962	0.080117506
relations					
nan	150	2861	0	0	0
national	248	5960	2	0.403225806	0.033557047
accounts					
natural and	309	10142	290	3.55987055	2.859396569
applied					
sciences					
natural	1073	21633	13	0.652376514	0.060093376
environment					
non-	33	461	0	0	0
governmental					
organisations					

oil industry	201	6287	102	5.970149254	1.622395419
organisation of	24	1414	17	12.5	1.202263083
teaching					
organisation of	81	5335	1	1.234567901	0.018744142
the legal system					
organisation of	902	46086	1224	7.206208426	2.655904179
transport					
organisation of	91	6131	99	7.692307692	1.61474474
work and					
working					
conditions					
overseas	257	4881	0	0	0
countries and					
territories					
parliament	33	648	2	6.060606061	0.308641975
parliamentary	22	209	1	4.545454545	0.4784689
proceedings					
personnel	301	7351	80	2.657807309	1.088287308
management					
and staff					
remuneration					
plant product	21492	184092	12	0.055834729	0.00651848
political	199	6321	10	2.512562814	0.158202816
framework					

political	886	16498	97	0.677200903	0.587950055
geography					
political party	9	774	0	0	0
politics and	575	17061	901	5.739130435	5.281050349
public safety					
prices	11217	79562	1	0.00891504	0.001256881
processed	6722	76905	6	0.089259149	0.007801833
agricultural					
produce					
production	1245	18987	41	0.722891566	0.21593722
public finance	200	26765	135	12	0.504390062
and budget					
policy					
regions and	467	25375	7	1.284796574	0.027586207
regional policy					
regions of EU	2001	22081	1	0.049975012	0.00452878
Member States					
research and	511	36791	172	7.632093933	0.46750564
intellectual					
property					
rights and	141	10001	109	4.964539007	1.089891011
freedoms					
social affairs	293	19451	159	6.825938567	0.817438692

social framework	46	2240	0	0	0
social protection	327	17174	38	2.44648318	0.221264702
soft energy	64	4413	22	6.25	0.498527079
sources and branches of the law	100	16839	2	1	0.01187719
tariff policy	13898	230642	14	0.100733919	0.006070013
taxation	479	9159	205	1.461377871	2.238235615
teaching	71	3505	5	1.408450704	0.142653352
technology and technical regulations	2265	77344	1205	5.695364238	1.557974762
trade	13107	176696	301	0.228885328	0.170349074
trade policy	18631	279869	414	0.295206913	0.147926351
transport policy	875	42690	1744	11.08571429	4.08526587
wood industry	180	2050	0	0	0
world organisations	177	5964	16	3.389830508	0.268276325

Table 3.: Statistical analysis of NGO-related sentences in EU regulations per year

Sents_pattern_total_mean	Sents_pattern_share_mean_%	Sents_pattern_total	Sents_total	Laws_total	Date	
0	0	0	623	15	1958	
0	0	0	84	5	1959	
0	0	0	311	5	1960	
0	0	0	6	3	1961	
0	0	0	952	38	1962	
0	0	0	407	15	1963	
0	0	0	442	22	1964	
0	0	0	649	29	1965	
0	0	0	961	31	1966	
0	0	0	1480	84	1967	
0	0	0	6079	181	1968	
0	0	0	4432	217	1969	
0	0	0	2822	141	1970	
0	0	0	3134	138	1971	
0	0	0	5552	166	1972	
0	0	0	2413	167	1973	
0	0	0	2424	116	1974	
0	0	0	6871	259	1975	
0	0	0	7860	278	1976	
0	0	0	10904	343	1977	
0	0	0	8649	430	1978	

0	0	0	15744	740	1979
0	0	0	28573	1898	1980
0	0	0	33504	2765	1981
0	0	0	37405	3576	1982
0.000270416	0.001040063	1	41382	3698	1983
0.000536913	0.001579155	2	40609	3725	1984
0.000515198	0.001515289	2	48651	3882	1985
0.000332889	0.000739754	1	40245	3004	1986
0.000236518	0.00073912	1	56481	4228	1987
0.001149954	0.002874885	5	53967	4348	1988
0	0	0	57107	4180	1989
0	0	0	53361	4066	1990
0.0004914	0.004914005	2	51653	4070	1991
0.0011956	0.001492243	5	62011	4182	1992
0.000511117	0.000417579	2	59864	3913	1993
0.001391595	0.000818186	5	52641	3593	1994
0.001179593	0.008453162	4	48640	3391	1995
0.013766325	0.011777878	39	41722	2833	1996
0.005338672	0.004397092	16	43485	2997	1997
0.003293413	0.006792172	11	51189	3340	1998
0.005249344	0.006784643	18	47516	3429	1999
0.005621926	0.009352497	16	16372	2846	2000
0.005372218	0.011152176	14	17787	2606	2001

0.003368421	0.008106637	8	17929	2375	2002
0.001716002	0.001861765	4	19732	2331	2003
0.00544285	0.014124631	11	20571	2021	2004
0.000560852	0.000241747	1	12494	1783	2005
0.036024016	0.019696852	54	15541	1499	2006
0.007692308	0.002106157	11	21933	1430	2007
0.004470939	0.002851495	6	30861	1342	2008
0.007014809	0.001242192	9	33510	1283	2009
0.008737093	0.017293946	11	19545	1259	2010
0.005076142	0.005907524	7	19080	1379	2011
0.014274385	0.034318889	18	23510	1261	2012
0.024840312	0.012993478	35	43016	1409	2013
0.049855491	0.034287999	69	39212	1384	2014
0.006998445	0.004886059	9	25160	1286	2015
0.009425878	0.004213654	11	30194	1167	2016
0.014554795	0.031497328	17	34855	1168	2017
0.015712682	0.005744123	14	28586	891	2018
0.018581081	0.008321966	11	30359	592	2019

