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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 Dutch government, was completed in October 2006. It draws on a survey of Dutch central and local government organisations administered in November-December 2005, extensive review of information about public management and e-government in the Netherlands, and a series of interviews with Dutch officials and other commentators held in January 2006. The report was drafted with the participation of peer reviewers from the governments of Belgium, Denmark and Ireland. These e-government practitioners 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 Gwendolyn Carpenter and Yih-Jeou Wang, who were assisted by Melissa Peerless (editing, writing and research) and Marie Vidal (survey and statistics). Special thanks are given to the three peer reviewers: Colm Butler (Ireland), Kim Lindskov Knudsen (Denmark), and Dominique Volon (Belgium).

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Assessments and Proposals for Action

Main findings

Like other OECD countries, the Netherlands has established e-government policies elaborating and specifying general Information Society goals adopted in the mid-1990s. The Netherlands has successfully implemented e-government services in the public sector over the years, and future efforts will focus on putting in place back-office integration and organisation for delivering seamless services, reducing administrative burdens, and making the public administration more efficient, effective and user-focused. The Netherlands is not pursuing e-government as an end in itself, but rather as an enabler of wider government transformation and modernisation objectives centred on reducing administrative burdens. These efforts, while on track, would benefit from additional guidance and support to all levels of government to balance the decentralised structure of service delivery responsibilities.

The country review has revealed a number of characteristics of e-government in the Netherlands, which can be summarised in the following three main findings:

- **Improve public sector effectiveness through a broader focus on modernisation and support for e-services development:** Achieving administrative burden reduction is high on the political agenda and has strong support from Parliament. Internationally, the Netherlands is in the forefront on reducing administrative burdens, which has become a major justification for e-government development. External and internal communications clearly focus on administrative burden reduction as an outcome – but with limited regard to the processes by which these outcomes can be achieved and how they are related to broader reforms that enable change. The political focus on this goal has not sufficiently covered the overarching goals of public sector modernisation. E-Government should be more explicitly viewed as a tool for transformation, and better guidance on how to achieve user-focused service delivery should be distributed.
- **Improve public sector efficiency through the mandatory use of common e-government building blocks and key e-services, and clear funding principles:** Improving and further developing existing e-services, and implementing new and fully transactional e-services, depend heavily on using

jointly agreed and implemented common public sector e-government building blocks (*e.g.* common key registers and unique identifiers for citizens and businesses). This approach reduces duplication, aligns data definitions, and provides a foundation for new services. The implementation of common building blocks sets the cornerstone for providing seamless services to citizens and businesses, but there remains some confusion about how such efforts should be funded. By clarifying funding principles for common e-government building blocks, the Netherlands could further support e-government development and implementation.

- **Improve user-focused service delivery through better monitoring and evaluation practices:** In line with the traditional Dutch focus on participative and inclusive government featuring broad citizen consultation and involvement, the Netherlands has developed ambitious programmes and activities that aim to lead to increased user take-up of e-services. The impact on user take-up has, however, been limited. Common monitoring and evaluation methodologies should be considered to measure user needs and the success of electronic services in meeting those needs; such monitoring efforts may ensure better feedback to inform strategy adjustments in development and implementation, increase user take-up, and make e-government services to citizens and businesses more relevant.

The key assessments and main proposals for action will be presented under the following chapter headings of the main report: challenges to e-government, e-government leadership, implementation of e-government, collaboration frameworks, and outputs and outcomes. Each of the sections will briefly introduce the relevant context followed by selected key assessments and main proposals for action from the main report. Full details and analyses can be found in the main report.

Challenges to E-Government

The Netherlands has faced and met a number of e-government challenges identified by the OECD. The overall context in which Dutch government organisations are required to develop and implement e-government is favourable with regard to, for example, Internet and broadband penetration and general educational level. The main challenges can be summarised as:

- The **Dutch legal system** provides a framework enabling digital communications both within and across government that is supportive of e-government. However, there is a widespread perception in the public sector that laws and regulations regarding e-government are complex; this will have to be addressed to ensure maximum efficiency of the building blocks and greatest effect of e-government on the horizontal goal of administrative burden reduction.

- Some budgetary challenges remain. The Electronic Government Programme is financed using the overarching basic funding principle that funding obligations follow the division of responsibilities among central government institutions. In other words, no extra funding is available for developing e-government within central government. The limits of this ***ad hoc* financing approach** have already been recognised by the Ministry of Finance, which has taken up the task of developing a generic model for funding of key registers within the Electronic Government Programme.
- **Users' behaviour** regarding the take-up and use of ICT is largely positive. To ensure better take-up, the government will have to involve non-user groups and focus more on user motivation and needs.

Key assessments

- The funding principles of the Electronic Government Programme may not establish the right incentives to support e-government development that is both efficient and seamless. In particular, the "sow-harvest"[1] problem of e-government investment needs to be addressed. The transformational potential of e-government will require less administratively burdensome ways to balance transparency of costs with shared service delivery responsibility by the public sector as a whole.
- The *ad hoc* approach to funding common e-government building blocks is not an effective way of assuring funding for more user-focused services; this approach increases the possibility of opaqueness and the risk of non-comparability across sectors and levels of government. This could lead to possible difficulties in establishing common whole-of-government monitoring and evaluation activities for e-government projects and initiatives, a necessary pre-condition for the improvement of user-focused government.

Main proposal for action

- To create stronger incentives for e-government development, the Netherlands should consider establishing:
  - A common budgetary, financial and decision-making concept for the whole public sector to enable the Dutch government to gain an overview of e-government spending and establish common evaluation and decision practices for e-government projects. The framework should specify principles for funding and business case analysis (including return-on-investment and total-cost-of-ownership considerations) to be applied throughout the public sector.

- A central e-government fund to finance common e-government building blocks. A centrally managed e-government fund could simplify the process of creating a budget for common e-government building blocks, and also lever the imbalance of sector institutions funding projects that provide common public sector benefits.

E-Government Leadership

The basic Dutch governance culture of extensive decentralisation of tasks and decisions to highly autonomous provinces and municipalities limits the scope of centrally managed implementation of government policies. Since the early 1990s, administrative power and policy responsibility have continuously been transferred from central government to local governments, strengthening and broadening local governments' responsibilities for delivery of many government services. In April 2006, the Minister of Government Reform and Kingdom Relations, the Association of Provincial Authorities, and the Association of Netherlands Municipalities agreed upon a new strategic framework for e-government implementation in the provinces and the municipalities. The implementation agenda adopted by all parties calls for concrete deliverables with specific timelines, and clearly delineates the responsibilities of the national government and local governments. It calls for broader participation by ministries in future consultations with local governments on e-government matters.

E-Government leadership is exercised through the four co-ordinating ministers: the Minister of Government Reform and Kingdom Relations, the Minister of Economic Affairs, the State Secretary of Finance, and the State Secretary of Social Affairs and Employment. The Minister of Government Reform and Kingdom Relations holds overall political responsibility for e-government policy, together with the Minister of Economic Affairs. The group of co-ordinating ministers is supported by:

- The **Co-ordination Group for Electronic Services (CEDI)** brings together high-level civil servant representatives from a broad range of ministries providing and developing substantial e-services. According to OECD interviews, this group functions practically as a co-ordination and decision forum for e-government matters and also prepares meetings for the Ministerial E-Government Co-ordination Group.
- The **core-CEDI group** consists of representatives of the four central co-ordinating ministries. It prepares issues for discussion and decision in CEDI meetings. This group is supported by the Inter-departmental Management Team (IMT), which includes representatives from other ministries working on e-government development.

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Because individual ministers have no formal position to intervene in the issues of other ministers, these informal bodies have been developed to provide efficient and co-ordinated e-government leadership. The bodies have successfully convinced ministries to prioritise e-government implementation; additionally, decisions concerning major cross-cutting e-government projects, including the commitment of financial resources, have been taken within the framework of this informal e-government organisation. Conclusions may be formalised by the Cabinet of Ministers when needed, and the conclusions are binding for all ministers.

Key assessment

- Obtaining strong e-government leadership is a challenge, and an obvious focal point is lacking. The co-ordination and implementation of e-government policies are spread among a number of different public or semi-public bodies at three levels of government. The lack of leadership of e-government development was frequently mentioned in OECD interviews and is also supported by the results of the OECD survey. Even though co-ordination has been strengthened within central government, and agreements have been reached on the conditions for e-government implementation and a concrete roadmap to reach specific goals, further collaboration has been called for. This signals both ambivalence in the centre about exerting authority in a decentralised system and a lack of effectiveness in communicating the main messages about e-government and its benefits.

Main proposal for action

- The Netherlands should consider whether e-government leadership in the public sector could be strengthened through simpler and clearer organisational setups, and better-communicated roles and responsibilities:
  - Central government should consider whether e-government leadership could be strengthened or increased through simpler and strengthened co-ordination structures, which could also increase each ministry's overall leadership role and responsibility for e-government development and implementation within its own sector.
  - Provinces and municipalities should consider whether a strengthened co-ordination effort could improve overall benefits realisation. Voluntary collective commitments and joint actions within and across levels of government incorporating, for example, the organisational frameworks of VNG (Association of Netherlands Municipalities) and IPO (Association of Provincial Authorities) should be utilised more systematically as a lever for co-operation and collaboration with central government.

Implementation of E-Government

The Netherlands has chosen to implement e-government through two basic types of **implementation organisations**: so-called "arms-length" organisations (*e.g.* ICTU, the Dutch central government's e-government implementation organisation) and in-house implementation organisations (*e.g.* within the Dutch Tax and Customs Administration). Both strategies have proven successful; both types of implementation organisations have their advantages and disadvantages. The "arms-length" organisations operate under the conditions of private sector companies, but effectively function as public sector organisations fully steered by management boards heavily influenced by central government. The advantage is that such organisations can focus solely on the task they have been created to undertake. However, the lack of clear division of roles for the involved public authority/authorities may raise basic governance issues about transparency and accountability. The in-house implementation organisations often do most of their development and implementation of e-government services using internal resources and competencies. According to OECD interviews, outsourcing of services has continuously been considered, but no decisive conclusions have been reached.

The Netherlands has chosen to create **centres of competence** in the different e-government implementation organisations. ICTU, for example, has adopted a deliberate strategy of cross-fertilisation between the public sector and the private sector by hiring civil servants from the public sector (primarily ministries) as project staff for a specific period in order to give them the opportunity to learn project management through hands-on e-government implementation. In this way, civil servants will bring new competencies back to their original workplaces and be part of a long-term change in administrative and operational approaches, traditions, and cultures to a more project-oriented way of organising and performing tasks.

Central government has recognised a need for **monitoring and evaluation** to improve the management of e-government development and implementation – and activities have been launched to develop common methodologies and concepts for monitoring and evaluation. However, concrete solutions are still not available, and monitoring and evaluation are seldom used systematically as managerial tools by individual institutions. In order to measure e-government progress, the Netherlands must put in place basic indicators describing its development. Indicators have not yet been agreed on as an integrated tool for managing e-government activities and tracking progress.

Key assessments

- Although government officials recognise the necessity of making management of e-government more professional through monitoring and evaluation, this is not yet practiced systematically. The purpose of monitoring and evaluation activities primarily seems to be tracking user take-up of e-services, not determining whether overarching e-government goals of efficiency and effectiveness are being met. Evidence from the Netherlands suggests that e-government services development rarely includes early identification of critical success factors, which are then translated into key performance indicators to assess the services and their relevance to the target user community.
- E-Government implementation has been increasingly transferred to "arms-length" organisations set up as private foundations and fully controlled by government; this opens the possibility of divergent interests and a less transparent environment. Private sector participants in OECD interviews raised the question that such organisations could render procurement processes less transparent if no clear outsourcing or public-private partnership policies have been defined and broadly communicated.
- The focus on skills and competencies for both front-office and back-office implementation showed by the OECD survey is not surprising. It underlines the necessity for the public sector to integrate these two lines of application in order to establish a "whole-of-government" view of e-government implementation to the extent that it is the desired approach. This view is not commonly shared and should be communicated more strongly to the public sector and its institutions. Perhaps a skills and competencies development, non-ICT building block is required to build a new form of public administration – focusing on the potential of connectivity in the creation of a new paradigm.

Main proposals for action

- To address the lack of a common concept for monitoring and evaluation allowing the government to track progress in achieving overarching e-government goals, the Netherlands should consider developing, adopting and implementing a common concept for monitoring and evaluation, and a set of tools to be used by all public and quasi-public institutions. Strengthening the focus on harvesting benefits of e-government development could mean that more emphasis should be put on using analytical tools like cost/benefit and business case analysis.

- To regain a clear division of e-government roles and activities, the Netherlands should reconsider whether responsibilities are sufficiently delineated between public sector institutions and the private sector. One way of clarifying roles and responsibilities is to define clear-cut public-private partnerships where possible, in order to make use of the specific competencies and skills within the private sector.
- The Netherlands should consider developing a broader initiative to address the challenge of a traditional organisational culture of non-collaboration and a "stove-piped" working environment with regard to implementation of e-government. A new framework for cross-organisational collaboration on implementation should be developed and put in place, together with clear incentive structures that encourage civil servants to engage in cross-organisational implementation projects. Developing project-oriented activities within and across public sector institutions could be one tool to break down habitual "stove-piped" work behaviours.

Collaboration frameworks

The Dutch government is focusing on developing shared services and concepts to be used by all public sector institutions when implementing e-government in their own organisations. The use of common public sector e-government building blocks has been a key to the success of present strategies and action plans. However, Dutch officials point to further needs for co-ordination and co-operation in implementation of jointly agreed public sector structures and building blocks. Commonly accepted ways of developing and implementing more user-focused e-government are needed; they require continuous careful consideration on the strategic level, better monitoring of service demands by users, and closer collaboration on how concrete implementation should take place.

In recent years, the Netherlands has shifted focus from developing front-office applications to developing proper back-office integration in order to more efficiently and effectively achieve better e-government service delivery – and, particularly, to meet the major political goal of reducing administrative burdens. The Dutch e-government priority has thus gradually been shifting towards identifying and organising basic back-office infrastructure elements, information flows and – to some degree – work processes that can be standardised and shared among several public bodies. Common technical platform references were approved in 2006 by central government with the support of the provinces and the municipalities as a framework for a common public sector enterprise architecture.[2]

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GBO.OVERHEID, the Dutch government-wide shared service organisation for ICT created 1 January 2006, has assumed responsibility for the tactical and operational management and maintenance of generic shared key services for e-government in the public sector, including standardisation tasks. This organisation will enable the Dutch public sector to assemble and consolidate generic common e-services used by many public or quasi-public institutions at all levels of government. The next steps in development will be to identify further common business processes which can be developed and maintained within this organisation for the benefit of the public sector as a whole.

The Netherlands is in the beginning of a centralised effort to standardise a broad range of data-related objects across the public sector: legal standardisation of data definitions to secure harmonized legal terminology; standardisation of data structures and interface descriptions with regard to public-sector-wide organisational considerations; and standardisation of data structures and interface descriptions with regard to technical considerations. The Standardisation Council, supported by a Standardisation Forum with stakeholder representation from the public and private sector, formally began work in April 2006. Its mandate, role and concrete responsibilities are not yet clear, but it could be given a role in contributing to a needed cross-sector standardisation of public sector data and data exchange interfaces.

Interconnectivity of e-government services and the provision of "seamless services" throughout the public sector are gradually evolving through a number of activities and initiatives. These different sector-wide components lack the "glue" of an approved organisational and technical framework, which can ensure interconnectivity and interoperability of e-government services for all levels of government. This work seems to be duplicated within the levels of government by ICTU, which holds joint responsibility for implementing the EGEM programme (co-operation programme with the municipalities) and the e-Provincies programme (co-operation programme with the provinces), and for combining and co-ordinating public sector enterprise architecture work. Even though a reference architecture (NORA, the Netherlands' Government Reference Architecture) has been developed and was approved by core-CEDI (the preparation group for meetings in the CEDI – the high-level civil servant Co-ordination Group for Electronic Services) in May 2006, it remains to be seen whether this will develop into a common public sector enterprise architecture.

For the public sector as a whole, the primary channels for information provision and transactional services seem to be websites and traditional call centres. Looking at the heavy dominance of long-established service delivery channels like call centres and "walk-in" services, there is a large potential to apply multi-channel strategies to develop and market e-services and to improve take-up of services, and to make service delivery more efficient and effective.

Key assessments

- Public sector recognition of the necessity to develop an e-government foundation for the whole public sector seems to be limited and technically oriented without a broader strategic view on interoperability and interconnectivity of e-government services across organisational boundaries and levels of government. Even the term "enterprise architecture" is ambiguous and suffers from being considered a "technological foundation" by some (its wider definition embraces organisational structures and functionalities as well). Creating GBO.OVERHEID is an opportunity to generally re-evaluate the development of a foundation for the public sector. This is a much bigger challenge, which requires engaging political players at all levels. Alternatively, this could be a part of broader efforts on standardisation that strengthen previous accomplishments within existing projects and in formerly different organisations and programmes (ICTU and ICTAL).
- For government, balancing the tensions between the need for efficiency (by limiting numerous costly delivery channels) and the desire for effectiveness (in terms of satisfying user expectations and needs) is difficult. This may be more a political issue than an administrative problem. Over time, older and lesser-used channels will have to disappear as new possibilities emerge through ubiquitous computing and connectivity with, for example, mobile phone technology. The lack of systematic usage of multi-channel delivery strategies in e-government development is an area for further consideration and exploration by the different levels of government, where relevant and needed. Deliberate use of multi-channel delivery strategies as an integrated part of e-government development would probably enable the Dutch public sector to increase user take-up and satisfaction with service delivery while harvesting efficiency gains by channelling users into appropriate services, managing increasing expectations, and providing the right services to the right users.

Main proposals for action

- The Netherlands should consider developing and adopting a common public sector enterprise architecture. The work should be closely coupled with the development of e-government standards and should be based on previous work by implementation organisations.
- In order to take full advantage of multi-channel delivery to increase user take-up of public services, the Netherlands could consider developing a common public-sector-wide strategic approach for applying multi-channel strategies to accommodate a joint approach to managing delivery channels, incentives and change of habits to the benefit of both users and public sector institutions.

Outputs and outcomes

Delivering "seamless services" by focusing on back-office interoperability and interconnectivity has moved the general development stage of Dutch e-services forward towards vertical integration with more fully transactional services. The Netherlands has made substantial progress towards more mature services; this finding is further supported by the EU-commissioned Capgemini study of the 20 key e-services prioritised by the EU. The report shows that the Netherlands has reached two-way interaction and has made substantial progress in terms of putting a large number of services online.

Yet, the Netherlands faces the same challenges as many other OECD countries – lack of user take-up and maturity of e-government services. There are significant gaps between the supply and the actual use of online services in the Netherlands, indicating that users are either not satisfied with or not aware of these services, or the benefits of using e-enabled services. The Dutch e-government policy focus on citizens' needs and better services – and the tradition of broad consultations in the development of policy in general – is at odds with actual implementation. Burger@Overheid.nl, the Dutch e-citizen programme, was set up to improve and monitor these ambitions. The aim of the programme is to create a competence centre for citizen-focused e-government development that enables the programme to inform public sector officials on e-government issues.

E-Services for businesses follow the same development paths as e-services to citizens. In the period 2000-04, the provision of e-services to businesses increased steadily. However, internationally, the Netherlands ranks significantly lower in service provision to businesses than its peers. The Netherlands falls near the EU-15 average concerning supply and take-up. According to OECD interviews, the Dutch Tax and Customs Authority has mandated that all business tax return forms should be submitted electronically. This, in essence, forces a large group of society to use digital services; it will eventually benefit the private sector's competitiveness. Wide-scale adoption of electronic public procurement in the Netherlands offers similar drivers and benefits. It can be a major catalyst in the introduction of modern information systems and connectivity for businesses, if backed up with appropriate business support programmes.

Government-to-government e-services delivery is still in its infancy in the Netherlands. ICT-enabled governance structures, collaboration models (sharing data, production processes, and portals) and "networked" government are often described as central to the transformation of government.

Key assessments

- The Netherlands has for several years focused on delivering citizen-focused e-services. A special central government programme – Burger@Overheid.nl –

provides a foundation for a citizen-focused approach to e-government development. This has, however, not resulted in increased user take-up of e-services, or the development of equal and fair provision regarding the number and quality of services.

- The Netherlands has developed a number of e-services for businesses. However, it has generally been recognised that the Netherlands is not performing as well as would be desired on the e-services for businesses front. The political focus on achieving administrative burden reduction has not yet resulted in prioritisation of developing sufficiently integrated e-services for businesses, which mirrors both emerging gaps in ICT diffusion and productivity reviews, and general efficiencies of scale for innovation. There is a clear need for a significant change in the way the public sector interacts with businesses.

Main proposals for action

- In order to address the apparent low level of user take-up of developed e-government services, the Netherlands should consider how activities conducted by Burger@Overheid.nl can be strategically and practically utilised and integrated in e-government planning and implementation throughout the public sector.
- The Netherlands should consider developing a common strategy and action plan to support and encourage businesses to use e-services provided by the public sector. A "stick and carrot" strategy could be considered as a part of such an action plan, moving towards mandatory electronic communication with public authorities. Prioritising quick development of fully integrated and seamless services for the Dutch private sector will likely provide rapid return on investment and increase user take-up, with the added benefit of improving the general competitiveness of Dutch companies in a global perspective.

Notes

1. The "sow-harvest" problem of e-government concerns the dilemma of who should pay for the development, implementation and daily operation of generic e-services when those e-services have been developed and implemented by one institution or organisational unit but the benefits are mainly harvested by other institutions or organisational units in the public sector.
2. An "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.

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Évaluation et mesures proposées

Principales conclusions

Comme les autres pays de l'OCDE, les Pays-Bas ont défini leur politique de l'administration électronique à partir des objectifs généraux de la société de l'information adoptés au milieu des années 90. Ils ont réussi en quelques années à mettre en œuvre les services d'administration électronique dans le secteur public. Leurs efforts se concentreront à l'avenir sur l'intégration et l'organisation logistiques pour assurer des services homogènes; les charges administratives s'en trouveront allégées et l'administration publique n'en sera que plus efficiente, plus efficace et mieux centrée sur l'usager. Les Pays-Bas ne jouent pas la carte de l'administration électronique comme une fin en soi, mais comme un instrument plus général de transformation et de modernisation de l'administration, axé sur la réduction des charges administratives. Cette action en cours gagnerait à être mieux encadrée et mieux appuyée à tous les niveaux d'administration, afin d'équilibrer la structure décentralisée des missions de prestation de services.

L'examen national a révélé un certain nombre de caractéristiques de l'administration électronique aux Pays-Bas, que l'on peut résumer par les trois principales conclusions qui suivent :

- **Renforcer l'efficacité du secteur public par un cadrage plus large de la modernisation du secteur public et de l'action en faveur du développement des services électroniques :** la réduction effective des charges administratives est une priorité pour les responsables politiques et emporte une large adhésion au Parlement. Par rapport aux autres pays, les Pays-Bas sont à l'avant-garde de la réduction des charges administratives, aujourd'hui l'une des justifications essentielles du développement de l'administration électronique. Les communications externes et internes visent clairement la réduction des charges administratives, mais elles ne s'intéressent guère aux mécanismes permettant d'atteindre ce résultat, ni à leur articulation avec les réformes de plus large portée en faveur du changement. La concentration politique sur cet objectif n'a pas suffisamment tenu compte des objectifs plus généraux de modernisation du secteur public. Il faudrait considérer l'administration électronique plus explicitement comme un vecteur de transformation et formuler des orientations plus précises sur les moyens d'assurer une prestation des services centrée sur l'usager.

- **Accroître l'efficience du secteur public en imposant des modules et des services électroniques de base communs :** la modernisation et le développement des services électroniques existants, ainsi que la mise en œuvre de nouveaux services électroniques pleinement transactionnels, sont tributaires de l'utilisation de modules communs dans le secteur public (par exemple des registres de base communs et des identifiants uniques pour les particuliers et les entreprises). Cette méthode réduit les risques de duplication, harmonise la définition des données et jette les bases de nouveaux services. L'utilisation de modules communs est la pierre angulaire de la prestation de services homogènes aux citoyens et aux entreprises, mais les modalités de financement de cet effort restent un peu confuses. En clarifiant les principes de financement des modules communs de l'administration électronique, les Pays-Bas pourraient mieux conforter le développement et la mise en œuvre de l'administration électronique.
- **Centrer davantage la prestation des services sur l'usager par de meilleures méthodes de suivi et d'évaluation :** dans la tradition nationale de gouvernement participatif et inclusif, qui se caractérise notamment par une très large consultation et participation des citoyens, les Pays-Bas ont mis au point des activités et des programmes ambitieux pour développer l'utilisation des services électroniques. Leur effet a toutefois été limité. Il faudrait réfléchir à des méthodes communes de suivi et d'évaluation pour mesurer les besoins des usagers et l'efficacité des services électroniques pour y répondre; ce suivi pourra assurer un meilleur retour d'information pour éclairer l'adaptation des stratégies de conception et de mise en œuvre, augmenter le taux d'utilisation et rendre un meilleur service aux particuliers et aux entreprises.

Les évaluations essentielles et les principales mesures proposées sont exposées sous les têtes de chapitre suivantes du rapport d'examen : les obstacles à l'administration électronique, l'impulsion pour l'administration électronique, la mise en œuvre de l'administration électronique, le cadre de la collaboration, et les résultats ainsi que leurs effets. Chaque chapitre du rapport d'examen décrit brièvement le contexte, puis présente les évaluations essentielles et les principales mesures proposées. Les informations détaillées et l'analyse complète figurent dans le rapport d'examen.

Les obstacles à l'administration électronique

Dans la mise en œuvre de l'administration électronique, les Pays-Bas ont dû faire face à un certain nombre d'obstacles recensés par l'OCDE. Le contexte dans lequel les organisations publiques doivent élaborer et mettre en œuvre l'administration électronique est favorable, par exemple, du point de vue de la pénétration de l'Internet et du haut débit, et aussi du point de vue du niveau

général d'instruction. Les principaux défis à relever peuvent se résumer comme suit :

- Le **système juridique des Pays-Bas** offre un cadre qui rend possibles les communications numériques administratives, tant internes qu'entre administrations, et qui est donc propice à l'administration électronique. Cependant, l'idée est très répandue dans le secteur public que la réglementation concernant l'administration électronique est complexe; il faudra y remédier pour optimiser l'efficience des modules communs et maximiser l'impact de l'administration électronique sur l'objectif horizontal de réduction des charges administratives.
- Certaines difficultés budgétaires subsistent. Le grand principe pour le financement du Programme d'administration électronique est que la répartition des charges budgétaires suit celle des compétences entre les organes de l'administration centrale. En d'autres termes, aucun financement supplémentaire n'est mobilisable pour développer l'administration électronique dans l'administration centrale. Le ministère des Finances s'est déjà rendu compte des limites de ce **mode de financement *ad hoc***, et il s'emploie à élaborer un modèle générique pour financer les registres de base dans le cadre du Programme d'administration électronique.
- Le **comportement de l'usager** sur le plan de l'adoption et de l'utilisation des TIC est largement positif. Pour développer encore l'administration électronique, les autorités devront faire participer les non-usagers et s'attacher davantage aux motivations et aux besoins des usagers.

Principales évaluations

- Les principes de financement du Programme d'administration électronique risquent de ne pas inciter comme il conviendrait à un développement de l'administration électronique efficient et intégré. Il faut en particulier s'attaquer au problème d'« appropriation des retombées »[1] que pose l'investissement dans l'administration électronique. Le potentiel de transformation lié à l'administration électronique va imposer des modalités administratives moins lourdes pour concilier transparence des coûts et partage de la charge des services entre tous les organes du secteur public.
- Le mode de financement *ad hoc* des modules communs de l'administration électronique n'est pas un moyen efficace d'assurer le financement de services plus centrés sur l'usager; cette méthode augmente le risque d'opacité et de non-comparabilité des différents secteurs et niveaux d'administration. Il pourrait en résulter des difficultés pour organiser des activités communes de suivi et d'évaluation qui mobilisent l'ensemble des autorités pour les projets et les initiatives d'administration électronique, condition préalable d'une administration davantage centrée sur l'usager.

Principales mesures proposées

- Afin de renforcer les incitations au développement de l'administration électronique, les Pays-Bas devraient envisager d'instituer :
  - Un concept commun budgétaire, financier et décisionnel pour l'ensemble du secteur public, qui permette au gouvernement d'avoir une vue générale des dépenses d'administration électronique et d'instaurer des méthodes communes d'évaluation des projets d'administration électronique. Ce cadre devra préciser les principes de financement et l'analyse de cas (notamment les considérations de rendement des investissements et de coût total d'appropriation) qui seront appliqués à l'ensemble du secteur public.
  - Un fonds central pour financer les modules communs de l'administration électronique. Un fonds pour l'administration électronique géré par l'administration centrale pourrait simplifier la budgétisation des dépenses consacrées aux modules communs de l'administration électronique; il pourrait aussi remédier au déséquilibre que crée le financement par des institutions sectorielles de projets qui profitent à l'ensemble du secteur public.

Les organes d'impulsion de l'administration électronique

La forte tradition décentralisatrice des Pays-Bas au profit de provinces et de communes très autonomes limite les possibilités d'application centrale des politiques gouvernementales. Depuis le début des années 90, les compétences ont été continuellement transférées des autorités centrales aux collectivités territoriales, renforçant et élargissant ainsi le rôle de ces dernières dans la prestation de nombreux services publics. En avril 2006, le ministre de la Réforme administrative et des relations au sein du Royaume, l'Association des autorités provinciales et l'Association des communes des Pays-Bas sont convenus d'un nouveau cadre stratégique pour mettre en œuvre l'administration électronique dans les provinces et les communes. Le programme adopté par toutes les parties demande des prestations concrètes dans des délais précis et définit clairement les compétences respectives des autorités nationales et des collectivités locales. Il appelle les ministères à participer plus largement à la concertation qui sera organisée avec les collectivités locales sur les questions d'administration électronique.

L'impulsion s'exerce via les quatre ministres coordinateurs : le ministre de la Réforme administrative et des relations au sein du Royaume, le ministre de l'Économie, le Secrétaire d'État aux finances et le Secrétaire d'État aux affaires sociales et à l'emploi. Le ministre de la Réforme administrative et des relations au sein du Royaume assume, avec le ministre de l'Économie, la responsabilité

politique générale de l'action concernant l'administration électronique. Ils s'appuient sur :

- Le **Groupe de coordination des services électroniques (CEDI)**, qui réunit des hauts fonctionnaires représentant d'un large éventail de ministères qui assurent et développent d'importants services électroniques. Selon les entretiens conduits par l'OCDE, ce groupe sert pratiquement de centre de coordination et de décision pour les questions d'administration électronique et prépare aussi les réunions du Groupe interministériel de coordination de l'administration électronique.
- Le **groupe central du CEDI** se compose de représentants des quatre ministères coordinateurs; il élabore les dossiers pour examen et décision lors des réunions du CEDI. Il s'appuie sur l'Équipe interministérielle de gestion, où siègent des représentants des autres ministères qui s'emploient au développement de l'administration électronique.

Les différents ministres ne pouvant intervenir officiellement dans les dossiers relevant de leurs collègues, ces organes dénués de tout caractère officiel ont été mis sur pied pour assurer un leadership efficient et coordonné dans le domaine de l'administration électronique. Ils ont réussi à convaincre les ministères de donner la priorité à la mise en œuvre de l'administration électronique; de plus, les décisions relatives aux grands projets transversaux d'administration électronique, notamment la mobilisation des ressources financières nécessaires, ont été prises dans le cadre de cette structure informelle de l'administration électronique. Les conclusions peuvent être officialisées par le Conseil des ministres le moment venu et s'imposer alors à tous les ministres.

Principale évaluation

- Assurer un leadership efficace pour l'administration électronique est une tâche extrêmement ambitieuse; ce qui manque surtout, c'est un point central parfaitement visible. La coordination et la mise en œuvre des politiques de l'administration électronique sont confiées à de multiples organismes publics ou semi-publics, à trois niveaux d'administration. Le manque de leadership pour le développement de l'administration électronique a fréquemment été cité lors des entretiens conduits par l'OCDE, et les résultats de l'enquête le confirment. Bien que la coordination ait été renforcée dans les administrations centrales et que des accords aient été conclus sur les conditions de la mise en œuvre de l'administration électronique et sur un plan de marche concret pour atteindre des objectifs précis, une collaboration plus étroite est nécessaire. En effet, l'ambivalence au centre pour l'exercice de l'autorité en régime décentralisé se double d'un manque d'efficacité dans la communication des principaux messages sur l'administration électronique et son utilité.

Principale mesure proposée

- Les Pays-Bas devraient se demander si l'impulsion nécessaire pour l'administration électronique dans le secteur public ne pourrait pas être renforcée par une organisation plus simple et plus claire et par une meilleure articulation des missions et responsabilités :
  - Les autorités centrales devraient examiner si le leadership en matière d'administration électronique et son impact ne pourraient pas être renforcés par des structures de coordination plus simples et plus fermes, qui pourraient aussi conforter la fonction mobilisatrice générale de chaque ministère pour le développement et la mise en œuvre de l'administration électronique dans son domaine de compétence.
  - Les provinces et les communes devraient se demander si un effort de coordination accru ne pourrait pas donner des résultats d'ensemble plus fructueux. Les engagements collectifs volontaires et les actions conjointes aux différents niveaux d'administration et entre eux, associant, par exemple, les réseaux de la VNG (Association des communes des Pays-Bas) et de l'IPO (Association des autorités provinciales) devraient servir plus systématiquement de levier de coopération et de collaboration avec les autorités centrales.

La mise en œuvre de l'administration électronique

Les Pays-Bas ont choisi de mettre en œuvre l'administration électronique au moyen de deux grandes catégories d'organisations : les organisations dites « indépendantes » (par exemple l'ICTU, l'organisation d'application des autorités nationales pour l'administration électronique) et les services internes d'exécution de l'administration (par exemple ceux de l'administration nationale des impôts et des douanes). Ces deux stratégies se sont avérées efficaces. Les deux types d'**organisations d'application** présentent des avantages et des inconvénients. Les organisations « indépendantes » exercent leurs activités dans les mêmes conditions que les sociétés du secteur privé, mais fonctionnent en fait comme des organismes du secteur public entièrement dirigés par un conseil de gestion que dominent les autorités centrales. L'avantage est que ces organisations peuvent se consacrer exclusivement à la tâche pour laquelle elles ont été créées. Toutefois, l'imprécision des rôles respectifs des autorités publiques qui y sont représentées peut soulever des questions fondamentales de gouvernance sur le plan de la transparence et de la responsabilité. Les services internes d'exécution réalisent souvent la plupart des tâches de développement et de mise en œuvre des services publics électroniques à l'aide des ressources et compétences internes. Selon les entretiens conduits par l'OCDE, l'externalisation de ces services est envisagée en permanence, mais sans qu'aucune conclusion décisive se dégage.

Les Pays-Bas ont choisi de créer des **centres de compétences** dans les différentes organisations d'application de l'administration électronique. L'ICTU, par exemple, a adopté une stratégie délibérément axée sur l'enrichissement mutuel du secteur public et du secteur privé en engageant des agents du secteur public (principalement des ministères) comme personnel de projet pour une durée déterminée afin qu'ils puissent apprendre la gestion de projet par l'expérience directe de la mise en œuvre de l'administration électronique. Ces fonctionnaires retournent ainsi à leur poste d'origine avec de nouvelles compétences et contribuent à la transformation à long terme des méthodes administratives et opérationnelles, des traditions et des mentalités, de manière à organiser et exécuter les tâches davantage dans une optique de projet.

Les autorités centrales sont conscientes de la nécessité du **suivi et de l'évaluation** pour une meilleure gestion du développement et de la mise en œuvre de l'administration électronique, et des activités ont été lancées en vue de définir à cet effet des méthodes et des concepts communs. Cependant, il n'existe encore aucune solution concrète, et le suivi et l'évaluation sont rarement utilisés comme instruments systématiques de gestion par les différentes institutions compétentes. Pour mesurer correctement les progrès de l'administration électronique, les Pays-Bas doivent disposer d'indicateurs de base qui décrivent son développement. Or, on n'a pas encore défini d'indicateurs pouvant servir d'instrument intégré pour la gestion des activités relatives à l'administration électronique et pour le suivi des progrès réalisés.

Principales évaluations

- Les autorités sont conscientes de la nécessité d'une gestion de l'administration électronique plus professionnelle par le suivi et l'évaluation, mais cet effort n'est pas encore systématique. Le but des activités de suivi et d'évaluation paraît centré sur la mesure du taux d'utilisation des services électroniques par les usagers, et pas sur le contrôle des objectifs primordiaux d'efficience et d'efficacité de l'administration électronique. Les observations recueillies aux Pays-Bas donnent à penser que le développement des services d'administration électronique commence rarement par la mise en évidence des facteurs essentiels de réussite, qui sont alors traduits en indicateurs clés de performance afin d'évaluer le service et son utilité pour les usagers visés.
- La mise en œuvre de l'administration électronique est de plus en plus souvent sous-traitée à des organisations « indépendantes », des fondations privées entièrement contrôlées par les autorités publiques; d'où le risque de divergences d'intérêts et d'un environnement moins transparent. Les participants du secteur privé aux entretiens conduits par l'OCDE ont fait

observer que ces organisations risquaient de nuire à la transparence de la passation des marchés publics si l'on ne définit pas avec précision une politique largement diffusée d'externalisation ou de partenariat public-privé.

- Il est tout à fait naturel que l'enquête de l'OCDE mette l'accent sur les qualifications et les compétences, tant pour les opérations de guichet que pour la logistique. En effet, le secteur public doit intégrer ces deux aspects de l'application pour établir une conception de la mise en œuvre de l'administration électronique qui mobilise l'ensemble des autorités publiques, s'il s'agit bien de la démarche retenue. Cette conception n'est pas universellement partagée et doit faire l'objet d'un effort de communication dans le secteur public et ses institutions. Peut-être faut-il un module non-TIC pour l'amélioration des qualifications et des compétences, de manière à mettre en place une nouvelle forme d'administration publique privilégiant le potentiel de connectivité pour la création d'un nouveau paradigme.

Principales mesures proposées

- Face à l'absence de stratégie commune de suivi et d'évaluation qui permette aux autorités publiques de suivre les progrès réalisés en direction des grands objectifs de l'administration électronique, les Pays-Bas pourraient envisager d'élaborer, d'adopter et de mettre en œuvre un concept commun pour le suivi et l'évaluation, ainsi qu'une palette d'instruments à l'usage de toutes les institutions publiques et parapubliques. Pour mieux tirer parti des bienfaits du développement de l'administration électronique, il faudra peut-être mettre davantage l'accent sur l'utilisation des instruments d'analyse, par exemple l'analyse coûts-avantages et l'analyse de cas.
- Pour clarifier la répartition des rôles et des activités, les Pays-Bas devraient se demander si les responsabilités respectives des institutions du secteur public et du secteur privé sont bien définies. Pour préciser les rôles et les responsabilités, une solution serait de définir avec précision des partenariats public-privé lorsque c'est possible, afin d'exploiter les qualifications et les compétences propres au secteur privé.
- Les Pays-Bas pourraient songer à lancer une action de plus grande envergure pour relever le défi de traditions administratives entravant la collaboration et d'un environnement de travail « cloisonné » face à la mise en œuvre de l'administration électronique. Il faut définir et appliquer un nouveau cadre de collaboration de toutes les administrations, ainsi qu'un dispositif d'incitation précis qui encourage les fonctionnaires à se lancer dans la collaboration et favorise les projets décloisonnés. Développer les activités organisées en projets dans les institutions du secteur public pourrait être un moyen de briser le cloisonnement des habitudes de travail.

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Cadre de collaboration

Les autorités néerlandaises s'attachent principalement à élaborer des services et des concepts communs à l'usage de toutes les institutions du secteur public qui mettent en œuvre l'administration électronique. L'utilisation de modules communs a été décisive pour la réussite des stratégies et des plans d'action en cours. Toutefois, les autorités indiquent qu'il faut renouveler les efforts de coordination et de coopération dans la mise en œuvre des structures et modules définis en commun dans le secteur public; il faut trouver des moyens généralement acceptés de concevoir et mettre en place une administration électronique plus axée sur l'usager; cela suppose un examen attentif et permanent des aspects stratégiques, un meilleur suivi des attentes des usagers et une collaboration plus étroite sur les modalités concrètes de mise en œuvre.

Ces dernières années, les Pays-Bas n'ont plus privilégié les applications de guichet, mais l'intégration de la logistique pour assurer avec plus d'efficience et d'efficacité une meilleure prestation des services d'administration électronique et, plus particulièrement, pour répondre à l'objectif politique essentiel, réduire les charges administratives. L'effort s'est donc progressivement porté sur la définition et l'organisation des éléments d'infrastructure logistique de base, les flux d'informations et, dans une certaine mesure, les tâches susceptibles d'être normalisées et partagées entre plusieurs organes publics. Les références de la plate-forme technique commune ont été approuvées en 2006 par les autorités centrales, avec l'appui des provinces et des communes, pour servir d'assise à une architecture fédératrice du secteur public[2].

GBO.OVERHEID, l'organisation chargée des services TIC communs à l'ensemble des administrations publiques créée le 1er janvier 2006, assure la gestion et de la maintenance tactiques et opérationnelles des principaux services génériques communs d'administration électronique dans le secteur public, y compris sous l'angle de la normalisation. Cette organisation permettra au secteur public hollandais d'intégrer les services électroniques génériques communs auxquels font appel de nombreuses institutions publiques ou parapubliques à tous les niveaux d'administration. Dans une prochaine phase, il faudra définir d'autres tâches communes susceptibles de développement et de maintenance dans ce type d'organisation au profit du secteur public tout entier.

