Open Data Readiness Assessment

Republic of Serbia
Disclaimer

The analysis and recommendations in this Open Data Readiness Assessment are based on information and opinions collected from interviews undertaken and materials provided by the government and other local stakeholders during this study. This Open Data Readiness Assessment is not based on detailed, legal due diligence and does not constitute legal advice. Accordingly, no inference should be drawn as to the completeness, adequacy, accuracy or suitability of the underlying assessment of, or recommendations or any actions that might be undertaken resulting therefrom, regarding the enabling policy, legal or regulatory framework (including institutional aspects thereof) for Open Data in the country.

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EXECUTIVE SUMMARY

Serbia is in a good position to move forward with an Open Data Initiative. The existing e-government strategy and open government action plan within the context of administrative reform provide a good general backdrop even if strong central high-level support for open data is elusive, while at the same time enough quick wins have emerged that allow a speedy start with a range of pilots. These pilots are important to meet already well articulated societal and business demand, and counteract existing lack of trust between societal stakeholders and government bodies. With the Ministry of Public Administration and Local Self Government, and the Directorate for e-Government within it as an operational unit, there is also a logical home for an open data initiative in the structure of government, which provides a focus on both effective government and improved public service.

The existing legal framework provides a solid starting point as, although specific concepts such as re-use do not currently exist in the legal sense, no specific inhibitors play a role. Access to information, copyright and data protection laws create plenty of working room for open data to be released.

This assessment has found a wide range of government bodies willing to move forward with open data (confirmed by a few early data publications during and in the aftermath of the ODRA interviews), as a means to increase government effectiveness. It also found strong demand from the business community and civil society (to decrease the cost of doing business, and to increase transparency in various policy areas). Several institutions, such as in particular the Ministry of Public Administration and Local Self Government, Ministry of Finance, Ministry of Interior, Ministry of Education, Statistics Office, Public Procurement Office, Agency for Medicines and Medical Devices, the Public Policy Secretariat, the Serbian Business Register Agency, and CROSO showed willingness during and after the ODRA, while being realistic as to their current situation and opportunities. This provides strong opportunities for straightforward pilot projects, which in turn will provide the experience and motivation that will bring other agencies to the table as well.

However a successful national open data initiative in Serbia will also require:

1. Raising significantly greater awareness across government on what open data is and its potential as a policy instrument, thus creating more collective political commitment and sustained central leadership across government.

2. Exploring creatively the possibilities of funding an open data program, or building blocks thereof, through both existing programs in e-government and administrative reform, as well as collaboration with donors (in both existing projects to strengthen public service and societal impact, and in specific open data projects).

3. A strong collaborative effort between government agencies, civil society and the business and developer community, to build more trust between government and non-government stakeholders.

4. Leveraging the small clusters of relevant IT and data expertise across a wider section of government bodies.

The outcome of this assessment contains both the overall assessment and a suggested list of actions. Given the ongoing work of the Serbian government regarding e-government and administrative reform, the action plan is likely the primary outcome of the ODRA. It is focused on integrating actions at the top, middle and bottom, including the active involvement of civil society and the business community. A first focus of those actions is making open data available where that is easy to do so, and to form pilot groups of government agencies, civil society, business and developers to quickly create a few practical examples of the usage of open data, which can serve as example for further extension of the open data program.
Where data exists in digital form, or is already being published as web-based information, it is easy to extract the data for publication in reusable form, and several Ministries and agencies are in principle willing to do so. In other instances the ability to produce and publish open data should be seen as a regular and justified part of the requirements within ongoing digitization efforts (such as what the Ministry of Education, Science and Technological Development has done, by immediately publishing newly collected education data as open data quietly for testing purposes). For a sustainable and integrated role of open data as part of public service delivery however, the problems with retaining skilled staff and maintaining a sufficient level of IT knowledge across government are a significant obstacle, even if it does not hinder starting open data efforts now.

For further background information, the full ODRA methodology is available online at http://data.worldbank.org/about/open-government-data-toolkit/readiness-assessment-tool
METHODOLOGY

This "Open Data Readiness Assessment" was prepared for the Government of Serbia, at the request of the Ministry of Public Administration and Local Self Government, Directorate for e-Government. It is the product of a joint team of experts representing the World Bank and the UNDP.

The purpose of this assessment is to assist the government in diagnosing what actions the government could consider in order to establish an Open Data initiative. This means more than just launching an Open Data portal for publishing data in one place or issuing a policy. An Open Data initiative involves addressing both the supply and the reuse of Open Data, as well as other aspects such as skills development, financing for the government's Open Data agenda and targeted innovation financing linked to Open Data.

The World Bank Open Data Readiness Assessment Framework uses an "ecosystem" approach to Open Data, meaning it is designed to look at the larger environment for Open Data – "supply" side issues like the policy/legal framework, data existing within government and infrastructure (including standards) as well as "demand" side issues like citizen engagement mechanisms and existing demand for government data among user communities (such as developers, the media and government agencies).

This Assessment evaluates readiness based on eight dimensions considered essential for an Open Data initiative that builds a sustainable Open Data ecosystem. Its recommendations assume that an Open Data initiative will address various aspects of an Open Data ecosystem.

The readiness assessment is intended to be action-oriented. For each dimension, it proposes a set of actions that can form the basis of an Open Data Action Plan. The recommendations and actions proposed are based on global best practices while also incorporating the needs and experiences of the Government of Serbia to date. Within each dimension, the assessment considers a set of primary questions, and for each, notes evidence that favors or disfavors readiness.

The evaluation of each dimension and primary question is color-coded:
- Green (G) means there is clear evidence of readiness
- Yellow (Y) means that evidence of readiness is less clear
- Red (R) means there is evidence for absence of readiness
- Grey (O) means insufficient information to assess readiness

When addressing a particular question, evidence of readiness has a "+" sign. Evidence against readiness has a "-" sign. Evidence that has mixed implications or neither favors nor weighs against readiness has an "o" sign.

Not all evidence is weighed equally when determining the overall color indicator for a given primary question. Certain factors may weigh more heavily when deciding readiness status.
ACKNOWLEDGEMENTS

This Open Data Readiness Assessment Report was prepared with support from the Government of Serbia, the World Bank, and the UNDP. Its primary author is Anton Zijlstra, Senior Open Data Consultant to the World Bank. The team was led at the World Bank side by Oleg Petrov, Senior Program Officer, and at the UNDP side by Irena Cerovic, Portfolio Manager for Public Administration Reform and Rule of Law. Further involved were, Anna Ivanova, of the World Bank Moscow Office, Aleksandar Ivic, supporting local ODRA consultant for the UNDP in Serbia, and Rayna Stamboliyska and Laura Manley, open data consultants to the World Bank.

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The assessment team also wishes to thank the wide range of stakeholders, listed in the Annexes, for agreeing to be interviewed for the study, and whose input and feedback contributed greatly to this report.
1. SENIOR LEADERSHIP

*Importance* Very High

*Context:* Open Data Programs require the implementation of change - often including legal, institutional, technological and cultural changes - and may affect stakeholders both inside and outside government. Focused, strong, sustained, political/senior leadership is therefore critical to helping a government overcome resistance and inertia of all kinds, to helping incentivize actors to make the necessary changes in a timely and effective manner and to achieving the desired objectives and benefits of an Open Data Program.

*Assessment:* YELLOW

**Questions to Ask**

1.1. **To what extent is there visible political leadership of Open Data/Open Government/Access to information?**  
   *(Importance: Very High)*

- The Prime Minister and/or the Head of State have not yet publicly supported Open Data, although Serbia's government is functioning politically in a highly centralized way and the Prime Minister's support would be an important signal.

+ The Deputy Prime Minister and Minister for Public Administration is willing to provide leadership on open data, provided there are clear means to deliver on possible commitments, and there is a clear link to existing priorities.

+ Other Ministries, such as the Ministry of Finance and the Ministry of Education, Science and Technological Development see transparency as a priority although open data is a new instrument towards that for them.

+ The Ministry of Interior is a large data holder and has shown interest in moving open data forward.

+ Several agencies have indicated strong interest and willingness to make open data efforts.

+ Since the June mission to gather information for this ODRA, the Ministry of Public Administration and Local Self Government has signaled a much stronger interest in open data.

- No clear open data champions at high political level have become visible so far.

1.2. **To what extent is there an established political leadership and governance model for policy and implementation of programs across multiple institutions or across government as a whole?**  
   *(Importance: High)*

+ The Ministry of Public Administration and Local Self Government is the overall coordinator for public administration reform for the Republic of Serbia.

+ There is an inter-ministerial working group for public administration reform that also contains civil society representatives.

+ The Directorate for e-Government has a central role in cross-government implementation of electronic services. It has recently become part of the Ministry of Public Administration and Local Self Government.
SENIOR LEADERSHIP

+ The Prime Minister has recently installed a ‘Tony Blair style’ Delivery Unit, with priorities in the areas of public administration reform, infrastructure, investment climate, restructuring of state-owned enterprises, and agriculture

1.3. **What existing political activities or plans are relevant to Open Data?**

*Importance: Medium*

+ The public administration reform strategy indicates that active participation of citizens in formulation and implementation of public policies is one of the key assumptions of government’s transparency.

+ A new general e-government strategy is being proposed (by the Directorate for e-Government), which will be strengthened in terms of the role and impact of open data, as well as in terms of proposing relevant actions and law-revisions.

+ The Commissioner for Information of Public Importance and Personal Data Protection has an active role in raising awareness and application of access to information regulations, as well as data protection. This also takes the form of actively writing law proposals.

+ The Ministry of Culture has plans for digitization of cultural heritage.

  - No specific open data plans are in place as yet.
  
  - Very few open data activities have been encountered at lower levels of government (city, regional level). The city of Novi Sad however is involved in two European projects (Welive.eu and clips-project.eu), both focusing on increasing engagement and public service delivery, in which open data is mentioned as a building block.

O The Prime Minister’s Delivery Unit has a project with the Ministry of Public Administration and Local Self Government, to create three pilots (aimed at cutting back superfluous regulations around parental aid, maternity pay and pension insurance), in which e-government is the vital fundament, and the Directorate for e-Government a key stakeholder.

