OECD e-Government Studies

EGYPT

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OECD e-Government Studies: Egypt 2012

Please cite this publication as:
OECD (2013), *OECD e-Government Studies: Egypt 2012*, OECD Publishing.
http://dx.doi.org/10.1787/9789264178786-en

ISBN 978-92-64-17877-9 (print)
ISBN 978-92-64-17878-6 (PDF)

Series: OECD e-Government Studies
ISSN 1990-1062 (print)
ISSN 1990-1054 (online)

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Foreword

The Arab Spring and the rise of new social and democratic movements throughout large parts of the Middle East and North Africa (MENA) have given a new impetus for the use of ICTs and e-government to foster participation and engagement, as well as to increase transparency and restore trust in government. These are crucial issues, and numerous initiatives involving or emerging from civil society have already been established to support these new instances.

In parallel, OECD member countries are currently revising their ICT priorities, boosting e-government's strategic role to increase efficiency and effectiveness within the public sector, and foster productivity, national competitiveness and economic growth. As such, the review strengthens the ground for mutually beneficial and constructive policy dialogue among OECD member countries, Egypt and the entire MENA region on good practices in the field of government use of existing and new technologies.

By committing to the first full-fledged OECD E-Government Review of a MENA country, Egypt demonstrates the strategic understanding of the benefits of being reviewed by peers. This review aims to support the on-going efforts of the government of Egypt to assess its use of ICTs in the public sector. The significance of the report goes beyond Egypt and the MENA region. It contributes directly to Egypt's commitments under the Deauville partnership and the vision outlined in the OECD Strategy on Development.

The review was carried out within the context of the MENA-OECD Governance Programme and by applying the analytical framework of the OECD E-Government Project. Peer reviewers from Italy, Mexico and the United Kingdom assisted with the drafting of the report. As is customary, the main findings of the report were submitted for review to the OECD Network on E-Government of the Public Governance Committee. The draft review was also presented in the annual meeting of the MENA-OECD Working Group on Open and Innovative Government.

Building on Egypt's observer status to the OECD Public Governance Committee, discussions on the review started in 2010. The review began in June 2011, and its focus was revised in collaboration with the Egyptian government to take into account the national political developments and Egypt's re-orientation in the use of ICT.

The review recognises the important actions undertaken by Egypt, and the progresses achieved. It points at ways in which the government could further strengthen its work on e-government, by: i) strengthening the focus on the added value of the use of ICTs, ii) improving and institutionalising e-government strategy and co-ordination, iii) consolidating implementation capacities, and iv) using ICTs to support Open Government.

The insights and recommendations of the review can prove timely and of strategic importance in addressing the challenges and opportunities posed to Egypt by the ongoing democratic transition process, by highlighting how the use of ICTs in the public sector can increase the impact of reforms and the social and economic benefits they can yield.

Acknowledgements

Under the strategic direction of Martin Forst and Edwin Lau, and under the co-ordination and supervision by Alessandro Bellantoni and Barbara-Chiara Ubaldi, the review was written by Adam Mollerup with contributions by Karine Badr, Alessandro Bellantoni and Barbara-Chiara Ubaldi. Strategic alignment with the MENA-OECD Governance Programme was ensured by Carlos Conde. Administrative assistance was provided by Sarah Michelson and Anne-Lise Faron. Melissa Peerless, Jennifer Allain and Lia Beyeler assisted in the preparation of the report. The report benefited from valuable comments from Sana Al-Attar, Miriam Allam, János Bertók, Elodie Beth, Marco Daglio, Arthur Mickoleit, Paloma Olabe and other colleagues.

Very special thanks go to the three peer reviewers: Fabio Pistella (Italy), Darren Scates (United Kingdom) and Carlos Viniegra (Mexico).

The OECD would like to thank the government of Egypt, especially the Ministry of State for Administrative Development, for the co-ordination and assistance in providing information and facilitating interviews with relevant stakeholders.

The review was funded by the Italian government through the Italian - Egyptian Debt for Development Swap Programme, in agreement with the Ministry of Planning and International Co-operation of Egypt.

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In order to address the challenges highlighted in the report, the government of Egypt could:

Focus on reaping the value added of ICT use by:

- Ensuring the *uptake* of e-government services;
- Increasing *marketing and awareness* of available online services, engaging users via digital as well as non-digital networks and communication channels;
- Adopting a targeted multi-channel strategy to set priorities for service delivery, and explore the opportunity to strengthen delivery through *mobile platforms*;

Improve e-government strategy and co-ordination:

- Firstly by developing *a dedicated and comprehensive e-government strategy* with the engagement of a broad number of government and non-government stakeholders to:
  - clarify e-government *responsibilities*;
  - *formalise* a mechanism to co-ordinate e-government decision making and implementation;
  - establish indicators to *monitor* implementation progress and impact.
- Secondly; *further strengthen* the implementation of this e-government strategy by:
  - *clarifying the competencies* and emphasising the policy relevance of government CIOs;
  - adopting a *national* policy for procurement of ICT goods and services;
  - prioritising the revision of the *legal framework* supporting public sector digitisation;
  - enabling more flexible and *sustainable* models for ICT *project funding*.

Consolidate e-government implementation capacity in the public sector:

- Firstly, ensure the necessary *implementation capacities* through:
  - the reinforcement of current efforts and partnerships to *build the necessary ICT skills* at all levels of government;
  - the establishment of a *common approach* to ICT project management.
- Secondly, *consolidate* and *leverage* existing implementation efforts by:
  - accelerating the implementation of *joint components* and common business *processes*;
  - focusing the national database program in areas where *interoperability* is needed the most.

Set a new way forward in using ICTs to support open government by:

- Extending and *legally ensuring* the rights of access to open government data and information;
- Making *operational* existing objectives of ICTs for transparency and accountability;
- Making government *more open and responsive* to citizens' demands through inclusive policy making processes, *specifying concretely*, how the administration will foster dialogue with and actively encourage participation of all relevant stakeholders.

Egypt is currently going through a historic period of change. This ongoing transition, triggered by the renewed impetus for democracy and social justice of the Egyptian people, demonstrated the importance of new empowering uses of information and communication technologies (ICTs) by both government and citizens.

Egypt has made important achievements in the field of e-government and is increasingly using ICTs to support policy making and online service delivery, led by the Ministry of State for Administrative Development (MSAD) and the Ministry of Communication and Information Technology (MCIT). However, it appears to be missing opportunities to improve performance on important e-government issues, such as telecommunications infrastructure, human capital and implementation capacity. In addition, without a clear focus on the added value of using ICTs, Egypt might not fully exploit the potentials of e-government to support the transition process in key areas such as improved service delivery and open government policies.

Committing to the standards and scrutiny of an OECD peer review process is a demanding yet important step in order to build further on the existing good work on e-government. A great number of important initiatives have been implemented and are currently being launched thanks to the driving role of MSAD. This review aspires to provide insights and concrete support to the efforts of MSAD and of the whole Egyptian government to be more effective in reforming the public sector through a strategic use of ICTs to better meet citizens' demands and expectations.

Key e-government challenges

Senior policy makers in Egypt understand that e-government is about more than putting public services online. E-government is about rethinking service provision, its underlying administrative processes and the interaction with users, be them citizens, the business community at large or public employees, thus maximising the opportunities offered by ICTs. However, the achievement of the Egyptian e-government objectives are hindered by fragmented decision making and insufficient arrangements and an overall lack of institutional incentives for collaboration and co-ordination. This seems to reflect a general feature of the Egyptian public administration, rather than being something specific to the area of e-government. The result is insufficient attention to the specific benefits of using ICTs to achieve higher efficiencies across the whole public administration and particularly for what concerns full scale implementation of national projects. In addition, the lack of a full-fledged e-government strategy negatively affects the government's capacity to fully capture the value of ICTs to achieve the

stated policy objectives, such as delivering better services, effectively and efficiently organising inclusive administrative processes, and increasing public sector efficiency, effectiveness, transparency and accountability.

One main concern of the Egyptian government is to meet the repeated calls raised for democratic and social reforms. A well-conceived use of ICTs has already enabled the government to increase its effectiveness in several key areas along these lines. One example is the delivery of social care and food subsidies through digital family cards, or an increasing use of websites and new technologies. It will be important to continue and scale up such work while strengthening the focus on reaping the benefits of e-government to support the achievement of well-defined key policy outcomes.

The use of ICTs is an important lever for public sector reforms. Although the potentials of such use are great, institutional stability is an important pre-condition for them to be fully realised. Addressing the need to ensure stability while taking advantage of the momentum will be fundamental for Egypt to succeed with the ongoing public sector reforms, as with the e-government agenda.

1. Strengthening the focus on the value added of e-government

In line with OECD member countries, the Egyptian government considers the use of ICTs a means to achieve wider policy objectives rather than an end in itself. Such policy objectives include efficiency, effectiveness, responsiveness and openness in policy making and service delivery, as well as overall transparency and accountability. Hence, a clear focus on the value of e-government in the specific projects is important to ensure that investments pay off and contribute to a prosperous development of the country. This goes for both cross-government and sector specific e-government projects. The value of e-government can be measured in terms of qualitative or quantitative gains, financial or non-financial, with the actual uptake of e-government services playing a key role to evaluate the extent to which e-government meets citizens' demands and priorities. A precise view on e-government outcomes is important in order to ensure focus on results during development and implementation.

Main assessments of e-government outputs and outcomes

Egyptian public officials assess that e-government so far has had a relatively low impact on key public priorities such as increasing economic growth, improving the efficiency of service delivery and increasing accountability and trust in government. This indicates important focus areas where further exploitation of e-government programmes and policies is

needed and could produce important results, in line with OECD good practices.

For example, improving public sector efficiency has been stated as a key objective in the development and implementation of e-government in the MSAD's *Work Plan for Administrative Reform 2010-2012*. However, efficiency and cost savings do not always seem to be identified as primary objectives in the definition and implementation of e-government policies and projects. Nor do they seem to be reflected in the early assessments of the expected value of ICT investments. This might reflect the current focus on growth, rather than consolidation. Increasing public sector efficiency through the use of e-government requires a greater focus on measuring and linking the financial inputs and outputs of ICT projects. Furthermore, a standardised way to identify and realise the qualitative or quantitative benefits of e-government projects does not seem to be in place, *e.g.* the absence of common project management approaches use of business case models. In either case, it is essential to focus on efficiency and growth while ensuring the capacity to realise the benefits of e-government.

Relative to the average in both MENA and OECD countries, the digital divide in Egypt remains substantial, even when considered in relation to the national contexts (*i.e.* geography of the country, very large Egyptian population). The digital divide remains a hindrance for the uptake of e-government services and thus for reaping the full benefits of e-government, although there could be a mutual reinforcement between e-government uptake campaigns and bridging the digital divide. Data show that the current use of the existing online services provided through the national portal is limited. High user uptake of online public services is a precondition to create value through e-government. Egypt has a low user take-up of many of its e-government services, which impacts the reaping of the benefits of e-government.

Awareness of the provided online services seems low in the population, and uptake of these services appears low even among citizens that are aware of their availability. However, there are considerable potentials for increasing awareness of services provided online and through mobile platforms. Some efforts to increase awareness of e-government services, and market them properly, are in place. For example, government portals and social media platforms are being used to communicate, particularly to the younger generations and skilled Internet users. However, the efforts do not appear to reflect a co-ordinated strategy that could encourage more systematic and targeted awareness raising and e-government marketing, which in turn could considerably improve the uptake of online services. Improving end user skills and enhancing the quality of the services provided

would also help ensuring a higher uptake and better harnessing of e-government value.

Although the development of ICT infrastructure in Egypt remains below average relative to the rest of the MENA region, mobile infrastructure is well developed and penetration is high among most parts of the population. Similarly to many OECD countries, Egypt has adopted a multi-channel service delivery approach. The government provides services through walk-in visits in public offices, service kiosks, and through intermediaries. Services and some information can also be accessed through the Internet – both through the government portal and through authorities' own websites. Mobile platforms and call centres are also being used for public service delivery. Nevertheless, service delivery channels do not seem to have been consistently prioritised based on varying cost-effectiveness. This is leading to parallel investments in all channels and is causing missed opportunities. For example, given the current high level of mobile access and use, relative to Internet access and penetration, mobile platforms do not seem to be sufficiently prioritised even if they could constitute a powerful resource for the development of mobile government services. Such mobile platforms would accelerate the diffusion of a more inclusive service delivery.

Egypt has achieved a high ranking in the UN Online Service Delivery index, particularly highlighting the availability of e-participation tools. However, the wide use of e-participation opportunities is not integrated with the administrative processes, hence limiting the impact of citizens' inputs in public sector reforms to drafting and implementation. Ensuring coherence with, and integration of, the use of ICTs in the traditional government processes still constitutes an important challenge for Egypt, including the need to prioritise the shift from simply informational to fully transactional on line services.

Proposals for action

OECD countries with advanced levels of e-government development prioritise within large portfolios of e-government projects. The government of Egypt should also prioritise its projects and focus its investments on ICTs according to the value they are expected to create in order to improve their impact, reap their benefits and achieve better results.

- A focus on value requires ensuring returns on the investments and securing a high level of uptake of e-government services:
  - Services provided online with only a very limited uptake do not add value. Egypt should consider **focusing more on services with potential for high uptake and on measures to increase**

overall uptake. Improving user orientation, simplification and usability, increasing awareness of available services, focusing on services with a considerable demand and prioritising channels with a high penetration are important options to explore. Key lessons from citizens' complaints and simplification programs might be important to take into consideration. In many OECD countries standardised and transactional services have helped increase the take up of online services.

- Furthermore, Egypt could consider **increasing the attention and awareness on the available online services**, by improving the communication with the potential users. It is important that ICT projects are conceived and implemented with a systematic focus on communication with the end users. Although the high government presence on social media is most certainly an important cost effective solution worth further exploitation together with mobile platforms, the government could also consider increasing awareness of online public service provision through collaboration with other media or existing physical networks and local organisations, such as for example NGOs or religious networks; respecting the different roles while exploiting synergies and mutual interests. Further efforts to reduce the digital divide is another important precondition for greater users' awareness and consequently uptake.

- Egypt could consider **adopting a more targeted multi-channel strategy with clear priorities for public service delivery** in order to increase uptake of e-government services. Although the current approach of delivering public services through a broad range of channels sustains government visibility, a more targeted multi-channel strategy – as a pillar of a new and comprehensive e-government strategy – could focus on ensuring value for money for both users and public providers. A stronger emphasis on mobile solutions may help increase uptake of the digital government services; likewise, fully transactional online services (also enabled through data re-use) might also add more value for users.

2. Improving e-government strategy and co-ordination

Having a comprehensive e-government strategy, securing broad political commitment and managerial support and enabling the necessary institutional

co-ordination mechanisms across all levels of government is crucial to reap the benefits of using ICTs in government.

Main assessments of e-government strategy and leadership

Egypt's current institutional structure defines a strong, centralised presidential system. Decentralisation is used only to a limited extent to support inclusion and participation, despite the key role that could be played by local institutions in the provision of services.

Policies for the information economy and ICT sector growth, as well as those supporting administrative reform and modernisation of services, have been key drivers for e-government development in Egypt. An additional impetus has recently emerged: citizens' demands during and following the revolution for the government to deliver on public sector reforms, to provide better services and to include citizens in policy making, also through the use of ICTs. These three drivers are affecting the direction of the current e-government development and implementation in Egypt. Ways to lever and reinforce these drivers will be important to ensure the government's responsiveness and capacity to deliver on requested policies and services.

Several key e-government areas and challenges are addressed through the *Work Plan for Administrative Reform 2010-2012*. Although it does not constitute a comprehensive e-government strategy, it does gather a number of good initiatives to foster the use of ICTs in the public sector under the responsibility of MSAD.

Political and institutional support for e-government has historically been strong, and it remains so in Egypt. In order to sustain and take advantage of it, Egyptian policy makers and practitioners would benefit from defining clear institutional roles, responsibilities and co-ordination mechanisms. Several key e-government enabling laws have been passed, but do not yet seem to be sufficiently communicated or enforced. A number of Egyptian public officials appeared unaware of important existing legislation, such as the law on digital signature.

Consequently, co-ordination of e-government implementation is generally project specific and *ad hoc*, although some agreements to facilitate it have been signed between ministries. More structured institutional forms of co-ordination should be considered while minimising the use of informal mechanisms. Successful e-government implementation requires an integrated approach to co-ordination and co-operation, including general improvements of access to, and sharing of, information across government, at national and local levels. Decentralisation and delegation of specified responsibilities to local offices that typically have a more direct

understanding of the situation could facilitate a more effective e-government project implementation.

In addition, the current budget processes are not conducive either to effective cross-governmental co-ordination or collaboration. The full life cycle of e-government projects is not always taken into consideration in the allocation of resources to e-government projects, thus leading to inefficient implementation and a weak focus on full-scale national deployment and long term sustainability. As a result, pilot projects too often remain at an initial stage.

Government CIOs can have a key function in ensuring the value of applying ICTs to support policies, thus bridging the gap between policy objectives and opportunities as they are enabled through an appropriate and systematic use of ICTs. The current role of CIOs, where in place, seems to focus more on technical IT management issues rather than on providing policy support to further developing a strategic vision on the use of e-government and guiding its implementation. Additionally, the responsibilities of CIOs also focus mainly on the needs of their own institutions, thus lacking a broader and horizontal vision of the needs of the entire government, which in turn hinders the potentials for CIOs to act as cross-government co-ordination facilitators. There are no institutionalised co-ordination mechanisms for CIOs across government and there is no national CIO position.

This is also true for ICT procurement processes that are currently managed by the ministries under their individual responsibility. Some joint ICT procurement agreements are made across government, namely by the MCIT or MSAD. However, there is no overall policy for co-ordinated ICT procurement. Some procurement processes are partly supported by the national e-procurement portal, which covers only a part of the process and the current uptake of the platform across the ministries and agencies is limited. Outsourcing and public-private partnerships are also used to some extent as service delivery models. In addition to economic benefits, this seems to compensate existing gaps in terms of government's skills and implementation capacity and to support ICT industry growth.

Monitoring the progress of e-government policies and programmes is challenging in OECD countries as in the MENA region. Egypt has established national ICT indicators on a number of areas, covering elements of e-government service supply, infrastructure and ICT penetration rates (for example the access to and use of Internet, mobile phones, and PCs) as well as some measure for uptake. The use of joint national services and platforms, such as for example the government portal, is also monitored. However, a coherent monitoring system to assess strategic progress and

support better evidence-based policy making across the government does not seem to be in place. Clear targets for the measures are not easily identifiable, as they do not emanate directly from the existing e-government objectives; actions based on the existing measurements are not systematically initiated. Evaluations vary according to the projects and seem to be mainly circulated internally within the government organisations as opposed to being strategically communicated to the political leadership.

Proposals for action

The new government of Egypt is facing several e-government challenges that cannot be addressed in the short term alone. A focus on long-term results will be necessary to lead the process of change and successfully implement targeted reforms.

- An *important first step* could be to establish a **comprehensive and dedicated national e-government strategy**. The new e-government strategy should focus on the use of ICTs to enable public sector reforms, better services, and openness, particularly through simplified government procedures, ultimately making the Egyptian government more user-centred. The strategy should clarify how the use of ICTs will add value in supporting government reform objectives. Such a strategy would require mechanisms for full scale implementation at all levels of government, taking into consideration the possibilities offered by well-defined decentralisation and increased use of information from local authorities. Long-term funding of projects and clear measures for monitoring and follow-up should also be prioritised. The strategy should cover cross-government policies as well as selected high priority policies, services and reform areas, where the use of ICTs would have the biggest impact.
  - As part of the strategy, Egypt could consider further **clarifying the responsibilities for e-government**. Establishing precise responsibilities for the development and implementation of e-government vertically and horizontally across the government, at the central and local levels, would strengthen ownership and set the basis for improved co-ordination and co-operation and greatly improve the chances of successful implementation.
  - The strategy could achieve the highest impact if developed as a joint government initiative, engaging broadly all relevant stakeholders, including the political and administrative national and local levels as well as citizens and business. A **formalised mechanism could be established to co-ordinate the**

formulation and implementation of the new e-government strategy. This could help aligning e-government policies with public sector reform goals, reap synergies, create momentum and build a common buy-in. Examples of successful mechanisms in the OECD countries include regular meetings with representatives of relevant ministries and local levels, or national CIO councils, chaired by a senior CIO or the responsible minister.

- In line with this strategy, Egypt should consider how to **better prioritise spending on ICTs, including project investments**. Prioritising e-government investments should be done with a clear focus on the expected achievements coupled with measures for their realisation, in order to support the most important policy and service delivery areas. The systematic establishment of a business case prior to the launch of ICT projects has proven helpful in a number of OECD countries. Clear priorities would also enable to focus and reallocate limited implementation capacities to the most important projects.

- Establishing **indicators to monitor the implementation** of the strategy and of the various initiatives as well as general performance of online service provision and take up would help support progress. Public availability of such reports would furthermore strengthen the government's accountability in service delivery and public spending, and sustain public awareness of e-government services and impact user's take-up. The submission of progress reports to meetings of the Cabinet of ministers several times a year could, among others, improve progress by strengthening the focus on specific responsibilities. Such performance reports should not only focus on input but on the value added emerging from the applied use of e-government services emerging from the projects and project outcomes.

- A *number of additional steps* could improve the governance mechanisms and ensure effective co-ordination:

  - **Clarifying and broadening the competencies of the government CIOs** while ensuring that such positions are created and implemented uniformly across the government. The role of CIOs should focus on how to create additional value for citizens, businesses and public officials through the use of ICTs, rather than mainly on IT management. The CIO focus on value creation and policy support might take its point of departure in the individual organisation, but should aim at a broader reach

across the government as a whole. Establishing mechanisms to ensure ongoing and consistent co-ordination between the CIOs might nurture synergies across government in line with the co-ordination mechanism above.

- Egypt should consider **developing and adopting a policy for procurement of ICT goods and services** to open up and standardise procurement processes, supporting the effectiveness of large ICT investments in the public sector. This could help securing purchasing power is pooled, deploying existing know-how and standardised commercial products available on the markets (*i.e.*, commercial off the shelf, COTS), and re-using and building on existing solutions in the development of new IT services, either through in-house development or with external assistance. Such policy would also need to effectively address challenges stemming from any un-co-ordinated and short-term funding of ICT investments from international donors. A government-wide ICT procurement policy could contribute to a systematic standardisation and consolidation of hardware and software through the harmonisation of norms and technical standards in the purchases. This would in turn increase interoperability, integration and enable possible re-use of systems and shared capacity across the public administration.

- Egypt might consider prioritising the gaps in the present **legal and regulatory framework** relevant to e-government to ensure the proper legal foundation for e-government. Though the enabling legislation overall appears to be in place, specific inadequacies in the legislation within key policy and service delivery areas still seem to be a barrier for e-government further development. For example, requirements on physical processes, as well as limitations to data exchange could be revised in order to enable more seamless digital processes. At the same time, adequate protection of privacy needs to be ensured to build trust in government and in online service delivery. Such an analysis and revision process across the ministries might further help promoting the awareness of the e-government agenda as such, and also of the legislation enabling e-government already in place.

- To further support the long-term sustainability and the co-operation and collaboration across the government, Egypt could consider establishing **more flexible and sustainable models for the funding of ICT projects**. Such ICT projects

might cover, for example the development of joint infrastructure projects across the government (*e.g.* those enabling prepaid cards or mobile payments). Several funding options could be considered, such as the use of dedicated cross governmental funds, established co-financing models between the ministries and across levels of government, and public-private partnerships. The need for a full life cycle project budgeting mechanism, ensuring sustainable project funding, should be stressed as priority for all public institutions.

3. Consolidating e-government implementation capacity

Having committed to ambitious e-government objectives, Egypt is experiencing challenges in implementing them. In order to reap the benefits of e-government, a greater attention to full-scale national implementation of e-government projects seems of utmost importance. E-government implementation capacity is about providing for the necessary ICT skills, and ensuring the execution and implementation of all key projects all the way to the end users, including envisaging and using mechanisms for systematic evaluation and follow up.

Main assessments of e-government implementation capacity

The availability of adequately qualified human resources is an important element of the public sector's capacity to implement e-government effectively and efficiently. As the government use of ICTs matures, Egypt's need for skilled ICT project management increases. The lack of appropriate strategic and technical e-government skills was indicated as a problem in several public institutions and creates an important challenge for successful e-government development and implementation.

Egypt has initiated several programs to increase the overall availability of ICT and ICT project management skills in the public sector, for example through trainings provided by the NMI. However, recruitment and retention of skilled employees remains an important challenge within the public administration, particularly in the larger cities, due to competition with a well developed ICT industry that offers alternative career paths. The MSAD has considered launching an analysis to identify ways in which human resource management policies for the public administration could support higher and more effective public sector performance, addressing those human resource challenges. Availability of valid data on human resources is a first important step in this direction.

Additionally, project management models are not systematically deployed and used across the administration. The absence of a shared approach to project management might sharpen the requirements for the local maturity of ICT project management skills.

In order to improve Egypt's implementation capacity, common implementation frameworks are essential to give coherence to the various e-government projects, often running in parallel. Egypt has launched a series of initiatives in line with the ambition to create a government-wide service delivery architecture. It has established some initial joint infrastructure components and services across the government such as the joint procurement website, payment solutions and digital signature requirements. The components and services demonstrate increased progress and are good initiatives within important focus areas. However, they appear to be singular efforts that do not seem to reflect coherent service delivery architecture. This observation is also in line with the great variations in the levels of implementation and use of the joint components and services. Formalising a national framework for the development and implementation of services will be important to ensure, among other things, coherence and interoperability across the public sector.

Availability of public sector information and data and a culture of sharing, together with interoperability, are essential components of e-government implementation. OECD survey results show that some Egyptian government entities share information when available, as also foreseen in the *ad hoc* legislation. However, there are still important challenges concerning the level of interoperability of the databases and the varying quality of data available. Government data are open to use and re-use to a limited extent only. Existing national databases have great potential for improving government efficiency and service delivery through re-use of data, and their integration could be further developed and exploited, legally as well as technically. An ambitious program for national database consolidation has been launched. A particularly successful example of the significant results that have already been achieved through the programme is the recent establishment of the national elections database in 2012.

Proposals for action

Improving e-government implementation capacity is of uttermost importance to Egypt. Implementation implies not only the technical deployment of ICT solutions, but also the re-organisation of the administrative processes, to ensure the capturing of the full value of the projects.

- A *primary set of actions* should focus on ensuring the necessary capacities, both through building skills inside the administration and through the use of common mechanisms and tools to support efficient and effective management of e-government projects:

  – Egypt might consider **focusing existing efforts on building the necessary ICT skills at all levels within the public administration**. This should be linked closely to the general development of the public workforce in the country and cover a broader number of ICT skills, ranging from strategic e-government leadership, ICT project management, ICT specific skills (*e.g.* on ICT strategy and ICT procurement), policy specific as well as general IT literacy. With scarce financial and human resources available, in order to build on skills and improve capacity, well prioritised and targeted efforts are necessary. Closer co-operation and collaboration between universities and the public administration has proven worthwhile and should be considered more extensively. Initiatives such as the CIO Academy and partnerships with the private sector also seem good approaches to build on. Further attention to remuneration policies in specified areas together with other incentives to meet key skills requirements could also hold potentials.

  – Egypt could consider **establishing a common approach to ICT project management**, ensuring that all e-government projects focus on value realisation. This can be achieved, for example, through full-scale national implementation of ICT projects and direct attention to the realisation of such projects. An essential part of a common ICT project management approach is **the adoption of a business case** to estimate and measure the specific value and risks of a project in order to reap its benefits. This builds on the need of having a full life cycle project budgeting mechanisms. Consistent use of business cases might help prioritising and improving the management of ICT projects, shortening the development or business cycles, and ensure corrective measures when needed. A common approach might also help to highlight the importance of engaging stakeholders, mobilising broad commitment to and ownership of projects. Defining a common language for ICT projects could further nurture collaboration across the government administration. OECD countries have adopted practices with varying degree of central governance, such as shared services, central ICT project support units, or central project guidance.

- A number of *secondary steps* could be taken in order to consolidate, ensure access to and use (and re-use) of data, information and services:
  - Building on the existing important achievements, Egypt should consider **identifying and accelerating the development of joint components and common business processes** with high potential to leverage e-government development and implementation. Such joint components could for example be a digital ID solution, a joint mobile service delivery platform, a flexible (non-credit card based) electronic payment solution. Some common business processes across government have already been identified (*e.g.* procurement) and further attention could be given to this area supporting a more efficient organisation of government.
  - Egypt might further consider **focusing the national database program within selected areas**. Estimating the costs and the benefits of the interoperability of the existing data and databases could constitute a key instrument for prioritisation among interoperability measures. Establishing joint registers on citizens, business, families and property to be used legally across the government administration, might be one of the key priorities. Using joint registers could help promote the re-use of key data in the public administration, avoid duplications and reduce the administrative burdens of citizens and businesses.

4. Setting new ways forward: Using ICTs to support open government

The democratic transition in Egypt has committed to the delivery of important social and economic reform with a clear focus on the areas of transparency, openness and citizen engagement. The key role played by ICTs during the revolution has placed them at the heart of these efforts. The government can seize this moment to embrace the potentials of using new technologies to meet citizens' demands to bring about a fundamental change of the modus operandi of the Egyptian public administration.

Egypt has established several initiatives to foster government transparency and integrity through the use of ICTs, including for example a job portal for the recruitment of civil servants, and a portal for public procurement. These are significant initial steps even though they do not seem to reflect consistent policies on their use and though the concrete impact of these initiatives remains to be quantified. The recruitment portal does not yet seem to be used as the main recruitment instrument of the

public sector, whereas this could positively impact the transparency and integrity of the whole process.

Transparency in the public sector budgets and budget processes can also be greatly improved through the use of ICTs, as demonstrated in good practices in a number of OECD countries. This would be in line with Egyptian citizens' demands for more information on public expenditures.

ICTs can play an important role in order to support the organisation of transparent and accessible elections processes and encourage voting. In order to prepare for the parliamentary elections of 2011-2012, Egypt has demonstrated significant achievements by establishing a system for a more open and transparent election process.

Policies on when and how to engage citizens in policy making processes and service delivery have not been documented so far. However, a number of initiatives were observed, such as the use of online complaint systems, although the ways in which the input and feedbacks received are integrated into policy making and service improvement remain unclear. Rather, such systems are at times seen as a way to shortcut red tapes or malfunctioning procedures, providing for an easier way to deliver a service on an *ad hoc* basis without engaging in deeper and more structured reforms of business processes and administrative approaches. Establishing transparent guidelines, connecting such initiatives with broader public engagement policies, and particularly, with the existing administrative processes, might increase the impact of these initiatives. Promising online civil society initiatives have also been developed by established groups and engaged individuals and could provide interesting ideas for partnerships with the government, such as anti-corruption initiatives like Zabatak (*i.e.*, *I caught you*). An open and inclusive government is conducive to a higher level of trust in government. Lack of trust might be an obstacle for e-government uptake, due to concerns on abuse. Strengthening trust in government is a key concern, also in order to succeed with e-government.

Proposals for action

Moving from the process of transition to the delivery of political and social reforms is challenging. E-government can be highly supportive in this regard and is a key enabler of successful Open Government policies:

- Egypt should consider establishing specific objectives for how to **use ICTs to further increase the transparency of the government administration** in line with the broader public sector reform objectives. As a first step, Egypt could guarantee citizens' rights to online and off-line access to public information and data and increase openness through the currently proposed draft law on

access to information. The use of ICTs can facilitate access to government information and increase political accountability. ICTs can further support the creation of cross-government benchmarks on the level of information publicly accessible and holding ministers accountable, hence promoting a **stronger internal drive for transparency** inside the administration. Transparency in particularly budgeting, procurement, and recruitment are important measures calling for public scrutiny, supporting the rule of law. Further measures could be prioritised in key areas such as law making, presidential and government decisions, court rulings, file handling, to mention a few. Linking transparency to open government data projects may – aside from increasing accountability – further support an increase in data quality, improvements in co-ordination inside government and support economic growth.

- Building on an increased level of transparency, Egypt could consider how to support the **use ICTs to create a responsive government** to perform better and enhance citizens' trust through inclusive policy making processes and service delivery. This requires **clear guidelines and practices for online public engagement**, and clear demonstrations of how to follow up on citizens' inputs and their use in the policy making cycle and service delivery processes. The existing online complaint management and citizen's relations systems provide initial experience to build on.

Chapter 1

Introduction

This chapter sets the scene for the e-government review through a brief introduction to the recent political developments in Egypt. It particularly covers the social uprisings, called the Arab Spring, and the 25 January Revolution. The role of technology as an instrumental enabler for social change is the key focus. Finally, the structure of the review is presented.

Egypt is currently going through a historic period of change. Social uprisings have led to the ousting of the former president; the Egyptian people are pushing for social and political reforms and demanding that citizens heard in the government's decision-making processes.[1]

Events in Egypt were part of a broader social movement that included large parts of the Middle East and North Africa (MENA) region. In addition to creating a renewed impetus for democracy and social justice, these events have clearly shown new perspectives on the use of ICTs by both governments and citizens. In Egypt, these recent events have shown how ICTs can be used to leverage increased citizen engagement, as well as foster calls for transparency and trust in government.[2]

The OECD E-Government Review of Egypt aims to present and assess Egypt's e-government policies and programmes and to identify opportunities for improvement based on MENA and OECD country experiences and good practices. The assessments and recommendations are framed within the current context of Egypt, where demands for better governance, policies, and services are particularly high. The debate on how the government's use of ICTs can help respond to these demands is therefore particularly relevant and timely.

E-government can be an important catalyst and enabler of public sector modernisation, increasing impacts of public policies in key areas such as employment, education, health care and social welfare – as well as increasing openness, transparency and citizen engagement.[3] However, technology alone does not add value. By providing concrete recommendations for the way forward and identifying critical areas where improvements can yield better policy outcomes and substantive and sustainable impacts, the review aims to help the government of Egypt evaluate its strategies for the use of ICTs to achieve the goals set in its reform agenda, align them with OECD practices, and fully leverage the potentials of e-government.

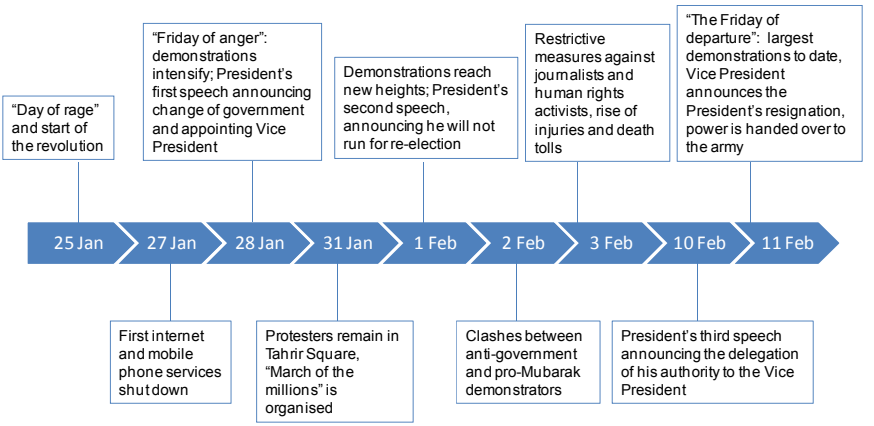
The Arab Spring and the new role of ICTs

Since the immolation of a Tunisian street vendor (Mr. Mohammad Bouazizi) in December 2010, social movements have emerged throughout the MENA region, sparking the so-called Arab Spring. As a direct consequence of these uprisings, several regimes have now been toppled or seen their governance structures questioned and eventually reformed or adjusted. Numerous factors seem to have contributed to this wave of social protests; high levels of unemployment and soaring food prices, together with rampant corruption in the public sector, contributed to

create a widespread feeling of injustice and mistrust in government and public administration (for example, OECD, 2012b).

The 25 January 2011 was the turning point in the Egyptian revolution. After days of protests in the streets, the uprisings intensified through marches and rallies, and 18 days led to the resignation of President Mubarak, as illustrated in the timeline below.

Figure 1.1. **The Egyptian revolution: Key dates**



Source: Developed by the OECD: *www.sis.gov.eg/Newvr/reveulotion/ehtml/chronology.htm* (accessed October 2012), *www.aljazeera.com/news/middleeast/2011/01/201112515334871490.html* (accessed October 2012) and *www.jadaliyya.com/pages/index/3642/a-year-in-the-life-of-egypts-media_a-2011-timeline* (accessed April 2012).

The 25 January Revolution was remarkable because it was initiated and sustained by gatherings of vast crowds from different segments of society, a much wider public than traditionally involved in protests (Global Information Society Watch, 2011).[4] The Internet, social media and the use of mobile technology contributed significantly, by allowing citizens to spread information, increasingly relayed by the traditional media channels, and greatly facilitating co-ordination of the protesters. ICTs clearly played an enabling role in the Arab Spring, which has only partially been observed previously (Goldstein, 2012; Global Information Society Watch, 2011 and DSG, 2011).

The Internet has allowed for new ways of exploiting freedom of expression, and increased the ability to share and receive information in a more direct, un-mediated and instantaneous manner compared to the

traditional media (Global Information Society Watch, 2011). New technologies, such as mobile technologies and social media platforms, have been used to organise social movements since the turn of the millennium in countries around the world, such as Greece, Moldova, Iran and the Philippines.[5]

Extensive use of social media by citizens in MENA and OECD countries has created new means for political interactions and a new language for citizens' political discussions and social engagement – leading to a flourishing digital political space and activism. This is illustrated by the large number of Egyptian blogs – which have garnered much international attention – as well as the use of Facebook (Box 1.1), Twitter and the sharing of videos on YouTube and other social media platforms (SSRC, 2011).[6] Analysis of the revolutions in Tunisia and Egypt shows that Facebook and Twitter were the two main platforms used by activists (Annani, 2011). Another mechanism of information dissemination was Wikileaks, which disclosed official classified documentation, adding to the distrust of the previous regime in Egypt.[7]

During the 25 January Revolution, Egyptian cyberspace erupted with rich content, and social media started playing new and different roles (Raouf, 2011). The hashtag #Jan25 on Twitter was instrumental in spreading information across the globe and allowing real-time organisation and logistical co-ordination on the ground.[8] Facebook pages were created to organise protests, raise awareness and spread information (Annani, 2011). Similarly, with mobile penetration reaching around 91% in January 2011, the use of mobile technologies played a crucial role in communicating and circulating information (MCIT, 2012; Comninos, 2011). Social media and mobile phones thus enabled greater reach of information and ideas to larger segments of the population in Egypt, channelling and fuelling their participation. It is also important to note that what ensured the pervasive impact of mobile technology and social media in a country with low levels of Internet users was that information was subsequently amplified through traditional Egyptian and international media, such as television channels and newspapers (Global Information Society Watch, 2011). This alliance between new and traditional media, although it existed previously, became systemic through the Egyptian revolution and seems to have led to an acceleration of outcomes.

One prominent example of the effectiveness of this alliance was the creation of a Facebook page called "We are all Khaled Said" to protest the death of a 28-year-old Egyptian from Alexandria in 2010.[9] The Facebook page disseminated the story of a young Egyptian being tortured to death by two policemen, despite several witnesses' unsuccessful interventions. The story "went viral" – that is, spread and accelerated through digital

platforms – leading to initial protests all over the country and encouraging a wider practice of sharing stories, videos and information among citizens using the Internet and blogs in particular (Bishara, 2012).

Box 1.1. **A snapshot of the use of Facebook in the Arab World**

- "The total number of Facebook users in the Arab world stands at 45 194 452 (as of end June 2012), up from 37 390 837 at the beginning of the year (3 January 2012), having increased by about 50% since the same time last year (29 845 871 in end June 2011)."
- "By the end of June 2012, the country average for Facebook user penetration in the Arab region was just over 12%, up from 10% at the beginning of the year, and up from 8% in June 2011."
- "The number of Facebook users in the Arab world has approximately tripled in the last 2 years (June 2010 – June 2012), increasing from 16 million users to 45 million users."
- "The percentage of female users remains almost static, having fluctuated slightly between 33.5% and 34% in the past year (33.7% as of June 2012). This is still significantly lower than the global trend, where women constitute roughly half of Facebook users."
- "Youth (between the ages of 15 and 29) continue to make up around 70% of Facebook users in the Arab region, a number that has been holding steady since April 2011."
- "GCC [i.e., the Arabic Gulf Co-operation Council] countries dominate the top five Arab Facebook users as percentage of population. The UAE remains at the top of the Arab region, followed by Kuwait, while Qatar has found its way back into the top five. Lebanon and Jordan take up the remaining spots."
- "Egypt still constitutes about a quarter of total Facebook users in the Arab region, and has added more users in the past year than any Arab country, at over 1.6 million new Facebook users between January and June 2012."
- English, Arabic and French are the dominant languages on Facebook, and Arabic is now the fastest growing language on Facebook in the region, with an increase in the number of Facebook users who predominantly use the Arabic interface.

Source: Dubai School of Government (2012), *Arab Social Media Report 2012*, *www.arabsocialmediareport.com* (accessed June 2012).

This widespread and strategic use of ICTs during the revolution thus showed the government the potentials and challenges for a new *modus operandi*. By using the Internet and social media to facilitate the revolution, citizens and civil society groups demonstrated the mobilising capacities of new technologies (Saghi, 2012). At the early stages of the revolution, the previous Egyptian regime shut down access to the Internet and mobile services in order to contain and mitigate the uprisings. The blackout lasted for five days, though to a varying extent, as elaborated in Box 1.2 (Global Information Society Watch, 2011). This reaction however encouraged even more citizens to take the streets. The Egyptian revolution led to important developments in the use of ICTs and particularly social media as a crucial tool for citizens, civil society and especially the government. New ways of using ICTs hence called for new policies.

Box 1.2. **Shutting down the Internet and telecommunication in Egypt**

As social tensions accelerated in January 2011, the Egyptian State Security Intelligence Service ordered the blocking of several social media platforms (first Twitter, then Facebook) on 27 January. On 28 January, the Internet was almost entirely shut down and mobile services disconnected in some areas. On 29 January, some voice services were resumed, but SMS services remained shut down. Some rough and conservative estimates of the costs of the Internet shutdown indicate lost revenues of about USD 18 million per day. However, this does not cover the revenue losses in the sectors and industries relying on the Internet, nor does it address the more long-term effects in terms of attractiveness for foreign direct investments.

Source: OECD (2011), "The economic impact of shutting down Internet and mobile phone services in Egypt", *www.oecd.org* (accessed January 2012); and *www.wired.com/threatlevel/2011/02/egypt-off-switch* (accessed January 2012).

The role of social media and ICTs more generally in the revolution has been widely recognised by authorities, as per the statement of the head of the Egyptian Supreme Council for the Armed Forces (SCAF), who exercised presidential responsibilities throughout the first transition period: "Egypt's young generation began a revolution using information technology" (Cabinet, 2012; Egypt Independent, 2012).

The interim government recognised the importance of new technologies as a means to communicate and interact with citizens and was pressured by citizens and civil society to take up the use of social media and ICTs to provide better services that improve accountability, citizen engagement and transparency. This new context has largely influenced the Egyptian government in the use of ICTs. Responding to these conditions, the new Egyptian government (as well as the previous interim government and

SCAF) – along with a series of other government entities – have established Facebook sites and YouTube channels publishing information on decisions and laws, as further described in Figure 1.2.[10] Allowing citizens to post opinions and comments on specific statements, laws and decisions online is an important step for the Egyptian government; however, systematic use of ICTs for enhanced citizen engagement and increased transparency in policy making and service delivery seem to require further efforts, as elaborated in Chapter 8.

Figure 1.2. **The Egyptian Cabinet on Facebook**

Note: The official Facebook page of the Cabinet is in Arabic. The page has around 680 000 "likes" despite its short existence. The page holds official announcements, but its wall is also used to criticise as well appraise the government and its policies.

Source: www.facebook.com/Egyptian.Cabinet.Of.Ministers (accessed April 2012).

Egypt continues to undergo profound changes; the insights of this review are meant to provide timely analyses and recommendations for improvement, strategically addressing the difficulties that such profound changes entail, increasing the impact of reforms and upcoming policies.

Structure of the report

The review is divided into eight chapters. After outlining the context for the review – including the Arab Spring, the revolution in Egypt and the use of ICTs (Chapter 1), the report presents the key elements of the Egyptian e-government context. Addressing the current government structures, the chapter outlines the main drivers for e-government and presents the strategic approaches in place for e-government (Chapter 2). The major overall challenges for e-government in Egypt are subsequently analysed; looking at the organisation, budget, infrastructure, regulation and the digital divide (Chapter 3).

The leadership and co-ordination of e-government is essential to ensure coherence and alignment of efforts across the whole of government. Leadership and co-ordination issues in Egypt are analysed under the headline of e-government leadership (Chapter 4). The subsequent chapter on e-government implementation examines the implementation structures and capacities of the government. This includes the level of ICT skills within the government administration, e-government project management methods, as well as monitoring and evaluation, the use of models for public-private partnerships and outsourcing, and finally awareness-raising and marketing efforts (Chapter 5). The chapter on the government service delivery architecture outlines the design of digital service delivery, service delivery channels and collaboration frameworks from a more technical perspective, as well as information sharing mechanisms across the government (Chapter 6).

The actual output and outcomes of e-government efforts include the maturity of services provided and the use of ICTs to increase the public sector's efficiency and to support key sectoral policies (Chapter 7). Finally, the use of ICTs to support the ongoing Egyptian transition process will be addressed in terms of the potential and the challenges it raises for openness, transparency and democratic processes; finally, ways forward for the use of ICTs are discussed (Chapter 8).

The main results of the OECD E-Government Survey of Egypt are assembled in Annex A. The methodology of the review is presented in Annex B.

Notes

1. Hosni Mubarak served as the fourth president of Egypt 1981 to his resignation in 2011.

2. This focus is underlined in different communiqués published by the Supreme Council of the Armed Forces (SCAF) on its official Facebook page, which was established on 16 February 2011 and adopted as an official means of communication (*www.Facebook.com/Egyptian.Armed.Forces*).

3. E-government is defined by the OECD as "the use of information and communication technologies, and particularly the Internet, as a tool to achieve better government" (OECD, 2003b).

4. A number of different terms have been applied to describe the Egyptian regime change. Among the most predominant are 25 January Revolution, Lotus Revolution, Freedom Revolution, Tahrir Square Revolution or the Facebook Revolution. The term 25 January Revolution is used in this review.

5. As was the case in the use of Twitter for protests in Moldova and Iran in 2009, and what was referred to as the "SMS revolution" in the Philippines in 2001 (Global Information Society Watch, 2011).

6. Some prominent examples of political blogs in English from Egypt are *sandmonkey.org*, *arabist.net*, *egyptianchronicles.blogspot.fr*, *thestreetjournalist.wordpress.com*, *inanities.org*, and *manalaa.net* plus *arabawy.org* (only partial English). The trend seems to be use of Facebook more than blogs.

7. Wikileaks is a non-profit media organisation that aims to bring information and news to the public. The organisation has been particularly know for accessing and revealing classified official documents, such as diplomatic cables exposing confidential analyses of the US embassy in Cairo.

8. Hashtags are used on the social media platform Twitter to mark keywords. Symbolised by the use of "#"in front of a key word, they represent a way of tagging information to facilitate the tracking of a topic

by grouping different tweets (or messages posted) to create a community of users that are interested in this topic.

9. The Facebook page is available at *www.Facebook.com/ElShaheeed*.

10. See, for example, the SCAF's page at *Facebook.com/Egyptian.Armed.Forces* and the Cabinet's page at *Facebook.com/#!/Egyptian.Cabinet.Of.Ministers.*

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Chapter 2

The e-government context in Egypt

A new orientation of e-government in Egypt has been growing, driven by demands from citizens and civil society. This is renewing the context for e-government development and implementation in Egypt.

This chapter presents the current developments regarding the institutional structure of Egypt and contextualises the history of e-government. It sets out the main drivers for e-government in Egypt, including a new key driver that has emerged through citizens' demands. Finally, it outlines main components of both past and current approaches and strategies for e-government in Egypt, identifying the overall direction of the current initiatives.

