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Open Data Initiative in Moldova

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Abstract/ Executive Summary:

"Too often, development efforts have been hampered by a lack of the most basic data about the social and economic circumstances in which people live... Stronger monitoring and evaluation at all levels, and in all processes of development (from planning to implementation) will help guide decision making, update priorities and ensure accountability. This will require substantial investments in building capacity in advance of 2015. A regularly updated registry of commitments is one idea to ensure accountability and monitor delivery gaps. We must also take advantage of new technologies and access to open data for all people."

Bali Communiqué of the High-Level Panel, March 28, 2013

All public organizations (local, regional or national level) collect, on a regular basis, an enormous amount of different types of data. These data have a significant value because they are resource which can help citizens understand much easier, faster and better what the government does and how well it delivers its services. In addition to this, open data helps citizens to hold government accountable for the commitments it makes and how well it delivers on those commitments. Open data is particularly significant when it comes to increasing government transparency and public awareness of government programs and initiatives, while opening up data can also help generate insights into ways to improve government performance. At the same time, increased data transparency provides platforms for extended public participation and collaboration, with more open data in place there are more opportunities to improve the decision-making processes and get more citizens engaged. Additionally, open data holds a great economic value by contributing to development of applications or launch of new businesses. It also can significantly contribute to driving innovation and research as well as could be used in academia and journalism. All the efforts around open data release require public administration reforms, which have to, increasingly, be concerned with placing the citizen at the core of the policy making.

The revolution in information technology and the evolution of the Internet over the last decade provides a great opportunity for strengthening data for accountability, decision-making purposes and economic growth. There have been several innovative initiatives around the

globe to use mobile technology and other means in order to enable real-time monitoring of development results. However, this movement remains still largely disconnected from the traditional statistics community.

Efforts around promoting and creating an open data movement have started in Moldova three years ago and have amplified as Moldova joined the Open Government Partnership (OGP), Global Partnership on Social Accountability (GPSA), approved ambitious an E-Governance transformation agenda, approved new legal provisions related to Open Data. The recent study on "Citizens' perception, uptake and support for the e-Transformation of Governance in the Republic of Moldova"[1] shows a positive trend of the basic indicators regarding the implementation of e-Transformation of Governance activities in Moldova. The same report indicates that there is an increase in the number of citizens accessing Governmental web pages, as compared with studies from previous years. This is indeed a positive trend and may lead towards higher citizens' demand for open data and electronic services.

This paper looks at the evolution of open data initiative in Moldova during the past years. It also addresses some of the core challenges and examines ways in which open data could become a drive for more transparency and accountability. Additionally, this paper comes as a continuation of the topic report No. 2013/10 on "The influence of the Open Government Partnership (OGP) on the Open Data discussions"[2].

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[1] Study available at: http://egov.md/images/sondaje/Re2_Final_REPORT_EGov_ENGL-Febr%202014.pdf

[2] Paper available at:

http://www.epsiplatform.eu/sites/default/files/The%20influence%20of%20the%20Open%20Government%20Partnership%20(OGP)%20on%20the%20Open%20Data%20discussions.pdf

Moldova – general background

Moldova remains amongst the poorest in GDP per capita countries in Europe despite recent progress from its small economic base. It enjoys a good climate and favourable farmland but has no serious mineral deposits. As a result, its economy depends heavily on agriculture, fisheries and farming, featuring fruits, vegetables, wine, and tobacco. Moldova must import almost all of its energy supplies[3].

Moldova's internet market continues to develop rapidly, and with broadband penetration approaching 13%[4] (well below the average for many Western European countries), and mobile broadband penetration of 6,6%[5], there remain considerable opportunities for further development in coming years. Broadband subscription growth has been particularly strong since 2009, with the sector dominated by two service providers – Moldtelecom and StarNet – which account for 88% of all connections despite the presence of about 50 ISPs nationally.

Moldova ranks **seventh** among 186 countries of the world after loading Internet speed and the **16th** after the speed of downloading, according to NetIndex data.

In Moldova, the number of Internet users has increased during the past years. In cities, over 57% of the population has access to the Internet, while in the villages - 45%. Most people who have personal computers are in urban areas - 70%.[6] Over 53% of households have at least one computer connected to the Internet, while 73.7% of them have broadband Internet access at a fixed location. The number of electronic payments is increasing: 37.7% of Internet users are shopping online. The "Digital Moldova 2020" strategy approved by the Government of Moldova late in 2013, aims at providing each village in the country with at least one optical fiber point of presence.

