GEodata Openness Initiative for Development and Economic Advancement in Romania

Joint Research Project under the Romanian-Swiss Research Programme

Project Number: IZERZ0-142129

Report on Existing Open Data Strategies

Main Author

Codrina Maria Ilie, Groundwater Engineering Research Centre, Technical University of Civil Engineering, Bucharest, Romania

Issue / Revision: 1 / 0

Date: 03.10.2013

This page is intentionally left blank.

GEOIDEA.RO Report

GRANT AGREEMENT NR:	SUBJECT:	PROJECT COORDINATOR:
IZERZ0- 142129	Report on existing open data strategies	ETH Zurich

ISSUE / REVISION:	INTERNAL REFERENCE:
1 / 0	geoidea_deliverable_02

ABSTRACT:

The purpose of the Report on existing open data strategies is to offer an overview on the situation of open data in the European Union and beyond its borders. The report reviews the history of the open data initiative and its development, as well as a brief summary of an implementation example identifying possible guidelines and best practices that should be considered within the GEOIDEA.RO development.

We address Public Sector Information (PSI) legislative aspects, as well as the economical ones portrayed in studies, mainly commissioned by the European Commission. We analyse conclusions from PUBLAW2, PIRA, MEPSIR and POPSIS. We describe the situation of PSI at European level as well as at Romanian level. Then, we analyse the context created by the Open Government Partnership and the current situation of Romania.

We continue our report with a short but comprehensive analysis on what is the situation regarding open data around the world. At the end, we present a roadmap to open up data in Denmark and in the United States.

MAIN AUTHORS: CODRINA MARIA ILIE, VASILE CRĂCIUNESCU, RADU GOGU

This page is intentionally left blank.

TABLE OF CONTENTS

This page is intentionally left blank.

geo!DEA.ro

1. INTRODUCTION

1.1   Purpose of the document

The main objective of the GEOIDEA.RO project proposal is to improve the scientific basis for open geodata model adoption in Romania. It is our belief that publishing governmental geodata in Romania over the Internet, under an open license and in a reusable format can strengthen citizen engagement and yield new innovative businesses, bringing substantial social and economic gains.

The purpose of this report on existing open data strategies is to offer a clear view on the situation of open data in the European Union and beyond its borders. The report reviews the history of the open data initiative and its development and gives a brief summary of implementation examples identifying possible guidelines and best practices that should be considered within the GEOIDEA.RO project.

1.2   Abbreviations

DOSD   Department for Online Services and Design

eEurope   an European Commission political initiative launched in 1999, an ambitious programme aimed at making information technologies as widespread as possible.

EC   European Commission

epsiPlatform European Public Sector Information Platform

EU   European Union

FOSS4G-CEE   Free and Open Source Conference for Geospatial – Central and Eastern Europe

FOT   FOT Register – common public sector geographic data (Denmark)

INIS   Council for National Infrastructure for Spatial Information

INSPIRE   INfrastructure for SPatial Information in Europe

NAS   National Anticorruption Strategy (Romania)

OECD   The Organisation for Economic Co-operation and Development

OECD   The Working Party on the Information Economy - focuses on digital content, ICT diffusion to business, ICT-enabled offshoring, and ICT skills and employment.

OGP   Open Government Partnership

OKF   Open Knowledge Foundation

OSGeo   The Open Source Geospatial Foundation

PSI   Public Sector Information

PUBLAW 2   The second report of a series of three reports commissioned by the EC written to assess the impact of the "Guidelines for improving the synergy between the public and private sectors in the information market" document.

VCS   SciSys Company http://www.scisys.co.uk/

2. STATE OF PLAY

2.1   Public Sector Information

"Public Sector Information (PSI) directly generated by public institutions and information and content held by cultural establishments, archives, and the like is any kind of information that is produced and/or collected and held by a public body as part of its public task" (Vickery 2011). The Directive 2003/98/EC on the Re-use of Public Sector information has drawn a significant amount of attention regarding better access to public sector information.

In the "Review of recent studies on psi re-use and related market developments" study, Graham Vickery (2011) points out that "there is no standard international terminology for the whole public information/content area and its subsets. In South Korea, for instance, reference is made to "public knowledge information resources", and in the United States the terms "public information" and "government information" are widely used."

The European PSI re-use policy has come a long way. The first step was taken in the policy making field. In **1989**, a 13 pages document, named "Guidelines for improving the synergy between the public and private sectors in the information market", recorded 19 ground rules that tackled the matter of public data and its re-use for the benefit of the society. These rules can be easily found in today's laws and strategies. The obvious catalyst of the initiative was the technological development that allowed a completely new perspective on storing, managing and querying information, as can be deduced from guideline no. 1: "Public organizations should, as far as it is practicable and when access is not restricted for the protection of legitimate public or private interests, allow these basic information materials to be used by the private sector and exploited by the information industry through electronic information services.". Nevertheless, the subsequent study sponsored by European Commission, PUBLAW 2, showed that the problem with the Synergy Guidelines was its inefficiency given by the absence of legislation. The very first legislative initiative was taken in 1990 and it was with regard to the freedom of access to information related to the environment (Directive 90/313/EEC of 23 June 1990).

The second step came after 9 years, in **1998**, when a green paper[1] was published. This green paper, named "Public Sector Information: A key resource for Europe" brought into the spotlight the major issues related to the matter, such as competition, pricing, copyright, privacy and liability. Given the nature of the document, debates were expected in order to improve the paper.

---

[1] A green paper is a tentative government report and consultation document of policy proposals for debate and discussion, without any commitment to action; the first step in changing the law. Green papers may result in the production of a white paper. (Wikipedia, accessed 05.08.2013)

In **2000**, an important study, "Commercial exploitation of Europe's public sector information" (Directorate-General for the Information Society, 2000), funded by the European Commission and conducted by PIRA International Ltd. estimated the economic value of PSI in Europe at EUR 68 billion. It also emphasized the considerable need of an European Directive for a better PSI implementation. In October 2001, the European Commission gave a Communication to the Council, to the European Parliament, to the Economic and Social Committee and to the Committee of Regions within the eEurope2002 Action Plan[2] regarding the necessity of creating an EU framework for PSI exploitation, a coordinated approach meant to address barriers caused by differences in the national regulations and practices.

2003 is the year of PSI Directive adoption and thus, of the introduction of a common legislative framework regulating the processes of making public sector information available for re-use.