The political and institutional context in Egypt has significantly changed since early 2011. Both the organisation and *modus operandi* of the Egyptian public sector are currently being renewed and the functioning of the government administration is undergoing profound structural changes. A new orientation in e-government has been developing, driven by demands from citizens and civil society. This is renewing the context for e-government development and implementation in Egypt. This chapter will outline key features of the e-government context and analyse the main components of both past and current approaches and strategies for e-government in Egypt.

The institutional structure in Egypt

Egypt is a two-chamber republic based on a Constitution dating back to 1971. Following the 25 January revolution, the Constitution was suspended by the Supreme Council of the Armed Forces (SCAF) on 13 February 2011. A referendum on constitutional amendments was proposed by the Council and approved by the population on 19 March 2011.[1] Hence, in the aftermath of the 25 January revolution, the SCAF was exercising presidential responsibilities, leading the first part of the transition process, including the organisation of the parliamentary and presidential elections.

The legislative branch is structured around the Majlis al Shaab (People's Assembly, or lower house), with 498 elected and 10 appointed members; and the Shura Council (the upper house, Egypt's consultative council) with 270 members (180 elected and 90 appointed). Elections for the People's Assembly were held on 28 November 2011 and concluded on 10 January 2012 in what local and international media dubbed as Egypt's longest and freest parliamentary elections to date. Subsequently, elections for the upper house were concluded on 22 February 2012. The electoral system for these elections was based on a proportional representation for two-thirds of the lower house of Parliament, and a first-past-the-post-system for the remaining third. The Muslim Brotherhood's Freedom and Justice Party won about 40% of the total number of seats in Parliament, followed by the Salafist Al Nour party (about 22%) and the liberal Al Wafd party (about 8%). Detailed results for the elections of the lower house of parliament were published on the official website of the High Judicial Election Committee (*www.elections2011.eg*).

The newly elected People's Assembly convened for the first time on 23 January 2012. As one of its important first tasks, two constitutional committees were established. However, on 14 June 2012 the Egyptian Constitutional Court ruled that one-third of the members of Parliament were elected unconstitutionally, and called for the lower house of Parliament to be

dissolved. Thus the People's Assembly ceased functioning, creating a legislative vacuum, currently filled only by the President. This has also affected the work of the constitutional committees, as one of the two committees established was ruled unconstitutional, leaving the future institutional structures unclear.

Presidential elections were held in two rounds, 23-24 May 2012 and the final round 16-17 June 2012. Mr. Morsi, the candidate for the Freedom and Justice Party supported by the Muslim Brotherhood, was declared the winner of the elections and was inaugurated on 30 June 2012. Mr. Qandil was appointed head of government on 24 July 2012. Executive powers are vested in the President and in the Cabinet, enshrined in a Constitution which provides for a strong presidential system.[2] The division of constitutional powers and responsibilities of the president, the government and the parliament is currently being reviewed by the functioning constitutional committee.

The current Cabinet is holding meetings on a weekly basis and subsequently announces main conclusions and decisions publicly on its website. Meetings with the Prime Minister and the governors are held on a monthly basis (Cabinet, 2012).

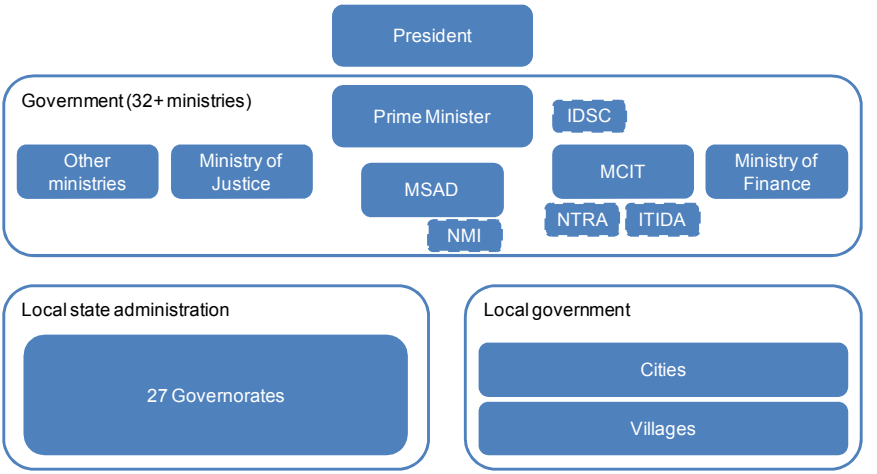
The current phase of transition of Egypt's political and institutional context has many implications for policy development and implementation. While decisions on a number of public administration issues, including e-government, seemed to be kept to a minimum before the outcomes of the presidential elections and the formation of a government, it now seems that the government is creating a platform for forward-looking initiatives

Along with a centralised government tradition and a strong presidential role enshrined in the current Constitution, Egypt also has several layers of local government, including state entities as well as local governments such as governorates, cities and villages. The 27 governorates report back to the central government and include directorates of central ministries. The governor of each governorate is appointed by the President and is tasked with administering, formulating and implementing development plans at the local level. Presidents for the Local People's Councils in cities, as well as mayors in villages, are appointed by the governor. The legal system in Egypt is based on a combination of particularly Napoleonic codes and the *Sharia* (Islamic law).[3]

The Egyptian public sector currently employs roughly 6 million public servants, and annual expenditures were 28.9% of GDP in 2010; furthermore, the current budget balance for 2012 envisages a deficit of 8.5% (World Bank Data, 2012; AfDB et al., 2012). Economic growth fell from 5.1% in the fiscal year 2009/2010 to an estimated 1.8% in 2010/2011 – current

projections remain at this level (1.7%) for the year ending in June 2012. As tourism and foreign direct investments were hit hard by the unrest, the Egyptian government now finds itself with constrained room to manoeuvre in addressing popular expectations (AfDB et al., 2012).

Figure 2.1. **Egypt's institutional structure**



Note: The MSAD is positioned differently from the other ministries, as it is a Ministry of State. The IDSC plays an advisory role within the Prime Minister's Office. The ministries mentioned by name are not exhaustive but illustrative. Key e-government entities include the NMI, established by the MSAD and the NTRA, and the ITIDA, which falls under the competency of the MCIT. Certain competencies of the NTRA are exercised independently of the MCIT. Aside from the Cabinet of the Prime Minister, as of September 2012, 32 ministers have been appointed together with 6 ministers of state.

Source: *www.cabinet.gov.eg* (accessed September 2012) and *www.egypt.gov.eg/english/guide/directory.aspx* (accessed January 2012).

The history of e-government in Egypt

Egypt has been using ICTs in the government administration since the 1970s and 1980s (OECD, 2010). As such, e-government in Egypt has benefited from political support earlier than in a number of MENA and OECD countries. Planning, developing, and implementing e-government initiatives in Egypt is mainly the role of the central government. ICT-related issues were first placed under the Cabinet Information and Decision Support Centre (IDSC), established in 1985 as the government think tank located in the Prime Minister's Office and tasked with delivering technical advice on economic and social issues in Egypt. The IDSC played a pioneering role in

disseminating the use of ICTs within the public sector, namely at the governorate level, aimed at improving the Cabinet's decision making (Kamel, 1995). During the 1980s and 1990s, the IDSC successfully established local centres to generate data that enables delivery of evidence-based policy support on socio-economic issues at the governorate level. These Governorates Information and Decision Support Centres were established nationwide to develop and improve administrative effectiveness (Danowitz, 1995; Kamel, 1995). During the 1990s, the IDSC continued to serve as the governmental support for building e-government infrastructure (MCIT & Egyptian Information Society Initiative, 2004).

In 1999, the need to further develop the ICT sector in Egypt and build an information society to sustain social and economic development was high on the political agenda (MCIT, 2004).[4] A National Programme for the Development of Communication and Information Technology was launched with two objectives: first, to establish an information society in Egypt, and, second, to develop an export-oriented ICT industry. The government of Egypt established the Ministry of Communications and Information Technology (MCIT) in 1999 to take the lead in both of these objectives. An additional task for the MCIT included extending the use of ICTs for the delivery of public services and providing the necessary technical expertise, platforms, tools and funding for ICT-related projects in the country. The MCIT has since developed a number of strategies to support the use of ICTs in Egypt.

In 2004, important parts of the e-government portfolio were moved to the Ministry of State for Administrative Development (MSAD), emphasising the role of e-government in advancing public sector reforms (OECD, 2010a). Hence, the MSAD is assigned with the task of implementing and co-ordinating the e-government agenda in Egypt, setting national e-government policies and assisting other ministries in developing and implementing their e-government programmes and services.

Currently, the MCIT is mainly responsible for information society policies and economic growth and infrastructures, and the MSAD is responsible for public administration development and the e-government agenda. This includes the government use of ICTs and also the delivery of some online public services to citizens and business. Both ministries are supported by and collaborate with a number of government entities participating in e-government development and implementation in Egypt within the different policy areas.

Box 2.1. **Basic government ICT infrastructure and usage indicators**

- Mobile penetration: 112.8% (July 2012) (annual growth rate: 16.2%)
- Internet penetration: 37.8% (July 2012) (annual growth rate: 4.8%)
- Proportion of government organisations with a computer: 67% (2011)
- Proportion of government organisations entities connected to the Internet: 40% (2011)
- Government entities using the Internet for sending and receiving e-mails: 87% (2011)
- Proportion of government organisations using the Internet to provide e-government services: 29% (2011)
- Proportion of government organisations using the Internet to exchange data and files: 73% (2011)
- Proportion of government organisations using the Internet to send/receive orders online: 12% (2011)
- Proportion of government organisations with a website or web presence: 69% (2011)

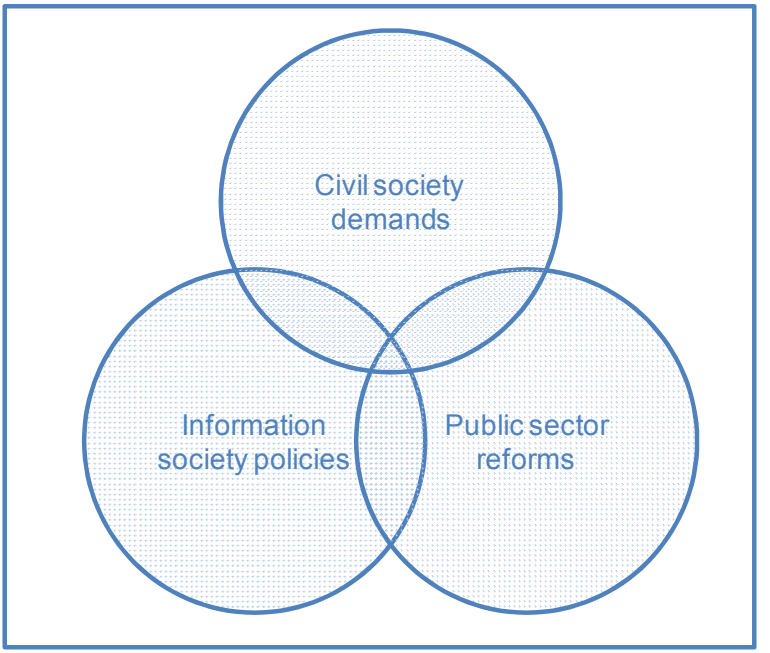
Note: The data refer to government organisations as unitary actors, *i.e.* they do not indicate the extent of use within those organisations. Furthermore, the growth in mobile penetration also reflects a change in methodology from the MCIT.

Source: MCIT (2012), *ICT Indicators in Brief August 2012*; *www.egyptictindicators.gov.eg* (accessed April-October 2012)..

Key drivers for e-government

The development of e-government in Egypt has progressed hand in hand with Egyptian efforts to establish public sector reforms and encourage the development of the information society. These two trends constitute important existing drivers for e-government. Following the uprisings that culminated in the revolution and leading to the ongoing transition process, a third e-government driver has emerged, centred on the needs of the citizens and the civil society (Figure 2.2).

Figure 2.2. **Key drivers for e-government**



Citizens and civil society: Reinforced drivers for e-government

Reforming the government administration is a challenge for all countries; this is even more so during a period of democratic transition. Despite the difficulties such a transition imposes, many opportunities have also emerged to further drive e-government development and implementation. The recognition of the importance of the use of ICTs to communicate with citizens, and awareness of the crucial role new technologies can play for citizen engagement and for the openness of the government are key examples.[5]

The 25 January revolution placed great pressure on the government to better listen to and respond to the needs of citizens. Moreover, citizens have shown an increasing interest in civic engagement and have adopted ICT tools as an effective facilitator (MCIT, NTRA, 2011). The interactive roles played by citizens and civil society groups during the revolution through the use of ICTs and social media has thus encouraged the government to harness the power of ICTs and further promote e-government services – particularly communication through ICTs. The use of ICTs to support the elections, discussed in Chapter 8, is another example.

Policies for public sector reforms

The role of e-government in public sector reforms was reinforced in Egypt during the last decade in line with MENA and OECD countries (OECD, 2003b; 2005c; 2009a). The potentials of ICTs to support a more effective and citizen-oriented public administration have been clearly recognised by Egypt, particularly through the introduction of e-government as an explicit tool for public sector reform within the MSAD. This is most recently exemplified in the *Administrative Reform Work Plan 2010-2012* (MSAD, 2010c).

This key document defines an administrative reform agenda and also provides a framework for defining the e-government goals in Egypt. Respondents to the OECD E-Government Survey stated that the most important e-government objectives in terms of public sector improvements for the next three years will focus on quality of services, improvement of policy making and effectiveness (Table 2.1).

Table 2.1. **Top three future e-government priorities for public sector improvements**

Objective	Average rank
Improve quality of public services	2.41
Improve decision-making processes	3.07
Improve internal effectiveness	3.11

Note: The respondents prioritised a number of objectives ranked on a scale from 1 to 6. The table demonstrates the 3 highest-ranked objectives.

Source: The OECD E-Government Survey of Egypt 2011, question 3.5.b.

ICT industry growth and information society policies

Policies for ICT industry growth and the information society have also been key drivers for the advancements in e-government through the development and deployment of the basic enabling ICT infrastructure. The first Egyptian Information Society Initiative was developed by the MCIT in 2005. It aimed at developing the ICT infrastructure and industry in Egypt to establish the country as a world-class competitor in the provision of ICT services centres and in the ICT industry, and to ensure digital access to all and support the achievement of public policy outcomes through the use of ICTs (MCIT, 2005). Important emphasis was also placed on modernising the way citizens interacted with their government and enabling the government to deliver high-quality services to the public (MCIT, 2012).[6]

Egypt has made some advancements towards an information society; achievements include:

- The liberalisation of the telecom industry (including the deregulation and privatisation of Telecom Egypt in 2005 (MCIT, 2007; Kamel, 2005)).
- The development of the ICT sector, which sustained double digit growth and is one of the fastest-growing in the Egyptian economy (MCIT, 2005).
- Increasing use of ICT for government services including deployment of PCs, use of the Internet and the development of skills and online services (the MCIT estimates that about 67% of public administration organisations in Egypt have a computer; approximately the same proportion of the government organisations have a website or other kinds of web presence (MCIT, 2011d)).
- Initiatives aimed at addressing the digital divide (including the provision of basic ICT literacy workshops and the establishment of programmes to improve citizens' access to computers and the Internet; according to the MCIT, about 35% of Egyptian households have used the Internet within the last 12 months (MCIT, 2007; MCIT, 2011d)).

The government's efforts to advance the information society in Egypt have provided a strong case for attracting foreign investments, particularly in terms of the emerging call centre market, where Egypt has demonstrated offshore business potential (see, for example, an analysis by the UK office for trade and investment, UK, 2011). ICT industry growth and information society policies have provided and continue to provide a strong impetus for the development of e-government – and the potential for further exploitation in the future.

E-government approaches

Egypt has used ICTs for several decades and has developed strategies on e-government accordingly. Where e-government priorities in Egypt initially focused on building a strong ICT infrastructure and information society, later initiatives seem more directly aimed at delivering new and improved public services and at supporting administrative reforms. This tendency seems in line with e-government development in many OECD countries, which have initially focused on the information society and on the infrastructure, and afterwards on the development and supply of e-government services (FOECD, 2005).

These two main e-government approaches reflect the different leadership of the MSAD and the MCIT within their different areas of responsibility over the last decade. While the initial strategy documents conceived by the MCIT were very comprehensive and covered e-government in broad terms, a clearer division of roles between the MCIT and the MSAD has emerged in recent years' strategic documents (MCIT, 2004; MCIT, 2007; MCIT, 2012; MSAD, 2007; MSAD, 2010).

E-government as a tool for administrative reform: The approach of the MSAD

In its *2010-2012 Administrative Reform Work plan*, the MSAD sets the framework for administrative development in Egypt, mainly through the use of ICTs (MSAD, 2010c). It is not a dedicated e-government strategy as such, but includes the government's use of ICTs, particularly the promotion of administrative reform. In the work plan, the MSAD states that Egypt aims to achieve an: "Efficient, effective, agile administrative body capable of coping with change, wisely managing public resources, providing distinguished services to citizens and continuously interacting with them" (MSAD, 2010c).

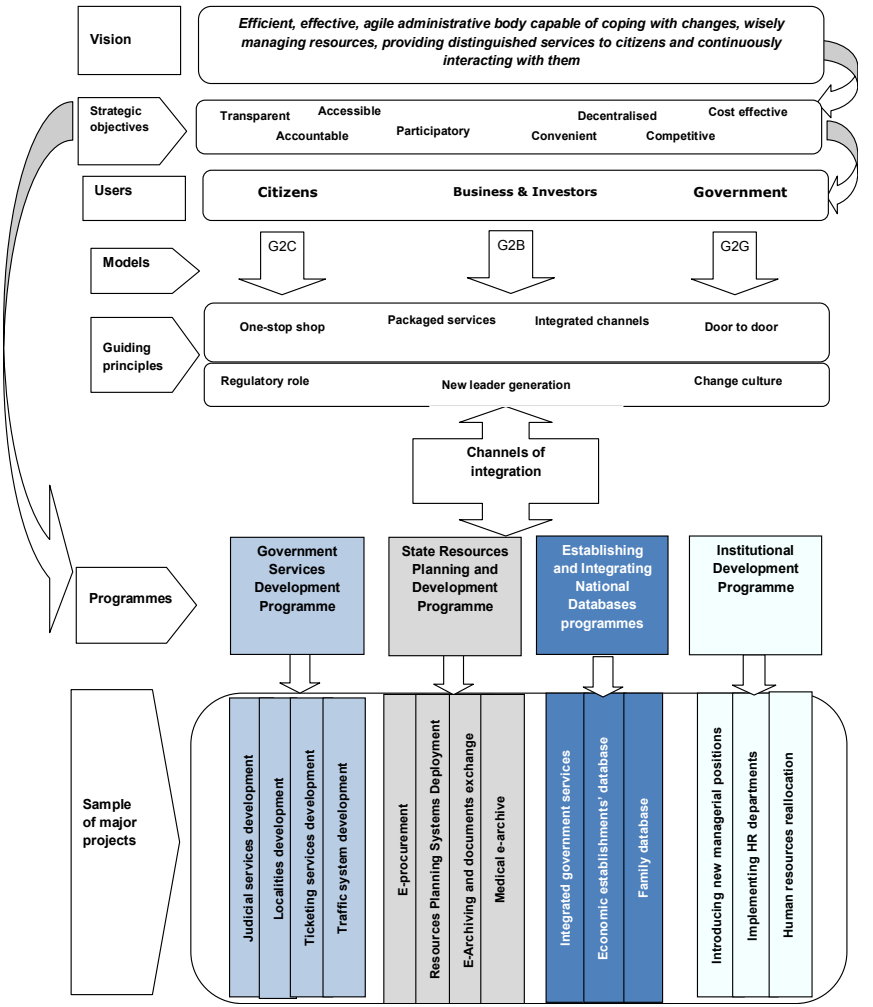
The work plan puts forward broader guidelines to reform administrative practices across government entities with MSAD playing the role of a cross-governmental modernisation function. The agenda for administrative reform in Egypt can be summed up as such:

> …The Ministry of State for Administrative Development (MSAD) has set a clear agenda for the administrative reform in Egypt since 2004. This agenda prioritises new approaches to public management as well as enables good governance principles on both the local and central levels. That includes: introducing competitiveness in the service provision system; increasing citizens' power; enhancing productivity, accuracy and performance in the administrative body while fighting corruption. The agenda also addresses issues as transparency and information openness, accountability, management practices in government, participation, building participatory development processes, insight and predictability in government using better decision making system and tools. (MSAD, 2010c)

The work plan is organised on a vision revolving around two axes: institutional development and government services development (Figure 2.3). MSAD has designed four programmes that cover a number of projects aiming to reach the objectives set out by the ministry. The work plan sets out overall objectives within the two axes, and lists a number of specific projects within the four programmes (MSAD, 2010c):

- The Government Service Development Program targets objectives on simplifying access and facilitation of delivery, increasing accuracy, promoting transparency and accountability, and reducing administrative burdens.

Figure 2.3. **The MSAD's framework for administrative reform**



Source: MSAD (2010), "Administrative Reform Work Plan 2010-2012", updated version.

- The State Resources Planning and Development Program aims to expedite back-office processes and enhance the information flow,

share and re-allocate resources, and unify back-office technology tools.

- The National Database Program seeks to link the national databases and integrate government services.
- The Institutional Development Program seeks to improve the efficiency and effectiveness of the state's administrative body by setting measures for accountability, reforming hierarchies, and developing human resource and building capacity.

E-government is included and integrated in all of the four programmes set out by MSAD, demonstrating a broad e-government approach.

The current strategy developed by the MSAD was conceived during the previous regime and has not yet incorporated the changed e-government conditions following the 25 January revolution. This seems to await a clearer political mandate from the newly appointed government. A successful e-government strategy will need to take stock of the changed context and adjust according to priorities and capabilities.

The use of ICTs to strengthen growth and innovation: The approach of the MCIT

The MCIT has worked towards strengthening innovation and information society based on a number of strategies: the National Plan for Information and Telecommunications (1999), the Egyptian Information Society Initiative (2003) and Egypt's Information and Communication Technology Strategy (2007). The latter aims to re-structure Egypt's ICT sector towards a more export-oriented industry, while using ICTs for social and economic development and nurturing innovation to support the ICT industry. There is a specific focus on increasing digital literacy and access of all Egyptians to public services, developing an Arabic content industry, building local capacity, encouraging public-private partnerships in the field of ICTs and promoting investment. Finally, the postal sector is identified as a crucial area of reform (MCIT, 2007).

The current approach to innovation, growth and the information society is mainly defined through the latest strategy conceived by the MCIT, *Technology Innovation and Entrepreneurship strategy 2011-2014* (MCIT, 2011). It reflects progresses in Egypt in the field of digital literacy and mainly focuses on innovation and entrepreneurship through 13 strategic initiatives (Box 2.2).

Box 2.2. MCIT and TIEC's Technology Innovation and Entrepreneurship Strategy (2011-2014)

The Technology Innovation and Entrepreneurship Strategy for 2011-2014 established by the MCIT and the Technology Innovation and Entrepreneurship Center (TIEC) aims to promote development in Egypt by enhancing the competiveness of the country and enabling it to become the primary regional hub for innovation and a leading regional player in ICT-based innovation and entrepreneurship. The strategy addresses the challenge of creating economic growth, focusing particularly on the information economy.

The strategy defines four goals:

- Enabling Egyptian ICT companies to innovate;
- Enticing foreign and local ICT companies to generate, enrich and expand on innovative ideas;
- Building Egypt's brand as a regional hub for innovation;
- Engaging stakeholders in the task of generating, financing, supporting and deploying ICT-related innovation.

The strategy also defines 6 pillars and 13 initiatives that aim to achieve these goals. The 13 initiatives fall under three main categories: establishing the foundation of innovation and entrepreneurship; empowering businesses and recognising innovation and entrepreneurship.

Source: MCIT, TIEC (2011), "Technology Innovation and Entrepreneurship Strategy 2011-2014".

Both the MSAD Work Plan and the strategies for the information society are well integrated within the broader public sector and national reform agenda, as they seek to improve public sector efficiency and governance frameworks as well as improve the delivery of efficient services to citizens and an environment conducive to businesses.

Both approaches consider ICTs as tools to achieve the main goals. Several projects are linked to broader policy goals, such as social policy or education. Since the use of ICTs in specific sector policy areas seems to be the responsibility of individual sector ministries, an overall co-ordination framework for e-government remains to be developed in order to effectively support public sector reforms.

Key messages

- Egypt's institutional structure provides for a strong, centralised presidential system. The provisional constitution has revised the division of powers preliminarily while awaiting the drafting of a new constitution. A new president with strong constitutional discretion has been elected and a government appointed. Despite the existence of local levels of government, the traditional main drivers for government reform through the use of ICT come from the central government administration.
- Policies for information society and ICT sector growth, as well as policies for administrative reform and modernisation of services, have functioned as key drivers for e-government development. A new driver has recently emerged. Citizens' demands during and following the revolution have increased the pressure on the new government to deliver on public sector reform, provide better services and include citizens in policy making through the use of ICTs. These drivers are contributing to frame current e-government development and implementation in Egypt.
- E-Government in Egypt benefited from considerable political attention. The recent re-organisations of e-government efforts in 2004 emphasise the value of e-government in supporting administrative reform, modernisation of public services and citizen engagement.
- Different mandates to address administrative reform and the overall use of ICTs in Egypt have been developed, complementing each other. The MCIT approach accentuates ICT sector growth, ICT innovation and the information society economy while the MSAD has organised the work on e-government around the work plan for administrative development and modernisation of the Egyptian public sector. Main e-government themes and challenges are covered in the plan for administrative reform, rather than through a dedicated e-government strategy. A coherent and comprehensive approach to e-government does not seem to be in place across government. Furthermore, it seems that while e-government objectives are well defined, ensuring successful implementation still appears to be problematic.
- Innovative use of social media and participative ICT tools are increasingly widespread following the 25 January revolution. However, the current work plan developed by the MSAD was conceived during the previous regime and has not yet incorporated the changed e-government conditions and requirements following the 25 January revolution. This is expected to be addressed by the new government.

Notes

1. The main amendments included: a shortened presidential term, an expansion of the pool of eligible presidential candidates, the restoring of judicial supervision of elections and the establishment of a new constitution to be drafted after the elections, as well as restrictions for the declaration of a state of emergency (Carnegie Endowment for International Peace *http://egyptelections.carnegieendowment.org/2011/03/03/egypt%e2%80%99s-draft-constitutional-amendments-answer-some-questions-and-raise-others*).
2. The most recent government is that of Prime Minister Kamal Al Ganzouri; since November 2011.
3. Freedom house Report, Egypt 2011.
4. The Information Society is a society which makes extensive use of information networks and ICT, produces large quantities of information and communications products and services, and has a diversified content industry (OECD, 2003).
5. The OECD defines open government as "the transparency of government actions, the accessibility of government services and information, and the responsiveness of government to new ideas, demands and needs" (OECD, 2005, "Open Government" in Modernising Government: The Way Forward).
6. MCIT website, page on Egypt's Information Society Initiative *www.mcit.gov.eg/Content.aspx?Cat=1&SubCat=4*.

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Chapter 3

Challenges to e-government

Addressing a number of challenges is key to the successful development and implementation of e-government. While some challenges in Egypt are strictly e-government related, a great number are general to the functioning of the government but also affect e-government.

This chapter presents the organisational challenges and challenges in terms of budgetary processes and decisions. Although the review does not address the overall communication infrastructure of Egypt, it highlights the main issues in terms of current capacity and infrastructural challenges. Furthermore, regulatory challenges are presented; and the challenge posed by the digital divide is discussed, a key obstacle for increasing use of online services.

The historical change that is taking place in Egypt has strong implications for the country's political and economic development. Through the Deauville Partnership, Egypt has committed to advance its reform processes *"...heading towards a new socioeconomic contract, building on past reforms and future growth potentials"* (Ministry of Finance and G8, 2011). The commitments aim to both promote democratic transition through political and administrative reforms and to work for sustainable and inclusive growth in order to foster a prosperous Egypt and ensure an adequate level of welfare and public services (G8, 2011).

E-government can be highly supportive in this regard. Egyptian government officials have indicated that their most pressing future e-government priorities are economic growth and improving the quality of public services, stressing the role of e-government as an enabling tool for the achievement of broader public sector objectives.[1]

This chapter presents the main challenges for further e-government development in Egypt. These include organisational challenges; budgetary challenges; infrastructural challenges; regulatory challenges; and the demand challenge posed by the digital divide. This overarching approach will set the scene for the further analysis throughout the report.

Organisational challenges

MENA and OECD country experiences show that the institutional and organisational framework for the development and implementation of e-government policies and programmes can be designed in a number of different ways. This is highly dependent on the structures and historical legacies of the public administration in a given country and its overall governance mechanisms. In Egypt, MSAD has labelled the state of the public administration as "*quite problematic"*, describing the situation before 2010 as suffering from:

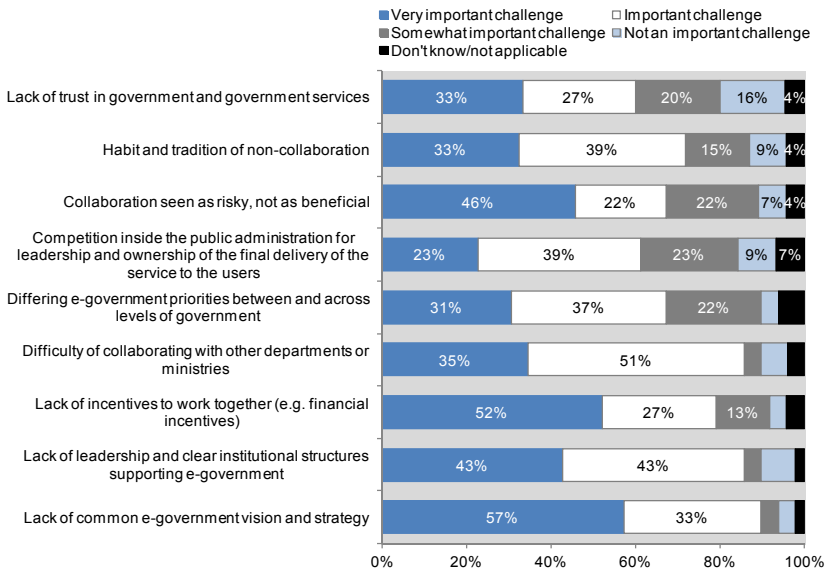
> … many problems including, size inadequacy, overlapping tasks, incoherent responsibilities, bureaucratic rigidity, and unbalanced work load, in addition to inadequacy of remuneration. Moreover, the possibility of achieving efficient governance depends heavily on local administrative units. But on the other hand, development of these administrative units in Egypt is at times intermittent, and governorates still suffer a lack of effective management. (MSAD, 2010c)

The structures and functioning of the Egyptian public administration, as well as the overall governance mechanisms in the country, have a strong impact on the success of e-government policies and programmes – as the

government plan for the use of ICTs aims to be closely integrated with public administration reform.

Figure 3.1 examines the nuances of the organisational challenges faced by Egypt, as perceived by survey respondents. The lack of a common e-government vision is highlighted as the most important challenge, also reflecting limitations in the political support for e-government. The existing strategies on administrative reforms and ICTs, presented in Chapter 2, outline key e-government ambitions for Egypt, but it seems that clear ownership of the existing work plan and strategies across the ministries – as well as implementation focus – could be strengthened. The lack of a comprehensive and shared strategy can pose challenges in terms of clear ownership and can hinder effective leadership, making it difficult to translate the vision into policies and programmes aligned with the overall objectives. This furthermore underlines the necessity to establish well-defined e-government co-ordination mechanisms (Chapter 4). A weak culture of collaboration is also pinpointed. According to the survey results, this seems to be more an issue of lacking incentives to collaborate, rather than a matter of non-habit, or internal competition within the administration.

Figure 3.1. **Organisational challenges**



Source: The OECD E-Government Survey of Egypt 2011.

An additional aspect of the organisational challenges is the inadequate or insufficient user skills of public servants. More than 75% of government officials indicate this is a very important or important challenge (See Chapter 5 and Annex A for a further elaboration on skills in the public administration).

Budgetary challenges

Public sector ICT budgets provide an important ground for successful management of e-government development and implementation. Monitoring and measuring the investments and expenditures allocated to the use of ICTs, and establishing clear budgeting principles for ICT projects that provide incentives for increased efficiency are key challenges in many MENA and OECD countries.[2] Good data on ICT expenditures supports good decisions.

Establishing strong measures to assess performance, productivity or ratio-outputs in the public sector is considered difficult in most OECD countries, and requires sound and valid data. Appraising the relations between inputs, (*e.g.*, human resources and expenditures), outputs (*e.g.*, the services) and outcomes (*e.g.*, policy results and the performance of e-government implementation) is challenging, but it is also a pre-requisite for administrative reforms promoting efficiency and effectiveness. This is also the case in Egypt, where only a minority of government institutions seemed able to specify their ICT spending. The unavailability of data further complicates the already difficult task to ensure sound financial management of e-government projects.[3]

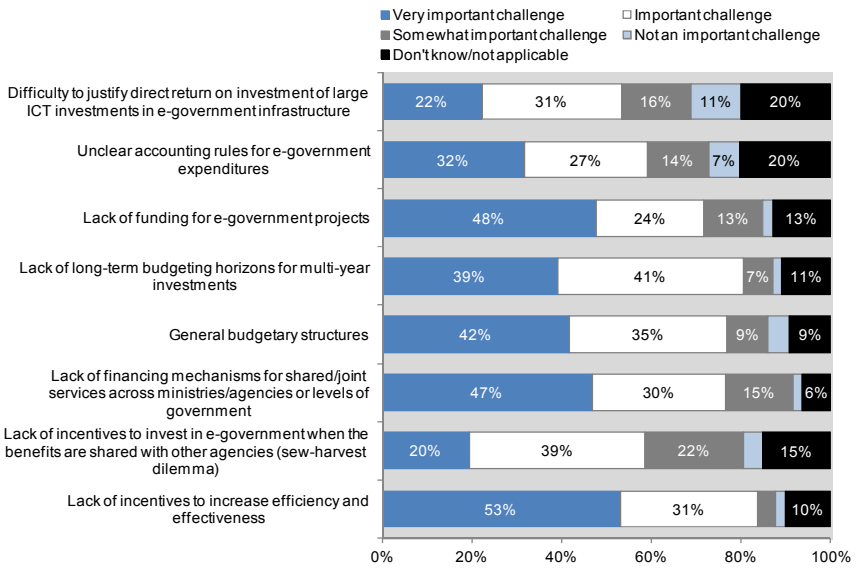
Availability and collection of good data also depends on sound budgeting rules and budgeting principles. Some aspects of this task can be challenging, for example classifying ICT expenditures, which might be considered capital expenditures or operational expenditures.[4] Countries have recognised the challenge associated with budgeting rules and principles, and the OECD Network on E-Government is currently working on aligning the collection of data on ICT expenditures, in order to facilitate the development of e-government indicators.[5] The OECD regards the availability and accessibility of these data as a pre-requisite for a proper appraisal of countries' e-government performance.

One major challenge arises in relation to the vertical budget allocation to individual ministries, rather than across the government in relation to themes or projects. Allocating resources vertically might increase local ownership and strengthen budgetary decision making in ministries and agencies. This can help to hold them accountable for reaching specified objectives within the allocated budget, and can help support the use of ICTs to improve sector

policies within specific ministries. However, vertical allocation of resources might also reduce incentives for cross-governmental co-ordination and collaboration and foster a "silo" approach which could also decrease end-user orientation of public services design. These observations apply to the Egyptian context, where it was observed that most e-government budgets are allocated vertically (including a number of "horizontally targeted funds" allocated directly to MCIT and MSAD) and where the lack of incentives to collaborate on joint projects is highlighted as an important challenge within the government administration (Figure 3.2).

Survey respondents stated that budgets systems do not provide sufficient incentives to increase efficiency and effectiveness of the Egyptian public sector (Figure 3.2). This underlines a key challenge in increasing public efficiency that is shared with a great number of OECD countries. OECD countries have addressed this in different ways: some harvest the financial benefits of the modernisation upfront (for example, Denmark), some have developed models for performance budgets (for example, France) or pay systems, or have established spending review procedures (a prominent example could be the United States). Others have introduced financial requirements to increase efficiency – that is budget cuts – in their annual budgets (OECD, 2005d; 2011i; 2012d).

Figure 3.2. **Budgetary and financial challenges**



Source: The OECD E-Government Survey of Egypt 2011.

A clear approach to classification of ICT expenditures has not been observed in Egypt, and only some government organisations have a full picture of their ICT expenditures. Capital investment costs on ICT are depreciated, although such depreciations are not integrated in the budget process. This might make larger investments more difficult, and, in turn, nurture the tendency observed in some agencies to prefer "in-house" development of ICT solutions rather than buying fully tested and standardised ICT products.

Box 3.1. **Cross-government funding: The Danish Public Welfare Technology Fund**

The Danish Public Welfare Technology Fund, managed by the Agency for Digitisation under the Ministry of Finance, is a cross-governmental fund allowing both public institutions and public-private partnerships to apply for funds that foster the development of better welfare technology.

Welfare technology is a way to provide public services that meet the specific needs of recipients, often by enabling a higher degree of empowerment and autonomy for citizens. Examples could include supplying the necessary equipment for ill people to monitor their health conditions on their own, or by taking education or rehabilitation courses in their own home via teleconference or gaming technology.

The Public Welfare Technology Fund aims to increase productivity and efficiency in the public sector through investment in projects that utilise new and innovative technological solutions, also reducing the required number of full-time employees in the renewed processes. Welfare technology is indeed a way to re-organise and optimise work routines and administration whereby resources can be directed towards better serving recipients of public services. For example, the use of an elevation sling means that only one public servant is required to help people with difficulties to move (instead of needing two public servants). The use of language translation conducted via teleconference can contribute greatly to capacity management and improve service availability, through reductions in time spent on transportation and administrative burdens.

The fund focuses on projects with potential for national-scale deployment and with high financial potentials. This is accentuated in the project application procedure to ensure value for money and large-scale implementation, and not only successful pilot projects.

Source: The Public Welfare Technology Fund, *www.abtfonden.dk* (accessed April 2012).

Finally, Egypt appears to be facing a budgetary challenge related to donor-funded projects. There is indeed a need to ensure the scale and long-term sustainability and value of e-government projects. An important challenge associated with the reliance on donor funds is that sometimes

these funds help sustain particular pilot projects, but do not favour full-scale implementation of these initiatives. According to some officials, this might also be due to weak co-ordination across and within the government, which impeded the successful expansion of pilot projects nationwide. Although the Ministry of Foreign Affairs and the Ministry of International Co-operation holds formal competencies in this regard, it seems that donor funds are often allocated directly to specific ministries. This might also hinder co-ordination efforts and the reaping of synergies or the integration of related projects. License structures with no scalability advantages might lead officials to conclude that full deployment is simply too expensive. This leads to a situation where a number of pilot projects are successfully developed and implemented, but are not replicated on a national level – so their full potential is not achieved. One example mentioned during the interviews by government officials was the deployment of ERP systems at the local levels, which is still in the pilot phase despite what was referred to as a great success.

Infrastructural challenges

Internet penetration and accessibility are important issues in Egypt. Based on 2009 figures, the ITU estimates that about 35% of Egyptian households had Internet access (ITU, 2011). MCIT has updated the figure in June 2012, estimating that the number of households using the Internet from home is as high as 40% (MCIT, 2012a). Egypt has made significant progress in building a strong ICT infrastructure, as described in Box 3.2. However, Internet access and penetration, as well as deployment of physical infrastructure, remain important challenges. Physical ICT infrastructures, such as first-generation broadband (*e.g.*, ADSL) appear conducive to economic growth (OECD, 2011k). As such, Internet access must be seen as a top priority as an enabler for e-government, and also for the business environment and the Internet economy.

Reliable ICT infrastructures are necessary to facilitate the provision and take-up of e-government services. Infrastructural challenges are treated in this section, with a focus on physical ICT infrastructures (such as Internet and mobile coverage). The enabling infrastructures, including technical e-government standards (such as the established technical norms and standard processes), are discussed in the following section on regulation.

The MCIT monitors the evolution of the Egyptian ICT infrastructure on a regular basis. Egyptian government officials indicate that a general lack of developed ICT infrastructure is considered an important challenge for e-government development and implementation in the public administration.[6] Mobile penetration – and, perhaps more surprisingly,

Internet penetration – is not considered among the most important challenges.

Box 3.2. **Egyptian initiatives to improve ICT infrastructure**

Many early initiatives were established by the MCIT in partnership with the private sector and banks to increase citizens' and businesses' access to computers and the Internet. For example, the PC for Every Home Initiative established in 2002 allowed citizens to buy computers with monthly installments and access low-cost Internet service. The computers could be bought by any citizen with a Telecom Egypt telephone line. Co-operation agreements with IT providers also allowed for discounts on hardware. In 2006, the initiative was rebranded as "Egypt PC 2010 – Nation Online". By 2010, the MCIT surpassed its initial target of having 25% of Egyptian households owning a PC by reaching 31%. More updated figures from MCIT indicate that almost 50% of Egyptian households *use* a computer (MCIT, 2012a).

In January 2002, the government launched the Free Internet Initiative in Cairo; it was deployed nation-wide by the end of the year. The Free Internet Initiative is a joint initiative between MCIT and Telecom Egypt in co-operation with the private sector. The initiative provides subscriptions for free Internet access to users via dial up. Users are only charged for the price of local phone calls associated with connecting to the network. The number of Internet users has increased from 1 million users in January 2002 to 5 million users in October 2005.

Other similar initiatives have also been established such as the PC for Community Scheme, Egypt's Broadband Initiative, Notebook for Every Professional Initiative and the PC for every Student and Teacher Initiative.

Source: ESCWA (2009), *National Profile of the Information Society in Egypt*, New York and ESCWA (2011), *National Profile of the Information Society in Egypt*, New York; and MCIT (2004), *The Egyptian Information Society Initiative for Government Services Delivery.*

Table 3.1. **ICT infrastructure indicators**

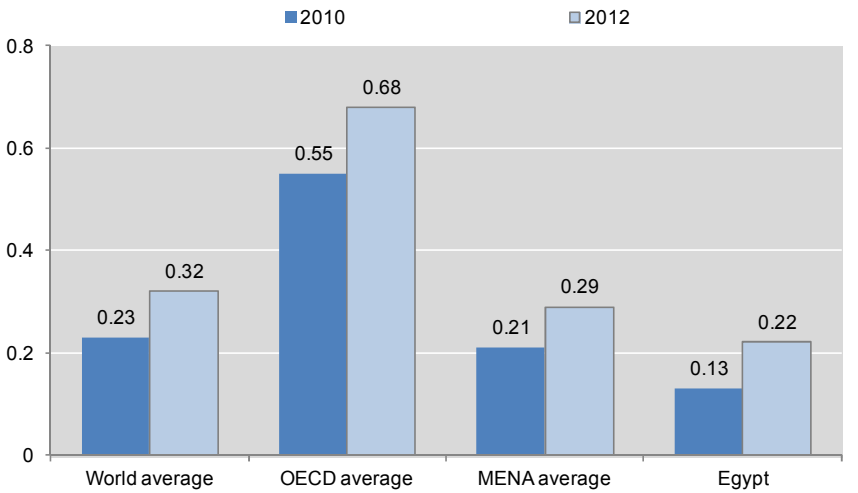
ICT infrastructure indicators	June 2012	Annual growth rate
Internet penetration	38%	6%
Mobile penetration	113%	18%
Proportion of mobile Internet users of total Internet users	36%	2%
Proportion of broadband Internet users of total Internet users	90%	2%
Number of post offices	3 793	0

Note: The high growth rates also reflect a changed methodology since mid-2011. Furthermore, the figures are only shown in whole numbers.

Source: MCIT (2012), *ICT Indicators in Brief*, July 2012 Monthly Issue.

Internet usage is low in Egypt compared to OECD countries, as well as the world average (Figure 3.3) (World Bank data, 2012). In comparison with the MENA region, Internet usage in Egypt also seems below average (UN, 2012; World Bank, 2011). Problems related to the sharing of fixed Internet lines by more than one household were mentioned during OECD interviews. This might reduce the potential benefits of broadband access through reduced speed and under-capacity. It might also indicate that the data provided underestimates the actual number of Internet users. However, the deployment of appropriate Internet infrastructure across the entire country appears to remain a key challenge.

Figure 3.3. **Comparative telecom infrastructure**



Source: Based on data from UN (2012), *United Nations E-Government Survey 2012, E-Government for the People*.

Despite the challenges of Internet access and use, mobile penetration in Egypt is high and has surpassed 100%. This also covers relative regional progress, as illustrated above. The annual growth rates in mobile subscriptions are also high, although they are expected to decline as a consequence of a saturated market (MCIT, 2011x). These rates provide a promising platform for focusing on the development and provision of mobile government services, as will be elaborated in Chapter 7.

In the individual government organisations other kinds of ICT assets are also relevant, as previously mentioned. While about 40% of government organisations have access to the Internet, little data exists on how widespread actual use is within those government organisations.

Regulatory challenges

Establishing an enabling legal and regulatory framework is a key requirement to support the development and implementation of e-government.

> The success of e-government initiatives and processes are highly dependent on government's role in ensuring a proper legal framework for their operation. A requirement for e-government processes to be introduced and adopted is their formal legal equivalence and standing with the paper process. (OECD, 2003)

It is important that laws and regulations support co-ordination and collaboration across ministries and agencies. In this regard, e-government development in Egypt would benefit from improved and formalised mechanisms for cross-governmental co-ordination and collaboration, which could complement traditional decision-making processes and informal mechanisms of co-ordination that already exist. ICTs are increasingly being integrated in all parts of the government administration and are becoming a crucial component of its interaction with businesses and citizens.

This entails ensuring a proper overall regulatory environment enabling e-government. This covers e-government specifically, as well as the basic enabling infrastructure of telecommunications in general. From this perspective, good regulation leading to sound competition and effective pricing is essential. Further, the relevant enabling regulations within different sectors and policy areas might also need revision to reflect the government use of ICTs. This might, for example, include the revision of specific legal requirements for processes and the use of data that needs to be adjusted in order to enable efficient use of ICTs. Finally, an adequate legal and regulatory framework is crucial to sustain the development of key e-government enablers such as digital signatures.

Egypt has introduced several key laws to support the delivery of online public services including regulations on the telecommunications sector, digital signatures and electronic payments.

The OECD survey results seem to confirm the need to further improve and expand the legal framework enabling e-government. Most government officials responding to the survey consider the absence of specific regulations as the greatest regulatory challenge; although there is no

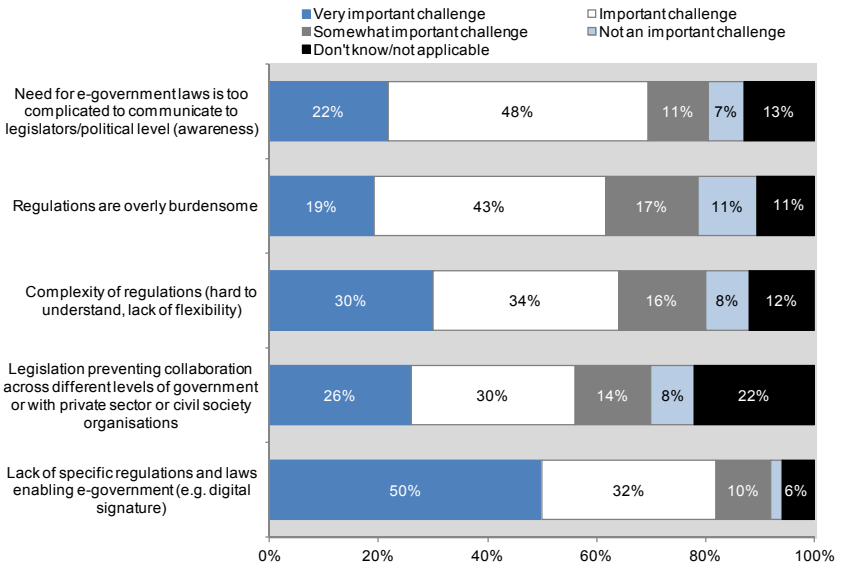
indication that addressing this challenge is a priority. Moreover, the large majority also point to the complexity of regulations and to the difficulty of understanding laws or decrees as an important challenge. Accordingly, the need to ensure proper communication and capacity building on existing e-government regulations also appears to be a priority for the Egyptian government.

