



# THE DEVELOPMENT OF LOCAL E-GOVERNANCE IN BOSNIA AND HERZEGOVINA

# **THE DEVELOPMENT OF LOCAL E-GOVERNANCE IN BOSNIA AND HERZEGOVINA**



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# 1. INTRODUCTION

Electronic government (hereinafter: e-government) can most succinctly be defined as the use of information and communication technology (ICT) for the purpose of advancing the effectiveness and quality of public services offered to citizens and businesses, as well as of work processes and flow of information within and between public administration institutions.<sup>1</sup> Electronic governance (hereinafter: e-governance) is a broader concept that also includes the overall re-engineering of work processes and governance reform in order not only to improve administrative functions, but also to ensure participatory communication with citizens.<sup>2</sup> In other words, e-governance encompasses the overall organization of public management with a view to increasing efficiency, transparency, access to information, as well as participation of citizens in decision-making, with the strategic use of ICT in the process.<sup>3</sup>

It is particularly important to look at the development of e-governance and its effects when it comes to the local – i.e. municipal – level of government since it is at the local level<sup>4</sup> that a significant proportion of interaction between government bodies and citizens takes place.<sup>5</sup> Also, it is at this level that decisions are taken and functions performed that are of particular importance for the local population since their effects are directly visible in citizens' daily lives. Paradoxically, despite the existence of a large

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<sup>1</sup> For more, see for example the European Commission website: [http://ec.europa.eu/information\\_society/activities/egovernment/index\\_en.htm](http://ec.europa.eu/information_society/activities/egovernment/index_en.htm)

<sup>2</sup> For more, see Isanović 2010, pp. 235-236.

<sup>3</sup> See Dimitrijević 2009, p. 124; see also Gajić 2005/2006.

<sup>4</sup> The text uses the terms local self-government and municipalities interchangeably. In Bosnia and Herzegovina, in addition to municipalities, units of local self-government are cities (Banja Luka, Mostar, Sarajevo and East Sarajevo). The survey also included, to a lesser extent, cities, but it focused more on municipalities.

<sup>5</sup> According to some estimates, up to 80 per cent of the interaction takes place at the local level of government (Trajković 2011, p. 13).

number of studies on e-government and e-governance, there have been few surveys addressing the development of e-governance at sub-national levels of authority.<sup>6</sup>

Similarly, although some analyses and reports on e-governance at different levels of administration in Bosnia and Herzegovina exist, we know very little about the level of development of e-governance in Bosnian municipalities. It was, therefore, the goal of this survey to seek to fill in, at least partially, the gaps in this field, as well as to offer the most systematic possible overview of the development of local e-governance in the country.

The primary focus of our survey was on what local bodies implement in the field of e-governance, with an analysis of the context in which the development of e-governance at the municipal level in Bosnia and Herzegovina takes place. In this, special attention was devoted to the political, legal, technological and socio-economic aspects of the development of e-governance. Also, the development of e-governance was viewed in the context of general trends in public administration reform, as well as that of the complex processes of public administration reform in Bosnia and Herzegovina over the past dozen years. Emphasis has been placed on strategic issues of the development of local e-governance in the country.

Our survey seeks to offer answers to key research questions: To what extent have legal preconditions for the development of e-governance been created in Bosnia and Herzegovina? What are the current policies, strategic approaches and incentives for developing e-governance in Bosnia and Herzegovina? What are the trends and prospects of developing local e-governance in Bosnia and Herzegovina given the overall context of public administration reform? What are the key problems, challenges and steps forward made in this field? To what extent do the internal capacities of cities/municipalities in Bosnia and Herzegovina allow for further development of e-governance at the local level?

The ultimate objective of the study is to offer, on the basis of an analysis of e-governance and e-participation in Bosnia and Herzegovina and a comparison with policies and practice in the region and the world, a set of clear recommendations for further action, both for municipalities themselves and other decision-makers in the area of the development of e-governance in municipalities.

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<sup>6</sup> See Pina, Torres and Royo, 2007.

Accordingly, this report starts with a framework for discussing the development of e-governance in the context of broader trends of public administration reform and the development of good governance generally, in order to point to the complex challenges faced by local governments globally. We then go on to define the analytical framework for the assessment of the development of local e-governance in Bosnia and Herzegovina, setting the parameters, criteria and focus of the overall survey and analysis. The findings of the survey and analyses are then presented in the four chapters that follow. First, the focus is placed on the lack of a strategic approach to the development of local e-governance, and e-governance in general, in the country, as well as on the lack of consistent public policies at different levels of administration and the inadequate and incomplete legislative framework. The chapter that follows deals with specific indicators of the development of e-governance in Bosnian municipalities. Finally, the closing chapter analyses the level and nature of the online presence of municipalities in Bosnia and Herzegovina, as well as the level of their functionality and interactivity. Following a presentation and analysis of the findings, the report ends with a conclusion and recommendations designed to help accelerate and enhance the development of e-governance in the country.

The report will show that in Bosnia and Herzegovina the development of local e-governance, and e-governance in general, is proceeding exceptionally slowly and faces a series of problems and obstacles. As a result, Bosnia and Herzegovina significantly lags behind other countries and current trends in this field. Also, the country lacks a strategic approach to the development of e-governance, as well as coordination and clear competences of different levels of administration, while the legal framework is incomplete and uneven. The strategic documents have largely neglected the development of local e-governance. In this context, given the limited resources, bureaucratization, lack of transparency and accountability, municipalities have fallen behind in the area of e-governance and e-participation, and citizens are not placed at the centre when it comes to designing and delivering electronic services at the level of local administration.

## 2. LOCAL ADMINISTRATION AND E-GOVERNANCE: TERMS, CONCEPTS AND TRENDS

### 2.1. The path towards (good) governance

In order to offer a clear picture of the challenges currently faced by local administrations around the world, including those related to the implementation of e-governance, local administration needs to be viewed in the context of the discourse on public administration reform in general.

The financial crisis and big public deficits in many countries around the world in the 1970s led, among other things, to a reconsideration of the legitimacy and capacity of 'big government'<sup>7</sup> to resolve social and economic problems (Sanderson 2001, p.297). The ever stronger 'new right'<sup>8</sup> criticized bureaucratic forms of organization over their lack of flexibility to cope with new challenges as many Western countries focused on downsizing the public sector and increasing service efficiency (ibid., p.297). In the 1980s, many, mainly Anglo-American, countries embarked on reforms in the framework of the so-called *New Public Management* (NPM). NPM is rooted in neo-classic economic theory and advocates 'transplanting' management models from the private to the public sector. Features of NPM include: effectiveness and striving towards 'value for money'; downsizing the public sector and outsourcing services; public-private partnerships; privatization; competitive tenders; consumerism (citizen 'clients' have more choice and influence on public policies and services, with a view to improving quality and 'value for money'); shifting responsibility and power to public 'managers' (while strengthening the processes of supervision, audit, inspection and evaluation in

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<sup>7</sup> 'Big government' implies that the government plays a significant role in the society: that it has the possibility to "control and order" (Micheletti 2002) by offering a large quantity of public services but also by virtue of representing the will of the people.

<sup>8</sup> This mainly refers to socially conservative and economically liberal parties that belong to the right and were in power in many countries in the world especially during the 1980s, including in Australia, the US and the UK.

order to ensure their accountability)<sup>9</sup>; strategic planning and management; and measuring the effectiveness of services (Sanderson 2001, pp. 299-301).

For many, NPM represented an ideological (commonly portrayed as apolitical) ‘paradigmatic step forward’ towards market orientation and an abandonment of Weber’s traditional bureaucratic model of public governance<sup>10</sup> (Olsen 2005, pp.13-14). However, despite far-reaching reforms around the world, NPM was challenged by many authors from the very beginning: critics mostly stressed that it focused too much on efficiency, without taking into account improving broader policies, i.e. without necessarily having achieved effective policies. Also, citizens did not play a very important role in making decisions concerning policies and services (Sanderson 2001). Democracy based on a perception of citizens as clients has, therefore, led to a bigger gap between the government and the citizens and reduced the trust of citizens in the government (Welch et al. 2005).

In the late 1990s, a ‘new’ paradigmatic movement emerged: the so-called *governance*. The term *governance* is used alternately with the terms *good governance*, *new governance* and *networks*. The *governance* paradigm focuses on horizontal relations and links and the division of power between the government and society, calling for a change of the existing relations of power through political processes (Olsen 2005, p.13). Some authors describe this movement as a “reconquest of political authority by societal actors” (Andersen and Burns, in Olsen 2005, p.13).<sup>11</sup>

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<sup>9</sup> In other words, mechanisms of management accountability were supposed to guarantee management efficiency.

<sup>10</sup> Max Weber dedicated several of his most important works to the issue of bureaucracy, and ‘classic’ or ‘traditional’ bureaucracy is commonly linked to his name. Weber understands bureaucracy as a system that implies: 1) fixed and official jurisdictional areas that are ordered by rules (laws and administrative regulations); 2) the principle of hierarchy of departments in terms of divided competences at different levels in a strictly ordered system of superiors and inferiors where the lower offices are supervised by the higher ones; 3) management of a modern office is based on written documents archived in their original form; 4) management of a modern office implies thorough and expert training; 5) official activities require the full capacity of the official, regardless of the restricted working hours; 6) office management follows general rules (more or less stable, more or less comprehensive, and rules that can be learned) (Weber, in Schafritz and Ott 1987).

<sup>11</sup> Nevertheless, we should stress that the differences between ‘classic’ bureaucracy, NPM and *governance* are not always clear, the three being often used in literature as analytical categories that actually often “occur” simultaneously in practice (Olsen criticizes exclusivist views of public administration reform, pointing out that strengthening markets or creating networks, for instance, does not exclude bureaucratic organizations, which is best illustrated by the example of the EU; these processes in the EU context have created new *rules*, Olsen 2005, p. 14). Moreover, “what recent reformists present as universal diagnoses and prescriptions for public administration are in fact partial, time- and space-bound interpretations” (ibid.).

The increased number and importance of decentralized networks (consisting of both governmental and non-governmental organizations and actors) bring about reduced central authority and political steering (Olsen 2005, p.13).

According to Stoker (1998), the goal of *governance* as well as *government* is to create conditions for ordered management and collective action. He offers several propositions on the notion: (1) governance refers to a set of institutions and actors from inside but also outside the government, (2) the term identifies the blurring of boundaries and responsibilities for tackling social and economic issues, (3) it identifies the power dependency involved in the relationships between institutions involved in collective action, (4) it is about autonomous, self-governing networks of actors, and (5) it recognizes the capacity to get things done without the command or authority of government, which uses new techniques and tools to steer and guide (Stoker 1998, p.18). According to Blomgren-Bingham, O'Leary and Nabatchi (2005), *governance* is a network of public, private and non-profit organizations presented as "the new structures of governance as opposed to hierarchical organizational decision making", whereby governments are involved in new, "quasi-legislative" processes, including "deliberative democracy, e-democracy, public conversations, participatory budgeting and other forms of deliberation and dialogue among groups of stakeholders or citizens" (ibid., p.547).

*Governance*, thus, places a strong focus on *citizen participation* in decision-making processes. Unsurprisingly, citizen participation has played a dominant role in the *governance* discourse, particularly at the local level of authority. Authors and practitioners usually assert that decisions made with citizen participation are based on their actual needs and that the already limited public funds will be used more effectively in this way. At the same time, citizens will accept some of the government's 'difficult' decisions if they have previously participated in creating them. Moreover, participation is seen as a response to the problem of 'democratic deficit' – citizen apathy and lack of confidence in the authorities, which manifests itself in the lack of citizens' political activity of the kind that was especially evident in many countries around the world in the 1990s.<sup>12</sup>

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<sup>12</sup> At the same time, the literature stresses certain shortcomings of participation, such as the potentially reduced efficiency of decision-making and the additional monetary and time-related cost of the organization of participatory processes; the potential lack of representativeness of citizens who participate directly but do not necessarily represent all the sections of society (particularly vulnerable groups); the lack of actual power or authority of citizens to make decisions (where citizens, for instance, just 'participate' passively through consultations), which might result in their dissatisfaction after the participation; and the potentially bad or selfish decisions of the participants whose primary objective is to meet their own needs (Irvin and Stansbury 2004, pp.59-60).

Participation is also described as a civic right that should be institutionalized – empirical research has shown that participatory approaches hold a greater potential to be effective if participation becomes a civil right complementary to other rights (Gaventa 2004).<sup>13</sup>

Effectiveness became a buzzword for NPM. Similarly, *public accountability* is – after participation – the second most frequently used term when talking about *governance*. It is “the hallmark and a *sine qua non* for good governance” (Bovens in Yilmaz and Beris 2008, p.24) and the obligation of public authorities “to explain publicly, fully, and fairly how they are carrying out responsibilities that affect the public in important ways” (Yilmaz and Beris 2008, p. 24).<sup>14</sup> Public accountability focuses on public sector managers who spend public money, exercise public authority and manage a corporate body under public law (ibid). In practice, the mechanisms of administrative accountability<sup>15</sup> (ombudsmen, auditors, independent inspectors etc.) were promoted in the framework of NPM in order to ensure that public administrations really responded to citizens’ needs (Yilmaz and Beris 2008, p. 25). In the context of strengthening the role of the NGO sector, the mechanisms of *social accountability* – participation of citizens in the oversight of the activities of the authorities – ensure an additional type of pressure on governments to be accountable (ibid, 30). The principle of transparency is often used in the context of (good) governance interchangeably with public accountability: according to Yilmaz and Beris, transparency, along with other principles such as accessibility, responsiveness and integrity, in fact falls under the umbrella concept of public accountability, while accountability “actually specifically refers to the practice of account giving” (ibid, pp.16-17). Thus, it is not sufficient for the government to regularly report on its work – that is, to be transparent – it should also answer for its actions (ibid., p. 17).

The processes of public administration reform at higher levels of authority have also included the local level. The process of decentralization has over the past twenty years

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<sup>13</sup> Nevertheless, as Gaventa notes, the legislative framework alone is not sufficient for meaningful citizen participation: it is necessary to set new rules for involvement in the process and new rules for decision-making, but also to define the rights and responsibilities of different sides in the participatory process; moreover, it is also necessary to tackle the issues of power and representativeness within participatory processes. Effective participation also implies strengthening the capacity of citizens to demand public accountability of the authorities, as well as improving the authorities’ ability “to be responsive to community participation, and to learn how to change their roles, attitudes, and behaviors in the new environment” (ibid., pp. 21-22).

<sup>14</sup> Different authors and organizations advocate different principles of ‘good governance’ at the local level: in addition to accountability or participation, they also stress efficiency, effectiveness, equitability, transparency, responsiveness, and others (For more, see UNDP 2009).

<sup>15</sup> For Yilmaz and Beris, administrative accountability is one of the dimensions of public accountability – the other two being political and financial accountability (2008, p.26).

gained momentum, whereby decentralization has meant strengthening democracy at the local level through direct elections of local authorities; the new freedom of resource management; building local administration capacities; gradually raising the awareness among citizens that they can demand better services; and a far-reaching influence on the quality of citizens' lives and their future (Grindle 2007, pp.5-6).<sup>16</sup> Decentralization has been promoted as an improvement in political and economic achievements through increased efficiency, effectiveness and accountability of governments. As a result of these processes, local administrations around the world have been assigned new responsibilities and, accordingly, bigger resources for the discharge of these responsibilities.<sup>17</sup> Thus, there has been insistence that local authorities should take over responsibility for managing budgets, generating revenue and public expenditure, but also a whole series of services going beyond the usual utility services offered by local administrations – from education and health care to crime control and economic development (ibid, p.6).<sup>18</sup> In practice, decentralization has faced numerous challenges of a structural, economic and political nature, and its success has depended on many factors, including the degree of decentralization (as well as the nature of relationships between different levels of authority)<sup>19</sup> and the types of reforms implemented.<sup>20</sup>

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<sup>16</sup> According to Grindle, the will of national authorities to decentralize government, or the decision of rational politicians to agree to sharing power at lower levels, has depended on several factors, including pressure by international financial institutions, the election logic of parties stepping down from power, politicians' ambitions, the level of economic development, the ideology of neoliberalism, etc. (2007, p.6).

<sup>17</sup> Greater responsibilities and increased resources, as well as autonomy in managing these responsibilities and resources, are usually recognized in the literature as functional and fiscal decentralization.

<sup>18</sup> The guiding principle for decentralization was certainly drawn from the Council of Europe's European Charter of Local Self-Government of 1985, which "summarized the minimum requirements for preparing and establishing new institutions" at the local level (Horvath 2000, p.25). Most European countries signed and ratified the Charter, including Bosnia and Herzegovina in 2002. The additional protocol to the European Charter of Local Self-Government on the right to participate in the affairs of a local authority defines measures that the state parties should take in order to ensure the right to participation at the local level; among other things, the state parties will take all necessary measures to give effect to the right to participate in the affairs of a local community, including ICT for the promotion and exercise of the right to participation (Council of Europe 2009, Article 2.2.iii).

<sup>19</sup> Some authors note that – for instance – in Scandinavian countries local administrations are an "organic" part of the state whereby central and local authorities decide on important issues by consensus (Sanderson 2001). On the other hand, Norton (1994) believes that local administration in Great Britain has the inferior status of "a creature of Parliament" operating *intra vires* in line with the law and is subject to strong oversight and control by the central authorities (in Sanderson 2001, p.303).

<sup>20</sup> Grindle identified four factors that contribute to different outcomes of decentralization: the dynamics of political competition; the entrepreneurial orientation of government structures and officials; the modernization of local administration; and the activism of civil society (for more, see Grindle 2007, pp.10-18).

The discourse of *governance* has to a significant extent also been replicated in connection with *local governance*, in particular over the past decade. Bovaird and Loeffe (2002), for instance, in their text on improving service provision at the local level, say that management models at the local level should be adapted to fit aspects of *local governance* (ibid, p.10). Taking into account the new challenges for local authorities at the beginning of the 21st century, including the use of ICT,<sup>21</sup> the authors define *local governance* as “the set of formal and informal rules, structures and processes which determine the ways in which individuals and organizations can exercise power over the decisions (by other stakeholders) which affect their welfare at local levels” (ibid, p.16). This means that local authorities should devote special attention, among other things, to their relationship with citizens, who, in turn, can themselves contribute to good *local governance* through their initiatives (ibid, p.17).

In brief, when it comes to current trends in local governance, practitioners (including international development organizations) and academics very often build on the ideas of participation and accountability. In this sense, the main advantage of local authorities over other levels of government is their proximity to citizens.

## 2.2. From governance to e-governance

Many authors seek to place e-governance in the context of the ‘paradigms’ of public administration reform. Thus, for instance, Dunleavy et al. (2005) see the use of information technology – what they call “the digital era governance” – as “post-NPM” reform<sup>22</sup> that will contribute to changing the system of governance and methods of interaction with citizens and other service beneficiaries in civil society via cognitive, organizational, political, cultural and behavioural changes linked to information systems (ibid, p.468).

In this sense, we can say that e-governance implies the overall organization of public management, with a view to increasing efficiency, transparency, access to information,

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<sup>21</sup> According to the authors, on the modernization agenda the need has also emerged for local authorities to show that they are pro-active in the implementation of citizen-oriented e-government programmes (ibid., p.12).

<sup>22</sup> Of course, this does not mean that information and communication technology is a new trend in the public sector – information and communication systems were introduced as early as the 1980s in order to automatize processes within public administration. However, the technological change occurring by the late 1990s, according to the authors, had only a limited transformational effect – once the processes had been introduced and automatized, organizational cultures diminished their importance compared to managerial performance (ibid., p.478).

responsiveness to the demands and needs of citizens, through the strategic use of ICT.<sup>23</sup> E-governance here refers to the use of electronic means aimed at simplifying and improving the democratic, administrative and business aspects of government.<sup>24</sup> It includes three types of interaction and communication:

- G2C (government to citizen), communication of government with citizens in the form of distribution of public information and interaction with citizens in delivering services and involving them in decision-making processes;
- G2G (government to government), intra-governmental communication horizontally between or within government institutions at the same level and vertically between agencies and government institutions at different administrative levels;
- G2B (government to business), government bodies to the business sector in the form of public calls/competitions, investment, tax payments, etc.<sup>25</sup>

There are different terms that concern the use of ICT in the functioning of administration which overlap to some extent and are associated with different definitions.

If we simply talk about the use of ICT in providing public services to beneficiaries, then this is *e-administration*. Mäenpää (2004) and Malhotra et al. (2007) also use the term *e-government* to mean a technologically-advanced administration. The main objective of e-administration is to make administrative processes more efficient, both for citizens and businesses (e.g. ease of application and efficient processing of cases) and officials themselves (e.g. through automatization of the process of receiving and processing).<sup>26</sup> Thus, for instance, the efficiency of financial transactions (e.g. paying taxes) can be increased through the use of ICT, but its use is at the same time very complex since it requires complex and secure systems.<sup>27</sup>

*E-governance*, on the other hand, is a more comprehensive notion: it refers to all the functions of public institutions discharged with the use of ICT. The essential difference between the terms *e-administration* (Mäenpää also calls it *e-government*) and

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<sup>23</sup> See Dimitrijević 2009, p. 124; see also Gajić 2005/2006.

<sup>24</sup> See Michiel 2001.

<sup>25</sup> E-governance also implies the interaction citizens to government (C2G), business to government (B2G), government to employee, as well as G2N – government to non-profit and N2G – non-profit to government) (source: Trajkovik 2011).

<sup>26</sup> See for example Halmos 2010.

<sup>27</sup> See more in Rocheleau and Wu 2005, pp.219-230.

*e-governance* (which, on the other hand, some also call *e-government*, in a broader sense)<sup>28</sup> is based on the understanding that the use of ICT makes government bodies more user- and efficiency-oriented but does not necessarily advance the quality of administration. While some authors, according to Pina et al., foresee that ICT – especially the Internet – will significantly change public administrations themselves, empirical research has shown that different applications of ICT within public administration actually reflect the models of public administration themselves, in other words that ICT initiatives and measures introduced by governments are compatible with the existing public administration model in a given country (ibid., pp.14-15).<sup>29</sup>

However, the development of e-governance does not only imply the introduction and use of ICT but also a reshaping of existing processes in public administration. According to Mäenpää (2004), it is precisely the qualitative elements, such as changes in policies, administrative processes (acquiring new skills and organizational changes towards transformation of hierarchical organizations into networks and more flexible structures; easier access to information; greater accountability vis-à-vis citizens, etc.), in citizen participation and ways of interaction, in budget control, etc., that contribute to transforming *e-government* into *e-governance*. Similarly, Malhotra et al. (2007) believe that the use of ICT in government activities can be viewed through the following categories: (1) improving government processes – that is, e-government and (2) building interaction with civil society and increasing the participation of civil society in management processes – that is, e-governance (ibid., p.218). Saarenpää, nevertheless, holds that we can speak of genuine e-government only when most of the services offered by the government are accessible in electronic form (2004, p.251).

According to Pina et al, (2010), e-government has inherited from the NPM the results of administrative reform policy (and reduced citizen trust in the authorities). As a result, governments have recognized ICT as a strong tool for strengthening civic engagement in decision-making and increasing trust in the authorities. According to some authors, reduced trust is actually a result of an “information gap” between the public and the government (ibid., p.4). As a consequence, the use of ICT is also understood as a way to improve citizen awareness. It is, thus, not surprising that the Organisation for Economic Co-operation and Development (OECD) maintains that the introduction of ICT advances the openness, transparency or accountability of public administration, which is a

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<sup>28</sup> See e.g. a study by the Bertelsmann Foundation (2002, p.4.).

<sup>29</sup> For a general overview of the polemic in the literature about the way in which ICT affects the organizational structures of public administration or the promotion of democracy, see Pavlichev and Garson, 2006.

precondition for citizen participation (ibid.). Accordingly, an important aspect of e-governance is ensuring the participation of individuals, businesses and interest groups in decision-making and the functioning of the government through the possibilities offered by ICT, which is also called *e-participation*.<sup>30</sup> The potential of citizen participation has been recognized especially when it comes to local administration. Moynihan, for instance, stresses that participation is particularly appropriate for the local level of government due to the greater possibility of direct citizen involvement in the decision-making process (2007, pp.57-58). Likewise, a survey of the progress of e-participation in Europe<sup>31</sup> based on more than 255 initiatives from 18 countries concluded that almost one-third of these initiatives concerned the local level of government.<sup>32</sup>

Electronic governance is today considered to be an integral part of public administration reform given that it is inextricably linked to policy and legislative reform, to the reorganization of administrative procedures and services, to increasing the transparency of public bodies, and to promoting participatory practices. Therefore, e-governance is understood not only as a catalyst for improving the efficiency and effectiveness of government bodies,<sup>33</sup> but also as a strategic means for achieving the general goals of the development of (good) governance, i.e. of improving the democratic aspects of administration.

Local levels of government are also part of these trends. In the context of the process of decentralization, local levels of government assume important responsibilities, including budget management, revenue generation and public expenditure, as well as provision of various services. As a consequence, the strategic use of ICT to improve the efficiency and effectiveness of local authorities in service provision, to increase their transparency and accountability, and to promote citizen participation in decision-making is becoming more and more important. In order to achieve the above-mentioned goals of public administration, it is not sufficient only to apply ICT in local administration bodies but it is also necessary to implement qualitative changes in work processes and in the interaction between citizens, authorities and the business sector, as well as between different public bodies.

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<sup>30</sup> See for example Curtin 2007.

<sup>31</sup> See for example Panopoulou, Tambouris, and Tarabanis 2009.

<sup>32</sup> A large majority of these initiatives is related to information collection, consultation and discussion of certain issues of public importance. A smaller number of initiatives has to do with urban planning, polling, voting, and similar matters.