After the directive, in **2005**, the European Commission sponsored a new study, named "Measuring European Public Sector Information Resources (MEPSIR). The study had 2 clear objectives:

1. "To develop, document and test a repeatable methodology for measurement of PSI re-use; and

2. To perform a baseline measurement of PSI re-use in the European Union and Norway, including a comparison with the United States." (MEPSIR study 2005)

MEPSIR pointed out the existing significant gap, at that time, between the "current baseline situation and the sought one by the directive" (2005). Nevertheless, it did emphasize on the belief that the directive will eventually be successful. In **2007** INSPIRE Directive was adopted and enforced. In **2008**, the study "Assessment of the Re-use of Public Sector Information (PSI) in the Geographical Information, Meteorological Information and Legal Information Sectors" was commissioned and showed promising results:

> "Although the PSI Directive was not fully transposed into all Member States until 2008, it has already sparked positive effects. The re-use of PSI is increasing in all three sectors of public information, which have been individually scrutinized in this study (geographical information, meteorological information, legal and administrative information). However, the impact of the Directive varies within the sectors. Re-users complain first and foremost about pricing, transparency and licensing. In the legal sector, most of the respondents criticize the lack of information on what PSI is accessible and where to find it for re-use.

---

[2] eEurope2002 Action Plan is an integral part of the Lisbon strategy for making the European Union the world's most dynamic knowledge-based economy by 2010. (Europa. Summaries of EU legislation webpage, accessed 17.10.2013 - http://europa.eu/legislation_summaries/information_society/strategies/l24226a_en.htm)

Detailed and quantitative information is available in the study. The study was carried out in cooperation with VCS and Online Consultants International." (MICUS study 2008).

During the same year, the OECD published its "Recommendations for enhanced access and more effective use of PSI". In that document, the Working Party on the Information Economy tackled issues such as openness, access and transparent conditions for re-use, asset lists, quality, integrity, new technologies and long-term preservation, copyright, pricing, competition, redress mechanisms, public private partnerships, international access and use and best practices.

The first review of the PSI Directive was made in **2009** and it pointed out that despite the proven economical gain, Member States had not done everything possible to smooth the re-use of PSI. It further indicated some practical measures to be taken such as ending exclusive arrangements and re-use of PSI.

In **2011,** the "Prices of Public Sector Information Study" study (POPSIS), focused on the analysis of Open Data portals highlighting its importance in pushing forward the open data agenda. The study concluded that "their impact on opening up high added-value datasets is modest and their direct short term economic effects have been, up to 2011, limited. Their largest impacts to date are indirect: the portals stimulate creativity and innovation and pave the way to unanticipated value creation." (POPSIS 2011)

In **2012,** the second review of the PSI Directive was conducted. One of the major divides regarding the suggested amendments concerned charging for the PSI re-use and especially in the context of exclusive arrangements. Some cultural heritage institutions are using such arrangements for the digitalization of their archives, for instance. Also some amendments, maintain the possibility to sign similar arrangements, whereas the PSI Directive's main goal is designed to abolish them. Another important aspect, covered during the 2012 second review is, related to privacy issues and data protection (Ton Zijlstra (2012, 128 Amendments to PSI Directive by European Parliament. Online at http://epsiplatform.eu/content/128-amendments-psi-directive-european-parliament   accessed 05.08.2013).

In **2013** the European Union adopted the Directive 2013/37/EU of the European Parliament and of the Council (the 'PSI Amendment'). One of the most significant amendments was related to the right to re-use public sector information. Although the 2003 Directive harmonized the conditions for re-use, it did not make it mandatory to actually make the data available in such conditions. This issue was left to be decided by the Member States. As a consequence, many European public sector bodies simply chose not to allow re-use of their available data. Now, even though the 2013 PSI Directive makes it compulsory to allow re-use, it only mandates it for already publicly available information, under national law. It also stipulates that re-use is compulsory if "it would not prejudice provisions of applicable data protection law. "(Opinion 06/2013 on open data and public sector information re-

use. Online at http://ec.europa.eu/justice/data-protection/article-29/documentation/opinion-recommendation/files/2013/wp207_en.pdf. Accessed 05.08.2013). With regard to this aspect, it is considered that the amended PSI Directive will increase the level of availability and usage of public sector information.

In Romania, the Directive 2003/98/EC is transposed by the Law no 109/2007. The legislative body decided, as in many other European countries to adopt a different act from the already existing one, the Law on access to public information (Law no 544/2001).

> *"The law does not apply to: documents that are not the core responsibility of the public body, documents in which third parties hold intellectual property, documents that are held by public service broadcasters, educational and research establishments, or by cultural establishments, such as museums, libraries, archives and theatres. Finally, the law does not apply in cases where companies/citizens have to prove a particular interest in the information in order to gain access to it." (*Dacian C. Dragos, Bogdana Neamtu, 2009)

The law distinguished between commercial and non-commercial usage. Non-commercial usage was based on free access, while commercial usage was until 2008 subjected to fees. That year, the law was modified to comply with the European Commission's observations sent in a letter to the Romanian Ministry of Communication and Information Technology (July 2007). In 2008 Law no. 213/2008 was adopted as an amendment of Law no. 109/2007.

In **2011**, the "State of Play: PSI re-use in Romania" report (European Public Sector Information Platform Topic Report No.2011/4) clearly commented the situation in Romania by stating that "the legislative framework in Romania is set to support the reuse of PSI. As with many other laws, implementation proved to be the missing link due to limited institutional capacity. Proper legislation is in place but in practice implementation is lagging behind" (Dittrich, 2011).

In Romania, just like in other Member States, the PSI re-use is directly regulated by national implementation of the EC PSI and INSPIRE Directives and indirectly influenced by laws on Right to Access to Information and Privacy. The same report also draws attention on the high level of corruption. Hence, there are several anti-corruption laws that positively affect the PSI re-use: Law on Preventing, Discovering and Sanctioning of Corruption Acts (2000), Law on decisional transparency in Public Administration, Law on the Statute of Civil Servants, and Law on Public Internal Audit.

2.2   INSPIRE Directive

The INSPIRE Directive is a project started in 2001 with the purpose of creating a spatial data infrastructure of the European Union. The Directive was adopted in 2007 and should be fully implemented by 2019.

geo!DEA.ro

The INSPIRE Directive demands that every member state develops a national spatial data infrastructure, where all public geospatial information should be put together. In Romania the authorities decided that to accomplish this task it was needed to be established a new committee. This is the Council for National Infrastructure for Spatial Information (INIS). With regard to legislation, there is the Decree no. 4/ 2010 that outlines the INIS Council and its attributions.

In Romania, the pricing policy for geographical datasets depends strongly on the agency that holds the data. As there are many agencies involved in collecting, storing and updating geographical information and belonging to different ministries, there is a wide range of disparate pricing policies for spatial data pertaining to the Romanian territory.

The work of INIS mainly focus on the technical and methodological approach of integrating the requested geographical information and does not address any pricing policy for any geodata that can be found in the INIS Inspire Geoportal (http://geoportal.ancpi.ro/geoportal/viewer/index.html).

2.3   Open Government Partnership

In 2011 Romania adhered to the Open Government Partnership (OGP) and in 2012 presented its National Action Plan.