Table 3.2. **Key laws on e-government in Egypt**

Law number	Main content
Law No.7/1997	Investment guarantees and incentives
Law No. 10/2003	The Telecom Act
Law No. 15/2004	E-signature and the establishment of the Information Technology Industry Development Authority (ITIDA)
Law No. 3/2005	Protection of competition and prevention of monopolistic practices
Law No.67/2006	Consumer protection

Source: www.ntra.gov.eg (accessed January 2012).

Figure 3.4. **Regulatory challenges**



Source: OECD E-Government Survey of Egypt 2011.

The need to communicate better also encompasses communication at the political level in order to pass the right legislation. Though a re-invigorated government and Egyptian parliament could create momentum, ensuring the necessary enabling regulation will require targeted communication. This challenge also refers to the need to raise awareness and understanding of the content of the laws within and across levels of government to ensure their actual enforcement. For example, OECD interviews highlighted that several key parts of the administration are unaware of the existence of the digital signature law, which seems to indicate room for improvement in terms of communication on e-government enabling laws.

Box 3.3. **The Egyptian e-signature law**

Law No. 15/2004 on E-signature and Establishment of the Information Technology Industry Development Authority (ITIDA) was passed in 2004. This law establishes that digital documents and signatures have the same legal value as written and physically printed ones. It states:

"The e-signatures, e-writing, and electronically written messages shall have the determinative effect for evidence provided their compliance with the following:

A. The e-signature is for the signer solely;

B. The signer has sole control over the electronic medium;

C. Possible discovery of any modification or replacement of the data of electronically written message or e-signature." (Official Gazette, Law 15/2004, article 19)

A few areas seem to be exempted from this general rule, *e.g.*, the military and the Ministry of Interior. Development of precise guidelines for the design and deployment of digital signatures were mandated the ITIDA. However, it seems that no PKI-provider on the Egyptian market was able to fulfil the ambitious specific requirements established until 2010. This has impeded the implementation of this law. Government officials seem to be lacking awareness of the status and the extent of the current legislation and its possibilities.

Source: Official Gazette, Law 15/2004.

Another regulatory challenge related to communication is the adoption of standards and processes. In Egypt, there are technical e-government standards supporting the infrastructure (such as the *E-Government Document Classification and Handling Recommendations* and the *E-Government Inter-Operability Standard*). However, they have not been enforced through formal regulation. Most Egyptian government officials share the opinion that further co-ordinated development and implementation of technical norms and standard processes is a central challenge. Where, for

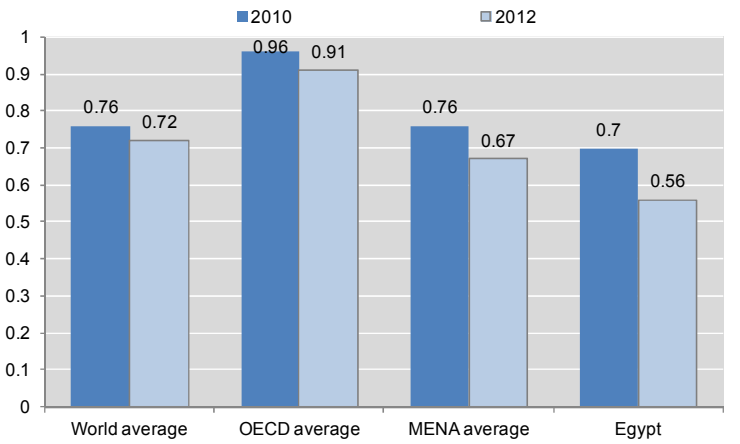
example, the basic network and messaging standards seem to have been implemented by ministries and agencies, there seem to be greater challenges in fostering the development of shared services based on joint standards and common processes across ministries (MCIT, 2002; MSAD, 2005). Joint technical standards and norms for ICTs – for example, to facilitate interoperability and the exchange of data – seem to be key issues to be addressed in order to ensure coherence in the Egyptian ICT infrastructure.

However, despite the partial existence of an enabling regulatory framework, the potential users of e-government services do not seem to trust the public online service delivery. This is particularly the case regarding electronic payments. Addressing the challenge of trust in the reliability and security of the public service is a key concern when dealing with the infrastructural and regulatory challenges.

Digital divide

The digital divide is the systematic exclusion, or significantly lower use of ICTs, by certain segments of the population, which has a direct impact on citizens' access to and use of e-government services (OECD, 2001). The digital divide is recognised as a major challenge in Egypt, as indicated in Figure 3.5. As previously outlined, important socio-economic differences persist across the country and poverty rates have increased in the last decade (World Bank, 2012). This has a profound impact on the digital divide in Egypt and subsequently on the uptake of online services, as elaborated in Chapter 7.

Figure 3.5. **UN Human Capital Index, 2010 and 2012**

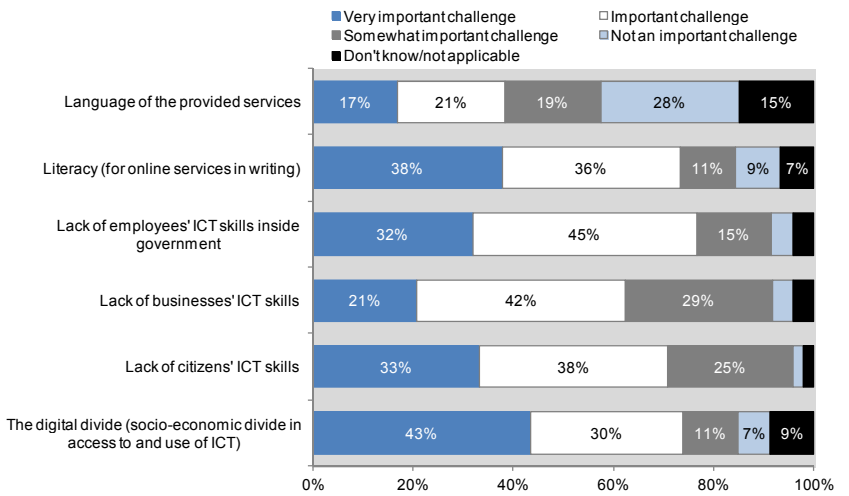


Source: Based on data from UN (2012), *United Nations E-Government Survey 2012, E-Government for the People.*

Overall indicators to assess the digital divide include citizens' access to the Internet, as well as the high levels of IT literacy. The level of access to PCs is also important. Despite important progress in its educational systems, Egypt has an adult illiteracy rate of 34%, a reality shared by some MENA countries (The World Bank, 2011). Illiteracy is considered one of the greatest challenges to increase the use of online services, as illustrated in Figure 3.5. Finally, the United Nations human capital index (which measures a combination of adult literacy and gross enrolment rates) also gives an indication on the importance of the digital divide; it places Egypt behind OECD and MENA region averages as well as below the global average (UN, 2012).

The challenge of inadequate user skills also covers users inside the public administration, as will be elaborated in Chapter 5.

Figure 3.6. **User skills challenges**



Source: The OECD E-Government Survey of Egypt 2011.

The assessments of the challenges illustrated in the survey question above covers all the different online service delivery channels. However, it seems that challenges concerning user skills regarding pc-based online service delivery do not equally apply to the use of mobile government services. This is probably the result of the higher mobile penetration and hence also use of mobile technologies.

Key messages

- MSAD has labelled the public administration in Egypt before 2010 as "*quite problematic"*, making reference to "*size*", *"overlapping tasks"*, *"incoherent responsibilities",* and *"bureaucratic rigidity"* among other issues Current management and incentives do not seem to encourage improvements to public administration efficiency. This seems to reflect a general challenge in the administration, rather than being a specific e-government issue.
- Officials highlight that a whole-of-government vision for public-sector use of ICTs does not seem to be in place. Incentives to collaborate across the government do not seem to be present; collaboration is considered risky. Moreover, the lack of appropriate skills and technical capacities create an important challenge for successful e-government development and implementation.
- Current budgeting processes are not conducive to effective cross-governmental co-ordination and collaboration. The full life cycle of e-government projects is not always sustained by budgetary principles and mechanisms, leading to implementation challenges and low levels of national deployment. Better measuring input, outputs, outcomes and their relations is necessary to improve e-government performance.
- The ICT infrastructure in Egypt is developed but its maturity remains below average relative to the entire MENA region. Internet penetration, access and use remain low. On the other hand, the mobile infrastructure is well developed and penetration is high among most parts of the population. This constitutes a powerful resource for mobile government services.
- Key e-government laws have been put in place, but do not yet seem to have been sufficiently communicated, implemented or enforced.
- Relative to the average in both OECD and MENA countries, the digital divide in Egypt remains high. This might be lead to a low demand and uptake of e-government services and thus hinder reaping the full benefits of e-government.

Notes

1. OECD Survey Question 3.5.a and 3.5.b, see Annex A for further elaboration.
2. See also OECD (2003b) for a more in-depth presentation of the budgeting challenges of e-government, both in terms of reaping the benefits and cross-government co-ordination.
3. OECD Survey Question 3.5.b, see Annex A for further elaboration.
4. Capital expenditures are expenditures on acquisitions or improvements to fixed assets. Operating expenditures cannot be considered fixed assets. The deployment of this varies; for example, can the development of ICT systems be considered a both long-term investment and an operating cost?
5. For an elaboration of the definitions and variations in the collection of data as well as their use, please see OECD (2011c).
6. See OECD E-Government Survey, question 4.2 in Annex A for further elaboration.

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Chapter 4

E-government leadership in Egypt

Sound e-government leadership ensures direction and progress. This chapter reviews the governance structures and processes related to e-government leadership in Egypt. This includes the existing e-government co-ordination and collaboration mechanisms across and within government levels, as well as how e-government leadership is organised and exercised. These governance structures are analysed in order to assess their impact on e-government development and implementation in Egypt.

This chapter reviews the governance structures and processes related to e-government leadership in Egypt. This includes the existing e-government co-ordination and collaboration mechanisms across and within government levels, as well as how e-government leadership is organised and exercised. These governance structures are discussed in order to assess their impact on e-government development and implementation.

E-government leadership at the political level

E-government leadership at the political level is the way in which key players act to generate and sustain commitment for successful e-government development and implementation. This entails: designing a coherent and whole-of-government e-government vision, defining a strategy that sets concrete e-government objectives associated with a realistic action plan, building commitment for e-government and effectively communicating its benefits.

A strong leadership capable of promoting a shared e-government vision and co-ordinating e-government activities is pivotal to achieve results (Box 4.1). Leadership is necessary at all stages. Visionary leadership and support can establish the necessary legal and institutional frameworks for e-government implementation and can foster an adequate level of buy-in from all key government actors. As more complex services are developed, leadership is needed to sustain momentum and provide incentives for inter-governmental co-ordination and collaboration, particularly as benefits may take time to emerge and are shared between institutional actors and the population. Finally, leadership can help ensure long-term sustainability of e-government policies and programmes, and facilitate continuity in times of transition or political instability (OECD, 2008a).

In Egypt, political support for e-government has existed since its institutionalisation in the 1970s. With support from the Prime Minister's Office, and backed by the President, Egypt has actively promoted the use of information technology within the public sector and adopted e-government as a tool for public sector reform. This approach enabled Egypt to pioneer e-government in the MENA region, where policy decisions on and commitment to e-government have only more recently been embraced (OECD, 2010).

In the past years, political support for and interest in e-government have been sustained notwithstanding the fast-paced developments in technology, the rising challenges of cross-governmental e-government implementation and the increasing demands for more mature e-government services. However, implementation appears to lag behind. The pressing priorities that have emerged from Egypt's current political transition, such as delivering on

services, hold high priority, as mentioned during several interviews with Egyptian government officials.

Box 4.1. **The role of successful e-government leadership**

- Developing a common vision and setting objectives;
- Securing employees' commitment to that vision;
- Co-ordinating resources and responsibilities within the organisation;
- Developing a customer-focused approach;
- Raising awareness and developing skills of employees, encouraging innovative solutions to organisational problems;
- Recognising the full use of technologies but not chasing technological solutions in themselves.

Source: OECD (2003), *The E-Government Imperative*, OECD Publishing, Paris.
Elaborated from the *Skills Foresight Report, www.lgemployers.gov.uk/psd/eskills/leadership.htm* (accessed April 2012).

This insufficient attention to implementation is being counter-balanced by the wide practical use of ICTs and social media by citizens and civil society organisations, which have increasingly taken the initiative to provide information and services electronically on issues ranging from fighting sexual harassment[1] and corruption[2] in all parts of society, to giving citizens real-time road traffic information (Box 4.2). Consequently, such civil society initiatives help increase attention on the government's capacity to deliver services, and build social pressure for more mature e-government services.

In the current context, this tendency is prompting the government to progressively establish initiatives that respond to rising demands for more transparent and interactive relationships with citizens. The prolific use of ICTs and social media by political actors following the revolution could be considered a first step in this regard.

Responses to the OECD survey indicate that the most important driver for e-government activities is the central government; this observation comes from respondents from the central and local levels (Figure 4.1). Overall, this reflects that the main e-government leadership in Egypt is exercised by the Prime Minister's Office and more directly by the MSAD – which is the Ministry of State responsible for e-government policy and plans, as well as for implementation and co-ordination of e-government policies and initiatives. More specific leadership is also exercised by the

MCIT for designing and implementing ICT and infrastructure-related projects. The governorates appear to be strongly guided by the central government's leadership, but also consider their own internal drivers as important e-government drivers. Additionally, officials at this level seem to be more aware of signals from civil society and citizens groups. This might indicate a potential for improved service delivery through increased engagement of the locals levels of government.

Box 4.2. **An Egyptian civil society initiative to address traffic issues**

Driven by difficult traffic conditions and recurrent traffic jams in Egypt's biggest cities, a group of Egyptian entrepreneurs created an award-winning mobile application that shares real-time traffic information and monitors road congestion. This application, based on crowd sourcing, helps citizens to navigate the streets by providing status updates on all major roads in Cairo and Alexandria. Although the need for this type of service in Egypt was significant, no solutions were available (such as online data on traffic, GPS information or CCTU cameras).

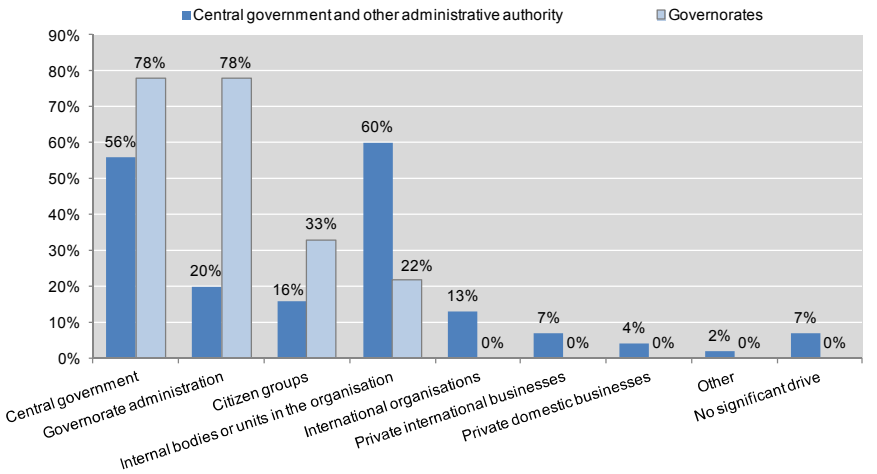
This initiative is based on a simple concept conveyed in the application's name: "bey2ollak" is an Egyptian expression used when sharing information you have heard of from someone else. The application leverages the power of ICTs to distribute communication between friends and families about traffic congestion to a much wider audience.

Citizens continuously monitor and update the status of traffic. Moreover, the application is available in a combination of transliteration of Arabic words into Latin letters by using numbers to replace sounds not found in the English language. This language is mostly used by the Arab youth. These are two components leading to its success.

Source: website of bey2ollak: *http://bey2ollak.com*, voices of youth interview with Mostafa Beltagy, co-founder of bey2ollak available online at: *http://voicesofyouth.org/posts/qa-with-mostafa-beltagy-how-bey2ollak-is-improving-egypt-then-the-worl* and *bey2ollak* featured on Al Jazeera English The Stream show available online at: *www.YouTube.com/watch?v=L-Ck5Ng995g* (accessed December 2011).

MCIT and MSAD have successfully worked together on some e-government projects, providing e-government leadership in their respective areas. OECD countries' experience indicates that such divided responsibility between ministries can create uncertainties about the overall direction of the e-government strategy and hinder achievement of synergies and economies of scale, if not counterbalanced by a clear identification of leaders' roles and responsibilities and effective co-ordination mechanisms (OECD, 2005c). MSAD and MCIT appear to have indentified their specific roles and communicated them effectively.

Figure 4.1. **Greatest drivers of e-government activities**



Note: This figure does not include the following response options: Municipal government or councils, virtual communities or don't know. For the full survey responses, see Annex A.

Source: OECD E-Government Survey of Egypt 2011.

Responsibility for the e-government agenda related to public sector reform was placed within the MSAD in 2004. A clear national vision and e-government objectives at the national level seem to be only partially in place, which might hinder the effective exercise of e-government leadership in Egypt. The lack of an officially stated common e-government vision is identified as the most significant organisational challenge by survey respondents.[3]

MSAD, as a Ministry of State, has delegated powers from the Prime Minister and derives its budget from the Prime Minister's Office. This might facilitate strong political support and could be one of the reasons for some political ambitions to involve e-government in broader policy issues (*e.g.*,. social policy and health are mentioned in the MSAD work plan). This is in line with the reality in many OECD countries, where a focus on the use of ICTs to support public sector reform is widespread, leading to a clear tendency to broaden the e-government agenda (OECD, 2012e). However, some interviewees observed that much political attention is focused on the development and implementation of pilot projects rather than on broader government co-ordination of full-scale implementation.

E-government co-ordination and collaboration

E-government co-ordination and collaboration mechanisms are important to support coherent development of policies, as well as effective implementation and deployment of e-government.

OECD countries are increasingly using e-government to deliver seamless and integrated online services to increase the efficiency and effectiveness of policies, as well as the quality of public service delivery. The widespread use of national portals in OECD countries as single points of access to public information and services provided by various public agencies emphasises the need to ensure consistency in e-government approaches and to co-ordinate service delivery. This requires re-engineering and integration of processes in the back-office and across organisational boundaries, as well as strong co-ordination and collaboration within and across levels of government (Box 4.3).

Box 4.3. **Co-ordination and collaboration: A definition of terms**

- Co-ordination: shared information insured by information flows among organisations.
- Collaboration: both joint action and a structured relationship between organisations.

Source: OECD (2005), *E-Government for Better Government,* OECD Publishing, Paris.

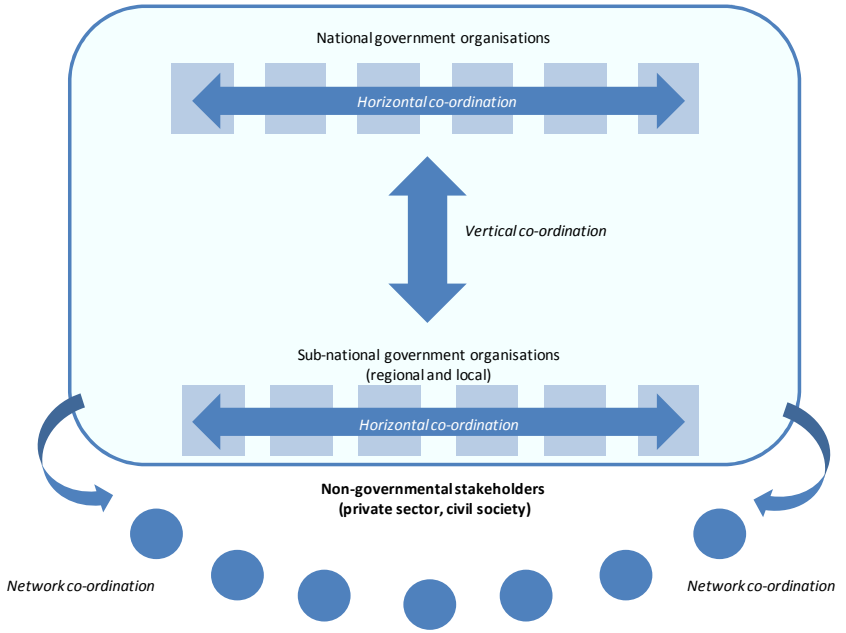
While co-ordination is necessary to avoid duplication of work and facilitate synergies and economies of scale, collaboration can help to ensure coherence of e-government activities and increase consensus around e-government development (OECD, 2005c).

E-government co-ordination is essential at several levels: horizontally, across ministries, in order to ensure that the use of ICTs supports policies in all relevant areas and sustains common strategic objectives; and vertically, to ensure alignment among the central and the local levels of government, including governorates, municipalities and cities. The benefits of improved e-government co-ordination seem considerable in Egypt, as in a number of MENA and OECD countries.[4] The specific approaches taken by OECD countries to ensure co-ordination differ based on their political, administrative and cultural contexts.

Supported by a dedicated team, MSAD is currently in charge of horizontal co-ordination of e-government programmes and projects in Egypt. Vertical co-ordination is achieved through individual contacts with

the local governor. MSAD applies multiple approaches to e-government co-ordination. It has adopted a centralised form of co-ordination by establishing frameworks and standards such as the *E-Government Document Classification and Handling Recommendations* and the *E-Government Inter-Operability Standard*. The MSAD also co-ordinates and co-operates with ministries and government agencies on an *ad hoc* basis through voluntary agreements and memoranda of understanding, such as the recent co-operation agreement between MSAD and the Ministry of Interior for Civil Status on the women's citizenship initiative.[5]

Figure 4.2. **Mechanisms for e-government co-ordination**



Source: OECD (2010), *Good Governance for Digital Policies: How to Get the Most Out of ICT: The Case of Spain's Plan Avanza* after OECD (2009), *Mind the Gaps: Managing Mutual Dependence in Relations Among Levels of Government*, OECD Publishing, Paris.

In light of the important co-ordination efforts through MSAD, numerous projects involving different government agencies have been established in Egypt. The recent elections management system developed by MSAD has enabled the sharing of public sector information and the integration of different databases from various government entities within a short period of time (see a more elaborate description of this project in the section on transparency and integrity in Chapter 8). Another example of successful

e-government co-ordination and collaboration is the family card project described in Box 4.4.

Box 4.4. **Cross governmental co-ordination: The Egyptian Family Card Project**

With about 80% of the total population receiving subsidies from the government, the Egyptian ration cards system represented a key service delivery channel to the poor. Given the growing Egyptian population, a system based on paper cards was producing inaccurate and outdated documentation that did not effectively take into consideration births and deaths, and generated significant waste and corruption in a sector that amounts to almost 10% of the GDP (The Egyptian Center for Economic Policies, 2010).

To improve this system, the Ministry of Social Solidarity has replaced the paper cards with smart cards called "family cards", which serve to collect data and co-ordinate services across government. These new smart cards are based on family databases, which integrate different national information sources (education, health, social insurance, real estate registry) by using the citizen's national ID number as a universal identification. So far, 12 million family cards compiling 63 million records have been issued. Families can present their cards to one of the 26 000 grocers throughout the country or to post offices in order to buy products and receive subsidies. A pilot project for the distribution of social security pensions through the family cards was also implemented in the governorates of Suez and Luxor.

To implement this project, the Ministry of Social Solidarity worked in co-ordination with MSAD to retrieve the necessary data from various ministries including the Ministries of Health, Finance and Interior. Officials also co-ordinated with the National Centre for Social Affairs and Criminology to assess families that are eligible for subsidies and social services, and established around 2 300 local offices at the government and district levels in charge of updating information on families. It has also outsourced the design, implementation and maintenance of the project to the private sector. This promising integration of databases and co-ordination has enabled better service delivery to citizens, up to 25% savings on food subsidies and the removal of about 1 million outdated citizen records from the cards system during 2010.

Source: MSAD Annual Report 2010, OECD interviews 2010.

Despite these successful efforts and despite a regulatory environment enabling the sharing of information, there is still room for improvement in terms of e-government co-ordination mechanisms in order to guarantee optimal implementation of e-government projects.[6] Overall, it appears that co-ordination is often conducted through *ad hoc* consultations and negotiations among actors. Although such dynamic interactions can secure effective leadership, these less formal consultations – in some cases

facilitated by personal networks and relationships – risk to inconsistent and more volatile e-government development (OECD 2011g). This underlines the importance to establish clear and more systematic over-arching mechanisms and organisational frameworks for co-ordination, to harness the co-ordination efforts and reinforce their coherence and alignment with the overall e-government vision and strategy. Most OECD countries have established institutionalised co-ordination mechanisms for e-government (OECD 2011g).

Government officials have also highlighted the weak culture of collaboration that exists across the government as one of the main organisational challenges to e-government.[7] Such a silo-oriented administrative culture is partly reflected in the national strategies for overall government use of ICTs (as discussed in Chapter 2), which do not seem to establish frameworks for co-ordination, collaboration or implementation. This also underlines the importance of having overall institutional and organisational frameworks and mechanisms which can help promote the sharing of information between ministries and agencies and facilitate joint actions to support the coherence of government administration and service delivery.

The absence of such institutionalised co-ordination mechanisms and frameworks could partially explain why 86% of survey respondents consider the difficulty to collaborate with other departments or ministries as either a very important or important challenge.[8] Indeed, establishing overall institutional and organisational frameworks for co-ordination has helped OECD countries improving their efforts across government administrations, ensuring progress and strategic alignment with common goals at all levels of government. The absence of more systematic and structured co-ordination mechanisms also creates a missed opportunity to leverage initiatives such as the Family Card Project as a means to increase integration of databases and sharing of information in administrative processes to boost administrative and organisational efficiency beyond specific projects.

Government officials have also underlined the low level of sharing of good practices between ministries and agencies to increase awareness and ensure widespread use of key e-government enablers already in place. For example, some interviewees stated that the e-signature law was not yet enacted and that e-payment was not an option they could consider. However, the Egyptian Taxation Authority seems to have effectively used the e-signature law and the Egyptian Railway Organisation has successfully established e-payment options. Sharing good practices – and, particularly, rewarding this sharing – can help foster a culture of exchange and collaboration. A culture of knowledge sharing is a pre-requisite to reap the benefits of the established enabling environment, and to increase overall

efficiency of the public sector. Sharing other ministries' or agencies' successful initiatives could prove helpful for some organisations that are facing the same difficulties, or that are aiming to tackle similar problems through the use of e-government.

OECD countries have established different kinds of co-ordination mechanisms, for example inter-ministerial committees, working groups and task forces facilitating sharing across and within government (Box 4.5).

Box 4.5. **The Danish Steering Committee for Joint Government Co-operation**

The Danish Steering Committee for Joint Government Co-operation (STS) includes representatives from a number of ministries, and representatives of the municipalities and regions. The STS is responsible for co-ordinating e-government initiatives throughout the public sector and reports on a bi-annual basis to the government, the municipalities and the regions.

The STS was established in 2001 to co-ordinate e-government strategy and public sector reforms across all levels of government. The Danish Digital Task Force is the secretariat for the committee. While the Board is responsible for the co-ordination of the national e-government strategy it does not have any direct authority over government organisations. Instead, its influence is directly derived from its ability to facilitate agreement among organisations to commit to actions.

The STS has successfully acted as a catalyst in bringing interested parties together to solve problems and come up with joint solutions across all levels of the public sector.

Source: OECD (2010), *Denmark: Efficient E-government for Smarter Public Service Delivery*, OECD Publishing, Paris.

The roles of such mechanisms could include building a shared vision; prioritising e-government issues and achieving consensus around strategies and key topics; facilitating information and data sharing; overseeing policy development and implementation; and serving an advisory role. Ensuring that such co-ordination committees hold a high level of enforcement power and political support is crucial. These mechanisms have also been adopted by some MENA countries, such as Morocco (Box 4.6).

The Spanish e-government co-ordination approach also presents an interesting case, reflecting efforts to ensure co-ordination of a national e-government approach in a country with very strong regional autonomy. In Spain, a High Council on E-Government ensures co-ordination across the state, while a Sectorial Committee for E-Government ensures dialogue with the local communities and other relevant stakeholders (OECD, 2013). Both committees are defined in the legal framework for e-government in Spain.

Box 4.6. **E-government co-ordination mechanisms in Morocco**

In compliance with the Prime Minister's Circular number 17/2009 of 21 October 2009, the Moroccan e-government programme was given a tripartite governance division:

- **The E-Government Inter-Ministerial Committee (CIGOV)** is chaired by the Minister of Industry, Trade and New Technologies. This Committee is in charge of setting e-government objectives and assessing their achievement. The main activities of CIGOV include formalising the e-government vision, defining strategy and action plans, ensuring the effective allocation of resources, as well as achieving cross-administrative arbitrage;
- **The e-Government Steering Structures (SPGOV)** are responsible for leading the implementation of e-government projects within their organisations. The main activities of SPGOV include preparing strategies and defining projects and budgets, proposing action plans and assessing the necessary resources, monitoring the implementation of defined plans and reporting to CIGOV on achievements.
- **The Steering Department of the E-Government Programme (DPGOV)**, which consists of internal and external experts in charge of assisting the CIGOV and the SPGOV in implementing the e-government programme. The activities of the DPGOV are divided into four major functions: strategic management, steering, promotion and assistance. To carry out its activities the DPGOV is composed of three cells under the responsibility of the Program Director: a cell to steer the implementation of the program; a cell to assist in project management; and a communication cell for the promotion of the program.

Source: Morocco's e-government website *www.egov.ma* (accessed September 2012).

CIOs as e-government co-ordinators

Chief Information Officers (CIOs) can play a key role to ensure successful e-government co-ordination, and to provide the required leadership. CIOs can act as focal points for e-government implementation to facilitate co-ordination across the government and ensure alignment of individual initiatives with national strategic objectives. They can thus help ensure a common understanding of the horizontal nature of e-government and its enabling role for public sector reforms. They can act as agents of innovation and change at the agency level; and facilitate synergies, integration and better use of resources (OECD, 2005c).

Box 4.7. Selected CIO job requirements in Egypt

As detailed in the job description established by MSAD , the role of CIOs includes these tasks, among others:

- Overall responsibility for developing the information system within a government entity and linking it with both the needs of the entity and the national plan for information;
- Preparation of relevant data and statistics;
- Setting up an information security plan, information system policies and their key performance indicators;
- Setting up plans for the auditing and management of information workflow;
- Co-ordinating with the Minister/Governor and administrative or information centers.

CIOs are also required to have experience in administrative and organisational policies, as well as knowledge of financial issues.

Source: MSAD (2010), *Chief Information Office (CIO) Job Requirements*.

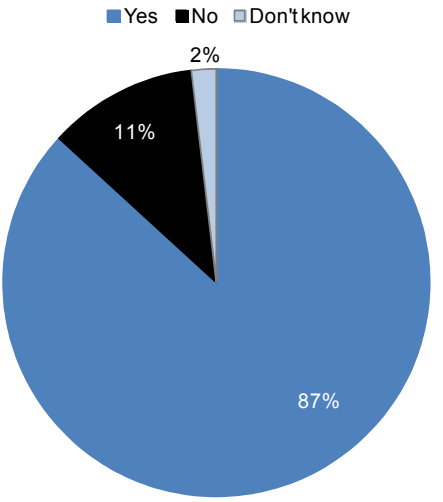
The Egyptian government established a new managerial position, CIO, in 2009 and has set clear terms of reference for this position (MSAD, 2010e) (Box 4.7).[9]

Accordingly, 87% of respondents to the OECD survey stated that there is a CIO or an equivalent position within their organisation (Figure 4.3). However, the role of CIOs in Egypt seems to focus more on technical IT management issues than on providing policy support for the development of e-government and e-government services, a challenge that is faced by many OECD countries. Enabling a more strategic and policy-oriented CIO role could help address the co-ordination and leadership issues Egypt is confronting.

Moreover, the job requirements set out by MSAD for CIOs seem to be mainly focused internally within a specific organisation, as opposed to across government. This hinders the potentials of CIOs acting as cross-government co-ordination facilitators and e-government leaders. The job requirements as established by MSAD do not seem to explicitly specify the co-ordinating role CIOs can have both internally within their organisations and across government. Moreover, there are no established CIO co-ordination mechanisms in place across the government and no national CIO has been appointed in Egypt. Some OECD countries have used

such positions to help ensure a global vision and coherent implementation of national projects, as well as to act as a centralised and direct form of e-government co-ordination (OECD, 2005c).

Figure 4.3. **Availability of a CIO**



Source: OECD E-Government Survey of Egypt 2011.

Furthermore, it seems that there is a tendency in Egypt for e-government responsibilities to be placed under the IT departments of ministries and agencies. This is a trend common to many MENA and OECD countries, which in many instances has hindered the capacity to highlight the strategic use of e-government to sustain better policy outcomes. Government officials surveyed by the OECD have indicated that a majority of ICT-budget-related decisions are placed in the IT department of their organisation and not under those units responsible for overall policy making or service delivery.[10] This might challenge the individual ministries as well as the government's capacity as a whole to use ICTs to support broader sectoral policy objectives. Re-thinking and clarifying the role of the CIO and related responsibilities may help address such gaps.

Finally, it seems that there are few mechanisms or fora for CIOs to come together and exchange views, which could form a lever for stronger co-ordination within and across governments. The national CIO council of the United Kingdom is one prominent and successful example of such a mechanism (Box 4.8).

Box 4.8. The Chief Information Officer Council of the United Kingdom

The Chief Information Officer (CIO) Council brings together CIOs from across all parts of the public sector to address common IT issues and improve public service delivery.

The role of the CIO Council

- Acts as a forum for partnerships among IT professionals across government
- Draws its membership from the wider public sector – central government, local government, and agencies in fields such as health and law enforcement.
- Is charged with creating and delivering a government-wide CIO agenda to support the transformation of government and to build capacity and capability for IT-enabled business change
- Balances government-wide agendas with accountabilities in line organisations

The operating model

Council business is conducted on the following basis:

- The Council is chaired by the Government CIO, whose team performs the secretariat function
- There are a minimum of three full-day meetings per year
- Members attend major meetings in person
- Teleconferences are used between meetings to maintain/steer progress
- Council members operate on a "collective responsibility" basis to steer, own and deliver agreed strategic actions
- Council membership is by invitation of the full Council
- Interactive and action-oriented events form the basis of Council activities

Source: www.cabinetoffice.gov.uk/sites/default/files/resources/CIO-council.pdf (accessed January 2012).

The Egyptian Chief Information Officers Academy could also play a more prominent role in this regard. Launched in collaboration with Microsoft International and the National Management Institute in 2010, the

Academy aims to provide CIOs with the necessary tools to "define, implement and evaluate policies, regulations and projects dependent upon ICT" through training sessions.[11] Building further on this strong initiative might be a way to improve co-ordination of e-government, as well as to provide CIOs with the necessary tools and training that go beyond technical IT management issues and focus on policy support.

Key messages

- E-government leadership and political support for e-government has been present for a long period in Egypt. Establishment of clearer co-ordination and collaboration mechanisms might help to further sustain this leadership.
- A specific e-government vision has not been formalised, and some objectives lack clear ownership across the whole government. This seems to hinder effective leadership and co-ordination efforts, as well as the successful implementation and achievement of sustainable results in projects.
- E-government co-ordination seems to generally be conducted in a project-specific, *ad hoc* manner, not elaborated in national or ministerial strategies. E-government co-ordination is conducted in the absence of overall institutional and organisational co-ordination mechanisms or incentives. Such mechanisms could improve and facilitate co-ordination, as well as help harness and reinforce the potential of informal co-ordination and networks while minimising the associated risks.
- The role of CIOs seems to focus more on technical IT management issues than on providing policy support to further develop e-government services. The responsibilities of CIOs also seem to be mainly focused inside their organisations, which hinders the potential for CIOs to act as cross-government co-ordination facilitators and e-government leaders. There are no institutionalised co-ordination mechanisms across government CIOs; and there is no national CIO position.

Notes

1. Information available online at: *http://harassmap.org*.
2. Information available online at: *http://zabatak.com*.
3. OECD survey question 4.5, see Annex A for further elaboration.
4. This has been underlined by academia; see, for example, Ezz et al. (2006).
5. Information available on the MSAD website, *http://msad.gov.eg/Templates/News_Details.aspx?NRMODE=Published&NRNODEGUID={140E0E85-2580-43FA-A1BD-5D9349D50F7A}&NRORIGINALURL=/Press+Room/News/Women+Citizenship+Initiative+Project.htm&NRCACHEHINT=NoModifyGuest.*
6. See the Prime Minister's Decision Number 856 of 2010 on the integration and exchange of national data and services between government agencies.
7. OECD Survey question 4.5, see Annex A for further elaboration.
8. OECD Survey question 4.5, see Annex A for further elaboration.
9. Prime Minister's decision number 2 552 of 2009 concerning the establishment of the position of chief information officer in the offices of ministries and governorates (قرار رئيس مجلس الوزراء رقم 2552 لسنة 2009 بشأن إنشاء وظيفة المدير التنفيذي للمعلومات بدواوين الوزارات و المحافظات).
10. OECD Survey question 2.3, see Annex A for further elaboration.
11. Information available online at: *www.microsoft.com/middleeast/press/Pages/Article.aspx?id=80* and *http://emasr.net/news-details.php?id=229.*

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Chapter 5

Implementation of e-government

Ensuring implementation and the necessary implementation capacities is essential in order to realise the benefits of e-government. This chapter looks at the implementation of e-government strategies in Egypt.

It examines the challenge of recruiting and retaining skilled public servants, and particularly the increasing need for ICT skills and ICT project management. It also examines the use of procurement and partnerships to extend the capacity of the public sector; although good initiatives such as e-procurement exist, full implementation and adaption remain a challenge. Communication and awareness-raising practices as part of e-government project implementation are analysed. Finally, the collection and use of statistics and indicators are presented and analysed from a service delivery perspective.

Defining sound e-government strategies is critical; and adopting action plans to make the vision operational and sustain its effective and efficient implementation is a pre-condition for reaping the value of e-government. This chapter looks at how national e-government policies and strategies are being implemented in Egypt. In particular, the chapter analyses the government's implementation capacities such as skills, procurement, partnerships with the private sector, and tools used to support the implementation of e-government, namely monitoring and evaluation.

ICT skills in the public sector

As the Egyptian government is promoting the use of ICTs to further develop e-government services and increase public sector efficiency, the requirements for civil servants' ICT-related skills are increasing accordingly.

Improving ICT-related skills in the public sector is crucial at all levels of the hierarchy. E-government leaders and managers need to develop a strategic understanding of how the use of ICTs can enable broader public sector reforms, and help improve service delivery. At a more operational level, the implementation of e-government projects also creates new needs for public servants' ICT skills, such as project management. Additionally, as the use of ICTs becomes increasingly prevalent in all work areas of the public administration, proficient use of ICTs become a concern for all public servants – including those whose tasks are not strictly related to e-government or IT deployment.

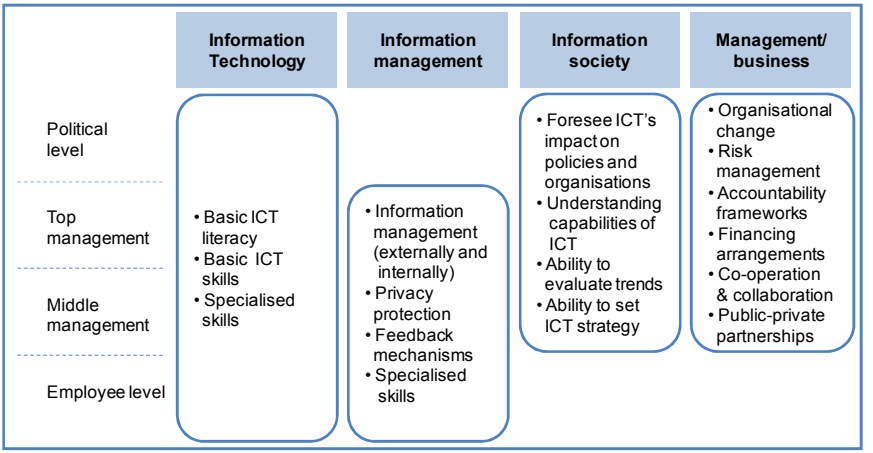
Figure 5.1 divides ICT skills according to the types of skills and the hierarchical level at which they are needed within the public administration.

The categories illustrated in the figure are primarily indicative, as the skills required are likely to depend on the individual government entity and the specific division of responsibilities. Furthermore, the introduction of CIOs within government entities changes these skills requirements.

ICT skills requirements in Egypt

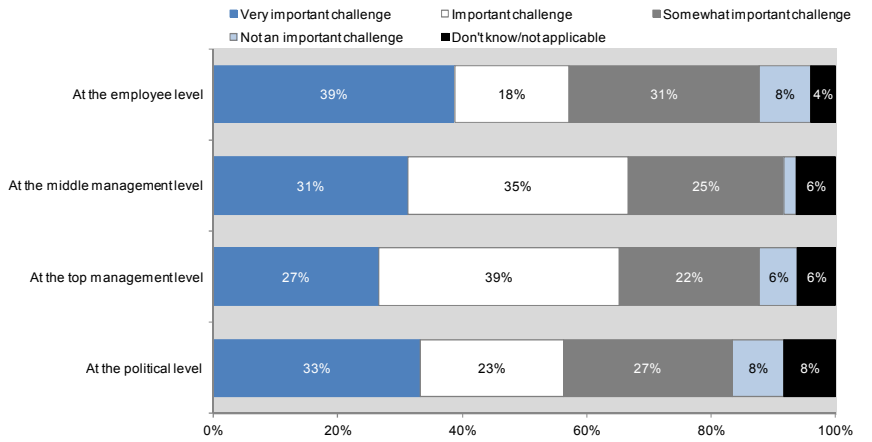
A large majority of OECD survey respondents assess the need to further develop ICT skills in Egypt as a very important or important challenge, as indicated in Figure 5.2. Although this challenge covers all levels of hierarchy within the public administration, the management level is particularly important.[1]

Figure 5.1. **ICT skills needed for e-government**



Source: Based on OECD (2003), *The e-Government Imperative*, OECD Publishing, Paris.

Figure 5.2. **Challenges of ICT knowledge within the government administration**



Source: OECD E-Government Survey of Egypt 2011.

The challenge of insufficient ICT literacy within the government administration is one of the criticalities of the Egyptian human resource management system as a whole. Integration of strategic ICT and

e-government skills in top management is an essential component to achieve effective administrative reforms.

The ICT skills challenge seems in line with the previously mentioned organisational challenges of managing the processes of change within the public administration. Change management and ensuring the full implementation and deployment of ICTs on a national scale is a great challenge in Egypt, experienced by all countries at varying levels.

However, with about half of the Egyptian population under the age of 25, leveraging the potential of this growing young population and ensuring it has strong ICT skills could form a key asset for Egypt, including for the public administration (ITU, 2005).

Staff management and capacity building

Attracting and retaining skilled staff

Egypt is exerting efforts to develop a skilled public administration workforce. As part of these efforts, the government has created a Government Jobs Portal (Box 5.1). The portal helps reach a broad base of skilled candidates, contributes to ensuring a transparent recruitment process and prevents different forms of corruption such as bribery, nepotism, favouritism and conflict of interest. Given that a fair, open and transparent recruitment process supports the development of qualified and competent public servants, this initiative might be further developed and broadened to attract qualified staff with strong ICT skills. OECD interviews with public officials indicated that recruiting and retaining staff with strong ICT skills in the public administration can be a challenge, particularly in large cities such as Cairo and Alexandria, where the private sector often competes with the public sector to attract the most skilled public servants. The growing public and private ICT industry currently employs more than 200 000 staff (MCIT, 2011a).[2]

The turnover rate of public servants working on ICT issues is perceived as particularly high, although no official statistics exist in this regard. This might be problematic for the daily management and operations of ICT projects, and particularly for the development of new projects where the continued presence of key skills is important. Building experience, institutional knowledge and data within organisations is important to ensure coherence and quality in administrative processes.

Box 5.1. **The Egyptian Government Jobs Portal**

Based on Law No. 7 of 2010, the project aims to announce vacancies in all government entities online through the Egyptian Government Services Portal (*www.egypt.gov.eg*), in order to ensure transparency in the recruitment process.

Through the portal, job seekers can find the latest government jobs vacancies and the results of the selection as well as communicating, complaining, suggesting and e-participating via social media. State administrative entities also benefit from the portals services as they can announce vacancies, review the applicants applied through viewing the portal announcement, announce the interview dates, and announce the selection result.

Statistics pertaining to the portal from March to October 2010 showed that 3 007 job seekers were registered, 726 jobs were posted, 581 applicants were notified with the result of a selection and 89 government entities used the portal to announce job vacancies.

The portal also provides an SMS service whereby citizens can receive job announcements directly on their mobile phones as a text message; this service reached 28 000 subscribers in the first year alone.

Note: The above page in Arabic provides a list of government entities and their job openings, as well as training websites and links for job searches and interview dates.

Source: MSAD (2010), *Annual Report 2010,* MSAD, Cairo; *http://jobs.gov.eg* (accessed January 2012)

OECD experience suggests that countries proactively seizing opportunities arising out of changes in the workforce composition (such as age or education) may take advantage to renew their public administrations. This could include reaching out to young, competent and ICT-skilled citizens and raising their awareness of opportunities and job requirements within the public sector. OECD experience also highlights the importance of communicating the core values related to working in the public sector. Public respect, merits and probity, as well as having a whole-of-government perspective, are general features observed in human resource management systems in OECD countries (OECD, 2007b). Ensuring the clear communication of such values, and ensuring that they are embedded in the human resource management systems in the public sector, is critical to attract and retain competent staff and to ensure high-performing public servants, which is particularly important in periods of budgetary constraints and growing competition for skilled staff. Such communication might build on the use of ICTs, and should furthermore be reflected in the entire management system, starting from the top management.

OECD countries are also working to ensure that the proper incentives exist to retain competent public servants and promote high performance. Delegation of responsibilities and transparent individualised rewards based on results or outputs are some of the measures countries are deploying in this regard, aside from the more values- and ethics-based measures (OECD, 2005; OECD, 2008b). Among other important measures is establishing career paths for public servants and ensuring development opportunities – the development of ICT skills is one important area for capacity building along this line. However, establishing attractive levels of remuneration in the public administration is considered difficult in most countries. Egypt has recently been considering modernising its remuneration policies in the public sector. This seems to hold great potential to help make the public sector attractive and enable the recruitment and retention of skilled staff. However, the project was put on hold during the transition period and is currently not being pursued.

Capacity building in the public administration

The continuous development of competencies and capacity building are also important to ensure high performance of the public sector workforce. Whereby the MCIT has strived to develop ICT skills for citizens and businesses, MSAD and the National Institute for Management (NMI) have focused on developing ICT skills inside the public administration.

The NMI was initially established in 1954 and restructured in 2006 in order to function as a centre of excellence in terms of "human capital development, administrative capacities development and information

technology professional services" (NMI, 2010). The NMI also supports different aspects of e-government development and implementation (NMI, 2010). The unit on Professional Consulting and Information Security Services (PCISS) at NMI is an example of the Institute's supporting the Egyptian public administration to ensure ICT security by conducting advisory, consultancy and implementation roles in e-government projects.

Strategic management skills are also crucial to ensure government organisations and managers that can perform well, particularly in the new digital context. The NMI has established the Egyptian administration's Change Leaders Initiative, which aims to develop the leadership skills needed to address the challenges of managing organisational changes and fostering co-ordination and collaboration within the public administration (MSAD, 2010; NMI, 2010). The Change Leaders Initiative is also a good example of joint efforts among the 13 participating ministries.