<sup>33</sup> See OECD E-Leaders Conference 2008, *Future of eGovernment Agenda 2020: Main conclusions*, Hague. Available at: <http://www.oecd.org/dataoecd/55/12/42547008.pdf> (accessed on 11 May 2011).

### 3. THE ANALYTICAL AND METHODOLOGICAL FRAMEWORKS

There are different models of analyzing the evolution of electronic governance, although they are, as a rule, based on the same key principles of good governance identified in the preceding chapter: transparency, interactivity and citizen participation. Mäenpää (2004) speaks of four phases of the evolution of e-governance:

- a) the bureaucratic model of e-government focused on improving the government's efficiency by using information technology and systems, and hence mostly on the government's internal structures;
- b) the information management model, where a link between citizens and the government is already being developed in the direction of an electronic public service;
- c) the citizen participation model, with strong participation in the decision-making process through two-way interaction, and with an emphasis on information technology as a means to improve democracy and strengthen transparency; and
- d) the e-Governance model, with multiple transactions through networking between social actors in all political and administrative activities (Mäenpää 2004, pp.13-14).<sup>34</sup>

It is also important to note the fact that the development of e-governance is a complex concept and that its monitoring necessarily involves looking at different factors, such as the capacities of local government bodies for developing e-governance, the legal and social context, and the political will to improve different

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<sup>34</sup> See also Janssen and Veenstra 2005, which distinguishes between five phases in the development of e-governance: (1) information exchange, (2) two-way communication, (3) financial and service transactions, (4) vertical and horizontal integration and (5) political participation.

functions of e-governance, including its participatory potential.<sup>35</sup> Mäenpää (2004, pp.14-15), thus, believes that the key factors affecting the development of e-governance are: ICT-related, cultural, financial, legal and human factors. Accordingly, there also exist different approaches to and criteria of assessing the development of e-governance,<sup>36</sup> whereby some focus only on the characteristics of government bodies' online presence, while for others this implies monitoring the internal capacities of government bodies and the effects of e-governance programmes. Thus, for instance, the Bertelsmann Foundation's e-governance study of 2001 was based on five sets of indicators:<sup>37</sup>

- Benefits (i.e. the quality and quantity of services and related benefits for citizens, e.g. the range of services, the implementation of the one-stop shop, that is accessibility of all services via one Web portal, user-friendliness of the services);<sup>38</sup>
- Efficiency (e.g. availability of systems and databases, detailed financial and resource planning, level of utilization of IT infrastructure and technology, quality and range of qualifications and assessment of training needs for staff and managers);
- Participation (i.e. whether services are designed in such a way as to promote political communication and citizen participation, e.g. direct access to contact persons via email or the Web; considering users' wishes; the influence on citizen consultation on the decision-making process; the possibility of debate on issues of public importance: chat rooms, forums, etc.);<sup>39</sup>

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<sup>35</sup> Especially problematic for the development of electronic participation is that decision-makers still very often consider participation to be an unnecessary complication, which is a sentiment that leads to a lack of political will to use the potential of ICT. See e.g. Bertelsmann Foundation study, 2002, p.10.

<sup>36</sup> See for example Mechling 2002.

<sup>37</sup> Bertelsmann Foundation, in cooperation with Booz|Allen|Hamilton, 2002.

<sup>38</sup> Among the 12 cases analysed, the highest level of user-oriented services in 2001 was registered in North America. With the Canadian government, services are not divided by administrative structures but in line with users' needs, into three gateways: "Canada", "Canada International" and "Canada Business". Also, the City of Seattle (USA) stands out thanks to the structure and clear design of its portal. The central portal "cityofseattle.net" unifies more than 50,000 Web sites; the state of Virginia excels when it comes to using security technology adapted to users' needs. For instance, every citizen has a personal identification number ("My Virginia PIN") that they can use to access different services that go beyond the authority of individual government bodies (ibid., p.8).

<sup>39</sup> It was concluded that at the time of the survey (2001) the efforts to improve participation were still in their inception. Positive examples include the possibilities offered by the UK Online presentation in relation to discussions on draft laws and other parliamentary processes, which are widely accepted among UK citizens. Similarly, Estonia and Scotland have offered citizens a possibility to propose legislative amendments via the Internet and use the Internet as a forum for discussing legislative proposals (ibid., p. 10).

- Transparency (i.e. whether e-government contributes to transparency, e.g. the amount of information on executive and legislative processes – meetings, conferences, etc.; the extent to which the process can be followed, i.e. information on current processes and applications);<sup>40</sup>
- Change management (planning cycle and implementation of processes in e-governance programmes, e.g. strategic development, i.e. the extent to which a certain programme compares to other e-governance programmes, monitoring and control; involvement and motivation of employees)<sup>41</sup> (pp.6-7).

In its annual assessments of countries' e-readiness, the World Economic Forum takes into account a series of indicators, such as the environment (infrastructure, political and regulatory environment, market environment), readiness (individual, government and business readiness) and the use of ICT (individual, business and government use of ICT).

Our analysis of the development of local e-governance in Bosnia and Herzegovina devotes special attention to the following factors:

- **Context:** The context and the society's overall e-readiness, as well as implications for the development of local e-governance, from a comparative perspective;
- **Strategies and public policies:** Strategies and policies of development of e-governance, especially local e-governance, from a comparative perspective;
- **Legislative framework:** Legal, institutional and regulatory framework for introducing and developing e-governance and local e-governance;
- **Resources:** Technical, human and financial resources of local administrations necessary for introducing and developing the e-government system and services;
- **Obstacles to the development of e-governance** at the local level, such as limited human, technical and financial resources.

In addition, we analyse the following indicators of development of e-governance:

- **ICT-supported services:** The level of availability of certain typical e-governance services, such as electronic land registries, as well as the practice of cooperation

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<sup>40</sup> In the 12 cases, in 2001 the marks for transparency were significantly lower than those for efficiency and benefits, which shows that little attention was still being paid to transparency. Nevertheless, the UK is quoted as an example of good practice, both at the national and local level (see e.g. the Web presentation of Lewisham Borough, London, at <http://www.lewisham.gov.uk/default.lbl>) (ibid., p.11).

<sup>41</sup> The marks for this field ranged from good to excellent in all the cases analysed. North America and Great Britain were again singled out as examples of good practice. In Great Britain, there is a central agency for e-governance that operates as a central coordination body for all stakeholders.

between different levels of authority, e.g. in obtaining evidence, in coordination with other public bodies, in administrative proceedings;

- **Web presence:** The level of development of the Web presence of municipalities, with a special focus on the development of the aspects of Web presence that are key for the development of e-governance, such as content, functionality and interactivity of Web sites;
- **Transparency:** Whether the e-governance systems at the local level contribute to a more transparent work of the local administration;
- **Participation:** Whether the e-governance systems enable direct contact and interaction of citizens with the local administration, and whether e-governance mechanisms and practices are in place for encouraging citizen participation in the political life of the community and decision-making processes at the local level.

The sequence and structure of the following chapters in principle reflect this analytical framework. However, we note that the issues of transparency and participation are not addressed in separate chapters but are addressed through all the aspects of the analysis. Nevertheless, they receive the most attention in the sections on the legal framework and the analysis of Web pages, as well as in the conclusions.

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In keeping with the analytical framework, the present survey is based on a methodology designed to combine qualitative and quantitative techniques of data collection and analysis. Essentially, we focus on analysing the level of development and the factors affecting the development of local e-governance in Bosnia and Herzegovina in the context of the current international trends in this field. With this aim in mind, we first carried out an analysis of the strategic documents, laws and by-laws relevant for the development of local e-governance (Chapters 4 and 5). Afterwards, we focused our attention on the level of development of local e-governance in Bosnia and Herzegovina, collecting data by means of questionnaires distributed to units of local self-government in the country (Chapter 6). Finally, we analysed all the active Web pages of units of local self-government in Bosnia and Herzegovina in order to check to what extent the content, functionality and interactivity of municipal Web pages corresponds to the needs and trends of development of local e-governance (Chapter 7). At the final stage, a working draft of the report was distributed to a wide circle of stakeholders (institutions and individuals in the country and the region), whose many comments and suggestions were taken on board and incorporated in the final report.

## 4. STRATEGIES AND POLICIES FOR THE DEVELOPMENT OF E-GOVERNANCE AND E-PARTICIPATION IN BOSNIA AND HERZEGOVINA

### 4.1. The development of e-governance: international experiences

Appropriate legislation regulating the relationships between the subjects of law (citizens and legal persons) and the government (government bodies and civil servants) when using ICT is a precondition for the legitimacy of introducing of e-governance at all levels of authority. Laws and by-laws related to the use of e-governance services, and adequate mechanisms for their implementation, guarantee the protection of law and legitimate interests of the subjects of law, while potentially enhancing the *prima facie* trust and the motivation of citizens and businesses to use the possibilities of e-governance. We can conclude that the success in implementing e-governance depends to a significant extent on how developed the regulations are that govern the relationships resulting from e-governance.<sup>42</sup>

Legal regulation of e-governance is a broad concept. It includes all the aspects of regulating through laws relationships in the communication with the government and its bodies which involve ICT. Primarily, it creates clear rules for the people entering a relationship – citizens with the government, a state administration body with another state administration body or the government with businesses – when using ICT.

These regulations include those governing the validity of the communication itself, i.e. of the relationship between the above-mentioned entities; the conditions for the use of e-governance services; the validity and manner of utilization of electronic

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<sup>42</sup> See Corien 2007.

signatures, etc. On the other hand, electronic communication itself affects the existing legal framework, i.e. the passage of new regulations hitherto unknown to legal tradition. For instance, a German government report on e-governance warns that some of the legal challenges emerging in the context of developing e-governance are drastically more demanding than those associated with e-commerce.<sup>43</sup> A significant issue that even countries that are far advanced in the development of e-governance compared to Bosnia and Herzegovina have been coping with is the principle of allowing equal access to public services for all users,<sup>44</sup> and the related principle of the freedom of an individual to select the medium to use in his/her communication with public-sector authorities.<sup>45</sup> Also, public administration is special since, unlike the business sector, it tends to involve joint work of different bodies with a view to improving efficiency and citizen satisfaction by developing one-stop-shop services. These services imply that all relevant bodies of public administration can use certain key data on citizens, which compounds the issues of privacy and personal data protection.<sup>46</sup> Also, public administrations face problems in developing mechanisms for adequate identification of citizens necessary for secure transactions (e.g. by adopting the system of e-IDcard, with which documents and contracts can be digitally signed; by using electronic signatures and authentication). Along with electronic signatures and authentication, interoperability of services, secure communication between administrations, common specifications and multi-use software are important components in improving the impact of e-governance.<sup>47</sup>

The approaches taken by different countries in guiding the development of e-governance include:

- a. approaches that are policy-driven and based on institutional incentives; an example of this approach is Great Britain, where greater focus is placed on developing policies than on formal legislation, along with appointing public

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<sup>43</sup> Ibid.

<sup>44</sup> See *"Online Availability of Public Services: How Is Europe Progressing?"*, Web-Based Survey on Electronic Public Services Report of the 6th Measurement, June 2006, pp. 56-67, available at: [http://ec.europa.eu/information\\_society/eeurope/i2010/docs/benchmarking/online\\_availability\\_2006.pdf](http://ec.europa.eu/information_society/eeurope/i2010/docs/benchmarking/online_availability_2006.pdf) (assessed on 8 June 2011).

<sup>45</sup> That is the principle according to which services must not be accessible only online, and according to which access must be ensured for citizens even without the use of ICT. See Corien 2007.

<sup>46</sup> Ibid., p.19.

<sup>47</sup> See *"i2010 eGovernment Action Plan: Accelerating eGovernment in Europe for the Benefit of All"*, COM (2006), Commission of European Communities, available at: [http://ec.europa.eu/information\\_society/activities/egovernment/docs/action\\_plan/comm\\_pdf\\_com\\_2006\\_0173\\_f\\_en\\_acte.pdf](http://ec.europa.eu/information_society/activities/egovernment/docs/action_plan/comm_pdf_com_2006_0173_f_en_acte.pdf) (accessed on 8 June 2011).

- bodies responsible for the implementation of policies, which are publicly praised or criticized for their success or failure in implementation; or
- b. approaches focused on the development of formal legislation and legal guarantees of rights (for citizens) and responsibilities (for the public authorities). For instance, in Germany, security in the context of e-governance is guaranteed primarily through regulations. Also, for the purpose of promoting electronic communication between citizens/companies on the one hand and public authorities on the other, in Denmark interventions in the legislation have allowed the elimination of all legislative obstacles in this field. Likewise, in 2002 a project was launched through which all the ministries evaluated legislation under their own jurisdiction in order to identify provisions hampering electronic communication.<sup>48</sup>

Adopting a general law on e-governance that covers all the aspects of e-governance – responsible bodies, implications regarding data protection, the architecture of the system, costs, responsibilities, etc. – is not common practice.<sup>49</sup> Rather, as a rule, specific laws and regulations are passed to govern certain aspects of e-governance, such as decisions on the use of electronic and telemetric<sup>50</sup> techniques in public administration in Spain, or the Danish law on online administrative operations.<sup>51</sup>

Experiences of European countries have shown that a vast majority of changes to the legal framework relevant for e-governance were a result of regulatory initiatives by the European Union (especially the Privacy Directive 95/46/EC; the Electronic Signature Directive, 1999/93/EC; the E-Commerce Directive (Council Directive 2002/38/EC), the Directive on the Re-Use of Public Sector Information 2003/98/EC).<sup>52</sup>

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<sup>48</sup> Ibid., pp.5-6. See also *“Online Availability of Public Services: How Is Europe Progressing?”*, Web-Based Survey on Electronic Public Services Report of the 6th Measurement, June 2006, pp. 56-67, available at: [http://ec.europa.eu/information\\_society/eeurope/i2010/docs/benchmarking/online\\_availability\\_2006.pdf](http://ec.europa.eu/information_society/eeurope/i2010/docs/benchmarking/online_availability_2006.pdf) (accessed on 8 June 2011).

<sup>49</sup> An exception is, for instance, the Swiss canton of Neuchâtel (ibid., p.13).

<sup>50</sup> Telemetry refers to remote transmission of data with wireless technology (radio, wireless) or different media such as computer, telephone and other networks.

<sup>51</sup> See *“i2010 eGovernment Action Plan: Accelerating eGovernment in Europe for the Benefit of All”*, COM (2006), Commission of European Communities, available at: [http://ec.europa.eu/information\\_society/activities/egovernment/docs/action\\_plan/comm\\_pdf\\_com\\_2006\\_0173\\_f\\_en\\_acte.pdf](http://ec.europa.eu/information_society/activities/egovernment/docs/action_plan/comm_pdf_com_2006_0173_f_en_acte.pdf) (accessed on 8 June 2011).

<sup>52</sup> See *“i2010 eGovernment Action Plan: Accelerating eGovernment in Europe for the Benefit of All”*, COM (2006), Commission of European Communities, available at: [http://ec.europa.eu/information\\_society/activities/egovernment/docs/action\\_plan/comm\\_pdf\\_com\\_2006\\_0173\\_f\\_en\\_acte.pdf](http://ec.europa.eu/information_society/activities/egovernment/docs/action_plan/comm_pdf_com_2006_0173_f_en_acte.pdf), as well as *“Online Availability of Public Services: How Is Europe Progressing?”*, Web-Based Survey on Electronic Public Services Report of the 6th Measurement, June 2006, pp. 56-67, available at: [http://ec.europa.eu/information\\_society/eeurope/i2010/docs/benchmarking/online\\_availability\\_2006.pdf](http://ec.europa.eu/information_society/eeurope/i2010/docs/benchmarking/online_availability_2006.pdf)

It is important to note that the European Union has defined twenty services for citizens in EU member countries that should be accessible electronically.<sup>53</sup> Basic services to be accessible online in member countries, that is to be processed in electronic form, include: personal documents such as passports, IDs and driver's licences; motor vehicle registration; registration of residence; change of residence or address; citizen tax registration; construction permits; reporting incidents to the police; issuance of certificates such as birth or marriage certificates; publication of information and issuance of documents related to higher education and labour market as well as contributions for the socially vulnerable populations and data from public libraries.

When it comes to e-participation, the EU and its member states have been working over the past few years towards the common goal of finding effective mechanisms and arrangements to improve and encourage e-Participation.<sup>54</sup> The governments of member states, as well as EU institutions, have, therefore, been seeking, through electronic public consultation on proposed policies and proposed new regulations, to enable greater citizen participation in the creation of policies and electronic access to information on the planned development of policies and legal regulations affecting the lives of citizens, as well as to continuously encourage communication and interaction between politicians and government bodies on the one hand, and citizens on the other.<sup>55</sup>

Also, in late 2005 the European Parliament asked the Commission to launch "an eParticipation Preparatory Action to promote the use of ICT in legislative and decision-making processes within parliamentary and government environments". The preparatory activities lasted for three years (2006-2008) and were implemented through 21 projects funded by the EU.<sup>56</sup> The projects were primarily aimed at facilitating the involvement of citizens in policy development and enabling citizens to influence the development of better legislation, by providing them with ICT tools for accessing information and participating in debates on issues of public importance. Thus, some of the projects involved the development of hub Web pages designed to

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<sup>53</sup> See "Online Availability of Public Services: How Is Europe Progressing?", Web-Based Survey on Electronic Public Services Report of the 6th Measurement, June 2006, pp. 56-67, available at: [http://ec.europa.eu/information\\_society/europe/i2010/docs/benchmarking/online\\_availability\\_2006.pdf](http://ec.europa.eu/information_society/europe/i2010/docs/benchmarking/online_availability_2006.pdf)

<sup>54</sup> See "i2010 e-government Action plan", Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions, available at: [www.europa.eu](http://www.europa.eu) (accessed on 21 December 2010).

<sup>55</sup> See "European eParticipation Summary Report", available at: [http://ec.europa.eu/information\\_society/activities/egovernment/docs/reports/eu\\_eparticipation\\_summary\\_nov\\_09.pdf](http://ec.europa.eu/information_society/activities/egovernment/docs/reports/eu_eparticipation_summary_nov_09.pdf) (accessed on 21 May 2011).

<sup>56</sup> See "eParticipation Preparatory Action", available at: [http://ec.europa.eu/information\\_society/activities/egovernment/implementation/rep\\_action/index\\_en.htm](http://ec.europa.eu/information_society/activities/egovernment/implementation/rep_action/index_en.htm) (accessed on 21 December 2010).

involve young people in debates on the future of Internet policies<sup>57</sup> and to inform decision-makers about the results of such debates; to analyze public consultations with the help of statistical methods in order to facilitate and improve decision-makers' understanding of citizens' opinions, arguments and ideas; to develop new ways of involving citizens in debates on EU consumer protection policies; as well as to further develop the existing platform, including improved search engines and tagging, the use of social networking tools and the so-called *Serious Game*.<sup>58</sup>

In June 2005, the European Commission adopted the strategic document i2010, which focuses on the development of information society in the service of economic growth and employment.<sup>59</sup> The document proposes three priority areas of action through which appropriate EU public policies should be developed: (1) creating a single European information space; (2) strengthening innovation and investment in ICT research with a view to promoting development and employment; (3) creating and strengthening the European information society, which promotes growth and employment in a way that is consistent with sustainable growth and that gives priority to better public services and quality of life in the EU.

On the basis of this document, the European Commission on 25 April 2006 adopted an action plan for the development of e-governance as an integral part of the i2010 initiative for job creation and growth of information society, all with the aim of contributing to the Lisbon strategy and other policies of the European Community.<sup>60</sup> This action plan was designed to help the governments of member states meet the requirement of providing

<sup>57</sup> For example discussion on freedom of speech, censorship, security issues (protection of identity, selling and buying on internet etc), as well as other issues regarding Internet policies.

<sup>58</sup> Serious Games are actually electronic games offered on the VOICE platform and are used to educate citizens about decision-making mechanisms in the EU. A participant in the game can take over the role of some of the participants in the decision-making process (e.g. a Council member) and go through the entire legislative process (related to certain agreements and directives), thus gaining an important insight into the political challenges and legislative issues involved in the process (source: the thematic portal of the European Information Society at: [http://ec.europa.eu/information\\_society/apps/projects/factsheet/index.cfm?project\\_ref=EP-08-01-029](http://ec.europa.eu/information_society/apps/projects/factsheet/index.cfm?project_ref=EP-08-01-029)).

<sup>59</sup> See the report by the Commission of European Communities "i2010 – A European Information Society for growth and employment", available at: [http://ec.europa.eu/information\\_society/eeurope/i2010/docs/communications/com\\_229\\_i2010\\_310505\\_fv\\_en.pdf](http://ec.europa.eu/information_society/eeurope/i2010/docs/communications/com_229_i2010_310505_fv_en.pdf), (accessed on 28 September 2011).

<sup>60</sup> The action plan especially refers to the points of the Ministerial Declaration adopted at the 3rd ministerial conference on e-governance, which set clear expectations for the development of e-governance in 2010. The action plan provides focal points for EU programmes, initiatives and policies for the period 2006-2010 and offers detailed instructions, defining strategic oversight in priority areas. It is based on excellent cooperation with national electronic initiatives as well as with a sub-group of the eEurope Advisory Group. See "i2010 e-government Action plan", Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions, available at: [www.europa.eu](http://www.europa.eu) (accessed on 21 December 2010).

electronic public services to citizens and businesses. The action plan focuses on five main objectives for e-governance, with specific targets for 2010:

- No citizen left behind – so that by 2010 all citizens benefit from trusted, innovative services and easy access to all services;
- Making efficiency and effectiveness a reality – by 2010, achieve high user satisfaction, transparency and accountability, efficiency gains and elimination of all administrative burdens;
- Implementing key services with high impact on citizens and businesses. *Public procurement was identified as the first such service* – by 2010, 100% of public procurement should be available electronically, with 50% actual usage;<sup>61</sup>
- Putting key enablers in place – enabling citizens and businesses to benefit, by 2010, from convenient, secure and interoperable access across Europe to public services;
- Strengthening participation and democratic decision-making – introducing, by 2010, tools for effective public debate and participation in democratic decision-making.

When it comes to national strategies of e-governance in EU member states, the Danish strategy of e-governance for the period 2007-2010, for instance, has three priority areas: (1) digitalization focused on creating improvements in the service to citizens and businesses, (2) digitalization that enables resources to be transferred from administration- to citizen- focused service, and (3) coordination and prioritization of digitalization efforts in the public sector through cross-governmental cooperation at all levels.<sup>62</sup> The most important initiatives include: ensuring better digital service to citizens and businesses; binding the public sector to provide e-services to citizens; binding the public sector to invest targeted efforts to involve citizens and businesses in the development of digital solutions; guaranteeing continuous and secure data handling in the public sector; and efforts in the digitalization of documentation, in achieving interoperability of e-services in the public sector.<sup>63</sup>

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<sup>61</sup> The European Commission adopted an “eProcurement Action Plan” in 2004, COM (2004) 841, available at: [http://ec.europa.eu/internal\\_market/publicprocurement/e-procurement\\_en.htm](http://ec.europa.eu/internal_market/publicprocurement/e-procurement_en.htm). (Accessed on 23 September 2011).

<sup>62</sup> See “*Online Availability of Public Services: How Is Europe Progressing?*”, Web-Based Survey on Electronic Public Services Report of the 6th Measurement June 2006, pp. 56-67, available at: [http://ec.europa.eu/information\\_society/eeurope/i2010/docs/benchmarking/online\\_availability\\_2006.pdf](http://ec.europa.eu/information_society/eeurope/i2010/docs/benchmarking/online_availability_2006.pdf). (accessed on 23 September 2011)<sup>8</sup>

<sup>63</sup> The strategy foresees that the public sector can and must offer better, more cohesive and effective digital access to services for citizens and businesses. The strategy includes general objectives, as well as 35 concrete initiatives. For more details, see [http://modernisering.dk/fileadmin/user\\_upload/documents/Projekterdigitaliseringsstrategi/Danish\\_E-government\\_strategy\\_2007-2010.pdf](http://modernisering.dk/fileadmin/user_upload/documents/Projekterdigitaliseringsstrategi/Danish_E-government_strategy_2007-2010.pdf) (accessed on 21 December 2010).

In Germany, the success of e-governance is directly linked to legislative interventions in the area of legal security of the administrative proceedings. All laws and by-laws in this area were amended in order to allow for electronic interaction between public authorities and citizens.<sup>64</sup> In the framework of the Federal e-Governance Strategy, in 2008 the Office of the Federal Commissioner for Information Technology (the Commissioner) was established. In this way, the Commissioner became the key contact person of the Federal Government for cooperating with Federal States, municipalities and all relevant national and international stakeholders on IT-related issues. His/her main tasks are to develop e-governance at the federal level, develop IT policies, make decisions on major IT projects in public administration, adopt laws and other regulations in this field, and coordinate the central IT infrastructure.<sup>65</sup> In addition, all government departments have to appoint a Chief IT Officer. All Chief IT Officers take part in the work of the IT Council, which decides on all strategic issues, including Germany's e-Government strategy and IT security.<sup>66</sup> In 2003, in a joint national strategy for e-governance, Deutschland-Online, the Federal Government, Federal States and municipalities agreed to move towards achieving the goal of integrated electronic governance at all administrative levels.

Another example is the Austrian law on e-governance, which ensures online access to administrative procedures for all citizens and businesses.<sup>67</sup> According to this law,<sup>68</sup> public authorities must be able fully to provide the possibility of electronic transaction, i.e. communication.<sup>69</sup> The law includes a wide range of provisions

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<sup>64</sup> See <http://www.epractice.eu/en/document/288244> (accessed on 21 December 2010).