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[3] http://www.economywatch.com
[4] http://en.anrceti.md/transpdate
[5] http://en.anrceti.md/transpdate
[6] http://www.trm.md/en/social/moldova-printre-liderii-mondiali-dupa-viteza-de-acces-la-internet/

The mobile market has also grown rapidly and now accounts for the majority of total telecoms revenue. On July 1, 2013, mobile telephony penetration rate exceeded 120% as per ANRCETI (National Regulatory Agency for Electronic Communications and Information Technology).

1. Open Data Initiative in Moldova

1.1 Brief overview of the launch of open data initiative in Moldova

The Open Government Data initiative in Moldova is part of the larger governance e-transformation efforts, launched in 2010 after the visit of the President of the World Bank Robert Zoellick. At the High Level Roundtable, Zoellick highlighted the World Bank's Open Data Initiative, eliciting interest for this initiative from the Moldovan senior government leaders. Building on this interest and commitments, the E-Government Center collaborated with USAID in the development of a report on open data and launched the open data initiative with the open data portal www.date.gov.md in April 2011. The Republic of Moldova was the first country in the region to launch an open data portal. In September 2011, the Open Data initiative became the key element in the promotion of open government within a larger Governance e-Transformation Strategy, implemented by the E-Government Center of Moldova with the support of the World Bank.

The portal launch was accompanied by the Prime Minister's Directive which mandated all the central public authorities to release and update at least three datasets a month. The majority of public institutions did not respect the Directive. Therefore, in order to consolidate the efforts around open data at the ministerial level, the Government established in February 2012 an open data working group, comprised of open data coordinators from every ministry. Additionally, the new version of the portal –launched in December 2011– offered autonomy to public institutions to manage their own datasets.

The major open government data initiative efforts and commitments are reflected in the open government agenda. The Government of Moldova joined the Open Government Partnership in April 2012 devoting part of its action plan to the open data initiative and specific actions to advance the initiative, such as: drafting the Law on public sector information re-use, opening priority data requested by citizens, publishing the Open Government Data Catalogue, developing government data standards and supporting the development of socially useful application based on public data. During 2012 and 2013 the Government implemented most of the commitments related to open data but not all of them.

1.2 Legal aspects of open data initiative

One of the most ambitious actions from the open government action plan was the adoption of the Law on public sector information reuse. Taking into consideration Moldova's path towards European Integration, the Parliament aligned the Law on public sector information reuse to the EU Directive 2003/98/EC on the reuse of public sector information, as well as the amendments reflected in the Directive 2013/37/EU. Following the Law, the Ministry of Information Technology and Communications developed, and the Government approved, the methodological norms for implementing the Law on public sector information reuse. These norms established the Terms and Conditions for accessing and reusing public sector information, an Open Data License for Moldova's public data. Additionally, the norms provide a list of formats in which public information should be presented. Furthermore, the norms offer a methodology of calculating the marginal costs associated with offering public sector information for reuse. This Law is revolutionary for the Republic of Moldova in the sense that it aligns it to the best international practices in terms of public sector information reuse and allows citizens to access and reuse public data in machine-readable format for any purposes. The goal is to increase the supply, demand and reuse of public data.

Even though public institutions had to develop their own open data catalogue, according to the open government action plan, only 10 out of 16 ministries developed such a catalogue and in all cases, this catalogue is incomplete and reflects only a fraction of public information that these institution hold. The Law on public sector information reuse reiterates this effort and obliges all the central public administration authorities to develop a list of public sector information available for reuse that they hold. The aim behind developing this list is to create a searchable inventory of documents in the public sector available for reuse at the most disaggregated level possible. This list will include information on the formats of available documents, the update frequency as well as the marginal cost, if any, of reusing such information. In case data consumers do not find public information they need on the government portal, they could request that information for reuse following the procedure described in the Law on public information reuse. As a result of the Law, two new working groups have been created: one of *coordinators of public sector information reuse* and another one of *open data portal coordinators*.

The open government action plan for 2014 kept open data as its main focus. One of the

ambitious actions is the adoption of the Open Data Principles, highlighting the principle of open data by default. These principles will also guide public institutions in the process of providing and opening public information for reuse. This normative document will be complemented by a biannual action plan on releasing public information. The Government will develop and adopt these documents in order to facilitate the release and reuse of public sector information as well as to align itself to the international standards around open data, and specifically the G8 efforts within the Open Data Charter. Ultimately, having a clear roadmap in place could lead the Government of Moldova to co-sign the Open Data Charter.

