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Data as Potential: Towards Open Data Policies in BiH

Introduction

The state and its institutions are the biggest producers, collectors and users of various types of data. Besides personal data, contained in public registers and health records, data of importance to the wider public is also collected, such as data on the state of the environment, economic trends, meteorological and other data. In the past, data of importance to the public was mostly unavailable. In cases where it was available, it was extremely difficult to find and use. Thanks to technological development and the relatively easy and inexpensive opening up of data on the Internet, but also more pronounced public requests for more transparent, accountable and efficient governance, governments worldwide committed to policies of opening data held by public institutions. Examples include websites such as US government's Data.gov and Usa.gov, or the UK government's Data.gov.uk and the European Union's [Open Data Portal](http://OpenDataPortal), all of which provide educational, health, transport, environmental and other data.

All of this has led to the rapid growth in use of open public data, in the private and non-government sectors alike. Software applications enable access to data on the Internet or on mobile devices and data is used to improve public services, initiate new commercial projects or enhance transparency of government. Some examples of websites specialized in processing, publishing and further use of open data are OpenSpending.org, which currently holds more than 700 datasets on public spending in 66 countries, or OpenCongress.org which enables monitoring of the work of the US Congress.

Although the publication of open public data is a pronounced world trend and the potential of open data has been recognized in the region, such practice has not truly taken hold in Bosnia and Herzegovina. Despite NGO initiatives to open up public data,¹ public institutions, with a few exceptions, mostly do not allow access to data on the Internet or via mobile technology. In order to prevent BiH seriously falling back in the area of proactive disclosure of such data, which would negatively impact all sectors of society, it is necessary to start a wider public discussion on opening up data held by public institutions. This policy memo aims to contribute to such a discussion.

What is open data?

In order to consider data² open, it should be available in digital and machine-readable format, ideally on the Internet, without limitations with respect to the user's identity or intent and without fees exceeding the cost of copying. Furthermore, there should be no limitations in terms of use and re-use in the data licensing conditions.³

Open *public* or *government* data is data produced or commissioned by public institutions or institutions performing public functions.⁴ Different sectors accumulate a great quantity of data each day, such as educational, health, transport and environmental data. Besides that, each public body holds organizational data, such as details on the number of employees, their titles and contact details.

In the context of open public data, different standards that such data should meet are usually mentioned. For example, they should be available "where people are looking for it",⁵ that is, easy to find via search engines and they should be up-to-date and available in a timely manner. Access to data, and its further use, should be allowed as much as possible and it should not be limited by intellectual property rights. Also, it should be free, given that citizens' taxes pay for the work of public institutions which collect the

¹ For example, see the website of the Public Interest Advocacy Center (CPI), www.budzeti.ba.

² Here we are using the UK Government's definition of data, from which it follows that it is "qualitative or quantitative statements or numbers that are assumed to be factual, and not the product of analysis or interpretation." Cabinet Office, UK Government, *Open Data White Paper: Unleashing the Potential*, 2012, p. 7, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/78946/CM8353_acc.pdf

³ *Ibid*; also see the open definition. Available at <http://opengovernmentdata.org/>

⁴ Open Government Data, 2014, <http://opengovernmentdata.org/>

⁵ Sunlight Foundation, *Guidelines for Open Data Policies*, 2014, http://assets.sunlightfoundation.com/policy/Open%20Data%20Policy%20Guidelines/OpenDataGuidelines_v3.pdf

data. In the technical sense, it should be presented in usable formats, so it is easy to use for creating new content.⁶

Why open up public data?

The **Global Open Data Initiative**⁷ cites several reasons for proactive disclosure of data. First, open public data is one of the basic parameters of government transparency. In some countries, for instance, such transparency has led to a successful cooperation between citizens and authorities in uncovering tax evasion and achieving significant public budget savings.⁸

Furthermore, public data plays a significant role in a country’s economic development. Opening up public data means the availability of necessary information for innovation and development of new information market areas, such as software applications, but it also significantly affects the development of small and medium enterprises.⁹ According to a 2012 UK Government report, after the government in 2011 launched the **Contracts Finder** website, which features information on current and planned tenders, one third of the contracts have gone to small and medium enterprises.¹⁰ According to one study, the total direct and indirect economic value of applications which use public sector information and their use across 27 EU economies is estimated at 140 billion euro annually.¹¹

