Visions and priorities for eGovernment in Europe

Orientations for a post 2010 eGovernment Action Plan

This paper reviews the groundwork that has been performed by the representatives of the Member States in the eGovernment sub-group in view of the preparation of the Ministerial Declaration planned for November 2009 and the subsequent post i2010 eGovernment Action Plan. It places this work in the context of three 'vision studies'[1] on eGovernment that have been produced for the European Commission to support this process. The interpretations in this paper have no binding power. Its aim is to provide guidance for the decision making processes that will lead to a new Ministerial Declaration on eGovernment in 2009 and the subsequent elaboration of a new eGovernment Action Plan.

Although the prime concern of this paper is the use of Information and Communication Technology (ICT) by public organisations, its scope is much wider and includes the evolution of governance systems as such. This follows from the reasonable assumption that in the foreseeable future, governance systems will become fully ICT enabled. Technology should therefore no longer be seen as an add-on, but as intrinsically bound up with developments in any aspect of government.

The first part of this paper summarises the evolving priorities of eGovernment policies during the last decades and concludes that we might be at the eve of an historical transformation of our governance systems. The second part suggests how public organisations might organise their ICT service architectures in order to deal with these transformations. Part three discusses the political priorities set forth by the eGovernment sub-group on this basis. Part four describes a way of converting these political aims into a hands-on post i2010 eGovernment Action Plan.

1 eGovernment at a historical turning point

The take-up of information and communication (ICT) by governments and public services has been lagging behind on many other sectors of society. However, evidence suggests that governments and public services are now reaching a level of maturity that will allow them to reap the full benefits of ICT use. This will allow them to improve the internal organisation of administrations, to increase the quality of their interactions with social actors and to create more value for society at large.

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[1]   Osimo David, Zinnbauer Dieter & Bianchi Annaflavia., 2007. *The future of eGovernment: An exploration of ICT-driven models of e-Government for the EU in 2020.*, IPTS; Botterman Maarten, Millard Jeremy et al. (2009). *Value for citizens: A vision of public governance in 2020.* Report for the European Commission, Brussels: Information Society and Media Directorate. Codagnone Christiano & Osimo David (2008). *Future technology needs for future eGovernment Services: Services platform report.* Report for the European Commission, Brussels: Information Society and Media Directorate.

The functions of eGovernment

The 'coming of age' of eGovernment policies is illustrated by the evolution of the priorities of the Member States in dealing with eGovernment during the last decades.[2]

- At first, the introduction of ICT was mainly driven by efficiency considerations. Saving costs was the main motive for ICT usage by administrations, in order to make better usage of tax-payers money.

- In a second stage, effectiveness was added to this as an additional objective. Government administrations had to produce quality services, to treat users as consumers and to learn how to accommodate their needs and demands.

- Currently, good governance is being added as a third main concern. This objective includes the recommendation to create more value for citizens by maximising the benefits that can be obtained from eGovernment for society at large.

Figure 1: The core concerns of eGovernment policies
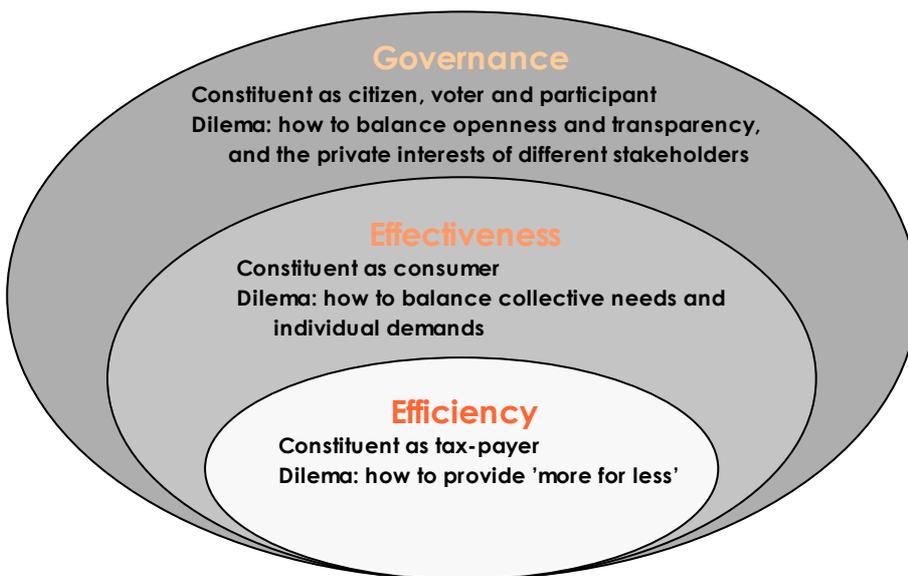
A changing governance regime?

