The Financial and Economic Crisis

IMPACT ON E-GOVERNMENT IN OECD COUNTRIES

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Executive summary

The global financial and economic crisis has over night, put governments under considerable pressure to promptly address a broad range of challenging political, economic and governance issues affecting both the public and the private sector. In their effort to be agile and responsive to the situation, governments have stretched their human and budgetary resources to the limit. To swiftly create the capacity to handle these new challenges, they are looking at how efficiency and effectiveness in the public sector can be improved.

While some governments have chosen to cut e-government spending and reduce the pace of its implementation, others have chosen to seize this occasion to accelerate the pace of e-government implementation. For every country, the main issues are to avoid wasting tax payers' money, ensure that resources are used most efficiently and effectively, and rebuild citizens' trust through increased transparency in how decisions are made and implemented. As a consequence, governments are also faced with the challenge of paving new ways to increase citizen participation and engagement.

Seen in this perspective, the different government approaches to the crisis response show some common trends. Fourteen of 22 responding countries have included e-government in their crisis response packages. Countries are generally looking into: improving performance and reducing waste in the public sector; making strategic investments in new and innovative key e-government areas; accelerating public spending on e-government; rebuilding trust with citizens; improving the quality of public services; and transforming the public sector by using e-government as a key lever.

The importance of having e-governments' broader strategic potential in mind as part of their economic policy framework has been emphasised by some countries' strategic investment priorities using public sector innovation to spearhead new technological breakthroughs (*e.g.* ICT security, open source, broadband coverage, and "green IT"). Using the funding of the crisis response to further develop innovative and necessary e-government solutions, can be viewed in those countries as sowing the seeds for new start-ups or business opportunities – thus supporting a long-term sustainable economic growth strategy.

Future work on e-government might benefit from greater insight into how e-government impacts the economy and subsequently, how these impacts can be measured consistently.

Background

The world is facing the aftermath of the most severe financial and economic crisis in decades. Indeed, almost overnight, the 2008 global crisis put governments under considerable political pressure to act promptly on a broad range of political, economic and public governance matters affecting both the private and public sectors. In their effort to become agile and responsive to the situation, governments have stretched the resources of the public sector to its limits, both in terms of budget and human resources. The required financial and economic interventions in different parts of the private sector strained public budgets significantly. The question was: when faced with a similar situation in the future, how could governments have the necessary measures in place that would allow them to act swiftly without compromising the political need of maintaining societal coherency and public support to far-reaching decisions?

The impact of the crisis on the public sector has been profound in the sense that, for political reasons, governments have been forced to refocus their attention on potential wasteful spending of tax payers' money. At the same time, governments have realised the political urgency to rebuild trust and confidence, especially with citizens. Trust was diminished or lost at the peak of the crisis in late 2008 as far-reaching political decisions were taken on the economy (*e.g.* national crisis response packages) with limited or no possibilities for public consultation and participation; becoming more transparent and inclusive in the implementation of crisis packages, thus became a priority.

The focus on *performance* (*e.g.* efficiency and effectiveness) on the one hand and *transparency, accountability, inclusion, and responsiveness* on the other has made governments reconsider the strategic role of ICT use in the public sector and its governance implications at large – also known as *e-government*[1].

Strengthening trust has become one of the important political goals for governments as a prerequisite to longer-term economic growth. The OECD sees the implementation of the so-called "ITARI principle" as a basis for trust-building and performance improvements in the public sector. The "principle" consists of five components:

- **Integrity:** Implementation of the OECD's integrity principles prevents fraudulent and corrupt behaviour in government.

- **Transparency**: Becoming transparent to citizens – allowing them to follow decisions and giving them insight into policy implementation is an important prerequisite for open government.

- **Accountability:** Being accountable for decisions and actions is important to ensure that decisions and their implementation happen with the public interest in mind.

- **Responsiveness:** Being responsive to the demands and needs of citizens and businesses, such as providing public services to help them in their daily lives – fulfils an important democratic role of government.

- **Inclusiveness**: Being inclusive is a government's opportunity for engaging citizens in political decisions and implementation. This ensures citizen-awareness in decision-making processes and increased public support.

[1] *The e-Government Imperative*, OECD 2003, Paris, France.

The "ITARI principle" is in line with the new G-20 Framework for Strong, Sustainable and Balanced Growth adopted at the G-20 Leaders Summit in Pittsburgh, USA, on 24-25 September 2009,[2] and puts in place necessary basic public governance principles that the crisis revealed as insufficient.

OECD countries are looking at e-government implementation as a key-prerequisite for improving performance and increasing transparency, accountability, inclusion and responsiveness of the public sector in its strive to implement crisis response packages. E-Government is thus a cross-cutting prerequisite that will allow governments to support and enhance the broader economic and societal goals for future growth. But what role does e-government otherwise play in government responses to the crisis? And how do governments use e-government in achieving direct or indirect impacts on the economic recovery? These are the questions this paper will discuss.

E-Government as a contribution to the strategic response to the crisis

In 2008, due to the crisis, governments had to address a number of urgent financial and economic issues that required: (a) immediate intervention within the financial sector; (b) substantial budgetary commitments from governments to extra-ordinary large and immediate public spending; (c) quick expansion of public sector capacity to handle the fallout of the crisis (*e.g.* rise in unemployment, management and implementation capacity of policy decisions on crisis responses, increase in demands for monitoring capacity and insight into government spending, etc.); and (d) immediate reprioritisation of existing spending programmes to allow for a more substantial economic effect of government interventions.