1.4. **How does the wider political context of the country help or hinder Open Data?**

*Importance: High*

O The government of the Republic of Serbia is politically functioning in a highly centralized way, with the Prime Minister as the principal role.

O Next elections are foreseen for 2018, and are not currently a potential political driver.

O The Republic of Serbia is working towards an EU Membership, which means that in many areas regulations will converge with their EU equivalents. Concerning the EU Digital Agenda this convergence seems currently to have stalled for the moment.

1.5. **What is the country’s position in relation to the Open Government Partnership?**

+ Serbia has joined the Open Government Partnership, and is currently executing its first National Action Plan, with a focus on transparency and civic engagement.

  - The current OGP action plan, ending December 2015, does not contain commitments concerning open data.

+ A range of CSO’s are involved with the OGP efforts, and there is an office (within the Ministry of Public Administration and Local Self Government) to stimulate and coordinate this cooperation. Some 30 CSO’s participated in the last meeting concerning OGP.
There is an inter-ministerial working group on public administration reform, in which CSO’s are participating, based on an action in the OGP plan.

The OGP efforts fall under the Ministry of Public Administration and Local Self Government, also with involvement of their Directorate for e-Government.

The Ministry in charge has recognized that open data needs to be a prominent part of the next OGP Action Plan.
2. POLICY/LEGAL FRAMEWORK

Importance High

Context: The long-term success and sustainability of an Open Data Program is greatly impacted by the policy and legal framework that exists. Open Data requires that a range of policy and legal issues be addressed – for example, with respect to the licensing of data reuse. It is important to identify at an early stage the existing policies, laws and regulations with respect to a core set of issues, and to identify actual or perceived obstacles in order that policy or legal change can be initiated early if essential. It is highly desirable that a suitably qualified and experienced local government information lawyer or a competent local lawyer on its behalf advises the Assessment directly. The latter has not yet taken place.

Assessment: YELLOW

Questions to Ask

2.1. What is the legal and policy framework for the protection of personal privacy? (Importance: Very High)

+ The Constitution in article 42 addresses personal data protection, and is harmonized with EU standards on personal data protection.

+ Serbia signed the Convention for the Protection of Individuals with regard to Automated Processing of Personal Data in September 2005, which was ratified in a Law for Affirmation in 2008.

+ A Law on Protection of Personal Data was adopted in 2008, and amended in 2009 and 2012.

- A Strategy for Protection of Personal Data was adopted in 2010, but an action plan for the implementation of the strategy has not been brought forward yet.

+ The Commissioner for Information of Public Importance and Personal Data Protection is taking active responsibility to ensure implementation and adherence to personal data protection regulations. The Commissioner also provides the primary redress mechanism.

O The Commissioner for Information of Public Importance and Personal Data Protection has proposed a new Law on Personal Data Protection early 2015 to the Justice Ministry.

- The Commissioner noted that personal data protection can still be improved, and that responsibility for it cannot rest with the Commissioner's office only.

- The Commissioner noted that the Law on Personal Data Protection is not equipped to deal with digital/electronic and technical aspects.

O Some 2200 cases concerning personal data protection have been taken up by the Commissioner in 2014.

2.2. What rights of access to information exist? (Importance: Very High)

+ The Law of Free Access to Information of Public Importance provides citizens with means to obtain public information.

+ The law stipulates the pro-active publishing of a directory of information held by public sector bodies.

+ The law provides a mechanism for citizens to request other public information.
O Individual agencies and departments are responsible for processing information requests themselves.

The Commissioner for Information of Public Important and Personal Data Protection reports that some 70% of Ministries and important public sector bodies fulfill their pro-active publication requirements, yet just 25% of the total number of public sector bodies (which includes many small and local public entities) do so.

+ The Commissioner’s office receives several thousands of complaints from citizens concerning information requests per year (compared to thousands of information requests being received per day). In most cases complaints are made because a request was ignored, not because it was denied. After intervention of the Commissioner some 2/3s of these requests will be fulfilled after all. The Commissioner sees the number of requests as ‘normal’ and as a sign the mechanism works, as it shows many people are actively using it.

+ The Public Administration Reform Action Plan plans amendments to the Access to Information law for Q4 2015. This is an opportunity to add mention of re-use, and the Commissioner’s office is suggesting to do so.

+ The Access to Information framework is regarded as reasonably solid, also due to extensive campaigning and awareness raising by the Commissioner’s Office (and CSO’s) to address gaps by strengthening interpretation.

+ CSO’s report that they actively use information requests but also note that response times for information requests are often not kept.

O By regulatory requirement, there should be Access to Information offices in all public bodies. Most national level public bodies have them appointed.

2.3. What is the legal and policy framework for data security, data archiving and digital preservation?

(Importance: High)

- There is currently no law regulating data security, or concerning data archiving and digital preservation.

+ A law on archiving that should address data archiving and digital preservations is in process of public hearing.

+ The law on protection of personal data generally describes that data must be adequately protected from abuse, destruction, loss, and unauthorized access, and stipulates that data controllers and processors need to undertake all technical and organizational measures to ensure that adequate protection themselves.

O Agencies with high IT capabilities have recognized the lack of regulation on data security and initiated and published their own regulations, such as CROSO and the Geodetic Authority.

+ An initiative to form a National Computer Emergency Response Team (CERT) has been started.

2.4. What is the policy on the ownership and licensing of government data?

(Importance: Very High)

+ The Law on Copyright and Related Rights excludes laws, decrees, regulations, official materials of state bodies and those performing public functions, as well as any official translations thereof, and court submissions and proceedings from being deemed works of authorship, putting them in the public domain.

+ Interviewees’ common answer to the question of ownership is that data belongs to Government in general.

- In general there is no explicit information on license of use on any released data or information.

O Some agencies, especially those with higher technological capabilities concerning data provision have their own Terms of Use mentioned on their website.
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+ The Geodetic Authority in their online Terms of Use requests referring to them as the source.
+ The Agency for Medicines and Medical Devices in their Terms of Use requests re-users to voluntarily notify them of their re-use (to collect examples of such re-use).

- The Law on SBRA (business register) in article 4a places the database rights with the SBRA, and delegating the ownership of data to the SBRA from the Republic of Serbia.
- The SBRA (business register) in their online Terms of Use limits usage to personal non-commercial and otherwise reserves all rights.
- No usage of Creative Commons licensing for public information have been encountered.
- There is no central policy or regulation pertaining to re-use, nor pertaining to commercial re-use. Access to information law provides right to examine and copy, but does not mention re-use of such copies.
- There appears to be no central policy or regulation on how to arrange ownership of data that is generated by third parties under government contract or procurement, which may leave the status of such data (government owned, or privately owned?) either undetermined or ad-hoc assigned within procurement contracts.

2.5. To what extent is government data sold by agencies?

(Importance: High)

+ Government to government data and information provision is always free of charge. No agencies are charging other public bodies for data. It appears that such G2G data provision is covered by data holding agencies from the budget, and not by increasing fees to non-government bodies.
+ Access to information under the Access to Information Law is free of charge, and copies of information underlie a marginal costing principle (the additional cost of reproduction/provision for an applicant can be charged).

O The government is legally obliged to have a formally agreed list of reimbursable expenses on the basis of which public authorities shall calculate the costs.

- Several agencies (such as SBRA) depend to a large extent on revenue collected from registering data, providing information and data, and services upon them (for the SBRA most revenue is from registration fees, around 80%). Such revenue is mandated under the regulations that govern these agencies as they are mandated to be 'self-sustaining'. The Geodetic Authority is not defined as such a self-financing institution, and is funded directly from the state budget. The revenue they generate goes directly to the state treasury.
+ The SBRA is willing to remove charges for data provision, provided it can create/increase new/other revenue streams for services and data analysis to compensate. (Under the EU convergence efforts it may also be needed to ensure no cross-subsidization takes place between, where SBRA uses its publicly held data for the creation of marketed services under different conditions than other re-users of the same data).
- Some geographic data that is provided free of charge to local authorities by the Geodetic Authority is then sold on unofficially by those local authorities to private entities seeking that data.

2.6. What other policies/laws exist that may have significant impact on Open Data?

(Importance: High)

- There are currently no guidelines concerning re-use of public material.
+ The Law on State Administration states the work of state administration authorities shall be public. In this regard, they are obliged to inform the public about their work, through media and in other appropriate ways.
+ The Resolution on Legislative Policy stipulates that it is necessary to ensure full transparency and openness throughout the entire legislative processes.

O The Data Secrecy Law (2009), overseen by the Ministry of Justice, authorizes each public authority to enforce its articles, meaning that each public authority makes their own decisions within the context of this law.

+ The National Assembly, the President, as well as the Government have the authority to release data overriding secrecy obligations.

+ No reference was made in any interview that the Data Secrecy Law was an impediment to transparency or access to information.

O Various agencies (such as Geodetic Authority, SBRA and others) have regulations covering their data collection and maintenance tasks.

+ The Official Statistics Law provides the legal framework for the collection and dissemination of official statistics

+ Upon written request, the Statistical Office and other authorized producers of official statistics may supply individual data without identifiers to scientific and research institutions. The inquiring institution shall clearly indicate the purpose for which the data will be used.

O There appear to be no exclusive arrangements in which public data is only provided to one third party.

+ The Public Policy Secretariat has a database with all government strategies and their connections, and has categorized them all.

- Changes to the General Administrative Procedures Law are under consultation. It seems stipulations limiting electronic communications with government, as well as the demand to state interest are part of the proposals under discussion. Both would be a possible obstacle to openness.
3. INSTITUTIONAL STRUCTURES, RESPONSIBILITIES AND CAPABILITIES WITHIN GOVERNMENT

Importance: High

Context: As well as political and senior leadership, middle management level skills and leadership are important to success: creating an Open Data Program requires agencies to manage their data assets with a transparent, organized process for data gathering, security, quality control and release. To effectively carry out these responsibilities, agencies need to have (or develop) clear business processes for data management as well as staff with adequate ICT skills and technical understanding of data (e.g., formats, metadata, APIs, databases). Engagement among agencies and at all levels of government to set common standards and remove impediments to data interoperability and exchange is also vital, and requires mechanisms for inter-agency collaboration.

