Swiss Executive Authorities on Open Government Data – Policy Making beyond Transparency and Participation

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Abstract

When it comes to e-government topics and the implementation of Open Government Data (OGD), Switzerland has been much more a follower than a first-mover. OGD pioneers stress the encouragement of transparency, collaboration and participation. The Swiss political and administrative entities live up to these principles quite well offline. In this setting, the paper examines value expectations of executive authorities towards OGD initiatives. It consolidates perceived prerequisites and risks as well as expected long-term impacts. The paper presents theoretical considerations and international surveys in order to discuss the results based on a quantitative survey of the Cantonal State Chancelleries and on a qualitative case study, eZürich. Showing that Swiss executive authorities value improvements of their core business and the potential for economic development, the paper finally addresses open issues to be solved in the future.

1. Introduction

The notion of Open Government Data has been around for some years: in 2009 and 2010 various governments in the world announced initiatives towards opening up their public information systems. With Government Data the large amount of data is meant, that which is produced, collected and disseminated by political and administrative public institutions [8]. Open Data is machine-readable data, which can be freely used, reused and redistributed by anyone. The basic idea of OGD is thus to create new value through the secondary use of existing data (e.g. statistical data, geo-data, traffic data, financial data). The focus is on non-personal data (cf. e.g. http://opendatahandbook.org/). Reutilization can take place within public agencies (shared data) or outside (OGD). Governmental policies and literature point out different areas where open data can be expected to be of value: transparency of and trust in public activities, better and intensive collaboration, better governance, strong and pertinent political participation and empowerment, economic development and innovation, local area promotion and improving a government’s image [12].

Anglo-American and Scandinavian countries have a rather longer tradition of OGD. Switzerland generally has been much more a follower than a first-mover when it comes to e-government topics, including the issue of OGD. A Federal law on transparency has existed since 2006, saying that every person has the right to consult official documents, provided that there is no overriding public or private interest opposing it. The topic of OGD entered the political agenda much later, by the end of 2011 [22].

In the current discourse on OGD pioneers often stress its value regarding the support of transparency, collaboration and participation. Similarly, these notions also serve as guiding principles for Swiss governmental action. In the context of e-government they are part of the vision. From a democratic point of view, participation is well institutionalized in the political system through direct democratic principles that are enacted offline and increasingly also online (e-voting). In its communication with citizens, government is obliged to grant transparency and lives up to this, for instance by providing extensive documentation on its activities. Compared to other countries, Swiss citizens are highly satisfied with the way democracy is lived and also with the way politics runs [25]. OGD therefore serves less as an incentive to improve citizen orientation, which may explain hesitant enthusiasm for the topic.

OGD increasingly finds its way to policy making. Executive authorities are starting to position themselves and to decide on whether and how OGD should be established. A set of conditions influences this process. From a legal point of view, the Swiss legislation is about formulating the basic principle and not the precise formulation of a rule, offering a certain margin for interpretation. Legal adaptations are so far not required. From a political point of view, the distance between citizens and Executive is smaller than in other countries, since Swiss citizens regularly vote on substantial issues and are strongly involved in decision-making. The room for adding value to the existing political culture is smaller.

From an organizational point of view, Switzerland is a decentralized system with a strong, largely autonomous, periphery. Various players therefore
influence OGD. However, collaboration between these stakeholders is established and needed in various areas, but regularly also poses obstacles. Finding new ways to strengthen collaboration is generally favorable in Swiss e-government. In this context the research question of the paper is: What are the main OGD goals in Switzerland from a leadership perspective, considering that transparency and participation are already at a satisfactory level?

This paper is structured as follows. The next section outlines the literature background of this research. Then, the state of the art Swiss OGD is outlined. The subsequent sections deal with the empirical results based on the one hand on a quantitative survey of the Cantonal State Chancelleries (cantonal level) and on the other hand on a qualitative case study on eZürich (municipal level). The last section concludes with a reflection on the major findings of this research.

2. Theoretical Considerations and Selected Empirical Results

2.1 The Principles of Transparency, Participation and Collaboration

Open Government is a world-wide approach that focuses on the relationship between government and governed and re-invigorates the basic principle of a “government of the people, for the people, and by the people.” OGD initiatives emerge all over the world aiming to make public data freely available to everyone, without limiting restrictions [8]. Heckmann asserts that Open Government is about improving transparency and thereby accountability in all public affairs [10]. In the past decades governments have not been notorious for openness and transparency, nor for welcoming citizen involvement in important political decision-making processes [1]. According to Bertot/McDermott/Smith, OGD sought to deliver openness, transparency, and accountability – “but more significantly to provide a mechanism through which to promote institutional transformation” [4, p. 2491].