"The Open Government Partnership is a new multilateral initiative that aims to secure concrete commitments from governments to promote transparency, empower citizens, fight corruption, and harness new technologies to strengthen governance. In the spirit of multi-stakeholder collaboration, OGP is overseen by a Steering Committee of governments and civil society organizations. The Partnership formally launched on September 20, 2011, when the 8 founding governments (Brazil, Indonesia, Mexico, Norway, Philippines, South Africa, United Kingdom, United States) endorsed the Open Government Declaration, announced their country action plans, and welcomed the commitment of 38 governments to join the Partnership." (Official website of Open Government Partnership, accessed on 17.10.2013 http://www.opengovpartnership.org/about)

In order to become an OGP member, a country would have to:

- ✓ Embrace a high-level Open Government Declaration

- ✓ Deliver a concrete action plan, developed with public consultation

- ✓ Commit to independent reporting on their progress going forward.

The National Action Plan, as written and assumed by the Romanian Government, is built upon two elementary units: public access to open data and the offering of public services in an electronic format (e-government). All the implementation steps should be finished by the end of 2014. Each of the three years has a different challenge defined: 2012 - assuming responsibility, 2013 - standardizing procedures, 2014 - maximizing the results.

Romania has placed the OGP under the National Anticorruption Strategy (NAS), which made OGP more visible, but there were no financial resources allocated for its implementation. Even more, this adjacency created more confusion when dealing with responsibilities as the NAS is run under the Ministry of Justice and OGP runs under the General Secretary of the Government.

The list of assumed actions is promising, but the Monitoring Report on the Implementation of the National Action Plan (NAP) Supporting the Open Government Partnership (Bucur, 2012) is less optimistic regarding the actual situation. The conclusions were the following ones:

✓ More than 40 monitored institutions do not offer complete and up to date information. The information provided is hard to find by a regular citizen. The institutions do not provide on-line services and do not have a public list with all available public information, nor the contact details of the responsible person within the institution.

✓ Most e-government projects are waiting for funding approval or have been already rejected.

✓ The public institutions that answered to Soros Foundation's questionnaire do not make the difference between open data and public sector information.

✓ The Ministry of Communication and Information Society did not respond to the questionnaire, The National Agency of Mineral Resources has no functional website but sent a list with information they hold and consider opened.

✓ None of the three Governments that were in charge since Romania became part of OGP has publicly assumed the responsibility, nor has applied commitment stipulated through the National Action Plan.

In February 2013, the Prime Minister Victor Ponta created a new department called the Department for Online Services and Design (DOSD). This department is coordinated by the Prime Minister Office and has with the clear mission of assisting and monitoring the national e-government programs and OGP implementation. The first public action was organizing a development day (also called hackathon[3]) at the headquarters of the Romanian Government, in Victoria Palace on the 23-25 February. The participation consisted in 26 high school students spending 14 hours of programming 5 online platforms aimed to improve government transparency and accountability:

✓ angajati.gov.ro (angajati = staff): including the names and positions of all the dignitaries, civil servants and other staff in the central and local government;

✓ buget.gov.ro (buget = budget): presenting the national budget in a friendly and comprehensive manner using OpenSpending and other similar resources;

---

[3] a hackathon is a gathering of programmers to collaboratively code in an extreme manner over a short period of time (Techopedia, accessed 17.10.2013 http://www.techopedia.com/definition/23193/hackathon)

geo!DEA.ro

- ✓ date.gov.ro (date = data): main hub for all the datasets of the public institutions that are open to the public, founded on the principles of transparency, participation and collaboration;

- ✓ petitii.gov.ro (petitii = petitions): empowers citizens to get involved in the decision-making process by informing the Government on what the main concerns and issues are and by thus obliging it to issue an official response;

- ✓ posturi.gov.ro (posturi = jobs): promoting transparency in the recruitment process for civil service and other staff in the central and local administration in order to prevent cases of favouritism and nepotism

It is expected that these platforms will be launched online.

On 18th June 2013, geo-spatial.org[4], Soros Foundation Romania[5], Online Services and Design Department - Prime Minister's Chancellery[6] and the research project GEOIDEA.RO[7] have organised "Moving forward. Open Data Discussions for an Open Romania", with special guests from Open Knowledge Foundation (Dr. Marcus Dapp) and Open Government Partnership (Paul Maassen). The event was part of the Free and Open Source Software for Geospatial Data - Central and Eastern Europe (FOSS4G-CEE)[8] and it was a stepping-stone in the Open Data movement in Romania. The focus was on an open debate within the following general guidelines:

- ✓ Clear and concise definitions of the related notions together with drawing up the Romanian, European and international legal context

- ✓ Hard-line radiography of the Romanian open data situation in 2013;

- ✓ Implementing OGP - views from officials and social society;

- ✓ Motivation behind open data;

- ✓ Implementing Open Data in an institution - guidelines, best practices.

The event was divided in 5 sections (public sector, civil society, expert panel, private sector and concrete projects) with speakers and participants gathered from the Romanian Ministries dealing

---

[4] http://earth.unibuc.ro/

[5] http://www.soros.ro/ro/index.php

[6] http://online.gov.ro/

[7] www.geoidea.ro/

[8] http://2013.foss4g-cee.org/

with Open Data, the civil society institutions interested in the subject as well as representatives of the private sector.

2.4   A World of Open Data

Over the world the Open Data movement is supported at legal and political level through laws, agreements, initiatives and strategies such as PSI Directive, Open Government Partnership[9], Open Government Initiative[10], Open Strategy for Europe[11] and so on, but a very important role is played by non-profit organisations, working groups, institutes spread all over the world, such as:

Open Knowledge Foundation (OKF) - non-profit organisation founded in 2004 and dedicated to promoting open data and open content in all their forms – including government data, publicly funded research and public domain cultural content (http://okfn.org/)

Sunlight Foundation - a nonpartisan nonprofit founded in 2006 that uses the power of the Internet to catalyse greater government openness and transparency. (http://sunlightfoundation.com/)

Public OSGeo Data Project - the OSGeo working group for open geodata

(http://wiki.osgeo.org/wiki/Public_Geospatial_Data_Project)

Public Geo Data - campaign started by Jo Walsh and Benjamin Henrion for the facilitation of public debate about the Inspire directive and public geodata in general

(http://web.archive.org/web/20060421235324/http:/publicgeodata.org/AboutThisCampaign)

Open Data Institute - Founded by Sir Tim Berners-Lee and Professor Nigel Shadbolt, the ODI is an independent, non-profit, non-partisan, limited by guarantee company, that aims at creating an open data culture (http://www.theodi.org/about)

Linked Open Data Special Interest Working Group - their objective is to achieve essential linked open data features in all Ex Libris products where appropriate, both from the data publishing, the data consuming and the data integration perspective. (http://igelu.org/special-interests/lod)

The task of the non-profit organisations, working groups, institutes is essential in catalysing and moving forward the open data movement, raising awareness, creating tools for better management, defining the concepts in a clear and friendly tone, and in offering best practices guidelines.