The Information Technology Institute (ITI) provides education and training programmes to both the public and the private sectors. It was established in 1993 by the IDSC in order to bridge the gap between industry requirements and academia. The Institute is currently under the responsibility of the MCIT, but MSAD also funds government training programmes provided by the ITI. These trainings are provided through 53 training centres located in the governorates. More than 1.2 million people have received training through the Institute since its establishment. Each year, about 800 people participate in the nine-month professional diploma programme (ITI, 2012) The demand for the training programs has increased, most likely in response to the more widespread e-government development and implementation within the public administration.[3]

This model also seems to hold potential to be applied to co-operation and collaboration between the public administration and universities. OECD country experience points to good examples of such partnerships, for example in the case of Canada, where students obtain terms of employment with government while pursuing their studies (the Federal Student Work Experience Program) (Public Service Commission of Canada, 2012). As such, partnerships can be used both for capacity building and to attract new public servants.

According to interviews with government officials, some e-learning has also been tested. The MSAD, MCIT, ITI, as well as the Ministry of Education, have been piloting different kinds of e-learning opportunities.

A more specific example of strategic skills development is the training programmes of the Ministry of Civil Aviation, deployed in collaboration with MSAD. During OECD interviews, officials described them as a best practice and strategic model within the Ministry of Civil Aviation,

supporting the use of a standardised ICT Project Management model. Furthermore, the Ministry indicates that it has developed a well-functioning and elaborated system of incentives to retain skilled staff, in line with the project management model.

Overall, Egypt has initiated a number of good capacity-building initiatives to ensure the availability of a public sector workforce with sufficient ICT skills at all levels of the hierarchy. However, increasing impact of these initiatives to ensure successful e-government development and implementation on a larger scale seems to remain a challenge. Supporting and enhancing such programs could help develop, attract and retain skilled staff.

ICT project management models and competencies

Effective and efficient ICT project management is an important lever for successful implementation of e-government. As projects become more oriented towards cross-cutting policy outcomes, which are comprehensive and complex, the need for stronger project management skills is accentuated. Systematically collecting and deploying standardised good practices and experience from large-scale ICT projects seems to be a way to extend pilot projects or small projects to broader areas or user segments. OECD member countries have addressed this challenge in different ways. Some have established models for the systematic management of the development and implementation of ICT projects, such as the Prince 2 IT project management model of the United Kingdom.[4] Others have established central government project assistance units to support the implementation of large-scale e-government projects; partially along the lines of the role of the Egyptian PCISS. Denmark's recently established IT project management unit to support e-government implementation across the government is another example. However, standardised ICT project management models applied broadly within the government do not yet seem to be widely developed in OECD countries. A very good example in Egypt is the establishment of MSAD's internal research and development unit in 2009, with the goal of sharing good experiences and promoting innovative solutions in the administration (MSAD, 2010c).

The NMI seems to build on some international standards for project models in some of its training programs, particularly regarding information security. However, the MSAD work plan for administrative reform does not mention particular ICT project management models to be used throughout the public administration (NMI, 2010). ICT project management seems to differ between ministries and according to the different kinds of projects. The MSAD's work plan seems to include a partial government-wide ICT project portfolio on its list of national projects. It, however, does not seem to

cover all e-government activities. An exhaustive list of all e-government projects could help support the most strategically important projects. More comprehensive follow up on progress of e-government projects across the whole-of-government – highlighting outputs and outcomes – does not seem to be in place either. However, the importance of such follow-up seems clearly recognised by the government (MSAD, 2010c). A weak foundation for follow-up can make it more difficult to co-ordinate and identify collaboration potentials among ministries, leading to the general observations on existing *ad hoc* co-ordination and collaboration mechanisms, as mentioned in Chapter 4. Box 5.2 below provides the example of a joint ICT project model implemented in Denmark.

Box 5.2. **The Danish ICT Project Model**

The Danish ICT Project model provides a standardised way of managing ICT projects across the government administration. With clear reference to the UK ICT project model Prince2, it provides guidelines for how to organise and manage ICT projects and delivers concrete templates for all generic products in the process. The overall phases covering all projects are illustrated below:

The Ministry of Finance has created a unit establishing good practices on e-government projects, including both mandatory and recommended elements. The model has enabled establishment of a specific governance structure, for example requiring approvals of well-developed business cases, as well as ongoing approvals – so called "stop-go" decisions - each time project pass from one phase to the next.

Source: The Danish Digitisation Agency (2011); and *www.digst.dk/Statens-projektmodel* (accessed April 2012).

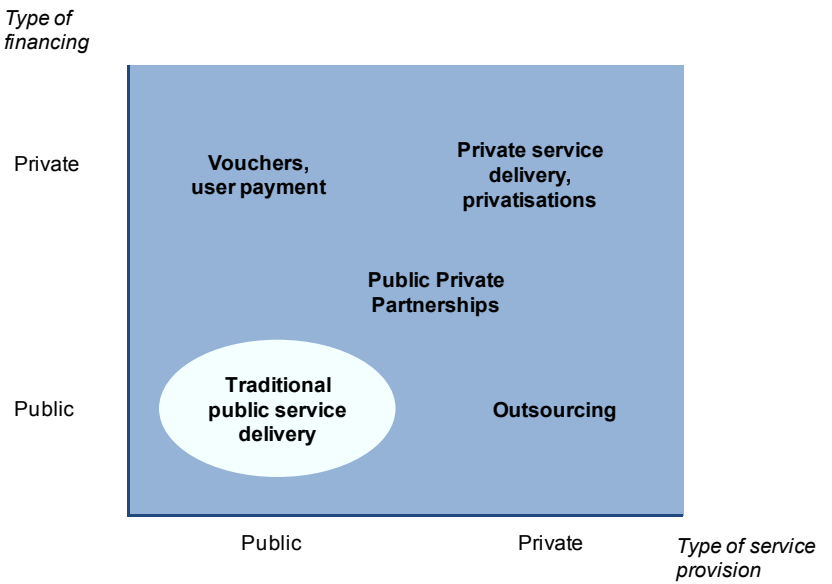
As Egypt increasingly seeks to further the use of ICTs not only to sustain administrative reform, but also to better support the achievement of policy goals and improved service delivery, ensuring the availability of adequate ICT project management competencies is crucial.

Procurement, public-private partnerships and outsourcing

Governments' capacity to implement e-government projects depends on the availability of human, as well as financial, resources (among other factors). Political and strategic choices typically guide decisions on which

responsibilities and core e-government competencies to retain within the public sector, and what to purchase from the private sector to enhance the public sector's overall performance and service delivery capacity. This balance between the public and the private also depends on the chosen service delivery model, as indicated in Figure 5.3; such models can vary substantially according to who finances the services and who provides them. As is the case with most OECD member countries, Egypt uses a combination of the models below. The organisation and skills needed within the public administration change according to the chosen service delivery approach.

Figure 5.3. **Examples of service delivery models**



Note: The examples in the figure are not exhaustive, but aim to indicate the different kinds of service delivery models that are being deployed in OECD countries.

Source: Author with reference to OECD (2005), *Modernising Government, the Way Forward,* OECD Publishing, Paris.

This section addresses the Egyptian e-government implementation capacities, focusing on procurement of ICT goods and services to support public service provision, as well as the use of outsourcing and partnerships with the private sector.

Procurement of ICT goods and services

Public procurement is the purchasing of goods and services by governments and state-owned enterprises (OECD, 2007c; OECD, 2008d). Public procurement is an important factor in e-government implementation. ICT procurement can be financially divided into capital investment and running costs, although OECD practices show that management and accounting practices vary considerably among countries (OECD, 2011c). Procurement processes also differ among OECD countries, with numerous types of tenders and degrees of publicly available information (OECD, 2011d). Public procurement accounts for one of the largest government spending activities in MENA and OECD countries alike (representing, on average, about 13% of GDP in OECD countries and about 18% in MENA countries); it is largely vulnerable to waste, fraud and corruption (OECD, 2011d). The size of the financial flows public procurement generates, and the complexity of public-private interactions it involves, are considerable (OECD, 2007c). Accurate numbers on the size of ICT procurement in Egypt is not available.

The regulatory basis for public procurement in Egypt is the Law 89 from 1998 (MSAD and Ministry of Finance, 2012). A number of recent developments – such as the use of ICTs to develop e-procurement, e-tenders and new public-private partnerships – have been reflected in more recent laws, decrees and resolutions that complement this basic regulation.[5] Plans for a more comprehensive renewal of the legislative framework were mentioned during OECD interviews with officials.

Some initiatives for central procurement of ICT goods and services have been put in place in Egypt. One important example is MCIT's partnership with Microsoft, providing certain services and systems through general framework agreements. The establishment of common procurement agreements to reduce prices and ensure deployment of joint standards across the government seems to be a good practice, encouraging consolidation of existing ICTs that could be further elaborated, for example between the MCIT and specific private companies for the PC for every home initiative (as described in Chapter 3).

However, no policy or strategy exists for public sector procurement of ICT goods and services. Though the procurement process is partially co-ordinated, it seems that decisions on procurement of ICT goods and services in Egypt are mainly taken within the individual ministries or agencies, and are not co-ordinated across these entities. Overall, it does not seem to be considered a whole-of-government matter for which wider co-operation within and across levels of governments is sought. Accurate

data on the distribution of expenditures between centrally and de-centrally procured ICT goods and services have not been made available.

Establishing common strategies could help improve the transparency and integrity of the procurement process and build on existing initiatives in this regard. Transparent procurement processes are widely considered as a good practice among OECD countries in order to promote integrity.[6]

OECD countries have focused increasingly on clarifying what ICT systems should be developed inside the public administration and what should be purchased as standardised commercial systems or applications, in order to optimise efficiency and ensure high-quality ICT solutions (Box 5.3). In Egypt, a high number of internally developed systems were observed, even in areas where well-developed standard systems already exist. The development of a new train ticketing system by the Egyptian Railway Organisation is one example where the use of a standard system might have been an option. The absence of common public procurement guidelines and policy, which could foster the purchase of common and standardised systems, might reinforce the tendency to develop ICT systems and solutions internally in the public sector.

Furthermore, OECD countries have used joint procurement strategies to consolidate the public administration's ICT infrastructure in order to achieve synergies and share resources, as well as to ensure consistency and facilitate interoperability. Finally, a clear procurement strategy might contribute to reaping considerable economic benefits through economies of scale. OECD countries have experience in harvesting the economic benefits of pooled purchasing of specified government goods (OECD, 2010d; OECD, 2010f).

E-procurement

E-procurement is the use of ICTs to support procurement processes. Guidelines for implementing e-procurement systems have been defined based on good international practices.[7] Figure 5.4 indicates that paper-based procurement processes remain the most widely used by public institutions in Egypt.

Although Egypt aims to development e-procurement, this goal is only partially realised. It is mentioned as one of the key projects in the modernisation of the public functions across the government, embedded in the MSAD's national work plan for administrative reform (MSAD, 2010c). The purpose of the e-procurement project is to promote transparency and prevent corruption in public procurement processes, as well as to reduce costs, promote an equal playing field for government suppliers, and improve auditing possibilities to strengthen the government's view on expenditures.

Box 5.3. Centralising the purchasing function in Ireland

Recognising the need to enhance efficiency and value for money in the Irish public procurement system, the Irish government has adopted a strategic decision to increase momentum in the area of procurement, notably by aggregating demand and professionalising procurement staff, by establishing the National Procurement Service in 2009.

Prior to this reform, the 2001-2002 e-government policy aimed to address these challenges by promoting electronic procurement as a way to increase transparency and efficiency. However, a government assessment showed that a national e-procurement system could not be implemented without major reform and restructuring of the function.

The National Procurement Service was then established to reform the public procurement function in regard to supplies and services. Located in the Office of Public Works, it has been tasked with centralising public sector procurement arrangements for common goods and services.

The National Procurement Service (NPS)

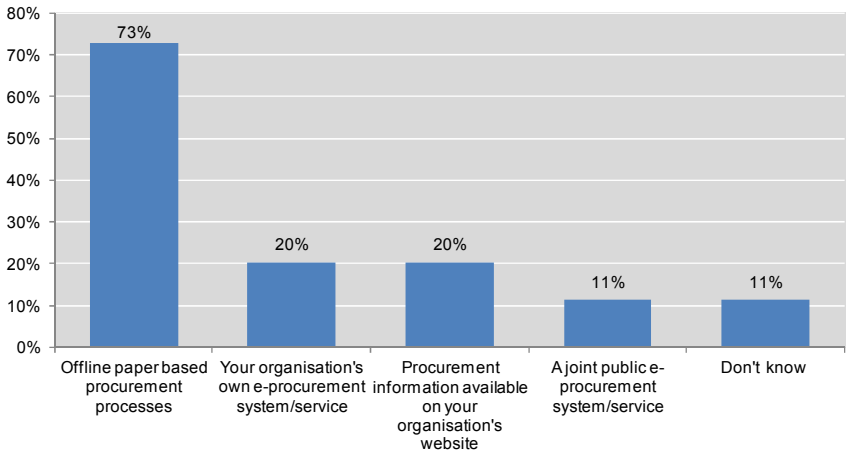
The principal objective of the NPS is to achieve value for money in procurement of supplies and services. It takes a strategic approach through:

- The aggregation of purchases across government to reduce prices paid for goods and services;
- Providing procurement training and advice to the public sector, organising networks of procurement professionals and assisting, where possible, with specialist procurement needs;
- Promoting of simplification and standardisation of the tendering process;
- Reducing the fragmentation of procurement in the Irish public sector;
- Managing the national public procurement website (*www.etenders.gov.ie*) and developing appropriate and cost-effective e-Procurement measures;
- Incorporating whole-of-government policies, as appropriate, into public procurement (*e.g.*, SME participation, green procurement, innovation).

On the basis of market analysis, the NPS has identified the top 50 categories of procurement expenditure that can be targeted for intervention. These can involve demand aggregation to leverage public sector buying power, nominating supporting lead procurement organisations for particular categories (such as pharmaceuticals, catering, security) and facilitating collaboration by public purchasers.

Source: www.procurement.ie.

Figure 5.4. **Use of procurement solutions**



Note: Multiple answers were possible for this question. The figure indicates what procurement solutions are used; it does not indicate the level of relative expenditures on each procurement solution.

Source: OECD E-Government Survey of Egypt 2011.

In 2007, the MSAD and the Ministry of Finance established a government procurement portal, *www.etenders.gov.eg*, run by the General Authority for Government Services (MSAD, 2010d). A second stage for the development of the government procurement portal was launched in 2009, enabling the portal to provide the following services:

- publishing requests for proposals;
- submitting proposals;
- publishing evaluation results;
- announcing contract awards;
- notifying bidders with the evaluation results via e-mail;
- allowing for complaints to be filed regarding the technical evaluation (MSAD, 2010d).

The current e-procurement system does not seem to be used to support: the provision of information on the preparation of bids, detailed evaluation criteria, handling e files, or information on future tenders (OECD, 2011d). Procurement spending does not seem to be tracked centrally; this might be helpful in terms of gathering a clearer view of overall public procurement expenditures, prices, and suppliers through a joint database (OECD, 2007c;

OECD, 2011d). The impact of the e-procurement system on achieving a higher level of transparency and integrity is not clear.

As of January 2010, Law No. 33 of 2010 established the requirement for all government entities to publish requests for proposals on the government procurement portal in addition to publishing them offline (as provided for by the Law No. 89 of 1998 on the organisation of tenders and bids) (MSAD, 2010d).[8]

At the end of 2010, the MSAD reported that 89 government entities had published 430 tenders, and 391 bidders used the procurement platform. By July 2012, these numbers had increased to more than 5 500 tenders published, and more than 1 100 suppliers registered. Currently, about 300 tenders are published each month (MSAD, 2010d). Hence, the Egyptian government procurement portal has so far been used by slightly more than 50% of central government institutions (MSAD, 2011a).

Implementation of e-government projects often require time to ensure the proper transition from paper-based processes to online platforms. Although the transitional period for the e-procurement portal expired in 2010, and even if the enabling law for e-procurement is in place, the law is far from being fully enforced. This weakens the benefits that using e-procurement portal offer. In order to address the limited uptake of the e-procurement platform, in 2011 the General Authority for Government Services – in co-operation with the MSAD – engaged in a training programme and established a working group within the Authority to conduct e-procurement training for interested government agencies.[9]

OECD countries have different experiences in ensuring e-procurement use and compliance with policies. Additional efforts to ensure use of the e-procurement portal could include providing incentives or even sanctions in some cases of non-compliance.

Currently, only about 15% of Egyptian government authorities have indicated that they have an e-procurement strategy (Annex A); the overall public sector e-procurement framework has not been translated into an operational national strategy for e-procurement. Such a strategy would help to develop the functionalities of the platforms according to the objectives to be achieved, such as transparency, efficiency and value for money. The percentage of government authorities that have an e-procurement strategy corresponds to the percentage of government authorities that use digital solutions for procurement, as indicated in the figures above. This can underline the importance of establishing and implementing e-procurement strategies as a tool to encourage use of the e-procurement portal.

Outsourcing and public private partnerships

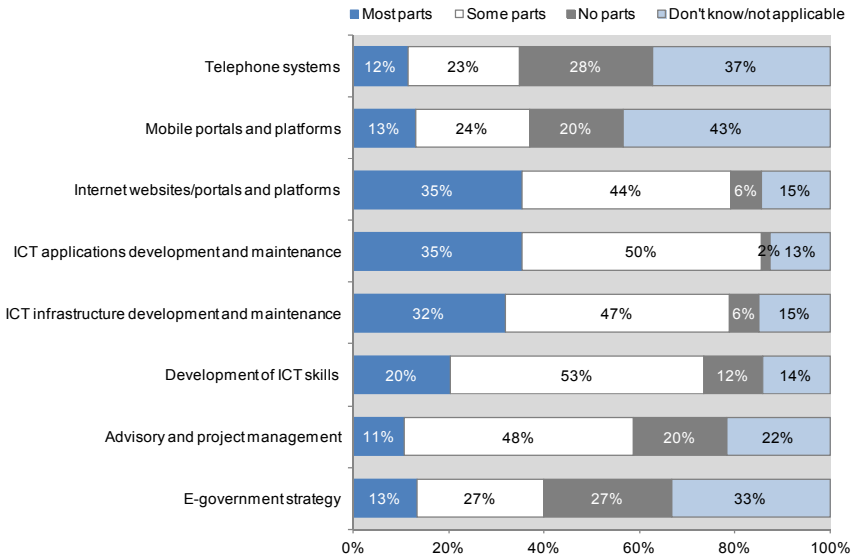
Outsourcing and public private partnerships (PPPs) can support a more effective and efficient public administration. PPPs are particularly useful when government services could be provided at a lower cost through a transfer of risk to private parties in order to increase value for money (OECD, 2008c). Draft principles for PPPs were endorsed by the OECD Public Governance committee in 2011 (OECD, 2012b). Regulatory frameworks for outsourcing and PPPs are crucial to ensure successful policies, identify options and target priorities. Tools such as the MENA-OECD Regional Charter for Regulatory Quality have been adopted by MENA countries, providing a common framework of principles and good practice for overall regulatory management (OECD, 1995; OECD, 2008c).[10]

Outsourcing can be an option when stable and mature markets exist and can provide some services more effectively and efficiently than the government. Outsourcing is often subject to strategic and political decisions on how to best organise public service delivery (OECD, 2010d). Furthermore, outsourcing and the use of external competencies can help increase implementation capacity in ICT projects if there is a lack of particular e-government skills in the public administration. Rather than performing the tasks through government organisations, defined tasks can be conducted by external suppliers of services.

PPPs have been widely promoted in Egypt to support the achievement of the information society policies established by the MCIT (MCIT, 2004; MCIT, 2007). One example is the establishment of Telecenters, which are licensed private organisations providing ICT-based public services for businesses and citizens to facilitate their interaction with government. A clear overview of PPPs for traditional infrastructure projects exists, but the picture is not clear in terms of PPPs for e-government; more data and guidelines might be instrumental to ensure consistent and efficient use of PPPs.

According to a number of government officials, the Egyptian government uses to ensure the highest level of competencies dedicated to agencies' missions, among other reasons. Both outsourcing and the use of PPPs are also considered a way to support growth in the ICT industry (MCIT, 2007).

Figure 5.5. **E-government areas where outsourcing is applied**



Source: OECD E-Government Survey of Egypt 2011.

Some e-government services and service delivery are outsourced in Egypt (for example, sourcing of Internet-based solutions like e-ticketing, and infrastructure components, such as some parts of the server infrastructure). However, there are no formalised criteria for when to consider outsourcing of these functions across the Egyptian government. In OECD countries, the development of a sourcing strategy defining key competencies and responsibilities inside the government, as well as how to address the processes of outsourcing, is considered a good practice. Only a minority (17%) of government institutions in Egypt indicate that they have a sourcing strategy.

Box 5.4. Outsourcing and procurement of ICT goods and services in the United Kingdom

The United Kingdom has recently launched a new Government ICT Strategy which addresses how to improve the way government sources ICT. The strategy states that:

"Government sourcing of ICT has often failed to deliver economies of scale and the most cost-effective use of taxpayers' money. The government will therefore aim to become a single and effective ICT customer which will leverage its considerable buying power to drive down the operating cost of its ICT."

Hence, the UK government is seeking to leverage buying power by identifying and pooling the purchasing of commodity items, like desktops and network links. As this could typically lead to only the largest suppliers picking up contracts, a need to balance the procurement strategy and encourage small and medium-sized enterprises (SMEs) is recognised. The UK government thus initiated the publishing of procurement pipelines, a presumption against large projects focusing on agility, emphasizing the compulsory use of open standards, further making it easier for them to do business with the UK government through a 'Cloudstore' framework contract. The government has also announced it will remove barriers to "allow SMEs, the voluntary and community sector and social enterprise organisations to participate in the government ICT marketplace."

The over-riding message from the UK approach is the need to take a balanced view of the extent of outsourcing and of the number and type of suppliers being used.

Source: The Cabinet Office (2011), *Government ICT Strategy,* Cabinet Office, Whitehall, London.

Awareness and marketing

Marketing e-government services is important to increase visibility and awareness of their existence among potential users, and to underline the benefits of using them. These are preconditions to ensure that citizens are aware that e-government services exist, and to foster the desired uptake of these services. Marketing and awareness-raising initiatives have often been underplayed in OECD countries' national e-government strategies (OECD, 2008a). However, attention to such initiatives is increasing and resources are gradually being set aside to improve them (OECD, 2009a).

Egypt fully recognises the importance of raising awareness, and of marketing e-government services. Government officials have indicated the low awareness of the availability of e-government services in Egypt as the

most important constraint for increasing the uptake of online services (the uptake issue is further elaborated in Chapter 7).

Box 5.5. **Creating a suppliers database: The Moroccan experience**

Morocco has established a suppliers database in order to simplify public procurement procedures. Suppliers registered in the database will have to submit their administrative documents only once (except for provisional bonds).

Once suppliers are subscribed to the database, the General Treasury of the Kingdom verifies their documentation and guarantees the authenticity of the information. The database regularly provides an updated list of potential suppliers to public institutions.

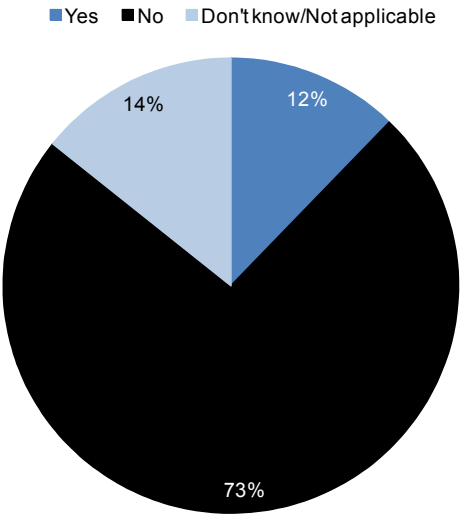
This measure is part of a larger initiative to promote the use of e-procurement in Morocco, launched by the General Treasury of the Kingdom in January 2007 (*www.marchespublics.gov.ma*). To achieve full digitalisation of procurement, Morocco has implemented these measures gradually (from January 2007 to first quarter of 2010) in order to launch different functionality of an electronic platform for public procurement:

- Step 1: Establishment of a database on public procurement to guarantee the online publication of public tenders and to monitor public spending
- Step 2: Establishment of a digital platform and suppliers database to promote e-submission of proposals (early 2010)
- Step 3: Establishment of a virtual marketplace (mid 2010).

Source: Moroccan portal of public procurement, *www.marchespublics.gov.ma.(*accessed September 2012)

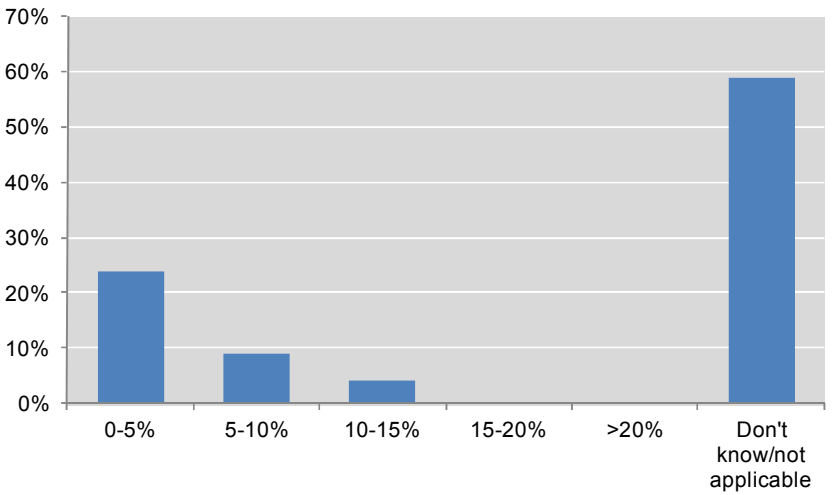
Some e-government marketing initiatives exist, for example TV and radio spots. TV programmes were used to announce the launch of the elections management system. Despite good examples, interviews as well as the available documentation do not suggest that awareness raising or marketing of e-government services are conducted in a systematic manner in Egypt. A large majority of OECD survey respondents stated that their organisation does not have a formal e-government marketing strategy (Figure 5.6). Moreover, very few organisations allocate parts of their e-government budget to e-government marketing, and most survey respondents do not seem aware of the marketing efforts conducted in this area (Figure 5.7). Both figures demonstrate the absence of systematic efforts to raise awareness through e-government communication and marketing. Overall, marketing and awareness-raising initiatives seem to be conducted in an *ad hoc* manner, which might indicate an unrealised potential of existing marketing channels.

Figure 5.6. **Availability of a formal e-government marketing strategy**



Source: OECD E-Government Survey of Egypt 2011.

Figure 5.7. **E-government marketing budget**



Source: OECD E-Government Survey of Egypt 2011.

A good practice for channel management in OECD countries is to use existing offline service delivery channels as levers to promote online channels (OECD, 2005c). This requires that public servants dealing with offline services inform citizens of the availability of the online services.

Building on the increasing use of social media by a segment of the population – especially youth – could also help increase their awareness of online services. Egypt has recently launched several initiatives in this regard, using social media platforms such as Facebook and YouTube to communicate with citizens about available services.[11]

OECD interviews with government officials pointed to an e-government "branding" problem. Though *ad hoc* marketing and communication initiatives exist, an overall strategy is currently absent; such an effort might improve the e-government "brand" and awareness.

Box 5.6. **Bahrain's awareness and marketing initiatives**

Bahrain's E-Government Authority has developed a marketing and awareness strategy for the Bahraini e-government programme which includes the following key objectives: creating awareness about the programme; reducing resistance to change; improving customer satisfaction and increasing take up of service through new delivery channels. To achieve these objectives, the E-Government Authority conducts the following types of marketing:

- Above the line (ATL): using mass media such as radio and TV programmes;
- Below the line (BTL): conducting large campaigns such as road shows, exhibitions, banners and advertisements through print media;
- Direct marketing: directly communicating about the programme with people by, for example, setting up stalls in major shopping malls.

Bahrain has also sought to market its portal to the widest possible audience. For example, the Bahraini E-Government Authority organised a marketing campaign in the FIFA qualifying tournaments. The website address (*www.bahrain.bh*) was spelled out on the football field in front of over 40 000 spectators. With the tournament being televised, over 1 million viewers in Bahrain and Gulf countries were reached. Based on feedback from the 2008 customer survey, the e-government authority has also established stalls in shopping malls which attracted over 35 000 people. The latter initiative increased the number of visitors to the portal by 100%.

The Bahrain E-Government Authority has also ensured that all e-government programmes are branded under a common logo, theme and language to ensure that e-government initiatives are quickly identified as such.

Source: Bahrain e-government authority (2009), *Bahrain eGovernment Programme Looking Beyond the Obvious*.

Box 5.7. **Korea: Awareness raising: A priority in the national e-government plan**

The Korean government's most recent four-year national e-government plan (2008-2012) included a strong focus on increasing user take-up of e-government services. The plan took a phased approach to increase the usage rate of e-government services.

- Phase I (2008) focused on increasing the public awareness of e-government services (with the aim of reaching 86% of user awareness) and establishing a legislative framework for promoting e-government services. All Korean e-government services are to be branded by a "Korea e-Government" brand as a means to raise public awareness and strengthen advertisement efforts through co-operation with private Internet portals.
- Phase II (2009) focused on customising e-government services to meet user needs; the provision of "My-egov" services and the identification of administrative services that could be useful to the public as e-government services;
- Phase III (2010) focused on creating a quality management system in order to increase user satisfaction levels; and applying professional service quality assessments of e-government services.
- Phase IV (2011) focused on reaching the targeted rates for public awareness (90%), user take-up (60%), and service satisfaction (80%).

Source: Korea (2007), Master Plan for the Next generation of e-government in Korea*, www.mopas.go.kr/* (accessed October 2012).

Box 5.8. **United Kingdom: Improving the use of digital channels**

The UK government has identified that a significant barrier to the take up of digital services is the variety of uncoordinated and sometimes poorly designed web services offered by government. This is being addressed by:

- Recruiting an Executive Director of Digital in the Cabinet Office to bring together existing teams working in this area;
- Simplifying the governance of the cross-departmental Directgov delivery channel and ensuring that it has sufficient authority to act as the "customer champion with teeth" to improve the user experience of digital public services;
- Producing a clear timetable for migrating all transactional government services to Directgov;
- Working with departments on a timetable for opening up Application Programme Interfaces (APIs) as part of finalising the departmental spending settlement process. This work is sponsored by the Minister for the Cabinet Office.

Source: Based on unpublished communication with the UK government.

Box 5.9. Marketing e-government in the United States

In the United States, the Office of Management and Budget (OMB) aimed to boost citizens' awareness of federal e-government services through a marketing and outreach strategy focused on about 10 of the 25 "Quicksilver" projects. Marketing included conducting targeted outreach to particular customer segments, developing innovative ideas on how to increase usage, and applying methods that provide greater synergy among e-government offerings. The OMB gave each agency project office resources to reach out to citizens.

Source: OECD (2005), *E-Government for Better Government*, OECD Publishing, Paris.

Monitoring and evaluation

Monitoring and evaluation of the e-government policy cycle are important activities, which can identify strengths and weaknesses of implementation and help ensure that e-government objectives are being met. The process of building standardised procedures, measures and indicators for the monitoring and evaluation of e-government projects also serves to clarify e-government objectives and makes goals more realistic (OECD, 2003a). Monitoring and evaluation can also help ensure more transparent and accountable e-government and favour collaboration across levels of government.

Evaluation of e-government policies, programmes and projects can be done internally, as well as by external stakeholders (OECD, 2009). Evaluations allow for an in-depth understanding of policies and programmes in order to assess achievements and improve future efforts (OECD, 2006).

The importance of monitoring is widely recognised across OECD countries. Many OECD countries have established key indicators on input data and some output data, while many others are still struggling with the development of relevant measurable indicators (OECD, 2011c). Indicators on e-government outcomes and impact on sectoral policies are rare, given the difficulty of measuring such impact.

Policies for monitoring and evaluation

Egypt has recognised the importance of monitoring and evaluating e-government implementation, as demonstrated by the number of indicators and evaluations. Clear targets for e-government monitoring and evaluation have proven to be instrumental for better decision making and the development of better e-government policies, and to achieve desired outputs and outcomes (OECD 2003a). OECD countries have different experiences

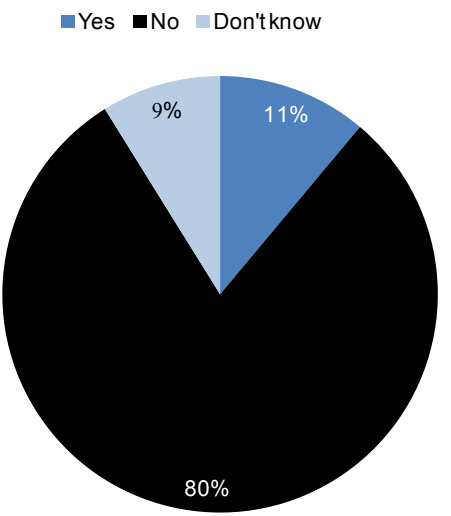
in this regard. For example, the United Kingdom had previously established a so-called "Delivery Unit" to ensure follow up on the delivery of specific targets behind all key political commitments (Barber, 2011).

The respondents to the OECD e-government survey indicate that the most widely used indicators to assess the development, implementation and impact of e-government projects are output indicators, followed by process and outcome indicators. Input indicators seem to be the least used feature (Annex A).

Despite some successful efforts, e-government monitoring and evaluation in general seems to be conducted in an *ad hoc* manner in particular parts of the Egyptian public administration. Only 11% of respondents stated that their organisation has an established model for how to monitor and evaluate e-government (Figure 5.8). This might be an indication of low attention to the evaluation and monitoring e-government progress among top management.

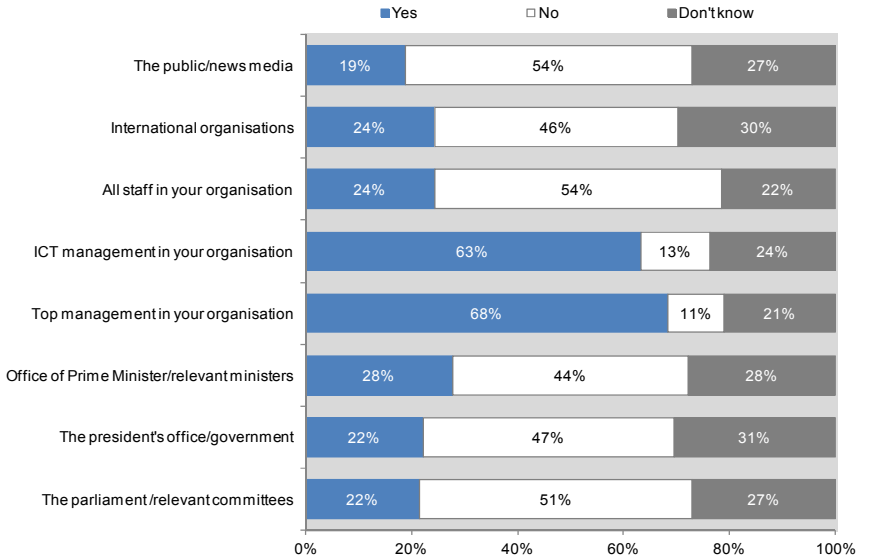
Monitoring and evaluation results are typically shared internally with the officials responsible for ICT and the top management in the organisation (Figure 5.9). A majority of survey respondents indicated that monitoring and evaluation results not are made available to the organisation's staff. Disseminating such information might help improve transparency and accountability within the organisation, as well as clarifying targets and motivating staff.

Figure 5.8. **Established models for monitoring and evaluation**



Source: OECD E-Government Survey of Egypt 2011.

Figure 5.9. **Public availability of monitoring and evaluations**



Source: OECD E-Government Survey of Egypt 2011.

About half of respondents to the OECD survey do not share the results of their monitoring and evaluation with the public. Openness on the results of e-government development and implementation might help increase accountability and enhance citizen trust in the government, as well as raise awareness of the availability of online services.

In addition, a significant number of respondents do not share evaluation results or indicators with the President's Office, the Prime Minister's Office, other relevant ministries or the Parliament; this might contribute to a limited political awareness of the progress on e-government. A higher political awareness and level of information sharing might be a lever for stronger leadership and a driver to improve e-government co-ordination and collaboration across and within levels of government. This could improve accountability, as well as the planning and management of e-government performance, both at the organisational and at nation-wide levels. A higher political awareness might also help ensure political attention to the implementation of final e-government services.

Box. 5.10. **Dubai e-government monitoring and evaluation mechanisms**

Measurements and evaluations play a strategic role in the management of the Dubai e-government initiative. The Dubai E-Government Department uses these tools to align e-government initiatives, mobilise change in e-government and benchmark against international progress.

The Dubai E-Government Department has implemented a centralised "e-service strategic progress monitoring system". Measurements are conducted periodically (monthly, quarterly or annually) depending on the indicator at the initiative, agency and project levels. The project-level measurement is decentralised across various government departments, while the Dubai E-Government Department measures the projects for which it is responsible.

Two main dimensions are taken into account for evaluation: operations efficiency and customer focus. The operations efficiency is measured by looking at synergies through common services and administrative simplification.

Customer focus is measured by looking at a number of criteria including the quality of e-services. The Dubai E-Government Department evaluates the quality of e-services according to two dimensions:

- Website quality evaluation: with over 30 evaluation criteria identified including content, usability, common look and feel, etc.
- E-Services quality evaluation: with over 40 evaluation criteria identified covering three types of e-services: informative, interactive and transactional services.

Source: Dubai School of Government, OECD (2007), *Measuring and Evaluating E-Government in Arab Countries,* and Power Point Presentation of Dubai e-government (2006), "Measurement and Evaluation in Dubai eGovernment".

Monitoring e-government

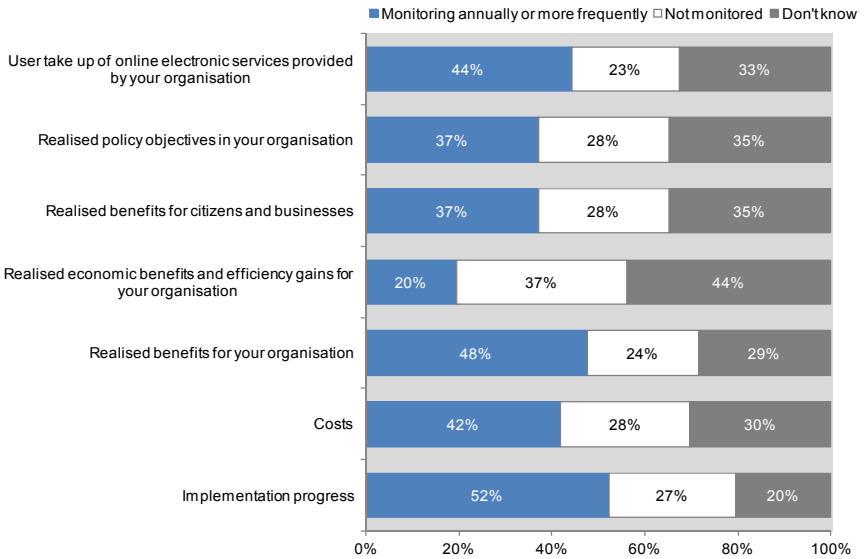
Egypt measures progress in the development of the information society by regularly monitoring key indicators (monthly and quarterly). Information society indicators are published by the MCIT, including mobile and Internet subscriptions and penetration, number of fixed line users, number of ICT companies or number of people employed in the ICT sector (MCIT, 2009b). Data on the monitoring of e-government in Egypt exist, even though they do not seem comprehensive. Some e-government indicators are also published by the MCIT, such as access to and use of the Internet within the administration, the number of PCs in the public administration and the existence of government web pages. The focus of the indicators mainly relate to ICT infrastructure.

The MSAD monitors e-government development and implementation more specifically, such as the use of the informational and transactional services provided on the Government Services Portal (Bawaba). The MSAD also monitors the use of the procurement portal (MSAD, 2011f). However, the monitoring of other areas and services, such as the overall number of online services available across ministries and their use, has not been observed. Inadequate monitoring might weaken the basis for ongoing prioritisation and follow-up on e-government activities. Some OECD countries are measuring the use of their e-government services relative to the overall number of transactions of the concerned services, such as Spain (Spanish government, 2010). Without concrete data to back up the e-government policies and strategies, the political attention also risks diminishing.

The IDSC has developed some indicators on citizen and enterprise uptake of e-government services, and conducts annual citizen opinion polls on e-government service usage and satisfaction by gender, age, education, salary and urban/rural divide (IDSC, 2011, 2010). Further to these polls, the *ad hoc* use of more targeted web polls also seems to be common on the different government websites, as well as on the government portal (See Chapter 7 for more information). A further use and strategic integration of such indicators might be instrumental to learn from the good practices and create a better view on how best to address key e-government challenges.

Looking into the practices of central institutions and of selected governorates, e-government implementation seems to be monitored at least annually. The realised benefits of e-government and the user take-up of services are monitored to some extent. Economic benefits do not seem to be subject to widespread monitoring; this seems in line with the limited efficiency gains observed from using ICTs (Figure 5.10).

Figure 5.10. **Use of e-government monitoring**



Source: OECD E-Government Survey of Egypt 2011.

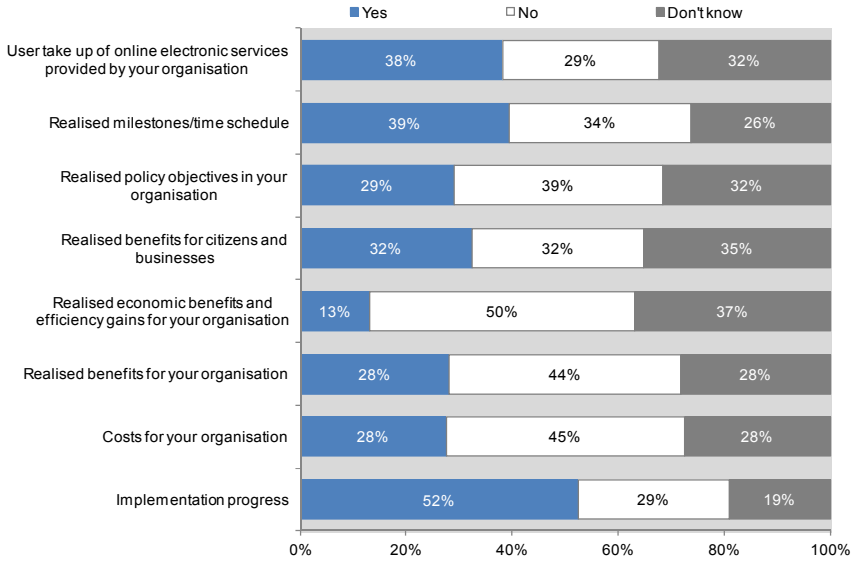
Evaluating e-government

As in the case of monitoring, information on e-government evaluation practices in Egypt do not seem to be comprehensive. This hampers Egypt's capacity to improve e-government development and implementation based on lessons learned.

MSAD produces annual reports assessing the progress of past and ongoing projects (MSAD, 2010d), typically covering the overall progress of a selected number of projects. The annual report includes a written description of projects and services that were established with a limited use of indicators. As such, it does not provide a very in-depth evaluation. More systematic and deeper evaluations and project reviews are, however, mentioned in the work plan for administrative reform. Furthermore, they are conducted when e-government projects are financed by external donors. However, the latter seems to primarily reflect donor requirements and only secondarily the strategic use of evaluations as a tool for improving e-government projects.

Although evaluation is conducted mostly on overall e-government implementation progress, realised milestones and user take-up of online electronic services also seem important evaluation features (Figure 5.11).

Figure 5.11. **Use of e-government evaluation**



Source: OECD E-Government Survey of Egypt 2011.

The MSAD work plan for administrative reform sets out some e-government objectives and states the importance of conducting monitoring and evaluation exercises.

Key messages

- Recruitment and retention of skilled employees seems to be a challenge within the public administration in Egypt. The MSAD has launched a number of projects to improve the skills of public servants – these must be implemented on a large scale to ensure a high impact of.
- As the government use of ICTs matures, Egypt's need for skilled ICT project management increases. Egypt has initiated several programs to increase the ICT skills and ICT project management skills of its staff, such as trainings provided by the NMI. ICT skills are needed at all levels within the government administration. However, no single approach to ICT project management has been established nationally, as project management seems mainly to be considered as an internal matter within each ministries. This might further challenge cross-government co-ordination and collaboration and set even higher requirements for local maturity in terms of managing ICT projects.
- Procurement processes are managed by the responsible ministries. Some joint ICT procurement agreements are made across government by the MCIT or MSAD; however, an overall policy for ICT procurement has not been observed. The procurement processes are partly supported by the national e-procurement portal. However, the e-procurement portal only covers a part of the procurement process and the full uptake across ministries and agencies remains a challenge. Outsourcing and public-private partnerships are also used as service delivery models to increase the government's implementation capacity and support ICT industry growth.
- Efforts to increase awareness of e-government services and market them are put in place to promote e-government by the public administration. Government portals, websites and social media platforms are being used to communicate with the younger generations and skilled Internet users. However, these efforts do not appear to reflect a co-ordinated strategy that could encourage more systematic, effective and targeted awareness-raising and marketing initiatives, which could in turn considerably improve the uptake of online services.
- Egypt has established national ICT indicators on a number of areas, covering mainly e-government service supply, infrastructure and ICT penetration rates (for example, access to and use of the Internet, mobile phones, and PCs), but a number of uptake measures also exist. The use of joint national services and platforms, such as the government portal, is also monitored. Evaluations vary according to the projects and seem to be mainly circulated internally within government organisations, as opposed to being communicated to the political leadership. No indicators seem to provide sound evidence on progress in service delivery.

Notes

1. OECD Survey Question 4.6
2. 213 000 employees. This figure corresponds to the number of employees in December 2011. It includes employees of Egypt Post, Telecom Egypt, ICT sector companies (and Maadi contact Center Park added starting in October 2010), but does not include indirect ICT sector employees working in IT clubs, Internet cafes and private communication stores (MCIT Indicators Brief, January 2012).
3. Information Technology Institute in Egypt, available online at: *www.iti.gov.eg/itisystems/ITI%20Management%20System/siteiti/index.aspx*.
4. See *prince2.com* for further information on the model.
5. See *www.etenders.gov.eg* for a more comprehensive summary of the current regulation.
6. See, for example, OECD (2009d); or the more specific toolbox available at *www.oecd.org/governance/procurement/toolbox*.
7. See particularly OECD (2009d). This publication shows that successful implementation of an e-procurement system will need to be embedded in a long-term procurement strategy. In terms of practical implementation, it points to the need to ensure strong political commitment; gradual implementation; mandatory use of electronic means for specific procedures; low tariffs; SME-user friendliness; massive advertising campaigns; and constant training.
8. With the exceptions of the Ministry of Defense and Military Production, the Ministry of State for Military Production and the National Security Authority. For more detailed information see Decision of the Prime Minister No. 33 of 2010 on electronic publishing of government tenders and bids in government entities / قرار رئيس مجلس الوزراء رقم 33 لسنة 2010 بشأن النشر الإلكتروني عن المناقصات والزايدات الحكومية في الجهات المختلفة.
9. منشور عام رقم 21 لسنة 2011 بشأن النشر الإلكتروني لصورة كلماة و مطابقة من كراسات والمواصفات الخاصة بالمناقصات والمزايدات والممارسات العامة والمحدودة والمحلية الشروط

على موقع بوابة المشتريات الحكومية Published No. 21 of 2011 on electronic publishing […] and specifications of tenders, bids, general and limited local practices on the government procurement portal.

10. The MENA-OECD Regional Charter for Regulatory Quality was adopted by MENA countries in the MENA-OECD Ministerial Conference held in Marrakesh, Morocco on 23 November 2009; for more information, see *http://oecdshare.oecd.org/gov/sites/govshare/reg/MENA/SpecialSession/Shared%20Documents/Charter%20ENG%20relook.pdf*.

11. See, for example, YouTube.com/user/EgyptGovPortal or short videos aired online about the elections including how to file for candidacy, the new electoral system, how to choose your candidates, the elections campaign, the importance of voting and the voting process for Egyptians abroad (*www.elections2011.eg/index.php/about-committee/awareness-campaigns*).

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Chapter 6

E-government service delivery architecture

Establishing a user-oriented architecture for service delivery helps frame a whole-of-government approach to e-government. This chapter analyses the main elements of the Egyptian service delivery architecture.