Public governance structures and administrations in the public sector at large were not geared to sudden shifts in the demand dictated by the pace of deterioration of the financial markets and of the economy in general. The political necessity for governments to act promptly on the situation at hand with limited or no preceding international experiences of good practices of its kind to turn to and learn from, led to a number of different approaches to public sector transformation based on different political reasoning to act the way each government eventually chose to act. Did the approach chosen produce the expected outcomes of higher performance and increased transparency with better inclusion of citizens in the implementation of the crisis response and recovery packages? How is e-government seen as a strategic contributor to the longer-term recovery of the economy? These are some of the questions that will be further discussed below.

Many OECD countries have used the crisis to refocus and accelerate their e-government programmes. Some countries have *formally* chosen to include e-government as part of their stimulus and recovery packages while others have chosen not to (see Table 1). However, almost all countries report that e-government is seen as a contribution to and support of the economic recovery without regards to whether they have decided to have it as a formal part of their response and recovery packages or not. All countries do see e-government programmes as important for their efforts to improve governments' performance, transparency, inclusion, and responsiveness. Countries where e-government is not a part of the national crisis response indicate that the crisis has induced a sense of urgency in realising benefits.

[2] The G-20 Leaders' Statement from the Summit in Pittsburgh, USA, can be found here: http://www.g20.org/Documents/pittsburgh_summit_leaders_statement_250909.pdf, accessed 19 October 2009.

Table 1. Is e-government a part of the national crisis response?

	Countries
E-Government *is* a part of the national crisis response	**Austria**, **Iceland**, **Ireland**, **Germany**, **Japan**, **Korea**, **Mexico**, **Netherlands**, **New Zealand**, **Norway**, **Slovenia***, **Sweden**, **Switzerland**, **United Kingdom**, **United States**.
E-Government *is not* part of the national crisis response	**Australia**, **Belgium**, **Czech Republic**, **Denmark**, **Hungary**, **Luxembourg**, **Slovak Republic**, **Turkey**.

* Accession country to the OECD.

Source: OECD Survey on the impact of the financial and economic crisis on e-government, 2009.

OECD countries are accelerating the transformation of their public sectors through prioritised e-government activities. Pursuing common goals for public sector transformation through e-government such as: increased efficiency and effectiveness; structural and organisational change; regulatory reform/administrative simplification; user-focus; quality of services; and openness and transparency.[3] Achieving these e-government goals also contribute to establishing the foundation for further cost-cuts in government spending. This last set of considerations is not specific to the crisis, but refers to time-indifferent goals seen in public sector transformation strategies in the last 10 to 15 years modernisation efforts in all OECD countries.

Increasing performance of and trust in government

Expected outcomes of e-government development have not changed dramatically due to the crisis. Rather, performance-focused e-government activities have in general been prioritised and accelerated together with measures to ensure governments' ability to earlier deliver high-quality and coherent services to the public. This includes initiatives to improve transparency into the implementation of crisis packages and as a result also increased accountability for governments regarding the use of crisis funds and the nature of the outcomes of these spendings (*e.g.* how many and which jobs are created from crisis response spending). The focus on efficiency and effectiveness oriented activities together with activities that make public service delivery more coherent shows that e-government programmes are at the heart of the effort of making the public sector more agile, simple and responsive to internal and external demands. Governments are in thus focusing on achieving second-order effects from their crisis-related e-government priorities (see Figure 1).

Table 3 shows an overview of OECD countries' *expected key outcomes* of having e-government contributing to the crisis response – whether or not they have formally been included in national crisis response packages. Even though the table does not give a full and complete picture of all the nuances in the expected outcomes, it does give a broad insight into governments' main prioritised and desired outcomes that support and enhance the public sector contribution to the different national responses to the crisis (see also Annex A for a detailed overview of governments' outcome expectations).

[3] See for example "E-Government as a Tool for Transformation", (GOV/PGC(2007)6), Unclassified, 28 March 2007, OECD, Paris, France.

Table 2. Expected key outcomes of e-government's contribution to the crisis response

Expected key outcomes	Countries
Cutting costs in government budgets.	**Australia**, **Iceland**, **Japan**, **Mexico**.
Improving efficiency and effectiveness/Increasing productivity.	**Australia**, **Austria**, **Belgium**, **Czech Republic**, **Denmark**, **Hungary**, **Iceland**, **Germany**, **Ireland**, **Japan**, **Korea**, **Mexico**, **Netherlands**, **New Zealand**, **Slovenia***, **Switzerland**, **United Kingdom**, **United States**.
Reducing administrative burden.	**Czech Republic**, **Germany**, **Hungary**, **Luxembourg**, **Mexico**, **Netherlands**, **Slovenia***, **Switzerland**.
Improving coherency and quality of public service delivery.	**Austria**, **Belgium**, **Czech Republic**, **Hungary**, **Ireland**, **Luxembourg**, **Mexico**, **Netherlands**, **Norway**, **Switzerland**, **United Kingdom**.
Transparency, accountability and citizen participation.	**Korea**, **United Kingdom**, **United States**.
Stimulating the private sector through public sector spending on ICT.	**Germany**, **Korea**.
"Green IT" goals	**Germany**, **Luxembourg.**

* Accession country to the OECD.