Les Pays-Bas ont entamé un effort centralisé pour normaliser dans l'ensemble du secteur public un large éventail de domaines liés aux données : la normalisation juridique de la définition des données pour assurer l'harmonisation de la terminologie juridique et la normalisation des structures des données et des spécifications des interfaces dans l'optique de l'organigramme de l'ensemble du secteur public et du point de vue technique. Le Conseil de normalisation, qui s'appuie sur un Forum de normalisation où sont représentés les différents acteurs, a officiellement commencé ses travaux en avril 2006. Sa mission et ses

attributions concrètes ne sont pas encore définies avec précision, mais il pourrait contribuer à la nécessaire normalisation intersectorielle des données du secteur public et des interfaces des échanges de données.

L'interconnectivité des services d'administration électronique et l'offre de « services intégrés » dans l'ensemble du secteur public prennent forme peu à peu, au moyen d'un certain nombre d'activités et de mesures. À ces différents composants sectoriels manque le « ciment » d'un cadre organisationnel et technique approuvé qui puisse assurer l'interconnectivité et l'interopérabilité des services d'administration électronique à tous les niveaux d'administration. L'ICTU, conjointement chargée de réaliser le Programme EGEM et le Programme Provinces en ligne, et ainsi d'articuler et de coordonner les travaux sur l'architecture fédératrice du secteur public, semble répéter ces activités à chaque niveau d'administration. Une architecture de référence (NORA, architecture de référence des administrations publiques des Pays-Bas) a été élaborée et approuvée par le groupe central du CEDI en mai 2006, mais il reste à voir si elle s'imposera comme architecture fédératrice du secteur public.

Pour le secteur public dans son ensemble, les principaux canaux d'information et de prestation des services transactionnels semblent être les sites Web et les centres d'appel classiques. Vu la prédominance des canaux de prestation traditionnels, par exemple les centres d'appel et les services au guichet, il s'offre de vastes possibilités de stratégies multicanaux pour concevoir et mettre en exploitation les services électroniques et accroître l'utilisation de ces services.

Principales évaluations

- La prise de conscience, dans le secteur public, de la nécessité d'établir l'assise de l'administration électronique pour l'ensemble des autorités publiques paraît limitée et technique. L'expression « architecture fédératrice » elle-même est ambiguë, certains la réduisant à une simple « assise technologique » (au sens large, elle englobe à la fois les fonctionnalités et les structures organisationnelles). La création de GBO.OVERHEID est l'occasion de procéder à une réévaluation générale de la mise en place d'une assise d'administration électronique dans le secteur public. C'est là une tâche beaucoup plus ambitieuse, qui suppose la mobilisation des acteurs politiques à tous les niveaux. Cet effort pourrait aussi s'inscrire dans l'action plus large de normalisation, de manière à renforcer les résultats antérieurs des projets existants et ceux d'organisations et programmes auparavant distincts (l'ICTU et l'ICTAL).
- Pour les autorités publiques, il est difficile de concilier la nécessité de l'efficience (limiter les canaux de prestation coûteux) et le souci d'efficacité (répondre aux attentes et aux besoins des usagers). Peut-être la question

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est-elle plus politique qu'administrative. Il se peut qu'avec le temps disparaissent les canaux les plus anciens et les moins utilisés, à mesure qu'apparaissent de nouvelles possibilités grâce à l'informatique ubiquitaire et à la connectivité avec, par exemple, la téléphonie mobile. L'absence d'usage systématique de stratégies multicanaux de prestation dans le développement de l'administration électronique est un aspect qu'il convient et d'étudier de plus près aux différents niveaux d'administration, lorsque cela est utile et nécessaire. L'utilisation délibérée de stratégies multicanaux de prestation comme élément du développement de l'administration électronique permettrait probablement au secteur public néerlandais de faire progresser le taux d'utilisation et d'améliorer le degré de satisfaction des usagers, tout en obtenant des gains d'efficience par l'orientation des usagers vers les services appropriés, la gestion d'attentes de plus en plus exigeantes et la prestation de services adaptés aux besoins des différents usagers.

Principales mesures proposées

- Les Pays-Bas devraient envisager d'élaborer et d'adopter une architecture fédératrice du secteur public. Ces travaux devraient être associés étroitement à l'élaboration de normes d'administration électronique et devraient s'appuyer sur ceux réalisés antérieurement par les organisations chargées de la mise en œuvre.
- Pour l'exploitation optimale de la prestation multicanaux en vue d'un taux plus élevé d'utilisation des services publics par les usagers, les Pays-Bas devraient songer à définir une approche stratégique commune par laquelle l'ensemble du secteur public pourrait mettre les stratégies multicanaux au service d'une optique commune de la gestion des canaux de prestation, des incitations et du changement des mentalités, au profit des usagers et des institutions du secteur public.

Les résultats et leurs effets

L'accent étant mis actuellement, en privilégiant l'interconnectivité et l'interopérabilité de la logistique, sur la prestation de « services intégrés », le stade général de développement des services électroniques a avancé vers l'intégration verticale avec des services plus transactionnels. Les Pays-Bas ont beaucoup progressé dans la maturation des services; cette conclusion est corroborée par l'étude que l'Union européenne a demandé à Cap Gemini sur les vingt services électroniques de base qu'elle avait jugés prioritaires. Ce rapport montre que les Pays-Bas ont atteint le stade de l'interactivité et qu'ils ont marqué d'importants progrès dans la diversification de l'offre de services en ligne.

Cependant, les Pays-Bas sont confrontés aux mêmes problèmes que de nombreux autres pays de l'OCDE : l'utilisation et la maturité insuffisantes des services publics électroniques. On constate aux Pays-Bas un net décalage entre l'offre et l'utilisation réelle des services en ligne, ce qui montre que les usagers ne sont pas satisfaits ou qu'ils n'ont pas connaissance des services ou de l'intérêt qu'ils peuvent présenter. La mise en œuvre effective de l'administration électronique n'est pas en phase avec les grands axes de la politique néerlandaise hollandaise en la matière, répondre aux besoins des citoyens et moderniser les services, et avec la tradition d'une large consultation dans l'élaboration de l'action des autorités publiques en général. *Burger@Overheid.nl*, le programme d'administration électronique au service du citoyen, a été mis sur pied pour réaliser ces ambitions. Il vise à créer un centre de compétences pour le développement de l'administration électronique centrée sur le citoyen, de manière à pouvoir informer les agents du secteur public sur les questions que soulève l'administration électronique.

Les services électroniques en direction des entreprises suivent la même évolution que ceux qui sont destinés aux citoyens. L'offre de services électroniques aux entreprises a régulièrement augmenté sur la période 2000-04. Toutefois, au niveau international, par rapport à leurs pairs, les Pays-Bas se classent sensiblement moins bien pour l'offre de services aux entreprises. Ils sont proches de la moyenne de l'Union européenne à quinze pour ce qui est de l'offre et du taux d'utilisation. Selon les entretiens menés par l'OCDE, les autorités fiscales néerlandaises ont décidé que toutes les entreprises doivent remplir leurs déclarations fiscales par voie électronique. En elle-même, cette mesure oblige une vaste catégorie de la société à utiliser les services numériques; à terme, la compétitivité du secteur privé y gagnera. La généralisation des marchés publics électroniques aux Pays-Bas obéit aux mêmes préoccupations et offre le même intérêt. Elle peut jouer un rôle essentiel de catalyseur en vue de l'adoption des systèmes modernes d'information et de la connectivité par les entreprises, si elle s'appuie sur des programmes appropriés d'aide aux entreprises.

Les services électroniques entre administrations n'en sont qu'à leurs débuts aux Pays-Bas. Les structures de gouvernance que permettent les TIC, les modèles de collaboration (partage de données, modes de production et portails) et « l'administration en réseau » sont souvent présentés comme des facteurs essentiels de la transformation des administrations.

Principales évaluations

- Depuis plusieurs années, les Pays-Bas se consacrent à la prestation de services électroniques centrés sur le citoyen. Un programme spécial des autorités centrales, Burger@Overheid.nl, donne une assise à une conception

du développement de l'administration électronique centrée sur les citoyens. Toutefois, il ne s'est pas traduit par une utilisation accrue des services électroniques, ni par une offre uniforme et équitable pour ce qui est du nombre et de la qualité des services.

- Les Pays-Bas ont conçu un certain nombre de services électroniques destinés aux entreprises. Cependant, il est généralement admis que les Pays-Bas n'obtiennent pas dans ce domaine les résultats attendus. L'objectif politique de réduction des charges administratives ne s'est pas encore traduit par le développement prioritaire de services électroniques suffisamment intégrés en direction des entreprises, ce qui reflète les carences apparues dans la diffusion des TIC et les bilans de productivité, et aussi les économies générales d'échelle pour l'innovation. D'importants changements s'imposent dans les rapports du secteur public avec les entreprises.

Principales mesures proposées

- Pour agir sur le faible taux apparent d'utilisation des services publics électroniques développés, les Pays-Bas devraient étudier comment les activités conduites par Burger@Overheid.nl peuvent être stratégiquement et pratiquement utilisées et intégrées dans la planification et la mise en œuvre de l'administration électronique pour l'ensemble du secteur public.
- Les Pays-Bas devraient envisager d'élaborer une stratégie et un plan d'action communs pour aider et encourager les entreprises à utiliser les services électroniques rendus par le secteur public. Une stratégie « d'incitation/sanction » pourrait être envisagée dans le cadre de ce plan d'action, en vue d'une communication avec les pouvoirs publics qui se fasse obligatoirement par voie électronique. Donner la priorité au développement rapide de services pleinement intégrés au profit du secteur privé devrait vite assurer le retour sur investissement et augmenter le taux d'utilisation, avec l'avantage supplémentaire, dans la perspective de la mondialisation, de renforcer la compétitivité générale des entreprises des Pays-Bas.

Notes

1. Il s'agit du dilemme suivant : qui doit financer le développement, la mise en œuvre et le fonctionnement quotidien des services électroniques génériques lorsque ces services ont été développés et mis en œuvre par une institution ou une administration, alors que les avantages qui en découlent profitent essentiellement aux autres institutions ou administrations ?
2. Une « architecture fédératrice » définit la structure globale des processus d'une organisation, des systèmes d'information, du personnel et des sous-unités d'organisation, en vue de les aligner avec les objectifs principaux et la direction stratégique de l'organisation.

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Chapter 1

Introduction

This chapter introduces the case of e-government in the Netherlands. It provides a brief overview of the Dutch context in which e-government is developing, and has been enacted by different stakeholders and public authorities in central and local governments. This report discusses and analyses e-government in the Netherlands under the following major headings: country profile, challenges, leadership, implementation, collaboration frameworks, and outputs and outcomes.

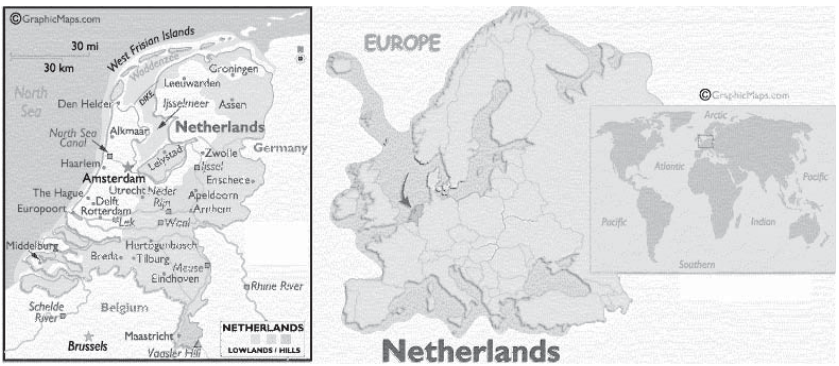
Country profile

Dutch e-government goals and implementation are influenced by many factors including the country's size, population, economy, and ICT infrastructure – but also by its governance structure and e-government drivers.

The Nederlands or *Koninkrijk der Nederlanden*, officially Kingdom of the Netherlands, is a small country of 41 344 km^2 bounded by the North Sea on the north and west, by Belgium on the south, and by Germany on the east. The Kingdom includes two overseas territories: the Netherlands Antilles and Aruba in the Caribbean Sea. Both are self-governing parts of the Kingdom of the Netherlands (see Figure 1.1).

The Kingdom of the Netherlands has 16.3 million[1] inhabitants and is very densely populated, with 90% of the population living in urban areas. Culturally, the country is fairly homogeneous – the Dutch account for 83%, and other nationalities for 17% (of which 9% are of non-Western origin, mainly

Figure 1.1. **Map of the Netherlands**



Source: WorldAtlas.com.

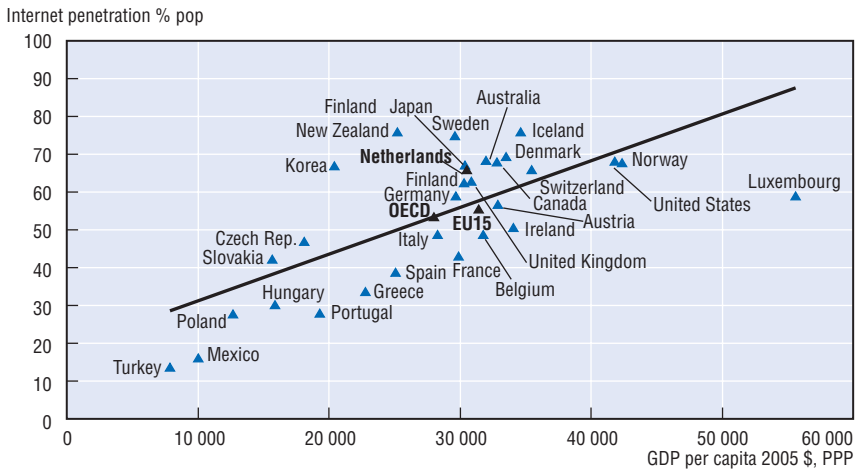
Turks, Moroccans, Antilleans, Surinamese, and Indonesians). Dutch is spoken throughout the country; Frisian is also an official language.

The Netherlands is considered one of the wealthier OECD countries (12th among 30 OECD countries[2]). It has a prosperous and open economy, which depends heavily on foreign trade. The economy is noted for stable industrial relations, moderate unemployment and inflation, a sizable current account surplus,[3] and an important role as a European transportation hub. The country continues to be one of the leading European nations for attracting foreign direct investment. Economic growth slowed considerably in 2001-05 as part of the global economic slowdown, but for the previous four years annual growth averaged nearly 4%, well above the EU average.

The Netherlands has a strong and leading foundation in ICT infrastructure, aided by highly competitive ICT markets. One of the effects has been a very high Internet penetration rate of 74%,[4] the broadband subscription rate is 23 per 100 inhabitants and growing (one of the highest among OECD countries). Analysis of data from those OECD countries with populations of more than 3 million linking per capita income with Internet penetration confirms the positive correlation of per capita income and Internet penetration: the higher the income per capita, the larger the share of the population using the Internet. In this comparison, the Netherlands appears among the top countries slightly above the trend line (see Figure 1.2).

(See Annex B: Netherlands E-Government Indicators, for an overview of e-government indicators.)

Figure 1.2. **Per capita income *vs.* Internet penetration**



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

Dutch governance structure

The Netherlands has a decentralised governance structure with highly autonomous provinces and municipalities. The governance culture is characterised by consensus and extensive consultations with stakeholders. This leaves limited formal possibilities for central steering and management of policy implementation; it also raises a number of challenges concerning co-ordination and collaboration, both horizontally across sectors and vertically between different levels of government. Informal governance structures have evolved to compensate for the lack of formal means to steer and manage policy implementation horizontally and vertically.

The Dutch public sector has three separate levels of government: central government, provincial government and municipalities. There are 458 municipalities[5] and 12 provinces,[6] all of which are autonomous in political and administrative terms. Each municipality "belongs" to one of the provinces. However, the municipalities are not subordinate to provinces; both have their own spheres of responsibility. As a consequence, local governments play a comparatively large role in the delivery of public goods and services. This allows for relatively close relationships among government, citizens and businesses – e-government service provision benefits from these relationships and seeks to build on them. (The organisation and functions of the public sector are outlined in more detail in Annex C.)

Dutch policy and decision making are characterised by consensus and broad "corporate participation" – the extensive engagement of non-governmental groups, associations, etc. within a given sector. Political scientists call this "stove piping" (or "pillarisation"), as policy making is decentralised within a certain area or sector to groups of stakeholders and interested parties "transforming conflicts over the content of policies into conflicts over the distribution of the resources for carrying out those policies".[7] This special culture of political decision making is an important pre-requisite in understanding the Dutch strategic and tactical approach to e-government development, which in many ways differs from either more centralised or federalised ways of governance in other OECD countries. The structure of the Dutch governance system ensures that many potentially divisive questions are debated and resolved through broad consultation and consensus building, generally leading to broad acceptance of political decisions and policy implementation.

In the Dutch case, the need for horizontal *and* vertical co-ordination and collaboration among all levels of government has long been recognised by central and local governments and non-governmental stakeholders in the private and voluntary sectors as a necessity for public sector innovation.

E-Government in the Netherlands

There is generally a favourable environment for development of e-government in the Netherlands. Similar to the leading OECD countries, the Netherlands has established e-government policies elaborating and specifying general Information Society goals adopted in the mid-1990s. Past and present governments have placed strong political emphasis on making the best possible public and private sector use of ICT in pursuit of both social and economic goals. As part of the government's broader focus on the use of ICT in the Dutch society, e-government enjoys good, albeit indirect, political support. While e-government has not in itself been a high-profile policy area, it has been clearly positioned as a key element of policies aimed at developing the Dutch Information Society, modernising and increasing the efficiency and effectiveness of the public sector, and improving the performance of the Dutch economy.

E-Government development has, in the best Dutch administrative tradition, mainly been a decentralised activity with central encouragement – focusing on delivering better services to citizens and businesses and on achieving administrative burden reduction. This implies a narrowly defined emphasis on efficiency and effectiveness rather than a coherent approach to the transformation of the public sector as a whole through e-government. E-Government development has nevertheless achieved high levels of recognition according to various international benchmarks (see Box 1.1 for an overview of some rankings).

Of particular relevance for the short-term future will be the successful implementation of the technical infrastructure that is currently being put in place. There is a growing recognition among interviewed experts that the Dutch decentralised approach still requires stronger leadership, central co-ordination and modernisation of the public sector to avoid duplication of e-government activities, and to enhance collaboration and sharing of experiences among public bodies.

Drivers for E-Government

Several drivers for e-government in the Netherlands can be identified. They are typically embedded in major policy initiatives concerning the development of the Dutch Information Society and the implications of these goals on public sector modernisation and the creation of specific strategies and action plans for developing and implementing e-government in the public sector.

Modernising the public sector

Modernisation of the public sector and reform of the political system have been on the political agenda of the Netherlands since the 1960s. Over the years, the aims have been: to improve democratic participation and increase

Box 1.1. **Measuring ICT readiness – Ranking the Netherlands in international benchmarks**

A large diversity of indicators is used to measure ICT strength. Available sources use a variety of indicators and rank the Netherlands in different international positions when it comes to ICT. In 2004 the Netherlands adopted the Information Society Index and the Networked Readiness Index as regular measures of its international position in ICT usage. Despite a good baseline position, the Netherlands has dropped from 3rd to 6th position in the Information Society Index and from 13th to 16th place in the Networked Readiness Index.

The *International Data Corporation* (IDC) Information Society Index (ISI) for 2005 combines 15 variables in four infrastructure areas to calculate and rank nations' ability to access and utilise information and information technology (53 nations were included in 2004). The four pillars are:

- *Computers:* the number of PCs in households, IT spending as a percentage of GDP, software spending as a percentage of total IT spending, and IT services spending weighted against GDP.
- *Internet:* the number of users, the number with Internet access at home, the number of mobile Internet users, and e-commerce spending.
- *Telecommunications:* broadband adoption, wireless services, and mobile handset shipments.
- *Social:* society's ability to utilise information technology as measured by levels of education, civil liberties, and government corruption.

The Netherlands received high scores in a number of variables across all four pillars and placed first (ahead of Finland, Korea, Norway and the United Kingdom).

The Networked Readiness Index (NRI) is defined as "the degree of preparation of a nation or community to participate in and benefit from ICT developments". The Networked Readiness Framework and its components provide not only a model for evaluating a country's relative development and use of ICT, but also allow for a better understanding of a nation's strengths and weaknesses with respect to ICT.

The updating and publication of the *ICT Agenda of the Netherlands, 2005-06: Better Performance with ICT* concludes that the Netherlands insufficiently utilises ICT opportunities. The Netherlands achieves too little return on ICT investments in terms of productivity growth and usefulness to society.

Source: IDC Information Society Index (2005), Network Readiness Index (2005).

the transparency of government at all levels; and to develop in a more service-oriented direction with a focus on the needs of citizens and businesses. Currently, e-government policy is seen as a key lever for achieving the goals of the present public sector modernisation programme: Andere Overheid or "Modernising Government programme", launched in 2003.

The modernisation strategy is part of the Dutch government's public sector reform policy and will run until mid-2007. It consists of four major action lines:[8]

1. *The government will improve its provision of services to citizens.*
   This action line covers two separate tracks of initiatives: *a)* The development of key e-services such as the Citizen Service Number and the DigiD public sector e-authentication system; and *b)* encouragement of each government body to deliver services electronically via the Internet.
2. *The government will regulate less and differently.*
   The focus of this action line is to achieve administrative burden reduction through a general overhaul of each ministry's legislation and regulations towards businesses and citizens; a recent focus has been administrative burden reduction in relations between the government and its institutions.
3. *Central government will organise itself better.*
   An overall review of government tasks was envisaged to eliminate duplication of work and strengthen horizontal cohesion in government operations with a focus on standardising common work processes and establishing a shared service centre for applications commonly used by ministries.
4. *Central government will reform its relations with local authorities and provinces.*
   A new Code of Intergovernmental Relations stating principles for "… administrative financial relations between the different levels of government" has been agreed between local governments and central government together with parallel "Modernising Government" action plans to be implemented by local governments.

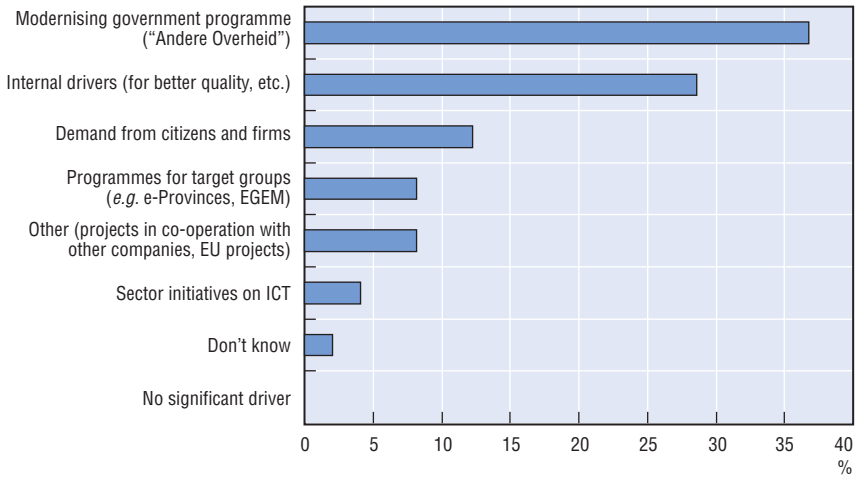
Evidence from the OECD questionnaire clearly points towards the success of the central government strategy and communication of its role as the main driver of e-government activities. For the public sector the *Andere Overheid* strategy is the most important driver. Sector initiatives on ICT are not strongly viewed as e-government drivers (see Figure 1.3).

The Information Society in the Netherlands

Originally, the key Information Society policy goals of the Dutch government emphasised the economic growth potential of ICT as part of a broad and

Figure 1.3. **Drivers for e-government**

All levels of government



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

future-oriented vision of the development of Dutch society.[9] The 1994 National Action Programme on Electronic Highways covers six areas for action:

- Liberalising the telecommunication market.
- Liberalising the Media Act.
- Demarcating the public domain.
- Removing legal barriers.
- Setting up model projects in the public sector.
- Encouraging initiatives in the private sector.

Within the different areas for action, the government sought to create new opportunities for electronic initiatives in the Netherlands, similar to the specific initiatives in the area of e-government. The responsible ministry at that time, the Ministry of Economic Affairs, set aside a budget to support electronic initiatives. This budget, and the responsibilities of the programme, has basically been maintained. The Ministry of the Interior and Kingdom Relations now has principal responsibility for the Dutch e-government policy. Although focus and priority have shifted, the areas for action identified in 1994 are still supported by ongoing projects through the Ministry of the Interior and Kingdom Relations. The latest e-government programme covers the period 2003-07 with a budget of EUR 20 million.[10]

The Dutch government's ICT policy and action plan is co-ordinated with the National Action Programme, which uses the ICT agenda as the basis for assessing proposed initiatives. Linked to the National Action Programme on

Electronic Highways, today's "Better Performance with ICT – National ICT Agenda 2005-06" prioritises the following areas:

- Once-only data provision to the public sector.
- Electronic identification.
- Faster Internet connections.
- Security and reliability.
- Standardisation.
- Consumer policy.
- ICT in the public and quasi-public domains.

E-Government strategy and goals

The Netherlands has defined a very broad e-government programme covering delivery of e-services within all sectors and at all levels of government. Following up on the "National Action Programme on Electronic Highways: From Metaphor to Action" from 1994, early strategy documents and action plans created in the late 1990s seem to have identified multiple drivers for developing ICT infrastructures and looking at how ICT enabling society as a whole could benefit economic development and prosperity[11] in the Netherlands. Today, the focus is primarily operational: to produce concrete e-government deliverables within the following areas:[12]

- Electronic access to the government.
- Electronic authentication.
- Uniform electronic identification numbers for companies and citizens.
- Key registers.
- Electronic personal identification cards.
- Electronic information exchange.
- Fast connections between government organisations.

(See Box 1.2 for an overview of the history of e-government in the Netherlands.)

Stakeholders in the Dutch public sector have broadly acknowledged that building seamless e-services and providing citizens and businesses with "one-stop shops" demands an approach to e-government development that differs from the former strategy of "… letting 1 000 tulips blossom". User-focused services demand closer co-operation and collaboration horizontally and vertically across sectors and levels of government in order to optimise e-service provision by the public sector. Adopting the policy of "seamless services" or "one-stop shops" puts strong pressure on the public sector to rethink business processes and value chains, and to be more innovative concerning service delivery. Whether

Box 1.2. **Dutch e-government history in brief**

In the early 1990s, many OECD countries began using ICT to develop their economies, and incorporated it into national government policies. The Netherlands commenced its path down the digital road in the mid-1990s following the explosive development of the Internet and the usage of digital technologies. In the Netherlands, the 1994 "National Action Programme on Electronic Highways: From Metaphor to Action" set the first policy framework for Information Society policy; its focus was development of the electronic infrastructure. Special funds were set aside to implement the goals, and policies for legislative support for the electronic highway were considered.[1]

The first comprehensive government programme specifically addressing the possibilities and potential of e-government was launched in 1998 by the Ministry of the Interior and Kingdom Relations. "The Electronic Government Action Programme" set out specific policy goals for e-government in the Netherlands. Three overarching goals were: to provide good electronic access to government; to improve the quality of services towards citizens and businesses; and to make service delivery more efficient and effective through the usage of ICT. These goals are still valid today, and e-government implementation is currently delivering on them. The suggested action plans paved the way for development and understanding of the requirements of modern electronic government in the Netherlands. Even though the original timeframes for most of the deliverables were overambitious, many of the original initiatives have since been developed and implemented.

The first policy document, "The Dutch Digital Delta – the Netherlands oN-Line", was published the following year (1999). This policy document offered a framework for implementation of a range of measures addressed in the action programmes and elsewhere – for example, an electronic commerce action plan, legislation on the electronic highway, policy statements on *Cable and Consumer* and *Trusted Third Parties*, and white papers on cable use and developments in telecommunication. The Dutch Digital Delta policy (hereafter referred to as D3) sought to achieve a climate of flexibility, one that counteracted rigidity and compartmentalisation and induced innovation, creativity, and co-operation. It was also a response to suggestions from the legislative branch that government initiatives in the ICT sector were becoming fragmented, and a request for greater coherence and streamlining of those initiatives.

"Contract with the Future",[2] launched in 2000, signified the beginning of the practical realisation of electronic government in the Netherlands. It encompassed the projects initiated under previous action plans and introduced a broad-ranging programme in which government supplied services to citizens and businesses, rather than simply acting in a steering or leading role.

By 2002, however, the situation had changed. A new government came to power as a result of the May 2002 elections, bringing a new phase in the development of Dutch e-government, which saw a rapid change in policy and social perceptions of government.

Box 1.2. **Dutch e-government history in brief** *(cont.)*

The B4 action plan, *Beter Beleid voor Burger en Bedrijf* – "Better Government for Citizens and Business" – was launched in December 2002 by the new government, and was in line with the new policy objectives of solving lingering social problems, reducing bureaucracy and decreasing government spending. Not only had the social and political climates of the Netherlands changed, but the government's view of e-government had also changed: e-government was no longer seen as a purpose in itself, but as a means to achieve a more efficient government able to effectively address social challenges. The emphasis shifted from a range of diverse quantitative e-government objectives to a more focused emphasis on practical and visible results.

The 2003 vision and action plan *Andere Overheid* or "Modernising Government" covers the period from 2003-07.[3] It refocuses and reprioritises efforts from front-office activities – like building specific e-services – to a wider focus on back-office infrastructure and coherency, involving central government agencies working together in co-operation with municipalities and provinces; in some cases, the plan recommends delineating appropriate responsibilities from central government control to local government. The starting point of the action plan is the work from previous action plans and other activities that had already been carried out, allowing government to build on and learn from previous, related projects and ensuring continuity despite change. Combined with a strong focus on technological foundations, this framework has given policy implementation of e-government goals a more realistic and solid base, diverting from the previous strategy of "… letting 1 000 tulips blossom".[4]

Op weg naar de elektronische overheid – basisvoorzieningen (Towards the Electronic Government – Basic Facilities), from 2004, states four main goals: companies and citizens should be required to deliver certain information to the government only once; there should be an electronic system that enables all companies and citizens to be uniquely identified for official purposes; the government should use open standards in internal and external communication; 65% of all public services should be online by 2007. The strategy recognises the need to build a proper back-office foundation for seamless e-services through the establishment of key registers, e-authentication, unique numbers to identify individuals and businesses, and other systems.

1. Parliamentary documents II (1998), *Weggeving voor de elektronische snelweg* (Legislation for the Electronic Highway), 12 February 1998, 25 800, No. 1-2.
2. *Contract met de toekomst. Een visie op de elektronische relatie overhead-burger* (Contract with the future. A vision on the electronic relationship between government and citizens). Memorandum presented to the Lower Chamber of the Dutch Parliament by the Minister for Urban Policy and the Integration of Ethnic Minorities, Lower Chamber, Session Year 1999-2000, 26 387, No. 8, 19 May 2000.
3. Ministry of the Interior and Kingdom Relations: *Actieprogramma "Andere Overheid"* (Action Programme "Modernising Government"), 2 December 2003. See: *www.andereoverheid.nl*.
4. "… letting 1 000 tulips blossom" refers to the previous strategies, which allowed public authorities at all levels of to government develop e-government services with limited or no collaboration or co-ordination efforts. Each public or quasi-public institution was – on its own initiative and consideration – developing services as needed and appropriate.

this will happen as the Dutch begin using e-government as a tool to reform the public sector, modernise governance structures, and take advantage of ICT as an enabler for structural changes in the Netherlands is a political question. Statements from the Dutch Parliament calling for government action on e-government development seem support the broad political consensus on the path the government follows.[13]

The Dutch e-government strategy and action plan as defined in the 2004 strategy document "Towards the Electronic Government – Basic Facilities"[14] is primarily technically focused (developing common e-government building blocks) with limited attention to service delivery and service transformation. The focus on operational e-government building blocks suggests a more technocratic approach, which might affect the government's ability to successfully deliver e-services to users on an ongoing basis.

Key drivers for e-government

Despite the existence of multiple e-government drivers identified by the evolving political agendas stated in Dutch policy and strategy documents over the years (see Box 1.2), the Netherlands is not pursuing e-government as an end in itself, but rather as an enabler of wider government transformation and modernisation objectives; this includes a dominant narrow political focus on administrative burden reduction. The Netherlands seems to have four key e-government drivers:

1. Improving Public Sector Efficiency – Administrative burden reduction.
2. Improving Electronic Services – Implementing common building blocks and key e-services.
3. User-Focused Service Delivery – Better use of ICT in society.
4. International Leadership – Increase interoperability and international competitive position.

Improving public sector efficiency – Administrative burden reduction

In its 2003 Coalition Agreement[15] and policy-defining inauguration speech,[16] the Dutch government stated that the quality of public services had to be improved. At the same time, the government decided that administrative burdens had to be reduced; the target is a 25% cut during the period between 2002 and 2007. Administrative burdens in the Netherlands are defined as the costs incurred by companies and citizens in order to comply with information obligations resulting from laws and government regulation. As of 31 December 2002, the annual cost of administrative burdens was EUR 16.3 billion for companies[17] and EUR 1.2 billion for citizens.[18] Due to these high costs, the reduction of administrative burdens is one of the major priorities of the Modernising Government Programme.

E-Government is seen today by the Netherlands as a primary lever helping the public sector to reach its political goal of administrative burden reduction. As in other OECD countries, the Ministry of Finance especially sees e-government as *the* tool for making the public sector more lean and efficient. Integrating e-government activities into broader strategic thinking about modernisation and public sector reform is perceived as a natural step towards improving public sector efficiency and effectiveness. E-Government will help reduce administrative burdens because:

- It prepares the ground by offering generic solutions such as electronic authentication, uniform numbers for citizens and companies, and key registers.
- It allows mapping and analysis of the information flow between government organisations, citizens and companies.
- It provides a basic infrastructure and facilities such as interfacing, standardisation and support services.

In summary, reducing administrative burdens provides a new focus for e-government in the Netherlands, if existing generic solutions and infrastructure are used more efficiently. E-Government can also provide specific solutions by creating new ICT applications or adapting available ICT applications. Some administrative burden reduction measures are not possible without ICT (*e.g.* those that require information handling and sharing data), while others gain more momentum with ICT (*e.g.* by increasing user friendliness).

Improving electronic services – Implementing common building blocks and key services

In recent years, e-government development in the Netherlands has been focused on establishing and delivering a number of common public sector e-government building blocks and services:

- ***Electronic access to information:*** Seven projects are aimed at providing electronic access to government information through: publication of official government information; improving traceability of information; creating an integrated electronic catalogue of public and quasi-public sector products and services; allowing users to fill out and submit e-forms online; and implementing a business support desk, personal Internet pages and government contact centres.
- ***E-Authentication:*** The DigiD project provides a national Dutch e-authentication system. It was launched in 2005, and first marketed towards the broad public beginning in January 2006. DigiD is envisaged to meet the needs for secure and reliable electronic authentication and identification of citizens and businesses accessing public sector e-services on the Internet. The e-ID Card project will introduce an electronic ID card and include certificates for electronic signatures.

- ***Unique numbers for citizens and businesses:*** Introducing unique numbers to identify individuals (the Citizen Service Number) and businesses (the Business Service Number) will simplify exchange of data among different public authorities.
- ***Key registers:*** A number of key registers to be shared among public authorities will help the government avoid duplication and enhance use and re-use of citizen- and business-provided data. Six key registers – including registers on citizens, businesses, land, addresses, buildings and topography – are being implemented technically and legislatively. A key register on vehicles has been decided but implementation has not yet begun. Other key registers on wages, labour and benefit relations, income and wealth, non-residents, large-scale maps, and subsurface data are also future goals.
- ***Electronic information exchange:*** The Government Transaction Portal (GTP) is a project linking information hubs to streamline information and data exchange in the public sector. It will grow organically to cover increasing amounts of information and data streams in the public sector, but is still at a beginning stage.

The Dutch **focus on developing common building blocks** seems to be in line with the priorities of many other OECD member countries, which are defining and developing common technical structures. The establishment of a common technological foundation – the so-called *enterprise architecture* – is a logical extension of looking at public ICT provision as a co-ordinated function delivering *shared e-government services* where possible, and optimising efficiency and effectiveness. In the Netherlands, initial analysis of a common framework for a public sector enterprise architecture has begun; however, it is not yet widely recognised as a necessity for the public sector.

User-focused service delivery – Better use of ICT in society

One of the main aims of the Modernising Government programme is to improve government services for citizens and companies. It is expected that by 2007 about 65% of Dutch government services will be available through the Internet. The application of a once-only data provision principle (collect once, use many times) is one of the many aspects which will further improve services. Massive back-office development has taken place within recent years to ensure that services are not only made available online, but that the processes surrounding them are more efficient and effective, and integrated across government.

The Dutch vision for e-government is clearly user-focused and linked to the overarching goal to improve the use of ICT in society. OECD interviewees gave the impression that the Dutch approach includes a rich history of a broad understanding of e-government that incorporates e-democracy initiatives and

the goal of better participation in government. Interviewees also stated that the Dutch government focuses more on service provision to users than effectiveness or efficiency, and that government officials believe e-government will allow organisations to move even further in this direction. Most people interviewed were conscious of the Dutch public's relatively high levels of satisfaction with and trust in government and the services it provides them. They felt that the development of more user-focused services through e-government was less of a priority than other challenges (such as the goal to reduce administrative burdens).

Citizen representatives, on the other hand, stressed the decline in trust in democratic institutions – both resulting from political events in the Netherlands and measured by the Euro-barometer[19] and other global tools. In this context, e-government services were seen by some as a possible tool to invigorate participation and consultation, and to create better public value. Although the aggregate of Dutch e-government initiatives are user-focused, they represent a complex set of dispersed projects and services rather than a clearly co-ordinated move towards e-government service delivery development.

As in other countries, the link between user-focus and the practical level of e-service provision in the Netherlands seems to be weak. A user-focused approach based on the well-developed framework of the Dutch e-Citizen Charter[20] seems to loosely bind overall e-government policy and strategy; however, the relationship between user-focus and concrete cross-sector implementation of e-government services remains unclear. Because most government-citizen interaction occurs at the local municipality level, it is difficult to determine e-services' alignment with user intentions and needs.

International leadership – Increase international interoperability and competitive position

Close collaboration with European Union member states to further EU-wide interoperability – and to reduce the perceived regulatory pressures from the EU – is high on the Netherlands' modernisation agenda. The issue of interoperability of electronic services of public interest is part of the EU's new strategic framework *i2010 – A European Information Society for growth and employment* and various related initiatives and programmes. The *i2010* framework explicitly addresses interoperability as one of the four main challenges for the creation of a single European information space and as essential for ICT-enabled public services. Commission documents cite a need for interoperability at three different levels:

- ***Interoperability of administrative processes*** (or organisational interoperability) for:
  - "Life-time events" for citizens – birth, marriage, social security, etc.

- "Business events" – setting up a company, paying taxes, participating in procurement activities, etc.

- ***Understanding each other's information*** (called semantic interoperability): The systems must "understand" each other's language. For example, birth certificates generally contain standardised information, but they look very different from country to country.
- ***Technical interoperability:*** The computers must be able to "talk" to each other. This is the interoperability level that is normally tackled via standardisation.

International benchmarks show mixed results in respect to the evaluation of e-government and ICT performance of the Netherlands (see Box 1.1). Some international benchmarks suggest a decline in Dutch e-government indicators during 2000-04, even though the Netherlands ranks as one of the top 10 countries in global comparisons. In a UN report,[21] the Netherlands placed 12th out of 179 countries; in a white paper from the Economist Intelligence Unit,[22] the country ranked 6th out of 65 countries. To reach and maintain international leadership, the Dutch political agenda will have to reflect these interoperability goals and objectives.