The Open Government concept has gained attention since the Obama Administration outlined a set of principles based on the three pillars of transparency, participation, and collaboration. In the same line, the European Commission emphasizes the concept of empowerment in the policy-making process [cf. e.g. 2, 5, 6]. Transparency implies that public agencies should disclose information about their decisions and operations online in publicly accessible ways. Participation implies public engagement to enhance public agencies effectiveness, tapping into collective expertise and information distributed across the public sphere. Collaboration implies using innovative tools and systems to cooperate among public agencies (e.g. of different federal levels), with non-profit organizations, businesses, and individuals in the private sector [Lathrop & Ruma 2010, cit. in 3]. Transparency in government is an important value in order to increase trust and confidence and a critical ingredient for well-functioning economic markets [11]. Furthermore, transparency and orientation are important pre-conditions for opening the policy making cycle, enhancing the government’s effectiveness and improve the quality of decision making [6]. Supporting participation in this context means empowering new players in the public sphere: if an OGD initiative is to be truly transformative in terms of participation and engagement, then it must be user-centered (see e.g. Jaeger & Bertot 2010, cit. in [7]). The success of such an initiative depends on understanding the informational needs of the users as a prerequisite for open access to relevant information. To reach the Open Government objectives, the “easy access” to public information is essential ([2], cf. also for the principles of stewardship and usefulness [14]). New intermediaries between the data-producer and the data-user must be integrated with conventional structures in modern democracies in addition to classical mass-media and parties [10, 12]. In their implementation model Lee/Kwak argue that for achieving increased engagement, public agencies should advance their initiatives in a progressive and orderly manner by focusing on one implementation stage at a time, starting from increasing data transparency, and then moving on to improving open participation, enhancing open collaboration, and realizing ubiquitous engagement [9, 17].

Collaboration is finally also a relevant parameter for the public sector: engage citizens in the work of their government by collaborating across all levels of the government, and with non-profit organizations, and business can improve effectiveness [6]. Furthermore, collaboration between public agencies e.g. through sharing information, can optimize efficiency in the production and distribution as well as enhance the quality in the service [13]. Governments are increasingly using collaborative strategies to face complex problems, which cannot be addressed effectively through traditional bureaucracies [Pardo/Gil-Garcia/Burke 2008, cit. in 13]. The literature on collaboration in e-government deals primarily with governance structures, challenges and enablers for cooperation in the field. Generally, the literature points at barriers to effective cross-agency information sharing in organizational, political and legal, as well as technical domains. McNeal et al. (2003) argue in their
comparison of e-government diffusion among American states that e-government implementation is driven by legislative professionalism and, to a lesser extent, state professional networks, rather than citizen demand (cit. in [3]).

2.2 Different Stakeholder Views on Open Government (Data)

Dawes/ Helbig [16] call for a more complete stakeholder analysis to improve the understanding of needs and capabilities of a wide variety of users of Open Government initiatives. Indeed, several works on Open Government focus on the citizens’ perspective (see e.g. [2], [15], [21]). A survey took place in the Land of Berlin: According to the survey, citizens were particularly interested in city planning, administration data, environment, controls and infrastructures [18]. The access data of the OGD-portal of the city of Vienna shows, that data-users consult in particular data on traffic, public interfaces, education and leisure information (http://data.wien.gv.at, November 2011).

The view of the Legislature on Open Government (Data) has been less considered in the Anglo-American literature so far, but it is of critical importance for OGD in countries similar to Switzerland. Parycek et al. examined how national parliamentarians evaluate the different elements of new governmental concepts [19]. The results indicate that the topic has already reached the political agenda, but has not yet played an important role in politicians’ daily activities. The members of the Austrian Legislature think that social arguments are, contrary to economic ones, a good starting point for advocating Open Government. The survey participants have a positive attitude towards Open Government and evaluated the three pillars positively: 71.5% for the item transparency, 53% for participation, 66.7% for collaboration. 11.9% see the strengthening of Austria as an industrial location as an opportunity in the field of transparency. The results show that the concept is already well-known, but not yet of priority in the political landscape [ibid., p. 8].