Source: OECD Survey on the impact of the financial and economic crisis on e-government, 2009. See also Annex A.

A general trend seen across the concrete outcome expectations emphasised by each OECD country is that governments have significantly sharpened their focus on achieving the full benefits of e-government implementation and accelerated the implementation of those projects that most quickly lead to tangible benefits realisations.

Another trend seen across OECD countries is that most of them use e-government implementation to achieve:

- medium- to long-term outcomes of efficiency and effectiveness in administrative functions;
- improved transparency, accountability and citizen participation;
- improved coherency and quality of public service delivery; and
- administrative burden reductions.

Even though the crisis gives incentives for governments to focus on instant cost-cutting in public sector expenses, only a few countries (*e.g.* Germany, Korea and the United States) see the opportunity to invest strategically in public sector innovation to gain longer-term strategic advantages (*e.g.* development of new technologies) with spill-over effects to the private sector. Such areas could be increased public sector ICT spending as a way to stimulate a specific private sector segments (*e.g.* the ICT industry as seen in for example Korea and Germany). Especially, investments in ICT infrastructure have been prioritised by many OECD countries (*e.g.* Australia, Canada, Finland, Germany, Japan and the United States).[4]

For countries such as Germany and Korea, the national strategic importance of technological innovation and development are high, and long-term impacts for improved competitiveness of selected segments of the private sector (in this case the ICT industry segment) are political priorities. In this perspective, achieving an environmental-friendly use of ICT in the public sector and broadly in society are

[4] "The Impact of the Crisis on ICTs and Their Role in the Recovery", (DSTI/ICCP/IE(2009)1/FINAL), 17 August 2009, Unclassified OECD document, Paris, France. Table 3.

strategic priorities that also supports the goals of sustainable long-term growth through innovation that could create a competitive future advantage (*e.g.* as seen in Germany and Luxembourg).[5]

The urgency of quick political intervention in the economy in the second half of 2008 limited the possibility for proper consultations of the public. Far-reaching economic decisions were made by politicians that had long-term impacts on OECD countries' economic development: the direct and indirect fall-out of the crisis has increased the pressure on public spending, *directly* in the form of interventions in the private sector through bail-outs and different national measures to support and stimulate the financial sector, *indirectly* through the increase in social security spending and unemployment benefits due to the economic slow-down. Governments experienced the need to rebuild trust with citizens, and some governments have in their expected outcomes prioritised the development of increased transparency, accountability, and citizens' participation and inclusion, especially in the crisis response implementation (*e.g.* explicitly reported by Korea, the United Kingdom, and the United States).

Public sector innovating for future growth

Knowing what governments have prioritised up or down, and what has remained unchanged due to the crisis is important in order to understand the considerations behind their decisions. In their priority considerations, governments have made strategic choices with a clear focus on the medium- to long-term effects of e-government implementation. The choices include investments in activities that enable future significant whole-of-public-sector benefit realisations (*e.g.* putting in place common e-government solutions such as digital signatures, improving ICT security, and assessing new technological concepts such as "cloud computing"[6] that might allow for further cost-cuts).

As already seen in the overview of expected key outcomes in Table 3, governments are strongly focusing on harvesting efficiency and effectiveness benefits. This is seen in the general trend of accelerating existing e-government programmes and especially the part of existing or adjusted e-government strategies and action plans that aim at capitalisation and thus contribute to the creation of needed budgetary room in government budgets (see Table 4).

Another trend seen in government responses is that public services in areas that support the ongoing major fallout of the crisis (unemployment, economic stimulus plan support, etc.) on citizens and businesses have got extra attention in governments' prioritisation. Priority has been given to the implementation of e-government activities that support or enhance coherency in service delivery such as expanding infrastructure accessibility (*e.g.* broadband penetration) and back-office integration. Back-office integration is a key challenge to many OECD countries, as this often requires major structural and organisational changes that challenge existing responsibilities and division of labour within and across levels of government. Governments may see the crisis as a window of opportunity to initiate a process towards adjusting those boundaries.

Governments are also looking closer at the possibilities for sharing resources – whether they are services, capacities such as competencies and skills, or infrastructure, technological platforms, and solutions. Even though many OECD countries report of unchanged priorities, the common message from them is that existing e-government strategies and action plans are aimed at targeting the lagging efficiency

[5] See also discussion on innovation and long-term growth perspectives in Part 2 of: *Policy Responses to the Economic Crisis: Investing in Innovation for Long-Term Growth*, June 2009, OECD, Paris, France.

[6] "Cloud computing" is a way to perceive the use of online services provided on the Internet where the (ownership of the) electronic infrastructure is concealed, and these services are used independently of who owes or provides them. The "cloud" symbolises the Internet infrastructure.

and effectiveness realisations and the possibilities for delivering coherent and individualised services to citizens and businesses.