In addition to handling the “supply side” of creating an Open Data Program, agencies need the structures and capabilities to engage with communities that reuse Open Data — including developers, companies, non-governmental organizations, other agencies and individual citizens.

Assessment: YELLOW

Questions to ask

3.1. Which agency or agencies have relevant capabilities, mandates, project management experience and technical skills to be a suitable lead institution in the planning and implementation of an Open Data Program? (Importance: Very High)

+ The Ministry of Public Administration and Local Self Government, and within it the Directorate for e-Government, jointly constitute a logical place to lead the practical open data effort. Whereas the Ministry provides the political rationale in terms of public administration reform, and the open government partnership action plan, the Directorate provides the practical and technological aspects for implementation. The work on e-government is interministerial by definition, as is open data. The e-government service bus, part of the central e-Government portal, already connects various Ministries, might also serve as a fundament under a government open data portal.

+ Several other agencies (CROSO, SBRA, Geodetic Authority, Ministry of Interior, Agency for Medicines and Medical Devices) are islands of capabilities, also in working with and connecting other agencies and Ministries.

- In general IT capabilities are scarce within the public sector, and retention of skilled civil servants is hard.

3.2. Which, if any agencies have a CIO, CTO or permanent official positions dedicated to data management? (Importance: Medium High)

- No CIO/CTO type roles have been identified within government.

3.3. What inter-agency mechanisms coordinate ICT issues (such as for technical matters)? (Importance: Medium High)

- No overall general ICT coordination across the whole of government has been found.
Agencies like CROSO, SBRA, Geodetic Authority, and the Directorate for e-Government do have experience in coordinating ICT issues with other agencies and departments.

The Ministry of Interior has a large team involved in interagency web-services.

The Directorate for e-Government is currently working on a cross-government e-government strategy document and corresponding Action Plan.

A national data infrastructure is under discussion (as part of the e-government strategy), in which interoperability for data exchanges between agencies is a key aim. This includes a government wide user identification.

### 3.4. What process is currently used to measure agency performance or quality of service delivery?

*Importance: Medium*

- No such general performance measurement has been encountered.
- The Public Policy Secretariat is working on collecting performance data, although they encounter difficulties both in collecting relevant data (other agencies are often very resource constrained to respond to requests, to the extent that sometimes other agencies use time on the weekend to answer a request for data), as well in terms of IT capacity constraints.

### 3.5. Which agency or ministry is primarily responsible for data or statistics?

*Importance: Medium*

- The Statistics Office is responsible for all official statistics.
- Large data holders are organized as agencies and all have their own responsibilities and tasks regulated and are separate and independent from each other.
- The Ministry of Interior is the largest data holder amongst Ministries (persons, vehicles, crimes, passports, driving licenses, traffic accidents, traffic violations amongst others).

### 3.6. Which agencies or ministries appear most concerned about the release of data, and what is the basis of their concern? How can they be handled procedurally, and how can their concerns be addressed?

*Importance: High*

- No specific concerns, other than common general concerns around legal aspects (what is allowed, liability), practical aspects such as financing, staffing and capabilities, were voiced. All of these are to be addressed by awareness raising, formulating an overall open data policy, and action planning.
- Many interviewees voiced support for open data, provided those general concerns can be addressed.

### 3.7. How strong is the government’s overall ICT skill base among senior government leaders and civil servants?

*Importance: High*

- The general ICT skill base within government seems low. Retention of skills within government organizations is an often mentioned general issue.
- Some ‘islands’, usually large data holders, exist where capabilities and skills are much higher.
- Some of those islands with technological skills lack in hardware however to bring those skills in practice (such as the Statistics Office).

- There is a general hiring freeze for government, and hiring IT staff is not an exception to that rule.

3.8. What is the government’s presence on the Web?  
(*Importance: Medium*)

+ Most government bodies have websites that are used to provide a wide variety of information.

+ There are national mandated guidelines for state administration websites, and compliance reports with these guidelines must be published as well.

+ Large data holders such as the Ministry of Interior, Geodetic Authority, CROSO and the SBRA provide a variety of web services, FTP-services and APIs, within government as well as some outside of it.
4. GOVERNMENT DATA MANAGEMENT POLICIES AND PROCEDURES

*Importance* High

*Context:* Open Data Programs can build on established digital data sources and information management procedures within government where they already exist. Where data is only available in paper form it will be hard to release as Open Data and in reusable format quickly and cheaply. Conversely, good existing information management practices within government can make it much easier to find data and associated metadata and documentation, identify business ownership, assess what needs to be done to release it as Open Data and put processes in place that make the release of data a sustainable, business-as-usual, downstream process as part of day-to-day information management.

*Assessment:* Yellow

**Questions to Ask**

4.1. **What are the policies and practices on the management of government information?** *(Importance: High)*

- No overall policies and practices, other than legal requirements such as for instance stated in the personal data protection law seem to exist.

+ Several agencies have deep expertise of their own concerning information management (such as CROSO, Geodetic Authority, Statistics Office, SBRA, Directorate for e-Government, Agency for Medicines and Medical Devices, Hydromet, Ministry of Interior).

+ Some of those agencies have created their own information management guidelines (such as CROSO, SBRA, Agency for Medicines and Medical Devices), and/or stick to international standards (such as those of EUROSTAT, or ISO standards).

O The Ministry of Culture in their work on cultural heritage data recognized a lack of regulation concerning information system security, resulting in awareness of the need to address such issues.

+ The Public Policy Secretariat, based on their increasing analytical capabilities, would like to play an active role in inter-governmental data management issues, from the perspective of what data needs to be collected and in what way, and how inter-agency data provision is shaped in the non-IT sense.

+ The Ministry of Public Administration is working towards better data management, for instance developing an overall salaries database.

O The Public Procurement Office is working to streamline e-procurement and in that context encounters inter-governmental data management issues.

4.2. **To what extent does the government have a coherent view of its data holdings?** *(Importance: Medium)*

+ Agencies and departments for which the role as data holder is their core activity know well what data they have and in which form and shape.

+ The Access to Information Law mandates the pro-active publishing of an inventory of publicly held information by public sector bodies. Some 70% of all national and large public sector bodies do this according to the Commissioner for Information of Public Importance and Personal Data Protection.
- The mandatory inventories are however not standardized in terms of formats (nor machine readable), and can be hard to locate in practice.

+ Increasingly core data sets are being used across government (such as those of the Ministry for the Interior, and agencies such as the Geodetic Authority, the SBRA and CROSO).

- There are two national address registers (one mandated by law at the Geodetic Authority, one with the Post). In practice the version with the Post is being used because of a higher update frequency and more complete historic overview (changed street names etc.).

- The Statistics Office notices that due to resource constraints within their own office other departments sometimes collect/collate their own information, instead of consulting the Statistics Office.

- Some data holdings, such as the Public Policy Secretariat’s holding of the only local level set of polygons, are unknown to other public sector bodies.

### 4.3. How and where is government data held?  
*(Importance: High)*

+ Most current data, especially core data sets, are in digital format.

- Digital data however exists alongside paper based versions for archiving purposes.

O Legacy data, such as historic cadastral records, are regularly still in paper format.

- The applications received by the Agency for Medicine and Medical Devices are on paper as that is the format mandated under law, even though the Agency itself would like to see it only digital.

- No general requirements concerning technological formats and standards for data holdings apply across the whole of government.

### 4.4. What is the extent of intra- and inter-government actual demand and latent demand for data?  
*(Importance: High)*

- Not all departments, such as Ministry of Education, Science and Technological Development, have the data they need (from lower levels of government) and are in the process of creating such central databases (such as a complete database of primary schools, and of text books and their costs).

+ Core data holding agencies (such as the Ministry of Interior, CROSO, SBRA, Geodetic Authority) see strong demand for their data, and maintain digital connections with other agencies for the exchange of data, through electronic service bus, web services, ftp services and APIs.

+ The Geodetic Authority is a partner in creating a national geodata infrastructure, which does not concern new data, but creating new processes with existing data to meet inter-governmental demand. EU INSPIRE guidelines are incorporated in this.

+ The Public Policy Secretariat has a strong demand for inter-government data.

- The Public Policy Secretariat notice their requests for data regularly encounters resource constraints within other agencies for the provision of data (sometimes data being provided during the weekend for instance using spare time).

+ CSOs report that information they scrape from government websites and make available as data often also enjoys strong government demand, signaling unmet intra-government data needs.
4.5. What data is already made available outside government - either free or for a fee - and on what conditions?  
(Importance: High)

+ Many types of information are already available online in non-machine readable formats (see separate file with the status of data sets).
+ CSO’s report scraping such information and republishing it as data.
+ Various departments and agencies are just small steps away from providing information as machine readable data. This includes Ministry of Finance, Ministry of Interior, Public Procurement Office, Statistics Office, Geodetic Authority, SBRA, Hydromet and others.

O Departments and agencies triggered by the notion that it is only a small step towards publishing machine readable data, alongside their current public information, do indicate they would need some assistance (in expertise, man power, or money) in making that step.

+ The Agency for Medicines and Medical Devices already provides their data in machine readable formats. However this data provision currently requires an electronic ID of a legal business entity.

O SBRA and Geodetic Authority are mandated to highly depend on external revenue for data and services.

+ SBRA is willing to open up data they currently get revenue from, provided new revenue sources can be created, e.g. through better service provision (such as analytical services). External funding for such a transition may be helpful.

O A general detailed overview of revenues made on data and service provision would be needed to inform a deeper discussion on how to solve this. This is also relevant in the context of building a national data infrastructure that includes open data. This would be a key action in the Action Plan.

4.6. What practical experience does the government have in anonymizing personal data?  
(Importance: High)

+ The Statistics Office has experience in anonymizing personal and source data.
+ Large data holding agencies (CROSO, SBRA, Geodetic Authority) do too.

