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Foreword

This report is one in a series of country reviews undertaken by the OECD to analyse the successes and challenges of e-government in a national context, and to make proposals for action that can help countries improve their e-government efforts. By placing e-government in the context of national public management reform and good governance initiatives, these reviews help countries identify how e-government can best support overall government objectives and performance.

The report, which was financed by the Hungarian government, was completed in October 2006. It draws on a survey of Hungarian central and local government organisations administered in November-December 2005, extensive review of information about public management and e-government in Hungary, and a series of interviews with Hungarian officials and other commentators held in December 2005. The report was drafted with the participation of peer reviewers nominated by the governments of Austria, New Zealand and Portugal. These e-government experts played an invaluable role by participating in interviews and contributing to the drafting of the report.

The analytical framework for the report is based on the OECD synthesis reports, "The e-Government Imperative" (2003) and "e-Government for Better Government" (2005). The review was carried out under the auspices of the OECD Network of Senior E-Government Officials, which considered its main findings as part of the work programme of the Public Governance and Territorial Development Directorate (GOV).

Under the leadership of Edwin Lau and Christian Vergez, the review was managed and written by Yih-Jeou Wang and Rozália Bogó, who were assisted by Gwendolyn Carpenter, Laurent de Clara, and Barbara Lörincz (research and drafting), Marie Vidal (survey and statistics), and Marco Daglio and Melissa Peerless (editing). Special thanks are given to the three peer reviewers: José Dias Coelho (Portugal), Jude Hanan (New Zealand), Peter Reichstädter (Austria).

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Assessments and Proposals for Action

Main findings

E-government development in Hungary has been driven by the overarching national goal to integrate Hungary in the European Union (EU). Combined with strong political leadership, these efforts have brought results in a short period of time – as evidenced by Hungary's development of a central government infrastructure and by the online availability of the core 20 e-government services, as benchmarked by the EU, as well as other transactional services. The next set of challenges involves: 1) better using e-government to support the reform agenda and business process re-engineering in the context of major budget restrictions; 2) increasing cross-governmental collaboration and standardisation; and 3) improving take-up and local e-government development.

- **Hungary has moved forward by adopting international good practice rather than re-inventing the wheel.** Hungary has prepared the way for e-government by putting a regulatory and technical framework in place, drawing on EU guidelines; this foundation allowed the government to deliver on the services benchmarked by the EU. Technical solutions – including a government-wide telecommunications backbone, a national government portal and an authentication gateway – are of good quality; they have been developed rapidly because they draw from successful solutions proven in other countries. The next round of challenges – including developing interoperability standards, business process re-engineering and developing local government services – should similarly draw on best practices in OECD countries.
- **Leadership needs to be steady and to focus on the big picture.** Dedicated political leadership has been key to achieving short-term goals, but successive strategies and plans have made it difficult for the government to focus on how to achieve e-government benefits. Hungary is catching up with more advanced e-government countries, but is now faced with the typical issues of improving take-up and achieving user focus and public sector transformation. To meet this challenge, Hungary would benefit from stable political priorities and strategic frameworks that allow a focus on medium- to long-term implementation. More leadership from a whole-of-

public-sector perspective is needed to allow e-government to achieve administrative savings that will finance public sector innovation and reform, and the government to improve how electronic services interact so they can become more user-focused.

- **E-government needs to become a savings centre rather than a cost centre for the public administration.** Hungarian e-government officials should think about how they can use the current budget restrictions as an incentive rather than as a barrier to e-government development. This is a major challenge given institutional and regulatory rigidities that make it difficult to reallocate resources – a major cultural change will also be involved – but some OECD countries have used budgetary limitations as a way to push agencies to re-engineer their business processes and to innovate in order to free up resources for additional investment.
- **Improving take-up of electronic services requires government to understand and address the needs of its user populations.** Hungary has many digital divides, especially in the rural areas of the country. A number of public Internet access points – the eHungary Points and the Tele-Cottages – have contributed to bridging this divide, and provide an example of how public and civil society initiatives can work together. The best of these centres provide training and assistance; however, most centres need to be strengthened and transformed from simple access points to become real competency centres if e-government is to have greater user take-up in rural areas.

Challenges to e-government

While the Hungarian government has achieved much within a short timeframe, some important internal challenges remain; these include updating regulatory and budgetary frameworks to increase flexibility, promote collaboration and allow the reallocation of resources. In terms of the Hungarian society, reinforced efforts are needed to diminish the digital divide and to improve broadband access in order to build service take-up and to continue to promote e-government development, in particular at the local level. Finally, communication and educational programmes need to continuously focus on building ICT skills and helping both the general population and civil servants understand the benefits of "becoming digital".

Key assessments

- **The legislative framework for e-government is in place, but a more flexible framework could improve compliance.** Hungary's national legislation seems to include all relevant EU directives impacting e-government development,

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and is therefore generally at the same level of legal development as other EU member states. However, understanding and complying with the national legal framework can be difficult, especially at the local level where only limited help in interpreting laws and regulations and their operational impact is available. The current legislation protecting personal data and privacy is also perceived by many as too strict to allow uniform e-government development.

- **Budgetary arrangements are rigid and common cost/benefit methodologies remain undeveloped.** Like many other OECD countries, Hungary is facing the challenges of: limited available funds for e-government development in the public sector (at both the central and local levels); lack of funding schemes for multi-year investments; lack of clear principles and mechanisms for funding common e-government projects; and the absence of a common methodology and systematic use of cost/benefit analysis to appraise e-government investments.
- **Increased efforts to boost Internet penetration and use are needed.** In general, ICT penetration in Hungary is low and – with the exception of mobile telephony (93.4%) – is increasing slowly (less than the OECD average of 3.2% between 2004 and 2005). While the public sector has succeeded in putting its own basic infrastructure and high-speed Internet networks in place, reliable broadband connections for individuals are still limited throughout the country. Only 37% of the population used the Internet in the last three months, compared to the EU25 average of 51% in 2005. Prohibitive costs of Internet access may be one explanation.
- **The digital divide remains a barrier to take-up.** Hungary has a clear geographic divide between urban and rural individuals' Internet usage, with urban individuals' (52%) rates near the EU25 average (57%), while rural individuals' (25%) usage is significantly lower than the EU25 average (42%). A number of initiatives are underway to address this divide challenge: eHungary Points and Tele-Cottages provide basic Internet access to the rural population.
- **ICT competency and skill levels in the population need to be reinforced.** Raising the general population's generic level of ICT competencies and skills is an important prerequisite for successful e-government user take-up. Hungary has introduced many educational programmes to teach people elementary knowledge about computers and Internet usage. These efforts seem timely and relevant; however, they have not yet had significant impact on the population's ICT competencies and skills. In 2005, according to a Eurostat survey, 57% of Hungarians had no basic computer skills at all. Internet access is far from sufficient in most schools. At present, only one of five computers in primary schools is connected to the Internet. The

Ministry of Education has implemented projects that aim to increase e-literacy and ICT skills (*e.g.* Sulinet), which have increased Internet use by students; however, without adequate facilities and upgrading of equipment in schools, opportunities for practical learning remain limited.

Main proposals for action

- Hungary should consider revising laws and regulations to make the legislative framework more operationally useful. For example, legislative compliance could be improved through greater consultation with civil servants and municipalities prior to the drafting of legislation in order to ensure that objectives are realistic. In addition, by tying legislative requirements to achieving specified outcomes rather than simply setting legislative deadlines, implementers can have a better understanding of what a given law aims to achieve. Communication and advisory activities to local governments on regulatory requirements and other implementation issues would also improve compliance. Local governments should, in turn, consider closer collaboration and sharing of expertise on legal implementation matters.
- Hungary should consider whether its current data protection and privacy framework meets the needs for a dynamic regulatory structure that better supports e-government development without compromising basic needs for sound and effective protection of sensitive personal data and privacy.
- Hungary should consider easing budgetary constraints by prioritising central government funding for the development of shared services, developing common concepts and methodologies for cost/benefit analysis and making its use mandatory to evaluate costs and savings and measure progress. Public institutions should also be allowed to keep some or all funding freed by efficiency gains as a result of e-government implementation, and to reinvest these resources into further e-government development.
- To properly address digital divide challenges, Hungary should consider developing an overarching Information Society strategy and action plan focusing on:
  - Promoting **Internet access** by stimulating market competition among broadband providers (especially in rural areas) while introducing mechanisms such as public subsidies and public-private partnerships (PPP) to support universal access conditions and affordable access. In parallel, the provision of public Internet access through the eHungary Points and Tele-Cottages initiatives should be integrated, strengthened and expanded to rapidly increase usage of the Internet and the e-services

currently provided by central government and a few local governments. Finally, Hungary should try to take advantage of the massive penetration of mobile telephony, using this delivery channel as an alternative to computer-accessed e-services.

- Promoting **user demand** through a broad information campaign communicating the benefits of e-government services. Hungary should also develop Hungarian language content production to raise consumer demand for services. Public-private partnerships could: draw on synergies with the banking sector and e-business applications for the development of service delivery; improve private sector engagement; and activate expertise and resources complementary to government investments.
- Re-evaluating and re-enforcing existing **ICT literacy** programmes – including e-learning in connection with initiatives like eHungary Points and Tele-Cottages. Such efforts should include civil society organisations to both increase competencies and skills and communicate the benefits of "becoming digital" in society, *i.e.* making a value proposition to citizens as to why they should be connected to the Internet.
- Developing comprehensive "**ICT integration in education and training**" programmes in the educational sector, including drawing on partnerships with the private sector. Such initiatives could include modernising ICT facilities in educational institutions to ensure a better background for ICT training, developing e-learning programmes, and implementing specific ICT training programmes for teachers, trainers and community residents.

E-government leadership

Until the general election in April 2006 and the subsequent formation of a new government in June 2006, e-government leadership was mainly exercised by the Electronic Government Centre (EKK) in the Prime Minister's Office, and the Ministry of Informatics and Telecommunications (IHM). Although different government resolutions had attempted to clarify the division of work between EKK and the Ministry of Informatics and Telecommunications, the boundaries remained blurred and co-ordination between the two government bodies was limited. Consequentially, most e-government stakeholders did not understand the leadership structure.

The new government has adopted a new public sector reform agenda and abolished the Ministry of Informatics and Telecommunications, transferring its areas of responsibility to the Ministry of Economics and Transport and to a new Centre for Electronic Public Services (*Elektronikus Közszolgáltatások Központja-EKK*), to be established as a central agency supervised by the Prime

Minister's Office by January 2007. At the same time, some important tasks – such as the formulation of the public administration's ICT strategy and policy, e-government regulation (in co-operation with the Ministry of Economy and Transport), and cross-agency co-ordination – will remain within the Prime Minister's Office. While the ICT/strategic split is still in evidence, this structural change should be used as an opportunity for improving co-ordination and guidance. Particular attention should also be paid to co-ordination on local e-government development efforts.

Key assessments

- With the assignment of major e-government responsibilities to the centre of Hungarian government and the new EKK acting under the strategic leadership of the Prime Minster's Office, e-government development and the public sector reform agenda seem to be more effectively aligned. It is essential that the new structure avoid the divisions that existed in the previous structure, and that the government not lose time and momentum on e-government implementation as the new structures are created.
- The newly created Ministry of Local Government and Regional Development is responsible for overseeing electronic case handling at the local level. The new EKK, under the authority of the Prime Minister's Office, will also have a supervising and co-ordinating role in terms of aligning the central government's e-government objectives with these activities.

Main proposals for action

- The new distribution of e-government responsibilities provides a more streamlined leadership model. At the central level, the government's task should be three-fold:
  1. To use the joint e-government and public sector reform responsibilities of the Prime Minister's Office to develop a **co-ordinated strategy for educating and assisting government agencies** in using e-government to re-engineer processes and to release resources for reallocation and/or reinvestment.
  2. To **provide solutions for implementing cross-cutting e-government initiatives**, including the development of common "building blocks" such as shared databases to form the basis for shared services (including creating incentives for government agencies to collaborate in the implementation of services from a more user-focused approach).

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3. To **aggressively promote collaboration** – both horizontally across central government and vertically with local government – by putting out regulations on data standardisation and building support for standards.

- The government should also issue a list of guiding principles for e-government implementation from the highest political level in order to provide direction during this transition period and to maintain momentum as new structures and responsibilities are embedded. The statement should clarify the government's intent to take a co-ordinated and mutually supportive approach to public management reform and e-government implementation.
- The next e-government challenge lies in the development of local e-government initiatives. It is critical that the new Ministry of Local Government and Regional Development and the Prime Minister's Office speak with one voice on local e-government issues. The government should focus on identifying good practices and then build the capacity at the local level to adapt those solutions in order to create low-cost, interoperable e-government projects.

Implementation of e-government

Successful implementation requires a good mix of project management, business process re-engineering and technical skills; an understanding of desired outputs and outcomes; information to measure against these goals and knowledge of the intermediate steps to achieve them; and guidance to give direction to implementing bodies. These components have not always been present in the management of Hungarian public IT projects, but efforts are being made to address the gap. For example, while guidance on standard approaches is still lacking, monitoring and evaluation of e-government projects is increasing in Hungary, and this is a positive step.

Following a skills analysis in the central government, there is now a strong awareness of the need to obtain skills and competencies for e-government implementation that are currently lacking. A number of initiatives to close this skills and competencies gap within the public sector have been launched (*e.g.* the eCulture programme) but with limited success. Another initiative underway is to mandate that all Hungarian civil servants take the European Computer Driving License exam in order to raise the level of computer literacy within the public sector. These initiatives are positive. However, there is a need to reach the goals more quickly than these formal courses and training sessions for civil servants will allow.

The government has taken some innovative steps to address the skills gap. In collaboration with a private sector partner, the Hungarian Academy of Sciences launched an E-Government Methodology Centre in June 2006 to

present technology-neutral solutions from the private sector. This centre could also be used to provide practical training for civil servants and foster the exchange of good practices.

Key assessments

- Hungary has instituted systematic monitoring and evaluation of the implementation of its current e-government strategy. However, no common public sector approach to monitoring and evaluation has yet been defined and used methodically to enhance implementation management. As a result, public sector institutions without sufficient evaluation experience lack guidance, and reported results are not comparable. Central government therefore has no means to follow implementation and determine whether internal e-government goals have been achieved.
- Outside the sphere of EU funding, there are few economic incentives for public sector institutions to move e-government development forward. The main problem, however, is not one of outside incentives – which will rarely provide sufficient means to completely finance implementation. A cultural change is needed to convince civil servants to seek efficiency gains within their own projects in order to finance innovation. For this to occur, institutional barriers to achieving efficiency gains must be removed. For example, civil servant tenure in Hungary makes it difficult to reallocate or fire staff. An amendment to the Civil Service Act in summer 2006 shows that Hungary has recognised the importance of more flexible human resources policies in public administration. The introduction of performance measures for assessing the individual performance of civil servants is envisioned for 2007. Furthermore, the new government has expressed its intention to proceed to a substantive reform of public administration.
- A number of skills and competencies challenges have been identified by the OECD survey, including building sufficient technology and project management skills and competencies for e-government implementation. The survey shows that the lack of ICT skills and skills to implement e-government and Information Society strategies, and adapting staff to change, were considered the main skills challenges for the implementation of e-government by both central and local government. A broader set of public management skills, including change management and process re-engineering, are also needed in order for e-government projects to deliver transformative results and not just more informatisation.

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Main proposals for action

- In order to develop and apply a commonly agreed concept for monitoring and evaluation of e-government projects across the public sector, Hungary should consider developing a set of standard e-government goals and measures for extensive use – possibly based on existing monitoring concepts for EU-related projects – and diffuse it quickly. Guidelines should include generic tools and procedures that can help strengthen e-government management and follow-up by individual public sector institutions. As a first step, Hungary should implement the recommendation by the former Interdepartmental Committee for IT to develop a common public sector "toolkit" containing standard templates for project cycles and reference guides for project cycle management.
- To encourage public sector institutions at all levels of government to develop e-government services according to the current e-government policy and strategy, Hungary should consider developing more incentives, such as economic inducements and competitions. Economic incentives could include budgetary mechanisms that allow institutions to keep a share of revenue generated by efficiency gains, and competition incentives could include "beauty contests" among public sector institutions on service quality, user take-up, and collaborative services such as one-stop shops.
- Ensuring coherence between the technical and the managerial aspects of e-government programmes is crucial; projects risk failure when these areas are allowed to split into two disconnected "halves". The implementation process for e-government programmes should combine the technical and the managerial perspective to ensure that staff is buying into necessary changes and to effectively link the use of ICT to e-government policy objectives.
- To build the skills of civil servants, a general E-Government Education plan should be developed, comprising three training components that could be delivered either by the government itself or in partnership with private sector, academic or non-profit partners:
  - A focused competency and training programme to bring together civil servants from different public institutions across levels of government to foster cross-fertilisation and increase whole-of-public-sector awareness in order to change the culture of government.
  - An organisational analysis to look at how tasks and processes are performed today in order to identify skills needed to streamline work processes and ways of handling tasks, emphasising management, strategic and legal implementation, as well as technical skills.

- Opportunities for civil servants to learn more on the job through training modules offered to target groups (*i.e.* politicians, civil servants, project leaders, managers, etc.) based on the skills needs that their positions involve. Such modules could, for example, educate civil servants on the e-government services available – in particular the use of the Client Gate – and on the available private sector solutions that can be tailored to their needs.

Collaboration frameworks

Hungary has established a Central Electronic Service System – consisting of the Electronic Government Backbone, the Government Portal, the Client Gate (a transactional gateway) and a multi-channel Government Customer Information Centre – to support e-service delivery from central government. This e-government infrastructure concept is now slowly being extended and offered to local governments to use for providing their own e-services to citizens and businesses.

While many of the basics have been addressed, Hungary needs to extend the shared infrastructure concept to develop other basic "building blocks", such as common registers and data networks, which can be used over and over again as the foundation of an enterprise architecture and interoperability standards. Without this, Hungary is less well placed to meet the emerging set of e-government challenges, such as implementing shared services and building a joined-up and user-focused government.

Key assessments

- The Hungarian government has recognised the importance of greater interoperability and interconnectivity. The programme of the new government set up in June 2006 includes a firm intention to implement common business processes to centralise certain background functions of central public administration such as IT, payroll, bookkeeping, tendering and management. Most collaboration frameworks covering common business processes, data standards, enterprise architecture, interconnectivity and multi-channel strategies, however, are still in the planning stages or are under development.
- The current E-Government Strategy and Action Plan includes the need to develop data standards and common data structure definitions to ensure standardised electronic access to public authority data. The MEKIK project – the Hungarian Electronic Public Administration Interoperability Framework – placed responsibility on the former Ministry of Informatics and Telecommunications to provide data standards, workflow mechanisms and

legal regulations to comply with EU expectations mandating that all member states have an interoperable "one-window administration" solution, but delivery of this guidance experienced repeated delays.

Main proposals for action

- As part of the announced public sector reform, Hungary should implement collaboration frameworks focusing on:
  - Establishing a **service registry,** including general definitions of public sector products and services in Hungary.
  - Establishing **common public sector data standards** and meta-data standards that can ensure that the whole public sector uses the same data definitions and data structures. The first step is to deliver regulations under the MEKIK project, but this also involves stakeholder consultation, building support from users of such data, and taking into account international standards such as the European Interoperability Framework (EIF).
  - Developing **enterprise architectures** beyond the planning stages. It is unclear how current plans are interlinked or co-ordinated; a common public sector enterprise architecture is needed to provide the public sector with a shared understanding of the organisational, structural and technical "design" of how e-government services should be developed to support interconnectivity and interoperability across organisational boundaries and levels of government, including at the European level.
  - Expanding the framework of the **Central Electronic Service System**, developed for central government for use by local governments, to provide a basic e-government infrastructure with some generic services in order to encourage local governments to adapt existing generic services rather than from developing their own.
  - Establishing a **shared services centre** which can focus implementation capacity in order to develop, run and maintain selected services used by the whole public sector on behalf of the whole public sector.
  - Establishing a framework for a common public sector approach to **multi-channel strategies** providing guidelines and "good practices" on multi-channel service delivery and channel management strategies. Such a framework would also help in identifying synergies with e-business and e-commerce solutions – for example, through shared use of the Client Gate – in support of the development of the Information Society in Hungary.

Outputs and outcomes

Hungary has been successful in delivering the 20 e-services benchmarked by the EU and has also undertaken efforts to widen its portfolio of e-services beyond these 20. According to the most recent benchmarking study released in June 2006,* Hungary has managed to rise above the EU28 average for benchmarks on online sophistication. As most services are quite new, user take-up of services remains low, despite their levels of maturity. However, Hungary has recently seen a significant increase in user interest in the government portal and the Client Gate – a transactional gateway to central government e-services.

Key assessments

- Meeting EU benchchmarks, rather than user demand, has been the main driver for electronic service development. However, the increase in user take-up of services through the Client Gate, with its common e-authentication solution, may indicate that users find these e-services valuable. The Client Gate has drawn about 150 000 registered users since its launch in April 2005. The Client Gate allows users to access a wide variety of transactional services such as corporation taxes and VAT declaration, declaration and notification of income taxes, personal appointment requests to documents offices, driving license services, car registration services, request and delivery of certificates (birth, marriage), and change-of-address announcements for citizens.
- Following a general OECD trend, business e-service take-up has been high relative to citizens' use of e-services. Mandatory usage of some e-service solutions, in particular electronic tax filing, has helped promote business take-up, and demonstrates how e-government benefits can be realised by "pushing" targeted populations with good Internet access to use electronic services.

Main proposals for action

- To further build user take-up of e-government services, Hungary should consider developing a new strategic approach to e-government development which involves identifying and responding to user needs in addition to benchmarking against average EU performance. This will require a focus on identifying internal and external outcome objectives

* Capgemini for the European Commission (2006), *Online Availability of Public Services: How is Europe Progressing?* Report of the Fifth Measurement, June 2006.

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rather than simply meeting output targets. This approach should be guided by regular surveys on users' demands, preferences, and levels of satisfaction, beginning with existing consultation tools such as the eGames component of the government portal. Broader marketing of e-services and focused technical assistance in user centres (*e.g.* Tele-Cottages and eHungary Points) should also be considered.

- The rapid user take-up of the Client Gate demonstrates that easy-to-use, well-integrated and relevant transactional services can motivate the population to use the e-services provided by the public sector. Based on user surveys and consultation, the government should identify those services that can be further developed (*i.e.* made into online transactions) to deepen electronic service delivery and increase value for users and the government.
- A focused effort to get businesses on line and make them interact (on a mandatory or voluntary basis) with the government may further increase take-up of services among businesses. For example, the development of public e-procurement can both increase transparency in the public procurement process and promote access to Hungarian businesses. This strategy could be complemented by a broader initiative on e-business – that is, the integration and use of ICT to make companies' work processes and production more effective and efficient. Shared use of services such as the Client Gate by e-business and e-government services will increase the volume of transactions and user familiarity, with resulting benefits for both government and business.

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Évaluation et mesures proposées

Principales conclusions

Le développement de l'administration électronique en Hongrie s'inscrit dans le cadre général de l'objectif national d'intégration du pays à l'Union européenne (UE). Associés à une direction politique forte, les efforts accomplis ont donné des résultats rapides – comme en témoignent la création par la Hongrie d'une infrastructure publique centrale et la mise en ligne des 20 services de base ayant fait l'objet d'une évaluation comparative de l'UE, ainsi que d'autres services de transactions. Les prochains défis à relever sont les suivants : 1) mieux utiliser l'administration électronique pour faire progresser le programme de réformes et réorganiser les activités dans un contexte d'importantes restrictions budgétaires; 2) accroître la collaboration et l'harmonisation intergouvernementales; et 3) augmenter le nombre d'utilisateurs et développer l'administration électronique au niveau local.

- **La Hongrie a progressé en adoptant les bonnes pratiques internationales sans chercher à « réinventer la roue ».** Elle a préparé la mise en place de l'administration électronique en créant un cadre réglementaire et technique et en s'appuyant sur les lignes directrices de l'UE; elle a également offert les services en ligne évalués par l'UE. Les solutions techniques adoptées – structure de base des télécommunications dans toute l'administration, portail du gouvernement et système d'authentification en particulier – sont de bonne qualité; elles ont été mises au point rapidement car elles s'inspirent de solutions efficaces conçues dans d'autres pays. Pour relever les défis auxquels la Hongrie doit encore faire face – comme la mise au point de normes d'interopérabilité, la réorganisation des activités et le développement des services offerts par les administrations locales – elle devra continuer de s'appuyer sur les meilleures pratiques des pays de l'OCDE.
- **Il faut donner une impulsion régulière et garder une vue d'ensemble des objectifs.** La détermination des dirigeants a joué un rôle essentiel dans la mise en œuvre des objectifs à court terme, mais le gouvernement a eu du mal à se concentrer sur les moyens à utiliser pour tirer profit de l'administration électronique, en raison des stratégies et plans d'action qui se sont succédé. La Hongrie rattrape les pays plus avancés sur le plan de

l'administration électronique, mais doit maintenant faire face aux problèmes habituels d'amélioration du taux d'utilisation des services d'administration en ligne, de l'écoute des besoins des usagers et de la transformation du secteur public. Pour les résoudre, elle bénéficiera des avantages que constituent la stabilité de ses priorités politiques et de cadres stratégiques qui permettent de se focaliser sur la mise en œuvre à moyen et à long terme. Il faut plus de leadership au niveau de l'ensemble du secteur public pour que l'administration électronique puisse dégager les économies administratives qui financeront l'innovation et la réforme du secteur public. Cela est nécessaire aussi pour améliorer les interactions des services électroniques de façon qu'ils répondent mieux aux besoins des usagers.

- **L'administration électronique doit devenir un pôle d'économies plutôt qu'un pôle de dépenses pour le secteur public.** Les fonctionnaires hongrois chargés de l'administration électronique doivent chercher à exploiter les restrictions budgétaires présentes comme une incitation plutôt qu'un obstacle au développement de l'administration électronique. Il s'agit d'un défi de taille, compte tenu des rigidités institutionnelles et réglementaires qui rendent la réaffectation des ressources difficile – et de l'évolution qu'elle suppose aussi sur le plan de la culture; mais certains pays de l'OCDE se sont ainsi servis des restrictions budgétaires pour amener leurs services publics à réorganiser leurs activités et à innover afin de libérer des ressources en faveur d'investissements supplémentaires.
- **Pour améliorer le taux d'utilisation des services électroniques, les pouvoirs publics doivent comprendre les besoins des usagers et en tenir compte.** La fracture numérique reste très marquée en Hongrie, et les zones rurales du pays sont particulièrement touchées. Différents points d'accès public à Internet – eHungary et Tele-Cottages – ont permis d'atténuer les disparités et offrent un exemple de collaboration entre le secteur public et la société civile. Les meilleurs de ces centres proposent une formation et une assistance; la plupart doivent cependant être renforcés et transformés pour devenir, non pas de simples points d'accès, mais de véritables centres de compétence, afin que l'administration électronique attire davantage d'usagers dans les zones rurales.

Défis à relever

Le gouvernement hongrois a beaucoup progressé en peu de temps, mais il subsiste d'importants défis à relever à l'échelle interne; il faut en particulier actualiser les cadres réglementaires et budgétaires pour accroître la flexibilité, promouvoir la collaboration et permettre la réaffectation des ressources. La société hongroise doit renforcer ses efforts face à la fracture numérique et améliorer l'accès au haut débit afin d'accroître le nombre de bénéficiaires des

services offerts; il lui faut aussi encore promouvoir le développement de l'administration électronique, en particulier au niveau local. Enfin, les programmes de communication et de formation doivent mettre l'accent en permanence sur les compétences dans les TIC et aider les citoyens et les fonctionnaires à comprendre les avantages de l'adoption du numérique.

Principales observations

- **Le cadre législatif de l'administration électronique est en place, mais une plus grande souplesse en améliorerait l'application.** La législation hongroise semble inclure toutes les directives communautaires qui influent sur le développement de l'administration électronique, et se situe par conséquent au même niveau de développement juridique que celle d'autres États membres de l'UE. Cependant, les autorités centrales et locales ont fait savoir à l'OCDE qu'il était parfois difficile de comprendre ce cadre législatif et de s'y conformer, en particulier pour les collectivités locales, qui ne reçoivent qu'une aide limitée pour l'interprétation des lois et réglementations et de leur incidence pratique. Beaucoup estiment aussi que la protection des données personnelles et de la vie privée prévue par la législation actuelle est trop stricte pour permettre un développement uniforme de l'administration électronique.
- **Les dispositifs budgétaires sont rigides et les méthodes communes d'évaluation des coûts et des avantages restent peu développées.** Comme beaucoup d'autres pays de l'OCDE, la Hongrie doit faire face à des difficultés causées par : le caractère limité des fonds affectés au développement de l'administration électronique dans le secteur public (au niveau central et local); le manque de dispositifs de financement d'investissements pluriannuels; l'absence de principes et de mécanismes bien définis de financement de projets communs d'administration électronique; et l'absence de méthodologie commune et d'utilisation systématique de l'analyse coûts/avantages pour évaluer les investissements en faveur de l'administration électronique.
- **Des efforts sont nécessaires pour accroître la pénétration et l'utilisation d'Internet.** La pénétration globale des TIC est faible en Hongrie et – sauf pour ce qui concerne le téléphone mobile (93.4 %) – sa croissance est lente (elle est inférieure à la moyenne de 3.2 % observée dans la zone l'OCDE entre 2004 et 2005). Le secteur public a réussi à mettre en place ses propres infrastructures et réseaux Internet à débit rapide, mais les connexions fiables à haut débit s'adressant aux particuliers restent peu nombreuses sur l'ensemble du territoire. Au cours des trois derniers mois, 37 % seulement de la population a utilisé Internet, alors que la moyenne des 25 États

membres de l'UE était de 51 % en 2005. Cela tient sans doute en partie au coût prohibitif de l'accès à Internet.

- **La fracture numérique reste un obstacle à l'expansion de l'administration électronique.** Il existe en Hongrie une fracture très nette entre populations urbaines et rurales sur le plan de l'utilisation d'Internet : le taux d'utilisation des urbains (52 %) est proche de la moyenne de l'UE25 (57 %), alors que celui des ruraux (25 %) est beaucoup plus faible que la moyenne de l'UE25 (42 %). Plusieurs initiatives ont été lancées pour y remédier : les points d'accès eHungary et Tele-Cottages fournissent ainsi aux populations rurales des services Internet de base.
- **Les compétences et les qualifications de la population pour les TIC doivent être renforcées.** Il est important d'améliorer le niveau général des compétences et des qualifications dans les TIC pour que les usagers se tournent avec succès vers l'administration électronique. La Hongrie a créé de nombreux programmes de formation destinés à donner aux populations les connaissances élémentaires nécessaires à l'utilisation de l'informatique et d'Internet. Ces efforts semblent utiles et opportuns, mais ils n'ont pas encore eu de retombées significatives sur les compétences et les qualifications de la population dans les TIC. D'après une enquête Eurostat, 57 % des Hongrois n'avaient en 2005 aucune connaissance en informatique. Dans la plupart des établissements scolaires, l'accès à Internet reste très insuffisant. Dans les écoles primaires, un ordinateur sur cinq seulement est connecté à Internet à l'heure actuelle. Le ministère de l'Éducation a mis en œuvre des projets destinés à améliorer les connaissances et les compétences dans les TIC (Sulinet par exemple), ce qui s'est traduit par une utilisation accrue d'Internet parmi les étudiants ; cependant, les possibilités pratiques d'apprentissage restent limitées en l'absence de matériel et d'amélioration des équipements dans les établissements scolaires.

Principales mesures proposées

- La Hongrie devrait envisager de revoir ses lois et réglementations pour que le cadre législatif s'applique de façon plus utile. Les dispositions législatives seraient mieux respectées si la rédaction des projets de loi était précédée d'une consultation des fonctionnaires et des communes qui permettrait de vérifier le réalisme des objectifs. En outre, on pourrait lier les dispositions législatives à l'obtention de résultats spécifiques, au lieu de fixer simplement des délais de mise en œuvre, pour que les objectifs de la loi soient mieux compris. L'application pourrait aussi être améliorée par des activités de communication et de conseil en direction des autorités locales sur les dispositions réglementaires et d'autres questions de mise en œuvre.

Les autorités locales devraient, de leur côté, envisager une collaboration plus étroite et un partage des connaissances sur les questions juridiques de mise en œuvre.

- La Hongrie devrait déterminer si le cadre actuel de protection des données et de la vie privée répond aux besoins d'une structure réglementaire qui doit mieux conforter le développement de l'administration électronique, sans compromettre les besoins fondamentaux d'une protection rationnelle et efficace des données personnelles sensibles et de la vie privée.
- La Hongrie devrait envisager d'assouplir les contraintes budgétaires en donnant la priorité au financement, par les autorités centrales, de la mise en place de services partagés, en concevant des méthodes et des concepts communs d'analyse coûts/avantages, et en rendant cette analyse obligatoire pour l'évaluation des coûts, des économies réalisées et des progrès accomplis. Les institutions publiques doivent être autorisées à conserver tout ou partie des ressources libérées par les gains d'efficience résultant de la mise en place de l'administration électronique et à les réinvestir pour développer encore ce secteur.
- Pour remédier à la fracture numérique, la Hongrie devrait envisager une stratégie globale en faveur de la société de l'information et un plan d'action visant à :
  - Améliorer **l'accès à Internet** en stimulant la concurrence entre fournisseurs d'accès à haut débit (en particulier dans les zones rurales) tout en prévoyant des mécanismes tels que subventions publiques et partenariats public/privé pour que l'accès à Internet soit universel et abordable. Parallèlement, il faudrait regrouper, renforcer et élargir les initiatives d'accès eHungary et Tele-Cottages pour accroître rapidement l'utilisation d'Internet et des services électroniques qui ne sont actuellement proposés que par l'administration centrale et quelques collectivités locales. Enfin, la Hongrie devrait essayer de tirer parti de la pénétration massive de la téléphonie mobile, qui permet aussi l'accès à des services électroniques.
  - Encourager **la demande des usagers** par une vaste campagne de communication sur les avantages des services d'administration électronique. La Hongrie devrait aussi développer la production de contenus en hongrois pour accroître la demande de services des consommateurs. Les partenariats public/privé pourraient tirer parti des synergies qui existent avec les applications bancaires et le commerce électronique pour développer la fourniture de services; ils pourraient aussi améliorer la participation du secteur privé et mobiliser des connaissances et des ressources complémentaires aux investissements publics.

- Réévaluer et renforcer les programmes d'**initiation aux TIC** en cours – y compris la formation en ligne, en liaison avec des initiatives comme eHungary et Tele-Cottages. Il faudrait collaborer avec les organisations de la société civile pour accroître les compétences et les qualifications et faire connaître les avantages de l'adoption du numérique dans la société, par exemple en présentant aux citoyens une « proposition de valeur » sur l'intérêt de la connexion à Internet.
- Élaborer des programmes complets **d'intégration des TIC à l'éducation et à la formation** dans le secteur de l'éducation, notamment au moyen de partenariats avec le secteur privé. Ces initiatives pourraient prévoir une modernisation des installations informatiques des établissements scolaires, pour offrir un meilleur cadre de formation aux TIC, l'élaboration de programmes de formation en ligne et la mise en œuvre de programmes spécifiques de formation à l'utilisation des TIC destinés aux enseignants, aux formateurs et aux membres des collectivités.

Institutions en charge de l'administration électronique

Jusqu'aux élections législatives d'avril 2006 qui ont conduit à la formation d'un nouveau gouvernement en juin 2006, l'administration électronique était placée pour l'essentiel sous la direction du Centre d'administration électronique (EKK) du Bureau du Premier ministre, et du ministère de l'Informatique et des Télécommunications (IHM). Bien que différentes résolutions du gouvernement aient essayé de clarifier la répartition des fonctions entre l'EKK et le ministère, la frontière entre les deux restait floue et la coordination limitée. C'est pourquoi la plupart des parties prenantes ne comprenaient pas la structure de direction dans ce domaine.

Le nouveau gouvernement a adopté un nouveau programme de réforme du secteur public et supprimé le ministère de l'Informatique et des Télécommunications, en transférant ses attributions au ministère de l'Économie et des Transports et à un nouveau Centre des services publics électroniques (Elektronikus Közszolgáltatások Központja-EKK), qui sera créé en janvier 2007 à l'échelon central et supervisé par le Bureau du Premier ministre. En même temps, certaines tâches importantes – comme la formulation de la stratégie de la fonction publique en matière de TIC et les mesures correspondantes, la réglementation de l'administration électronique (en coopération avec le ministère de l'Économie et des Transports) et la coordination entre les divers organismes – continueront de relever du Bureau du Premier ministre. La séparation TIC/stratégies reste évidente, mais cette évolution structurelle devrait permettre d'améliorer la coordination et les orientations données. La coordination des efforts locaux de développement de

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l'administration électronique devrait aussi faire l'objet d'une attention particulière.

Principales observations

- L'administration électronique relevant maintenant pour l'essentiel de la responsabilité de l'administration centrale et du nouveau Centre EKK placé sous la direction stratégique du Bureau du Premier ministre, il semble que le développement de l'administration électronique et le programme de réforme du secteur public soient davantage en phase. Le gouvernement doit absolument éviter dans la nouvelle structure les divisions qui existaient dans la précédente, et s'efforcer de ne pas perdre de temps dans la mise en œuvre de l'administration électronique ni de ralentir son action pendant la mise en place des nouvelles structures.
- Le nouveau ministère de l'Administration locale et du Développement régional est responsable de la surveillance du traitement électronique des opérations au niveau local. Le nouveau Centre EKK, sous l'autorité du Bureau du Premier ministre, aura aussi un rôle de surveillance et de coordination, dans la mesure où il veillera au bon cadrage des objectifs nationaux d'administration électronique et de ces activités.

Principales mesures proposées

- La nouvelle répartition des responsabilités en matière d'administration électronique offre un modèle de leadership plus rationnel. Au niveau central, la tâche du gouvernement est triple :
  1. utiliser les attributions conjointes du Bureau du Premier ministre en ce qui concerne l'administration électronique et la réforme du secteur public pour élaborer une **stratégie coordonnée de formation et d'aide aux organismes gouvernementaux** qui leur permettra d'apprendre à utiliser l'administration électronique pour réorganiser leurs activités et libérer des ressources à réaffecter ou à réinvestir.
  2. **proposer des solutions de mise en œuvre d'initiatives intersectorielles d'administration électronique**, en particulier de création de ressources communes, par exemple de bases de données partagées permettant de fournir des services partagés. Il peut aussi être envisagé de créer des incitations destinées à encourager les organismes gouvernementaux à collaborer pour fournir des services plus axés sur l'usager.
  3. **promouvoir avec fermeté la collaboration** – horizontale, à l'intérieur de l'administration centrale, et verticale, avec les collectivités locales – en

adoptant des réglementations sur la normalisation des données et en renforçant le soutien en faveur de l'élaboration de normes.

- Le gouvernement devrait aussi publier une liste de principes directeurs régissant l'administration électronique au plus haut niveau politique, pour fournir des orientations pendant cette période de transition et maintenir l'élan acquis à mesure de la mise en place de nouvelles structures et responsabilités. La déclaration qu'il formulera devra expliquer clairement son intention d'adopter des approches coordonnées et complémentaires de la réforme de la gestion publique et de la mise en œuvre de l'administration électronique.
- Le défi suivant sera de lancer des initiatives d'administration électronique au niveau local. Il est essentiel que le nouveau ministère de l'Administration locale et du Développement régional s'expriment d'une seule voix sur les questions d'administration électronique locale. Les pouvoirs publics devront s'efforcer de définir les bonnes pratiques et de renforcer les capacités au niveau local pour adapter ces solutions afin de concevoir des projets d'administration électronique à faibles coûts et interopérables.

Mise en œuvre de l'administration électronique

Pour réussir, il faut un bon dosage de gestion de projet, de réorganisation et de compétences techniques, des objectifs et des résultats bien compris, des informations permettant de mesurer la réalisation des objectifs, une bonne connaissance des étapes intermédiaires et des orientations destinées aux organes chargés de la mise en œuvre. Ces éléments ne sont pas toujours réunis dans la gestion des projets hongrois d'informatique publique, mais des efforts ont été accomplis pour y remédier. Il n'existe toujours pas d'orientations sur les approches normalisées par exemple, mais on peut se féliciter de la progression du suivi et de l'évaluation des projets d'administration électronique.

Suite à une analyse des qualifications dans l'administration centrale, les pouvoirs publics sont maintenant tout à fait conscients de la nécessité d'acquérir les aptitudes qui manquent pour l'instant pour la mise en œuvre de l'administration électronique. Plusieurs initiatives destinées à combler ces lacunes ont été lancées (programme de culture électronique par exemple), mais elles n'ont rencontré qu'un succès limité. Une autre initiative en cours consiste à demander à tous les fonctionnaires de passer le permis de compétences informatiques européen, pour relever le niveau de connaissances informatiques dans le secteur public. Ces initiatives sont positives. Cependant, il faudrait que la progression vers les objectifs fixés soit plus rapide que ne le permettent ces cours structurés et sessions de formation pour fonctionnaires.

Le gouvernement a pris des mesures novatrices face au manque de qualifications. En collaboration avec un partenaire privé, l'Académie hongroise des sciences a créé en juin 2006 un Centre de méthodologie de l'administration électronique, pour présenter des solutions technologiquement neutres émanant du secteur privé. La Hongrie pourrait aussi se servir de ce centre pour offrir une formation pratique aux fonctionnaires et favoriser les échanges de bonnes pratiques.

Principales observations

- La Hongrie a instauré un suivi et une évaluation systématiques de la mise en œuvre de sa stratégie d'administration électronique. Cependant, le secteur public n'a pas encore défini d'approche commune du suivi et de l'évaluation, à utiliser méthodiquement pour améliorer la gestion de la mise en œuvre. Les institutions publiques qui n'ont pas assez d'expérience de l'évaluation et ne sont pas suffisamment guidées notifient des résultats qui ne sont pas comparables. Le gouvernement central n'a donc pas les moyens de suivre la mise en œuvre et de déterminer si les objectifs internes de l'administration électronique ont été atteints.
- En dehors de la sphère du financement communautaire, les incitations économiques en faveur du développement de l'administration électronique sont peu nombreuses. Le principal problème, cependant, ne concerne pas les incitations extérieures, rarement suffisantes pour financer complètement la mise en œuvre. Il faut un changement de culture pour convaincre les fonctionnaires de rechercher dans le cadre de leurs propres projets des gains d'efficience qui permettront de financer l'innovation. Dans cette perspective, les obstacles institutionnels à des gains d'efficience doivent être supprimés. Il est par exemple difficile, du fait de la stabilité des emplois publics en Hongrie, de modifier les affectations ou de licencier du personnel. Une modification de l'été 2006 de la loi sur la fonction publique montre que la Hongrie a pris conscience de la nécessité d'assouplir les politiques de ressources humaines du secteur public. Il est envisagé de mettre en place en 2007 des indicateurs de performances pour l'évaluation des fonctionnaires. En outre, le nouveau gouvernement a fait part de son intention de procéder à une réforme de fond de la fonction publique.
- L'enquête de l'OCDE a recensé différents problèmes de compétences et de qualifications, en soulignant la nécessité d'acquérir des compétences suffisantes dans le domaine de la technologie et de la gestion de projets pour la mise en œuvre de l'administration électronique. Elle montre que le manque de qualifications dans les domaines des TIC, de la mise en œuvre de l'administration électronique et des stratégies en faveur de la société de

l'information, ainsi que la capacité d'adaptation du personnel au changement, apparaissent comme les principaux problèmes à résoudre au niveau de l'administration centrale et des collectivités locales. Il faudrait aussi un éventail plus large de compétences en gestion publique, notamment en gestion du changement et en reconfiguration des processus, pour que les projets d'administration électronique aboutissent à une transformation totale et pas seulement à une informatisation plus poussée.

Principales mesures proposées

- Pour concevoir et appliquer un cadre commun de suivi et d'évaluation des projets d'administration électronique dans tout le secteur public, la Hongrie devrait envisager d'établir et de diffuser rapidement un ensemble d'objectifs et de mesures normalisés d'administration électronique destinés à un usage général, peut-être en s'appuyant sur les dispositifs de suivi utilisés dans le cadre des projets de l'UE. Il faudrait que les principes directeurs proposés prévoient des outils et des procédures génériques susceptibles de contribuer au renforcement de la gestion et du suivi de l'administration électronique par les différentes institutions publiques. La Hongrie devrait commencer par suivre la recommandation de l'ancien Comité intergouvernemental des technologies de l'information, qui proposait de mettre au point un ensemble d'outils commun au secteur public, comportant des modèles de cycle de projet et des orientations générales pour la gestion de ce cycle.
- Pour encourager les institutions publiques, à tous les niveaux d'administration, à développer les services d'administration électronique conformément aux politiques et stratégies en cours dans ce domaine, la Hongrie devrait envisager de proposer davantage d'incitations, sous forme d'avantages économiques et de concours, par exemple. Il pourrait s'agir dans le premier cas de mécanismes budgétaires permettant aux institutions de conserver une partie des recettes dégagées grâce aux gains d'efficience réalisés; dans le deuxième cas, on pourrait envisager d'organiser entre les administrations des concours qui porteraient sur la qualité du service, la participation des usagers et les services partagés, notamment les guichets uniques.
- La cohérence entre les aspects techniques et administratifs des programmes d'administration électronique est déterminante; les projets risquent en effet d'échouer si ces deux composantes sont déconnectées. Le processus de mise en œuvre des programmes doit combiner la perspective technique et celle de la gestion pour que le personnel approuve les

changements nécessaires et associe véritablement l'utilisation des TIC aux objectifs à atteindre en matière d'administration électronique.