According to Janssen’s survey, collocate on the supranational level, [20] some European States are embracing the idea of opening up their data to the public, while others are still more reluctant to see the opportunities that the availability of public sector data will bring to the public: “Maybe the government or the public bodies do not realize the value of their data for others, or they are concerned that their data might be interpreted wrongly or used for wrongful purposes.” [20, p. 452]. The Directive 2003/98/EC on the re-use of public sector information targets the creation of information products and services by the information industry [ibid., p. 447]. Janssen states that the directive has certainly had a positive effect on the availability of public sector data, but it has found more resonance in some Member States than in others. Interesting is the fact, that in most of the successful initiatives, the governments are rather discussing Open Data based on arguments of transparency and accountability and not on the economic discourse that is behind the directive.

Ganapati/Reddick examine the Executive view on Open Government initiatives. In their survey they analyze the extent to which state-governments in the United States have adopted open e-government initiatives [3]. The results are based upon an online survey with a response rate of 48% and 10 Chief Information Officer (CIO) follow-up telephone interviews. The CIOs believe that the state-governments have achieved a high degree of open e-government, but this is mainly related to transparency, and not the other two pillars. Three key aspects arose in the qualitative step: external pressure, funding issues, and the endurance of open e-government. With respect to motivation, the most mentioned reason for adopting open e-government was the imperative from state legislature (54.2%). The second most common motivation was that the CIOs followed federal guidelines to implement open e-government (50%). The CIO was also influential: leadership is thus an important motivation to adopt OGD (50%). With respect to the barriers, there is much diversity in the responses – e.g. budget constraints, lack of interoperability. 25% of the interviewees assert that there are no barriers to implementing open e-government. In terms of collaboration, this is taking place within the state-government itself, with 65% of CIOs believing that there is “some shared decision making”, followed by “some shared decision making” with federal government and citizens (61.9%) [3].

2.3. Policy Making with a Political, Organizational or Economic Focus

From a leadership perspective in a public management context we can assume that also in Switzerland legislative settings and state networks drive the OGD policy rather than citizen demands. Policy making in the field of OGD can basically focus a political, an organizational or an economic line of argumentation. With a political focus, authorities want to re-invigorate the relationship between government and governed, promote a culture of openness and trust, increase stakeholder participation by opening the policy making cycle and empowering new intermediaries due to a greater degree of transparency. In this case, the approach is citizen-centered. Further, OGD can be promoted with an organizational focus: the idea here is to promote institutional transformation
and administrative machinery growth (concepts in the literature refer to e.g. accountability, transparency, increasing quality of the core business, government image). This second approach is an administration-respectively a government-centered one. Lastly, some existing sources argue with an economic focus, discussing the benefit potential of OGD along an economic discourse of innovation, promotion of the local area and targeting the creation of new business (information products and original services based on given resources) [26, 27]. This third position is economy-centered. We do strongly believe that a cultural and political background might affect the weighting of the different elements in the national policy making. E.g. the presented studies show that the executive view in Europe and in the United States clearly point on transparency and accountability – some focusing more on the political, others more on the organizational aspect.

3. OGD in Switzerland

Several players introduced OGD in Switzerland. Both, the association /ch/open (Swiss Open Systems User Group) and the parliamentary group “Digital Sustainability” played a key role. The parliamentary group is made up of 30 members of the National Parliament. From 2009 to 2011, four members of the core team of this group launched eleven parliamentary actions related to OGD: three questions to the Federal Government, five interpellations, one motion, and two postulates. In addition, in July 2010, a first meeting with guests from industry and academia took place on how to push OGD in Switzerland. As a result of these activities, a series of meetings followed which eventually lead to the following outcome: (1) in June 2011 the first Swiss Open Data Conference took place in the building of the Federal Archive; (2) in November 2011 the Gebert Rüf Foundation decided to give a research grant for a multi-disciplinary study on the meaning of OGD for Switzerland [12]; (3) in December 2011 at a Parliamentarian’s dinner an OGD manifest was issued and (4) in January 2012 the association opendata.ch was founded (http://opendata.ch/).

Another two active players are the Federal Office of Communication (OFCOM) and the Federal IT Steering Unit (FITSU). OFCOM prepared an update of the Strategy for the Information Society in Switzerland, designed to hold 2012 to 2016. This strategy explicitly mentions the need for OGD [22]. In May 2012, the Program Office for E-Government Switzerland, which is run by FITSU, proposed a prioritized e-government project on OGD. This proposal received the approval of the National Advisory Board for e-government and was sanctioned by the Swiss National Steering Committee for e-government.