Table 3. Prioritisation of major e-government areas due to the crisis

Prioritisation of major e-government areas	Countries
No changes in prioritisations of e-government activities.	**Austria**, **Australia**, **Belgium**, **Czech Republic**, **Denmark**, **Hungary**, **Japan**, **Korea**, **Norway**, **Slovak Republic**, **Slovenia***, **Turkey**.
Sector-oriented e-government programmes (*e.g.* health, justice, transport, education, etc.).	**Germany**: 285 different sector specific projects have been initiated with a funding of EUR 238 million. **Slovak Republic**: A number of sector areas (within health, justice, transport and education) are prioritised for e-government implementation in the period 2009-2013 funded by the European Union Structural Funds. **United States**: Health ICT, Energy (Smart Grid), broadband implementation, ICT to support education programmes.
Specific development projects at the central, regional or local level that improve the quality, efficiency, and user-focus of service delivery (*e.g.* automated statistical data collection and reporting, fishing or hunting licenses, etc.), and efforts to harmonise front-office implementation for increased user-friendliness and recognisability.	**Slovak Republic**.**.** **Germany**: Provision of encrypted mobile phones and Personal Digital Assistants (PDAs) for the federal administration. **Mexico**: Automation of statistic collection and improvement of interoperability to better provide services to citizens. **Netherlands**: creation of a one-stop-shop government portal for citizens. **Luxembourg**: "One-stop-shop" portal – www.guichet.lu. **Slovenia***: Priority given to sectors with insufficiently developed e-government services such as services within the health and justice sectors (e-health and e-justice).
Back-office re-organisation (*e.g.* standardisation of information and data, technical platforms, cloud computing, legislation and regulation, and organisational structures).	**Iceland**, **Luxembourg**, **Slovak Republic****, **United Kingdom.** **Germany**: Creation of an open source software competence centre to support and enhance the use of open source software within the federal administration; it is anticipated that this initiative will in the medium- to long-term perspective generate significant savings and have significant impact on and stimulus of the German ICT sector. **Mexico**: Reengineering and automation of internal processes. **Netherlands**: Continued work on open source and open standards from before the crisis.
Common collaboration frameworks (*e.g.* common business processes, electronic ID management, electronic ID card solutions, and enterprise architecture).	**Slovak Republic****. **Germany**: ICT security and the improvement and consolidation of the Federal ICT organisation. **Netherlands**: Accelerated implementation of DIGID (digital authentication module) and GBA (population register) by local and other government levels. **Switzerland**: digital signatures – "SuisseID" – for citizens and businesses. **United States**: Evaluation of a cloud computing option to replace current infrastructure to improve innovation, efficiency and effectiveness; ICT security and ensuring the privacy of citizens.
E-Participation and e-inclusion (*e.g.* web 2.0 tools and applications and electronic social forums).	**Germany**, **Slovak Republic****, **United Kingdom.** **United States**: Open and transparent government through increased availability of federal government data in more usable forms; participative and collaborative

Prioritisation of major e-government areas	Countries
	through the use of Web 2.0 concepts.
Administrative burden reduction	**Luxembourg**. **Netherlands**: specific focus on service areas and services where people who, due to the crisis, have intensified contacts with government, for example: accessibility of municipalities' websites (as laid down in the "webrichtlijnen"); automatic remission of local taxes (for people with low income); clustering of different websites and facilities that are the main entry point of government for citizens' questions in one "Answer for citizens"; the "personal internet page"; the "digital message box"; the implementation of "DigiD" (the Dutch digital authentication device) by other government organisations; the implementation of 'Regelhulp', the web based tool for citizens applying for certain health benefits of services; re-usage of the previously administered medical indications by different governmental organisations; and the use of mediation techniques by civil servants.
Other major priority areas	**Germany**: 27 horizontal initiatives have been initiated in the federal government with a total funding of EUR 237 million. Among those the "Green IT" initiative to reduce energy consumption of the federal public sector by 40% by 2013 and the creation of an "Green IT" competence centre to support and enhance environmental friendly ICT use; the competence centre for open source software. **Ireland**: (a) resilient pan public service systems and infrastructures such as telecommunications, web environments, identity and means repositories; (b) multi-channel electronic strategies for dealing with increased and sustained State benefit claims; (c) electronic facilities to manage crises. **Iceland**: free and open source software. **Korea**: measures to overcome the crisis have been added to each e-government project. **Luxembourg**: reducing the carbon footprint. **United Kingdom**: application reuse, shared services.

* Accession country to the OECD.

** Broad public sector e-government implementation in the period 2009-2013 funded by the European Union Structural Funds.

Source: OECD Survey on the impact of the financial and economic crisis on e-government, 2009.

Impacts on budgets

The crisis has, in general, not affected e-government budgets for 2009 in OECD countries. Most governments report that the crisis has not had an impact on the level of spending on e-government implementation. Indeed, e-government spending is continuing at the same level – or in some countries may be accelerated by carrying government spending forward (*i.e.* relabeling of planned expenditures).

However, governments are indicating that changes in budget may happen in the coming fiscal years (see Table 5):

- Some governments plan to keep budgets neutral, but reprioritise within the existing budget envelopes; others anticipate that efficiency and effectiveness harvesting will make budgetary room to "… do more with less".

- Some governments again report a decrease in their 2009 e-government spending and further decreasing will be anticipated in the coming years due to the fallout of the different extraordinary spending programmes.