---

[9] http://www.opengovpartnership.org/

[10] http://www.whitehouse.gov/open

[11] http://europa.eu/rapid/press-release_IP-11-1524_en.htm?locale=en

geo!DEA.ro

As the world's governments embrace political strategies for Open Data and begin addressing the technical, legal, and administrative matters of releasing data, the need for a clear and concise view of their concrete developments is required. Which is why OKF has embarked on a bold initiative for assessing the state of open data around the world, Open Data Census project. The project's aim is to draw a connection between the governments' commitments and the actual release of the data and it relays on community-based effort.

The Open Data Census intentionally focuses on a small number of key datasets, divided into 2 levels:

- Country level (election results (national), company register, national map (low resolution: 1:250,000 or better), government budget (high level – spending by sector), government budget (detailed – transactional level data), legislation (laws and statutes), national Statistical office data (economic and demographic information), national postcode/ZIP database, public transport timetables, and environmental data on major sources of pollutants (e.g. location, emissions))

- City level (transport timetables, annual budget, expenditure (detailed), election results, air quality, public transport stops, school locations, crime statistics, health statistics, water quality, procurement contracts, restaurant hygiene, road traffic accidents, building permits and government services fees).

Open Data Census offers a simple and intuitive view of the number of catalogs available as well as the considered published datasets.
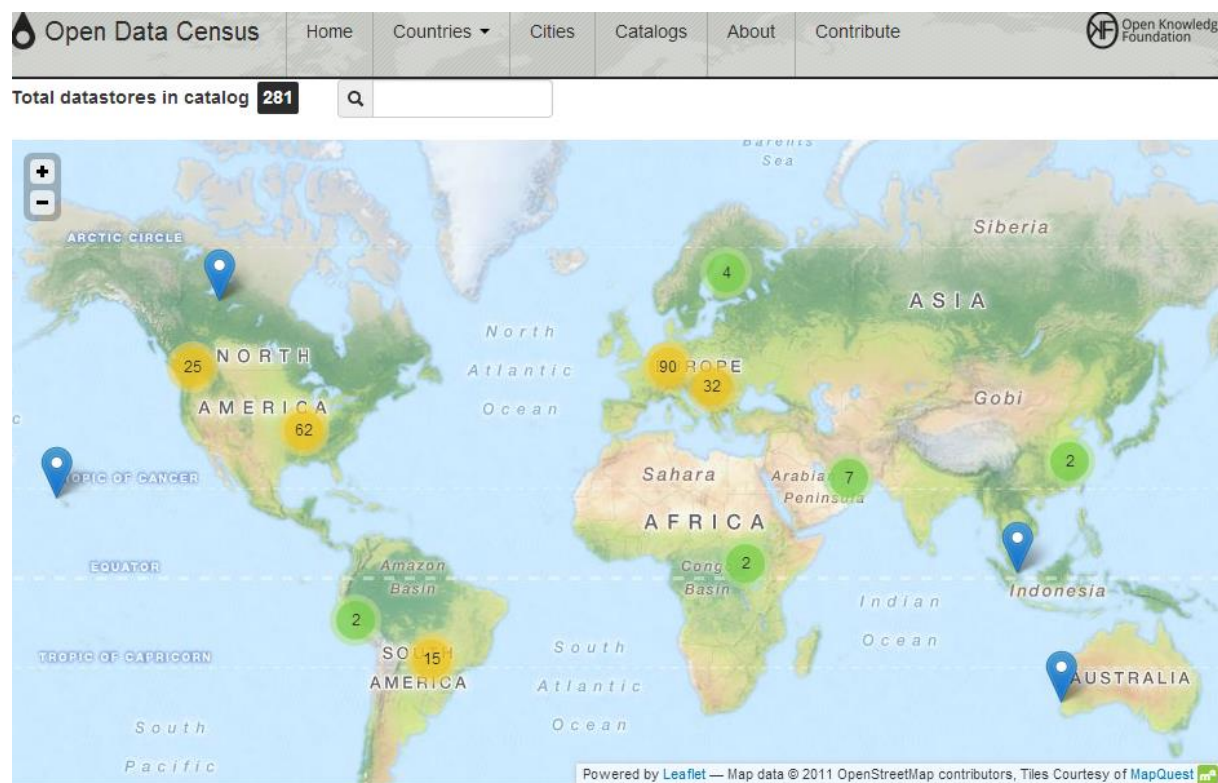
Figure 2.4.1 Open Data Census World Map of Open Data catalogs (community contributions)

The epsiPlatform has introduced a similar project (http://epsiplatform.eu/content/european-psi-scoreboard), a beta version of the PSI Scoreboard. This is a *crowdsourced* tool to measure the status of Open Data and PSI re-use throughout the European Union. It does NOT monitor government policies, but aims to assess the overall PSI re-use situation, which includes the open data community's activities. The scoreboard measures 7 aspects of PSI re-use:

- ✓ Implementation of the PSI Directive (based on 2 indicators: implementation and absence of infringement procedures, exemptions granted)

- ✓ The practice of re-use (based on 6 indicators: general right of re-use, distinction between commercial and non-commercial re-use, redress mechanism, availability of standard licences, pro-active publishing of PSI for re-use)

- ✓ Formats (based on 4 indicators: endorsement of 'raw' data and open standards, endorsement of 'Linked Open Data', obligatory 'raw' data and open standards, existence of national or regional data catalogue(s))

- ✓ Pricing (based on 3 indicators: cost-recovery model, marginal costing model, no exceptions to marginal costing model)

- ✓ Exclusive arrangements (based on 3 indicators: prohibition of exclusive arrangements, legal action against exclusive arrangements, ending exclusive arrangements)

- ✓ Local PSI (based on 3 indicators: some local or regional PSI available and community activity, moderate local or regional PSI available and community activity, considerable local or regional PSI available and community activity)

- ✓ Events and activities (based on 3 indicators: some national or inter-regional events, a moderate number of national or inter-regional events, a considerable number of national or inter-regional events)