Although these three dimensions are largely complementary and should be looked at cumulatively, their inception over time reveals an evolution of eGovernment policies, which coincides with major social, economic and political evolutions at the end of the 20th and the beginning of the 21th century.

- The economic recession of the 1970s had shown some of the negative side effects of the policies of the Welfare State: excessive bureaucratisation, budgetary overspending and cumbersome state

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[2]   Botterman Maarten, Millard Jeremy et al. (2009).

intervention. This called for policies aimed at slimming down public administrations. Consequently, the emphasis of eGovernment policies was on improving the internal efficiency of administrations.

● The crisis of the Welfare State paved the way for policies aimed at introducing more economic competitiveness, individual responsibility and a slim state. This inspired eGovernment policies, particularly from the 1990's onwards, which looked at public administrations more from a market perspective. Administrations were encouraged to focus on effective services delivery, according to standards and principles comparable to those of 'competitive' service providers.

● The perceived failure of the latter approach to deal with issues related to social responsibility and distributional equity, amongst other things, led to the development of alternative and complementary ideas. These ideas, which are currently maturing, put an emphasis on the concept of good governance, empowerment and the creation of value for society at large. The financial crisis of 2008 is likely to further encourage this way of thinking, because is has raised new expectations with regard to the role of governments in social and economic life.

These subsequent alterations between models based on strong public leadership and those inspired on market principles, and exploration of alternatives, may be symptomatic for a governance regime that is in search of a more fundamental renewal. This would be consistent with the visions studies suggesting that we are living through an epochal transformation, which will give birth to a new type of governance. Two of the vision studies produced for the European Commission suggest that this transformation may be as fundamental as the formation of the liberal constitutional State at the turn of the 18th century and of he democratic constitutional State at the turn of the 19th century.[3]

2 Where governance systems and ICT meet

The perceived failure of both state-led and market-driven models to deal with the challenges of modern governance is dealt with in a similar way in all three the vision studies. The dichotomy between both models is solved by assuming that market and state institutions will both produce public services, if not interchangeably, then at least in a complementary way. The leading political question in their approach is no longer: *who produces public services*? This question has become accessory to the problem of *how to distribute value in society* in a socially optimal way.

New architectures for eGovernance

In this context, the vision studies see the public sector as moving into a new era, in which the provision of public services will be oriented towards the creation of public value and user empowerment. Empowerment means to increase the capacity of citizens, businesses and other organisations to function in society and can

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[3]   Botterman Maarten, Millard, Jeremy et al. (2009) & Osimo David., Zinnbauer, Dieter & Bianchi, Annaflavia., 2007.

be stimulated through the creation of public value.

"Public value is value that is shared by all actors in society: citizens, businesses, organisations and informal groups. It is the outcome of all resource allocation decisions taken by all stakeholders in society as a whole. Optimising public value, therefore, requires governments to maximise the benefits that can be obtained from sharing resources between all stakeholders in society".[4]

This new approach will also be reflected in a new ICT service architecture, as is illustrated in Figure 2. In this figure, the vertical axis represents the involvement of government, both in setting-up and running back-end systems and in providing the front-end services. The horizontal axis represents the involvement of third parties, be it citizens, businesses or other organisation as users or producers of public services.[5]