The Egyptian government has established a multiple-channel strategy for service delivery, and has also adopted the use of some joint components across the government. Some projects on information exchange and re-use of data across the government have been initiated. These efforts to support e-government service delivery across the government are presented and analysed.

This chapter describes how service delivery is designed and how it is organised and implemented, with special attention to the joint processes and services that are used across government to ensure co-operation and collaboration.

The analysis is approached by first defining and looking at the overall government service delivery architecture. This is followed by assessments of the composition and prioritisation of service delivery channels, the joint infrastructure components across the public administration that enable integrated e-government service delivery, and the processes for sharing data and information that enable better service delivery through interoperability.

Service delivery architecture

Providing government services through new platforms (*i.e.*, using online or mobile channels for service delivery) provides incentives for government entities to co-ordinate and collaborate, embrace a whole-of-government perspective and re-think their services according to users' needs (OECD, 2005; OECD, 2009a). This whole-of-government perspective goes beyond the public administration, and includes, for example, relations with private suppliers of ICTs and ICT services. In parallel with their work on business architecture in the private sector – and in order to ensure coherence and consistency, and improve the quality of service delivery – OECD countries have been working on establishing comprehensive "government service delivery architectures" (OECD, 2007; 2008; 2010).[1]

A "government service delivery architecture" encompasses public administration processes, services and service delivery channels. In principle, this covers both online and offline service delivery. The development and implementation of a cohesive framework of references and standards is a key enabler for a coherent vision and results on e-government. An architecture for service delivery serves multiple purposes. Some key benefits related to e-government include (OECD, 2005c):

- coherence in service delivery, avoiding duplication and encouraging the re-use of solutions;
- improving interoperability to enable sharing of information, solutions and services;
- improving the focus of the government's core activities, specifying the administrative processes and service delivery; and
- consolidation of government capacities, for example by resources and purchasing power, or standardising processes across the administration.

Like most OECD countries, Egypt has recognised the value of establishing a service delivery architecture.[2] The Egyptian Government Enterprise Architecture Framework (EGEAF) was developed in 2006 by the MSAD, and seems to serve as a vision paper (MSAD, 2006). The document outlines an important conceptual framework and aims to support collaboration, learning capacity and agility within the Egyptian public sector. It also seeks to support the streamlining of the administration through the optimisation of administrative processes.[3] However, the EGEAF does not seem to be comprehensive, nor directly reflected in the MSAD work plan on administrative development, although some key elements of service architecture thinking seem to be reflected in the development of joint services (*e.g.* the digital signature, e-payment solutions or procurement), and the sharing of information and data (the national databases program) as elaborated below.[4]

Common business processes

A key concept in government service delivery architecture is the identification of common business processes in the "front office" as well as the "back office".[5] Such processes can be identified horizontally across government, as well as in specific sector policies.

In OECD countries, common business processes administrative back-office functions have been identified (Figure 6.1). Experience indicates that it is easier to start identifying common business processes in the secondary processes (*i.e.*, support processes, such as payroll administration), rather than within the government administration's core activities (*i.e.*, the primary processes) (OECD, 2005). Efforts to determine common business processes in the core activities of the administration have been observed in Denmark, such as consolidation of some file-handling functions in the municipalities; and in France through broader regional service collaborations on public sector employment, following the recent reforms (OECD, 2010e; OECD, 2012f).

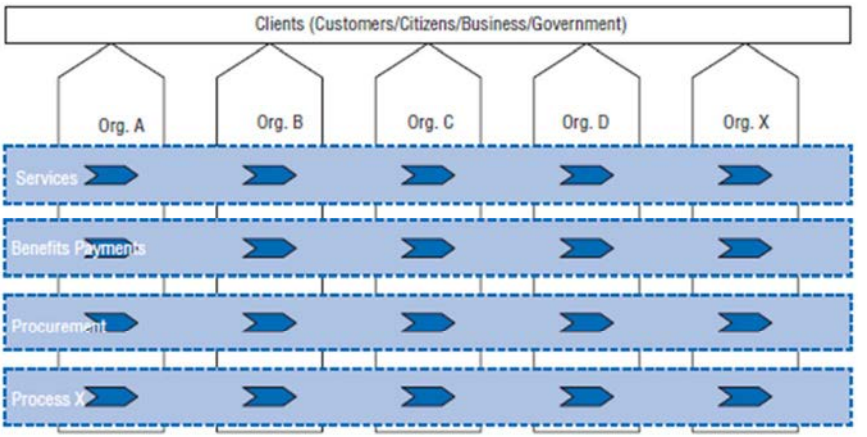
Figure 6.1 presents a horizontal view of government service delivery processes, indentifying the potential for common business processes.

The Egyptian joint government jobs portal (*www.jobs.gov.eg*) establishes a basis to standardise parts of the recruitment process for public servants across the government; it has thus far been used particularly to increase transparency in the recruitment process.

The government procurement portal (*www.etenders.gov.eg*) also highlights a joint business process of strategic importance, as it might also be used to contribute to the standardisation and alignment of the

government's ICT infrastructure through co-ordinated purchasing (for more information on these examples, see Chapter 5).

Figure 6.1. **Common business processes**



Source: OECD (2005), *e-Government for Better Government*, OECD Publishing, Paris.

Common business processes supported by joint components

Egypt has started identifying common business processes to establish joint infrastructure components to facilitate and improve public service delivery.[6] The list below presents some examples of Egyptian joint infrastructure components:

- The digital signature is a key joint infrastructure component, which has enabled the delivery of secure and reliable solutions since 2010.
- The Egyptian Government Portal Bawaba is a key joint government service delivery channel (as discussed further below).
- Online payments solutions exist (for example, for train tickets or phone and electricity bills), but are not widely used. More widespread are the "cash on delivery" (COD) models. Since the credit card use and penetration rate is very low in Egypt, additional payment solutions are also being developed, such as mobile solutions, pre-paid payment cards and bank account transfers.
- Joint supply of infrastructure services, such as server hosting operated by the MCIT, the MSAD or joint outsourcing agreements to private service providers.

A common feature of these infrastructure components appears to be that their successful development was driven by the critical leadership of key ministries. However, full deployment seems to rely on the co-operating ministries and agencies, reflecting weak formal horizontal governance mechanisms, as analysed in Chapter 4.

Box 6.1. **A common response to a joint process: The Dutch CERT**

GOVCERT.NL is the Dutch government's Computer Emergency Response Team (CERT). It provides advice to all Dutch government institutions on preventing ICT security risks (*e.g.*, computer viruses, software vulnerabilities) and actively contributes to solving ICT security incidents 24 hours per day, 7 days per week. GOVCERT.NL also offers tactical/strategic recommendations on ICT security matters for e-government and on security and infrastructure matters for the GBO.OVERHEID, the Dutch government-wide shared services organisation.

GOVCERT.NL was initiated by the Ministry of the Interior and Kingdom Relations and brought into operation on 5 June 2002. It works independently of suppliers as a government entity. All government organisations can use GOVCERT.NL. Its main tasks are to:

- Centrally co-ordinate emergency responses to ICT security incidents, such as computer viruses, hacking and vulnerabilities in applications and hardware;
- Provide the right information to appropriate parties at the right moment;
- Support and assist government officials in preventing ICT security incidents and, if necessary, responding appropriately.

Source: OECD (2007), *OECD E-Government Studies: Netherlands,* OECD Publishing, Paris.

Service delivery channels

MSAD works in partnership with different service providers and ICT firms to deploy some of the more frequently used services on multiple service delivery channels (Internet, landline phones, mobile phones and service provider kiosks). Overall, Egypt has established the following channels for service delivery, as demonstrated in Figure 6.2.

Box 6.2. **The Tunisian E-Dinar**

Launched in 2000 by the Tunisian Post as part of the government's e-tijara program aimed at encouraging e-commerce in Tunisia,, the E-Dinar aims to facilitate secure online transactions and consists of a virtual account operated by a rechargeable card Tunisians can buy from post offices.

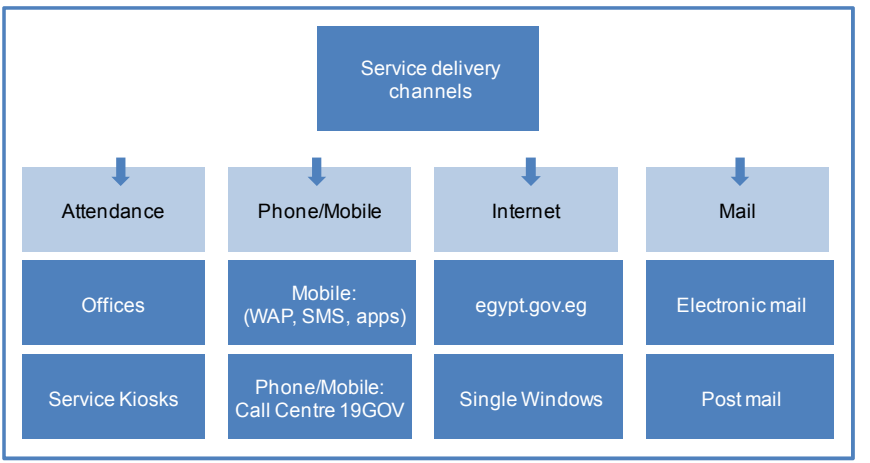
The card allows users to pay for goods and services online (such as payment of water or electricity bills or university registration fees). It also allows users to withdraw money from any ATM machine or post or pay for goods in shops that are equipped with Electronic Payment Terminals.

The E-Dinar online account can be supplied through different means: in cash via post offices; online via credit card transfers or by buying a prepaid rechargeable card. To ensure security, each E-Dinar card includes a number and a pass code contained in a sealed envelope. The E-Dinar website allows users to handle their accounts: activate their cards, recharge them, transfer payments, consult their balances as well as freeze and unfreeze the account.

In 2010, the number of E-Dinar holders reached 701 000; withdrawal and payment transactions reached 4.5 million and the number of affiliated businesses was 257.

Source: E-Dinar website: *www.e-dinar.poste.tn* (accessed January 2012) and the Tunisian National Certification Agency website: *www.certification.tn/index.php?id=139* (accessed January 2012) and Touzani, M. (2004), "Profiling Early Adopters of a Virtual Currency: the E-Diner Case", *The Internet Business Review*, Issue 1, October.

Figure 6.2. **Service delivery channels adopted by Egypt**



Note: The term Service Kiosks also covers other points of sale; the public Call Centre 19GOV is furthermore supplemented by a number of private call centres.

Source: MSAD (2012), "Government Service Delivery Program", MSAD, unpublished.

The call centres serve more than 40 government bodies, and received around 1.5 million calls in 2011. More than 25 million subscriptions to various SMS services were reached in 2012, covering government jobs, the elections, e-tender alerts. The single window is a way of presenting multiple government authorities' web pages. Service kiosks, telecentres, post offices and other physical locations provide services on behalf of citizens throughout the country. This enables a broad reach also to the non-digital citizens.

This multi-channel approach is similar to the one adopted by a number of OECD and MENA countries. Most OECD countries have introduced one-stop portals to improve citizens' and businesses' access to public services online. The Egyptian multi-channel service delivery strategy is being developed based on a citizen-centric approach, applying the use of personas to improve communication and user segmentation.[7] The goal is to better target citizens' individual needs. The Egyptian service delivery channels are covered to different extents in the MSAD work plan for administrative reform, although the plan does not include clear priorities between the different channels (MSAD, 2010c).

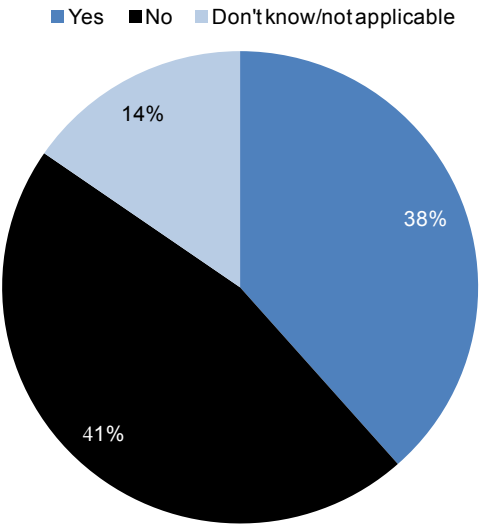
As in most OECD countries, ensuring effectiveness and a whole-of-government perspective on service delivery across ministries and agencies remains challenging in Egypt. This is also reflected in Figure 6.3, which shows that only some of the government entities surveyed have developed a strategy to sustain multi-channel service delivery. On one side, this might be due to a lack of clarity of Egyptian outreach strategies and, in particular, of its overall multi-channel approach. On the other side, it might also be related to a general uncertainty of how to manage and prioritise different service delivery channels. Although some authorities might rely on the national ambitions of the MSAD for a general presence on all channels, local considerations to adapt this approach to each of the authorities according to their service delivery responsibilities would be important. The public administration in Egypt faces important challenges in digitalising public services, as will be elaborated in Chapter 7, section on the uptake of online services.

The Egyptian Government Services Portal: Bawaba

The Egyptian Government Services Portal, Bawaba (*egypt.gov.eg*), was created in 2004 under the slogan "The government now delivers". It is the main e-government entry point for citizens to access information and public services online. The Bawaba has reached a relatively high level of maturity, and Egypt was ranked 42nd worldwide in terms of provision of online services in 2012 (UN, 2012). A third version of the portal was launched in October 2011, following the UNDESA suggestions provided for the portal

and leading to a position among the 18 most developed countries globally regarding e-participation (MSAD, 2011).

Figure 6.3. **Availability of a multi-channel service delivery strategy**



Source: OECD E-Government Survey of Egypt 2011.

A specific technical framework was established for the Bawaba portal service development, allowing different public service providers to develop new online services within a joint development and collaboration framework instead of developing their own separate solutions (MSAD, 2011).

Although a considerable number of services are online, only a minority of them are actually developed within the technical service development framework of the portal. In most cases, the portal provides links that direct users to the website of the authorities responsible for providing the service. The limited use of the development framework for the portal might reflect a low level of overall co-ordination, or a lack of a common strategy or sufficient skills within the government entities that provide services. Another factor could be that using the portal's development framework might increase time and resources spent for co-ordination in the short term. However, applying such a framework is crucial to achieve interoperability between services across the government, and can furthermore reduce the risk of developing redundant service components across the government as a whole, enabling important efficiency gains and savings over time.

Figure 6.4. **The Egyptian Government Services Portal: Bawaba**

Note: The content of the English version of the portal as illustrated above is not fully identical with the Arabic version.

Source: www.egypt.gov.eg/english/home.aspx.

The portal contains approximately 200 services with different levels of interactivity, and provides 700 forms. Most services are informational or respond to search queries or requests for information. Although the portal provides a high level of interactive social media features, fully transactional services still seem to be limited. For example, the service for establishing businesses online is transactional in terms of the handling of the application request, but still requires physical presence to make payments. Finally, some services are fully transactional online, such as ticketing services (*e.g.*, trains, flights), allowing completion of the entire process online.

Information sharing and data exchange

Common processes, joint components and integrated service can facilitate data flows across organisations, enabling seamless services for users and contributing to a more efficient administration.

Table 6.1. **Services provided on the Government Services Portal, Bawaba**

Elections Referendum; Parliamentary Elections; Presidential Elections
Tickets Egypt Air e-Ticketing Service; Train Ticket Reservation Service; Cairo Opera House e-Booking Service; Bus Reservation Service)
Information Government Entities Maps, Service associated with landmarks
Bills Electricity Services - Canal company for distribution of Electricity; Water Bill Enquiry Service; Telecom Egypt Phone Bills Services
Education Equivalence of a scientific degree/certificate; University Enrolment Service; University Hostels Applications
Scientific Research Services National awards Services
Environment Services **Environmental Services**
Courts Primary Courts Services; Cassation Courts Services; Appeal Courts Services; Legal Portal Services
Post Services Lost and Found Service
Civil State Organization Marriage Document Extract; National ID Extract; Birth Certificate Extract; Divorce Document Extract; Death Document Extract; Family Record Extract
Doctors Doctors Charging Service
Governorate Services Cairo, Fayoum, Giza, Ismailia and Monofiya Governorates E-Services
Traffic Services Traffic Inquiry Services; Vehicles Licenses Services
Business Services E-Procurement Services, Egyptian Organization for Standardization and Quality Services; Industrial Control Authority Services; Qualified Industrial Zone Services; Companies E-Establishment Service; Investment Dispute Settlement Committee; Mortgage Financing Fund Services; Egyptian Tax Authority Services; Customs Services; Customs Tariff Service
Citizens Relation Management CRM Services
Foreigners Services Egypt Memory website to increase awareness of the Egyptian Heritage; Digital Assets Repository providing free access to the Bibliotheca Alexandrina's digital collection; Tourism Complaints to Tourism and Antiquities Police

Source: MSAD (2010), *BAWABA Available Services,* unpublished working document.

Egypt has a history of using databases to support more informed policy making in several areas, *e.g.* family policies and subsidies. However, although many basic data and registers exist, interviews with government officials indicate that interoperability remains low and that national databases have not been used consistently across government levels. Egypt is currently increasing its efforts to further exploit existing data and facilitate exchanges among authorities through the national database program. In order for this programme to become successful, political, institutional and technical support to overcome the burdens of a silo-oriented administrative culture is required. This can ensure both the leadership and drive for the efficient service delivery across policy areas while addressing the technical problems of securing adequate data quality and facilitating integration.

Box 6.3. **The Italian *Reti Amiche***

Reti Amiche (Friendly Networks) is a public-private partnership facilitating a network of delivery channels in the private sector that gives citizens easier access to public services in Italy. This is an innovative project from the Ministry for Public Administration and Innovation. It aims to develop more pervasive and efficient interaction between citizens and government through collaboration between private networks and public administration services. This initiative is expected to further facilitate relations between citizens and government, minimise delays in the provision of services and eliminate queues. The final goal is to relieve public offices of user congestion and allow more time and resources for new services.

The concept involves existing service providers for public service delivery, such as post offices, tobacco shops, banks, pharmacies, police stations, train stations and distribution centres (malls), to simplify service access, diminish service delivery time, ensure friendly service and reduce the digital divide. This virtuous circle will increase customer attraction to private networks (tobacco shops, malls, railway ticketing web services, ATMs, etc.), and at the same time supply access to public services and information.

The increase in the number of access points will facilitate the usability of public services. The most innovative characteristic of Friendly Networks is the interoperability between public administration web services and private networks. The delivery of personalised transactions, with the support of the one-stop-shop model, enhances citizens' accessibility to the services. Agreements have been put in place to multiply physical points of access to services (from 60 000 to 100 000 by the end of 2010).

Source: OECD (2011), *Towards More Effective and Dynamic Public Management in Mexico*, OECD Publishing, Paris.

Box 6.4. **Bahrain's national portal**

Bahrain's national portal (*www.bahrain.bh*) was launched on 23 May 2007 and has since become the prime source for delivering e-government services for individuals, businesses, the government and visitors.

The portal is available in Arabic and English and is aligned with the Bahrain Strategic Vision 2030. It first included 30 services and reached over 200 services in 2010 including informational, interactive and transactional services. Since its launch and up to 2010, the portal has received over 15 million requests, and over USD 11 million worth of transactions were made on the portal.

The portal offers services such as:

- Obtaining school exam results for intermediate and secondary students at government schools in Bahrain;
- Reserving an appointment for the renewal of ID cards or a health check up for immigrants;
- Payment of electricity and water bills, as well as traffic contraventions;
- Requesting a birth certificate with a possibility to pay online;
- Requesting and processing a work visa.

With a very high volume of traffic, the portal's infrastructure was upgraded in 2010. The minimum time for the page upload in peak traffic (1 000 simultaneous hits per second) is less than 3 seconds.

Source: Bahrain e-government authority (2009), "Bahrain eGovernment Programme Looking Beyond the Obvious"; and UN ESCWA (2011), *National Profile of the Information Society in the Kingdom of Bahrain*.

The national database program, "Establishing and Integrating National Databases Program", is part of the current MSAD plan for administrative development. Different from many OECD countries, Egypt seems traditionally to have focused its attention on the use of families as key identifier, although databases based on individual citizens are now being developed. The database program builds on existing national databases and aims to link them through three unique national identifiers: identifiers for citizens, identifiers for economic entities, and identifiers for real estate.

OECD countries have extensive experience with the establishment of national registers with key data. For example, the Norwegian government has consolidated the Norwegian national registers and data in the Brønnøysund registers (Brønnøysundregistrene, 2012). The Belgium Interoperability Framework, BELGIF, is another example of an initiative to achieve strong and coherent back office integration (OECD, 2008a). Other

approaches have focused more on interoperability without actual database integration as in the case of Denmark (The Danish Government et al., 2011). Spain has integrated its National Interoperability Framework into the legal framework for e-government and established national key registries.

Egypt is building on the existence of several key national databases that are the backbone of the consolidation programme:

- The newly created National Voters Database, based on the existing National ID database, encompasses more than 50 million voters and served as the basis for the parliamentary elections as well as the upcoming presidential election (Chapter 8).
- The Family Card data base is based on heads of families rather than individuals and is currently used to provide Egyptians with subsidies. Based on an easy-to-use smart card solution, it has been the turning point for data collection on citizens' usage of a series of government services and subsidies (Chapter 4).

Key database projects are also being developed, such as:

- The Registration System of Real Estate, which aims to provide better data on property, enabling better property management, and secured data on ownership to improve real estate data availability in the Egyptian economy.
- The National Identification Number for Economic institutions (such as businesses).

Other database-related projects are also being developed, such as the personnel database covering the public sector and a new model for registration of birth and death records to ensure citizens' updated data and information at any time.

A recent decree of the former Prime Minister Dr. Ahmed Nazif (No. 856 of 2010 on the integration and exchange of national data and services between ministries, government bodies and affiliated authorities) specified that ministries and other government entities are required to provide and exchange data among themselves. A national plan for the integration and exchange of national data – and in order to improve service delivery to citizens, simplify administrative procedures and support decision and policy-making – was planned ahead of the revolution, but is currently on hold.

The decree requires that data is to be exchanged in accordance with secrecy and privacy regulations, and it mandated the MSAD to provide the rules for the exchange of data between government entities. However, it is not clear who will take responsibility for implementation. The data

illustrated in Table 6.2 are requested to be made available by government entities responsible for providing services.

Table 6.2. **Selected data requested to be made available to government entities**

Database	Entity owning the database	Type of data or forms (to be provided to the entity)	Glossary of data provision (data provided by the entity)
National ID	Civil Status Authority	National ID	Name
			Address
		National ID	Name
			Address
			Mother's name
		Name	National ID
		Date of birth	
		Place of birth	
		Mother's name	
Marriage		National ID of husband National ID of wife	Name of husband
			Name of wife
			Date of marriage
Divorce		National ID of husband National ID of wife	Name of husband
			Name of wife
			Date of marriage
Death		National ID of the deceased person	Name
			Date of death
Baccalaureate students	High Committee for Universities	National ID	Name
			University
			Faculty
			School year
Taxes	Egyptian Tax Department	Tax number	Name of institution
			Date of registration
			Address
			Legal ID
			Name of owner
			Type of activity

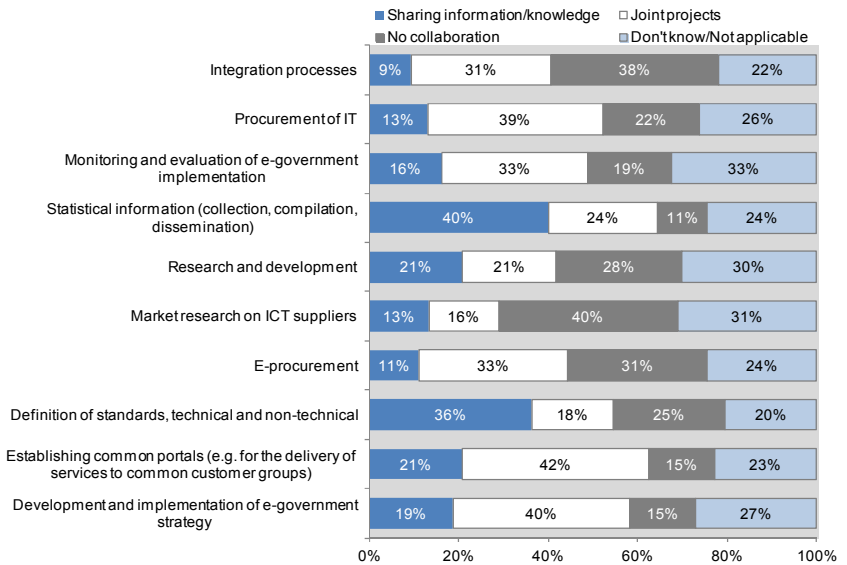
Source: Prime Minister's Decision Number 856 of 2010 on the integration and exchange of national data and services between government agencies (document available in Arabic, translation by OECD).

The consolidation and sharing of available databases serves several purposes: simplifying processes and reducing paperwork, eliminating redundancy in administrative processes and ensuring clarity and consistency of information and data used by various agencies. Such consolidation also holds advantages for users, who no longer need to provide the same information to different government entities more than once.

Although some technical guidelines have been provided by the MCIT and MSAD to support the exchange of data between government authorities, OECD interviews with government officials indicate that barriers for the exchange of data remain. Firstly, the existing guidelines do not yet seem to provide comprehensive and sufficient guidance, and hence have not been fully implemented. Furthermore, it appears that the existing data held by the public administration is of varying and sometimes poor quality, and that clear and comprehensive guidelines on how to ensure that data – aside from being accessible – is updated and valid.

These observations seem in line with Figure 6.5, which indicates a mixed practice regarding the sharing of information. Sharing of information and knowledge is widespread regarding statistics and standards. On the other hand, the figure indicates a low level of information exchange regarding procurement, pointing to a challenge for the full implementation of the procurement portal.

Figure 6.5. **Areas of information sharing and collaboration**



Source: OECD E-Government Survey of Egypt 2011.

Despite the challenges regarding interoperability, as well as the data quality, about one-third of government representatives surveyed indicated that they currently use data from other authorities, if available. This indicates strong potential for a higher level of information sharing, which might bypass the tradition of not sharing information which was cited by several government officials.

Key messages

- Egypt has launched a series of initiatives to support the government service delivery architecture. Technical guidelines on different areas of government service delivery exist to support coherence, accessibility and interoperability of services and data. The guidelines, however, do not seem comprehensive; nor do they seem deployed fully through operational collaboration frameworks. This might be challenging for full-scale compliance with the government's service delivery ambitions and reaping the benefits of a whole-of-government approach to collaboration on service delivery.
- Egypt has established some key joint infrastructure components and services of moderate maturity across the government, such as a joint procurement platform, payment solutions and digital signature requirements. The components and services demonstrate increased progress, and are good singular initiatives within important focus areas – however, they do not yet seem to reflect a whole-of-government service delivery architecture. This observation is also in line with the high variety in the implementation and use of the joint components and services.
- Like many OECD countries, Egypt has established an approach based on multiple service delivery channels. The government provides services through walk-in visits and service kiosks. Services and information can also be accessed through the Internet – both through the government portal and through authorities' own websites. Mobile platforms and call centers are also being used to deliver public services. A clear prioritisation reflecting the varying cost-effectiveness of the different service delivery channels has not been observed.
- OECD survey results show that some Egyptian government entities share information when available. A recent decree is set to enable and drive forward a higher level of information exchange in specified key areas. However, there seem to be important challenges concerning the level of interoperability of databases and the varying quality of data available. Existing national databases have great potential for improving government efficiency and service delivery, and their integration could be further exploited. However, a national plan for the exchange of data and information has not been developed. Despite this, an ambitious national database consolidation program has been launched. The successful database for the national elections provides a strong example of significant results that can be achieved in this area.

Notes

1. See OECD (2005) for an overall conceptual elaboration of the terms associated to the concept of e-government architecture.

2. For examples on government service delivery architectures in OECD countries, see OECD (2008a), *OECD E-Government Studies, Belgium*; OECD (2010e), *OECD E-Government Studies, Denmark*.

3. The approach is based on Six-sigma. Six-sigma is a model for process optimisation aiming to increase efficiency and effectiveness in organisations.

4. The good practice in government service delivery architecture is to support the overall policies of the "business" (the public sector). However, some academics argue that when alignment of policies does not exist, a more technology-driven approach might be beneficial, despite the risks of reduced efficiency. See Klischewski and Abubakr (2010) for an analysis of the Egyptian case.

5. Front office designates the government as its constituents see it, the back office refers to the internal operations that support its business processes and are not visible for the general public. See OECD (2003a) for an elaboration.

6. There are several types of joint components: Shared components are implemented once and used by many agencies. Generic components are standardised for generic processes to be implemented in local business processes. Unique components are specific to a particular agency, function or service (OECD, 2005).

7. Personas are instruments used to target a portal to its users. Personas are not real citizens, but constructs that may highlight different segments of the population in order to ensure that everyone is taken into consideration in the development and implementation of the portal.

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Chapter 7

Outputs and outcomes of e-government

Assessing e-government outputs and outcomes helps governments understand and improve e-government development and implementation. This chapter assesses the outputs and outcomes of e-government services in Egypt.

The chapter analyses the maturity of the online services provided in Egypt and examines the use of ICTs to ensure effective policies and public sector efficiency. User uptake of online services, a key component to realise the benefits of e-government, is given particular attention.

Main outputs of e-government include the delivery of digital services to citizens and businesses, as well as within the government itself. The overall maturity of e-government services is a key indicator of whether e-government outputs are successful or not.

Aside from being a key enabler of higher efficiency in the government administration and service delivery processes, the use of ICTs can also enable more effective policy outcomes. E-Government can be highly supportive of policy effectiveness, improving government's decision-making processes and the overall impact of sector policies. This chapter analyses the outputs and outcomes of e-government in Egypt. It covers the maturity of e-government services and elaborates how these services support policy effectiveness, as well as the overall efficiency of the public administration in Egypt. The chapter discusses also the user uptake of e-government services, in consideration of the fact that a high level of use of the e-government services provided is among the pre-conditions for fully reaping the potential benefits of e-government.

Service maturity

The level of service maturity indicates e-government development from a service supply side perspective. The Egyptian government provides e-government services through a multitude of online channels and points of access, as presented in Chapter 6. Several national portals exist in Egypt, offering a wide range of services; the main one being the Egyptian Government Portal or Bawaba (Egypt.gov.eg). Other key portals include the international business portal (investment.gov.eg) and the Governmental Complaints Portal (*www.complain.idsc.gov.eg*). Taking its point of departure from a number of ministries' websites, including Bawaba, the United Nations (UN) ranks Egypt among the world's top 50 countries for Online Service Delivery, well above the average of the MENA region.[1]

Table 7.1. **UN Online Service Index for Egypt**

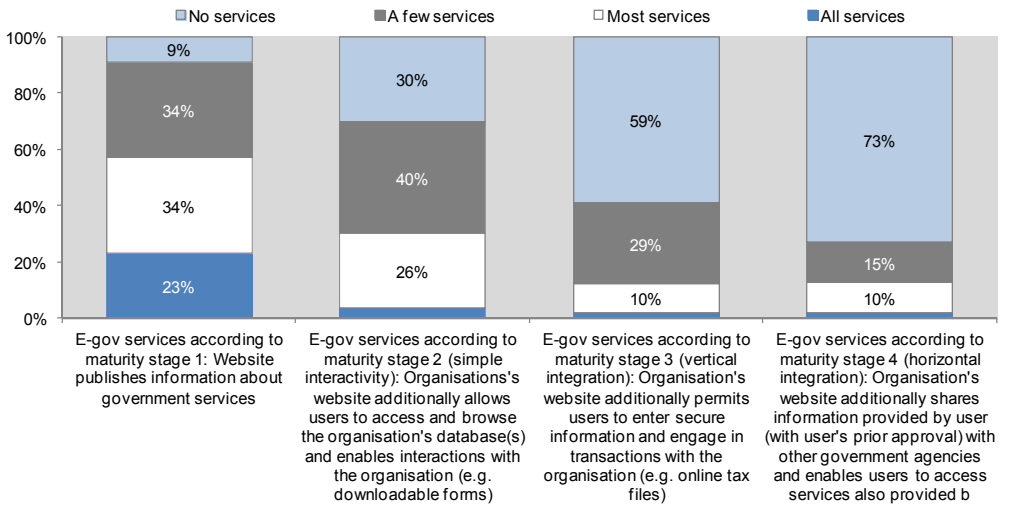
Relative value	Stage 1: Emerging	Stage 2: Enhanced	Stage 3: Transactional	Stage 4: Connected	Total
0.6013	100%	64%	27%	57%	53%

Note: The value indicated by the Online Service Index is relative to all countries ranging from 0 to 1.

Source: UN (2012), *United Nations E-Government Survey. E-Government for the People.*

This classification of stages is generally reflected in Egyptian officials' assessment of the current online service maturity, as per Figure 7.1.

Figure 7.1. **Perceived online service maturity in Egypt**



Source: OECD E-Government Survey of Egypt 2011.

The OECD e-government survey draws a picture of perceived e-government service maturity. This figure indicates the perception of the level of service maturity across the government and for respondents with varying responsibilities with regard to service delivery. The overall trend in the figure points towards a perception among government officials of online service delivery being mainly limited to the provision of informational services, with some services allowing for simple interactions and a few also allowing for transactions.

An interesting variation between the UN survey results and the OECD survey results regards the most advanced service levels.[2] The UN survey points to relatively high connectedness (57%), that is, the use of interactive and participatory web 2.0 services by Egypt. The OECD E-government survey emphasises other aspects of service maturity, particularly horizontal integration and transactions (that is, the cross-governmental sharing of services and data) in its most developed stages. Here the Egyptian government officials assess that such services are provided only to a limited extent. Both surveys seem to offer valid insights in the Egyptian government's use of ICTs.

In addition to informational services, Egypt's portals and websites have made wide use of polls and feedback mechanisms, hence providing interactive services. This seems to have been particularly accentuated following the revolution, which led to a significant increase in the government's use of social media and web tools (*e.g.*, SCAF Facebook page and the Twitter account and Facebook page of the Prime Minister). However, transactional services remain limited.

Some interviewees suggested that while the traditional e-government development path normally moves from informational to transactional services – and then under the right conditions evolves to also include social media platforms, it seems that Egypt has rapidly advanced in the inclusion of social platforms without first having developed informational services to the transactional stage.

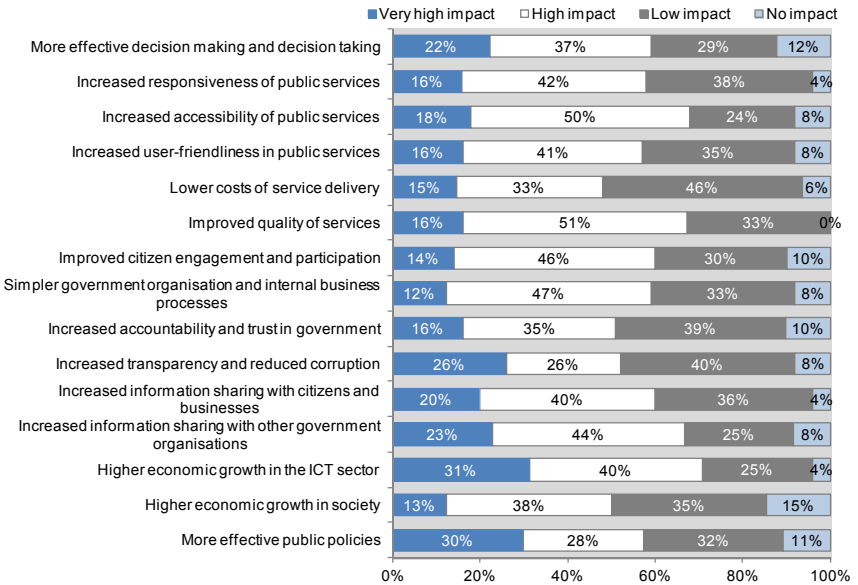
Framed differently, the government's interactive and participatory services do not appear well integrated with its efforts to improve administrative processes. It appears that the government has not yet fully exploited engagement initiatives – such as the establishment of kiosks or telecentres, the Government Complaints Portal or the Citizen Relationships Management systems (to be further elaborated in Chapter 8) – to improve administrative processes. These initiatives rather seem to be used to create shortcuts through complex administration layers, building additional interaction mechanisms to address shortcomings in public service delivery. When similar initiatives are implemented without reforming existing processes, they may allow procedures to be bypassed in the short term to create quicker solutions and benefits for citizens and businesses, but they may hinder the full reaping of e-government benefits in the longer term, particularly in terms of increased efficiency. In some cases, these additional service delivery channels are not free of charge (as is the case with the telecentres), which also hampers equal access opportunities to public services for all segments of the population. Maturity of services and service delivery is also determined by their integration with public administration practices.

ICTs for effective policies

ICTs have been widely used and integrated in several policy areas in Egypt. The previously mentioned case of the IDSC's local implementation of IT systems in governorates to support the local generation of data and decision making is a good example of an early way that ICTs have been used to improve policies and decision making (Chapter 2).

Currently, a high number of Egyptian government officials state that e-government has a very high or high impact on public policies, growth in the ICT sector, improved quality of services and service accessibility, as illustrated in Figure 7.2.

Figure 7.2. **E-government's impact on public policies and modernisation**



Source: OECD E-Government Survey of Egypt 2011.

The data in Figure 7.2 may give some indication of government officials' perception of the highest impact of e-government on public policies. The figure points to a perceived low impact of e-government on economic growth, lower costs of service delivery and increased accountability and trust in government. This indicates a need for a stronger exploitation of the potential of e-government towards these stated key objectives, such as the Egyptian commitment to the Deauville partnership as well as in Egypt's plan for administrative reform, and also closely related to the demands of citizens and essential components of good governance (MSAD, 201c; G8 and Ministry of Finance, 2011).

Egypt has together with other MENA countries committed to the Regional Charter for Regulatory Quality since November 2009, committing to another important aspect of effective policies. Several initiatives have been supportive of this commitment, for example ERRADA, the Egyptian

Regulatory Reform and Development Activity, although closed down recently in 2012. ERRADA focused on improving the business regulation with specific projects that covered reductions of administrative burdens in selected areas, particularly through the use of online tools, and through the introduction of regulatory impact assessments (RIAs) to ensure a higher quality in the decisions on business regulation (ERRADA, 2012).

MCIT strategies to support education and growth

The ICT strategy established by the MCIT in 2007 (MCIT, 2007) addressed the use of ICTs in several policy areas such health, education, e-content, the promotion of businesses and growth and bridging the digital divide (Box 7.1.). The current MCIT strategy established in partnership with the Technology Innovation and Entrepreneurship Center (TIEC) is less broad in scope and focuses mainly on business growth through the promotion of innovation and entrepreneurship (MCIT 2011) (Box 7.2). The current MSAD strategy includes some initiatives on education (MSAD, 2010c).

Box 7.1. **The use of ICTs for education in Egypt**

The MCIT has established several initiatives to integrate the use of ICTs in the education system. These include the Egyptian Education Initiative, which allowed for 66% of Egyptian schools to be connected to the Internet in 2010. Another initiative is the Smart Schools initiative, established in co-operation with the Ministry of Education to expand the use of ICTs in schools, as well as the EDUEgypt program which mainly targets Egyptian Universities.

Source: ESCWA (2005, 2009, 2011).

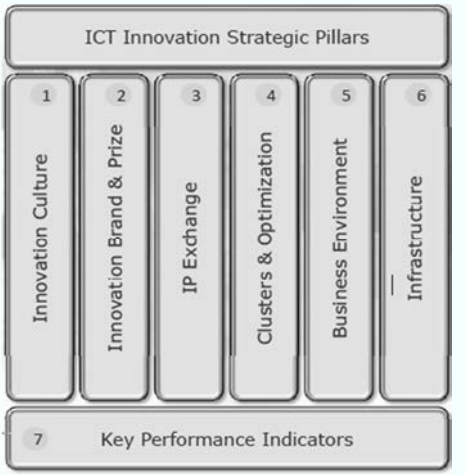
MSAD efforts to support the justice sector

The MSAD has collaborated with the Ministry of Justice to improve the judiciary system by simplifying and automating processes, modernising administrative procedures in the back offices of the courts. Of particular note is the use of technology to allocate individual cases to judges in an automated way, eliminating the opportunity for fraud or collusion in the judicial process. This collaboration also aims to increase transparency and strengthen the rule of law and citizen trust in the judiciary system. Several projects have been conducted in the courts of cassation, courts of appeal and preliminary courts, as well as in family courts and prosecutions for this purpose. Projects have included the establishment of one stop shops inside courts to serve citizens, the automation of judicial session minutes and the electronic allocation of judges (MSAD, 2010d).

Box 7.2. MCIT and TIEC's Technology Innovation and Entrepreneurship Strategy 2011-2014

The Technology Innovation and Entrepreneurship Strategy 2011- 2014, established by the MCIT and the Technology Innovation and Entrepreneurship Center, details the strategic plan to promote Egypt's development by enhancing the competiveness of the country globally and making it the primary regional hub for innovation and a leading regional player in ICT-based innovation and entrepreneurship.

The vision is to "enable Egypt to become the leading regional hub and world-class destination for ICT-based innovation and entrepreneurship". To build a vibrant and innovative ICT sector, the strategy defines four goals:



1. "Enabling ICT companies to operate and innovate in Egypt;
2. Enticing foreign and local ICT companies to generate, enrich and expand on innovative ideas;
3. Building Egypt's brand as a regional hub for innovation;
4. Engaging diverse stakeholders in the task of generating, financing, supporting and deploying ICT-related innovation"

The strategy subsequently defines 6 pillars and 13 initiatives that aim to achieve these goals, as per the figure above.

The initiatives fall under three main categories: establishing the foundation of innovation and entrepreneurship; empowering businesses and recognising innovation and entrepreneurship.

Source: Metwally, S. (2011), *Technological Innovation & Entrepreneurship in Egypt ICT Sector, Setting the Strategy* available online at: *www.kmegypt2010.idsc.gov.eg/Sources/Sally/Sally%20Metwally.pdf* (accessed January 2012); and MCIT, TIEC (2011), *Technology Innovation and Entrepreneurship Strategy 2011-2014*.

Many online services have been developed, such as the possibility to inquire about (*e.g.*, schedules, courtroom locations), view or request documents (*e.g.*, certificates, verdicts and notices) and follow up on requests. Documents are only available to the parties involved with a specific court case.

Many of these services are provided on the Egyptian portal, Bawaba. The portal also provides information on some judicial procedures and how to request documents.

Public sector efficiency

E-government has great potential to improve the efficiency of the public sector. Reducing public expenditures is a stated ambition of the MSAD in its Work Plan for Administrative Development and Reform, where high importance is given to improving the government's efficiency and resource management (MSAD, 2010c).

The efficiency gains from e-government can emerge from the reduction of expenditures allocated to mass processing tasks, such as reducing redundant processes through the re-use of data, in relation to case handling or payment processes, for example (OECD, 2003). OECD member countries have experience in reaping efficiency gains through the use of ICTs by automating processes, introducing digital communication and re-using data and services across government, among others.

In order to reap the benefits of e-government, OECD countries, like Australia, the United Kingdom and Denmark, are deploying the use of business cases to support effective decision making. The business case for e-government projects is based on the rationale to invest in technologies that enable more efficient and effective processes within the public sector and improve public services and engagement. A financially positive business case requires that the sum of the ICT investments – including full implementation and the future operational costs for the provision of a specific service – be lower than the current operational costs for the delivery of the same service.[3]

Efficiency gains most often require the complete or partial closing of old administrative procedures once new and digital ones are established. Business cases for ICT projects do not seem to be developed and deployed widely across the Egyptian administration, as mentioned in Chapter 5. The follow up on the implementation of projects and the full realisation of the potential of e-government do not seem to be systematic, particularly regarding economic benefits.

As indicated by government officials, Egypt focuses particularly on the provision of high-quality online services. A strong supply side focus without a systematic use of business cases could make it more difficult to prioritise investments and developments, as well as fully integrate and align with existing offline service delivery channels. In order to reap the benefits of e-government investments, clear measures on the estimated e-government value seem necessary. Egyptian government interviewees recognised the difficulties in defining the precise value of e-government. Though this challenge is shared with many OECD countries, there are good experiences in assessing and operationalising the value of e-government development and implementation. One example is Mexico, as illustrated in Box 7.3.

Box 7.3. **Measuring e-government maturity in Mexico**

As in most OECD countries, Mexico faces the challenge of determining how well ICT resources are being managed and whether high expenditures on ICT actually deliver value. The Mexican government has therefore established a model to quantify the maturity of e-government projects in terms of their value. This move enables it to centrally assess the overall maturity and level of the services delivered, thus laying the ground for determining how to get the most value for money.

The e-Business Value and Maturity Model is an important ICT management tool and to the federal government's management of its ICT resources. The overall goal of the new maturity model is to help ensure:

- the capacity of government institutions to deliver public goods and services efficiently;
- citizens' ease of access to public goods and services, and the reduction of transaction costs;
- the availability of adequate infrastructure for the information society.

These overall goals are translated into more specific objectives within the model: assess public value for citizens; assess the development of ICT projects, processes and services; integrate ICT-leveraged information to produce an infrastructure that enables higher efficiency and better services; optimise ICT expenditures and exploit synergies among inter-dependent institutions; support government departments in ICT use and management and exploit operational efficiencies.

The Model allows the benchmarking of all federal government institutions, identifying areas where significant improvements can be made on the basis of data on strategic programmes for more than 200 government institutions.

Source: OECD (2011), *Towards More Effective and Dynamic Public Management in Mexico*, OECD Public Governance Reviews, OECD Publishing, Paris.

Uptake of online services

Ensuring user take-up of e-government services is key to reap the full value of public sector ICT investments. Although many e-government services have been successfully established by the Egyptian government, the uptake of these services remains lower than desirable (IDSC, 2011; IDSC, 2010).

The use of online services

Egypt conducts regular monitoring of the use of e-government services, as elaborated in Chapter 5, which is a pre-condition for effective prioritisation of the uptake of services. The IDSC conducts annual polls on citizens' use of and satisfaction with e-government services by gender, age, education and rural/urban divide (IDSC, 2011). A common good practice among OECD countries for such monitoring includes the collection of comparable data for the use of online services based on the overall number of transactions using each of the services on all available channels (OECD, 2013).

MSAD collects statistics on the use of the different services provided through the government portals, which indicate low use of online services overall (MSAD, 2011f). The polls conducted by the IDSC since 2005 generally show a low uptake of e-government services (IDSC, 2010). One survey indicated that only 11.3% of Egyptian households are aware of the existence of e-government services, and only 2% of these households are in fact using these services (MSAD, 2012). The figures are higher for businesses, with around 65% of businesses with Internet access using some kind of online government services.

The most commonly used services, by businesses as well as by citizens, are online payments of public utility bills, such as phones, water and electricity, as well as train and airline tickets. Use of the online university enrolment service is mandatory (Box 7.4). Citizens' and businesses' satisfaction with the use of online utility services seems to be higher than the administrative services (MSAD, 2012).

Improving the management of service delivery channels

Most OECD member countries struggle to find the right balance between focusing on the e-government supply side (*e.g.*, the provision of online services) and the demand side (the citizens' and businesses' demand and actual use of those services). The overall national approach to service delivery is mentioned in the MSAD administrative reform work plan (MSAD, 2010c). However, the work plan focuses on the services offered on

the different channels, rather than more specifically on how to manage and prioritise service development between the different service delivery channels and ensure a level of uptake that enables the benefits of investment to be harvested.

Box 7.4. **The Egyptian University Enrolment Initiative "E-Tansik"**

Every year, over 450 000 students apply to public universities and institutions in Egypt. Students apply through a centralised office, the University Enrolment Co-ordination Office, which assigns students with the highest scores to their first-choice universities.

Students were previously required to stand in long lines to buy paper application forms that cost about USD 7 at one of the 19 university enrolment offices. These applications required students to fill in a total of 48 choices by posting a stamp on their desired discipline and university in order of preference. The applications were then required to be physically submitted back to the enrolment offices. Once the offices received the forms, they could not be changed. In case of error, the students' chances of obtaining his or her preferred choice in universities would be reduced. This resulted in students being assigned to universities far away from their homes, leading to transport and accommodation difficulties. Overall, the process was conducted within tight deadlines and was prone to error with public servants manually entering student data.