<sup>65</sup> Under a Federal Government decision, two new bodies were established for the purposes of developing IT: a Council of IT Officers and a Federal IT Steering Board. The common objectives of the state minister for IT and these two bodies are: promoting innovation, maintaining administrative capacities, and improving effectiveness in the administration by using IT. See [http://www.cio.bund.de/cln\\_102/DE/Ueber\\_uns/BfIT/bfit\\_node.html](http://www.cio.bund.de/cln_102/DE/Ueber_uns/BfIT/bfit_node.html) (accessed on 1 February 2011). See also <http://www.epractice.eu/en/document/288244> (accessed on 21 December 2010).

<sup>66</sup> It should be noted that all the Federal States (*Länder*) are currently implementing their own e-governance strategies. *Ibid.*

<sup>67</sup> See *“Online Availability of Public Services: How Is Europe Progressing?”*, Web-Based Survey on Electronic Public Services Report of the 6th Measurement, June 2006, pp. 56-67, available at: [http://ec.europa.eu/information\\_society/eeurope/i2010/docs/benchmarking/online\\_availability\\_2006.pdf](http://ec.europa.eu/information_society/eeurope/i2010/docs/benchmarking/online_availability_2006.pdf) (accessed on 23 September 2011).

<sup>68</sup> The E-Government Law: Bundesgesetz über Regelungen zur Erleichterung des elektronischen Verkehrs mit öffentlichen Stellen, E-Government-Gesetz – E-GovG, Art. 1 of the Law published in the Austrian Federal Law Gazette, part I, Nr. 10/2004, entered into force on 1 March 2004, available at: <http://www.digitales.oesterreich.gv.at/DocView.axd?CobId=19380> (accessed on 23 September 2011).

<sup>69</sup> The law was amended in 2007 with a series of regulations such as the Regulation on the Administrative Signature, the Regulation on Sectoral Classification and the Regulation on the sourcePIN Register, each of which defines in more detail some provisions of the E-Government Law and facilitates its implementation. See Vilanek and Walter, 2004.

regulating unique electronic identification; the standard of electronic documents; the protection of data in electronic communication; electronic signature; electronic delivery and procedures at all levels of government. It introduced two fundamentally new components: the *Citizen Card*,<sup>70</sup> with the help of which citizens can use electronic public services and electronic databases owned by public administration bodies and available according to the one-stop-shop principle in all dealings of citizens with public administration bodies.<sup>71</sup>

In brief, in order to facilitate and achieve maximum results in e-governance, different legislative and/or regulatory interventions are needed, including adoption of specific laws and amendments to existing laws and/or development of policies and institutional incentives aimed at eliminating obstacles to the use of ICT to full capacity. Thus, for instance, the introduction and growing importance of electronic documents (e.g. in public procurement, medical prescriptions and school certificates) will require regulation of the keeping of public documents and of access to information in such a way as to include rules regarding digital documents (metadata, form and structure, technical data, migration and archiving).<sup>72</sup>

In particular in countries with scarce funding and without long-standing effective modern administrative reforms, an efficient implementation of regulations also requires legal regulation of measures that oblige state administration bodies to provide e-services and communicate electronically (e.g. Bulgaria).<sup>73</sup>

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<sup>70</sup> This section of the E-Government Law describes the legal and technical aspects of validation of the authentication and identification of persons making submissions to the public administration. Electronic identification systems should ensure data security during transfer of documents between government bodies or between government bodies and citizens. This is done by using the electronic signature which is integrated in the Citizen Card. The Citizen Card serves to validate the unique identity of a person making a submission and the authenticity of an electronic submission in procedures before the public administration. This is done by using the sourcePIN assigned to the physical person with the aim of proving his or her identity, whereby the state registration authority confirms, by electronic signature, that the physical person has been identified as the holder of a certain sourcePIN.

<sup>71</sup> See Vilanek and Walter, 2004.

<sup>72</sup> E.g. an amendment to the regulatory regime for archiving public-sector documents in Denmark is a result of the development of e-governance. See "i2010 eGovernment Action Plan: Accelerating eGovernment in Europe for the Benefit of All", COM (2006), Commission of European Communities, available at: [http://ec.europa.eu/information\\_society/activities/egovshare/docs/action\\_plan/comm\\_pdf\\_com\\_2006\\_0173\\_f\\_en\\_acte.pdf](http://ec.europa.eu/information_society/activities/egovshare/docs/action_plan/comm_pdf_com_2006_0173_f_en_acte.pdf) 12. Also see Corien 2007, pp.11-19.

<sup>73</sup> See "*e-Governance in Bulgaria (2001-2009)-short overview*", available at: [http://edem.egovshare2009.org/presentations/egovshare2009\\_9\\_12\\_2009/WGC/egovshare2009\\_pgospodinov.pdf](http://edem.egovshare2009.org/presentations/egovshare2009_9_12_2009/WGC/egovshare2009_pgospodinov.pdf) (accessed on 21 December 2010). See also Corien 2007.

Finally, it is important to note that the contemporary notions of e-governance and good practice in complex, decentralized states are based on technically integrated systems, an agreed e-governance policy at all administrative levels and common standards built upon the principles of interoperability and common policy for data and document exchange.<sup>74</sup> In other words, an approach that implies cooperation of relevant institutions at all administrative levels, coordination of activities, technical standardization and legal conformity, while taking into account special administrative features of decentralized societies, makes possible the development of e-governance even in complex administrative contexts.

## 4.2. Strategic approach and institutional framework for the development of e-governance in Bosnia and Herzegovina

The complexity of discussing development of e-governance in Bosnia and Herzegovina is largely a result of the country's intricate administrative and political set-up. As a result of the Dayton Peace Agreement, the state-level government is weak and has limited responsibilities for adoption and implementation of public policies. Bosnia and Herzegovina consists of two entities – the Federation of Bosnia and Herzegovina (FBiH) and the Republika Srpska (RS), plus Brčko District as a separate administrative unit of local self-government. The FBiH has an additional 80 units of local self-government (78 municipalities and two cities), and the RS 63 (61 municipalities and two cities).<sup>75</sup> The state-level government has no powers regarding issues of local self-government (the Congress of Local and Regional Authorities of Europe, CLRAE 2006, A.13). In the RS, the entity government is responsible for local self-government, while it is believed

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<sup>74</sup> See "Online Availability of Public Services: How Is Europe Progressing?", Web-Based Survey on Electronic Public Services Report of the 6th Measurement, June 2006, available at: [http://ec.europa.eu/information\\_society/eeurope/i2010/docs/benchmarking/online\\_availability\\_2006.pdf](http://ec.europa.eu/information_society/eeurope/i2010/docs/benchmarking/online_availability_2006.pdf) (accessed on 23 September 2011).

<sup>75</sup> East Sarajevo and Sarajevo, unlike Banja Luka and Mostar, have special features as cities since their territory includes several municipalities (in East Sarajevo six – Sokolac, Pale, Istočna Ilidža, Istočno Novo Sarajevo, Trnovo and Istočni Stari Grad; in Sarajevo four – Centar, Novi Grad, Novo Sarajevo and Stari Grad).

that in the FBiH the responsibility for local self-government is at the entity and cantonal levels<sup>76</sup> (see e.g. Transparency International 2007, pp.246-247).

Notwithstanding the above, issues regarding the use of ICT, including their use in government bodies and in the development of administrative procedures, have been receiving significant attention in Bosnia and Herzegovina over the past decade. Bosnia and Herzegovina, thus, participates in the joint initiative to advance information society in Southeast Europe and is a signatory to the 2002 eSEE agenda, which encouraged the establishment of a coordination body at the state level and a body for development of information society policies at ministry level, as a precondition for EU accession.<sup>77</sup>

The Council of Ministers of Bosnia and Herzegovina in 2002 embarked on the process of developing a country-wide ICT strategy, which included several initiatives. Thus, in May 2003, the Government of Bosnia and Herzegovina and the United Nations Development Program (UNDP) signed a Memorandum of Understanding on the development of ICT in the country. In 2003, in cooperation with UNDP, the ICT Forum was established, gathering practitioners, academics, representatives of the Government of Bosnia and Herzegovina, as well as international experts, with the aim of assessing the situation at the time and defining appropriate recommendations regarding development of ICT. UNDP published a set of studies taking stock of the situation and

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<sup>76</sup> Unfortunately, the FBiH Constitution is not completely clear in terms of the responsibility for units of local self-government: according to a 2006 report by the Congress of Local and Regional Authorities of Europe (CLRAE) on Bosnia and Herzegovina, the FBiH Constitution does not give the Federation Government (at least not explicitly) any powers to implement legislation (concerning the local level). "For this reason one either may conclude that legislation in the field of local authorities is an exclusive power of the Cantons or, on the contrary, infer from the rules set out in the Constitution, especially Chapter VI, Article 2, paragraph 1, concerning the municipal structure, read in conjunction with the general clause in Chapter IV A, Article 20 d), conferring powers on the FBiH Legislature, that responsibility for adopting implementing legislation lies with the Federation" (CLRAE 2006, C.20). In practice, local administration is regulated through cantonal constitutions and laws, and through the FBiH Law on Local Self-Government (2006), which demanded of the cantons to harmonize their laws with its provisions (ibid., C. 22). CLRAE believes that in the interest of a clear constitutional situation it is necessary urgently to adopt an amendment to the FBiH Constitution to give the Federation the required powers to regulate issues of local self-government, which is after all in line with the European Charter of Local Self-Government (ibid., C 20 and 21). For a useful interpretation of the responsibilities for local self-government, but also an exhaustive analysis of the responsibilities of units of local self-government in Bosnia and Herzegovina and the relationship between higher and lower levels of authority, see Zlokapa 2007.

<sup>77</sup> Stability Pact – Electronic South Eastern Europe Initiative „eSEE“, *“eSEE Agenda for the Development of the Information Society in SEE 2007-2012”*. The agreement was signed by Albania, Bosnia and Herzegovina, Croatia, Macedonia, Moldova, Montenegro, Romania, Serbia and Kosovo. For more, see “eSEE Europe Regional Information and Communications Technologies Sector Status and Usage Report: Building an Information Society for All”, pp.35- 37.

offering suggestions for future action.<sup>78</sup> As a result of the Forum and a conference held in 2003, a set of documents was produced – the Policy, Strategy and Action Plan for Development of Information Society in Bosnia and Herzegovina for the period 2004-2010 – and subsequently adopted by the Council of Ministers in November 2004.<sup>79</sup> In this way, the general policy and strategic guidelines were defined, as well as the platform for practical implementation of the action plan. One of the five key areas identified in the Strategy is e-governance,<sup>80</sup> in recognition of the fact that the use of ICT could affect general trends and the quality of public administration (the Strategy for Development of Information Society in Bosnia and Herzegovina, 2004, p. 75).

Although the relevant strategic documents were thus adopted, the implementation of the set objectives has been relatively slow and, according to some assessments, has not yielded satisfactory results.<sup>81</sup> A major reason for the poor implementation of the 2004 strategy is the complex administrative structure and the conflicting or unclear competences between the entity and state levels. How serious the problem is can be illustrated by the view of representatives of the Agency for Information Society of the RS (AIDRS), according to whom the 2004 state-level strategy “is based on principles running contrary to the Constitution of Bosnia and Herzegovina and as such is not being implemented or monitored in the RS.”<sup>82</sup> According to the AIDRS, “until an RS

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<sup>78</sup> UNDP, ICT Forum 2003, a set of five reports: the Infrastructure of Information Society; the Report on e-Readiness 2003; the Millennium Development Goals and Information Society; Recommendations for the Development of Information Society; and Guidelines for an Information Society.

<sup>79</sup> The Policy of Development of Information Society is a basic document for adoption of laws, regulations and other acts, as well as for deciding on the direction of development, action plans and priorities at the level of Bosnia and Herzegovina and its entities. The Strategy for Development of Information Society provided strategic guidelines and an action plan for development of information society in Bosnia and Herzegovina for the period 2004-2010. The action plan describes in more detail projects and initiatives for development of information society, suggesting that they should be supported directly by the Council of Ministers and entity governments.

<sup>80</sup> The other areas are: legal infrastructure, eEducation, ICT infrastructure and ICT industry, UNDP, *Strategija razvoja Informacionog društva*, Sarajevo 2004.

<sup>81</sup> See Jungić 2008, p.101.

<sup>82</sup> In the AIDRS's view, “the said documents completely neglect the competences of Bosnia and Herzegovina defined by the constitution and prescribe the establishment of new bodies, envisage assignment of powers, set goals and tasks for which there is no formal legal basis, thus infringing upon the competences defined by the Constitution, and are evidently trying to transfer competences to the level of Bosnia and Herzegovina in the process.” In addition, the AIDRS believe that the strategy does not reflect “the actual situation, resources or needs” in the country and that it makes recommendations that cannot be implemented in the given context. By way of illustration, the AIDRS mentions “the issue of the establishment of the Agency for the Development of Information Society at the level of Bosnia and Herzegovina, which (in the form proposed in the strategy) essentially embodies the principle of transfer of powers from the entity level to the level of Bosnia and Herzegovina.” The AIDRS's written comments on a draft of this report were submitted on 23 June 2011 and are available in the authors' archives.

Strategy for Development of Information Society is produced, we are working to develop mechanisms, legislation and the infrastructure, and are implementing the RS Strategy for Development of e-Government.”<sup>83</sup> Neither has there been any serious implementation of the strategy in the FBiH, primarily due to the complex administrative structure and unclear competences, as well as to the fact that the FBiH is generally lagging behind when it comes to introducing e-governance.

However, a report on e-readiness published in 2010 (Zaimović et al. 2010) noted that all the government institutions had achieved certain progress compared to 2005. It estimated that a bit less than a half of the activities defined by the 2004 Action Plan for Development of Information Society had been implemented or were in the process of being implemented. These activities included: the development of a legislative framework for e-governance; the definition of a methodology for development of applications and systems in public administration; a security strategy for organizational units of the administration; civil registries’ online databases; the cadastre; an information system for human resources and legal affairs; a register of legal persons. However, the AIDRS believe that these findings do not reflect the actual situation since the progress noted is “primarily a result of independent responses to the needs [of different administrative levels], while the strategy has never been implemented given that it is based on principles that are contrary to the Constitution of Bosnia and Herzegovina”<sup>84</sup> – the reason why it was not implemented in the RS.

Some of the activities from the Action Plan of importance for the municipal level of government have not yet been implemented. This includes an online presence for all municipalities; recommendations for the application of open-source software;<sup>85</sup> development of a methodology for running ICT projects in the public administration; adoption of standards necessary for the development of information society; definition of concepts and standards for IT interoperability in the public sector and the establishment of a forum for IT interoperability; a government Gateway server for data exchange; management of electronic notes; and procedures and conditions of access to and use of data from basic records.<sup>86</sup>

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<sup>83</sup> AIDRS’s written comments of 23 June 2011.

<sup>84</sup> Ibid.

<sup>85</sup> Open Source Software is a type of free-of-charge software. There are several different models of open source licences for using software, from the right to free-of-charge use to the right to free-of-charge use of software and the use of the source software code (programme).

<sup>86</sup> See more in Zaimović et al. 2010, pp.55-57. The report is a result of cooperation between the UN Development Program (UNDP) and the Ministry of Communication and Transport of Bosnia and Herzegovina, Sarajevo.

It is important to note a series of other important activities and implemented projects that have significantly contributed to the development of e-governance in the country, such as the eLegislation project of 2005 (UNDP), which had the aim of drafting basic laws to enable e-business. In cooperation with local and international legal experts, a set of laws was drafted to regulate electronic signature, electronic business and a certification agency; a law on archiving; as well as 40-odd other related laws and by-laws. The laws mostly concerned the state level, with suggestions regarding entity laws. In addition, UNDP, in cooperation with the Council of Ministers, also implemented eGovernment, a project designed to develop the bases of eGovernment, a software for monitoring and managing donations coming to Bosnia and Herzegovina and a web portal of the Council of Ministers, in order to put in place a networked system that facilitates communication between employees. The project also included training of employees in using all the implemented systems.

Finally, one of the strategically most important projects was the introduction of a system for issuance of personal documents called CIPS<sup>87</sup> and its legal successor, the Agency for Identification Documents, Registers and Data Exchange (IDDEEA).<sup>88</sup>

When it comes to the institutional framework for the development of e-governance, the RS took an important step by establishing its Agency for Information Society

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<sup>87</sup> "The Directorate for Implementation of the CIPS (Citizen Identification Protection System) Project was established on 29 April 2002 under a decision of the Council of Ministers (published in the Official Gazette of Bosnia and Herzegovina, No. 12/02) as a temporary institution. Under the Law on Ministries and Other Administration Bodies of Bosnia and Herzegovina (Official Gazette of Bosnia and Herzegovina, No. 5/03), it was defined as an independent service within the Ministry of Civil Affairs." Source: Agencija za identifikacione dokumente, evidenciju i razmjenu podataka Bosne i Hercegovine (IDDEEA); [http://www.iddeea.gov.ba/o\\_agenciji.php](http://www.iddeea.gov.ba/o_agenciji.php) (accessed on 17 August 2011).

<sup>88</sup> "The Parliamentary Assembly of Bosnia and Herzegovina, at the 30th session of the House of Representatives, held on 4 June 2008, and at the 18th session of the House of Peoples, held on 17 June 2008, adopted the Law on the Agency for Identification Documents, Registers and Data Exchange of Bosnia and Herzegovina" (Official Gazette of Bosnia and Herzegovina, No. 56/08). The law entered into force on 22 July 2008, with which the Decision on the Establishment of the Directorate for the Implementation of the CIPS Project ceased to be valid. "The agency keeps the records of: unique civil registry numbers (JMB); permanent and temporary residence of citizens of Bosnia and Herzegovina; IDs of citizens of Bosnia and Herzegovina; regular, official and diplomatic passports; driver's licences; registration of motor vehicles and registration documents; IDs for foreign nationals; fines and offences records; and other records approved by the source bodies, with a special decision by the Council of Ministers. The agency has the exclusive responsibility for technical maintenance and electronic archiving of data and information kept in the records, as a public good at the level of Bosnia and Herzegovina." Source: Agency for Identification Documents, Registers and Data Exchange of Bosnia and Herzegovina (IDDEEA); [http://www.iddeea.gov.ba/o\\_agenciji.php](http://www.iddeea.gov.ba/o_agenciji.php) (accessed on 17 August 2011).

(AIDRS).<sup>89</sup> The agency is responsible for the development and coordination of development of information society in the RS, and in this context also for the management and control of the implementation of the RS Strategy for the Development of e-Government. In addition, the activities of the AIDRS include, among other things, proposing and implementing measures to build information systems of local self-government bodies, while ensuring communication with RS entity bodies and applying uniform programme solutions as much as possible, as well as coordination in the creation of a single database of government bodies and local self-government bodies in the RS.<sup>90</sup> As of this writing, we have no information whether the said activities have been undertaken and whether the implementation of the RS Strategy for the Development of e-Government for the period 2009-2012, adopted by the Government of the Republika Srpska in December 2008, is being monitored (an overview of the strategy is given below).

We should also note that the Agency for Information Society of the RS in 2008 published a document entitled “The Application of IT in RS Local Government Bodies – Initial Considerations”, which defines plans to improve IT by collecting data, improving municipal Web presentations, training staff, developing strategic and operational solutions, and so forth.<sup>91</sup>

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<sup>89</sup> <http://www.aidrs.org/> The RS Agency for Information Society. On the basis of provisions of the Law on the Government of Republika Srpska and the Law on the System of Public Services, at the government session held on 26 December 2007 a decision was adopted to establish the Public Institution “Agency for the Development of Information Society of the Republika Srpska”. In this way, the Republika Srpska got an institution responsible for monitoring the development of information society and the promotion of the use of ICT. The agency is to play a key role in building information society in the RS.

<sup>90</sup> For more, see <http://www.aidrs.org/page/djelatnosti.aspx>

<sup>91</sup> The said document lists the following AIDRS plans to improve the situation: collection and systematization of data on the situation of IT in the public administration (developing the methodology and a reporting network, on a quarterly basis); drafting recommendations on public presentations (guidelines for developing and improving web presentations, both in terms of design and in terms of the content of official presentations; defining and improving the rule book on web domains and e-mail addresses); developing recommendations for application of educational content (identification of needs; development of standard and specialized training packages for certain groups of public administration staff; also development of methodology of certification of individual service providers in this field); developing strategic and operational solutions, in cooperation with key stakeholders (recommendations for reengineering of business processes, issues of interoperability, certification of equipment and software, etc.). Initial data shows that ad hoc solutions (for instance, a Web site that has been put in place but never updated) are of little or no use unless changes are introduced in business processes that allow maximum use of IT; a reengineering of business processes should take into account the integration of those processes and good software solutions; monitoring IT application and practice in local administration (updating information and follow-up on target group satisfaction and user satisfaction regarding services provided by local administration (pp. 8-9).

Another relevant strategic document is the Strategy for the Development of e-Government for the period 2009-2012, adopted by the Government of the Republika Srpska in December 2008. The strategic approach to the e-government initiative is based on building entity infrastructure, good-quality e-governance and the implementation of e-government projects. The strategy includes projects of portals and e-services, as well as changes in business processes, which were identified as a key problem in the implementation of e-services for users. The key steps that should be defined according to this strategy include:

- creating a project to develop a modern legislative framework, and harmonizing the existing legislation with the needs of e-governance;
- producing an overview, a plan and an executive plan for the introduction of ICT in the work of the RS entity and local administration, as well as a timeframe for the implementation, which has to follow the plan for the introduction of services;
- amending the existing or introducing a new provision on office operations taking into account ICT and introducing the use of electronic signatures and electronic documents in bodies at all levels of administration;
- implementing a project to reengineer business processes in the public administration where necessary;<sup>92</sup>
- defining and developing an online portal for citizens and an online portal for businesses for easy access to services in the communication between administration bodies, government and local administration (eSrpska);
- defining and developing an online portal with government's public and private projects, and creating an entity catalogue with information of interest to end users, as well as a catalogue of services;
- setting and introducing technical and organizational norms that ensure interoperability in administration bodies in the RS, as well as interoperability in the communication with other organizations, at the same time raising internal quality and management standards;
- as well as accepting the European system of educating citizens and public officials in using personal computers (ECDL – European Computer Driving Licence).

According to the ministry itself, the RS Ministry for Administration and Local Self-Governance does not have the competence to deal with issues concerning the use of

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<sup>92</sup> Whereby it is noted that priority must be given to e-procurement and e-document projects, and other electronic services that create solutions for a larger number of citizens and are today bottlenecks in the process (government's communication with citizens regarding personal documents, different certificates, entitlements, etc.).

ICT in municipalities. However, in cooperation with Swedish International Development Cooperation Agency (SIDA), it has participated in a couple of projects concerning local e-governance: Digitalization of Municipal Civil Registry Data in Bosnia and Herzegovina (Republika Srpska) (birth register, marriage register and death register) and the Document Management System of Units of Local E-Governance. In 2010, the ministry relaunched the project “Central Systems for Electronic Processing of Data and Archiving a Copy of Civil Registries”, whose implementation is underway.<sup>93</sup>

Finally, a web portal of the RS public administration – eSrpska ([www.esrpska.org](http://www.esrpska.org)) – has also been put in place. In addition, the RS Government in late June 2011 adopted a conclusion recommending to all the RS institutions, including units of local self-government, “to adhere, in developing and maintaining their Web presentations, to the guidelines contained in the document of the Agency for Information Society, ‘Recommendations for the Development and Maintenance of Web Presentations of Institutions of the Republika Srpska’.”<sup>94</sup>

The existence of the above-mentioned strategies and institutions leads us to conclude that significant efforts have been made to develop e-governance policies in the RS. By contrast, unlike the RS, which has a Strategy for the Development of e-Government and a Strategy for the Development of Local Self-Government, and an agency responsible for e-governance, the FBiH does not have equivalent strategies or institutions. Since there exists a state-level information society strategy, this situation would not be problematic if adequate institutions and mechanisms for its implementation existed at the level of Bosnia and Herzegovina. However, as this is not the case, the FBiH, by relying on the Council of Ministers of Bosnia and Herzegovina, is running the risk of falling significantly behind in the development of the infrastructure, policies and institutions of information society and e-governance, which can have exceptionally negative consequences for its overall development. Also, although a state-

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<sup>93</sup> According to the information received from the Ministry for Administration and Local Self-Governance, the aim of the project is to improve services (in terms of quality and efficiency) of municipal civil registries, which implies networking all the civil registries into a single IT system. Once a single register (database) is put in place, citizens would be able to receive civil registry certificates at any civil registry in the RS, which has not been the case so far as those could be obtained only in the municipality (civil registry) in which the data had been entered (written reply on behalf of the ministry received by e-mail on 15 April 2011; available in the project archive).