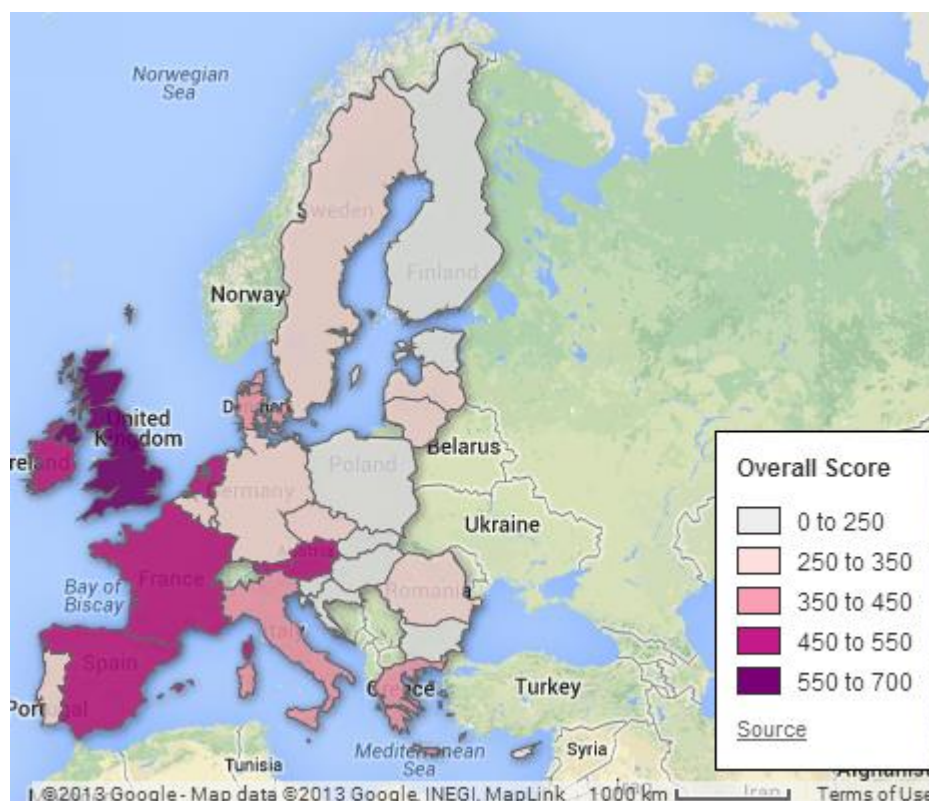A country can score up to 100 points on each of these 7 aspects, for a total of up to 700 points.

geo!DEA.ro

Figure 2.4.2 PSI scoreboard map - last edit July 10, 2013 – epsiPlatform
(http://epsiplatform.eu/content/european-psi-scoreboard)

Important to mention is that, except Croatia, all EU countries have a maximum score of 100 points for PSI implementation. This score has been calculated based on two indicators: 1. implementation and absence of infringement and 2. exemptions granted. The first indicator shows whether the PSI Directive has been correctly transposed in the national legislation. The second one analyses if during the PSI implementation the Member State "refrained from exempting one or more of the following four public sector bodies: the national meteorological institute, the cadastre, the Chamber of Commerce, the national repository for the legal information" (ePSI Platform PSI Scoreboard Indicator description).

2.5   Example of a Roadmap to Open Data - Denmark

Denmark has an eGovernment strategy that should be fully implemented by 2015 with the following title and motto "Good basic data for everyone - A driver for growth and efficiency". The struggle for Open Data and transparent governance started in 2009 with open seminars for data enthusiasts, the launching of the Data Catalogue (digitaliser.dk), and a national data contest. The Data Catalogue is online and allows public bodies to register their own datasets. 2010 was the year of economic potential studies, publication of technical and legal guidelines, the introduction of the open data license, and DataCamp 2010, plus an Open Data conference. In 2011, Denmark deepened the

economic studies on specific industries and the initiative became part of the e-Government strategy. 2012 saw a massive increase in open data awareness. The initiative became part of the Open Government Partnership and a political agreement was signed for opening up central "basic data". A community of about 100 members, from different professional backgrounds, came together and started meeting on a regular basis. On 1st January 2013, the basic geodata became free of charge: the cadastral map, the Danish elevation model, and map data including watercourses. Then on 2 January 2013, the general data from the central business register and company register became freely accessible. The focus is now turned towards raising awareness within the civil society and private sector, through events, such as conferences (Open Source Days Conference[12], 9 - 10 March 2013, Copenahgen), informal meetings of Open Data enthusiasts (Copenhagen Data Drinks[13], Aarhus Data Drinks[14]), development days (hackathons) (hack4dk[15] , Street Merge: Exchanging data between OpenStreetMap and FOT[16]) and collaborative projects, such as ODAA[17] (Open Data Aarhus). The private sector is catching up as well, although at a slower and secure pace.

With the massive release of data, the civil society has started to coagulate ideas of using the newly free of charge information. A comprehensive, but not complete, catalogue of applications and projects based on open data can be found on Brugstedet.dk.

In the epsi Scoreboard, Denmark scores a total of 440 points (see Section 2.4).

2.6   Example of a Roadmap to Open Data – United States of America

The USA are an indisputable leader in the open data movement. All the early actions initiated by the civil society and continued and supported through legislative work are standing proof. There are multiple projects and non-profit organisations that have, as a declared goal, administration transparency and open data, but most notable is a coalition of over eighty organisations named OpenTheGovernment.org. This is a coalition of good and limited government groups, environmentalists, journalists, library and consumer groups, labor, and others which was formed in 2003. Their common goal is to make the government more open and accountable. Annex 1 presents the complete list of all organisations and working groups part of the coalition.

---

[12] http://opensourcedays.org/2013/content/open-data

[13] http://www.meetup.com/CPH-Data-Drinks/

[14] https://www.facebook.com/AarhusDataDrinks

[15] http://hack4dk.tumblr.com/

[16] http://opensourcedays.org/2013/content/street-merge-exchanging-data-between-openstreetmap-and-fot

[17] http://epsiplatform.eu/content/open-data-aarhus-municipality-denmark

geo!DEA.ro

2007 was a milestone in developing the concepts of open government data. On 7th – 8th December, in a small town north of San Francisco called Sebastopl, a group of 30 open government advocates met to sketch the principles of open government data. Among the participants, significant names in the Internet industry were present: Tim O'Reilly (O'Reilly Media) - author and editor, booster of terms such as Open Source and WEB 2.0, Lawrence Lessig, Professor of Law at Stanford University and founder of Creative Commons licenses, Aaron Swartz the inventor of the RSS and open knowledge activist, Ethan Zuckerman - professor at MIT Media Lab, open source and open knowledge activist, Carl Malamud - founder of non-profit public.resources.org, and many more. Sunlight Foundation, Google and Yahoo sponsored the event. The agenda presented two tasks, the first to write a set of 10 principles for open government, the second referred to organising hackathons (see Section 2.3) around open datasets in order to raise awareness on their untapped value. The results of their work were shaped into 8 fundamental principles (Annex 2). In August 2010, the Sunlight Foundation[18] has revised and added and published the new list of 10 principles (Annex 3).