Further active players are the canton of Geneva, the canton of Basel City, and the city of Zurich. Geneva launched an OGD portal in 2011. Basel City is currently preparing OGD activities, and the City of Zurich launched its OGD portal in June 2012.

4. The Executive View: Empirical Results

Using qualitative and quantitative methods, the team of the “OGD-Study Switzerland” [12] collected information on the status quo of OGD and consolidated needs, perspectives and assessments from different stakeholders in order to assist the policy makers in drawing up options and recommendations for the implementation. In this section we present and discuss two methodological components of the study that took place at different federal levels: firstly, we describe the results of a quantitative survey of the Cantonal State Chancelleries (cantonal level) and in a second step, we feature the results of the case study eZürich (municipal level). Both cases refer to executive authorities [cf. 4].

4.1. Survey of the Cantonal State Chancelleries

The authors administrated, with the support of the Zurich Cantonal Chancellery, an online survey of Cantonal State Chancellors during April and May 2012. All 26 Chancellors were e-mailed requesting their participation in the survey. After three e-mail reminders, 18 Cantonal State Chancelleries from different linguistic regions eventually participated in the survey, representing a response rate of 69%. The questions on the survey were taken from the literature review presented above and covered three areas: the current availability of government data, the current demand and the requirements for a systematic data-provision and, as a last topic, a personal assessment on future demand, potential benefits and risks. Half of the questions were open questions, so that multiple answers were possible. The questionnaire was filled out in 67% of the cases (12 respondents) by the Chancellery; in six cases it was completed by the Cantonal e-government section.

4.1.1. Availability of Government Data. 16 of 18 Chancelleries that answered the survey provided some data-set online. The available machine-readable datasets today are geo-data (available in 14 Cantons), statistic data (available in nine Cantons), finance- and budget data (available in six Cantons), population and companies’ data (available also in seven Cantons) as well as legal data (available in four Cantons). Specific
information, such as environmental data, votes and elections results, data on archived objects, register of buildings and dwellings, diverse specialized data (e.g. traffic data, hydrology, landscape, education) is available in a few Cantons.

4.1.2. Demand and Requirements for a systematic Data-Provision. Several Chancelleries were not able to identify where the most demands come from (eight Cantons) and, consequently, do not have a clear picture of this aspect. However, the results show that national and local media (nine respondents), and industry (e.g. architecture office) as well as other local and national public agencies (each seven respondents) pose most of the access requests. Further, students, researchers and private individuals were occasionally cited. The most sought, besides geo data, is Cantonal statistic data, addresses-data as well as legal texts, votes and election results. Other fields such as the commercial register, Cantonal budget data, mobility and education data as well as the cadastral and land registry found further approval. Most of the Cantonal State Chancelleries estimate that the Cantonal agency receives less than ten inquiries each month in order to get data access (seven respondents). The main reasons for rejecting the access to specific data (multiple answers possible) nowadays are information and data protection (13 respondents) and the lack of Cantonal legal provisions (seven respondents). Further mentioned reasons are e.g. professional secrecy, government security, additional efforts with the collection, compilation and the description of the data-sets, the lack of demand, the principle of responsibility (data set with misinterpretation and misuse potential are only available with detailed explanations) as well as the lack of regulation regarding their commercial use. Most important requirements for establishing an Open Government Data culture are a legal and political mandate, a clear Executive commitment (each of them 10 respondents, open question with multiple answers possible) and a considerable demand (seven respondents). Data-sets must be available, certain data areas could be prioritized (e.g. by determining a catalogue). Clarifying the loading capacity of public agencies is further an important topic (four respondents): clarification is needed in the field of resources, staff retraining, the conscious cultural change, defining responsibilities and clear work-flows. From the technical point of view the Cantonal State Chancelleries see basic prerequisites especially in the topic of security and in the standardization (each four respondents). Further, an architecture for the data presentation (usability, find the information more easily) and a shared data-platform can be seen as starting points (each, two respondents).

4.1.3. Assessment on future Demand, potential Benefits and Risks. For future developments, the Cantonal State Chancelleries believe that the areas of environment, infrastructure and traffic will play an important role. The three topics finance, politics and jurisdiction as well as health divide the Chancelleries opinion (cf. Table 1).