- Pour renforcer les compétences des fonctionnaires, il faudrait élaborer un programme général de formation à l'administration électronique composé de trois modules d'enseignement qui pourraient être dirigés par l'administration elle-même, ou faire l'objet d'un partenariat avec le secteur privé ou avec des partenaires du milieu universitaire ou d'organisations à but non lucratif :
  - Un programme ciblé de formation et d'acquisition de compétences rassemblant les fonctionnaires de différentes institutions publiques appartenant à tous les niveaux d'administration, pour promouvoir l'enrichissement mutuel et sensibiliser l'ensemble du secteur public, dans le but de modifier la culture de l'administration.
  - Une analyse organisationnelle déterminant de quelle manière les tâches et les procédures sont exécutées aujourd'hui, afin de recenser les compétences nécessaires à la rationalisation des méthodes de travail et de traitement des tâches, en mettant l'accent sur les aspects stratégiques, juridiques et administratifs de la mise en œuvre, ainsi que sur les qualifications techniques.
  - Des possibilités plus nombreuses de formation en cours d'emploi pour les fonctionnaires, au moyen de modules de formation s'adressant à des groupes ciblés (classe politique, fonctionnaires, chefs de projet, gestionnaires, etc.) en fonction des compétences exigées aux postes qu'ils occupent. Les fonctionnaires pourraient ainsi recevoir une formation sur les services d'administration électronique disponibles – en particulier sur l'utilisation du portail clients – et sur les solutions offertes par le secteur privé et susceptibles d'être adaptées à leurs besoins.

Cadres de collaboration

La Hongrie a créé un système central de services électroniques – comportant une structure de base gouvernementale, un portail gouvernemental, un portail clients (portail transactionnel) et un centre multicanaux d'information des consommateurs – pour contribuer à la fourniture des services publics émanant de l'administration centrale. Cette infrastructure d'administration électronique est maintenant élargie progressivement et offerte aux collectivités locales, qui sont ainsi invitées à proposer leurs propres services en ligne aux citoyens et aux entreprises.

La Hongrie a déjà traité beaucoup de problèmes fondamentaux, mais elle doit élargir la notion d'infrastructure partagée pour créer d'autres modules de base tels que registres et réseaux communs de données, qui peuvent être réutilisés à l'infini comme fondement de l'architecture des entreprises et des normes

d'interopérabilité. A défaut, la Hongrie se trouvera moins bien placée pour relever les défis à venir pour l'administration électronique, comme ceux que représentent la mise en œuvre de services partagés et la constitution d'une administration décloisonnée et centrée sur l'usager.

Observations principales

- Le gouvernement hongrois a pris conscience de l'importance d'une interopérabilité et d'une interconnectivité accrues. Dans le cadre du programme mis en place en juin 2006, le nouveau gouvernement a la ferme intention de mettre en œuvre des procédures communes pour centraliser certaines fonctions générales de l'administration centrale comme les technologies de l'information, la paye, la comptabilité, les appels d'offre et la gestion. La plupart des cadres de collaboration couvrant les procédures communes, les normes de présentation des données, l'architecture d'entreprise, l'interconnectivité et les stratégies multicanaux ne sont cependant qu'au stade de la planification ou en cours d'élaboration.
- La stratégie et le plan d'action en cours pour l'administration électronique mentionnent la nécessité d'élaborer des normes de présentation des données et des définitions communes de structure des données pour assurer un accès électronique uniforme aux données recueillies par les pouvoirs publics. Dans le cadre du projet MEKIK – cadre hongrois d'interopérabilité de l'administration électronique – l'ancien ministère de l'Informatique et des Télécommunications était responsable de la création de normes de présentation des données, de mécanismes d'organisation du travail et des réglementations nécessaires pour satisfaire aux attentes de l'UE sur le système intéropérable d'administration à guichet unique dont elle souhaite la mise en place dans tous les États membres; cependant, la mise en œuvre de ce projet a connu des retards répétés.

Principales mesures proposées

- Dans le cadre de la réforme du secteur public annoncée, la Hongrie devrait s'appuyer sur des cadres de collaboration afin de :
  - Créer un **registre des services** comportant des définitions générales des produits et services du secteur public.
  - Établir des **normes communes de présentation des données du secteur public** et des normes sur les méta-données, pour que l'ensemble du secteur public utilise les mêmes définitions et structures de données. La première étape consiste à adopter des réglementations sur les principes d'interopérabilité, mais il faut aussi à cette fin procéder à une

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consultation des parties prenantes, s'assurer du soutien des utilisateurs de ces données et tenir compte des normes internationales comme celles du Cadre d'interopérabilité européen.

- Constituer une **architecture d'entreprise** en dépassant le stade de la planification. On ne sait pas bien comment les plans actuels sont reliés et coordonnés; il faut une architecture commune d'entreprise pour le secteur public, de façon que l'administration ait la même conception organisationnelle, structurelle et technique de la mise en place de services d'administration électronique pour assurer l'interconnectivité et l'interopérabilité entre les organisations, et à terme entre les différents niveaux d'administration, y compris au niveau européen.
- Élargir aux collectivités locales le cadre offert par le **Système central de services électroniques** conçu pour le gouvernement central, afin qu'elles puissent disposer d'une infrastructure d'administration électronique de base et de certains services génériques, et soient ainsi encouragées à adapter ces services plutôt qu'à créer les leurs.
- Créer un **centre de services partagés** qui permette de concentrer les capacités disponibles sur la conception, la gestion et le maintien de certains services utilisés par l'ensemble du secteur public au nom de l'ensemble du secteur public.
- Prévoir un cadre en faveur d'une approche publique commune des **stratégies multicanaux,** en définissant des principes directeurs et de bonnes pratiques de fourniture de services multicanaux ainsi que des stratégies de gestion des canaux. Ce cadre recenserait aussi les synergies qui existent avec les solutions de cyberactivité et de commerce électronique – par exemple grâce à l'utilisation partagée du portail clients – et contribuerait ainsi au développement de la société de l'information en Hongrie.

Produits et résultats

La Hongrie fournit avec succès les 20 services électroniques de base évalués par l'UE et s'est aussi efforcée d'étoffer davantage son portefeuille de services. D'après l'étude comparative la plus récente, publiée en juin 2006,* la Hongrie a dépassé la moyenne de l'UE28 sur le plan de la « sophistication » des services offerts en ligne. La plupart d'entre eux sont assez nouveaux, de sorte que leur utilisation reste faible malgré leur niveau de développement. Cependant, l'intérêt manifesté par les utilisateurs pour le portail gouvernemental et le

* Cap Gemini pour la Commission européenne (2006), *Online Availability of Public Services: How is Europe Progressing?* Rapport de la cinquième étude, juin 2006.

portail clients (portail transactionnel vers les services publics centraux) s'est beaucoup amplifié ces derniers temps.

Principales observations

- C'est le souci de répondre aux conditions de l'UE, plutôt que la demande des usagers, qui a contribué pour l'essentiel au développement des services en ligne. Cependant, l'accroissement du nombre d'usagers enregistrés grâce au portail clients et à son système commun d'authentification électronique semble indiquer que les citoyens apprécient ces services en ligne. Le portail clients a attiré 150 000 utilisateurs enregistrés environ depuis son lancement en avril 2005. Il permet d'accéder à des services transactionnels très divers, tels que déclaration d'impôts et de TVA des entreprises, déclaration et notification des impôts sur le revenu, demandes de rendez-vous personnel à des services administratifs, services de délivrance de permis de conduire, services d'immatriculation des véhicules, demande et délivrance de certificats (de naissance, de mariage) et annonces de changement d'adresses à l'intention des citoyens.
- Conformément à la tendance générale observée dans les pays de l'OCDE, les services en ligne ont été adoptés plus largement par les entreprises que par les citoyens. L'obligation faite aux entreprises d'utiliser les services en ligne pour certaines démarches, comme la déclaration d'impôts, y a contribué, et montre que l'on peut faire prendre conscience des avantages de l'administration électronique en « poussant » les populations qui bénéficient d'un accès fiable à Internet à utiliser les services électroniques.

Principales mesures proposées

- Pour renforcer encore l'utilisation des services électroniques, la Hongrie devrait envisager une nouvelle approche stratégique du développement de l'administration électronique, en cherchant notamment à répertorier les besoins des usagers pour y répondre, tout en procédant à une évaluation comparative par rapport aux performances moyennes de l'UE. Elle devra pour cela définir des objectifs de résultats internes et externes plutôt que de simples objectifs chiffrés de production. Elle devra faire reposer cette approche sur des enquêtes régulières concernant les demandes, les préférences et les niveaux de satisfaction des usagers, en commençant par les outils de consultation en place, comme la composante « eGames » du portail gouvernemental. Il faudrait aussi envisager une commercialisation plus large des services en ligne et une assistance technique ciblée dans les centres d'usagers (points d'accès e-Hungary et Tele-Cottages par exemple).

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- L'adoption rapide du portail clients montre que la population est encouragée à utiliser les services en ligne fournis par le secteur public lorsqu'ils sont faciles à utiliser, bien intégrés et intéressants. En effectuant des enquêtes auprès des usagers et en les consultant, les pouvoirs publics devraient déterminer les services qui peuvent encore être développés (c'est-à-dire faire l'objet de transactions en ligne) afin d'intensifier l'utilisation des services électroniques et d'en accroître l'intérêt pour les usagers et les pouvoirs publics.
- Le gouvernement pourrait élargir encore les services électroniques adoptés par les entreprises au moyen d'efforts ciblés dans leur direction, en particulier pour développer les interactions (sur une base obligatoire ou volontaire) avec les pouvoirs publics. Le développement des marchés publics en ligne peut par exemple améliorer la transparence de la procédure et faciliter l'accès aux entreprises hongroises. Cette stratégie pourrait être complétée par une initiative plus large en faveur de la cyberactivité – c'est-à-dire de l'intégration et de l'utilisation des TIC pour une efficacité et une efficience plus grandes des méthodes de travail et de la production des entreprises – et des entreprises hongroises qui se sont dotées d'un environnement favorable aux TIC. L'utilisation partagée de services de facilitation comme le portail clients pour les services professionnels aux entreprises et les services d'administration en ligne, en faisant monter le volume de transactions et en permettant aux usagers de se familiariser avec ces technologies, profitera à la fois à l'administration et aux entreprises.

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Chapter 1

Introduction

This chapter introduces the case for e-government in Hungary. It provides a brief overview of the Hungarian context in which e-government initiatives are being developed and enacted by the public sector.

The peer review

At the request of the Hungarian government, the OECD conducted a peer review of e-government policies and programmes in Hungary. The main objectives of the review are as follows:

- To apply the OECD's e-government analysis framework so as to provide the Hungarian government with a report on its e-government strategies and solutions, with a focus on how they contribute now, and could contribute in the future, to its good governance objectives in the information age.
- Through reviewing e-government in Hungary, to further develop the OECD's e-government analysis framework, and obtain knowledge and experience that will enable robust cross-country comparisons of e-government in OECD countries participating in future peer review processes.

The analytical framework for the review presented herein is based on the 2003 OECD publication *The e-Government Imperative*,[1] which was further developed and refined in the 2005 OECD publication *e-Government for Better Government*[2] to reflect the changing priorities of the organisation's member countries. This report discusses and analyses key e-government processes and structures in Hungary under the following headings: country profile, challenges, leadership, implementation, collaboration frameworks, and outputs and outcomes.

Country profile

As in other OECD member countries, e-government strategies and their implementation in Hungary have been influenced by many factors including the country's geographical size, population, economy, infrastructure, governance structure, and e-government drivers.

The Republic of Hungary is located in Central Europe (see Figure 1.1). The country covers about 1% of Europe – 93 030 square kilometres.[3] Hungary has a population of 10.1 million inhabitants.[4] About 65% of the population lives in predominantly urban and intermediate regions, below the OECD average of 80%.[5]

Figure 1.1. **Map of Hungary**



Source: CIA World Factbook, 2006.

Hungary is a homogenous country with national minorities (Gipsies, Germans, Slovakians, Yugoslavians, and Romanians) representing less than 4% of the population.[6] The official language is Hungarian. Only 29% of the population speaks at least one foreign language, compared with an average of 50% in the EU25.[7]

Hungary has one of the smallest and least developed economies among OECD countries, ranking 26th in terms of per capita Gross Domestic Product (GDP) in 2005.[8] Nevertheless, Hungary is one of the more successful European transition economies, as indicated by the considerable economic and social changes that have taken place in the country since the early 1990s.[9]

The country joined the OECD in May 1996 and the EU in May 2004. Like other new EU member states, especially the other former CMEA[10] member countries, Hungary is currently making considerable efforts to catch up with developed market economies. As a result, OECD and European Union (EU) policy recommendations for the transition process have been high on the national political agenda and have been some of the main drivers for economic and administrative reforms.

Hungary's accession programme to the EU, in 2004, was followed by the creation of e-government strategies with a strong focus on implementation. In its e-government planning, Hungary has emphasised the 20 e-services benchmarked by the *eEurope* Initiative, in addition to developing the basic

electronic infrastructure and enacting necessary e-government related laws. Hungary has also participated in other EU-led programmes and initiatives for e-government, including the IDAbc (Interoperable Delivery of Pan-European eGovernment Services to Public Administrations, Business and Citizens) Programme. The *eEurope* programme also states that e-government must support the Lisbon Agenda[11] by promoting innovation and efficiency in the public sector, as well as the information economy. In this respect many challenges remain for Hungary mainly due to its budgetary constraints and government structure.

Despite the fact that Hungary is now experiencing greater economic stability,[12] high budget deficits and requirements for entry into the Euro area are forcing the government to introduce austerity measures. The new government that came into power in June 2006 (after a general election in April) has announced both significant budgetary restrictions for the public sector in order to reduce public spending and announced an increase in taxes for both citizens and businesses.[13]

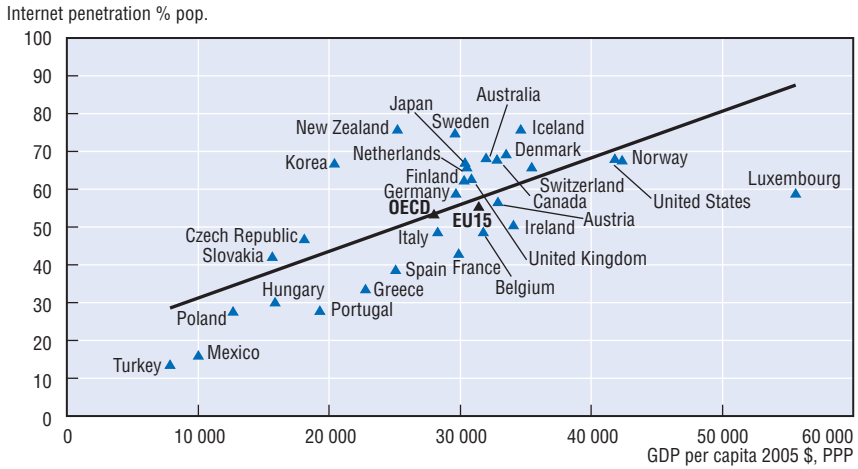
Changes in Hungary's economic and political situation after 1989 have brought a number of economic benefits to the country. This includes foreign investments, as multi-national companies have taken advantage of the opening of the Hungarian market. Today, over 70% of the country's exports are produced by partly or fully foreign-owned companies that have invested significantly in Hungary since the mid-1990s.[14] The high share of ICT-related industries and services in GDP and exports (55% and 30%, respectively) has created the right conditions for the growth of Hungary's Information Society and by doing so has strengthened its state of e-government readiness. For example, the latest UN e-government readiness index ranks Hungary 27th among 179 countries;[15] among the 10 new EU member states, only Estonia and Slovenia were better ranked in terms of e-government readiness.

Analysis of data covering the 30 OECD member countries shows a strong positive correlation between a country's per capita income and the share of its population using the Internet, *i.e.* the higher the per capita income, the larger the share of the population using the Internet (see Figure 1.2). However, this correlation should not be viewed as a mono-causal one. In fact, although per capita income plays a significant role in Internet usage, the share of the population using the Internet is the result of many inter-related and interacting factors. Viewed in this light, Hungary slightly deviates downward from the calculated trend line indicating that Internet penetration is weaker than expected according to income level.

Hungary's governance structure

Hungary has three levels of government: 1) central government; 2) county (and capital) governments; and 3) local governments (municipalities). Hungary

Figure 1.2. **Per capita income and Internet use in OECD countries**



Source: OECD; Internet penetration: Internet World Stats (*www.internetworldstats.com*); GDP per capita: CIA Fact Book.

is a Parliamentary Republic, and its legislative body – a unicameral parliament (National Assembly) – consists of 386 members elected by popular vote under a system of proportional and direct representation to serve four-year terms.

Executive power is formally held by the President of the Republic, who is the Head of State. The government is headed by the Prime Minister. The President is elected by a two-thirds majority vote by the National Assembly for five years. The President has limited policy-making power, and effective executive power is exercised by the government, in which the Prime Minister plays a key role. The National Assembly elects the Prime Minister based on a proposal from the President of the Republic, via the principle of parliamentary majority, and approves the government programme. The Prime Minister nominates the ministers of the government, who are formally appointed by the President after approval by the relevant committees of the National Assembly.

Public administration functions are performed by two types of institutions: local or regional offices representing and directed by the central government, and local governments directed by locally elected bodies. According to 1989 amendments to the Constitution, the local governments are independent. Local governments have an elected representative body and an executive entity, the Mayor's Office. The Mayor's Office executes both local administrative tasks (for which it is responsible to the representative body) and state administrative tasks (for which it is responsible to the state authorities). Local governments are legal entities that have full independence

in local matters including the adoption of local legislation and administration of financial resources. Their income base is generated through local taxes and central government funding.

At the *local level* Hungary has 3 152 local governments operating in 19 counties and Budapest. At the *central level* the new government structure from June 2006 has reduced the number of ministries leaving the current number at 11;[16] the number of ministers has also been reduced, and some minister positions without portfolios have been abolished.

There are several important e-government-related changes in the June 2006 central government structure:

- The Ministry of Informatics and Communications (IHM)[17] has been abolished, and its tasks – with the exception of those relating to e-public administration – have been transferred to the Ministry of Economy and Transport.[18] Its tasks related to e-government have been transferred to the Prime Minister's Office where they will be merged with the E-Government Centre (EKK[19]);[20] the Central Data Processing, Registration and Election Office; the Government Office for Frequency Management and the Telecommunication Service Office to form a new Centre for Electronic Public Services.
- The Ministry of Interior's tasks have been transferred to two other ministries: most tasks have been transferred to the Ministry of Local Government and Territorial Development established by the new government, while the monitoring of law enforcement has been transferred to the Ministry of Justice and Law Enforcement.[21]
- The Central Data Processing, Registration and Election Office, which used to be an agency under the Ministry of Interior, will also be merged into the new Centre for Electronic Public Services.[22]
- To achieve a more cost-efficient and transparent use of public funds, the government intends to centralise certain administrative functions of central government such as public procurement, tendering, bookkeeping, payroll functions, ICT, customer service, human resources management, travel and protocol functions; a shared service centre will be established to operate these generic administrative tasks across ministries.[23]

E-government in Hungary

The previous administration's e-government agenda stated that e-government should be seen as a tool for public sector reform and transformation of the central government into a public service provider.[24] However, OECD interviews showed that the Hungarian government saw the reform of central government administration and the development of e-government as two independent tasks. The reasons behind this approach might be the late development of e-government compared to other OECD

countries and the lack of profound reforms to the central government administration during the 16-year history of the Republic of Hungary.[25]

In its June 2006 policy statement, the current administration announced that it will take up the challenge of extensive and profound public sector reforms. As detailed programme information was not available during the preparation of this review, it is unclear how the Hungarian government sees e-government as a tool for transformation of the public sector, and how it might be used (see Box 1.1 for a short history of e-government development in Hungary).

Box 1.1. **The history of e-government development in Hungary**

The root of e-government development in Hungary dates back to the early 1990s. Modernisation of office equipment and exchanging typewriters for PCs represented the first steps on the road from the traditional public administration to ICT-enabled government or e-government. At the same time, the demands of civil society called for rapid progress in establishing an Information Society.

E-government is not viewed in the same way throughout the Hungarian government. Some see e-government primarily as the development of ICT *systems* within public administration. Others, however, have a more far-sighted perception of e-government as an integrated part of the Information Society or as enabler for an efficient and effective public sector delivering high-quality services to the public and as an important tool for reducing the digital divide.

The first body responsible for ICT development in public administration was the Coordination Office for IT within the Prime Minister's Office, which served as a secretariat for the Inter-Departmental Committee for Informatics and was set up by the ministries' IT chiefs in 1991.

In 1997, the Office was transformed into the Deputy State Secretariat for IT and in June 2000, a new institution, the Office of the Government Commissioner for Information and Communication Technology (*Informatikai Kormánybiztosság – IKB*), was established in the Prime Minister's Office. Within IKB a separate organisational unit, the Division of Electronic Government, was established to co-ordinate the development of government information systems.

By that time, several ministries and institutions had developed their own networks connecting their own areas of responsibility. The most important among these were the Ministry of Education, the Ministry of Interior, the Ministry of Cultural Heritage, and two offices of the Ministry of Finance: the State Tax Authority and the Hungarian Customs and Finance Guard. In the case of the latter, e-government development was financed by the PHARE[1] programme, because of the substantial transit trade that had to be controlled according to EU standards.

Box 1.1. **The history of e-government development in Hungary** *(cont.)*

Mainly due to the "stove-piped" approach to e-government development by different public bodies, during its two-year existence IKB did not promote horizontal co-operation among organisations. The introduction of new e-government services such as e-procurement and a Government Portal (*www.ekormanyzat.hu*) could not be enforced successfully.

In 2002, the government split the responsibilities and tasks of IKB. As developing an Information Society in Hungary had become a political priority, a new Ministry was established – the Ministry of Informatics and Communications (*Informatikai és Hírközlési Minisztérium – IHM*). However, responsibility for e-government remained in the Prime Minister's Office through a new Office of Government Information Technology and Civil Relations. In mid-2003, this office became the Electronic Government Centre (*Elektronikuskormányzat-központ – EKK*). Since then, EKK has been responsible for the co-ordination of e-government development at the central level.

Although local governments are independent bodies, the Ministry of Interior supervises the public services they provide on behalf of central government. In addition, e-government development goals at local government level were established as a sub-strategy of the Hungarian Information Society Strategy (as elaborated by the IHM).

In November 2004, a new version of the Governmental Portal, *www.magyarorszag.hu*, was launched, and the **Electronic Government Backbone** (*Elektronikus Kormányzati Gerinchálózat – EKG*), a secure government-wide communication network (which had been under development since 2002)[2] became a country-wide basic infrastructure (see Chapter 5).

Since April 2005, a transactional gateway, the **Client Gate** *(Ügyfélkapu)*, has allowed users to securely identify themselves on line and gain access to transactional e-government services (see Chapter 5).

Following Hungary's EU accession, the focus of the e-government programme as been the 20 services benchmarked by the European Union. Ranking at the bottom of the countries benchmarked by EU at the time of accession, Hungary decided to invest considerable efforts to catch up with other EU member states.

In July 2005, the *Act on the Freedom of Information by Electronic Means*[3] was adopted; its goal is the establishment of the legal environment required to create a transparent digital state. The law defines a list of specific data of public interest that must be published on the Internet and mandates the creation of a discussion forum for citizens (see Box 2.1, Chapter 2).

Box 1.1. **The history of e-government development in Hungary** *(cont.)*

In November 2005, the *Act on the General Rules of Public Administration Procedures and Services*[4] came into force. It obliges the Hungarian public administration to make services available on line, and each government department to make specific sets of information – including downloadable forms – available both on their own websites and through the Governmental Portal. The legislation also states that "… *governmental bodies will no longer have the right to ask citizens to provide them with certificates, documents or any other data that are already available in a government database*." (see Chapter 2).

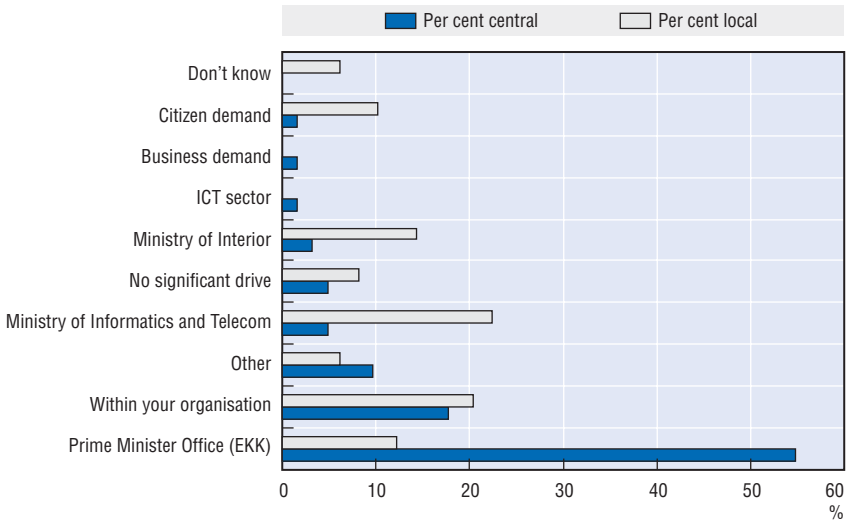
1. The PHARE programme is one of the three pre-accession instruments financed by the European Union to assist the applicant countries of Central and Eastern Europe in their preparations for joining the European Union.
2. The decision to establish an electronic government backbone was formulated in the government decree 1122/2001. (XI. 22.).
3. Parliament (2005), *XC/2005 Törvény az elektronikus információszabadságról* (Act on the Freedom of Information by Electronic Means).
4. Parliament (2004), *CXL/2004 A közigazgatási hatósági eljárás és szolgáltatás általános szabályairól szóló törvény* (Ket) (Act on the General Rules of Public Administration Procedures and Services).

E-government drivers

E-government development in Hungary has primarily been driven by political priorities. Like most OECD countries, Hungary has seen e-government development as a part of a larger political and strategic view on developing both the Information Society and the digital economy so as to enable the country to compete globally. For Hungary, the main political driver for most policy areas has been its integration into the leading market economies in Europe and globally. With EU membership and the accession process as a national goal, Hungary has focused on European "quick-wins" within the e-government policy area, such as aligning policies, laws and governance structures to European Union demands.

The main responsibility for meeting EU expectations in enacting and complying with e-government laws and raising the sophistication level of the 20 e-services benchmarked by the EU has been assigned to EKK. The OECD survey shows that 55% of central government respondents point at EKK as the main driver for e-government in Hungary; however, only 12% of local government respondents see EKK as a driver for e-government development (see Figure 1.3). Local government respondents (22%) see the now former Ministry of Informatics and Telecommunications (IHM) as the main driver for e-government development, while only 5% of central government respondents have pointed to IHM as an e-government driver. Both central (18%) and local (20%) government respondents see drivers within their own organisations as the second most important drivers for e-government. A significant driver for

Figure 1.3. **Drivers for e-government**
All levels of government



Source: OECD, Survey on e-government in Hungary, 2006.

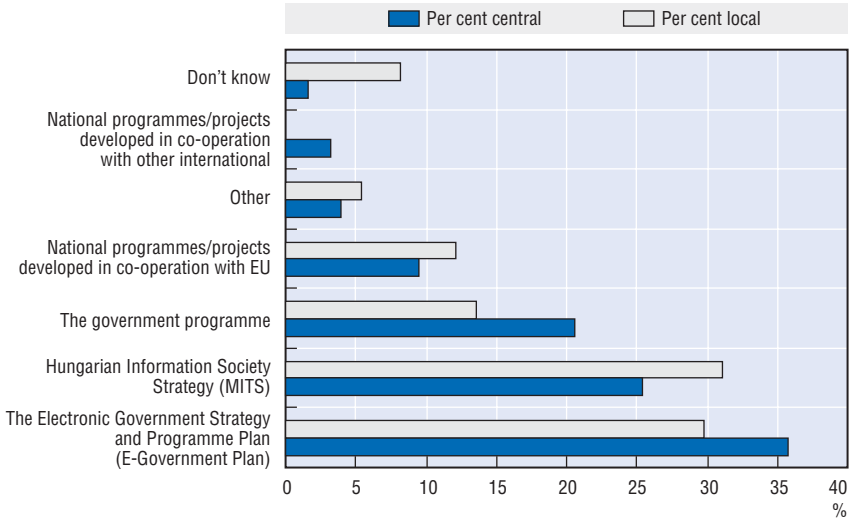
local governments was also the now former Ministry of Interior (14% of local government respondents *versus* 3% of central government respondents). OECD interviews supported the importance of the former Ministry of Interior to e-government development in local governments.

The results show fragmentation of e-government development, and demonstrate that the primary drivers for different segments of the public sector basically depend on the sector orientation of the respondent and the general perception of the hierarchical ranking within the Hungarian governance model. It is therefore not surprising that central government respondents tend to see the Prime Minister's Office and EKK as the driving force, while local governments do not have the same incentive due to the autonomous role accorded to them under the Hungarian constitution. They will therefore more naturally direct their attention to the leading sector ministries, the IHM and the Ministry of Interior.

The OECD survey also examined to what extent national strategies were drivers for e-government development. Figure 1.4 shows that both central and local level respondents identify the Electronic Government Strategy and Programme (36% and 30%, respectively) and the Hungarian Information Society Strategy (25% and 31%, respectively) as the main drivers among national strategies.

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Figure 1.4. **National strategies as drivers for e-government**



Source: OECD survey on e-government in Hungary, 2006.

Drivers for e-government development in many OECD countries are increasingly linked to overarching political goals, such as public sector reform. Viewing e-government as a tool for transformation, a number of OECD countries have integrated programmes into units dealing with public sector modernisation. This development has recently been seen in countries with mature e-government programmes, such as Denmark[26] and France.[27] In Hungary this integration is not yet recognised; e-government and modernisation are seen as separate non-linked activities with no mutual co-ordination or collaboration, according to OECD interviews.

In summary, the main drivers for e-government development in Hungary are:

- The European Union agenda on e-government, especially the EU benchmark of 20 e-services, as a result of Hungary's overarching political agenda of harmonizing policies, laws and governance structures for full integration into the European Union.
- *For central government:* The Prime Minister's Office and EKK are key e-government drivers within central government.
- *For local government:* The former Ministry of Informatics and Telecommunications and the former Ministry of Interior was seen as driver of e-government.

E-government strategies and goals

Since the mid-1990s, several e-government policies and strategies have been announced. However, implementation has been limited due to shifting political priorities of different governments (see Table 1.1 for an overview of the different government policies and strategies).

Table 1.1. **Information Society and E-Government Strategies and Action Plans**

	Policy and strategy documents	Responsible public authority
1995	National Information Strategy (*Nemzeti Informatikai Stratégia – NIS*)	NIS Preparatory Committee (*NIS Előkészitő Bizottság*)
1999	Hungarian Response to the Challenges of the Information Society (*Magyar válasz az információs társadalom kihívásaira*)	Prime Minister's Office (*Miniszterelnöki Hivatal – MeH*)
2000	Thesises on the Information Society (*Tézisek az információs társadalomról*)	Prime Minister's Office (*Miniszterelnöki Hivatal – MeH*)
2000	Hungarian Informatics Charter (*Magyar Informatikai Charta*)	Inforum (*Interest Reconciliation Forum of Informatics – Informatikai Érdekegyeztető Fórum*)
2001	National Information Society Strategy (*Nemzeti Információs Társadalom Stratégis – NITS*)	Office of the Government Commissioner for ICT (*MeH Informatikai Kormánybiztosság)*
2001	NITS Electronic Government Programme (*NITS Elektronikus Kormányzat Program – EKP*)	Office of the Government Commissioner for ICT (*MeH Informatikai Kormánybiztosság*)
2003	Hungarian Information Society Strategy (*Magyar Információs Társadalom Stratégia – MITS*)	Ministry of Informatics and Telecommunications (*Informatikai és Hirközlési Minisztérium – IHM*)
2003	E-government 2005 Strategy and Programme (*eKormányzat 2005 Stratégia és Programterv*)	Centre for Electronic Government of the Prime Minister's Office (*MeH Elektronikuskormányzat Központ – EKK*)

Source: E-Kormányzat 2005 – Az e-kormányzat stratégia programozása (E-Government 2005 – Programming of the e-government strategy), 26 January 2004. EKK, Budapest, p. 5.

Hungarian e-government strategies are a part of the broader Information Society strategies. The current strategy, the Hungarian Information Society Strategy (MITS) prepared by the Ministry of Informatics and Communications, was adopted by the Parliament in November 2003. The strategy "*intends to achieve the development of a knowledge-based economy and a modern information society in Hungary, on both state and local levels, within ten years.*"[28] It identifies two main areas for modernisation: 1) business processes in government; and 2) service delivery to citizens and businesses. E-government, or more precisely "e-public administration", is mentioned in the MITS as a special form of content and services. Creating a modern e-public administration is one of the high priorities of the strategy because "*efficient and useful e-public services can demonstrate the benefits of the Information Society to the whole country.*"[29]

The separate E-Government 2005 Strategy and Programme (*eKormányzat 2005 Stratégia és Programterv*) developed by EKK states that "… the Hungarian

system of public administration, public services and the administration of justice should operate on the basis of modern principles, focusing upon the needs and requirements of citizens." The e-government strategy only covers central government, as local governments are fully independent of central government and thus not obliged to implement e-government.

E-government objectives

The current Hungarian e-government strategy, E-Government 2005 Strategy and Programme (*eKormányzat 2005 Stratégia és Programterv*), includes the same main goals as many OECD countries' e-government strategies:

- Electronic government should make public administration more efficient, transparent and – in the long run – less expensive.
- A more efficient central public administration providing better services should allow for the broadening of participatory democracy, an increase in citizens' and business actors' confidence and trust in the state, and greater participation by citizens in political life. Efforts should be made to develop a more transparent and substantial relationship between representatives of public authorities and citizens.
- By providing new public forums and easier access to public services oriented towards the needs of citizens, an environment can be created in which public administrative bodies and communities can share their experiences and influence the realisation of local and national e-government programmes. The relationship between the state, citizens, and their communities should be reconstructed on new foundations that meet the requirements of citizens and businesses.
- As a service provider, the state will only be able to accomplish its tasks by ensuring the free flow of information. Public administration must initiate and foster the process of consultation and create opportunities for information sharing. In more general terms, Hungary has to catch up with the countries that are currently at the forefront of developing and providing e-government services.
- The state's increased role in leading the application, use and dissemination of ICT will drive the process of constructing and developing a knowledge-based society and increasing the competitiveness of the economy.

The strategy identifies six areas for action:

- ***Basic infrastructure elements:*** Establish a network infrastructure such as: a government backbone network connecting all government bodies, an e-authentication system, government directory and mail systems, enactment of the necessary e-laws and training of civil servants.

- ***Development of e-regulations:*** Put in place e-government guidelines, recommendations and standards, and a review of data protection regulation.
- ***E-Efficiency:*** Develop support facilities for e-government operations, integrate systems and applications within the government, support open source development, and establish a public e-procurement system.
- ***E-Services:*** Develop electronic public utilities, develop the infrastructure for a Customer Management Centre, develop an electronic payment system, provide society with an electronic signature mechanism for e-services, guarantee equal opportunities and support systems, and develop systems to support the democratic participation of citizens and transparency of government.
- ***E-Culture:*** Create programmes to help government employees better understand customer relations, develop working groups and other entities to foster co-operation among government institutions, and establish an institutional database to support a Customer Management Centre.
- ***EU integration:*** Connect the government mainframe network backbone to the EU TESTA network, participate in EU e-government programmes and organisations, adopt the relevant EU regulations and guidelines on e-government, and provide information within the government system.

Notes

1. OECD (2003), *The e-Government Imperative,* OECD Publishing, Paris.
2. OECD (2005), *e-Government for Better Government*, OECD Publishing, Paris.
3. Hungarian Government Portal (2006), accessed 31 July 2006, *www.magyarorszag.hu/angol*.
4. Total population as of 1 January 2005, Eurostat, accessed 1 August 2006.
5. OECD (2006), *OECD Factbook 2006*, Paris.
6. Hungarian Central Statistical Office (KSH) (2006), accessed 1 August 2006, *www.nepszamlalas.hu/hun/kotetek/04/tartalom.html*.
7. Király D. (2005), *Nagyon, kínos: Csak magyarul beszélünk* (Very embarrassing: we only speak Hungarian), accessed 31 July 2006, *www.magyarorszag.ma/*.
8. OECD Online Database (2006), 2006 Main Economic Indicators.
9. OECD (2005), *Economic Surveys – Hungary 2005*, Paris.
10. CMEA or Comecon was established on 25 January 1949 by Bulgaria, Czechoslovakia, Hungary, Poland, Romania and the USSR; Albania joined in February 1949, but withdrew in 1961; East Germany joined in 1950, Mongolia in 1962, Cuba in 1972 and Viet Nam in 1978; from 1965 Yugoslavia participated as associate member; trade, credit, and technical assistance among members included construction of several pipelines and the creation in 1963 of the International Bank for Economic Cooperation; formally disbanded 28 June 1991. (*www.britannica.com/ebi/article-9310845*).

11. The Lisbon European Council – An Agenda of Economic and Social Renewal for Europe (Contribution of the European Commission to the Special European Council, DOC/00/7) in Lisbon, 23-24th March 2000.

12. Real growth was 4.5% in 2004 and 4.3% in 2005, while inflation decreased from 6.7% in 2004 to 3.6% in 2005; it is projected to decrease further in 2006, according to Economic Survey of Hungary, 2005, Policy Brief, OECD Observer, 2005, and OECD Economic Outlook No. 79.

13. In its "New Equilibrium Programme 2006-2008" (*Az Új Egyensúly programja 2006-2008*) announced 10 June 2006 the government has declared that "the state starts reforms and cost cutting with itself." The number and the operational costs of the ministries will be reduced, the central budget institutions will be transformed, and a more efficiently functioning municipality system will be implemented. Nevertheless, "achieving equilibrium requires efforts and additional contributions from all;" consequently, the government plans to introduce new types of taxes (*e.g.*"expected tax" which requires companies making negative profit to pay corporate tax after a certain minimum profit that can be expected for economical viability, "solidarity tax" which requires private persons with annual incomes higher than HUF 6 million must pay an extra tax of 4% on their income above HUF 6 million, and a requirement that all corporate tax subjects pay an extra tax of 4% on their profit), raise excise duties and the preferential rate of VAT, reduce tax credits and eliminate allowances and diminish price subsidies on household energy and transport prices.

14. Hungarian Investment and Trade Development Agency (2006), ITDH, accessed 31 July 2006, *www.itdh.hu/itdh/nid/Facts;jsessionid=810F1DC8D09E9AA1FC03E5CC53745259*.

15. United Nations (2005), *Global eGovernment readiness report 2005: from eGovernment to eInclusion,* New York.

16. As stated in the Act LV/2006 on the assignment of ministries of the Republic of Hungary the ministries are as follows: Ministry of Health, Ministry of Agriculture and Rural Development, Ministry of Economy and Transport, Ministry of Defence, Ministry of Justice and Law Enforcement, Ministry for Environment and Water Management, Ministry of Foreign Affairs, Ministry of Education and Culture, Ministry of Local Governments and Territorial Development, Ministry of Finance, Ministry of Social Affairs and Labour.

17. *Informatikai és Hírközlési Minisztérium*.

18. Act LV/2006 on the assignment of ministries of the Republic of Hungary.

19. *Elektronikuskormányzat-központ*.

20. Governmental resolution 1054/2006 (V.26.).

21. Act LV/2006 on the assignment of ministries of the Republic of Hungary.

22. Government Decree 160/2006 (VVI.28.).

23. Hungarian GovernmentProgramme (2006), *New Hungary, Freedom and Solidarity – The Programme of the Government of the Republic of Hungary for a Successful, Modern and Just Hungary, 2006-2010, http://misc.magyarorszag.hu/binary/7838_kormanyprogram2006_vegl_engl.pdf*.

24. Hungarian Government Programme (2004), *New Dynamism for Hungary! The Programme of the Government of the Republic for a Free and Equitable Hungary, 2004-2006*,

September 2004, available at *www.miniszterelnok.hu/domain2/files/modules/module15/375933C7A42D89B.pdf*.

25. The Republic was proclaimed on 23 October 1989. Since 1949, the state regime of Hungary was a People's Republic.

26. As of 1 January 2006, Denmark has integrated a formerly independent e-government task force into a joint policy centre dealing with public sector transformation within the Ministry of Finance; this action is a follow-up activity to the OECD Peer Review of E-Government in Denmark. Analysis, assessment and proposals for action can be found in *OECD e-Government Studies – Denmark*, OECD, 2006.

27. As of 3 January 2006, France has merged four formerly independent directorates/units working on reforming the state: DUSA – Department of Administrative Simplification, DMGPSE – Department of Modernisation of Public Management and Organisation of the State, ADAE – Agency of E-Government Development, and DRB – Directorate of Budgetary Reforms, into a new Directorate-General of Modernisation of the State within the Ministry of Economy, Finance, and Industry. Further information: *www.minefi.gouv.fr*.

28. Ministry of Informatics and Communications (IHM) (2003c), *The Hungarian Information Society Strategy* (MITS), *www.itktb.hu/Resource.aspx?ResourceID=docstorefile&f=761&t=stored*.

29. Extract from the International Council for Information Technology in Government Administration (ICA) country report on Hungary following the 39th ICA conference held 12-15 September 2005 in Salzburg, Austria.

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Chapter 2

Challenges to E-Government

Assessment(s)	Proposal(s) for Action
Legislative and regulatory challenges	
• Hungary's national legislation seems to include all relevant EU directives impacting e-government development, and is therefore generally at the same legal development level as other EU member states. However, understanding and complying with the national legal framework seems to be difficult, especially at the local level where only limited help in interpreting laws and regulations and their operational impact is available.	• Increased communication and advisory activities to local governments on regulatory requirements and other implementation issues would improve compliance. Local governments should, in turn, consider closer collaboration and sharing of expertise on legal implementation matters.
• Due to the Hungarian legalistic administrative culture, the legal framework for implementing e-government is large and complex, leaving limited space for more flexible approaches. Implementation of e-government has focused on the adoption and enforcement of rules and regulations. However, government organisations often do not understand the purpose of the requirements nor how to implement them. Deadlines are often perceived as unrealistic and unaligned with the actual circumstances faced by implementers.	• Hungary should consider revising laws and regulations to make the legislative framework more operationally useful. For example, legislative compliance could be improved through greater consultation with civil servants and municipalities prior to the drafting of legislation in order to ensure that objectives are realistic. In addition, by tying legislative requirements to achieving specified outcomes rather than simply setting legislative deadlines, implementers can have a better understanding of what a given law aims to achieve.
• Strict legislation protecting personal data and privacy is written into the Hungarian Constitution. Even though existing legislation is in compliance with EU directives, many public sector officials perceive that the current data protection and privacy law is prohibitive to achieving a more collaborative, user-focused and efficient public administration using e-government.	• Hungary should consider whether its current data protection and privacy framework meets the needs for a dynamic regulatory structure that better supports e-government development without compromising basic needs for sound and effective protection of sensitive personal data and privacy.
Budgetary challenges	
• Besides central government funding for the development and operation of the 20 e-services benchmarked by the EU, there seems to be a general lack of available funding for e-government development throughout the public sector. Local governments face a special challenge due to the large number of municipalities and their weak economic capacity to support e-government development on their own. Funding additional e-government investments through internal efficiency gains that result from e-government process re-engineering is not generally considered to be a possibility.	• To overcome the apparent general lack of funding for e-government development, the public sector as a whole should consider a number of incentives to ease budgetary constraints in both central government and local governments. Central government should contemplate (within an overall budget prioritisation exercise) the establishment of a central fund to support e-government development across the whole public sector. It should be subject to the following conditions: ❖ Collaboration and co-operation need to be strengthened, and should be a systematic objective. Central government funding should be prioritised for the development of shared services that can be used by several or all public sector institutions and cannot be financed by agencies themselves, and that promise economic benefits for multiple organisations. Financial commitment from participating public sector institutions should be mandatory. ❖ Public institutions should be allowed to keep some or all funding freed by efficiency gains as a result of e-government implementation, and to reinvest these resources into further e-government development. This will also create direct economic incentives to consider internal efficiency and effectiveness potentials, which could be harvested. ❖ Cost/benefit and business case analyses should be mandatory for evaluating the anticipated costs and savings to each public sector institution or organisation as a result of e-government implementation.
• As initiatives are funded on an *ad hoc* basis using mainly the general budget within each public institution, no common principles have been established to fund e-government projects with cross-cutting impact; this brings into focus the imbalance of the e-government "sow-harvest" dilemma, which could increasingly become an issue when efficiency and effectiveness considerations are better understood and integrated into public sector institutional management. The lack of common principles and a whole-of-public-sector perspective could therefore weaken the incentives to develop shared e-services.	