- A few governments report an increase in e-government spending and anticipate further increases due to the acceleration of specific programmes/project as a direct or indirect consequence of the crisis (as seen in Table 4). These countries (Korea, Germany, and the United States) see the crisis as an opportunity to use existing funds (Korea) or additional funding (Germany and the United States) to invest in innovation and ICT as a way to both stimulate the private sector and its competitiveness, and to accelerate new developments that support those countries' public sector transformation goals. This tendency is supported by the fact that many OECD countries are prioritising electronic infrastructure investments (extending broadband coverage)[7] that could have a significant effect on future increases in user take-up of e-government services.[8]

Table 4. Overview of budgetary impacts on e-government implementation (2009 and future budget years)

Budgetary consequences	Countries	
	2009	Future budget years
No budgetary consequences	**Australia**, **Belgium**, **Czech Republic**, **Denmark**, **Ireland**, **Korea**, **Luxembourg**, **New Zealand**, **Norway**, **Slovenia***, **Sweden**.	**Czech Republic**: Decreases in e-government budgets are expected in different sectors. **Denmark**: Increases might happen due to the general crisis response policy of moving public investments forward. **Slovenia***: New programme-oriented budgeting introduced in 2009 that also takes into account how a proposed activity mitigates the financial crisis impacts thus implicitly favouring efficiency and effectiveness objectives; budget reductions found on ICT infrastructure modernisation (reduction in the write-off period for hardware) and on existing contracts with suppliers of hardware and services.
Decrease in budgets	**Austria**, **Hungary**, **Iceland**, **United Kingdom**.	**Hungary**: EU Structural Funds are financing major parts of the Hungarian e-government initiatives through the Electronic Administration Operational Programme 2007-2013. The budget approved for the Programme will remain the same and co-financed by Hungary. However, national budget estimates for e-government development in general are expected to experience a proportional budget decrease due to the crisis similar to other budget areas. **Iceland**: For 2009, the e-government budget has been decreased

[7] "The Impact of the Crisis on ICTs and Their Role in the Recovery", (DSTI/ICCP/IE(2009)1/FINAL), 17 August 2009, Unclassified OECD document, Paris, France. Table 3.

[8] *Rethinking e-Government Services: User-Centred Approaches*, OECD 2009, Paris, France.

Budgetary consequences	Countries	
	2009	Future budget years
		by16.5%; for 2010 a further decrease is expected on the level of 18.0%. **United Kingdom**: ICT budgets will be reduced, but the move towards standardisation of infrastructure and the re-use of applications will mitigate this decrease and allow for delivering "more for less".
Increase in budgets	**Germany**, **Japan**, **Mexico**, **Netherlands**, **Slovak Republic****, **Switzerland**, **United States**.	**Germany**: Multi-year crisis spending package from February 2009 has allocated EUR 4 billion for federal investments. EUR 500 million of this has been allocated to the federal *Chief Information Officer* to spend on modernising the federal administration. **Japan**: For 2009, additional budgets were given to do research on "Government shared platform"; for 2010, a significant budget increase is expected in order to implement the project. **Mexico**: Three priority areas have got increased budgets: (i) reengineering and automation of internal processes; (ii) interoperability for better service provision to citizens; and (iii) automation of statistics collection. **Netherlands**: For 2009 and 2010, budgets have been increased by moving forward the budget anticipated for 2011 in order to fund the acceleration of specific e-government programmes, but in the end it has no budgetary consequences..

* Accession country to the OECD.

** Budget increase for e-government implementation in the period 2009-2013 funded by the European Union Structural Funds.

Source: OECD, 2009.

Conclusion

For e-government, the crisis has shown that the importance of the e-government work already carried out in the public sector has been invaluable. It has allowed many governments to accelerate their e-government programmes focusing sharply on realising benefits such as improving efficiency and effectiveness, increasing savings on public administration operations, and enhancing trust-building with citizens.

Having basic e-government infrastructures, frameworks and organisational structures already in place in most OECD countries allowed governments to prioritise strategic investments in public sector innovation to lay the ground for future economic growth besides accelerating the harvesting of savings through performance improving activities. Although governments had different approaches to responding to the crisis, it is nevertheless significant to note that they all saw e-government implementation as a key strategic tool to achieve wider governance and political goals in support of the immediate and targeted economic recovery packages under implementation in a number of OECD countries.

Focus on benefits realisation

For all governments, ***benefits realisation* is in focus**. The crisis has shown that public sector transformation could not have happened without having put in place critical e-government solutions both in the back-office of governments (*e.g.* integration of the public sector back-office to allow for coherency in the exchange of information and data) and in the front-office of governments (*e.g.* e-government services organised in portals). This has enabled governments to become more transparent and accountable in their decision-making. It has allowed them to offer easy, simple and coherent access to services whether they are offline or online, and it has enabled them to share resources across government organisations and levels of government. Enabling governments to become agile and responsive in extra-ordinary situations require that government administrations are coherent and integrated, and that they are able to dynamically reprioritise and scale their activities according to the requirements of the situation at hand.

In a broader and more long-term perspective, the crisis has given governments an opportunity to re-emphasise the importance of fully implemented national and cross-border e-government programmes as seen in for example the European Union. The need for a quicker transformation in the public sector as a result of public sector reforms has been highlighted by the crisis. It has shown that e-government projects are important to the crisis response the quicker they can be implemented and benefits realised.