Notes

1. Statistics Netherlands, 9 February 2006.
2. GDP per capita, 2004 at current prices, based on current purchasing power parities, *National Accounts of OECD Countries*, Main Aggregates, Vol. 1, April 2006.
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Chapter 2

Challenges to E-Government

Assessments	Proposals for action
Legislative and regulatory challenges	
• **The Netherlands has undertaken significant work to ensure that the legislative and regulatory environment does not present unnecessary barriers to the development of e-government.** The Dutch government has chosen a strategy that addresses potential legal barriers by updating existing laws or by formulating specific laws regulating data usage across sectors and levels of government. The Netherlands follows the general direction of e-government development in Europe – harmonizing the legislative frameworks impacting e-government operations nationally and across borders. This legislative approach is farsighted. The focus on interoperability and the use of common databases is in line with what is seen as a growing necessity in OECD countries to ensure a whole-of-government impact and full benefits realisation of e-government development in the public sector.	• Adopting and implementing separate laws for each building block demands careful co-ordination and standardisation, to prevent confusion or contradictions in the complete set of laws governing the full complement of building blocks. **The Dutch government should therefore consider whether a common legal template for e-government laws should be developed and used for future draft laws** to avoid duplication and to ensure standardised references and terms, and a commonly agreed interpretation.
• **Dutch officials report that they face legal barriers to e-government**, citing problems related to complexity of regulations, legal impediments to collaboration and lack of legal recognition of e-government processes. Some of these problems demonstrate that **further work on removing legal impediments to e-government is required**. However, it appears that other aspects of this problem stem from **officials' inadequate awareness and understanding of changes that have already occurred** and lack of capacity to interpret revised laws and regulations in innovative ways – along with organisations' failure to accept responsibility for changing their business processes in line with what is allowed in the altered legal environment. This also reflects a broader debate about privacy and data sharing.	• **A broad, common understanding of the legal framework for e-government development, implementation and usage needs to be established across the public sector.** This can be achieved in many ways, but should begin with proactive and development-oriented engagement and dialogue between central government agencies responsible for e-government and the Dutch Data Protection Agency; this collaboration will allow public and quasi-public sector institutions responsible for delivering e-services to the public to receive sound, jointly pre-approved operational and legal advice.
Budgetary challenges	
• **The funding principles of the Electronic Government Programme may not establish the right incentives to support e-government development** that is both efficient and seamless. In particular, the "sow-harvest"[1] problem of e-government investment needs to be addressed. The transformational potential of e-government is going to require less administratively burdensome ways to balance transparency of costs with shared service delivery responsibility by the public sector as a whole. • **The *ad hoc* approach to funding common e-government building blocks is not an effective way of assuring funding for more user-focused services;** this approach increases the possibility of opaqueness and the risk of non-comparability across sectors and levels of government. This could lead to possible difficulties in establishing common whole-of-government monitoring and evaluation activities for e-government projects and initiatives, a necessary pre-condition for the improvement of user-centric government.	• To create stronger incentives for e-government development, the Netherlands should consider establishing: ❖ **A common budgetary, financial and decision-making concept for the whole public sector** to enable the Dutch government to gain an overview of e-government spending and establish common evaluation practices for e-government projects. The framework should specify principles for funding and business case analysis (including return-on-investment and total-cost-of-ownership considerations) to be applied throughout the public sector. ❖ **A central e-government fund to finance common e-government building blocks.** A centrally managed e-government fund could simplify the process of creating a budget for common e-government building blocks, and also lever the imbalance of sector institutions funding projects that provide common public sector benefits.

Assessments	Proposals for action
• A whole-of-public-sector point of view shows that **local-level government lacks a systematic approach to identifying common e-government components and services that can be shared among several or all provinces and municipalities**; this results in sub-optimal benefits realisation for the public sector as a whole. For smaller municipalities, a generally weak financial climate for e-government development has resulted in a heavier dependency on central government support.	• **Shared budgetary mechanisms jointly agreed among provinces and municipalities should be considered** to alleviate the imbalance caused by the e-government "sow-harvest" challenge at these levels of government. **Smaller municipalities need to consider whether partnerships or outsourcing** of e-government development, implementation and operation to other municipalities, or joint e-government operations among a number of municipalities, could strengthen their own individual e-government efforts. A strengthened EGEM programme with special focus on providing e-government resources to weak municipalities could also be considered.
• **One-year budgetary cycles and shifting political priorities might prevent medium- to longer-term investment planning** for provinces and municipalities, and may constitute a general budgetary challenge that introduces uncertainty on the planning horizon.	• In order to ensure a multi-year budgetary perspective for planning and funding e-government activities, it is necessary to **create budgetary mechanisms or politically establish general conditions that support a medium- to long-term planning and implementation horizon**. Budgetary mechanisms could cover: 1) multi-year budget commitments; 2) reimbursable loans to ensure return on investment; and 3) greater carryover or spending-focused authority to allow public institutions to better manage large ICT investments.
Digital divide challenges	
• More than three-quarters of households in the Netherlands have access to the Internet from home (83% of households had at least one PC, and 78% had access to the Internet in 2005). About 70% of these households used a broadband connection. Figures suggest that adoption of broadband by businesses is statistically weaker. **A low take-up rate by businesses is a matter of concern for e-government, as well as competitiveness considerations.**	• To address the comparatively weaker business take-up of e-services, the Netherlands should consider making **electronic communication and interaction with public authorities mandatory for large and medium-sized businesses**.
• **While the Netherlands is in general favourably positioned on the digital divide**, it remains necessary to consider the issue as an important challenge for further user take-up of e-government services. In such an advanced country, sophistication and relevance of ICT usage is the new digital divide. It is evident that **only limited research has been undertaken, so little knowledge is available for political and strategic analysis of challenges within this area**.	• With a favourable position concerning the digital divide, **the Netherlands could consider focusing on developing and implementing strategies to reach out to those groups in society that are reluctant to take up ICT and electronic communications**. These groups may have fewer resources (economically and socially) and also may make more use of public resources for services and support. However, limited knowledge of the digital divide, in terms of sophistication and advanced ICT usage, make it difficult to design more user-focused service. **The Dutch government should consider concurrently undertaking further research into this question** to properly address this gap, and supporting take-up of e-government services by developing, adopting and implementing a communication and marketing strategy.

Assessments	Proposals for action
Competencies and skills challenges in society	
• Use of computers and the Internet is increasing among people with higher/lower levels of education and among the employed/unemployed; however, challenges remain across all aspects of the skills and competencies landscape. **The labour force in the Netherlands appears to gain ICT skills mainly through "learning by doing".** A long-term, continuous strategic activity to raise ICT literacy in the whole educational system, as well as in society on the whole, may support the goal of eventually increasing public engagement in and usage of e-services.	• To address long-term needs for generic ICT competencies and skills, **the Netherlands should evaluate the need for a renewed effort to strengthen these competencies and skills throughout the educational system by integrating ICT into education and learning**. A special focus on nurturing innovative research and educational environments can be one element in attracting needed advanced skills and competencies in a global competition to prevent long-term skills shortages for research and innovation, and for e-government implementation.

1. The "sow-harvest" problem of e-government concerns the dilemma of who should pay for the development, implementation and daily operation of generic e-services when those e-services have been developed and implemented by one institution or organisational unit but the benefits are mainly harvested by other institutions or organisational units.

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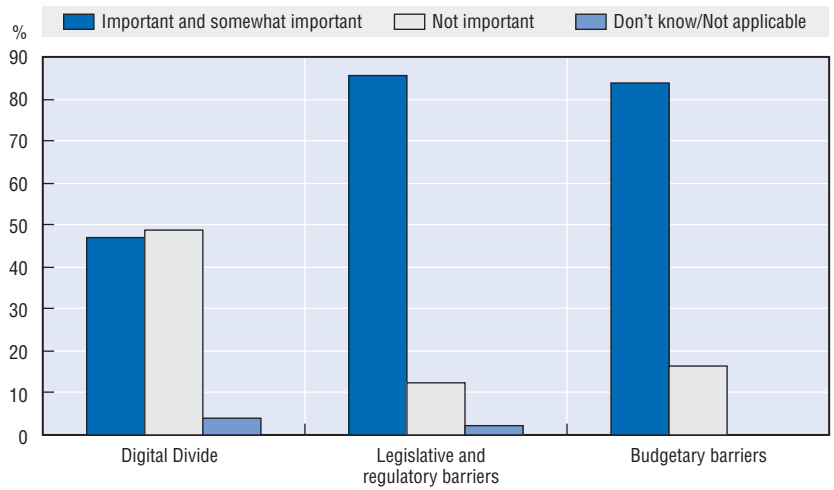
Like many OECD countries, the Netherlands faces a number of challenges with regard to overall e-government development. The general context in which Dutch government organisations are required to implement e-government is favourable, and Dutch users' behaviour regarding the take-up and use of ICT is promising.

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

The OECD survey shows that the most important barriers perceived by the public sector in the Netherlands are legislative, regulatory, and budgetary barriers (see Figure 2.1). According to the survey results, the digital divide presents a comparatively less significant challenge to Dutch e-government development.

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



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

Legislative and regulatory challenges

OECD country experiences show that the success of e-government initiatives and processes is dependent on the government's role in ensuring a proper legal framework for their operation.[1] The Dutch legal system provides a framework for digital communications both within and across government that is supportive of e-government. This is the result of new legislation enabling e-government processes (*i.e.* the Act on Electronic Signatures) and efforts to simplify and modernise existing Dutch legislation, with a focus on ensuring that legislation is compatible with the e-government environment.

Electronic data and transactions require revisions to existing laws regulating paper-based signatures and transactions as well as new laws to ensure privacy of electronic data. While the Netherlands does not have a common legislative framework for e-government, it has – like other European Union members – implemented in national legislation a number of EU directives covering areas of relevance to e-government or impacting e-government. Table 2.1 lists the legislative areas impacting e-government.

In addition to implementing EU directives, the Netherlands has passed national legislation reflecting the Dutch administrative tradition of openness and inclusiveness. The following legislation is relevant for the context of e-government:

- *Wet openbaarheid bestuur* (Open Government Act) of 1991 secures public access to government information.[2]
- *Wet elektronisch bestuurlijk verkeer* (Act on Electronic Communications) was passed on 1 July 2004 and regulates how the public sector may use electronic means to communicate with citizens. The law amends the *Algemene Wet Bestuursrecht* (General Administrative Act).
- A number of key registers (*e.g.* citizens, businesses, buildings, addresses, maps and land) and other e-government building blocks (*e.g.* the Citizen Service Number and the Business Service Number) will be implemented accompanied by specific laws regulating their maintenance and mandatory use, including exchange of data.[3] Additional key registers have been identified (*e.g.* vehicles, pay/employment benefits, income and property, non-residents, large-scale maps, subsurface data) for possible implementation in the near future.

OECD interviews showed that the Netherlands made a deliberate strategy choice to overcome legislative and regulatory barriers to e-government by passing laws to support e-government goals and intentions on an as-needed basis. New laws on usage of each key register serve as a means to compel government organisations to integrate and use common public sector e-government building blocks.

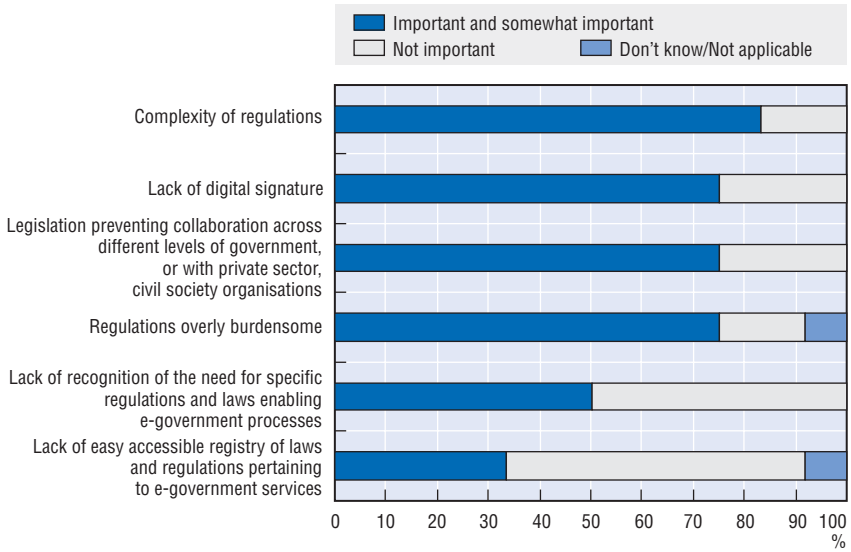
Table 2.1. **Major laws regulating electronic data and services**

Legal topic	EU directive	Incorporation into Dutch law
E-Procurement	EU directive on public procurement including article on e-procurement (2004/18/EC, Article 33).	Implemented in 2005.
Re-use of public data	EU directive on re-use of public data regulating the possibility of usage of public data (2003/98/EC).	Implementation in 2005 as an amendment to the Dutch Government Information Act from 1991.
E-Commerce	EU e-commerce directive (2000/31/EC).	Passed by the Parliament in May 2004. Unlike most other EU member states, this transposition does not take the form of a horizontal e-commerce law but is a series of amendments to existing laws and regulations.
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.	The new Telecommunications Act came into force in 2004.
E-Signatures	EU directive on electronic signatures regulating the framework for recognised electronic signatures (1999/93/EC).	Community framework for electronic signatures implemented in 2003.
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).	Implemented in 2003.
Privacy	EU directive on privacy and electronic communications (2002/58/EC).	The Personal Data Protection Act was adopted by the Dutch Parliament in July 2000 and came into force on 1 September 2001.
Data protection	EU directive on data protection regulating protection of personal data (95/46/EC).	*Wet bescherming persoonsgegevens* (Personal Data Protection Act) of 2000.

Source: OECD based on the OECD survey of e-government in the Netherlands (2006) and IDABC Factsheet: Netherlands eGovernment (2005).

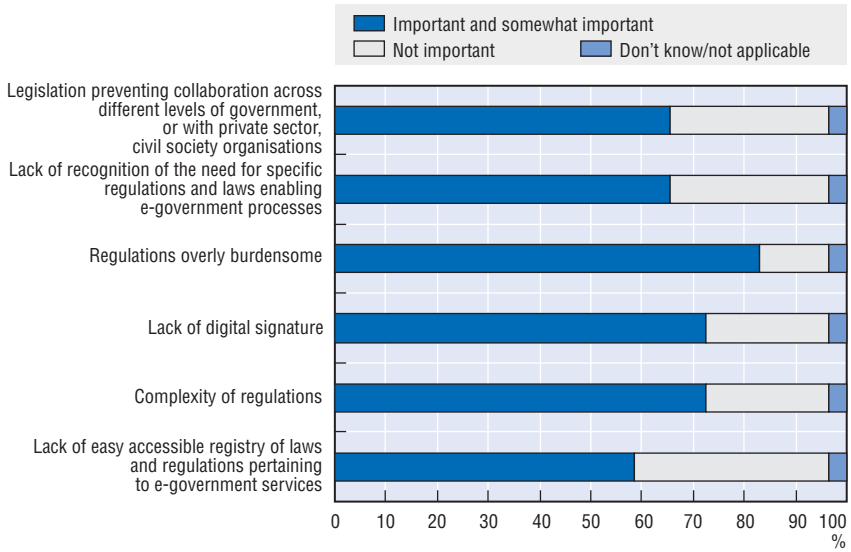
The OECD survey asked respondents to rate the importance of specific legislative or regulatory barriers to e-government to their organisations. Representatives of central government and municipalities do not attribute the same level of importance to each of these challenges. Central government officials regard the complexity of regulations (83%) to be most significant challenge, followed by the lack of digital signature legislation (75%), overly burdensome regulations (75%) and legislation preventing collaboration (75%) (see Figure 2.2a). The municipality respondents mainly identify legislation that prevents collaboration (83%), burdensome regulations (72%), and a lack of recognition of the need for specific regulations and laws enabling e-government processes (72%) as major issues (see Figure 2.2b).

Figure 2.2a. **Importance of legislative barriers**
Central government



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

Figure 2.2b. **Importance of legislative barriers**
Municipalities



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

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There are two possible explanations for survey respondents' concerns about the legislative and regulatory framework.

- First, although much legislation and many regulations have been effectively "e-enabled", considerable work remains to make the revised legal framework more consistent and easy to interpret and apply. This will be of major significance for specific legislation under preparation concerning the e-government building blocks and particularly the key registers on natural persons (the Citizen Service Number), companies, addresses, buildings, topography, vehicles, and income and wealth. Other key registers under preparation are: wages, labour and benefit relations; non-residents; large-scale maps; and subsurface maps. Further e-government building blocks such as the eNIK electronic identity card will be accompanied by separate legislation. Progress could be accelerated by better communicating the content and functionality of legislation to officials.
- Second, concerns about legislative complexity creating a barrier to e-government can often come from a lack of knowledge, competence and drive for innovation on the part of individual organisations in interpreting laws and regulations; this can also apply regarding the pressures of complying with European Union directives. This phenomenon is reported by many OECD countries. The perception of inadequate laws and regulations, can, in turn, lead to an inappropriate belief that the burden of responsibility for change rests not with organisations themselves but with lawmakers (*e.g.* drafters, ministers and parliaments).

While both of these issues – the need for further legislative change and the need for better knowledge, interpretation and application of the law – are relevant, evidence from OECD interviews with government officials supports the latter as the more significant cause of any legal barriers to e-government. If lack of knowledge leads to incorrect perceptions of legal barriers to e-government, it may become an issue of short-term importance to communicate in the future; the need to attune national e-government services and procedures with European models will certainly continue to surface and lead to interoperability and standardisation issues and debates.

Perceived or actual legislative and regulatory complexity can also have a negative impact on e-government implementation in the context of the Dutch government's wider modernisation goals. The use of e-government to eliminate unnecessary administrative burdens on citizens and businesses is an example. Currently, political responsibility for administrative simplification and e-government policy regarding businesses has been assigned to the Minister of Finance, while the Minister of Government Reform and Kingdom Relations addresses these areas for citizens. Although there has been ongoing informal co-operation between these two ministries, interviews showed that

better results could be achieved by strengthening and formalising this collaboration, with potential for benefits both in the further development of e-government and the reduction or elimination of some administrative burdens imposed by government.

Privacy and data protection

Several statements in OECD interviews – especially from agencies and local governments – indicate that privacy and data protection considerations in legislation and regulations are perceived to hinder the exchange of data between public authorities; the findings from the municipality level particularly support this assertion (see Figure 2.2b). In the Dutch context, the problem of legislation preventing collaboration can be mainly attributed to issues of data sharing and data re-use in public sector organisations. It is important to properly address this commonly perceived barrier in order to obtain the benefits of data sharing and sharing of common e-services among public institutions.

The exchange of information between organisations in the public and semi-public sectors has been identified in the Netherlands as a growing bottleneck; the Cabinet is striving to rectify the situation for existing programmes. The ICT and Sectors Action Programme[4] aims to foster breakthroughs in the implementation of innovative ICT solutions and services to help solve major issues in society. The programme focuses on education, mobility, security and healthcare.

Due to increasing data and information exchange across organisational boundaries, privacy and the protection of sensitive data are being debated among stakeholders at the political level. Three issues are of particular relevance in the short term, as the government prepares to develop more proactive personalised services and subsequently transform back and front office delivery processes. First, the initial laws on key registers, submitted to the Dutch Parliament in spring 2006, might draw political attention to the basic principles of data sharing and data exchange across sectors and levels of government. Any legislation will have to ensure and monitor the capability to achieve shared services, while securing the infrastructure and complying with agreed principles. Second, the progression of the digital identity infrastructure (including the introduction of the Citizen Service Number), also affects the protection of personal data and, more generally, the privacy of citizens. Third, a remaining challenge will be the issue of citizens' control over their own personal data. These areas will have to be clearly addressed and monitored to maintain citizen trust in e-government services.

The Dutch Data Protection Authority supervises compliance with acts that regulate the use of personal data, makes policy recommendations, and handles complaints. The Data Protection Authority was founded in 1998, originally employing 20 people, and has grown to an organisation of 80. In

respect to e-government, it advocates what is called "privacy by design" – the use of an infrastructure to verify a citizen's identity, which allows users the choice of not being identifiable. Non-identifiability can be made part of the design of the identity infrastructure through the use of privacy-enhancing technologies. In essence, the Data Protection Authority suggests that dialogue to assess privacy and security risks and formulate solutions needs to be started at much earlier phases of the development process.

Substantial European research projects – such as PRIME (Privacy and Identity Management for Europe, *www.prime-project.eu.org*) and FIDIS (Future of Identity in the Information Society, *www.fidis.net*) – also point to the increasing importance of establishing identity and subsequent identity management (including the protection of privacy). In Dutch government policy, these issues remain underexposed; in the future, this could lead to a "burning platform".[5]

In summary:

- The Netherlands has undertaken significant work to ensure that the legislative and regulatory environment does not present unnecessary barriers to the development of e-government. The Dutch government has chosen a strategy to address potential legal barriers by updating existing laws or by formulating specific laws regulating data usage across sectors and levels of government. By implementing European Union directives, the Netherlands follows the general direction of e-government development in the European Union, harmonizing the legislative frameworks impacting e-government operations nationally and across borders.
- Despite these efforts, Dutch officials still report that they face legislative and regulatory barriers in this area; they cite complexity of regulations, legal impediments to collaboration, and lack of legal recognition of e-government processes. Some of these problems arise from the fact that further work on removing legal impediments to e-government is required. However, it appears that other aspects of this problem relate to officials having inadequate awareness and understanding of the changes that have already occurred and lack of capacity to interpret revised laws and regulations in innovative ways, and failure of organisations to accept responsibility for changing their business processes in line with what is allowed by the altered legal environment.

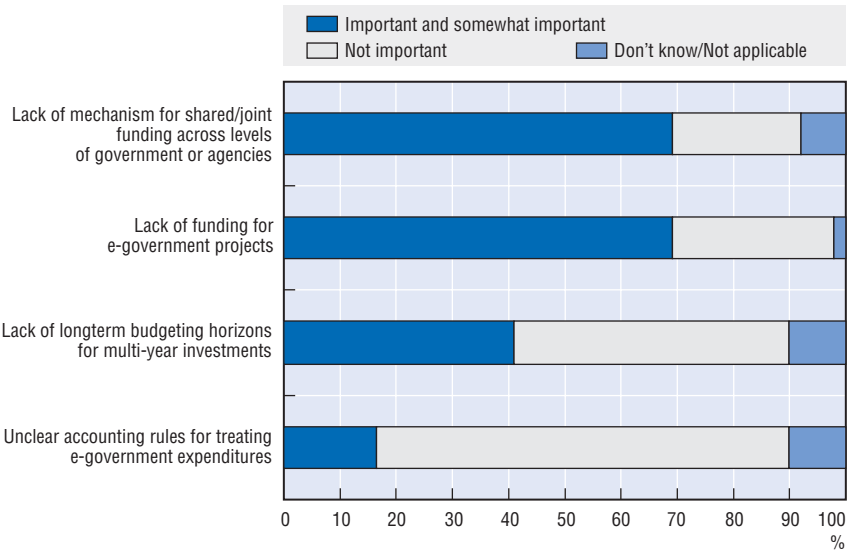
Budgetary challenges

The Netherlands has experienced some successful years of e-government development with a strong focus on delivering services online. Funding for the development and maintenance of e-services within each public sector institution has primarily been the responsibility of the institutions themselves.

Central government support for development of e-services has been limited, and each public institution has basically been left alone to evaluate its own needs and requirements – politically or administratively – against return on investment and efficiency gains. This situation has gradually changed over the past few years due to recognition of the necessity to collaborate widely across organisational boundaries to develop integrated services involving public institutions from all levels of government. How these investments should be financed in the future seems to be a major challenge, as the lack of funding is seen by the public sector a significant budgetary barrier for the development of e-government (see Figure 2.3).

Figure 2.3. **Importance of budgetary barriers**

All levels of government



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

Like many OECD countries, the Netherlands is facing the challenge of establishing clear principles for funding common public sector e-government projects. The following considerations and discussions are typical for OECD countries in a more mature state of e-government development: Should a citizen database developed and maintained by the Tax Administration be solely financed by the Tax Administration if other public authorities can benefit from using it? Or should a common e-government building block like a security infrastructure for e-authentication solely be financed by one public authority, when all public agencies will be able to benefit from using it instead of developing parallel solutions? This problem is also known as the

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"sow-harvest" problem of e-government investments; it is perceived by public sector institutions in the Netherlands as one of the largest budgetary barriers for e-government development (see Figure 2.3).

Funding of e-government in central government

A financial report from October 2005 on how the Electronic Government Programme is financed[6] stated the overarching basic funding principle: funding obligations follow the division of responsibilities between central government institutions. That is, by default, no extra funding is available for developing e-government within central government. Each institution must find funding within its own existing operational budget. According to the report:

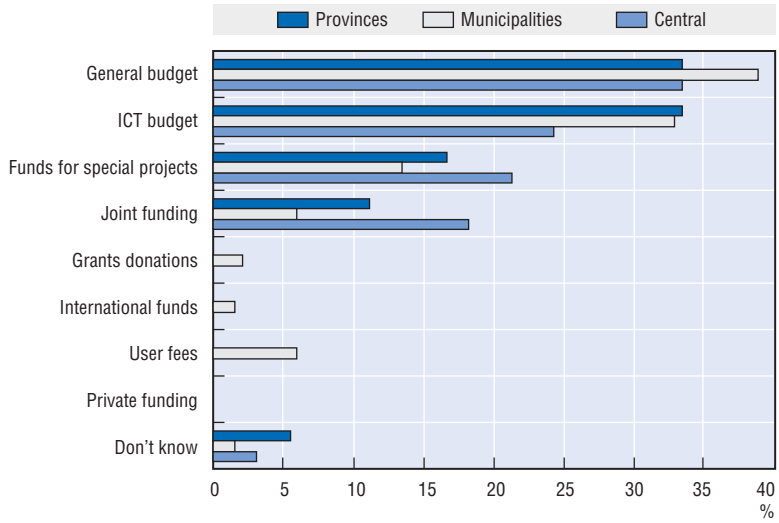
- Each individual government organisation pays its own costs and collects any revenues it accrues.
- Connection to key services is seen as part of the normal process of improving operational management, and financing is part of the customary funds available for operational management.
- The speed with which electronic services are developed and connected is determined by the ICT investment cycle and the pace at which each individual organisation undertakes the necessary development path.

Having each government organisation pay its own costs and collect any revenues that accrue from an e-government investment creates clear incentives for developing e-government from a cost-efficiency point of view, making it attractive for institutions to focus on efficiency and effectiveness of their own operations. The report concludes that no extra funds are necessary, which is contradictory to the OECD survey results. Figure 2.1 shows that the public sector as a whole perceives the lack of available funding as one of the major barriers to e-government development.

These principles are supported by the results of the OECD Survey (see Figure 2.4); responses from central government show that the main funding for e-government development is coming from organisations' general budgets and ICT budgets. Special appropriations for specific initiatives – together with joint funding (contributions from other ministries) – cover about 34% of the funding of e-government activities. The responses from central government do not point to a financial barrier for e-government development.

The development and implementation of key registers has been one of the highly prioritised tasks in the Dutch e-government strategy and areas for action. Their funding has been the subject of thorough discussions within the Dutch government, leading to an *ad hoc* approach to establishing the basic budget for each e-government project. Currently, funding mechanisms for each key register project seem to be individually determined based on how to

Figure 2.4. **Sources of financing for e-government**
By level of government



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

distribute development and maintenance costs across the various public sector authorities that will benefit from its usage. No common funding principles have been developed or applied to the funding of the key registers.

Although no central funds are available for e-government projects with "asymmetric business cases"[7] such as the key registers and other common public sector e-government building blocks, some extra funding is provided by the Ministry of the Interior and Kingdom Relations and the Ministry of Economic Affairs (two of the central co-ordinating ministries for e-government development). The Ministry of Finance, through its responsibility for the Dutch Tax and Customs Administration, holds an equally important co-ordinating role for central funding of the development of key e-government components.

The Ministry of Finance has recognised the apparent complexity of and the *ad hoc* approach to establishing budgets for e-government projects in central government; it is in the process of developing a generic model for funding of key registers within the Electronic Government Programme.[8] Ministry officials believe that designing each individual funding mechanism from the bottom (including wide consultations and negotiations across central government) is not an efficient way to establish funding for cross-sector or cross-level e-government projects. However, this consultative process may increase transparency and accountability of e-government funding, enabling each government institution to clearly identify the full cost of establishing and operating a given e-government service. It is often difficult

to balance the need for full cost recovery of e-government projects within public institutions benefiting from e-government development with the need to establish "holistic" public sector business cases arguing the financial soundness of developing and implementing central e-government building blocks. These broader economic perspectives of e-government investments are not often recognised.

In summary, the main budgetary challenges for central government are:

- The funding principles of the Electronic Government Programme may not establish the right incentives to support e-government development that is both efficient and seamless. In particular, the "sow-harvest" problem of e-government investment needs to be addressed. The transformational potential of e-government will require less administratively burdensome ways to balance transparency of costs with shared service delivery responsibility across the public sector as a whole.
- The lack of common funding principles for key e-government components benefiting multiple or all parts of the public sector (*e.g.* common public sector key registers or e-authentication), does not effectively assure funding for more user-focused services.

Funding of e-government in provinces

In contradiction to the OECD survey results on budgetary barriers, shown in Figure 2.3, the OECD interviews indicated that funding of e-government projects is not seen as a major challenge; the organisation of e-government development seems to cause more concern. According to statements from OECD interviews, the provinces have adopted central government e-government policy and tried to interpret this policy in the provincial context; they face many of the same concerns as central government with regard to e-government investments and often "asymmetric" return on investments caused by the "sow-harvest" problem.

The OECD survey (see Figure 2.4) indicates that the provinces are funding e-government activities from their general budgets, ICT budgets and designated funding for special projects. In comparison with central government, the provinces seem to fund less e-government activities through joint funding, which may indicate limited collaboration between provinces in developing e-services shared by many or all provinces.

According to OECD interviews, the provincial administrations are looking closely at the costs and benefits of e-government investments and return on investments, but they are constrained in their medium- and longer-term planning of e-government development due to the formal one-year budget cycle of public administration. The four-year election period also has the potential to alter political priorities and agendas in a way that could impact

e-government development and the possibility of maintaining stable and focused ongoing development and implementation of e-government services and back-office streamlining.

Provinces, which are responsible for spatial planning, can apply for additional economic support for spatial planning and geographical information systems from the central budget through the Ministry of Housing, Spatial Planning and the Environment. The Space for Geo-Information Project and a central fund of about EUR 40 million aim to create incentives for collaborative projects among provinces.

Additional indirect support is provided through the ICTU-run e-Provincies Programme[9] set up in 2002 by the Zuid-Holland province. The programme aims to support the provinces in developing e-government according to central government e-government goals; to some extent, activities are also co-ordinated within the programme. Funding of the programme is divided equally among the 12 provinces and the Ministry of the Interior and Kingdom Relations.

In summary, the main budgetary challenges for the provinces are:

- E-Government investments may be used more effectively and efficiently through closer collaboration among provinces to identify common e-government components and services to be shared among several or all provinces.
- One-year budgetary cycles and shifting political priorities may prevent longer-term investment planning for e-government development.

Funding of e-government in municipalities

OECD interviews indicated that municipalities face many of the same problems and considerations as central government and the provinces. The OECD survey results (see Figure 2.4) show that funding for e-government comes primarily from the municipalities' general budgets, their ICT budgets and funds for special projects. The municipalities seem to have a broader range of funding sources, according to the survey, including grants, donations, international funds, and user fees. In comparison with central government, the municipalities seem to fund fewer e-government activities through joint funding, which may indicate limited collaboration among municipalities to develop services shared by many municipalities.

As with the provinces, funding of e-government development is the responsibility of each independently run municipality. However, due to the limited financial means available to many smaller municipalities, they generally lean heavily on support from the Ministry of the Interior and Kingdom Relations. Within the ICTU-run EGEM programme – 50% financed by the Ministry of the Interior and Kingdom Relations, and 50% by VNG (*Vereniging van Nederlandse Gemeenten* – Association of Netherlands' Municipalities) –

municipality-level e-government is supported through co-ordinated activities like the development of common e-government standards and concepts that can be used by all municipalities to co-operate and collaborate in developing e-government services.

Even though municipalities as a whole do not perceive any budgetary barriers for e-government development, OECD interviews do point to funding challenges, especially for the smaller municipalities; they are more dependent on central government support or support obtained through co-operation and collaboration with other municipalities, and therefore share the cost of developing commonly used e-government components and services. However, the survey showed that this kind of collaborations and co-operative efforts remain rare.

In summary, the main budgetary challenges for the municipalities are:

- E-Government investments may be used more efficiently through organised collaboration on common e-government components and services to be shared among several or all municipalities. The VNG (Association of Netherlands' Municipalities) might be able to provide stronger organisational structures and common frameworks to promote closer e-government collaboration among municipalities; at present, however, it is constrained by the difficulty of getting consensus among municipalities.
- Weak financial means for e-government development is resulting in heavy dependence on central government support – especially for smaller municipalities.

Infrastructure challenges

E-Government infrastructure challenges consist of technical issues like common data structures, interface descriptions, technical platforms and electronic networks, along with challenges concerning work processes and information flows. The areas typically in question are:

- **Enterprise architecture:** An enterprise architecture for e-government development consists of a common vision for e-government; its main goals should be fulfilled by implementing the vision and a strategy, a general overview of major work processes and information flows, principles for data and information exchange using commonly agreed data and technical standards, and (last, but not least) basic technical definitions, platforms, networks and ICT security.
- **Interoperability of work processes and information flows:** Work processes and information flows bind together different levels of infrastructure elements: the overall enterprise architecture, organisation, and the technical infrastructure foundation.

- **ICT security infrastructure:** An ICT security infrastructure[10] consists of a number of technical and procedural components supporting e-authentication of users of e-government services and other areas.
- **Data structures and interface definitions:**[11] The main effort is to harmonize data definitions and ensure logical organisation of data to be shared within the public sector; this will avoid duplication and inconsistency of data, and smooth exchange across organisational boundaries.
- **Technical standards and platforms:** Common technical standards and platforms to prevent technical inconsistencies and barriers to integration and interoperability of e-services.
- **Electronic networks:** Networks that sufficiently support the aims and purposes of electronic communications are necessary to interconnect the public sector reliably and securely.

The Netherlands has not formulated a common public sector infrastructure policy to ensure horizontal and vertical integration and interoperability. This has, until now, been a minor problem, as the aim of e-government development has been for each public institution at all levels of government to develop e-services for citizens and businesses within its own area of responsibility. The question of looking at the public sector as one coherent unit, and not as fragmented and isolated public entities, has only recently become a priority. A fragmented landscape of e-services with little or no coherency across organisational boundaries does not necessarily create the proper environment for harvesting benefits and savings from developing e-government.

This is one reason why OECD interviews showed a significant indication for stronger central co-ordination, organisational focus and leadership of e-government development in the public sector as a whole. Central government statements concerning the general policy of decentralisation and local responsibility for a growing number of public tasks, including e-government, contradict this opinion. The apparent dilemma between centrally stated political goals of decentralisation to provinces and municipalities and locally voiced demands for stronger central political and practical leadership and responsibility for e-government development seems to be an important issue; it should be addressed in a dialogue among central government, provinces and municipalities.

Infrastructure development in the Dutch public sector has evolved from specific sector needs to more generic needs for common public sector key registers, common standards, etc. For example, the need for the social security sector to develop common tools and a framework for collaboration has been a main driver for the advanced stage of back-office integration of services that interconnects work flows among municipalities, agencies, insurance companies, businesses and the Ministry of Social Affairs and Employment to

provide fully integrated and "seamless" e-services throughout the sector. The successful infrastructure built within the sector has been a best practice model for other sectors.

Several interviewees mentioned a need for central government to take the lead and responsibility for common public sector infrastructure elements. This need has already been recognised by central government through the Modernising Government programme and subsequent action plans. The focus on implementing key registers and establishing GBO.OVERHEID (the government's shared services for ICT management organisation) by 1 January 2006 are examples of concrete actions taken to foster a co-ordinated approach to common public sector needs. ICTU, the Dutch e-government implementation organisation established by the Ministry of the Interior and Kingdom Relations, has been working on developing an enterprise architecture reference document for e-government[12] focusing on a maintenance architecture, an information architecture, and a technical architecture for e-government services. NORA (*Nederlandse Overheids Referentie Architectuur*, The Netherlands' E-Government Reference Architecture)[13] was approved as the public sector reference enterprise architecture on 10 May 2006.[14]

In summary:

- Despite the favourable technological environment for e-government, government organisations face a wide variety of technological challenges, some quite significant. The recently approved infrastructure policy for the public sector as a whole (NORA) might decrease the risk of implementing a fragmented public sector infrastructure for e-government with limited conceptual and technical consistency and a possible lack of interoperability, leading to additional barriers for proper back-office integration. The impact of this infrastructure policy on the public sector is still to be seen.
- The Dutch public sector has developed several good practices, and a pragmatic way of sharing solutions developed within a fragmented public infrastructure landscape owned and handled by different institutions. This is a step forward in aligning and consolidating infrastructure elements into a shared view and understanding of the Dutch common public sector infrastructure policy.

Digital divide

Compared with most OECD countries' statistics regarding the digital divide, the Netherlands has high levels of Internet use. This should translate into the successful development and take-up of e-government services in the Netherlands. Yet, actual take-up of e-government services ranks the Netherlands as a middle player among OECD countries.[15] The question, therefore, is: what barriers prevent the advancement of online services and the shifting of transaction services online?

Traditionally, the digital divide is measured as the systematic exclusion of certain groups or significantly lower use of ICT by certain groups within the population. More recently, OECD countries have included indicators on type and sophistication of Internet use. Because they can demonstrate a country's readiness for transactional e-services, data regarding online shopping and e-commerce have also been addressed during development phases of e-government services; they can help governments to add value and reach high take-up figures.

Three factors highlighting digital divides in the Netherlands – Internet usage and access, sophistication of use, and online shopping and e-commerce – might explain the lack of take-up of online services.

Internet usage and access

In the Netherlands, the telecommunications market is effectively competitive on the supply side, providing a high level of penetration of computers, broadband services and mobile services among citizens and businesses. On the demand side, Dutch consumers (both individuals and, to a somewhat lesser extent, businesses) show strong rates of adoption of computers, broadband services and mobile phones (see Table 2.2). The Netherlands has the second highest level of households with Internet access (78%) among OECD countries, just behind Iceland and far ahead of the OECD average (50%).[16]

Dutch citizens' and businesses' wide adoption of broadband in recent years suggests growing significance of the Internet for the Dutch in their everyday lives, and high potential for use of e-government services – if they are well communicated and developed to fulfil the actual needs of their target groups. In international comparisons, the figures suggest that access is higher than the EU25 average for households and individuals, yet lags behind for the adoption of the Internet in businesses (see Table 2.2). This discrepancy must be considered in order to re-focus the services strategy towards businesses.

In terms of type of connection, the Netherlands exhibits a positive trend towards broadband Internet adoption. As Figure 2.5 shows, the Netherlands was ranked fourth in broadband penetration, leading the OECD along with Iceland, Finland, and Norway.[17] Figure 2.6 illustrates that the trend is favourable. ADSL was by far the most popular type of Internet connection for Dutch households in 2005; approximately 70% of the households with an Internet connection had a broadband connection (ADSL or cable). Only one-quarter used a traditional analogue modem to gain access to the Internet, and ISDN has also become less popular.

In spite of this wide availability of Internet connections, nearly 4 million people (about 25% of the population) in the Netherlands have never used the Internet at all, and 22% of Dutch households remain unconnected – most because they are not interested in Internet activities. For e-government

Table 2.2. **Internet usage and access in the Netherlands and EU25**

Usage indicator	Netherlands 2004	EU25 2004	Netherlands 2005	EU25 2005
Households				
Proportion of all individuals using the Internet[1] (ages 16-74)	n.a.	81	93	84
Proportion of households with access to the Internet	58	43	78	48
Proportion of Internet users performing banking activities online	n.a.	n.a.	63	38
Proportion of Internet users who have ordered goods or services for private use[2] (OECD compilation)	49	56	66	55
Enterprises				
Proportion of enterprises with access to the Internet (10 or more employees)	88	89	91	91
Proportion of small and medium enterprises with access to the Internet	88	89	88	91
Proportion of large enterprises with access to the Internet	97	99	97	99
Proportion of enterprises from the industrial sector with access to the Internet (OECD compilation)	n.a.	n.a.	92	91
Proportion of enterprises from the service sector with access to the Internet (OECD compilation)	n.a.	n.a.	90	94

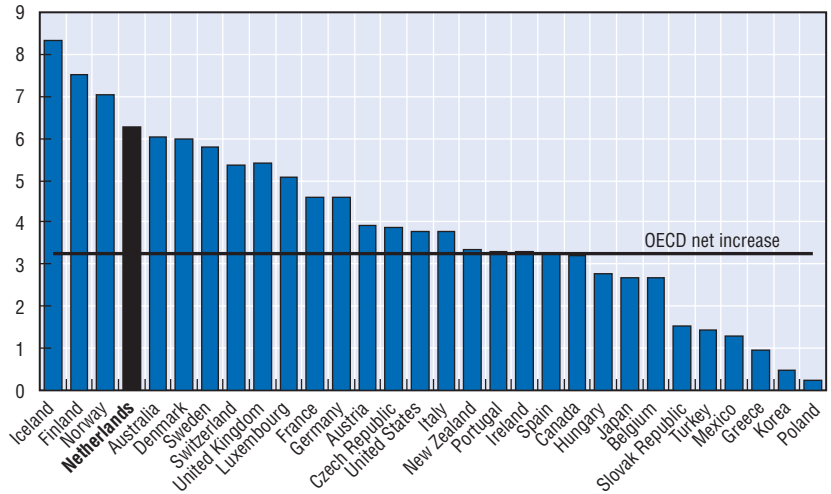
1. Percentage of individuals who used the Internet in the last three months.
2. Purpose: sending/receiving emails, finding information about goods and services, reading/downloading online newspapers, playing/downloading games and music, Internet banking.

Source: Eurostat, 2006, from EUROPA/European Commission/Eurostat home page/Data navigation tree/Information Society Indicators, updated in June 2006.

development, it will be important to monitor the characteristics of this group, which cannot be reached by online technologies. A 2005 study commissioned by the Central Bureau of Statistics (CBS)[18] found that the relationship between Internet experience and background variables presents a familiar picture of the digital divide and Internet access and use in the Netherlands: people who have never used the Internet can be found among single people, one-parent families, people from non-urban communities, people without work and people who are not in any form of education, and the elderly. Table 2.3 provides an overview of relevant background characteristics of persons and households in correlation with access to and use of the Internet.