Assessment(s)	Proposal(s) for Action
• The lack of budgetary mechanisms to overcome formal one-year budgetary horizons constitutes one of the larger budgetary barriers for e-government development, according to respondents to the OECD survey. Hungary shares this challenge with many OECD countries trying to establish multi-year budgetary mechanisms for long-term planning and development. • The lack of a common methodology and a habit of systematic use of cost/benefit analysis creates an opaque background for decision making about e-government projects. The lack of explicit goals, indicators and metrics will create government- and public-sector-wide difficulties in measuring progress through monitoring and evaluation.	• Hungary should consider extending its present budgetary planning to include multi-year estimates and commitments – particularly for large-scale ICT investments – in order to increase stability for the funding of large programmes and to provide a vehicle for demanding increased financial accountability for harvesting returns on investments. • Hungary should develop and implement a common public sector concept for cost/benefit and business case analyses and procedures, and support its systematic usage as part of the background for major e-government decisions and for the identification of potential shared services. This will improve the monitoring and evaluation of progress, allow better comparability of competing investment proposals, and promote the exchange of good practices.
Infrastructure challenges	
• An appropriate public sector electronic infrastructure seems to be in place; the Electronic Government Backbone, the Public Network Programme and the National IT Infrastructure Development Programme offer basic network connections and services to public sector institutions. However, the large number of different, apparently unco-ordinated, infrastructure programmes seems to be the result of a lack of coherent planning. Unless future infrastructure projects are better co-ordinated, there is a serious risk of duplication and interconnectivity problems.	• In order to promote interoperability and interconnectivity in the basic infrastructure and services provided by central government, Hungary should carefully consider whether existing public infrastructure programmes should be integrated into one programme addressing the national ICT infrastructure, or whether Hungary should introduce joint collaboration structures.
Digital Divide challenges	
• Hungary has in recent years put significant effort into bridging the digital divide, and improvement has been registered by a range of indicators. However, the process of closing the digital divide gap is slow – challenges are focused on age, education, and income. Only 37% of the population used the Internet in the last three months, compared to the EU25 average of 51% in 2005; Hungary is still lagging behind. Prohibitive costs of Internet access may be one explanation. • Hungary has a clear geographic divide challenge between urban and rural individuals' Internet usage, with urban individuals' (52%) rates near the EU25 average (57%), while rural individuals' (25%) usage is significantly lower than the EU25 average (42%). A number of initiatives are underway to address this divide challenge: eHungary Points and Tele-Cottages provide basic Internet access to the rural population.	• To properly address digital divide challenges, Hungary should consider developing an overarching strategy and action plan focusing on: ❖ Promoting Internet access by stimulating market competition among broadband providers (especially in rural areas) while introducing mechanisms such as public subsidies, and public-private partnerships to support universal access conditions and affordable access. In parallel, the provision of public Internet access through the eHungary Points and Tele-Cottages initiatives should be integrated, strengthened and expanded to rapidly increase usage of the Internet and the e-services currently provided by central government and a few local governments. Finally, Hungary should try to take advantage of the massive penetration of mobile telephony, using this delivery channel as an alternative to computer-accessed e-services. ❖ Promoting user demand through a broad information campaign communicating the benefits of e-government services. Hungary should also develop Hungarian language content production to raise consumer demand for services. Public-private partnerships could: draw on synergies with the banking sector and e-business applications for the development of service delivery; improve private sector engagement; and activate expertise and resources complementary to government investments.

Assessment(s)	Proposal(s) for Action
Competencies and skills challenges in society	
• Raising the general population's generic level of ICT competencies and skills is an important prerequisite for increasing e-government user take-up. Hungary has introduced many educational programmes to teach people elementary knowledge about computers and Internet usage. These efforts seem timely and relevant; however, they have not yet had significant impact on the population's ICT competencies and skills. In 2005, according to a Eurostat survey, 57% of Hungarians had no basic computer skills at all.	• Existing educational programmes – including e-learning in connection with initiatives like eHungary Points and Tele-Cottages – should be re-evaluated and reinforced, within the framework of an overall national Information Society plan. Such efforts should include civil society organisations to both increase competencies and skills and to communicate the benefits of "becoming digital" in society, *i.e.* making a value proposition to citizens as to why they should be connected to the Internet.
• Despite ambitious goals, ICT use developed more slowly than expected in the 1990s in Hungary. In recent years the lag has increased significantly, and Hungary is amongst the poorer performers in Europe. Internet access is far from sufficient in most schools. At present, only one of five computers in primary schools is connected to the Internet. The Ministry of Education has implemented projects that aim to increase e-literacy and ICT skills, but without adequate facilities and upgrading of equipment in schools, opportunities for practical learning are limited.	• A renewed and enforced action to address general ICT skills in the educational sector should be considered. Hungary should look into further developing comprehensive "ICT integration in education and training" programmes in the educational sector, including drawing on partnerships with the private sector. Such initiatives could include modernising ICT facilities in educational institutions to ensure a better background for ICT training, developing e-learning programmes, and implementing specific ICT training programmes for teachers, trainers and community residents.

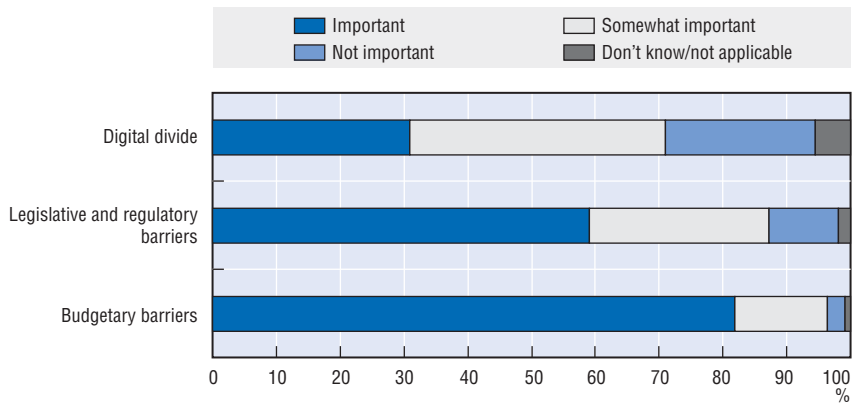
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Hungary faces a number of challenges with regard to overall e-government development, many of which are not unique to Hungary but shared by most OECD countries. Even though Hungary has been one of the e-government late-starters in Europe, it has nevertheless achieved much within a short timeframe – primarily driven by the European Union accession process, which has dominated the national political agenda within the last 16 years.

This chapter looks at five areas of challenges to successful e-government development and implementation in Hungary: 1) legislative and regulatory issues; 2) budgetary problems; 3) the technological environment; 4) the digital divide; and 5) the issue of ICT skills and competences. All were addressed within the OECD survey. These challenges generally cannot be overcome by organisations working alone. Instead, a whole-of-government effort to transform and modernise the public sector is necessary to ensure that the frameworks within which e-government is being developed are as barrier-free and as effective as possible.

The OECD survey (see Figure 2.1) shows that the largest barriers for e-government development in Hungary are budgetary barriers, cited by 82% of respondents, followed by legislative and regulatory barriers (59%), and the digital divide (31%). The comparatively low rating of digital divide among external barriers by respondents may reflect that e-government in Hungary is

Figure 2.1. **External barriers to e-government development**
All levels of government



Source: OECD survey on e-government in Hungary, 2006.

still in its transition from the start-up phase to more mature services. As e-government matures, lack of take-up will become a more dominant challenge in order to ensure that benefits are realised from investments in e-services. As take-up is highly determined by both the ability to physically access the Internet and the computer literacy of potential users, issues concerning digital divide will be an important challenge to e-government.

Legislative and regulatory challenges

Like many OECD countries, Hungary faces several challenges in developing a legal and regulatory framework for e-government. A number of legislative measures have been introduced by the Hungarian government in recent years to modernise public administrations' ICT usage, establish ICT security, enhance public trust through legislative measures to protect personal data and privacy, and adapt procedures and services to support the development of the Information Society. Due to Hungary's pre-accession efforts to the European Union (EU), and more recently to its status as a new EU member state, Hungary's legislative measures are on a path for alignment with the EU legal framework. (Table 2.1 shows an overview of the EU legal frameworks impacting e-government development and their incorporation into national legislation.)

Table 2.1. **Main EU directives on electronic data and services**

Legal topic	EU directive	Incorporation into Hungarian law
E-procurement	EU directive on public procurement including article on e-procurement [2004/18/EC, Article 33].	• Government decrees 167/2004 and 168/2004.
Re-use of public data	EU directive on re-use of public data regulating the possibility of usage of public data [2003/98/EC].	• Act on the Freedom of Information by Electronic Means (XC/2005).
E-commerce	EU e-commerce directive [2000/31/EC].	• Act on Electronic Commerce and Information Society Services, adopted 18 December 2001.
Liberalisation of telecommunications markets in Europe	Five directives constituting the new EU regulatory framework for the liberalisation of the European telecommunications markets: the framework directive, the access directive, the universal services directive, the authorisation directive and the privacy directive.	• Liberalisation of telecommunications market (Act C/2003 (IX.22.)).
E-signatures	EU directive on electronic signatures regulating the framework for recognised electronic signatures [1999/93/EC].	• Government decree on e-signatures (194/2005).
E-invoicing (VAT collection)	EU directive on e-invoicing with regard to value-added tax collection regulating conditions for using e-invoicing within collection of value-added tax [2001/115/EC amending 77/388/EEC].	• Ministerial decree on e-invoicing (20/2004 (IV.21.)).
Privacy	EU directive on privacy and electronic communications [2002/58/EC].	• Ministerial decree on privacy and electronic communications (226/2003 (XII.13.)).
Data protection	EU directive on data protection regulating protection of personal data [95/46/EC].	• The Personal Data Protection Act LXIII/1992.

Source: IDAbc Factsheet: Hungary eGovernment (2005), European Commission, 2006.

The national implementation of EU directives led Hungary to pass other national legislation to supplement and strengthen the legal and regulatory foundation for e-government development. The Act on the General Rules of Public Administration Procedures and Services (CXL/2004) or Ket[1] and the Act on the Freedom of Information by Electronic Means (XC/2005)[2] were important in creating a favourable environment.

Box 2.1. **Act on the freedom of information by electronic means (XC/2005)**

The primary goal of the Act on the Freedom of Information by Electronic Means (XC/2005), adopted by the Hungarian Parliament in July 2005, is to set up the legal environment required to create a transparent government. In essence, the law specifies that data which is of public interest must be published on the Internet. For example, publication of draft bills, laws and court rulings is mandatory; all documents are retrievable through a search system. The law also demands that all public sector institutions and agency websites include a forum where users can express their opinions on the draft legislation, allowing citizens to participate in the legislative process.

Making the Hungarian Official Journal (*Magyar Közlöny*)* free and accessible on line is necessary but not sufficient. In many cases, a single act can modify or impact several other acts and therefore may be implemented on different dates. This makes the legal system opaque and incomprehensible to citizens. Consequently, the Act on the Freedom of Information by Electronic Means includes a provision on the Electronic Collection of Effective Laws (*a Hatályos Jogszabályok Elektronikus Gyujteménye*), which contains the consolidated text of all laws in force on a given calendar day.

The Act on the Freedom of Information by Electronic Means will be implemented in stages. The Electronic Collection of Effective Laws became operational as of 1 January 2006. Since this date, central government has been required to electronically publish draft bills and laws.

The second stage will require counties and municipalities with populations of more than 50 000 inhabitants to publish their information on line from 1 January 2007. By the same date, the Hungarian Supreme Court will publish its rulings electronically.

Lastly, municipalities with less than 50 000 inhabitants and other public authorities are expected to publish information by 1 July 2008.

* All the acts, government decrees and their modifications are published in the Official Journals part of the implementation process.

Legal and regulatory barriers

The OECD survey (see Figure 2.2 and 2.3) asked respondents to rate the importance of specific legislative or regulatory barriers to e-government development in their organisation. About half of the respondents in central (52%) and local (48%) governments identified the lack of recognition of the need for specific regulations and laws for e-government processes. Local government respondents rated "the complexity of regulations" and "overly burdensome regulations" as equally large barriers (both 49%). This is mainly due to the wide autonomy exercised by local governments, which allows them to define ways of implementing regulations and legislation themselves. OECD interviews showed that despite legal and methodological assistance from the former Ministry of Interior and a number of different associations, local governments encountered difficulties in interpreting and implementing laws and regulations.

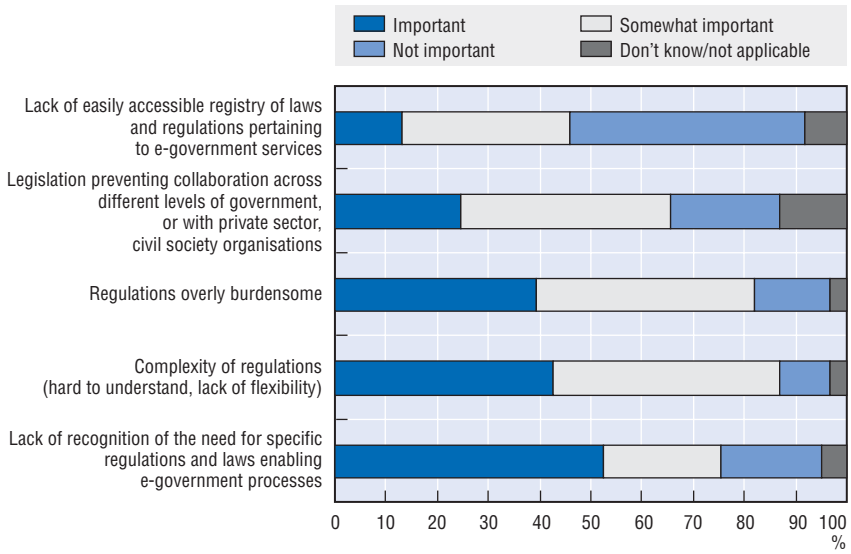
Additionally, many interviewees highlighted the length of time spent negotiating aspects of the necessary legislation, which left little time for establishing good practice for the implementation of these laws and decrees. Often, respondents found that deadlines for implementation were unrealistic and unaligned with the actual circumstances faced by implementers. Of relevance for the development of shared services and of more user-focused services, several interviewees also mentioned that data exchange within the public sector and the interoperability of services between public sector institutions had been held back by Hungary's strict data protection laws. These concerns may indicate that the existing legislative framework hinders collaboration across sectors and levels of government.

Experiences in a number of OECD countries indicate that concerns about legislative complexity also result from individual public organisations' lack of knowledge of or legal competencies in interpreting laws and regulations. These deficiencies can lead officials to see problems as being the result of inadequate laws and regulations, which in turn can lead to the belief that the burden of responsibility for change rests not with themselves but with lawmakers. In the case of Hungary, this phenomenon is more complex, as e-government is mainly considered a technical issue for ICT experts, and not a strategic issue for top-level management to consider as an integrated part of strategic business decisions.

Because of historical precedent, the Hungarian public sector's administrative culture is very legalistic, and it has limited flexibility in encompassing and adapting to new ways of doing things. The rule-based administrative culture has a profound impact on how e-government development in general can and should be supported legally. Many OECD countries are discussing whether a more legalistic approach implementing

Figure 2.2. **Importance of legislative barriers**

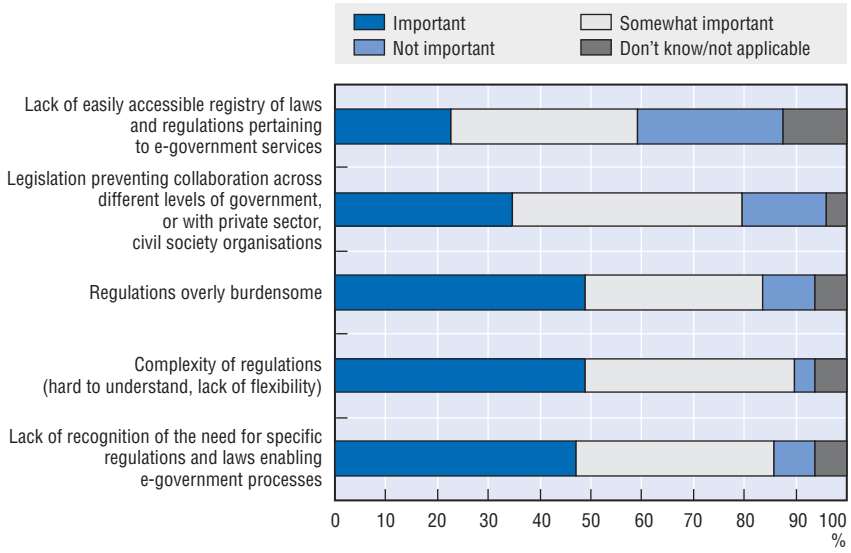
Central government



Source: OECD survey on e-government in Hungary, 2006.

Figure 2.3. **Importance of legislative barriers**

Local government



Source: OECD survey on e-government in Hungary, 2006.

specific e-government laws or legal frameworks should be followed in order to force the public sector to implement e-government and enable the whole public sector to harvest the full benefits of e-government investments.

The National Assembly of Hungary passed the *Act on the Freedom of Information by Electronic Means (XC/2005)*, which aims to establish the legal environment required to create a transparent digital state, in July 2005 (see Box 2.1).

In November 2005, the *Act on the General Rules of Public Administration Procedures and Services (CXL/2004)* or *KET*[3] came into force. Modifying more than 50 previous legal texts, this act is aimed at removing obstacles to the development of e-government in Hungary and ensuring that electronic procedures have the same legal value as paper-based procedures. The new legislation introduces a number of important mandates for the Hungarian public sector, such as the obligation to make services available on line and the obligation for each government department to make specific sets of information – including downloadable forms – available both on their own websites and through the governmental portal.[4] The legislation also states that "*… governmental bodies will no longer have the right to ask citizens to provide them with certificates, documents or any other data that are already available in a government database.*"[5]

Preparation for the EU accession has basically led Hungary to put in place a national legal framework to align national legislation with the legal framework of the EU. However, OECD interviews have shown that the technical complexity of ICT regulations, along with the difficulty in monitoring the quality of the implementation into national legislation, have led to fully EU compliant laws and regulations that are, in many cases, difficult to apply.

Privacy and data protection

Overall user take-up of online services and the general acceptance of e-government depend on the level of citizens' trust in government. To this end, protection of privacy and personal data, and sufficient means to guard against abuse of private information placed in the public domain are necessary preconditions of achieving successful user take-up. Issues of data protection and privacy should be addressed, both along citizen or business/government interfaces and within government. Inter-governmental privacy and data protection issues were identified by several OECD interviewees as a growing bottleneck to the exchange of data between public authorities.

Access to, protection of and delivery of data are regulated by law in Hungary. Article 59 of the Constitution[6] provides that "everyone has the right to the good standing of his reputation, the privacy of his home and the

protection of secrecy in private affairs and personal data." In 1991, the Hungarian Supreme Court declared that a unified general identification number used without limitation violates the Constitution.

The Protection of Personal Data Act[7] covers the collection and use of personal information in both the public and private sectors. It is a combined Data Protection and Freedom of Information Act and its basic principle is informational self-determination by the data subject (*i.e.* citizen). Concerning data protection, the Act sets out general provisions for requesting, collecting, handling and transferring personal information; it also provides legal remedies to individuals whose rights are violated. Under the Act, personal data may only be collected and processed with the consent of the individual or as required by law. The individual must be fully informed about the purpose of the data processing. Only the data necessary to accomplish this purpose may be collected, and it may only be stored until that purpose is fulfilled.

Concerns about privacy and data protection go hand in hand with the government's political priority to reform the public sector. In Hungary, the protection of personal data is strict, and central government reforms have therefore taken more time than expected. According to the government's new political programme, it is likely[8] that during the period 2006-2010, most of the legal barriers to establishing e-government services will be reduced such that "*… during four years, all Acts and Decrees will be reviewed and, parallel to the transition to electronic administration, superfluous obligations, unreasonable administrative burdens of people and enterprises will be eliminated.*"

In summary:

- Hungary seems to have adopted in its national legislation all relevant EU directives impacting e-government development, and is therefore generally at the same legal development level as other EU member states.
- Due to the Hungarian rule-based administrative culture, the legal framework for implementing e-government is large and complex, leaving limited space for more flexible and less legalistic approaches. It appears that implementation of e-government lies in adopting and enforcing rules and regulations. Because of this, the impact throughout the public sector is, however, limited. Local governments in particular encounter great difficulty in interpreting and understanding adopted laws and decrees.
- Hungary has strict legislation protecting personal data and privacy as a result of the Hungarian Constitution. Even though the legislation should be in compliance with EU directives, public sector perception of the law is that it is prohibitive of effective e-government implementation.

Budgetary challenges

Like many OECD countries, Hungary is facing the challenge of establishing clear principles for funding common public sector e-government projects. Hungary views e-government activities as mainly technical ICT activities, generating expenses within areas such as ICT development, telecommunication expenses, and hardware/software purchase and maintenance. Special funding for e-government activities has not been set up, and initiatives are principally funded on an *ad hoc* basis using mainly the general budget from within each public institution. Other sources are:

- Information Society budgets within the former Ministry of Informatics and Telecommunications (IHM).
- Special budget financing the development and maintenance of the 20 e-services benchmarked by the EU within the former Electronic Government Centre (EKK) in the Prime Minister's Office.

As e-government initiatives tend to be funded mainly by organisations' own budgets, no common principles have been established to fund e-government projects with cross-cutting impact; this brings into focus the imbalance of the e-government "sow-harvest" dilemma, which could increasingly become an issue when efficiency and effectiveness considerations are better understood and integrated into public sector institutional management.

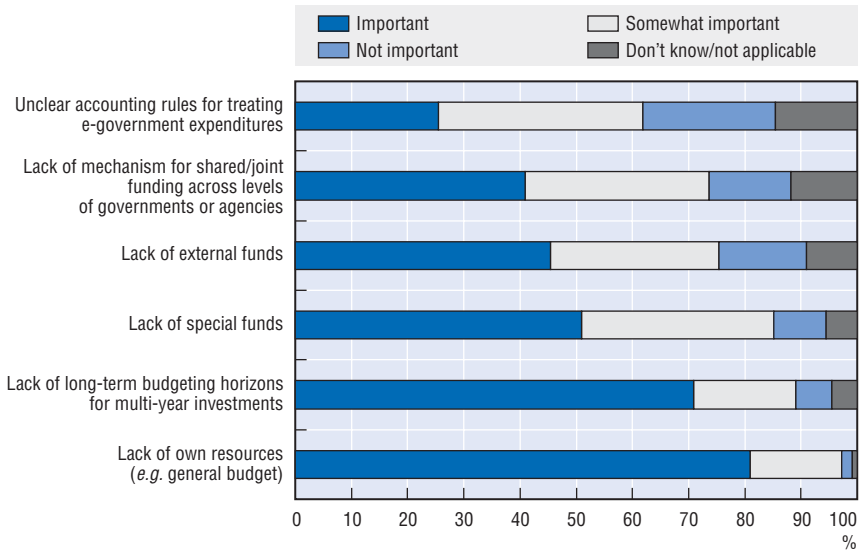
In the period 2003-2005, education and training represented only 1%, consulting 3%, and project management 2% of the total amount spent on e-government development and operations by the central government; the share of hardware expenses was 49%, and that of software expenses was 26%. The EKK budget represented only 5%, or HUF 15 billion, of the total budget of HUF 300 billion spent by central government on e-government development. The share of central governmental bodies' ICT budget was 47% while the total amount spent by the former Ministry of Informatics and Telecommunications on different sector-oriented programmes represented 40%. The remaining 8% was distributed through the Economic Competitiveness Operative Programme (GVOP).[9] GVOP is one of five overall operative programmes of the Hungarian National Development Plan relating to the 2004-2006 programming period; it includes some projects implemented by the Information Society Public Benefit Company[10] to support local e-government development.[11]

The main budgetary challenge identified in the OECD survey (see Figure 2.4) by 81% of the respondents is the lack of organisational resources (*e.g.* general budget).

The second largest budgetary barrier, identified by 71% of respondents, is the lack of long-term budgeting horizons for multi-year investments. The

Figure 2.4. **Importance of budgetary barriers to e-government implementation**

All levels of government



Source: OECD survey on e-government in Hungary, 2006.

discrepancy between short-term budgetary horizons and long-term investments was also mentioned as a barrier by OECD interviewees. This is, however, not unique to Hungary, as most OECD countries face the same kind of challenges concerning long-term budgeting of e-government investments.

The third major budgetary barrier, identified by 50% of respondents, is the lack of special funds for e-government initiatives. While some funding is available, it is not necessarily distributed in a way to ensure a major impact on e-government development. For example, EU funding for local e-government projects in the framework of GVOP has led to an unfocused distribution of funds across the country without regard to the possibility of maximising synergies between local e-government activities, and in a way that does not encourage local governments to share experiences and good practices across municipal boundaries.

Finally, the systematic use of cost/benefit analysis and business case analyses of e-government projects is limited across the public sector as a whole. OECD interviews indicated that there was little evidence of the use of business case analyses prior to decisions. This seems to be due, in part, to the lack of a national concept or a common public sector methodology for measuring costs and benefits of e-government projects. Even in cases where administrative effectiveness and efficiencies can be achieved through the use of e-government, OECD interviews revealed that there are no incentives to

achieve such goals – as savings would automatically lead to the implementing budget reduction for a public sector institution. In Hungarian e-government policy, these issues remain underexposed and could in the future lead to a "burning platform".[12]

Infrastructure

E-government requires connectivity. Poor ICT infrastructure at homes, in workplaces and in the public sphere remains one of the key barriers to e-government progress in Hungary. ICT penetration in Hungary is low and – with the exception of mobile telephony – increasing slowly. Having public services on line is of no use if citizens, businesses and governments cannot access them. Mobile services are well developed, but reliable broadband connections are limited. The combination of growing online service sophistication with poor infrastructure bears the risk that the influence of the infrastructure "haves" expands, effectively widening the digital divide rather than narrowing it.

The following section presents selected ICT infrastructure initiatives in Hungary illustrating various challenges in different areas. A majority of the initiatives are part of the current eGovernment 2005 Strategy and Programme,[13] the Hungarian Information Society Strategy (MITS)[14] and the National Broadband Strategy.[15]

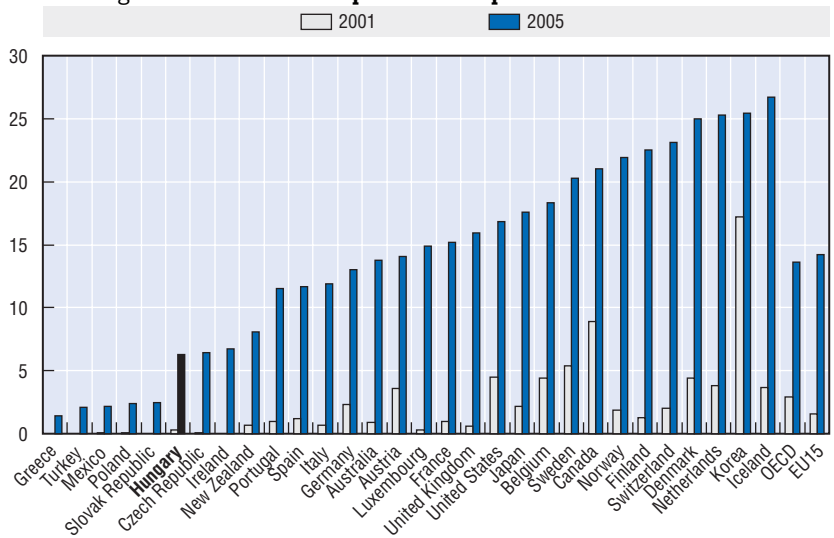
Broadband infrastructure

In December 2005, with 6.3% broadband penetration, Hungary ranked 25th among the 30 OECD countries, only surpassing countries such as Turkey, Mexico or Poland – and well below the OECD (13.0%) and EU15 (14.2%) averages, as shown in Figure 2.5.

Despite this relatively low broadband penetration rate, the net increase in penetration between 2004 and 2005 is smaller in Hungary than the OECD average of 3.2% for the same period, as shown in Figure 2.6. Moreover, the coverage is not equitable. In towns with more than 10 000 inhabitants broadband coverage was 92.4% in 2005, while in the small villages where 24% of the population is living, broadband coverage was only 40%.[16] This situation further highlights the fact that the digital divide is important and must be overcome to ensure further development of e-government and the modernisation of the public sector.

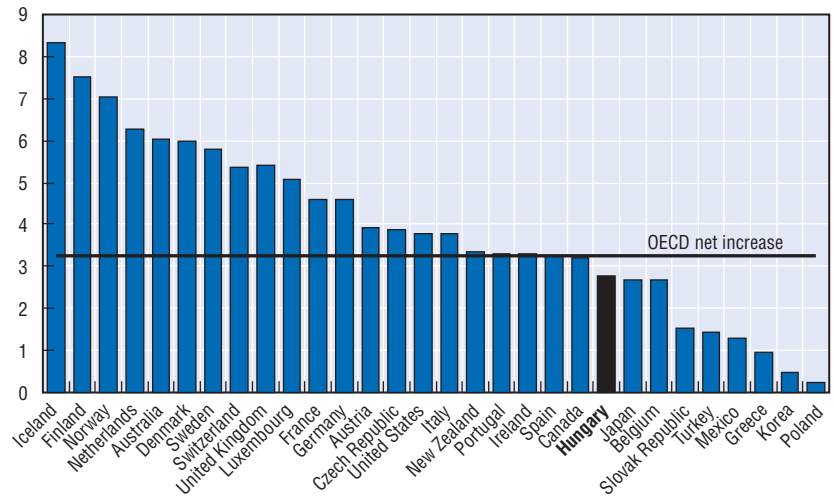
The public sector has its basic ICT infrastructure in place. The Electronic Government Backbone (*Elektronikus Kormányzati Gerincháló – EKG*), the Public Network (*Közháló*) and the National IT Infrastructure Development Programme (*Nemzeti Információs Infrastruktúra Fejlesztési Program – NIIF*) have ensured high-speed broadband and secure Internet connections for central and local

Figure 2.5. **Broadband penetration per 100 inhabitants**



Source: OECD Broadband Statistics, December 2005 (updated in April 2006).

Figure 2.6. **Broadband penetration growth**
Net increase, Q42004-Q42005, by country and per 100 inhabitants



Source: OECD Broadband Statistics, December 2005 (updated in April 2006).

governments, public institutions and private non-profit organisations working for the public sector, and all Hungarian academic, research and public cultural institutions (*e.g.* museums, public libraries, etc.).

The National Broadband Strategy[17] aims at providing affordable broadband services to over 80% of the population and to over 90% of small and medium enterprises (SMEs) by the end of 2006. Some of the most significant actions under this objective including formulating the new Electronic Communication Act[18] (in force since 1 January 2004), which has paved the way for wireless broadband service, and the launch of funding schemes supporting innovative and technology-intensive infrastructure developments.

The strategy aims at finalising the operational framework, the base infrastructure and the organisational background for community access using eHungary Points. By the end of 2005, over 2 300 eHungary Points providing Internet access on at least two or three computers[19] had been established across the country. In terms of public Internet access points, Hungary is currently at the top among new EU member states and average within the whole of the EU.[20] However, the other targets of the strategy are unlikely to be reached as its implementation has been abandoned.

Broadband access for the public sector

To provide broadband access for the public sector, the Public Network Programme or the *Közháló* Programme[21] has been initiated. It has the following goals:

- Provide towns and villages with access to the Public Network by the end of 2006.
- Connect all public institutes and private non-profit organisations working for public goals by the end of 2006.
- Launch model (local and small) regional network deployment programmes.

The Public Network Programme is based on an integrated plan to merge existing networks with different functions, scopes and user groups into a single uniform network with a high-performance technological base.[22] It will cover towns and villages, public institutions and private non-profit organisations working for the public sector.[23] The programme aims to enforce regional and local development, reducing emigration from rural areas to urban areas. By supporting regional and local development, the government hopes to achieve better social cohesion and inclusion, particularly with regard to Information Society initiatives in Hungary.[24]

In the first phase, 7 300 access points were connected to the Public Network by the third quarter of 2005. In the course of the second phase, (local and small regional) network deployment programmes were launched in areas with poor infrastructure development. In the third phase, full national broadband network coverage should be reached and isolated networks connected using the experience gained through model programmes. However,

the goal of full broadband network coverage will not be completed by the end of 2006.

A second programme that plays a key role in the provision of Internet connections for public institutions is the National IT Infrastructure Development Programme (NIIF). The NIIF programme covers all Hungarian academic, research and public cultural institutions (museums, public libraries, etc.) by providing these institutions with an integrated network infrastructure and using this backbone to provide a wide range of communication, information, and co-operation services along with a leading-edge environment for network applications and an advanced framework for content generation and provision.[25]

Price of Internet access

In addition to a general lack of interest among the population, lack of affordable Internet access has been identified as a second major barrier; however, an Internet survey conducted in 2005 showed that the proportion of people stating financial reasons for preventing them from using the Internet has increased during recent years, while the proportion of those stating a lack of interest has decreased.[26]

Computers are still too expensive to be household items for low and middle income families. In terms of Purchasing Power Standards (PPS), the financial burden Internet users in Hungary had to bear was 1.8 times higher than the EU average (reference year 2003).[27] There have been many government actions to provide free PCs (usually with Internet access) to individuals (large families, civil servants, teachers) and schools (in the second half of 1990s all secondary and some primary schools received computers from the Sulinet programme).[28] The general tendency of computer price decreases, together with the appearance other electronic devices for Internet access (mobile phones, PDAs, etc.) may improve the situation in the years to come.

High prices for Internet access may be due to the fact that the market is concentrated around a few providers, with 90% of subscribers utilising only 19 service providers. However, from the first quarter of 2005 through the first quarter of 2006, the number of Internet providers increased from 55 to 245.[29]

Electronic infrastructure for the public sector

Establishing the physical infrastructure through which e-services can be accessed and public sector institutions can communicate with each other is important in creating a solid technical foundation for implementing e-government.

Electronic Government Backbone

Government institutions are gradually being connected to the Electronic Government Backbone (*Elektronikus Kormányzati Gerinchálózat – EKG*) offering broadband connections, secured Internet access, e-mails, and encrypted and secured network communication to handle official EU documents to public sector institutions. At the end of May 2006, there were 130 public institutions connected to EKG including almost all central government institutions. The first county networks integrated into EKG in 2003 included the county branches of the Hungarian State Treasury and the national network of regional family support centres. The connection of national institutional systems is now in progress, and as of May 2006, about 58 000 users at a total of 740 institutional units performed their work using the EKG network.[30]

In summary:

- Hungary has progressed rapidly with the provision of advanced e-services; however, the development of the electronic infrastructure lags behind. A national broadband penetration rate among the lowest in an OECD comparison and large geographic and demographic differences in broadband coverage and affordability considerations are areas for attention in the coming years. The challenge has been recognised and addressed in the current e-government strategy.
- Public sector electronic infrastructure provision seems to be in place through a number of projects such as the Electronic Government Backbone, the Public Network Programme and the National IT Infrastructure Development Programme offering basic network connections and services to public sector institutions. However, the number of different, apparently unco-ordinated, infrastructure programmes seems to result from a lack of coherent planning. This underlines the importance of stronger co-ordination efforts to avoid the risk of duplication and interconnectivity problems.

Digital divide

Simply put, the digital divide is the division between those who have access to ICT and are using it effectively, and those who do not. Since information and communications technology is increasingly a foundation of societies and economies, the digital divide means that the information "have-nots" are denied the option to participate in new ICT-based jobs and thus the emerging knowledge sectors; they are also unable to use e-government services including ICT-improved healthcare and ICT-enhanced education. Poor ICT take-up in homes and workplaces remains critical to e-government progress in Hungary. Although the digital divide was considered by respondents as a less important challenge for the development of e-government (see Figure 2.1) the related data shows that it remains a severe

problem. The combination of growing online service sophistication with poor infrastructure creates a socio-political risk: the influence of the infrastructure "haves" expands and becomes entrenched, effectively widening the digital divide rather than narrowing it.

Traditionally, the digital divide is measured as the systematic exclusion or significantly lower use of ICT by certain groups of the population. The OECD defines the digital divide to be the gap between individuals, households, businesses and geographic areas at different socio-economic levels with regard to both their opportunities to access information through ICT and their use of the Internet for a wide variety of activities.[31] Measured variables (including income, education, age and geographical location) influence household and individual access to and use of ICT. Because they can demonstrate a country's readiness for transactional services, data regarding online shopping and e-commerce have also been of significance during development phases of e-government services; this can help governments to add value and achieve a high level of take-up.

This subchapter gives an overview of the three factors highlighting digital divides in Hungary that possibly hinder user take-up of online services: access to and use of ICT, general lack of interest in using the Internet, and the high price of connectivity (the latter two being more significant problems in Hungary).

Access to and use of ICT

As in other transition countries, ICT penetration and subsequent access to the Internet has developed rapidly in Hungary. Table 2.2 shows that access to the Internet using high-speed connections increased in the period 2003-2005, while the use of slower connections like analogue modems decreased in the same period. The government aims to have 20% of households connected to the Internet by 2008.[32] With this aim, it has put aside USD 12 million per year for a subsidy passed on directly to consumers by providers.

Table 2.2. **Types of Internet connections in Hungary**

%

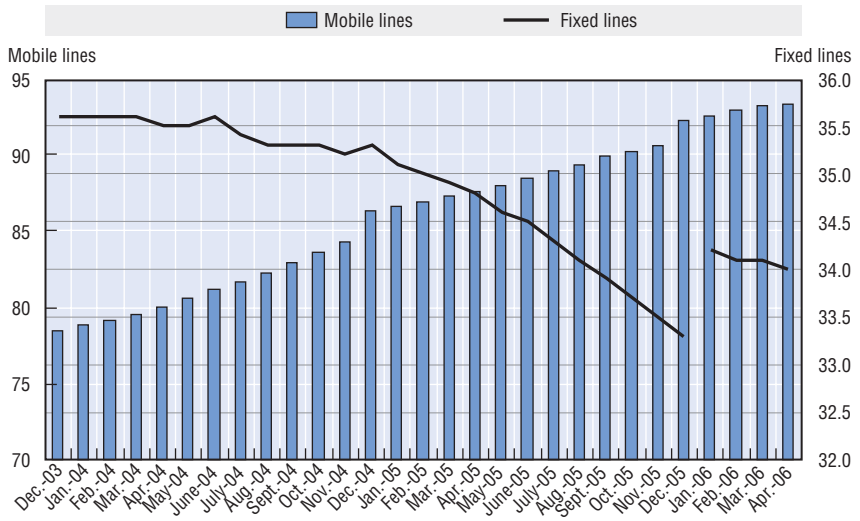
	2003	2004	2005
Analogue modem	48	39	20
ISDN	13	11	9
Cable	13	19	30
ADSL	14	21	32
Mobile phone	3	4	1
Other	4	3	6
Don't know	6	4	1

Source: World Internet Project, 2003-2005.

The penetration of broadband technologies is, to a great extent, visible. The number of broadband subscribers increased by 69% in one year; broadband subscriptions in the first quarter of 2006 outnumbered dial-up connections and ISDN subscriptions by almost three times.[33] In the first quarter of 2006, the total number of Internet subscribers passed 1 million for the first time, reflecting an increase of 31% in one year.

The quick adoption of mobile phones in Hungary has opened an interesting new delivery channel for e-services. In the first quarter of 2006, the number of mobile phone subscriptions passed 9.4 million (the penetration rate is currently at 93.4%)[34] while the number of fixed line subscriptions is gradually decreasing (see Figure 2.7). Despite the high penetration of mobile telephony due to a relatively low price, Hungarians seldom use their mobile phones for establishing Internet connections. Therefore, e-government services using mobile phones must be based on voice and non-voice applications – not on mobile Internet solutions.

Figure 2.7. **Number of fixed lines and mobile phone subscriptions**
Per 100 inhabitants



1. (Total number of mobile subscriptions/Total population)*100.
Note: The methodology for measuring fixed lines changed in January 2006.
Source: Hungarian National Communication Agency, *www.nhh.hu/english/index1.html*, June 2006.

With the exception of the high proportion of large enterprises with Internet access (99%), all indicators in Table 2.3 show that Hungary is lagging behind the EU25 average. Table 2.4 shows Hungary's basic digital divide data in comparison with the EU average. The challenging character of the digital

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Table 2.3. **Internet use and access in Hungary and the EU25***

	Hungary 2004	EU25 2004	Hungary 2005	EU25 2005
Households and individuals				
Proportion of households with access to the Internet	14	43	22	48
Proportion of all individuals using the Internet (age 16-74)	28	47	37	51
Proportion of Internet users obtaining information from public authorities' websites	15	21	15	21
Proportion of Internet users performing banking activities on line	3	18	6	19
Proportion of Internet users who have ordered goods or services for private use**	4	18	6	19
Enterprises				
Proportion of enterprises with access to the Internet (10 or more employees)	8	89	78	91
Proportion of small and medium enterprises with access to the Internet	77	89	77	91
Proportion of large enterprises with access to the Internet	97	99	99	99
Proportion of enterprises using the Internet for obtaining after-sales services	12	n.a.	n.a.	30
Proportion of enterprises using the Internet for banking services	46	68	49	70
Proportion of enterprises using the Internet for receiving digital goods and services	13	n.a.	n.a.	40

* Percentage of individuals and enterprises who used the Internet in the last 3 months.
** Purpose: for purchasing/ordering goods or services (excl. shares / financial services).
Source: Eurostat, 2006.

Table 2.4. **Digital divide data**

Internet use (percentage of individuals regularly using the Internet)*	Hungary 2005	EU25 2005
General		
Proportion of all individuals using the Internet (age 16-74)	37	51
Regional differences		
Proportion of urban individuals using the Internet (age 16-74)	52	57
Proportion of rural individuals using the Internet (age 16-74)	25	42
Gender		
Proportion of males aged 16-74 using the Internet	37	55
Proportion of females aged 16-74 using the Internet	37	47
Age		
Proportion of males aged 16-24 using the Internet	61	80
Proportion of males aged 25-54 using the Internet	40	61
Proportion of males aged 55-74 using the Internet	15	29
Proportion of females aged 16-24 using the Internet	62	79
Proportion of females aged 25-54 using the Internet	45	55
Proportion of females aged 55-74 using the Internet	11	18
Employment		
Proportion of employed using the Internet	49	63
Proportion of unemployed using the Internet	26	41
Proportion of students using the Internet	77	89
Education		
No or low formal education using the Internet	12	29
High formal education using the Internet	79	81

* Percentage of individuals who used the Internet in the last 3 months.
Source: Eurostat, 2006.

divide in Hungary is regional divide – access figures for the population living in rural areas are significantly lower than for those in urban areas; the measurable Internet use by more vulnerable social groups, such as the less educated or unemployed, is also low. An initiative to counteract this geographic digital divide is the Tele-Cottage initiative (see Box 2.2).

Box 2.2. **Public Internet access points: Tele-Cottages**

For a considerable category of potential users Internet access should be and has been provided in public places. Hungary has developed a number of Public Internet Access Points (PIAPs); *Tele-Cottages* and *eHungary Points*, in addition to Internet cafes, are the most important initiatives in this area.

The first Hungarian Tele-Cottage was established in Csákberény[1] (a village of 1 200 inhabitants[2] situated in Fejér County) in 1994.[3] The Tele-Cottage concept was originally based on the idea of creating a community centre[4] for the rural population. Since the foundation of the first Tele-Cottage, the number of Tele-Cottages has increased to about 500 (each with an average of 10 computers),[5] which cover an important proportion of the many small settlements in Hungary (approximately 1 800 with a population under 1 300, and 2 500 with less than 3 000 inhabitants).