Table 4.: Statistical analysis of NGO-related sentences in EU regulations per subject matter

Subject_matter	Total_laws	Total_sents	Total_pattern_sents	Share_of_laws_w_pattern	Share_of_sents_w_pattern
Africa	1729	15310	6	0.1735107	0.039190072
America	1593	14571	10	0.564971751	0.068629469
Asia and	3963	43708	18	0.328034317	0.041182392
Oceania					
EU finance	5305	1E+05	149	1.244109331	0.125921168
EU institutions and European civil service	1269	87176	64	2.758077226	0.073414701
Europe European Union	10573 1347	1E+05 64436	22	0.113496642 1.039346696	0.01772464 0.05586939
European Union law	1347	04430	30	1.039340090	0.0000000

9.433962264 0.113301609
9.433962264 0.113301609
9.433962264 0.113301609
0.319148936 0.012717253
0 0
0.371747212
0.210748156
0.115932428
0.090918275
0.135722041

air and space	462	20216	4	0.432900433	0.019786308
transport					
animal product	6273	90637	5	0.079706679	0.005516511
beverages and sugar	5821	78759	1	0.017179179	0.001269696
budget	456	51704	16	2.412280702	0.030945381
building and public works	99	1871	0	0	0
business classification	151	9460	6	3.311258278	0.063424947
business organisation	307	17920	4	0.977198697	0.022321429
character(0)	42304	4E+05	1	0.002363843	0.000226959
chemistry	1583	19197	6	0.379027164	0.031254884
civil law	1154	36895	11	0.779896014	0.029814338

coal and mining	141	1658	0	0	0
industries					
communications	607	19839	11	1.317957166	0.055446343
competition	1980	43864	24	0.707070707	0.054714572
construction	74	13836	2	1.351351351	0.014455045
and town					
planning					
consumption	3409	59613	23	0.410677618	0.038582188
cooperation	7525	2E+05	266	1.621262458	0.163508172
policy	. 020	22 00		1.02.232.100	0.100000172
criminal law	255	13205	13	3.921568627	0.098447558
cultivation of	494	15498	4	0.809716599	0.025809782
agricultural land					
culture and	33	2074	3	6.060606061	0.144648023
religion					
defence	163	3820	3	1.840490798	0.078534031

demography	97	2059	0	0	0
and population					
deterioration of	1020	32680	17	1.37254902	0.052019584
the environment					
distributive	1083	29746	21	0.369344414	0.070597727
trades					
documentation	687	23991	3	0.436681223	0.012504689
economic	1003	23199	7	0.498504487	0.030173714
analysis	1003	23199	<i>'</i>	0.490304407	0.030173714
analysis					
economic	415	16409	108	10.84337349	0.658175392
conditions					
economic	1861	37819	21	0.591080064	0.055527645
geography					
economic policy	3912	1E+05	135	1.559304703	0.128039759

economic	184	5509	8	2.717391304	0.145216918
structure					
education	29	1502	3	6.896551724	0.199733688
electoral procedure and voting	15	1866	13	26.66666667	0.696677385
electrical and nuclear industries	165	12666	4	1.818181818	0.03158061
electronics and electrical engineering	379	4435	0	0	0
employment	258	18807	19	4.263565891	0.101026214
energy policy	321	22549	7	1.869158879	0.031043505
environmental policy	849	52234	30	2.826855124	0.057433855

executive power	1328	56236	49	1.204819277	0.087132797
and public					
service					
extra-European	7	117	0	0	0
organisations					
family	36	4305	0	0	0
farming systems	833	29290	3	0.240096038	0.010242404
financial	618	38979	10	0.970873786	0.02565484
institutions and					
credit					
financing and	230	12601	14	3.913043478	0.111102293
investment					
fisheries	4284	76821	16	0.186741363	0.020827638
food technology	2227	38954	0	0	0
foodstuff	9189	1E+05	11	0.065295462	0.010540942
				3.33233.32	

forestry	92	3389	6	5.434782609	0.177043376
free movement	943	46677	10	0.84835631	0.021423828
of capital					
health	2616	55931	19	0.688073394	0.033970428
humanities	2	175	1	50	0.571428571
industrial	642	13531	0	0	0
structures and					
policy					
information and	1209	79241	38	2.23325062	0.047954973
information					
processing					
information	1204	68975	16	0.996677741	0.02319681
technology and					
data processing					

insurance	84	3681	1	1.19047619	0.027166531
international affairs	2011	31544	37	1.093983093	0.117296475
international law	1354	41559	21	0.812407681	0.050530571
international security	279	9521	37	6.810035842	0.388614641
international trade	6902	1E+05	30	0.304259635	0.026807974
iron, steel and other metal industries	782	12435	1	0.127877238	0.008041817
justice	76	6093	10	5.263157895	0.164122764
labour law and labour relations	62	3433	0	0	0
labour market	212	15467	3	0.943396226	0.019396134

land transport	426	19017	6	0.938967136	0.031550718
leather and textile industries	1401	16715	1	0.071377587	0.00598265
legal form of organisations	82	3681	3	3.658536585	0.081499593
management	454	43121	22	3.303964758	0.051019225





























INSTITUTION EURASIAN INSTITUTE OF INTERNATIONAL RELATIONS





This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement n° 822735. This document reflects only the author's view and the Commission is not responsible for any use that may be made of the information it contains.