To improve the efficiency and quality of service, the E-Tansik initiative, a comprehensive online application, was developed. The online initiative was first introduced in 2004, and attracted 3 500 students. Online applicants reached 20 000 students in 2006. After ensuring that no errors occurred through the online system,online applications were made mandatory in 2007 and the offline application was no longer possible. This progressive strategy ensured a smooth transition from the offline to the online process.

This service is provided through the Egyptian Government Services Portal (Bawaba) free of charge. Students are able to access their applications with their student ID and a special pin code they received along with their secondary school certificates. IT clubs and university labs also allow free access to this service. Specialists are available in these labs to assist students or parents in filing applications. A call centre is available 24/7 to support students through the process.

Box 7.4. **The Egyptian University Enrolment Initiative "E-Tansik"** (*cont.*)

This initiative was led by the MSAD and owned by the University Enrolment Co-ordination Office (part of the Ministry of Higher Education). It has proved to be a successful collaboration between these ministries, as well as the Ministry of Education, the MCIT, the National Sports Council, local sponsors and system developers. The E-Tansik allowed time savings estimated at EUR 6 000 000 for applicants in terms of reduced transportation and accommodation expenditures, reduced unnecessary student transfers to different universities and the removal of fees for paper application forms. The system also allowed some savings on operational costs for the government and further improved the efficiency and reliability of the student enrolment process. Online filing prevents errors by public servants and the use of a student pin code helped reduced mix-ups. Guidelines were built into the system, which prevented students from including choices that contradict with enrolment rules and regulations; this ensured that only error-free forms were submitted. The application also allowed students to check their information before submitting it and make changes after submission. Finally, students did not need to wait for their university enrolment results to arrive by mail and could access them directly online or on their mobile devices.

Source: Tobal Ahmed, Education Projects General Manager, Government Services Development Program, Ministry of State for Administrative Development, Egypt, UNPAN Power Point Presentation, *Egypt, University Enrollment Project (e-Tansik Service);* Hassan, H, Shehab E. and Peppard J. (2010), *Egyptian Electronic Government: The University Enrolment Case Study*, World Academy of Science, Engineering and Technology.

One main reason for low user uptake is the lack of awareness of the existence of e-government services (IDSC 2011, 2010E). Government officials also indicate that the main efforts to increase the user uptake are providing better information on the existence of the services (Annex A). The digital divide is another important cause of low user take-up.

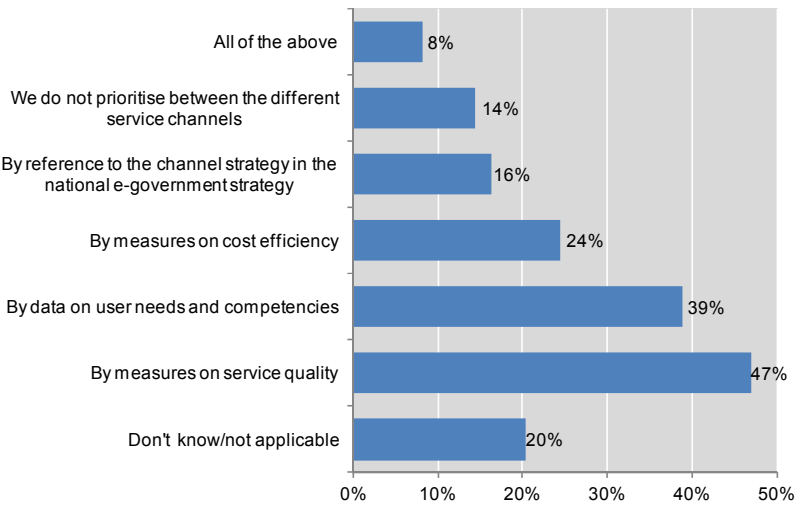
Overall, it appears that the quality of the services themselves does not constitute a sufficient "pull-factor", capable of increasing user uptake of online services. This seems in line with the situation in most OECD countries. Surveys on user satisfaction conducted by the IDSC show that there is a high satisfaction rate on the most widely used services by citizens and that citizens who use online services prefer online services to offline services (IDSC, 2010). However, in a recent evaluation (grounded in the elections management system) the MSAD found that when real values and benefits of using online services (in comparison to offline services) are clear for citizens, user take-up can be significantly improved (MSAD, 2011e). Increasing the quality of services could include developing transactional features of online services. This might also contribute to creating real value

added in terms of simpler access to services, which may help achieve a higher uptake.

Specific incentives to increase the uptake of online services, or making particular access channels mandatory, are some of the actions taken by OECD countries to increase user take-up of online services. This is used only to a very limited extent in Egypt, but some examples exist. These include online services that target segments of the population that tend to have higher IT literacy and better access to the Internet and computers, such as students. The previously mentioned "Egyptian university enrolment initiative" is a successful example of a high uptake of an online service that was made mandatory (Box 7.4).

Another successful method to increase user uptake is to prioritise between the delivery channels used in order to focus efforts and target segments of society (OECD, 2009a). It seems that the Egyptian administration mainly prioritises the use of channels according to the service quality they can deliver and the targeted users' needs, as indicated in Figure 7.3. Though other concerns could be considered for prioritisation of channels, this seems in line with the focus on ensuring mature government delivery of high-quality services to respond to citizens' demands for better public service delivery.

Figure 7.3. **Basis for prioritisation of channels**



Note: Several answers were possible.

Source: OECD E-Government Survey 2011.

Box 7.5. **Searchability to access public services and increase user uptake: *gob.mx***

The Mexican government has re-conceptualised the citizens' portal, gob.mx, in order to increase the uptake and availability of government digital service delivery, while supporting the public sector's use of social media and cloud computing. The key word is "search" - building on a partnership with the private company Google.

The increased accessibility and comparability between the different government institutions and services also leads to improvements in internal management, which provide incentives to ensure that services, access to information, and stronger citizen participation are fully exploited and optimised.

The portal's search engine is designed to be integrated with the content of all government institutions in order to maximise the government investment in technology. Further, the portal facilitates the design and development of simple applications to be published directly on the site, making it a "container" for applications and automated procedures concentrated in one place where citizens have access through an advanced electronic signature.

The portal uses advanced searches, as well as social networking technologies, to leverage ICTs to improve and simplify citizens' access to government services. The portal includes the introduction of open standards for developing social networks and government applications to public services and processes. This also ensures a consistent framework for the use of ICTs in the public administration so that citizens perceive the government as a consistent whole.

Source: www.gob.mx and OECD (2009), *Rethinking e-Government Services: User-centered Approaches*, OECD Publishing, Paris.

Where good practices in OECD countries focus particularly on the costs of the different service delivery channels as a basis to prioritise their use, Egypt seems less focused on costs (OECD, 2010). The Spanish approach to e-government focused initially on the highly transactional and high-impact services has enabled the government to establish highly mature e-government service delivery in most parts of the public sector (OECD, 2013). As another example, the Danish government has had good experience in building on the existing paper-based service delivery channels as a communication channel to direct businesses and the citizens towards the most cost-efficient services (OECD, 2010e).

End user access and skills

Ensuring end users' basic IT skills is a pre-condition for increased use of e-government services by more segments of the population, and can be an effective strategy to counter the tendency of segments of the population to prefer offline services (OECD, 2009). As mentioned in Chapter 3, the digital divide in Egypt remains significant and imposes a substantial challenge.

Egypt is particularly committed to reducing the digital divide and is working on different fronts to address it. Access to ICTs has significantly improved through the establishment of IT Clubs (Box 7.6).

Furthermore, general training programs have been put in place. One example is the Basic Skills Development Training Program, which addresses the improvement of the ICT skills of the Egyptian citizens in general (MCIT, 2005 training strategy). In the last decade, the Program has established 172 centres across Egypt, building on existing infrastructures such as universities. The Program issues diplomas to participants and grants subsidises to students in financial need.

On a more general level, Egyptian demographic data indicates a very young population (more than half of the population is under 25 years old (UNFPA, 2008)). This might impose challenges in terms of establishing continuity and creating an institutional knowledge base, but it also provides considerable potential for increased availability of ICT skills among citizens. The widespread use of social media among the middle classes and the young during the revolution indicates that large mobilisation is within reach, if the right investments in education, human resources and ICT skills are made.

The use of mobile technology cuts across most ages and segments of the population, with more than 92 million mobile subscriptions in June 2012 (MCIT, 2012). This provides for great potential that can be used in parallel with the further development of online services (OECD 2011j). This would be in line with the strategic channel orientation of the MSAD's

administrative reform work plan, and might considerably improve e-government uptake.

Box 7.6. **IT Clubs**

IT clubs were established by the MCIT as part of its Information Society Strategy, to provide open access to technology and ICT tools to all segments of society – especially youth, women and remote communities. In August 2011, there were 2 163 IT clubs, 1 955 of which were connected to the Internet.

The main objective is to provide Internet access and IT training to low-income populations, as well as improve the skills of the youth and help address the digital divide in Egypt. Training topics range from keyboard skills to web design, and are offered at a nominal price. Local businesses have also been welcome to use the IT clubs. IT clubs also aim to create employment opportunities through the "Training Trainers Programme" where graduates can work in an IT club following the completion of an aptitude test and training.

IT clubs are based on a public-private partnership involving non-governmental partners. The MCIT provides hardware and software for the IT clubs (computers, printers, software licenses, leased lines) and private sector partners install the equipment and connections, and maintain the technology; hosting organisations provide space, infrastructure, utilities and furniture. IT clubs are mostly located in schools, universities and youth centers to better reach their target users. Revenues cover the operating costs of the IT Clubs, and profits are used to sustain and improve them.

"In a survey done by MCIT and Central Agency for Public Mobilization and Statistics (CAPMAS) on the IT clubs, 73.5 % of the respondents mentioned that IT clubs have positively impacted them the most in the area of acquiring advanced computer and Internet skills, and 15.6% pointed out that they benefited from services provided by IT clubs in getting better job opportunities. These clubs house 25 919 computers and peripherals, have served more than 1 million users, and have generated more than 8,000 job opportunities" (ESCWA, 2011).

MCIT has also established mobile IT units to provide access in areas not served by IT Clubs. These are buses or caravans that travel to remote areas and are equipped with computers and Internet access, as well as printers and scanners. They aim to address the lack of computer access in rural and remote areas, as well as the digital divide. "The IT Club toured 16 governorates in Egypt training services to 4413 persons in 62 places and more than 150 000 people have benefited from such mechanism" (ESCWA, 2011).

Source: MCIT, Information Technology Clubs, MCIT (2011), *ICT Indicators in Brief*, September 2011 Monthly Issue; and ESCWA (2011), *National Profile of the Information Society in Egypt*, United Nations, New York.

Box 7.7. The use of mobile phones by the government in OECD countries

Estonia: The Estonian Mobile-ID service is a collection of organisational and technical measures to create a strong, seamless digital identity for Internet users. To use Mobile-ID, users must acquire a special SIM card (available from mobile operators) and, for extra security, activate the service on a website with an Estonian ID card. After that, the Mobile-ID is ready to be used on any compatible website for authentication and digital signature. Mobile-ID certificates are valid for five years, after which the SIM should be replaced. The service is implemented according to a Public Key Infrastructure (PKI) and launched by mobile operator EMT in co-operation with CA AS *Sertifitseerimiskeskus*. The initiative is being led by the Ministry of Economic Affairs and Communications.

Estonia's mobile market is one of the most penetrated, exceeding 100%. Mobile broadband access services, as well as mobile content and applications, are readily available, underpinning future revenue growth. Implementing Mobile-ID ensures compliance with Directive 1999/93/EC and the subsequent Estonian Digital Signature Law. The biggest concern is ensuring that the user registration process is secure enough to be used by service providers and government. There were no standards and no best practices available in this area.

The main impact of this initiative for users is that they benefit from a more convenient login (authentication) process, which is compatible on many websites. This service has shown real value in furthering secure usage of m- and e-services. Most people have both ID-cards and mobile phones with them at all times, so these devices greatly minimise the risks of using e-services. There is no more queuing, no bribes, no forms in triplicate, and no need to plead a case to several administrators. The benefit for service providers is that the authentication process is highly secure and low cost.

Additionally, and because Mobile-ID is based on the same technologies as the Estonian ID card, it can be applied for m-voting. E-voting was first used in Estonia in local government elections in 2005, and then again in the parliamentary election in 2007. Estonia broke new ground in this area, showing that e-voting is possible and thoroughly secure when citizens are identified by personal keys and when votes are confirmed with digital signatures. The m-voting solution might increase voter turnout, thus ensuring more effective actualisation of the will of the people. A security study has been initiated, and the law would have to be amended to make it possible to use Mobile-ID for voting.

Finland: In an initiative led by the Finnish Population Register (VRK), a department of the Finnish Ministry of the Interior, mobile specialists are helping mobile users in Finland to securely identify themselves and sign for goods and services across a range of public and private sector providers using just their mobile phones.

Box 7.7. **The use of mobile phones by the government in OECD countries** (*cont.*)

Since 1999, VRK has been responsible for issuing State Citizen Certificates, a national ID card driven by the Finnish Government and seen as an important means of identification within an electronic information society. Now, in the advanced mobile market of Finland, the security functionality contained within these cards (based on the EU Directive for electronic signatures) has been incorporated into the SIM card, turning the mobile phone into a personal trusted device able to remotely authenticate an individual, protect identities and create a legally binding digital "signature". Agreements have been signed with three Finnish operators, including Elisa, which will issue new SIM cards containing the State Certificate to subscribers.

Using the new SIMs in the handset will enable users to access a range of public and private sector services, including electronic banking and government web and mobile services. With their mobile phones, Finns will be able to authenticate themselves when electronically filing tax returns, registering for social security and paying for goods online. Creating a digital signature from the handset may even be used as proof of identity at a physical point of sale. The mobile phone and SIM card have, by default, become the world's most pervasive smart card/card reader combination. Unlike the existing ID cards (the size of a credit card) that Finns carry around in their wallets, the SIM-based certificates do not require the user to be present when authenticating himself via an independent card reader. In this instance, the handset acts as the card reader, allowing user authentication through a PIN code request, and sending an electronic digital signature to the service provider.

Spain: Since 2008, the Municipal Transport Company of the City of Málaga has offered the possibility to pay tickets using mobile devices. There are two versions of the service, an operational one based on the use of SMS and another pilot version using Near Field Communications (NFC) technology.

Source: OECD (2011), *M-Government, Mobile Technologies for Responsive Governments and Connected Societies*, OECD Publishing, Paris.

Key messages

- Egypt has achieved a relatively high ranking in the UN Online Service Delivery index. This is particularly due to the wide use of connected social media platforms through public administration portals and websites. The existence of transactional online services seems to be less developed. Ensuring coherence with, and integration of, the use of ICTs in the traditional government processes still constitutes an important challenge.
- The impact of e-government on public policy outcomes is difficult to measure and appears to vary in degree and relevance. However, officials assess that e-government has a relatively low impact on key government priorities such as growth of the economy, lowering the costs of service delivery and increasing accountability and trust in government. This holds key potential to further exploit e-government programmes and policies, which seems to be in line with the government's current priorities.
- Improving public sector efficiency has been cited as an important objective in the development and implementation of e-government. However, efficiency and cost savings do not always seem to be identified as objectives in the development and implementation of e-government policies and programmes. Increasing public sector efficiency through the use of e-government would require a greater focus on measuring both the financial inputs and outputs of ICT projects. Furthermore, a standardised way to identify and manage the specific value of e-government projects does not seem to be in place.
- High user uptake of digital services is a pre-condition to create value through e-government. Egypt has a very low user take-up of its services, which indicates that it is not yet reaping the full benefits of e-government. The population's awareness of the services provided online seems low, and uptake of these services remains low even among citizens who are aware of their availability. There are potentials for increasing awareness of online services. Improving user skills and enhancing the quality of services provided would also help to ensure a higher uptake and better harness e-government value.

Notes

1. The Online Service Index, developed by the UNDESA, looks at standard parameters in defined policy areas aiming to cover the broadest range of countries possible. See*www2.unpan.org/egovkb/global_reports/12report.htm* for more specific information.
2. The two surveys differ considerably in methodology; hence, the results cannot be directly compared. The purpose of the measurements, as well as the precise metrics deployed, is important in order to understand the results of the surveys.
3. The UK has been pioneering systematic work with the concept of business cases in public ICT projects. See, for example, *www.best-management-practice.com/Knowledge-Centre/Best-Practice-Guidance/PRINCE2*.

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Chapter 8

New ways forward: Using ICTs for openness

This chapter takes its point of departure in the potential for better government brought about by the 25 January Revolution. Egypt is faced with high demands, great opportunities, as well as significant challenges to improve the openness and inclusion of its public sector and strengthen its democratic practices. The use of ICTs for a more open government holds enabling potential in this regard. This chapter presents good practices regarding the use of ICTs to foster openness, transparency and democracy, although it does not include comprehensive policy assessments within those areas.

Egypt is faced with high demands, great opportunities, as well as significant challenges to improve the openness and inclusion of its public sector and strengthen its democratic practices. The use of ICTs for a more open government holds enabling potential in this regard.

Following the 25 January Revolution, SCAF committed to ensure a transition towards a "free and democratic system". (New York Times,2011). After the free elections and the inauguration of the president, Mr. Morsi, this commitment has been reiterated – the President has committed to "principles of freedom and social justice", "removing all forms of injustice and corruption" and "attaining economic progress" (Egypt State Information Service, 2012). Honouring these commitments will require solid backing in concrete policies and continuous attention through follow-up on the implementation process.

Experience from several OECD countries, especially in Eastern Europe or Latin America, indicates that policies and measures that support openness and inclusion proved effective in supporting successful democratic transition processes, as well as overall improvements in policy making and service delivery.

Fostering citizen trust by increasing participation and implementing measures to enhance transparency and accountability in government operations are main pillars in Egypt's current and planned work on administrative reform, as highlighted in several policy documents (MSAD, 2010c and MSAD, 2011g). The changed context for policy making provides an opportunity to revisit the existing policies and measures in order to improve them and ensure greater impact.

This chapter presents selected practices in the use of ICTs for increasing open and inclusive policy making and service delivery, as well as strengthening transparency of government for better accountability and integrity. It does not intend to present a comprehensive assessment of the existing policies and practices in the areas of openness and transparency, but it will focus on how the use of ICTs can help enable and leverage the benefits of such policies and practices; it will also detail the use of ICTs within these areas, evaluating gains as well as shortcomings in Egypt.

ICTs for open and inclusive policy making and service delivery

"Open and inclusive policy making is *transparent, accessible and responsive to as wide a range of citizens as possible."* (OECD, 2009b). The benefits of openness and inclusion can be reaped in all phases of the policy making cycle and service delivery, including setting government agendas, as well as monitoring and evaluating government actions (OECD, 2003).

The OECD has identified 10 principles to support countries as they implement public sector reforms in the areas of open and inclusive government, according to their specific needs and contexts (Box 8.1).

Box 8.1. **Principles for open and inclusive policy making**

1. Commitment: Leadership and strong commitment to open and inclusive policy making is needed at all levels – politicians, senior managers and public officials.

2. Rights: Citizens' rights to information, consultation and public participation in policy making and service delivery must be firmly grounded in law or policy. Government obligations to respond to citizens must be clearly stated. Independent oversight arrangements are essential to enforcing these rights.

3. Clarity: Objectives for, and limits to, information, consultation and public participation should be well defined from the outset. The roles and responsibilities of all parties must be clear. Government information should be complete, objective, reliable, relevant, easy to find and understand.

4. Time: Public engagement should be undertaken as early in the policy process as possible to allow a greater range of solutions and to raise the chances of successful implementation. Adequate time must be available for consultation and participation to be effective.

5. Inclusion: All citizens should have equal opportunities and multiple channels to access information, be consulted and participate. Every reasonable effort should be made to engage with as wide a variety of people as possible.

6. Resources: Adequate financial, human and technical resources are needed for effective public information, consultation and participation. Government officials must have access to appropriate skills, guidance and training as well as an organisational culture that supports both traditional and online tools.

7. Co-ordination: Initiatives to inform, consult and engage civil society should be co-ordinated within and across levels of government to ensure policy coherence, avoid duplication and reduce the risk of "consultation fatigue." Co-ordination efforts should not stifle initiative and innovation but should leverage the power of knowledge networks and communities of practice within and beyond government.

8. Accountability: Governments have an obligation to inform participants how they use inputs received through public consultation and participation. Measures to ensure that the policy-making process is open, transparent and amenable to external scrutiny can help increase accountability of, and trust in, government.

9. Evaluation: Governments need to evaluate their own performance. To do so effectively will require efforts to build the demand, capacity, culture and tools for evaluating public participation.

Box 8.1. **Principles for open and inclusive policy making** (*cont.*)

10. Active citizenship: Societies benefit from dynamic civil society, and governments can facilitate access to information, encourage participation, raise awareness, strengthen citizens' civic education and skills, as well as to support capacity-building among civil society organisations. Governments need to explore new roles to effectively support autonomous problem-solving by citizens, CSOs and businesses.

Source: OECD (2009), *Focus on Citizens: Public Engagement for Better Policy and Services*, OECD Publishing, Paris.

Open and inclusive policies can support democracy and good governance, and help improve policy effectiveness and the quality of service delivery. The use of ICTs can be supportive of all these aspects, a potential that seems fully recognised in the planning of the work on administrative reform in Egypt.

In Egypt, inclusion is mentioned as a key value in the MSAD strategy on administrative reform. Commitments have been continued during the transition period, as stated through the Deauville Partnership, pointing out that: "…Civil Society representatives are becoming increasingly engaged in policy dialogues, under a new contract of freedom and inclusion…" (G8 and Ministry of Finance, 2011).

When governments show a willingness to accept public scrutiny and facilitate such scrutiny through the establishment of tools that enable citizen engagement, this can yield positive impacts in terms of trust – and also in terms of good governance in general (such as the reinforcement of ethical behaviour and the consistent application of laws and regulations) (OECD, 2003b). Inclusiveness also allows governments to improve their performance in terms of service delivery, as well as the impact and sustainability of their policies.

Engaging citizens allows the government to develop a better understanding of their needs, allowing more tailored policies and services. Receiving feedback from users can also help governments refine services and improve their efficiency. Finally, citizen engagement can also result in a more solid buy-in from users and increase user take-up of services. Engaging citizens in policy making and service development can indeed promote ownership of services (OECD 2003b and 2009a).

A wide array of ways to engage citizens exists, reflecting the different possible levels of engagement, as shown in Box 8.2. The earlier in the policy cycle engagement takes place, the stronger its impact can be

(OECD, 2003b). Though engagement of citizens as well as civil servants is mentioned in Egypt's current strategies, information and some consultation appear to be the most widespread engagement levels.

Box 8.2. **Levels of citizen engagement**

- **Information:** Government disseminates information on policy-making on its own initiative, or citizens can access information upon demand. In both cases, information flows essentially in one direction, from the government to citizens in a one-way relationship.
- **Consultation:** Government asks for and receives citizens' feedback on policy making. Receiving citizens' feedback also requires government to provide information to citizens in advance. Consultation thus creates a limited two-way relationship between government and citizens.
- **Active participation**: Citizens actively engage in decision making and policy making. Active participation means that citizens themselves take a role in the exchange on policy making, for instance, by proposing policy options. At the same time, the responsibility for policy formulation and final decisions rests within the government. Engaging citizens in policy making is an advanced two-way relationship between government and citizens based on the principle of partnership.

Source: OECD (2001), *Citizens as Partners, OECD Handbook on Information, Consultation and Public Participation in Policy-Making*, OECD Publishing, Paris.

The use of ICTs for open and inclusive policy making and service delivery

Different types of ICT tools can be supportive at different stages of the policy-making process and at different levels of engagement. Although the use of ICTs is not a panacea for citizen engagement, it yields numerous opportunities to strengthen, facilitate and expand the scope of citizen engagement. Primarily, the use of ICTs can help reach and engage a wider audience at a lower cost than traditional methods. The use of web 2.0 technologies can furthermore increase the level and quality of the interaction between these audiences.[1] Using ICTs for citizen engagement does not necessarily require adopting new or separate strategies. Rather, OECD countries have built on their existing policies, strategies and tools, and strived to enhance them through the use of ICTs as part of their work with citizen engagement (OECD, 2009b).

The use of ICTs to support citizen engagement presents several challenges. Some of the more traditional challenges facing offline citizen engagement methods persist; these include questions of how to engage

representative parts of society and ensure that some segments are not left out. The digital divide, by limiting certain people's ability to engage through the use of ICTs, is a significant obstacle. To ensure successful processes and results, the OECD has developed a set of principles for online consultation that provide a useful guidance (OECD, 2003c).[2]

The Egyptian use of ICTs to support citizen engagement

Engaging citizens in policy-making to improve their trust in government, enhance accountability and improve the quality and effectiveness of policies and services is of high relevance for Egypt in the current context. Encouraging citizen engagement was also considered as one of the highest future priorities for e-government among government officials, according to the OECD survey (Annex A).

Egypt has a solid ground to build on in terms of using ICTs to support citizen engagement in policy making and service development and delivery. In 2012, Egypt was ranked among the top 20 countries in the world in terms of e-participation.[3] It ranked first in Africa and second in the MENA region, preceded only by the United Arab Emirates (UN, 2012).

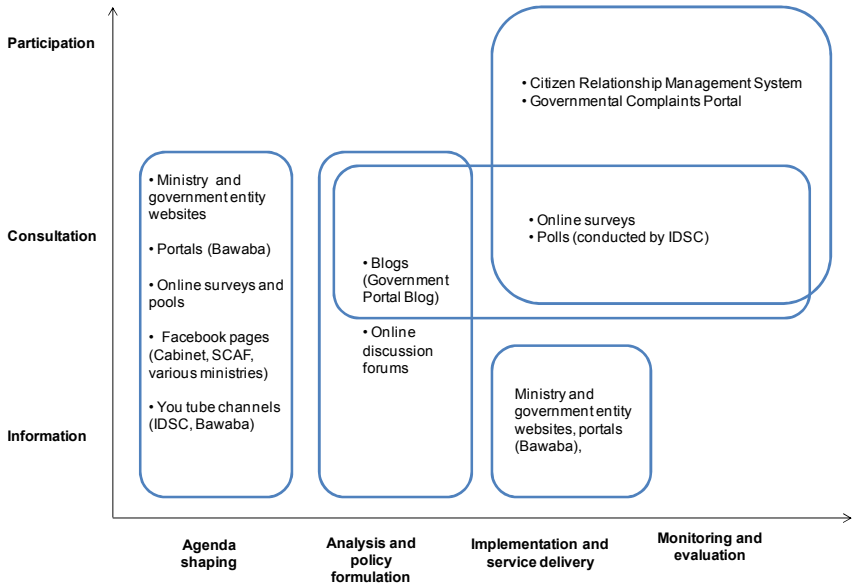
Egypt has applied a wide array of ICT tools to leverage citizen engagement, which partially explains the high ranking it has achieved. Looking at the different parts of the policy process, the tools most widely used in Egypt are illustrated in Figure 8.1.

Egypt provides a considerable amount of information online about existing laws and regulations, as well as available services. Cabinet decisions are published online on the cabinet website, together with summaries of cabinet meetings.[4] Besides government entities' websites, much of this information is provided on governmental portals, allowing for some level of interaction and consultation. Other consultation tools, such as blogs and RSS feeds, are also used; this includes the Egyptian Government Services Portal Blog, and the Bawaba Blog (*http://blog.egypt.gov.eg*).

In terms of consultation, Egyptian ministries and government entities widely use social media including Facebook and Twitter, as elaborated in Chapter 7. Many ministries, as well as the Cabinet and the President, have an official Facebook page informing citizens on the entity's activities; posting laws, regulations and policy decisions; as well as discussing recent political events. These pages allow citizens to post comments and express their views on the information provided. They therefore allow the government to receive important information on public opinion trends. This was confirmed by the UNDESA e-government survey for 2012, which found that Twitter and Facebook are increasingly being deployed by governments worldwide as vehicles for consultation. The availability of

such tools provides a cost-effective method for views on how the government is doing (UN, 2012).

Figure 8.1. **ICT tools used to engage citizens in Egypt**



Source: Author with reference to OECD (2009), *Rethinking e-Government Services: User-centered Approaches*, OECD Publishing, Paris.

Web 2.0 tools and social media for engagement[5]

After the revolution – in order to collect feedback directly from citizens – Egypt has deployed a number of online polls on various issues through portals and websites, as well as government surveys, such as those conducted by the IDSC on the use of government and especially e-government services. Feedback is also collected by making forms available on various ministry and government entity websites or by making the emails of relevant entities available for citizens to provide their comments. This also includes the possibility of contacting the Prime Minister via email through the Cabinet website.

Further, Egypt encourages active participation by enabling online discussion forums on the government portal, as well as websites, such as the establishment of the Egyptian Ideas and Development Initiatives Bank.

Despite the high number of initiatives, including the widespread use of comments on the various social media platforms used by the government

(namely Facebook), no specific policy for how and to what extent to address such comments in policy making and service delivery has been observed.

Box 8.3. The Egyptian Ideas and Development Initiatives Bank

The Ideas and Development Initiatives Bank (IDIB) is a website launched by the IDSC in April 2011 that aims to promote citizen engagement for the development of Egypt through innovative ideas and online initiatives.

The principle behind the project is to allow citizens to propose ideas or initiatives online on topics such as health, tourism, foreign policy, ICTs, education, housing, energy, employment, women's empowerment, political participation, fighting corruption, etc. The website allows citizens to publish their ideas online or send them directly to the website's task force. Detailed indications on the social benefits of their ideas and how to implement them are required. Citizens can upload documents to the website, which can be shared by anyone. The website also allows NGOs and private institutions to raise awareness and mobilisation about their development initiatives. Tools to like or dislike ideas are allowed, and citizens can comment to discuss the ideas.

Each idea or initiative is given a unique number for tracking. A task force is in charge of identifying promising ideas, evaluating their feasibility, communicating and co-ordinating with citizens responsible for those ideas to set up actions plans with the ministries and government entities concerned to implement these ideas.

Source: website of the Ideas and Development Initiative Bank: *www.innovate.cabinet.gov.eg/IBS* (accessed December 2011) and Egypt's Information Portal *www.eip.gov.eg* (accessed January 2012) and Al masry Al Youm article: *www.almasryalyoum.com/node/390653* (accessed December 2011).

Building trust through the management of citizens' relationships

OECD countries have considerable experience in engaging with citizens on service delivery to build trust in government, especially through the use of ICTs. This is the case in Denmark, where democracy in local government is being developed through new means and channels, highly facilitated through the use of ICTs.[6] Egypt has also adopted such means to improve the quality of services delivered by receiving feedback and complaints from citizens. Submitting complaints to government entities is a constitutional right for citizens in Egypt, based on a specific regulatory framework.[7] This might include the potential to increase trust in government in Egypt as well.

Box 8.4. **Local e-engagement in Denmark for difficult budgetary decisions**

The municipalities of Denmark are operating in a context of reduced budgets and fiscal consolidations. The small municipality of Silkeborg faced large reductions in its expenditures. The municipality government decided to closely engage citizens throughout this difficult decision-making process and hence published a so-called catalogue of options.

The catalogue of options listed several different ways the municipality could implement the savings. The first draft was developed based on input by the municipal administration. This enabled citizens to access the relevant information and download spreadsheets with calculations on different options and possibilities for prioritising and re-organising the suggestions. A formal consultation process was also initiated; most answers were received digitally.

However, the municipality also aimed to offer the citizens a more open and visionary access to the decision-making process. Officials therefore also created a digital debate forum for citizens, widely used in the run up to the final decision that was taken by the city council. The municipality considered the use of more widespread social media, particularly Facebook, but decided that the citizen interaction then might become too difficult to steer. It therefore used the municipality website as the unique access point for the debate.

Evaluating the process, the municipality of Silkeborg assessed that it had received a great number of consultation replies from a broad selection of the population (including public officials and employees) of a generally very high quality, constructively oriented towards solutions.

Source: KL & ITST (2011), *Digital Citizen Dialogue, Inspiration and case on better dialogue on the web*, ITST, Copenhagen.

Article 63 of the Egyptian Constitution states that: "Every individual has the right to address public authorities in writing and with his own signature". Citizens can submit complaints online through ministry or government entity websites, as well as through the Government Services Portal and various governorates' portals. The MSAD has established a widely used system to receive these complaints: the Egyptian Government Citizen Relationship Management (CRM) (Box 8.5). This initiative is having a positive impact in terms of uptake and impact on solving some citizen concerns when dealing with government services. It is also in fact widely used within the government, with over 42 ministries and government entities, as well as 54 local authorities, that have installed the CRM (MSAD, 2012a). The IDSC has also recently established another channel to receive complaints: the Complaints Portal, which centralises such feedback (Box 8.6).

Though this kind of access to the public administration clearly enables citizen engagement, the crucial level of responsiveness in handling complaints remains unclear. However, the portal seems to be successful in addressing citizens' complaints, as elaborated in Box 8.6. Not actually addressing the complaints could be an obstacle for building trust in government. One further concern could be that the establishment of a parallel complaint system would reduce attention on the root causes of the complaints. Efforts addressing the root causes of complaints might have an increased impact of administrative reform.

Box 8.5. **Egyptian Government Citizen Relationship Management**

Considered as "the main help arm to the e-government programme", the Citizen Relationship Management (CRM) aims to understand citizen needs and improve customer satisfaction. Prior to the establishment of this system, citizens submitted their complaints via post or fax and had no mechanism to follow up on their inquiries. Additionally, no overall statistics were available on the number of complaints and their resolution.

Aiming to improve interaction with citizens and increase citizen trust in government, the CRM allows citizens to make suggestions and submit complaints or queries about a specific government entity or service through the following channels: the Egyptian Government Services Portal, the Egyptian Government Call Center and other call centers established by the MSAD, emails to government entities, paper forms and faxes. Employees are trained to register complaints and answer citizen inquiries. The citizens can follow up on their complaints using a specific case number.

By storing citizen requests and their resolutions, providing processes and workflows for handling these requests, integrating different databases and aggregating data from multiple sources – as well as reporting on performance – the CRM improves government knowledge about citizen satisfaction and enables quicker and more effective service delivery by the government.

In local authorities, the CRM has enabled to resolve 80% of the average 650 daily inquiries and reduce the volume of dropped calls from 20% to 4%. The Egyptian Call Center (19GOV) received about 1 million calls in 2010 (910 000 calls, 839 000 of which were addressed) and about 1.5 million calls in 2011. Moreover, 304 000 letters and emails were received, 281 000 of which were addressed.

Sources: MSAD (2010d), *Annual Report 2010* and MSAD, "CRM Business Plan"; and MSAD (2012a).

Box 8.6. **The Egyptian Governmental Complaints Portal**

On 15 October 2011, the Governmental Complaints Portal (*www.complain.idsc.gov.eg*) was launched by the IDSC and was activated by the Prime Minister, calling on all Ministers and Governors to raise awareness of the Portal and use it extensively.

The Portal allows government agencies to receive and handle complaints through an integrated administration system. Its goal is to enhance the government's performance by resolving complaints promptly and efficiently, and using complaints as a reference to improve the quality of services.

In order to access the Portal, citizens or businesses are required to register and fill out data such as their name, national ID and telephone number, as well as a user name and a password for the site. Citizens and businesses can follow up on their complaint with a reference number and a national ID. A user privacy policy is applied, whereby no data on the information submitted during the registration process is to be disclosed to any third party except the government agency responsible for the complaint.

Source: Governmental Complaints Portal website: *www.complain.idsc.gov.eg* (accessed January 2012).

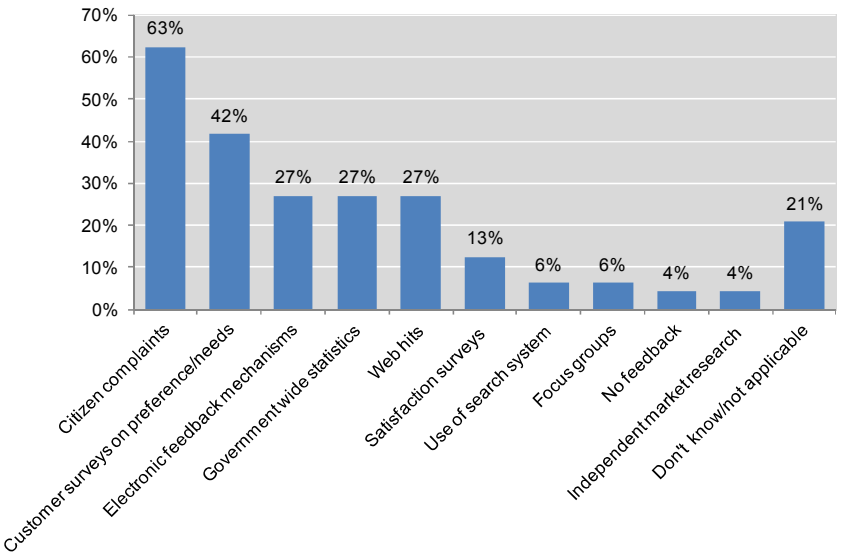
The impact of the use of ICTs on citizen engagement

Egyptian use of ICTs for citizen participation is thus widespread, and provides the government administration with an excellent point of departure to leverage the potential of a stronger alliance between government and citizens. Overall, the understanding of the value and benefits of citizen engagement was observed within the administration, and a widespread awareness of its potential confirmed in the survey results. In addition, with a vibrant civil society and dynamic digital natives (that is, the younger, ICT-skilled generation), Egypt has a strong base it can build on to fully exploit the use of ICTs in the public sector. However, Egypt does not seem to have yet put in place all the necessary policies and mechanisms to fully reap the benefits of citizens engagement in order to improve governance, service delivery and public policies.

For example, OECD survey respondents have stated that citizen complaints are the most-used method to identify demand for and satisfaction with online services (Figure 8.2). This demonstrates the widespread use of the CRM system and other systems for citizen complaints.

However, this type of citizen engagement seems to be organised mainly around addressing citizens' complaints about services and not in terms of fully involving them in policy making or service development and delivery.

Figure 8.2. **Methods used to identify demand for and satisfaction with online services**



Source: OECD E-Government Survey of Egypt 2011.

Explaining to citizens how their inputs are taken into consideration through a transparent process is crucial to ensure and sustain their engagement, (for example, making clear how the polls on the portals are used). A lack of a clear and transparent use of citizens' inputs might infer that, despite relatively high online engagement, the impact of such engagement on improving policy making and service development remains limited.

Additionally, consultation on laws and regulations is not yet widespread. This is also the case for consultation on service delivery, which is currently established only on an *ad hoc* and project-by-project basis, rarely conducted in the service development phase, and often limited to surveys on the satisfaction of users with specific services.

Box 8.7. Examples of inclusive use of ICTs

E-Petitions in the United Kingdom

E-Petitions through the United Kingdom's national portal: "The national portal of the United Kingdom (*www.direct.gov.uk*) includes an e-petition page where citizens have the ability to submit online petitions on issues for governments to propose to parliament if enough signatures are acquired. The government also ensures transparency by providing the outcomes of previous petitions and showing how many signatures were obtained."

E-Participation in Australia

"Australia's national portal provides numerous features enabling citizens to engage with government in the policy-making process. The government provides a 'Have Your Say' section that is located in the homepage of the portal. This section links to a public consultations section where citizens can send their comments and suggestions on draft regulations to the respective ministry, mainly by email. The government also provides the outcomes of previous consultations online. Also located in this section is a 'blogs' page that provides links to various government blogs as well as a Twitter page that shows a table of all government Twitter pages that users can access and respond to with their comments and suggestions."

New Zealand: The ParticipatioNZ Wiki

Participative web platforms can be used to engage a wider range of expertise and experience in drafting government policy. In 2007, the State Services Commission (SSC) of New Zealand developed "ParticipatioNZ wiki", a password-protected wiki that could be accessed by members of a Participation Community of Practice. This community includes a diverse range of people drawn from academia, government, business and civil society, as well as international experts.

The process of designing and building the ParticipatioNZ wiki started in January 2007 and a beta version was launched on 30 March 2007 (see: *http://wiki.participation.e.govt.nz*). In the course of the following weeks, the SSC project team drafted content for the SSC's *Guide to Online Participation* directly on the ParticipatioNZ wiki, where members could review it instantly. All members were free to make edits directly on the draft text or to raise issues on the associated discussion pages for each section. All revisions to the guide were transparent, thanks to the "history" function of the Mediawiki platform which shows the names of individuals who make edits. The draft *Guide to Online Participation* was also discussed at a workshop in early May 2007 and a final version released in late 2007.

Source: UNDESA (2012) and Sommer, L., Caddy J. and D. Hume (Part II, OECD, 2009).

Transparency for accountability and integrity

Promoting transparency is considered essential for enhancing accountability and oversight of public organisations. Accountability requires the ability to identify the relevant officials to be held accountable for their actions. Transparency policies can help enable such accountability by ensuring available, reliable, relevant and timely information about the activities of the government (OECD, 2002). Transparency is also key to promote integrity and combat corruption.

Corruption contributes to declining confidence in public institutions and undermines trust in government. Efficient and effective public services with an inherent culture of integrity and transparency are the key pillars of sustained social and economic development. Fighting corruption is essential to ensure the sound functioning of public services and to provide best value for money (OECD, 2010d; OECD, 2012c forthcoming).

The fight against corruption and the promotion of transparency are among the key objectives of the Egyptian government administration, and even more so in light of the democratic transition process (MSAD, 2010c). The democratic transition process in Egypt offers opportunities to reinforce anti-corruption efforts in Egypt and improve transparency and integrity.

Egypt has established a Transparency and Integrity Committee tasked to develop a strategy for combating corruption. The committee is headed by the MSAD's Minister of State and is mainly tasked with corruption prevention (Transparency and Integrity Committee, 2010; MSAD, 2010d). However, numerous obstacles exist to fully ensuring transparency. For example the current rules, regulations and presidential decrees counter the government's overall ambitions on transparency (American Chamber of Commerce, 2012). Among the most important barriers is Presidential Decree No. 2915 of 1964, which states:

> "No ministry or department or individual(s) in the government or the private sector may publish using any means of publication any publications or statistical information except from the Central Agency for Public Mobilization and Statistics. Whoever contravenes this is considered to have violated the law."

Work on a freedom of information act has been put on hold. A general revision of the legislative framework seems to be required in order to make sure that the current attempts will deliver the expected results in a properly reformed and supportive legal and regulatory framework.

Based on members' experiences, the OECD has developed and committed to a set of principles for ethics in the public service, as demonstrated in Box 8.8.

Box 8.8. OECD Overall Principles for Improving Ethical Conduct in the Public Service

1. Ethical standards for public service should be clear.
2. Ethical standards should be reflected in the legal framework.
3. Ethical guidance should be available to public servants
4. Public servants should know their rights and obligations when exposing wrongdoing.
5. Political commitment to ethics should reinforce the ethical conduct of public servants.
6. The decision-making process should be transparent and open to scrutiny.
7. There should be clear guidelines for interaction between the public and the private sectors.
8. Managers should demonstrate and promote ethical conduct.
9. Management policies, procedures and practices should promote ethical conduct
10. Public service conditions and management of human resources should promote ethical conduct.
11. Appropriate procedures and sanctions should exist to deal with misconduct.

Source: OECD (2002), *Public Sector Transparency and Accountability*, OECD Publishing, Paris.

Using ICTs to improve access to information, transparency and accountability

The use of ICTs can be highly supportive in increasing transparency. Making information available online about services, their cost, and how to access them – as well as information about rights and entitlements – improves transparency and reduces opportunities for arbitrary or corrupt behaviour (OECD, 2003b). Making information available online is the first step, but it will not automatically increase transparency. Information also needs to be made accessible and easy to use for citizens, another feature which can be facilitated by the use of ICTs (OECD, 2003b).

ICTs can also help make government budgets more transparent and accessible. OECD countries have established good practices in this regard, as illustrated in Box 8.9.

Box 8.9. **OECD good practices for budget transparency**

The budget is governments' single most important policy document, where policy objectives are reconciled and implemented in concrete terms. Budget transparency is defined as the full disclosure of all relevant fiscal information in a timely and systematic manner. Some of the key elements in the good practices for budget transparency adopted by OECD countries include:

Budget reports: The Budget

- The government's draft budget should be submitted to Parliament far enough in advance to allow Parliament to review it properly. The budget should be approved by Parliament prior to the start of the fiscal year.
- The budget, or related documents, should include detailed commentary on each revenue and expenditure programme.
- The budget should include a medium-term perspective illustrating how revenue and expenditure will develop during, at least, the two years beyond the next fiscal year.
- Comparative information on actual revenue and expenditure during the past year and an updated forecast for the current year should be provided for each programme.
- Expenditures should be classified by administrative unit (*e.g.*, ministry, agency).

Budget reports: Year-end report

- The year-end report is the government's key accountability document. It should be audited by the Supreme Audit Institution and be released within six months of the end of the fiscal year.
- The year-end report shows compliance with the level of revenue and expenditures authorised by Parliament in the budget. Any in-year adjustments to the original budget should be shown separately.
- Comparative information on the level of revenue and expenditure during the preceding year should be provided. Similar comparative information should be shown for any non-financial performance data.
- The year-end report should contain a comprehensive discussion of the government's financial assets and financial liabilities, non-financial assets, employee pension obligations and contingent liabilities.

Source: OECD (2002), *Public Sector Transparency and Accountability, Making it Happen*, OECD Publishing, Paris.

A more specific example, highlighting the benefits of successful use of ICTs to promote budget transparency, is the case of the United States and the website *www.usaspending.gov* (Box 8.10).

Box 8.10. USAspending.gov and data.gov.uk

The American Federal Funding Accountability and Transparency Act of 2006 requires that the Office of Management and Budget establish a single searchable website, accessible to the public at no cost, which includes for each Federal award:

- the name of the entity receiving the award;
- the amount of the award;
- information on the award including transaction type, funding agency, etc;
- the location of the entity receiving the award; and
- a unique identifier of the entity receiving the award.

USAspending.gov was first launched in December 2007 to fulfill these requirements. Prime award information shown on the website is provided by federal agencies through four main source systems.

Data.gov.uk

The UK government releases public data to help people understand how government works and how policies are made. Some of this data is already available, but data.gov.uk brings it together in one searchable website. Making this data easily available means it will be easier for people to make decisions and suggestions about government policies based on detailed information. There are currently over 5 400 datasets available, from all central government departments and a number of other public sector bodies and local authorities.

From data.gov.uk, you can access the raw data driving government forward. This can then be used by people to build useful applications that help society, or investigate how effective policy changes have been over time. General public information - such as how to find out if you are entitled to tax credits, or how to tax your car - can be found at DirectGov.

Source: www.usaspending.gov (accessed April 2012) and *Source: data.gov.uk.* (accessed April 2012)

The MSAD highlights that transparency, improving administrative efficiency and fighting corruption have been part of the Egyptian agenda of good governance since 2004 (MSAD, 2010c). Further, within the framework of the G8 Deauville partnership, Egypt has committed to improving good governance including transparency and accountability (G8, 2011). One specific example on how accountability is being improved is the Stolen Assets Recovery initiative that in Egypt "…has focused on the authorities' engagement with key international counterparts; capacity-building on how

to prepare mutual legal assistance; and preparation of the Egyptian team for taking on international cases." (G8 and Ministry of Finance, 2011b).

Egypt has established some initiatives to promote transparency and integrity through the use of ICTs, such as the procurement portal (Chapter 5), the establishment of the Government Jobs Portal to ensure transparent recruitment processes of public servants, and the recent elections management system (Box 8.11). The initiatives for fostering integrity in the Egyptian public sector are considered important steps in improving the good governance of the public administration. As elaborated above, transparent and openly regulated procedures are key elements for reducing corruption, enabling accountability and supporting the process of strengthening confidence in the public administration.

Box. 8.11. **Publishing Judicial Decisions UK and Ireland**

A key element of the state and source of trust and confidence is a free and open judicial process. In the UK and Ireland, the British and Irish Legal Information Institute (BAILII) provides access to the most comprehensive set of British and Irish primary legal materials.

They are available for free and in one place on the Internet. In August 2007, BAILII included 76 databases covering 7 jurisdictions. The system contains around 11 gigabytes of legal materials and around 200 000 searchable documents.