4.7. Which agencies with established capabilities in data management (e.g. the NSO) could give leadership to a wider program?  
(Importance: Medium)

+ Departments and agencies that have stronger internal data management capabilities, such as SBRA, are willing to share that expertise, even if (such as is the case with CROSO), they mainly hold personal data and not much potential open data.

- However these agencies indicate they are strongly resource constrained to be able to take a leading role.

+ Forming an inter-ministerial / inter-agency working group would be met with interest, not just from data holding agencies, but also from the Public Policy Secretariat.
AVAILABILITY OF KEY DATASETS

The Assessment considers whether key datasets are available and what would need to be done in order to release them as Open Data.

A first overview of the availability of key datasets is provided in the annex.
5. DEMAND FOR OPEN DATA

*Importance* Very High

*Context:* The value of data is in its use. A strong demand-side “pull” of data is important not only in creating and maintaining pressure on government to release data but also in ensuring that the wider Open Data Ecosystem develops and that Open Data is turned into economically or socially valuable services for citizens. The “pull” can come from civil society, the private sector, international organizations, donors and individual citizens, and even from government itself.

*Assessment:* YELLOW

**Questions to Ask**

5.1. What is the level and nature of actual demand and latent demand for data from civil society, development partners and the media?  
(*Importance:* High)

+ CSO's participating in our meetings were already well aware of global open data efforts.

O Broader awareness raising outside already capable CSO's may be needed, also in terms of wider societal capabilities to articulate data demands.

+ CSO's voice concerns around consistency in standards and quality of government data, making it hard to compare across data sets.

+ CSO's frequently use Access to Information requests to obtain information including for data-driven reporting.

+ CSO's scrape already published information from government websites to create machine readable data, and experience high interest (also from within government) for this data.

+ CSO's indicate it is very difficult to find data at the local government level, even when the aggregate numbers are available through national statistics (indicating the existence of this data).

+ There is strong CSO interest in data concerning the EU accession process.

+ Other data interest was found for are budget and spending, statistics, company registry, environmental data, archives, and data that is of interest to the political process.

+ CSO's attach high importance to realizing broad understanding that data is important, both in government and society. Many advocated data-driven policy and decision making.

+ Civil society urges prioritizing data sets for release in machine readable data, with a first step turning already published information into open data.

+ Civil society would like to see a clear and easy process for requesting data (such as a request this data button on a website), also to help articulate better data requests.

5.2. What is the level and nature of actual demand and latent demand for data from business/the private sector?  
(*Importance:* High)

+ Businesses (in pharma, healthcare, agriculture, construction, retail, consulting and finance and IT) see optimization benefits in having access to open data.
+ Businesses sometimes now scrape government information from government websites.

+ Businesses already use data from other countries and the EU in the absence of Serbian data for benchmarking and assessing economic trends.

+ A need for regional interoperability between data sets from Serbia and surrounding countries exists, as many companies operate throughout the region.

- Businesses do not necessarily trust the reliability of government data, because of a perceived lack of timeliness, incompleteness or inaccuracy of data.

O Few businesses, specifically start-ups, expressed active interest in creating new services/products with open data, citing lack of interoperability and regional scalability of data as issues.

+ One pharma company expressed a data need that was immediately met as the Agency for Medicines and Medical Devices had just started publishing machine readable data on licensed medicines the day before. Both sides were happy to make this direct connection.

+ Businesses voiced specific interest in business registry data, specifically financial data, as well as procurement, statistical, construction and health data.

5.3. How do public agencies listen to demands for data and respond?  
(Importance: Medium)

+ The Access to Information Law is the channel to request information including data.

+ The Access to Information Law is strongly used (see chapter 5).

O Information requests seem to focus on financial data (budget, expenditures), the political process, and general transparency.

- No 'request this data' buttons / contact forms were found on government information websites.

O Requests received are often regarded as not well articulated and vague.

5.4. How do external stakeholders view public agencies’ willingness to listen to demands for data and respond?  
(Importance: Medium)

- Civil society indicates that mandated response times for access to information requests are often not kept. The information commissioner also signals that most complaints made to the Commissioner’s office concern not receiving timely responses.

- Civil society in general feel a lack of trust in public sector bodies concerning data requests, based on perceived lack of standards / quality / consistency.

+ More direct interaction between data holders and those interested in using their data would be helpful to improve mutual understanding of needs and possibilities, help articulate requests and understand the responses.
6. CIVIC ENGAGEMENT AND CAPABILITIES FOR OPEN DATA

Importance High

Context: Mutual connections and understanding between government agencies and civil society are important to be able to collectively learn and explore how to do open data well. Open data results in a new communication and interaction channel. This also means it is important that civil society and private sector stakeholders are willing and capable to serve as intermediaries, preparing data for broader usage, creating applications and visualizations that disseminate information and insights to the general public.

Assessment: YELLOW

Questions to ask

6.1. Which potential infomediaries (such as data journalists) are able to help translate Open Data into meaningful information for the public? What actions are needed to develop or enhance these parts of the Open Data Ecosystem (Importance: High)

+ CSO’s can play important infomediary roles, also in close collaboration with government entities. For instance some 20 NGO’s collaborated with the information commissioner to raise public awareness for the access to information law.

+ CSO’s in meetings showed they are indeed (willing to be) active as infomediaries (concerning budget and spending, statistics, companies, environment, political process).

+ Similarly a coalition like that is now being formed by the Commissioner’s office concerning personal data protection (with less momentum, as there are less NGO’s in this area, and it is ICT organizations that need to be mobilized).

O Some investigative and data driven journalistic work concerning government transparency has been done, but less using public information and more concerning leaked documents.

O Media outlets are often aligned with specific political streams or affiliations.

6.2. What activities has the government engaged in to promote reuse of government-held data (e.g., in developing apps or organizing co-creation events)? How could such promotion be developed or enhanced? (Importance: High)

- No specific promotion by government of government-held data re-use was encountered.

O The business community indicated one hackathon has been organized (by Nordeus, a private company building Facebook games).

+ There is potential for a government and private sector hackathon that could be co-hosted by the Serbian incubator, the ICT Hub, who showed interest in providing space.

+ In May 2015 the ‘Nova Energija’ conference (http://novaenergija.rs/) brought together private sector companies and government stakeholders (such as the Directorate for e-Government) around the topic of internet oriented business.
6.3. What is the extent of engagement with government through social media and other digital channels?

(Importance: Medium)

+ CSO’s are actively engaged in public administration reform as participants in an interministerial working group (headed by the Ministry of Public Administration and Local Self Government).

+ Civil society is actively involved in the Open Government Partnership.

6.4. To what extent is there an existing Apps Economy?

(Importance: Medium High)

- No open data app economy currently exists.

+ General app usage in Serbia is common.

+ Paying for apps in Serbia in the Android app store only became possible in 2014, removing an important obstacle for a potential apps economy.

+ There is an active group of developers (both companies and individuals). One online app builders outsourcing platform lists 28 app building companies and groups in Serbia and some 14000 developers.

+ The ICT Hub has regular meetups promoting start-up culture and sharing experiences (http://www.meetup.com/ICT-Hub-Meetup/).

+ The availability of machine readable data from the Agency for Medicines and Medical Devices within 2 weeks resulted in the release of an app incorporating that data. The app was made by a Slovenian company (https://play.google.com/store/apps/details?id=eu.mediately.drugs.rs&hl=en). The Agency itself was very pleased with the quick impact of their data release.

6.5. To what extent is there an academic or research community that trains people with technical skills or has capabilities in data analysis?

(Importance: Medium)

- No specific examples were encountered, outreach will need to be part of action planning.
7. FUNDING AN OPEN DATA PROGRAM

*Importance* Medium High

*Context:* Funding with respect to both the “supply side” and “demand side” of Open Data is important to ensure that the objectives of an Open Data Program are met.

*Assessment:* **YELLOW** tending **RED**

**Questions to ask**

7.1. **How could resources be identified to fund an initial phase of an Open Data Program?**

   **Who would need to take what action to do so?**

   *(Importance: Very High)*

   - Most if not all interviewed ministries and agencies signal the need for external support to finance open data steps. (Although by itself open data actions usually can be designed to require very little in terms of funding.)

   - The E-government strategy currently under discussion possibly can be used as a funding vehicle for open data actions, as both e-government and open data are linked and both fall under the Directorate for E-government.

   + Various donor organizations have mentioned specific projects in which open data actions could be supported, as well as various grants or trust funds that could provide funding means.

   + Donor organizations have indicated general interest in open data, with World Bank, UNDP, and Swiss Development Corporation specifically expressing further interest.

   - High level central government awareness of the potential of open data is as yet still mostly lacking.

   - The Minister of Public Administration indicates they need ‘help to help ourselves,’ meaning providing practical advice and instruments and providing the rationale and business case for open data expenditures.

   - In order to avoid the need for some of the funding (like for pilots, or getting specific data ready for publication), it will be possible to build on voluntary efforts of non-government stakeholders.

   + Government contributions in kind (in the form of staff time allocated, pilots projects started) have been provided since the ODRA fact gathering mission. Pilot projects that are starting are not making funding requests but bootstrapping their efforts.

7.2. **What resources exist or have any been identified to fund development of initial apps and e-Services that will use Open Data?**

   *(Importance: High)*

   - No funding for external apps development has been identified, and a ‘government as launching client’ approach will be hard to take.

   + A central strategy for e-government exists, although much of it focused on creating intra-government infrastructure and services. Some funding may be found here, to ensure open data is a design parameter in the implementation of the e-government strategy.
7.3. What funding is available to support the necessary ICT infrastructure and ensure enough staff have the skills needed to manage an Open Data Program? 
(Importance: Medium High)

- Common infrastructure creation is part of the central e-government strategy.

O Various data intensive agencies have core ICT and data skills but lack funds or room to help spread those skills, although the will exists.

- Retention of skilled ICT staff is a strong concern across government in general. This severely reduces the likelihood of such staff being available where they might be needed to implement open data steps (although open data champions usually are not ICT-staff).

- Local vendors, based on a superficial scanning of online offerings and those active in various IT oriented communities, have no open data offerings as yet.

7.4. What funding mechanisms does the government have for innovation? 
(Importance: Medium High)

- In the course of this assessment no innovation funding has been identified.