The Tele-Cottages in Hungary offer access to information and communication tools, and a wide scope of services including assistance in using the ICT tools provided. This assistance is provided by volunteers and managers who have completed the approved Tele-Cottage manager training programme.[5]

The concept of Tele-Cottages differs significantly from Internet-cafe-based Internet access, as its overall goal is to create added value for the local community by:

- Proposing an incentive-based bottom-up approach: The Tele-Cottages concept is designed to create an incentive for communities to feel responsible for their own ICT access. For example, local Tele-Cottages participate in tenders to receive central government funding for their activities.[5]
- Setting up a framework that encourages partnerships across governmental levels, and with business and civil society;[5] for example, Tele-Cottages are increasingly hosted by or merging with other institutions such as local post offices. Tele-Cottage leaders are playing an increasingly active role in local communities.
- Providing a range of services that reflect local needs[5] such as:
  - Publication of a local newspaper.
  - Website design and construction for local businesses, tele-workplace provision, use of facilities and rooms.

Box 2.2. **Public Internet access points: Tele-Cottages** *(cont.)*

  - Education and training (*e.g.* computer and management training).
  - Carrying out local government tasks by providing employment services, social services, etc.
- Raising the population's overall interest in e-services and tools, which should ideally translate into more computer and Internet use at home.
- Preserving the local values of community life and local identity.

1. UNDP (2002), Review of the Hungarian Tele-Cottage concept to explore its applicability to the CIS countries and specifically Central Asia in order to promote local economic and social development and decentralized governance practices through the public access to Information and Communication Technologies (ICTs), New York, *http://europeandcis.undp.org/uploads/Hungarian%20telecottage%20overview.pdf*.
2. NDP (2002), Review of the Hungarian Tele-Cottage concept to explore its applicability to the CIS countries and specifically Central Asia in order to promote local economic and social development and decentralized governance practices through the public access to Information and Communication Technologies (ICTs), New York, *http://europeandcis.undp.org/uploads/Hungarian%20telecottage%20overview.pdf*.
3. Hungarian Telecottages Association Website (2006), *Teleházak Magyarországon*, accessed on 31 July 2006, *http://interm.gau.hu/miau/11/telehaz.doc*.
4. International Telecommunication Union (2006), Telecentres in Hungary, *www.itu.int/ITU-D/univ_access/casestudies/hun_mct.html*.
5. United Nations ICT Task Force (2003), Connected for Development, Information Kiosks and Sustainability, November 2003, New York, *www.epol-net.org/pport/pdf/515742283.pdf*.

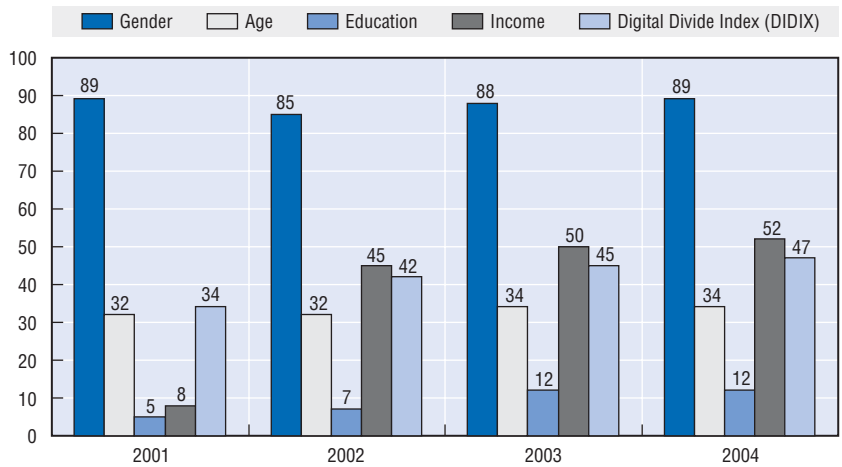
Despite the significant difference between the proportion of individuals using the Internet in Hungary (37%) and that in the EU25 (51%), there are two population segments in which the proportion of Internet users in Hungary is very close to the EU25 level; among urban individuals, the percentage of those who use the Internet regularly is 52% while the EU25 average is 57%, and in the case of people with higher education, the difference is even less significant – 79% of higher educated people regularly use the Internet in Hungary compared with 81% in the EU25.

Despite programmes to address the issue of Internet access in Hungary, Internet usage remains low. The number of people using the Internet on a regular basis (at least once a week), was 37% in 2005.[35] With communication technologies playing an increasingly vital role in economic development, education, governance and public policy, the exclusion of those who are poor, digitally illiterate, or living in areas with limited access has broad implications. It could lead individuals to reject the new information culture, preventing Hungary from capitalising on the benefits offered by the knowledge economy.

Digital Divide Index data

The Digital Divide Index (DIDIX) elaborated in the framework of the Statistical Indicators Benchmarking the Information Society (SIBIS) project of the EU, is a composite index indicating the digital divide in terms of different approaches to the knowledge-based society according to gender, age, education level and income. The closer the index is to 100, the less important the digital divide is. Figure 2.8 shows the index for Hungary.

Figure 2.8. **Digital Divide Index**



Source: World Internet Project (2004), *www.ittk.hu/web/docs/wip_report_2004.pdf*.

Gender is not a decisive factor in the digital divide in Hungary, but education level strongly determines individuals' likelihood to benefit from ICT. In terms of the impact of income on the digital divide, a considerable improvement can be observed between 2001 and 2004. While the value of Hungary's index in 2001 was only 8, it increased to 52 by 2004. Practically no change can be observed regarding age divides. In summary, despite a considerable improvement in the general DIDIX (increase of 13%) developments are still too slow to adequately address the digital divide as relevant to projected take-up of e-government services.

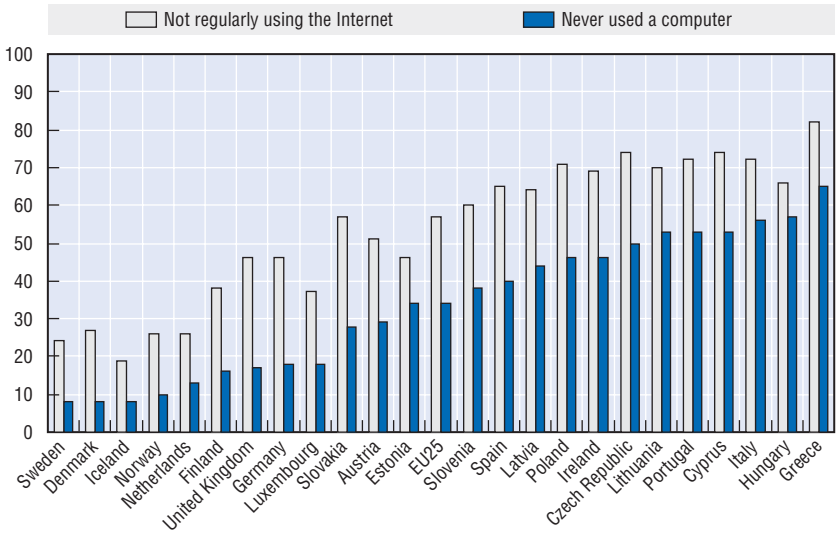
Lack of interest in online opportunities

Even if the access and use problems previously mentioned were solved, the wider population will only use the services of the Information Society if they find something really useful – adequate digital content, adoption of e-commerce, and trust in online transactions and the online marketplace will motivate citizens to use online services.

A recent Eurostat survey[36] showed that 34% of EU residents have never used a computer and 57% do not use the Internet regularly (see Figure 2.9). According to the survey, 57% of Hungarians aged 16-74 have never used a computer and 66% were not regular Internet users in 2005. For computer usage, only Greece among EU member states is behind Hungary; for individuals who do not use the Internet, Hungary is close to the EU25 average. This shows that Hungarians who have the possibility and ability to use PCs intend to use the Internet as well. Therefore, that Hungary is significantly behind the EU25 average regarding computer usage implies a major barrier for an increase in e-government take-up.

Figure 2.9. **Individuals who do not use computers or the Internet (2005)**

As percentage of the total number of individuals aged 16 to 74

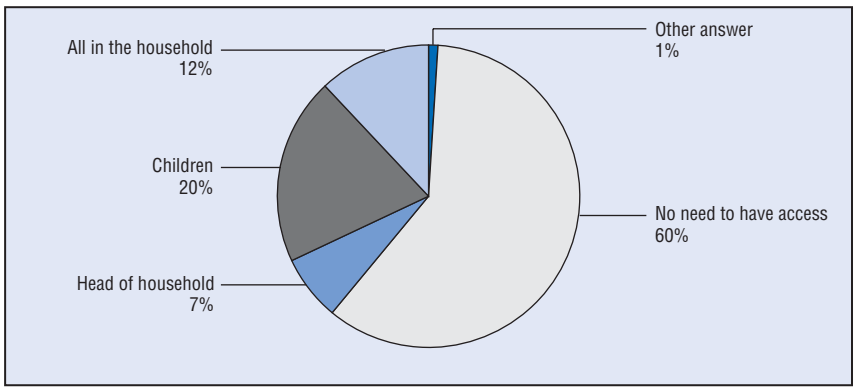


Source: Eurostat (2006), Community survey on ICT usage in households and by individuals in Eurostat 2006, Statistics in Focus, How skilled are Europeans in using computers and the Internet?, June 2006.

A recent survey of Hungarian households[37] showed that lack of interest in the Internet is the major obstacle to the take-up of Internet usage in Hungary. About 60% of respondents felt that they had no need for Internet access (see Figure 2.10).

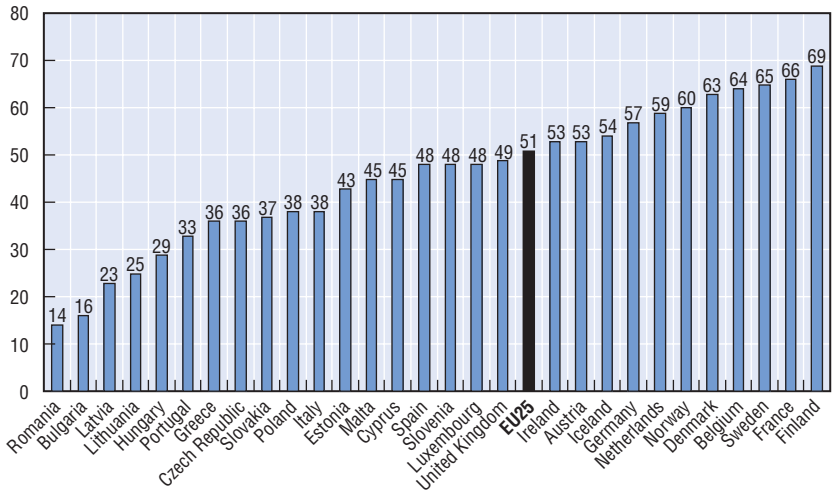
Computer usage in the workplace is an important indicator of how ICT-enabled businesses are. In the EU25, and average of 51% of employees used computers in their normal work routine; in Hungary, the rate was only 29% in 2005 (see Figure 2.11). Hungary is lagging significantly behind other European countries.

Figure 2.10. **Need for Internet access from households**
Residential Internet Usage Survey : Who in your household feels the need for Internet access at home?



Source: Eneten Közvélemény és Piackutató Központ (2005 Residential Internet Usage Survey), *www.nhh.hu*, May 2006, in Ministry of Informatics and Communications (IHM), Az információs társadalom 2002-2006,évi magyarországi fejlődéséről a Magyar Információs Társadalom Stratégia tükrében, June 2006 (The development of the Hungarian Information Society between 2002 and 2006 as mirrored by the Hungarian Information Society Strategy).

Figure 2.11. **Employees' use of computers in their normal work routine (2005)**
Percentage of the total number of employed persons



Source: Eurostat (2006), Community survey on ICT usage and e-commerce, in Eurostat 2006, Statistics in Focus, How skilled are Europeans in using computers and the Internet?, June 2006.

Compared with information content, surveys show less interest in entertainment content. Likely causes of these user habits focusing mainly on communication are: low broadband penetration (however, 35% of those with

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access to broadband download films and shop online); caps on volumes of transferred data (entertainment content tends to be large); low PC penetration in households (where individuals go on line, particularly in public places, significantly influences the type of content accessed); insufficient knowledge of foreign languages; and low levels of ICT literacy. The government has focused on digital content as one incentive to increase broadband penetration. While a number of digital content initiatives exist, there is no co-ordinated policy (apart from e-government-linked issues) on how to approach digital content and encourage its production locally.

Infrequent use of e-commerce among the population may also indicate challenges for user take-up of e-services. A large percentage of the population in Hungary does not believe in using the Internet for transactional purposes because of privacy and data protection concerns (which could also be connected to a relatively low level of penetration of credit cards). In an international comparison, the penetration of electronic payments using Internet banking and e-commerce is still low in Hungary. Business-to-consumer e-commerce generated a turnover of HUF 7.5 billion. About 30% of this revenue was generated during the Christmas season. In 2004, the total net value of online sales increased by 50% to HUF 12 billion. This is still only a fraction of the HUF 5 309 billion Hungarian retail activity. Many people use online shopping only to look for information; for example the website of Fofoto Ltd. had 60 000 visitors per month, but only 200 actually shopped. Surveys indicate that only about 2% of Hungarians can be considered e-commerce users, and only 6% have a contract with a bank for Internet banking.[38]

Building trust in government and in the security of the e-services provided by public agencies will be important in the near future. "Doing business" with the government goes hand-in-hand with private e-commerce, and will induce the development of business-to-consumer e-services. To this end it is necessary to:

- Increase the quality of Internet services, raising the level of consumer protection.
- Provide services and content useful (and usable) to citizens.
- Increase content available in Hungarian.

In summary:

- Hungary has put much effort into bridging the digital divide within recent years. Improvement has been registered by a range of different indicators, but the process of closing the gap is slow. The Digital Divide Index (see Figure 2.8) show particular challenges concerning age, education, and income. With 37% of the population having used the Internet in the last three months compared with the EU25 average of 51%, Hungary is lagging

behind. This may be due to a skills; government projects through the Ministry of Education aim at increasing e-literacy and ICT skills.

- Hungary has a clear geographic divide challenge between urban and rural individuals; Internet usage among urban individuals (52%) nears the EU25 average (57%), while rural individuals' use (25%) is significantly below the EU25 average (42%). Among the initiatives aiming to provide basic Internet access to rural populations, the eHungary Points and Tele-Cottages are stand-out examples.
- The cost of computers and of broadband is perceived as being high. Among initiatives aiming to address these issues are central government subsidies for the purchase of computers and Internet services. In general terms, economically disadvantaged groups have less access to the Internet.
- Because the number of households in Hungary with Internet access is generally low, many Hungarians access the Internet from the workplace, school, public libraries and Internet cafes. This is a significant factor in how the Internet is used (*e.g.* communication, downloading content, etc.); there is a qualitative difference in the experience of accessing the Internet from the home or from a public space.
- Only 23% of the country has access to a broadband infrastructure – DSL, cable, and wireless access; this is distributed unevenly, with significant rural/urban divides. Consequently, the first issue that needs to be addressed is infrastructure, and the government project to establish a broadband infrastructure in remote areas is crucial. High penetration and take-up of mobile phones and mobile telephony may open an interesting new channel for service delivery to individuals.

ICT competencies and skills

Basic ICT competencies and skills are necessary prerequisites for successful e-government take-up among users. These skills are also prerequisites for a wider citizen and business participation in developing the Information Society. Tracking a population's generic ICT competencies and skills is a good indicator for how well-prepared a society is to fully participate in the Information Society and to take advantage of e-government services.

In order to keep up innovation, research and development, countries must train individuals with advanced ICT skills at the tertiary educational level. It is therefore interesting to look more closely at how Hungary is performing in educating and training sufficient people with advanced ICT skills in order to avoid bottlenecks and shortages.

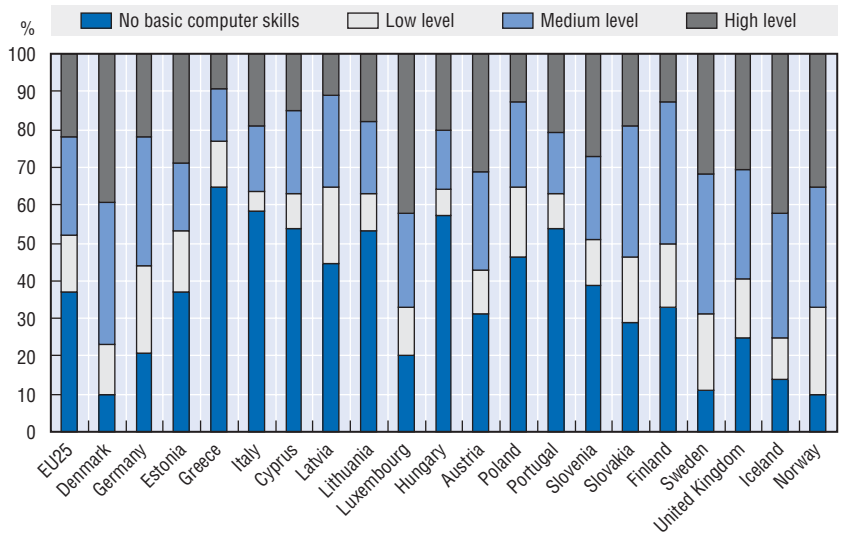
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Basic skills

There is a strong correlation between having basic computer skills and using a computer. A 2005 Eurostat survey showed that 57% of Hungarians had no basic computer skills at all (see Figure 2.12). Among EU25 countries this figure was higher only in Greece and Italy.

Among Hungarians who have computer skills, the share of those with skills on the basic level is smaller than in the majority of EU25 countries (see Figure 2.12) indicating both that the skill level of actual computer users is higher in Hungary than in many other countries, and that the majority of users in Hungary are those with medium- or high-level computer skills.

Figure 2.12. **Individuals' level of basic computer skills (2005)**
As percentage of the total number of individuals aged 16-74



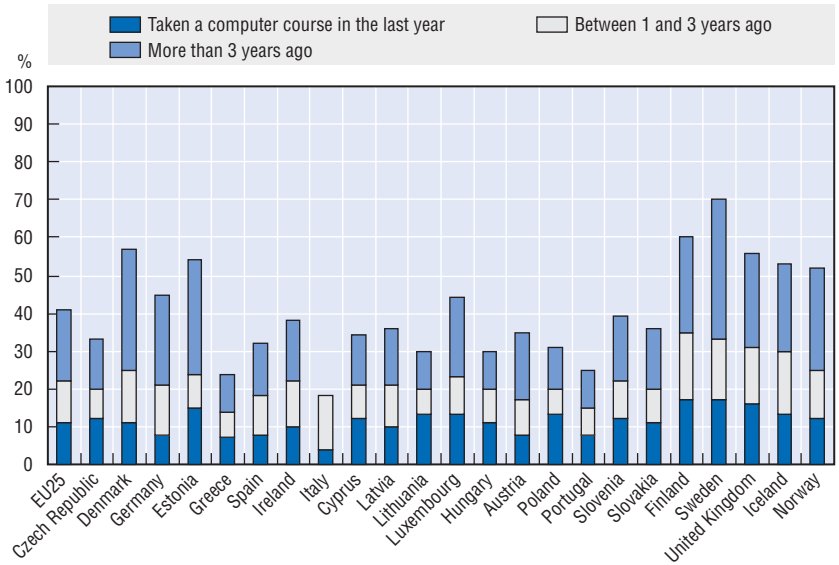
Source: Eurostat (2006), Community survey on ICT usage in households and by individuals in Eurostat 2006, Statistics in Focus, How skilled are Europeans in using computers and the Internet?, June 2006.

According to the Eurostat survey, 30% of Hungarians have attended training courses on computer use. Compared to the majority of EU member countries this proportion is rather low; however, Hungary reaches the EU25 average (11%) for the number of individuals who have taken a computer training course of at least three hours within the last year (see Figure 2.13).

The population's *ability* to make use of Internet services is an important aspect of the fight against the digital divide. Many educational programs in Hungary aim to provide interested people with elementary knowledge about

Figure 2.13. **Most recent training course (of at least 3 hours) on computer use (2005)**

As percentage of the total number of individuals aged 16-74



Source: Eurostat (2006), Community survey on ICT usage in households and by individuals in Eurostat 2006, Statistics in Focus, How skilled are Europeans in using computers and the Internet?, June 2006.

computers and the Internet. On a somewhat higher level is the teaching provided in the framework of the European Computer Driving License (ECDL) program, which is very popular in Hungary, with almost 250 000 registered students in the country in 2005.

After first introducing informatics to schools in the 1980s, the Ministry of Education launched an extensive project in 1996-97 with the aim of giving schools access to the Internet. After much debate, informatics has been designated an integral part of the National Core Curriculum and has become a compulsory subject. The Sulinet programme has focused on secondary schools, resulting in all secondary schools and about 20% of elementary schools being connected to the Internet. The development of ICT culture in schools can be characterised by "islands of modernisation" composed of innovative institutions. The range of development in schools is very wide. Some schools work at the equivalent of high international standards with outstanding levels of innovation, while a very large number of schools (especially small schools with limited financial and human resources) at the other end of the spectrum are lagging behind because they cannot afford to follow the leaders.

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Box 2.3. **ICT in schools – The Sulinet Programme**

Like other OECD member countries, Hungary has prioritised narrowing the digital divide. The importance of turning the younger generation into active members of the Information Society was recognised in Hungary in the early 1990s. Providing schools – primarily secondary level – with computers was first financed by the World Bank, the EU (through the PHARE programme)* and the Soros Foundation. At the beginning of these initiatives, PCs were only used for teaching basic knowledge in informatics. The decision to connect secondary schools' PCs to a network and supply schools with Internet access and computer laboratories was taken by the Ministry of Education in 1997 with the launch of the Sulinet programme. Since then, Sulinet has become one of the most important support platforms for closing the digital divide in Hungary.

The Sulinet programme provides all secondary schools and some primary schools with hardware and Internet access. Today, the network covers over 3 000 participating schools and has essentially contributed to the high computer literacy among the young generation. With the help of Sulinet, both pupils and teachers have been able to become computer and Internet users independently of being able to afford to buy a PC and Internet access.

Originally focusing providing schools with computers and Internet access, Sulinet was extended to include subprogrammes such as:

Sulinet Digital Knowledge Base

Recently, the focus of the Sulinet programme has been digital content development. The Sulinet Digital Knowledge Base is an electronic database containing background material on various areas of education across different school levels. The Sulinet Digital Knowledge Base is increasingly becoming part of everyday teaching in schools; comprehensive e-learning programmes can be developed on this basis.

Sulinet Expressz

This subprogramme started in 2003 and offered households with pupils, students and/or members of educational institutions the opportunity to benefit from reduced tax payments (tax credits) when acquiring ICT tools. The programme was soon widened to include the entire Hungarian population; this led to unforeseen acquisitions of different types of digital devices (such as digital cameras, etc). The Hungarian government therefore reduced the range of ICT tools included in the initiative to PCs and laptops, and finally decided in June 2006 to end the programme. One of the drawbacks of Sulinet Expressz was that, although it used considerable resources from the state budget, it mainly attracted buyers who already owned PCs and families with higher incomes who were able to profit from the *ex post* acquisition tax credit.

The Sulinet subprogrammes reflect the lesson Hungary has learned: Acquiring hardware is a first step that must be followed by content development, as well as providing actors with the necessary ICT skills to make use of the hardware provided.

* The PHARE programme is one of the three pre-accession instruments financed by the European Union to assist the applicant countries of Central and Eastern Europe in their preparations for joining the European Union.

Advanced ICT skills

Hungary is producing individuals with a range of different advanced ICT skills – supplying the Hungarian society with people who can contribute broadly to the development of the Information Society, and to innovation, research and development within ICT-related areas. Whether the production is sufficient to cover current or coming development needs within e-government and other areas is not clear. The training of advanced ICT-skilled individuals can be seen in Table 2.5, which shows the number of enrolled students within tertiary ICT-related education.

Table 2.5. **Enrollment in tertiary-level ICT-related education (2002-2003)**

Specialisation	University level	College level	Total
	Number of enrolled students		
Informatics	5 134	1 078	6 212
Technical informatics	4 930	14 113	19 043
Programming mathematics	1 717	0	1 717
IT engineer	345	0	345
Technical manager	1 840	1 036	2 876
Computer teacher	284	978	1 262
Health sector informatics	14	0	14
Geo-informatics	869	0	869
Economical informatics	0	4 191	4 191
Total	15 133	21 396	36 529

Source: OECD calculation from the data released by the Hungarian Ministry of Education published by the Institute for Prospective Technologies Studies in "Factors and impacts in the information society – A prospective analysis in the candidate countries: Report on Hungary," European Commission Directorate-General Joint Research Centre. Technical Report EUR 21408 EN. November 2004.

In summary:

- The *ability* of the population to make use of Internet services is an important aspect of the fight against the digital divide; this is perceived to be an important issue in Hungary. There are many educational programmes in Hungary to teach interested people elementary knowledge about computers and the Internet. Although these efforts seem timely and relevant, they have not yet had significant impact on the population's ICT competencies and skills. In 2005, according to a Eurostat survey, 57% of Hungarians had no basic computer skills at all.
- Despite ambitious plans, ICT use developed more slowly than expected in the middle of the 1990s in Hungary. In recent years, the lag has increased significantly and Hungary is among the poorer performers in Europe. Internet access is far from sufficient in most schools. At present, only one in every five computers in primary schools is connected to the Internet. The

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Ministry of Education has implemented projects that aim at increasing e-literacy and ICT skills, but without adequate facilities and upgrading of equipment in schools, opportunities for practical learning are limited.

Notes

1. *A közigazgatási hatósági eljárás és szolgáltatás általános szabályairól szóló törvény.*
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6. Constitution of the Republic of Hungary, available at: *www.mkab.hu/en/enpage5.htm*.
7. Parliament (1992), Act No. LXIII of 1992 – *A személyes adatok védelméről és a közérdekű anyagok nyilvánosságáról szóló törvény* (Act on the Protection of Personal Data and Disclosure of Data of Public Interest). The three paragraphs rely heavily on the 2004 Privacy International Country Report on Hungary, available at *www.privacyinternational.org/article.shtml?cmd[347]=x-347-83555, accessed July 2006*.
8. Hungarian Government (2006), New Hungary, Freedom and Solidarity – The Programme of the Government of the Republic of Hungary for a Successful, Modern and Just Hungary, 2006-2010, p. 59.
9. Electronic Government Centre of the Prime Minister's Office (EKK) (2006), *Az e-Kormányzat Stratégia jövőbeni koordinálási feladatai* (Future tasks of co-ordinating the e-Government Strategy), March 2006, p. 31.
10. *Információs Társadalom Közhasznú Társaság (IT Kht)* owned and supervised by the former IHM – the Ministry of Informatics and Telecommunications
11. Ministry of Economy and Transport website (2006), *www.gkm.gov.hu/*, accessed July 2006.
12. "Burning platform" describes the state that an organisation may enter when its future existence is at stake and the leadership of the organisation is under pressure to reinvent and redefine the purpose of the organisation and the reason for it to exist and deliver services and/or products demanded by its surroundings.
13. *eKormányzat 2005 Stratégia* és Programterv.
14. *Magyar Információs Társadalom Stratégia*.
15. *Nemzeti Szélessávú Stratégia* – NSZS 2005.
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18. Act C/2003. (2003. *évi C törvény az elektronikus hírközlésről*).
19. United Nations ICT Task Force (2003), Connected for Development, Information Kiosks and Sustainability, November 2003, New York, *www.epol-net.org/pport/pdf/515742283.pdf*.
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34. Statistical data provided by the Hungarian Central Statistical Office, June 2006.
35. Source: Eurostat, 2006.
36. Eurostat (2006), Demunter C., *How skilled are Europeans in using computers and the Internet?*, Statistics in focus 17/2006.
37. *Eneten Közvélemény és Piackutató Központ* (2005 Residential Internet Usage Survey), *www.nhh.hu*.
38. Sources: WIR – World Internet Report 2005 and a report of the GKI-eNET Internet Research and Consulting Ltd. on the Hungarian Internet Economy (*Jelentés az internet-gazdaságról – Fókuszban: a pénzügyi szektor*).

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Chapter 3

E-Government Leadership

Assessment(s)	Proposal(s) for Action
Leadership	
• Due to elections held in April 2006, the formation of a new government and the adoption of a new public sector reform agenda, the Ministry of Informatics and Telecommunications has been abolished and its areas of responsibility have been transferred to the Ministry of Economics and Transport and to a new Centre for Electronic Public Services (*Elektronikus Közszolgáltatások Központja-EKK*). The new EKK will be established as a central agency supervised by the Prime Minister's Office by January 2007. At the same time, some important tasks – such as the formulation of the public administration's IT strategy and policy, e-government regulation (in co-operation with the Ministry of Economy and Transport), and cross-agency co-ordination – will remain within the Prime Minister's Office. • With the assignment of major e-government responsibilities to the centre of Hungarian government and the new EKK under the strategic leadership of the Prime Minster's Office, e-government development and the public sector reform agenda seem to be more effectively aligned. It is essential that the new structure avoid the divisions that existed in the previous structure, and that the government not lose time and momentum on e-government implementation as the new structures are created. • The newly created Ministry of Local Government and Regional Development is responsible for overseeing electronic case handling at the local level. The new EKK, under the authority of the Prime Minister's Office, will also have a supervising and co-ordinating role in terms of aligning the central government's e-government objectives with these activities.	• The new distribution of e-government responsibilities provides a more streamlined leadership model. At the central level, the government's task should be three-fold: 1) to use the joint e-government and public sector reform responsibilities of the Prime Minister's Office to develop a co-ordinated strategy for educating and assisting government agencies in using e-government to re-engineer processes and to release resources for reallocation and/or reinvestment; 2) to provide solutions for implementing cross-cutting e-government initiatives, including the development of common "building blocks" such as shared databases to form the basis for shared services (including creating incentives for government agencies to collaborate in the implementation of services from a more user-focused approach); and 3) to aggressively promote collaboration – both horizontally across central government and vertically with local government – by putting out regulations on data standardisation and building support for standards. • The government should also issue a list of guiding principles for e-government implementation from the highest political level in order to provide direction during this transition period and to maintain momentum as new structures and responsibilities are embedded. The statement should clarify the government's intent to take a co-ordinated and mutually supportive approach to public management reform and e-government implementation. • The next e-government challenge lies in the development of local e-government initiatives. It is critical that the new Ministry of Local Government and Regional Development and the Prime Minister's Office speak with one voice on local e-government issues. The government should focus on identifying good practices and then build capacity at the local level to adapt those solutions in order to create low-cost, interoperable e-government projects.

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Hungary has a long tradition of centralised state administration and centrally driven management of public affairs. Over the last decade, this approach has progressively evolved following the principles of clear division of powers between levels of government and decentralisation of responsibilities and authority previously held at the central level. The Hungarian political and administrative structure reflects this rapid transition from centralism towards constitutionally rooted division of power between central government and local governments. This evolution of power towards a two-tier structure – central and local administrations – in the Hungarian public sector is important; it helps to explain the environment in which leadership is exercised in Hungary, and also the fragmented and loosely coupled e-government leadership in the public sector as a whole.

As mentioned previously, e-government has become a political priority mainly due to Hungary's strong commitment to realising the benefits of its integration into European Union Information Society development, economies and markets. This has been a strong incentive for different Hungarian governments to prioritise e-government development as part of creating a Hungarian Information Society, while implementing the goals in European Union agendas like the revised Lisbon Agenda (as stated in the *i2010 programme*).[1]

This chapter discusses Hungarian e-government leadership: how it is organised and exercised, how e-government policies and strategies reflect leadership practices, and the current e-government co-ordination arrangements.

Leadership

The highly centralised approach to public governance is traditionally reflected in the strong role of the Prime Minister's Office in public policy management and the use of laws and decrees to implement policy, including e-government. This dominance of the Prime Minister's Office in central government was confirmed by OECD interviews.

Until the general election in April 2006 and the subsequent formation of a new administration in June 2006, e-government leadership was mainly exercised by the Electronic Government Centre (EKK) in the Prime Minister's Office, and the Ministry of Informatics and Telecommunications (IHM). EKK had the key responsibility for the elaboration of the e-government strategy

(The Electronic Government 2005 Strategy and Programme)[2] and for co-ordinating the implementation of e-government initiatives related to the strategy within central government institutions. The scope of EKK's responsibilities also included preparation and consultation with ministries on drafts of acts and decrees relating to e-government as well as budgetary planning for e-government investments.[3]

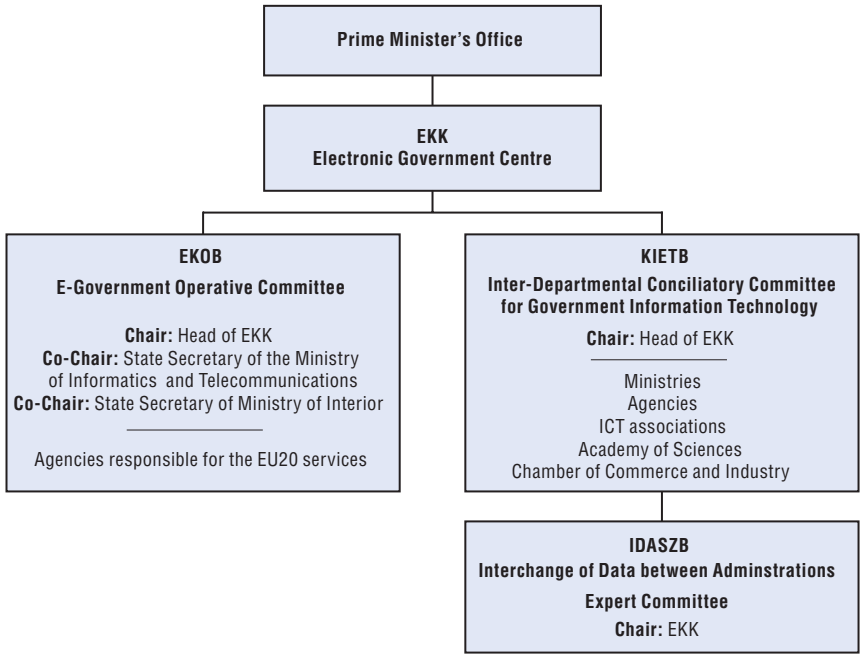
EKK was also responsible for designing, implementing and supervising the operation of the basic e-government infrastructure, which included the Central Electronic Service System: the Government Backbone (EKG), the Government Portal (*www.magyarorszag.hu*), the Client Gate and the Government Customer Information Centre (KÜK). It also put in place programmes that encourage government organisations to increase the number and quality of e-services offered.

EKK had participated in other e-government projects with horizontal scope; it contributed to the development of the Unified Digital Radio Telecommunication System (*Egységes Digitális Rádiótávközlő Rendszer – EDR*), the Governmental Electronic Document Handling System (*Kormányzati Elektronikus Iratkezelés – KEIR*), and the Electronic Law Preparation System (*Elektronikus jogszabály-előkészítés – ePreLEX*).

EKK was also responsible for co-ordinating and monitoring the implementation of the government decree on unification of governmental websites in Hungary,[4] and participated in the process of establishing a governmental information security centre (*Informatikai Biztonsági Központ*)[5] as well as a knowledge centre for best practices (*Bevált Gyakorlatok Műýhelye*).[6] EKK established a software competence centre (*Szoftver Kompetencia Központ*) to encourage Hungarian agencies to use open source software (OSS)[7]. EKK exercised its leadership of central government e-government activities through two co-ordinating committees and one sub-committee (see Figure 3.1):

- ***EKOB*** or the **E–Government Operative Committee** *(E-kormányzat Operatív Bizottság)*: EKOB was responsible for co-ordinating the implementation of the Electronic Government Programme and the 20 e-services benchmarked by the EU. EKOB was chaired by the Government Commissioner of the EKK and co-chaired by the State Secretary of the former Ministry of Informatics and Telecommunications, and the State Secretary of the former Ministry of Interior. The committee consisted of representatives from central government agencies responsible for the implementation and maintenance of the 20 e-services. A representative of the National Council of Jurisdiction was appointed to the Committee by its President.
- ***KIETB*** or **Inter-Departmental Conciliatory Committee for Government Information Technology** (*Kormányzati Informatikai Egyeztető Tárcaközi Bizottság*): KIETB was a forum for inter-ministerial discussions of ICT issues of

Figure 3.1. **E-government leadership in central government**



Source: OECD based on information provided by the Hungarian government, 2006.

strategic importance for the central government.[8] It was chaired by the Government Commissioner (*Kormánymegbizott*) of the EKK, and its members are the persons responsible for co-ordinating e-government issues in the ministries and agencies. The committee also had representatives from the Academy of Sciences, the Association of the IT Enterprises, the Association of the Content Industry, and the Hungarian Chamber of Trade and Industry. The Office of the Parliament[9] and the State Audit Office were also represented on the Committee. In the new e-governance structure both the EKOB and the KIETB will continue their activity, headed by the newly appointed Government Commissioner (*Kormánybiztos*).

- ***IDASzB*** or the **IDA**[10] **Expert Committee** (*IDA Szakértői Bizottság*): KIETB established IDASzB in 2004 to provide support and advice on Hungarian participation in the former IDA programme; today IDASzB supports and advises on Hungary's participation in the IDAbc programme.[11]

Specific leadership on e-government was also exercised by the former Ministry of Informatics and Telecommunications, primarily through its responsibility for developing and implementing the Hungarian Information Society Strategy (MITS). An Inter-ministerial Committee on the Information Society (*Információs Társadalom Koordinációs Tárcaközi Bizottság – ITKTB*)[12] was

formed within the Ministry to ensure co-ordination and implementation of MITS; ITKTB created a subcommittee for e-administration (*Elektronikus Közigazgatás Albizottság – ELKA*) to ensure better and more widespread use of available electronic public data and to serve as an advisory body on electronic signatures issues, electronic identification cards and network security.

The Ministry of Informatics and Telecommunications also had the responsibility for preparing a sub-strategy guiding local government towards the achievement of Hungarian Information Society goals (see Box 1.1, Chapter 1). In addition, the Ministry had a significant role in developing an interoperability framework and pushing for the adoption of standards for interoperability across the administration.

OECD interviews showed a gap in the joint leadership in areas of common interest and apparent overlap of tasks and responsibilities between the former EKK and the former Ministry of Informatics and Telecommunications, as the e-government policy and strategy has been a part of the overarching Hungarian Information Society policy (see Chapter 1). The lack of commonly shared goals for e-government with limited co-ordination has created a fragmented and loosely coupled e-government leadership with no clear focal point. The impact can be seen at the local levels and in a number of central government agencies. This has led to a sense of external confusion about the specific goals and policies that should be followed by the public sector as a whole, in particular with regard to the drivers of e-government development. Based on the survey, it was unclear who or which organisations were driving e-government development in Hungary (see Chapter 1, Figure 1.3); central government respondents pointed to the former EKK, while local government respondents identified the former Ministry of Informatics and Telecommunications as the main e-government driver.

Compared with many other OECD countries, the Hungarian Ministry of Finance has a marginal role in funding and supporting e-government development. Its focus seems to be on high-volume/high-impact e-services operated by the tax authorities and customs, both within its own ministerial portfolio. Furthermore, the former Ministry of Interior was responsible for co-ordination with local governments on e-services provided by and on behalf of central government.

Further, OECD interviews could not provide evidence of political leadership within ministries for e-government development under their own areas of responsibility, even though the State Secretaries of each ministry seemed to have an important role as responsibles for e-government development.

Since June 2006, the governance structure of central government has changed dramatically due to the new government's public sector reform

agenda. The political aim is to significantly reduce public spending, and to decrease the size of the public sector. A major re-organisation of central government has been announced and is under implementation; this initiative effectively decreases the number and the size of ministries and changes the organisational framework for e-government leadership. The Ministry of Informatics and Telecommunications has been abolished, and its areas of responsibility have been transferred to the Ministry of Economy and Transport and to a new Centre for Electronic Public Services (*Elektronikus Közszolgáltatások Központja – EKK*), to be established as a central agency supervised by the Prime Minister's Office on the basis of the Electronic Government Centre by 1 January 2007.[13]

According to the Government Decree 160/2006 (VII.28.)[14] the minister responsible for the Prime Minister's Office is in charge of:

- Formulation of the public administration's IT strategy and policy.
- Supervision and co-ordination of the implementation of the e-government strategy.
- ICT support of the central government reform.
- Development of a concept for a citizen-friendly central government administration through modernisation of public services, and rationalisation and simplification of work processes in the public administration.
- Development of rules and measures for collaboration of the public service systems.
- Co-ordination of programmes preparing citizens to using modernised central government services.
- Supervision and co-ordination of ICT in public sector administrations.
- E-government regulation (in co-operation with the Ministry of Economy and Transport).

The minister in charge of the Prime Minister's Office is – according to the decree – also responsible for co-ordination, development and implementation of e-government at central, regional and local levels along with central government service and infrastructure provision, including co-ordination, harmonization, standardisation, and quality assurance of e-government development. An important task of the minister is the co-ordination of the state budget and funding from international sources.

A Ministry of Local Government and Regional Development was created as part of the public sector reform agenda. This newly created ministry is responsible for overseeing electronic case handling at the local level. The new EKK will also have a supervising and co-ordinating role in terms of aligning the central government's e-government objectives with these activities.

With the assignment of major e-government responsibilities to the centre of Hungarian government and the new EKK acting under the strategic leadership of the Prime Minster's Office, e-government development and the public sector reform agenda seem to be more effectively aligned. Also, the goals seem to enable an effective consolidation of the Information Society and e-government service delivery elements of the Hungarian E-Government 2005 Strategy and Programme, which previously caused confusion. It is essential that the new structure avoid the divisions that existed in the previous structure, and that the government not lose time and momentum on e-government implementation as the new structures are created.

In summary:

- Hungary has a historic tradition of a centralised approach to exercising leadership. As e-government has been one of the areas in which Hungary needed to develop quickly in order to show a strong performance in EU benchmarks, the political priority has been the development of the 20 e-services benchmarked by the EU; planning and implementation responsibility prior to June 2006 had been given to the Electronic Government Centre – EKK, within the Prime Minister's Office.
- E-government leadership was, however, also exercised through the former Ministry of Informatics and Telecommunications, which was primarily responsible for Information Society issues. Although different government resolutions had attempted to clarify the division of work between the former EKK and the former Ministry of Informatics and Telecommunications, the boundaries remained blurred, and co-ordination between the two government bodies was limited; e-government stakeholders remained unclear on these issues.
- Due to elections held in April 2006, the formation of a new government and the adoption of a new public sector reform agenda, the Ministry of Informatics and Telecommunications has been abolished, and the status and tasks of the Prime Minister's Office and the new EKK under its strategic leadership seem to effectively align public sector reforms and e-government development.

Co-ordination of e-government

Horizontal co-ordination structures of e-government in central government seem to be in place, including broad involvement of stakeholders both within central government and outside government (see Figure 3.1). The areas for co-ordination addressed by the committees, however, seem to be more administrative and technical in nature rather than political and strategic, and thus the structures have limited or no linkages to the political level of central government.

OECD interviews showed that e-government in general was primarily considered to be a technical issue within the public administration rather than a strategic one to be addressed by top-level management and/or political leadership in government. Interviews showed limited co-ordination between levels of government and among local governments themselves.

Although the co-ordination bodies and control mechanisms are in place, evidence of the impact of e-government policies on local government is sparse. Except for some guidance from the former Ministry of Interior as to the provision of electronic documents, OECD interviews revealed that local governments suffered from an apparent lack of co-ordination and collaboration among themselves and across levels of government. No primary representative of local governments seemed to act as an interlocutor with central government or to act as a resource for local governments.[15] In spite of efforts by the former Ministry of Interior and different associations of local governments, local governments often felt left alone with the challenge of understanding and implementing e-government policies.

Adequacy of policies, strategies, goals and actions

Hungarian e-government leadership has suffered from shifting policies and strategies due to constantly changing political environments since 1990. This has affected the possibility of following a stable medium- to long-term development track towards stated political goals. At the same time, however, EU accession and the process of alignment to EU regulatory frameworks, standards, processes and procedures have been a stabilising factor. The latest elections in 2006 brought about a new government programme aiming to implement profound changes in the organisational structure of leadership of e-government, while maintaining the traditional alignment with EU developments.[16]

Two government resolutions, 1113/2003 and 2316/2003, address modernisation of the state structure and public services;[17] however, the aims of these measures have not been properly realised. For example (and contrary to policy objectives declared by different governments), the total number of civil servants increased by 44.6% between 1994 and 2005.[18] The impact of e-government on achieving a more efficient and effective public sector has not yet shown itself as an anticipated decrease in the total number of civil servants.[19]

Unlike most EU countries, e-government implementation in Hungary has been focused on computerisation of office work within the agencies, putting services on line, and deploying the basic e-government infrastructure without engaging profound reforms of public administration. Development and connection of workflows (both within and across agencies) has yet to be put in

place, and processes and services continue to be duplicated and to overlap across organisational boundaries.