<sup>94</sup> “Recommendations for the Development and Maintenance of Web Presentations of Institutions of the Republika Srpska”, Adopted, AIDRS (Agency for Information Society of Republic of Srpska), available at: [http://www.aidrs.org/media/novost/prihvacene\\_preporuke\\_za\\_izradu\\_i\\_odrzavanje\\_veb\\_prezentacija\\_institucija\\_republike\\_srpske](http://www.aidrs.org/media/novost/prihvacene_preporuke_za_izradu_i_odrzavanje_veb_prezentacija_institucija_republike_srpske) Article created on 11 July 2011, latest correction on 12 July 2011 (accessed on 17 August 2011).

level strategy exists, its implementation mechanisms are unclear in a situation where only the entities have public bodies whose competences include certain aspects of local self-government, with a large number of administrative competences being at the entity and cantonal levels, and where there is no separate appointed body responsible for the development of information society and e-governance at the state level or at the level of FBiH.<sup>95</sup> According to suggestions received from the Federation Ministry of Transport and Communications (FMPIK), the ICT unit within this institution (in the Department for Telecommunications, Post and ICT) could potentially serve as a coordination body for the development of e-governance in the FBiH pending the establishment of an appropriate self-standing body within the FBiH government. This unit is currently undertaking or planning to undertake activities aimed at developing relevant projects and adopting supporting strategies and laws.<sup>96</sup>

In addition, at the state level, the Draft Law on the Agency for Information Society of Bosnia and Herzegovina has not been adopted to date in the parliamentary procedure.<sup>97</sup>

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<sup>95</sup> Likewise, in the FBiH there is no ministry responsible for issues of local government, although the competences of the Ministry of Justice and Ministry of Finance touch upon issues concerning local self-government. Thus, the competences of the Public Administration Office of the FBiH Ministry of Justice include, among other things, “building a system of local self-government” and “introducing modern technical methods and means of work in administration bodies (information and documentation system)” (for more, see <http://www.fmp.gov.ba>, accessed on 10 May 2011). As of the time of writing, the ministry had not responded to the questionnaire sent. Also, we should note that the Public Administration Reform Office (PARCO) monitors the implementation of activities regarding public administration reform at the level of the state, entities and Brčko District, but not at the level of local self-government (e-mail reply by PARCO, 15 April 2011, available in the project archive).

<sup>96</sup> Written reply by the Federation Ministry of Transport and Communications, sent on 22 August 2011; available in the authors’ archive. More specifically, the reply states that the ICT Unit will propose that strategies and laws be adopted in line with EU legislation (a Strategy for the Development of e-Governance in FBiH; a Law on e-Document and rule books concerning electronic office operations; by-laws concerning the organization of PKI infrastructure in the FBiH). Also, it said that the ICT Unit had proposed a project to create the infrastructure for: “communication (bus), interoperability, a portal with 20 European horizontal services and PKI infrastructure for 62 institutions and all enterprises under the jurisdiction of the FBiH Government”. Further, it is said that the participation of postal and telecom operators owned by the FBiH will be ensured in the implementation of enabler projects and 20 services each in the area of e-governance and mobile-governance, and that they intend to use to the maximum the development resources of universities in the FBiH, as well as the private ICT sector, while promoting open source software. In addition, it states that the “bus” project envisaged bringing an VPN connection to each post in all FBiH municipalities, which will enable further expansion of the network to institutions of local administration at the second stage. The second stage of the project foresees working on projects concerning lower levels of governments, and efforts are already underway to ensure coordination with cantonal institutions that could play the role of coordinators in the development of e-governance.

<sup>97</sup> The Council of Ministers has, thus, failed to honour the obligation assumed in 2002, when Bosnia and Herzegovina signed the regional e-Agenda for Southeast Europe.

As a result, Bosnia and Herzegovina remains the only country in the region without a state-level body responsible for the development and promotion of information society.

Nevertheless, Bosnia and Herzegovina has taken some significant steps towards achieving effective e-governance, including improvements in the process of issuance of personal documents and passports,<sup>98</sup> and online tax returns for legal persons.<sup>99</sup> In addition, the private sector has established key associations and is actively cooperating and working to promote information society, offering different IT solutions relevant for the development of e-governance.<sup>100</sup> The donor community has been working actively over the past five years to develop e-governance at different levels, including local self-government.<sup>101</sup> However, some indicators used in global surveys suggest that the pace of positive changes in Bosnia and Herzegovina has not followed global development trends and that the country is lagging behind other countries in the region in developing e-readiness.

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<sup>98</sup> <http://www.iddeea.gov.ba/>. Agency for identification documents, registers and data exchange (accessed 28 September 2011)

<sup>99</sup> <http://www.pufbih.ba/epp.php> Tax Administration of the FBiH – electronic submission of applications. (accessed 28 September 2011)

<sup>100</sup> BAIT –Bosnia and Herzegovina Association for Information Technology <http://bait.org.ba/> (accessed 28 September 2011)

<sup>101</sup> <http://www.undp.ba/index.aspx?PID=25&RID=27> - UNDP BiH, with its Democratic Governance programme, is one of the major implementers of e-governance in Bosnia and Herzegovina, together with the USAID project <http://www.bihgap.ba/bs/index.asp>.

## **5. THE LEGAL AND INSTITUTIONAL FRAMEWORKS FOR THE DEVELOPMENT OF LOCAL E-GOVERNANCE IN BOSNIA AND HERZEGOVINA**

### **5.1. Overview of the situation in the field of local administration in Bosnia and Herzegovina**

Many authors in the field of local government note that Bosnia and Herzegovina still has significant reform processes ahead of it if it is to achieve genuinely functional and fiscal decentralization in line with the European Charter of Local Self-Government. Past surveys have pointed, among other things, to the need to strengthen financial planning and service provision,<sup>102</sup> and generally to modernize public administration (which implies strengthening the human resources and administrative capacities of administrations which are as weak as their strategic planning capacities; introduction of the principle of efficiency and effectiveness and user orientation; strengthening the mechanisms of citizen participation; IT equipment and programme support, etc.) (Draganić et al. 2006, pp.10-11).

In addition, reports on the situation of local government in Bosnia and Herzegovina often note problems caused by the unclear division of competences between different levels of authority, as well as the problem of their work coordination, which primarily concerns the situation in the FBiH. The report by the Council of Europe's CLRAE on Bosnia and Herzegovina, thus, says that the division of competences between different levels of government in the country is unclear, and that the principle of subsidiarity – according to which the authorities closest to citizens should provide services – is not

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<sup>102</sup> A World Bank survey of service provision at the local level showed that the level of availability of services was poor and the overall user satisfaction low; that municipalities lacked resources necessary for expanding the fiscal space in order to enhance the availability of basic services; and that service providers generally lacked motivation to improve their operations (World Bank BiH 2009, ii).

being respected. This applies especially to the FBiH, where even following the adoption of the Law on the Principles of Local Self-Government of the FBiH (LPLSG FBiH) “many issues remain subject to the cantonal law, while the relationship between different provisions and competences of authorities at the Federation and cantonal levels causes problems.” Also, problems are especially pronounced in the case of smaller cantons, where local administrations compete for competences with the canton (Congress of Local and Regional Authorities of Europe, CLRAE 2006). The lack of coordination and unclear competences adversely affect the services provided (World Bank BiH 2009, p.27; p.79). One problem with decentralization in Bosnia and Herzegovina that is often emphasized in the literature is also the fact that municipalities in both entities, regardless of their differences, have the same competences under the laws. According to Zlokapa, “differences between municipalities in the Republika Srpska are huge, just like the differences that can be noticed between municipalities in the Federation of BiH. Municipalities differ in their size, population, level of development, employment rate, number of big and profitable companies, number of pupils, students and university graduates...” (Zlokapa 2007, p.191). This author notes that neither the entity constitutions nor the laws regulating the area of local self-government in the two entities have taken into account these big differences, and that in both entities all the municipalities are treated the same, i.e. they have the same competences (ibid.).

Although many international projects implemented in the area of local administration over the past two decades have significantly contributed to the modernization of local administration, including the strengthening of human resources management, strengthening of financial management and strategic planning, introducing participation in planning processes, increasing transparency, improving work processes within municipalities (among other things by introducing ICT), a strategic vision for local administration reform generally seems to be missing. According to the Strategy for the Development of Local Government in Bosnia and Herzegovina, “some key principles of good governance (user orientation, effectiveness and efficiency, quality, electronic governance) have not even been promoted in the normative acts regulating local self-government in Bosnia and Herzegovina “ (Draganić et al. 2006, p.10). Also, it is emphasized that “the municipal level of administration is neglected in strategic documents for the development of information society and electronic governance in Bosnia and Herzegovina, while the current normative arrangements for local government and self-government do not take into account the intensive development of information and communication technology and the concept of e-

governance as the key development trend and opportunity“ (Draganić et al. 2006, p.56). The very Strategy for the Development of Local Government in Bosnia and Herzegovina of 2006, produced by a group of municipal and NGO representatives and experts with the financial support of the Open Society Fund BiH and the Municipal Development Programme (MDP) and adopted by the entity associations of cities and municipalities, was not adopted by the entity governments and as a result it has not been implemented.

In 2009, the Republika Srpska adopted a comprehensive Strategy for the Development of Local Self-Government for the period 2009-2015, which also envisages strengthening e-governance. The strategy recommends that e-governance be developed and the concept of the ‘paperless office’ embraced, and that “units of local self-government should impose themselves as a genuine user service for their citizens, increasing the speed of providing services and reducing costs at the same time“ (the RS Strategy for the Development of Local Self-Government, Chapter 2.6). In terms of e-governance and e-participation, the strategy has the following objectives:

- Under the strategic objective of ensuring availability and quality of public services for all citizens (Strategic Objective 3), the introduction of e-governance in all units of local self-government, with a single local administration information system in the RS (2014) as operational objective 32.1.2.;<sup>103</sup>
- Under the strategic objective of strengthening direct citizen participation in the affairs of local self-government (Strategic Objective 4), the operational objective of developing a platform for citizen e-participation in decision-making processes (2011) 4.3.1,<sup>104</sup> the operational objective of equipping the administration and citizens to use e-participation mechanisms (2013) 4.3.2.,<sup>105</sup> and operational objective 4.3.3. of improving the capacities and influence of local media in the development of local democracy (2013).

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<sup>103</sup> Under this objective, the Framework Action Plan says that it is 1) “necessary to prepare and adopt a Law on e-Governance“ (2010-2012); 2) “modernize the information and communication infrastructure and programme support for e-governance in all municipalities, accompanied by training“ (2010-2014); 3) “prepare programmes and organize appropriate training of the administration and citizens for e-services“ (2010-2014).

<sup>104</sup> In the Framework Action Plan, the strategy foresees 1) “analyzing the situation and prospects of citizen e-participation“ (2010), which should be the responsibility of the Ministry of Administration and Local Self-Government and specialized agencies; and 2) “creating and adopting an action plan to strengthen e-participation“ (2011), with which a cross-sectoral team should be tasked.

<sup>105</sup> In the Framework Action Plan, the strategy foresees “preparation and implementation of e-participation training programmes for citizens and the administration“ (2012-2013), which should be the responsibility of the Ministry of Administration and Local Self-Government, the Association of Cities and Municipalities, and NGOs.

It is commendable that the RS Strategy for the Development of Local Self-Government seeks to introduce e-governance in a uniform manner at the local level and strengthen e-participation. Nevertheless, the recently-completed Monitoring of the Implementation of the Strategy (2011), done by the MDPI, has shown that the implementation has so far yielded modest results.<sup>106</sup> Most of the activities in the area of e-governance are planned for 2013 and 2014, but the activities foreseen in the area of e-participation during 2010 have so far not been implemented.

The situation in the FBiH is even worse as in this entity there are no relevant strategic documents at all for the development of local self-government or for the development of e-governance.

## 5.2. Laws and local administration in Bosnia and Herzegovina

In keeping with global decentralization trends, units of local self-government in Bosnia and Herzegovina have assumed important responsibilities. These responsibilities are prescribed in detail in the Law on Local Self-Government of the Republika Srpska (RS LLSG, 2004) and the Law on the Principles of Local Self-Government in the FBiH (FBiH LPLSG 2006), which are in line with the Council of Europe's European Charter of Local Self-Government, ratified by Bosnia and Herzegovina in 2002.<sup>107</sup> Although the two laws differ in terms of some competences of municipalities in the two entities, we can generally say that municipalities are responsible for adopting a number of public policies (e.g. development, town planning and other plans, budgets, etc.), as well as for providing services in different areas, including utilities and administrative services, but also other services in areas such as education, health care, environment, economic development, culture and sports.<sup>108</sup> According to Zlokapa, "units of local self-government feature less and less as direct providers of different services, increasingly turning into regulatory and managing institutions" (Zlokapa 2007, p.184).

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<sup>106</sup> According to the report, the delay in the implementation is largely "due to its postponed entry into force, caused by the use of the mechanism of vital national interests in the process of adoption of the Strategy in the People's Assembly of the Republika Srpska" (MDPI 2011, p.7). The report also notes a number of problems concerning organization, staff and finances faced in the implementation of the strategy (*ibid.*).

<sup>107</sup> Under the law, municipalities have original and delegated competences.

<sup>108</sup> See the BiH LPLSG 2006 (Official Gazette of the FBiH, No. 49/06) and the RS LLSG 2004 (Official Gazette of the RS, No. 101/04). Also, for a detailed overview of municipal competences in both entities by sector, as well as the division of competences between the local and higher levels of government for individual functions within the sector, see Zlokapa 2007 pp. 184-190, or Zlokapa (ed.) 2007, pp. 222-237.

When it comes to fiscal decentralization, municipalities share a number of revenue categories with higher levels of government, but they also have own revenues (e.g. local fees, taxes, charges). In line with the above-mentioned laws, municipalities are entitled to appropriate sources of funding, which they manage freely within their competences.<sup>109</sup>

Important in terms of accountability and citizen participation, but also relevant for e-governance as such, are the provisions of both laws regarding transparency (Articles 39-42 of the FBiH LPLSG; Articles 76-82 of the RS LLSG). Among other things, the two laws give citizens the possibility to attend assembly or council sessions in accordance with the conditions prescribed in the assembly/council rules of procedure; they oblige the local administration to annually report to citizens on results achieved under the planned objectives (and reports on administrative information such as the number of employees in the administration, in the case of the RS); they give representatives of the administration and the assembly or council the possibility to inform citizens (under the RS LLSG, unlike in the FBiH, there is also an obligation to organize regular press conferences and regularly provide information through the public media). Under both laws, citizens have the right to lodge complaints, with the unit of local self-government being obliged to respond within 30 days. Under the RS LLSG, decisions and other local acts are published in municipal official gazettes, an obligation that the FBiH LPLSG specifies only for the budget (FBiH LPLSG 2006; RS LLSG 2004).<sup>110</sup>

What is important in the context of the *administration* discourse is that the laws on local self-government make available to citizens a number of mechanisms for direct participation in decision-making at the local level.<sup>111</sup> In addition to the mechanisms prescribed by the law, there is a possibility for local administrations to introduce “any other mechanisms of participatory democracy that are not prohibited by the law” (Article 43 of the FBiH LPLSG; also Article 99 of the RS LLSG). Municipalities also have the possibility to define participation mechanisms in more detail in their statutes, and

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<sup>109</sup> See Articles 7-10 and Article 33 of the FBiH LPLSG (Official Gazette of the FBiH, No. 49/06), and Articles 11-30 and 63 to 70 of the RS LLSG (Official Gazette of the RS, No. 101/04).

<sup>110</sup> For an analysis of these provisions and their drawbacks, see Mišić-Mihajlović and Jusić 2010.

<sup>111</sup> In the RS, the mechanisms of citizen participation are referendum, citizen assembly, citizen initiative, neighbourhood community, citizen panels, proposal schemes (in absence of an explication of the term in the law itself, we use its literal translation), “citizen hours”, and other forms not explicitly prohibited under the law (RS LLSG 2004, p. 99). In the FBiH, the mechanisms of citizen participation are referendum, local citizen assembly, initiative and other forms of direct expression of views (FBiH LPLSG 2006, Art. 43–45). It is necessary to note that neighbourhood communities, a traditional form of citizen participation in Bosnia and Herzegovina, are not obligatory in the RS, unlike in the FBiH, where they have the status of a legal person (see RS LLSG 2004, Art. 106; FBiH LPLSG 2006, Art. 24).

as noted by Mišić-Mihajlović and Jusić (2010), “(...) units of local self-government can be said to have a high degree of autonomy in applying different forms of citizen participation, but they make insufficient use of their autonomy” (Mišić-Mihajlović and Jusić 2010, p.198).

Thus, the laws clearly designate municipalities as basic units of local self-government that have the capacity of legal persons. According to the applicable laws on local self-government, there is no legal obstacle to units of local self-government in Bosnia and Herzegovina adopting and implementing local e-governance.<sup>112</sup>

The law envisages the possibility for municipalities to set up administrative bodies to perform administrative duties that fall under the municipality’s self-government remit, as well as state administration duties delegated to the municipality.<sup>113</sup> Thus, the possibility is open to set up special administrative bodies at the municipal level to directly manage and implement e-governance at the basic level of local self-government.<sup>114</sup> However, neither the laws on local self-government in their provisions on transparency nor the relevant entity laws in the field of e-governance prescribe an obligation for municipalities to have official Web pages by means of which they could make their work more transparent.<sup>115</sup> Likewise, nowhere is it specifically demanded of municipalities to use ICT in order to improve citizen participation.<sup>116</sup>

### 5.3. The legal framework for the development of local e-governance

The implementation of the main principles of e-governance at the local level requires the existence of a set of laws to regulate this field. Above all, regulations are necessary

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<sup>112</sup> Nevertheless, according to the information we received from the AIDRS, in the RS these issues will be agreed upon with the entity level (written comments by the AIDRS to a draft of this report submitted on 23 June 2011; available in the authors’ archives).

<sup>113</sup> See Articles 7-10 and Article 33 of the FBiH LPLSG (Official Gazette of the FBiH, No. 49/06) and Articles 11-30 of the RS LLSG (Official Gazette of the RS, No. 101/04).

<sup>114</sup> According to the AIDRS, this approach is acceptable for the RS on condition that the AIDRS coordinates the work of these municipal administrative bodies (written comments by the AIDRS to a draft of this report submitted on 23 June 2011; available in the authors’ archives).

<sup>115</sup> In the context of transparency as an aspect of accountability, an important role is played by the entity laws on free access to information, which oblige local administrations to provide information to citizens upon request (the laws prescribe a detailed procedure, as well as the types of information that can be denied).

<sup>116</sup> For more, see Mišić-Mihajlović and Jusić, in Jusić (ed.) 2010.

to create an obligation for all administrative bodies of local self-government to introduce and systemically apply mutual electronic administrative services in exercising their competences, as well as to offer electronic administrative services to citizens and other users.

The legal framework in Bosnia and Herzegovina has been created in four basic ways: by taking over regulations from the former Socialist Federal Republic of Yugoslavia; through legislative activity of the entities; through cantonal legislation within the FBiH; and by adopting regulations of the state of Bosnia and Herzegovina. The regulations that have been taken over, given the time of their creation, were not designed to suit the needs and capacities of ICT. The new regulations of the entities, cantons and Bosnia and Herzegovina in individual areas<sup>117</sup> require the use of ICT.<sup>118</sup>

On the legislative front, at the state level only some of the formal preconditions have been created for the development of e-Government, with the adoption of the Law on the Electronic Signature (2006),<sup>119</sup> the Convention on Cybercrime (2006),<sup>120</sup> the Law on Communications (2002),<sup>121</sup> the Law on Personal Data Protection (2006),<sup>122</sup> and the Law on Electronic Legal and Business Operations (2007).<sup>123</sup>

The Law on Electronic Signature of Bosnia and Herzegovina and the Decision on the Bases of Using Electronic Signature and Providing Validation Services<sup>124</sup> regulate the use of electronic signature and provision of validation services. This law stipulates that electronic signature can be used in legal and business operations created through procedures of different levels of security and based on confirmations of different

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<sup>117</sup> The most important regulations that require the use of ICT at the moment are: the Law on Central Records and Data Exchange of Bosnia and Herzegovina; the Law on Consumer Protection of Bosnia and Herzegovina; the Law on the Information and Protection Agency; the RS Law on the Agency for Information Society; the FBiH and RS Laws on the Securities Register; the Law on the Collateral Register.

<sup>118</sup> See UNDP ICT- Forum, (2003) "Infrastructure of an Information Society, Legal Infrastructure of Information Society", Conference material, Sarajevo, pp. 7-45.

<sup>119</sup> The Law on Electronic Signature (Official Gazette of Bosnia and Herzegovina, No. 91/06).

<sup>120</sup> Bosnia and Herzegovina ratified the Convention on Cybercrime in 2006.

<sup>121</sup> The Law on Communications (Official Gazette of Bosnia and Herzegovina, No. 33/02).

<sup>122</sup> The Law on Protection of Personal Data (Official Gazette of Bosnia and Herzegovina, No. 49/06). The adoption of this law was foreseen by the 2004 Action Plan for the Development of Information Society. Also, as planned, the Law on Central Records and Data Exchange was adopted, but this was not the case with the Law on State Registers (civil, security and business) or the Regulation on Public Procurement (according to UNDP's E-Readiness Report).

<sup>123</sup> The Law on Electronic Legal and Business Operations (Official Gazette of Bosnia and Herzegovina, No. 88/07).

<sup>124</sup> The Decision on the Bases of Using Electronic Signature and Providing Validation Services (Official Gazette of Bosnia and Herzegovina, No. 21/09).

classes.<sup>125</sup> Article 5 can be considered as one of the most important provisions of this law. This article foresees that a secure electronic signature meets the legal requirements for handwritten signature and especially the written form, unless otherwise specified by a special law or agreement of the contracting parties.<sup>126</sup> Unfortunately, this law has not been fully implemented due to the failure to establish a supervising authority, i.e. the Office for Supervision and Accreditation of Validators at the Ministry of Communications and Transport of Bosnia and Herzegovina. In addition, the view of the AIDRS is that the Law on Electronic Signature of Bosnia and Herzegovina must undergo changes or otherwise it will not be applied in the RS since there exist direct conflicts between signatures.<sup>127</sup>

Introducing electronic signature at the local level is an indispensable element in the implementation of e-governance since it is used to carry out the tasks of identification of signatories, authentication of received documents and confirmability in the event of a court dispute. This is necessary in order to ensure valid communication between citizens and administration bodies as well as to honour the procedures required for communication with administration bodies, especially for initiating certain services to be provided by administration bodies.

The Law on Electronic Legal and Business Operations of Bosnia and Herzegovina regulates the legal framework for certain aspects of electronic legal and business operations, including undertaking and providing information society services; obligations of service providers in terms of information; concluding contracts; and responsibility of service providers.<sup>128</sup> Chapter III of the law regulates the legal aspects of undertaking and providing information society services in such a way that for undertaking and providing services a service provider does not need to have a special official licence, consent, approval or concession, or meet any requirements of an equal

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<sup>125</sup> Article 4 of the Law on Electronic Signature (Official Gazette of Bosnia and Herzegovina, No. 91/06).

<sup>126</sup> The only restriction foreseen by this law is that a secure electronic signature does not have the legal effect of the written form in: legal affairs in the area of family and inheritance law that require the written form or entail more strict form requirements; statements of will; legal affairs or submissions requiring official validation, judicial or notarial verification of authenticity or notarial document, for the purpose of making an entry in land registers or any other official register; as well as in statements of guarantees issued by persons in their capacity as craftsmen, businessmen or professionals.

<sup>127</sup> Written comment by the AIDRS on a draft of this report submitted on 23 June 2011; available in the authors' archives.

<sup>128</sup> The Law on Electronic Legal and Business Operations of Bosnia and Herzegovina (Official Gazette of Bosnia and Herzegovina, No. 88/07).

legal effect.<sup>129</sup> The legal regulations governing the issuance of licences for undertaking or performing a business, craft or professional activity which do not apply exclusively to information-society services remain unchanged. The same applies to legal regulations concerning the obligations of publication or concession obligations of telecommunication services.<sup>130</sup> What is important to note is that this law has ensured recognized legal communication effected through ICT means,<sup>131</sup> which is at the same time the basis for electronic communication between citizens and administrative authorities.

However, the view of the AIDRS is that the Law on Electronic Legal and Business Operations of Bosnia and Herzegovina is unconstitutional since it does not regulate contractual relationships that fall under entity jurisdiction and that because of this the RS will sooner or later request a review of the constitutionality of this law before the Constitutional Court of Bosnia and Herzegovina.<sup>132</sup>

Unlike the FBiH, where the state-level e-regulations are being applied, the RS has adopted its own regulations in this area: the Law on Electronic Signature of the RS (Official Gazette of the RS 59/08); the Law on Electronic Business Operations of the RS (Official Gazette of the RS 59/09) and the Law on Electronic Document of the RS (Official Gazette of the RS 110/08).<sup>133</sup> In addition, amendments have been made to the RS Criminal Code (2010) that also foresee offences related to the area of high-tech crime, in which way the RS has applied the Convention on Cybercrime.<sup>134</sup>

Given that there is no considerable difference between the state and entity laws on electronic signature and electronic business operations, they will not be subject to

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<sup>129</sup> Article 14 of the Law on Electronic Legal and Business Operations of Bosnia and Herzegovina (Official Gazette of Bosnia and Herzegovina, No. 88/07).

<sup>130</sup> Law on Electronic Legal and Business Operations of Bosnia and Herzegovina (Official Gazette of Bosnia and Herzegovina, No. 88/07).

<sup>131</sup> In the RS, this is ensured through the Law on Electronic Business Operations of the Republika Srpska (Official Gazette of RS, No. 59/09) (written comment by the AIDRS on a draft of this report submitted on 23 June 2011; available in the authors' archives).

<sup>132</sup> Written comment by the AIDRS on a draft of this report submitted on 23 June 2011; available in the authors' archives.

<sup>133</sup> See <http://www.narodnaskupstinars.net/cir/zakoni>, as well as an overview of the laws to be passed or amended in the chapter on e-legislation of the Strategy for the Development of Information Society of Bosnia and Herzegovina, 2004, pp. 35-27.

<sup>134</sup> Written comment by the AIDRS on a draft of this report submitted on 23 June 2011; available in the authors' archives.

further legal analysis.<sup>135</sup> Since no law on electronic document has been adopted at the state level, the entity-level law will be analyzed below. We have to note that, unlike the FBiH, the RS has made significant progress in the area of legislation that is important for e-governance.