Figure 2: Institutional and technical scenarios for eGovernment
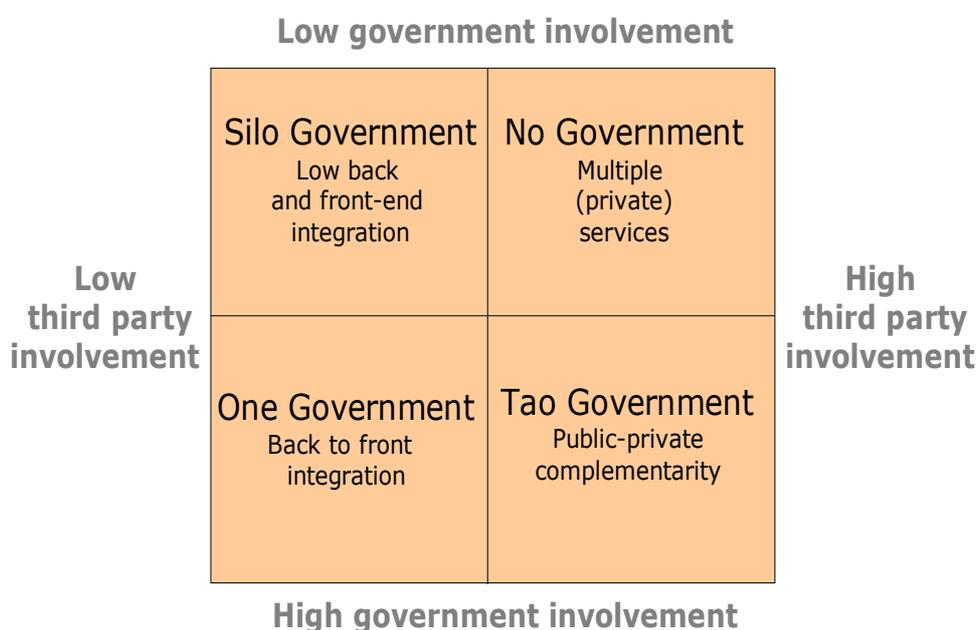
- The Silo Government scenario represents the current situation: separate public institutions are the monopolists of (the use of) their own ICT systems. Back-end systems are not interconnected and back and front-end processes are not integrated.

- The No Government scenario is one in which the exploitation of both major back-end installations and the provision of services is outsourced to the private sector.

- The One Government scenario is the one in which the public sector has complete control over the service provision and the ICT system is completely integrated.

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[4]   Botterman Maarten, Millard Jeremy et al. (2009).
[5]   This figure is adapted from a scenario exercise presented in Codagnone Christiano & Osimo David (2008). In the original matrix, the horizontal axis represented 'levels of digitalisation' of users. In this paper, the horizontal axis represents the involvement of third parties, be it citizens, businesses or other organisation in order to reflect their 'level of engagement' not only as users but also as producers of public services (applications and content)

● The Tao Government scenario leads to an architecture that is flexible and modular so that both government and third parties can collaborate and share responsibilities in producing and providing services according to accepted principles of subsidiarity.

In the Tao Government scenario ('a unity underlying the opposites'), public-private interaction will not only take place at all levels of the architecture. There may still be a 'one-stop-shop' on the Internet where users can access all governmental services at once. However, it will also be possible to embed these services into other platforms. These platforms may be controlled by businesses or by professional organisations, acting as providers of value added services or simply as gateways. Alternatively, users may prefer to embed some services in their own electronic environment, be that their Internet hub, a social networking site or their personal page.

The participants to the eGovernment sub-groups generally preferred the Tao scenario and architecture as an option for the future. However, it was observed by some that a partial transition through the One Government quadrant might be necessary in order to transit from the current Silo to the Tao approach. This is necessary because the Tao scenario requires the flexible integration of back-end processes, a task for which governments will remain responsible, according to most sub-group participants.

The way forward

The Tao scenario is also consistent with the main recommendations formulated in the other vision studies. With one of the vision studies[6], these recommendations can be summarised as follows.

1. An international environment should be created in which government organisations will be connected, networked and fully joined-up and in which public organisations will interact and connect intelligently with each other and with private actors – citizens, civil society organisations and businesses

2. Services should be maximally responsive to user needs and wants by providing more individualised services and allowing users to tailor the service to their personal requirements. Increasingly, users should be able to design, create and self-direct their own services, while providers will be able to differentiate and target recipients.

3. Governance must become much more open, participative and democratic and be receptive at all levels to inputs and interests from all segments of society. New 'crowd-sourcing' instruments should be developed to support evidence-based policies that are more effective in their own right and better explained in terms of their rationale by presentation of the underlying evidence.

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[6]   Botterman Maarten, Millard Jeremy et al. (2009).

4. Governments and public administrations must make better usage of ICT to improve monitoring and evaluation techniques. This will allow them to increase their performance and to enable greater diversity in governance outcomes and effects and to increase the reliability of the ICT system in terms of privacy protection and security.

3. The definition of political priorities

By and large, the future challenges defined by these vision studies were acknowledged by the sub-group participants. This came as no surprise: a consultation of the administrations views for the post i2010 eGovernment agenda had revealed a convergence of ideas in the indicated direction. It should be noted that this consultation was organised before the results of the vision studies were presented to the sub-group. These findings are reviewed in the next section. They confirm that some of the ideas presented in the vision studies also live amongst public administrators.