With the US President Barack Obama, the Open Data movement in the USA took a significant leap. The first action was the release of the Open Government Initiative on 21st January 2009: "My Administration is committed to creating an unprecedented level of openness in Government. We will work together to ensure the public trust and establish a system of transparency, public participation, and collaboration. Openness will strengthen our democracy and promote efficiency and effectiveness in Government." (Obama, 2009). By defining two main characteristics that the government should have, transparency and participation, the document laid down the incipient legislative framework and urged the federal Chief Technology Officer (CTO), in coordination with the Director of the Office of Management and Budget (OMB) and the Administrator of General Services to provide recommendations for the Open Government Directive. The Initiative lead to the launching of DATA.gov in May 2009. The U.S. government website has the purpose of increasing public access to high value, machine readable datasets generated by the Executive Branch of the Federal Government. At this time, there are 98871 datasets published. (Online at http://www.data.gov/ . Accessed 21.10.2013).

On **8th December 2009**, the Open Government Directive was launched. Important deadlines and actions to be taken were considered:

"Within 45 days, each agency shall identify and publish online in an open format at least three high-value data sets (see attachment section 3.a.i) and register those data sets via Data.gov. These must be data sets not previously available online or in a downloadable

---

[18] The Sunlight Foundation is a nonpartisan non-profit founded in 2006 that uses the power of the Internet to catalyze greater government openness and transparency.

format."   (Online   at   http://www.whitehouse.gov/open/documents/open-government-directive. Accessed 21.10.2013)

Additionally, a platform has been created to assess the progress of opening up of each public institution would be assessed.

In August 2010, at the public's proposal, the Government created a new position within the administration *Evangelist for Data.Gov Open Government*. The main responsibilities resided in raising awareness regarding "knowledge dissemination and development and use of Data.gov" as well as in determining governmental agencies in publishing more valuable datasets. The position is considered to be the connection between government, agencies, the programmers' community and the open government community.

On 20th September 2011 marks the introduction of the Open Government Partnership, in which the USA had a decisive role, alongside Brazil, Indonesia, Mexico, Norway, Philippines, South Africa, United Kingdom. OGP has been extensively discussed earlier in this report; therefore we will not review it again. In the same day, the US President Barack Obama released the National Action Plan within OGP, that would build upon the Open Government Initiative. As main commitments, the plan highlighted the following points:

- Strengthen and Expand Whistleblower Protections for Government Personnel

- Support and Improve Agency Implementation of Open Government Plans

- Declassify National Security Information

- Continue to Improve Freedom of Information Act Administration

- Modernize Management of Government Records

- Promote Public Participation in Government

In **September 2012**, OpenTheGovernment.org wrote a progress report on the achievements accomplished, named The Civil Society Progress Report on the US National Action Plan (NAP).

The report presented a gratifying attitude best transposed in the statement of the Director of OpenTheGovernment.org: "The progress report we are issuing today is a snapshot that shows the impressive amount of effort the Administration has put into fulfilling its commitments, and how much work is left to be done in just a few months. The report we release in January will represent the civil society's assessment of whether the Administration met the letter of the commitment, if it took the recommendations made by civil society, and if the Administration stretched itself beyond the commitments to meet its expressed goals and make the effort more successful". (Online at http://www.openthegovernment.org/node/3589. Accessed 21.10.2013). The Civil Society Progress Report offered a positive review on the Government's accomplishment.

geo!DEA.ro

In **May 2012**, President Barack Obama issued a new Directive "Building a 21st Century Digital Government " that accentuates on the technological aspect of a transparent, collaborative and participatory government (Obama, 2012). A significant aspect of the directive is Open Data and Content (Information), as seen in the Fig. 2.6.1.
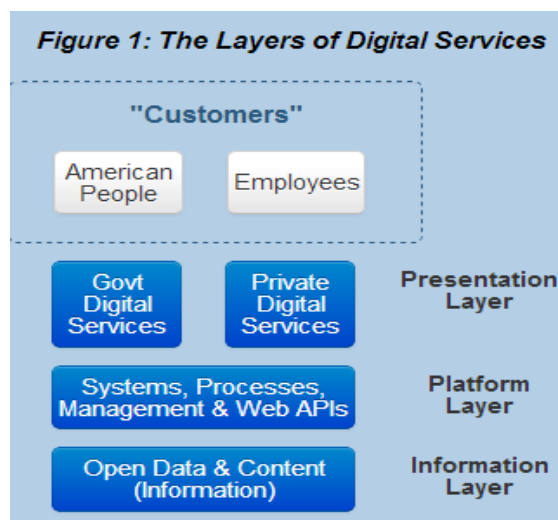

Fig. 2.6.1 Conceptual Model for Open Government (Obama, 2012)

The Directive clearly shows the inclination towards the open data policies and enforces their principles in the core design of the E-government: "requiring agencies to establish central online resources for outside developers and to adopt new standards for making applicable Government information open and machine-readable by default". On the same day, the US official blog, pointed out:

> "Designing for openness from the start – making open data the default for government IT systems and embracing the use of web APIs – enables us to more easily deliver information and services through multiple channels, including mobile, and engage the public and America's entrepreneurs as partners in building a better government. [...] Over the next 12 months, you will start to see an important shift across the Federal Government. Agencies will increasingly open up their valuable data to the public and setup Developer pages to give external developers tools to build new services." (VanRoeke, 2013)

In **March 2013,** two independent assessment reports on the OGP National Action Plan were released to the public, one written by the civil society and one by the US Administration.

The "Civil Society Report on Implementation of the First US National Action Plan" was written by the OpenTheGovernment.org coalition. The report highlights that even if 19 out of 26 commitments were accomplished, "Some of the commitments in the Plan only constituted repackaging of existing

activities and promises to do something that was already done or about to be done. " (OpenTheGovernment, 2013)

The self-assessment report states that "According to our analysis, the U.S. Government has fulfilled twenty-four out of the twenty-six commitments, with a few taking additional time to fulfill. Notably, even where commitments have technically been completed, work to make progress will continue. " (US Administration, 2013).

geo!DEA.ro

3. DISCUSSIONS AND CONCLUSIONS

The purpose of this report was to present a summary of the existing strategies on open data in Europe and beyond its borders, analysing the current situation and the main reasons that lead to it. In our attempt to best describe the current state, we have gone through the main frameworks of political initiatives, such as Public Sector Information Directive, INSPIRE Directive and Open Government Partnership, together with relevant studies on the political, economic and social effects.

For the European Union, the main legislative framework is given by Directive 2013/37/EU ('the PSI Amendment'), which is amending Directive 2003/98/EC on the Re-use of Public Sector Information. The process that led to this political initiative was complex and long. Important to mention is that the starting point, a document written in 1989, "Guidelines for improving the synergy between the public and private sectors in the information market" recorded 19 ground rules that can be easily found in today's laws and strategies. This is a straightforward indication that the basic terms and possible emerging issues in the re-use of PSI were clear from the beginning. What followed were actions to better understand how could it be implemented in the European Union and the impacts of applying this policy. The subsequent most relevant studies, PUBLAW2, PIRA study 2000, MEPSIR 2005, MICUS 2008, and POPSIS 2011 were all commissioned by the EC after considerable actions had been taken in the legal environment. These studies clearly showed important advantages in the socio-economic life of the EU given by the re-use of PSI, but also indicated issues that prevented the extensive PSI re-use, such as the absence of a legal framework (PUBLAW2, PIRA study), the lack of implementation in member states, regarding legislative framework and practical initiatives (MICUS study).