Table 1: Open Data Economic Benefits

	Revenue	Reduced costs and increased efficiency	Employment and new skill creation
Benefits for governments	<ul style="list-style-type: none"> Increased tax income through increased economic activity 	<ul style="list-style-type: none"> Reduced transaction costs Increased efficiency through linked interdepartmental data 	<ul style="list-style-type: none"> New job creation Incentives for entrepreneurship
Benefits for the private sector	<ul style="list-style-type: none"> New business opportunities 	<ul style="list-style-type: none"> Reduced investment costs in acquiring public data Decision-making based on reliable information 	<ul style="list-style-type: none"> Acquiring skilled workforce

Source: Modified from Capgemini Consulting¹²

Open public data contributes to the improvement of public services, but also efficient communication across different sectors and the collaboration of public institutions. For example, open data on measured hydrological parameters and environmental quality parameters can be used for the preparation of natural disaster prevention measures. Databases holding health diagnoses, given that patients’ personal details are protected, can be used in the health sector for more precise diagnosing of illnesses and their prevention.¹³ There are many examples of improving the public service by opening up data in other sectors.¹⁴

The Open Data Trend Worldwide

Each year, a growing number of countries opens up its public data and makes it available for further use. In 2011, 28 countries created websites for the publication of government data¹⁵ and the trend continued

⁶ Sunlight Foundation, “Ten Principles for Opening Up Government Information”, 2010, <https://sunlightfoundation.com/policy/documents/ten-open-data-principles/>

⁷ Leading organizations in the area of open data advocacy are part of this initiative. For more information, see <http://globalopendatainitiative.org/>

⁸ Canada saved \$3.2 billion by opening up data on the work of humanitarian organizations, as citizens living in areas where certain organizations conduct their activities noticed disproportionate costs and discovered tax evasion. David Eaves, “Case Study: How Open data saved Canada \$3.2 Billion”, 2010, <http://eaves.ca/2010/04/14/case-study-open-data-and-the-public-purse/>

⁹ “Open Government Data,” *Open Government Guide*, Transparency and Accountability Initiative, 2013, <http://www.opengovguide.com/topics/open-government-data/>

¹⁰ Cabinet Office, UK Government, *Open Data White Paper*, p. 18.

¹¹ European Commission, *Open data: An engine for innovation, growth and transparent governance*, 2011, p. 3, <http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0882:FIN:EN:PDF>

¹² Capgemini Consulting, *Open Data Economy: Unlocking Economic Value by Opening Government and Public Data*, 2013, p. 7, http://www.capgemini-consulting.com/resource-file-access/resource/pdf/opendata_pov_6feb.pdf

¹³ Peter Groveset et al. *The ‘Big Data’ Revolution in Health Care: Accelerating Value and Innovation*, McKinsey & Company, 2013, p. 8, http://www.mckinsey.com/insights/health_systems_and_services/the_bigdata_revolution_in_us_health_care

¹⁴ *Open Data Handbook*, 2013, <http://opendatahandbook.org/>

¹⁵ Capgemini Consulting, *Open Data Economy*, p. 2.

with unforeseen speed. The international **Open Data Index** assesses the state of open data around the world and in 2014 features 70 countries. Table 1 lists five countries with the most and the least points on the Index scale respectively, as well as regional countries featured in the Index.

Table 2: Selected Countries' Scores According to the Open Data Index¹⁶

Ordinal number	Total score	Country	Transport Timetables	Budgets	Spending	Election Results	Company Registers	National Maps	National Statistics	Legislation	Postcodes	Emissions of pollutants
1	940	Great Britain	100	90	100	70	100	100	100	90	100	90
2	855	USA	75	100	90	100	5	100	100	85	100	100
3	835	Denmark	60	100	40	100	100	100	100	100	100	35
4	755	Norway	90	90	10	100	90	100	100	30	45	100
5	740	Netherlands	70	100	10	100	45	100	60	100	100	55
19	485	Slovenia	45	0	0	85	55	80	100	35	0	85
26	445	Croatia	49	90	0	75	35	45	45	75	0	35
28	440	Serbia	45	55	0	70	45	0	70	55	45	55
66	140	Burkina Faso	30	0	0	25	0	20	25	25	0	15
67	130	Kenya	0	35	0	45	5	0	10	35	0	0
68	125	British Virgin Islands	0	45	10	10	20	0	15	15	10	0
69	85	Saint Kitts and Nevis	0	20	0	15	0	15	0	35	0	0
70	30	Cyprus	0	0	0	0	10	0	20	0	0	0