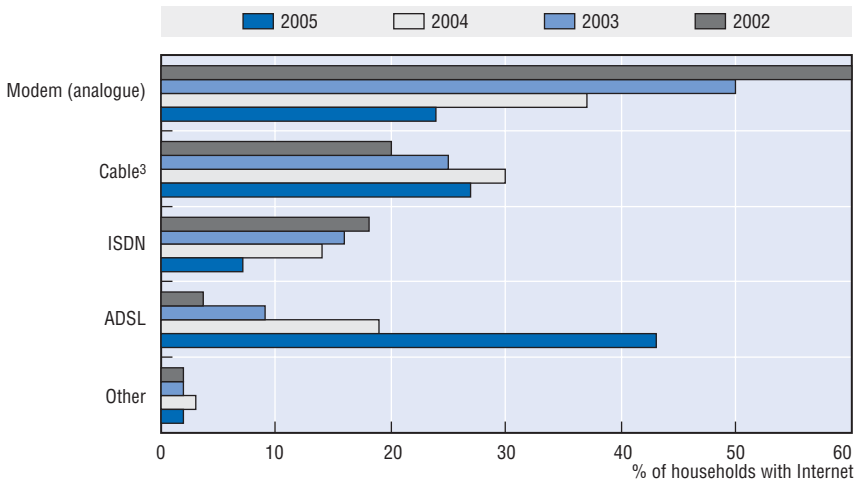
Most people who do not have an Internet connection at home do not want one. Table 2.4 summarises the reasons given by the population for not having Internet access at home. Nearly 20% say it costs too much, while 11% cite a lack of knowledge or skills. These results seem to indicate that one of the factors determining the digital divide is a lack of understanding of the

Figure 2.5. **Broadband penetration growth**
Net increase Q4 2004-Q4 2005, by country and per 100 inhabitants



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

Figure 2.6. **Households with access to the Internet by type of connection, 2002-05**[1, 2]



1. 2002 figures are based on the period July-December. 2005 figures are based on the second quarter. All other years' figures are based on a continuous survey. 2002-04 figures refer to the population aged 12 years and older. 2005 figures refer to the population aged 12 to 74 years.
2. More than one answer possible.
3. In 2005 cable and UMTS.

Source: Statistics Netherlands POLS (population aged 12 years and older)/ICT Survey 2005 (population aged 12 to 74 years).

Table 2.3. **Digital divide data**

Internet use (percentage of individuals regularly using the Internet)[1]	Netherlands 2005	EU25 2005
General		
Proportion of all individuals using the Internet (ages 16-74)	93	84
Regional differences		
Proportion of urban individuals using the Internet (ages 16-74)	94	86
Proportion of rural individuals using the Internet (ages 16-74)	92	83
Gender (OECD compilation)		
Proportion of males aged 16-74 using the Internet	94	87
Proportion of females aged 16-74 using the Internet	90	80
Age		
Proportion of males aged 16-24 using the Internet	95	87
Proportion of males aged 25-54 using the Internet	96	88
Proportion of males aged 55-74 using the Internet	91	87
Proportion of females aged 16-24 using the Internet	96	84
Proportion of females aged 25-54 using the Internet	91	81
Proportion of females aged 55-74 using the Internet	82	75
Employment		
Proportion of employed	94	85
Proportion of unemployed	96	78
Education		
No or low formal education	88	80
High formal education	97	89

1. Percentage of individuals who used the Internet in the last three months.
Source: Eurostat, 2005.

Table 2.4. **Reasons for not having an Internet connection at home, 2005**[1]

Reasons for not having an Internet connection at home	% of people without Internet
Do not want Internet, not interested, not useful	65
Too expensive (hardware, installation, telephone or subscription charges)	19
Can access the Internet elsewhere	12
Insufficient knowledge or skills	11
Worried about privacy and/or security	2
Physical limitations	1
Other	23

1. Population aged 12 to 74 years with no access to the Internet at home; more than one answer possible.
Source: Statistics Netherlands, ICT survey 2005 (population aged 12 to 74 years).

potential benefits of using ICT, rather than problems associated with its actual use (*e.g.* being too difficult and/or expensive to use). This may indicate a need for better communication of the benefits of connecting to the Internet, and demonstration of the capacity of ICT to provide benefits and services that respond to peoples' expectations and needs.

Sophistication of use

The report "The Digital Economy 2005", published by Statistics Netherlands (2006), concludes that there are large differences in the extent to which various population groups use the Internet. Although this is partly caused by differences in spheres of interest, it is also the result of varying levels of ICT skills in the population. Considering time spent online and sophistication of online activities presents the following picture for the Netherlands:

a) ***Time spent online:*** The overall time spent online has increased in recent years (from an individual average of 5.9 hours per week in 2002 to an average of 7.3 hours per week in 2004), rising to an average of 66 million person-hours per week in 2004. However, Statistics Netherlands concludes that differences between population groups remain substantial, and all groups of users do not contribute equally to this volume of Internet use. Nearly half of the total average weekly volume in 2004 was realised by users aged 25 to 45, and people with broadband connections accounted for two-thirds of the volume.

b) ***Sophistication of online activities:*** Over 2.4 million people in the Netherlands limit themselves to relatively simple online activities such as browsing and sending e-mails, evidence from the statistics office shows. Some 6.5 million people carry out more complex activities such as downloading software, posting messages in chat rooms and shopping online (see Table 2.5). Figure 2.7 places a number of household Internet activities, such as sending e-mail and searching for information about products and services, in an international perspective. In 2004, the number of people in the Netherlands carrying out these activities was higher than average in the EU.

Online shopping and e-commerce

Online shopping is a form of e-commerce, which is usually described both for the B2C (business to consumer) and C2C (consumer to consumer) markets. These markets are of growing significance in OECD countries, and activity in this area suggests that consumers have confidence in online transactional services; this is of relevance to the development of advanced e-government services. Statistics Netherlands reports that the number of people who shop online in the Netherlands is higher than the EU25 and EU15 averages. The percentage is higher only in Luxembourg, Germany and the United Kingdom. Figure 2.8 leads to the conclusion that although more Dutch than the EU average shop online, the percentage is lower than "expected" in view of the large number of households with Internet access in the Netherlands.

The main reasons people give for not buying online are primarily a preference for traditional ways of shopping, not being able to see the benefit in shopping online, and – to a significant extent – the fear of breaches in security, confidentiality and privacy. Recent research in the Netherlands further shows

Table 2.5. **Use of the Internet for communication, information and entertainment, and transactions, 2005**[1]

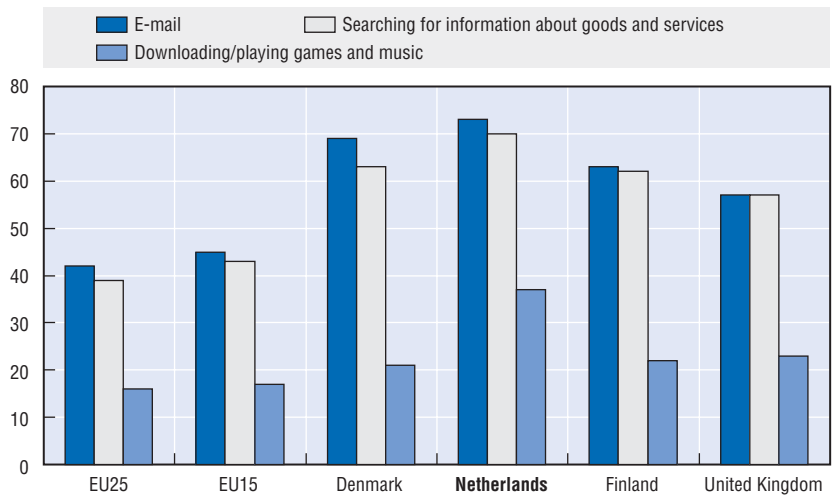
Type of Internet use	% of Internet users
Communication	
E-mail	86
Phoning via the Internet	6
Other, *e.g.* chatting	38
Information and entertainment	
Searching for information about goods and services	81
Playing or downloading games, pictures, and music	48
Using online travel services	46
Downloading or reading newspapers or newsletters	33
Downloading software	26
Listening to the radio or watching TV	24
Job searches and applications	18
Transactions	
Online banking	55
Buying or ordering goods or services online	38
Selling goods or services onine	16
Other financial services, *e.g.* buying stocks	4

1. Population aged 12 to 74 years who used the Internet in the month preceding the survey; more than one answer possible.

Source: Statistics Netherlands, ICT survey 2005 (population aged 12 to 74 years).

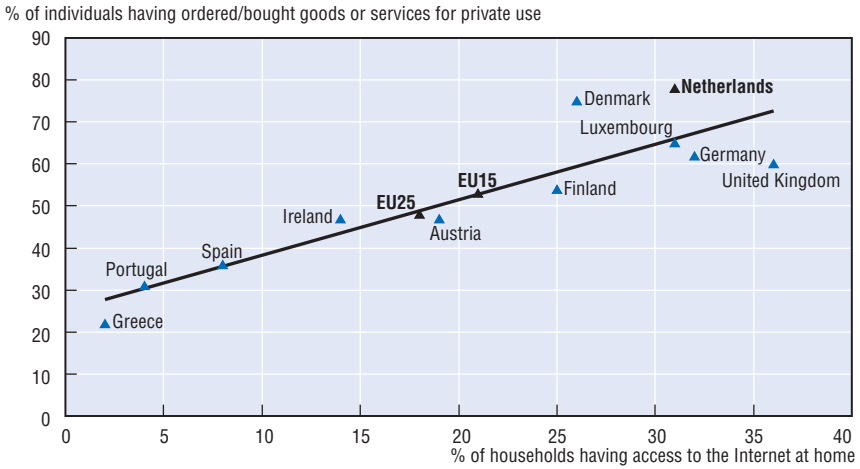
Figure 2.7. **International Internet activities, 2005**

% of the population



Source: Eurostat (OECD compilation).

Figure 2.8. **International online shopping, 2005**



Source: Eurostat (OECD compilation).

that spam and viruses constitute a considerable threat for a large part for the population, and significantly more so for broadband subscribers. These issues could undermine the public's faith and the user-friendliness of the Internet, and need to be closely monitored and proactively addressed.

In summary:

- While the Netherlands is very favourably positioned on the digital divide, it remains necessary to consider the issue as an important challenge for further user take-up of e-government services. In the future, given the pressure the government is placing on achieving greater public sector efficiency and effectiveness, the ability to deliver as much information and as many services as possible online will be increasingly important. This is especially true to the extent that it enables cost savings arising from reduced use of other channels for government service delivery wherever feasible.
- More than three-quarters of households in the Netherlands have access to the Internet from home (83% of households had at least one computer and 78% had access to the Internet in 2005). About 70% of these households used a broadband connection. From an international point of view, levels of Internet access and broadband connections at home are very high in the Netherlands. Figures suggest that adoption by businesses is statistically weaker.
- The primary digital divide is reflected in the difference in computer ownership and Internet access between the older and the younger generations. There is a second divide within the group that does use the Internet with respect to time spent online and sophistication of Internet use. This difference is also visible between older and younger Internet users.

- Online shopping and e-commerce activities in the Netherlands are less successful than could be expected. Closer consideration of the barriers to and concerns about the use of online transaction services will benefit the development of advanced e-government services in the Netherlands.

Competencies and skills

The ability to use information and communications technologies fluently and with confidence is an essential skill set in a rapidly changing world. ICT skills are vital for employment and for education and, increasingly, for everyday life. It is important to monitor these skills for the successful adoption of e-government services and the next generation of e-democracy tools to invigorate political participation. Consequently, there is continuing concern among employers, governments and universities about basic skills, advanced skills and computer literacy among businesses.

Basic skills

Implementing the Information Society requires that citizens acquire the basic skills to access and use computers and the Internet. Most Dutch use computers and the Internet at home, at work or at school, and many have become proficient in ICT use through these experiences (see Table 2.6).

The Cabinet of Ministers in the Netherlands has focused principally on ICT use in education; these efforts have clearly made an impact and have produced various success stories. The Netherlands has a relatively high ratio

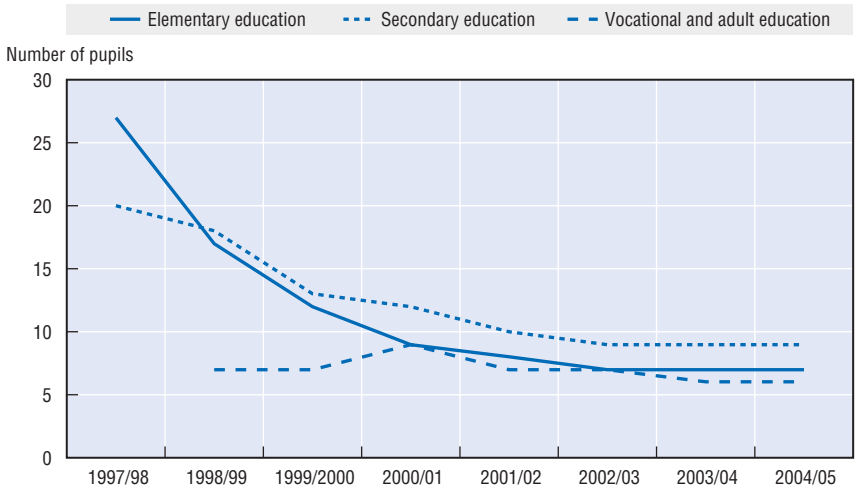
Table 2.6. **Computer use and Internet skills, 2005**[1]

Skills type	% of the population
Computer skills	
Can use a mouse	86
Can copy or move a file or folder	73
Can copy or paste information in a document	71
Can use simple formulas in a spreadsheet	44
Can condense folders or files	39
Can write a computer program	12
Internet skills	
Can use a search engine	79
Can send an e-mail with an attachment	69
Can post messages in chat rooms, news groups or message boards	20
Can use the Internet for phone calls	16
Can design a web page	14
Can share folders with other users to exchange music, films, etc.	6

1. Population aged 12 to 74 years; more than one answer possible.
Source: Statistics Netherlands, ICT survey 2005 (population aged 12 to 74 years).

of students to computers and relatively low use of ICT equipment in schools compared to other countries (see Figure 2.9). Priorities for the near future are the use of ICT as a didactic tool, and increasing ICT skills among teaching staff; the foundations KennisNet[19] and *ICT op school* (ICT in school),[20] which publish information about educational innovations using ICT, will play a key role. The challenge of ICT skills and competencies among teaching staff at all levels of education is similar to many OECD countries at the same level of Information Society development as the Netherlands.[21]

Figure 2.9. **Internet use in schools, 1997/98-2004/05**



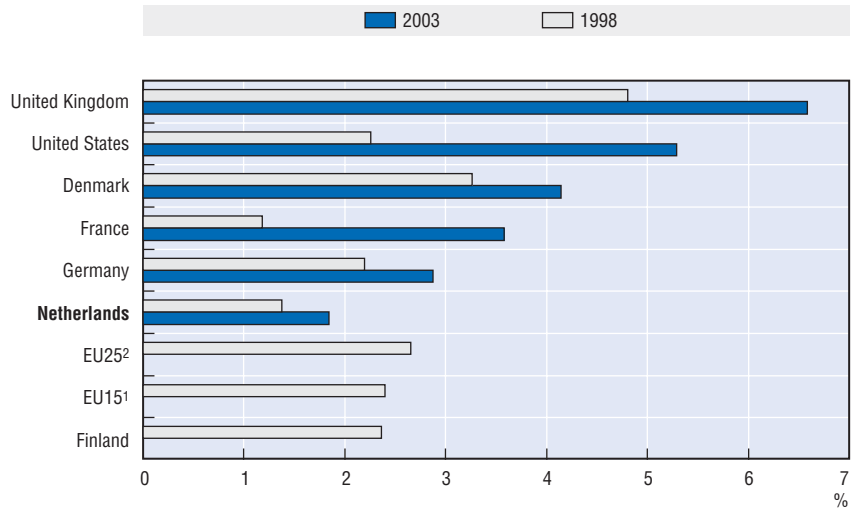
Source: "Digital Economy 2005", Statistics Netherlands, Voorburg/Heerlen, 2006. Figure 5.2.1, p. 204.

Reviews undertaken by the Dutch government[22] generally show that ICT is the least integrated in the ordinary curriculum in secondary education. In primary education and in vocational and adult education, ICT is far more integrated.

Advanced ICT skills

According to a 2005 OECD review of ICT diffusion to businesses,[23] the Netherlands produces a very low number of graduates in science and engineering (especially within the area of computer science), and a low percentage of tertiary education graduates in mathematics and computer sciences. This may pose problems for ICT research and innovation for the future and may also imply future shortages of ICT specialists. Moreover, the percentage of female graduates in this field of study is very low, and much below the average for the OECD as a whole. Internationally speaking, the performance of the Netherlands in training people in the use and application of ICT is less than the OECD average.

Figure 2.10. **Share of students of informatics among graduates of higher education, 1998 and 2003**



1. Higher education: ISCED-97 level 5A, 5B and 6. Informatics: ISCED-97 field 48.
2. For EU15 and EU25: Eurostat estimate.

Source: "Digital Economy 2005", Statistics Netherlands, Voorburg/Heerlen, 2006, Figure 2.9.3, p. 101.

Computer literacy skills among businesses

Another way of looking at ICT skills is examining where and how they are used in the economy. The 2004 *OECD Information Technology Outlook* has developed a new way of characterising industrial sectors by measuring their share of ICT-skilled employment according to different levels of ICT skills. According to this classification, the share of ICT specialists employed in each sector in the Netherlands seems to be relatively higher than the EU15 average. The broader indicator of ICT-skilled employment in total employment shows a similar picture. However, the performance of the Netherlands in R&D and innovation indicators is relatively low.[24]

In addition to filling new jobs, ICT specialists must also replace older people who stop working or people who take jobs elsewhere. The labour market has demonstrated a high level of demand for ICT experts over the past decade, requiring many more workers than could be trained. However, most jobs have been filled. The hiring of immigrant workers, whose representation increased from 12% of employed ICT workers in 1996 to 16% of employed ICT workers in 2004, partially bridges this gap. For the remainder of the highly skilled positions, the conclusion is that many of the people currently employed in the ICT sector have not studied ICT and its application at the higher professional or university level, but have acquired the required skills in a different way.

In summary:

- The labour force in the Netherlands appears to gain ICT skills mainly through "learning by doing". More intensive and structured instruction in ICT could result in a greater command of ICT competences and a greater willingness to acquire them – and eventually higher take-up and demand for e-government services. A strengthened effort to graduate more advanced ICT-skilled persons will, in the longer run, prevent a skills shortage for e-government implementation.
- Use of computers and the Internet is increasing across the board (among people with higher/lower levels of education and among the employed/unemployed) even though challenges remain across all aspects of the skills and competencies landscape. A continuous effort to raise ICT literacy in the whole educational system as a long-term strategic activity may support the goal of eventually increasing public engagement in and usage of e-services.

Notes

1. OECD (2003), *The E-Government Imperative*.
2. The law has been amended several times implementing *e.g.* the EU directive on re-use of public data regulating the possibility of usage of public data (2003/98/EC).
3. According to a letter (Lower House of the States General, session year 2004-05, 29 362 and 26 387, No. 37) from the Minister of Government Reform and Kingdom Relations to the Speaker of the Lower House of the States General (the Dutch Parliament), each law will include paragraphs regulating *e.g.* once-only provision of data and mandatory use of key registers.
4. This programme is a collaborative effort among the Ministry of Economic Affairs; Ministry of the Interior and Kingdom Relations; Ministry of Education, Culture and Science; Ministry of Justice; Ministry of Transport, Public Works and Water Management; and Ministry of Health, Welfare and Sport.
5. "Burning platform" describes the state an organisation may enter when its future existence is threatened, and the leadership of the organisation finds itself 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.
6. Ministry of the Interior and Kingdom Relations (2005), "Progress report on the Modernising Government programme", Chapter 3: "How the Electronic Government Programme is financed: general report", Financial Progress Report, October 2005.
7. An "asymmetric business case" is a business case where investments in a given project do not necessarily pay off in the organisation making the investment. For e-government development, this is particularly the case for projects developed and implemented for the common benefit of many or all public sector institutions. It is also known as the so-called "sow-harvest" dilemma, where the public institution making the investment does not harvest sufficient efficiency gains.
8. Ministry of the Interior and Kingdom Relations (2005), "Progress report on the Modernising Government programme", Chapter 3: "How the Electronic Government Programme is financed: general report", Financial Progress Report, October 2005, and OECD interviews.

9. "e-Provincies – Work Plan 2005", 25 January 2005.
10. An ICT security infrastructure is a coherent and robust security infrastructure to support the use of digital signatures. The more technical term is *Public Key Infrastructure*, or *PKI*. PKIs consist of three elements: *a)* a trusted third party – a *Certificate Authority,* or CA – which guarantees the identity of a person or entity between the sender and the receiver of a message; *b)* digital signatures, or *certificates*; and *c)* two keys, one for signing messages, and one for encrypting/ decrypting messages.
11. Standardisation of data structures and interfaces between public sector institutions is usually the main task. A number of OECD countries have begun to analyse public data structures in order to mark up data and describe interfaces to be shared among e-government practitioners to allow all public sector institutions to exchange commonly used data instead of building up their own local registers of generic data and information on citizens and/or businesses.
12. According to OECD interviews and the ICTU website, *www.ictu.nl/profile_c.html* (accessed on 28 June 2006).
13. *www.e-overheid.nl/atlas/referentiearchitectuur/* (accessed 1 October 2006).
14. According to interview with Mr. Wim R.J.L. van't Hof, Ministry of Economic Affairs, 13 September 2006.
15. Capgemini (2006), "Online Availability of Public Services: How Is Europe Progressing?", Web–based Survey on Electronic Public Services, Report of the 6th Measurement prepared by Capgemini for the European Commission, June 2006, Belgium.
16. This finding is also supported by the latest Eurostat publication (2006), "Use of the Internet among individuals and enterprises", No. 12/2006, *http://epp.eurostat.cec.eu.int/ cache/ITY_OFFPUB/KS-NP-06-012/EN/KS-NP-06-012-EN.PDF*.
17. OECD Broadband Statistics, December 2005.
18. CBS, Internet Survey Developments at Statistics Netherlands (2005), *www.cbs.nl/ nl-NL/menu/methoden/research/discussionpapers/2005/2005-3-dp-pub.htm* (accessed 10 October 2006).
19. KennisNet is a national organisation established by Dutch educational institutions (primary schools, secondary schools and the professional and adult educational organisations). More information is available in Annex G.
20. For more information, see *www.ictopschool.net/* (accessed 10 October 2006).
21. See, for example, the OECD report "Schooling for Tomorrow: Learning to change: ICT in schools" (2001).
22. The publication *8 jaar onderwijs en ICT* (IVA/ITS, 2005) looked at the main results from the ICT education monitors of the past eight years, placing developments in education in their "historical" perspective. Also, each year the Ministry of Education, Culture and Science publishes the *ICT-onderwijsmonitor* (ICT education monitor) (IVA/ITS, 2005).
23. OECD, ICT Diffusion to Business (2005), "Peer Review, Country Report: Netherlands".
24. In economics and marketing, a service is the non-material equivalent of a good. Service provision has been defined as an economic activity that does not result in ownership; this is what differentiates it from providing physical goods. Service delivery is a process that creates benefits by facilitating a change in customers, a change in their physical possessions, or a change in their intangible assets.

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Chapter 3

E-Government Leadership

Assessments	Proposals for action
Leadership	
• **Obtaining strong e-government leadership in the Netherlands is a challenge, and an obvious focal point is lacking.** The co-ordination and implementation of e-government policies are spread among a number of different public or semi-public bodies at three levels of government. The lack of leadership for e-government development was frequently mentioned in OECD interviews and is also supported by the results of the OECD survey. Even though co-ordination has been strengthened within central government, and agreements have been reached on the conditions for e-government implementation and a concrete roadmap to reach specific goals, further collaboration has been called for. This signals both ambivalence in the centre about exerting authority in a decentralised system and a lack of effectiveness in communicating the main messages about e-government and its benefits. • **An atmosphere of consensus building has led to pragmatism through extensive dialogues and subsequent compromises;** this seems to have been a successful way of exercising leadership in order to achieve central government's adopted policy and strategy goals. However, **the maturity stage of e-government development has exposed the limitations of this approach**. Several stakeholders in central and local governments have recognised that full benefits realisation of e-government investments will only be realised when the public sector as a whole has adopted and integrated e-government fully in its day-to-day business. This seems to be one of the reasons why **the Dutch government is now pursuing a strategy of adopting laws on the mandatory usage of common public sector e-government building blocks**. • OECD interviews showed that **the perception of e-government leadership by ministries outside the group of co-ordinating ministries is weak**. This perception is supported by the OECD survey, which shows that 65% of the respondents from central government saw a lack of leadership at the political level as a barrier to e-government development. Respondents said e-government goals are less clearly perceived than the political goal of achieving administrative burden reduction. • **Centrally communicated e-government policy goals are only taken up and implemented locally if they are prioritised by local governments.** Even though local governments are not obliged to adopt, prioritise and implement central government e-government policies, they have nevertheless been taken up broadly through the EGEM programme (co-operation programme with municipalities) and the e-Provincies programme (co-operation programme with the provinces). The need for stronger leadership from central government, together with a clearer picture of different e-government responsibilities within central government, was expressed strongly in OECD interviews. • **E-Government leadership within municipalities shows a lack of a focal point for joint action by municipalities**, and also a lack of more centralised guidance on e-government development from VNG, and central government. In addition, the leadership of e-government development within municipalities is generally dispersed and unfocused, with a broad range of e-government development stages across the municipalities.	• The Netherlands should consider whether e-government leadership in the public sector could be strengthened through simpler and clearer organisational setups, and better-communicated roles and responsibilities: ❖ **Central government** should consider whether e-government leadership **could be strengthened and increased through simpler and strengthened co-ordination structures**, which could also increase each ministry's overall leadership role and responsibility for e-government development and implementation within its own sector. ❖ **Provinces and municipalities** should consider whether a **strengthened co-ordination effort could improve overall benefits realisation**. Voluntary collective commitments and joint actions within and across levels of government incorporating, for example, the organisational frameworks of VNG (Association of Netherlands Municipalities) and IPO (Association of Provincial Authorities) should be utilised more systematically as a lever for co-operation and collaboration with central government.

Assessments	Proposals for action
Adequacy of policies, strategies, goals and actions	
• In general, Dutch e-government strategies address all major key issues with special attention to user-focused e-government development and the reduction of administrative burdens. However, **it is not clear how the broader goals for modernisation of the public sector will be achieved outside the elaborated and specified e-government action lines** on establishing key registers, and establishing unique identifiers for citizens and businesses for implementation of the "deliver once, use many times" principle of data management.	• The seeming lack of objectives shared by all levels of government (shown by OECD interviews) may lead to difficulties in maintaining an overall prioritisation mechanism for projects and programmes. To address the weaker connections between e-government and the broader objectives of public sector modernisation, **the government should consider whether implementation of e-government policies could be more directly integrated with public sector reforms**; this was also stated strategically in the 2003 "Modernising Government Programme".
• Key priorities for the Dutch are to make smart use of ICT, to diminish administrative burdens for citizens and businesses, to improve the quality of services, to reduce regulations, and to reconsider government tasks. Massive back-office development has taken place within recent years to ensure that services are not only made available online, but that the processes surrounding them are more efficient and effective, and integrated across government. **The government seems to recognise the need for both front- and back-office streamlining for e-government to be a success.**	• The short- to medium-term political focus on developing common e-government building blocks, while effective in creating an infrastructure for cross-government service delivery, may have resulted in an imbalance in strategic and implementation goals. The political goal – as stated in recent Dutch policy documents – is delivering services, which seems to be under-prioritised in the current e-government strategy. **The Netherlands should therefore consider balancing the short- to medium-term focus on back-office development with a longer-term perspective placing an equally strong focus on service delivery to users.**
• OECD survey results point to a general challenge concerning public sector employees' knowledge of their own organisations' e-government plans and understanding of the bigger picture of technology as a catalyst for innovation and transformation. It might also reflect **a limited interest in e-government development by individual ministries outside the group of co-ordinating ministries**; this slows the impact of efforts and developments made through the Dutch government's e-government strategy and its implementation in the public sector as a whole.	• The focus on achieving administrative burden reduction raises the question of whether other broader objectives of public sector modernisation (*e.g.* user-focused service delivery) need to be communicated more strongly in order to balance the objectives of both front- and back-office reforms. **The Netherlands should consider prioritising more systematic communication about e-government development throughout the public sector.**

E-Government has never been a top-level priority or "headline" policy for the Dutch government; nevertheless, the issue has always been positioned as an enabler of other major policy areas – particularly those related to development of the Dutch Information Society and public sector modernisation. The wider political aim in the Netherlands is to reach the government's principal goals: reducing administrative burdens on citizens and businesses, while developing better services for citizens and businesses. E-Government in the Netherlands supports user-focused service development and creation of seamless services through back-office interoperability, priorities laid out in the 2003 "Modernising Government" political framework. This initiative has resulted in the prioritised goals of delivering integrated services.

This chapter analyses e-government leadership, the adequacy and the strength of existing e-government co-ordination arrangements, and how current e-government policies and strategies reflect on leadership practices; it also explores and assesses how leadership is organised and exercised in the different levels of government in the Netherlands.

Leadership

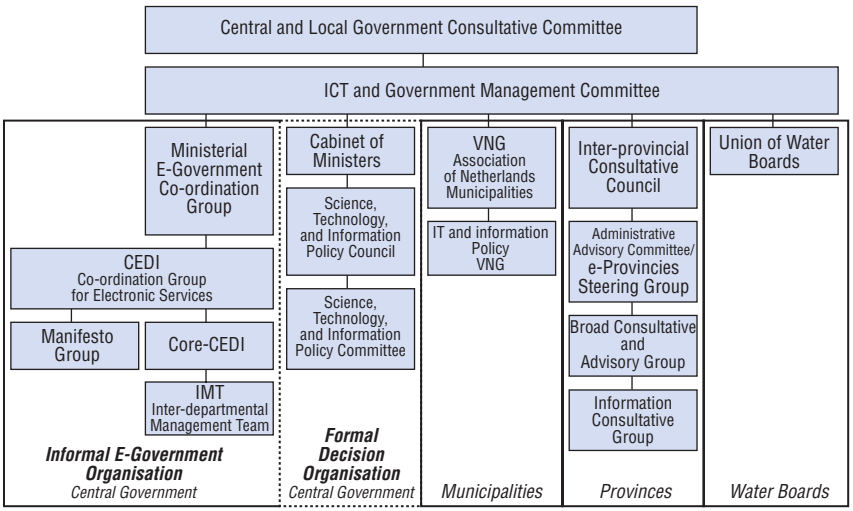
The decentralised structure of the Dutch public sector sets the institutional context for the implementation of e-government. Over the years, administrative power and policy responsibility have increasingly been transferred from central government to local government, strengthening and broadening local government's responsibilities for delivery of many government services.

Leadership in central government

The e-government leadership at the central government level is exercised through the four co-ordinating ministers in the *informal* **Ministerial E-Government Co-ordination Group**: the Minister of Government Reform and Kingdom Relations,[1] the Minister of Economic Affairs, the State Secretary of Finance, and the State Secretary of Social Affairs and Employment.[2] The Minister of Government Reform and Kingdom Relations holds overall political responsibility for e-government policy, together with the Minister of Economic Affairs (see Figure 3.1).

All ministers are formally and directly responsible to Parliament on issues within their areas of responsibility.[3] This means that each minister has no formal obligations to the Cabinet of Ministers, which is chaired by the Prime

Figure 3.1. **The Dutch e-government organisation**



Source: OECD, based on "Progress Report 3 – e-Government", Ministry of the Interior and Kingdom Relations, August 2006.

Minister who sets the agenda for meetings. Informal bodies have been developed to provide efficient and co-ordinated e-government leadership that ensures consistency and coherency of policy development and implementation.

The Ministerial E-Government Co-ordination Group brings a major advantage; decisions that need to be taken can be negotiated and agreed upon quickly without regard to prescribed procedures within the formal setting of the government decision-making process. This group meets about two times per year.

The Co-ordination Group for Electronic Services, or **CEDI**, brings together high-level civil servant representatives from a broad range of ministries with substantial e-services development.[4] CEDI meets two times per year. According to OECD interviews, this group functions practically as a co-ordination and decision forum for e-government matters and also prepares meetings for the Ministerial E-Government Co-ordination Group.

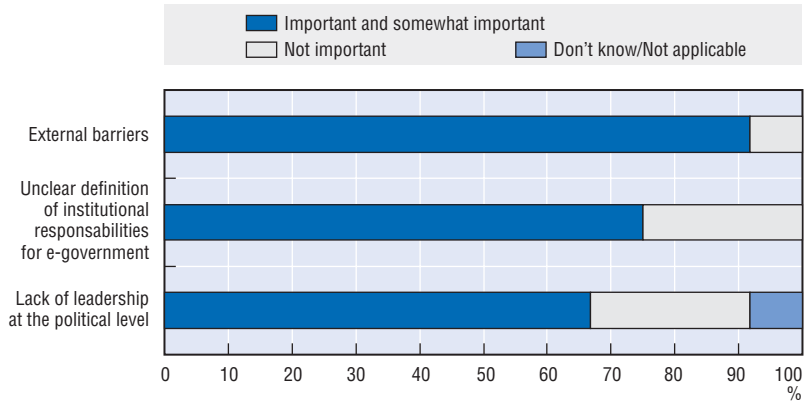
The **core-CEDI** group consists of representatives of the four central co-ordinating ministries; it prepares issues for discussion and decision in CEDI meetings. Core-CEDI meets about four times per year. Core-CEDI is prepared by the Inter-departmental Management Team, **IMT**, which includes senior-level representatives from ministries included in the core-CEDI. IMT meets about twice per month.

OECD interviews indicate that these informal e-government organisations have successfully convinced ministries to prioritise e-government

implementation; decisions concerning major cross-cutting e-government projects, including the commitment of financial resources, have been taken within the framework of the informal e-government organisation. Only e-government matters which are required to pass through the formal decision procedure in the Dutch government (*e.g.* legislative proposals) are addressed and decided formally (see Figure 3.1). Additionally, using the informal e-government organisation as preparation for the formal decision procedure often smoothes the formal procedure significantly; many of the individual civil servants who participate in the informal e-government organisation of CEDI are the same who deal with the issues in the formal decision organisations of central government.

OECD interviews showed that the perception of e-government leadership by ministries outside the group of co-ordinating ministries is weak. This perception is supported by the OECD survey, which shows that 65% of the respondents from central government saw a lack of leadership at the political level as a barrier to e-government development (see Figure 3.2). This perceived lack of leadership at the central level is further supported by OECD interviews; respondents said e-government goals are less clearly perceived than the political goal of achieving administrative burden reduction, and the leadership of ministries outside the group of co-ordinating ministries is less obvious, especially for government agencies and institutions. Government agencies, and public and quasi-public institutions, are left to themselves concerning the development of e-services.

Figure 3.2. **Challenges to e-government implementation**
Central government



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

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The contradictory messages and perceptions as to whether e-government leadership in central government is sufficiently strong to move development forward – both within central government and across the public sector as a whole – should be considered further with regards to:

- Developing simpler and clearer lines of e-government responsibilities within central government.
- Determining appropriate incentives for sector ministers to take the lead in developing e-government within their own areas of responsibility using the common public sector e-government building blocks.
- Encouraging more transparency and accountability in e-government decisions through simplification and unification of decision organisations.

Leadership at the local government level – provinces and municipalities

It is apparent that the question of leadership is perceived and exercised differently across levels of government in the Netherlands. Centrally communicated e-government policy goals are only taken up and implemented locally if they are prioritised by local governments. Although local governments are not required to adopt, prioritise and implement these policies, they have been taken up broadly by local governments through the EGEM programme and the e-Provincies programme. OECD interviews gave the impression that many diverse projects are being implemented, but with only limited exchange of experiences and good practices and with minimal collaboration among provinces and municipalities. The need for stronger leadership from central government, together with a clearer picture of where e-government responsibilities lie within central government, was expressed particularly strongly by interviewees from outside the ministries.

E-Government leadership in the provinces is primarily exercised through local politicians and local administrative management systems. According to the OECD survey, lack of leadership is not among the most significant barriers to e-government development in the provinces (as it is in central government). Provinces have developed e-government leadership mainly in the areas of spatial planning and the use of geographic information systems to support their regional planning tasks. The practical question for provincial government is how to build efficient solutions that include possibilities of harvesting benefits for both provincial administrations and their customers.

Looking at the leadership of e-government within municipalities shows the same picture. Municipal-level respondents to the OECD survey do not identify lack of leadership as one of the major barriers to e-government development. Again, leadership seems to be a presumption rather than a barrier, as governments focus on other questions like resistance to organisational change, external challenges like the exchange of data across organisational boundaries, and the lack of skills for implementation.

OECD interviews pointed to a lack of both a focal point for joint action by municipalities, and centralised guidance of e-government development from central government and VNG. In addition, the leadership for e-government development within municipalities is generally dispersed and unfocused, with a broad range of e-government development stages across the 458 municipalities. Whether this is a problem or just a factor of the administrative structures in the Netherlands is a judgement call. The Dutch focus on achieving administrative burden reduction can quite easily be propagated through the public sector and places technology in a more concrete context. "E-Government", on the other hand, is not an end in itself; this may cause confusion, in that the scope of leadership may be primarily confined to areas such as interoperability that enables administrative burden reduction (especially in the areas of joining up or reducing duplication).

Because e-government development is voluntary and based solely on central government policy goals with weak incentives for local implementation, e-government has developed at various rates in municipalities; development levels depend primarily on local political priorities and administrative leadership from innovative municipal managers.

Prioritisation of e-government

Compared to issues like health and security, the political leadership has placed low priority on e-government development; e-government is not at the top of the political agenda and is mainly viewed as a "technical" issue. In the Dutch case, the connection between e-government as a tool for change and the modernisation of the public sector is not obvious, even though a number of progress reports have been submitted to Parliament on the implementation of the 2003 "Modernising Government Programme" including reports on implementation of e-government[5] describing the progress and status of major initiatives.

OECD interviews do not clearly show the priority of e-government development and implementation, which depends heavily on the local political climate and the level of resources put into implementing e-government. Discussions at the local level seem to be connected to the immediate harvesting of efficiency gains (see further discussion in Chapter 2). The perceived lack of leadership at the central political level demonstrated in the OECD interviews has been linked to the limited impact of e-government on the overall political agenda. However, this view is contradicted by the actual prioritisation of the issue by central government, which has appointed a Minister of Government Reform and Kingdom Relations responsible for e-government, signalling the political importance within the government of the development and modernisation of the

public sector. This contradiction can be explained by the fact that government reform is usually the outcome of many processes, including the greater exploitation of e-government where appropriate.

The broad policy aim of administrative burden reduction – and the establishment of adequate organisational structures and processes to support achieving this goal – on the other hand, has seen strong political support. For example, the Dutch government created an independent advisory board on administrative burden reduction, ACTAL, in May 2000; today ACTAL reports directly to the Ministry of Finance on administrative burden reduction for businesses, and the Ministry of the Interior and Kingdom Relations on citizen issues. Due to its clear political priority, the goal of achieving administrative burden reduction is being used by different public bodies to argue the case for e-government.

Adequacy of policies, strategies, goals and actions

Political leadership is exercised through the adoption, communication and implementation of policies, strategies and action plans. The Netherlands has broadly covered e-government and related topics, linking e-government to user needs, public sector modernisation, government communication policies, and back- and front-office development. The different policy and strategy documents adopted and publicised within the last 10 years demonstrate a political focus on user needs and demands,[6] which has developed from a strong infrastructure focus in the mid-1990s.[7] Linking user-focused e-government development with the goal of administrative burden reduction seems to be the main argument for further e-government development and focus on internal administrative gains across the public sector.

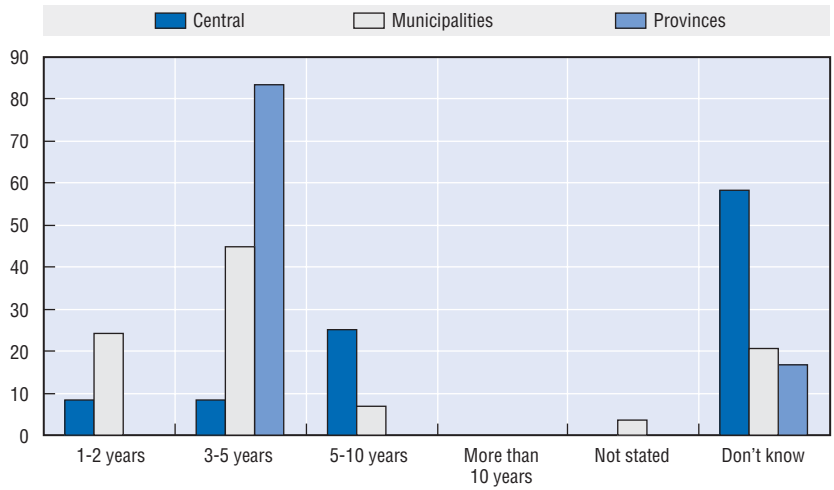
The relationships between central and local governments in the Netherlands offer unique characteristics and challenges for political leadership. Without historically established and commonly agreed upon traditions, it has been difficult to foster collaboration and co-operation on e-government. Additionally, the present government vision[8] and the status reports on the progress of implementation of e-government components[9] are mainly focused on delivering common e-government building blocks with limited specific consideration of how the Netherlands will achieve its broader public sector modernisation agenda. In other words, it is not clear how the broad political and strategic policies adopted to foster the use of e-government for public sector modernisation will be implemented, and what kind of leadership tools (political or economic incentives, joint projects, etc.) – if any – will be applied.

The principle of subsidiarity may be a limiting factor in establishing specific aspirations for reforms aimed at reducing administrative burdens. In the longer term, it may be more productive to allow municipalities to operate

within their own spheres of influence on their own terms, while emphasising the overall requirements of administrative burden reduction and their implications for greater cohesion across levels of government.