In Romania, the Directive 2003/98/EC is transposed in Law no 109/2007, which is a different act from the already existing Law on access to public information (Law no 544/2001). In 2011, the report "State of Play–PSI re-use in Romania study" concluded that even though Romania has the legal framework for the PSI re-use in place, the practical implementation is lagging behind due to limited institutional capacity.

The INSIPRE Directive was adopted in Romania in 2010. To fulfil all the requirements, establishing a new committee was considered necessary, which led to the formation of the Council for National Infrastructure for Spatial Information (INIS).

The Open Government Partnership is an international multilateral initiative that aims to secure concrete commitments from governments to promote transparency, empower citizens, fight corruption, and harness new technologies to strengthen governance that was formally launched in 2011. In the same year Romania signed the Partnership and in 2012 presented its National Action Plan. All implementation steps should be finished by 2014, but a detailed report published in December 2012 by Soros Foundation Romania pointed out that the overwhelming majority of actions

foreseen for 2012 had not been completed. But, steps in the right direction are being made. In 2013, a new department has been created to assist and monitor the national e-government programs and OGP, the Department for Online Services and Design (DOSD). Two notable activities have already taken place under or with the coordination of DOSD: the development day at the headquarters of the Romanian Government where 26 high school students worked on five online platforms aiming at improving government transparency and accountability and, the second, "Moving forward. Open Data Discussions for an Open Romania", an event that gathered together representatives from the Romanian Ministries that deal with Open data, from civil society and universities interested in the subject and from the private sector for a debate regarding open data and governmental transparency. Special guests from Open Knowledge Foundation (Dr. Marcus Dapp) and Open Government Partnership (Paul Maassen) were part of the event's expert panel.

At the international level, apart from legislative initiatives that have a considerable impact on public sector information re-use and governmental transparency, the non-governmental organisations, working groups and institutes that are spread all over the globe, such as Open Knowledge Foundation, Sunlight Foundation, Open Data Institute etc. are acquiring a growing importance. They play an essential role in moving forward the open data movement through raising awareness, creating tools for better management, defining the concepts in a clear and friendly tone, and often, offer best practices guidelines.

geo!DEA.ro

REFERENCES

Bucur, A., Soros Foundation Romania, (2012). OGP Report

Christopher G. Quinton, (1997). Access to European Public Sector Information reconciling The Access Needs of Administrative Transparency and the Information Market.

Council of the European Communities, (1990). Council Directive 90/313/EEC of 7 June 1990 on the freedom of access to information on the environment

Communication from the Commission to the Council, the European Parliament, the Economic and Social Committee and the Committee of the Regions, (2001). eEUROPE 2002: Creating a EU Framework for the Exploitation of Public Sector Information

Dacian C. Dragos, Bogdana Neamtu, (2009). Reusing Public Sector Information - Policy Choices and Experiences in some of the Member States with an emphasis on the Case of Romania. European Integration Online Papers.

Daniel Dittrich, (2011). State of Play: PSI re-use in Romania

http://epsiplatform.eu/sites/default/files/Topic%20Report%20State%20of%20Play%20in%20Romania.pdf published 10.2011, accessed 21.10.2013

Directorate-General for Telecommunications, Information Industries and Innovation, (1989). Guidelines for improving the synergy between the public and private sectors in the Information Market

Directorate-General for the Information Society, (2000). Commercial Exploitation of Europe's Public Sector Information (PIRA 2000).

http://epsiplatform.eu/sites/default/files/media_671%20Executive%20Summary.pdf   published 20.09.2000, accessed 21.10.2013

Directorate for Science, Technology and Industry Committee for Information, Computer and Communications Policy, Working Party on the Information Economy, (2006). Digital Broadband Content: Public Sector Information and Content

Digital Agenda for Europe, (2013). Digital Agenda Scoreboard for Romania

http://ec.europa.eu/digital-agenda/en/scoreboard/romania   published   on   13.09.2012,   accessed 21.10.2013

Digital Agenda for Europe, (1999). Commission calls for action to unlock public sector information re-use

http://ec.europa.eu/information_society/newsroom/cf/itemlongdetail.cfm?item_id=4891 published 07.05.2009, accessed 21.10.2013

eEuropean - An information Society for All

http://europa.eu/legislation_summaries/information_society/strategies/l24221_en.htm last_update 13.09.2005, accessed 21.10.2013

European Commission, Existing rules on re-use of public sector information

http://ec.europa.eu/information_society/policy/psi/rules/index_en.htm   updated   2013, accessed 21.10.2013

European Commission, (2010). European PSI re-use policy history

http://epsiplatform.eu/sites/default/files/History%20of%20EU%20PSI%20Re-use%20Policy_MdV_PR%202.pdf published May 2010, accessed 21.10.2013

European Commission, (1998). *Public Sector Information: A key resource for Europe*: green on Public Sector Information in the Information Society

ftp://ftp.cordis.europa.eu/pub/econtent/docs/gp_en.pdf accessed on 21.10.2013

European Commission, (2009). Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions - Re-use of Public Sector Information: review of Directive 2003/98/EC

European Commission, Information Society and Media Directorate-General (2011). Pricing Of Public Sector Information Study Open Data Portals (E)

European Parliament, (2003). Directive 2003/98/EC on the re-use of public sector information

European Parliament and of the Council, (2007). Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE)

European Parliament, (2012). Draft Report on the proposal for a directive of the European Parliament and of the Council on amending directive 2003/98/EC on re-use of public sector information

Fornefeld, M., Boele-Keimer, G., Recher, S.,Fanning, M., (2008).   Assessment of the Re-use of Public Sector Information (PSI) in the Geographical Information, Meteorological Information and Legal Information Sectors

Graham Vickery, (2011). Review of recent studies on PSI re-use and related market developments. Information Economics, Paris

Hackathon@gov.ro - February 2013

geo!DEA.ro

http://blog.opengovpartnership.org/2013/03/hackathongov-ro/ posted on 01.03.2013, accessed 21.10.2013

Ian Rowlands, (1995). Toward public-private synergy in the European information services market. , Journal of Government Information

Ilie, C., (2012). Open Data at Open Source Days, Denmark. OKFn Blog

http://blog.okfn.org/2013/03/07/open-data-at-open-source-days-denmark/ posted on 07.03.2013, accessed on 21.10.2013

Makx Dekkers, Femke Polma, Robbin te Velde, Marc de Vries, (2006). Measuring European Public Sector Information Resources (MEPSIR 2006)