- Some government funded SME or start-up programs exist, but they are very limited in resources.

O Civil society is actively building their own capacity, and does collaborate with government on issues concerning information access for instance. This is a basis to build on in terms of practical (not financial) support, although trust in government entities by CSOs is generally low.
8. NATIONAL TECHNOLOGY AND SKILLS INFRASTRUCTURE

*Importance* High

*Context:* In very practical ways, Open Data Programs normally rely for their success at least in part on the national technology infrastructure, in terms of technology and communications services and the ICT skills among officials, infomediaries and the general public.

*Assessment:* **YELLOW** tending **GREEN**

**Questions to ask**

8.1. **What is the local ICT “ecosystem”? Which technologies reach what proportion of citizens?** *(Importance: High)*

+ Mobile penetration is above 120% (source ITU).
+ Fixed line penetration is at 37% (source ITU).
+ 21% of the population uses smartphones, with a rising trend (2013 Mediascope research).
+ Three mobile providers and three fixed line providers are active in Serbia.
+ All mobile providers have 4G / LTE capabilities.
+ Digital TV cover 90% of population (analog TV has been switched off in June 2015).

8.2. **What is the level and cost of internet access, both by broadband and by mobile technologies?** *(Importance: High)*

+ In 2014 63% of households had internet access, 55.1% of households had broadband internet access (source Statistical Office Serbia).
+ Penetration of GSM is 99.75%, of UMTS is 97.16%
+ An ADSL 50MB/2MB connection costs about 15 USD per month.
+ Serbia ranks 50 in the 2013 ITU ICT Development Index (46 on access, 53 in use, 55 in skills). This puts Serbia above world average, but below developed Europe.

8.3. **How readily available is compute and store infrastructure?** *(Importance: Medium High)*

+ Over 63% of households own a PC or laptop (source Statistical Office Serbia), and used devices are highly available.
+ Over 30 web hosting providers are active within Serbia, and over 15 providing virtual server capabilities with hardware in Serbia.
+ Cloud services are available through local providers (such as mcloud.rs)
+ There is a central government datacenter (deu.gov.rs).
8.4. How strong are the IT industry, developer community and overall digital literacy?  
(Importance: High)

- Government reports that in 2012 ICT made up 5.5% of GDP.

- Government mostly (with the exception of Ministry of Interior) largely outsources ICT for lack of internal development capabilities.

- IT companies are highly oriented towards foreign outsourcing demand.

  - Around Novi Sad ICT companies have organized themselves to better position Serbia internationally and increase local skills and experience (http://vojvodinaitctcluster.org/about-us/).

- Larger IT companies in Serbia are often owned by foreign companies.

  - There are several active developer communities around e.g. Drupal (drupalcamp.rs), PHP (phpsrbia.rs), and the non-profit DaFED has been organizing events for experience exchange since 2012 (dafed.org).

  - There are several active groups and initiatives focusing on start-up and entrepreneurial support, such as ICTHub, StartIT and SeeICT.

- Overall computer literacy is not widespread (but may have improved) (source 2011 Census, Statistical Office Serbia): 51% of population above age 15 has no computer literacy, 15% partial, 34% full literacy.
Overview of the assessment per dimension:

<table>
<thead>
<tr>
<th>DIMENSION</th>
<th>IMPORTANCE</th>
<th>ASSESSMENT</th>
<th>COMMENTARY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior leadership</td>
<td>Very high</td>
<td>Yellow</td>
<td>Broad general support for the concept. No clear champion able to give it high priority.</td>
</tr>
<tr>
<td>Legal and policy framework</td>
<td>Very high</td>
<td>Yellow</td>
<td>No show stoppers but central coordination and clarification needed.</td>
</tr>
<tr>
<td>Institutional structures, responsibilities, capabilities</td>
<td>Medium high</td>
<td>Yellow</td>
<td>Increasing ICT capabilities a strong concern.</td>
</tr>
<tr>
<td>Government data management policies</td>
<td>High</td>
<td>Yellow</td>
<td>Enough data holders well positioned to move forward quickly. E-gov directorate able to provide cross-government overview.</td>
</tr>
<tr>
<td>Societal demand for open data</td>
<td>Very high</td>
<td>Yellow (tending green)</td>
<td>CSO’s and business community articulate clear demand, though trust levels in government are relatively low.</td>
</tr>
<tr>
<td>Civil engagement and capabilities for open data</td>
<td>High</td>
<td>Yellow (tending green)</td>
<td>Transparency broad goal, and some good examples of civil engagement.</td>
</tr>
<tr>
<td>Funding open data program</td>
<td>Medium high</td>
<td>Yellow (tending red)</td>
<td>External funding key for most steps. Funding needs could be kept low by combining with other ongoing (funded) efforts, both inside government (e-gov strategy, OGP planning) and outside (ongoing donor funded projects).</td>
</tr>
<tr>
<td>National tech and skills infrastructure</td>
<td>High</td>
<td>Yellow (tending green)</td>
<td>Islands of strong ICT skills in government, private sector ICT and entrepreneurial environment well developed, mobile penetration high, broad internet penetration, but relatively low overall computer literacy.</td>
</tr>
</tbody>
</table>
CONCLUSIONS

From the assessment the following conclusions can be drawn, indicating that Serbia is in a good position to move forward with an open data program:

- The integration of open data within the e-government strategy is an excellent base and starting point for an open data program. The suggested actions resulting from this assessment report can be used to augment and specify elements in the wider e-government strategy. Likewise the planned formulation of a new Open Government Partnership action plan is a very suitable vehicle to express an open data program.

- Stronger central leadership or patronage is needed, as it is one of the most important prerequisites for a successful open data program. This may come in the form of existing roles providing patronage, or the creation of a national CIO/CDO-type role. In practice, given central patronage, efforts could also be delegated to an interministerial working group, with the Ministry of Public Administration and Local Self Government and Directorate for e-Government in central coordinating roles.

- The legal and policy framework at first inspection is established enough as to underpin the open data program, but interviews indicate consistent application can be strengthened and overall coordination between different elements of the legal framework is helpful (for instance through an overall e-government and open data regulation).

- There is articulated societal demand for open data from both civil society and the business community (and the ODRA even surfaced a first example of such demand being met, through the Agency for Medicines and Medical Devices). At the same time societal organizations report low levels of trust in their interactions with government agencies.

- Fostering a stronger collaborative attitude between government agencies, civil society and the business and developer communities will allow a more successful open data program.

- In general government IT capabilities and hardware are limited in availability.

- Several agencies constitute islands of expertise concerning IT and data management, and can play a role in fostering such expertise in departments where that is needed.

- An open data program can be a good way for government to also improve interagency coordination and communication, as well as between various layers of government.

- Existing online publication of a number of information categories, including budget and procurement data, can easily have open data publication of the same information added to them.

- A number of government data holders have already volunteered to be involved in pilot projects with non-governmental stakeholders. This allows a speedy start.

- A first focus should be on releasing a few data sets as open data as soon as possible, in the context of to be determined pilot projects and likely in line with information already published pro-actively online. This is the clearest possible signal to society that they are invited to engage.

- For some possible pilots and other areas of interest free open source software and example projects exist elsewhere in the world that could be readily copied to the Serbian context, reducing the time, resources and capabilities needed to create societal value with open data.

- The costs of an open data initiative anchored in engagement with society need not be substantial. Open data is not so much an IT-project, even if it builds on digital technology at its core, but a means for engagement and a means to make room for innovation, resulting in a more resilient populace and more socio-economic value generation. The key to keeping costs down is attaching open data actions to ongoing digitization and policy efforts opportunistically. However (external) funding to make certain transitions will be needed, as well as some deep discussion around the current funding models of several data holding agencies (such as the SBRA and Geodetic Authority).
## ANNEXES - AVAILABILITY OF KEY DATA SETS