OECD work has emphasised that e-government should be more about government than about "e", and that governments should aim to achieve better governance by making use of ICT and linking e-government policies to public administrative reform. Hungary has not yet succeeded in aligning its e-government policies with its vision for administrative reform of the state.[20] The new government's reform programme states:

> "*Millions of people and hundreds of thousands of businesses have learned to adapt themselves to the changing world and to the requirements of ever sharpening international competition over the past one and a half decades. However, these massive changes have left almost unchanged the organisations of the state, the central and local public administration and municipalities that were also established some fifteen years ago. This has led to the consequence that although the Hungarian economy is becoming more and more modern and competitive, public administration remains oversized, slow and expensive, administration in general is bureaucratic.*
>
> *It has been clear for many years that the outdated system of public administration is in need of unavoidable change; the existing large government apparatuses cost significant taxpayer money, and these institutions have become more obstacles than enablers of fast and successful development in Hungary. However, the conflicts that would arise from such a transformation have caused politicians in the past decade to avoid the tough decisions. The stated political goal of creating a smaller, more efficient and service-oriented state has never been turned into real action. The Government of the Republic is no longer postponing the necessary changes. Rather, it is taking courageous steps to establish a new public administration and local governmental system that operates efficiently, uses public funds sparingly and can provide quality services to its citizens.*"[21]

E-government development raises a number of cross-cutting questions concerning the nature of government steering and control, and the structure for co-ordination across levels of government. These issues, which by nature are politically sensitive, are not unique to Hungary, but emerge in most OECD countries. Questions concerning the balance of power between central government and local governments come into focus when determining how to reap maximum benefits from e-government implementation in the context of local autonomy. The overarching strategic framework for dealing with these more fundamental and cross-cutting questions as a consequence of e-government development does not seem to be in place for the time being. Now that its ambitious electronic service delivery goals have been met, there is an opportunity for the Hungarian government to harness e-government to help enable its reform programme.

Notes

1. Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee, and the Committee of the Regions – "i2010 – A European Information Society for growth and employment", COM(2005) 229 final, Brussels, 1.6.2005.
2. Adopted by the government in December 2003 by governmental resolution 1126/2003 (XII.12.).
3. Government Decree 148/2002 (VII.1.).
4. 1044/2005 (V.11.) *Kormányhatározat a közigazgatás korszerűsítését szolgáló aktuális e-kormányzati feladatokról.*
5. The governmental information security centre set up in 2006 is responsible for collecting and disseminating local and international experiences and practices on security management in governmental informatics as well as for rendering expert and advisory services for the public sector.
6. The knowledge centre for best practices will support the management of Hungarian e-government-related ICT solutions, the concept of learning from each other and the elimination of parallel developments.
7. Electronic Government Centre of the Prime Minister's Office (EKK) (2006c), *Összefoglaló a kormányzati informatika és az elektronikus kormányzás terén végzett tevékenységekről és eredményekről (2002. július – 2006. május)* (Summary on the activities and results in the field of governmental informatics and e-governance, July 2002-May 2006).
8. KIETB formulates recommendations on important issues relating to ICT development within the government, as well as on other e-government areas such as management of websites, information security, technical specifications, quality management, etc. The Committee's latest recommendations were: unification of central government websites; publication of a manual on information security; identification of technical specifications for connecting to the Client Gate; elaboration of an information strategy by each governmental agency; articulation of general requirements for ICT contracts with governmental agencies; information on quality assurance and quality management relating to software development within the central government; and implementation of quality assurance and quality management for operation of ITC systems within the central government.
9. The Office of the National Assembly ensures the organisation of the work of the Parliament, assists its officials and, in certain areas, the work of the MPs, *www.mkogy.hu/angol/office.htm.*
10. The former EU programme IDA – Interchange of Data between Administrations.
11. IDAbc stands for Interoperable Delivery of European eGovernment Services to public Administrations, Business and Citizens. It is a community programme managed by the European Commission's *Enterprise and Industry Directorate General.*
12. The voting members of ITKTB were the deputy state secretaries responsible for Information Society matters in the ministries. Other members, such as the ICT leaders of the interested public authorities and associations (the National Tax Office, the National Health Insurance Fund, the Hungarian Academy of Sciences, the Hungarian Association of IT Companies, Janos von Neumann Computer Society Association, Hungarian Association of Content Industry were observers.

All appointed representatives served on thematic subcommittees. For more information, see *www.itktb.hu*.

13. Government Decree 2118/2006 (VI. 30).

14. The decree states that "… ICT usage in public sector administration is the means of realisation of the service providing state. It covers the organisational structures, resources and instrumental systems of information technological and info-communicational nature supporting more effective servicing of citizens, more efficient operations, task completion and the modernisation of the public administration bodies."

15. In Hungary, there are several associations representing local governments: Nationwide Association of Local Government of Settlements (*Települési Önkormányzatok Országos Szövetsége -TÖOSZ*, *www.toosz.hu/indexn.html*), Nationwide Association of County Level Local Governments (*Megyei Önkormányzatok Országos Szövetsége – MÖOSZ*, *www.moosz.hbmo.hu*), Association of Towns with County Status (*Megyei Jogú Városok Szövetsége – MJVSZ*, *www.mjvsz.hu*), National Association of Small Town Governments (*Kisvárosi Önkormányzatok Országos Érdekszövetsége – KÖOÉSZ*, *www.kisvarosok.hu*), Nationwide Association of Local Governments of Parishes, Small Settlements and Micro Regions (*Községek, Kistelepülések és Kistérségek Országos Önkormányzati Szövetsége – KÖSZ*, *www.koesz.helyinfo.hu/gss/alpha*), Association of the Hungarian Local Governments (*Magyar Önkormányzatok Szövetsége – MÖSZ*, *www.gemesigyorgy.hu/mosz.php*).

16. New Hungary Programme – *Új Magyarország Program*.

17. Government resolutions 2198/2003.IX.1 and 1113/2003.XI.11.

18. Electronic Government Centre of the Prime Minister's Office (EKK) (2006), *Az e-Kormányzat Stratégia jövőbeni koordinálási feladata (Future Co-ordination Tasks of E-Government Strategy)*, 31 March 2006, p. 35.

19. However, experiences from New Zealand show that online channels mean *more* management, as other channels have to be maintained to ensure access to services for those who cannot gain access to the Internet (*e.g.* due to the lack of education, opportunity or choice).

20. Electronic Government Centre of the Prime Minister's Office (EKK) (2006), *Az e-Kormányzat Stratégia jövőbeni koordinálási feladata (Future Co-ordination tasks of e-government strategy)*, 31 March 2006.

21. New Hungary Programme (English version), pp. 8-9.

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Chapter 4

Implementation

Assessment(s)	Proposal(s) for Action
Management of e-government implementation	
• Hungary has instituted systematic monitoring and evaluation of the implementation of its current e-government strategy. However, no common public sector approach to monitoring and evaluation has yet been defined and used methodically to enhance implementation management. As a result, public sector institutions without sufficient evaluation experience lack guidance and the reported results are not comparable. Central government therefore has no means to follow implementation and determine whether internal e-government goals have been achieved.	• In order to develop and apply a commonly agreed concept for monitoring and evaluation of e-government projects across the public sector, Hungary should consider developing a set of standard e-government goals and measures for extensive use – possibly based on existing monitoring concepts for EU-related projects – and diffuse it quickly. Guidelines should include generic tools and procedures that can help strengthen e-government management and followup by individual public sector institutions. As a first step, Hungary should implement the recommendations by the former Interdepartmental Committee for IT to develop a common public sector "toolkit" containing standard templates for project cycles and reference guides for project cycle management.
• Incentives from the European Union have encouraged Hungary to monitor and evaluate projects connected to the National Development Plan-NFT. However, because e-government projects were not the aim of the previous NFT, only limited e-government-related projects implemented under the umbrella of NFT have undergone systematic monitoring and evaluation. The generally fragmented and *ad hoc* approach to monitoring and evaluation activities implies a need for a common public sector approach using experiences and knowledge from existing monitoring and evaluation activities.	• Hungary should consider whether European Union Information Society policy can be used as an incentive to introduce systematic monitoring and evaluation of e-government projects – possibly using existing monitoring concepts for EU-related projects as a basis for developing a generic monitoring and evaluation approach to be used throughout the public sector.
• Outside the sphere of EU funding, there are few economic incentives for public sector institutions to move e-government development forward. The main problem, however, is not one of outside incentives – which will rarely provide sufficient means to completely finance implementation. A cultural change is needed to convince civil servants to seek efficiency gains within their own projects in order to finance innovation. For this to occur, institutional barriers to achieving efficiency gains must be removed. For example, civil servant tenure in Hungary makes it difficult to reallocate or fire staff. An amendment to the Civil Service Act in summer 2006 shows that Hungary has recognised the importance of more flexible human resource policies in public administration. The introduction of performance measures for assessing the individual performance of civil servants is envisioned for 2007. Furthermore, the new government has expressed its intention to proceed to a substantive reform of public administration.	• To encourage public sector institutions at all levels of government to develop e-government services according to the current e-government policy and strategy, Hungary should consider developing more incentives, such as economic inducements and competitions. Economic incentives could include budgetary mechanisms that allow institutions to keep a share of revenue generated by efficiency gains, and competition incentives could include "beauty contests" among public sector institutions on service quality, user take-up, and collaborative services such as one-stop shops. • Ensuring coherence between the technical and the managerial aspects of e-government programmes is crucial; projects risk failure when these areas are allowed to split into two disconnected "halves". The implementation process for e-government programmes should combine the technical and the managerial perspective to ensure that staff is buying into necessary changes and to effectively link the use of ICT to e-government policy objectives.

Assessment(s)	Proposal(s) for Action
ICT management and skills	
• Hungary has launched a number of initiatives to close the e-government skills and competencies gap within the public sector. In co-operation with the Hungarian Institute of Public Administration, an eCulture programme has been launched – but with only limited success. The lack of e-government skills remains a challenge, in particular for local governments. Another initiative underway is to mandate that all Hungarian civil servants take the European Computer Driving License exam in order to raise the level of computer literacy within the public sector. These initiatives are positive and will contribute, in time, to closing the gap. However, there is a need to reach the goals faster than these formal courses and training sessions for civil servants will allow. • The E-Government 2005 Strategy and Programme explicitly called for a skills and competency analysis to enable implementation of the Hungarian e-government action plan. This has led to a stronger awareness of the lack of skills and competencies for e-government implementation, and the need for all public sector employees to obtain these basic skills and competencies; this is especially the case for higher-level officials. This is a prerequisite to a systematic approach by the public sector as a whole to develop identified skills. • A number of skills and competencies challenges have been identified by the OECD survey, including building sufficient technology and project management skills and competencies for e-government implementation. The survey shows that the lack of ICT skills and skills to implement e-government and Information Society strategies, and adapting staff to change, were considered the main skill challenges for the implementation of e-government by both central and local government. A broader set of public management skills, including change management and process re-engineering, are also needed in order for e-government projects to deliver transformative results and not just more informatisation.	• To build the skills of civil servants, a general E-Government Education plan should be developed, comprising three training components that could be delivered either by the government itself or in partnership with private sector, academic or non-profit partners: ❖ A focused competency and training programme to bring together civil servants from different public institutions across levels of government to foster cross-fertilisation and increase whole-of-public-sector awareness in order to change the culture of government. ❖ An organisational analysis to look at how tasks and processes are performed today in order to identify skills needed to streamline work processes and ways of handling tasks emphasising management, strategic and legal implementation, as well as technical skills. ❖ Opportunities for civil servants to learn more on the job through training modules offered to target groups (*i.e.* politicians, civil servants, project leaders, managers, etc.) based on the skills needs that their positions involve. Such modules could, for example, educate civil servants on the e-government services available – in particular the use of the Client Gate – and on the available private sector solutions that can be tailored to their needs.

E-government is essentially about ICT-enabled transformation of the public sector. It is about making it possible for governments to become more user-focused, about transforming the operations of governments through shared services and data, and about promoting easier and more meaningful integration among and within levels of government. Apart from leadership and buy-in, transformation requires acceptance of the need for change along with commitment to and passion for change.

In Hungary the focus on implementing the 20 e-services benchmarked by the EU has to some extent overshadowed the broader goals of implementing e-government "in breadth" and "in depth" across levels of government. Even though strategies and plans broadly cover many areas and state intentions and goals, the implementation environment lacks stable directions for the whole of government (including local governments) to allow for proper medium- or long-term prioritisation of e-government implementation.

This chapter will discuss and analyse the Hungarian implementation approach looking into management of e-government implementation, organisational structures, skills and competencies, and capacity for implementation.

Management of e-government implementation

Successful management of e-government implementation requires committed leadership, well-proven operational management and steering concepts, feedback mechanisms like monitoring and evaluation systems, innovation management skills, risk analysis and management, and organisation of stakeholder involvement. These core competencies are not always sufficiently developed within the Hungarian public sector (as also seen in other OECD countries) and can run counter to the more solid, risk-averse and change-resistant ethos of many public service organisations. There is also a growing recognition that e-government is but one aspect (albeit an essential element) of transformational and innovative change and therefore needs to be considered in a wider context of organisational change.

Monitoring and evaluation

Hungary has only recently adopted a more structured approach to e-government strategy implementation, including monitoring the achievements of related goals. The E-Government Strategy and Programme[1]

was the first strategic initiative aimed at reforming the public administration based on a modern managerial approach. The plan, launched in late 2003, was based on a careful assessment of the situation at that time and was composed of detailed programmes and areas of action managed by EKK. For each area of action, a person responsible for the accomplishment of the tasks was appointed. The appointed responsible persons were also in charge of collecting experiences and knowledge from European Union institutions and other EU member states to expand the national knowledge of e-government implementation, and for suggesting subsequent adjustments to the strategy. EKK has applied a monitoring concept to the implementation process to be able to adjust plans according to challenges encountered as early as possible.

The former Ministry of Informatics and Telecommunications was responsible for monitoring the implementation of the Information Society strategy, and EKK for the e-government strategy and programme. The monitoring done by the former Ministry of Informatics and Telecommunications was based on Information Society indicators defined by the European Union.[2] Building on its monitoring information, EKK continuously evaluated achievements of the actions prioritised by the different programmes in the e-government strategy. The political focus has been to demonstrate that Hungary has made progress in implementing the 20 e-services benchmarked by the EU. For Hungary, the monitoring of these specific targets has been regarded as a powerful tool for implementation and followup on implementation goals.

However, a common approach to systematic and targeted monitoring and evaluation of e-government implementation does not seem to have been introduced in Hungary. This situation is not unique, as many of the more mature OECD countries have only recently begun looking into shared concepts and practices for monitoring and evaluation of e-government activities across government. However, as a result, in Hungary public sector institutions with limited experience in monitoring activities lack guidance and evaluation results are not comparable. Central government capacity to follow implementation and determine whether internal goals have been achieved is therefore limited.

In the framework of the National Statistical Data Collection Program (*Országos Statisztikai Adatgyűjtési Program – OSAP*), the Central Statistical Office (*Központi Statisztikai Hivatal – KSH*) collects ICT-related data from public institutions in central government and local governments which comply with Eurostat standards. E-government related data collected by KSH covers standard requirements to be reported to Eurostat and additional statistical information like the hardware and software usage of government institutions, their investment in ICT, their telecommunication and Internet expenditures, the bandwidth of their Internet connections, the ICT skills of employees, and the sophistication of the e-services provided.

According to EU requirements, projects under the operative programmes of the National Development Plan (*Nemzeti Fejlesztési Terv – NFT*), which are eligible for co-financing from EU Structural Funds, must be monitored during the implementation process. Because e-government projects were not the aim of the previous NFT, only limited e-government related projects implemented under the umbrella of NFT have undergone systematic monitoring and evaluation.[3]

The new NFT for the period 2007-2013 is under preparation. Preliminary versions of the new NFT[4] mention the modernisation of public administration as an important goal, together with separate operative programmes dedicated to public sector reforms. This implies that e-government projects might be covered by systematic monitoring and evaluation procedures if they are defined and initiated as part of the coming NFT.

New types of impact monitoring activities were launched in November 2005 to follow the impact of the Act on Administrative Procedures (Ket) by the former Ministry of Justice and the former Ministry of Interior. The aim is to be able to analyse the impact of the Ket on citizens, businesses and government administrations, and to determine whether the Act creates efficiency gains which can be transferred into direct cost savings in the public sector. The monitoring process is based on a survey – a questionnaire to be filled out by both users and service providers after they have completed/performed an administrative procedure. The survey is voluntary, but nevertheless the response rate has remarkably been over 80%.

The former Ministry of Interior had set up a complex monitoring system for public sector institutions to facilitate the implementation of Ket. In order to get a better understanding of the different challenges and problems with the implementation of Ket in local governments, experts were seconded to each county administration to answer Ket-related questions from the local staff through a local "hotline". Twice a month, the experts send a monitoring report to the internal Working Group in the former Ministry of Interior. When more complicated issues have been raised by the experts the Working Group elaborates answers, which are published on the website of the county administration offices.

In summary:

- Hungary has commenced systematic monitoring and evaluation of the implementation of its current e-government strategy. However, because e-government activities are conducted independently within both central government and local governments, no common concept of systematic monitoring and evaluation has yet been defined and imposed to enhance management of implementation processes. As a result, public sector institutions without sufficient evaluation experience lack guidance, and the

reported results are not comparable. Central government has therefore no means to follow implementation and determine whether internal e-government goals have been achieved.

- Incentives from the European Union have encouraged Hungary to apply monitoring and evaluation to projects connected to the National Development Plan. However, because e-government projects were not an explicit aim of the previous NFT, only limited e-government-related projects implemented under the umbrella of NFT have undergone systematic monitoring and evaluation.[5]
- The generally fragmented and *ad hoc* approach to monitoring and evaluation activities implies a need for a common public sector approach using experiences and knowledge from monitoring and evaluation activities already exercised in specific areas and for a limited number of e-government projects.

Incentives for e-government implementation

Effective implementation of e-government in a country requires that the whole public sector define a set of incentives that can drive e-government development. Some incentives have been created to promote and enforce e-government implementation in Hungary. The incentives are:

Legislative incentives cover a range of laws and regulations linked to Hungary's adaptation process to EU legislation and the incorporation into national legislation of a range of EU directives impacting e-government development (see Chapter 2). Examples are: the Act on Administrative Procedures[6] (Ket), the Act on the Protection of Personal Data and Public Access to Data of Public Interest[7] and the Act on the Freedom of Information by Electronic Means (XC/2005).[8] Legislation is considered broadly in Hungary as an incentive for implementing e-government and ensuring that the whole of government adopts policies and e-services, according to OECD interviews.

Economic incentives cover a range of possibilities for economic support to develop e-government services. In general, the National Development Plan (NFT) provides the key funding for development projects in Hungary. The implementation of NFT in Hungary is linked to the establishment of an appropriate institutional structure managing, monitoring and evaluating programme implementations. However, outside the sphere of EU funding, there are few economic incentives for public sector institutions to move e-government development forward.

It is important to note that the existing system indirectly provides incentives to agencies using traditional service delivery channels. Central funding levels are partially determined based on the number of cases agencies handle on-site, giving an advantage to organisations that meet personally with large numbers of clients.[9] This can be a deterrent to move towards e-services.

Competitions in the field of e-government implementation has yet not been developed in Hungary. Although EKK founded an E-Administration Award *(eKormányzat Díj)*, the award generally goes to public sector organisations with outstanding developments in their information systems and electronic services in line with domestic and EU strategic outlines. The winners of the first round (announced in February 2006) were the State Tax Authority for establishing the electronic tax system, the former Ministry of Interior for developing governmental and local authority electronic services, and the Education Public Co. for its information service in higher education.

Local governments' websites are assessed within the framework of the "e-go" award on a yearly basis. Winners are selected according to a series of criteria such as availability of information on local representatives and public services, tourism-related information, availability of information in foreign languages, etc.[10]

In summary, few economic incentives have been created to support e-government development in Hungary. The main problem, however, is not lack of outside incentives, but the need to convince civil servants to seek efficiency gains within their own projects in order to finance innovations. For this to occur, institutional barriers to achieving efficiency gains must be removed; for example, civil servant tenure in Hungary makes it difficult to reallocate or fire staff. However, an amendment to the Civil Service Act in summer 2006 shows that Hungary has recognised the importance of more flexible human resource policies in public administration. The introduction of performance measures for assessing the individual performance of civil servants is envisioned for 2007. Furthermore, the new government has expressed its intention to proceed to a substantive reform of public administration.

Organisational structures

The current Hungarian government has prioritised reform of the public sector, following a general development trend that can also be seen in other OECD countries. It is, however, not yet clear how the reform process will unfold in Hungary.

Central government had relatively weak organisational structures to manage, monitor and evaluate e-government development within the public sector. Even though the Prime Minister's Office showed strong political leadership, the underlying co-ordinating and implementing bodies were dispersed throughout central government and local governments with limited collaboration and opportunities to exchange experiences across organisational boundaries, sector boundaries and levels of government. This had a major impact on the capacity of the government to implement

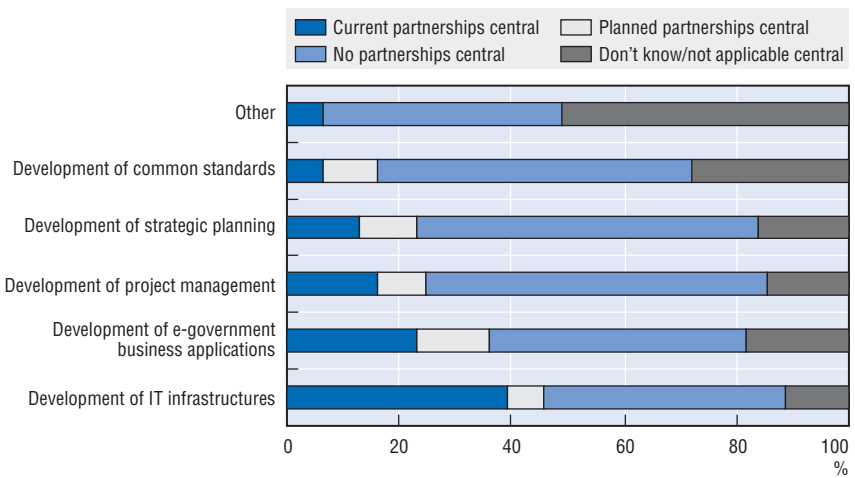
e-government projects, most of which were confined and developed within individual public organisations with limited practical collaboration and cross-fertilisation of ideas and good practices across the public sector.

More streamlined organisational structures may support collaboration and internal efficiencies within the public sector by breaking down "stove-piped" behaviour to support collaboration as a new *modus operandi* in government. In practice, this is best realised by bringing together public sector stakeholders, service providers, and programme users to enable the necessary cultural and organisational changes.

Public-private partnerships

Public-private partnerships and other collaborations with the private sector are not widespread in OECD countries, Hungary included. The OECD survey (see Figure 4.1 and 4.2) shows that opportunities exist for public-private partnerships in development of IT infrastructures, where 46%[11] of the respondents from central government and 45%[12] of the respondents from local government answered that there is a current or a planned partnership. The next largest area for public-private partnerships, according to the OECD survey, is the development of e-government business applications; 36%[13] of the respondents from central government and 24%[14] of the respondents from local government answered that there is a current or a planned partnership. It is, however, interesting that a significant number of respondents from both

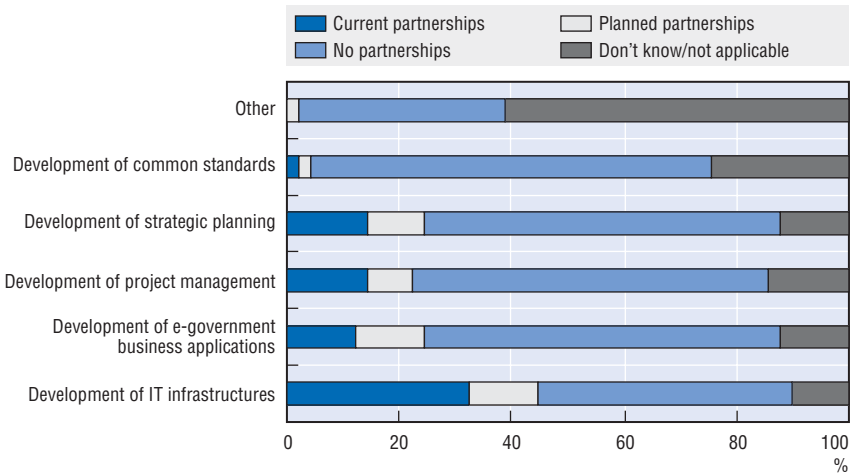
Figure 4.1. **Public-private partnerships**
Central government



Source: OECD survey on e-government in Hungary, 2006.

Figure 4.2. **Public-private partnerships**

Local government



Source: OECD survey on e-government in Hungary, 2006.

central government and local government answered that there are no partnerships with the private sector (see Figure 4.1 and 4.2).

Nevertheless, the Hungarian government seems open to learn from and/or collaborate with the private sector. An interesting example of co-operation between the public and private sectors is the establishment of an e-government centre in June 2006 in Budapest. It is the result of co-operation between the Hungarian Academy of Sciences and IBM, and offers expert advice on ICT solutions for government. The centre operates independently from market providers and also offers courses and thematic information sessions.[15]

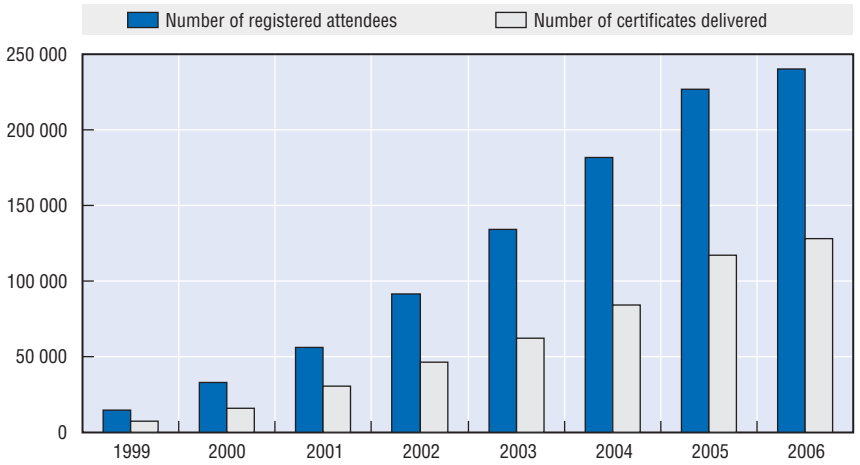
Skills and competencies

In most OECD countries, skills and competencies for e-government implementation raise challenges at all levels of government. In Hungary, the institution in charge of training civil servants is the Hungarian Institute of Public Administration. In-service training is provided by individual ministries, agencies and local governments, based on annual institutional training plans, which are part of a four-year national training programme. With regard to e-government skills and competencies, a comprehensive programme called *eCulture* has been developed by EKK and integrated into the eGovernment 2005 Strategy and Programme.[16] The aim was to provide ICT, management, co-operation and motivation training and education courses for civil servants. However, the results achieved are modest and most of the objectives have only been partially achieved.[17] In addition, the former IHM developed an e-learning

initiative[18] for civil servants to improve their basic ICT skills in response to individual interests and needs.

Many civil servants – as part of their continuous training – have taken the European Computer Driving License (ECDL) exam in order to develop their basic ICT skills and competencies. The ECDL system was introduced in 1998, and since then Hungary has been a regional testing centre for Central and Eastern Europe. The ECDL system provides students with basic ICT literacy skills, and has now become a requirement in public civil servant training and for teachers and educators at all levels. In Hungary, ECDL exams are becoming more and more popular (see Figure 4.3), even though companies in general require practical knowledge of computer and software use rather than certificates.

Figure 4.3. **Number of basic e-skills certificates (ECDL)**



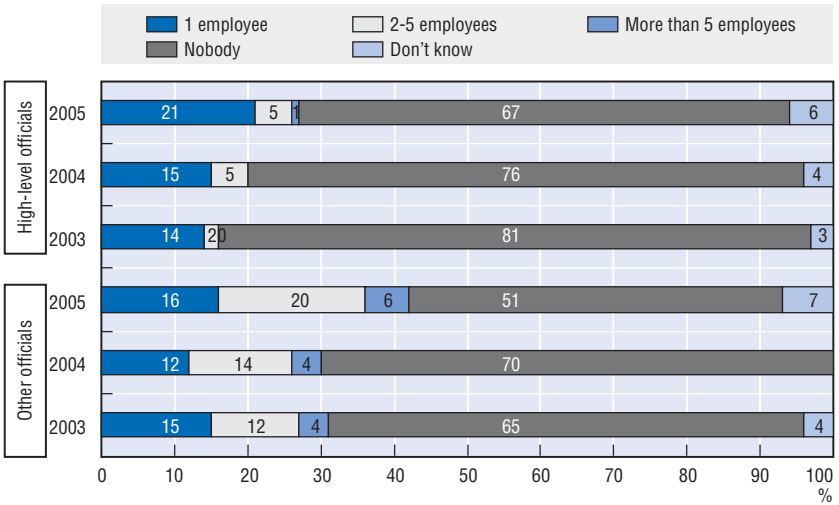
Source: Ministry of Informatics and Communications (IHM), Az információs társadalom 2002-2006,évi magyarországi fejlődéséről a Magyar Információs Társadalom Stratégia tükrében, June 2006 (The development of the Hungarian Information Society between 2002 and 2006 as mirrored by the Hungarian Information Society Strategy).

It is therefore surprising that the level of ICT skills in public sector is low, according to a recent survey.[19] In 2005, 51% of local governments had no employees with an ECDL certificate and 67% had no high-ranking officials with an ECDL certificate (see Figure 4.4).

Actual enrollment rate in ICT courses for local government employees increased moderately to 23% for high-level officials and 35% for other officials (after a decline in 2004). However, 73% and 60% of local governments answered that their high-level officials and other officials, respectively, have not attended an ICT course (see Figure 4.5). It is also significant that high-ranking

Figure 4.4. **ECDL certificates in local governments 2006 GKIeNet Survey on ICT usage: How many employees of the institution have an ECDL certificate?**

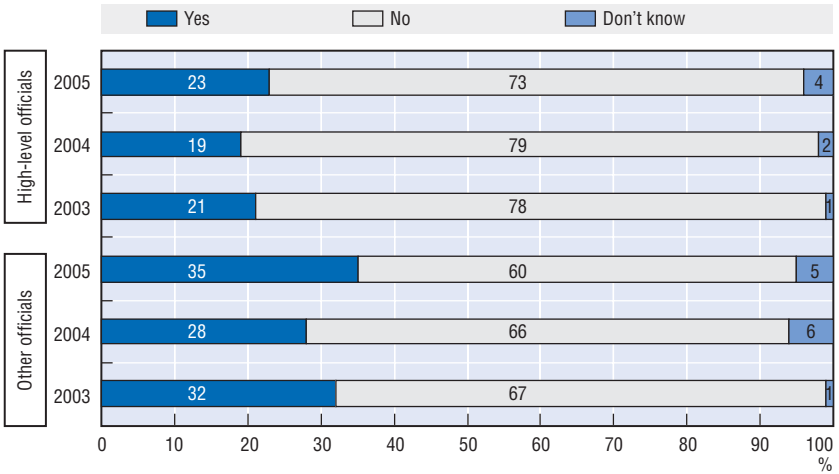
2006 GKIeNet Survey on ICT usage: How many employees of the institution have an ECDL certificate?



Source: GKIe Net Survey on ICT usage in Local Governments, in Ministry of Informatics and Communications (IHM), Az információs társadalom 2002-2006,évi magyarországi fejlődéséről a Magyar Információs Társadalom Stratégia tükrében, June 2006 (The development of the Hungarian Information Society between 2002 and 2006 as mirrored by the Hungarian Information Society Strategy).

Figure 4.5. **Training courses in local governments 2006 GKIeNet Survey on ICT usage: Has anybody in the institution attended an ICT course?**

2006 GKIeNet Survey on ICT usage: Has anybody in the institution attended an ICT course?



Source: GKIe Net Survey on ICT usage in Local Governments, in Ministry of Informatics and Communications (IHM), Az információs társadalom 2002-2006,évi magyarországi fejlődéséről a Magyar Információs Társadalom Stratégia tükrében, June 2006 (The development of the Hungarian Information Society between 2002 and 2006 as mirrored by the Hungarian Information Society Strategy).

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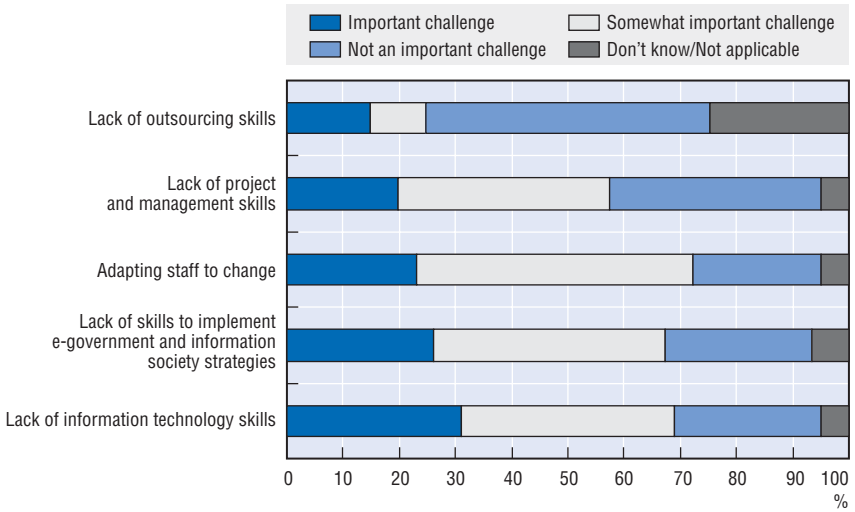
officials were less likely to have attended ICT courses or have obtained an ECDL certificate. ICT skills for civil servants remains an area for attention by Hungary.

2006 GKIeNet Survey on ICT usage: How many employees of the institution have an ECDL certificate?

There are specific areas where competencies need to be strengthened. The results of the OECD survey (see Figure 4.6 and 4.7) show that the lack of ICT skills and adapting staff to change were considered the most important skills challenges for the implementation of e-government by 72%[20] and 69%[21] of respondents from central government, respectively. This rating is equivalent to the situation in local government, where 79%[22] and 74%[23] of respondents, respectively, cited these challenges as "important" or "somewhat important". It is interesting to note that only 6% of respondents from local government found the lack of ICT skills "important" compared to 31% of respondents from central government. Both central and local government respondents cited the lack of skills to implement e-government and Information Society strategies as the second most important skills challenge (26% and 29%, respectively, answered "important"). This indicates that the government may need to increase its efforts to motivate and train staff to embrace change that results from e-government implementation.

The Hungarian government has prioritised finding a solution to skills challenges for successful e-government implementation. A major objective of

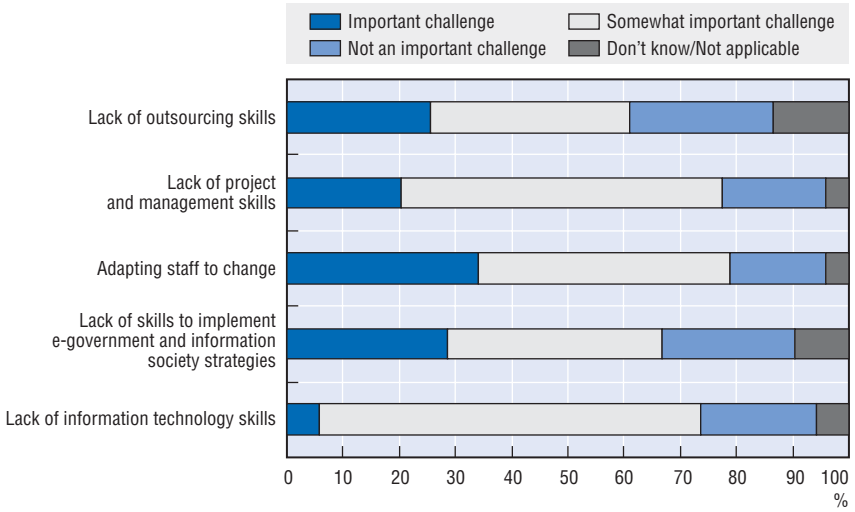
Figure 4.6. **Importance of skills challenges**
Central government



Source: OECD survey on e-government in Hungary, 2006.

Figure 4.7. **Importance of skills and challenges**

Local government



Source: OCED survey on e-government in Hungary, 2006.

the E-Government 2005 Strategy and Programme[24] is to reshape the Hungarian e-government approach. The strategy called for an analysis assessing the development and shaping of skills and competencies necessary for implementation of different operational areas of e-government. Seven governing skills were defined as essential for the new type of public governance, which calls for a government that is: 1) online; 2) efficient; 3) knowledge-based; 4) client-oriented; 5) social; 6) democratic; and 7) EU-compatible. These new abilities represent a great challenge to all organisations of the Hungarian public administration.[25]

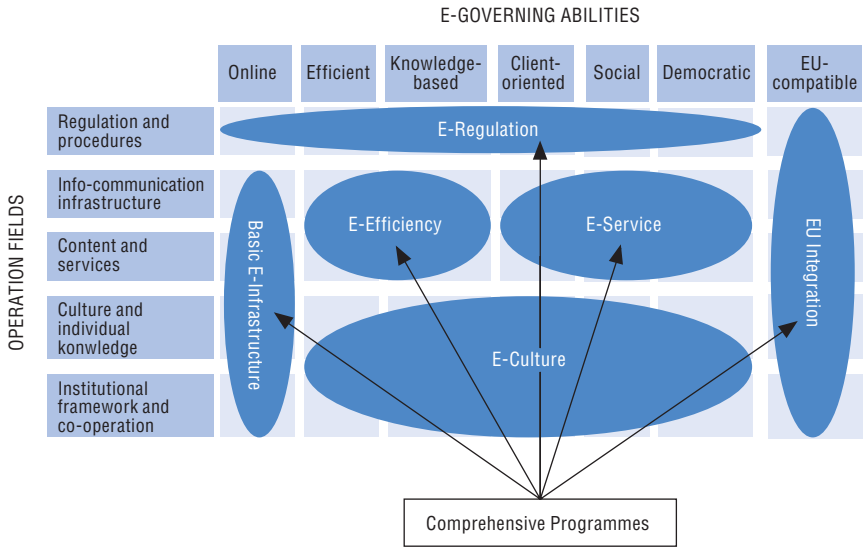
On the basis of this analysis, a competency matrix illustrating the status of skills and competencies was created. It illustrates the fields of public administration affected by the changes and skills that the government aims to develop and provides the necessary background for the development of comprehensive programmes to reach stated goals. Each programme is aimed at developing governance skills and competencies required in the public sector to provide services and to facilitate online operation (see Figure 4.8).

The OECD survey also identified other skills and competencies challenges to e-government implementation by central and local governments.

For central government, OECD survey responses show (see Figure 4.9) that external barriers such as legal barriers, budgetary barriers and the digital divide are viewed as the largest challenges to e-government implementation by 88% of respondents.[26] About 80% of respondents[27] saw security concerns as

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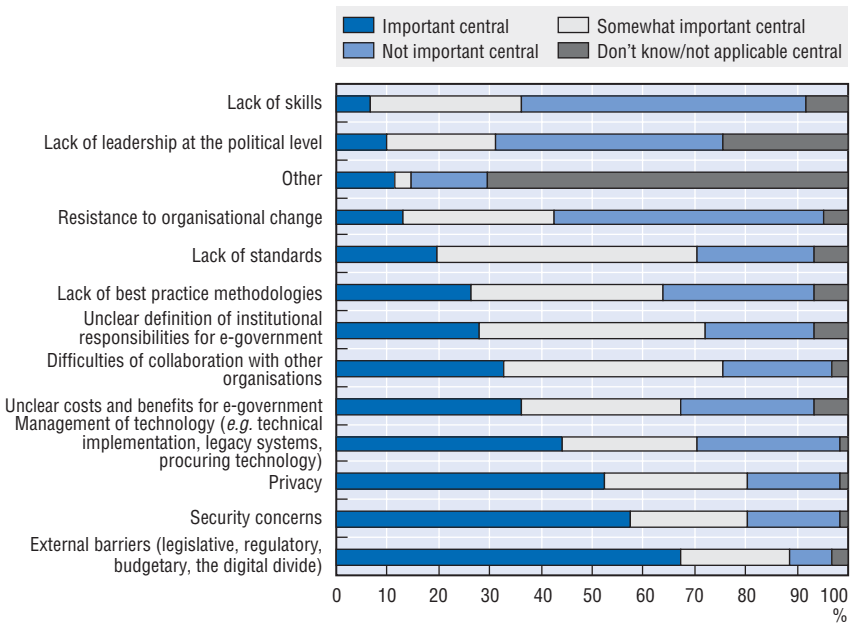
Figure 4.8. **E-government Strategy and Action Plan: Competency analysis**



Source: Electronic Government Centre of the Prime Minister's Office (EKK), E-Government 2005 Strategy and Program – Results and Progress.

Figure 4.9. **Challenges to e-government implementation**

Central government



Source: OECD survey on e-government in Hungary, 2006.

the second largest challenge to e-government implementation, and 80% of respondents[28] had concerns about privacy challenges. Significantly, central government respondents rated the lack of skills and the lack of leadership at the political level as low-level challenges (37%[29] and 31%,[30] respectively).

Almost all (98%) respondents[31] from local government (see Figure 4.10) identify external barriers, security concerns and privacy as the largest challenges for e-government implementation. It is, however, interesting to note that more local government respondents rated management of technology (55%) and lack of standards (45%) as "important" challenges compared to central government respondents (44% and 20%, respectively). The latter observation might imply a general lack of skills for implementation in local governments compared to central government. This is supported by the answers from local government respondents, where 71%[32] found lack of skills as a challenge for e-government implementation (compared to 37% of central government respondents).

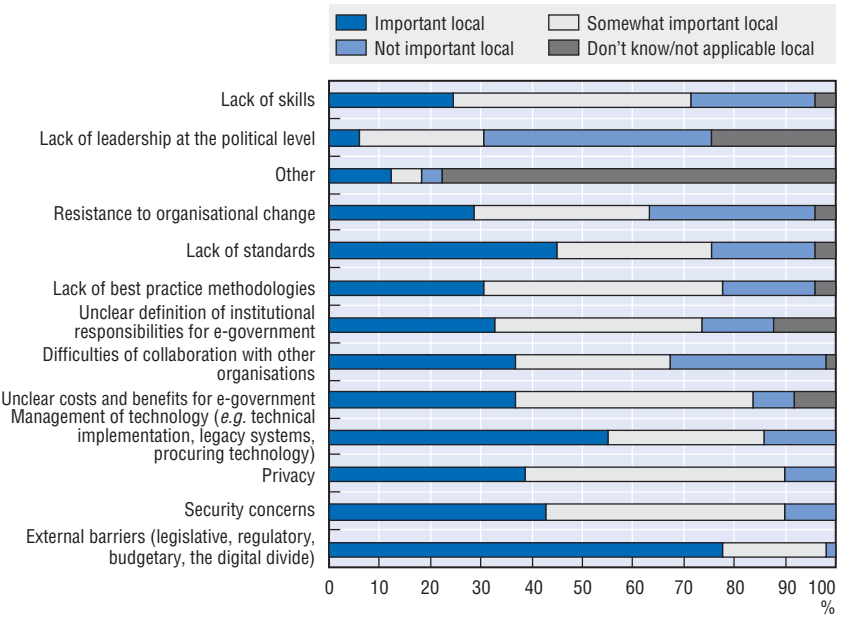
Adaptation to change seems to be one of the major challenges identified by the OECD survey results (see Figures 4.6 and 4.7). The traditional and somewhat historically bound way of working, with independent organisations engaging in limited collaboration and co-operation across organisational boundaries, is not unique to Hungary but is common to most OECD countries. Governments using e-government as a tool for transformation and public sector reform must take into account the basic challenges of organisational change. Change of behaviour and thinking among staff is not a revolutionary process but an evolutionary process, which demands basic change-management skills, competencies and experience.

E-government initiatives are most effective when business units and supporting ICT units within and across government bodies work together to identify and implement solutions that meet common priorities. Therefore, incentives must be provided that encourage co-ordination and collaboration within and across levels of government. The OECD survey (see Figures 4.11 and 4.12) shows that the main obstacles preventing collaboration with other public institutions are the lack of a technical interoperability framework (58%[33] of respondents from central government and 70%[34] of respondents from local government), lack of incentives to work together (59%[35] of respondents from central government and 76%[36] of respondents from local government) and the lack of clear instructions (59%[37] of respondents from central government and 78%[38] of respondents from local government).