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<tr>
<th>Question C.1: In which fields do you expect in a short and medium term a significant increase of demand for accessing government data?</th>
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<tr>
<td>Urban planning</td>
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<td>Administration</td>
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<td>Environment</td>
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<td>Impediments (e.g. topography)</td>
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<td>Infrastructure</td>
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<td>Population</td>
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<td>Traffic and public transportation</td>
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<td>Education</td>
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<td>Budget</td>
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<td>Politics and Jurisdiction</td>
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<td>Health</td>
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Table 1 – Expected demand for government data-sets

In contrast to Anglo-American literature, the Swiss Cantonal State Chancelleries see the primary benefit of Open Government Data in promoting economic development and innovation, in a stronger participation of experts and in a better and more intensive cooperation between government and economy. The view that OGD will lead to more transparency, better governance and more trust is not shared. The argument of increasing proximity to citizens has been rejected – on the cooperation level and on the political participation resp. openness (cf. Table 2). Like in the e-government policy [24], the Cantonal State Chancelleries identify primarily other public agencies and the economy as important stakeholders.

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<th>Question C.2: Open Government Data enables...</th>
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<td>More transparency of administrative action</td>
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<td>Better governance of the public administration</td>
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<td>Greater trust in state action</td>
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<td>Better and more intensive cooperation:</td>
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<tr>
<td>• between authorities</td>
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<td>• between authorities and citizens</td>
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<td>• with international agencies</td>
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<td>• increased political participation</td>
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<tr>
<td>• of experts</td>
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<tr>
<td>• of interest groups and associations</td>
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<tr>
<td>Promoting economic development and innovation</td>
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<tr>
<td>Promoting social and cultural innovation</td>
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Table 2 – Benefit perspectives of OGD
Nowadays risks are seen particularly in the protection of data and information, e.g. through cross-linking of the data-sets (10 respondents), misuse and misinterpretation (nine respondents). The increased administrative burden with regard to comments and responds (four respondents), possible loss of reputation or image and internal resistance are additional risks (each, two respondents).

4.1.4. Reflecting the survey’s results. The survey’s results are grounded on a small base (Σ= 26 cantons). Nevertheless, the results allow drawing a picture of the over-all situation and show significant differences to the results of Parycek et al. [19] based on answers by the Members of the Austrian National Parliament and to the outcomes of Ganapati/Reddick [3] based on the American CIO interviews. These differences should be reflected through the specific role of the different players within the legislative and executive bodies.

The Cantonal Chancelleries as main respondents expect to focus their OGD actions on the interaction with the industry and experts rather than on involving the population, as they are not an exposed electoral power. Since no national guideline exists, the respondents in our study do not mention a direct impact of national actions, comparable to the US CIO’s motivations. Nevertheless we would point out the indirect influence that the Swiss e-government strategy, adopted by the National Government and supported by the Cantons, has on ODG: The first priority for e-government action in Switzerland has always been the needs of the industry, followed by inter-governmental transaction and only in third place the needs of the population [24]. Legitimating this setting of priorities is basically the transaction intensity with the industry versus the one with the population (great optimization versus visibility). These priorities persist in the context of OGD.

4.2 Case Study OGD in eZürich

Within Switzerland, the canton of Geneva and the City of Zurich are the leaders on OGD. We carried out an in-depth analysis of the situation in Zurich, shortly before the opening of the OGD-portal there. Our analysis was based on a four-dimensional reference model for e-government cases. The dimensions are stakeholder views, disciplinary views, key ideas/goals, and time and size [23]. We limited the analysis to the stakeholders inside public administration though, with an emphasis on the executive ones.

We carried out individual interviews with 13 high-ranking civil servants (mostly heads of city agencies) inside the city administration. These interviews were performed in cooperation with the Informatics Department of the City (OIZ). Further, we organized a participatory workshop, which was attended by 44 team leaders and heads of departments or competence centers inside the city administration. Both in the interviews and at the workshop we followed the same general script. First, we provided information. Second, we answered specific questions. Third, we collected input along a SWOT line (that is arguments in favor, negative aspects, future options, general risks) in order to identify political aspects for the further discussion. Fourth, we discussed the administrative context and its management (incl. time-line and size aspects). Fifth, we asked for concrete data-sets, which are “easy” candidates for publishing and discussed them along the above SWOT line. Discussions at the workshop took place in five moderated groups. Each participant could consecutively participate in four of these groups. The five topics were internal benefits inside public administration, external benefits for other stakeholders, processes for OGD publishing, specific challenges for the public administration and candidate data-sets.