<table>
<thead>
<tr>
<th>DATA SET</th>
<th>RESPONSIBLE AGENCIES</th>
<th>DOES IT EXIST</th>
<th>IS IT IN DIGITAL AND/OR REUSABLE FORM?</th>
<th>WHICH FILE FORMATS</th>
<th>IS IT PUBLICLY ACCESSIBLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Budget data (national budget, local budget)</td>
<td>Ministry of Finance, Budget sector</td>
<td>Yes</td>
<td>Yes</td>
<td>PDF</td>
<td>Yes</td>
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<tr>
<td>Expenditure / grant data (spending at aggregated level / categorized level)</td>
<td>Treasury - Ministry of Finance</td>
<td>Yes</td>
<td>Yes</td>
<td>Database</td>
<td>Partially according to FOI</td>
</tr>
<tr>
<td>Expenditure / grant data (transaction level, disaggregated level)</td>
<td>Treasury - Ministry of Finance</td>
<td>Yes</td>
<td>Yes</td>
<td>Database</td>
<td>Partially according to FOI</td>
</tr>
<tr>
<td>National statistics (from national statistics office)</td>
<td>Statistical Office of the Republic of Serbia</td>
<td>Yes</td>
<td>Yes</td>
<td>XML, XLS...</td>
<td>Yes</td>
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<tr>
<td>Census data</td>
<td>Statistical Office of the Republic of Serbia</td>
<td>Yes</td>
<td>Yes</td>
<td>XML, XLS...</td>
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<tr>
<td>Parliamentary data (proceedings, draft laws, enacted laws)</td>
<td>Parlament</td>
<td>Yes</td>
<td>Yes</td>
<td>PDF, DOC</td>
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<tr>
<td>Laws and regulations data (enacted laws, regulations, bylaws)</td>
<td>Parlament</td>
<td>Yes</td>
<td>Yes</td>
<td>PDF, DOC</td>
<td>Yes</td>
</tr>
<tr>
<td>Procurement data (contracts awarded, sum, activity, documents, supplier)</td>
<td>Public Procurement office</td>
<td>Yes</td>
<td>Yes</td>
<td>HTML table</td>
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<tr>
<td>Tender data (requests for tender, contracts to be awarded)</td>
<td>Public Procurement office</td>
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<td>Yes</td>
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<td>Public facilities data (schools, hospitals, police stations, libraries, public buildings etc. including location and services available, opening times)</td>
<td>Statistical Office of the Republic of Serbia</td>
<td>Partial not only in statistics</td>
<td>Yes</td>
<td>Various</td>
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<td>Public service delivery/performance data (school records, hospital records etc.)</td>
<td>Each institution for it's own data</td>
<td>Yes</td>
<td>Partially</td>
<td>Various</td>
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<tr>
<td>Transport data (public transport, roads, traffic data)</td>
<td>Ministry of Construction, Transport and Infrastructure</td>
<td>Yes</td>
<td>No</td>
<td>Various</td>
<td>No</td>
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<tr>
<td>Crime data (crimes and their locations)</td>
<td>Ministry of Interior</td>
<td>Yes</td>
<td>Yes</td>
<td>Geodata</td>
<td>No</td>
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<tr>
<td>IS IT PUBLICLY ACCESSIBLE ONLINE (AS INFORMATION, OR AS DATA)</td>
<td>IS IT AVAILABLE AS COMPLETE DATA SET (THE FULL DATA), OR ONLY AS INDIVIDUAL QUERIES</td>
<td>IS IT AVAILABLE TO EVERYONE (OR SPECIFIC GROUPS?)</td>
<td>IS IT PAID OR FREE?</td>
<td>DO ANY RESTRICTIONS APPLY? DOES A LICENSE APPLY?</td>
<td>REMARKS</td>
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<tr>
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<td>Full</td>
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<td>No restrictions, nor licence</td>
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<td>All the data are in Treasury</td>
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<td>Summary data</td>
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<td>Yes</td>
<td>Summary data</td>
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<tr>
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<td>Queries</td>
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<td>No</td>
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<th>IS IT IN DIGITAL AND/OR REUSABLE FORM?</th>
<th>WHICH FILE FORMATS</th>
<th>IS IT PUBLICLY ACCESSIBLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inspection reports / rulings (public health inspections, safety inspections, food safety inspections, etc.)</td>
<td>Various</td>
<td>Yes</td>
<td>Partially</td>
<td>Various</td>
<td>No</td>
</tr>
<tr>
<td>Company/business register</td>
<td>Serbian Business Registers Agency</td>
<td>Yes</td>
<td>Yes</td>
<td>HTML</td>
<td>Yes</td>
</tr>
<tr>
<td>Cadastral register (land plot demarcation, land / home ownership)</td>
<td>Republic Geodetic Authority</td>
<td>Yes</td>
<td>Yes</td>
<td>DBF; geodatabase</td>
<td>Yes</td>
</tr>
<tr>
<td>Detailed national map / geodata</td>
<td>Republic Geodetic Authority</td>
<td>Yes</td>
<td>Yes</td>
<td>Map</td>
<td>Yes</td>
</tr>
<tr>
<td>Address register (including postcodes)</td>
<td>Republic Geodetic Authority</td>
<td>Partially</td>
<td>Yes</td>
<td>MDB (database)</td>
<td>Yes</td>
</tr>
<tr>
<td>Weather data</td>
<td>Republic Hydrometeorological Service of Serbia</td>
<td>Yes</td>
<td>Yes</td>
<td>HTML</td>
<td>Yes</td>
</tr>
<tr>
<td>Earth observation data (land-use / satellite images)</td>
<td>Republic Geodetic Authority</td>
<td>Yes</td>
<td>Yes</td>
<td>geodatabase</td>
<td>Yes, lower resolution only</td>
</tr>
<tr>
<td>Land use data (agriculture use, forestry, fishing, hunting, extractive industry)</td>
<td>published by Republic Geodetic Authority</td>
<td>Yes</td>
<td>Yes</td>
<td>geodatabase</td>
<td>No</td>
</tr>
<tr>
<td>Construction data (building permits issued / applied for, zoning)</td>
<td>Municipalities</td>
<td>Yes</td>
<td>Partially</td>
<td>Various</td>
<td>In few municipalities only</td>
</tr>
<tr>
<td>Real estate data (sales, listings, taxes etc)</td>
<td>Republic Geodetic Authority</td>
<td>Yes</td>
<td>Yes</td>
<td>Unknown</td>
<td>Yes</td>
</tr>
<tr>
<td>Environmental data (water quality, pollution levels, energy consumption, illegal waste dumping)</td>
<td>Ministry of Agriculture and Environment / Agency for Environment protection</td>
<td>Yes</td>
<td>Yes</td>
<td>HTML</td>
<td>Yes</td>
</tr>
<tr>
<td>Science and research outcomes (data behind published research)</td>
<td>Ministry of Education and Science</td>
<td>Partially</td>
<td>Yes</td>
<td>HTML</td>
<td>Yes</td>
</tr>
<tr>
<td>IS IT PUBLICLY ACCESSIBLE ONLINE (AS INFORMATION, OR AS DATA)</td>
<td>IS IT AVAILABLE AS COMPLETE DATA SET (THE FULL DATA), OR ONLY AS INDIVIDUAL QUERIES</td>
<td>IS IT AVAILABLE TO EVERYONE (OR SPECIFIC GROUPS?)</td>
<td>IS IT PAID OR FREE?</td>
<td>DO ANY RESTRICTIONS APPLY? DOES A LICENSE APPLY?</td>
<td>REMARKS</td>
</tr>
<tr>
<td>------------------------------------------------------------</td>
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</tr>
<tr>
<td>No</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td>Yes</td>
<td>Queries</td>
<td>Everyone</td>
<td>Free</td>
<td>Only for personal, non-commercial purposes</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>Queries</td>
<td>Everyone</td>
<td>Free</td>
<td>No restrictions, nor licence</td>
<td></td>
</tr>
<tr>
<td>Partially, for 6 cities</td>
<td>Queries</td>
<td>Everyone</td>
<td>Paid except for six cities</td>
<td>Paid users could use data only for own needs</td>
<td>Section Orto imagery</td>
</tr>
<tr>
<td>No</td>
<td>Full</td>
<td>Everyone</td>
<td>Paid</td>
<td>Paid users could use data only for own needs</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>Full</td>
<td>Everyone</td>
<td>Free</td>
<td>No restrictions, nor licence</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>Queries</td>
<td>Everyone</td>
<td>Basic service is free. Paid for high resolution images/data</td>
<td>Paid users could use data only for own needs</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td>Yes</td>
<td>Full</td>
<td>Everyone</td>
<td>Free</td>
<td>No restrictions, nor licence</td>
<td></td>
</tr>
<tr>
<td>Partially</td>
<td>No</td>
<td>Primary for banks</td>
<td>Paid</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>Queries</td>
<td>Everyone</td>
<td>Free</td>
<td>No restrictions, nor licence</td>
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<tr>
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<td>Queries</td>
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<td></td>
</tr>
</tbody>
</table>
## LIST OF CONDUCTED INTERVIEWS

<table>
<thead>
<tr>
<th>INSTITUTION/ORGANIZATION</th>
<th>INTERVIEWED PERSON</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directorate for e-Government</td>
<td>Dušan Stojanović, Director</td>
</tr>
<tr>
<td></td>
<td>Marija Kujačić, Head of Department</td>
</tr>
<tr>
<td>Ministry of Public Administration and Local Self-Government</td>
<td>Kori Udovički, Minister</td>
</tr>
<tr>
<td></td>
<td>Irena Posin, Assistant Minister</td>
</tr>
<tr>
<td></td>
<td>Ivana Savićević, Assistant Minister</td>
</tr>
<tr>
<td>Public Procurement Office</td>
<td>Danijela Bokan, Assistant Director</td>
</tr>
<tr>
<td>Commissioner for Information of Public Importance and Personal Data Protection</td>
<td>Stanojla Mandić, Assistant Commissioner</td>
</tr>
<tr>
<td></td>
<td>Rodoljub Šabić, Commissioner</td>
</tr>
<tr>
<td>Ministry of Finance</td>
<td>Mirjana Ćojbašić, Assistant Minister</td>
</tr>
<tr>
<td>Ministry of Economy</td>
<td>Edvard Jakopin, Assistant Minister</td>
</tr>
<tr>
<td>Republic Geodetic Authority</td>
<td>Veselin Bakić, Assistant Director</td>
</tr>
<tr>
<td></td>
<td>Dragica Pajić, IT Department</td>
</tr>
<tr>
<td>Central Registry of Compulsory Social Insurance</td>
<td>Milica Danilović, Director</td>
</tr>
<tr>
<td>Agency for Medicines and Medical Devices</td>
<td>Saša Jačović, Director</td>
</tr>
<tr>
<td></td>
<td>Tatjana Stojadinović, Head of Group for IT</td>
</tr>
<tr>
<td></td>
<td>Igor Vanevski, IT Administrator</td>
</tr>
<tr>
<td>Ministry of Agriculture</td>
<td>Vladan Kojanić, IT Department</td>
</tr>
<tr>
<td>Ministry of Education</td>
<td>Zorana Lužanin, State Secretary</td>
</tr>
<tr>
<td>Council for Education Quality Assessment</td>
<td>Gordana Čaprić, Deputy Director</td>
</tr>
<tr>
<td>Ministry of Construction, Transport and Infrastructure</td>
<td>Saša Ilić, IT Department</td>
</tr>
<tr>
<td>Ministry of Culture</td>
<td>Zoran Perović, Advisor</td>
</tr>
<tr>
<td>Statistics Office</td>
<td>Miladin Kovačević, Director</td>
</tr>
<tr>
<td>Ministry of Trade, Tourism and Telecommunications</td>
<td>Sava Savić, Assistant Minister</td>
</tr>
<tr>
<td>Republic Hydro-meteorological Service of Serbia</td>
<td>Bojan Palmar, Head of Department</td>
</tr>
<tr>
<td>Ministry of Mining and Energy</td>
<td>Dragan Šimanić, IT Sector</td>
</tr>
<tr>
<td>Ministry of Justice</td>
<td>Igor Todoroski, Assistant Minister</td>
</tr>
</tbody>
</table>
During the ODRA mission, two workshops were conducted, with representatives of civil society and representatives of business sector. The team would like to thank all individuals who contributed to this document by suggestions expressed during the group sessions.
ACTION PLANNING

Introduction

This document contains actions to bring forward open data in the Republic of Serbia, based on the findings of the Open Data Readiness Assessment (ODRA), and in comparison to what has been successful elsewhere in the world. This Action Plan is to be read in conjunction with the ODRA Report. The suggested actions in this document are provided to be taken into consideration by an Open Data Working Group, and it is suggested to consider them in the context of existing policies and plans to determine priorities and order of execution in detail. The existing e-Government action plan, by the Directorate for e-Government within the Ministry of Public Administration and Local Self-Government (MPALSG) has been used as a reference. For each of the actions in this document, the corresponding action or group of actions in the e-Government action plan is mentioned.