Stimulating for the short-term recovery, but investing for the long-term growth…

Looking across country responses to the *OECD Questionnaire on the Impact of the Financial and Economic Crisis on E-Government*, a number of cross-cutting key issues arise:

- **Improving performance and reducing waste in the public sector** are seen as a urgent necessities justifying *on the one hand* governments' ability to generate cost-savings through efficiency and effectiveness measures internally in the public sector, and *on the other hand* their capability of managing and spending huge stimulus packages and ensuring maximum impact on the economy.

- **Strategic investments in new and innovative key e-government areas** (*e.g.* ICT security, open source and "green IT") are seen by some countries as a way to initiate or accelerate necessary and future-oriented e-government development programmes. Investments in innovative e-government areas are seen as a way to achieve sustainable economic growth that could create competitive advantages for those countries' private sectors.

- **Accelerating public spending on e-government** by carrying government spending forward (*i.e.* relabeling of planned expenditures) including renewal or update of ICT hardware and software is seen by some countries as an effective short- to medium-term stimulus to their ICT sectors that at the same time could contribute to a modernisation of ICT tools in the public sector.

- **Rebuilding trust with citizens** using existing or new e-government solutions to create increased transparency and accountability, inclusion and responsiveness has come into focus. Several countries have invested in creating additional or complementary access to how stimulus packages are used and what the outcomes are with regards to *e.g.* infrastructure projects and number of jobs in local communities.

- **Improving the quality of public services** is seen as an important part of reducing the additional burdens on public service delivery in certain areas (*e.g.* unemployment services and social security services) due to the fallout of the crisis. A number of countries have in addition reported the development of new services supporting the management of recovery packages.

- **E-Government is seen as a key lever for transforming the public sector** – making it agile and dynamic and thus more resilient to sudden changes in demands to public sector performance in a longer-term perspective.

Governments have seized the opportunity of the crisis to capitalise on the fundamental work done in the last 10-15 years to support e-government implementation. The development of coherent and integrated back-offices of governments allowed for the swift shift towards areas supporting crisis response activities and making it possible for governments to deliver transparency, increased inclusion and responsiveness.

Even though countries have chosen different approaches to include e-government as a part of their strategic crisis response, the basic implementations already taken place in most OECD countries have enabled those countries to respond faster to the political demands at present in the situation. Examples of scaling-up public service areas especially burden by the fall-out of the crisis in several countries (*e.g.* the Netherlands, the United Kingdom and the United States) is one example; another example is the provision of transparency into the use and outcomes of recovery package spending (*e.g.* Ireland, the United Kingdom and the United States).

Many OECD countries report an unchanged pace of e-government implementation with few minor adjustments in prioritisation – an important sign of political commitment in a time of crisis. Reprioritising e-government activities towards programmes with direct efficiency and effectiveness impacts, higher quality and relevance of public services, and increased user-centric outcomes has happened in most OECD countries.

Where existing programmes were already in place, some governments have chosen to accelerate the implementation and investments in parallel (*e.g.* Japan, Netherlands, Switzerland, and the United States). Few countries (*e.g.* Germany and Korea) have chosen a pro-active response through strategic investments in innovation and the development of new technologies to address broader national priorities with for example "green IT" initiatives (*e.g.* Germany and Luxembourg).

In summary:

- Governments' awareness towards e-government investments should be raised as it is a longer-term strategic activity that would allow them to save costs as well as improve the quality of public services.

- Investing pro-actively in e-government is an investment in building future skills, competencies and capacities within the public sector; building new skills and competencies in partnerships with the private sector could be a strategic competitive advantage in a longer-term perspective.

Towards a better and more efficient government

OECD work on public sector transformation in 2007 already noted OECD countries' focus on internal transformation objectives such as efficiency and effectiveness, administrative simplification, etc., and how to realise these benefits; a focus that has not changed significantly since ICT was adopted as an efficiency tool in the early 1960s. E-Government development today is looking at the same issues: how to capitalise on efficiency and effectiveness gains and the provision of integrated services created by the use of ICT in public administrations. This was the main focus for governments in their effort to transform the public sector into a more efficient and effective whole, and at the same time become more citizen-focused, open and responsive in policy-making and service delivery.[9]

Realising benefits is difficult, and how to manage benefits realisation in government has since the mid-2000s been a major consideration.[10] It is in this perspective that user take-up of e-government services are becoming important as a simple prerequisite for effectively harvesting efficiency gains and allowing governments to significantly cut costs and reprioritise the use of public sector employees to deliver face-to-face services to citizens segments where necessary and needed.[11]

High-quality and efficient service delivery subsequently becomes an issue of what is the most effective use of public sector resources whether they are public sector employees or e-government services. It becomes a question of using the most appropriate service delivery channel available whether it is an on- or offline channel. Implementing user-centric e-government solutions with high-quality on- or offline service delivery in mind may be a viable long-term preventive strategy to sustain agility and responsiveness of governments if a new crisis of this magnitude should ever occur again in the future.

Impacts of e-government investments – an area for future comparative research

The importance of having e-government's broader strategic potential in mind as part of government's economic policy framework has been emphasised by some countries' strategic investment priorities using public sector innovation to spearhead new technological breakthroughs (*e.g.* the examples of ICT security, open source, broadband coverage, and "green IT"). By using crisis response funding on further developing innovative and needed e-government solutions, can in those countries views be seen as sowing the seeds for new start-ups or business opportunities – thus supporting a long-term sustainable economic growth strategy. Future work on e-government might benefit from greater insight into how e-government impacts the economy and how these impacts can be consistently measured – an area on which the OECD will do additional work in the coming years.