OGD Zurich is part of the eZürich experiment, and its implementation respectively. eZürich was invented by the city government to lay foundations for Zurich as the European Silicon Valley (http://www.ezuerich.ch/): Zurich wants to become an attractor of resources in a global cluster economy. In particular, Zurich wants to attract talents in IT and IT entrepreneurs from all over Europe and beyond. This lead to a strong commitment of the whole city government, which funded an intense marketing campaign. As a result, compared with other European e-participation experiments, eZürich was highly successful. After collecting suggestions from the public, experts from government, academia and industry jointly discussed the outcome and selected targeted actions. This get-together of the three areas both pushed the participation in the beginning and the uptake of the results, thus leading to a nearly classical example of the triple helix model (according to which the complementary expertise of academia, industry and government can facilitate innovation and new collaborative forms for creative development). In the following, both the success of eZürich and the reasons for the success were inherited by OGD Zurich.

The results of both the individual interviews and the workshop may be summarized as follows:

0) The OGD program is politically funded by Zurich's economic policy, that is in particular by the promotion of Zurich as a location for IT business, which intends to attract talents, ideas, and investors.

1) For the civil servants, the most important benefit of OGD is that it helps public administration to improve its execution of legal tasks. That is, OGD is perceived as a tool for good work and to improve core business.
2) Another important benefit perceived is that OGD improves collaboration in many forms. That is, OGD mostly pushes collaboration inside the city administration and with other government bodies (e.g. other municipalities, the cantonal administration).

3) OGD creates economic value, as it increases the efficiency and effectiveness of public administration, which may obtain new ideas and services from the OGD community and which may easily use data from other administration units. It further creates economic value as it contributes to Zurich's location policy with a strong focus on the quality of life.

4) When we asked about benefits for the public, we primarily got two types of answers: benefits related to the core tasks of public administration and generic benefits such as easier participation of citizens in public decision-making. There are few concrete ideas around how society could organize itself better through OGD.

5) The key OGD challenge identified by the majority of the interviewed executives is the development of the organizational maturity, both of the individual agencies and of the city administration as a whole.

6) The key success factor for OGD identified by nearly everyone is the set up of good institutional processes. That is, the institutional decision process for the initialization phase and the decision processes for the selection of data-sets for publication as OGD were considered to be highly critical for the success of OGD as a broad change movement. Indeed the key risk perceived were internal barriers and barriers organized by political parties.

7) There are many data-sets ready and waiting to be published as OGD. At the same time there are still a lot of questions concerning the concrete management thereof. Most of the questions are already answered, but answers have not been disseminated yet.

8) There is a strong interest in joint standards. City agencies would prefer joining Swiss data standards. The OIZ also wants metadata standards, preferably common with the neighboring countries.

9) A key driver for the overall OGD activities was the strong bond between government and administration, academia, and industry in Zurich. All have collaborated strongly in the eZürich experiment. It will be important to keep up this collaboration in the future.

10) There is not yet much direct exchange between civil servants and the members of the OGD-community, but awareness of the necessity of such a dialogue is growing.

In the following we discuss some of these findings in more detail.

4.2.1. Improving Execution of the Core Business.

Seen in the eyes of public sector executives, OGD has first and foremost a great potential to improve the performance of the various agencies with respect to effectiveness, efficiency, and creativity. That is, OGD may in many cases help agencies to do better work and to better fulfill their tasks as the City Parliament and Government define them. The most startling aspect was, that the primary impact as considered by these high ranking civil servants was on the improved fulfillment of the core tasks they have, as defined by public law. Let us give a few examples given in the interviews. If people would have access to the data about street sign positions, they could report on misplacements. That is, the availability of data would create ad hoc crowd sourcing. Or if historic data about filling states of car parks would be used by app developers to write apps predicting filling states for the next hours, this would be a very useful service for visitors. That is, public administration could somewhat outsource services for visitors, which cannot be funded, as it is just at the boundaries of the core tasks (“nice to have” is hard to fund). Or if other government agencies from surrounding municipalities would publish their data in comparable formats to the data published by the city, this would provide the city planners with better data for their core job. Or if app developers would figure out a new sense-making, this information design could be used by the government agencies themselves. That is, public agencies intend to watch how their data will be used and hope to profit from new or even “crazy” ideas; this topic was mentioned several times. Or if, data for party events and for rescue operations would be correlated, this might help them to better plan rescue resources on critical days. That is, the integration of data-sets from different agencies, possibly enriched by crowd sourced additional information, might become a valuable resource for the planning of public task execution.