The RS Law on Electronic Signature regulates the right of RS administration bodies, local self-government bodies, companies, institutions and other legal and physical persons to use electronic signature in business transactions and activities, as well as in administrative proceedings before authorities in which electronic equipment and programmes can be used in producing, transmitting, receiving and keeping information in an electronic form. It also regulates the legal validity of an electronic document, as well as its use and circulation. Provisions of this law do not apply in those cases where other laws prescribe the use of paper documents.

The law foresees that RS administration bodies, local self-government bodies, companies, institutions and other legal and physical persons should, through their freely-expressed will, accept the use and circulation of an electronic document for their purposes as well as for the purposes of business and other relationships. Authorities and other legal and physical persons that have accepted the use and circulation of an electronic document cannot refuse an electronic document just because it was created, used and circulated in an electronic form.

We should in particular note the provisions of Article 7, which stipulates that an electronic document has the same legal validity as a paper document if it is created, sent, received, kept and archived by applying available information technology, and if it meets the requirements of this law. Also to be noted is Article 11, which stipulates that electronic documents, too, can be used as evidence in proceedings before administrative authorities and in arbitration. When evaluating the validity of an electronic document, one needs to take into account information about its production, transmission, storage, authenticity and unchangeability.

This type of law constitutes one more precondition for the successful implementation of e-governance, given that it legally introduces the use of electronic documents and improves the communication between administrative authorities and the users of their services – citizens and businesses.

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<sup>135</sup> The differences are of an organizational nature, in terms of which body issues accreditations, which body is responsible for supervision, etc. They are not substantial and do not carry any concrete importance for the subject of this study and have, thus, not been analyzed.

As we can see, the trends in international and comparative law in the area of e-governance at the local level have not been adequately followed in Bosnia and Herzegovina. The adoption of laws at the state level has created some of the preconditions for the development of local e-governance throughout the country. Furthermore, in the RS additional laws have been adopted (such as the Law on Electronic Document), while certain laws have been duplicated at the state level and in the RS (such as the Law on Electronic Signature, which was first adopted in 2002 in the RS and afterwards at the level of Bosnia and Herzegovina). However, at least some of the adopted laws both at the state and entity levels have not yet been implemented, such as for instance the *Public Key Infrastructure (PKI)*,<sup>136</sup> which hampers the development of local e-governance. In this way, the validity of electronic signatures and electronic communication is recognized in the law, which in the future can lead to an improvement in the administrative processes of local self-government bodies, but a question mark is hanging over the development of electronic services (electronic initiation of administrative proceedings, appeals in administrative proceedings, and the like) due to the inability to check electronic signatures and the failure to establish a body for the supervision over and accreditation of validators.<sup>137</sup>

Thus, the legislation adopted so far has only partially resolved the burning problems, especially at the state level (given that the state level is not responsible for local self-government) and in the FBiH. Further steps are needed to enable their implementation at different administrative levels, in accordance with the responsibilities of these levels, which would create all the preconditions for developing e-services in local self-government. What is missing is a whole set of legal regulations and measures to regulate this field, such as:

- the establishment of a body for supervision over and accreditation of validators when using electronic signatures in administrative proceedings at the level of Bosnia and Herzegovina and the FBiH;
- a regulation on security standards and security policies in the public sector, including instructions for authentication and authorization of e-statements (e-communication);

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<sup>136</sup> *Public Key Infrastructure (PKI)* is a set of hardware, software, resources, procedures and policies necessary for creating, managing, securely distributing, using and keeping digital certificates. For more on PKI, see: [http://www.articsoft.com/public\\_key\\_infrastructure.htm](http://www.articsoft.com/public_key_infrastructure.htm).

<sup>137</sup> According to the AIDRS, legal and normative acts are in place, while the public key infrastructure in the RS will be operational by the end of 2011 (written comment by the AIDRS on a draft of this report submitted on 23 June 2011; available in the authors' archives.).

- a regulation on data and metadata management in the administration (in view of the entire life cycle of e-documents);
- regulations on policies concerning provision of administrative e-services to citizens and businesses (modality of service provision; modality of applying for a service; communication with specific user groups; links to private-sector services; responsibilities; sanctions; outsourcing; etc.);
- a regulation on electronic exchange of documents in different departments (instructions for exchange of electronic documents; rules for intra-register of exchanges; etc.);
- a regulation on the establishment of a national interoperability framework (instructions for registers; guidelines for e-governance architecture; etc.).

#### 5.4. Legal regulations, decisions and documents on e-governance at the level of local administrations

Issues related to the development of e-governance can be regulated not only through the legislative framework but also through different municipal acts. We here have in mind regulations on e-governance and e-participation at the level of units of local self-government, in the form of decisions, rulebooks or strategic documents adopted at municipal level that establish procedures for developing e-governance, handling e-inquiries, updating Web pages, and the like. Table 1 includes data obtained through

**Table 1:** *Municipal acts for promotion of e-governance*

Do the following procedures/rulebooks/strategies exist at the municipal level:	YES (f)	%	NO (f)	%	Don't know (f)	%	No reply (f)	%	Total
Officially defined procedure for opening and handling e-mails	44	38.6	65	57.0	1	0.9	4	3.5	114
Officially defined procedure for updating Web sites (e.g. through rulebooks)	30	26.3	79	69.3	1	0.9	4	3.5	114
Documents defining procedures and rules for using ICT (e.g. rulebooks on information security)	41	36.0	65	57.0	2	1.8	6	5.3	114
Municipal decisions related to introduction or development of e-governance	30	26.3	77	67.5	3	2.6	4	3.5	114
Strategic documents related to e-governance	24	21.1	82	71.9	4	3.5	4	3.5	114

primary research, i.e. replies to the questionnaires distributed to Bosnian municipalities about municipal acts relevant for the development of e-governance.

When it comes to the procedures for opening and handling e-mails, one can raise the question of legitimacy and potential abuses of e-mail communication in a situation where 57% of the municipalities (N=114) do not have a code of conduct that would ensure that municipalities act in accordance with the principles of transparency, openness and interaction with users of public services. The AIDRS stress that “in a situation in which it is not possible to ascertain in an unequivocal manner who the participants are and what the content of electronic communication is, no form of this type of communication is and can be formally and legally valid.”<sup>138</sup>

The percentage of municipalities without officially defined procedures of updating Web sites is even larger (69.3%; N=114). In this context, updating Web sites is not systemically regulated but rather depends on individual solutions, which might result in poor quality and outdated Web sites (see Chapter 8, which provides a detailed analysis of municipal Web sites). In addition, 77% of the municipalities (N=114) state that they do not have other documents defining the procedures and rules for using ICT. On the other hand, in 38.6% of the municipalities there are officially defined procedures for handling e-mails; in 26.3%, officially defined procedures for updating Web sites; and in 36%, other officially defined procedures, which goes to show that a significant percentage of municipalities have recognized the importance of developing those procedures. However, we were not able to evaluate the quality of the procedures defined in this way or the level of their implementation and impact.

In addition, in most municipalities (67.5%; N=114) no municipal decisions have been taken regarding the introduction and development of e-governance. Also, 71.9% of the municipalities replied that they had no strategic documents for the development of e-governance in the municipality, which suggests that there is a lack of planning in the area of development of e-governance.

Municipalities have adopted different types of documents, such as development strategies, action plans or terms of references, while specific decisions concerning the development of e-governance and rulebooks on certain aspects of the implementation of e-governance seem to be less frequent a practice. This data leads us to conclude that the potentials for encouraging e-governance through the adoption of different municipal acts have been largely neglected.

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<sup>138</sup> Written comment by the AIDRS on a draft of this report submitted on 23 June 2011; available in the authors' archives.

## 6. THE LEVEL OF DEVELOPMENT OF LOCAL E-GOVERNANCE IN BOSNIA AND HERZEGOVINA

This section of the report will present the findings of the primary research carried out in late 2010 and early 2011. The primary research was mainly based on replies received through questionnaires for local self-government bodies. In order to collect information on the current situation and the capacities of local administrations for the development of e-governance and provision of e-services, we carried out a poll using structured questionnaires that were sent by fax, post or e-mail<sup>139</sup> to all the cities and municipalities in Bosnia and Herzegovina. Out of a total of 143 units of local self-government,<sup>140</sup> 114 replied to the questionnaire.<sup>141</sup> The questionnaire contained 36 questions primarily divided into three basic groups:

- *hardware and software* (number of computers; Internet access; networking; existence of an official e-mail address and official Web presentation of the municipality; procedures for handling e-mail inquiries and procedures for updating the Web site; using IT-supported systems for some services and functions of the municipality/city; constraints in the development of ICT use; number of Web page visits and number of users of information bulletins);
- *legal and institutional preconditions* (laws and decisions; existence of strategic documents, municipal decisions and documents defining procedures and rules for using ICT in units of local self-government; using ICT to advance administrative processes);

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<sup>139</sup> The modality of distribution of questionnaires to individual municipalities/cities depended on the availability of contact information. Apart from the research team of Mediacentar Sarajevo, municipalities were also contacted by the FBiH and RS Associations of Cities and Municipalities in order to ensure that questionnaires reached the right addresses and to increase the response of municipalities.

<sup>140</sup> The questionnaire was not sent to Brčko District, which is a separate unit of local self-government.

<sup>141</sup> More precisely, 112 municipalities (out of a total of 139 municipalities in the FBiH and the RS) and two cities (out of a total of four cities in Bosnia and Herzegovina).

- *human resources* (existence of an IT unit; number of staff working on IT support; outsourcing; level of ICT use and needs for ICT training among municipal employees).<sup>142</sup>

The findings of the primary research were compared with earlier findings of UNDP surveys on e-readiness<sup>143</sup> where the indicators were comparable and where they might point to a trend in the development of municipalities and cities over the past several years. The questionnaire results were also compared with other relevant analyses (Isanović 2010; Jusić, 2011, Exit centar 2005/2006).

Finally, through additional semi-structured interviews,<sup>144</sup> conversations and e-mail correspondence with representatives of relevant institutions and organizations from different target groups, we tried to gain a deeper insight into different aspects of the development of e-governance at the municipal level.<sup>145</sup>

## 6.1. The context for the development of local e-governance in Bosnia and Herzegovina

In order to better understand the broader context and factors affecting the development of local e-governance in Bosnia and Herzegovina, it is necessary to look at the country's overall level of e-readiness and development of information society. There have been prominent surveys on the development of information society in the world that used different indicators.<sup>146</sup> Thus, for instance, the World Economic Forum

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<sup>142</sup> An annex to the present report includes the questionnaire. We should note that the primary research did not include mobile governance, i.e. m-governance, as a continuation of e-governance by using mobile platforms. We should, however, point to the potential of mobile platforms in terms of increasing availability of public services at all times and in all places. As suggested by the Federation Ministry of Transport and Communications (FMTC), m-governance should perhaps even be given priority because of its wider penetration among the population and easier identification of users (letter by the FMTC, 22 August 2011, available in the authors' archives).

<sup>143</sup> Čurčić et al. 2006; Zaimović et al. 2010. Not all the municipalities replied to the questionnaires (those of UNDP in 2005 and 2009 and those of Mediacentar Sarajevo in 2010): only 71 municipalities replied both in the primary and the mentioned two secondary sources.

<sup>144</sup> The interviews were semi-structured, with a list of general questions that were used depending on specific experiences and insights of the interviewee. All the interviews conducted were recorded and stored in the project archives.

<sup>145</sup> An annex to the present report includes a list of institutions/persons with whom we conducted interviews or from whom we received additional information in writing.

<sup>146</sup> E.g. the EU's SIBIS methodology, available at: <http://www.sibis-eu.org/>; UN methodology (Measuring ICT: The Global Status of ICT indicator, Partnership on measuring ICT for development, UN ICT Task Force 2005); methodology of the World Economic Forum, World Economic Forum, ICT, March 2005.

(WEF) takes into account three sets of factors: the environment index (market, political, legislative and infrastructure); the readiness index (individual readiness, and business and government readiness); and the usage index (individual usage, business usage and government usage).

Bosnia and Herzegovina for the first time featured in a WEF report in 2004-2005,<sup>147</sup> when it ranked 89th out of a total of 104 countries. Looking at the series of these reports in the period 2004-2009, we can see that Bosnia and Herzegovina registered a rather slower growth than other countries in the world or the region. Particularly worrying is the slow development of government e-readiness, in which in 2004 Bosnia and Herzegovina ranked 87th out of a total of 104 countries, dropping to 104th out of 122 countries in 2006 and 129th out of 133 countries in 2009 – the very bottom of the table (see Table 2).

These reports show an evident gap between government e-readiness and use of ICT on the one hand and infrastructural readiness, individual e-readiness and individual ICT

**Table 2:** *Bosnia and Herzegovina's ranking according to e-readiness indicators (WEF, The Global Information Technology report)*

	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
<b>Total number of countries (N)</b>	<b>104</b>	<b>115</b>	<b>122</b>	<b>127</b>	<b>134</b>	<b>133</b>	<b>138</b>
Networked readiness index <sup>148</sup>	89	99	89	95	106	110	110
<b>Environment component</b>	<b>92</b>	<b>109</b>	<b>102</b>	<b>111</b>	<b>116</b>	<b>118</b>	<b>106</b>
Market environment	97	113	103	104	122	125	125
Political and regulatory environment	93	108	107	116	122	126	118
Infrastructure environment	53	57	80	94	92	79	77
<b>Readiness component</b>	<b>86</b>	<b>87</b>	<b>84</b>	<b>91</b>	<b>97</b>	<b>116</b>	<b>122</b>
Individual readiness	77	78	68	68	73	63	64
Business readiness	83	91	94	97	108	117	114
Government readiness	87	104	104	114	122	129	134
<b>Usage component</b>	<b>92</b>	<b>98</b>	<b>88</b>	<b>101</b>	<b>108</b>	<b>103</b>	<b>104</b>
Individual usage	60	57	65	68	71	69	75
Business usage	97	103	89	100	108	117	118
Government usage	91	106	97	116	129	131	133

Source: WEF The Global Information Technology Report (2004/05-2009/10), reports available at: <http://www.weforum.org/>

<sup>147</sup> World Economic Forum, Global Information Technology Report 2004-2005.

<sup>148</sup> The Networked Readiness Index is the overall ranking of a country among all the countries covered by the report, on all the criteria applied.

use on the other. In other words, citizens of Bosnia and Herzegovina themselves and the technological infrastructure have been making advances in the ICT sector much faster than government institutions; individual readiness for using ICT and the technological preconditions are considerably better than government readiness. Thus, for instance, in the 2004/05 report, in terms of individual readiness Bosnia and Herzegovina ranked 77th out of a total of 104 countries and in 2009 63rd out of the 133 countries covered by the report. These results suggest that Bosnia and Herzegovina has a rather good infrastructure for the development of ICT and that individuals use it, while government institutions, and even businesses, lag behind considerably. What certainly contributes to this are the very poor market, political and regulatory environments, in terms of which Bosnia and Herzegovina is at the bottom of the WEF e-readiness table (see Table 2).

Bosnia and Herzegovina's overall e-readiness ranking also lags significantly behind the other countries of former Yugoslavia (see Table 3).

**Table 3:** *WEF rankings of countries in the region (2009/2010 and 2010/2011)*

Country	2009/10	Ranking 2010/11
Slovenia	31	34
Montenegro	42	44
Croatia	51	54
Macedonia	73	72
Serbia	84	93
Bosnia and Herzegovina	110	110
Total countries	133	138

Source for 2009/2010: World Economic Forum <http://www.weforum.org/reports-results?fq=report^issues%3A%22Global%20Information%20Technology%22> Source for 2010/11: World Economic Forum, <http://reports.weforum.org/global-information-technology-report/> (accessed on 27 April 2011).

The UN also conducts an annual *Global E-government Survey*, in which countries are ranked according to two main indicators: e-government readiness<sup>149</sup> and e-participation.<sup>150</sup>

<sup>149</sup> The e-government readiness index is the overall index including the Web presence index, telecommunication infrastructure index and the human capital index.

<sup>150</sup> While the Web presence index includes a quantitative estimate of e-participation, e-participation is a qualitative measure based on the following indicators: the quality of services on the Web site intended for participation; relevance of information and services offered; usefulness for citizens as users; and the readiness of the authorities to provide relevant information and services and encourage the public to participate in making decisions of public importance (Global e-Government Survey 2003, p.17).

These reports were not done in continuity, nor did they include an analysis of local government bodies, but they do provide an additional insight into Bosnia and Herzegovina's position vis-à-vis the other countries covered by the survey.<sup>151</sup> Table 4 gives an overview of the results of the assessment of development of e-government by year for Bosnia and Herzegovina, which shows the country's significant progress in advancing from the 94th place in 2008 to the 74th in 2010, out of a total of 192 countries.

**Table 4:** *Bosnia and Herzegovina's UN ranking according to the level of development of e-government*

	e-government	Total number of countries*
2003	115	173+18
2004	93	178+13
2005	84	179+12
2008	94	192
2010	74	192

Source: UN Global eGovernment Surveys/eGovernment readiness reports (2003,2004,2005,2008,2010). Reports available at: [http://www.unpan.org/egovkb/global\\_reports/08report.htm](http://www.unpan.org/egovkb/global_reports/08report.htm)

\* the added numbers in columns refer to countries without Web presence

Also, according to the UN Global eGovernment survey, Bosnia and Herzegovina ranks rather low when it comes to citizen e-participation. Thus, the e-participation index for Bosnia and Herzegovina in 2005 was only 0.0159, rising to 0.0909 in 2008, only to drop to 0.0429 in 2010. If we compare Bosnia and Herzegovina's e-participation index to those of the 14 countries of Southern Europe (Table 5), we shall see that the country shares the last but one place with Serbia, with only San Marino having a lower index (0.0143).<sup>152</sup>

In addition to the above-mentioned surveys, UNDP BiH has conducted three surveys on e-readiness of Bosnia and Herzegovina (2003, 2006 and 2009). The 2003 findings clearly showed how poor user capacities were in the country, given that only 4% of households had computers and only 16% of citizens used the Internet. According to the findings of the 2006 report,<sup>153</sup> however, significant progress had taken place, with 21% of citizens now having direct Internet access. The 2009 report<sup>154</sup> showed that

<sup>151</sup> The survey is based on secondary data and indirect assessments. The 2010 report was, thus, produced on the basis of statements by state officials and their perception of the situation and not on the basis of direct insight.

<sup>152</sup> United Nations E-Government Development Database, available at: <http://www2.unpan.org/egovkb/datacenter/CountryScore.aspx?ddl=6> (accessed on 17 August 2011).

<sup>153</sup> Ćurčić et al. 2006.

<sup>154</sup> Zaimović et al. 2010.

**Table 5:** *E-participation in Southern European countries, according to UN reports*

Country	E-participation 2010	E-participation 2008	E-participation 2005
Albania	0.1286	0.0227	0.0317
Andorra	0.1429	0.0682	0.0317
Bosnia and Herzegovina	0.0429	0.0909	0.0159
Croatia	0.4571	0.1364	0.1746
Greece	0.2571	0.0909	0.1587
Italy	0.2143	0.2273	0.2381
Malta	0.3429	0.3864	0.4762
Montenegro	0.1571	0.0909	0.0909
Portugal	0.2714	0.2500	0.2063
San Marino	0.0143	0.0227	0.0159
Serbia	0.0429	0.0682	0.0476
Slovenia	0.5143	0.2273	0.2222
Spain	0.8286	0.3636	0.0794
The former Yugoslav Republic of Macedonia	0.2143	0.0227	0.1270

Source: United Nations E-Government Development Database, <http://www2.unpan.org/egovkb/datacenter/CountryScore.aspx?ddl=6> (accessed on 17 August 2011)

almost 51% of Bosnian households had a computer.<sup>155</sup> The number of registered Internet subscribers in 2010 reached 522,364, while the percentage of actual users is much higher, at 52% of the population.<sup>156</sup> The chart below provides more detailed data (Chart 1). Internet penetration is an important indicator since it shows the capacity to absorb e-governance services and potential.

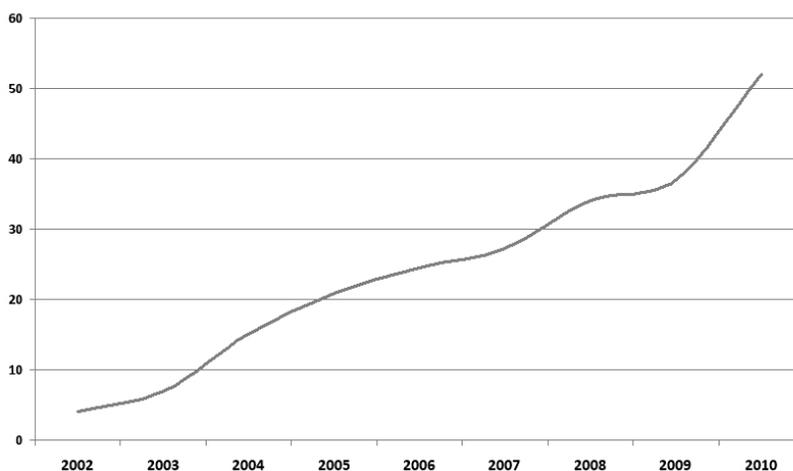
Chart 1 clearly shows that Internet penetration in Bosnia and Herzegovina has been growing rapidly. Thus, an increase from 4% in 2002 to 52% in 2010 was registered with the population above 15 years of age (AGCOM & CRA 2008, p.194; GfK 2009b). The

<sup>155</sup> Below we will also refer to other findings of the UNDP surveys.

<sup>156</sup> Annual surveys of CRA licence holders for Internet service provision in Bosnia and Herzegovina from 2004 to 2009, available at: <http://www.rak.ba/bih/index.php?uid=1272548201> (accessed on 28 September 2011). For the sake of comparison, it is necessary to note that according to information from the Stability Pact for Southeast Europe for 2007, the EU average was 43% of households with Internet access, 89% of enterprises using the Internet, and 40% of all public services being available online in terms of full interactivity (*eSEE Initiative of the SEE Stability Pact and eSEEAagenda+*, Stability Pact for South Eastern Europe, 2007, by Marijana Vidas-Bubanja, Ph.D., Chairwoman of the eSEE Initiative in the period February 2002-October 2007).

largest share of users is to be found among the young population (85% of those aged 15-24 use the Internet on a regular basis) and the employed (around 50% use the Internet on a regular basis). This is in line with the WEF e-readiness index, which shows significant progress in Bosnia and Herzegovina when it comes to citizens' individual e-readiness over the past 10 years.

**Chart 1:** *Internet penetration in Bosnia and Herzegovina 2002-2010*



Source: CRA (Communications Regulatory Agency); Annual survey of CRA licence holders for Internet service provision in Bosnia and Herzegovina (2002-2010); reports available at: <http://www.rak.ba>

## 6.2. Earlier surveys on the development of e-governance in Bosnia and Herzegovina

The analysis provided as part of the RS Strategy for the Development of Local Self-Government for the period 2009-2015 (adopted in 2009) in the chapter on public service provision, among other things, stresses the insufficient information to serve as background for making decisions<sup>157</sup> and the outdated knowledge and skills of employees,

<sup>157</sup> According to the strategy, “the existing legal arrangements, which follow the structure of shared responsibilities regarding some services and regulatory tasks, do not to a sufficient extent create an obligation of up-to-date collection, processing, archiving, circulating and using data and databases”, which is normally the basis for decision-making and the development of local administrations. Among other things, the strategy recommends that the data and information that are to be collected and updated should be identified, and that procedures and rules should be established that govern the information groundwork, as well as the creation of databases and their storage, in order for information to be usable (Chapter 2.6).

which requires an organized and systematic approach to creating training programmes “in which ICT skills have a central place.” It is also noted that the development of e-governance in the local administration “imposes itself as a pressing need, both because of the European future and because of improvements in the efficiency of the administration’s work.” The strategy identifies two major obstacles – the lack of a planning-based approach to the development of information systems in units of local self-government, and the lack of standards, regulations and legislation.

In its document “The application of IT in RS local government bodies – Initial considerations” of 2008, the Agency for Information Society of the RS identifies the problem of lack of planning and coordination in the development of municipal Web portals. It concludes that the level of ICT use in local government bodies varies from modest application, with a small number of computers and no strategy for the application of IT in work processes (for example in the municipalities of Nevesinje, Ugljevik and Novi Grad), to average-level application characterized by self-initiative in applying IT (most often in the civil registry office) and a plan for gradual expansion of its application (e.g. Čelinac), all the way to advanced application, where through self-initiative (Prijeedor) or owing to the implementation of USAID’s GAP project (Banja Luka, Gradiška, Teslić) significant improvements were made in the implementation of ICT (p. 6).

As for municipal authorities, the level of implementation of projects from the Action Plan for the Development of Information Society in Bosnia and Herzegovina, adopted by the Council of Ministers in November 2004,<sup>158</sup> greatly varies from municipality to municipality and is directly related to the size and budget of a municipality (larger and richer municipalities embarked earlier on the implementation of various IT solutions) or a result of a municipality’s own initiative and/or donor incentives (UNDP, USAID, DFID, etc.) (eSpremnost 2010, p.55). The analysis produced for the purposes of the Strategy for the Development of Local Self-Government in Bosnia and Herzegovina also notes the big differences between municipalities, i.e. a big gap between a small number of municipalities introducing e-governance and the majority of municipalities that lag behind in this respect (Draganić et al. 2006). Besides, the analysis points to the lack of IT jobs and organizational units at the local level and of IT experts and ICT knowledge in the local administration; a low level of IT literacy in a number of municipalities; and a low level of IT equipment in most municipal administrations (Draganić et al 2006, p.56).

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<sup>158</sup> UNDP, 2004, *Politika, Strategija i Akcioni plan razvoja informacionog društva u BiH*, Sarajevo.