The survey results demonstrate that local governments require clear instructions on what to do, and that they do not have the same strong incentives to work together as central government agencies. Habits of non-collaboration and internal resistance to change are significant at both the

Figure 4.10. **Challenges to e-government implementation**

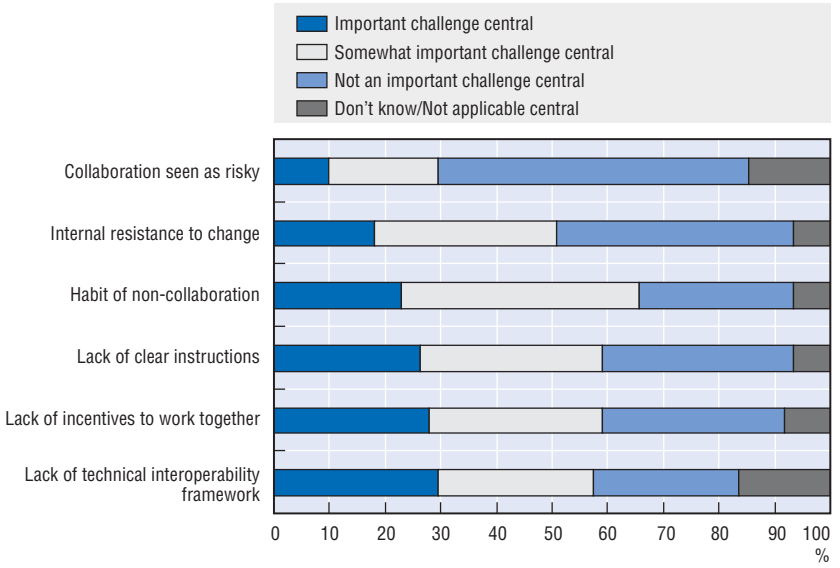
Local government



Source: OECD survey on e-government in Hungary, 2006.

Figure 4.11. **Importance of obstacles preventing collaboration**

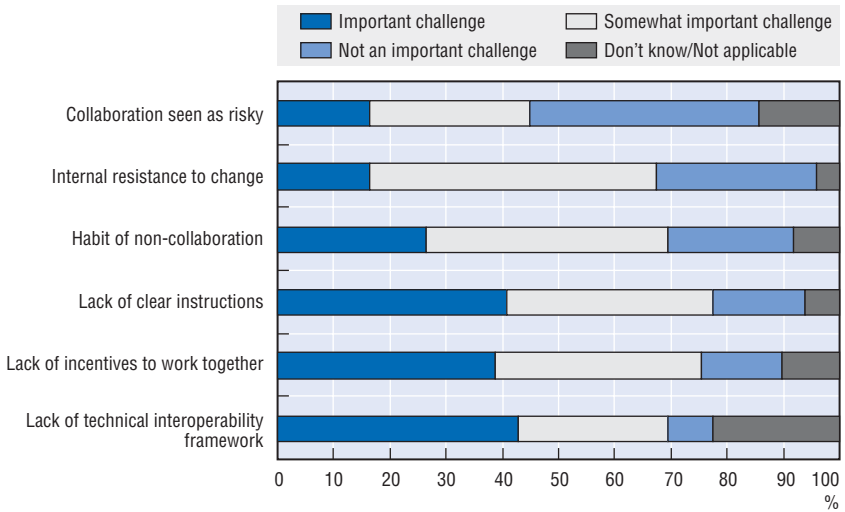
Central government



Source: OECD survey on e-government in Hungary, 2006.

Figure 4.12. **Importance of obstacles preventing collaboration**

Local government



Source: OECD survey on e-government in Hungary, 2006.

central and local levels, indicating a necessity to meet the challenge of change management to achieve an efficient and effective public sector through e-government.

Identifying obstacles to collaboration also shows how much importance has been attached to collaboration among agencies. The fact that local government respondents considered each obstacle as more important than did their counterparts from the central level emphasises local governments' need for further collaboration among themselves. The high share of "Not important at all" and "Don't know" answers marks the lack of communication on the importance of collaboration among agencies.

In summary:

- Hungary has launched a number of initiatives to close the e-government skills and competencies gap within the public sector. In co-operation with the Hungarian Institute of Public Administration, an *eCulture* programme has been launched – but with limited success. Another initiative underway is to mandate that all Hungarian civil servants take the European Computer Driving License exam in order to raise the level of computer literacy within the public sector. These initiatives are positive and will contribute, in time, to closing the gap. However, there is a need to reach these goals faster than formal courses and training sessions for civil servants will allow.

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- The E-Government Strategy and Action Plan has explicitly called for a skills and competency analysis to enable thorough planning and implementation of the Hungarian e-government action plan. This has lead to a stronger awareness of the lack of skills and competencies for e-government implementation and the need for all public sector employees to obtain these basic skills and competencies. They are especially relevant for higher-level officials.
- A number of skills and competencies challenges have been identified by the OECD survey, including building sufficient technology and project management skills and competencies for e-government implementation. The survey shows that the lack of ICT skills and skills to implement e-government and Information Society strategies, and adapting staff to change, were considered the main skill challenges for the implementation of e-government by both central and local government. A broader set of public management skills, including change management and process re-engineering, are also needed in order for e-government projects to deliver transformative results and not just more informatisation.

Notes

1. Electronic Government Centre of the Prime Minister's Office (EKK) (2004), *eKormányzat 2005 Stratégia és Programterv* (2005 E-Government Strategy and Programme), 26 January 2004, *http://misc.meh.hu/binary/6392_letoltheto_strategia_rovat_ekormaynzat_strategia.pdf*.
2. Statistical Indicators Benchmarking the Information Society (SIBIS), available at *www.sibis-eu.org/*.
3. Electronic Government Centre of the Prime Minister's Office (EKK) (2006), *Az e-Kormányzat Stratégia jövőbeni koordinálási feladatai* (Future co-ordination tasks of the e-Government Strategy), 31 March 2006.
4. *Új Magyarország Nemzeti Fejlesztési Terv* (New Hungary National Development Plan), available at *www.nfh.hu/index.nfh?r=&v=&l=&p=umfttartalom*.
5. Electronic Government Centre of the Prime Minister's Office (EKK) (2006), *Az e-Kormányzat Stratégia jövőbeni koordinálási feladatai* (Future co-ordination tasks of the e-Government Strategy), 31 March 2006.
6. Parliament (2004), *A közigazgatási hatósági eljárás és szolgáltatás általános szabályairól szóló törvény* (Act on the General Rules of Public Administration Procedures and Services).
7. Parliament (1992), *A személyes adatok védelméről és a közérdekű adatok nyilvánosságáról szóló törvény* (Act on the Protection of Personal Data and Public Access to Data of Public Interest), Act LXIII/1992.
8. Parliament (2005), *Az elektronikus információ szabadságról szóló törvény* (Act on the Freedom of Information by Electronic Means), XC/2005.
9. Electronic Government Centre of the Prime Minister's Office (EKK) (2006), *Az e-Kormányzat Stratégia jövőbeni koordinálási feladatai*, 31 March 2006, p. 30.

10. *Települési Önkormányzatok Országos Szövetsége* (TOOSZ) (Association of Local Governments website) website (2006), accessed 31 July 2006, *http://toosz.webalap.hu/*.
11. 39% of respondents answered "current partnership", and 7% cited a "planned partnership" with the private sector.
12. 33% of respondents answered "current partnership", and 12% cited a "planned partnership" with the private sector.
13. 23% of respondents answered "current partnership", and 13% cited a "planned partnership" with the private sector.
14. 12% of respondents answered "current partnership", and 12% cited a "planned partnership" with the private sector.
15. IT.news (2006), *E-kormányzati központot nyitott az IBM és a SZTAKI* (IBM and SZTAKI have opened a new e-government centre), accessed 10 August 2006, *http://it.news.hu/c.php?mod=10&id=19412*.
16. Electronic Government Centre of the Prime Minister's Office (EKK) (2004), *eKormányzat 2005 Stratégia és Programterv* (2005 E-Government Strategy and Programme), 26 January 2004, p. 48, *http://misc.meh.hu/binary/6392_letoltheto_strategia_rovat_ekormaynzat_strategia.pdf*.
17. Gellén, M. (2006), *E-Government in Hungary Efforts, results and opportunities, 2001-2007,* published by Századvég Foundation, Budapest, *www.szazadveg.hu/image/gellen.pdf*.
18. A description of this initiative is available at *www.szelessav.hu/coedu/index.html*.
19. *GKIe NET Az önkormányzati szektor ICT technológiákkal való ellátottsága* (Survey on ICT usage in Local Governments), May 2006.
20. 23% of respondents answered "important", and 49% answered "somewhat important".
21. 31% of respondents answered "important", and 38% answered "somewhat important".
22. 34% of respondents answered "important", and 45% answered "somewhat important".
23. 6% of respondents answered "important", and 68% answered "somewhat important".
24. Electronic Government Centre of the Prime Minister's Office (EKK) (2004), *eKormányzat 2005 Stratégia és Programterv* (2005 E-Government Strategy and Programme), 26 January 2004, *http://misc.meh.hu/binary/6392_letoltheto_strategia_rovat_ekormaynzat_strategia.pdf*.
25. Electronic Government Centre of the Prime Minister's Office (EKK) (2006), *E-Government 2005 Strategy and Program – Results and progress*, May 2006.
26. 67% and 21%, respectively, viewed external barriers as "important" or "somewhat important".
27. 57% and 23%, respectively, viewed security concerns as "important" or "somewhat important".
28. 52% and 28%, respectively, viewed privacy as "important" or "somewhat important".

29. 7% and 30%, respectively, viewed lack of skills as “important” or “somewhat important”.
30. 10% and 21%, respectively, viewed lack of leadership at the political level as “important” or “somewhat important”.
31. 78% and 20%, respectively, viewed external barriers as “important” or “somewhat important”.
32. 24% and 47%, respectively, viewed lack of skills as “important” or “somewhat important”.
33. 30% and 28%, respectively, viewed obstacles preventing collaboration as an “important challenge” or a “somewhat important challenge”.
34. 43% and 27%, respectively, viewed on obstacles preventing collaboration as an “important challenge” or a “somewhat important challenge”.
35. 28% and 31%, respectively, viewed obstacles preventing collaboration as an “important challenge” or a “somewhat important challenge”.
36. 39% and 37%, respectively, viewed obstacles preventing collaboration as an “important challenge” or a “somewhat important challenge”.
37. 23% and 43%, respectively, viewed obstacles preventing collaboration as an “important challenge” or a “somewhat important challenge”.
38. 27% and 43%, respectively, viewed obstacles preventing collaboration as an “important challenge” or a “somewhat important challenge”.

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Chapter 5

Collaboration Frameworks

Assessment(s)	Proposal(s) for Action
• The central government has established a Central Electronic Service System – consisting of the Electronic Government Network, the Government Portal, the Client Gate, and the Government Customer Information Centre – to support e-service delivery from central government in line with what other countries, such as the UK, have done. This basic e-government infrastructure concept is now slowly being extended and offered to local governments to use in providing their own e-services to citizens and businesses. • Hungary needs to extend this concept to develop other basic "building blocks", such as common registers and data networks, that can be used over and over again as the foundation of an enterprise architecture and interoperability standards. The Hungarian government has recognised the importance of greater interoperability and interconnectivity. The programme of the new government set up in June 2006 includes a firm intention to implement common business processes to centralise certain background functions of central public administration such as IT, payroll, bookkeeping, tendering and management. Most collaboration frameworks covering common business processes, data standards, enterprise architecture, interconnectivity and multi-channel strategies, however, are still in the planning stages or are under development. • The current E-Government Strategy and Action Plan includes the need to develop data standards and common data structure definitions to ensure standardised electronic access to public authority data. The MEKIK project – the Hungarian Electronic Public Administration Interoperability Framework – placed responsibility on the former Ministry of Informatics and Telecommunications to provide data standards, workflow mechanisms and legal regulations in compliance with EU expectations mandating that all member states have an interoperable "one-window administration" solution, but delivery of this guidance has experienced repeated delays.	• As part of the announced public sector reform, Hungary should implement collaboration frameworks focusing on: ❖ Establishing a service registry, including general definitions of public sector products and services in Hungary. ❖ Establishing common public sector data standards and meta-data standards that can ensure that the whole public sector uses the same data definitions and data structures. The first step is to deliver regulations under the MEKIK project, but this also involves stakeholder consultation, building support from users of such data, and taking into account international standards such as the European Interoperability Framework (EIF). ❖ Developing enterprise architectures beyond the planning stages. It is unclear how current plans are interlinked or co-ordinated; a common public sector enterprise architecture is needed to provide the public sector with a shared understanding of the organisational, structural and technical "design" of how e-government services should be developed in order to support interconnectivity and interoperability across organisational boundaries and levels of government, including at the European level. ❖ Expanding the framework of the Central Electronic Service System, developed by central government for use by local governments, to provide a basic e-government infrastructure with some generic services in order to encourage local governments to adapt existing generic services instead of developing their own. ❖ Establishing a shared services centre that can focus implementation capacity to develop, run and maintain selected services used by the whole public sector on behalf of the whole public sector. ❖ Establishing a framework for a common public sector approach to multi-channel strategies providing guidelines and "good practices" on multi-channel service delivery and channel management strategies. Such a framework would also help in identifying synergies with e-business and e-commerce solutions – for example through shared use of the Client Gate – in support of the development of the Information Society in Hungary.

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Establishing collaboration frameworks for e-government development is a major challenge in all OECD countries. Collaborative and networked work processes are new, and governments have few tested experiences to draw from. However, collaboration is necessary for the achievement of some of the important results that governments are seeking through e-government. This chapter examines collaboration on e-government, especially through co-ordination efforts and development of common frameworks to support collaborative action.

The Hungarian government has adopted a user-focused approach to e-services provision, with the launch of transactional services[1] and the development of a national portal[2] that provides a seamless interface for citizens and businesses. Common services such as income tax forms, birth and marriage certificates, passports and driving licenses are currently available on line. Multi-channel access to some public services has been developed through the integration of telephone, fax, e-mail, SMS, Internet and in-person service delivery to improve the overall service level to citizens and businesses.

Despite the considerable progress to date, OECD interviews revealed a strong need for cross-sector initiatives to develop data/system interoperability and coherence of e-government services within and across the public sector. The vision of common e-government frameworks and shared services seems to be limited across sectors and levels of government. The transformation to a fully user-focused government is not possible without common business processes and data standards, a common public sector enterprise architecture, interoperability and interconnectivity between systems and applications, and multi-channel strategies in place to facilitate the transition.

This chapter explores the collaboration frameworks in place in Hungary, looking into the different approaches developed for common business processes, data standards, enterprise architecture, interconnectivity, and multi-channel strategies.

Common business processes

A number of OECD countries have begun to systematically analyse common public sector business processes in order to identify common work processes and functions that can be shared among several or all public sector

institutions. Common business processes include public procurement processes, HR functions, budgeting and accounting processes and functions, and the development and maintenance of portals and websites. Standardising such processes and functions and maintaining them within a shared service centre – a growing trend in OECD countries – can be of great benefit.

Hungary has not yet taken up the challenge of identifying and implementing common public sector business processes, and has not yet considered whether common public sector approaches to e-government development could be of benefit to the public sector as a whole.

Nevertheless, the government set up in June 2006 has identified a firm intention to implement common business processes: "In order to achieve a more cost efficient use of public funds, and in order to ensure the more efficient and more transparent spending of those, we shall centralise certain background functions of central public administration (public procurement, tendering, bookkeeping, payroll functions, IT, customer service, human resources, management, operations, travel and protocol functions)."[3]

Data standards

Use and reuse of public sector data and information to be shared across organisational boundaries and levels of government requires commonly agreed definitions of data and data structures. In order to realise the full potential of e-government investments to harvest efficiency gains, Hungary must enable public authorities to share collected information stored in public databases and to use it in advanced e-government systems. Use and reuse of standardised public data and databases are pre-requisites for public sector provision of fully interoperable and seamless services to citizens and businesses. Therefore, agreement across the public sector as a whole on common definitions of data standards is needed to ensure compatibility and interoperability of e-government applications.

The current E-Government Strategy and Action Plan[4] cites the need to develop data standards and common data structure definitions to ensure standardised electronic access to public authority data; the E-efficiency Comprehensive Programme has been designed to address this challenge. The lack of an approved common interoperability framework has slowed the development of fully interoperable e-service solutions, leaving each public institution to develop its own *ad hoc* data standards to enable private vendors or internal ICT staff to develop stand-alone e-services. This is by no means an optimal or efficient way of securing proper seamless e-government services – efforts towards building such frameworks have been initiated.

The current E-Government Strategy and Action Plan mentioned procurement as an action area, with the aim of setting up an e-procurement

system for central government.[5] This goal has not yet been reached.[6] Guidelines have been developed for: *i*) classification of products and services that can be registered in an electronic product and services catalogue; *ii*) description of data structure; *iii*) registration and qualification of products; and *iv*) registration by product group of vendors qualified in the public e-procurement system.[7]

Under the same programme, the NORMA project (launched in May 2004) established standards for a centralised electronic public procurement system based on the European Article Numbering of key products. By the end of January 2005, NORMA had developed 42 product groups within nine product areas (info-communication, information technology, office equipment, furniture, paper, vehicles, fuel, travel arrangements, health) in collaboration with a number of experts from central government and external stakeholders.

Enterprise architecture

The notion of a common public sector "grand design" – an enterprise architecture defining a corporate, technical and organisational e-government foundation – has not yet evolved into government blue prints for the whole public sector to follow. OECD interviews revealed that enterprise architectures exist primarily in the planning stages. It is not clear how these plans are interlinked or co-ordinated, and whether they are confined to certain areas of the public sector. This is, however, not unique to Hungary; only a few OECD countries have developed, implemented and mandated a common public sector enterprise architecture for the whole public sector. Nevertheless, an enterprise architecture is a key tool for ensuring that different e-government components fit into a common structure that improves the possibility of interoperability of e-government services across organisational boundaries and levels of government.

Hungary has launched several initiatives through its E-Government Strategy and Action Plan[8] to develop common interoperable standards, data models and communication schemas, but implementation has not taken place yet.

The MEKIK project – the Hungarian Electronic Public Administration Interoperability Framework – placed responsibility on the former Ministry of Informatics and Telecommunications to provide data standards, workflow mechanisms and legal regulations to comply with EU expectations mandating that all member states have an interoperable "one-window administration" solution, but delivery of this guidance has experienced repeated delays.

An advisory group of Hungarian experts guided the MEKIK project to explore interoperability problems, adopting knowledge and experience from EU programmes like IDAbc[9] on issues including accessibility, multilingualism,

ICT security, protection of private data, and use of open standards and open source applications. The experts involved in the project also examined solutions and standards from other countries including the United Kingdom, Sweden, Germany, France, Denmark and Australia. The project made recommendations on data and message structures for wider use among public sector institutions and a range of technical concepts and standards.[10]

Interconnectivity

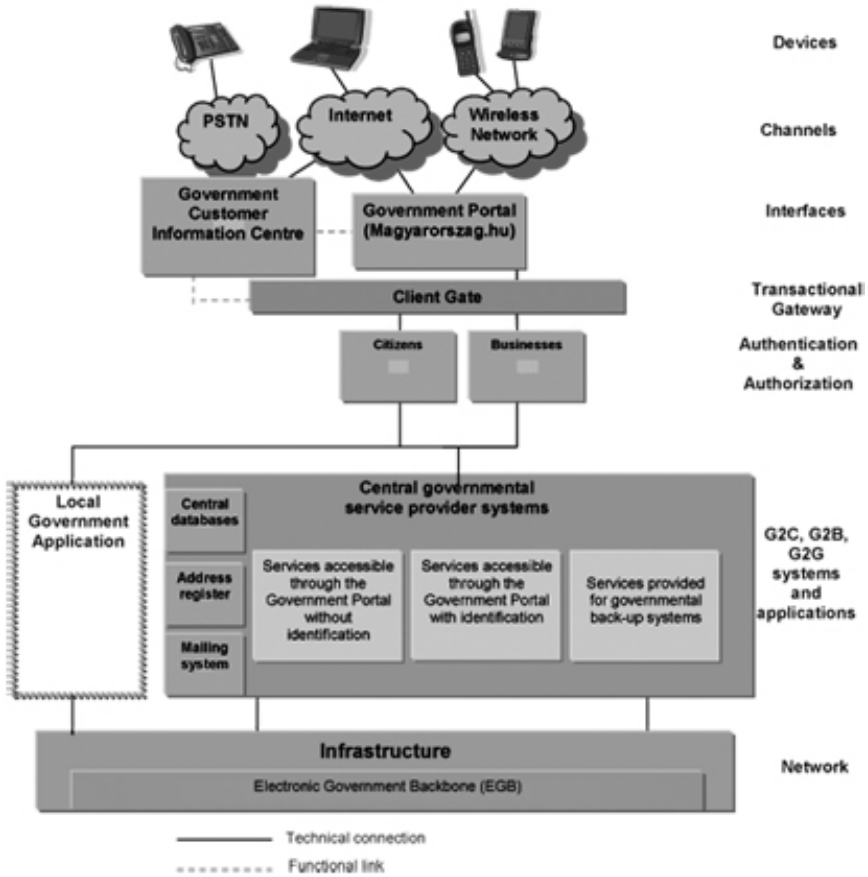
The Hungarian e-government strategy focuses on integrating service provision to citizens and business. This is to be realised through a one-stop-shop service delivery solution interconnecting government bodies.

Currently, due to the lack of a proper back-office organisation and structure, Hungary's e-government services provided by different agencies are in general weakly interconnected and interoperable. However, building the Central Electronic Service System (*Központi Elektronikus Szolgáltató Rendszer*) as an overarching framework for interconnectivity across central government infrastructure is a major step towards ensuring whole-of-government interconnectivity. For e-government services the Central Electronic Service System secures the infrastructure (Government Backbone), the interface (Government Portal), user authentication (Client Gate – *Ügyfélkapu*), information and orientation (Government Customer Information Centre – KÜK) and accessibility to the services on the Government Portal via the Client Gate (see Figure 5.1). The Central Electronic Service System was established to support e-service delivery from central government in line with efforts in other countries, such as the UK. This basic e-government infrastructure concept is now slowly being extended and offered to local governments to use in providing their own e-services to citizens and businesses.

In more detail, the building blocks of the Central Electronic Service System are as follows:

- **Electronic Government Backbone (*Elektronikus Kormányzati Gerinchálózat – EKG*):** The Electronic Government Backbone provides secure broadband data and voice connection, Internet access and other value-added telecommunication services to the governmental institutions (For further details, see Chapter 6).
- **The Government Portal (*www.magyarorszag.hu*):** The Government Portal has been designed as an information interface for citizens and business, as well as a common entrance to e-services provided by public authorities (see Box 5.2).
- **The Client Gate (*Ügyfélkapu*):** The Client Gate is a so-called transactional gateway where users can securely identify themselves in order to gain

Figure 5.1. **Central Electronic Service System**



Source: OECD based on ICA COUNTRY REPORT Hungary, 39th ICA Conference, 13-15 September 2005, Salzburg.

access to transactional e-government services. It has been operational since April 2005 (see Figure 5.1).

- **Government Customer Information Centre (*Kormányzati Ügyféltájékoztató Központ – KÜK*):** The Government Customer Information Centre provides citizens and businesses with assistance in finding information in the public sector or contacting the proper public authority to solve a specific problem (see Box 5.1).

Box 5.1. **Government Customer Information Centre (KÜK)**

The Government Customer Information Centre (KÜK) was set up as part of the Central Electronic Service System, defined by Act CXL/2004 on the general regulation of public administration procedures and services (Ket) to provide information on administration to citizens, businesses and other organisations. The centre's objective is to provide assistance through various channels of access (telephone, fax, e-mail, SMS or Internet). In cases of specific problems, the centre will identify the person or unit able to resolve the issue, and also measure citizens' and businesses' satisfaction with the performance of government.

It is a user-friendly solution, automatically directing citizens to the best place to solve their problems. The centre is staffed by experienced civil servants who can quickly and efficiently provide citizens and businesses with proper information to help them find their way through public administrative procedures.

Source: Electronic Government Centre of the Prime Minister's Office (EKK), *Tájékoztató a Központi Ügyféltájékoztató Központról*, (Information on the Government Customer Contact Centre),accessed July 2006, *http://misc.meh.hu/binary/7531_kukpr.ppt#1*.

Multi-channel strategies

The Hungarian government has begun to work on a multi-channel service delivery strategy[11] for the public sector that focuses on e-government as tool to improve multi-channel delivery management for all types of services regardless of how they are delivered. A user can therefore look up information about a government service on the Internet, contact a call centre with specific questions, and go into a governmental office for a final transaction, all based on seamless access to a common set of data.

With 93.4% mobile penetration – compared to 22% Internet accessibility – Hungary has the possibility to expand multi-channel services though the delivery of public service on wireless devices, referred to as *m-government*. The government has already made some services available through mobile phones like parking fine payment, notification of school exam results, applications for public facility usage, and vehicle history reports. Many of these services charge fees. At the local level, governments are trying to introduce m-government in their public administration procedures, but the services developed are mainly informational. Currently, few examples of m-government services exist at the local level.[12]

Box 5.2. **The Government Portal – *www.magyarorszag.hu***

Hungary's e-government portal was launched in September 2003 to replace the former *eKormanyzat.hu* (eGovernment.hu). The aim was to build a single-entry online service capacity, where citizens and businesses could administer their central or local government-related affairs. This vision of delivering information and services corresponds with the concept of "one-stop shops" described in the E-Government Strategy and Action Plan 2005.

The portal has been extended to include a number of services and functions, such as the Virtual Document Office (*Virtuális Okmányiroda – XR*),* which provides access to administrative transactions such as changing an address or obtaining private entrepreneur licenses, birth certificates, driver's licenses, parking passes and car registrations.

The Government Portal now serves as the electronic information gateway to the central government, operating as both an institutional portal and a service platform. The Governmental Portal's information services offer an opportunity to improve communication among public authorities, citizens and businesses. It is also used as an online forum, organised on a regular basis with the participation of public figures, and has become very popular for public debate.

Today, all central government bodies have a presence on the Internet. As a result of the website standardisation project initiated in 2004, the Government Portal, in addition to offering a collection of government Internet addresses, now directly accesses these 46 government websites.

The portal features explanations related to administrative transactions (procedural steps, documentation required, etc.), and the forms required for these process are continuously available and may be filled out and forwarded electronically. As of 31 May 2006 descriptions of more than 1 000 public administration cases were found on the portal and more than 2 000 types of documents were downloadable. The portal has significantly shortened the time required for administrative transactions, allowing users to book appointments through the Internet for a growing number of records offices.

As opposed to the three services provided through the portal in 2003 (searching property, companies and vehicles), there were 264 information or search functions related to public services available in May 2006, including change-of-address notification, and driving license and birth certificate requests. (See Chapter 6 for additional information about the availability, sophistication and use of online government services.)

Since December 2005, the searchable Collection of Effective Laws has been a popular service on the portal. Since May 2006, visitors to the portal have been able to fix date via Internet for visiting document offices, and about 400 administrative cases can be settled electronically.

The portal is an important platform for e-democracy. In the framework of its online forum, high-ranking government officials are able to answer citizen questions in real time.

* Also called Internet Public Administration Service System or Virtual Records Office.

Source: The Governmental Portal (*www.magyarorszag.hu*) and Kopint-Datorg zRt.

At the strategic level, EKK has had a multi-directional approach to the use of mobile technologies in the delivery of online public services. In particular, the agency has been looking into the use of mobile devices to:

- Allow users to use digital signatures via their mobile phones.
- Develop e-payment services accessible via mobile phones.
- Develop two-way interactive m-government services.

So far, the types of service delivery channels involved in the Central Electronic Service System range from traditional channels such as telephone or fax to electronically enabled channels ("e-channels") such as e-mail, SMS messaging and Internet. The development of different delivery channels is, however, still in an early stage. EKK's activity has been limited to guiding and co-ordinating public institutions' use of different delivery channels to improve and facilitate the overall user experience in accessing public services.

Notes

1. According to the latest Report of Capgemini on Online Availability of Public Services prepared for the European Commission (published in June 2006), 50% of the 20 e-government services benchmarked by the EU are fully available in Hungary (For details see Chapter 6).
2. Hungarian Government Portal (2006), accessed 31 July 2006, *www.magyarorszag.hu/angol*.
3. Hungarian Government (2006), New Hungary, Freedom and Solidarity – The Programme of the Government of the Republic of Hungary for a Successful, Modern and Just Hungary, 2006-2010, p. 11, *http://misc.magyarorszag.hu/binary/7838_kormanyprogram2006_vegl_engl.pdf*.
4. Electronic Government Centre of the Prime Minister's Office (EKK) (2004), eKormányzat 2005 Stratégia és Programterv (2005 E-Government Strategy and Programme), 26 January 2004, – E-kormányzati irányelvek akció (E-government guidelines action) p. 58, *http://misc.meh.hu/binary/6392_letoltheto_strategia_rovat_ekormaynzat_strategia.pdf*.
5. Electronic Government Centre of the Prime Minister's Office (EKK) (2004), eKormányzat 2005 Stratégia és Programterv (2005 E-Government Strategy and Programme), 26 January 2004, pp. 33, 46 and 61, *http://misc.meh.hu/binary/6392_letoltheto_ strategia_rovat_ekormaynzat_strategia.pdf*.
6. Electronic Government Centre of the Prime Minister's Office (EKK) (2006), Összefoglaló a kormányzati informatika és az elektronikus kormányzás terén végzett tevékenységekről és eredményekről (2002. július – 2006. május) (Summary on the activities and results in the field of governmental informatics and e-governance July 2002-May 2006), p. 25.
7. KSZF Kozbeszerzési portal (2006), accessed 10 August 2006, *http://kszfweb.econet.hu/Default.aspx*.
8. Electronic Government Centre of the Prime Minister's Office (EKK) (2004), *eKormányzat 2005 Stratégia és Programterv* (2005 E-Government Strategy and

Programme), 26 January 2004, p. 58, *http://misc.meh.hu/binary/6392_letoltheto_strategia_rovat_ekormaynzat_strategia.pdf*.

9. Interoperable Delivery of eGovernment Services to Public Administrations, Businesses and Citizens.

10. Proceedings of the 38th Hawaii International Conference on System Sciences (2005), *Electronic Government and Public Administration in Hungary, available at http://csdl2.computer.org/persagen/DLAbsToc.jsp?resourcePath=/dl/proceedings/&toc=comp/proceedings/hicss/2005/2268/05/2268toc.xml&DOI=10.1109/HICSS.2005.228*.

11. Electronic Government Centre of the Prime Minister's Office (EKK) (2004), *eKormányzat 2005 Stratégia és Programterv* (2005 E-Government Strategy and Programme), 26 January 2004, pp. 35 and 58, *http://misc.meh.hu/binary/6392_letoltheto_strategia_rovat_ekormaynzat_strategia.pdf*.

12. Tózsa, I. and B. B. Budai (2006), *Electronic Government in Hungary*, Corvinus University of Budapest, Budapest, January 2006, available at *www.govnet.co.uk/mobilegov/hungary.pdf*.

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Chapter 6

Outputs and Outcomes

Assessment(s)	Proposal(s) for Action
Government-to-citizen e-services	
• Hungary has delivered a number of e-services to citizens as part of the prioritised 20 e-services benchmarked by the EU, and has also undertaken efforts to widen its portfolio of e-services beyond these measures. As the services are quite new, user take-up of services remains low. Meeting EU benchmarks, rather than user demand, has been the main driver for electronic service development.	• To further build up user take-up of e-government services, Hungary should consider a new strategic approach to e-government development which involves identifying and responding to user needs in addition to benchmarking against average EU performance. This will require a focus on identifying internal and external outcome objectives rather than simply meeting output targets. This approach should be guided by regular surveys on users' demands, preferences, and levels of satisfaction, beginning with existing consultation tools such as the eGames component of the government portal. Broader marketing of e-services and technical assistance in user centres (*e.g.* Tele-Cottages and eHungary Points) should also be considered.
• However, the increase in user take-up of specific e-government services through the Client Gate, with its common e-authentication solution, may indicate that users find these e-services valuable. The Client Gate has drawn about 150 000 registered users since its launch in April 2005. The Client Gate allows users to access a wide variety of transactional services such as corporation taxes and VAT declaration, declaration and notification of income taxes, personal appointment requests with document offices, drivers license services, car registration services, request and delivery of certificates (birth, marriage), and change-of-address announcements for citizens.	• The rapid user take-up of the Client Gate demonstrates that easy-to-use, well-integrated and relevant transactional services can motivate the population to use the e-services provided by the public sector. Based on user surveys and consultation, the government should identify those services that can be further developed (*i.e.* made into online transactions) to deepen electronic service delivery and increase value for users and the government.
Government-to-business e-services	
• Hungary has delivered a number of e-services to businesses as part of the prioritised 20 e-services benchmarked by the EU. Following a general OECD trend, business e-service take-up has been high relative to citizens' use of e-services. Mandatory usage of some e-service solutions – in particular electronic tax filing – has helped promote business take-up, and demonstrates how e-government benefits can be realised by "pushing" targeted populations with good Internet access to use electronic services.	• A focused effort to get businesses on line and make them interact (on a mandatory or voluntary basis) with government may further increase take-up of services among businesses. For example, the development of public e-procurement can both increase transparency in the public procurement process and promote access to Hungarian businesses. This strategy could be complemented by a broader initiative on e-business – that is, the integration and use of ICT to make companies' work processes and production more effective and efficient – and ICT enabling Hungarian businesses. Shared use of services such as the Client Gate for e-business and e-government services will increase the volume of transactions and user familiarity, with resulting benefits for both government and business.

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Assessment(s)	Proposal(s) for Action
Government-to-government e-services	
• The new government programme includes initiatives to provide centralised horizontal services within central government in areas such as human resources and accounting, but Hungary is only beginning to explore the possibilities and benefits of sharing common services, processes and resources.	• Systematically identifying and developing generic services provided centrally for all public sector institutions may be a good business case for the public sector as a whole, including local government. Hungary should therefore consider which services could be delivered in a more cost-efficient manner for the whole government, the feasibility of developing such services, and the risks associated with rolling out such services across central government and at other levels of government.

For several years, Hungary has focused on delivering the 20 e-services benchmarked by the EU. This has led to the delivery of a number of e-services for citizens and businesses within specific sectors, and many services have been put on line quickly. The focus, however, has been on meeting national political goals driven by Hungary's top-prioritised EU accession process. Like Hungary, a number of EU and OECD countries have only within recent years begun to focus on a more user-focused approach to developing e-government services. This has often led to a rethinking of strategies and goals in order to better enable the implementation of principles like "deliver data once, use many times" and "seamless services" supporting integrated and coherent services across the public sector. A relatively late-comer in the field of e-government, Hungary has had the opportunity to begin the development of e-services with a user-focused attitude.

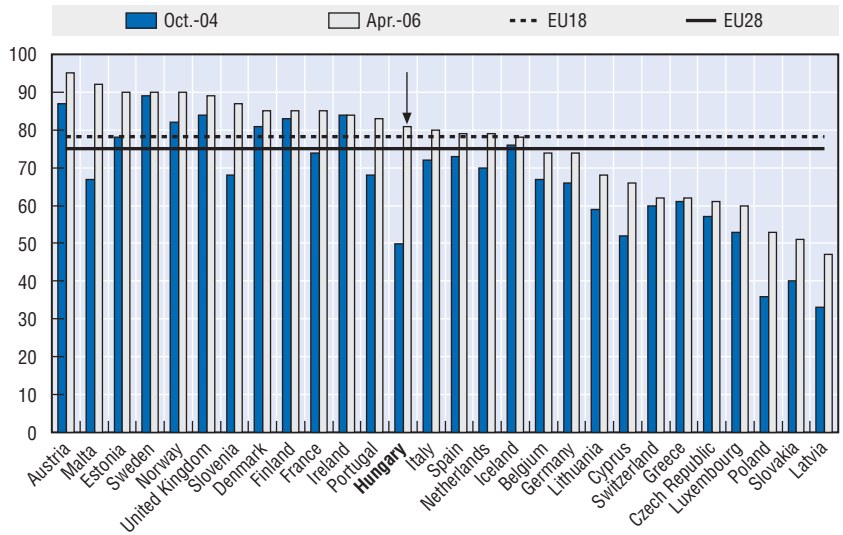
Hungary's efforts to show progress in the EU-benchmarked 20 e-services has paid off. The latest benchmarking study, released in June 2006, shows that Hungary has significantly improved its overall position since 2004. It has moved from the second quartile to the third quartile in online sophistication of e-services, and from the first quartile to the second quartile regarding share of e-services fully available on line, as shown by Figure 6.1 and Figure 6.2.

According to these benchmarks, Hungary has managed to rise above the EU28[1] average for both online sophistication and percentage services available online. The improved performance in the EU benchmarks is clearly shown in Figure 6.3, which shows a significant increase in online sophistication from 2004 to 2006. Hungary is now above the EU28 average (75%) and EU10 average (69%), with a total rating of 81% in 2006. In terms of full online availability of e-services, Figure 6.4 shows a significant increase from 2004 to 2006, with a total rating of 50% – above the EU28 average (48%) and EU10 average (42%).

The impact of a steady political focus on improving performance in the e-services benchmarked by the EU has paid off, and recent efforts have aimed to widen Hungary's portfolio of e-services beyond the 20 e-services benchmarked by the EU.

This chapter will discuss the outputs and outcomes of Hungarian e-government development in terms of government-to-citizen, government-to-business, and government-to-government e-services.

Figure 6.1. **Country results – online sophistication**[1]



1. In order to measure the *eEurope 2002* indicator "availability of public services online", a four-stage framework has been defined. Stage 1 – Information: The information necessary to begin the procedure to obtain a public service is available on line. Stage 2 – One-way Interaction: A publicly accessible website offers the possibility to download the paper form to start the procedure to obtain a service. An electronic form to order a non-electronic form is also considered Stage 2. Stage 3 – Two-Way Interaction: A publicly accessible website offers the possibility of electronic intake through an official electronic form to start the procedure to obtain a service. This implies that there must be a form of authentication of the person (physical or juridical) requesting the services. Stage 4 – Full Electronic Case Handling: A publicly accessible website offers the possibility to completely treat the public service on line, including decision and delivery. No other formal procedure is necessary for the applicant via "paperwork". Additionally, Stage 0 was introduced to capture two possible research outcomes: Total absence of any publicly accessible website managed by the service provider, and the public service provider has a publicly accessible website, but it does not offer any relevant information, interaction, two-way interaction or transaction possibilities at all for the analysed service. European Commission Directorate General for Information Society and Media: "Online Availability of Public Services: How is Europe Progressing?", p 7.

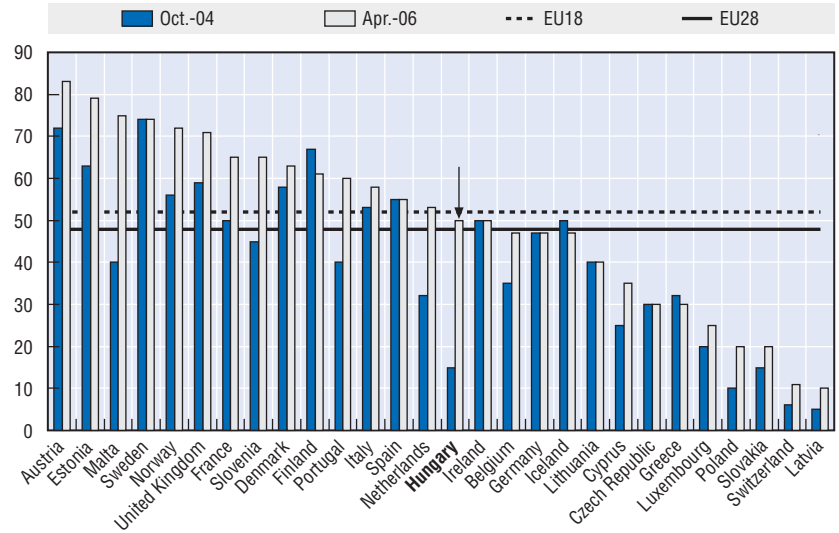
Source: Online Availability of Public Services: How is Europe Progressing?, Report of the Fifth Measurement, June 2006, prepared by Capgemini for the European Commission.

Government-to-citizen e-services

Hungary has delivered a number of e-services to citizens as part of the prioritised 20 e-services benchmarked by the EU, a major focus on the political level. As the services are quite new, user take-up remains low. Meeting EU benchchmarks, rather than user demand, seems to be the main driver for electronic service development.

The limited attention to customer surveys (21%) and electronic feedback mechanisms (20%), as shown by OECD survey responses (see Figure 6.5), supports the impression that user demands have not been a priority in e-government development. Most respondents (30%) answered that their

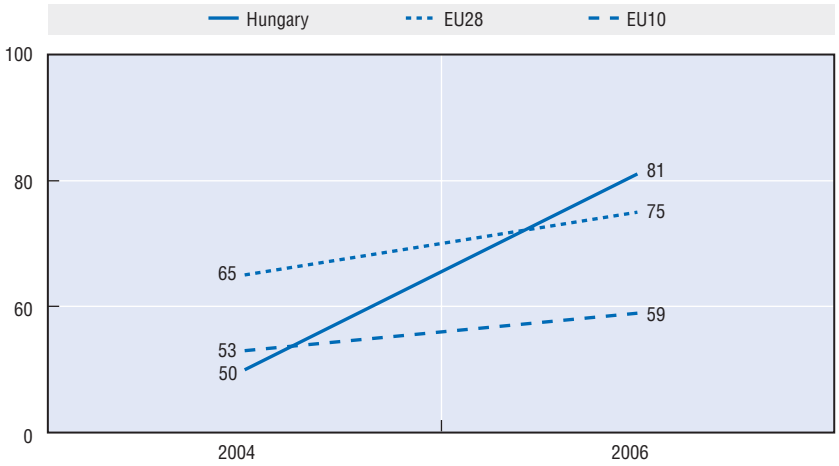
Figure 6.2. **Country results – full availability of online services**[1]



1. A publicly accessible website offers the possibility to completely treat the public service on line, including decision and delivery. No other formal procedure is necessary for the applicant via "paperwork". European Commission Directorate General for Information Society and Media: "Online Availability of Public Services: How is Europe Progressing?", p 7.

Source: Online Availability of Public Services: How is Europe Progressing? Report of the Fifth Measurement, June 2006, prepared by Capgemini for the European Commission.

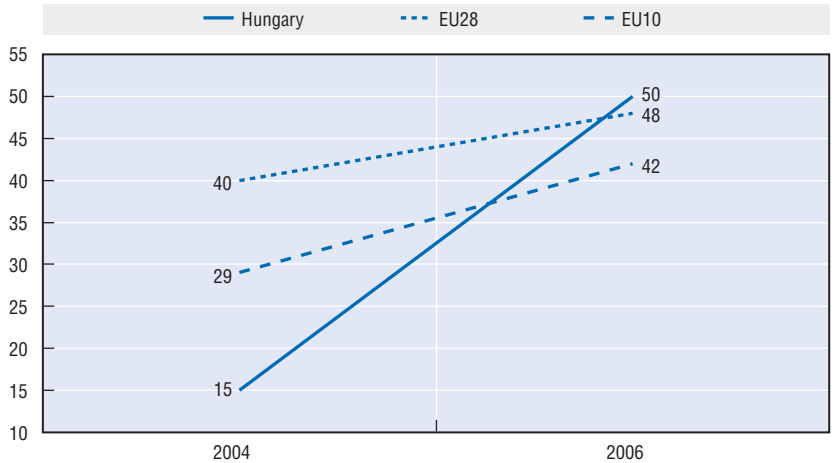
Figure 6.3. **Overall results – online sophistication**



Source: Online Availability of Public Services: How is Europe Progressing?, Report of the Fifth Measurement, June 2006, prepared by Capgemini for the European Commission.

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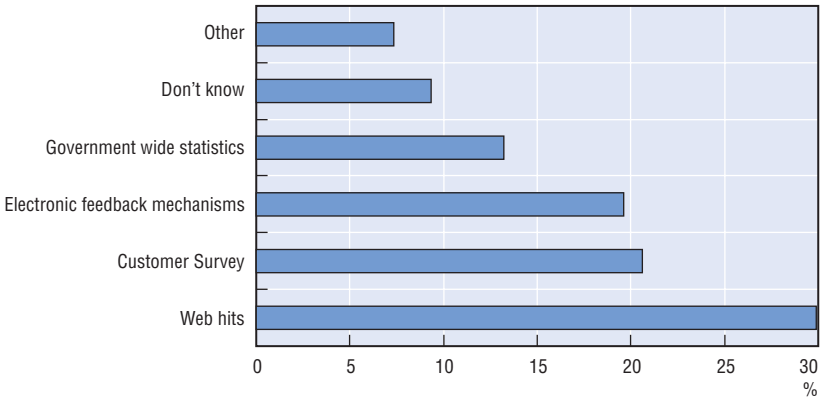
Figure 6.4. **Overall results – full online availability**



Source: Online Availability of Public Services: How is Europe Progressing? Report of the Fifth Measurement, June 2006, prepared by Capgemini for the European Commission.