Local government organisations seem to be operating within a three-to-five-year timeframe for achieving organisational goals of e-government development management (see Figure 3.3); this estimate is also supported by OECD interviews, which showed that short- to medium-term planning horizons generally follow election cycles for political offices in central government and local governments. The long-term planning horizon beyond a five-year-period is limited in municipalities (7%), but more considered in central government (25%). It is, however, quite remarkable to note that 59% of respondents from central government do not know the timeframe for achieving their organisational e-government goals; this may indicate a lack of proper communication within organisations about timeframes and management goals. This may also be a symptom of the desire to plan "below the radar", as the articulation of a new paradigm may provoke a hostile reaction from those who perceive that they may lose as a result.

Figure 3.3. **Timeframe for achieving organisational goals**
By level of government



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

E-Government development raises a number of cross-cutting questions concerning business processes and division of work horizontally and vertically in the public sector. These issues, which by nature are politically sensitive, are not unique to the Netherlands, 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 development and implementation in the context of decentralisation, currently a political necessity in the Netherlands. There does not seem to be an overarching strategic framework in place for dealing with these fundamental and cross-cutting questions about e-government development; perhaps this can be achieved by framing e-government more properly in its context as an enabler of reform and further demonstrating the potential of technology.

Another important means of gaining support is to tie e-government to broad policy objectives – particularly those that are prioritised at all levels of government. Commonly agreed upon objectives facilitate the creation of a more coherent e-government landscape and provide a basis for developing better business cases for e-government projects, and for prioritising projects and programmes. Knowledge of the e-government stakeholders – including citizens, businesses, the public administration itself, and user representatives – is an important component in establishing the e-government landscape.

Co-ordination

The decentralised governance structure of the Dutch public sector demands careful planning for co-ordination between different levels of government and within each level of government to avoid unnecessary duplication of work and secure coherency of e-government activities. Using best practices identified through business case analyses and concrete pilot implementations to identify "lessons learned" provides better background for consensus and a coherent view of e-government development and its impact.

Co-ordination groups help local governments pursue and implement e-government policy by managing relations and responsibilities between central government and municipalities and provinces. The following groups foster collaboration (see Figure 3.1):

- ***Central and Local Government Consultative Committee*** includes the Ministry of the Interior and Kingdom Relations, the provinces and the municipalities. It serves as a general locus for mutual consultation between central government and local governments.
- ***ICT and Government Co-ordination Group*** includes the Ministry of the Interior and Kingdom Relations, the Ministry of Economic Affairs, the municipalities, the provinces and the Water Boards. The group co-ordinates e-government matters as part of the *EGEM programme*.
- ***e-Provincies Steering Group*** includes the Ministry of the Interior and Kingdom Relations and the provinces. The Steering Group also functions as the Administrative Advisory Committee for the provinces.

The Manifesto Group, a group of public and quasi-public institutions primarily within the social security sector has – through a manifesto signed by all participating institutions[10] – promised to collaborate and co-operate closely in delivering "seamless" services to the public and businesses and within their areas of responsibility. The group is systematically consulted and advises CEDI (see Figure 3.1).

Co-ordination and collaboration – central government

The Dutch governance system's culture of consensus and dialogue and the decentralisation policy of shifting competencies and decisions to the local level of government have limited the role and function of central government. Its policy execution seems to depend heavily on dialogues with stakeholders within and outside central government, and on a significant amount of co-ordination and consultation, primarily within each ministry's area of responsibility. The collegial nature of government ministers and the explicit division of responsibilities, along with direct supervision by the Parliament, cause the ministries to naturally focus on their own sectors. However, co-ordination and consultation is important: for all ministries, both within their areas of responsibility and across sectors.

This "stove-piped" tradition of basically vertical collaboration and co-operation is also reflected in the results of the OECD survey. In identifying obstacles preventing collaboration with other organisations, almost 60% of respondents cited the "habit of non-collaboration" (see Figure 3.4). Other frequently cited obstacles were "internal resistance to change" (over 40%) and "collaboration seen as risky". These results indicate a lack of tradition of horizontal collaboration and holistic thinking about the public sector.

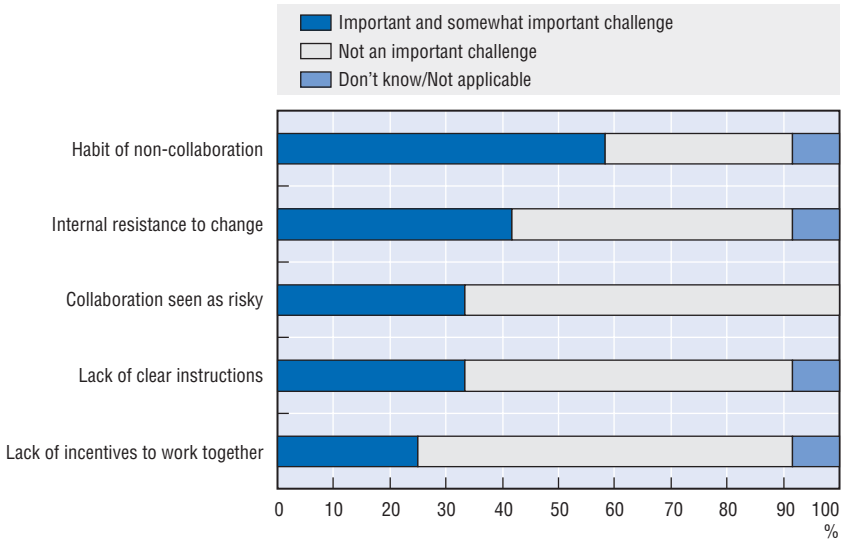
Central government should pay attention to foster development of a culture of public sector collaboration and co-operation, particularly in order to achieve administrative burden reduction and especially where a common ICT governance approach is required to support inter-agency activities. A collaborative approach to standards and inter-connectivity – as well as to the identification, creation and implementation of horizontal business processes – is essential to achieving e-government results for the whole public sector. This demands a shift in attitude towards collaboration and co-operation within central government, as well as with public organisations outside central government.

Co-ordination and collaboration in a multi-level government context

Practical co-ordination and collaboration across levels of government is primarily covered by the EGEM programme (co-operation and support of e-government development in municipalities) and in the e-Provincies programme (co-operation and support of e-government development in

Figure 3.4. **Obstacles to collaboration with other organisations**

Central government



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

provinces). These programmes deliver limited guidance to local e-government programmes, respecting the autonomy of provinces and municipalities. Strategic co-ordination has been limited as well, and primarily includes periodic bilateral or trilateral consultations between central government ministries and provinces and municipalities.

However, a statement has recently been signed by the Minister of Government Reform and Kingdom Relations, the Association of Provincial Authorities, the Association of Netherlands Municipalities, and the Water Boards[11] as a result of consultations between central government and provincial and municipal authorities. This meeting resulted in the adoption of a new strategic framework for e-government implementation in provinces and municipalities.[12] (It also demonstrates a growing role for the associations and their ability to issue statements on behalf of all their members.) The expectations of municipalities, as expressed in OECD interviews, support the need for such a lasting framework for cross-programme co-ordination, collaboration and development to replace *ad hoc* stand-alone approaches by each local government.

The implementation agenda adopted by all parties calls for concrete deliverables with specific timelines and clearly delineates the responsibilities of the national government and local governments. The statement also covers tasks like communication, monitoring and support, and specifies financing

principles for implementation. It calls for broader participation by ministries in future consultations with local governments on e-government matters.

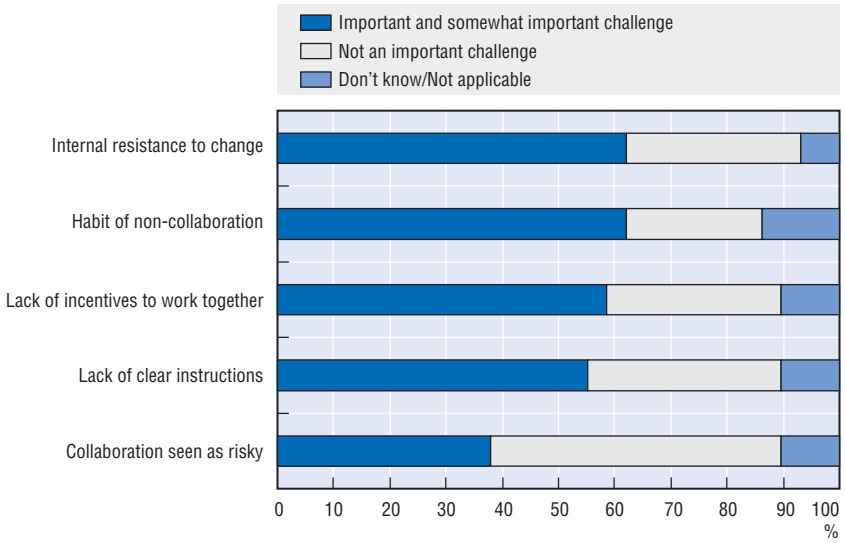
- Due to their planning responsibilities, the 12 provinces have a relatively limited role concerning overall public sector e-government development. The co-ordination structure is *ad hoc* and collaboration efforts among the provinces seem to be limited. They are organised through the IPO (Association of Provincial Authorities). The role of this association is limited within the e-government arena, and the few existing practical co-operation and collaboration efforts between the 12 provinces and central government have been co-ordinated through lead provinces appointed on an *ad hoc* basis according to the issues at hand.
- The 458 municipalities play an important role as providers of public services to citizens and businesses. They are organised within the VNG (Association of Netherlands' Municipalities), which co-ordinates activities and negotiates on behalf of the municipalities with central government on issues of common interest. The role of VNG is seemingly still limited due to the broad and diverse interests of the municipalities, depending on their stage of e-government development, the number of inhabitants, and their demography in general. According to OECD interviews, there is still a strong understanding of the municipalities' autonomous state *vis-à-vis* central government.

The municipalities' understanding of their own role as autonomous entities seems to be reflected strongly in the OECD survey (see Figure 3.5), where the "stove-piped" culture is even more significant than in the survey results from central government (see Figure 3.4). About 61% of municipality respondents answered that the main obstacles preventing collaboration with other organisations are "internal resistance to change" and "habit of non-collaboration", closely followed by "lack of incentives to work together" (59%) and "lack of clear instructions" (57%). These results are clearly supported by OECD interviews, which conveyed the perception of a rather limited number of municipalities co-operating and collaborating on developing e-government services – even though they might benefit from sharing experiences and e-services.

Tools for co-ordination

Central government has few tools for pursuing political and managerial leadership within the public sector. Co-ordination and collaboration are primarily achieved through dialogue and consensus building in committees, and bilateral discussions and agreements. An example is the April 2006 e-government implementation agreement between central government and local governments. Broad involvement of stakeholders from civil society before government decisions are made is another characteristic of the Netherlands' tradition of open and inclusive government.

Figure 3.5. **Obstacles to collaboration with other organisations**
Municipalities



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

This atmosphere of consensus building has led to pragmatism through extensive dialogue and subsequent compromises; this seems to have been a successful way of exercising leadership to achieve central government's adopted policy and strategy goals. However, the growing maturity of e-government development has called into question the long-term feasibility of this traditional approach to pursuing leadership and policy and strategy implementation; several stakeholders in central and local governments have recognised that full benefits realisation of e-government investments will only be harvested when the public sector as a whole has adopted and integrated e-government fully in its day-to-day business. This seems to be one of the reasons why the Dutch government is now pursuing a strategy of adopting laws on the mandatory usage of common public sector e-government building blocks like key registers, Citizen Service Numbers, and Business Service Numbers.

Ad hoc or informal committees like the CEDI, joint projects with provinces and municipalities run by implementation organisations like ICTU, and informal processes that circumvent or shorten formal procedures are used to co-ordinate e-government development and implementation within central government, and between central government and provinces and municipalities. These are primarily "soft tools" with no legal or formal impact for the parties involved. Whether these are effective ways of exercising leadership and establishing proper co-ordination among different parties and stakeholders is not obvious, but it has nevertheless been a well-functioning governance model in the Netherlands.

Incentives for e-government implementation are not clear, OECD interviews show that they are primarily bound to incentives within each public institution; external demands and political pressure were the driving forces behind using e-government tools to modernise service delivery and make it more effective and efficient.

Interviewees also linked the leadership issue to the lack of clear communication about e-government benefits. They believe that internal and external marketing should be improved in conjunction with the necessary restructuring and change management to enable successful e-government implementation.

In summary:

- Obtaining strong e-government leadership seems to be a challenge and to lack an obvious focal point. Co-ordination and implementation of e-government policy are spread among a number of different public or semi-public bodies at different levels of government. To the extent that there are requirements for an "all-of-government" approach to governance and development, these should be stated clearly and made the responsibility of a designated owner.
- A medium-term framework of identifying and developing common building blocks allows the Netherlands to be successfully pragmatic in the short run; however, a more future-focused vision supported by a consolidated framework incorporating intentions, goals and alignment of ongoing e-government policy activities is vital for the medium- and long-term horizon. It also questions whether the use of legislation as an implementation tool (for example, for mandatory use of base registers *versus* a consensus-based approach) is complementary with a longer-term strategic view of e-government development. The more technical (administrative and technological) approach to e-government currently taken by the Dutch government seems to have distracted the focus from the prioritisation of user-focused e-government development and from service content innovation.
- The broader discussion of e-government benefits, which took place in the period 2003-04, allowed a diversity of visions and goals to develop. In general, Dutch e-government strategies address all major key issues with special attention to user-focused e-government development and the reduction of administrative burdens. However, it is not clear how the broader goals of modernisation of the public sector will be achieved outside the elaborated and specified e-government action lines on establishing key registers, and establishing unique identifiers for citizens and businesses for implementation of the "deliver once, use many times" principle of data collection.

Notes

1. The Ministry of the Interior and Kingdom Relations is led by two ministers: the Minister of Government Reform and Kingdom Relations, and the Minister of the Interior and Kingdom Relations.
2. Ministry of the Interior and Kingdom Relations (2005), "Progress report on the Modernising Government programme", October 2005.
3. Andeweg, R.B. and Galen A. Irwin (2005), "Governance and Politics of the Netherlands", Palgrave Macmillan, 2nd edition, 2005.
4. CEDI consists of high-level representatives of the Ministry of the Interior and Kingdom Relations; the Ministry of Economic Affairs; the Ministry of Finance; the Ministry of Social Affairs and Employment; the Ministry of Housing, Spatial Planning, and the Environment; the Ministry of Education, Culture and Science; and the Ministry of Health, Welfare, and Sport.
5. Ministry of the Interior and Kingdom Relations: "Progress report on the Modernising Government programme", December 2004, to the president of the Lower House of the States General (the Dutch Parliament), and "Progress Report on Electronic Government", October 2005.
6. Ministry of the Interior and Kingdom Relations: *Actieprogramma* "*Andere Overheid*" (Action Programme "Modernising Government"), 2 December 2003. See: *www.andereoverheid.nl*, *Beter Belid voor Burger en Bedrijf* (Better Government for Citizens and Businesses), 2002; and "The Electronic Government Action Programme", 1998.
7. Ministry of Economic Affairs (1994), "National Action Programme on Electronic Highways: From Metaphor to Action".
8. "Modernising Government" (*Andere Overheid*), 2003.
9. Ministry of the Interior and Kingdom Relations (2005), "Progress report on the Modernising Government programme", October 2005.
10. As of May 2006, the Manifesto Group includes the Association of Chambers of Commerce, the Netherlands Tax and Customs Administration, Centres of Work and Income, Employed Persons Insurance Administration Agency, Health Care Insurance Board, Dutch Road Traffic Department, Kadaster (Water Boards), Statistics Netherlands, and IB-Groep.
11. "E-Government Means Better Service Delivery and a Lighter Administrative Burden!" Statement adopted 18 April 2006 on the occasion of consultations between national, provincial, local and Water Board authorities.
12. "E-Government Means Better Service Delivery and a Lighter Administrative Burden!", Statement adopted 18 April 2006 on the occasion of consultations between national, provincial, local and Water Board authorities.

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Chapter 4

Implementation of E-Government

Assessments	Proposals for action
Management of E-Government implementation	
• Although government officials **recognise the necessity of making management of e-government more professional through monitoring and evaluation, this is not yet practiced systematically**. The primary purpose of monitoring and evaluation activities seems to be tracking user take-up of e-services, not determining whether overarching e-government goals of efficiency and effectiveness are being met. Evidence from the Netherlands suggests that **e-government services development rarely includes yearly identification of critical success factors**, which are then translated into key performance indicators to assess the service and its relevance to the target user community. • The large number of OECD survey respondents who do not recognise any of the suggested reasons for monitoring suggests a **low level of understanding of broadly communicated e-government goals**. This may also reflect confusion about where e-government fits in the political arena. To many, e-government is a discrete issue – something for the ICT community to worry about – and not significant in the greater modernisation process.	• To address the lack of a common concept for monitoring and evaluation that allows the government to track progress in achieving overarching e-government goals, **the Netherlands should consider developing, adopting and implementing a common concept for monitoring and evaluation, and a set of tools to be used by all public and quasi-public institutions**. Strengthening the focus on harvesting benefits of e-government development could mean that more emphasis should be put on using analytical tools like cost/benefit and business case analysis.
Organisational structures	
• **E-Government implementation has been increasingly transferred to "arms-length" organisations** set up as private foundations and fully controlled by government; this opens the possibility of divergent interests and a less transparent environment. Private sector participants in **OECD interviews raised the question that such organisations could render procurement processes less transparent if no clear outsourcing or public-private partnership policies have been defined and broadly communicated**.	• To regain a clear division of e-government roles and activities, the Netherlands should reconsider whether responsibilities are sufficiently delineated between public sector institutions and the private sector. One way of clarifying roles and responsibilities is to **define clear-cut public-private partnerships where possible**, in order to make use of the specific competencies and skills within the private sector.
Skills and competencies in the public sector	
• **The generally limited understanding of "whole-of-government" visions of e-government strategies and action plans poses a challenge to focused public sector implementation.** This is supported clearly by the OECD survey and interviews. This may be a symptom of over-emphasising the specific goals and instruments of transformation using ICT.	• **The Netherlands should consider developing a broader initiative to address the challenge of a traditional organisational culture of non-collaboration and a "stove-piped" working environment** with regard to implementation of e-government. A new framework for cross-organisational collaboration on implementation should be developed and put in place, together with clear incentive structures that encourage civil servants to engage in cross-organisational implementation projects. **Developing project-oriented activities within and across public sector institutions could be one tool to break down habitual "stove-piped" work behaviors.**

Assessments	Proposals for action
• The **focus on skills and competencies for both front-office and back-office implementation** (showed by the OECD survey) is not surprising. **It underlines the necessity for the public sector to integrate these two lines of application to establish a "whole-of-government" view of e-government implementation.** This view is not commonly shared and should be communicated more strongly to the public sector and its institutions. Perhaps a skills and competencies development, non-ICT building block is required to build a new form of public administration – focusing on the potential of connectivity in the creation of a new paradigm. • **The Netherlands does not seem to have an immediate competence and skills shortage for e-government implementation at the central government level.** Professionalising e-government development, implementation and operational maintenance is addressed by the creation of centres of expertise like ICTU, GBO.OVERHEID, BKWI and RINIS – in addition to a number of in-house ICT organisations in government bodies. Although the OECD survey and interviews did not reveal shortages, municipalities may have issues concerning local delivery capability. • By charging a few "arms-length" implementation organisations with implementation of cross-cutting e-government projects, the Dutch government has succeeded in developing experienced professionals. **The deliberate HR policy of ICTU provides an excellent possibility for knowledge diffusion to the rest of the public sector** when government employees return to positions in their agencies.	• **The Netherlands should consider whether additional efficiencies and effectiveness can be obtained by reinforcing existing "centres of competence" or creating virtual versions**, based in the implementation organisations, to further consolidate and cross-fertilise professional experiences and support the future development of implementation expertise in the public sector. **The ICTU HR strategy and policy concept could be strengthened and expanded to speed the process of changing the organisational culture in the Dutch public sector.**

In the Netherlands, the ongoing implementation of the common e-government building blocks (key registers, e-authentication systems, ICT security support functions and data sharing concepts and structures) and the continuous implementation of sector-oriented seamless e-government services raise questions about the adequacy of existing implementation mechanisms.

According to several OECD interviews, many Dutch government officials aim to implement e-government policy according to the country's political priorities, and in line with the Dutch governance culture of consensus and co-operation. This means that central-level implementation of e-government policies throughout the public sector greatly depends on creating the right management framework and providing the right tools to enable provinces and municipalities to develop their own e-services for their constituents.

This chapter will discuss and analyse the Dutch 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 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 just one aspect (albeit an essential element) of transformational and innovative change and therefore needs to be considered in a wider context of organisational development.

The Netherlands follows a strategy of "outsourcing" implementation of many cross-cutting e-government projects in order to professionalise e-government development and implementation. "Arms-length" implementation organisations like ICTU, BKWI, and RINIS were established with the purpose of creating "centres of expertise" on public sector e-government development, implementation and maintenance. A recent evaluation report of ICTU[1] confirmed that this strategy has succeeded in speeding the implementation of e-government projects in general – though

primarily projects initiated by central government. Despite the focus on the central level, local governments have been able to take advantage of expert knowledge and to get advice through common projects like the EGEM programme (e-government co-operation with municipalities) and the e-Provincies programme (e-government co-operation with the provinces).

Monitoring and evaluation

Implementing monitoring and evaluation methodologies and concepts as an integrated operational part of day-to-day management is essential to manage performance, track progress and spot upcoming challenges through foresight mechanisms. E-Government is moving from a politically initiated start-up phase to a more mature state of development; OECD countries are increasingly looking at e-government programmes as a part of overall government activities, subject to standards of management to achieve sound governance principles, including standard procedures for monitoring and evaluation of tasks and activities, risk management, and using analyses of economic impact (*e.g.* cost/benefit, calculating business cases and expected returns on investments, total cost of ownership, linking to political objectives for quality-of-life improvement, etc.). Many OECD countries are raising demands to improve the overall documentation and tracking of e-government projects and related activities.

In the Netherlands, the central government has implemented activities to develop common methodologies and concepts for monitoring and evaluation. However, according to several OECD interviews, these managerial tools are seldom used. Few agencies systematically monitor and evaluate e-government programmes as an integrated part of implementation and management. The independent agency IB-Groep, which administers education grants and related services (see Box 5.7), is an example of an agency that has implemented internal monitoring systems that allow it to follow the development and impact of implemented e-government services. On a wider scale, however, decisions are often based on political arguments and on limited research and analysis of feasibility of e-government projects. Despite this, the results are remarkable and have put the Netherlands at the top of the EU ratings with regard to e-government development.[2]

An e-government planning review has been developed to safeguard the cohesion of key services and to clarify for organisations when they can connect to these services – the so-called "EGEM Route Planner".[3] In order to ensure cohesion, as well as to give organisations direction for their own activities, the Ministry of the Interior and Kingdom Relations will monitor the results of the government's electronic services. Following developments in the field of electronic services, a new monitor is being developed to measure the realisation of once-only data provision (including via e-government building blocks) for these services. The impact of this tool might address some of the findings described below.

The OECD survey results (see Figure 4.1) demonstrate several significant observations:

- A large number of **central government** respondents (see Figure 4.1a) answered "don't know" when asked whether there are explicit goals in their own organisation's e-government strategy (58%); an equally large number "don't know" whether their own organisation monitors accomplishment of goals. Even though 33% of central government respondents answered that they know "how to monitor accomplishment of goals", only 17% answered that they knew their e-government plan "includes a framework to evaluate results".
- **Municipality** respondents (see Figure 4.1b) seem to be much more aware of their own organisations' e-government goals (72%), explicit deadlines (45%) and how to reach the goals (45%). Given this knowledge, however, it is significant that municipality respondents cite "monitor accomplishment of goals" as the least significant area of attention (24%) in e-government implementation. This may reflect the fact that municipalities are closer to their users and might rely more on informal and direct feedback rather than "monitoring" methodologies, which may be too focused on the techniques of performance measurement (statistics and metrics) rather than real impacts and are often more qualitative than quantitative.

The survey results point to a general challenge concerning public sector employees' knowledge of their own organisations' e-government plans, or a lack of understanding of the bigger picture of technology as a catalyst for innovation and transformation; this slows the impact of the Dutch government's e-government strategy and its implementation in the public sector as a whole.

The OECD survey shows that the primary reasons for monitoring e-government development cited by respondents from all levels of government are to: increase the number of users of e-government services (66%), followed by gain efficiency in working process (38%), and measure costs and benefits for the organisation (36%) (see Figure 4.2). It is interesting to note that the main political goals of achieving administrative burden reduction and efficiency and effectiveness in public administration do not seem to be the primary reason for monitoring (contribution to economic policy objectives ranked 15%). Another observation worth noting is that assessing the cost/benefit for users (citizens and businesses) is not high on the agenda (17%).

The OECD survey shows (see Figures 4.3 and 4.4) that central government and municipalities are in agreement on why monitoring should be done; respondents from both levels say they aim to increase the number of users (67% for central government and 55% for municipalities), gain efficiency in working processes (42% for central government and 31% for municipalities) and measure costs and benefits for their organisation (50% for central government and 34% for municipalities). The survey showed a notable difference between central government and municipalities regarding monitoring to contribute to economic policy objectives (*e.g.* achieving administrative burden reduction) and

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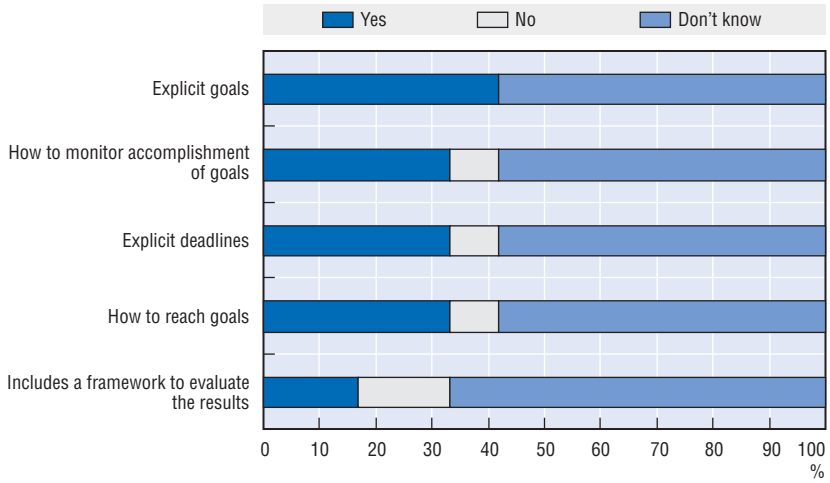
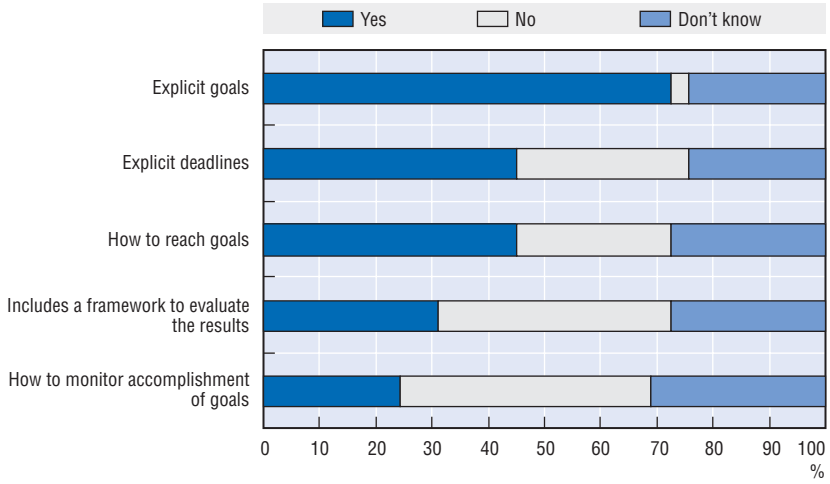
Figure 4.1a. **The e-government plan in your organisation**
Central government



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

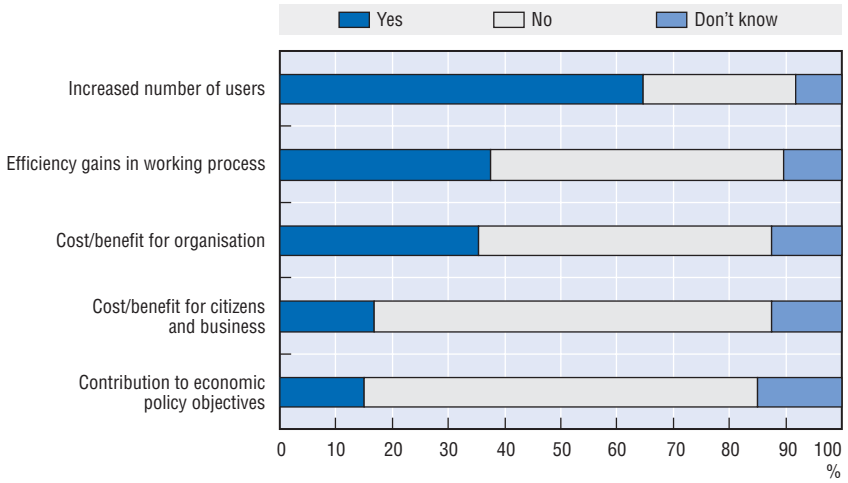
Figure 4.1b. **The e-government plan in your organisation**
Municipalities



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

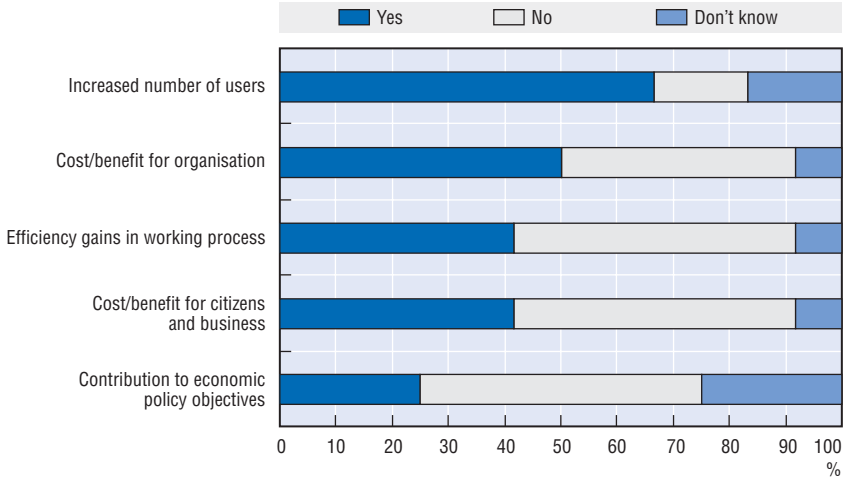
cost/benefit for citizens and businesses; municipality respondents prioritise the contribution to economic policy objectives higher than central government respondents. This is only a relative comparison, however, as most respondents (80%) at the municipality level still answered "no" when asked whether e-government contributes to economic policy objectives.

Figure 4.2. **Is monitoring being conducted?**
All levels of government



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

Figure 4.3. **Is monitoring being conducted?**
Central government



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

In order to measure e-government progress, it is necessary to have basic indicators describing its development. These may include analyses of costs and benefits, as well as qualitative and quantitative measures describing progress towards achieving stated policy goals. Indicators have not yet been agreed on as

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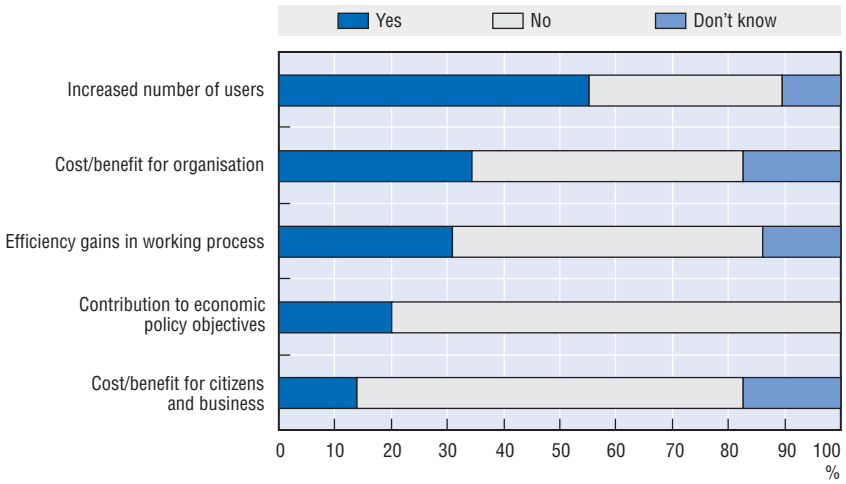
Figure 4.4. **Is monitoring being conducted?**
Municipalities



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

an integrated tool for managing e-government activities and tracking progress. Indeed, a large percentage of central government respondents (42%) do not see cost/benefit for the organisation or efficiency gains in working processes (50%) as an aim of monitoring, which is contradictory to the discussions during OECD interviews; it would be natural for central government respondents to be much more aware of key objectives of the central government's e-government goals. This may also reflect the fact that e-government implies opening new delivery channels, which may take time to reach the tipping point where older and more costly channels can start to be closed down.

Survey responses from municipalities show a significant number of respondents who do not see any purpose in monitoring e-government development – even to measure increases in number of users (34%). Compared to central government respondents, municipality respondents seem to lack sufficient information and understanding about e-government objectives; this could indicate a communication gap. It may also reflect the inherently different focuses of central and local government. While central government has to balance issues in a national context – to ensure equilibrium across economic and social policy areas with an eye to regional balances – local administration tends to have a more narrow focus (its *raison d'être*) and tends to be in competition with other local-level administrations for a share of national resources, etc.

In summary:

- Monitoring and evaluation do not take place systematically at any level of government in the Netherlands. The primary purpose of monitoring and

evaluation activities seems to be tracking user take-up of e-services, not determining whether overarching e-government goals of efficiency and effectiveness are being met. Even then, important wider social implications are not always easily monitored. No OECD survey respondents see monitoring and evaluation as part of a contribution to economic policy objectives, even though the political objective of achieving administrative burden reduction has been widely communicated and understood across the public sector. Systematic monitoring and evaluation do, however, take place in specific cases like that of the IB-Groep.

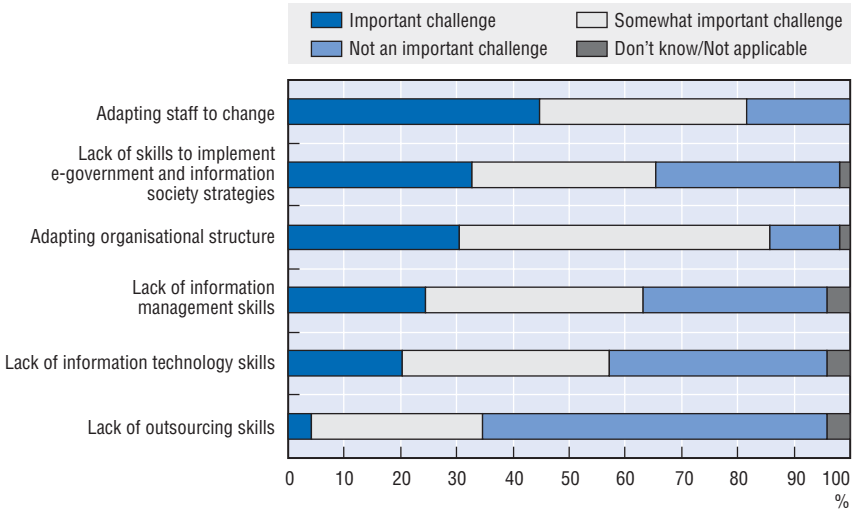
- Systematic use of economic-based tools like analysis of economic impact, cost/benefit and business cases of e-government projects is not common; however, government officials recognise the necessity of making management of e-government more professional with regard to monitoring and evaluation. This is an issue in many countries, as ICT and e-government are increasingly viewed in a wider context of major administrative change. Evidence from the Netherlands suggests critical success factors are rarely identified in the early stages of e-government services development, and then translated into key performance indicators to assess the service and its relevance to the target user community.
- The focus on user take-up of e-government services seems to have had a significant impact on the perception and understanding of why monitoring and evaluation should be conducted, as both central government and municipalities are in overall agreement on the aim of increasing user numbers.
- The OECD survey shows large numbers of respondents who do not recognise any of the suggested reasons for monitoring, suggesting a low level of understanding of broadly communicated e-government goals. This may also reflect the confusion that exists in relation to where e-government fits in the policy agenda. Many see e-government as a technical issue and not significant in the greater modernisation process.

Organisational structures

In order to spread knowledge of e-government goals, potential impacts and new practices, public sector managers must start thinking more strategically about how to use e-government as a tool for change within their organisations and as a means to rethink processes and procedures across organisational boundaries. This means that leaders and managers must be aware of how significantly technology can impact their organisational goals, in both economic and social contexts. The most important challenges to the implementation of e-government – as supported by the results of the OECD survey, shown in Figure 4.5 – are adapting both organisational structures (86%) and staff (81%) to the necessary changes.

Figure 4.5. **Importance of skills challenges to implementing e-government in your organisation**

All levels of government



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

The Netherlands has successfully implemented e-government through two basic types of implementation organisations:

- "**Arms-length" organisations:** Several "arms-length" implementation organisations have been set up by different ministries or sectors, *e.g.* BKWI and Inlichtingenbureau within the social security sector, and NICTIZ within the health care sector. The RINIS organisation provides an exchange mechanism for sharing information between the various sectors. These implementation organisations have historically worked with ICTU (the Dutch e-government implementation organisation) as the core operational organisations for e-government implementation (for descriptions of major e-government-related institutions see Annex D.
- **In-house implementation organisations:** Examples include the in-house ICT departments of the Tax and Customs Administration within the Ministry of Finance and the independent agency *IB-Groep* (for more information see Case Study 5. IB-Groep – The Dutch Education Grant Administration Agency) under the Ministry of Education, Culture and Sport.

Both types of implementation organisations have their advantages and disadvantages. The "arms-length" organisations lead and manage e-government projects and infrastructure development using extensive private sector involvement by outsourcing operations and services. These organisations have been set up as private foundations in response to limitations in the Dutch system

of government, which hinder the establishment of executive agencies that cross levels of government. These agencies operate under the conditions of private sector companies, but effectively function as public sector organisations fully steered by management boards heavily influenced by central government. The committee reviewing ICTU's first four years of operations clearly states that "… The current administrative set-up creates unnecessary confusion about ministerial responsibility".[4] The committee sees potential conflicts of interest, as central government has different parallel roles as member of the board, supervisor of activities, and client to ICTU. This mix of roles for a public sector authority raises questions about basic principles of sound public governance such as integrity and transparency.

Box 4.1. **ICTU – The Dutch E-Government Implementation Organisation**

The Ministry of the Interior and Kingdom Relations established ICTU in 2001. Its main purposes were originally to: "… support government bodies in developing, introducing and implementing innovative applications in the field of information and communication technology,… to assist those government bodies to that end, and to do all else associated with or conducive to this aim, in the broadest sense of the word."*

ICTU's main goal is to enhance and speed e-government development and implementation at all levels of government in order to improve the work "… processes of government administrations, their services to the community, and their interaction with citizens". ICTU is charged with managing and implementing e-government projects. The present project portfolio of ICTU covers 18 e-government projects as of June 2006 (for more information, see Annex D). The projects managed and implemented by ICTU have generally been initiated and mandated by central government, specifically the Ministry of the Interior and Kingdom Relations, according to OECD interviews. The e-government projects managed by ICTU usually have a cross-sector and cross-level nature, involving extensive collaboration and co-operation among several public organisations.

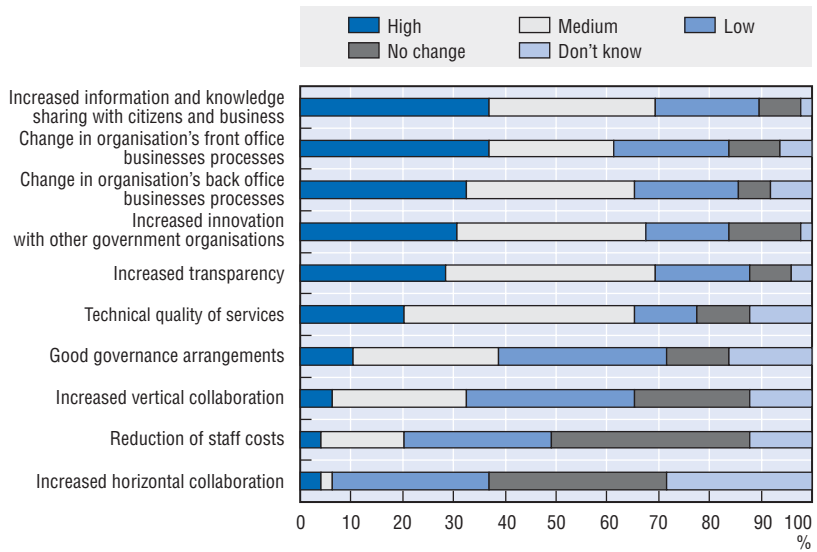
* Texte à venir.

The in-house implementation organisations often do most of the development and implementation of e-government services using internal resources and competencies. According to OECD interviews, outsourcing of services has continuously been considered, but no decisive conclusions have yet been reached. OECD interviews attributed some institutions' ability to provide advanced e-services to citizens and businesses to the advantages of internal resources and competencies.