### 6.3. The basic technical preconditions for e-governance

The basic technical preconditions for the development of e-governance include the number of computers as a function of the number of employees; as well as the number of networked computers; Internet usage; quality of access; and the speed and capacity of information flow, i.e. the type of Internet connection. All these are preconditions and incentives for raising the level information, advancing services and increasing interaction with citizens, businesses and other public authorities, that is for the development of e-governance. Networked computers, thus, allow for easier exchange of information within the administration, while a fast Internet connection provides better conditions for online communication with citizens and the civil sector.

The results obtained through questionnaires, compared with the findings of earlier surveys, show a clear trend of improvement in basic technical capacities for the development of e-Governance over the last few years (see Table 6).

**Table 6:** *Technical preconditions for the development of e-governance in municipalities in Bosnia and Herzegovina, by year*

Technical aspects	2005 % (N = 125)	2009 % (N = 114)	2010 % (N = 114)
Share of employees with computers	42.2%*	58%	74.8%
Share of networked computers	38.5%	72%	87.5%
ADSL broadband Internet access	3.15%	68%	78.1%
Other broadband (wireless, cable, and different combinations of access)	N/A	N/A	19.3%

Sources: UNDP BIH e-Readiness 2005, available at: <http://www.undp.ba/upload/publications/Izvjestaj%20o%20e-spremnosti%202005%20-%20bez%20naslovne%20str.pdf>; UNDP BIH e-Readiness 2009, available at: <http://www.undp.ba/index.aspx?PID=7&RID=638>; and the primary research carried out for the purposes of this report (2010-2011).

The data in Table 6<sup>159</sup> shows that globally speaking in the last few years the share of municipal and city employees using computers has grown significantly.

Also, the overall data suggests that the share of networked computers in local government bodies has been growing steadily. In a large majority of municipalities and cities covered by the 2010 survey, computers are networked (95.6% of

<sup>159</sup> These shares are based on the cumulative data for all the municipalities. The data is to be understood as an illustration since the findings of our 2010 primary research did not show a normal distribution by relevant variables.

municipalities/cities; N=114). In total, around 87.5% (N=114) of computers are part of the network. We should note that in most cases – in 80.7% of municipalities – neighbourhood communities are not part of the network. Only a smaller number of municipalities have made a step forward in networking. Thus, in 15.8% of them (N=114)<sup>160</sup> computers in neighbourhood communities are also networked as part of the municipal infrastructure. Some municipalities (such as Stari Grad Sarajevo) give their citizens a possibility to receive birth or marriage certificates from the local offices without having to come to the central municipal building.<sup>161</sup>

Huge progress is visible in the quality of Internet access and speed of information transmission. The 2006 UNDP report showed that 51.2% of the municipalities surveyed used dial-up and 33.9% ISDN Internet access, while the findings of our primary research, conducted in late 2010, show that a large majority of municipalities had broadband Internet access: 78.9% use ADSL Internet access, 10.5% two or more different types of access, 8.8% other types of broadband access (N=114). In addition to ADSL access, municipalities use rented lines and combinations of wireless, cable and ADSL connections.<sup>162</sup> According to the findings of our primary research, out of the total number of computers in all the municipalities, 57.3 % (N=7609 computers; 114 municipalities) have Internet access.

As for the quality of Internet access, a majority of municipalities, 56.1% (N=114), report that it is a rare occurrence – less than once a month – that the Internet connection does not work or is slow. A further 33.3% of municipalities state that the connection is unsatisfactory between one and five times a month. These findings suggest that in most municipalities not even the quality of connection is a major obstacle to the development of e-governance.

In addition to the above-mentioned indicators, the primary research included a question about the existence of official e-mail addresses in each municipality. All the municipalities whose replies we received said that they had an official e-mail address (N=114), which is an important positive indicator. However, we should note that there is no standard practice in using e-mail. Thus, the e-mail addresses are not uniformly recognizable as official addresses of local authorities. Some municipalities use Gmail and other free-of-charge e-mail addresses, as well as e-mail addresses of local Internet service providers (e.g. @bih.net.ba, @teol.net).

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<sup>160</sup> N - number of municipalities surveyed.

<sup>161</sup> Field survey, visit to a neighbourhood community office and testing the system as a user, Fuad Ćurčić, January 2011.

<sup>162</sup> Three municipalities did not reply to this question and we are, therefore, not sure what type of Internet access they use. However, the other replies suggest that these municipalities, too, use some type of Internet access.

## 6.4. Human resources

Of the municipalities that replied to the distributed questionnaire, 22.8% (N=114) stated that their formal organizational set-up included an IT unit tasked with the maintenance of the ICT system. However, all municipalities report that in most cases the local administration has only one, and more rarely two or more, employee dealing with the maintenance of the e-governance system. The small number of employees in these posts can be explained with the absence of a greater need for maintenance jobs in the municipalities, with the exception of the network, Internet connection and a couple of software packages. Only some administrations maintaining big systems employ more people in these jobs. Thus, for instance, the City of Banja Luka employs 12 IT experts who work on the maintenance of the system. Also, municipalities very often outsource IT maintenance to firms or individuals (71.9%, N=114).

According to the estimates that we received from municipal representatives, the share of employees who use ICT on a daily basis varies considerably from one municipality to another. Thus, in 71% of municipalities, more than a half of the employees use ICT daily. But, there are still municipalities where the level of usage is significantly lower (for details, see Table 7).

**Table 7:** *Share of employees using IT on a daily basis*

	Number of municipalities	% (N=114)
0-10% of employees	3	2.6
11-30% of employees	7	6.1
31-50% of employees	19	16.7
51-70% of employees	37	32.5
71-100% of employees	44	38.6
No reply	4	3.5
Total	114	100.0

Source: primary research carried out for the purposes of this report (2010-2011)

By means of primary research, we also established that a considerable need exists for additional training for employees of local authorities, including training in using Excel and Word as well as in using special software in municipalities and in maintaining the Web site. We can observe that not even basic computer literacy has been achieved with all the municipal employees, and thus even the need for training in Internet searches and using Word still exists (see Table 8).

**Table 8:** *Needs for different types of training in local authorities (%)*

	No training needed	Mostly not needed	Medium needs	Needed	Very much needed	Several replies	No reply	Total
Word	20.2	39.5	21.1	12.3	1.7	0.9	4.4	100
Excel	0.9	11.4	38.6	36.0	7.9	0.9	4.4	100
Internet search engines	10.5	36.8	24.6	19.3	1.8	0.9	6.1	100
Software for municipal services	9.6	21.9	31.6	18.4	12.3	0.0	6.1	100
Web site maintenance	21.9	21.9	12.3	16.7	20.2	0.9	6.1	100

Source: primary research carried out for the purposes of this report (2010-2011)

## 6.5. Software and e-governance

If we speak of the development of e-governance, we have to look at the software capacities of local authorities in Bosnia and Herzegovina. In different segments of services, municipalities have to a considerable extent already introduced special-purpose software that allows the creation of and searches in databases, easy data entry and processing of cases in different areas in which local authorities offer services. As suggested by findings of different surveys, to a significant extent municipalities already use software that allows for more efficient processes in different areas, such as civil registries, citizenship records, land registry and spatial planning. According to the data we collected (N=114), in 2010 94.7% of municipalities used software for civil registries, 87.7% software for citizenship records, 47.4% for cadastre records, and 35.1% for social welfare records (see Table 9).

Thus, considerable progress has been achieved, especially in the field of civil registries, as all municipalities in the country have birth databases and are able to quickly enter data on new citizens, find data and issue certificates. We should note that the introduction of software has to a significant extent been a result of incentives provided by donors, in cooperation with higher levels of authority. Thus, for instance, in the RS the DataNova software was introduced thanks to Sweden's SIDA and the RS Ministry of Administration and Local Self-Governance. According to the information obtained from the ministry, this software is currently used in 30 municipalities in the RS. A

further 28 municipalities use other civil registry software, while five municipalities in the RS do not have this type of software.<sup>163</sup>

When it comes to citizenship, a large majority of municipalities – 87.7% (N=114) – use software for citizenship records. Considerable progress is also visible in this regard compared to the data from earlier UNDP reports (see more details in Table 9).

As for cadastre software, the situation seems to be significantly worse as a comparison with the 2005 and 2009 UNDP reports does not show any progress in introducing this software in municipalities. According to the findings of our primary research, only 47.4% of municipalities have the software. A possible reason for this is that the software is relatively complicated to implement and maintain.

Another very important type of software serves to track citizens who receive social welfare and was used by 35.1% municipalities in 2010, compared with 26% in 2008 and 23% in 2005. This shows that a significant step forward has been made over the last five years in the implementation of this software.

In order to show the trends in the development and implementation of some IT-supported services of local authorities over the past several years, the table 9 includes data for 2005, 2009 and 2010, to the extent to which they are comparable.

In addition to the above-mentioned types of software, the primary research collected data on other software solutions in local self-government bodies in Bosnia and Herzegovina. A comprehensive overview of software used by municipalities in the

**Table 9:** *Software in local administration, by year*

Name of software in local administration	2005 % (N = 125)	2009 % (N = 114)	2010 % (N = 114)*
Civil registries	48.8	Birth: 85 Marriage: 82.5	94.7
Citizenship records	48.8	82.5	87.7
Cadastre records	41.6	52	47.4
Social welfare records	22.4	26	35.1

\*Refers to received affirmative replies. The remaining percentages refer to the replies “No” and “I don’t know” as well as to cases in which no reply was given to these questions.

Sources: UNDP BIH e-Spremnost 2005, available at: <http://www.undp.ba/upload/publications/lzvjestaj%20o%20e-spremnosti%202005%20-%20bez%20naslovne%20str.pdf>; UNDP BIH e-Spremnost 2009, available at: <http://www.undp.ba/index.aspx?PID=7&RID=638>; and the primary research carried out for the purposes of this report (2010-2011).

<sup>163</sup> Information obtained by e-mail from the Ministry of Administration and Local Self-Governance (10 April 2011).

country according to the findings of the primary research is given in Table 10. The obtained data shows that, as a rule, municipalities have software for finances (accounting) – 96.5% of them; 84.2% also have budget monitoring software; and 70.2 % of local self-government bodies use software for assets records. In the introduction of software for these purposes, donor incentives once again played a very important role. Thus, according to information obtained from the office of the Government Accountability Project (GAP), their work resulted, among other things, in the introduction of accounting software in 53 municipalities in Bosnia and Herzegovina.<sup>164</sup>

Further, according to the findings of the primary survey, currently only 33.3% of municipalities have software for tracking loans.

Spatial planning is also a municipal competence and the related software is an important aspect of the development of e-governance in municipalities. Only 36% of the surveyed municipalities said that they had this software.

**Table 10:** *Comprehensive overview of municipal software in Bosnia and Herzegovina, 2010 (N=114)*

Type of software	Has		Does not have		I don't know + no reply		Total	
	No.	%	No.	%	No.	%	No.	%
Civil registries	108	94.7	5	4.4	1	0.9	114	100
Citizenship records	100	87.7	12	8.8	2+2	3.6	114	100
Cadastre records	54	47.4	27	21.9	2+33	30.7	114	100
Spatial planning	41	36	52	45.6	6+15	18.5	114	100
Software for tracking municipal finances	110	96.5	3	2.6	0+1	0.9	114	100
Software for tracking budget performance	96	84.2	18	15.8	0	0	114	100
Records of permanent assets	80	70.2	29	25.4	3+2	4.4	114	100
Tracking loans	38	33.3	63	55.3	7+6	11.4	114	100
Social welfare records	40	35.1	57	50.0	8+9	14.9	114	100
Monitoring economic and social indicators	22	19.3	72	63.2	12+8	17.5	114	100
Automatization of office procedures	42	36.8	60	52.6	3+9	10.5	114	100
Document management system	56	49.1	51	44.7	2+5	6.2	114	100

Source: primary research carried out for the purposes of this report (2010-2011).

<sup>164</sup> E-mail reply from the GAP (1 April 2011), and subsequent information from the GAP sent in writing by Mr Saša Leskovic, GAP (16 June 2011).

Executive municipal authorities are obliged to develop strategic and development plans as well as annual work plans and to inform citizens about their implementation. For all these activities, municipalities need software that enables them to have the necessary statistics and data. However, according to the data obtained through the questionnaire, only 19% of municipalities (N=114) have software for monitoring the municipality's socio-economic indicators (see Table 10).

Municipal daily activities include processing and issuance of different documents, which often travel around different departments. A global contemporary trend is the so-called *Document Management System*, in which documentation is followed from a request by a citizen to the final response to the request. Although this system is of great importance for local authorities, only 49.1% of them (N=114) use it currently in Bosnia and Herzegovina. Likewise, only 17% of municipalities have developed systems for automatization of office procedures. It is interesting to note here that some municipalities have an integrated request monitoring system, whereby the citizen receives a text message at different stages of the handling of his/her request.

In addition to all the above-mentioned software to be used by municipalities, modern technology allows for the implementation of Intranet systems within a local network of municipalities. These systems are used for internal exchange and storing of information. According to the findings of our primary research, 69.6% of municipalities have developed Intranet systems.

Also, according to primary data, municipalities have other software that directly or indirectly helps develop e-governance. For instance, numerous municipalities have implemented a system of recording working hours and movements of employees in order to ensure that employees work the required amount of time. This system is especially important in larger municipalities with several hundred employees. Some municipalities also use software for monitoring capital projects in order to ensure more efficient information provision on the status of a project. In addition, positive examples from some municipalities include citizen contact centres.

Of the 79 municipalities that stated that they had field offices, 50 said that they used some of the IT-supported systems in those offices as well, while 29 municipalities say that those systems were not used in field offices.<sup>165</sup>

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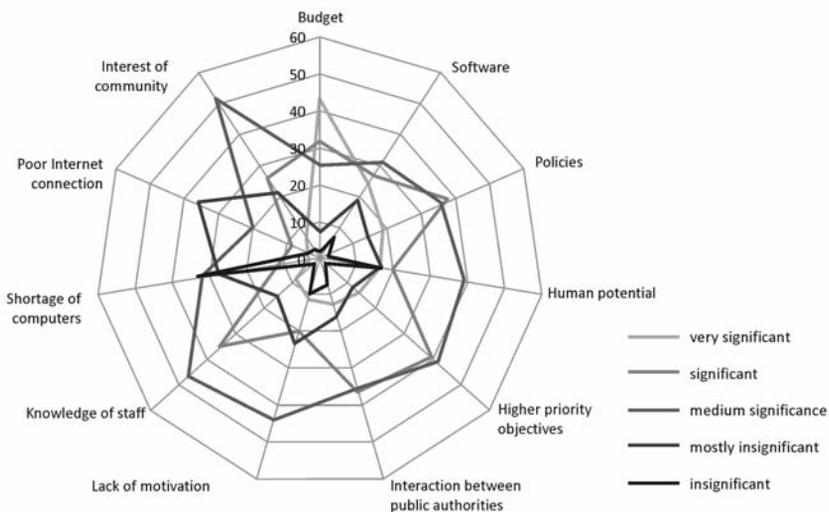
<sup>165</sup> 31 municipalities did not have such offices, one municipality answered "I don't know", while three did not answer the question.

## 6.6. Obstacles to the development of local e-governance

According to data obtained in our primary research, it is evident that municipalities and cities have made a big step forward in the development of e-governance. This primarily refers to infrastructure, number of computers, networked computers and type of Internet access. However, there are other obstacles to the development of e-governance at the level of municipalities and cities.

The survey showed that the lack of budget funds and equipment was one of the key reasons not to further develop e-governance. Another set of problems includes the objectives, policies and interaction between key participants in the development of e-governance, which often goes beyond the activities of the municipality itself. A third set of problems, such as knowledge, willingness, employees as well as the interest on the part of the local community, has to do with the municipality itself. In brief, municipal employees believe that the primary problems concern essential elements such as budgetary constraints. These are followed by factors over which the municipality itself often has little control (user capacities and G2G interaction), and finally by the municipality's internal problems (above all the lack of software capacities and IT literacy).

**Chart 2:** *Level of problems by key types*



Source: primary research carried out for the purposes of this report (2010-2011).

Chart 2 and Table 11 show the level of problems by 11 main types due to the lack of: software, budget, objectives, staff, knowledge, will, equipment, Internet, interaction, interest, policy.

**Table 11:** *Factors adversely affecting the development of e-governance at the level of local self-government (N=114)*

	Very significant problem (%)	Significant problem (%)	Problem of medium significance (%)	Mostly insignificant problem (%)	Insignificant problem (%)	No reply (%)	Total (%)
Lack of software capacities	21.1	23.7	27.2	16.7	6.1	5.3	100
Budgetary constraints	37.7	28.1	21.9	6.1	1.8	4.4	100
Investment in other priority objectives	11.4	35.1	36.8	10.5	0.9	5.3	100
Lack of qualified IT staff	14.0	17.5	34.2	14.9	14.9	4.4	100
Lack of IT literacy among employees	7.9	31.6	42.1	13.2	1.8	3.5	100
Lack of motivation among employees	9.6	17.5	39.5	21.1	8.8	3.5	100
Insufficient number of PCs	2.6	10.5	28.1	24.6	28.9	5.3	100
Poor Internet connection	3.5	7.0	17.5	31.6	36.8	3.5	100
Lack of G2G interaction	11.4	32.5	31.6	14.0	6.1	4.4	100
User interest	6.1	22.8	45.6	18.4	2.6	4.4	100
Lack of enabling policies	16.7	33.3	31.6	12.3	1.8	4.4	100

Source: primary research carried out for the purposes of this report (2010-2011).

**Table 12:** *Key problems in the development of local e-governance (N=124)*

Type of problem	Median mark for problem's significance (min. 1-max. 5)
Budgetary constraints	4.0
Lack of stimulating policies	3.5
Investment in higher priorities	3.5
Lack of software capacities	3.4
Lack of G2G interaction	3.3
Lack of IT literacy	3.3
User interest	3.1
Lack of IT staff	3.0
Lack of motivation among employees	3.0
Insufficient number of PCs	2.3
Poor Internet connection	2.1

Source: primary research carried out for the purposes of this report (2010-2011).

Table 12 shows the median marks for the level of problem with each of the 11 types of obstacles to the development of e-governance in municipalities and cities, including flawed policies, budgetary constraints and lack of internal resources, as well as user interest and lack of interaction with other authorities. A scale from 1 to 5 was used, 1 indicating an insignificant and 5 a very significant problem.

## 7. THE ONLINE PRESENCE OF MUNICIPALITIES AND E-GOVERNANCE

When implementing an e-governance system, public institutions, including local authorities, are faced with a big selection of Web technologies on which to base their solutions. These technologies offer different possibilities for encouraging information provision to citizens, for the development of consultation practices and citizen participation in making decisions of public importance, such as *Web sites* (for informing and interacting with citizens); *microsites* (small self-standing Web sites, separate from the main site, useful for a certain function or project of the administration); *YouTube* ([www.youtube.com](http://www.youtube.com), for exchange and commenting on video content); *SMS* (Short Message Service);<sup>166</sup> *social networking media* (Facebook, Twitter etc.); *blogs and online forums* (for informing and interacting with citizens, consultation and mobilization of citizens for certain causes); *user-generated content* (e.g. the page FixMyStreet [www.fixmystreet.com](http://www.fixmystreet.com), where users publish, browse and comment on information about various local problems) (IdeA, 2009).

The important role played by the analysis of authorities' Web pages in global e-governance surveys is illustrated by the fact that some of the models for measuring the development of e-governance are primarily based on assessing online presence. Thus, the report "UN e-Government Survey 2008: From e-Government to Connected Governance"<sup>167</sup> (2008) defines the following five levels of development of a government's online presence:

- Phase I – Emerging e-governance: A government's online presence consists mostly of an official Web page with largely static information, without links to other relevant government institutions or agencies. There is very little interaction with citizens.

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<sup>166</sup> It is also possible to use the following technologies: Bluetooth wireless transmission of information; RFID technology, which uses radio frequencies for exchange of data between devices; Smart Cards, with information stored on a chip.

<sup>167</sup> United Nations, 2008.

- Phase II – Enhanced e-governance: A government offers more information about public policies and the government itself. There are links to archived information easily accessible to citizens, such as documents, forms, reports, laws, bulletins, and so on.
- Phase III – Interactive e-governance: A government offers online forms to be filled out directly on the Web, for different services offered by the local administration. Much effort is invested in citizens getting the requested services as conveniently as possible.
- Phase IV – Transactional e-governance: A government begins to transform itself by introducing two-way interaction between citizens and the authorities. This includes the possibility to pay certain fees online; applications for personal documents; issuance of civil registry certificates; as well as the possibility for citizens to get these services 24/7. All transactions are conducted online.
- Phase V – Connected e-governance: A government transforms itself into a connected entity that responds to the needs of its citizens by developing an integrated administrative system that supports online services. This is the most sophisticated level of development of e-governance.

This scale is a good starting point for assessing the development of Web activity of local governments in Bosnian municipalities. We shall use a somewhat adapted analytical framework employed by Adla Isanović (2010) in her recent analysis of the degree to which municipal Web pages in Bosnia and Herzegovina encourage citizen participation in decision-making processes at the local level. Isanović especially pays attention to the measure in which these Web pages are an efficient channel for political information and citizen participation (Isanović 2010, p.251). In this sense, Web sites have a three-fold function: (a) enhancing information provision for citizens (up-to-date information, comprehensiveness, and easy, unlimited, affordable access for all citizens), (b) enhancing the process of consultation and citizen participation in decision-making at the local level, (c) providing interactive and personalized services, such as submission of different requests or tracking request processing online (Isanović 2010, p.251).

As Isanović notes (2010, p.252), in order for local government Web sites to perform these primary functions well, they need to have three basic aspects developed to a certain degree:

- **Content:** They need to include all the necessary information and make it available to citizens, such as the basic contact information; information on services; information on citizens' rights; information on current issues, plans, budgets, staff, councillors, etc.;

- **Functionality:** The Web site should be functional, that is user-friendly, all of its functions relatively easy to use and the wanted content or services easy to find for all citizens. This means that the Web site should have a functional content search engine; an index of content; different language options; modifications for persons with special needs such as vision-impaired persons; the option to subscribe to a mailing list; etc.;
- **Interactivity:** The Web site should have mechanisms of two-way communication and interaction between the local government and citizens in order for them to be able to exchange information and to deliver services online that normally require direct interaction between citizens and the local administration. This implies the existence of certain interactive Web tools, such as forums and chat rooms; the possibility to ask questions of the mayor, councillors and administrative services; the possibility to submit different requests to the local administration; as well as the possibility to obtain different services via the municipal Web site (see Isanović 2010, pp.257-258).

We, too, have focused on these three aspects of municipalities' and cities' Web presences.

We have analyzed Web pages of municipalities and cities, in order to establish in which way these authorities used Web communication with citizens and the business sector. We have also analyzed the level of information provided by Web pages, online service provision, as well as the interactivity of content. More specifically, the analysis checked if the municipal and city Web pages offered the following:

- general information on the municipality (such as its geographical location; cultural and historical features; information on political organizations, businesses; and the like);
- information on municipal structures (municipal functions; organizational set-up; list of employees; events calendar; current and implemented projects; municipal decisions; and other);
- information on the Municipal Council/Municipal Assembly (names of members, CVs, contact information, work plan, and other information);
- availability of relevant documents (including documents currently being adopted; strategies and action plans; municipal budgets, laws, statutes, decisions, and others);
- modality of interaction with citizens (newsletter; existence of online forums; chat room; surveys; links between topics on each of these platforms and current

processes; FAQ; RSS feed; general and specific contact information; online forms for inquiries, e.g. for legal advice or inquiries addressed to certain departments, and others);

- provision of mobilizing information (such as information on citizen participation and upcoming political meetings, e.g. on the time and topic of public consultations; background documents; information on the impact of public consultations);
- information on municipal services and online services (information on exercising one's rights in the municipality; downloadable static forms; online application procedures; online verification of entries in civil registry records; text message or e-mail notifications on the status of a case);
- other characteristics of Web pages (such as ease of navigation on the Web site; use of script and language; special download sections; etc.).

The Web site analysis covered 122 municipalities and two cities in Bosnia and Herzegovina.<sup>168</sup> The remaining municipalities had no official Web address at the time when the pages were accessed, or the Web pages were not active. More precisely, 17 municipalities in Bosnia and Herzegovina had no functional Web page at the time of analysis.<sup>169</sup> The analysis was conducted in the period December 2010 - January 2011.

The findings of our survey (late 2010) confirm that there is no standardized approach to using domains. As a result, different domains are used, including .gov.ba, .ba, .com, .org or .net.

Earlier available analyses of Web pages of different levels of authority show that the potential of new Web technologies was to a significant extent underutilized in Bosnia and Herzegovina.<sup>170</sup> Also, earlier surveys point to the problem of lack of planning and coordination in developing municipal Web portals, which results in using different domains, different visual identities and content of Web presentations, and a variety of e-mail addresses (AIDRS "Primjena IT u organima lokalne uprave RS - Polazna razmatranja", 2008).

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<sup>168</sup> The Web page of Brčko District, as a separate unit of local self-government, was not analyzed. Further, the analysis covered the Web pages of those municipalities that were easy to find (using the databases available on the Web pages of the FBiH and the RS Associations of Cities and Municipalities) and were functional at the time of analysis.

<sup>169</sup> The number may vary and some of the pages might have been out of order temporarily given that, according to other data, in 2010 16 municipalities, that is 11%, did not have a Web site (Jusić 2011, p. 48).

<sup>170</sup> See Osmančević 2009; also see Isanović 2010.