Personal data protection remains an important element in the release of open government data. The e-Government Center collaborates with the Center for Personal Data protection to ensure awareness and understanding of the border between personal data and public data. Several trainings for open data coordinators included the section on personal data protection, explaining different level of data aggregation that ensures privacy in the process of data release.

1.3 Technical aspects of open data in Moldova

The open data portal www.date.gov.md has undergone several transformations through major improvements. Initially the portal was launched on Wordpress, and then its functionalities improved to allow institutions to independently manage their datasets. The latest version of the portal adopted the open source CKAN with Drupal. The data catalogue is stored in CKAN, while the workflow is managed in Drupal. This version allows public institutions to publish their data from information systems through APIs and citizens to use social media in interacting with institutions on the portal. Allowing public institutions to publish raw data through API on the portal reduces their time and efforts spent on manually uploading datasets, ensure regular data updates as well as offers raw data to citizens for reuse in as many ways possible and build innovative applications. On the new portal, data is also discoverable much easier due to the targeted functionalities offered by the platform.

According to the methodological norms on implementing the Law on public sector information reuse, public institutions will have access to a Methodology on open data publishing, which will guide them in the data publishing process, including APIs, as well as highlight the machine readable formats to be used for datasets. The government data standards on collection, archival and publishing of public data will be developed according to the e-transformation

action plan in 2014. The unified standards will support the open data publishing efforts once implemented.

The exchange of public sector information, including open data, contributes to improvement in public service delivery. The interoperability platform, currently in the implementation phase, aims to enhance data exchange among public institutions. One of the outcomes beneficial to the open data initiative is a well-defined set of classifiers used by public institutions, with a defined owner responsible for maintaining the classifiers up-to-date. Additionally, the public part of data exchanged through the interoperability platform could be released as open data. Given that most of the public institutions interact and exchange their data as part of the service delivery process, more and more data will circulate through the interoperability bus, leading to more data being available for an easy public release.

As part of the Public Service Reform, the government will publish data on the performance of electronic public service delivery. The systems will automatically generate data related to the delivery of the specific services which will be published and regularly updated on the open government data portal.

1.4 Challenges of open data

Despite efforts in advancing the open government data agenda, there are various challenges that prevent a greater acceleration of the initiative. The government's information infrastructure is fragmented and not all of the information is collected and stored in information systems. This leads to discrepancies in information structure, data formats, as well as inconsistencies in documents' formatting. Statistical data is often collected in Word documents as opposed to structured CSV files, multiples documents are published as scanned PDFs, or reports are published without annexing or releasing the raw data used for its drafting. In addition, the lack of a common set of classifiers adds to challenges regarding the standardization of the pool of public information held outside information systems and databases. The development of government data standards and the implementation of the interoperability platform could address this challenge.

Public institutions often publish aggregated data and then charge for more granular or raw data. This is part of the business model of multiple state enterprises that subordinate to ministries

and are responsible for public data collection and maintenance of information systems and databases. Several government applications allow for data visualization but limit the reuse by not offering raw data for bulk download and inhibiting opportunities such as the development by civil society of private sector of better applications or services, which in turn could complete with those provided by the government. Once committed to the principle of open data by default and reuse of public sector information, the government will have to rethink the business model around charging for public data, which is already paid for by citizens through taxes. According to the new Law on public sector information reuse, the pricing should now exceed the marginal costs of offering information for reuse.

Another issue in the public sector is reduced commitment from the open data and information reuse coordinators, who are responsible for defining, collecting and publishing data on the portal in addition to their previous responsibilities. Additionally, public institutions and public servants that work with public data outside information systems and databases often lack the necessary technical skills for operating with machine readable formats or presenting public information in a structured way. Trainings and workshops with participation of local and international experts are organized in order to address this challenge and equip the members of the open data and public sector information reuse working groups with necessary skills for working with data and presenting it in relevant formats for public consumption.

2. The value of Open Data for open and inclusive policy making in Moldova

Open and inclusive policy-making is a transparent and accessible process, and responsive to as wide a range of citizens as possible. *Openness* means providing citizens with *information* and *inclusion* means including as wide a variety of citizens' voices in the policy making process as possible. To be successful, these elements must be applied at all stages of the design and delivery of public policies and services (as per OECD recommendations on Public engagement for better policy and services, 2009). Many governments have launched initiatives to inform, consult and actively engage citizens in policy-making, especially from those 63 Open Government Partnership member countries. Some governments have long-standing experience in this field. In countries like Moldova, however, there is a need to build this citizen-engagement culture. In line with the above, open data could indeed play a great role in ensuring an inclusive, opened and participatory approach to engaging citizens in decision-making processes at all levels. More than that, it can also help 'infuse' an evidence-based approach to decision-making cycle.