Impact of e-government

Leadership involves laying out a vision and determining strategies, as well as articulating a clear commitment to the need for change. It also means staying abreast of what is being done, and being able to take proper action when needed. An ambitious public sector modernisation agenda needs to be complemented by high-level oversight of the progress of e-government and public sector modernisation initiatives. E-Government is one tool of public sector modernisation, and the impact of technology-enabled transformation is significant to evaluate a country's capacity to effect change. In the Dutch case, only a small percentage of respondents answered that e-government development has significantly impacted horizontal and vertical collaboration; comparatively low numbers of respondents identified increased information and knowledge sharing with citizens and businesses (38%), while change in organisations' front-office business processes (38%) and back-office processes (36%) represent the largest impacts on organisations (see Figure 4.6). This indicates a lack of appreciation of e-government's impact across organisational boundaries both in central government and in municipalities, possibly due to the fact that e-government is promoted for the purposes of improving interaction between citizens and government (reduced administrative burdens) but no connection is made between that goal and the impact on knowledge

Figure 4.6. **Impact of e-government on respondent organisation**
All levels of government



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

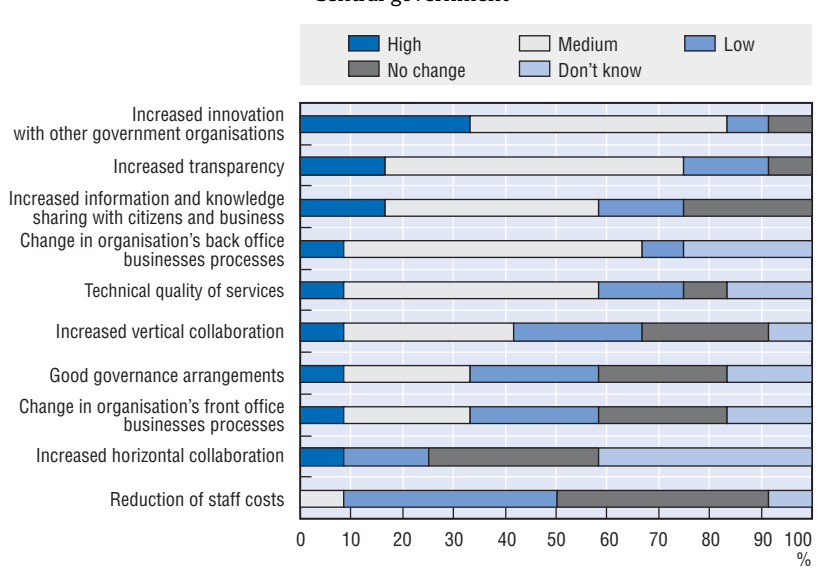
sharing, business processes, etc. In other words, many people involved in the delivery of e-services may not be particularly aware of the impact on the machinery – they just see the results in terms of user experience.

Survey results from central government (see Figure 4.7) and municipalities (see Figure 4.8) show that municipalities – in contrast to central government – see change in front-office business processes together with change in back-office business processes as having the largest impacts on their organisations. Central government respondents see increased innovation with other government organisations (33%), increased transparency (17%) and increased information and knowledge sharing with citizens and business (17%) as the three largest impacts on their organisations.

For municipalities, the perceived impact on organisations is not surprising, as municipalities have a stronger focus on front-office business processes in order to deliver services to citizens and businesses; central government's immediate user base is not always direct citizen and business contacts.

Both the survey results on the impact of e-government on organisations and OECD interviews confirm that e-government implementation still has little impact on "whole-of-government" understanding, and has not been seen as a tool for collaboration across organisational boundaries. The outsourcing of implementation management from central government to "arms-length"

Figure 4.7. **Impact of e-government on respondent organisation**



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

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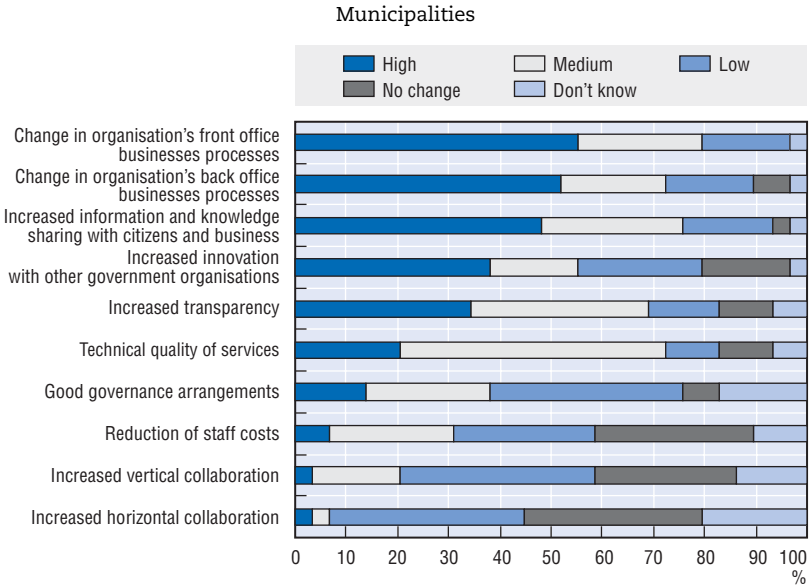
Figure 4.8. **Impact of e-government on respondent organisation**



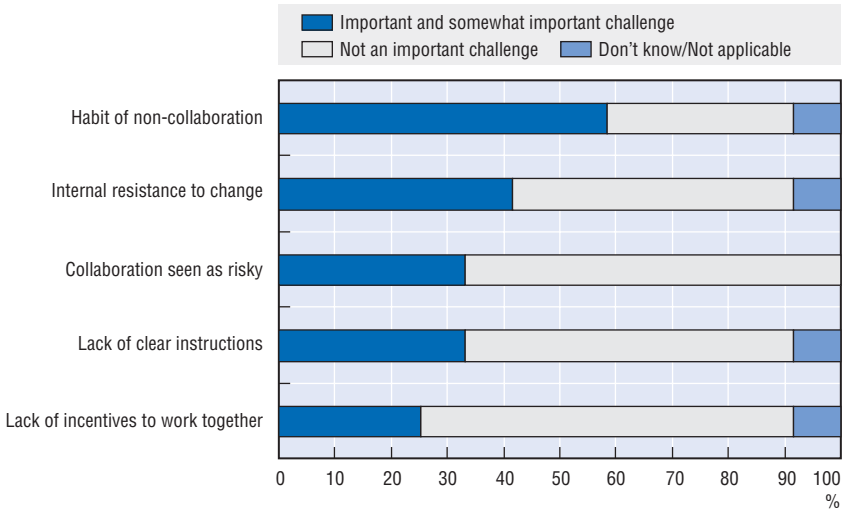
Source: OECD survey on e-government in the Netherlands, 2006.

implementation organisations may explain respondents' low perception of the impact of e-government on their organisations. This perception was also supported by OECD interviews showing limited ministerial leadership or guidance concerning e-government implementation within their areas of responsibility. The "connectivity potential" of ICT seems to be on political agendas only as it regards government-citizen relations. This bigger potential of connectivity – between administrations – has not been visualised in many countries and may be slow to emerge unless and until it becomes something digestible and marketable (in terms of its vote-yielding potential) by political actors.

Skills and competencies in the public sector

The need for change in Dutch central administrative culture and organisations is significant, as shown by the results of the OECD survey (see Figure 4.9). The main obstacle preventing people from working together in central government is the habit of non-collaboration (58%) followed by internal resistance to change (42%), collaboration seen as risky (33%) and lack of clear instructions (33%). It is, however, worth noting that 67% and 58%, respectively, do not see collaboration as risky or see obstacles arising from the lack of clear instructions, suggesting that a wider view on the resistance to change might prove useful.

Figure 4.9. **Importance of barriers preventing people from working together**
Central government



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

Looking at the same obstacles for municipalities (see Figure 4.10), it is interesting to note that respondents identify "internal resistance to change" (62%) and the "habit of non-collaboration" (62%) as the dominant obstacles. The obstacle "lack of incentives to work together" (59%) is significantly more important to municipal-level officials than to central government respondents (25%); this may imply that municipality respondents do not have sufficient incentives for collaboration and co-operation across their own organisational boundaries. It would be useful to explore these questions further to find the source or cause of "resistance to change" or the "habit of non-collaboration"; while their existence could have been predicted, the real discovery and potential for remedy lies in their causes.

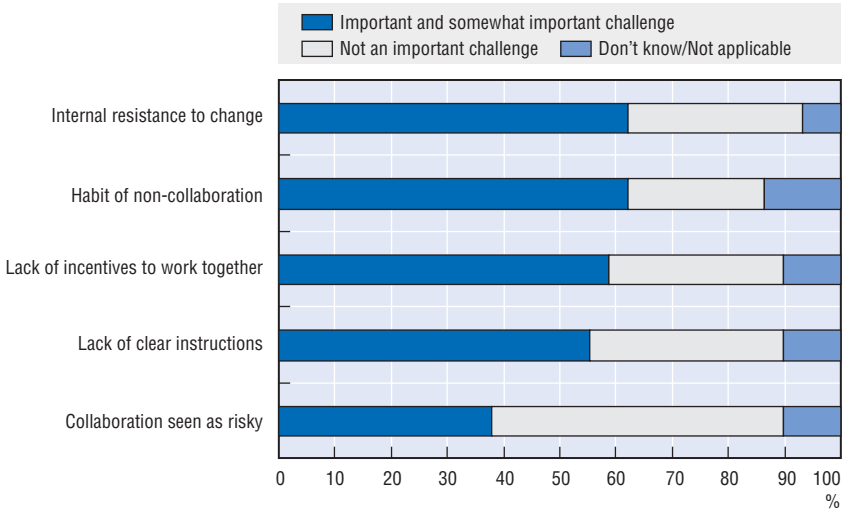
Both results confirm that the public sector still works in a heavily "stove-piped" manner, and that mindsets are not tuned towards more trusted collaborative engagement across organisational boundaries. The challenge of skills and competency development to effectively implement e-government must be considered carefully in this context. Indeed, this may well require a new set of competencies to develop a broader cross-organisational perspective with a true focus on citizens rather than organisational survival.

E-Government skills

The Netherlands has chosen to create centres of competence in the different e-government implementation organisations; this creates an

Figure 4.10. **Importance of barriers preventing for people from working together**

Municipalities



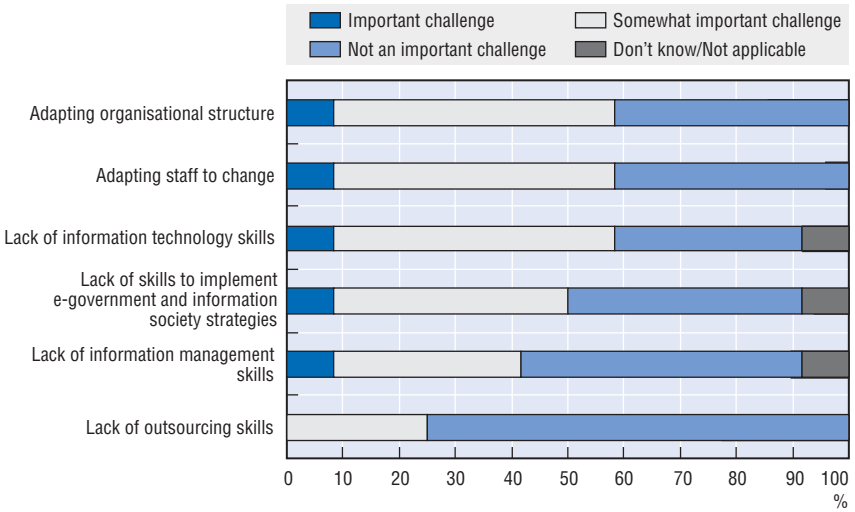
Source: OECD survey on e-government in the Netherlands, 2006.

interesting opportunity to develop e-government skills. For example, ICTU has adopted a deliberate strategy of cross-fertilisation between the public sector and the private sector by hiring civil servants from the public sector (primarily ministries) as project staff for a specific period in order to give them the opportunity to learn project management through hands-on e-government implementation. In this way, civil servants will be able to bring back new competencies to their original workplaces and be part of a long-term change in administrative and operational approaches, traditions and cultures to a more project-oriented way of organising and solving tasks.

This kind of project-oriented competency development is increasingly common in other OECD countries integrating e-government activities with broader public-sector transformation agendas. Examples are Denmark[5] and France,[6] which in January 2006 integrated e-government activities organisationally into new governmental units (centres or departments) looking broadly at public sector transformation and modernisation issues.

For central government respondents to the OECD survey of e-government in the Netherlands, a range of skills and competency challenges are significant (see Figure 4.11): adapting to organisational structures (58% find this important or somewhat important); adapting staff to change (58% find this important or somewhat important); and the lack of information technology skills (58% find this important or somewhat important).

Figure 4.11. **Importance of skills challenges**
Central government



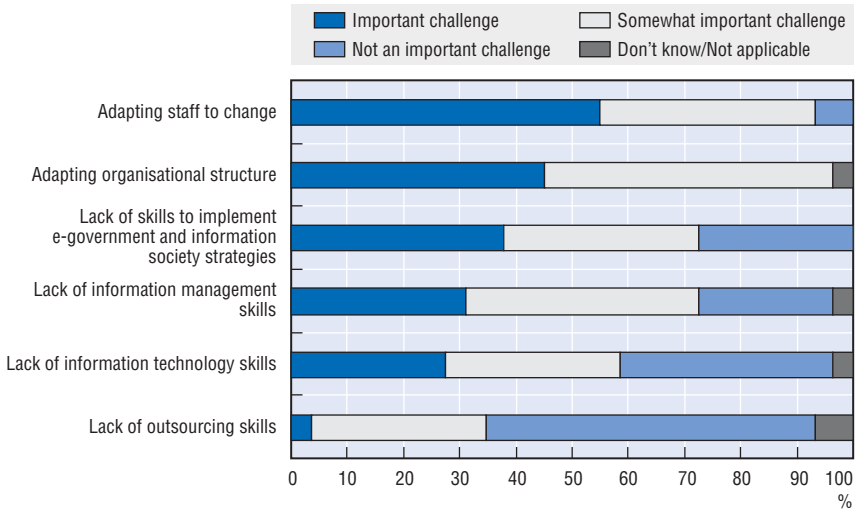
Source: OECD survey on e-government in the Netherlands, 2006.

The same results from municipality respondents show the following picture (see Figure 4.12): adapting to organisational structures (97% find this important or somewhat important); adapting staff to change (93% find this important or somewhat important); and the lack of skills to implement e-government and Information Society strategies (72% find this important or somewhat important). The results are much more significant than the results from central government, indicating major challenges concerning organisational adaptation.

The survey results are supported by OECD interviews, which indicated possibly limited resources and competencies to implement e-government locally. It is therefore interesting to observe the relatively limited number of co-operation and collaboration projects among municipalities for e-government development and implementation. This suggests a strong need for support activities to move e-government implementation forward. The need for increased central government support is recognised by municipalities, and central government is taking charge, especially on developing and implementing common e-government building blocks that will relieve municipalities of the burden of locally implementing generic components for the e-services they develop. Support and advice is provided primarily through the EGEM programme.[7]

The impact of the EGEM programme is still limited (according to OECD interviews) but it does provide a framework for collaboration, co-operation and exchange of experiences among municipalities. According to the recent evaluation report of ICTU, the main reason for local governments to join ICTU

Figure 4.12. **Importance of skills challenges**
Municipalities



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

and support the EGEM programme has been the possibility of accessing ICTU's expertise in e-government development and implementation, and project management.[8]

Project management skills

Project and service management skills are essential for implementing e-government in the public sector. The Netherlands has chosen to establish "arms-length" implementation organisations – "outsourcing" the need for project management skills to these organisations – rather than developing these competencies and skills within each ministry and agency. ICTU's strategy and deliberate policy of using secondments and hiring staff from ministries, providing them with project management courses and tasks, and sending them back to work together with core staff in their organisations and contractually assigned private sector consultants provides a unique opportunity: civil servants gain valuable new skills and competencies that can applied in their own ministries, and are exposed to the broader scenario of transformation possibilities that should yield future benefits. With the recent establishment of the Dutch shared service centre, GBO.OVERHEID, the Netherlands will possibly face an additional need for service management skills across different levels of government. This need should be addressed in the near future.

According to OECD interviews, this approach to developing skills and competencies is a promising strategy to train civil servants in structured e-government management and implementation, and provide them with practical project management skills and competencies. The immediate advantage of this strategy is that it is a way to professionalise public sector project management in an environment where concrete implementation projects have been defined and asked for by the public sector itself.

In summary:

- Incentives for e-government implementation are not clear, and the general limited understanding of "whole-of-government" visions of e-government strategies and action plans poses a challenge to a focused public sector implementation. This is clearly supported by the OECD survey and interviews. This may be a symptom of over-emphasising the specific goals and instruments of transformation (using ICT) rather than the bigger process and its outcomes. Representatives of all levels of government state that the culture of non-collaboration is still firmly integrated in Dutch administrative and organisational culture.
- The focus on front-office development (municipalities) and back-office development (central government) showed by the OECD survey is not surprising, but it underlines the necessity for both central and local governments to integrate these two lines of application and establish a "whole-of-government" view of e-government implementation. This view is not commonly shared and should be communicated more strongly across the public sector and its institutions. Perhaps a non-ICT building block is required to build a new form of public administration focusing on the potential of connectivity in the creation of a new paradigm. As building blocks are a quite "static" delivery mechanism, establishing a service catalogue (within an effective delivery and support organisation) could be a more efficient set-up. A review to assess the feasibility for the Dutch context could perhaps be organised within GBO.OVERHEID.
- The Netherlands does not seem to have an immediate competence and skills shortage for e-government implementation at the central government level. Professionalising e-government development, implementation and operational maintenance is being handled by establishing "centres of expertise" like ICTU, GBO, BKWI and RINIS – in addition to a number of in-house ICT organisations in government bodies. Although the OECD survey and interviews did not reveal shortages, municipalities may have issues concerning local capacity to deliver e-government. This should be explored further.
- By charging a few "arms-length" implementation organisations with implementation of cross-cutting e-government projects, the Dutch government has succeeded in developing experienced professionals. For example, the deliberate HR policy of ICTU provides experienced public

sector staff with private sector competencies, allowing them to work effectively on e-government implementation. It provides the possibility for knowledge diffusion to the rest of the public sector when these officials return to positions in their public sector agencies.

Implementation capacity

Delivery of e-government services is the responsibility of each public institution. The e-government strategy for several years has been to let public institutions develop e-services where necessary, building on the belief that each public institution will have a better understanding and sufficient internal incentives to reach the goals of the central government's e-government policy. However, this strategy is no longer feasible, as many institutions and sectors have recognised the need for centralised co-ordination and larger-scale collaboration among public institutions to prevent duplication of work in other sectors, levels of government and public institutions; such collaboration is also necessary to effectively reap the fruits of e-government investment, according to OECD interviews.

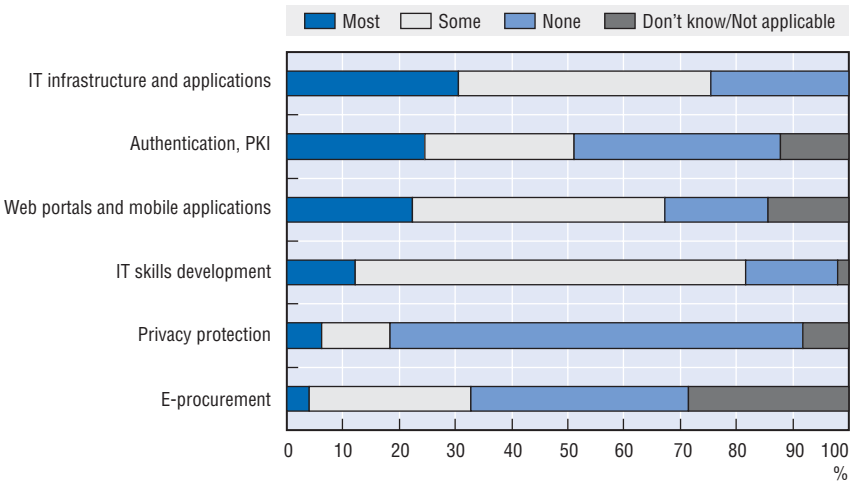
The public or quasi-public institutions established to manage and implement e-government projects either across sectors and levels of government or within a sector itself have been able to establish basic co-operation and collaboration frameworks securing delivery of services according to strategic goals for e-government development. The success of these institutions is reflected in the establishment of "seamless services" within specific sectors; these include the social security back-office solutions established by BKWI and the establishment of generic e-government building blocks like DigiD (the Dutch public sector e-authentication system) and BSN (the Citizen Service Number), which will be used by all public sector e-services. Another example is the number of concrete e-services available online, such as grant applications and educational administration tools.[9]

Across public sector organisations themselves, however, there seems to be a general lack of implementation competencies, according to the OECD survey (see Figures 4.11 and 4.12). Half of central government respondents and 72% of municipality respondents view the lack of skills to implement e-government and Information Society strategies as an important or somewhat important challenge; 58% and 72%, respectively, consider the lack of information technology skills an important or somewhat important challenge. ICT skills are only one of many relevant skills – others include leadership skills, human resource development skills, organisational development and change management skills, innovation management skills, etc. Combined with the significant response on adaptation of staff to change, the lack of implementation competencies in the public sector is an important challenge to address in order to secure an optimal impact of e-government implementation in public sector organisations.

Outsourcing

Outsourcing is not done systematically, and the public sector primarily targets ICT infrastructure and applications for outsourcing (76% of respondents answered "most" or "some") (see Figure 4.13). OECD interviews show that outsourcing is considered actively by the "arms-length" organisations, but does not seem to be part of the operational strategy of institutions with in-house competencies and capacities. The "arms-length" organisations typically employ a small central staff with core competencies in project management, management of project portfolios and contract management. The project portfolios do not seem to generate operational services or products that can be re-used or integrated with support from originating parties.

Figure 4.13. **Outsourcing**
All levels of government



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

Outsourcing is, however, an integral part of the tasks and working methods of some programmes, such as the EGEM programme supporting municipalities in e-government implementation. The organisation's mission states that "… EGEM will outsource development work rather than carry it out itself."[10] However, it is considered important for EGEM to maintain management of everything that is developed.

Private sector partnerships

Private sector involvement in e-government projects seems to take place on a project-by-project basis, with project management delivered by public-private bodies like ICTU on behalf of public sector institutions. The framework

for private sector collaboration seems sketchy, non-systemised and limited, particularly for municipalities. For example, each municipality keeps its power of procurement, and its capabilities to negotiate with ICT providers; this may lead to contracts of varying quality, as well as inequalities in service-level agreements and the resulting services.

Despite the benefits of public-private bodies and their effectiveness in the Dutch context, the concept tends to create an opaque partnership environment with the risk of monopolising certain types of tasks with no clear exit strategy if needed.

In summary:

- The historically fragmented delivery mechanisms within Dutch e-government implementation organisations should be reconsidered in the light of avoiding overlapping tasks, and to ensure that generic public sector solutions are considered by organisations with a focus on the public sector as a whole. The inclusion of delivery mechanisms in service catalogues targeted at user communities could contribute to harmonization of services and re-use of solutions.
- OECD interviews did not reveal any substantial lack of capacity for e-government implementation and indicated only limited resource problems, primarily in smaller municipalities, along with a lack of a consolidated shared framework where these implementations are serviced.

Notes

1. "Report on review of ICTU", Final Report, The Hague, December 2005.
2. The Economist Intelligence Unit (2006), "e-readiness rankings", *http://a330.g.akamai.net/7/330/2540/20060424215053/graphics.eiu.com/files/ad_pdfs/2006Ereadiness_Ranking_WP.pdf* (accessed 7 September 2006).
3. *www.routeplannere-gemeente.nl/* (accessed 2 October 2006).
4. "Report on review of ICTU", Final Report, The Hague, December 2005, p. 5.
5. As of 1 January 2006, Denmark has integrated a formerly organisationally 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.
6. As of 3 January 2006, France 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*.

7. *Programma EGEM Werkplan 2006* (EGEM Programme – Work Programme 2006), version 1.0, December 2005, focuses on delivering advice to municipalities within eight areas including development of a common enterprise architecture, architecture standards, and implementation and integration of common e-government building blocks like DigiD – the public sector e-authentication system – and the Citizen Service Number.
8. "Report on Review of ICTU – Final Report", Chapter 3.5, p. 15, The Hague, December 2005.
9. *www.ibgroep.nl*.
10. "Control of the helm – Final Report", Chapter 2.3, p. 7, The Hague, 6 March 2002.

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Chapter 5

Collaboration Frameworks

Assessments	Proposals for action
Common business processes	
• The Netherlands has already begun a step-by-step and proactive progress towards **assembling generic e-government services from different parts of central government to be shared broadly across the public sector**. This development is important in supporting a sufficient level of shared services and other e-government building blocks; it will allow the public sector as a whole to properly benefit from synergies of already invested resources and to strengthen and harmonize its user-demand-driven approaches.	• **The Netherlands should strengthen the process of identifying common business processes and services to be maintained and run within a shared service organisation.** It should further consider whether some existing shared service organisations may benefit from being integrated into a joint shared service centre to provide services across sector boundaries and levels of government.
Data standards	
• **Although organisation and verification of data standards was divided among different institutions until 2005, the Netherlands has recently opted for a standardised approach as part of GBO.OVERHEID.** Several OECD interviewees questioned whether the new standardisation bodies have a well-defined role and the necessary mandate to ensure efficient implementation and adequate take-up, and whether they will be able to succeed; although much of the concrete and practical work has already been addressed through existing activities in different sectors, establishing a co-ordinated effort through standardisation seems to be a logical and sound approach at the present stage of e-government development. • For the mid-term future it will be **important to clearly define different organisations' roles and mandates** in order to prevent confusion in the Dutch e-government field.	• Even though standardisation work has been ongoing for some years in different sectors, it is now important for the Netherlands to consider significantly **strengthening co-ordination of these efforts in order to ensure a common public sector approach building upon and the standardisation work already done** as a basis for further development of standards. The co-ordination effort should lead to common agreements within the public sector on which standards should be applied by all.
Enterprise architecture	
• **Public sector recognition of the necessity to develop an e-government foundation for the whole public sector seems to be limited and technically oriented without a broader strategic view on interoperability and interconnectivity of e-government services across organisational boundaries and levels of government.** Even the term "enterprise architecture" is ambiguous and suffers from being considered a "technological foundation" by some (its wider definition embraces organisational structures and functionalities as well). **Creating GBO.OVERHEID is an opportunity to generally re-evaluate the development of a foundation for the public sector.** This is a much bigger challenge, which requires engaging political players at all levels. Alternatively, this could be a part of broader efforts on standardisation that strengthen previous accomplishments within existing projects and in different organisations and programmes (ICTU and ICTAL).	• **The Netherlands should consider developing and adopting a common public sector enterprise architecture.** The work should be closely coupled with the development of e-government standards and should be based on previous work by implementation organisations.

Assessments	Proposals for action
Interconnectivity	
• **Interconnectivity responsibilities and activities are spread over several organisations and programmes in the public sector with no apparent focal point for co-ordination and collaboration.** As one of the central players working at the municipality and province levels, ICTU should play a role in co-ordination and collaboration within each level.	• **The Netherlands should consider consolidating responsibilities and activities on interconnectivity** to ensure proper, integrated interconnectivity across sectors and levels of government, building on a common public sector enterprise architecture.
Multi-channel strategies	
• **For government, balancing the tensions between the need for efficiency (by limiting costly delivery channels) and the desire for effectiveness (in terms of satisfying user expectations and needs) is difficult.** This may be more a political issue than an administrative problem. Over time, older and lesser-used channels will have to disappear as new possibilities emerge through ubiquitous computing and connectivity with, for example, mobile phone technology. **The lack of systematic usage of multi-channel delivery strategies in e-government development is an area for further consideration and exploration by the different levels of government**, where relevant and needed. Deliberate use of multi-channel delivery strategies as an integrated part of e-government development would probably enable the Dutch public sector to increase user take-up and satisfaction with service delivery while harvesting efficiency gains by channelling users into appropriate services, managing increasing expectations, and providing the right services to the right users.	• In order to take full advantage of multi-channel delivery to increase user take-up of public services, **the Netherlands could consider developing a common public-sector-wide strategic approach for applying multi-channel strategies to accommodate a joint approach to managing delivery channels, incentives and change of habits to the benefit of both users and public sector institutions**. • The Netherlands **could consider whether m-services (service delivery through mobile technology such as mobile phones) should be further explored and developed as a supplementary channel for public sector service delivery**.

Technology has the capacity to enable or, perhaps more significantly, to serve as a catalyst for major transformational change in organisations. When the transformation involves a multi-layered and multi-component organisation, successful strategies need to go beyond solely aligning technology standards or improving networking by organisations. Collaboration among government organisations is therefore both a key requirement and a significant challenge for the efficient and effective exploitation of technology in government (e-government) in all OECD countries. Without collaboration, some of the important results that governments are seeking through e-government can simply not be achieved. This chapter examines collaboration on e-government, especially co-ordination efforts and development of common frameworks to support collaborative action.

The Netherlands has in recent years shifted focus from developing front-office applications to developing proper back-office integration to more effectively meet the major political goal of achieving administrative burden reduction. The e-government priority has gradually moved towards identification and organisation of basic back-office infrastructure elements, information flows and – to some degree – work processes that can be standardised and shared among several public bodies.

In the Dutch context these have been called basic e-government "building blocks" (see Chapter 1), which are currently under development. Further, the Dutch are focusing on shared services and concepts to be used by all public sector institutions when implementing e-government in their own organisations. The use of common public sector e-government building blocks has been a key to the success of Dutch government strategies and action plans. However, Dutch officials point to further needs for jointly agreed public sector structures and building blocks to be co-ordinated and widely implemented. These shared methods for developing and implementing user-focused e-government require continuous careful considerations on the strategic level, better monitoring of users' service demands, and closer collaboration on how concrete implementation should take place. The creation and delivery of the common building blocks are seen in the context of better and more balanced service delivery to the public and as a strong prerequisite for the overall "Modernising Government" programme (see Chapter 1), most recently detailed in an October 2005 progress report to the Parliament.[1]

These common public sector collaboration frameworks – common business processes, data standards, enterprise architecture development, interconnectivity of e-government services, and multi-channel strategies – will be discussed and analysed further in this chapter. However, the need for additional, non-technology frameworks is emerging in the Netherlands, as it is in other countries moving beyond the service delivery agenda. There is growing acceptance of the need for new mechanisms or frameworks for:

- Developing and articulating the whole-of-government vision of transformation, strategic alignment of planned change and operational demands, and widespread communication of the need for transformation.
- Developing future organisational models including high-level project and programme co-ordination, and developing new skills and attitudes.
- Supporting innovation, organisational learning, and demand-led, user-focused service delivery.

Common business processes

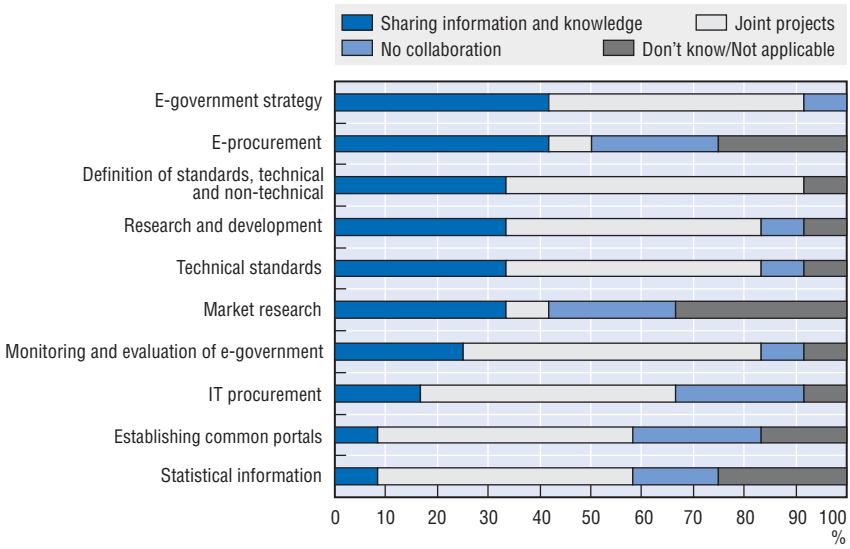
The results of the OECD survey demonstrate that central government respondents recognise the necessity to collaborate more closely on a range of e-government issues (see Figure 5.1); collaboration and joint projects are dominant within areas like "E-Government strategy" (91%), "Definition of standards, technical and non-technical" (91%), "Research and development" (83%), "Technical standards" (83%) and "Monitoring and evaluation of e-government" (83%). The survey also confirms the need for collaboration with other government organisations with regard to definition of standards.

The survey shows generally less inter-organisational collaboration among municipalities; information-sharing activities are predominant (listed in the OECD survey as "Technical standards", "Monitoring and evaluation of e-government", "E-Government strategy" and "Definition of standards, technical and non-technical") while very few respondents cite joint projects. This result supports the outcomes of OECD interviews, which showed that few municipalities had collaborated by developing and implementing joint e-government projects (see Figure 5.2). This may be a factor of the culture of independence that comes with decentralised public governance and the lack of a "burning platform".[2] As national governments have experienced at the European level, successful collaboration requires sacrificing a certain amount of sovereignty. For the municipalities, the challenge may lie in defining the benefits in terms of pragmatic politics rather than ICT improvements – focusing on the long-term (positive) outcomes rather than getting distracted by the (sometimes conflicting) "theologies of technology".

OECD interviews confirmed that Dutch public institutions seek stronger central co-ordination and mandatory approaches to e-government development;

Figure 5.1. **Areas of collaboration with other organisations**

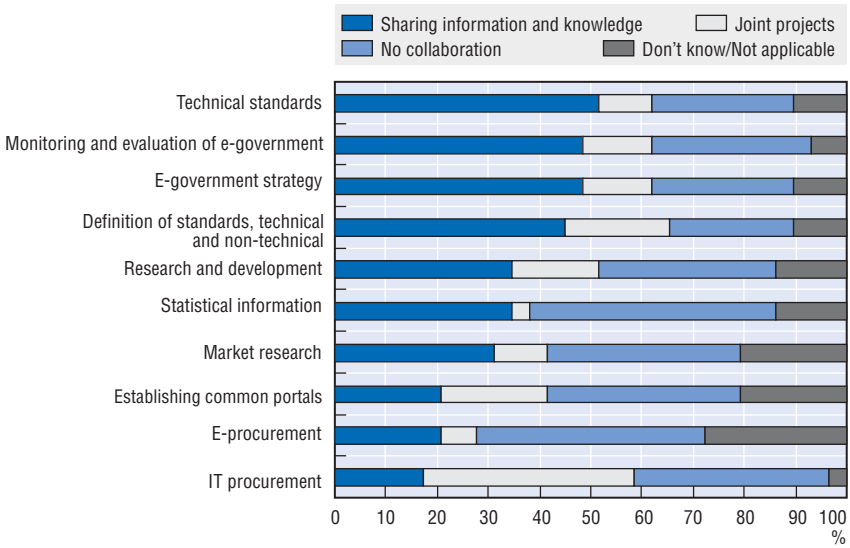
Central government



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

Figure 5.2. **Areas of collaboration with other organisations**

Municipalities



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

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they do not seem to be able to realise further benefits from e-government development alone. However, the ability to achieve full benefits from e-government development depends strongly on whether the public sector as a whole can benefit from investments made so far – without regard to which public institution made the initial investment. This issue is facing all governments with financial structures and procedures that can limit the return on investment to individual accounting units. (See further discussion in Chapter 2.) It requires a new approach and, perhaps, a new framework for whole-of-government funding, accounting, organisational set-up, implementation and maintenance that overcomes the constraints of ministerial or portfolio management of budgets.

With this in mind, the Dutch Ministerial E-Government Co-ordination Group (see Chapter 3) established a new organisation, GBO.OVERHEID – the Dutch Government-wide Shared Service Organisation for ICT.[3] As of 1 January 2006, GBO.OVERHEID is responsible for the tactical and operational management and maintenance of generic shared key services for e-government in the public sector. The following key services have been selected as the organisation's main tasks:

- **Administration of DigiD – the Dutch e-authentication system**
  DigiD is currently operated and maintained by the Tax Administration in the Ministry of Finance along with ICTU, the e-government implementation organisation of the Ministry of the Interior and Kingdom Relations. DigiD is an e-authentication system originally developed in the social security sector and now used as a generic e-authentication mechanism throughout the Dutch public sector; this is an example of the Dutch approach to adopting previously developed best practices(see Box 5.1).
- **PKIoverheid – the Dutch ICT security infrastructure for authentication**
  PKIoverheid is the Dutch ICT security infrastructure, Public Key Infrastructure (PKI),[4] for the common public sector digital signature function. It administers and issues digital certificates and authenticates individuals and businesses.
- **Standardisation for interoperability of ICT systems**
  The Dutch government established the Standardisation Council and the Standardisation Forum[5] in April 2006 to co-ordinate the development and implementation of standards for e-government development. The focus of the standardisation work is anticipated to be agreements on semantic and organisational standards, rather than technological standards. The work gathers previous work done by ICTAL, the Dutch programme for the reduction of administrative costs to businesses,[6] and work done by ICTU, the Dutch government's e-government implementation organisation.

Box 5.1. **DigiD – The Dutch authentication system**

DigiD (Digital Identity) is an authentication system for citizens and business interacting with government at the local, provincial and central levels. Government organisations use DigiD (an intermediary, Authentication Service Provider) to verify the identity of individuals who make use of their electronic services. After users' identities have been verified, the government agency can provide the requested service or give access to the required information. DigiD enables citizens to use just one electronic verification tool for all electronic services offered by government.

DigiD contributes to the realisation of a major central government e-government programme objective: offering public e-services. This common, cross-government e-authentication system is aimed at boosting the take-up of e-services and thus contributes to the country's goal of e-enabling at least 65% of all central, provincial and local government services by 2007.

For more information: See Annex E and *www.digid.nl/*.

- **ICT Security tasks operated by *GOVCERT.NL***
  GOVCERT.NL is the Dutch government CERT (Computer Emergency Response Team) organisation, which supports the Dutch government in preventing and handling ICT security issues and incidents (see Box 5.2).
- ***Waarschuwingsdiensl.nl* – the Dutch National Alerting Service**
  Waarschuwingsdiensl.nl (The National Alerting Service) aims at providing citizens, and small and medium-sized enterprises, with timely information on ICT-security-related incidents by distributing early warnings and alerts.
- ***Overheidstransactiepoort* (OTP) – the Government Data Exchange Portal**
  Overheidstransactiepoort (the Government Data Exchange Portal, OTP) supports electronic data exchange mainly between businesses and public authorities. The ICTAL programme was responsible for designing and developing OTP until 1 January 2006. It consists mainly of the social security data exchange backbone operated and managed by BKWI, the organisation responsible for developing and maintaining back-office integration of e-services within the social security sector;[7] and the RINIS Foundation (Institute for the Routing of (Inter)National Information Streams), which supports public or quasi-public institutions in exchanging data nationally and internationally.[8] It also includes communications infrastructure work done by the Ministry of Economic Affairs through the GEIN Project[9] (see Box 5.3).

This initial set of generic public sector e-government services serves as a central exchange link among all public institutions. Public institutions will have to integrate, make use of, or align with the different services operated by GBO.OVERHEID in the coming years. The establishment of GBO.OVERHEID to

Box 5.2. **GOVCERT.NL – The Dutch Government CERT**

GOVCERT.NL is the Dutch government's Computer Emergency Response Team. It provides advice to all Dutch government institutions on preventing ICT security risks (*e.g.* computer viruses, software vulnerabilities) and actively contributes to solving ICT security incidents 24 hours a day, 7 days a week. GOVCERT.NL also offers tactical/strategic recommendations on ICT security matters for e-government and on security and infrastructure matters for the GBO.OVERHEID. All government organisations can use GOVCERT.NL. Its main tasks are:

- GOVCERT.NL centrally co-ordinates emergency responses to ICT security incidents, such as computer viruses, hacking and vulnerabilities in applications and hardware.
- GOVCERT.NL provides the right information to appropriate parties at the right moment.
- GOVCERT.NL supports and assists government officials in preventing ICT security incidents and, if necessary, responding appropriately.

GOVCERT.NL was initiated by the Ministry of the Interior and Kingdom Relations and brought into operation on 5 June 2002. It works independently of suppliers as a government organisation, and is part of GBO.OVERHEID, the Dutch government-wide shared services organisation.

For more information: See Annex D and *www.govcert.nl*.

Box 5.3. **GEIN – The Generic Infrastructure Project**

The aim of the Generic Infrastructure Project, GEIN (*Het Generieke Infrastructuur Project*) is to implement a generic infrastructure for data exchange – mainly between companies and public authorities. The project was started by the Ministry of Economic Affairs in early 2005 as an initiative to achieve administrative burden reduction with regard to financial information and data exchange between public authorities and businesses. The public and quasi-public institutions involved are: the Dutch Tax and Customs Administration, Statistics Netherlands, and the Netherlands' Chamber of Commerce.

The GEIN Project will provide a fully standardised communication infrastructure including a number of generic services (*e.g.* identification and authentication services, archive services, validation services, etc.) and a number of process infrastructure services (*e.g.* process descriptions, monitoring and audit trail services).