## 7.1. Content

When it comes to updating Web sites, according to the data obtained through the questionnaire, most municipalities and cities update the content several times per month (60.5% of municipalities - 10 and more times; 9.6% of municipalities – six to nine times per month; and 7.9% of municipalities – two to five times per month; N=114) or once a month (5.3% of municipalities), while a smaller percentage of municipalities reported that updating was done irregularly or less than once a month (12.3%) or as needed (1.8%). However, according to the data obtained through the questionnaire, in most municipalities the process of publishing content on Web pages is not regulated, i.e. procedures for updating Web pages are not officially defined (only 26.3% of municipalities have such rulebooks, while 69.3% do not have officially defined procedures).<sup>171</sup> This shows that even at the municipal level of government, systemic solutions are missing to ensure adherence to certain standards when it comes to the official Web pages of local government bodies.

The analysis of Web sites<sup>172</sup> sought to identify of certain types of content on Web pages of municipalities and city authorities. The findings lead us to conclude that there are certain positive practices in Web presentation but that they are uneven and sporadic. Particularly high is the share of municipalities that publish static information which does not require frequent updates, such as information on the municipality or city itself, on the municipal or city authorities, as well as basic information on employees and names of members of the Municipal Council or Municipal Assembly. Also, relevant documents, such as strategies and action plans, municipal decisions, municipal or city statutes, are available on more than 67% of Web sites (see Table 13).

Our analysis shows that 74.2% of the Web pages (N=114) contain municipal budgets for individual years. However, here, too, there is inconsistency in publication. Thus, the current budget was available on only 44.4% of the Web pages, while on the others budgets from one or several previous years were available. An analysis conducted during 2010 showed that more current budgets were available that year than this year (Jusić, M. 2011, p 48), with 58% of the Web sites (N=125) having the current budget.<sup>173</sup>

<sup>171</sup> The remaining share (4.4%) includes those who replied “I don’t know” and the cases in which no reply was given.

<sup>172</sup> The content was browsed intuitively, using direct links as well as search engines with keywords.

<sup>173</sup> An assessment of budgetary transparency in Bosnian municipalities. Available at: <http://www.analitika.ba/files/Analitika%20-%20Lokalna%20budzetska%20transparentnost.pdf> (accessed on 23 September 2011). We should bear in mind that the survey conducted by Jusić in 2010 used a different method, i.e. municipal Web pages were not browsed only through navigation of a Web page but also through the Google search engine for each Web site individually, using the “site:” function, which is why it was possible to find a larger number of documents.

**Table 13: Types of content on Web sites (N=124)**

The following content is available on the Web page:	Yes (%)	No (%)
Basic information about the municipality, its history, location, culture and the like	99.2	0.8
Information on political organizations, individual politicians and related content	89.5	10.5
Business directory or information on businesses in the municipality/city	40.3	59.7
Information on the public authority, its role and services offered by municipal/city authorities	87.1	12.9
General contact information (address, official e-mail address and phone number)	87.1	12.9
Information on organizational set-up (departments and services)	89.5	10.5
E-mail directory (with e-mail addresses of at least the managers: heads of departments, head of municipality, president of Municipal Council)	50.8	49.2
Phone directory (with numbers of at least individual departments, or of the supervisor and individual employees)	61.3	38.7
Available list of employees	93.6	6.4
Information on current projects of the municipality/city	43.5	56.5
Information on projects implemented	46.8	53.2
Information on names of members of the Municipal/City Council or Municipal Assembly	86.3	13.7
Contact information of Council members	22.6	77.4
Available CVs of Council members	21.8	78.2
Work plan of Municipal/City Council or Municipal Assembly	41.9	58.1
Calendar of events organized by the municipality	13.7	86.3
Information on laws relevant for local self-government	20.8	77.6
Available statutes of the municipality/city	67.7	32.3
Available strategies and action plans	75.8	24.2
Draft documents currently in adoption procedure	39.5	60.5
Information on municipal decisions/decisions of city authorities	69.4	30.6
Available budget of the municipality/city authorities	74.2	25.8
Available information on the procedure for exercising certain rights in the municipality, i.e. obtaining certain documents and certificates	12.1	87.9

Source: Analysis of municipal Web pages - primary research conducted for the purposes of this report (2010-2011).

However, as one analyzes the level of detail in the information available under individual headings, the situation gets worse. Thus, for instance, the CVs and contact information of municipal councillors are available on fewer than 23% Web sites (N=124). Also, although a large share of Web sites offer information on municipal employees, half of the analyzed Web sites list the names and basic information on holders of only a couple of top posts in the municipality (such as the head of municipality and president of the municipal or city council), while 36.3 % of the Web pages include basic information on a larger number of municipal employees. Only

7.3% of the Web pages include detailed information on a larger number of employees in the municipal or city government, while 6.4% of the analyzed Web pages do not contain any information on municipal employees. Contact information is provided in the form of an e-mail directory on 51% of the Web sites, and in the form of a phone directory on around 61% of the Web sites, while on as many as 12.9 % of the Web sites (N=124) not even basic contact information of the municipality is displayed, such as the address of the local authorities, official e-mail address or phone number. As Isanović notes (2010, p.258), it is not known whether someone replies to e-mails coming to the contact address of the municipality or how often they reply since no information on this was offered on the Web sites.

Further, although relevant documents, such as action plans, municipal decisions – and to a smaller extent those regarding implemented and current projects – are available on the Web sites, we should note that insights into the overall course of the implementation of plans and projects are sporadic as there is no systematic approach to the way this is presented. This is to be expected since in most municipalities and cities in Bosnia and Herzegovina there are no rulebooks on the publication of content or updating of Web sites.

Interestingly, only 39.5% of municipal and city authorities at the time of analysis published on their Web pages draft documents going through the procedure of adoption.<sup>174</sup> When it comes to calendars of events organized by the local authorities, which should offer information to citizens on all the topical events in the period to come and, thus, on possibilities to participate in decision-making processes at the local level, it is worrying that only 13.7% of the analyzed Web sites (N=124) contain calendars of events organized by the municipal or city authorities.

In addition, the findings suggest that services of municipal and city administrations are rarely supported or promoted through Web pages. Thus, for instance, the option of online verification of entries in civil registry and other records exists on only 5.6% of the analyzed Web sites, while online applications for documents are possible on only 1.6% of them (N=124).

Likewise, there are few possibilities to use ICT for simple notification of citizens about the status of cases at any stage of their processing by municipal or city departments.

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<sup>174</sup> Since this was in the period December 2010-January 2011, many of the analyzed municipalities might have not had any documents going through the adoption procedure.

Thus, few offer the possibility to receive notifications on the status of a case via text messages (2.4% of the Web sites) or via e-mail (3.2% of the Web sites).

When it comes to online static forms, which can be downloaded, filled out, printed and physically brought to a certain department, they are available on a far larger number of Web sites (54% of Web sites offer downloadable forms; N=124) (see Table 14).

**Table 14:** *IT-supported services*

Whether the following is offered on the Web sites:	Yes	No
Downloadable online static forms available	54.0	46.0
Online procedures for applications for documents exist	1.6	98.4
Information on possibility to track cases via text messages	2.4	97.6
System of electronic notification on status of cases in administrative proceedings	3.2	96.8
Online verification of entries in civil registry, birth, citizenship, marriage and death records	5.6	94.4

Source: Analysis of municipal Web pages - primary research conducted for the purposes of this report (2010-2011).

We also explored to what extent the Web pages contained so-called mobilizing information, that is information that can encourage citizens to participate in political processes at the local level. This includes information on modalities of citizen participation, on upcoming major political events, public consultations and civic initiatives. The findings are presented in Table 15.

**Table 15:** *Mobilizing information on the Web sites*

The following content is available on the Web sites:	Yes (%)	No (%)
Information on modalities of citizen participation (how to submit proposals, lodge complaints, petitions, vote, etc.)	58.1	41.9
Schedule and topics of upcoming political meetings, such as public consultations	22.6	77.4
Additional information on public consultations, background documents, such as budget proposals, and the like	19.4	80.6
Information on the effect of public consultations on the decision-making process	12.1	87.9

Source: Analysis of municipal Web pages - primary research conducted for the purposes of this report (2010-2011).

The findings show that at the time of analysis around 42% of the Web pages of local authorities did not include any information on citizen participation. By contrast, there is the positive practice of publicizing information on upcoming political meetings in around 23% of the municipalities and cities and of providing additional information on

those meetings and availability of background documents on around 19% of the analyzed Web sites. Nevertheless, Mišić-Mihalović and Jusić (2010, p.205) report that a search for the term “public consultation” on municipal Web pages showed that as many as 90 municipalities (72%) had published on their official Web sites information on or an invitation for participation in public consultations, a finding that paints a somewhat better picture than the one suggested by the findings of our survey.<sup>175</sup>

Our findings are in line with the conclusions of another recent analysis of municipal Web pages (Isanović 2010, pp.254-255), which showed that the content of municipal Web sites primarily included general information on the municipality and municipal administration. With the exception of several advanced municipalities,<sup>176</sup> information on services, municipal departments, individual politicians and municipal employees, or on current political issues and plans, is rarely provided and is, as a rule, not detailed. These findings suggest that citizens are still not the focus of the attention of municipal authorities when it comes to Web-based services, above all because little seems to be done to ensure faster, easier and cheaper delivery of services to citizens via Web platforms and because little attention is paid to encouraging citizen participation in decision-making and improving the transparency of the work of local administrations. This shows that local administrations continue to have a low sense of accountability vis-à-vis citizens since citizens are for the most part denied key information both on the work of the local administration itself and on the rights of citizens and the modalities of exercising those rights.<sup>177</sup>

## 7.2. Functionality

The findings of an analysis of functionality of municipal Web sites were even poorer than those of the content analysis. It is discouraging that only 5% of the local government

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<sup>175</sup> The somewhat better result of this earlier survey can also be attributed to the different method of browsing the Web pages that was employed: they were browsed not only by means of navigation of Web sites but also with the help of the Google search engine for each individual Web site, using the “site:” function. This is why it was possible to find a larger amount of relevant content. If only navigation of Web pages is used (as is the case with most average users), it is clear that information would not be so easy to get – some of it is simply not easy to find, and some of it is old, i.e. stored in archives.

<sup>176</sup> Positive examples that are singled out include the municipality of Centar Sarajevo as well as the municipalities of Novi Grad, Novo Sarajevo, Stari Grad, Travnik, Laktaši and Livno, as their Web sites offer a larger amount of detailed information of this type (Isanović 2010, p.254).

<sup>177</sup> However, we should especially note that there are no precise legal requirements as to what the local administration should inform citizens about, as Mišić-Mihajlović and Jusić (2010) note in their analysis.

bodies (i.e. five municipalities and one city authority; N=124) should offer the possibility of subscribing to a newsletter sent by e-mail. Fewer than one-fourth of the analyzed municipalities offer the possibility to subscribe to RSS feeds (see Table 16).

Just like Isanović concluded earlier (2010, p.257), this survey, too, shows that there is no standard practice in choosing the language or script used on Web sites of local authorities. Our analysis has confirmed that both official scripts are rarely used on one and the same Web site: only 18.5% of the municipalities have Web pages in both Latin and Cyrillic script. The usage of languages other than the languages of Bosnia and Herzegovina is not a particularly common practice, with English being used the most (16.9%) and other languages to a smaller extent (only German on one Web site, several languages on 3.2% Web sites; N=124). However, we should note that the amount of content given in a foreign language is mostly smaller and less regularly updated. Also, in some cases there is only a link for a different language that does not work, or only the navigation headings are translated.<sup>178</sup>

As for the functionality of Web pages for persons with special needs, and the possibilities such as audio presentations or letter enlargement (zooming), fewer than 13% of the Web pages offer such options (see Table 16). The existence of this option is important in terms of ensuring equal access to information and political processes for all citizens. The introduction of this practice is an important step, but the vast majority of municipalities – 87.1% – do not take into account citizens with special needs.

**Table 16:** *Functionality of a Web site*

The Web site offers/allows for the following:	Yes (%)	No (%)
Subscribing to a newsletter	4.8	95.2
FAQ (Frequently Asked Questions)	6.5	93.5
RSS feed	23.4	76.6
Use of both scripts (Latin and Cyrillic)	18.5	81.5
Use of foreign languages	20.9	79.1
Options for groups with special needs	12.9	87.1
Download section for all Municipal Council documents, rule books, decisions, and the like	59.7	40.3

Source: primary research conducted for the purposes of this report (2010-2011).

<sup>178</sup> See, for instance, the Web site of Prnjavor Municipality (date of analysis: 17 January 2011), on which the content is available in English but only the navigation is translated into the other languages: Czech, Polish, Ukrainian and Italian.

Finally, an assessment was also made of the ease of classification of content, that is the ease of finding the searched content on the Web. It was found that 26.6% of the Web sites had a very simple classification, and that the classification of content on most Web sites (48.4% [N=124]) was satisfactory. On the other hand, it was concluded that the classification made finding content considerably more difficult on 24.2% of the Web sites of local authorities.<sup>179</sup> Thus, for instance, in as many as 40.3% of cases (N=124) the Web pages do not include download sections for all Municipal Council documents, such as rulebooks, decisions, etc. Also, according to Isanović (2010, pp.256-257), almost all of the Web sites have a search option for the entire Web site (search box), but almost no municipal Web sites have an option for special or advanced search (for instance, within certain sections) or an alphabetical index of content (A-Z) that could facilitate the search. Likewise, Web sites do not contain instructions for users, i.e. help sections, with information on the full use of the Web sites' potential and services (Isanović 2010, p.256).

On balance, municipal Web pages in Bosnia and Herzegovina in most cases are not suited to the needs of different groups of citizens; they do not ensure equal use of the Latin and Cyrillic scripts; they do not offer adequate content in foreign languages; and, generally speaking, are not user-friendly.

### 7.3. Interactivity

All the analyzed Web pages (N=124) were also assessed in terms of the interactive features that they offer. As shown in the table 17, the findings suggest that the possibilities of consulting and interacting with citizens are largely neglected. Online

**Table 17:** *Interactivity of Web sites*

Does the Web site offer the following:	Yes (%)	No (%)
An online forum for debate and/or chat pool	6.5	93.5
Inquiry forms (e.g. for seeking legal advice or inquiries to certain administrative services)	60.5	39.5
Polls	46.0	54.0

Source: primary research conducted for the purposes of this report (2010-2011).

<sup>179</sup> Another Web page was classified as "something else" in this regard given that the only content on the Web page at the time of analysis was general, historical information on the municipality (see [www.breza.com](http://www.breza.com); date of analysis 12 January 2011).

forums are an exceptionally rare practice (6.5% of the Web sites; N=124), while online polls are used by around 46% of local authorities (see Table 17). Similar findings are reported by Isanović (2010, p.259), who notes that tools for online debate exist only on a few Web sites.

Even when the above-mentioned possibilities exist, the findings of our analysis suggest that the topics of debates or poll questions are rarely related to current decision-making processes. Thus, the analysis showed that in seven out of eight cases where the Web sites offered the possibility of participating in forums or chat pools the discussions or topics were not related to current decision-making processes. Similarly, out of a total of 57 Web sites containing polls (N=124), the questions were related to current decision-making processes in only nine cases.<sup>180</sup> These findings point to the conclusion that polls (and forums) are not a result of a systematic effort by the municipality to increase citizen participation but very often of a decision by the Web page administrator. We can, therefore, assume that, as a rule, they are not used to consult citizens in public policy development. In addition, Isanović reports that, as a rule, politicians and government representatives do not take part in the existing discussions and the presence of a municipal moderator is not visible, while discussions are not particularly lively since content is rarely published (p.259).

When it comes to the availability of special forms for inquiries, such as forms for legal advice or inquiries addressed to individual administrative departments, the situation is considerably different. As many as 60.5% of the municipalities or city authorities have online forms for such inquiries. Isanović, however, notes that from the contact forms offered by municipalities it is not clear how they are processed or who, within what time and if at all replies to a received inquiry (2010, p.259).

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Overall, we conclude that the basic potential of local authorities' Web pages for informing target groups is being used, but their potential for advancing services (online applications), as well as increasing citizen participation (forums, polls, etc.) is, as a rule, underutilized. In this sense, on the above-mentioned five-phase scale of development of Web presence (UN e-Government Survey 2008), municipalities in Bosnia and Herzegovina on average fall in the second category of development, that of "enhanced e-governance". This means that local administrations in the country offer a

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<sup>180</sup> Thirty-seven questions were not related to current processes, and for 9 of them it was not clear if they were related to current processes.

considerable amount of information on the local administration itself, and on local public policies and the local community in general. The Web sites for the most part include links to archived information and documentation, and citizens in some municipalities can relatively easily access various forms to be downloaded, filled out and then physically submitted to the local administration. Nevertheless, there are problems of outdated content and lack of functionality and interactivity.

## 8. CONCLUDING REMARKS

This survey has sought to provide a comprehensive picture of factors affecting the development of local e-governance in Bosnia and Herzegovina. It has devoted special attention to analyzing the political, legal, technical and socio-economic aspects of the development of e-governance in the context of general trends in the reform of public administration and local administration over the past ten years. The survey focused on the strategic issues concerning the development of e-governance in the country, specifically: the legal preconditions for developing local e-governance; current policies, strategic approaches and incentives for the development of e-governance; trends and prospects of the development of local e-governance given the overall context of public administration reform; key problems, challenges and steps forward made in introducing local e-governance in Bosnia and Herzegovina. In addition to these aspects, we have also looked at the development of local e-governance in Bosnia and Herzegovina in relation to the key principles of good governance – transparency, accountability, interactivity and citizen participation – seeking to establish to what extent local administrations in the country adhere to these principles when developing e-governance systems.

The findings of the analysis show that Bosnia and Herzegovina, and by analogy its local administrations as well, is today at the first stage of developing e-governance, i.e. that Bosnia and Herzegovina's is the bureaucratic model of e-government, in which IT is primarily used to improve the efficiency of the public administration and government's internal structure. There are only signs of a move on to the second stage of development – the information management model – at which a link is established between citizens and the public administration by developing basic electronic public services. Bosnia and Herzegovina is still far from the advanced stages of evolution of e-governance, such as the citizen participation model, which is characterized by strong participation in the decision-making process by means of IT, or indeed the most advanced model of e-governance, with its intensive and complex transactions between networked social, political and administrative players (Mäenpää 2004; see also the analytical framework outlined in Chapter 3 of this report).

The process of introducing e-governance and e-participation in decision-making processes at the local level has been made difficult by a number of exceptionally complex factors and problems:

- First, Bosnia and Herzegovina significantly lags behind in general when it comes to the development of e-governance in comparison with countries in the region and the trends in this field, which inevitably has negative consequences for the development of local e-governance as well;
- Further, there is an evident lack of strategic vision and coordination when it comes to the development of e-governance in the country;
- The development of e-governance has been jeopardized due to conflicting and confusing competences of different administrative levels, as well as due to imbalances in the establishment of the legal and institutional framework between the entities;
- The legal framework is incomplete and contested (also because of conflicting competences);
- The development of local e-governance is rather neglected in strategic documents;
- The municipalities themselves have an unsystematic approach to introducing e-governance;
- The lack of communication and coordination within the public administration makes the development of e-governance more difficult;
- Due to limited resources, bureaucratization and lack of transparency and accountability, municipalities lag behind in the field of e-governance and e-participation and have not yet placed citizens at the centre of their attention when it comes to introducing e-governance.

What follows is a detailed analysis of the identified problems and factors that stand in the way of developing local e-governance, but also e-governance more generally, in Bosnia and Herzegovina.

### ***BiH lagging behind in developing e-governance***

Surveys have shown that Bosnia and Herzegovina lags behind other countries in the world and the region in developing information society, particularly when it comes to government e-readiness. On the other hand, the infrastructure context and the individual readiness of users of public services in the country have been developing rapidly, which increases the potential to absorb IT-supported services and promote participatory opportunities. In other words, there is an evident, and growing, gap

between government institutions and citizens with regards to e-readiness and the usage of ICT in everyday work. From the point of view of a modern democracy that wishes to join the European Union, it is unacceptable to have such a low overall level of development of e-governance and such rudimentary e-services offered to citizens and businesses by the government; they constitute a serious obstacle to performing basic business transactions and to citizens' demands towards public institutions. This situation unnecessarily drives up costs, slows down business and administrative processes, reduces the efficiency of business and administrative systems and makes citizens' lives and work difficult. This gap could produce tensions and increase the pressure on the authorities to catch up with their citizens and respond adequately to the needs of citizens and the business community in the field of development and delivery of e-services.

### ***Lack of strategic vision and lack of coordination***

Bosnia and Herzegovina has made certain important steps in developing e-governance, but it remains the only country in the region without the adequate institutional framework and strategic approach that are required for the development of information society. We can conclude that there is no coordinated, common policy for the development of e-governance at the state level, and that common standards are missing that would ensure the quality of services and practice as well as interoperability of databases in different public administration bodies. The existing strategies at the level of Bosnia and Herzegovina are no longer up-to-date and relevant; there is no benchmarking; there is no political consensus on the strategic approach to developing e-governance; the competences are unclear; the legal structure is not harmonized; and there is no coordination of activities at different administrative levels. This situation leads to an uneven development of e-governance; duplication of processes; inefficient use of resources; as well as different, incompatible and potentially expensive technical solutions, and inadequate business processes.

This is worrying since in a decentralized society such as Bosnia and Herzegovina, advanced e-governance can only be based on an agreed policy of e-governance and on common standards developed in accordance with the principles of interoperability and a common policy for exchange of data and documents at all the relevant administrative levels. Moreover, one could argue that the level and complexity of decentralization in Bosnia and Herzegovina requires a stronger and more systematic coordination of activities, plans and strategies between the many

administrative levels and territorial units if the country is to develop a functional, efficient and economically sustainable e-governance.

### ***Conflicting competences between different administrative levels and imbalances between the entities***

Unfortunately, in the case of Bosnia and Herzegovina there is an evident conflict in the competences of different administrative levels, primarily between the RS and the state level, which prevents the adoption of agreed and coherent state- and entity-level policies in the field of e-governance, thus hampering the establishment of an efficient institutional framework to allow for a strong development of e-governance in the country. The situation is rendered even more complicated by the complex administrative structure of the Federation of Bosnia and Herzegovina, which consists of 10 cantons with a considerable degree of autonomy. Due to this, it is not clear who, at which level and to what extent is responsible for the development of e-governance, or how activities are coordinated between the FBiH, the 10 cantons and the many municipalities in this entity.

Be that as it may, in the strategic sense the RS is the most advanced, with its Strategy for the Development of Local Self-Government for the period 2009-2015, the 2009 Strategy for the Development of e-Government, as well as the establishment of the necessary institutions and adoption of the legal framework for the development of e-governance.

Similar strategic documents, laws and institutions have not yet been put in place in the FBiH, which shows the growing gap in this field between the two entities, at least when it comes to developing policies and strategies. In the FBiH, a strategy for the development of e-government or relevant laws have not been adopted and there is no body responsible for the development of information society. A major reason for this is the fact that so far the FBiH has been relying on the state-level strategy and legal framework, which has placed it in an exceptionally unfavourable position given that the conflict of competences between the entities and the state prevents the laws and necessary institutions from really taking root at the state level. A further reason is the extremely passive attitude of the FBiH in the past with regards to developing e-governance, whose roots can be sought in the complex administrative structure and unfavourable political processes within this entity. All this has resulted in a stagnation in institutional efforts to develop e-governance in the FBiH compared to the RS.

The FBiH lags not only behind the RS, but also behind contemporary trends in the development of e-governance, and it neglects the needs of citizens and the business

community in the FBiH. This can have exceptionally negative, complex consequences for the overall system of local administration and public administration in Bosnia and Herzegovina in general, given that two disconnected, incompatible systems appear to be emerging and that they are at different stages of development. The mismatch in the area of strategies, policies, laws and practices between the two entities is not a good basis for coordinating activities between those administrative units as agreed policies and an agreed strategic framework for the development of e-governance at the level of Bosnia and Herzegovina can hardly emerge from this imbalance.

### ***Incomplete and contested legal framework***

With the adopted regulations at the level of Bosnia and Herzegovina and the entities, some of the formal preconditions for the development of e-government have been put in place. Thus, among others, the Law on Electronic Signature of Bosnia and Herzegovina<sup>181</sup> (2006) and the Law on Electronic Legal and Business Operations of Bosnia and Herzegovina<sup>182</sup> (2007) have been adopted, and in the RS the Law on Electronic Signature, the Law on Electronic Business Operations and the Law on Electronic Document.<sup>183</sup> These laws are important because they create a legal framework that recognizes communication achieved by means of ICT and allows for electronic authentication of participants in the communication, as well as the use and full legal validity of electronic documents, which improves the efficiency of case processing by government bodies. However, these laws have not been passed in both entities and, except in the case of the RS, do not directly concern the development of e-governance at the local level. In addition, the survey has shown that due to conflicting competences, above all between the RS and the state of Bosnia and Herzegovina, the existing legal framework does not have a stable basis either since certain relevant institutions from the RS (e.g. the AIDRS, see earlier chapters) believe that some important laws at the level of Bosnia and Herzegovina (the Law on Electronic Signature of Bosnia and Herzegovina and the Law on Electronic Legal and Business Operations of Bosnia and Herzegovina)<sup>184</sup> infringe upon entity competences; these laws have, therefore, been contested or will be contested before competent institutions.

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<sup>181</sup> The Law on Electronic Signature (Official Gazette of Bosnia and Herzegovina, No. 91/06).

<sup>182</sup> The Law on Electronic Legal and Business Operations (Official Gazette of Bosnia and Herzegovina, No. 88/07).

<sup>183</sup> See <http://www.narodnaskupstinaris.net/cir/zakoni>, as well as the overview of the laws to be adopted or amended in the chapter on legislation of the Strategy for the Development of Information Society of Bosnia and Herzegovina, 2004, pp. 35-27.