Source: Open Knowledge Foundation, Open Data Index¹⁷

The open data standards are established by EU norms as well as the norms of its member countries. For example, Directive 2003/98/EK of the European Parliament and Council¹⁸ about the re-use of public sector information covers the basic principles relating to availability and transparency, as well as the limitation of the costs of the re-use of public sector information by commercial users. Many countries adopt public data policies. For example, departments and ministries of the UK Government have adopted open data strategies in which they commit to publishing new data and information registers.¹⁹

The multilateral initiative Open Government Partnership also promotes the opening of public data. More than 60 countries worldwide have joined this initiative. Many have included steps for improving data availability in their action plans under the initiative.²⁰

Towards Opening up Public Data in BiH

In order to encourage the use of public data, it is necessary to create open data policies, harmonize the opening up of data with existing legislation, as well as overcome many technical, organizational and financial challenges. Although governments in BiH have not yet had a strategic approach to the opening of public data, it is important to note that some data is available. Public databases, such as the cadastral database of the Federal Geodetic Administration, the database on donors in BiH of the Ministry of Finance and Treasury of BiH, economic indicator and disbursed loans databases of the Republika Srpska Investment - Development Bank,²¹ show that certain public institutions do publish data, which is a good basis for the consideration of a systematic and consistent approach to the opening of data held by public

¹⁶ Points are scored from 0 to 100 depending on the total score of points by individual criteria such as the existence of open data, digitalization, machine-readability, free access, up-to-date data, open license, availability in bulk form. For more information, see <https://index.okfn.org/about/#criteria>.

¹⁷ Open Data Index, Open Knowledge Foundation, 2014, <https://index.okfn.org/country/>

¹⁸ Directive 2003/98/EC of the European Parliament and of the Council of 26 June 2003 amending Directive 2003/98/EC on the re-use of public sector information, <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32013L0037>

¹⁹ Strategies are available at <http://data.gov.uk/open-data-strategies>

²⁰ For more information, see www.opengovpartnership.org

²¹ Federal Geodetic Administration, <http://www.katastar.ba>; Ministry of Finance and Treasury of BiH, <http://www.donormapping.ba>; The Republika Srpska Investment - Development Bank, <http://www.irbrs.net/statistika.aspx?lang=cir>. Also see the databases of statistical indicators available on the website of the Agency for Statistics of BiH, <http://dissemination.bhas.ba/>, or the statistical website of the Central Bank of BiH, http://statistics.cbbh.ba:4444/Panorama/novaview/SimpleLogin_bs.aspx

institutions and the development of policies in this realm. However, a great number of public institutions have remained closed to the public when it comes to data those institutions collect and hold. The potential value in opening up public data in terms of social and economic development, but also improvements to transparency and the functioning of public institutions in BiH, are good enough reasons for more serious efforts in that direction. Notwithstanding, the following measures should be considered:

- **It is necessary to create open data policies.** The legal and institutional framework should establish the principles and standards of publication, use and re-use of open public data, but also the oversight of data disclosure practices by public institutions. When defining comprehensive rules in this area, regulations on protecting personal and secret information, as well as intellectual property, will inevitably have to be addressed.
- **It is necessary to train public officers in data management** and publication in practice, guided by operational guidelines which will make officers' work easier.
- **Tools and applications for public data disclosure should be integrated into the technological infrastructure of public institutions.** The infrastructure should enable platforms which allow the interoperability of data from different public sectors, while not calling into question the security and reliability of information.
- **It is necessary to intensively communicate the idea of the openness and usability of public data to decision-makers, public officers and the public at large,** and stimulate their use in the public, private and NGO sectors by using positive examples.
- **Much of the data can and should be made available as soon as possible,** while respecting existing laws which regulate exceptions to disclosure. Publishing the data does not exclude the need to improve existing policies in that area, but inadequate policies should not be the excuse for the further closing of data, where there is neither a legal, nor a technical barrier.

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