For more information: See *www.gein-project.nl*.

gather such generic e-government services and tasks seems to indicate a will to pursue efficiency and effectiveness benefits through the use of common processes, tools and concepts across the public sector. While this is very positive, it is nevertheless focused on technology issues. In time – as technology goals are reached and government players seek the potential for major transformational change – it may be necessary for GBO.OVERHEID to look at broader issues such as trust and privacy, and at wider policy frameworks. The alignment to seamless service delivery could be an additional area of focus, along with strengthening and harmonizing user-demand-driven approaches.

An organisation such as GBO.OVERHEID will enable the Dutch public sector to assemble and consolidate generic common e-services used by many public or quasi-public institutions at all levels of government. The next steps in development will be to organise and identify further common business processes, which can be developed and maintained in shared service organisations for the benefit of the public sector as a whole. Looking into the needs of municipalities, for example, a number of administrative business processes could be identified within areas such human resource management, budget and account management, case handling, salary administration, etc.

In summary:

- The Netherlands has already begun step-wise but proactive progress towards gathering generic e-government services from different parts of central government to be shared broadly across the public sector. This development is important to reach a sufficient level of shared services and other e-government building blocks; it will allow the public sector as a whole to properly benefit from synergies of already invested resources and to strengthen and harmonize its user-demand driven approaches.
- The move towards assembling generic e-government services and components in a shared services organisation for the benefit of the whole public sector will definitely increase the public sector's return on investment – provided it is managed properly to ensure a perceived vision, and sufficient buy-in to that vision by the relevant public sector actors at all levels.

Data standards

Taking e-government development into a new era requires careful consideration of how public data and information can be shared across organisational boundaries and levels of government. Use and re-use of data within the public sector is an important pre-requisite for realising the potential of e-government and harvesting efficiency gains. Access to data is therefore required for both achieving maximum re-use of the data already collected and stored in public databases, and for developing intelligent e-government systems with which citizens and businesses can contribute to their own case handling and reduce the burden on administrative resources.

It is important to build and maintain the trust of those who provide data. Issues of trust and the perception that the state is gaining more and more control over the lives of individual citizens may be contributing to the fall off in democratic participation. Many governments came about in an era where privacy was not a significant issue because there were relatively few layers between the owner and the user of such information. Additionally, in the development of e-government services, trust and privacy can at times be seen as compliance issues to be addressed separately. However, these issues must be at the forefront of any data sharing strategies.

At a minimum, agreement must be reached across the public sector on common definitions of data standards to be used when developing e-services; this is central to securing compatibility and interoperability of logical data structures and technical solutions (like software programmes and hardware platforms). With regard to data standards, the Netherlands is in the beginning of a centralised effort to standardise a broad range of data-related objects in the public sector:

- **Legal standardisation of data definitions**
  The Dutch government has drafted laws regulating the usage of key registers (mainly in the development stage). According to OECD interviews, a centralised effort to harmonize legal terminology for data definitions used in draft laws has commenced in the Ministry of the Interior and Kingdom Relations. This standardisation will ensure common terminology and unique definitions across laws regulating key registers (*e.g.* the definition of a name or an address data object is the same in all laws which have been adopted or are in the process of being adopted by Parliament).
- **Standardisation of data structures and interface descriptions – organisational considerations**
  Organisational considerations concerning the technical standardisation of data structures and interface descriptions are essential for establishing a proper model for data exchange in the Netherlands. Initial work has been done in this area by the GEIN Project (see Box 5.3) and other similar activities, such as the ICTU programmes and RINIS in efforts to build the concept of a data exchange portal for businesses. This basic knowledge is essential as the government aims to create common data structures and interface descriptions for data exchange purposes.
- **Standardisation of data structures and interface descriptions – technical considerations**
  Technical considerations concerning standardisation of data structures and interface descriptions are essential in linking different e-services and databases (*e.g.* the Dutch system of key registers, the Citizen Service Number, or the business register). Initial work has been done in the GEIN Project, and by the Dutch Taxonomy Project (see Box 5.4).

Box 5.4. **NTP – The Dutch Taxonomy Project**

The Dutch Taxonomy Project – NTP (*Nederlands Taxonomie Project*) was launched in May 2004 by the Ministry of Justice and the Ministry of Finance. The project aims at standardising financial reporting information (*e.g.* annual accounts, taxes and financial statistics) between companies and the public sector in order to achieve administrative burden reduction for businesses in the amount of about EUR 900 million. NTP will use companies' existing business processes as the basis for its process descriptions.

The taxonomy regarding 2005 reporting was released on 9 June 2006. The taxonomy regarding 2006 reporting was released on 18 October 2006 and includes:

- Annual accounts (including the Dutch General Accepted Accounting Principles and the International Financial Reporting Standards).
- Taxes (including company taxes, income taxes, VAT, and wage taxes).
- Financial statistics (including financial institutions, non-financial institutions, and the specification of goods and services).

The use of the Dutch taxonomy will be voluntary for each company.

An important aspect of NTP is to explore the advantages of using the internationally recognised open standard language XBRL to describe data structures for financial reporting in close co-operation with the private sector. (XBRL is related to XML, which is a generic data structure description language commonly used to describe, for example, interfaces between software applications.)

Co-operation with the private sector on the use of the Dutch taxonomy has been formalised in an agreement[1] between a number of stakeholders within the public sector, intermediaries (firms that pre-process information and data between companies and the public sector like accountants and tax consultants), software providers, professional and service organisations, and employers' organisations.[2]

NTP has generated spin-off effects such as the harmonization of the Dutch accounting principles for small businesses incorporating the fiscal information requirements. This will enable businesses to use their tax reports to meet their annual accounting obligations. It has been proven that regulation can be made less burdensome by simplifying processes for both businesses and public authorities through the use of open standards for information exchange. NTP has also shown that harmonisation of legislation within a targeted area can be achieved without legislative amendments.

NTP will use the generic infrastructure developed in the GEIN Project (see Box 5.3).

For more information: See *www.xbrl ntp.nl/english.*

1. Minister of Justice, Minister of Finance, Minister of Government Reform and Kingdom Relations, and State Secretary of Economic Affairs: *Convenant van samenwerking tussen overheid en markt over gebruik van de Nederlandse XBRL-taxooimie* (Convenant for co-peration between public and private sector regarding the use of the Dutch XBRL-taxonomy), 9 June 2006.
2. The agreement currently covers 74 different stakeholders in the public and the private sectors: 8 public sector organisations, 13 private sector intermediaries, 44 software providers, and 9 service organisations by November 2006. The total list can be accessed through the project website: *www.xbrl-ntp.nl/convenant/ljist* (accessed 8 November 2006).

Source: Mr. H.J.M. van Burg, *Project Leader*, Ministry of Finance, Netherlands, November 2006.

The Standardisation Council, supported by a Standardisation Forum with stakeholder representation from the public and private sectors, was formally established in October 2005 by the Ministry of Economic Affairs and the Ministry of the Interior and Kingdom Relations to enhance central co-ordination of standards used to implement e-government in the public sector. The Council and Forum began work in April 2006:[10] the emphasis of their work will be ensuring interoperability of information systems by securing agreements on semantic (*e.g.* uniformity of usage of language) and organisational (*e.g.* harmonization of information requests and procedures within organisations) standards. Several OECD interviewees questioned whether the new standardisation bodies will be given a well-defined role and the necessary mandate to ensure efficient implementation and adequate take-up. Much of the concrete and practical work towards standardisation has already been addressed through current activities in the different sectors, so the success of these organisations is questionable. Establishing such a co-ordination effort seems to be a logical and sound approach at the present stage of e-government development; however, the impacts of the standardisation bodies' work remain to be seen.

OECD interviews also showed that agencies and local governments would appreciate stronger central government leadership and guidance in the area of standards – even as far as making standards mandatory for all public sector institutions. The recognition of the need for stronger central leadership on standards, including technical collaborative frameworks, can be viewed as the result of key considerations concerning how each municipality can benefit most from e-government investments. It is, however, also obvious that the historically bound autonomy of local governments is challenged by e-government development, where the urge for excellence in delivering efficient and effective public services may jeopardise traditional Dutch governance structures and the culture of independence and autonomy at the local level.

In summary:

- Although different programmes and organisations (*e.g.* ICTAL, ICTU and RINIS) co-ordinated organisation and verification of data standards until 2005, the Netherlands has recently opted for a conceptually central standardised approach as part of GBO.OVERHEID. The October 2005 establishment of the Standardisation Council and Standardisation Forum put in place the organisational structure to strengthen overall public sector standardisation efforts; it should create common public sector frameworks for data standardisation and facilitate decisions on specific sets of standards to be used in e-government implementation throughout the public sector. For the mid-term future it will be important to decide different organisations' roles and mandates in order to prevent confusion in the Dutch e-government field.

Enterprise architecture

The Dutch focus on developing common building blocks seems to be in line with many other OECD countries' current efforts to define and develop common public sector organisational and technical platforms. The establishment of a common public sector platform for e-government implementation – a so-called ***enterprise architecture*** – is a logical extension of looking at public ICT provision as a corporate function delivering ***shared e-government services*** where possible to optimise efficiency and effectiveness of e-service delivery by the public sector. The term "enterprise architecture" is ambiguous and suffers from being considered solely as a technological platform; its wider definition also embraces organisational structures and functionalities. Although its origins are ICT-related, enterprise architecture is inhibited in its development by being too closely identified with the ICT community – perhaps the term "public administration architecture" would better describe the organisational or enterprise view of government, and the "technical foundation" should be called just that.

Designing a common public sector enterprise architecture – a corporate organisational and technical e-government platform for the public sector – will trigger government transformation considerations, creating an agile and responsive administration for the future. It will enable the public sector to steer e-government implementation, developing elements that can fit into an overall logical, organisational and technical structure that supports integrity and interoperability of e-services and will increase take-up and deliver on promises of both increased efficiency and effectiveness. Several OECD countries are looking into the challenges of designing an enterprise architecture for the public sector in order to better align present and future e-government services to a common framework that can support full interoperability and technical compatibility.

Even though the co-operation programme with municipalities, EGEM, was originally conceived to focus on the dissemination of "… common reference models for the municipal electronic services architecture" and data exchange standards,[11] it has not had a major impact on service development in the municipalities. This may be the result of its focus on technologies rather than looking at organisations and people, and the way they work.

The design of collaborative frameworks covering enterprise architecture development in provinces is weakly defined as a task for co-ordination and collaboration; despite the description of efforts towards "… joint development of route maps for the implementation of components…" in the e-Provincies co-operation programme,[12] it remains focused on knowledge exchange and on supporting e-government implementation in the provinces. OECD interviews confirm a looser collaborative approach among provinces with a strong focus on information sharing rather than joint projects. This may be due to a lack of far-sighted vision and leadership at the political level.

The Dutch government implementation organisation ICTU has undertaken the task of developing an "electronic architecture of government". Similar work has been taking place within the ICTAL programme (the private sector) and within the social security sector by BKWI. As a result of ICTU's enterprise architecture work, a reference architecture, NORA *(Nederlandse Overheid Referentie Architectuur* – Netherlands' Government Reference Architecture), has been defined.[13] NORA was approved by core-CEDI and the Manifesto Group (see Chapter 3, Figure 3.1) on 10 May 2006 as a joint framework for future e-government development.

Developing an enterprise architecture commonly recognised by all parties in the public sector will facilitate making e-government services compatible and interoperable across sectors and levels of government. GBO.OVERHEID seems to be committed to technical standardisation tasks across central government, but it is not clear how its co-ordination tasks are linked to the decentralised work at the provincial and local levels. Defining and agreeing upon an enterprise architecture for the whole public sector will support the overall Dutch policy of decentralisation through a common framework where e-government initiatives will be able to develop in a way that ensures a basic technical "fit" into a common public sector collaboration framework.

In summary:

- There is limited recognition of the necessity of developing an enterprise architecture for the whole public sector, particularly when the term is widely defined to embrace organisational structures and functionalities. Existing projects (such as ICTU and ICTAL) have made some progress; however, creating GBO.OVERHEID is an opportunity to generally re-evaluate whether developing an enterprise architecture for the public sector should be seen as a separate task, or as part of broad work on standardisation and seamless service delivery. A first step has been taken by the adoption of NORA (Netherlands' Government Reference Architecture) as a reference architecture for the public sector. The impact of NORA remains to be seen.

Interconnectivity

Interconnectivity of e-government services and the provision of "seamless services" throughout the public sector are gradually evolving through a number of activities (described in the introduction to this chapter). The following initiatives are of relevance to interconnectivity:

- Implementing a number of identified common public sector **key registers** to ensure the mandatory use of basic validated data across the whole public sector.

- Implementing a common public sector **e-authentication system**, DigiD, to ensure secured access to e-services and to enable true transactional e-services including handling of sensitive data.
- Centralising **data standardisation** through the upcoming work by the Standardisation Board and the Standardisation Forum.
- Establishing the **Government Data Exchange Portal**, OTP, to support data exchange between businesses and public authorities.

All these activities will help enable interconnectivity of e-services. However, these different common sector-wide components lack the "glue" of an approved organisational and technical framework, which can ensure coherence and interoperability of e-government services for all levels of government.

It is unclear how data exchange among different bodies is organised technically, and how interconnectivity is arranged across systems in the public sector. According to the progress report (August 2006) to the Dutch Parliament,[14] responsible public authorities are each accountable for develop and maintain key registers and making them available to the public sector as a whole. It is, however, not clear how the organisational setup will ensure this technically, particularly in light of the different operational players within the field. It is necessary to put in place collaboration frameworks that define common interfaces, data definitions and data structures, and make them accessible to e-government services in support of back-office interconnectivity and interoperability. A common repository of public sector metadata descriptions for data exchange is likely to ensure the necessary connectivity, but other concepts may be equally appropriate. Re-use of principles and concepts from the practical implementation of the Government Data Exchange Portal and the Dutch Taxonomy Project might be a way to share common descriptions of data and data structures broadly in the public sector.

Interconnectivity and interoperability have advanced in the social security sector. Boxes 5.5 and 5.6 show how BKWI and RINIS, respectively, have developed junction points for data exchange within the sector, securing the possibility of delivering "seamless services" to their users. However, it is also vital to look at the organisation of these junction points as common public sector services, leading to the decision to gather these data exchange facilities within GBO.OVERHEID.

In summary:

- Interconnectivity activities are spread over several organisations and programmes in the public sector with no apparent focal point for co-ordination and collaboration. As one of the central players working at the municipality and province levels, ICTU is able to conduct a minimum of co-ordination and collaboration within each level.

Box 5.5. **BKWI – Creating efficient back-office integration in the social security sector**

The Netherlands Bureau of Information Exchange within the Work and Income Sector (BKWI) serves as a central locus for data exchange within the social security sector. BKWI provides an electronic back-office infrastructure for a network of more than 30 000 public sector employees, who use the BKWI network to access Dutch citizens' records relative to employment benefits and welfare entitlements.

In an effort to make government-citizen interaction on social security more user-friendly, and to provide a one-stop shop where citizens could access information, BKWI implemented the network and system that allows for sharing of data and information nationally. BKWI achieved this system through two main projects:

- Enabling centralised establishment, management and control of which public sector employees have access to what citizen information.
- Enforcing a common authentication and authorisation mechanism that works across all departmental systems.

BKWI provides an excellent example of how a targeted e-government initiative within a specific sector can positively impact seamless service delivery. Close collaboration among different interdependent parties in central and local government – together with a common infrastructure and streamlined work processes – have proven a major success story.

For more information: See Annex D.

Source: Mr. Olf Kinkhorst, Director of BKWI.

- OECD interviews showed that consideration has been given to how common public sector interconnectivity can be ensured by an enterprise architecture framework. GBO.OVERHEID does provide the possibility of horizontal co-ordination and collaboration across central government. However, it is unclear how a holistic approach can be achieved, given the dispersed organisation of responsibilities and activities.

Multi-channel strategies

OECD interviews did not provide evidence of government-wide strategic use of multi-channel strategies for services. It seems that few public organisations have established multi-channel strategies and implemented them to pro-actively manage user demands for services and to change user habits. Institutions' needs seem to define whether they want to engage actively in managing demands, habits and quality of service.

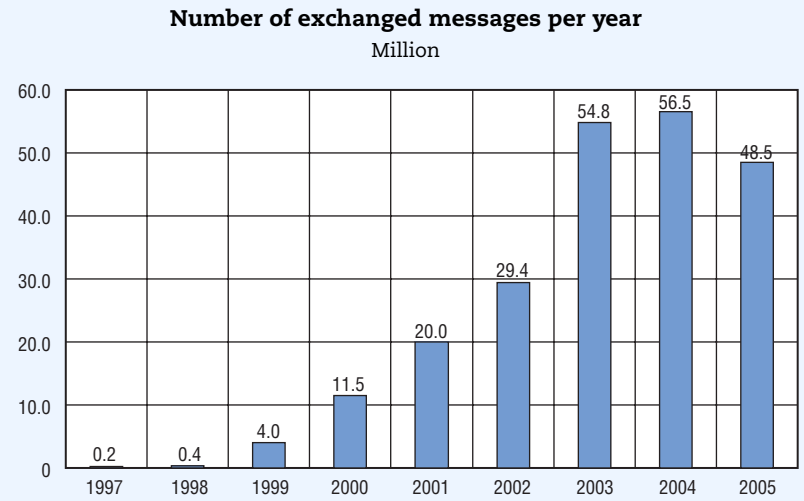
Box 5.6. **RINIS – Institute for the Routing of (Inter)national Information Streams**

RINIS – the Institute for the Routing of (Inter)national Information Streams – was originally set up to organise and implement an effective system for secure, standardised data exchange in the social security sector. The main objective of RINIS is to provide standardised data exchange interfaces between participating public or quasi-public bodies that agree on a minimum level of quality of service and response time. A data exchange point, RINIS does not store any data or information on the participating parties. Each sector and each public authority remains responsible for administering data and information, including determining which technical platform and software systems they want to use.

The current users of RINIS are:

- *The Dutch Tax Authorities*. Participating organisations can check social security numbers (in the future, Citizen Service Numbers) and income details held by the Tax Authorities.
- *Centres for Work and Income (CWI)*. CWI provides citizens with support in finding jobs and keeps track of whether they are (still) entitled to benefits.
- *Judicial Institutions Service (DJI)*. People who are incarcerated lose their entitlement to benefits.
- *National Office for the Collection of Maintenance Payments (LBIO)*. LBIO collects child support payments and parental contributions for youth welfare work.
- *Bailiffs*. Bailiffs support the enforcement of court rulings and are authorised to levy attachments on income.
- *Information Management Group (IB-Groep)*. IB-Groep is responsible for the administration of the Student Grants and Loans Act.
- *Social* Insurance *Bank (SVB)*. SVB implements a number of national insurance schemes and other social schemes.
- Information Office of the Municipal Social Services (IB). IB is the central information point for municipal authorities for data on employment and income.
- Institute for Employee Benefit Schemes (UWV). UWV implements industrial insurance schemes for employees and employers.
- Association of Dutch Health Insurers (ZN). The ZN is the umbrella organisation for public and private health insurers in the Netherlands.

Box 5.6. **RINIS – Institute for the Routing of (Inter)national Information Streams** *(cont.)*

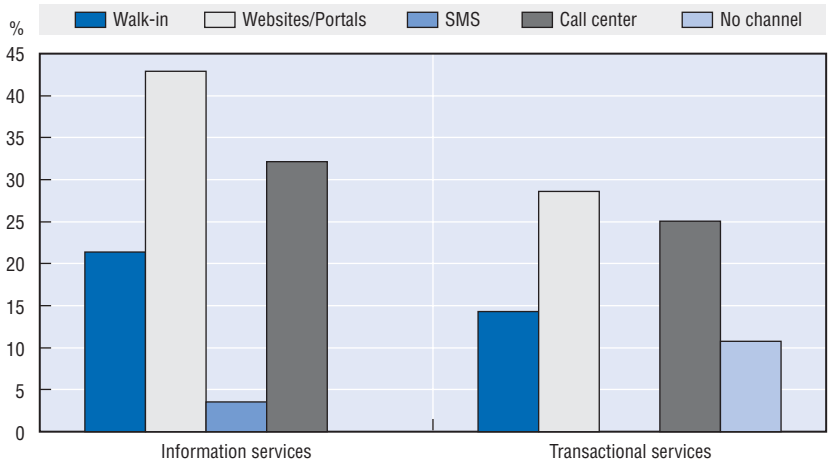


Source: www.rinis.nl (5 June 2006).

For central government, the primary channel for information provision and transactional services seems to be websites and traditional call centres (see Figure 5.3). It is worth noting that a relatively large number of information services (over 32%) are still conducted through call centres or "walk-in" services (21%). There is a great potential for further efficiency gains around information services. The same picture seems to emerge for transactional services, with a rather large potential for user take-up of e-services; only 29% of organisations use websites/portals to provide transactional services.

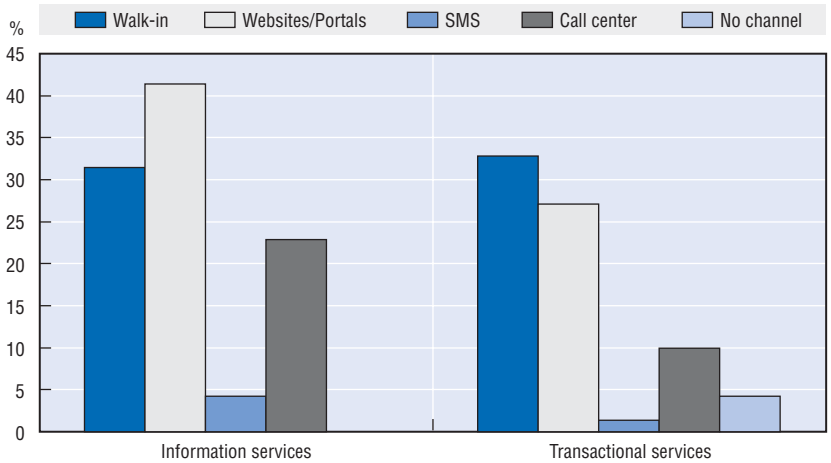
In the municipalities (see Figure 5.4), the potential for developing information services and transactional services is larger than for central government. Because municipalities typically have the most direct contact with citizens and businesses, it is not surprising that "walk-in" services for both information services and transactional services remain the preferred service channels. There is significant potential to make information provision more efficient by developing and marketing the use of e-services by municipalities. For transactional services, there may be efficiency gains if a larger portion of municipal services could be provided through electronic means; this would save resources, or channel resources to more complicated cases and to groups of citizens in greater need of "face-to-face" meetings with public sector service providers.

Figure 5.3. **Channels used by organisations to provide services**
Central government



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

Figure 5.4. **Channels used by organisations to provide services**
Municipalities



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

An interesting possible service channel is service delivery through mobile phones. OECD survey results for both central and local governments indicate that this option is underdeveloped. As a large part of the Dutch population has mobile phones, *m-services* could be an effective tool for reaching citizens. The need for innovative m-service delivery by the public sector is illustrated in Box 5.7, which describes how IB-Groep (the Dutch Education Grant

Box 5.7. **Multi-channel strategy of the IB-Groep – the Agency for Educational Grants Administration**

The *Informatie Beheer Groep* (IB-Groep) is an independent government agency responsible for the administration of student grants (specifically financing, information management, and the organisation of examinations). IB-Groep has about 3.5 million users, including about 550 000 students and their parents.

In the late 1990s and early 2000s, IB-Groep was in crisis. The agency faced broad criticism over slow and poor customer service. The problem was so severe that the IB-Groep became a political liability for its responsible minister. Under intense external pressure, the agency initiated a total rethinking of operational strategies, aiming to implement intelligent, strategic and integrated usage of ICT to solve its performance problems.

The *Mijn IB-Groep* portal for study loans and grants was developed and implemented, allowing IB-Groep to re-allocate resources to users who needed personal advice and to give users who were able to manage their own affairs the opportunity to do so. The agency also wanted to change its image to a service-driven and innovative organisation easily accessible to customers.

By adopting an Internet service delivery policy to improve internal efficiency and meet external user needs as part of a multi-channel strategy, IB-Group managed within a few years to turn around operations and improve its external image.

The IB-Groep also developed an e-authentication concept using SMS and mobile phones, in response to the experience that students frequently misplaced electronic tokens or other e-solutions, but do not lose their mobile phones.

The sense of emergency inspired the IB-Groep to implement different service delivery channels (physical regional offices, telephone services, e-mail contacts, web portal services), more intelligently directing users to the channels that meet their needs.

For more information: See Case Study 5.

Administration Agency) has customised e-government services to its target group – students, who almost never misplace their mobile phones (other kinds of tokens for e-authentication are frequently misplaced). Mobile phones offer a totally new type of experience to the user. For services where significant investments have already been made in online channels using desk-top technologies the disruptive effect of mobile technology may not be the best option (the processes may be largely the same in terms of data capture, workflow, etc.); however, opportunities arise in the development of new services (such as paying parking meter charges).

In summary:

- The lack of systematic usage of multi-channel delivery strategies in e-government development is an area for further consideration and exploration by the different levels of government. Deliberate usage of multi-channel delivery strategies as an integrated part of e-government development would probably enable the Dutch public sector to increase user satisfaction with service delivery while harvesting efficiency gains by channelling users into appropriate services, managing increasing expectations, and providing the right service to the right users.
- However, there is a need to balance the tensions between the need for efficiency (by limiting costly channels) and the desire for effectiveness (in terms of satisfying consumer expectations and needs). This may be more of a political issue than an administrative problem. Fundamentally, it is realistic to assume that older and lesser-used channels will disappear over time as new possibilities emerge through ubiquitous computing and connectivity with, for example, mobile phone technology.

Notes

1. Ministry of the Interior and Kingdom Relations (2005), "Progress report on the Modernising Government programme", October 2005.
2. "Burning platform" describes the state an organisation may enter when its future existence is threatened, and the leadership of the organisation finds itself 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.
3. "GBO.OVERHEID, the Government-wide Shared Service Organisation for ICT, to manage key services for the Electronic Government", Internal concept description, version 2, Ministry of the Interior and Kingdom Relations, 2005, and *http://gbo.overheid.nl/* (accessed 7 June 2005).
4. Public Key Infrastructure, or PKI, is an ICT security infrastructure supporting digital authentication such as verification of digital signatures.
5. *Staatscourant* (The Dutch Official Journal), No. 70, 7 April 2007.
6. The ICTAL programme was launched in early 2003. It is scheduled for completion in early 2006. The objective of the programme is to develop a generic ICT infrastructure to provide better services to businesses and to facilitate the exchange of information between businesses and public authorities. See *www.ictal.nl/*.
7. According to *www.bkwi.nl/content/view/16/25/* (accessed 28 May 2006) the following public institutions are using BKWI as a back-office integrator: Centres for Work and Income (CWI), Institute for Employee Benefit Schemes (UWV), Social Insurance Bank (SVB), and the General Social Services (GSD).
8. According to *www.rinis.nl/ENGELS/html/alg_header.htm* (accessed 28 May 2006) the following public institutions are using RINIS to exchange data: Dutch Tax and Customs Administration, Centres for Work and Income (CWI), Judicial Institutions Service (DJI), National Office for the Collection of Maintenance Payments (LBIO),

Bailiffs, Information Management Group (IBG), Social Insurance Bank (SVB), Information Office of the Municipal Social Services (IB), Institute for Employee Benefit Schemes (UWV), Association of Dutch Health Insurers (ZN).

9. The GEIN Project (*Het Generieke Infrastructuur Project* – the Generic Infrastructure Project) run by the Ministry of Economic Affairs aims to implement a generic infrastructure for information exchange between companies and public authorities. The project was commenced in mid-2005. See *www.gein-project.nl*.

10. *Staatscourant* (The Dutch Official Journal), No. 70, 7 April 2007.

11. "Control of the Helm – Final Report", Het Expertise Centrum for the Ministry of the Interior and Kingdom Relations and the Association for the Netherlands Municipalities (VNG), The Hague, 6 March 2002.

12. "e-Provincies – Work Plan 2005", 25 January 2005.

13. NORA – *Nederlanse Overheid Referentie Architectuur. Samenhang en samenwerking binnen de electronische overheid*, *ICTU Programma Architectuur Electronishce Overheid*, versie 1.0, 27 September 2006. See *www.e-overheid.nl* (accessed 4 October 2006).

14. "Progress Report 3 – e-Government", Ministry of the Interior and Kingdom Relations, August 2006.

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Chapter 6

Outputs and Outcomes

Assessments	Proposals for action
User-focused E-Government services	
• The Netherlands has made several attempts to create a flexible and dynamic government that is receptive to the needs of citizens; overall, however, **there does not seem to be a clear and consistent approach to the qualitative and quantitative assessment of users' demands** – despite the fact that a large share of Dutch citizens and businesses communicate with government online. This lack of a standard methodology to assess users' needs does not support the clear aim of developing better services, which is stated in all Dutch e-government strategies.	• Building on existing best practices, the next phase for improvement of e-government service provision at the municipality level will depend on the negotiation of roles among: central government, VNG, independent institutions such as the Consumers' Association, the (local) ombudsman and local advisory committees of citizens and institutions, and, most importantly, municipalities themselves, to reach a common understanding of user demands and how to respond to them. Given the independence of these actors, **the key ministries responsible for e-government development within central government need to take a joint leadership role to reach consensus on a common path forward to improve user take-up**.
Government-to-Citizen E-Services	
• The Netherlands has for several years focused on delivering citizen-focused e-services. A special central government programme **– Burger@Overheid.nl – provides a foundation for a citizen-focused approach to e-government development**. This has, however, not resulted in increased user take-up of e-services, or the development of equal and fair provision in terms of the number and quality of services. • **Periodic surveys through the e-Citizen Panel have shown that existing e-services do not seem to provide high levels of satisfaction to citizens.** Of particular concern are: 1) the inability to find relevant information; and 2) the turnaround time for requests. OECD survey results support this perception and suggest room for improvement.	• In order to address the apparent low level of user take-up of developed e-government services, **the Netherlands should consider how activities conducted by Burger@Overheid.nl can be strategically and practically utilised and integrated in e-government planning and implementation throughout the public sector**. • **The Netherlands should consider using survey results from the e-Citizen Panel more systematically** throughout e-government development, and adjusting strategies, planning, design and implementation of e-services accordingly. A common public sector approach to integrating user feedback is essential to improving medium- to long-term user take-up of e-services.
Government-to-business E-Services	
• The Netherlands has developed a number of e-services for businesses. However, **it has generally been recognised that the Netherlands is not performing as well as would be desired on the e-services for businesses front**. The political focus on achieving administrative burden reduction has not yet resulted in prioritisation of developing sufficiently integrated e-services for businesses, which mirrors both emerging gaps in ICT diffusion and productivity reviews, and general efficiencies of scale for innovation. **There is a clear need for a significant change in the way the public sector interacts with businesses.** • **The Netherlands has not yet addressed the benefits of developing and implementing electronic public procurement** – e-procurement – as a tool for enhancing transparency and competitiveness in public procurement processes.	• **The Netherlands should consider developing a common strategy and action plan to support and encourage businesses to use e-services** provided by the public sector. **A "stick and carrot" strategy could be considered** as a part of such an action plan, moving towards mandatory electronic communication with public authorities. Prioritising quick development of fully integrated and seamless services for the Dutch private sector will likely provide rapid return on investment and increase user take-up, with the added benefit of improving the general competitiveness of Dutch companies in a global perspective. • **There is a benefit to reviewing wide-scale electronic public procurement in the Netherlands.** It can be a major catalyst for the introduction of modern information systems and connectivity in businesses, if backed up with appropriate business support programmes.
Government-to-government E-Services	
• **The Netherlands is on track in developing shared public sector services.** GBO.OVERHEID has been created as the organisational framework to maintain and run these services for all public sector institutions. By setting up a shared service centre, the Dutch public sector has taken the first step in centralising common operational services without changing the basic authority and autonomy of different levels of government.	• In order to identify and implement shared services, **the Netherlands should strengthen its ongoing activities to gain "whole-of-government" and economy-of-scale benefits from consolidation of common public sector e-services**.

The primary and most evident benefit of e-government is improved ability to deliver government services that are of definitive value to users in terms of increased levels of efficiency, effectiveness, accountability and transparency – all made possible by the development of more demand-driven, user-focused services and systems to facilitate better accounting and reporting. Many OECD countries also aspire to improve democratic engagement and participation through e-government; the links have yet to be proven, and there is some evidence that automating services can lead to citizen disconnection, especially where contextual adjustment is threatened or diminished through the use of technology.

The Netherlands has for several years focused on developing sector-oriented e-services for citizens and businesses. The strategy of letting "… 1 000 tulips blossom" has resulted in the delivery of e-services at all levels of government. These e-services are primarily within sectors with high-volume transactions like the social security system,[1] tax administration,[2] and the education grant administration.[3] However, the Netherlands faces a number of challenges in attaining policy goals of delivering measurably better and less burdensome services: to increase take-up; to target specific user groups; and to overcome the observable fragmentation and varied quality and sophistication of e-services (particularly at the municipality level).

Building seamless and integrated e-services and making e-government more user-focused – for example, by providing citizens and businesses with "one-stop-shops" and proactive services – demands a new user-centric approach to e-government development. This new approach, in turn, requires closer collaboration and co-operation both horizontally and vertically across all sectors and levels of government and a need to rethink business processes and value chains from an end-user perspective. As the Association of Netherlands Municipalities (VNG) Vision 2015 programme states: professionalised municipalities will have to put the "client first" and be more innovative concerning service delivery.[4] It remains to be seen whether e-government will become a tool to reform the public sector, modernise governance structures, and serve as a catalyst for structural changes in the Netherlands. Like other OECD countries, in order to fully reap the benefits of e-government, the Netherlands must put users first and deliver on promises of better services. At the same time, the government must be open to more fully exploiting the functionality of technology insofar as it can provide scope for innovation and

transformation in the way governments work with all stakeholders in the democratic value chain; technology can help re-define relationships that have evolved from an era of limited connectivity, poor information flows, limited interaction between citizens and government, and paradigms based on control and administration rather than development and participation.

This chapter discusses the outputs and outcomes of e-government services in the Netherlands targeted at the three main user groups: citizens, businesses, and government. It also discusses the current state of user-focused e-government services, sophistication of e-government services, and e-government and e-democracy in the Netherlands.

User-focused e-government services

User-focused development for higher take-up of e-services requires knowledge of user needs. The EU i2010 programme has defined a number of principles for user-focused and inclusive e-government (see Box 6.1).

The Netherlands has made several attempts to create a flexible and dynamic government that is receptive to the needs of citizens; overall, however, there does not seem to be a clear and consistent approach to the qualitative and quantitative assessment of users' demands – despite the fact that a large share of Dutch citizens and businesses communicate with government online (see Figures 6.6 and 6.10). This may reflect low levels of public satisfaction with government services, along with a growing focus of public sector institutions on using e-government to achieve efficiency gains and develop more cross-cutting services. It does not suggest the clear aim of developing better services, which is prioritised in all Dutch e-government strategies. It is also notable that the OECD could not identify civil society or consumer interest groups focused on the quality of government services with whom to discuss this aspect of Dutch e-government.[5]

The improvement of service delivery through integration of services was prioritised on the Netherlands agenda as early as 1995, when a policy white paper (BIOS-3) titled *Terug naar de toekomst*[6] was presented to the Parliament by the Ministry of Interior and Kingdom Relations.[7] Whereas previous white papers on "Informatization of the Public Sector" (BIOS 1 and BIOS 2) addressed ICT usage within government operations, this third paper explicitly addressed ICT usage in relations between government and society. An important aim was the reduction of fragmentation by integrating services that are related from the user's perspective. The term "demand pattern" was coined; this concept resembles the idea of the "life event" used in many OECD countries, and has been further developed as a methodology to deliver e-government services in the Netherlands.

Box 6.1. **i2010 – Principles for user-focused and inclusive e-government**

The European Union's i2010 programme has formulated a draft set of guidelines for modernising and deploying EU policy to encourage the development of the digital economy; this includes regulatory instruments, research, and partnerships with industry. The European Commission is particularly promoting user-focused, inclusive e-government. i2010 recommends that governments consider the following scenarios for the development of high-quality, efficient and effective public services for citizens and business:

- "**What's in it for me?**" It is important to be very clear and open about what citizens stand to gain if they deal with administrations electronically rather than traditionally. Is the service better? Do they save money and/or time? Do they potentially get more or better service? What do they miss if they do not use electronic channels?
- "**How do I know?**" If people do not learn about services and their benefits – in a form and language they can understand – they can not take advantage of them. A recent study in Belgium highlighted better communication as the leading action to improve take-up and use of electronic services.
- "**Can I get support from my social assistant, trade union, or mutuality?**" Some people will never feel comfortable using electronic channels, regardless of technological advances. For them, effective support via an intermediary is key.
- "**I can't do that – I don't know how!**" Developing and enhancing skills is an empowering process for users. However, disadvantaged and marginalised groups are often the least likely to engage with "the establishment" for structured training. Governments must consider more creative methods to enhance skills using best practices from unstructured, informal and community learning, as well as more standard approaches.
- "**I can't use this – it doesn't make sense!**" Accessible and user-friendly interfaces, intuitive menus, and well-structured content in a country's language help users find their way through issues, even if they are complex. Accessibility standards and guidelines should be harmonized and widely implemented.
- "**I need help.**" If people don't understand online instructions, they should be able to reach someone who will take the time to explain things in a friendly way by telephone.
- "**Can I trust it?**" Trust is a crucial element of the inclusive e-government approach. This includes: trust in the technology used to deal with government and trust in the government itself. Creating a broad, transparent, accessible climate of trust will encourage citizens to access and use electronic services on education, health, commerce, transport, tourism, and other topics.

A related challenge is the issue of non-use of services. Various studies showed that many people do not use the services intended for them, such as housing benefits; this is particularly an issue among low-income groups. One solution was the establishment of one-stop shops to remove physical barriers when applying for multiple services, while increasing awareness of services on offer. Since 1999, the Netherlands has been exploring even stronger efforts to making citizens' lives easier through pro-active service delivery. However, regular and consistent research into relevant target groups is not common in the Netherlands.[8]

Meeting more advanced citizen needs may demand much more sophisticated products (which may actually be less technically "sophisticated" in terms of complexity), in the form of new services or services that deliver more added value. The development and provision of such services inevitably requires more collaboration and co-operation between public sector institutions or a "service integration" entity that can achieve the same thing, and the use of new, innovative concepts made possible by advances in technology. The current strategy does not include projects with an explicit user involvement aim.

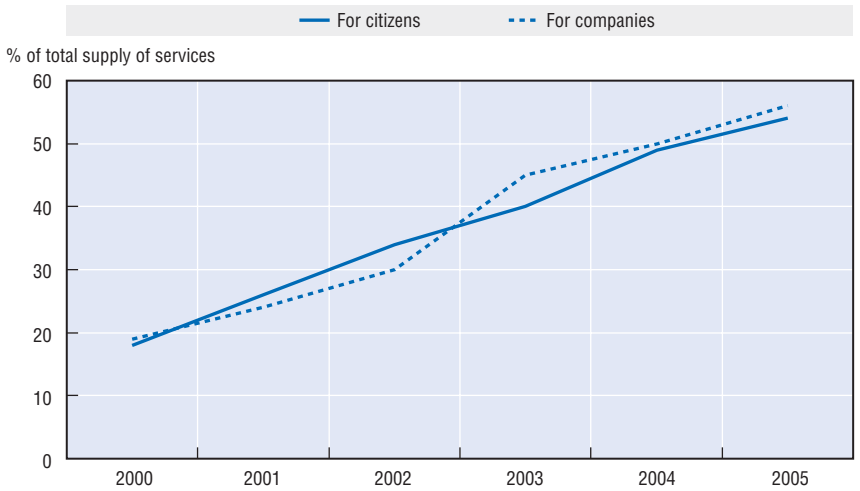
In order to raise awareness of the availability and value of e-services, the Dutch government promotes "good practices" and exchange of experiences through programmes like the "Innovation Public Sector Conference" and "The Yearly Web Award".[9] The Innovation Public Sector Conference showcases innovations initiated by governments (on different levels) to improve their services; during the conference representatives of different levels of government exchange ideas and experiences. There are no users involved, but initiators can learn from others' experiences. The same applies to the Yearly Web Award, which looks at innovative government websites.

E-Services online

For a number of years, the focus of e-government in the Netherlands has been digitising services and putting them online. The increase in online public services has been steady and stable; Figure 6.1 shows the growth of e-services for citizens and businesses as a percentage of the total supply of services in the period 2000-05.

The current national strategy setting out the e-government agenda in the Netherlands is the "Modernising Government" programme, in place since 2003 (see Chapter 1). This programme seeks to overcome rigidities in traditional government structures and to deliver seamless services and integrate processes across organisational boundaries through public administration reform. It aims to bring politics back to the citizens (democracy), and to reduce the administrative burdens on citizens and businesses by lessening the costs of bureaucracy. ICT plays an important role in this strategy; its major expected

Figure 6.1. **Supply of electronic government services, 2000-05**[1]



1. From 2003, the calculations have been adapted to comply with European standards. The 2003 percentages are therefore not immediately comparable with those of previous years.

Source: "The Digital Economy 2005", Statistics Netherlands, Voorburg/Heerlen, 2006, p. 194. Advies Overheid.nl.

impacts are higher quality service to citizens and businesses, increased administrative efficiency, lower costs of government (with cost savings for taxpayers), and higher quality of democracy through more open government and enhanced opportunities for political participation.