From an operational perspective, the benefits for public administration identified most often were (in this order): (1) integration of their data-sets with other data, which creates a more holistic view, (2) possibility for public administration to collect new ideas how to turn data into value through the observation of the use of OGD and (3) overall less costs for handling data requests due to the freedom of information law.

In the literature, it is often said, that OGD creates transparency, which in turn improves efficiency. From the interviewed view, the value of transparency will be created primarily internally and it will become evident, where public administrations fails to achieve its goals.

4.2.2. Increasing the Organizational Maturity.

It was clearly noted that OGD is an organizational maturity development challenge, with a strong emphasis on the development of organizational culture
and the adaptation of political communication to the changes in society. While in the past, agencies were able to control the data interpretation, in the future they would only have the role of expert interpreters of government data, who help others to do a good interpretation job. In this context, it became clear though, that conflict in terms of interpretations between public administration and the public are feared to some extent. This lead several interviewed executives to formulating the requirement that it is not raw data-sets, which are published, but only data-sets which have been partially cleaned and consolidated – that is data with a “medium level of aggregation”.

Nevertheless, the cultural change is considered to go much beyond political communication and would really change the way public administrations carried out their tasks. There was a common agreement concerning the goal of a cultural change. This may be due to the fact that “cultural change” is not an exactly defined term. It should also be noted, that some said that OGD was not a choice, but a must for a city like Zurich, because Zurich wants to compete in an international and modern context. Such competition would require speed. On the contrary, others considered OGD a rather long term innovation option. Thus, the opinions on the future time line differed significantly. In a similar way, opinions diverged regarding the share of administration data to be published as OGD. Some assumed that in order to fully achieve the cultural change, eventually all legally admissible administration data would become OGD. Others assumed that some areas would stay excluded, such as the data of the social security agency.

For the near future, the development of organizational maturity will mean the establishment of processes to publish data and to manage all types of requests and debates resulting from publishing the data. That is the development of processes, which can be used by those who want to implement OGD.

Further, in the mind of public sector executives, OGD will improve the collaboration or even initiate new collaboration, where has not taken place yet. That is collaboration with other agencies inside public administration, collaboration with external partners from other municipalities and from the Canton of Zurich, and collaboration with partners outside public administration. In addition, we were explained that the lack of data from other municipalities – and in particular from municipalities in the direct neighborhood – is a key problem right now for city development issues. OGD in standard formats would solve this problem – e.g. for the planning of infrastructure and education services. Furthermore, cases were named where despite the availability of data, planning mistakes happened because the right data were not taken into consideration in the planning phase. Summarizing all these observations, agencies are in need of data from other agencies and they are open for new ideas from outside, as they hope to thus import non-bureaucratic creativity and better information-based decision making. It should be noted though, that only few members from the city administration have so far participated in one of the hack-days (http://make.opendata.ch). It is clear that both the administration and the community expect the other side to proactively approach them in terms of communication. There is little discourse between both groups, as both hardly understand the values and rituals of the other side.

4.2.3. Professionalizing the Institutional Processes.
While negative aspects did not play a significant role in the statements, a lot of risks where identified – like the one about peculiar interpretations indicated above. But executives did not consider these as no-arguments; rather they suggested proactively promising strategic approaches and concrete measures to deal with these risks. We received a huge amount of suggestions how to handle OGD properly, or rather how to create a broad and sustainable OGD movement inside the city administration. In addition, the colleagues from OIZ were confirmed and applauded for the way they were succeeding in their OGD project.

It can be concluded that professional practice of institutional processes is considered as a key success factor in the city administration. There is a strong culture in creating change through stakeholder management processes, which slow down the speed of change, but at the same time eliminate the risks of being stopped. Executives are very aware of the risk of political barriers and they dedicate a considerable amount of their management time to pro-active risk mitigation. Concrete measures applauded or newly suggested were e.g. a participatory process of the population as a starting point (the OGD project was suggested by the e-participation experiment eZürich, this is considered to be institutionally highly relevant), an original declaration of the commitment by the city government in reaction to the outcome of the eZürich experiment, linking OGD to the mission and value statement of the city, that is the “Leitbild”, a study on legal aspects, formulation of a city policy for OGD based on the collected concerns, a checklist for the selection of data-sets, a declaration of the policy by the city council, a participatory workshop and individual meetings with responsible executives.