In the months preceding the presentation of the Vision Studies to the sub-group, a survey questionnaire was sent the national administrations. They were asked, amongst other things, which actions of the i2010 eGovernment Action Plan should be continued after 2010 and which new actions should be added to a new action plan. The individual responses of the Member States were to these questions were clustered according to their commonalities.

Shared orientations

Analysis of these clusters led to two main observations. Firstly, it appeared that, although different actions were proposed by the member states, an implicit agreement existed on the main issues to be tackled. Secondly, the analysis of the responses revealed that the thinking of the Member States about eGovernment had substantially evolved since the inception of the i2010 eGovernment Action Plan. When comparing the action lines in the i2010 eGovernment Action Plan with the ones proposed for the post 2010 period, the following trends could be observed. These findings were presented at the eGovernment sub-group meeting of 24 October 2008.

1. a shift from using ICT for supporting or replacing existing administrative processes toward process re-engineering and reorganisation of institutional and administrative boundaries;

2. a growing interest in technologies (eIDM, eSignature, eAuthentication, ...) that allow for a better integration of administrative processes and allows for the delivery of personalised services, at the same time supporting higher standards of security and privacy;

3. a strong interest for technologies that integrate internal and external processes (rendering the back office/front office dichotomy obsolete) so as to allow for the delivery of personalised services;

4. the growing need to harmonise rules and procedures and to give more priority to semantic interoperability, exploiting the possibilities of 'open' environments (open standards, open source);

5. a growing concern for user centric design and usability of services, with the aim of achieving greater user satisfaction.

6. the growing realisation that social exclusion has an societal and economic cost and that inclusion measures should be further encouraged and adapted to specific target groups

7. agreement on the need to involve social actors in governance and an emergent interest in the use of participatory systems for collaborative production by public, civic and private parties

8. a plea to elaborate benchmarking exercises so as to include measures for topics such as user satisfaction, transparency, ...

It can be deduced from this list that a good number of the ideas described in the vision studies were already in the minds of the eGovernment representatives of the Member States, before these studies were published. As scientists and practitioners in the policy arena constantly borrow from each other, this comes as no surprise.

Political Priorities

While the definition of a common vision provided directions in which different actions could converge, priorities needed to be set on the basis of which concrete actions and objectives could be decided upon. To this end, the upcoming Swedish Presidency of the European Union proposed a set of political priorities. These priorities were derived of the work of sub-group and balanced the need to initiate new actions with that of consolidation of ongoing actions.

In the economic area, eGovernment should continue to support the construction of the Single Market, which is still the cornerstone of the European construction. The necessity to progress in this area is expressed, amongst other things, by emphasising two areas in which ground breaking work still needs to be done: the delivery of cross-border services and the stimulation of personal mobility. In the latter area in particular, substantial problems remain to be solved in relation to identity management and to the accessibility or transferability of social security rights, health benefits, pensions and other personal services.

In the institutional area, the proposal takes-up the known issues of efficiency and effectiveness. But most importantly, it introduces the topic of organisational change on the European post i2010 eGovernment agenda. This includes the horizontal integration of processes across administrative boundaries silos, the vertical integration of back and front-end processes as well as the collaboration with private and civic parties. In addition, this priority expresses a legitimate concern for the ecologically responsible use of ICT by government and public services.

In addition, the post i2010 political priorities introduce the concept of empowerment on the European eGovernment policy agenda. In doing so, it incorporates in the political agenda concerns about accountability, transparency and openness of governments and public services, the will to develop user-centric and inclusive services and a genuine concern to actively involve citizens in the policy making process.

At the occasion of the eGovernment subgroup meeting of 18 December 2008, the proposal of the future Swedish presidency generated general consent. It was presented at the i2010 High Level Group meeting of 26 February 2009, which also approved of it. These priorities can be summarised as follows.

1. Support of the Single Market

    –   to facilitate citizen and business mobility on the single market,

    –   to enable the delivery of cross-border e-services to citizens and businesses,

    –   to allow for secure and efficient electronic collaboration between Member States

2. Empowerment of businesses and citizens

    –   to make government more transparent and to ensure access to public information,

    –   to provide tools for participation in public decision making processes,

    –   to design user friendly, inclusive and engaging services for all citizens and businesses.

3. Administrative Efficiency and Effectiveness

    –   to deliver cross-border eServices for citizens and businesses as efficiently as possible,

    –   to use of ICT in support of organizational change and skills development,

    –   to make the best direct and indirect use of ICT to reduce the carbon footprint.