Figure 6.5. **Demand for online services**

All levels of government

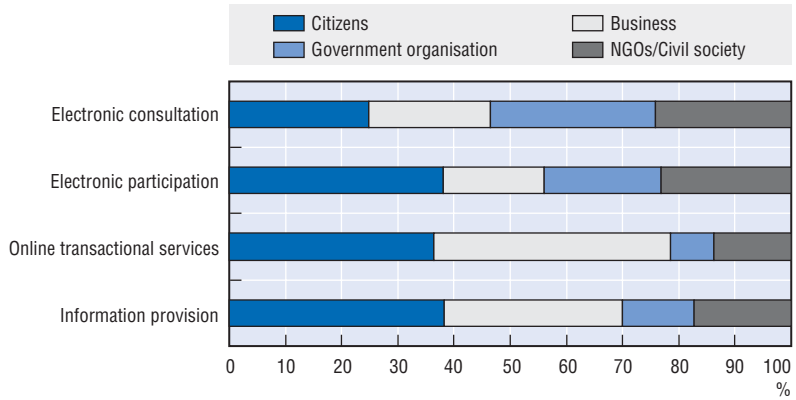


Source: OECD survey on e-government in Hungary, 2006.

organisations determine user demand for online services only by looking at the number of hits on their website.

The OECD survey (see Figure 6.6) shows that 78%[2] of respondents believe that users want online transactional services followed by 70%[3] of the respondents, who thought users want information provision services. Respondents further believe that the largest demand for transactional online electronic services comes from businesses (42%). The potential for developing

Figure 6.6. **User demands for different types of online services**



Source: OECD survey on e-government in Hungary, 2006.

an inclusive government is reflected in the fact that a significant percentage of respondents (29%) see government organisations demanding electronic consultation services.

In terms of one-way electronic interaction services, significant progress has been made since 2004 in the development of services for both citizens and businesses. During 2005, the development of advanced interactive online services was relatively rapid, mainly because implementation of the services was mandatory. Although many services have been developed and put in place, few evaluations have been performed to measure their impacts and benefits.

Table 6.1 lists the basic public services for citizens identified by the European Commission in 2001; they are used to assess the level of online availability/sophistication in the EU benchmark studies published each year by the European Commission. The table shows the current stages of the services compared to the maximum stage for each service.

According to the benchmarks in Table 6.1, declaration of income taxes, declarations to the police in case of theft, and enrollment in higher education are the most sophisticated public services available online for citizens; each reached 100% maturity. In addition, a number of e-services provided by the Virtual Document Office (*Virtuális Okmányiroda – XR*)[4] (see Chapter 5) such as birth and marriage certificates and change-of-address announcements are fully available on line for those who have registered via the Client Gate (see Chapter 5, Figure 5.1). In contrast to the overall progress made by other EU countries, Hungary is at the lower end of online sophistication in the areas of social benefits (particularly regarding student grants).[5]

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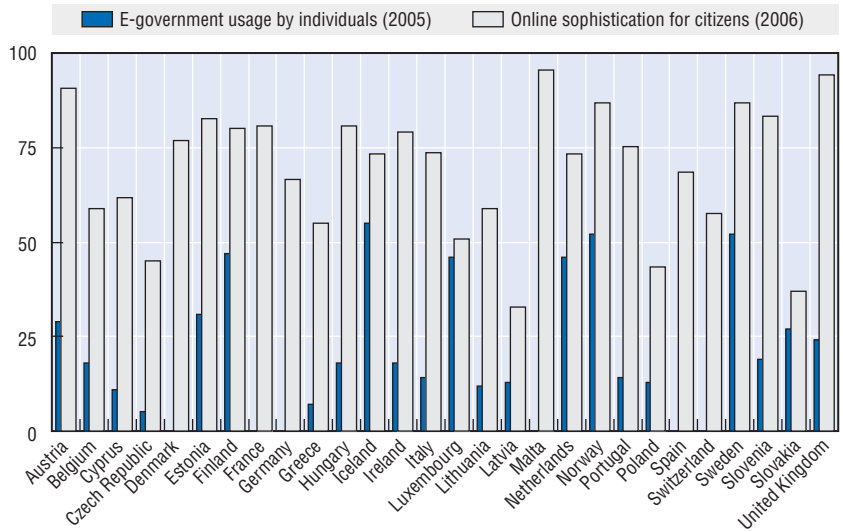
Table 6.1. **Availability and sophistication of e-services for citizens**

Services	Responsibility	Stage
Income taxes (declaration, notification of assessment)	Tax and Financial Control Administration, Ministry of Finance	4/4
Job search services by labour offices	Ministry of Employment and Labour	2/3
Social security benefits – Unemployment benefits	National Employment Service, Ministry of Employment and Labour	2/4
Social security benefits – Family allowances	National Health Insurance Fund and Ministry of Health, Social and Family Affairs	2/4
Social security benefits – Medical costs (reimbursement or direct settlement)	National Health Insurance Fund	2/4
Social security benefits – Student grants	Ministry of Education	2/4
Passport services	Ministry of Interior, Central Office	2/3
Driving license services	Ministry of Economy and Transport	2/3
Car registration (new, used and imported cars)	Ministry of Interior and Ministry of Economy and Transport	3/4
Application for building/planning permission	Municipalities	2/4
Declarations to the police (*e.g.* in case of theft)	Ministry of Interior and Hungarian Police	4/4
Public libraries (availability of catalogues and search tools)	National Széchenyi Library and Ministry of Cultural Heritage	2/3
Certificates (birth, marriage): Requests and delivery	Ministry of Interior	3/3
Enrollment in higher education/university	Universities and National Office for the Enrolment in Higher Education, Ministry of Education	4/4
Announcement of moving (change of address)	Ministry of Interior	2/3
Health-related services (interactive advice on the availability of services in different hospitals, appointments for hospitals)	Ministry of Health, Social and Family Affairs	2/4

For each service, the sophistication stage reached is indicated, with reference to the maximum stage possible for the service. The sophistication stage is specified only when clearly identifiable.
Stage 1: Information: online information about public services.
Stage 2: Interaction: downloading of forms.
Stage 3: Two-way interaction: processing of forms, including authentication.
Stage 4: Transaction: full case handling, decision and delivery (payment).
Source: OECD. Based on the study on Online Availability of Public Services: How is Europe Progressing?, Report of the Fifth Measurement, June 2006, prepared by Capgemini for the European Commission.

Despite the maturity of e-services, Hungary (like most OECD countries) is suffering from lagging user take-up of e-services for citizens. Figure 6.7 compares different European countries' supply and use of online services. Delivering services on line is not a guarantee of user take-up, leaving governments in a dilemma concerning the increasing focus on benefits realisation of e-government investments. It is, however, significant that Hungary offers a large number of online services but has a very low user take-up rate; this implies again that focusing on putting services online is not sufficient to ensure proper take-up. Other parameters must be taken into account, including the challenges identified in Chapter 2.

Figure 6.7. **Comparisons between supply and use of online public services for citizens, 2005-2006**



Source: Capgemini report (2006), Online Availability of Public Services: How is Europe Progressing? (June 2006), Fig. 17.

Even though general user take-up of e-services is low, Hungary has recently seen significant user interest in the "Client Gate" – a transactional gateway to the Hungarian government. A rapidly growing number of citizens and businesses seem to find the "Client Gate" relevant and useful (see Box 6.1).

Like most OECD countries, Hungary has established a government portal to make it easier for citizens and businesses to find and access government information, and find relevant e-services offered by different public authorities (see Box 6.2). All public authorities are obliged by law to put information on line by 1 January 2007, so the Government Portal's role as the key entry point to the public sector for citizens and businesses will further increase.

One of the applications offered on the government portal is a participatory tool to improve public engagement in government issues eGames – the eGovernment Assessment, Measuring and Evaluation System – enables citizens to actively participate in online discussions on social, political and economic issues, proposals for decisions etc. (see Box 6.3). Implementation of eGames was a challenge, as the online interaction had to be defined carefully to balance data protection, freedom of expression and the moderation of online contributions. Politicians and high-level public sector

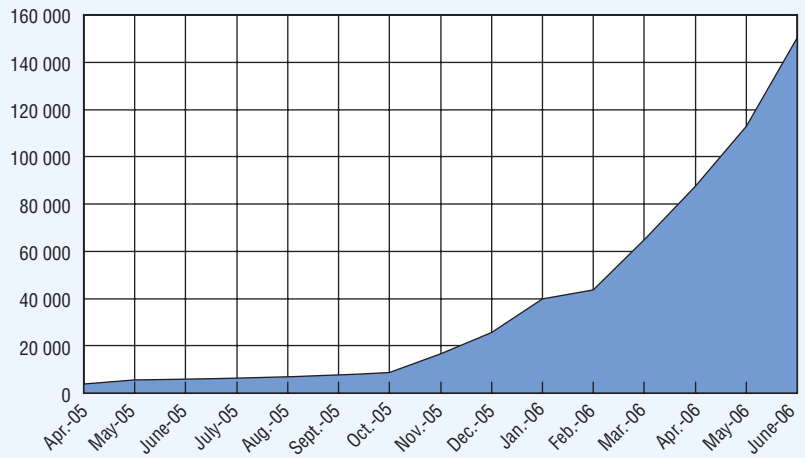
Box 6.1. **User take-up: The Client Gate**

In many cases, online services require personal identification. Authentication is often specific to each service, requiring users to re-enter their details for each new transaction or service; as a result, users have several different user identification numbers or names and multiple passwords. While progress is being made in standardising the citizen enrollment process, access to personalised government services can still be complex.

The transactional gateway, the Client Gate, was launched in April 2005 and is accessible via the e-government portal (*www.magyarorszag.hu*). It allows users to securely identify themselves on line and gain access to transactional e-government services such as corporation taxes and VAT declaration, declaration and notification of income taxes, personal appointment requests to document offices, driving license services, car registration services, request and delivery of certificates (birth, marriage), and change-of-address announcements for citizens. The authenticated registration can be requested personally at a document office or acquired with the help of an electronic signature. Central government institutions are obliged to link to the Client Gate authentication system, while local governments have the choice to whether or not integrate their local e-services with the Client Gate.

The number of Client Gate users has increased significantly since its launch in April 2005, to reach a total of 150 147 users at the end of June 2006, shown in the figure below.

Number of persons registered at the Client Gate (end of month), 2005-2006

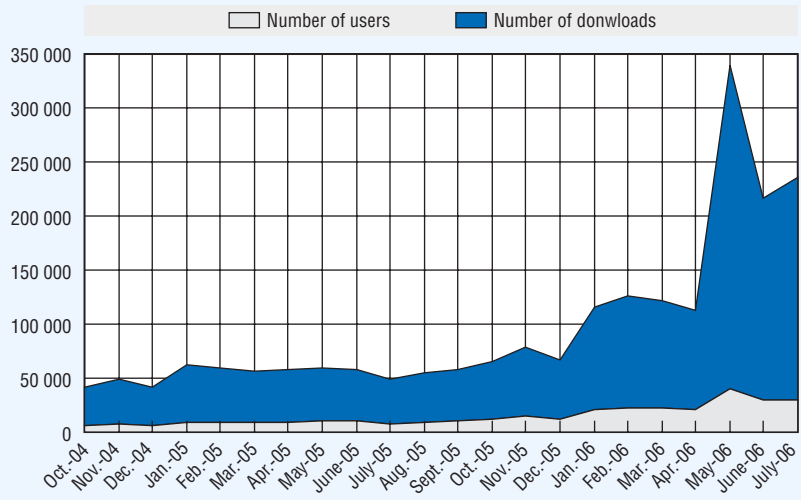


Source: Kopint-Datorg zRt.

Box 6.2. **User take-up: The Government Portal, *www.magyarorszag.hu***

A web engine run by an independent market research institute regularly assesses the number of users of the e-government portal. The numbers are sharply increasing. Between October 2004 and July 2006, the number of users and the number of downloads per day have increased 419% and 475%, respectively. Users mostly access the e-government portal to learn about administrative procedures. Other services with high take-up are the news section and the law query.

Number of downloaded pages and visitors per day (monthly average)



Source: Kopint-Datorg zRt.

representatives are regularly invited to chat with citizens on different topics. Users evaluate the responses during these online "office hours" as well as other contributions through points.

So far, user satisfaction surveys have not been carried out in a regular and systematic manner in Hungary. However, the latest government programme adopted in 2006 lays the foundation for user satisfaction surveys.

E-service provision by local governments to citizens is not a part of the current EU benchmarking; nevertheless, some interesting examples of e-government development can be found. The *Ferencváros electronic portal* is an online resource developed by the 9th District of Budapest in 2002. The portal

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Box 6.3. *eGAMES*

An online forum (*Párbeszéd rovat*) available through eGAMES (eGovernment Assessment, Measuring and Evaluation System) enables online communication and interaction among citizens and between citizens and the public sector. eGames is a tool to improve public participation in and discussion of government issues. To use the forum, citizens are required to register at the Client Gate. Each user has the right to open a topic on any subject considered as interesting for the public. In order to implement a well-functioning service, the following rules have been defined.

- Users must identify themselves with their real names, reinforcing the forum's character as a form of participatory government. Every user is legally responsible for the content of his/ her contributions.
- Users can assess each other's comments with positive and negative points, providing a value judgment on every user's participation. The aggregated number of points draws a picture of public opinion.
- Apart from mutual value judgments, the number of contributions on each topic of the forum leads to a popularity index.
- Although they cannot contribute points to the opinions expressed, public administration representatives are among eGAMES users.
- Any external/official moderation of contributions takes place publicly on line.

eGames can be considered as a mirror of society. By monitoring user comments, government leaders and politicians can learn what issues are important to citizens who express their opinion publicly under their own names, determine main streams of opinions on different topics, and determine how opinion leaders (forum members who have been given more than the average points) assess different situations.

* Hungarian Government Portal (2006b), eGames, accessed 31 July 2006, *www.magyarorszag.hu/parbeszed_egames.html*.

succeeded in putting a number of services on line, including promoting the use of e-signatures (see Box 6.4).

Another example of local-level e-government initiatives is the e-government initiative of Szeged – the first city to introduce the possibility of accessing local e-government services via the Client Gate. After registering at the Client Gate, citizens or businesses are able to access local services as well as those offered by the central government or government agencies (*e.g.* the tax authority).[6]

Box 6.4. *Ferencváros electronic portal*: The 9th District of Budapest

In 2002, the 9th District of Budapest began e-government development in an effort to implement a complex electronic administration; these efforts including the creation of the e-government portal, *www.ferencvaros.hu*.

Today, the portal includes a number of e-services. Citizens can electronically administer some of their own cases with the local authorities, *e.g.* filing claims for parking allowances, acknowledging building tax, verifying income tax data, and filing claims for acknowledgement of no-tax-debt status. Visitors to the website can track changes in legal regulations, receive assistance with electronic administration, and proceed to e-filing. Information about security infrastructures supporting digital signatures is also available. The government of the 9th District plans to increase the number of services available online.

In order to promote the use of digital signatures, the local government offered free digital signatures to the first 100 citizen applicants.

In more general terms, it seems that especially cities and cities with county rank have successfully faced the challenges of e-government. Special attention should be paid to the smallest local communities with less than 1 000 inhabitants, as they constitute more than half of all local communities and are measurably lagging behind in terms of e-government development.

In summary:

- Hungary has delivered a number of e-services to citizens as part of the prioritised 20 e-services benchmarked by the EU and has also undertaken efforts to widen its portfolio of e-services beyond these measures. Nevertheless, user take-up of the provided e-services has been low, and development has mainly been to meet EU requirements, with less of a user-focused approach to e-government development.
- Despite the low user take-up of e-services, recent user take-up of specific e-government services offered by central government has been significant – the Client Gate, with its common e-authentication concept, has experienced an increase of registered users to about 150 000 since its launch in April 2005.
- Even though few local government e-services solutions have surfaced, some examples exist such as the *Ferencváros electronic portal* of the 9th District of Budapest.

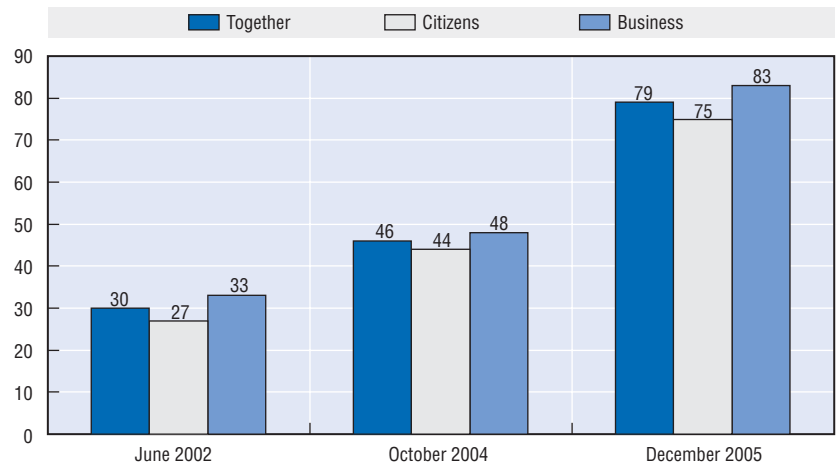
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Government-to-business e-services

Hungary has delivered a number of e-services to businesses as part of the implementation of the 20 e-services benchmarked by the EU. In general, the benchmarking shows that the maturity and sophistication level of e-services for businesses is higher than those for citizens.

Figure 6.8 shows the level of sophistication of e-services for citizens and businesses. Between 2004 and 2005, the level of sophistication of e-services for businesses has improved more than the level of sophistication of e-services for citizens (35 points *versus* 31 points), confirming the general trend observed in many OECD countries that e-services for businesses often are more mature than those for citizens.

Figure 6.8. **Sophistication of e-services for citizens and businesses in Hungary**



Source: Kopint-Datorg, Összefoglaló tanulmány az EU által meghatározot e-kormányzati szolgáltatások monitoringjáról (Summary on the monitoring of e-government services benchmarked by the EU), December 2005, Budapest.

Tax-related services – such as the declaration of corporate tax, VAT collection, registration of a new company, and submission of data to statistical offices – are the most sophisticated e-services available for businesses, reaching the level of 100% maturity (see Table 6.2).

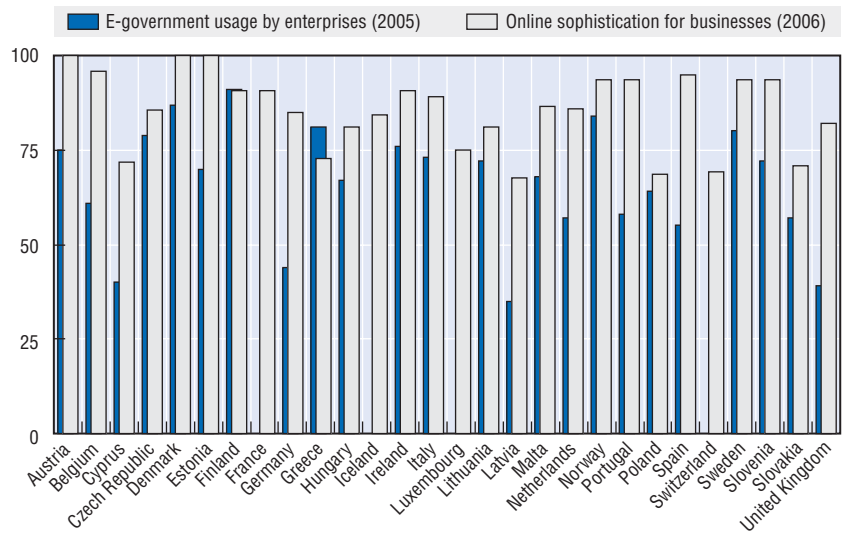
In comparison with Figure 6.7 showing a significant gap between the supply of online services to citizens and the take-up of services, Figure 6.8 shows a completely different picture for take-up of e-services by businesses. The gap between the supply of e-services and the take-up of services by businesses is significantly smaller, in line with what can be seen in many other EU member states.

Table 6.2. **Availability and sophistication of e-services for businesses**

Services	Responsibility	Level
Social contributions for employees	Central government: Retirement Insurance Directorate General, Ministry of Finance	2/4
Corporation taxes – declaration, notification	*Tax and Financial Control Administration, Ministry of Finance*	4/4
VAT – declaration, notification	*Tax and Financial Control Administration, Ministry of Finance*	4/4
Registration of a new company	Ministry of Justice	4/4
Submission of data to statistical offices	Central Statistical Office	4/4
Customs declarations	Ministry of Environment and Water, National Superintendence for Environment Protection and Water, and assigned Inspectorates for Environmental Protection	3/4
Environmentally related permits (including reporting)	Ministry of Environment and Water, National Superintendence for Environment Protection and Water, and assigned Inspectorates for Environmental Protection	3/4
Public procurement	Prime Minister's Office	2/4

For each service, the sophistication stage reached is indicated, with reference to the maximum stage possible for the service. The sophistication stage is specified only when clearly identifiable.
Stage 1: Information: online information about public services.
Stage 2: Interaction: downloading of forms.
Stage 3: Two-way interaction: processing of forms, including authentication.
Stage 4: Transaction: full case handling, decision and delivery (payment).
Source: OECD. Based on the study on Online Availability of Public Services, Report of the Fifth Measurement, June 2006, prepared by Capgemini for the European Commission.

Figure 6.9. **Comparisons between supply and use of online public services for businesses, 2005-2006**



Source: Capgemini report (2006), Online Availability of Public Services: How is Europe Progressing? (June 2006), Fig. 18.

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An example of a high-volume e-service benefiting businesses is the Hungarian e-taxation solution. Use of the very popular semi-electronic tax case handling by businesses increased by 100% between 2004 and 2005, while the total number of tax declarations increased about 67% in the same period.[7] (See Box 6.5).

In terms of the front-office, the main weakness of the current e-taxation system is the lack of an online payment concept that needs to be launched on

Box 6.5. **E-taxation for businesses**

The Hungarian Tax Authority (APEH) has been a pioneer of transactional e-services. *E-taxation* was introduced in October 2002 and the government originally intended to require the top 500 corporate taxpayers to submit their tax return declarations on line. In 2004, the online obligation was enlarged to cover the largest 3 000 taxpayers. In 2005 the online obligation was again enlarged to cover the 10 000 largest taxpayers, who account for more than 70% of tax revenue.[1] Smaller businesses still have a choice between the on line and off-line services. The Hungarian government is pursuing its objective to extend online services to all employers in Hungary by 31 January 2007.[2] Mandatory usage of electronic tax filing has helped promote business take-up in Hungary, and demonstrates how e-government benefits can be realised by "pushing" targeted populations with good Internet access to use electronic services.

The online filing system, eBEV, became fully electronic in 2005, allowing forms to be downloaded, filed and sent to APEH on line and tax returns to be submitted electronically using digital signatures. Furthermore, since April 2005, citizens can also benefit from e-filing via the Client Gate[3] once they have registered for a password and a username in person.[4]

According to APEH, the enlarged eBEV circle represents less than 1% of Hungarian taxpayers but more than half of the net money circulation. In addition to 9 920 corporations, the circle now comprises 80 individual entrepreneurs, representing 2.5% of the total tax output of the country's 460 000 individual entrepreneurs. It is expected that the extension of the eBEV circle will reduce the number of tax-related forms to be filed by traditional paper-based methods by 350 000 in 2006 (companies fill out a number of forms each month in Hungary). The process automation also reduces the amount of corrections needed.

1. Futó, I. (2006), *Elektronikus adózás, IX. Országos Neumann Kongresszu* (Electronic taxation, IX. Neumann Congress), Budapest.
2. This covers 1.2 million employers and 4.5 million employees.
3. Electronic Government Centre of the Prime Minister's Office (EKK) (2006a), *Az e-Kormányzat Stratégia jövőbeni koordinálási feladata* (Future Co-ordination tasks of e-government strategy), 31 March 2006.
4. Futó, I. (2006), *Elektronikus adózás, IX. Országos Neumann Kongresszu* (Electronic taxation, IX. Neumann Congress), Budapest.

a top down basis and in close co-operation with commercial banks.[8] The Hungarian Tax Authority (APEH) intends to implement the possibility to correct files online to further facilitate their e-tax solution.[9]

In summary:

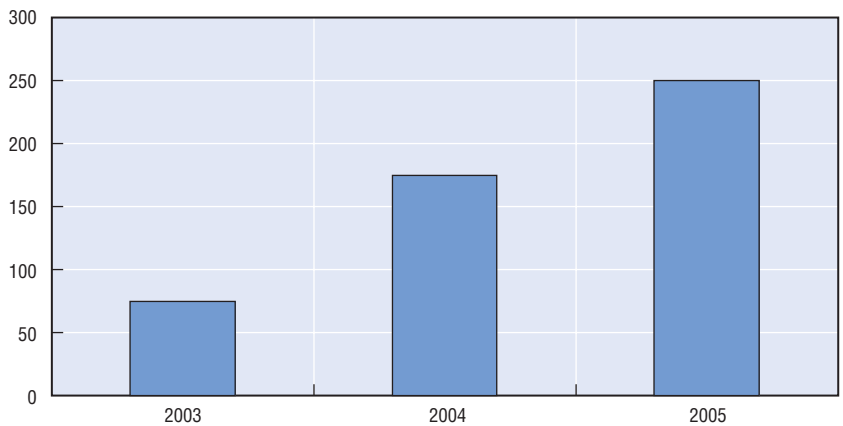
- Hungary has delivered a number of e-services to businesses as part of the prioritised 20 e-services benchmarked by the EU. User take-up of the provided e-services has been high in comparison to the user take-up of e-services for citizens; this follows the general trend of high user take-up for businesses in Europe.

Government-to-government e-services

Even though government-to-government e-services has not been the main priority for Hungary, the necessary back-office development has nevertheless resulted in the establishment of the Electronic Government Backbone (*Elektronikus Kormányzati Gerinchálo – EKG*) – a basic network to connect central government institutions and interconnecting databases, networks and ICT systems and applications.

In May 2006, there were 740 network connections to public institutions with about 58 000 users connected to the EKG. Different services are offered to different levels of government including broadband connections, Internet access, e-mails, and an encrypted network to handle official EU documents. The use of the Electronic Government Backbone has increased rapidly in the period 2003-2005 (see Figure 6.10).

Figure 6.10. **Internet data transmission via the Electronic Government Backbone (Mbit/s)**

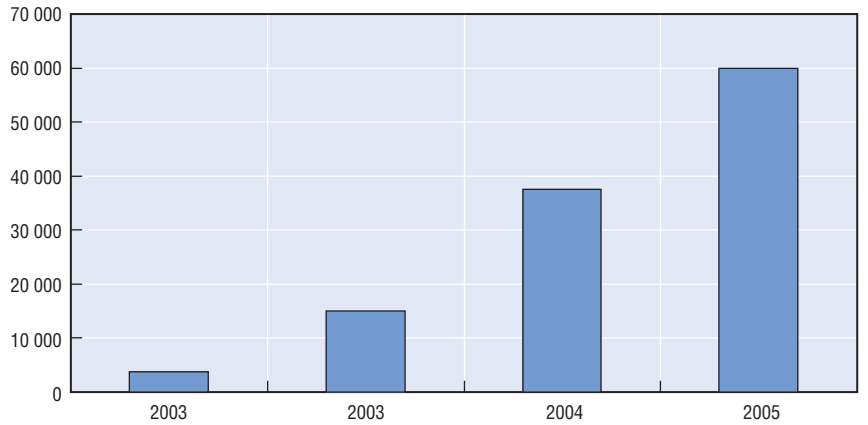


Source: Kopint-Datorg zRT.

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Another service that has grown significantly is the use of e-mail. As shown in Figure 6.11, the number of e-mails sent and received through the Electronic Government Backbone by public sector institutions has increased fourfold between 2003 and 2005.

Figure 6.11. **Number of e-mails sent and received through the Electronic Government Backbone per hour**



Source: Kopint-Datorg zRT.

Hungary has established the basic prerequisites for supporting the delivery of shared services, shared data and common business processes. The Electronic Government Backbone already provides a technical platform for public sector institutions (at the moment mainly in central government) with basic infrastructure and ICT tools enabling these institutions to be interconnected.

Even though Hungary has not systematically explored the possibilities and benefits of sharing common services, processes and resources, a sound foundation is under construction and will possibly soon be available. The new government programme includes initiatives to provide centralised horizontal services within central government in areas such as human resources and accounting to increase public sector efficiency and transparency.

Notes

1. The EU28 countries consist of the 25 EU member states, Iceland, Norway and Switzerland.
2. 36% of respondents answered that they think citizens want transactional services, and 42% answered that they think businesses want transactional services.

3. 38% of respondents answered that they think citizens want information provision services, and 32% answered that they think businesses want information provision services.
4. Also called Internet Public Administration Service System or Virtual Records Office.
5. Capgemini for the European Commission (2006), *Online Availability of Public Services: How is Europe Progressing?,* Report of the Fifth Measurement, June 2006.
6. City of Szeged website (2006), accessed 31 July 2006, *www.szegedvaros.hu/*.
7. Information given by The Hungarian Tax Authority (APEH) in Kopint-Datorg Rt, *Összefoglaló tanulmány az EU által meghatározott e-kormányzati szolgáltatások monitoringjáról*, 2005.
8. Kopint-Datorg (2005), *Összefoglaló tanulmány az EU által meghatározot e-kormányzati szolgáltatások monitoringjáról* (Summary on the monitoring of e-government services benchmarked by the EU), December 2005, Budapest.
9. Kopint-Datorg (2005), *Összefoglaló tanulmány az EU által meghatározot e-kormányzati szolgáltatások monitoringjáról* (Summary on the monitoring of e-government services benchmarked by the EU), December 2005, Budapest.

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ANNEX A

Assessments and Proposals for Action

Chapter/Section	Assessment(s)	Proposal(s) for Action
Chapter 2. Challenges to E-Government		
Legislative and regulatory challenges	• Hungary's national legislation seems to include all relevant EU directives impacting e-government development, and is therefore generally at the same legal development level as other EU member states. However, understanding and complying with the national legal framework seems to be difficult, especially at the local level where only limited help in interpreting laws and regulations and their operational impact is available.	• Increased communication and advisory activities to local governments on regulatory requirements and other implementation issues would improve compliance. Local governments should, in turn, consider closer collaboration and sharing of expertise on legal implementation matters.
	• Due to the Hungarian legalistic administrative culture, the legal framework for implementing e-government is large and complex, leaving limited space for more flexible approaches. Implementation of e-government has focused on the adoption and enforcement of rules and regulations. However, government organisations often do not understand the purpose of the requirements nor how to implement them. Deadlines are often perceived as unrealistic and unaligned with the actual circumstances faced by implementers.	• Hungary should consider revising laws and regulations to make the legislative framework more operationally useful. For example, legislative compliance could be improved through greater consultation with civil servants and municipalities prior to the drafting of legislation in order to ensure that objectives are realistic. In addition, by tying legislative requirements to achieving specified outcomes rather than simply setting legislative deadlines, implementers can have a better understanding of what a given law aims to achieve.
	• Strict legislation protecting personal data and privacy is written into the Hungarian Constitution. Even though existing legislation is in compliance with EU directives, many public sector officials perceive that the current data protection and privacy law is prohibitive to achieving a more collaborative, user-focused and efficient public administration using e-government.	• Hungary should consider whether its current data protection and privacy framework meets the needs for a dynamic regulatory structure that better supports e-government development without compromising basic needs for sound and effective protection of sensitive personal data and privacy.

Chapter/Section	Assessment(s)	Proposal(s) for Action
Budgetary challenges	• Besides central government funding for the development and operation of the 20 e-services benchmarked by the EU, there seems to be a general lack of available funding for e-government development throughout the public sector. Local governments face a special challenge due to the large number of municipalities and their weak economic capacity to support e-government development on their own. Funding additional e-government investments through internal efficiency gains that result from e-government process re-engineering is not generally considered to be a possibility. • As initiatives are funded on an *ad hoc* basis using mainly the general budget within each public institution, no common principles have been established to fund e-government projects with cross-cutting impact; this brings into focus the imbalance of the e-government "sow-harvest" dilemma, which could increasingly become an issue when efficiency and effectiveness considerations are better understood and integrated into public sector institutional management. The lack of common principles and a whole-of-public-sector perspective could therefore weaken the incentives to develop shared e-services.	• To overcome the apparent general lack of funding for e-government development, the public sector as a whole should consider a number of incentives to ease budgetary constraints in both central government and local governments. Central government should contemplate (within an overall budget prioritisation exercise) the establishment of a central fund to support e-government development across the whole public sector. It should be subject to the following conditions: ❖ Collaboration and co-operation need to be strengthened, and should be a systematic objective. Central government funding should be prioritised for the development of shared services that can be used by several or all public sector institutions and cannot be financed by agencies themselves, and that promise economic benefits for multiple organisations. Financial commitment from participating public sector institutions should be mandatory. ❖ Public institutions should be allowed to keep some or all funding freed by efficiency gains as a result of e-government implementation, and to reinvest these resources into further e-government development. This will also create direct economic incentives to consider internal efficiency and effectiveness potentials, which could be harvested. ❖ Cost/benefit and business case analyses should be mandatory for evaluating the anticipated costs and savings to each public sector institution or organisation as a result of e-government implementation.
	• The lack of budgetary mechanisms to overcome formal one-year budgetary horizons constitutes one of the larger budgetary barriers for e-government development, according to respondents to the OECD survey. Hungary shares this challenge with many OECD countries trying to establish multi-year budgetary mechanisms for long-term planning and development.	• Hungary should consider extending its present budgetary planning to include multi-year estimates and commitments – particularly for large-scale ICT investments – in order to increase stability for the funding of large programmes and to provide a vehicle for demanding increased financial accountability for harvesting returns on investments.
	• The lack of a common methodology and a habit of systematic use of cost/benefit analysis creates an opaque background for decision making about e-government projects. The lack of explicit goals, indicators and metrics will create government- and public-sector-wide difficulties in measuring progress through monitoring and evaluation.	• Hungary should develop and implement a common public sector concept for cost/benefit and business case analyses and procedures, and support its systematic usage as part of the background for major e-government decisions and for the identification of potential shared services. This will improve the monitoring and evaluation of progress, allow better comparability of competing investment proposals, and promote the exchange of good practices.

Chapter/Section	Assessment(s)	Proposal(s) for Action
Infrastructure challenges	• An appropriate public sector electronic infrastructure seems to be in place; the Electronic Government Backbone, the Public Network Programme and the National IT Infrastructure Development Programme offer basic network connections and services to public sector institutions. However, the large number of different, apparently unco-ordinated, infrastructure programmes seems to be the result of a lack of coherent planning. Unless future infrastructure projects are better co-ordinated, there is a serious risk of duplication and interconnectivity problems.	• In order to promote interoperability and interconnectivity in the basic infrastructure and services provided by central government, Hungary should carefully consider whether existing public infrastructure programmes should be integrated into one programme addressing the national ICT infrastructure, or whether Hungary should introduce joint collaboration structures.
Digital Divide challenges	• Hungary has in recent years put significant effort into bridging the digital divide, and improvement has been registered by a range of indicators. However, the process of closing the digital divide gap is slow – challenges are focused on age, education, and income. Only 37% of the population used the Internet in the last three months, compared to the EU25 average of 51% in 2005; Hungary is still lagging behind. Prohibitive costs of Internet access may be one explanation. • Hungary has a clear geographic divide challenge between urban and rural individuals' Internet usage, with urban individuals' (52%) rates near the EU25 average (57%), while rural individuals' (25%) usage is significantly lower than the EU25 average (42%). A number of initiatives are underway to address this divide challenge: eHungary Points and Tele-Cottages provide basic Internet access to the rural population.	• To properly address digital divide challenges, Hungary should consider developing an overarching strategy and action plan focusing on: ❖ Promoting Internet access by stimulating market competition among broadband providers (especially in rural areas) while introducing mechanisms such as public subsidies, and public-private partnerships to support universal access conditions and affordable access. In parallel, the provision of public Internet access through the eHungary Points and Tele-Cottages initiatives should be integrated, strengthened and expanded to rapidly increase usage of the Internet and the e-services currently provided by central government and a few local governments. Finally, Hungary should try to take advantage of the massive penetration of mobile telephony, using this delivery channel as an alternative to computer-accessed e-services. ❖ Promoting user demand through a broad information campaign communicating the benefits of e-government services. Hungary should also develop Hungarian language content production to raise consumer demand for services. Public-private partnerships could: draw on synergies with the banking sector and e-business applications for the development of service delivery; improve private sector engagement; and activate expertise and resources complementary to government investments.

Chapter/Section	Assessment(s)	Proposal(s) for Action
Competencies and skills challenges in society	• Raising the general population's generic level of ICT competencies and skills is an important prerequisite for increasing e-government user take-up. Hungary has introduced many educational programmes to teach people elementary knowledge about computers and Internet usage. These efforts seem timely and relevant; however, they have not yet had significant impact on the population's ICT competencies and skills. In 2005, according to a Eurostat survey, 57% of Hungarians had no basic computer skills at all. • Despite ambitious goals, ICT use developed more slowly than expected in the 1990s in Hungary. In recent years the lag has increased significantly, and Hungary is amongst the poorer performers in Europe. Internet access is far from sufficient in most schools. At present, only one of five computers in primary schools is connected to the Internet. The Ministry of Education has implemented projects that aim to increase e-literacy and ICT skills, but without adequate facilities and upgrading of equipment in schools, opportunities for practical learning are limited.	• Existing educational programmes – including e-learning in connection with initiatives like eHungary Points and Tele-Cottages – should be re-evaluated and reinforced, within the framework of an overall national Information Society plan. Such efforts should include civil society organisations to both increase competencies and skills and to communicate the benefits of "becoming digital" in society, *i.e.* making a value proposition to citizens as to why they should be connected to the Internet. • A renewed and enforced action to address general ICT skills in the educational sector should be considered. Hungary should look into further developing comprehensive "ICT integration in education and training" programmes in the educational sector, including drawing on partnerships with the private sector. Such initiatives could include modernising ICT facilities in educational institutions to ensure a better background for ICT training, developing e-learning programmes, and implementing specific ICT training programmes for teachers, trainers and community residents.
Chapter 3. E-Government Leadership		
Leadership	• Due to elections held in April 2006, the formation of a new government and the adoption of a new public sector reform agenda, the Ministry of Informatics and Telecommunications has been abolished and its areas of responsibility have been transferred to the Ministry of Economics and Transport and to a new Centre for Electronic Public Services (*Elektronikus Közszolgáltatások Központja-EKK*). The new EKK will be established as a central agency supervised by the Prime Minister's Office by January 2007. At the same time, some important tasks – such as the formulation of the public administration's IT strategy and policy, e-government regulation (in co-operation with the Ministry of Economy and Transport), and cross-agency co-ordination – will remain within the Prime Minister's Office.	• The new distribution of e-government responsibilities provides a more streamlined leadership model. At the central level, the government's task should be three-fold: 1) to use the joint e-government and public sector reform responsibilities of the Prime Minister's Office to develop a co-ordinated strategy for educating and assisting government agencies in using e-government to re-engineer processes and to release resources for reallocation and/or reinvestment; 2) to provide solutions for implementing cross-cutting e-government initiatives, including the development of common "building blocks" such as shared databases to form the basis for shared services (including creating incentives for government agencies to collaborate in the implementation of services from a more user-focused approach); and 3) to aggressively promote collaboration – both horizontally across central government and vertically with local government – by putting out regulations on data standardisation and building support for standards.

Chapter/Section	Assessment(s)	Proposal(s) for Action
	• With the assignment of major e-government responsibilities to the centre of Hungarian government and the new EKK under the strategic leadership of the Prime Minster's Office, e-government development and the public sector reform agenda seem to be more effectively aligned. It is essential that the new structure avoid the divisions that existed in the previous structure, and that the government not lose time and momentum on e-government implementation as the new structures are created. • The newly created Ministry of Local Government and Regional Development is responsible for overseeing electronic case handling at the local level. The new EKK, under the authority of the Prime Minister's Office, will also have a supervising and co-ordinating role in terms of aligning the central government's e-government objectives with these activities.	• The government should also issue a list of guiding principles for e-government implementation from the highest political level in order to provide direction during this transition period and to maintain momentum as new structures and responsibilities are embedded. The statement should clarify the government's intent to take a co-ordinated and mutually supportive approach to public management reform and e-government implementation. • The next e-government challenge lies in the development of local e-government initiatives. It is critical that the new Ministry of Local Government and Regional Development and the Prime Minister's Office speak with one voice on local e-government issues. The government should focus on identifying good practices and then build capacity at the local level to adapt those solutions in order to create low-cost, interoperable e-government projects.
Chapter 4. Implementation		
Management of e-government implementation	• Hungary has instituted systematic monitoring and evaluation of the implementation of its current e-government strategy. However, no common public sector approach to monitoring and evaluation has yet been defined and used methodically to enhance implementation management. As a result, public sector institutions without sufficient evaluation experience lack guidance and the reported results are not comparable. Central government therefore has no means to follow implementation and determine whether internal e-government goals have been achieved.	• In order to develop and apply a commonly agreed concept for monitoring and evaluation of e-government projects across the public sector, Hungary should consider developing a set of standard e-government goals and measures for extensive use – possibly based on existing monitoring concepts for EU-related projects – and diffuse it quickly. Guidelines should include generic tools and procedures that can help strengthen e-government management and followup by individual public sector institutions. As a first step, Hungary should implement the recommendations by the former Interdepartmental Committee for IT to develop a common public sector "toolkit" containing standard templates for project cycles and reference guides for project cycle management.
	• Incentives from the European Union have encouraged Hungary to monitor and evaluate projects connected to the National Development Plan-NFT. However, because e-government projects were not the aim of the previous NFT, only limited e-government-related projects implemented under the umbrella of NFT have undergone systematic monitoring and evaluation. The generally fragmented and *ad hoc* approach to monitoring and evaluation activities implies a need for a common public sector approach using experiences and knowledge from existing monitoring and evaluation activities.	• Hungary should consider whether European Union Information Society policy can be used as an incentive to introduce systematic monitoring and evaluation of e-government projects – possibly using existing monitoring concepts for EU-related projects as a basis for developing a generic monitoring and evaluation approach to be used throughout the public sector.

Chapter/Section	Assessment(s)	Proposal(s) for Action
	• Outside the sphere of EU funding, there are few economic incentives for public sector institutions to move e-government development forward. The main problem, however, is not one of outside incentives – which will rarely provide sufficient means to completely finance implementation. A cultural change is needed to convince civil servants to seek efficiency gains within their own projects in order to finance innovation. For this to occur, institutional barriers to achieving efficiency gains must be removed. For example, civil servant tenure in Hungary makes it difficult to reallocate or fire staff. An amendment to the Civil Service Act in summer 2006 shows that Hungary has recognised the importance of more flexible human resource policies in public administration. The introduction of performance measures for assessing the individual performance of civil servants is envisioned for 2007. Furthermore, the new government has expressed its intention to proceed to a substantive reform of public administration.	• To encourage public sector institutions at all levels of government to develop e-government services according to the current e-government policy and strategy, Hungary should consider developing more incentives, such as economic inducements and competitions. Economic incentives could include budgetary mechanisms that allow institutions to keep a share of revenue generated by efficiency gains, and competition incentives could include "beauty contests" among public sector institutions on service quality, user take-up, and collaborative services such as one-stop shops. • Ensuring coherence between the technical and the managerial aspects of e-government programmes is crucial; projects risk failure when these areas are allowed to split into two disconnected "halves". The implementation process for e-government programmes should combine the technical and the managerial perspective to ensure that staff is buying into necessary changes and to effectively link the use of ICT to e-government policy objectives.
ICT management and skills	• Hungary has launched a number of initiatives to close the e-government skills and competencies gap within the public sector. In co-operation with the Hungarian Institute of Public Administration, an eCulture programme has been launched – but with only limited success. The lack of e-government skills remains a challenge, in particular for local governments. Another initiative underway is to mandate that all Hungarian civil servants take the European Computer Driving License exam in order to raise the level of computer literacy within the public sector. These initiatives are positive and will contribute, in time, to closing the gap. However, there is a need to reach the goals faster than these formal courses and training sessions for civil servants will allow. • The E-Government 2005 Strategy and Programme explicitly called for a skills and competency analysis to enable implementation of the Hungarian e-government action plan. This has led to a stronger awareness of the lack of skills and competencies for e-government implementation, and the need for all public sector employees to obtain these basic skills and competencies; this is especially the case for higher-level officials. This is a prerequisite to a systematic approach by the public sector as a whole to develop identified skills.	• To build the skills of civil servants, a general E-Government Education plan should be developed, comprising three training components that could be delivered either by the government itself or in partnership with private sector, academic or non-profit partners: ❖ A focused competency and training programme to bring together civil servants from different public institutions across levels of government to foster cross-fertilisation and increase whole-of-public-sector awareness in order to change the culture of government. ❖ An organisational analysis to look at how tasks and processes are performed today in order to identify skills needed to streamline work processes and ways of handling tasks emphasising management, strategic and legal implementation, as well as technical skills. ❖ Opportunities for civil servants to learn more on the job through training modules offered to target groups (*i.e.* politicians, civil servants, project leaders, managers, etc.) based on the skills needs that their positions involve. Such modules could, for example, educate civil servants on the e-government services available – in particular the use of the Client Gate – and on the available private sector solutions that can be tailored to their needs.