In practice, it can look as follows:

Level 1: Providing access and Information → **Level 2:** Consultation → **Level 3:** Participation in Decision Making → **Level 4:** Participation in Monitoring and Evaluation

Level 1 Providing access & information: Government disseminates information on policy-making. Citizens access this information or can demand specific information, according to the existing legal framework. The more open data is released and made available by governmental agencies, the more chances that citizens will use this data and will refer to it when making certain decisions or choices.

Level 2 Consultation: In order to receive feedback on any public policy documents, sectorial strategies, local initiatives, or any other, government should seek opinions and views of the citizenry. To receive citizens' feedback it is important that government provides information to

citizens beforehand. Releasing *open data* in user-friendly, machine-readable formats, in a disaggregated form would indeed facilitate a greater participation of citizens in the consultation processes.

Level 3 Participation in decision-making: Active participation in decision-making means that citizens themselves take a role in the exchange on policy-making, for instance by proposing policy-options. To propose different policy options, citizens need data to base their analyses on, to argue the different alternatives and solutions they are proposing. So, open data is crucial for this level as well.

Level 4 Participation in monitoring & evaluation: The broad spectrum of different online tools to help keep track of the quality of public services, to rank certain public institutions or servants, to vote for the most opened and committed authorities, to signal problems and areas which need immediate consideration – all these require open data to be at citizens' disposals: both, for those who can create interactive online applications, as well as for the regular citizenry who can use them to express views and provide solutions.

Open data could significantly improve the mechanisms for citizen-engagement in policy-making and more specifically it can:

- Help strengthen government – citizen relations;
- Call for more transparency and accountability;
- Help meet citizens' expectations and respond to their needs;
- Facilitate a more active participation of citizens who can bring original contributions to policy-making;
- Others.

Skills related to interpretation of data, analyses of data, synthesis and evaluation of data are crucial. Future efforts should also include capacity building for both public servants and civil society organizations.

3.   Conclusions and recommendations

Internationally, there is much work already in place on having open data as part of post-2015 development agenda. Data must enable both the Government and civil society to reach those in need, and there should be ways to explore further on whether those in need are receiving or not essential services. This means that data gathered will need to be disaggregated to the lowest level possible and allowed by law, including geography, income, gender, disability, and other categories, to make sure that no group is being left behind.

In line with the above, open data can bring several positive changes and produce impact on different levels:

- *Government Transparency* – with open data, change will occur in access to information about the actions of government officials, about operation of government programs that enhances accountability or citizen influence on government;
- *Citizen Participation and Trust in Government* – changes will particularly occur in frequency as well as intensity of direct citizen involvement in decision making processes (at national or local level);
- *Government efficiency* and *Government effectiveness* – getting more done with the same resources, having improved quality and/ or quantity of the desired outcomes;
- *Collaboration* – having key stakeholders around the table and share responsibility for decisions about operation, policies, or actions of government related to open data.
- *Economic growth* – the Government could contribute to driving economic growth by supplying raw data for reuse that could result in greater innovation, applications and new business opportunities. It could also contribute to greater developments in research and academic sector.

Additionally, what might be relevant to consider for Moldova in the upcoming years are a number of initiatives among which:

- Building a strong open data community and encouraging collaboration of civil society organizations in both urban and rural areas;
- Including open data in the agenda of local public authorities;
- Driving demand for open government data through greater awareness raising efforts and creation of a platform for knowledge exchange, peer-learning and capacity building

around open data.

- Providing support to initiatives related to use of open data by creating practical applicants for citizens to use, especially among youth groups;
- Introducing data analysis skills building program into the education curricular at the national level.

Both Government and civil society have plenty to learn and much to gain when it comes to open data. Conducting government and civil society outreach and education, and driving more advocacy support would be essential for the upcoming years. Moldova's Open Government Agenda should continue to keep Open Data at its core in order to promote government's transparency, accountability, citizen-participation, innovation and economic development.

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Irina Tişacova has been leading the e-Government Center's Open Government and Open Data agendas since 2011 and is the program manager for date.gov.md, Moldova's Open Data Portal. She is specifically responsible for cooperation with ministries and civil society, aimed at opening even more government data and at ensuring its use by business and civil society to promote economic growth and citizen engagement. Irina was responsible for the consultation process of the open government action plan and also contributed to drafting the Law on Public Sector Information Reuse and well as the methodological norms for the implementation of the Law. She is also Board member of the Open Government Institute (Moldova).

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