The databases on BAILII are derived from a number of sources. Some of the data comes from existing free to air sites. Most of the databases are based on published and unpublished CD-ROMs or rely upon direct and indirect feeds from relevant courts, government departments and other organisations. All of the data has been converted into a consistent format and a generalised set of search and hypertext facilities have been added. Further details as to where databases come from are provided on the database home pages.

BAILII makes its website available on a subscription-free basis for the benefit of the public, including pro bono organisations, neighbourhood law centres, students and users in developing countries. BAILII incurs substantial running costs in maintaining its database and website, and is dependent on a continuing flow of donations in order to remain in operation. Commercial users of BAILII (including legal or other professionals, and publishers) and educational institutions are requested to make annual donations to BAILII in order to assist BAILII in meeting these costs.

Source: www.bailii.org (accessed February 2012).

However, about half of OECD survey respondents stated that the impact of e-government on increased transparency is very high or high, while 40% of respondents think that the impact is low. This might indicate a very mixed

use of ICTs in order to increase transparency. It might also imply that there is a limited or varied understanding of the value and benefits of using ICTs to improve transparency and integrity within the administration.

The Egyptian civil society gives some examples on the use of ICTs to help prevent corruption, as per Box 8.12. Another interesting example of civil society's use of ICTs to improve political accountability is the website MorsiMeter.com.

Box 8.12. **Zabatak**

Founded in 2011, Zabatak is an anti-crime and anti-corruption not-for-profit initiative led by a group of Egyptian youth with an aim to help fight corruption and improve security in Egypt. The platform, which means "I caught you" in Arabic, collects information and reports about criminal or corrupt activities for citizens. This initiative was founded in the early days of the revolution as a response to deteriorating safety conditions and increasing corruption. The initiative raises awareness about corruption and encourages people to collaborate and find solutions to misdemeanors.

Zabatak is based on the use of Ushahidi's crowdsourcing platform and is available on smart phones. Users can also receive custom email alerts about incidents. The platform is in Arabic and visualises the data reports by locations as well as by types of incidents. It also allows a number of ways of sharing and commenting on the incidents and on the general trends. By its visual and easy to understand and communicate approach, the platform helps bringing about general as well as local attention to bad governance.

Source: www.zabatak.com (accessed April 2012); Youth awards website: *www.youthaward.org/winners/zabatak-anti-crime-anti-corruption-initiative* (accessed April 2012).

During OECD interviews, government officials highlighted privacy and security issues among the key challenges that stand in the way of openness and transparency. Some OECD countries (namely Finland) have benefited from granting citizens a fundamental right to obtain accurate, detailed and timely information on rules and regulations, ministerial decrees and decisions and financial statements (such as federal budgets and auditing reports).[8] In the Finnish case, legislation on access to public documentation dates back to the 1950s. The Finnish *Act on the Openness of Government Activities* of 1999 defines public authorities' responsiveness to citizen requests for information as a basic principle. In a MENA context, Tunisia has recently launched the data sharing platform opendata.tn, aiming to open up government and the data of the Tunisian public administration (OECD, 2003a; CIPE, 2009).

As pointed out by many public officials, much work remains in Egypt, which currently has no overall openness or access to information act in place. This affects both transparency and accountability, but might also be a serious obstacle to economic growth and foreign investments Rule of law, transparency and public information openness and accessibility are indeed among the key pre-conditions to increase foreign investors' trust in a country. The use of ICTs can help support accessibility of the information provided and ensure it is provided at a minimal cost. The use of ICTs can also facilitate government's response to citizen requests for information.

New technologies to support the elections processes

While political elections are only one part of democratic functioning, they remain among the most essential. The use of ICTs by several OECD countries has also been instrumental in elections, although the extent and depth of such experiences vary (OECD, 2003c).

Although OECD countries seem to have particularly focused on the use of ICTs for elections in order to lower costs and improve communication with citizens, the use of ICTs for elections also has several other benefits (KL & ITST, 2011). These include using ICTs to help reduce fraud and corruption, improve accessibility, and facilitate the elections process and ensure a more accurate counting of the ballots.

OECD country experience with e-voting for elections mostly includes the use of voting machines and voting from a distance (online or through SMS). These mechanisms have high potentials to reduce fraud, but are also accompanied by challenges related to security issues as well the digital divide, which have yet to be addressed (OECD, 2009b). One issue of main concern is to establish trust in using the new technologies.

In the case of Egypt, the organisation of the constitutional referendum, as well as parliamentary and presidential elections in 2011 and 2012, has been a crucial phase in the transition process. Successful initiatives in improving transparency and integrity and facilitating the elections process includes the establishment of the constitutional referendum website (Box 8.15) and the elections management system developed by the MSAD.

Box 8.13. **Mexico: Transparency and integrity through e-procurement**

Transparency and accountability are top political priorities in Mexico, and e-government has been repeatedly used as a weapon in the fight against corruption. The examples of Compranet and IMSS (*Instituto Mexican del Seguro Social*) show the extent to which the fight against corruption has, and will continue to have, a strong impact on the implementation of e-government in individual organisations in Mexico.

Compranet is an Internet-based government procurement system introduced in 1996 by the General Comptroller (*Secretaría de la Contraloría y Desarrollo Administrativo* – SECODAM, the actual Ministry of Public Administration). This system contains the legal framework, bidding opportunities, statistics, notifications and all other relevant information for government procurement activities. Its introduction greatly enhanced transparency in public procurement procedures and increased communication between government and citizens. Compranet is one of the better-known e-government services in Mexico – and two alleged corruption scandals that were unmasked through Compranet (in 2001 and 2003) contributed to the general understanding of how e-government can improve transparency and accountability.

A second, more recent, case demonstrating the importance of transparency in e-government in Mexico is the purchase and expenditures portal of Social Security Institute (*Instituto Mexican del Seguro Social* – IMSS). IMSS is one of the most important government organisations making purchases in the Mexican government: it acquires over USD 3 billion worth of goods and services each year. In 2004, IMSS released its "*IMSS va a comprar, IMSS compró*" portal ("IMSS will buy, IMSS has bought"), by which a list of all prospective purchases that IMSS will carry out during the year is published, as well as the terms and conditions under which all purchases were made. This practice not only opens the market to a substantial set of competitors, but also reduces corruption and in the end saves taxpayer money. IMSS' accounting information – generated by the Government Resource Planning Initiative (PREI) – will also be readily available online to the public in order to enable public scrutiny of the IMSS' spending.

Source: OECD (2009), *Rethinking e-Government Services: User-centered Approaches*, OECD Publishing, Paris.

Box 8.14. **Open platforms to leverage transparency in Chile**

An essential aspect of the Chilean Law on access to public information has been the incorporation of electronic mechanisms for both proactive publication of information from government agencies (termed "active transparency"), and the management of citizen consultations on public information (termed "passive transparency") (Government of Chile, 2011).

In this context, the General Secretariat of the Presidency developed an online system that simplifies the proactive publication of transparency information from public institutions using open standards that ensure a consistent user experience. At the same time, a centralised portal was created to facilitate the search for information from different agencies: *gobiernotransparentechile.cl*. Regarding passive transparency, the government developed a free and open source solution that allows public agencies to manage information in response to requests made by citizens. Administration agencies must electronically report statistics on citizen requests into a system called the "Transparency Observatory" that tracks the delivery of transparency requests at a whole-of-government level. Several additional cases that promote fiscal transparency from different angles are worth mentioning:

Mercadopublico.cl, the open e-procurement platform. Since a new law on public procurement came into force in 2003, *mercadopublico.cl* has expanded rapidly. The platform was created to increase the transparency of government purchasing decisions by publishing all public acquisitions through an open, centralised portal. This initiative reduces transaction costs and widens the net of suppliers for government agencies. It has also allowed more small and medium-sized enterprises (SMEs) to participate in the vast public procurement market.

Analiza.cl, a business intelligence platform that seeks to deliver better information for better business decisions. It provides consolidated information and detailed bids and purchase orders that are traded on *mercadoublico.cl*. This single platform integrates tools that make it easy to find and view information from all government agencies. This platform also allows users to perform their own mash-ups based on procurement data and, for example, to build geo-referenced maps of public procurement.

Dipres.gob.cl provides open access to budget reports. In Chile, the use of technology to promote fiscal transparency is encouraged during budget formulation and execution processes. One of the main measures is the timely publication of budget execution reports of public agencies. Reports from all government bodies are made available to the public monthly and quarterly through *dipres.gob.cl*.

Source: OECD (2009), *Rethinking e-Government Services: User-centered Approaches*, OECD Publishing, Paris.

Box 8.15. **The Egyptian constitutional referendum website**

Prior to the parliamentary elections, the MSAD has also developed a website for the constitutional referendum (*www.estefta2.eg*) in an effort to provide expertise supporting free and democratic elections (MSAD website).

The website provides information on the referendum procedures, such as citizen rights and obligations; how to find polling stations; the constitutional amendments that were proposed by the SCAF, etc. It also allows citizens to report cases of violations during the elections process. The aim of the website was to increase awareness about the transition process and provide relevant information to citizens, judges, NGOs and other stakeholders.

During the referendum period, the website received more than 8 million visitors and was used to publish the results of the referendum. It was agreed to establish a similar website during the process of drafting the new constitution.

Source: MSAD website: *www.ad.gov.eg* (accessed December 2011) and the referendum website: *www.estefta2.com* (accessed December 2011).

Prior to the elections in 2011, parliamentary elections in Egypt had relatively low participation rates and were structured around frameworks that favoured vote-buying and fraud (MSAD, 2012b). The MSAD describes the previous situation as one in which:

- in order to vote, citizens were required to request a voting card that could only be obtained within a short and pre-determined period of time from police stations. The voter cards did not contain a picture of the holder and the paper-based system was outdated, and included the names of deceased people and citizens deprived of their political rights as well as name duplicates;
- no electronic databases on candidates, polling stations, observers or judges existed;
- former electoral laws did not identify electoral constituencies in a uniform manner, as the latter were based according to the place of residence, place of birth or place of work of the voter, which fostered vote-buying and corruption as workers were bought off and tribalism was favoured;
- information on polling stations for citizens was only available at police stations, and no mechanism to disseminate updated information about theses polling stations was available;
- Egyptians abroad were not allowed to vote.

Following the revolution, the MSAD – under the supervision of the Judicial High Elections Committee and in collaboration with other stakeholders including the MCIT, IDSC, CAPMAS as well as private telecom companies – was tasked with establishing a project that aimed to improve the transparency and integrity of elections and facilitate the electoral process for citizens through the use of ICTs. Legislative amendments were passed:

- allowing for voting to take place based on the national ID card instead of voting cards;
- affirming that only the fixed place of residence of voters, as stated in the national ID database, could determine their constituency; and
- allowing Egyptians abroad to vote (MSAD, 2012b).

In view of improving transparency in the election process, the MSAD created a new voter database of 50 million citizens based on the national ID database, in co-ordination with the Ministry of Interior's Civil Status Organisation. This eliminated the requirement for voters to request a voter card, as they could use their national ID card to vote. This also enabled a more accurate and up-to-date database and helped prevent fraud as the national ID card includes citizens' pictures and holds a unique ID number.

Establishing this elections management system proved to be successful, despite the short deadlines and delays given the unstable political situation, the need to clean the large databases, and the significant co-ordination required with the numerous stakeholders involved. Along with the increased political activism of citizens following the revolution, this system played a role in increasing participation rates for the 2011 parliamentary elections, which increased by threefold compared to the participation rate for the 2010 parliamentary elections. Additional achievements of the system are detailed in Box 8.16.

One of the most recent good practices on the use of ICTs to reform government processes builds on the system for elections management established by the MSAD for the parliamentary elections.[9] The positive experience has been continued for the presidential elections.

Box 8.16. **The Egyptian Election Management System**

The MSAD created databases for voters, candidates and observers and electronically allocated them to constituencies and electoral commissions. To facilitate the voting process, the MSAD additionally converted available information from the Central Agency for Public Mobilization and Statistics and the General Authority for Educational Buildings on geographical locations of police stations and schools to Google maps co-ordinates.

A multi-channel information delivery strategy was established for the elections, including the use of call centers, SMS, mobile applications and websites – as well as police stations and preliminary courts – to provide information to citizens about the elections process. The website *www.elections2011.eg* allowed citizens to inquire about constituencies, polling centers, candidates and the voting process, and to ensure they are registered on the new voters' database by using their national ID card. Citizens could also inquire on the latter via their mobile phones. There were 18 million inquiries on the elections website, 7 million inquiries on other websites, 12.5 million inquiries via SMS, 3.5 million inquiries to call centers, and 2 million inquiries on mobile applications.

Besides facilitating the voting process, the system aimed at increasing the participation of voters by establishing awareness-raising campaigns on the importance of participation, the voting process, as well as the rights and duties of voters and candidates. In co-operation with a civil society group called Qabila, short videos were aired online about how to file for candidacy, the new electoral system, how to choose candidates, the elections campaign, as well as the importance of voting and the voting process for Egyptians abroad (*www.elections2011.eg/index.php/about-committee/awareness-campaigns*).

Sources: High Elections Committee Elections website: *elections2011.eg* (accessed December 2011), documentation from the MSAD.

Box 8.17. The use of mobile phones during the Egyptian parliamentary elections

In preparation for the parliamentary elections, mobile phones (along with other service delivery channels, including the official elections website and call centres) were used to provide information about the election process – and used by citizens to inquire about whether they are eligible to vote, where to vote, and who they could vote for. There were 12.5 million inquiries via SMS during parliamentary elections.

In partnership with Google, the MSAD also paved the way for mobile phone applications to be developed by civil society and the private sector by allowing them to use the information available on the official elections website. Mobile applications such as "Sawtak" or "We3almobile" were established to provide Egyptian voters with access to comprehensive and impartial information on the elections (such as voting dates, registration processes, etc.). The application also allows citizens (using their national ID number) to check whether they are eligible to vote, which is their constituency, which parties and independent candidates are competing in their constituency including names, symbols and web links to parties or candidates. The applications also include the option to add candidates or parties to a favorites list to facilitate follow up throughout the election process.

Besides facilitating the voting process for citizens, these applications also aimed to raise political awareness by using mobile phones – a tool that is widely used among Egyptians.

Source: Bright Creations website: *www.bright-creations.com/blog/egypt-elections-2011-sawtak-on-mobile* (accessed December 2012).

Key messages

- The second part of the transition process brings great opportunities for promoting freedom and integrity, although realizing these objectives has proved challenging. Previously planned work on administrative reform in Egypt has included a focus on transparency, openness and engagement. The current transition period provides for an excellent opportunity to revisit, improve and build on existing initiatives. A new government will be expected to focus on such reforms in its political agenda.
- Policies for when and how to engage citizens in the different policy making processes are still missing. The use of ICTs to promote citizen engagement does not seem to be consistently connected to administrative processes, and the ways in which the input received from engagement initiatives is integrated into policy making and service delivery remain unclear. According to the UN E-Government survey, Egypt ranks among the top countries in the world in terms of e-participation. This reflects initiatives for using social media to enable citizen engagement through the provision of information. Government management systems of citizen complaints also seem to be widely used. This creates a ground for future and more systematic work in terms of using ICTs for communication and citizen engagement, connecting to engagement policies and existing administrative processes.
- Egypt has established several initiatives to promote transparency and integrity through the use of ICTs, including a job portal for the recruitment of civil servants, and a portal for public procurement across government. This reflects important initial steps to support integrity, even though it does not seem to reflect a coherent policy on transparency – and the concrete impact of the initiatives remains to be identified. The recruitment portal does not yet seem to be used as the main recruitment arm of the public sector, which could help improve transparency and integrity. The procurement portal covers some parts of the procurement process; the uptake is still not in line with the objectives. Promising civil society initiatives have been developed and could provide interesting ideas for partnerships.
- Transparency in public sector budgets is considered a good practice in OECD countries, where the use of ICTs has proved very instrumental. Egypt has not yet established well-developed mechanisms for full transparency of government budgeting.
- ICTs can play an important role to support the organisation of transparent and accessible elections processes and encourage voting. In order to prepare for the parliamentary elections starting in 2011, Egypt has established a successful system for a more open and transparent election processes.

Notes

1. The boundaries between web 1.0 information and consultation and web 2.0 information and consultation can be fluid. The concept of web 2.0 implies some level of social interaction (that is, minimum two-way) – however, the overall distinction between the analytical categories remains valid.

2. For further elaboration on these guidelines, please consult OECD (2003), *Promise and Problems of E-Democracy: Challenges of Online Citizen Engagement*, OECD Publishing, Paris.

3. The UNPAN e-participation index covers the use of the Internet to facilitate provision of information by governments to citizens ("e-information sharing"), interaction with stakeholders ("e-consultation"), and engagement in decision-making processes (e-decision making") (UNPAN, 2012).

4. See *www.cabinet.gov.eg for more information*.

5. Web 2.0 tools are dynamic and participatory services that enable the users to generate new content and user interfaces. Social media is web 2.0 tools focusing on turning communication into a continued, participatory dialogue in a many-to-many relations. See glossary for further elaboration.

6. For further information on the program for democracy, see the website of Local Government Denmark, *http://kl.dk/Kommunalpolitik1/Kommunernes-Demokratiprogram*.

7. Such as the Circular number 20 for the year 2010 on Laws and Regulations for Complaints Submission. The Circular describes the way in which complaints are to be submitted, given the increasing amount of complaints received by the government, the missing information when submitting complaints and the duplication that has been observed. The Circular also establishes that government entities are required to review the complaint within 10 days.

8. See *http://platform.opendata.tn/index.php?id=5* for further information. The site also holds an app store and a civil-society driven software-development environment.

9. See also *www.elections2011.eg*.

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Annex A

OECD E-Government Survey results

As a part of the OECD E-Government Review of Egypt, the OECD conducted an online survey within the Egyptian public sector in the fall of 2011. This survey is referred to as the OECD E-Government Survey of Egypt 2011. The survey, which is one of the sources used to support the review, reflects the analytical framework of the OECD E-Government project and has been adapted to the context and challenges of Egypt. This Annex presents a selection of questions and answers from the survey.

The focus areas of the survey cover:

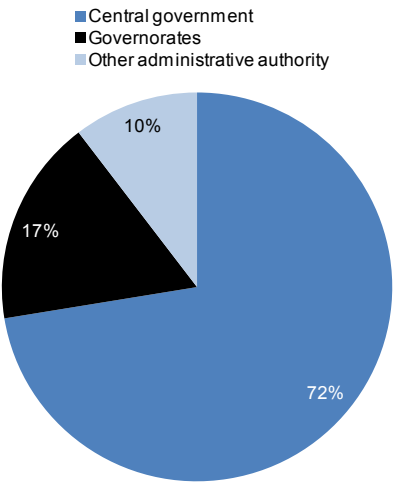
- budget information;
- main drivers and leadership;
- e-government challenges;
- public policies and e-government strategy;
- organisation and co-ordination;
- participation and engagement;
- e-procurement and sourcing;
- public service delivery and accessibility;
- monitoring and evaluation.

The figures and graphs included in this Annex have been created by the OECD Secretariat. The respondents to the survey were selected in agreement with the Egyptian government and the OECD. All state levels were invited to participate, including both the central and the local levels of the state. Percentages for each question in the survey were calculated according to the number of responses to each sub-question of the question. Different response rates can thus appear in some of the answers (Annex B on the report methodology). Finally, not all percentages sum to 100%, either

due to rounding of the numbers or for questions where multiple answer options were available.

A majority of respondents belong to the central government (72%) with 17% of respondents belonging to governorates and 10% to other administrative authorities.

Figure A.1. **Level of government of your organisation**

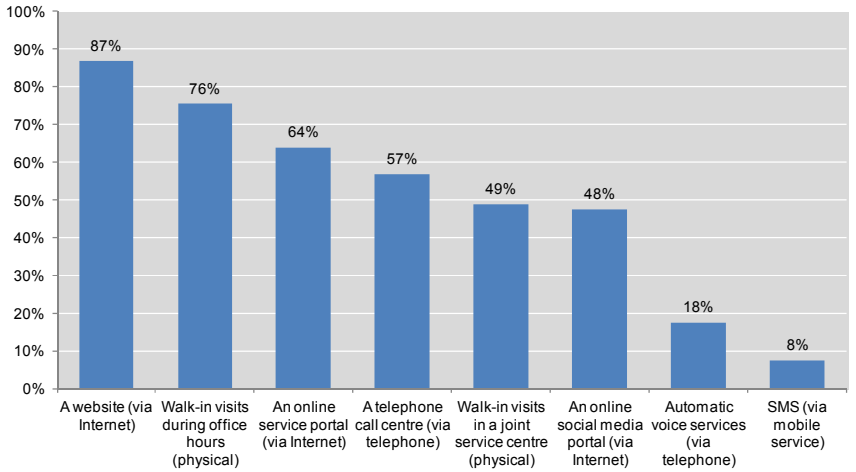


Question 1.2 d. Please check the level of government your organisation belongs to (n=58).

The most widely used service delivery channels are organisational websites (87%) and walk-in visits (76%); followed by the government online service portal (64%). Only 8% of respondents use mobile SMS as a delivery channel. The online social media portals (*e.g.*, Facebook) are used as a service delivery channel by 48% of respondents.

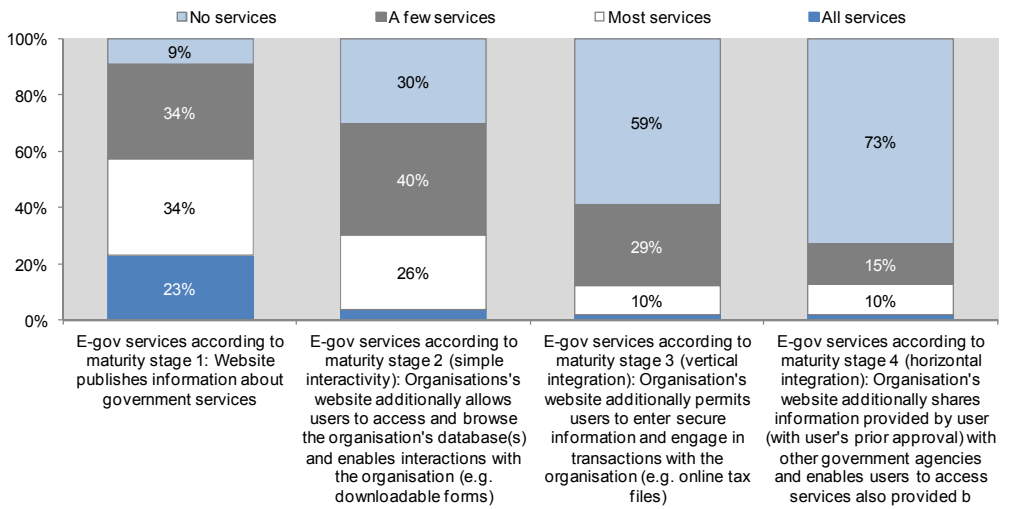
Most e-government services are delivered within maturity stage 1, which includes websites publishing information about government services. As the maturity levels increase, the number of e-government services delivered decreases; hence the majority of services (73%) are not delivered within the advanced maturity level 4: horizontal integration.

Figure A.2. **Most widely used service delivery channels**



Question 1.4 Please mention the service delivery channels used by your organisation to provide services (n=58).

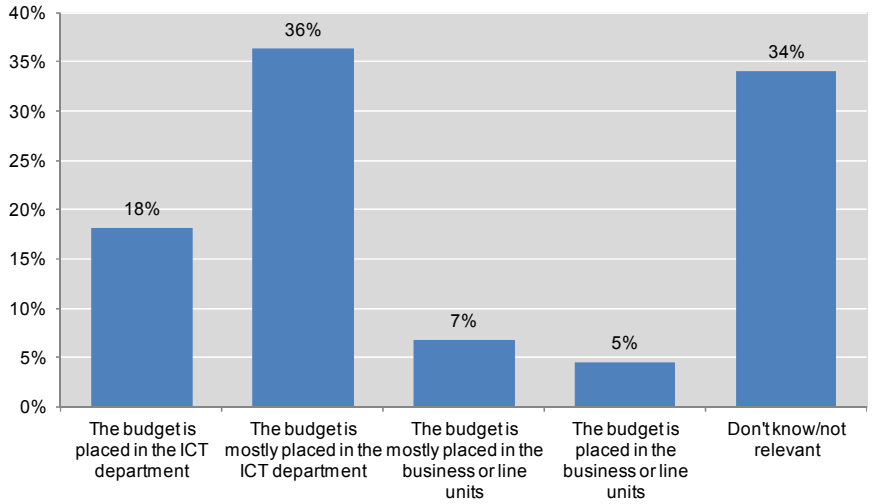
Figure A.3. **E-government services delivered according to level of maturity**



Question 1.5 How many e-government services does your organisation deliver within each of the following stages of maturity? (n=56).

ICT budgets and decisions are primarily taken in the ICT department. The majority of the respondents say that the ICT budget and budget-related decisions are taken or mostly taken by their organisation's ICT department (18% and 36%). One-third of the overall respondents (34%) stated that they do not know where the budget is placed or do not find the question relevant.

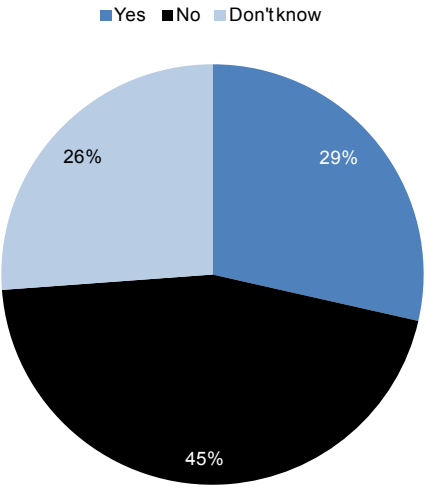
Figure A.4. **Departments or units within which ICT-budget-related decisions are placed**



Question 2.3 Please indicate approximately where the ICT budget and related decisions are placed in your organisation (n=44).

Seventy-one percent of respondents cannot specify their ICT costs or do not know if they can, while 29% of respondents can specify their IT costs. Among this 29%, the large majority of respondents were able to effectively specify their organisation's total annual ICT expenditures in 2008, 2009 and 2010.

Figure A.5. **Ability to specify ICT costs**

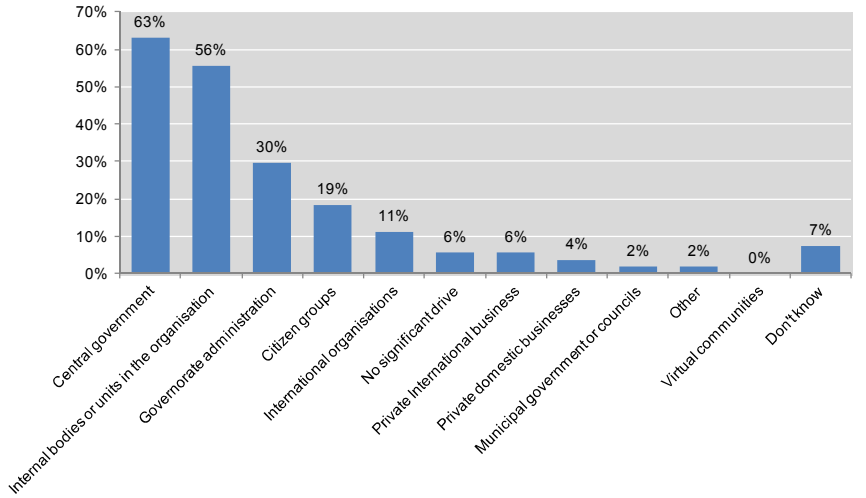


Question 2.6. Can you specify your ICT costs? (n=42).

The greatest drive for e-government activities comes from the central government (63%) and internal bodies or units in the organisation (56%). Governorate administration (30%) and citizen groups (19%) are also among the greatest e-government drivers. Only a few respondents consider the greatest drive to come from municipal government or councils (2%), private domestic business (4%) or private international business (6%).

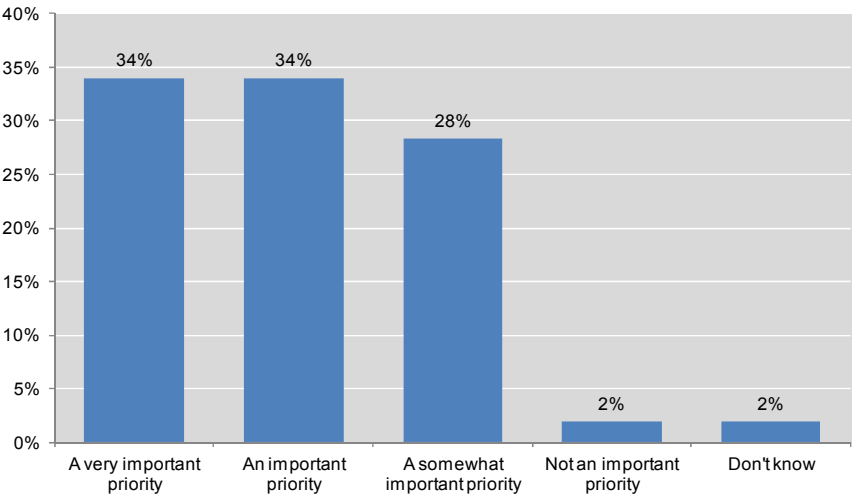
While the majority of respondents have either placed e-government as a very important or important priority for the top-level management in their organisations (34% for each option), a significant percentage (28%) says it is a somewhat important priority. Only 2% of respondents placed e-government as a not important priority or stated that they do not know what the priority level for e-government is within their organisation.

Figure A.6. **Greatest drivers of e-government activities**



Question 3.1 Where is the greatest drive for e-government activities in your organisation coming from? Multiple answers are possible (n=52).

Figure A.7. **Prioritisation of e-government**

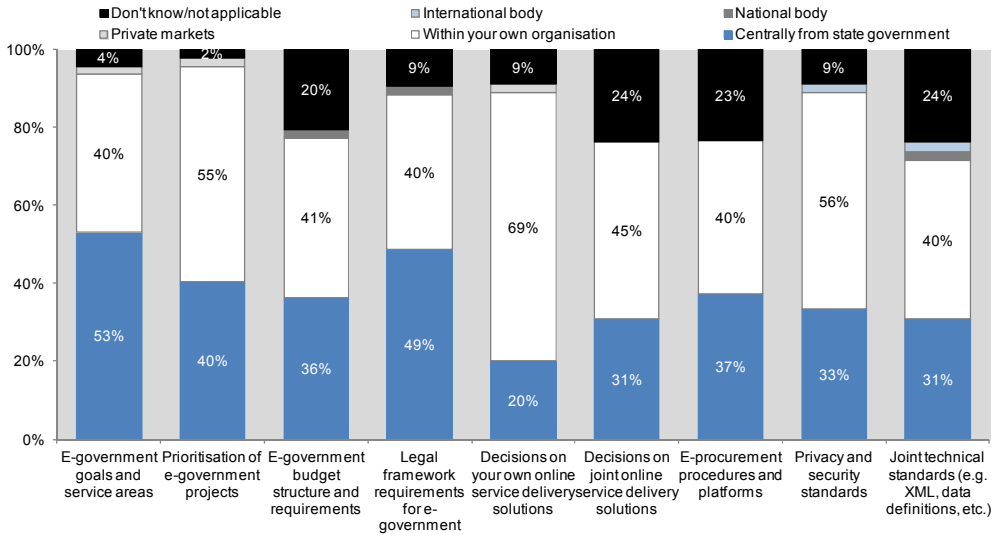


Question 3.2 Among the many priorities for the top level management in your organisation, would you say that e-government is: (n=53).

The main guidance in areas related to various e-government issues comes essentially from within the organisations or from the central government. It is noteworthy that organisations internally seem to provide significant guidance (*e.g.*, particularly on online service delivery) as is stated

in Figure A.8, while Figure A.6 states that internal bodies or units within organisations do not provide a particularly strong drive for e-government. Close to no respondents answered that guidance comes from private markets, international or national bodies.

Figure A.8. **Source of main guidance**

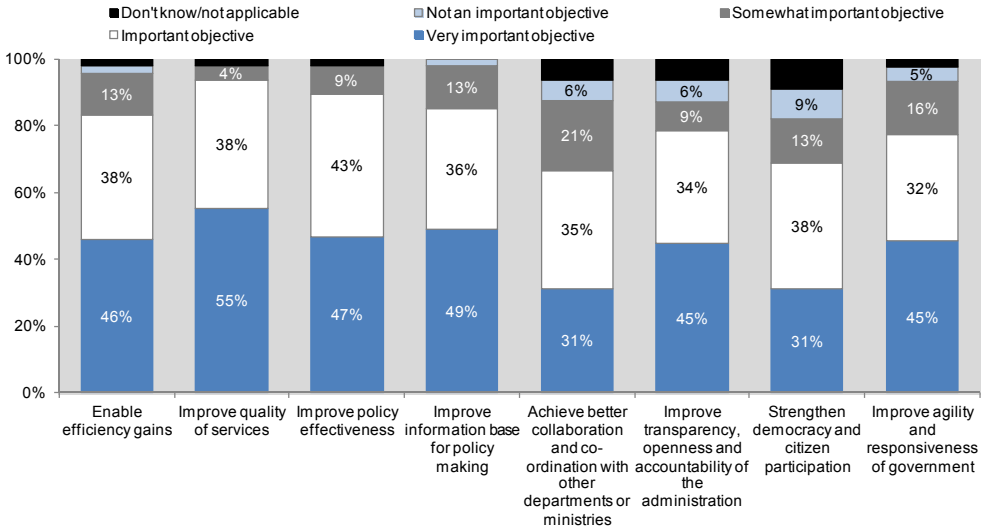


Question 3.3 Where is your main guidance coming from in the following areas? (n=47).

The most important e-government objectives for the previous three years seem to have focused on quality of services, policy effectiveness and improving policy making. Cross-governmental collaboration on the one side (*e.g.*, with other ministries), democracy and citizen participation on the other have not been considered as important objectives for e-government implementation. These results correspond to the results from question 3.5.b on future e-government priorities for public sector improvements.

Economic growth and development is considered the highest priority over the next three years, in terms of its contribution to economic benefits (average rank of 1.61, with ranking being comprised between 1 and 3 with 1 being the highest priority). Revenues and public sector efficiency seem to be considered less important.

Figure A.9. **Importance of objectives for the implementation of e-government**



Question 3.4 To what extent have the following objectives been important for the implementation of e-government in your organisation in the last three years? (n=49).

Figure A.10. **Future e-government priorities in terms of economic benefits**

Objective	Average rank
Contribute to economic growth and development	1.61
Generate revenues	2.38
Increase savings	2.39

Question 3.5.a. Over the next three years, what are your future e-government priorities in terms of economic benefits? Please rate from highest to lowest in each category (Scale from 1 to 3 with1 being the highest priority) (n=46).

Improving the quality of public services is considered the most important future e-government contribution in terms of public sector improvements (average rank of 2.41, with ranking being comprised between 1 and 6with 1 being the highest priority). Second highest priorities include improving decision-making processes and improving internal effectiveness and efficiency (3.07, 3.11 and 3.39 respectively). The lowest priorities include improving integration and service delivery with other entities and contributing to public management reform (4.39 and 4.55 respectively).

Figure A.11. **Future e-government priorities in terms of public sector improvements**

Objective	Average rank
Improve quality of public services	2.41
Improve decision-making processes	3.07
Improve internal effectiveness	3.11
Improve internal efficiency	3.39
Improve integration and service delivery with other entities	4.39
Contribute to public management reform	4.55

Question 3.5.b. Over the next three years, what are your future e-government priorities in terms of public sector improvements? Please rate from highest to lowest in each category (Scale from 1 to 6 with 1 being the highest priority) (n=46).

Improving citizen satisfaction is considered the most important future e-government contribution in terms of user orientation (with an average ranking of 2.29, with ranking being comprised between 1 and 6, with 1 being the highest priority). The second highest priority is encouraging citizen participation (2.75), followed by improving business satisfaction (3.65), increasing trust and transparency (3.51) and finally improving access to information and encouraging participation (4.20 and 4.35 respectively).

Figure A.12. **Future e-government priorities in terms of user orientation**

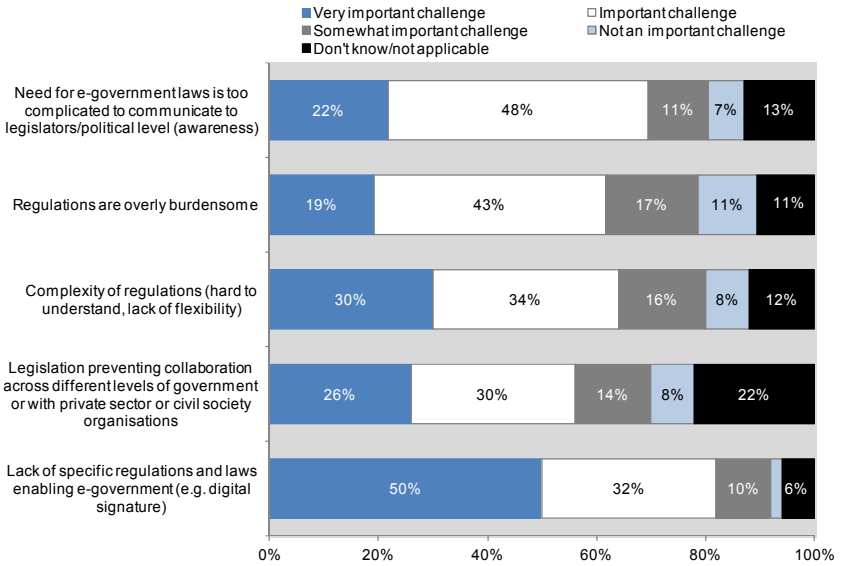
Objective	Average rank
Improve citizen satisfaction	2.29
Encourage citizen participation	2.75
Improve business satisfaction	3.65
Increase trust and transparency	3.51
Improve access to information	4.20
Encourage business participation	4.35

Question 3.5.c. Over the next three years, what are your future e-government priorities in terms of user orientation? Please rate from highest to lowest in each category (Scale from 1 to 6 with 1 being the highest priority) (n=47).

The figure illustrating question 4.1 of the survey shows that of the five legislative/regulatory challenges assessed, all are considered as either a very important priority or an important priority. It is notable that a relatively important percentage of respondents (22%) do not know whether legislation preventing collaboration across levels of government or with private sector

or civil society organisations is important, or whether this applies to their organisation.

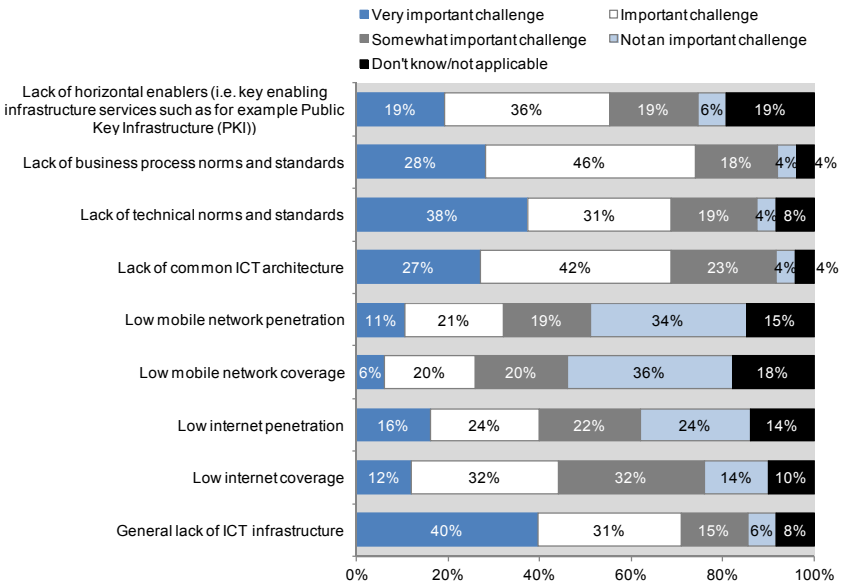
Figure A.13. **Importance of legislative/regulatory challenges to e-government**



Question 4.1 Please rate the importance of each of the following legislative/regulatory challenges to e-government: (n=50).

The most important infrastructural challenge perceived by respondents is the lack of business process norms and standards (with 74% of respondents rating it as a very important or important challenge), closely followed by a general lack of ICT infrastructure (with 71% of respondents rating it as a very important or important challenge), as well as a lack of technical norms and standards and lack of common ICT architecture (each considered by 69% of respondents as either a very important or important challenge). Low network penetration or coverage for either mobiles or Internet were mostly considered as not important challenges, although 32% of respondents considered that low Internet coverage was a somewhat important challenge.

Figure A.14. **Importance of infrastructural challenges to e-government**

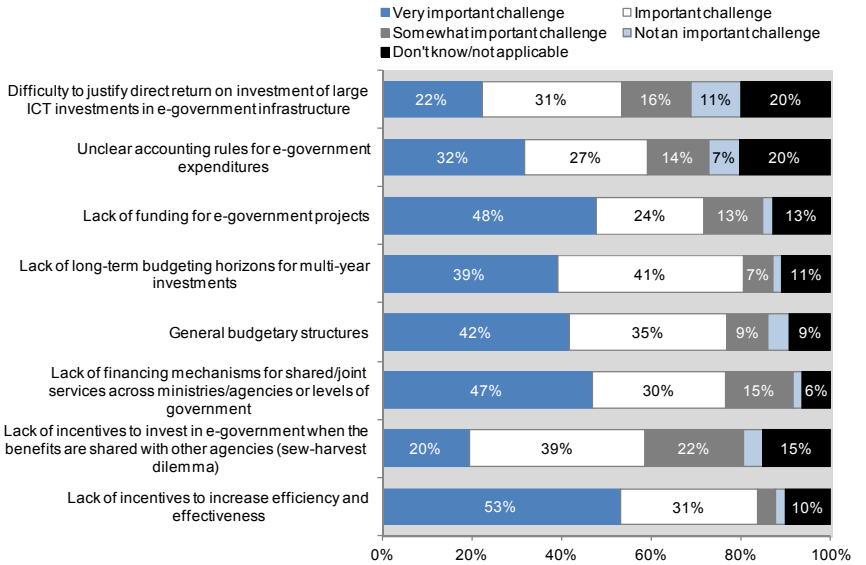


Question 4.2 Please rate the importance of each of the following infrastructural challenges to e-government: (n=50).

The most important budgetary and financial challenge is the lack of incentives to increase efficiency and effectiveness (84% of respondents consider this a very important or important challenge). This is closely followed by the lack of long-term budgeting horizons for multi-year investments (80%) and the challenges created by budgetary structures and the lack of financing mechanisms for shared or joint services (each rated by 77% of respondents as a very important or important challenge).

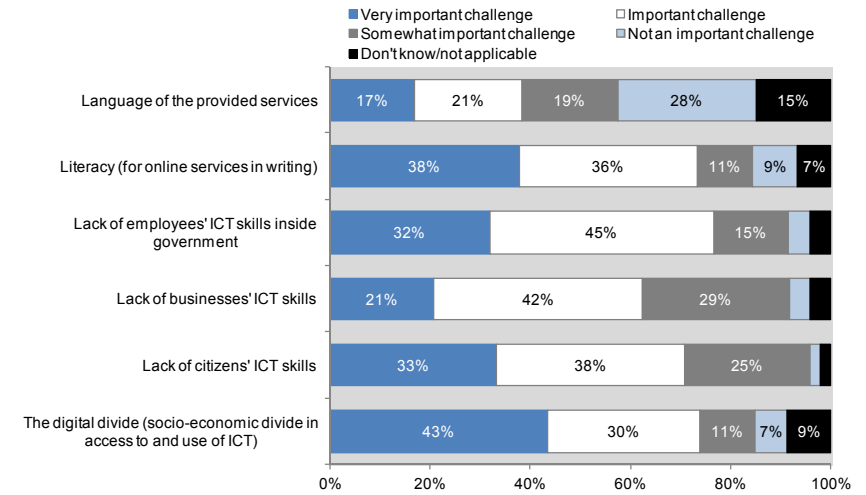
The most important user skills challenge to e-government is the lack of employees' ICT skills inside government, as identified by 77% of respondents as a very important or important challenge. This is closely followed by the digital divide; a large part find the challenge very important (43%). The least important challenge is the language of the provided service.

Figure A.15. **Importance of budgetary and financial challenges to e-government**



Question 4.3 Please rate the importance of each of the following budgetary and financial challenges to e-government (n=49).

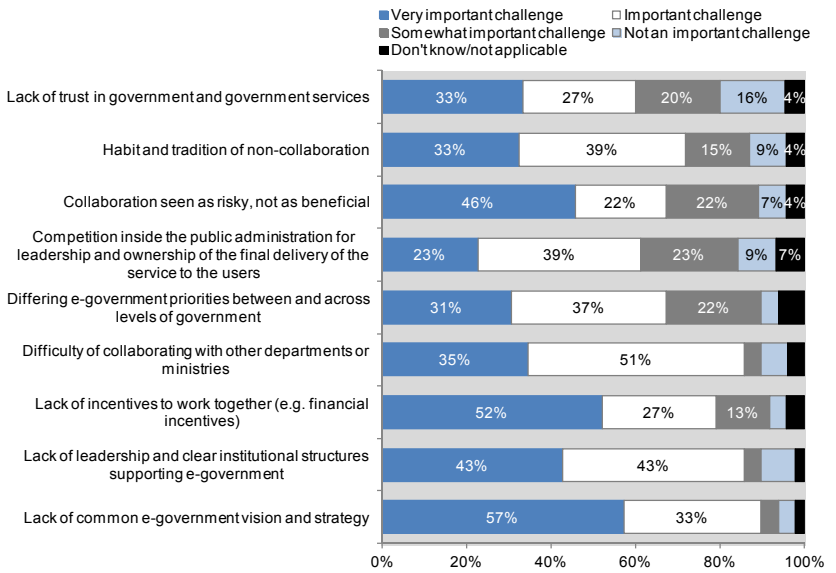
Figure A.16. **Importance of user skills challenges to e-government**



Question 4.4 Please rate the importance of each of the following user skills challenges to e-government: (n=48).

The most important organisational challenges to e-government are the lack of common e-government vision and strategy, the lack of leadership and clear institutional structures supporting e-government, the difficulty and non habit or tradition of collaborating with other departments or ministries, the lack of incentives to work together and differing e-government priorities (with more than 60% of respondents ranking these challenges as either very important or important). Less important challenges seem to be lack of trust in government and government services and collaboration seen as risky.

Figure A.17. **Importance of organisational challenges to e-government**

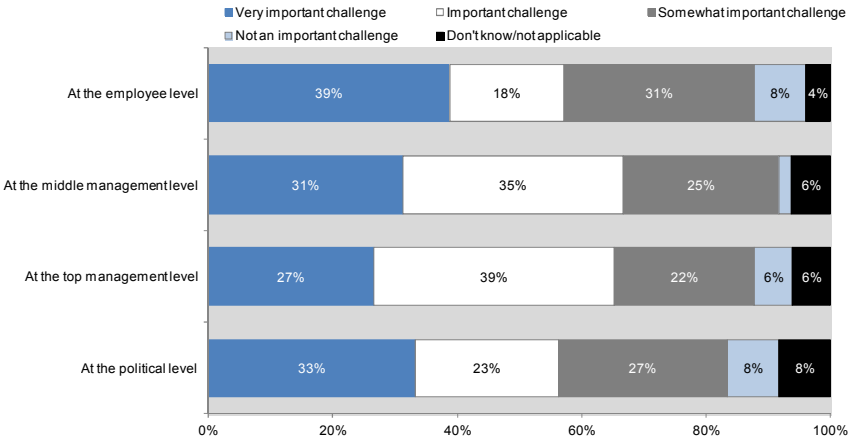


Question 4.5 Please rate the importance of each of the following organisational challenges to e-government (n=49).

According to results, lack of ICT knowledge is a very important challenge, mostly at the employee level (with close to 40% of respondents reporting this); however, this trend seems to be an important issue at the middle management level and top management level where the largest groups of respondents (66% for both groups) reported that this was either a very important or important challenge.