Chapter/Section	Assessment(s)	Proposal(s) for Action
	• A number of skills and competencies challenges have been identified by the OECD survey, including building sufficient technology and project management skills and competencies for e-government implementation. The survey shows that the lack of ICT skills and skills to implement e-government and Information Society strategies, and adapting staff to change, were considered the main skill challenges for the implementation of e-government by both central and local government. A broader set of public management skills, including change management and process re-engineering, are also needed in order for e-government projects to deliver transformative results and not just more informatisation.	
Chapter 5. Collaboration Frameworks		
	• The central government has established a Central Electronic Service System – consisting of the Electronic Government Network, the Government Portal, the Client Gate, and the Government Customer Information Centre – to support e-service delivery from central government in line with what other countries, such as the UK, have done. This basic e-government infrastructure concept is now slowly being extended and offered to local governments to use in providing their own e-services to citizens and businesses. • Hungary needs to extend this concept to develop other basic "building blocks", such as common registers and data networks, that can be used over and over again as the foundation of an enterprise architecture and interoperability standards. The Hungarian government has recognised the importance of greater interoperability and interconnectivity. The programme of the new government set up in June 2006 includes a firm intention to implement common business processes to centralise certain background functions of central public administration such as IT, payroll, bookkeeping, tendering and management. Most collaboration frameworks covering common business processes, data standards, enterprise architecture, interconnectivity and multi-channel strategies, however, are still in the planning stages or are under development.	• As part of the announced public sector reform, Hungary should implement collaboration frameworks focusing on: ❖ Establishing a service registry, including general definitions of public sector products and services in Hungary. ❖ Establishing common public sector data standards and meta-data standards that can ensure that the whole public sector uses the same data definitions and data structures. The first step is to deliver regulations under the MEKIK project, but this also involves stakeholder consultation, building support from users of such data, and taking into account international standards such as the European Interoperability Framework (EIF). ❖ Developing enterprise architectures beyond the planning stages. It is unclear how current plans are interlinked or co-ordinated; a common public sector enterprise architecture is needed to provide the public sector with a shared understanding of the organisational, structural and technical "design" of how e-government services should be developed in order to support interconnectivity and interoperability across organisational boundaries and levels of government, including at the European level.

Chapter/Section	Assessment(s)	Proposal(s) for Action
	• The current E-Government Strategy and Action Plan includes the need to develop data standards and common data structure definitions to ensure standardised electronic access to public authority data. The MEKIK project – the Hungarian Electronic Public Administration Interoperability Framework – placed responsibility on the former Ministry of Informatics and Telecommunications to provide data standards, workflow mechanisms and legal regulations in compliance with EU expectations mandating that all member states have an interoperable "one-window administration" solution, but delivery of this guidance has experienced repeated delays.	❖ Expanding the framework of the Central Electronic Service System, developed by central government for use by local governments, to provide a basic e-government infrastructure with some generic services in order to encourage local governments to adapt existing generic services instead of developing their own. ❖ Establishing a shared services centre that can focus implementation capacity to develop, run and maintain selected services used by the whole public sector on behalf of the whole public sector. ❖ Establishing a framework for a common public sector approach to multi-channel strategies providing guidelines and "good practices" on multi-channel service delivery and channel management strategies. Such a framework would also help in identifying synergies with e-business and e-commerce solutions – for example through shared use of the Client Gate – in support of the development of the Information Society in Hungary.
Chapter 6. Outputs and Outcomes		
Government-to-citizen e-services	• Hungary has delivered a number of e-services to citizens as part of the prioritised 20 e-services benchmarked by the EU, and has also undertaken efforts to widen its portfolio of e-services beyond these measures. As the services are quite new, user take-up of services remains low. Meeting EU benchmarks, rather than user demand, has been the main driver for electronic service development.	• To further build up user take-up of e-government services, Hungary should consider a new strategic approach to e-government development which involves identifying and responding to user needs in addition to benchmarking against average EU performance. This will require a focus on identifying internal and external outcome objectives rather than simply meeting output targets. This approach should be guided by regular surveys on users' demands, preferences, and levels of satisfaction, beginning with existing consultation tools such as the eGames component of the government portal. Broader marketing of e-services and technical assistance in user centres (*e.g.* Tele-Cottages and eHungary Points) should also be considered.
	• However, the increase in user take-up of specific e-government services through the Client Gate, with its common e-authentication solution, may indicate that users find these e-services valuable. The Client Gate has drawn about 150 000 registered users since its launch in April 2005. The Client Gate allows users to access a wide variety of transactional services such as corporation taxes and VAT declaration, declaration and notification of income taxes, personal appointment requests with document offices, drivers license services, car registration services, request and delivery of certificates (birth, marriage), and change-of-address announcements for citizens.	• The rapid user take-up of the Client Gate demonstrates that easy-to-use, well-integrated and relevant transactional services can motivate the population to use the e-services provided by the public sector. Based on user surveys and consultation, the government should identify those services that can be further developed (*i.e.* made into online transactions) to deepen electronic service delivery and increase value for users and the government.

Chapter/Section	Assessment(s)	Proposal(s) for Action
Government-to-business e-services	• Hungary has delivered a number of e-services to businesses as part of the prioritised 20 e-services benchmarked by the EU. Following a general OECD trend, business e-service take-up has been high relative to citizens' use of e-services. Mandatory usage of some e-service solutions – in particular electronic tax filing – has helped promote business take-up, and demonstrates how e-government benefits can be realised by "pushing" targeted populations with good Internet access to use electronic services.	• A focused effort to get businesses on line and make them interact (on a mandatory or voluntary basis) with government may further increase take-up of services among businesses. For example, the development of public e-procurement can both increase transparency in the public procurement process and promote access to Hungarian businesses. This strategy could be complemented by a broader initiative on e-business – that is, the integration and use of ICT to make companies' work processes and production more effective and efficient – and ICT enabling Hungarian businesses. Shared use of services such as the Client Gate for e-business and e-government services will increase the volume of transactions and user familiarity, with resulting benefits for both government and business.
Government-to-government e-services	• The new government programme includes initiatives to provide centralised horizontal services within central government in areas such as human resources and accounting, but Hungary is only beginning to explore the possibilities and benefits of sharing common services, processes and resources.	• Systematically identifying and developing generic services provided centrally for all public sector institutions may be a good business case for the public sector as a whole, including local government. Hungary should therefore consider which services could be delivered in a more cost-efficient manner for the whole government, the feasibility of developing such services, and the risks associated with rolling out such services across central government and at other levels of government.

ANNEX B

Hungary E-Government Indicators

Indicators – 2005	Hungary	EU25
General indicators		
Population (million)	10	461
GNI per capita (USD, current prices and PPP) (OECD Factbook 2006)	14 329[3]	28 638[1, 4]
GDP growth (%)	4	2
Number of households (million)	4	n.a.
Number of telephone subscriptions (fixed line) per 100 inhabitants (ITU, 2003)	35	n.a.
Mobile phone subscriptions (per 100 inhabitants) (OECD 2004)	86[1]	n.a.
Broadband subscriptions (per 100 inhabitants) (OECD June 2005)	5	n.a.
Internet access (Indicators taken from Eurostat, at EUROPA\European Commission\ Eurostat home page\Data navigation tree\Information Society Indicators, updated in July 2006)		
Internet penetration rate (regular individual use of Internet as % of population)	34	43
Businesses (enterprises) with Internet access	78	91
Businesses (enterprises) with access to a broadband connection	48	63
Internet access at home (% of households with Internet access)	22	48
Internet access at work (% of individuals with Internet access)	17	21
Internet access at place of education (% of individuals with Internet access)	7	8
Internet access at public libraries (% of individuals with Internet access)	1	7
Internet access at Internet cafes (% of individuals with Internet access)	2	7
Affordability of access (cost for 20 hours of access per month as % of average income) (ITU, *Measuring Digital Opportunity* 2005)	4	n.a.
Internet usage (in the last three months) (Indicators taken from Eurostat, at EUROPA\European Commission\Eurostat home page\Data navigation tree\Information society statistics Policy indicators\Computers and the Internet in households and enterprises\Individual Internet use, frequency of use and place of use, updated on July 2006)		
Individuals (aged 16-74) regularly using the Internet[6] (%)	39	54
Individuals (aged 16-74) regularly using the Internet, urban (%)	55	60
Individuals (aged 16-74) regularly using the Internet, rural (%)	27	46
Individuals (aged 16-74) regularly using the Internet, male (%)	39	58
Individuals (aged 16-74) regularly using the Internet, female (%)	39	51

Indicators – 2005	Hungary	EU25
E-government usage		
E-government online availability[7] (supply side) (composite index) (2006)	50	50
E-government usage by individuals – total % of individuals using the Internet to interact with public authorities (*i.e.* obtaining information, obtaining forms, returning filled in forms)	18	23
E-government usage by businesses (enterprises) – total % of enterprises using the Internet to interact with public authorities (*i.e.* obtaining information, obtaining forms, returning filled in forms)	67	57
Average maturity level of EU12 citizens' e-services (OECD and Capgemini) (%)	81	68[5]
Average maturity level of EU8 businesses' e-services (OECD and Capgemini) (%)	81	86[5]
Rate of electronic submission of annual tax declarations by citizens (% of total tax declarations)	n.a.	n.a.
Rate of electronic submission of annual tax declarations by businesses (% of total tax declarations)	n.a.	n.a.
Public sector ICT investments		
ICT budget in the public sector (% of total public sector budget, USD)	n.a.	n.a.
Information technology expenditure (% of GDP)	2	3
E-commerce		
Individuals who ordered/bought goods or services for private use over the Internet (%)	5	18
E-commerce – businesses (enterprises) total turnover from e-commerce (%)	1	2
Businesses (enterprises) which received orders on line (%)	4	12

1. Data for 2004.
2. Any kind of Internet connection.
3. Data for 2003.
4. Number refers to EU15.
5. Number refers to EU28.
6. Percentage of individuals who used Internet in the last 3 months.
7. The indicator is defined for each member state as the percentage of each of the 20 services that are fully available on line. For the EU, the calculation uses all services in all member states *i.e.* how many of the 300 (20 basic services x 15 member states) services are fully available on line. Techniques of data collection e-government availability: Web-based survey tool.

Source: Eurostat.

ANNEX C

Hungary Political and Administrative System

Form of government	**Parliamentary democracy:*** Parliamentary system of government. Constitution revised 18 October 1989 ensuring basic legal rights for individuals and parliamentary control and oversight of central government activities.
State structure	**Unitary:** Two tiers of government – central government (or the state), and local governments. There are 3 145 local governments of different types: 19 counties, 22 cities of county rank, 251 towns and 2 871 villages. The capital, Budapest, has a special legal status and consists of 23 districts.
Executive branch	**Head of Government:** Prime Minister. **Cabinet:** Council of Ministers elected by the National Assembly on the recommendation of the President. **Elections:** President elected by the National Assembly for a five-year term (eligible for a second term); election last held April 2006; Prime Minister elected by the National Assembly on the recommendation of the President.
Legislative branch	**Unicameral National Assembly** or *Országgyűlés*: 386 seats; members are elected by popular vote under a system of proportional and direct representation to serve four-year terms.
Judicial branch	**Constitutional Court:** Judges are elected by the National Assembly for nine-year terms.
Centralised/Decentralised	**Centralised:** Prime Minister's Office exercises strong central political leadership and management of line ministries. **Decentralised:** Local governments in Hungary are autonomous by Constitution. Central government can only impose decisions on local governments through legislation. A new regional level is expected, according to the new government's programme (*Új Magyarország Program*) to increase its areas of responsibilities.
Political administrative interface	**Formal separate:** The Constitution separates the political leadership from the administrative leadership. Previously, a state secretary, deputy to the minister, was appointed politically, and an administrative state secretary was appointed as a professional civil servant deputy to the minister; this individual was head of the ministry's administrative apparatus. Today, the distinction between an administrative state secretary and the political state secretary is no longer used. Instead, each minister has one deputy, the state secretary.

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Administrative culture	The administrative culture in Hungary is rule-based and work traditionally falls within organisational lines within the levels of government. The success of administrative reform is highly influenced by reformers' ability to overcome intra-organisational resistance to change. Additionally, institutional reforms are faster, easier and more spectacular than the transformation of administrative culture that has to be supported by strong political and administrative leadership. The regular political changes after every four-year political cycle have so far hindered comprehensive administrative reform in Hungary. Each new government, including that elected in 2006, reinterprets reform needs and revises the strategy of its predecessors, essentially providing short-term incentives to civil servants. Civil servants have traditional, law-based education in Hungary. The new Hungarian government programme recognises the need for management knowledge and culture, and will eventually provide the necessary impetus for the transformation of the state into a modern service provider building on the principles of cost efficiency, client satisfaction, accountability and transparency throughout the Hungarian administration.
Major affiliations	United Nations (1955), EBRD (1990), OECD (1996), NATO (1999), the European Union (2004).

* CIA (2006), *The World Factbook – Hungary*, accessed 11 August 2006, *https://www.cia.gov/cia/publications/factbook/print/hu.html*.

ANNEX D

E-Government Reports, Decisions, Strategies, and Acts

1992

- **Act on Protection of Personal Data and Disclosure of Data of Public Interest:** This Act is a combined data protection and freedom of information act. It guarantees that all persons have access to information of public interest, defined as any information being processed by government authorities except for personal information.[1]

1995

- **National Information Strategy (NIS):** Prepared by the NIS Preparatory Committee and experts.[2] The NIS was the first written document providing a theoretical framework for e-government.[3] It has not had a major impact on Hungarian policy.

1999

- **Hungarian Response to the Challenges of the Information Society:** Elaborated by the Prime Minister's Office and experts,[4] the Hungarian Response to the Challenges of the Information Society laid the foundation for Hungary's EU focus in the e-government context. The document outlined three main strategic aims: paper-free administrative procedures, one-stop shop services, and coherent procedures throughout the Hungarian administration.[5] Still, the lack of political will and the missing link between e-government and the modernisation of the public sector hindered any strategic impact.

2000

- **Thesises on the Information Society:** Prepared by the Prime Minister's Office and experts,[6] this document provided an overarching vision of the

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citizen-government relationship by emphasising aspects such as the freedom of information, better access to public sector information, and data protection issues. Similar to the Hungarian Response to the Challenges of the Information Society, the Thesis on the Information Society has not had a major impact.

- **Hungarian Informatics Charta:** Prepared by Inforum, the forum of the Hungarian IT Organizations for Information Society,[7] the Charta was established in the legal form of a society regrouping non-governmental organisations such as associations, foundations and universities.[8]

2001

- **National Information Society Strategy (NITS) and the NITS Electronic Government Program (EKP):** Prepared by the Office of the Government Commissioner for IT of the Prime Minister's Office, these two documents underpinned the importance of using ICT as a tool for public sector modernisation throughout the Hungarian administration. According to the NITS and the EKP, ICT could facilitate internal processes and case handling within the administration. A special focus was put on ICT skills of civil servants.[9]
- **Act on Electronic Commerce and Information Society Services:** This Act governs e-commerce services provided for or from the territory of Hungary.[10]
- **Act on Electronic Signatures:** This Act creates the legal framework for the provision of certified electronic communication and data transmission in the various fields affected by the Information Society.[11]

2003

- **Hungarian Information Society Strategy (MITS):** Prepared by the Ministry of Informatics and Telecommunications and adopted by Parliament in November 2003, the strategy intends to achieve the development of a knowledge-based economy and a modern Information Society in Hungary – on both state and local levels – within ten years.
- **E-Government 2005 Strategy and Action Plan:** Prepared by the Electronic Government Centre of the Prime Minister's Office, the plan's main goals are to: create a more efficient, transparent and cheaper public sector; foster participatory democracy; enhance citizen-focus; promote more and better accessible public information; catch up with countries at the forefront of e-government development; support the development of a knowledge-based society; and increase Hungary's competitiveness.

- **Act C/2003 (IX.22.) on liberalisation of telecommunications market:** This Act incorporates the new EU regulatory framework for the liberalisation of the European telecommunications markets.
- **Decree 226/2003 (XII.13.) on privacy and electronic communications:** The Act implements the new EU decree setting out a Regulatory Framework for electronic communications.[12]

2004

- **Government Decree on electronic public procurement:** The decree covers the incorporation into Hungarian law of the EU directive on public procurement.
- **Decree 20/2004 (IV.21.) on e-invoicing:** This decree of the Ministry of Finance concerns the incorporation into Hungarian law of the EU directive on e-invoicing with regard to VAT collection and regulating conditions for using e-invoicing within the collection of VAT.

2005

- **Government decree 44/2005 (III.11.) on the co-ordination of government informatics and related order of procedures:** This government decree provides the foundation for an efficient and user-focused state administration operating according to EU expectations and making use of strategic and project plans fostering co-ordination throughout and across levels of administration.
- **Act on the Freedom of Information by Electronic Means:** This Act establishes the legal environment to create a transparent digital state by defining the list of data of public interest that must be published on the Internet. Furthermore, the Act makes the publication of draft bills, laws and some court decisions mandatory. Finally, search systems must be created to make the published data easy to find and retrieve.[13]
- **Decree 194/2005 on e-signatures:** This decree incorporates the EU directive on electronic signatures, regulating the framework for recognised electronic signatures.

Notes

1. *http://ec.europa.eui/idabc/en/document/chapter/398.*
2. See Chapter 1.
3. Electronic Government Centre of the Prime Minister's Office (EKK) (2005), *E-Government Strategy and Action Plan.*
4. See Chapter 1.

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5. Electronic Government Centre of the Prime Minister's Office (EKK) (2005), *E-Government Strategy and Action Plan*.
6. See Chapter 1.
7. *www.inforum.org.hu/new/_main.php?m=11*.
8. *www.inforum.org.hu/new/_main.php?m=11*.
9. Electronic Government Centre of the Prime Minister's Office (EKK) (2005), *E-Government Strategy and Action Plan*.
10. *http://ec.europa.eui/idabc/en/document/chapter/398*.
11. *http://ec.europa.eui/idabc/en/document/chapter/398*.
12. *http://ec.europa.eui/idabc/en/document/chapter/398*.
13. *http://ec.europa.eui/idabc/en/document/chapter/398*.

ANNEX E

Case Studies

Public Internet Access Points (PIAPs): Tele-Cottages and eHungary Access Points

For a considerable number of people, Internet access can be made available most quickly and cost effectively through provision in public places. To this end, Hungary has developed a number of Public Internet Access Points (PIAPs) as part of its strategy to promote the Information Society and to reduce the digital divide; Tele-Cottages and eHungary Points, in addition to Internet cafes, are the most important sources of public Internet access; they also provide additional added value in terms of e-government development.

Tele-Cottages

The Tele-Cottage programme dates back to 1994; it began as a NGO initiative with no government funding. These PIAPs are mainly situated in remote areas of Hungary in order to provide the rural population with access to the Internet and to online government services. This initiative assists users with both online and offline government services, provides with facilities for tele-working and offers e-learning programmes. Today, there are approximately 500 operating Tele-Cottages in Hungary, each with an average of 10 computers. Currently, about 1 000 people work in the Tele-Cottage network as their main profession with the support of at least 2 000-3 000 local volunteers.

The most important goal of the Tele-Cottages is to narrow the digital divide. The Tele-Cottages Association views this initiative as a process of simultaneous technological development and democratisation. The community access model eases the financial constraints on rural access, addresses the digital divide in a fair and people-oriented way, and helps to strengthen civil society.

Tele-Cottages also help the public access government services and offer assistance in official matters. As settlements with a population of 1 000 or less usually have no mayor's office, this assistance includes maintenance of public records, dissemination of public information and co-ordination of a wide variety of local programmes, as well as the local implementation of central government initiatives. The Tele-Cottages are also increasingly merging with institutions such as local post offices or libraries in communities too small to sustain these independently.[1]

Finally, Tele-Cottages have taken an active role in building links between local communities and the business world. On a local level, many Tele-Cottages – among them the original in Csákberény – serve as local business centres where entrepreneurs can network, seek advice, hold meetings and use facilities. Tele-Cottages seek to maintain good links with businesses in the region.

eHungary Access Points

The former Ministry of Informatics and Telecommunications initiated the eHungary Access Point project as an implementation of the framework of the eHungary Program 2003. Officials aimed to set up at least 2 004 eHungary Points by the date of Hungary's EU accession (1 May 2004). eHungary Access Points are government-sponsored PIAPs operating in public places (*e.g.* libraries, stations, clinics, post offices and resorts) and in districts and villages affected by the digital divide. They provide, at a minimum, access to two or three computers, as well as necessary assistance in using Internet services during regular opening hours for free or for a limited price.[2] The new Ministry of Economy and Transport will administer this programme in the future.

The Tele-Cottages movement has partly been incorporated into the e-Hungary strategy to support the Hungarian Information Society at the local level.[3] The Tele-Cottage movement is now the main partner of the eHungary Access Point programme. Approximately half of these points are either already-existing Tele-Cottages or are Tele-Cottages under development. Other eHungary access centres may well develop into Tele-Cottages at a later stage.

IT mentors

One of the strengths of the Tele-Cottage and eHungary Points initiatives is the recognition that the digital divide is not just about access to the Internet, but also the capacity and knowledge to use the Internet and the services that can be accessed through it. Therefore, assistance with computer use is an important aspect of these programmes. The so-called IT mentors programme and the establishment of a mentors' network were officially mentioned for the first time in the Hungarian Information Society Strategy. The IT mentors

programme started effectively in 2005 with the creation of the IT mentor website (*http://itmentor.hu*) and the establishment of an IT mentor programme office by the former Ministry of Informatics and Telecommunications. (The new Ministry of Economy and Transport will administer this programme in the future.)

About 300 new IT mentors started their work all over Hungary. The IT mentors play a key role in helping PIAP users in rural areas to use ICT and e-services by providing necessary advice to the non-ICT literate population. For example, the Hungarian Tax Authority and the former Ministry of Informatics and Telecommunications have launched a co-operative project to provide better advice on e-filing, the online filing system of the Hungarian Tax Authority (*Adó és Pénzügyi Ellenőrzési Hivatal – APEH*[4]).

Major steps in 2006 were the official recognition of IT mentoring as a profession and the accreditation of IT mentor training, currently offered in 20 locations throughout Hungary. According to estimates, about 3 000 IT mentors will be supporting PIAPs, but the actual number of mentors could increase to between 10 000 and 15 000 by 2010, based on demand.

Building a Hungarian Information Society

Because of its origins as a civil society initiative, the Tele-Cottages movement has a very strong culture, which has helped to ensure the continuity and growth of the initiative as well as the cohesion of the local centres; given their large numbers, small size and scarce resources, the risk of fragmentation is significant. Local volunteers are key actors in the Tele-Cottages, and also work for the creation of additional Tele-Cottages.

Coherency among the different Tele-Cottages is also ensured by the Hungarian Tele-Cottage Association (*Magyar Teleház Szövetség*), which was created in 1995 as a private non-profit[5] organisation.[6] It operates independently[7] to encourage the establishment of more Tele-Cottages. As such, it provides local Tele-Cottage managers and organisations with guidance and advice on establishing, funding and running Tele-Cottages. This association has helped give the movement a national presence, allowing it to participate in existing networks and to establish new partnerships.

As individual Tele-Cottages are part of a strong network, they also have a mechanism by which they can communicate local needs. Demand for, and application of, services provided by local Tele-Cottages are grounded in the specific social, economic and political dynamics of a given community. The Tele-Cottage network seeks to reinforce this dynamic through participation and stimulation on a local level of the other community actors with an interest in economic growth, social equality and rural development.

Tele-Cottages function under a special public-private partnership concept in which local government, local non-governmental organisations (NGOs) and private sector companies co-operate. Today, the Tele-Cottages are financed through grants from local governments and financial support from different government tenders (see Box 2.3). As more and more Tele-Cottages also become eHungary Access Points, this may help to stabilise funding.

At the European level, some Tele-Cottages also serve as EU information centres[8] and training centres for the European Computer Driving License (ECDL); some host the exams for ECDL certification. The Hungarian Tele-Cottages are part of an international movement, the EUTA (European Tele-Cottage Association), an NGO founded by Tele-Cottage associations in seven European countries[9] that have developed their own tele-cottage systems based on the Hungarian experience. The Hungarian town of Budaörs is the host of the EUTA.

Despite the fact that Hungary's Tele-Cottages have been models for similar initiatives worldwide, a number of weaknesses in the current organisation of the Tele-Cottage initiatives can be identified:

1. Hungarian Tele-Cottages are having difficulty financing themselves. With 40% of Tele-Cottages relying on revenues of less than HUF 10 000 per month, Tele-Cottages are dependent on funding from local governments or public calls for tender. Unable to solve their financial problems, the proportion of Tele-Cottages shutting down almost equals the number of newly created ones. Furthermore, the existing Tele-Cottages suffer from project-related short-term funding and have to host a great variety of additional services (*e.g.* employment services, information points for youth) in order to survive.
2. Tele-Cottages have so far only partially been integrated into the eHungary programme. A contract was signed by the former Ministry of Informatics (IHM) and the Hungarian Tele-Cottage Association to ensure that about 300 Tele-Cottages could serve as a basis for eHungary Points, benefiting from free broadband access until the end of 2006.
3. Due to the lack of an overarching strategy covering the large number of Tele-Cottages, the Tele-Cottages programme gradually became more fragmented until strategic planning was launched in 2004. Co-ordination among the Tele-Cottages is needed in order to provide a consistent level of service and approach.
4. Most Tele-Cottages lack the capacity to collect statistical data on their activities, and the financial means to procure market research. Such information could help them better understand the needs of the population they serve and eventually provide statistical evidence for requesting further government support.

Electronic identification and authentication in Hungary

Introduction

In many cases, electronic services require personal identification in order to allow secure online transactions. Where there is no common solution, authentication is specific to each service, requiring users to re-enter their details for each new service or transaction. The result is that users need several different user identification numbers or names and multiple passwords. Even in a unified or aligned system, service usage will depend on the simplicity and user-friendliness of the authentication process. In Hungary, while progress is being made in standardising the citizen enrollment process, use of transactional services requiring electronic identification and authentication still remains low.

As a general rule, previous legislation in Hungary only allowed for e-government services when no user authentication was required.[10] The first electronic service requiring online authentication was electronic tax filing. The Hungarian tax authority provided large businesses with a free chip card for authentication purposes. Act CXL/2004 on the general regulation of public administration procedures and services (Ket), which came into effect on 1 November 2005, makes electronic authentication possible for a broader set of electronic services. The Ket covers two distinct types of e-government client authentication: 1) advanced electronic signatures; and 2) authentication via the Client Gate (a single entry point to transactional services[11]).

The challenge of authentication using digital signatures

While e-signatures are dependable and secure, they can be intimidating to the uninitiated. They also provide an extra procedural step in accessing services, as well as an additional cost to the user. In Hungary, the adoption of e-signatures continues to face a perceptual barrier. Few Hungarians have ever heard of e-signatures and an even smaller proportion of the Hungarian population claims to be well informed about legal aspects of e-signatures such as the use of e-signatures in contracts and the legal effect of e-signatures when compared with manual signatures. Most of the Hungarian population is more likely to perceive fax and paper copies of documents as acceptable.[12]

Factors such as age, education, computer use and geographic location seem also to impact on the e-government potential of e-signatures. Individuals who use a computer, are aged between 26 and 35, with high school or higher education and living in urban areas are most likely to have heard of e-signatures. There is a clear risk that the reluctance to use e-signatures will drive up costs for online services requiring this identification and authentication method.

E-signatures have been mainly used by financial institutions and civil servants. According to a survey published in 2005, businesses mainly use e-signatures in interacting with financial institutions or the government.[13] The use of e-signatures increases with the size of the business. Among the reasons preventing businesses from using e-signatures are the lack of legal obligation to do so, the unwillingness to use e-signatures in business transactions, and the lack of information on the issue.

Implementation of the Client Gate

Given the barriers to using digital signatures linked to burdensome administrative procedures and additional costs, the Hungarian government wanted to provide an alternative way to authenticate users in order to allow them access to transactional electronic services. Following a study of international best practice, it developed the Client Gate, or *Ügyfélkapu*, as a way to access a range of government services following a single authentication procedure.

The Ket treats e-signatures and Client Gate authentication as equivalent, even though the concepts behind them are significantly different.[14] The Client Gate is a centralised solution[15] enhancing interoperability across and within levels of government, whereas electronic signatures can be obtained from various certification providers in the private sector. A main distinction between the two authentication procedures is that the Client Gate provides secure access to administrations linked to the Central System or *Központi Rendszer- KR*, whereas electronic signatures can be used outside of the KR.

The Client Gate became operational in April 2005. The gateway allows users to securely authenticate themselves on line and gain access to transactional e-government services through the government portal. Any user who completes a temporary registration procedure on line can access a number of services available through the Client Gate within 30 days,[16] but a face-to-face authenticated registration in any documentary office or an e-signature[17] is needed to access fully transactional services. The Client Gate is free of charge and permits access to most government services. It is perceived as user-friendly and has contributed to the rapid increase in take-up of on line governmental services.

Tools driving use of electronic services through the Client Gate

Both central and local governments are required by law to accept electronically signed documents, but only central government institutions are legally required to link to the Client Gate authentication system. The Hungarian approach of obliging administrations to implement e-government reflects the highly legalistic administrative culture of the Hungarian public

sector, but this authority is limited by the independence of local government. Local governments have the choice of whether or not to integrate their local e-services with the Client Gate.[18]

Up to now, central government has not played a leading role in encouraging local government to link to the Client Gate. In fact, it has a two-fold role to play: 1) to persuade local governments of the importance and value of providing transactional services via the Client Gate; and 2) to provide them with the necessary technical assistance to implement such services.

In addition to guidance on legal and technical specifications, the central government will, in the future, also have to focus on ensuring sufficient (human) resources,[19] elaborating appropriate measures for implementation, and regular and systematic monitoring of the impact of the Client Gate at the central and local levels. An independent market research institute is currently monitoring take-up of the Client Gate, but as the service is still relatively new, little is known about the overall costs and benefits of e-authentication and rendering transactional services on line in Hungary.

The government is also experimenting with increasing take-up of electronic services by making it mandatory for some groups to use electronic channels to access some government services. For example, the use of e-filing is gradually becoming mandatory for businesses that can access transactional services when an authorised representative logs in through the Client Gate. The Client Gate will make it easier for these groups to meet their government obligation and perhaps lead them to use other online services as well.

Results

The Ket is an important step towards online transactional services as it allows electronic authentication and also satisfies the strict data protection requirements of Hungarian data protection laws. At the same time, it reduces inconveniences for customers and allows for the replacement of PIN identification services, which are less dependable. Finally, by permitting e-authentication through the Client Gate, it facilitates the co-ordinated provision of personal data. By law, citizens can no longer be required to repeatedly provide data that is already held in a government database.[20]

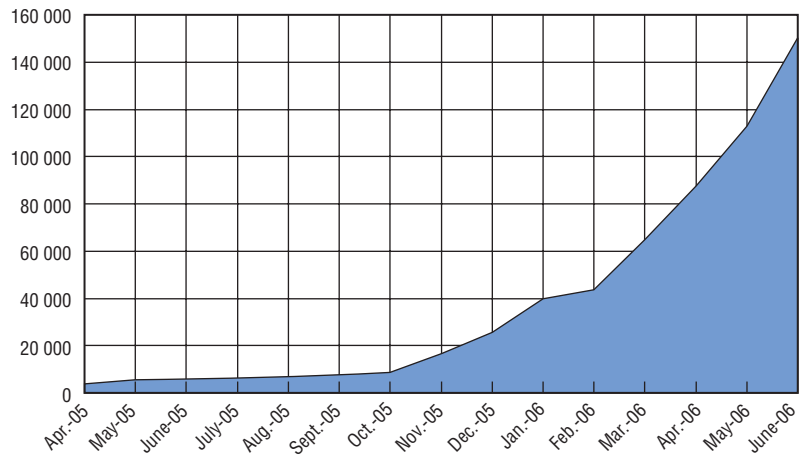
Following the introduction of the Client Gate, the number of electronic transactions has increased significantly. Since April 2005, the number of registered users has grown to 150 147 as of 31 June 2006 (see Figure E.1). This seems to be related to the implementation of the Ket, taking into consideration the low use of e-signatures on the one hand, and the reduction of administrative burdens for civil servants and citizens on the other hand. Currently, the Client Gate provides access, for example, to tax return services of the Tax Authority and records services of the former Ministry of Interior,

company registration and enrolment in higher education. (A spike in take-up numbers in May 2006 can be attributed to the fact that, in Hungary, the deadline for personal income tax declaration is in May each year.) Also, the system enables the participation in the online forum e-GAMES (eGovernment Assessment, Measuring and Evaluation System), which requires participants to be registered, and allows for the online receipt of government documents, replacing registered mail.

The first local governments are currently offering access to the Client Gate, either via IPSEC- VPN or their connection to the Government Backbone. Szeged is the first city to introduce access to local e-government services via the Client Gate. By registering, clients can access local services as well as those being offered by central government or government agencies.[21]

By providing a less burdensome solution, the Client Gate complements e-signatures and should be further promoted as a policy option to increase take-up of transactional services that do not require the most sophisticated identification and authentication mechanisms. Just as advanced e-signatures can be used either in interaction with businesses or with government, the shared use of the Client Gate by e-business and e-government services could increase both the volume of transactions and user familiarity, with resulting benefits for both government and business.

Figure E.1. **Number of persons registered at the Client Gate (end of month), 2005-2006**



Source: Kopint-Datorg zRt.

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ANNEX F

Methodology

Definition of the analytical framework

The methodology used for this peer review was developed by the OECD over the period from 2002 to 2004. The methodology is based on the OECD framework for examining e-government that was developed in *The E-Government Imperative* (OECD, 2003), and takes into account the work that went into the OECD publication *E-Government for Better Government* (OECD, 2005). 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 Denmark, Mexico, the Netherlands, Norway and Turkey.

The development of the OECD e-government peer review methodology is an ongoing process, but the general framework will be preserved to allow for comparability among countries. The OECD will continue to ensure that the methodology used is updated and as relevant as possible for OECD countries.

In the development of the methodology, the OECD has kept in mind that:

- The OECD should assign great importance to statistical rigour and quality when measuring and describing variables.
- Comparable descriptive characteristics of variables are necessary for building an international classification of e-government experiences.
- The OECD E-Government Project should compare its approach to those of other OECD directorates, and collect lessons learned for future reference and sharing with other directorates.

As the first step in a country review, the OECD Secretariat develops an agreement with review country authorities concerning the objectives, analytical framework and timeline of the study. The terms of reference set out

and structure the areas to be studied to provide an overarching view of e-government implementation and impacts.

The review is structured around the notion of a policy cycle in which e-government goals, strategies and initiatives are developed and diffused centrally, and individual e-government projects are initiated and implemented at the agency level. How these elements interact leads to a focus on issues of co-ordination in the development and implementation of e-government across the public sector – a recurring issue in the OECD's discussions with e-government officials and experts.

Inputs

The Hungary study is primarily qualitative in nature, presenting a combination of observations, analysis and judgements gleaned from reports and official documents, survey responses and interviews. The study has four main inputs:

- Reports and official documents.
- The OECD e-government survey.
- Interviews with government officials.
- Peer review meeting with OECD members.

Reports and official documents

The study drew upon a wide range of government documents across sectors and functions, which provided insights into the way that public management and e-government polices, strategies and initiatives are planned, co-ordinated and implemented in Hungary. Information was also drawn from recent relevant reports and reviews of Hungary from the OECD, 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 Hungary. 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 survey on e-government in Hungary

The OECD survey on e-government was originally developed in 2002 and revised in 2003 based on the experience of the Finland review. A revised version of the survey was presented to the OECD Steering Group on the Complementary Areas of Work on E-Government at a meeting in Paris in December 2003. Comments from the Steering Group were incorporated into

the final version of the survey. The survey has been adapted to reflect the Hungarian institutional and administrative framework.

From November 2005 to January 2006, the OECD conducted the survey with Hungarian central and local government organisations. The survey was targeted at officials with responsibilities relevant to e-government, who were asked to present their organisations' responses to the survey, rather than respond in their capacity as individuals. The survey sample was jointly selected by the OECD and the Hungarian Government (through the *Prime Minister's Office Electronic Government Centre*). Table F.1 shows the responses to the survey in Hungary.

The survey asked representatives of central and local government organisations for their opinions regarding e-government challenges, barriers and priorities. It should be kept in mind that the data results are qualitative and subjective, implying no possibility of performing tests of significance from which definitive conclusions can be drawn.

Please also note that the total response rate (central and local government) was only 48%. Consequently, some of the survey questions do not allow for substantive analysis in our report.

Table F.1. **Responses to the OECD survey in Hungary**

	OECD sample	Total answers	Valid answers	Response rate %
Central government (including ministries, subordinate departments, agencies, etc.)	103	61	61	59%
Local government	125	53	49	42%
Total	**228**	**114**	**110**	**48%**

Interviews with government officials

The review team conducted two sets of interviews with Hungarian government officials and other commentators from relevant interest bodies, industry associations and the ICT industry in Hungary. All interviews were scheduled by the former *Electronic Government Centre (EKK)* in the *Prime Minister's Office* with approval from 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 Hungary.

In the case of this review, the preliminary fact-finding mission and the peer reviewer mission were combined. The interview team including four members of the OECD Secretariat and three peer reviewers (Ms. Jude Hanan from New Zealand, Mr. Jose Dias Coelho from Portugal and Mr. Peter Reichstädter from Austria) undertook a total of 39 interviews.

The first set of interviews, on 1-2 December 2005, included interviews with some key players in the Hungarian e-government arena. The second set of interviews, on 5-9 December 2005, included peer reviewers and featured conversations with a number of representatives of ministries and different agencies responsible for designing, implementing and operating e-governmental services in Hungary.

The review team also conducted three focus group meetings: 1) the local government sector; 2) NGO e-government specialists and academics; and 3) civil society and business associations.

All interviews, which were strictly confidential, followed a structured set of questions, covering each of the main themes of the report. The interviews focused on the more informal issues that could not be captured with the written survey.

Peer review meeting

In the assessment phase of an OECD Peer Review, the main findings of the review are discussed in a plenary meeting of the body responsible for the review. The examiners lead the discussion, but the whole body is encouraged to participate extensively. Following discussions, and in some case negotiations, among the members of the body, including the reviewed country, the final report is adopted, or just noted by the whole body. Generally, approval of the final report is by consensus, unless the procedures of the particular peer review specify otherwise (see *Peer Review: An OECD Tool for Co-operation and Change*, OECD, 2003).

Independence, neutrality and verification of inputs

Within a framework agreed with the Hungarian Government, the OECD conducted this study with its own staff and independent peer reviewers. The study was conducted with guidance and financing from the former *Electronic Government Centre (EKK)* in the *Prime Minister's Office*, which did not bias the study or influence the final conclusions in any way.

The report was drafted by the OECD Secretariat with the input of the three peer reviewers from Portugal, New Zealand and Austria. The OECD regularly briefed the *Prime Minister's Office Electronic Government Centre* on the progress of the review. The text also benefited from fact-checking, consideration and feedback by the former *Electronic Government Centre (EKK)* in the *Prime Minister's Office* and other relevant organisations that participated in the survey and interviews.

ANNEX G

Glossary

This glossary was compiled for the purpose of this study, and describes how the following terms are used in this report.

BACK OFFICE: The internal operations of an organisation that support its business processes and are not accessible or visible to the general public.

BACK-OFFICE INFRASTRUCTURE: ICT infrastructure within an organisation, which supports core business process applications but has no external interface with costumers.

CHANNELS: Means of accessing government services, such as the Internet, telephone, or a visit to a government office. Different types of customers use different service access channels.

E–AUTHENTICATION: A security measure for checking users' identities before they are allowed access to an online information system or application.

E–GOVERNMENT: The use of information and communication technologies (ICTs), and particularly the Internet, as a tool to achieve better government.

ENTERPRISE ARCHITECTURE: Defines the overall structure of an organisation's processes, information systems, personnel and organisational sub-units, with a view to aligning them with the organisation's core goals and strategic direction.

EXTERNAL BARRIERS: Obstacles to e-government that require specific actions (*e.g.* modification of laws by legislature) in order to be overcome. They often concern breakdowns, missing components or lack of flexibility in the government-wide frameworks that enable e-government. The result is often the inability to achieve effective e-government implementation.

FRONT OFFICE: "Government as its constituents see it" – the information and service providers, and the interaction between government and both citizens and businesses.

FRONT-OFFICE INFRASTRUCTURE: ICT infrastructure designed specifically as an interface for communicating with external costumers (such as websites or portals).

INFORMATION AND COMMUNICATION TECHNOLOGY (ICT): Any equipment or interconnected system (or subsystem) of equipment that includes all forms of technology used to create, store, manipulate, manage, move, display, switch, interchange, transmit or receive information in its various forms. Such forms can include: business data; voice conversations; still images; motion pictures; multimedia presentations and others not yet conceived. Communication refers to a system of shared symbols and meanings that binds people together into a group, a community, or a culture. The word communication was added to ICT to make a network of the usage of Information Technology. ICT refers to both computer and communication technology.

INFORMATION MANAGEMENT (IM): Operations which develop and maintain the information resources and processes of an organisation.

INFORMATION NETWORK: A system of ICT, hardware and services which provides users with delivery and retrieval services for a given set of information (*e.g.* electronic mail, directories and video services).

INFORMATION NETWORK INFRASTRUCTURE: The whole system of transmission links, access procedures, legal and general frameworks, and the basic and supportive services of the information network.

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.

INFORMATION TECHNOLOGY (IT): The hardware, software and methods used for electronic processing and transfer of data.

INTEROPERABILITY: Organisations' ability to share information systems and/or data, generally based on using common standards.

MIDDLEWARE: Software that integrates services and distributed applications across the Internet or local area networks, and may provide a set of services such as authentication, messaging, transactions, etc. Middleware allows government organisations to share data between front-office service delivery channels and back-office applications and processes, both within and across organisations; it is increasingly perceived as a technology for delivery of joined-up e-government services.

M–GOVERNMENT: Mobile government, sometimes referred to as m-government, is the extension of e-government to mobile platforms, as well as the strategic use of government services and applications through mobile

phones, laptop computers, personal digital assistants (PDAs) and wireless Internet infrastructure. M-government recognises and responds to the changing nature of public sector work, such as the desire for public officials to spend more time in local communities rather than office buildings but retain access to information services and public sector systems. M-government is also reflected in the changing pattern of public interaction with government. An example of mobile technologies would be sending a mass alert to registered citizens via short message service, or SMS, in the event of an emergency.

ONLINE GOVERNMENT SERVICES: Services provided by, but not necessarily supplied by, the public administration to citizens, businesses and organisations (including other government organisations) through information networks.

PORTAL: A website that co-ordinates and presents information and services from a variety of providers, with the content presented in accordance with criteria related to users' needs.

PUBLIC KEY INFRASTRUCTURE (PKI): A method for authenticating a message sender or receiver and/or encrypting a message. PKI enables users of an insecure public network, such as the Internet, to securely and privately exchange data through the use of a cryptographic key pair obtained and shared through a trusted authority. It provides for use of digital certificates that can identify an individual or an organisation, and directory services that can store, verify and, when necessary, revoke the certificates.

PUBLIC-PRIVATE-PARTNERSHIP: A generic term for projects involving both the public and private sectors (with varying levels of involvement and responsibility).

ANNEX H

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HUNGARY

E-Government in Hungary has been driven by the overarching national goal to integrate Hungary in the European Union. Strong political leadership has lead to results in a short space of time, including the online availability of 20 core e-government services benchmarked by the EU, as well as other transactional services. Hungary has also set up a government-wide electronic communication backbone, a national government portal and an electronic authentication gateway – all important elements for co-ordinated online service delivery.

The review draws several important lessons from the Hungarian experience: Hungary has moved forward by adopting international good practices, rather than re-inventing the wheel. In order to continue progress, however, Hungary needs to focus on the bigger picture which means using e-government to improve the efficiency and effectiveness of the public sector, *i.e.* better government, not more government.

This review also identifies the challenges that Hungary will face in order to meet these new objectives. The first is to better use e-government to support the reform agenda and business process re-engineering in the context of major budget restrictions. The second is to increase cross-governmental collaboration and standardisation. And the third is to improve take-up and develop e-government at the local level.

This report is in English only. However, a French translation of the Assessment and Proposals for Action has been included in this volume.

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