[9] *E-Government as a Tool for Transformation*, (GOV/PGC(2007)6), 28 March 2007, OECD, Paris, France.

[10] *Benefits Realisation Management*, (GOV/PGC/EGOV(2006)11/REV1), 28 March 2007, OECD, Paris, France.

[11] *Rethinking e-Government Services: User-Centred Approaches*, OECD 2009, Paris, France.

ANNEX A: EXPECTED OUTCOMES

The annex shows an overview of countries' answer to Question 2: "What are the expected short, medium and long-term outcomes – if any – of having e-government as part of the crisis response?"

The answers given are *not* subject to whether a country has formally included e-government as part of its national crisis response.

Table A.1. Overview of expected internal and external outcomes

Country	Expected outcomes	
	***Internally* in the public sector**	***Externally* for service provision to citizens and businesses**
Australia	• Substantial monetary savings is expected from an ICT reform program as a follow-up on the 2008 *Review of the Australian Government's use and management of ICT*: savings target in 2012-2013 of AUD 1 016 million with the intent of reinvesting half of the savings in agency or whole-of-government projects designed to improve the efficiency and effectiveness; realised savings in 2009-2010 is AUD 109.2 million with AUD 54.6 million reinvested.	• Plans for investing in a national broadband network.[12]
Austria	• Increase of productivity due to budget cuts. • Restrictions on ICT investments in the short and medium term.	• Faster introduction of new services. • Faster acceptance of using online services.
Belgium	• More efficient government due to addressing digital divide challenges.	• Better provision of services to citizens and businesses due to addressing digital divide challenges.
Canada	*No responses received.*	*No responses received.*
Chile	*No responses received.*	*No responses received.*
Czech Republic	• Efficient and effective public administrations are anticipated due to the introduction of mandatory use of Data Boxes for all citizens and businesses by 1 July 2009 as a means for communication between citizens and businesses, and public sector authorities.	• Significant reduction of administrative burdens is expected towards citizens and businesses. • Increased interest in using e-government services including electronic communication through the Data Boxes.
Denmark	• E-Government programmes and budgets could be affected as public investments increase or are push forward as part of the responses to the crisis. • The crisis will emphasise the need for	n/a.

[12] *The Impact of the Crisis on ICTs and their Role in the Recovery*, (DSTI/ICCP/IE(2009)1/FINAL), OECD, Paris, 17 August 2009.

Country	Expected outcomes	
	***Internally* in the public sector**	***Externally* for service provision to citizens and businesses**
	structural reforms and a more effective and efficient public sector.	
Estonia	*No responses received.*	*No responses received.*
Finland	*No responses received.*	*No responses received.*
France	*No responses received.*	*No responses received.*
Germany	• Modernisation of public ICT use. • Reduction of administrative burdens. • Improving the federal ICT organisation. • "Green IT" goals: reduction of ICT energy consumption in the federal administration with 40% by 2013.	• Achieving sustainable growth in the German ICT industry through innovation and investments in future technologies such as "Green IT", ICT security, and open source software.
Greece	*No response.*	*No response.*
Hungary	No changes in expected outcomes of e-government programmes.	No changes in expected outcomes of e-government programmes.
Iceland	• Cost reductions through establishing an integrated ICT architecture (*e.g.* information and data sharing, standardisation, co-ordination and co-operation between organisations, and security), simplifying public administrations (*e.g.* online payments, electronic identities, e-procurement, co-ordinated central registers, etc.), administrative burden reductions (*e.g.* review of laws and regulations to remove barriers for e-government services).	n/a.
Ireland	• Reduced processing times and increased turnaround. • Improved efficiencies thereby reducing public service costs. • Increased internal capacity.	• A more informed population with the capability to self-serve thereby reducing the need for physically turning up somewhere, queuing, and engaging with another human being. • Opportunities for private sector organisations thereby stimulating employment and growth, and reducing dependence on state benefits.
Israel	*No responses received.*	*No responses received.*
Italy	*No responses received.*	*No responses received.*
Japan	• Cost reductions through creating the "Government Shared Platform".	n/a.
Korea	• Transparency and efficiency of government administrations. • Citizens' participation in government policy making. • Improvement overall government competitiveness.	*Short-term:* • Job creation. • Increase the demand of the domestic ICT sector. *Medium- to long-term:* • Stimulation of the private markets with government-led investments in new ICT development.
Luxembourg	• Integration of transversal processes and elimination of administrative redundancies. • Integrated back-offices to support the delivery of seamless services. • Interoperability of electronic service delivery across the public sector and all other levels of government (i.e. municipalities). • Standardization of information and data. • Increased efficiency and effectiveness of	• Reduced administrative burdens for citizens and businesses. • Leaner regulatory framework through process analysis and adaptation. • Higher quality public service tailored to users' needs. • A more transparent, inclusive and participative government. • Improved customer satisfaction through better service perception. • Seamless (cross border) delivery of