Figure 3: The eGovernment post i2010 work field
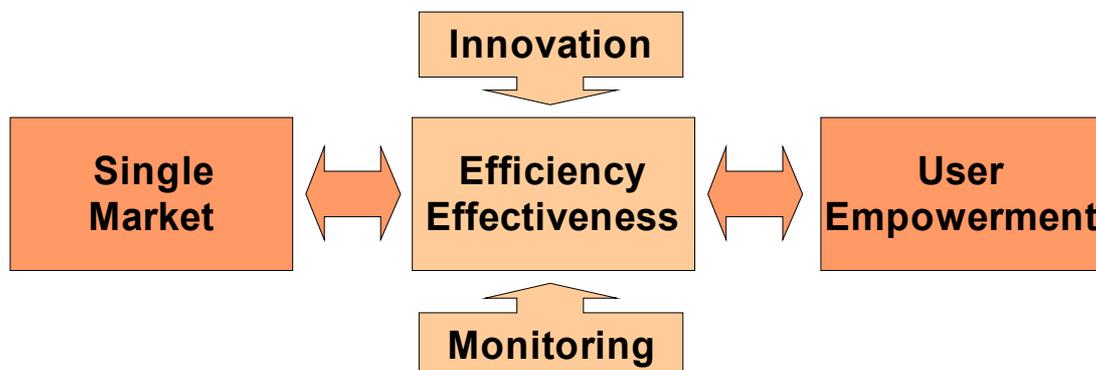
The Member States also stressed the necessity to monitor and evaluate the execution of these political priorities in order to render the responsible institutions accountable and to enable them to improve the quality of their policies. These policies should also reflect a permanent concern for innovation, in particular by exploring and exploiting the possibilities offered by future technologies such as social computing, modelling and visualisation, new generation mobile devices, Internet of things, geographical localisation, ... The relations between these two important concerns and the political priorities is illustrated in Figure 3.

4. Towards a Ministerial Declaration and a post 2010 Action Plan

The i2010 eGovernment Action Plan had been the first of its kind in this area and lessons were drawn from that experience. One such lesson is that action plans should be ambitious but also realistic. Therefore the new action plan should be more focussed than the previous one. It was agreed in the sub-group of 6 March 2009 that this could be achieved by defining clearer priorities and by focussing the agenda on those areas where European collaboration adds the most value to the activities of the individual Member States.

In preparation of the eGovernment sub-group meeting of 6 March 2009, a new consultation of the Member States was organised to identify the most relevant action lines for implementing the political priorities. The inputs received from the different member states were closely scrutinised and clustered according to their commonalities. This revealed 9 main possible action lines, which are listed in table 1.

Table 1:   Action Lines identified for a post i2010 eGovernment Action Plan

Political Objectives / Action Lines	PP1: single market	PP2: empowerment	PP3: efficiency
eID management	xxx	xx	x
Serv. Dir. & human mob.	xxx	xx	
Cross-boarder services	xxx	xx	
eParticipation	xx	xxx	xx
Interoperability	xxx	xxx	xxx
Legal frame	xxx	xxx	xxx
Inclusiveness	x	xxx	xx
User Centricity	xx	xxx	
Organisational Change	x	x	xxx
Green Gov.			xxx

The symbols x, xx and xxx indicate weak and strong links

Some of these action lines cut across the three different political priorities, while others do not. The Member States therefore agreed that it would be a good idea to distinguish between, firstly, the high-end political objectives to be achieved and which should be included in the Ministerial Declaration and, secondly, the

concrete actions that should be defined in the subsequent Action Plan. The relation between political objectives and action lines is tentatively shown in table 1.

In reviewing the proposed action lines, the Member States also agreed that it would be useful to distinguish between application oriented programmes on the one hand, and transversal activities that are conditional for their realisation, on the other hand. This articulation of activities as applications and programmes and the actions identified as conditions is shown in Table 2.

Table 2: Application oriented programmes and conditional activities

Applications / Conditions	eID management	Service Dir. Human Mobility	Cross Border Services	eParticipation
Interoperability				
Legal frame				
Inclusiveness				
User Centricity				
Org. Change				
Green Gov.				

The following paragraphs describe how the proposed action lines tie into the existing i2010 eGovernment Action Plan and put them in the context of the future orientations to be taken in the light of the political priorities and the underlying vision.