Moving forward. Open Data Discussions for an Open Romania, (June, 2013) event within FOSS4G-CEE Conference Bucharest, Romania

http://2013.foss4g-cee.org/program/opendata accessed 21.10.2013

Obama,   B.,   (2009).   Memorandum   on   Transparency   and   Open   Government http://www.whitehouse.gov/open. Accessed 21.10.2013

Obama, B. (2012). Presidential Memorandum - Building a 21st Century Digital Government

http://www.whitehouse.gov/the-press-office/2012/05/23/presidential-memorandum-building-21st-century-digital-government accessed 21.10.2013

OECD Committee for Information, Computer and Communication Policy (ICCP Committee), Working Party on the Information Economy, (2008). OECD Recommendation of the Council for Enhanced Access and More Effective Use of Public Sector Information

http://www.oecd.org/internet/ieconomy/40826024.pdf accessed 21.10.2013

Open Government Partnership Declaration, (2011)

http://www.opengovpartnership.org/about/open-government-declaration accessed 21.10.2013

Open Government Working Group Meeting Minutes (2007)

https://public.resource.org/open_government_meeting.html accessed 21.10.2013

OpenTheGovernment.org, (2013). Civil Society Report on Implementation of the First US National Action Plan

http://www.openthegovernment.org/sites/default/files/NAP%20Final%20Evaluation.pdf   accessed 21.10.2013

Romanian Government, (2012). Open Government Partnership National Action Plan

http://www.opengovpartnership.org/sites/www.opengovpartnership.org/files/country_action_plans
/ROMANIA-OGP%20National%20Action%20Plan.pdf accessed 21.10.2013

Rufus Pollock, (2013), The Open Data Census – Tracking the State of Open Data Around the World –
http://blog.okfn.org/2013/02/20/open-data-census-tracking-the-state-of-open-data-around-the-
world/#sthash.FZUxdFoB.dpuf accessed 21.10.2013

US Administration, 2013. Open Government Partnership United States Self-Assessment
http://www.opengovpartnership.org/sites/default/files/ogp_selfassessment_march2013_0.pdf

VanRoeke, S. (2013), Roadmap for a Digital Government

http://www.whitehouse.gov/blog/2012/05/23/roadmap-digital-government accessed 21.10.2013

Working Party on the Protection of Individuals with regard to the Processing of Personal Data,
(2013). Opinion 06/2013 on open data and public sector information ('PSI') reuse
http://ec.europa.eu/justice/data-protection/article-29/documentation/opinion-
recommendation/files/2013/wp207_en.pdf accessed 21.10.2013

geo!DEA.ro

ANNEXES

Annexe 1: Complete list of all organisations and working groups part of the coalition of OpenTheGovernment.org. This list can be found on http://www.openthegovernment.org/we_are/ .

- American Association of Law Libraries

- American Booksellers Foundation for Free Expression:

- American Library Association

- American Society of News Editors

- Arab American Institute

- Association of American Publishers

- Association of Research Libraries

- Bill of Rights Defense Committee

- Black Box Voting

- California Common Sense

- Californians Aware

- Cause of Action

- Center for American Progress

- Center for Democracy and Technology

- Center for Effective Government

- Center for Fiscal Accountability

- Center for Media and Democracy

- Center for National Security Studies

- Center for Progressive Reform

- Center for Public Integrity

- Center for Responsive Politics

- Citizens for Responsibility and Ethics in Washington

- Citizens for Sunshine

- Common Cause

- Defending Dissent Foundation

- DownsizeDC.org, Inc.

- Electronic Frontier Foundation

- Electronic Privacy Information Center

- EnviroJustice

- Environmental Defense Fund

- Essential Information

- Federation of American Scientists

- Florida First Amendment Foundation

- Free Expression Policy Project

- Friends Committee on National Legislation

- Fund for Constitutional Government

- Good Jobs First

- Government Accountability Project

- Human Rights First

- Humanist Society of New Mexico

- Indiana Coalition for Open Government

- iSolon.org

- James Madison Project

- League of Women Voters

- Liberty Coalition

- Mine Safety and Health News

- Minnesota Coalition on Government Information

- PEN American Center

- Pennsylvania Freedom of Information Coalition

- People For the American Way

- Political Research Associates

- Positive Financial Advisors, Inc

geo!DEA.ro

- Progressive Librarians Guild

- Project Censored

- Project On Government Oversight

- Public Citizen

- Public Employees for Environmental Responsibility

- ReclaimDemocracy.org

- Reporters Committee for Freedom of the Press

- Right-to-Know Network

- Society of American Archivists

- Society of Professional Journalists

- Southeastern American Association of Law Libraries

- Special Libraries Association

- Sunlight Foundation

- Taxpayers for Common Sense

- Transactional Records Access Clearinghouse

- U.S. Public Interest Research Group

- Understanding Government

- Union of Concerned Scientists, Scientific Integrity Program

- Virginia Coalition for Open Government

- Washington Coalition for Open Government

Annexe 2: The complet list with explanations of the 8 Principles of Open Gouvernement Data outlined at the Sebastopl, California meeting held in 7-8 October 2007.

Online at http://www.opengovdata.org/home/8principles . Accessed 21.10.2013

Government data shall be considered open if the data are made public in a way that complies with the principles below:

1. Data Must Be Complete

All public data are made available. Data are electronically stored information or recordings, including but not limited to documents, databases, transcripts, and audio/visual recordings. Public data are data that are not subject to valid privacy, security or privilege limitations, as governed by other statutes.

2. Data Must Be Primary

Data are published as collected at the source, with the finest possible level of granularity, not in aggregate or modified forms.

3. Data Must Be Timely

Data are made available as quickly as necessary to preserve the value of the data.

4. Data Must Be Accessible

Data are available to the widest range of users for the widest range of purposes.

5. Data Must Be Machine Processable

Data are reasonably structured to allow automated processing of it.

6. Access Must Be Non-Discriminatory

Data are available to anyone, with no requirement of registration.

7. Data Formats Must Be Non-Proprietary

Data are available in a format over which no entity has exclusive control.

8. Data Must Be License-free

Data are not subject to any copyright, patent, trademark or trade secret regulation. Reasonable privacy, security and privilege restrictions may be allowed as governed by other statutes.

Finally, compliance must be reviewable.

A contact person must be designated to respond to people trying to use the data.

geo!DEA.ro

A contact person must be designated to respond to complaints about violations of the principles.

An administrative or judicial court must have the jurisdiction to review whether the agency has applied these principles appropriately.

Annexe 3:

The complete list of 10 principles of Open Government Data revised and published by Sunlight Foundation.

Online at http://sunlightfoundation.com/policy/documents/ten-open-data-principles/ .Accessed 21.10.2013

1. Completeness

2. Primacy

3. Timeliness

4. Ease of Physical and Electronic Access

5. Machine readability

6. Non-discrimination

7. Use of Commonly Owned Standards

8. Licensing

9. Permanence

10. Usage Costs

geo!DEA.ro