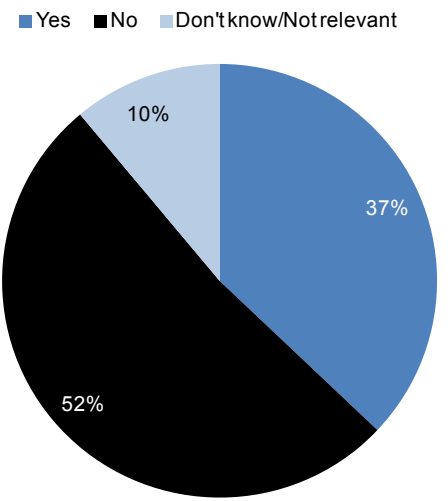
A majority of responding organisations (52%) do not have an e-government strategy or programme. Thirty-seven percent of respondents do and 10% do not know whether they have one or do not consider this as relevant for their organisation.

Figure A.18. **Importance of the challenge of lacking ICT knowledge among staff**



Question 4.6 Please rate the importance of the challenge of lacking ICT knowledge among the staff in your organisation: (n=49).

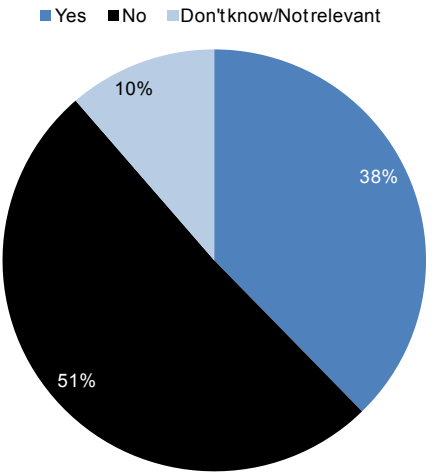
Figure A.19. **Availability of an e-government strategy or programme**



Question 5.1 Does your organisation have an e-government strategy or programme? (n=54).

A majority of responding organisations (51%) do not have an e-government implementation or action plan. 38% of respondents do and 10% do not know whether they have one or do not consider this as relevant for their organisation.

Figure A.20. **Availability of an e-government implementation or action plan**

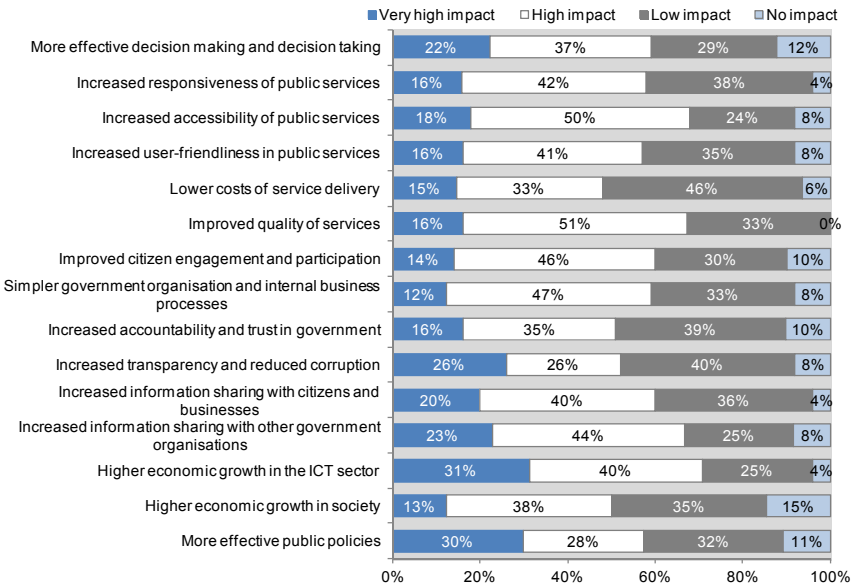


Question 5.2 Does your organisation have an e-government implementation or action plan? (n=53).

According to the respondents, e-government has had the highest impact on economic growth in the ICT sector (31%). Almost one-third of the respondents (30%) consider that e-government has had a very important impact on achieving more effective public policies; while at the same time an important number assesses this impact to none or low (43%). The impact of e-government thus might seem ambiguous. Higher economic growth in society as a whole is not considered an e-government driven impact. However, this seems to be a forward-looking priority.

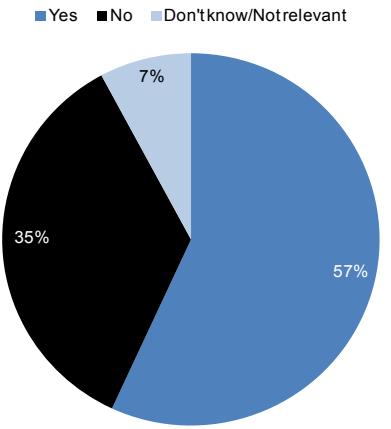
A majority of respondents (57%) have a unit responsible for e-government co-ordination in their organisation, 35% do not, and 7% do not know whether this is the case or do not find this question relevant for their organisation.

Figure A.21. **Impact of e-government on public policy and modernisation objectives**



Question 5.5 Please indicate whether you feel that e-government has had an impact on the following public policy and modernisation objectives:(n=51).

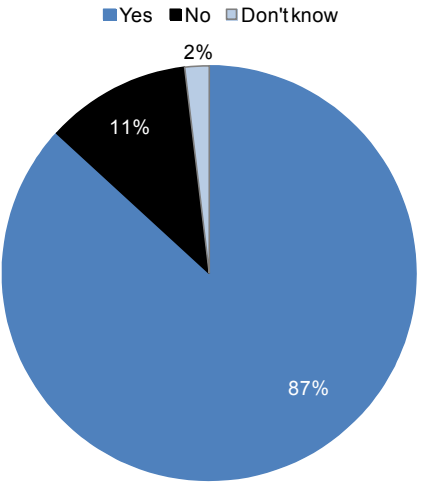
Figure A.22. **Availability of a unit responsible for e-government co-ordination**



Question 6.1 Is there a unit responsible for e-government co-ordination in your organisation? (n=51).

A majority of responding organisations (87%) do not have a CIO, 11% do, and 2% do not know whether their organisation has a CIO or not.

Figure A.23. **Availability of a CIO**

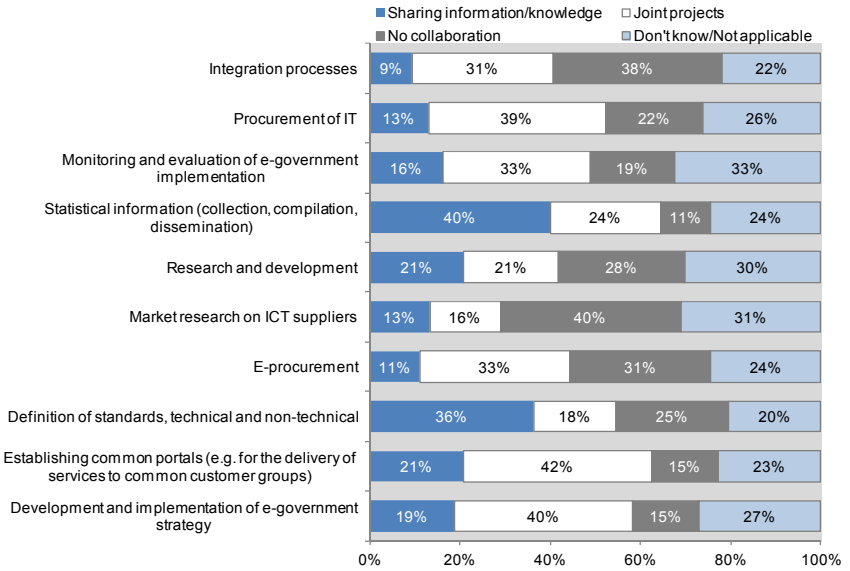


Question 6.2. Does your organisation have a CIO (Chief Information Officer) (or an equivalent position)? (n=53).

Sharing of information is mostly conducted in the areas of statistical information (40%) and definition of standards (36%). Most joint projects are conducted in terms of establishing common portals (42%), developing and implementing the e-government strategy (40%) and IT procurement (39%). The areas in which there is almost no collaboration include market research on ICT suppliers (40%) and integration processes (38%). A percentage of respondents, varying from 20% to 33%, do not know in which areas collaboration is being conducted or do not find this question applicable to their organisation.

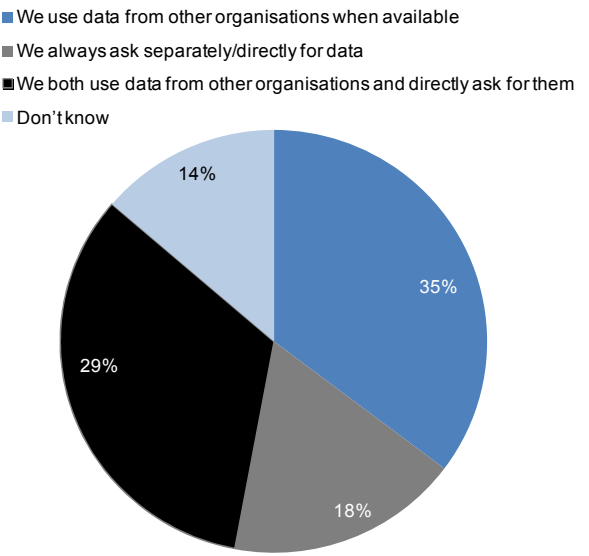
35% of respondents re-use data from other organisations when available, 29% both use data from other organisations and directly ask for them, 18% always ask separately/directly for data and 14% do not know whether their organisation re-uses data from other organisations.

Figure A.24. **Areas of collaboration with other government organisations**



Question 6.4 In which of the following areas is your organisation collaborating with other government organisations? (n=50).

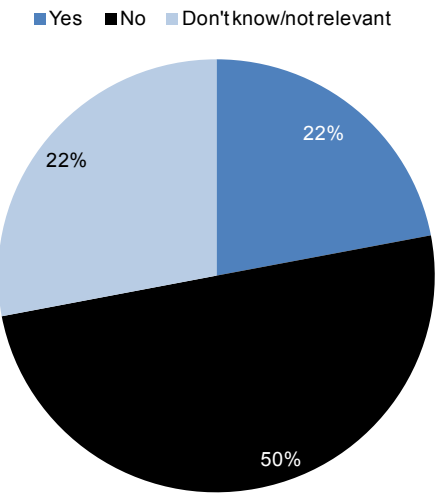
Figure A.25. **Re-usage of data from other organisations**



Question 6.5 Do your organisation re-use data from other organisations? (n=51).

50% of respondents do not use any ICT project management model in their organisations, while 22% use some type of ICT project management model and 22% do not know whether their organisation does.

Figure A.26. **Usage of ICT project management models**

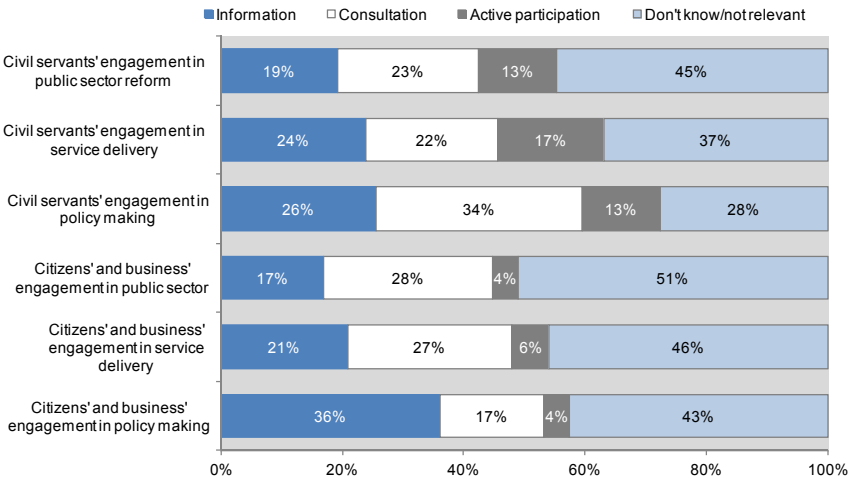


Question 6.6 Do you use any ICT project management model in your organisation? (n=50).

A considerable percentage of respondents (varying from 28% to 51%) cannot describe how their organisation uses ICT to engage citizens and business in the different areas covered by question 7.1 and 7.2, or do not find this question relevant to their organisation. The overall most-used method to engage civil servants seems to be consultation, particularly regarding policy making. Citizen and business engagement seems overall more mediated through mere information. Active participation is used to engage citizens and businesses to a very limited extent, an extent that seems higher when it comes to civil servants.

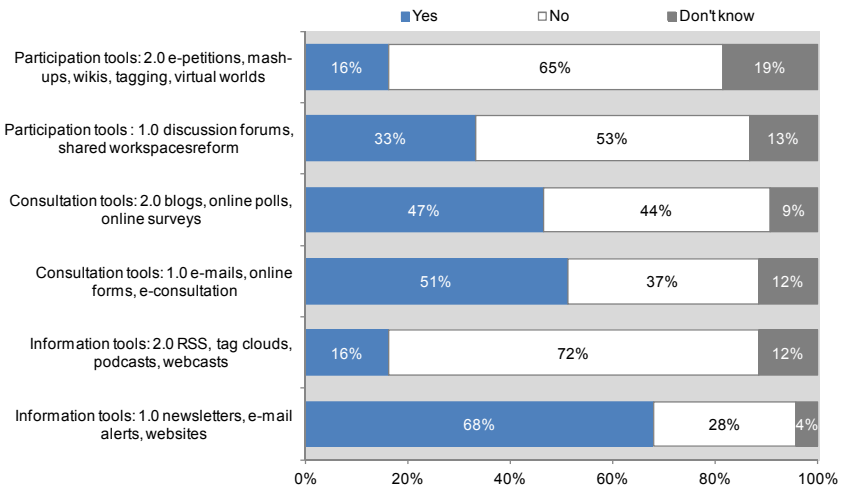
Basic information tools – such as newsletters, e-mails and websites – are the most widely used ICT tools (68%), followed by other web 1.0 tools as online forms and online consultation (51%). However, tools for participation and communication such as forums, shared workspaces, blogs and online polls, are also widely used tools.

Figure A.27. **Citizens', businesses' and employees' engagement**



Question 7.1 How would you describe the way your organisation uses ICT to engage citizens and businesses in the following areas?; and Question 7.2 How would you describe the way your organisation uses ICT to engage its employees (i.e. civil servants) in the following areas? (n=48).

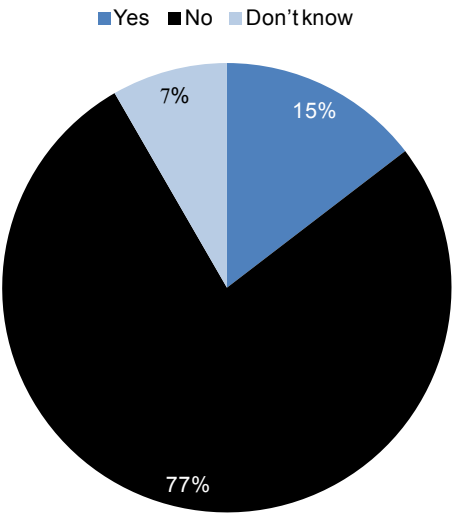
Figure A.28. **Usage of various ICT tools**



Question 7.3 Please indicate whether you use the following ICT tools in your organisation: (n=47).

A majority of responding organisations (77%) do not have an e-procurement strategy. 15% of respondents do and 7% do not know whether they have one.

Figure A.29. **Availability of an e-procurement strategy**

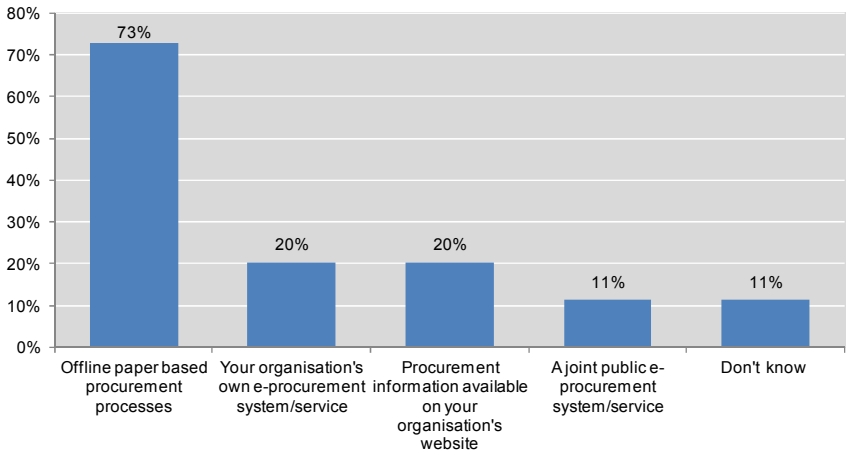


Question 8.1 Does your organisation have an e-procurement strategy (or do you have a procurement strategy where the use of ICT plays an important role)? (n=48).

The most widely used procurement solution is the offline paper-based procurement process, which is used by 73% of responding organisations. 20% of respondents use their organisation's own e-procurement system/service and 20% use procurement information available on the organisation's website, while 11% use a joint public e-procurement system/service and 11% do not know what procurement solutions are used by their organisations.

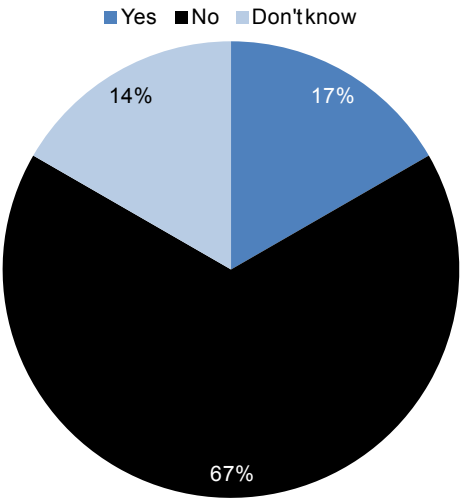
A majority of responding organisations (67%) do not have a sourcing strategy. 17% of respondents do and 14% do not know whether they have one.

Figure A.30. **Most widely used procurement solutions**



Question 8.2 What procurement solution(s) does your organisation use? Multiple answers are possible. (n=44).

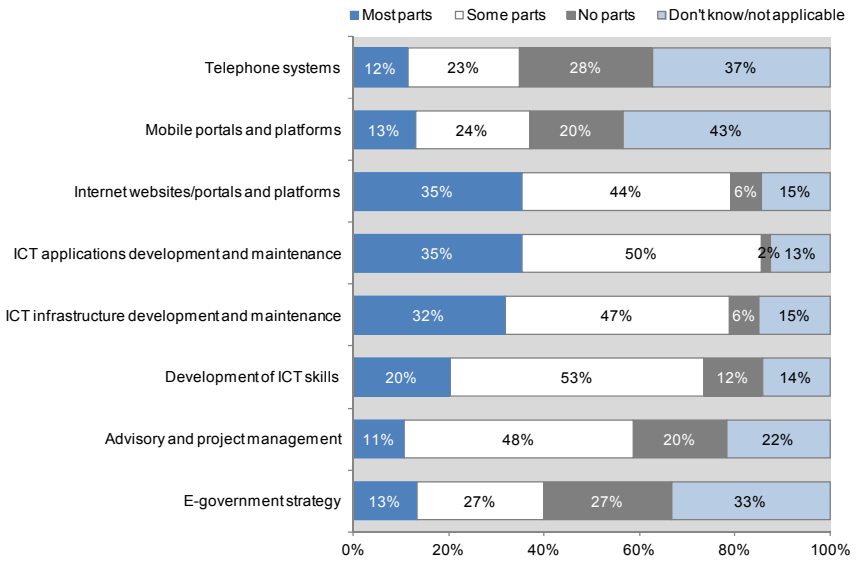
Figure A.31. **Availability of a sourcing strategy**



Question 8.3 Does your organisation have a sourcing strategy? (e.g. for outsourcing certain competencies or sourcing to other public organisations) (n=48).

Outsourcing is mostly used for Internet websites/portals and platforms and ICT application development and maintenance (both 35%), closely followed by ICT infrastructure development and maintenance (32%). An important part of respondents do not know whether their organisation outsources mobile portals and platforms (47%), telephone systems (37%), or work on their e-government strategy (33%).

Figure A.32. **Outsourcing**

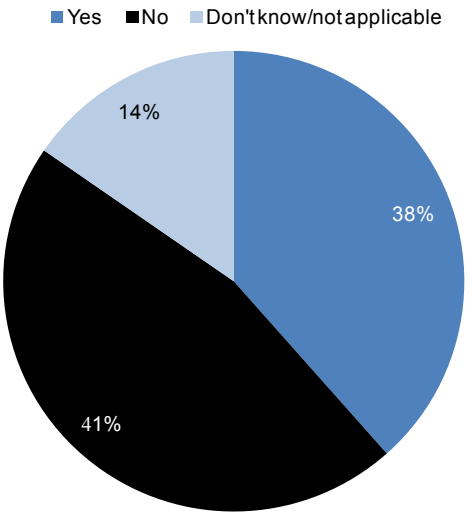


Question 8.4 Are you outsourcing any of the following? (n=49).

A majority of responding organisations (41%) do not have a multi-channel service delivery strategy. 38% of respondents do and 14% do not know whether they have one or do not think this question is applicable to their organisation.

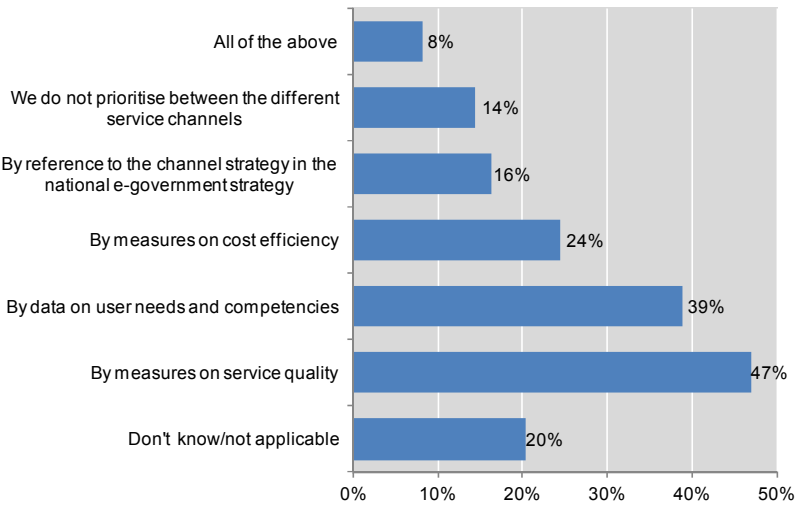
Most organisations (47%) prioritise among service channels by measures on service quality, closely followed by data on user needs and competencies (39%) and by measures on cost efficiency (24%). Sixteen percent prioritise among service channels by reference to the channel strategy in the national e-government strategy. A number of respondents (20%) do not know how their organisation prioritises between different service channels or do not think this question is applicable to their organisation.

Figure A.33. **Availability of a multi-channel service delivery strategy**



Question 9.1 Does your organisation have a multichannel service delivery strategy? (n=52).

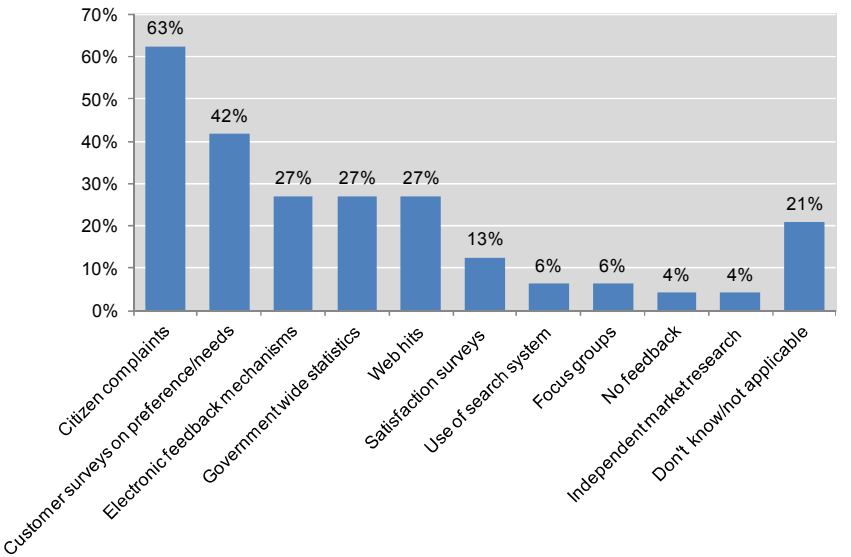
Figure A.34. **Prioritisation methods for different service channels**



Question 9.2 How does your organisation prioritise between the different service channels? Multiple answers are possible (n=49).

Demand for and satisfaction of online services are identified in majority through citizen complaints (63%), customer surveys on preferences or needs (42%) as well as electronic feedback mechanisms, government-wide statistics and web hits (27% for each). Close to no respondents have used independent market research to identify demand for and satisfaction with online services (2%).

Figure A.35. **Methods used to identify demand for and satisfaction of online services**

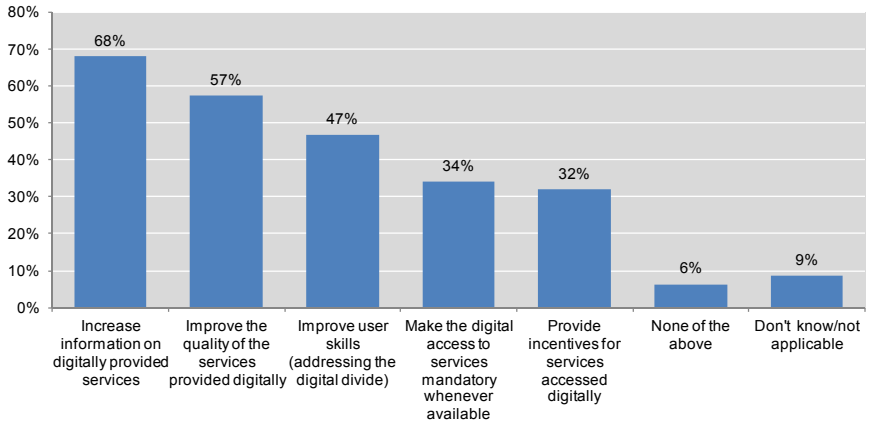


Question 9.3 How does your organisation identify demand for and satisfaction of online services? Multiple answers are possible (n=48).

The most prioritised instrument to increase user take-up of e-government services is increasing information on digitally provided services (68%), Improving the quality of the services provided digitally comes second with 57%, followed by improving user skills (47%) and making digital access to services mandatory whenever available (34%), and finally providing incentives for the use of services accessed digitally (32%).

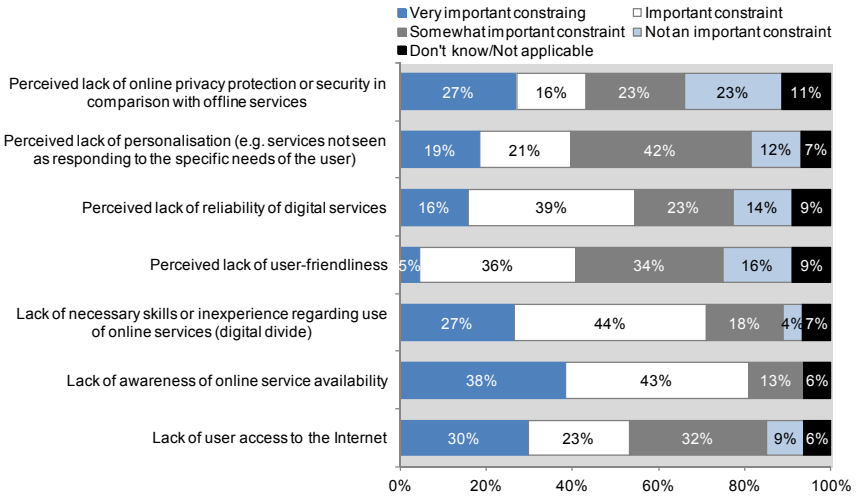
The most important constraint for the uptake of online services is the lack of awareness of online service availability (38%). Lack of user access to the Internet, and of perceived online privacy protection or security, are also among the highest constraints (30% and 27% respectively). Perceived lack of user-friendliness is not considered a constraint.

Figure A.36. **Instruments used to increase user take-up**



Question 9.4 What instruments do you prioritise to increase user take-up of e-government services? Multiple answers are possible (n=47).

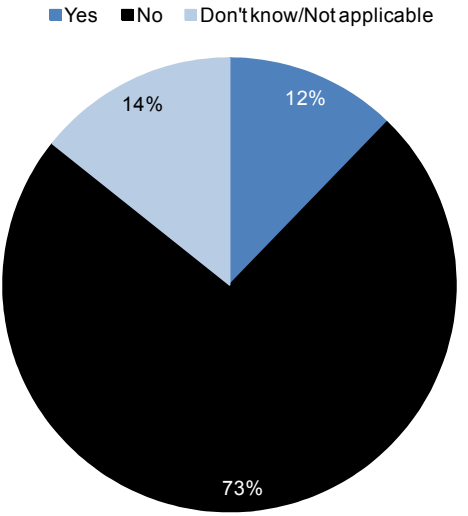
Figure A.37. **Constraints for the uptake of online services**



Question 9.5 How important are the following constraints for the uptake of online services? (n=48).

A majority of responding organisations (73%) do not have a formal e-government marketing strategy. 12% of respondents do and 14% do not know whether they have one or do not consider this question as applicable to their organisation.

Figure A.38. **Availability of a formal e-government marketing strategy**

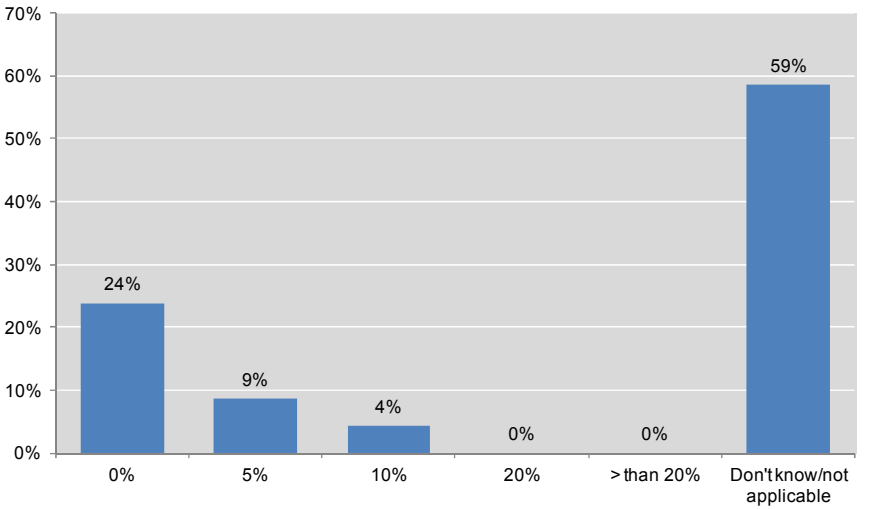


Question 9.6 Does your organisation have a formal e-government marketing strategy (i.e. a strategy that aims at informing users of the provision of digital services in order to maximise their take-up)? (n=49).

A majority of respondents (59%) do not know, or do not find the question concerning the average percentage of the total budget for e-government projects and services that is allocated to e-government marketing applicable to them. 24% of respondents do not allocate any budget to e-government marketing and less than 10% allocate 5% or more, with no respondents allocating 20% or more of their e-government budget to e-government marketing.

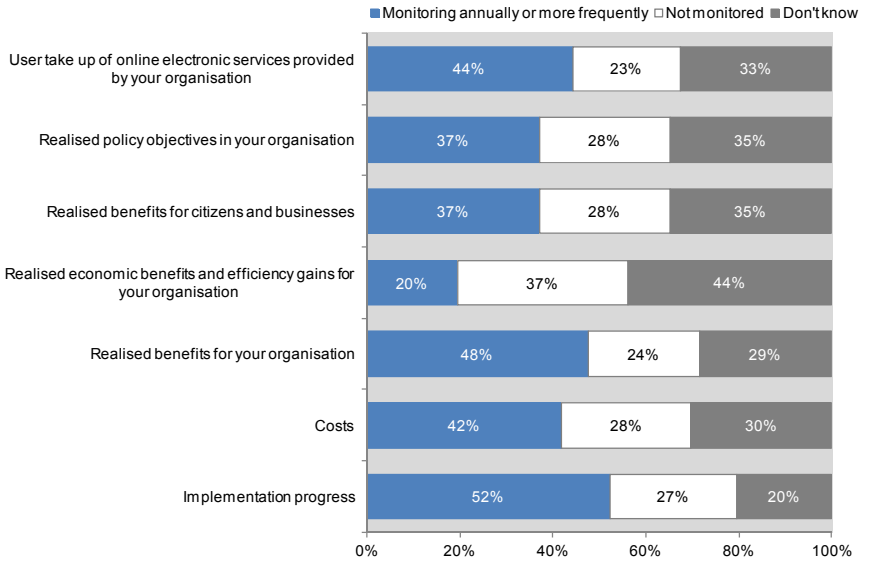
Disregarding the respondents who stated "don't know", e-government progress seems to be monitored annually or more frequently in most areas by the overall majority. The number of respondents who are monitoring e-government progress annually or more frequently vary from 20% to 52%. However, only 11% of respondents stated that their organisation has an established model for how to monitor and evaluate e-government efforts. An important percentage of respondents do not conduct monitoring (varying from 20% to 44%).

Figure A.39. **E-government marketing budget**



Question 9.7 What is the average percentage of the total budget for e-government projects and services in your organisation that is allocated to e-government marketing (e.g. communication and awareness raising campaigns)? (Approximately) (n=46).

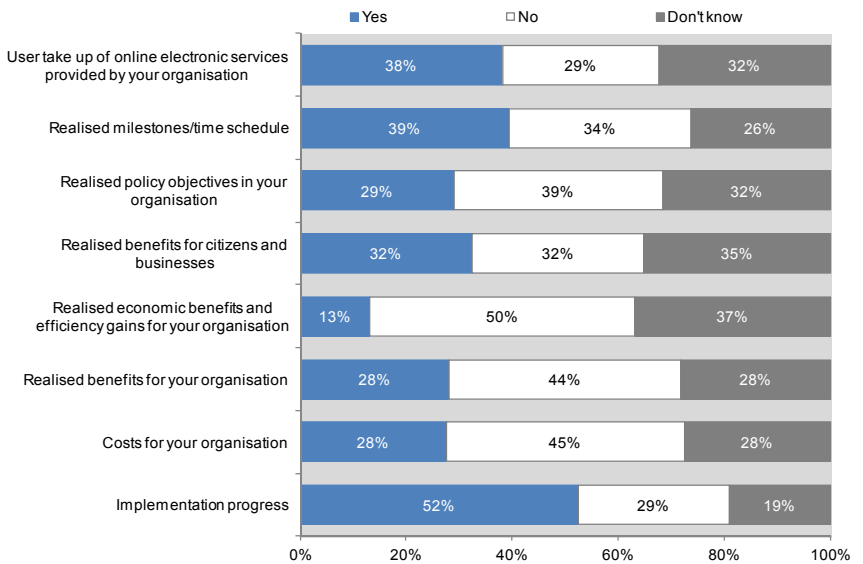
Figure A.40. **Monitoring**



Question 10.1 Please indicate if monitoring on fixed key indicators is conducted regarding e-government progress for each of the following aspects in your organisation: (n=46).

Evaluation is conducted mostly on e-government implementation progress (52%), realised milestones/time schedule (39%), user take-up of online electronic services provided by the organisation (38%) and realised benefits for citizens and businesses (32%). A relatively important percentage (varying from 19% to 37%) does not know whether systematic evaluation is conducted regarding e-government in the above-mentioned areas.

Figure A.41. **Evaluation**

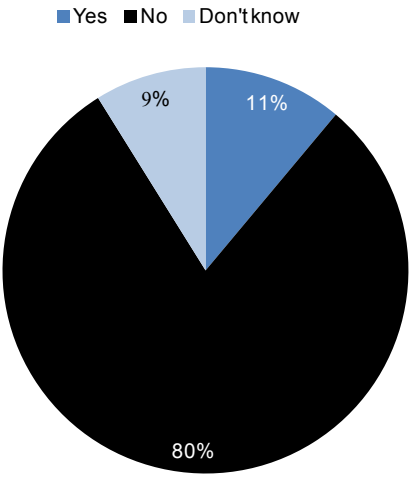


Question 10.2 Please indicate if systematic evaluation is conducted regarding e-government for each of the following aspects: (n=44).

Only 11% of respondents have established models for how to monitor and evaluate e-government efforts with a vast majority of respondents (80%) that do not, and 9% of respondents that do not know whether such a model exists.

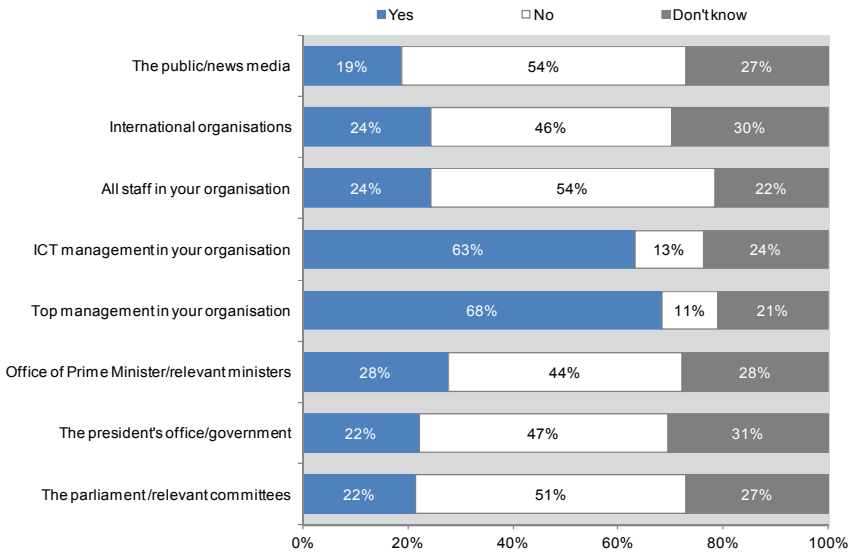
Monitoring and evaluation results are mostly made available to ICT and top management in organisations (63% and 68%, respectively). A significant number of respondents do not make this information available to the public, media, international organisations, all staff in organisations, the Office of the prime minister, the president's office or the parliament.

Figure A.42. **Availability of established models for monitoring and evaluation**



Question 10.3 Do you have established models for how to monitor and evaluate your e-government efforts? (n=45).

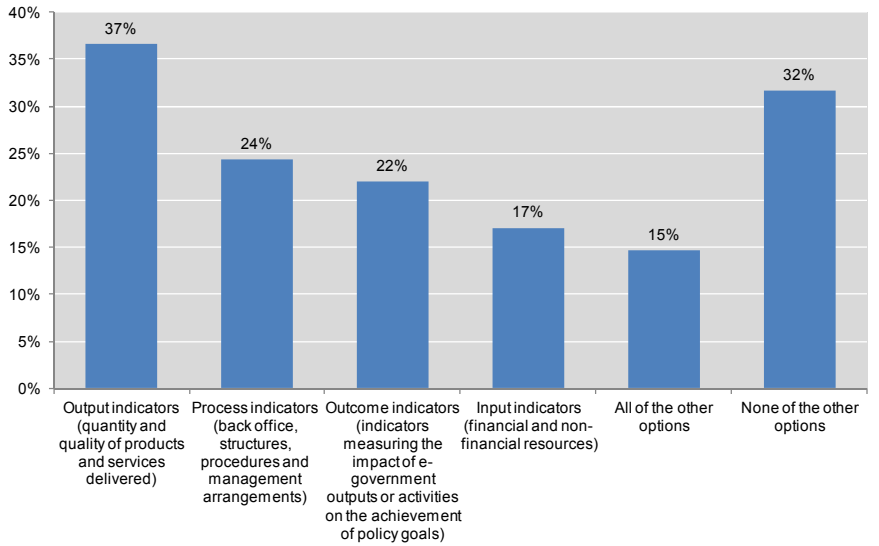
Figure A.43. **Public availability of the results of monitoring and evaluations**



Question 10.4 Are the results of your monitoring and evaluations made available to: (n=41).

The most widely used indicators to assess the development, implementation and impact of e-government projects are output indicators (37%), followed by process indicators (24%), outcome indicators (22%) and input indicators (17%). An important percentage of respondents use none of the above mentioned indicators (32%), while 15% use all of them.

Figure A.44. **Indicators used to assess e-government projects**



Question 10.5 What kind of indicators do you use to assess the development, implementation and impact of e-government projects? Multiple answers are possible (n=41).

Annex B

Methodology

This review focuses on e-government policies, goals, strategies and initiatives at all levels of government, as well as on how e-government projects are initiated and implemented by different agencies. OECD country reviews are based on an agreement with the reviewed country concerning the analytical framework and timeline of the study.

Independence, neutrality and verification of inputs

Within the agreed terms of reference, the OECD has conducted this study with its own staff and independent peer reviewers. The study was conducted with guidance from Egypt, supported financially by the Italian government, which did not bias the study or influence the final conclusions. The report was drafted by the OECD Secretariat with the input of the three peer reviewers from Italy, Mexico and the United Kingdom. The OECD regularly briefed the Egyptian Ministry of State for Administrative Development on its progress.

The report benefited from fact-checking and feedback by the Egyptian government from July to October 2012, co-ordinated by the Egyptian Ministry of State for Administrative Development.

Definition of the analytical framework

The methodology used for this peer review was developed by the OECD based on the OECD framework for examining e-government development and implementation that was conceived in *The E-Government Imperative* (OECD, 2003), further elaborated in the OECD publications *E-Government for Better Government* (OECD, 2005) and *Rethinking e-Government Services: User-Centred Approaches (*OECD, 2009).

The methodology was tested in a pilot review of e-government in Finland, which led to the publication of the report *OECD e-Government Studies: Finland* (OECD, 2003). In 2004, the OECD E-Government Project

adopted the OECD methodology for its peer reviews, following the protocols laid out in *Peer Review: An OECD Tool for Co-operation and Change* (OECD, 2003). Using this analytical framework, the OECD has conducted reviews of Mexico (2005), Norway (2005), Turkey (2007), Hungary (2007), The Netherlands (2007), Belgium (2008), Portugal (administrative simplification and e-government, 2008), Ireland (public service, 2008) and the latest review of Denmark (2010). Furthermore, studies on e-government were conducted on Spain, focusing on the Information Society and more specifically e-justice and e-taxation (2010, 2012); public governance reviews also covered e-government in Mexico (2011) and France (2012).

The review further takes into account the reports M-Government: Mobile Technologies for Responsive Governments and Connected Societies (OECD, 2011), and the MENA-OECD Governance Programme Publications Progress in Public Management in the Middle East and North Africa (OECD, 2010) and The Case of e-Government in the Palestinian Authority (OECD, 2011).

The OECD methodology has been applied, taking into consideration the specific issues and challenges faced by the Egyptian government following the 25 January Revolution. Key topics, such as transparency and increased trust in government – as well as citizens' participation and engagement – were highlighted by the Egyptian government. The development of the OECD e-government peer review methodology is indeed an ongoing process; however, the general framework is preserved to allow for comparability among countries.

Inputs

The Egyptian study is primarily qualitative in nature, presenting a combination of observations, analysis and evaluations extracted from reports and official documents, survey responses, and interviews.

The study is based on four main inputs:

- Background material, reports and official documents;
- The OECD e-government survey;
- Peer review feedback from selected OECD member countries;
- Interviews with government officials and representatives from relevant private businesses, academics, press, international organisations and NGOs.

The main inputs and data were collected in 2011, and the final editing of the report was closed in October 2012.

Reports and official documents;

The study drew upon a wide range of documents across governments, sectors and functions, which provided insight into the way that public management and e-government policies, strategies and initiatives are planned, co-ordinated and implemented in Egypt. Information was also drawn from recent relevant reports and reviews of Egypt from the OECD and other international organisations, consulting firms, and other sources. The study also drew on academic research and journal articles on public management reform, e-government and the Information Society in Egypt. Finally, the report also benefited from a close monitoring of the Egyptian and regional media in order to support the analysis of the ongoing transition process. This approach was based on the notion that e-government cannot be addressed in isolation, but should be observed from a wider public management perspective.

OECD E-Government Survey

The OECD E-Government Survey used for this study builds on existing surveys reflecting the development of the OECD analytical framework on e-government. The questionnaire has been adapted in the deployment of the survey.

The survey of Egypt was launched on 17 August 2011 and concluded on 28 September 2011. The survey was targeted at officials within the central and local government organisations with responsibilities relevant to e-government, who were asked to present their organisations' views in responding to the survey (*i.e.*, not responding in their capacity as individuals). 105 entities were invited to respond to the survey, 58 of which replied, amounting to an overall response rate of 55% (Table B.1).

Table B.1. **Respondents to the OECD survey**

	Target sample	Responses	Response rate
Central government	84	47	56%
Governorates	20	10	50%
Other	1	1	100%
Total	105	58	55%

Note: Each respondent represent a government authority or institution.

Source: OECD E-Government Survey of Egypt 2011.

The figures and graphs included in Annex A have been created by the OECD Secretariat. Percentages for each question were calculated according to the number of responses to each sub-question in the question. Thus, different response percentages might appear in some of the answers presented.

The data results are qualitative and opinion based, not subject to tests of significance from which definitive conclusions can be drawn.

Peer review dialogue

Three OECD member country peer reviewers participated throughout the review process in order to facilitate the exchange of knowledge: Professor Fabio Pistella from the government of Italy, Mr. Darren Scates from the government of the United Kingdom, and Mr. Carlos Viniegra from the government of Mexico.

The main findings of the review were discussed in a plenary meeting of the body responsible for the review. Following discussions among the members of the body – including the reviewed country – the final report has been endorsed and presented for the Public Governance Committee (See also *Peer Review: An OECD Tool for Co-operation and Change*, OECD, 2003).

Interviews with government officials

During a fact-finding mission on 8-13 October 2011, the review team conducted interviews with Egyptian government officials and representatives from relevant private businesses, academics, press, international organisations and NGOs. All interviews were scheduled by the Ministry of State for Administrative Development in collaboration with the OECD. The mix of organisations and interviewees was selected to show a broad and representative insight into the main issues and problems regarding e-government in Egypt.

The interviews were carried out by four members of the OECD Secretariat and the three OECD peer reviewers. More than 50 interviews were undertaken. All interviews – which were kept confidential – were semi-structured, covering the main themes of the report and focusing on issues that could not be captured through the online survey. The interviewed institutions are listed in the table below:

Table B.2. **Institutions interviewed in Cairo, October 2011**

Ministry of State for Administrative Development (MSAD)
National Management Institute
IDSC
Ministry of Interior
Ministry of Social Solidarity
UNDP
EEAA
Ministry of Trade & Industry
Ministry of Interior " Civil Status Organization "
Ministry of Civil Aviation
Ministry of Interior " Traffic "
Ministry of Awkaf
Ministry of Justice
Arabic Content Initiative
Ministry of Local Development
Cairo Governorate, Giza Goverorate, Menofeya Governorate
Ministry of Foreign Affairs
Madinet Nasr District
Ministry of Justice
Oracle Company
AMID EAST
Ladis Company
Chamber of ICT
IBM
Ministry of Tourism
Consumer Protection Regulatory Agency
Egyptian Electric Utility
Egyptian Tax Authority
Ministry of Finance
General Authority for Financial Control
General Authority for Governmental Services
Ministry of Education
Ministry of Higher Education
Social Insurance Authority
National Population Council
Cairo University
Transparency & Integrity Committee
State Council
General Authority for Investment and free zones
Ministry of Investment
The Cabinet
Egyptian Organization for Standards & Quality

Table B.2. **Institutions interviewed in Cairo, October 2011** (*cont.*)

General Authority for Tunnels
National Authority for Railways
Telecom Egypt
Smart Village
NTRA
Ministry of Communication & Information Technology (MCIT)
Microsoft
ITIDA

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OECD PUBLISHING, 2, rue André-Pascal, 75775 PARIS CEDEX 16
(42 2012 13 1 P) ISBN 978-92-64-17877-9 – No. 60121 2013

OECD e-Government Studies

EGYPT

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ISBN 978-92-64-17877-9
42 2012 13 1 P