Open Data is an instrument

Open data, the publication of government held data for re-use by everyone without restrictions, is never a goal in itself, but an instrument. An instrument that can increase the agency of very different stakeholders, including other government bodies, around a wide variety of topics or issues. Open data as instrument can be, and is being, used for various purposes, including government efficiency, effectiveness and quality of public service provision, transparency, and social and economic value creation. The priorities of data holding ministries and agencies, as well as articulated societal and business community demand for data, can be used to focus and prioritize open data efforts.

Open data starts from the top down, from the middle out, and from the bottom up

For a successful open data program actions need to be taken at different levels simultaneously and in coordination and cohesion with each other. Tim Berners-Lee, initiator of the UK Open Data Institute summarizes it as ‘open data starts from the top down, from the middle out and from the bottom up’:

- The top level in this context is the legal framework and the overall government policy framework. This is where the overall circumstances for enabling open data are set and decided.
- The middle level is formed by the sectoral ministries and agencies and the data sets they hold. It is where the translation into everyday processes and practical interpretation takes place, and intra-government usage of open data takes place. This is where transparency, government efficiency and effectiveness impacts originate.
- The bottom up level is where the outside demand for using open data is and the first pilots for publishing and using open data can take place as a collaborative exploration of both government agencies and civil society and business stakeholders. This is where the socio-economic impact of open data originates.

These three levels influence, support and reinforce each other: Pilot projects where government data holders and external stakeholders together explore how to do open data well, are key bottom-up initiatives to show where actions need to be taken inside agencies or on a regulatory level. Likewise changes in regulation that are important will allow new bottom-up initiatives to emerge. Sectoral ministries and agencies, by adopting specific steps, give practical interpretation of existing legal and policy frameworks and create the space for external stakeholders to create impact with open data. Implementing an open data program is very much a ‘learning-by-doing’ process, and it is therefore key that actions are not planned or viewed on their own, but always in the context of corresponding or interconnected steps at the other levels.
Action plan

An Open Data Working Group as linking pin
The ODRA identified a number of data holding Ministries and Agencies where there is high-level willingness to move forward with and collaborate on open data. At the same time, strong central leadership on open data is not developed yet. MPALSG, while willing and able to lead an open data effort, has also indicated it needs broader momentum and practical support to be able to move effectively. The ODRA also found that there is a lot of energy within government data holders to collectively collaborate on implementing practical steps. This means that in the case of the Republic of Serbia an Open Data Working Group, in which willing key Ministries and Agencies are represented and chaired by MPALSG, can be the key element in ensuring the successful implementation of the open data action plan. It allows those willing key stakeholders to actively engage and help shape open data efforts, and it allows MPALSG to coordinate while at the same time being able to count on the support and momentum across these other Ministries and Agencies. In other ODRA contexts anchoring an open data program at e.g. a prime minister’s office could be a logical step, or an ODWG might run the risk of becoming a ‘talking committee’ resulting in little actual action. In the case of the Republic of Serbia, the encountered energy and willingness as well as the relationships between various government bodies suggest that an ODWG fits the current situation best, and maximizes the potential found. (At the end of the document the workings of such an ODWG are described in a bit more detail.)

This action plan therefore takes the central role of the ODWG as a prerequisite, and suggests actions accordingly. For all actions also reference is made to the corresponding part of the e-Government Action Plan. The actions in this document essentially provide further details or more specific actions within the context of the e-Government Action Plan.

The action plan attaches importance to the creation of pilot projects, in the context of which a few data sets could be released soon. Such pilots allow involved government stakeholders to learn effectively what is needed. At the same time, pilots that come with data releases give the clearest possible signal to society that they are invited to engage. This will build trust between CSOs, the business community and government bodies needed to work towards impact together. Early experiences made in that engagement can inform as well as solidify support for strengthening the overall legal and policy framework around open data.

Action list
Suggested actions are listed below. Each action references the corresponding part of the e-Government Action Plan, gives an indication of the projected timeline and proposes the responsible action owner. The actions described in this document concern various stakeholders, next to the ODWG.

The action list is designed to strike a balance between actions at the top, middle and bottom, as well as across the dimensions covered by the ODRA. This means that deciding to not take a specific action should result in re-examining that balance and potentially add or alter actions at other levels and in other dimensions.

The list of actions is not a limitative one, but needs to be seen as a living document for the ODWG that will likely grow under review, as well as be adapted and changed during the implementation phase. In short, this document lists actions for which a need or opportunity can be seen from the current situation. As implementation moves forward new needed actions will become apparent and should be added to the action plan.
<table>
<thead>
<tr>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create and accept role of ODWG as connector between top-mid-bottom levels on open data</td>
</tr>
<tr>
<td>Invite members of willing key ministries and agencies to join ODWG</td>
</tr>
<tr>
<td>Adopt the open data steps in this action plan where possible in the E-government strategy</td>
</tr>
<tr>
<td>Consider ODRA results and action plan and officially adopt within ODWG.</td>
</tr>
<tr>
<td>Adopt the open data steps in this Action Plan into the OGP Action Plan, currently being written</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Action</th>
<th>Relevant section e-Government Action Plan</th>
<th>Timeframe to completion and Stakeholder(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create and accept role of ODWG as connector between top-mid-bottom levels on open data</td>
<td>9.1.6.2.</td>
<td>Q4 2015 / MPALSG &amp; DeG</td>
<td>This defines the role of the ODWG as the unifying element in all open data related actions. This role could be confirmed by the Minister for Public Administration, e.g. located with the Directorate for e-government, and provide the ODWG the mandate to ensure the open data related actions, as part of the e-government and OGP action plans.</td>
</tr>
<tr>
<td>Invite members of willing key ministries and agencies to join ODWG</td>
<td>9.1.6.2.</td>
<td>Dec 2015, MPALSG &amp; DeG</td>
<td>The ODWG preferably contains members of willing key ministries and data-holders, as well regularly invites representatives of civil society, business community and developers community. The Dec 8 planned event can be the opportunity for this.</td>
</tr>
<tr>
<td>Adopt the open data steps in this action plan where possible in the E-government strategy</td>
<td>9.1.6.2.</td>
<td>Q4 2015 / MPALSG &amp; DeG</td>
<td>The e-government strategy document is currently under discussion. As much as possible open data action towards open data by default, data management etc, should be adopted into its implementation, so open data is an integral part of how e-government is designed.</td>
</tr>
<tr>
<td>Consider ODRA results and action plan and officially adopt within ODWG.</td>
<td>9.1.6.2.</td>
<td>Jan 2016, ODWG</td>
<td>Discuss outcomes and have ODWG officially adopt actions and conclusions.</td>
</tr>
<tr>
<td>Adopt the open data steps in this Action Plan into the OGP Action Plan, currently being written</td>
<td>9.1.6.2.</td>
<td>Q4 2015 – Q2 2016 / MPALSG &amp; OGP Team</td>
<td>With the second Open Government Partnership Action Plan currently being created, we now have an opportunity to add open data measures to the OGP effort (the 1st action plan focused on other things). Preferably legal and policy framework actions are adopted, in combination with the suggested pilots.</td>
</tr>
</tbody>
</table>
### ACTIONS CONCERNING POLICY AND LEGAL ASPECTS

<table>
<thead>
<tr>
<th>Action</th>
<th>Relevant section e-Government Action Plan</th>
<th>Timeframe to completion and Stakeholder(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Map out and clarify legal framework to highlight what is possible and allowed within current legal framework in practical terms.</td>
<td>9.1.6.3.</td>
<td>Q1 2016, ODWG</td>
<td>Various stakeholders have concerns regarding the practical interpretation of legal aspects of opening up government information and data. When in doubt people will err on the safe side (and rightly so). Clarification of what is possible within the current legal framework will allay concerns and doubts and help the start of data publication.</td>
</tr>
<tr>
<td>Adopt a general open license for open data, from the Creative Commons framework.</td>
<td>9.1.6.3.</td>
<td>Q2 2016 / MPALSG &amp; DeG (Q3 2016)</td>
<td>Provide a general open license from the Creative Commons suite of licenses, aligned with access to information law, and mandate its default use across government for open data, where applicable. The suggested CC licenses are either CC0 (public domain dedication) or CC-BY (requiring attribution of source).</td>
</tr>
<tr>
<td>Add the concept of re-use, and allow re-use by default for what is public into the Access to Information Law.</td>
<td>9.1.6.3.</td>
<td>Q4 2015 / MPALSG &amp; DeG, Commissioner for Information of Public Importance and Personal Data Protection</td>
<td>The Access to Information Law is currently being amended, which is an opportunity to strengthen the legal framework with regard to re-use of public data. Currently there is no legal definition of re-use. Adding such a definition should mirror the EU PSI Directive of 2013 to track the EU convergence process. Alternatively a separate law on re-use and open data could be entertained (so it supersedes existing other agency specific laws, and avoids changing them all separately). Otherwise track the EU convergence process, with regard to the implementation of the EU PSI Directive 2013.</td>
</tr>
</tbody>
</table>
## ACTION PLANNING