Country	Expected outcomes	
	***Internally* in the public sector**	***Externally* for service provision to citizens and businesses**
	public service provision. • Increased productivity by adapting business processes. • A more comprehensive view of users needs and demands. • A more effective, efficient and "greener" government.	services. • Interoperability of electronic service delivery with the private sector.
Mexico	With the creation of *tuempresa.gob.mx* the government expects to get a unique business register, and the employment portal will make job search more efficient and effective.	*tuempresa.gob.mx* is expected to reduce the user's time in setting-up a company, and the employment portal is expected to help reduce the unemployment rate in Mexico.
Netherlands	• Improving efficiency within government in the medium- to long-term perspective.	• Significant reduction of administrative burdens for citizens in the short-term perspective. • Improve customer satisfaction in the medium- to long-term perspective.
New Zealand	*Medium- to long-term perspectives:* • Greater ability to monitor agency performance and costs. • Better policy development due to better public and market insights developed through citizen engagement initiatives. • Using existing ICT capability to streamline business process functions that enables greater efficiencies in service delivery and administration.	
Norway	n/a.	• Higher provision of e-government services to the public.
Poland	*No responses received.*	*No responses received.*
Portugal	*No responses received.*	*No responses received.*
The Russian Federation	*No responses received.*	*No responses received.*
Slovak Republic	*No responses received.*	*No responses received.*
Slovenia	• Efficiency and effectiveness through increased collaboration among public institutions and sharing of infrastructure, services, and business processes; increasing the capacities in organisations to handle ICT and to reduce administrative burdens between public organisations, for citizens, businesses, and with institutions in other EU Member States.	• Sustainable long-term Information Society development with services provided to citizens and businesses based on real social and economic needs and that offer benefits for all parties.
Spain	*No responses received.*	*No responses received.*
Sweden	n/a.	n/a.
Switzerland	• Accelerating the implementation of different e-government project in the Swiss e-government strategy.	n/a.
Turkey	n/a.	n/a.
United Kingdom	• Scale-up quickly certain business applications which would have been facilitated by common infrastructure and scalable resources.	n/a.
United States	• Rapid distribution of funds from the *American Recovery and Rehabilitation Act*. • Efficient and effective ways of conducting government's businesses.	• Improved transparency and accountability on the spending of the funds and results. • Enabling competitiveness in the global economy.

Source: OECD, 2009.

ANNEX B: QUESTIONNAIRE SENT TO COUNTRIES

Background

The global financial and economic crisis has over night, put governments under considerable pressure to promptly address a broad range of challenging political, economic and governance issues affecting both the public and the private sector. In their effort to be agile and responsive to the situation, governments have stretched their human and budgetary resources to the limit. To swiftly create the capacity to handle these new challenges, they are looking at how efficiency and effectiveness in the public sector can be improved.

While some governments have chosen to cut e-government spending and reduce the pace of its implementation, others have chosen to seize this occasion to accelerate the pace of e-government implementation. For every country, the main issues are to avoid wasting tax payers' money, ensure that resources are used most efficiently and effectively, and rebuild citizens' trust through increased transparency in how decisions are made and implemented. As a consequence, governments are also faced with the challenge of paving new ways to increase citizen participation and engagement.

In order to allow the OECD Secretariat to enrich a short discussion paper for the upcoming OECD E-Leaders Meeting 2009 held on 16-17 September 2009 at our Headquarters in Paris, France, we would like to ask the OECD Network of Senior E-Government Officials to *briefly* answer four questions related to your government's approaches to e-government development and implementation in light of the financial and economic crisis.

We would appreciate receiving these brief answers as soon as possible and by **Monday 17 August 2009 at the latest**.

Please send your answers by e-mail to Mr. Yih-Jeou Wang, e-mail: yih-jeou.wang@oecd.org.

Question 1

- **Have *existing or planned e-government programmes* been used as a contribution to your government's financial and economic crisis response?**

  – Please describe briefly how e-government programmes are or have been used in the crisis response.

Question 2

- **What are the expected short, medium and long-term outcomes – if any – of having e-government as part of the crisis response?**

  – Please describe the expected (direct and/or indirect) short, medium and long-term outcomes *internally* in the public sector and/or *externally* with regards to the provision of public services to citizens and businesses.

Question 3

- **Which *major e-government areas* have seen their priority increase, decrease or remain unchanged due to the crisis and why?**

  The different *major e-government areas* that could be affected are for example:

  – Sector-oriented e-government programmes (*e.g.* health, justice, transport, education, etc.).

  – Specific development projects at the central, regional or local level that improve the quality, efficiency, and user-focus of service delivery (*e.g.* automated statistical data collection and reporting, fishing or hunting licenses, etc.), and efforts to harmonise front-office implementation for increased user-friendliness and recognisability.

  – Back-office re-organisation (*e.g.* standardisation of information and data, technical platforms, cloud computing, legislation and regulation, and organisational structures).

  – Common collaboration frameworks (*e.g.* common business processes, electronic ID management, electronic ID card solutions, and enterprise architecture).

  – E-Participation and e-inclusion (*e.g.* web 2.0 tools and applications and electronic social forums).

Question 4

- **Has the crisis response in your country resulted in an increased/decreased/neutral budget for e-government development and implementation?**

  Please indicate in which *major e-government areas* (see example areas in Question 3) the budget has been increased, decreased or kept neutral.