It should be noted that the overall process from the commitment to the e-participation experiment eZürich to the launching of the OGD portal as one of the outcomes of eZürich took slightly more than two years.
The core launching process for the portal took fifteen months. Within these fifteen months all necessary internal consultations, policy formulation, and political buy-in took place. Compared with other fundamental changes within public administration this is rather fast.

4.2.4. Conclusions from the Case OGD eZürich. We have so far focused our discussion on the findings on two of the four dimensions of our analysis framework: stakeholders and key ideas/ goals. For the executives the key goal is to improve the execution of their core business. The impact perceived in the public is primarily related to economic development. We have further indicated that opinions vary on the time and scale dimension. OGD is clearly understood as an emerging cultural change, which will go on possibly for decades, but there are different opinions on the speed and on the outreach of this change. It is interesting, though, to look at the disciplinary perspectives as well.

OGD is clearly understood as an organizational, management, and leadership topic. Communication is the key, as it is the political support from the government, while party politics are considered rather as a potential (though manageable) threat to the future success. Both law and technology are not considered as important issues, although both pose challenges. There were concerns about liability, but these have been resolved. All legal issues have been investigated, and based on these investigations a check-list has been created. Based on this check-list, the legally unquestionable data-sets can be selected. Concerning technology, it is implicitly assumed that a 3-star quality of OGD should be achieved (according to Tim Berner Lees 5-star quality model, cf. http://www.youtube.com/ watch?v=ga1aSJXCFe0). In many areas there are standards, but depending on the area the problem is only a different level of data quality (which does not prevent a workable integration of data) and in others the differences are severe. Finances are not considered a hindrance, although they are always an issue. This is different from the federal level, where one key provider of OGD cannot do so, because it would imply a loss of 15 million CHF per year, which cannot be compensated by a better productivity. Finally, the economic outcome is unclear. Economic growth is a key motivation, but there are no price indications of how big it will be. Many executives were concerned that companies will make big profits with their data, but they accepted the argument that this will lead to increased taxes, which will fund more than the extra costs for publishing OGD.

5. Concluding Remarks and Further Activities

The key objectives of Swiss OGD deviate slightly from the international mainstream. Regional and local authorities are aware of the secondary use of public data, but the policies focus primarily on organizational and economic perspective, neglecting the political one. OGD is regarded as the enabler for cultural change and clearly understood to be handled as a management and leadership task. According to Swiss executive authorities, OGD can improve the execution quality of the core public business, build and strengthen collaboration within other public agencies and promote economic development and innovation. Future research activities could adopt an international view and, taking into account different administrative traditions and cultures, compare different stakeholder perspectives such as intermediaries, parliamentarians, data-owners and SMEs' CEOs, in order to address these better in future policy making. Furthermore, research could focus the cooperation at the local level and investigate which factors increase triple helix collaboration in the specific area of OGD. Finally, we want to encourage fundamental research aiming at identifying and describing concrete business models and business cases for the (creative) industry and projects studying the impact and the opportunities of OGD for the smart and sustainable city of the future.

From a practical point of view, we recommend five measures for new Swiss OGD projects to consider. First, put a clear focus on the core public business and on the image of government. Second, ensure commitment from the top, but cultivate a dialogue oriented management style. Third, build a new OGD portal user-centered, based on requirements from the side of intermediaries (e.g. media, parties), schools and citizens. Fourth, provide precise and fast answers to all questions concerning the concrete process of data publishing and approach the standardization topic. Fifth, assess the economic impact of OGD on the market, and on specific fields like health, transport, energy or education, i.e. back your position [12].

Future strategic development of Swiss OGD, should avoid the pitfalls known from Swiss e-government development. OGD across national tiers should be approached early on in a coordinated way. We assume that the metropolitan areas Geneva, Zurich and Basel are the major players bringing OGD to a national take-off. Ensuring that they are pulling in the same direction will be a challenge however. Therefore, political discussion on the topic of alignment should be stipulated. Developing OGD in a streamlined, but innovative way means addressing questions such as: how can OGD activities of the three metropolitan areas...
be aligned? How can positive spill-over effects be achieved, i.e. how can other agencies (small Municipalities, Cantons and Federal Administrations) be carried and motivated? How can Switzerland tie in with international OGD endeavors at the European level?

6. References