<sup>184</sup> Written comment by the AIDRS to a draft of this report sent on 23 June 2011; available in the authors' archives.

### ***Neglecting local e-governance in strategic documents***

The strategic documents for the development of information society and e-governance in Bosnia and Herzegovina neglect the municipal level of government to a certain extent. Lack of planning in the development of e-governance at the local level, lack of standards and inadequate legal arrangements are considered to be some of the main causes for the insufficient development of e-governance at the municipal level.<sup>185</sup> Therefore, significant steps are yet to be taken in the strategic planning of the development of local e-governance. This is why the development of local e-governance in Bosnia and Herzegovina depends on non-harmonized entity policies (or on the lack of those), and on self-initiative of individual municipalities and donor interventions. Also, current policies concerning local government and self-government do not take into account the intensive development of ICT or the concept of e-governance (Draganić et al. 2006, p.56). We can conclude that there is no clear vision or objectives of the development of local e-governance in Bosnia and Herzegovina at any administrative level.

### ***Municipalities' unsystematic approach to introducing e-governance***

Municipalities can make decisions on their own, adopt rulebooks and define participatory mechanisms through their statutes. Therefore, there are no legal obstacles to the development of e-governance in local self-government bodies themselves. Likewise, the legal framework allows for the establishment of administrative bodies at the municipal level to manage the implementation of e-governance in municipalities. Nevertheless, the findings of our primary research show that these possibilities have largely been neglected. As a result, a large number of municipalities and cities have not taken the relevant decisions or adopted the procedures and strategic documents necessary for the development of e-governance. Within the bodies of local self-government themselves, e-governance is mostly addressed in the framework of certain terms of reference and general development strategies and action plans, while specific acts defining the development of e-governance are very rare. This means that the potential for encouraging e-governance through adopting different municipal acts has been largely untapped. Also, there is a lack of systematic solutions in the development of e-governance at the municipal level. Thus, when it comes to the development of

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<sup>185</sup> See the Strategic Plan for the Development of Local Self-Government in Bosnia and Herzegovina, EDA Development Agency, 2006, p.46, as well as the RS Strategy for the Development of Local Self-Government.

local e-governance, in practice the implementation of objectives and tasks set in the existing strategic documents has not advanced much (Jungić 2008, p.101).

Therefore, the evident gap in the development of e-governance emerging between municipalities with different capacities is not surprising. The level of implementation of e-governance projects varies from one municipality to another due to differences in size and budget (bigger and richer municipalities embarked on implementing various IT solutions earlier) and donor incentives (eSpremnost 2010, p.55). As a result, there are big differences between a smaller number of municipalities that are introducing e-governance, and the majority of municipalities that lag behind in this regard.

### ***Lack of communication and coordination within the public administration***

A further important problem is the flow of information within the public administration, especially within and between units of local government. Municipalities are not fully networked within themselves, let alone between themselves. In addition, there is a huge gap between municipalities and higher levels of government, which do not provide the required strategies, instructions, laws, agencies and other types of support for municipalities. Important actors for e-governance are often located outside municipalities and the communication and coordination with them is rather difficult. The development of local e-governance requires that municipalities, but also other relevant public institutions at all levels of administration, undertake a comprehensive and systematic reform of their work processes and organization.

### ***Municipalities lagging behind in the area of e-governance and e-participation***

In addition to complex contextual problems that they can hardly influence in any significant way, municipalities in Bosnia and Herzegovina have been facing a series of internal problems and obstacles that make the introduction of e-governance and ICT difficult. These are primarily budgetary constraints and the lack of software resources, as well as constraints related to human resources and knowledge. These problems, coupled with external negative factors and bureaucratized and inefficient municipal administrations, significantly constrain the development of local e-governance. What our research shows is that municipalities have made considerable progress when it comes to introducing information technology and systems aimed at improving the efficiency of the municipal administration and at reforming the internal municipal structure. However, it is evident that they lag behind when it comes to the introduction of e-services and Web-based services for citizens. In addition, very

modest results have been achieved as regards the use of ICT to encourage more transparent and more accountable local government. This is clear from the analysis of the Web presence of municipalities in Bosnia and Herzegovina, which showed that local administrations in the country for the most part do not use new technology in order to provide citizens with quality information or offer a wide range of services through Web applications. Furthermore, municipalities are not seeking to use ICT in order to involve citizens in decision-making processes. Citizens remain outside the focus of attention when it comes to introducing local e-governance.

## 9. RECOMMENDATIONS

### CREATION OF A STRATEGIC APPROACH TO THE DEVELOPMENT OF E-GOVERNANCE

In order to create preconditions for a strategic approach to the development of e-governance, and to harmonize and coordinate activities in this field at different levels of administration, a series of measures need to be taken.

- **At the level of Bosnia and Herzegovina, and with the participation of both entities**, a dialogue on strategic issues needs to be launched as soon as possible. This can be achieved by creating a working body (i.e. working group) for coordination and harmonization of policies and strategic frameworks that might consist of representatives of relevant institutions from both entities, Brčko District and relevant ministries and state-level agencies, as well as a certain number of independent experts. This working body would be tasked with:
  - defining and harmonizing the competences of different levels of authority when it comes to the development of e-governance and the related activities of strategic planning, legislative framework and institution-building;
  - creating a framework document and action plan for coordination and harmonization of approaches, policies and activities in the field of development of e-governance at different levels;
  - developing an agreed policy for creating an institutional framework to allow for adequate coordination in the development of information society and e-governance at all levels of administration, while respecting the competences of different levels;
  - devoting special attention to creating preconditions for the establishment of an agency for information society and e-governance as a coordinator for standards and interoperability. A wider advisory body should be established and attached to the agency, consisting of representatives of all levels of authority and relevant stakeholders.

- **At the level of the FBiH**, it is necessary to create a working group consisting of representatives of relevant FBiH ministries and all the 10 cantons, as well as a certain number of independent experts. The tasks of this working group would be:
  - defining the strategic goals of the development of e-governance in the FBiH and producing a strategic framework and action plan for the development of e-governance in the FBiH;
  - defining an agreed public policy to encourage a harmonized development of e-governance at all levels of administration, from the FBiH, via the cantons, to municipalities within the FBiH.
- **At the level of the FBiH**, it is necessary to adopt strategic plans in the field of e-governance that are also relevant for the development of local administration, respecting the right to local self-government and also taking into account the competences of the cantons when it comes to local government. Likewise, it is necessary to establish a body responsible for defining and supervising the implementation of e-governance at the level of the FBiH (similar to the existing Agency for Information Society in the RS). In the absence of this body, the tasks of coordination of the development of e-governance in the FBiH could at this stage be performed by the ICT Unit of the Federation Ministry of Transport and Communications.
- **Within the FBiH**, it is necessary to establish competent bodies for defining and supervising the development of e-governance **at the level of each of the 10 cantons**: “There is a need to coordinate and to rely on the existing ICT resources with the cantons, as well as with municipalities. In reality the most important ones are the IT and Statistics Agency of Sarajevo Canton and the Tuzla Canton’s Department for Information, Information Systems, Security and Technical Affairs (where ICT may be separated as a special unit within the Technical Service). The other cantons mostly do not have genuine ICT departments but rather contact persons for external contractors. ... A better communication between the FBiH and the cantons could ensure the use of common regulations, and later of certain systems.”<sup>186</sup>
- **At the level of both entities, the RS and the FBiH**, in coordination with the state level and with participation of local representatives, i.e. in consultation with

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<sup>186</sup> Timur Gadžo, head of Sarajevo Canton’s IT and Statistics Agency, written comment on a draft of this report sent on 23 August 2011 (available in the authors’ archives).

local authorities, it is necessary to draft guidelines for the development of e-governance (given the current disregard for the local level of government in strategic planning) and to promote the production of specific action plans for the development of e-governance at the municipal level, in accordance with the standard guidelines but also the special characteristics of individual municipalities. The recommendation is not to draft individual municipal ICT strategies as municipalities are very similar in the processes that they undertake. Rather, a brief document should be produced that would actually be an action plan containing a brief introduction and indicating the priorities, activities, and financial and human resources for each municipality separately. Alternatively, guidelines for municipalities can be issued on how municipal action plans should be adopted and what they should ideally contain.

- Introduce monitoring and benchmarking systems for the implementation of the Strategy for the Development of e-Government in the **RS**, and apply the same or similar mechanisms to adequate strategic documents in the **FBiH** once adopted.
- The competent bodies **at the level of each entity** (the AIDRS in the **RS** and its future counterpart in the **FBiH**, with potential cooperation with the Federation Ministry of Transport and Communications, the RS Ministry of Administration and Local Self-Governance, as well as the entity associations of cities and municipalities) should develop standards in the field of IT that would also apply to local e-governance. There should be insistence that every general solution, or solutions developed by a municipality for its own purposes, be in accordance with the above-mentioned standards, which would allow for easier networking of municipal information systems and exchange of information and documents.
- In order to advance the use of e-governance services by citizens and the business sector, it is necessary to design and implement promotional activities **at the level of the FBiH and the RS**.

## CREATION OF AN ADEQUATE LEGAL FRAMEWORK

It is necessary to improve the legal and regulatory framework with a view to encouraging the introduction and development of e-governance and local e-governance in Bosnia and Herzegovina:

- We suggest that amendments to the legal regulations should be prioritized with the help of a plan for technical implementation of projects. In this way, laws which are important for a solution that represents a high priority would be drafted first.
- An intervention is needed in the laws on local self-government for the sake of successful implementation of e-governance. In this context, it is necessary to prescribe an obligation for all municipalities in Bosnia and Herzegovina to provide e-services.
- In order to achieve the desired effect, legal regulations should establish three main principles:
  - the principle of unique creation and collection of data: this refers to the prohibition on administrative authorities requesting the submission and proving of data, or submission of documents, that has already been collected by another administrative authority;
  - the principle of official notification: this refers to the obligation of the administrative authority that first created/collected an item of data on a citizen (“the primary administrator”) to send it *ex officio* to other administrative authorities that, according to the law, also manage such data;
  - the principle of automatic transmission: this refers to the introduction of the obligation of mutual electronic transmission of data between administrative authorities.
- The achievement of an appropriate legal basis can be based on different approaches. The scope of these acts could include three sets of relationships:
  - electronic provision of administrative services to citizens;
  - internal exchange of information and documents; simultaneous flow of papers and electronic documents; division of tasks; storage and archiving of electronic documents; and the like;
  - automatic exchange of electronic documents between administrative authorities.
- Special attention in legal regulation should be devoted to: processes related to the internal life cycle of documents – receipt, transfer of duties, supervision, creation, signature, sending, archiving, etc., of electronic documents and simultaneous work with paper documents. This process of review of existing legal regulations and adoption of new ones will affect all the work processes in the administrations.
- At **the level of the FBiH**, adopt a Law on Electronic Document (which already exists in the RS).

- **At the level of the RS and the FBiH**, adopt by-laws to regulate the following areas: working with e-documents; submission of these e-documents; verification of identification and integrity of a message; recording of a message; description and assignment of duties related to e-documents; movement of such e-documents within an administration and control over performance of duties; sending e-documents to other administrations and persons; storage and archiving of electronic documents.
- Adopt regulations on **security standards and policies** in the public sector, including instructions for the authentication and authorization of e-statements (e-communication);
- **At all the relevant levels**, adopt regulations for the policies of provision of administrative e-services to citizens and businesses (modality of service provision; modality of requesting a service; communication with specific user groups; links to private-sector services; responsibilities; sanctions; outsourcing; etc.);
- **At all the relevant levels**, adopt regulations on the establishment of an interoperability framework (instructions for registries; guidelines for e-governance architecture; methodologies for the assessment of implementation of the system in the administration; etc.);
- **At all the relevant levels**, it is necessary to develop regulations to ensure that public authorities themselves obtain evidence in administrative proceedings, i.e. use data and documents sent to or stored with other public administration authorities. This would increase the efficiency of the interaction between citizens/businesses and the public administration. At an advanced stage, the implementation of all the services by public administration authorities should follow the one-stop-shop principle.
- **At the level of the FBiH and the RS**, legally regulate the obligations of local authorities to respect certain standards in developing e-governance (such as electronic communication once all the preconditions for this have been created, e.g. Web presence and Web presentation standards). This obligation must also be accompanied by ensuring capacities for the fulfilment of the new obligations. It is necessary to develop guidelines for using domains for municipal Web presentations (and official e-mail addresses) in order to achieve a uniform way of creating addresses, with a recognizable domain and address form for all municipalities.
- At the level of the FBiH, develop procedures and standards for designing municipal Web pages as already done by the AIDRS for public institutions in the RS.

## ENCOURAGING THE APPLICATION OF E-GOVERNANCE AT LOCAL LEVEL

- With a view to motivating municipalities to implement e-governance solutions, we suggest that in each entity – **the RS and the FBiH** – working groups be established to monitor the implementation of plans on an annual basis and evaluate implemented projects.
- Launch regular and continuous promotional activities around the topic of development of local e-governance, such as annual conferences, special Web pages, publications, be it at the level of each entity separately or in cooperation, or at the level of Bosnia and Herzegovina, through which results and achievements in the field of local e-governance would be promoted. This would encourage competition among municipalities, which would in turn motivate them to introduce e-governance in the quickest and best way possible.
- Since every municipality does the same job, more emphasis should be placed on generic solutions, which would be developed once and then implemented in several municipalities. This would certainly ensure significant savings as the overall amount work would be much smaller. This would also reduce the risk because if pilot projects in individual municipalities succeed, they could also be implemented in other municipalities. At the same time, the failure of unsuccessful projects will be limited to only one municipality. Likewise, the use of general solutions will lead to a lower price of system maintenance and to a standardization of business processes.
- In view of the identified problems that municipalities face in terms of human and financial resources, consideration should also be given to the possibility to centrally establish and administer in each of the entities (the RS and the FBiH), and with the consent of municipalities, certain IT solutions, which municipalities would access via the Internet. In this way, the information systems would practically be offered to municipalities as a service. This would contribute to quicker implementation of solutions with smaller costs because systems would be used as soon as municipal staffs are trained. On the other hand, the IT departments in municipalities (which generally have few staff and insufficient knowledge) would not be asked to maintain the entire system but only to secure a good connection to the central service. By forming this 'cloud', the need would be avoided for implementing some solutions on special servers in special server

rooms in each municipality in which they are used, which would result in big savings in space, technical, human and financial resources.

- An analysis should be carried out of the services most used by physical and legal persons and those should be given priority in the implementation. This is the right way to enhance the use of e-governance.
- • Units of local self-government must adapt the already-established work procedures involving paper documents to the digital world and adopt new regulations to govern: working with e-documents; submission of these e-documents; verification of identification and integrity of a message; recording of a message; description and assignment of duties related to e-documents; movement of such e-documents within an administration and control over performance of duties; sending e-documents to other administrations and persons; storage and archiving of electronic documents.
- Appoint administrative authorities in the local administration that will be responsible for fulfilling obligations regulated by the above-mentioned legal document, i.e. for developing e-governance. In order to achieve success in implementing e-governance, it is necessary to establish a special body in the administration (a department) for carrying out the overall supervision of the work of all administrative authorities as it concerns the performance of e-governance tasks in the given units of local self-government;
- It is necessary to continuously develop employees' IT skills in order to equip them for working in an e-governance environment. With a view to motivating the local administration to introduce advanced technology, we suggest that several workshops and seminars should be organized every year, at which it would be explained to municipalities why it is necessary to introduce e-governance and at which they would be helped to overcome problems;
- On all Web pages, develop online-supported services (such as online verification of entries in civil registry and other records; online applications for documents; and electronic checks of the status of cases); electronic checks and notifications on the status of cases; overview of cadastre data; online verification of the financial card for legal persons.<sup>187</sup>

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<sup>187</sup> This concerns the public procurement procedure in some municipalities. Bids are often disqualified due to outstanding liabilities towards the municipality.

## **PARTICIPATION AND ACCESS OF CITIZENS, WEB 2.0 AND SOCIAL NETWORKS**

- A very important task is to ensure e-availability of the services of local e-governance, i.e. to ensure the use of e-governance by people with special needs, such as vision-impaired persons.
- It is necessary for municipalities to develop their Web services in line with Web 2.0 standards and trends, placing a strong focus on creating social networks around the Web services within the local communities in which they work. The use of social networks in the work of municipal authorities can be of great importance because it allows for active participation of citizens in decision-making processes; establishes mechanisms for continuous evaluation of the local administration's work; provides channels and mechanisms for creation and submission of citizens' proposals; and as such is an excellent way to popularize e-governance services.<sup>188</sup> In this way, transparency of the work of municipal administrations is increased and a strong impulse given for citizen participation in the life of the local community and the work of the municipal administration.

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<sup>188</sup> Users of social networks are at the same time the main target group for the promotion of use of e-services offered by the local administration.

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# 11. ABOUT THE AUTHORS AND EDITORS

Fuad Ćurčić holds an MBA and a computer science engineering degree from the University of Tennessee in Chattanooga, US. Fuad is a consultant for Excellence in Innovation on founding two firms (MTTC doo and Agrolink doo) that use IT in their work. He has worked for the United Nations, ASA Prevent Group, the Sarajevo Regional Development Agency, as well as for numerous private IT companies in Bosnia and Herzegovina and the US. Since 2001 he has been member of the Ćurčić Foundation, where he sits on the Executive Board. He has implemented numerous volunteer and socially useful projects.

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Mirna Jusić holds an M.A. from the Department of Public Policy, Decentralized Governance Stream, of the Central European University, Budapest, Hungary (on a scholarship for fiscal decentralization awarded by LGI/OSI and UNDP Ukraine, she completed her studies with an Outstanding Academic Achievement Award, 2009). Mirna holds an M.A. in State Management and Humanitarian Affairs from the Centre for Interdisciplinary Postgraduate Studies of the University of Sarajevo and the University of La Sapienza, Rome, Italy, and a B.A. in Journalism from Ithaca College, Ithaca, New York, USA. She is a researcher at the Analitika Centre for Social Research. From 2004 to 2007, she worked as a correspondent for a Prague-based magazine, Transitions Online. Mirna also worked as a communications and information consultant on a FAO project from 2006 to 2007 and as an occasional consultant for UNICEF BiH. From April 2007 until September 2008, she worked as an editor of the Web portal

Mediacentar Online ([www.media.ba](http://www.media.ba)) at Mediacentar Sarajevo. She has published dozens of analytical texts for Transitions Online and contributed to the writing or editing of a number of research reports. She deals with issues of public administration reform, with an emphasis on local administration.

Sanela Hodžić holds an M.A. in Social Science in the field of gender studies (CIPS Sarajevo) and a B.A. in Psychology from the University of Sarajevo. She is currently a coordinator of research projects at Mediacentar Sarajevo. She has published several research papers on communications and mass media in Bosnia and Herzegovina. Her research interests include issues of media freedom, media representation and social psychology.

Tarik Jusić holds a Ph.D. from the Institut für Publizistik- und Kommunikationsswissenschaft of Vienna University, Austria, an M.A. in Political Science from the Central European University, Budapest, Hungary, and a B.A. in Journalism from the Faculty of Political Science of Sarajevo University, Bosnia and Herzegovina. He is a researcher at the Analitika Centre for Social Research ([www.analitika.ba](http://www.analitika.ba)) and a senior lecturer in Media and Politics at the Sarajevo School of Science and Technology ([www.ssst.edu.ba](http://www.ssst.edu.ba)). He worked as a researcher, programme director and programme adviser at Mediacentar Sarajevo ([www.media.ba](http://www.media.ba)) from July 2002 till November 2011. He is a guest lecturer in Social Research Methods and Academic Writing at Sarajevo University's Centre for Interdisciplinary Postgraduate Studies in the framework of the European Regional Master's Degree in Democracy and Human Rights in South East Europe (ERMA). From 2006 to 2010, he served as the editor of the online magazine Puls demokratije. He has published a number of academic and professional papers and edited several books dealing with the development of media in Bosnia and Herzegovina.

## **ANNEX 1: LIST OF INTERVIEWED PERSONS**

### ***Oral interviews conducted***

Boris Maslo, Director, Governance Accountability Project (GAP) (group interview), 24 March 2011

Ahmed Sijerčić, Senior Citizen Services Specialist, Governance Accountability Project (GAP) (group interview), 24 March 2011

Muris Čeljo, Senior IT/Procurement Specialist, Governance Accountability Project (GAP) (group interview), 24 March 2011

Mersad Beglerbegović, Policy Advisor, Governance Accountability Project (GAP) (group interview), 24 March 2011

Saša Leskovic, Director for Municipal Interventions, Governance Accountability Project (GAP) (group interview), 24 March 2011

Ljubiša Vuković, General Administration Department, Teslić Municipality, 26 April 2011

Drago Martinović, Public Relations Adviser, Široki Brijeg Municipality, 27 April 2011

Snežana Mišić-Mihajlović, Project Manager/Executive Director, MDP Dobož, 4 May 2011

### ***Written replies***

Mladen Radivojević, Independent Databases Specialist, RS Ministry of Administration and Local Self-Governance, 15 April 2011

Sabahudin Suljević, Information Technology Specialist, Office of the Coordinator for Public Administration Reform, 15 April 2011

## **ANNEX 2: LIST OF INSTITUTIONS AND PERSONS WHO PROVIDED WRITTEN COMMENTS ON THE REPORT**

### ***Institutions***

RS Agency for Information Society

FBiH Ministry of Transport and Communications

### ***Persons***

The following persons provided written comments on a preliminary version of the report. Their comments reflect solely their own views and opinions and do not necessarily represent the official view of the institutions with which they are affiliated.

Damir Baralić, reviewer, Director of Serbia's former National IT and Internet Agency

Ferid Mustafić, Assistant Head of Municipality for IT and Information, Tešanj Municipality

Emir Arslanagić, IT consultant, T-mobile Bosnia

Ljiljana Vasojević-Radovanović, Head of IT Unit, Administrative Service of the City of Banjaluka

Mirsad Hasić, Senior IT Associate, Itineris d.o.

Željko Knežević, Assistant Minister, Department for Communications and Computerization, Ministry of Transport and Communications of Bosnia and Herzegovina

Saša Leskovic, Director for Municipal Interventions, Governance Accountability Project

Simon Delakorda, Director of the Institute for eParticipation, Slovenia

Maja Branković, Project Assistant, Transparency International BiH

Mladen Radivojević, Independent Databases Specialist, RS Ministry of Administration and Local Self-Government

Timur Gadžo, Director of the IT and Statistics Agency, Sarajevo Canton

## ANNEX 3: LIST OF LOCAL ADMINISTRATION AUTHORITIES (112 MUNICIPALITIES AND TWO CITIES) THAT RETURNED FILLED-OUT QUESTIONNAIRES

### Republika Srpska

City of Banja Luka	Mrkonjić Grad Municipality	Šipovo Municipality
Berkovići Municipality	Nevesinje Municipality	Jezero Municipality
Bijeljina Municipality	Novi Grad Municipality	Pale Municipality
Bratunac Municipality	Petrovac-Drinić Municipality	Istočni Stari Grad Municipality
Čajniče Municipality	Prijedor Municipality	Trnovo Municipality
Čelinac Municipality	Prnjavor Municipality	Osmaci Municipality
Han Pijesak Municipality	Ribnik Municipality	Kneževo Municipality
Istočna Ilidža Municipality	Rogatica Municipality	Derventa Municipality
Istočni Mostar Municipality	Rudo Municipality	Domaljevac-Šamac Municipality
Istočno Novo Sarajevo Municipality	Šamac Municipality	Donji Žabar Municipality
City of East Sarajevo	Sokolac Municipality	Zvornik Municipality
Kotor Varoš Municipality	Srbac Municipality	Istočni Drvar Municipality
Laktaši Municipality	Teslić Municipality	Novo Goražde Municipality
Lopare Municipality	Trebinje Municipality	Gacko Municipality
Ljubinje Municipality	Ugljevik Municipality	Gradiška Municipality
Milići Municipality	Vlasenica Municipality	Kozarska Dubica Municipality
Modriča Municipality	Vukosavlje Municipality	Oštra Luka Municipality

## Federation of BiH

Bihać Municipality	Novo Sarajevo Municipality	Olovo Municipality
Bosanska Krupa Municipality	Orašje Municipality	Glamoč Municipality
Bosanski Petrovac Municipality	Sanski Most Municipality	Pale-Prača Municipality
Bosansko Grahovo Municipality	Stari Grad Sarajevo Municipality	Srebrenik Municipality
Breza Municipality	Tešanj Municipality	Zenica Municipality
Bugojno Municipality	Tomislavgrad Municipality	Ilidža Municipality
Čitluk Municipality	Travnik Municipality	Banovići Municipality
Doboj Jug Municipality	Tuzla Municipality	Bužim Municipality
Doboj Istok Municipality	Usora Municipality	Cazin Municipality
Foča-Ustikolina Municipality	Velika Kladuša Municipality	Donji Vakuf Municipality
Goražde Municipality	Vitez Municipality	Odžak Municipality
Gračanica Municipality	Vogošća Municipality	Hadžići Municipality
Grude Municipality	Posušje Municipality	Fojnica Municipality
Ilijaš Municipality	Trnovo Municipality	Centar Sarajevo Municipality
Kalesija Municipality	Busovača Municipality	Prozor/Rama Municipality
Kladanj Municipality	Gornji Vakuf – Uskoplje Municipality	Sapna Municipality
Konjic Municipality	Ključ Municipality	Teočak Municipality
Kreševo Municipality	Jajce Municipality	Široki Brijeg Municipality
Livno Municipality	Kakanj Municipality	Visoko Municipality
Maglaj Municipality	Čelić Municipality	Zavidovići Municipality
Novi Grad Sarajevo Municipality	Žepče Municipality	Živinice Municipality

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