Applications

● eID-management - This is an already existing action line.[7] Its continuation is widely supported by the Member States. Future work should include the development, not only of identification techniques such recognitions system for eID cards, but the development of a flexible and interoperable eID management system capable of handling multiple individual identities, identification techniques, and ID sensitive applications in a secure and effective way.

● Services Directive and Human Mobility - The member states recognise the importance of the existing Services Directive for the Single Market and want to strengthen it by prioritising the eGovernment activities supporting it. However, it is also strongly felt that more work will have to be

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[7]   see the STORK pilot: http://www.eid-stork.eu/; also see COM(2009)116, 13 March 2009 on planned large scale actions: http://ec.europa.eu/information_society/tl/research/documents/ict-rdi-strategy.pdf

done to improve human mobility in the European Union. This would include, for example, work on the electronic accessibility or transferability of social security, health benefits and pension schemes.

- Cross-Border Services - This includes the former 'High Impact Services'. The change of name reflects the insistence of the Member States that these should be joint projects with a demonstrable value-added at European level. The current Large Scale Pilot (CIP) on eProcurement (Peppol) falls under this category. New Large Scale Pilots may be added, for example in the area of security, justice and environment. Some important links exist with work on eParticipation, for example in relation to user generated data and the re-use of public sector information.

- eParticipation - Our current understanding of the concept of eParticipation is often synonimous with eDemocracy (e.g. eConsultations, eLegislation). It should be broadened to include the entire area of social participation as well as that of collaborative production. This includes exploring new possibilities for social computing, crowd-sourcing, re-use of public data, visualisation and modelling of these data and the collaborative (private-civic-public) production of public services.

Conditions

- Interoperability – It goes without saying that interoperability will be of the essence to realise the 'Tao-architecture'. In addition, work on interoperability should be complemented with research and development into new architectures, in particular the so-called service oriented and object oriented architectures. In a nutshell, these architectures are of a modular composition, each combination of modules allowing for the construction of (new types of) services. This modular structure gives the architecture its much needed flexibility. In addition, in an open standard and/or open source environment, this also offers economic advantages as modules can more easily be developed collaboratively.

- Legal Framework – Concerns regarding privacy and security often conflict with expectations regarding the transparency of public institutions and the necessity to share (across borders) and re-use data. In an environment of social collaboration and collaborative production, these problems are likely to increase. An additional level of complexity follows from the persistence of different national regulations and policies. Many other issues could be added to the list, only to the effect of demonstrating that a lot of groundwork still needs to be done in this area.

- User Centricity – This concept is often confused with being responsive to user demand. While this is a good starting point, user centricity means much more. It is about building electronic services 'around the user' and requires taking account of users' needs and wants, psychological and moral dispositions, behavioural patterns, etc. In doing so, the predispositions of different groups in society need to be taken into account. User centricity then becomes an essential contribution for the general

success of new services. It will therefore be of the essence when designing new service architectures for eGovernment.

- Inclusiveness – As more advanced eGovernment applications are introduced, and no additional measures to stimulate inclusion are taken, new forms of 'digital illiteracy will emerge that lead to social exclusion (for example in the newly emerging field of participation). If the future of government service production and delivery is electronic indeed, it is important that all citizens have access to these services, be it through a machine or human interface. While it is appropriate to continue to perform groundwork on the subject, a lot is also to be gained by a better integration of this work with research, development and pilots.

- Organisational Change – Joint-up government - the integration of back-end systems and G2G services - is an important precondition for the realisation of the new type of services envisaged in this paper. It is a condition for efficiency and effectiveness and reducing the administrative burden for businesses and citizens. As such, it is important to include this subject in the European agenda. In practice however, the issue of organisational change is very context dependent. It will therefore primarily have to be tackled at national level. At European level, it can and should be incorporated as an essential concern in the legal work and in the work on interoperability and new architectures.

- Green Government – Information and communication technology can contribute to reducing the consumption of natural resources by administrations, but it is in itself also a source of energy usage and waste. It will have to be investigated how and to what extent a joint European effort can foster improvements on both levels and how green measures may contribute to increasing efficiency, for example by driving out costs. The concern for a greener administrations should therefore be an integrated part organisational change.

5. Conclusion

The objectives of the future policy can be summarised as follows. The Member States and the European Commission will continue to foster innovation in eGovernment and to carefully assess its actions, in order to increase the efficiency and effectiveness of European governance in its own right and in order to support the development and provision of cross-border services that will improve the working of the single market and empower all social and economic actors in the European Union.