### ACTIONS CONCERNING POLICY AND LEGAL ASPECTS

<table>
<thead>
<tr>
<th>Action</th>
<th>Relevant section e-Government Action Plan</th>
<th>Timeframe to completion and Stakeholder(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Run an awareness raising campaign within government agencies on what the current legal framework already allows / makes possible.</td>
<td>9.1.6.3</td>
<td>Q2-Q4 2016, ODWG</td>
<td>Raise the awareness of people working within data holders by providing concise information material and holding internal sessions in which the current possibilities are presented and existing questions and concerns can be addressed. Such a campaign likely needs repetition over time.</td>
</tr>
<tr>
<td>Require procurement regulations and procurement contracts to ensure transfer of rights on data to the government</td>
<td>9.1.6.3</td>
<td>Q3 2016 / Public Procurement Office</td>
<td>In cases where the government hires third parties to create or collect data-sets, the rights to the resulting data should be with the government so that a decision concerning open data is not made impossible. This can be contractually arranged at the point of procurement.</td>
</tr>
<tr>
<td>Organize a campaign aimed at the political and managerial decision making levels in government bodies to provide information on open data potential and raise awareness.</td>
<td>9.1.6.4</td>
<td>Q1-Q3 2016 / MPALSG &amp; DeG, and ODWG</td>
<td>Broader political and decision making support can be created by raising much stronger awareness about how open data as an instrument can help address policy issues, improve public service, help intra-governmental efficiency and create socio-economic value. In the form of e.g. factsheets, documented examples, and sessions or events.</td>
</tr>
<tr>
<td>Map out revenue streams and transaction costs for agencies that must charge for data. To inform discussion on reforming revenue models.</td>
<td>9.1.6.4</td>
<td>Q1-2 2016, MPALSG &amp; DeG, SBRA, Geodetic Authority</td>
<td>By law SBRA and the Geodetic Authority must create their own revenue. Often the re-use potential of business register and geodata is much higher than the potential revenue. For an informed discussion on either changing the funding for agencies, or to rearrange their revenue models (e.g. SBRA indicates to want to move to more high-end analytical services) mapping out the specific revenues collected, as well as mapping out the organizational, administrative and transaction costs incurred to collect such revenue is needed.</td>
</tr>
</tbody>
</table>
### ACTIONS CONCERNING POLICY AND LEGAL ASPECTS

<table>
<thead>
<tr>
<th>Action</th>
<th>Relevant section e-Government Action Plan</th>
<th>Timeframe to completion and Stakeholder(s)</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Designate open data officials in each government entity, as part of the existing Access to Information Offices</td>
<td>9.1.6.4</td>
<td>Q2-Q4 2016 / MPALSG &amp; DeG, ODWG</td>
<td>Most national level government bodies have Access to Information officials, which can also become the points of contact for both ODWG and the public on open data. This can start informally with the ODWG purposefully providing these officials with open data information / training, followed by adding open data as part of their formal responsibilities.</td>
</tr>
<tr>
<td>Use open data to increase timely compliance with Access to Information requests.</td>
<td>9.1.6.4</td>
<td>Q2-Q4 2016 / MPALSG &amp; DeG, ODWG, Commissioner for Information of Public Importance and Personal Data Protection</td>
<td>Publishing regularly requested government information as open data is a good way to make data available in response to known demand, while at the same time reduce the workload of Access to Information officials, and increase timely compliance with Access to Information regulations. This can be done in conjunction with the previous action, or even the main reason for the previous action to succeed.</td>
</tr>
<tr>
<td>Organize a Chief Data Officer role.</td>
<td>9.1.6.4</td>
<td>Q3 2016 / MPALSG &amp; DeG, and ODWG</td>
<td>A Chief Data Officer (CDO) type role, is a high level role that can provide guidance / coordination to data management across government, and thus counteract the current decentralized situation, while simultaneously making sure that open data related aspects are seen as an integral part of data management and e-government. Such a role can monitor data related issues across government, and be the ‘go-to’ place for public sector bodies for advice and information. This role can start as nonofficial role within the ODWG / DeG, and could evolve to be a more formal role in a later stage (such as exists in other countries).</td>
</tr>
</tbody>
</table>
## ACTION PLANNING

### ACTIONS CONCERNING OPEN DATA AVAILABILITY AND CAPABILITY

<table>
<thead>
<tr>
<th>Action</th>
<th>Relevant section e-Government Action Plan</th>
<th>Timeframe</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make a data inventory based on self-reporting by government bodies, and publish the resulting list as open data.</td>
<td>9.1.6.4.</td>
<td>Q2-Q3 2016, ODWG</td>
<td>Having a central overview of which databases exist where, and in which form, as well as which databases are currently being implemented helps build a roadmap for publishing open data sets where possible. Ministries and agencies can self-report a local overview of what they have, and are already mandated to publish concerning the information they hold (under the Access to Information Law). Adding which of those information assets concern data sets should be possible. Such an inventory can be published on a national open data portal.</td>
</tr>
<tr>
<td>Decide on and create a national open data portal</td>
<td>9.1.6.4.</td>
<td>Q2-3 2016 / MPALSG &amp; DeG</td>
<td>To ensure open data can be found, a national open data portal provides the public with a single entry point. A portal does not need to host the data per se, it can also point to sources on other government sites. It can be integrated with regular public information provision, e.g. in a general government information portal. Search, license &amp; contact information per dataset, as well as showcasing examples of open data usage are core aspects. Open sources options are widely available.</td>
</tr>
<tr>
<td>Organize a visible kick-off event with government, civil society and business community participants</td>
<td>9.1.6.5.</td>
<td>Q4 2015, MPALSG &amp; DeG</td>
<td>This creates a visible starting point for the wider government and society to the open data efforts. It allows presentation of the reasoning and intentions behind, and expected impact of open data, creates awareness and increases engagement of both government and non-government stakeholders. Serves to find additional non-government participants for pilots, and further identify change agents within government (e.g. to be invited into ODWG).</td>
</tr>
</tbody>
</table>
### ACTIONS CONCERNING OPEN DATA AVAILABILITY AND CAPABILITY

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<thead>
<tr>
<th>Action</th>
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<th>Timeframe</th>
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<tr>
<td>Ensure the release as open data of at least 10 datasets, including some high interest datasets, selected on their potential impact on government effectiveness, sectoral national priorities, transparency and cost of doing business. This as core aim and part of the pilot projects with willing ministries and agencies, and aligned with existing policies within those ministries and agencies.</td>
<td>9.1.6.5.</td>
<td>Q1 2016 - Q4 2016, ODWG with relevant Ministry or Agency and pilot.</td>
<td>Within each pilot, the publication of open data is a key element. Aiming for data sets that when re-used can impact policy priorities and government effectiveness (helping government itself), transparency (building trust, meeting civil society demands) and cost of doing business (meeting business community needs). Specific datasets are of high interest in any open data effort, (e.g. maps and transport data, national statistics, education, business register, laws and regulations, spending, budgets and procurement) and should be considered in connection with each pilot. (See data list for more information)</td>
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<td>Put open data on the agenda of donor-involved projects, and involve donor organizations in all open data pilots. Arrange for high-level government-donor interaction on open data as well.</td>
<td>9.1.6.5.</td>
<td>Q1 2016 - Q4 2016, ODWG, MPALSG &amp; DeG, donor organizations</td>
<td>Funding open data efforts is a key concern, resulting from the ODRA. Donor-involvement is likely a pre-requisite for at least the transitional steps in the implementation of open data.</td>
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<td>Organize training and awareness raising sessions in government departments and agencies.</td>
<td>9.1.6.5.</td>
<td>Q2-Q4 2016, ODWG</td>
<td>Hold at least one open meeting for operational/policy staff in each ministry and agency explaining open data and present relevant examples, to engage in discussion about possibilities within that government entity and to build internal capability to publish open data (to be coordinated by designated open data official).</td>
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# ACTIONS CONCERNING OPEN DATA AVAILABILITY AND CAPABILITY

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<td>Create open data pilots with willing ministries and agencies.</td>
<td>9.1.6.6.</td>
<td>Q4 2015 - Q4 2016, ODWG with relevant Ministry or Agency, donor organizations, external stakeholders from civil society and business community.</td>
<td>Pilot projects allow government entities, civil society and the business community to collaborate on the release and usage of open data. Lessons learned can be applied to generic open data measures. Identified possible pilots concern Ministry of Education, Ministry of Interior, Ministry of Finance, Ministry of Culture, Agency for Medicines and Medical Devices, Agency for Environmental Protection, Business Register Agency, Public Procurement Office. These can be aligned with ongoing projects that include donor organizations.</td>
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<td>Adopt and show official support for the identified possible pilot projects.</td>
<td>9.1.6.6.</td>
<td>2016, ODWG</td>
<td>From the ODRA a number of pilot projects have emerged. If the ODWG signals support for these, they can serve as a source of learning as well as provide the first open data success stories and use cases. Showing support builds trust for the non-government stakeholders involved.</td>
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<td>Seek and stimulate (CSO and Business) community interaction.</td>
<td>9.1.6.5., 9.1.6.6.</td>
<td>Q4 2015, continuously / pilot projects and ODWG.</td>
<td>Regular (informal) interaction with existing groups of civil society and business actors is important to make sure open data efforts fit demand, and are likely to create impact. These exchanges can be attached to existing regularly organized events, as structural outreach to society and business.</td>
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List of abbreviations used:

- **DeG**: Directorate for e-Government
- **MPALSG**: Ministry for Public Administration and Local Self Government
- **ODWG**: Open Data Working Group
On the ODWG

The Open Data Working Group (ODWG) is a crucial element in the implementation of this open data program. By definition open data is a multi-stakeholder and inter-agency effort. To create buy-in and support all relevant stakeholders need to be able to participate in shaping the actions of an open data program. The ODWG is a means to make sure willing key stakeholders are represented. Furthermore it is the primary and direct connecting element between the three different levels and various activities. Provided there are sufficient high level representations as well as practice oriented members in such an ODWG, it is uniquely positioned to a) suggest alterations to existing legal and policy frameworks, b) provide guidance to ministries and agencies both on the practicalities of open data as well as the interpretation of legal and policy frameworks, thus ensuring consistency across government, and c) provide recognition to ongoing pilot projects and use their experiences to inform a) and b).

This makes the ODWG the owner and moderator of the action plan.

The image below depicts the role of the ODWG in coordinating between the different levels of implementing an open data action plan.