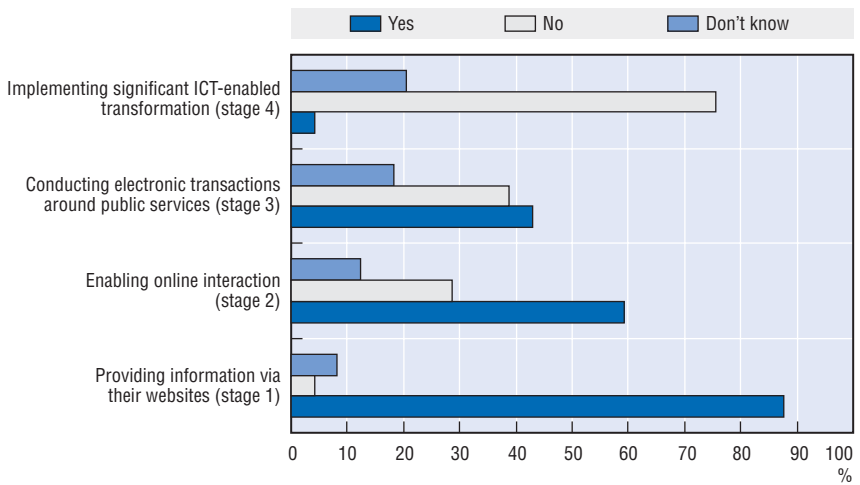
There are four key e-government drivers for delivering improved outputs and outcomes to Dutch citizens and businesses:

1. Improved public sector efficiency – Administrative burden reduction of 25% by the end of 2007.
2. Improved electronic services – Implementing common building blocks and key e-services with 65% of all services online by the end of 2007.
3. User-focused service delivery – Better use of ICT in society.
4. International leadership – Increased interoperability and international competitive position.

One widely used indicator of e-services sophistication is a four-stage model that examines the extent to which government organisations have moved beyond simple provision of information via their websites (stage 1) towards enabling online interaction (stage 2), then conducting electronic transactions around public services (stage 3), and finally implementing significant ICT-enabled transformation of how their services are organised and delivered both on- and offline (stage 4). The OECD survey asked respondents to both identify the target

audiences for their e-government services and categorise the services according to this four-stage model. The current focus on delivering "seamless services" – implementing the principles of "deliver data once, use many times"[10] by focusing on back-office interconnectivity and interoperability – has moved the general development stage of Dutch e-services forward towards vertical integration with more fully transactional services (see Figure 6.2). The Netherlands has made substantial progress towards more mature services; this finding is further supported by the EUcommissioned Capgemini study of the 20 key e-services prioritised by the EU. The report shows that the Netherlands has reached two-way interaction and has made substantial progress in terms of putting a large number of services online.[11]

Figure 6.2. **Stages of e-services provision**
All levels of government



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

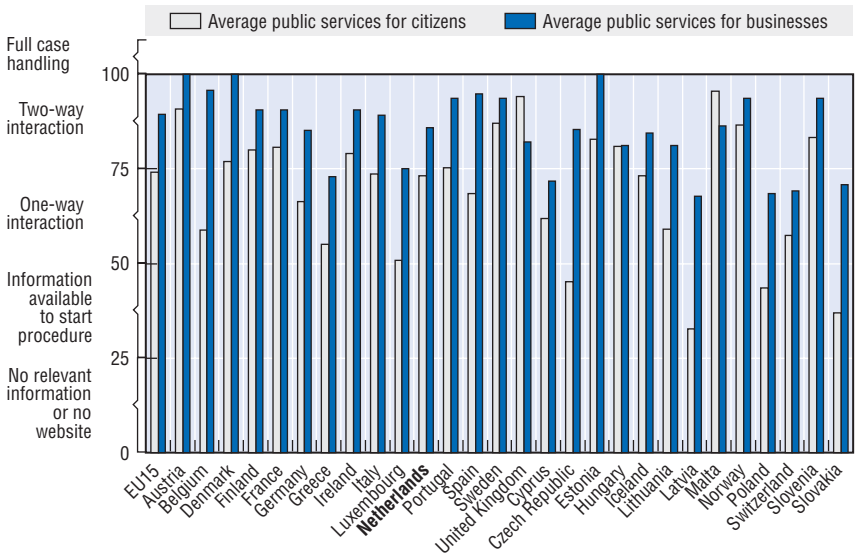
In the Netherlands, 88% of public sector officials who responded to the OECD survey indicated that their organisation is providing e-services in development stage 1 – purely informational sites. Almost 60% of respondents indicated that their organisation is providing e-services in development stage 2 – sites with simple interactivity like access to databases. About 43% indicated that their organisation is providing e-services in development stage 3 – vertical integration that permits users to enter secure information and engage in transactions. Seamless transaction services are usually defined as allowing all components of an administrative act (application, declaration, notification, and payment) to be processed online; in some cases more crucial services are put online first. They range from obtaining personal documents,

announcing a move, and declaring taxes electronically to booking training courses, registering new companies and obtaining licenses and permits. This level of e-services (together with increased self-service) has significant impact on the value chain. In the Dutch case, only 4% of survey respondents indicated websites in development stage 4 – horizontal integration with information and data sharing with other government agencies across organisational boundaries. Compared with the results from, for example, Denmark (33%, 33%, 22% and 12%, respectively)[12] the Dutch government is lagging in developing mature e-services at stages 3 and 4. One possible explanation is the widespread skeptical attitude of users towards making online transactions, shown by independent surveys.[13]

E-Government service sophistication

In a wider European Union comparison of the sophistication (defined as average development stage of e-services) of online public services (see Figure 6.3) the Netherlands score is slightly below the EU15 average for e-services for citizens and businesses, and in general below the best-placed OECD countries such as Austria, Denmark, Finland, France, Ireland, Norway, Portugal, and Sweden.

Figure 6.3. **Sophistication of online Dutch public services, 2005**



Source: Eurostat (2006), E-Government: Internet based interaction with the European businesses and citizens.

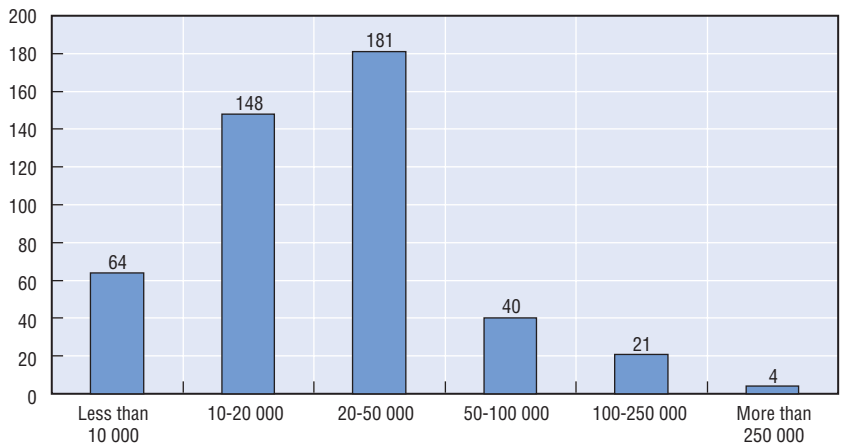
Public administrations everywhere are under considerable pressure to improve the quality and effectiveness of their services. Collectively, these benefits should achieve a multiplier effect for society in the Netherlands at large.

E-Government services at the municipality level

There are 458 municipalities[14] in the Netherlands. However, with about 30% of the total population concentrated in just 25 cities – Amsterdam and Rotterdam are the largest by far – most municipalities are small (see Figure 6.4). The Ministry of the Interior and Kingdom Relations and the VNG (Association of Netherlands Municipalities) are considered to have responsibility for supporting local authorities and inter-municipal co-operation and alignment, while respecting municipal autonomy.

Figure 6.4. **Number of Dutch municipalities in different size categories**

N = 458



Source: OECD figure, adapted from statistics from Central Bureau of Statistics (CBS) (2003) – *www.cbs.nl*.

About 70% of all public services are delivered at the municipal level,[15] and municipal autonomy remains an established principle in the Netherlands. Since the late 1990s, there has been an explicit push to get all local authorities online by providing tools and limited funding. Since November 2003, all Dutch municipalities have some presence on the Internet in the form of their own, official municipal website. This has recently resulted in a (nominal) Internet presence of 100%, demonstrated by improvements in international benchmarks. The fact that all Dutch municipalities now have official websites should be considered only a first step in a long process.

There are several national benchmarks for municipal websites, which show a large variation in website maturity. Two well-known benchmarks are the webdam monitor (*www.webdam.nl*) and the Advies Overheid.nl monitor (*www.advies.overheid.nl*), related to the central government portal *www.overheid.nl*. These benchmarks show similar pictures (see Box 6.2 for a more detailed description of the findings of the Overheid.nl Monitor 2005).

Additionally, national surveys of Dutch citizen experiences using municipal websites and their satisfaction with these sites indicate that municipalities are not able to deliver what the public expects and desires (see Table 6.1).

Finally, the number and maturity of e-services offered by Dutch municipalities varies considerably. Most municipal websites have at least basic facilities: contact information, information on the political makeup of the city council, and information on various municipal products. However, few actually include advanced e-government services (see Figure 6.6).

Like many other OECD countries, the Dutch central government has several programmes to support e-government development in local governments. Examples are:

- ***EGEM Programme:*** The EGEM programme supports Dutch municipalities in developing e-government through co-ordinated activities like the development of common e-government standards and concepts that can be used co-operatively and collaboratively by all municipalities in developing e-government services (see Chapter 1 and Annex F).
- ***Government Desk 2000 programme – OL2000:*** The Government Desk 2000 programme (*Overheidsloket 2000* or *OL2000*) played a leading role in the advancement of interactive services. The purpose of OL2000 was to create a nationwide network of physical and digital government "desks" where citizens and businesses could obtain a package of government services tailored to their specific needs without regard to the organisation supplying the services.
- "***Super Pilots***" ***project:*** In March 2001, the Ministry of the Interior and Kingdom Relations started a programme that offered the cities of Enschede, The Hague and Eindhoven EUR 2.8 million each to build functionally rich online electronic counters for local government services. In return for this financial support, these cities were obliged to publish the blueprints of their designs.
- ***VIND product catalogue:*** A central-government-developed Internet application containing descriptions of all services local governments can offer, the catalogue module was offered free of charge to all municipalities. This action also sparked discussion about the role of government in the marketplace.

The administrative agenda for future municipal service provision, formulated by the VNG's Commission on Municipal Service Provision (the

Box 6.2. **Overheid.nl Monitor 2005**

The Dutch Government has recently published "Overheid.nl Monitor 2005", its seventh annual e-government progress report. The monitor reviews the most important advances and challenges facing e-government in the Netherlands. It looks at the supply of information and services, the use of government websites, and the impact of such use (customer satisfaction) to determine, in actual figures, how much progress is being made by different public-sector organisations.

Although it highlights a number of encouraging developments, the report finds that much remains to be done in areas such as user-friendliness, transactional services and e-democracy. The report states that authorities must shift their focus from supply to demand. More information and services are being provided electronically, and website visits are becoming more frequent, but there has been only a slight increase in the actual use of digital services (except for those provided by national authorities). Response rates and customer satisfaction levels are both stagnating.

The report makes 10 general points:

1. Good progress has been made with respect to e-service delivery.
2. There is a clear difference between e-services achievements by large and small local authorities.
3. There has been considerable improvement in the presentation of information online (administrative information such as notifications and permits), but room remains for improvement.
4. User-friendliness ratings have improved almost across the board; however, most organisations receive poor marks in adhering to web guidelines.
5. Traceability of information remains a problem, with approximately one-third of visitors reporting that they were unable to find the information they were looking for.
6. Government websites are becoming more popular.
7. Customer satisfaction with government websites is not improving.
8. The government response rate to e-mail queries from citizens submitted through government websites remains below 80%.
9. Take-up is improving for online services provided by national government bodies.
10. Three national authorities (the Tax and Customs Administration, the IB-Groep and the Land Registry) now provide all services intended for the public electronically.

For more information: See Case Study 2.

Table 6.1. **Citizen satisfaction with municipal web services**

Service quality	%	Participatory quality	%
Excellent	0	Excellent	0
Good	1	Good	0
Satisfactory	17	Satisfactory	9
Passable	57	Passable	46
Weak	23	Weak	15
None	2	None	31

Source: Bongers *et al.* (2002).

Jorritsma Commission), sees the following role for municipalities in public service provision in 2015:[16]

a) The service relationships between citizens and municipalities will be based on a structure that is logical to the citizen, the company, and the civil institution in their capacity as customers of products or services.

b) The municipal government will be the primary contact point for citizens, companies or social institutions wishing to connect with Dutch authorities providing shared services.

c) Municipal governments will operate in a way that is logical to the client; databases and key registers must be accurate and managed on the principle of once-only provision of information (*e.g.* Citizen Service Number).

d) Municipal governments will operate with the knowledge that the most logical system of service provision from the citizen's perspective is one based on the principle of (web-based) self-service.

The Jorritsma Commission identified the following principles for successful transformation of municipalities to develop and provide better services – including e-government services – in the future:

- Demand-led operation by consultation with identified stakeholders and user groups.
- Increased service levels.
- Demand-driven government.
- Strong communication focus.
- Transparent government.

Building on existing best practices, the next phase for improving e-government service provision at the municipality level will depend on negotiating roles among central government, the VNG, independent institutions such as the Consumers' Association, the (local) ombudsman and local advisory committees of citizens and institutions, and, most importantly, municipalities themselves.

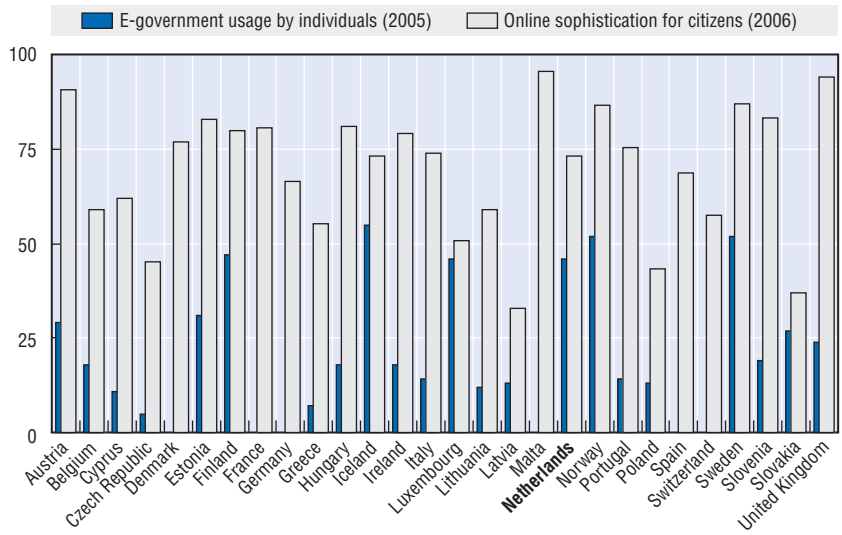
The OECD survey indicated that Dutch government officials believe the largest constraint on demand for e-government is lack of awareness of the availability of online services.[17] In this case, the situation can be addressed through effective marketing of e-services, like advertising campaigns. To some extent, this problem can be self-correcting in the longer run; as more users experience e-government services, they become more likely to make others aware of them. (However, it is then important that services are high quality and user-focused, so that people do not convey a negative impression of e-government.)

Government-to-citizen E-Services

The recent focus on improving e-services to citizens has resulted in more services being delivered online; yet, the Netherlands face the same challenges as many other OECD countries – lack of take-up and low maturity of e-government services. Figure 6.5 shows significant gaps between supply and use of online services in the Netherlands, indicating that users are either not satisfied with or not aware of the services, or the benefits of using e-enabled services.

OECD interviews made it clear that the Dutch government focuses more on providing e-services than reaping the benefits from e-government investments.

Figure 6.5. **Comparisons between supply and use of online public services for citizens, 2005-06**



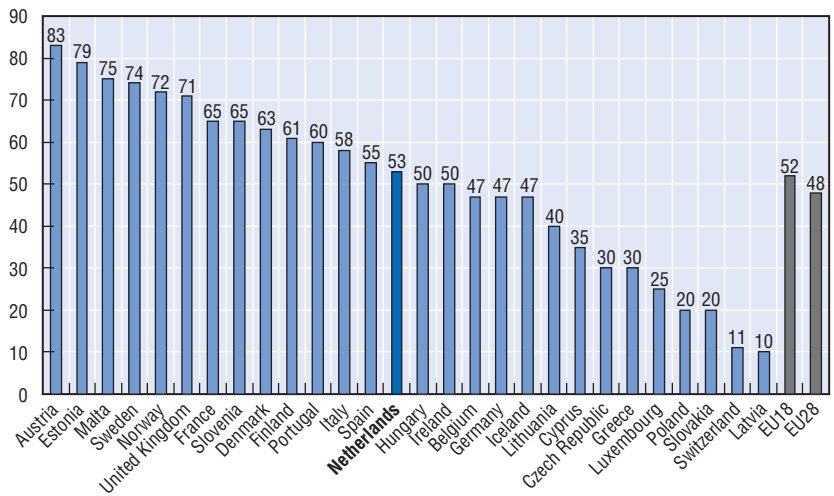
Source: Capgemini report for the European Commission: "Online Availability of Public Services: How is Europe Progressing?", June 2006, Figure 17.

Most people interviewed felt that developing more user-focused services was currently less of a priority than other challenges, such as reducing administrative burdens.

Traditional channels dominate the delivery of public services in the Netherlands (see Figures 5.3 and 5.4). This result is fully in accordance with the general maturity of Dutch e-services, which is still mainly informational and less transactional.

With respect to full online availability of services, the Netherlands ranks in the middle in country rankings (see Figure 6.6). According to this ranking, the Netherlands has 53% of its services fully online – close to the EU18[18] average of 52% and above the EU28[19] – but on the level of countries like Spain, Hungary and Ireland. This strongly suggests that all levels of the public sector should pay attention to the development of a better delivery strategy, and look into how such a strategy can provide better prioritisation and management of operational resources.

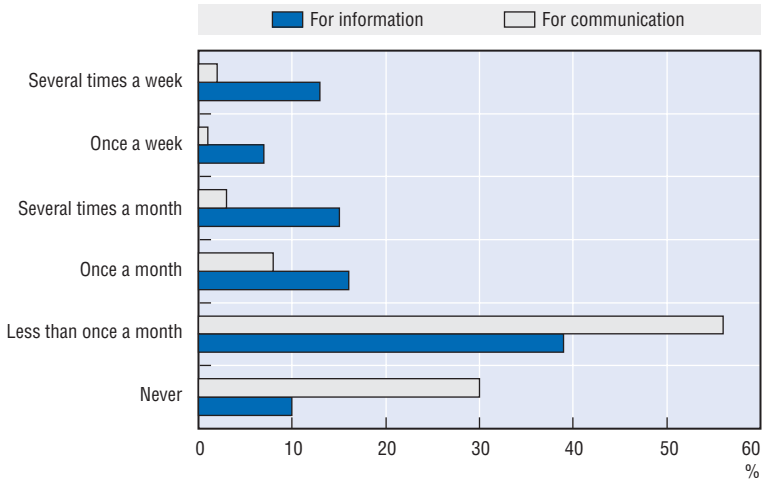
Figure 6.6. **Percentage of e-services fully available online, 2006**



Source: OECD compilation and Capgemini report: "Online Availability of Public Services: How is Europe Progressing?", June 2006.

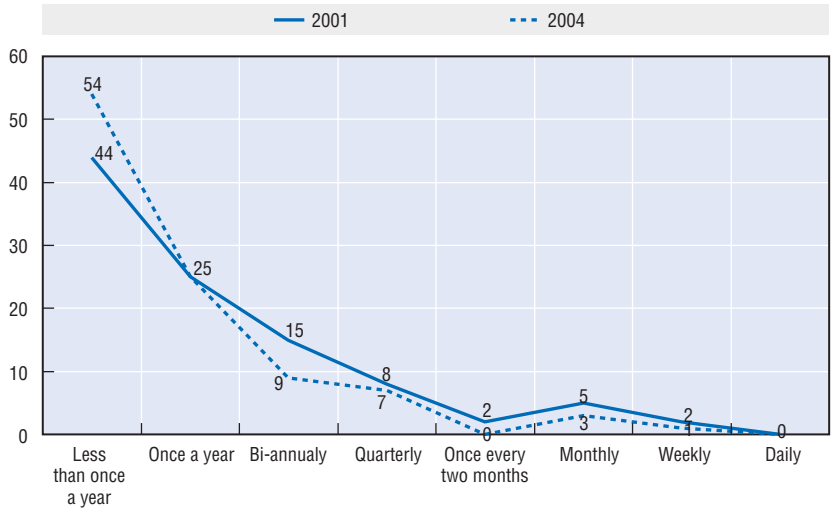
The results of the latest e-Citizen Panel survey further show that most citizens never visited a government website or did so less than once a month (see Figure 6.7). The low frequency of visits to government websites may also reflect generally limited contacts between citizens and public sector authorities: in 2004, 54% of Dutch citizens were in contact with public authorities less than one time per year (see Figure 6.8).

Figure 6.7. **Frequency of visits to government websites, May-June 2005**



Source: "The Digital Economy 2005", Statistics Netherlands, Voorburg/Heerlen, 2006, p. 197. Burger@Overheid.nl, Netpanel onderzoek and Interactieve media.

Figure 6.8. **Frequency of contact between citizens and public authorities**
In per cent of population



Source: "*Burgers aan bod*" (Offer to the Citizens), Dialogic Innovatie and Interactie for the Ministry of the Interior and Kingdom Relations, Utrecht, 28 June 2004.

The current central e-government strategy explicitly highlights user-focused e-government development,[20] but in recent years priority has shifted towards a more technical goal of developing back-office functionality[21]

as a pre-requisite for delivering seamless services across organisational boundaries and levels of government. This also includes an active shift towards the development of more multi-channel services to optimise reach and increase user take-up of and satisfaction with e-government services.[22] This approach seems sensible for a transition phase during which a demand-led strategy should be implemented.

The Dutch e-government policy focus on citizens' needs and better services – and the tradition of broad consultation with stakeholders on policy development overall – is at odds with actual programme implementation. The ICTU-run Burger@Overheid.nl, the e-Citizen Programme,[23] was set up to improve and monitor these ambitions (see Box 6.3). The aim of the programme is to create a competence centre for citizen-focused e-government development that informs public sector officials on e-government issues.

Box 6.3. **Burger@Overheid.nl – the Dutch e-Citizen Programme**

Burger@Overheid.nl is an independent platform that stimulates the development of e-government from Dutch citizens' point of view. To that end, it involves citizens, advises government bodies and monitors progress. Burger@Overheid.nl regularly conducts surveys through its People's Panel, and annually grants the WebWise Awards for good practices; at present, the agency is developing an e-Citizen Charter with quality requirements for e-government. Burger@Overheid.nl is an initiative of the Ministry of the Interior and Kingdom Relations. The secretariat of the programme is part of ICTU. A Steering Committee representing citizens' interest groups supervises the proceedings.

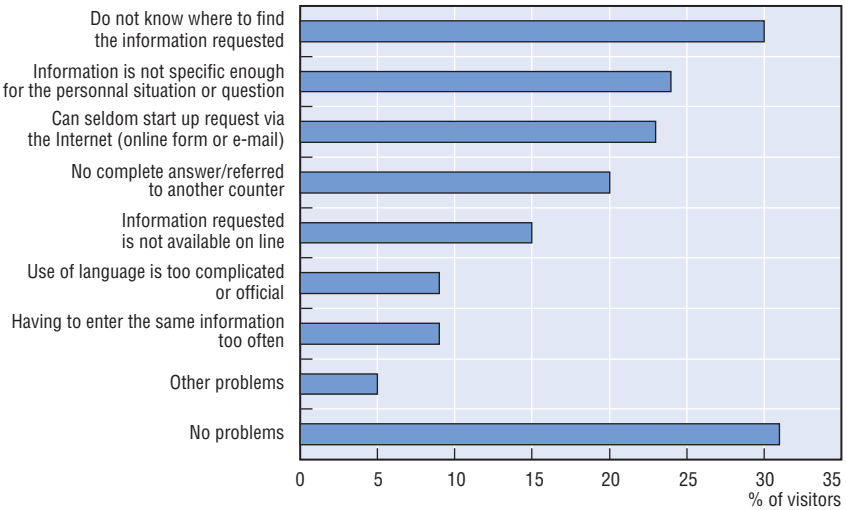
For more information: See Case Study 4: *The Dutch e-Citizen Charter*.

Source: www.burger.overheid.nl (accessed 6 October 2006).

The Netherlands has established an e-Citizen Charter (see Case Study 4: The Dutch e-Citizen Charter) to ensure that e-government develops with a citizen focus. It is too early to determine whether this programme has had an impact on user take-up, as the latest European comparison (see Figure 6.5) has not yet registered significant change in the Netherlands. Burger@Overheid.nl measures citizens' experiences through an e-Citizen Panel of 2 300 people, tracking frequency of usage of government websites and problems experienced when using these websites (see Figure 6.9 and Box 6.1).

Only about 30% of users experienced no problems when visiting public sector websites. Clearly, website user-friendliness needs to be improved. The monitor also found that a high percentage of the public would like to see more proactive communication from the government; for example, they would like

Figure 6.9. **Problems experienced using government websites, May-June 2005**



Source: "The Digital Economy 2005", Statistics Netherlands, Voorburg/Heerlen, 2006, p. 197. Burger@Overheid.nl, Netpanel onderzoek and Interactieve media.

to receive information via the Internet, or via e-newsletters.[24] It is possible to conclude, therefore, that there is a gap between the potential that ICT offers government agencies for informing the public and their actual use of ICT for this purpose.

In summary:

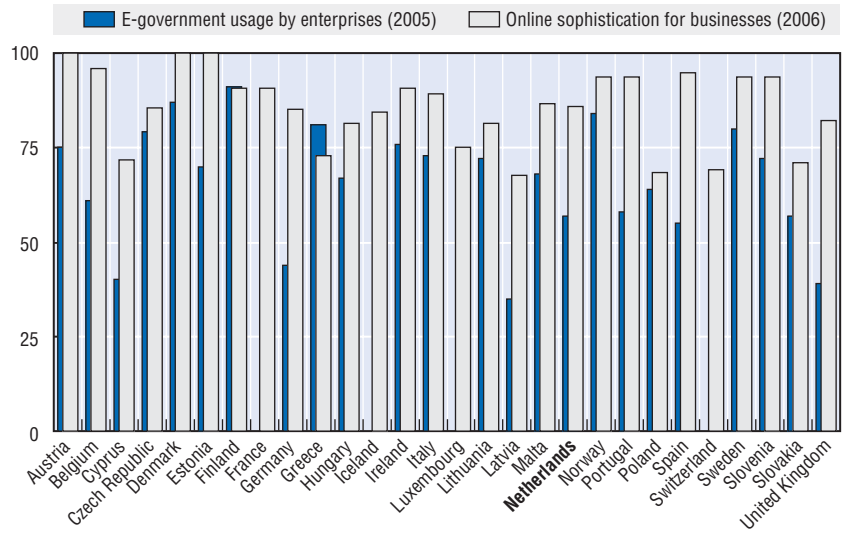
- The Netherlands has for several years focused on delivering citizen-focused e-services. A special central government programme – Burger@Overheid.nl – provides a foundation for a citizen-focused approach to e-government development. It has not, however, resulted in increased user take-up of e-services, or the development of equal and fair provision of these services (in terms of number or quality). The need to provide seamless services across organisational boundaries and levels of government has resulted in a shift of focus to back-office integration and the implementation of common public sector building blocks. This focus is necessary to ensure the foundation for developing coherent, interoperable and interconnected e-services.
- Periodic surveys through the e-Citizen Panel have shown that existing e-services do not provide high levels of user satisfaction for citizens. Of particular concern are:
  1. The inability to find relevant information.
  2. The turnaround time for requests.

OECD survey results support this perception and suggest room for improvement through the development of a multi-channel delivery strategy and the effective implementation of e-government in back-office processes for the public sector as a whole.

Government-to-business E-Services

E-Services for businesses follow the same development paths as e-services for citizens. Figure 6.1 shows that the provision of e-services to businesses in the period 2000-04 has increased steadily. However, internationally, the Netherlands ranks significantly lower in service provision to businesses than its peers. Figure 6.10 shows the supply and use of online public services for businesses for the EU25.

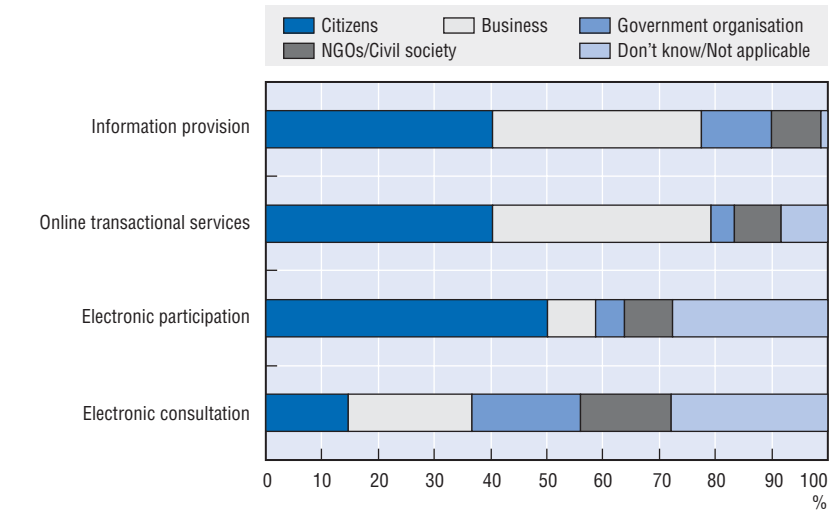
Figure 6.10. **Comparisons between supply and use of online public services for businesses, 2005-06**



Source: "Online Availability of Public Services: How is Europe Progressing?", Capgemini for the European Commission (June 2006), Figure 18.

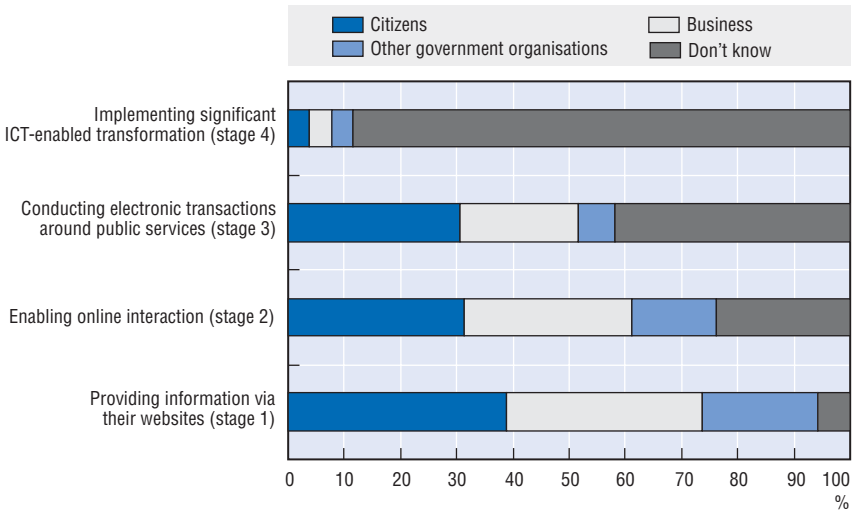
According to the OECD survey results (see Figure 6.11) businesses are demanding transactional services (39%) and information provision (37%). These demands stand in significant contrast to the present stage of e-service provision (see Figure 6.12), where transactional services are provided only on a limited basis – thus, the government is not fulfilling the needs shown in Figure 6.13.

Figure 6.11. **Source and type of e-government demand**



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

Figure 6.12. **Intended audiences for online government services**



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

Comparing Figures 6.11 and 6.12 gives an indication of the need to develop e-services in stages 3 and 4 to meet citizen and business e-services demands. The provision of more advanced e-services (31%, stage 3; 4%, stage 4) leaves room for significant improvement in the coming years.

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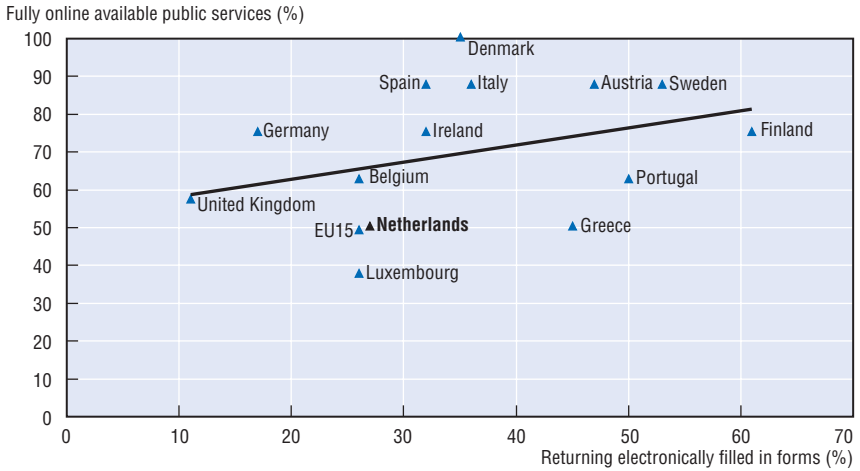
Figure 6.13. **Supply and use of online public services by enterprises, international, 2004**



Source: "The Digital Economy 2005", Statistics Netherlands, Voorburg/Heerlen, 2006, p. 200. Capgemini/Eurostat.

The need for a shift in the way businesses interact with the public sector towards more digitised interaction is clearly depicted in Figure 6.13, which compares the percentage of public services to businesses that are fully available online with the share of companies that have returned completed forms electronically to public authorities. This measure gives an impression of how well a country has succeeded in changing business processes for contact with public authorities. The Netherlands falls near the EU15 average on supply and take-up. It is also evident that offering a large number of e-services for businesses is not equal to getting a high take-up level. Countries like Denmark, Spain and Italy have many services online, but show comparatively low take-up for usage of e-services.

The Dutch government launched an ambitious programme in 2003 aimed at increasing the use of ICT in communicating with businesses, mainly to reduce administrative burdens on firms and to improve public service provision. The programme was developed in co-operation with employers and business associations such as The Confederation of Netherlands Industry and Employers (VNO-NCW[25]) and the Royal Association MKB-Nederland.[26] Its main components are:

- A one-stop shop for businesses, a single point of entry where businesses can access all information about the services provided by public agencies.
- A government transaction gateway, aimed at facilitating transactions between businesses and government by providing authentication services and distributing data among government agencies.

- A general business register containing basic information on all companies and organisations, designated as a unique source of information, removing the need to provide key information (business name, address, owner) more than once.

According to OECD interviews, the Dutch Tax Authority mandated that all business tax return forms be submitted electronically by 1 January 2005 (see Box 6.4). This, in essence, forces a large group in society to use digital services – and could eventually benefit the private sector's competitiveness.

Box 6.4. **E-Tax in the Netherlands**

The Dutch Tax and Customs Administration is responsible for levying and collecting taxes on Dutch citizens. Part of the Ministry of Finance, it is a decentralised agency with staff located in local tax offices throughout the country. Its vision for the future is a fully electronic system where data exchange, minimised human interventions, and standardised processes bring efficiency gains and cost reductions.

The main e-government focus of the Tax and Customs Administration has been bringing business tax reporting processes online in order to reduce administrative burdens for businesses. Since 1 January 2005, all businesses are required to report their income tax, corporation tax and VAT electronically[1] using a PIN code from the tax administration or DigiD – the Dutch public sector e-authentication system (the Tax and Customs Administration is tentatively planning to phase out the PIN code by 2008 and rely solely on DigiD[2]).

VAT transactions alone represent 5 million contacts from about 1 million businesses. The e-tax initiatives for businesses have resulted in a reduction of 750 FTE (full-time employee) equivalents in the Tax Administration.

Going forward, the government has asked the Tax Department to implement pre-filled online tax forms for citizens by 2008. Currently, citizens can file their taxes online using a PIN code. However, the Tax Administration is playing an instrumental role in the implementation of the Citizen Service Number (BSN). Based on existing citizens' fiscal numbers, the BSN will become the basis for online tax filing.

For more information: See Annex G.

1. Tax and Customs Administration: "Tax and Customs Administration Annual Report 2004".
2. According to OECD interviews.

Wide-scale adoption of electronic public procurement in the Netherlands offers similar drivers and benefits. It can be a major catalyst in the introduction of modern information systems and connectivity for businesses, if backed up with appropriate business support programmes. Small and medium-sized

enterprises in particular can benefit from such synergies by using guidelines, resources, procedures, recommendations, handbooks, etc. elaborated for public administrations for their own orientation.

This will have obvious spill-over benefits for business-to-business electronic supply chain management and procurement in general, as well as the ICT industry. Particular opportunities are likely to exist for local ICT industries in customisation and enhancement, language versions, support, and training. The impact for businesses will be a significant improvement in access to information, and increased transparency and competitiveness among private actors. This strategy will also contribute to reducing administrative burdens for businesses in particular.

In summary:

- The Netherlands has developed a number of e-services for businesses. However, it has been generally recognised that the Netherlands is not performing as well as would be desired on the e-services for businesses front. The political focus on achieving administrative burden reduction has not yet resulted in prioritisation of developing sufficiently integrated e-services for businesses, which shows both emerging gaps in ICT diffusion and productivity reviews and general scales for innovation.[27]
- There is a clear need for a significant change in the way the public sector interacts with businesses. There is a benefit to reviewing wide-scale electronic public procurement in the Netherlands. It can be a major catalyst for the introduction of modern information systems and connectivity in businesses, and especially small and medium-sized enterprises, if backed up with appropriate business support programmes.

Government-to-government E-Services

Government-to-government e-services delivery is still in its infancy in the Netherlands. ICT-enabled governance structures, collaboration models (sharing data, production processes, and portals) and "networked" government are often described as central to the transformation of government. Recent OECD research shows that the next phase of e-government is focused on practical tools, methodologies and guidelines that can be used and rolled out in a multi-level environment. ICT-enabled transformation lies at the heart of government transformation and modernisation in that it can serve as a catalyst for the structural and process changes that transformation implies. But to do so, it must be viewed as more than a tool for automating services that were created in a different era.

As the Netherlands has focused mainly on delivering e-services to citizens and businesses, the "whole-of-government" aspects of service delivery have only recently been adopted broadly in the public sector. The Netherlands has created

GBO.OVERHEID (see Chapter 5) – a public-sector shared-service centre providing public sector institutions the following e-services: DigiD,[28] PKIoverheid,[29] OTP – Government Transaction Portal,[30] GOVCERT.NL[31] and the National Alerting Service.[32] It also hosts the Secretariat of the Standardisation Council and Standardisation Forum.[33] According to OECD interviews, this organisation is intended to gradually expand its portfolio and responsibility. Because GBO.OVERHEID started its operations on 1 January 2006 as a project organisation within the Ministry of the Interior and Kingdom Relations, the experience so far remains limited. The intention is to ensure a professional operational unit that can run common electronic services on behalf of all public sector institutions.

By setting up GBO.OVERHEID, the Netherlands follows the general development pattern in OECD countries with mature e-government. A shared service centre for the Dutch public sector represents the first step in centralising common operational services without changing the basic authority and autonomy of the different levels of government.

Shared service centres are not new in the Netherlands. Public bodies like the Tax and Customs Administration have for several years provided e-services to different levels of government. Within the social security sector, BKWI and RINIS offer seamless services to all relevant authorities in central government and municipalities – effectively functioning as service providers to government institutions at all levels of government.

In summary:

- The Netherlands is on track in developing shared public sector services. GBO.OVERHEID has been created as the organisational framework to maintain and run these services for all government institutions. By setting up a shared service centre, the Dutch public sector has taken the first step in centralising common operational services without changing the basic authority and autonomy of different levels of government.
- As GBO.OVERHEID became operational on 1 January 2006 as a project organisation within the Ministry of the Interior and Kingdom Relations, the experience remains limited. The intention is to ensure a professional operational unit that can run common public sector services on behalf of all government institutions.

E-Government and E-Democracy

E-Government and e-democracy are handled separately in the Netherlands with weak strategic links despite the fact political rhetoric in policy documents often associates the two areas. E-Government is primarily discussed within the context of efficiency and effectiveness aiming at harvesting cost savings, and less in a context of citizen participation and inclusion in policy development and implementation.

The Netherlands has a long historic tradition of participatory democracy, with governments consulting broadly with different groups in society. It is therefore not surprising that Dutch public sector modernisation policies and strategies have a citizen focus. The increasing focus on enabling administrations and governments with ICT over the last decade has overshadowed the Netherlands' broader, historical goals of creating a participatory and inclusive government. This trend of using e-government as a lever for streamlining service delivery can be found in many OECD countries.

Since the second half of the 1990s, government agencies in the Netherlands have increasingly recognised that they should reason "from outside to inside" and become more responsive; in other words, authorities should study the wishes of citizens and arrange for open consultations, give a clear reaction and render account. The 2003 "Modernising Government" programme states: "Information and participation can improve people's awareness of their relationship with the government, their rights and responsibilities, and can ensure that citizens start to play a (more) active role and take personal responsibility"[34] (see Box 6.5 on e-democracy development in the Netherlands).

The Dutch first formulated objectives regarding accessibility in the 1997 policy document "Towards the accessibility of government information".[35] These objectives were limited to creation of a databank containing central government laws and regulations and an electronic directory of government departments and other authorities. As a result of the adoption of an updated policy line, this objective has been expanded to include making all basic democratic information[36] accessible free of charge. This objective is a consequence of the democratic obligation to make government more accountable, transparent and accessible, as set out in the 1991 *Wet openbaarheid van bestuur* (Open Government Act). Accordingly, all information relating to these topics that can be requested under the Open Government Act will be published proactively from 2006.

Within the context of the Government Communication Action Plan, the Information Council (*Voorlichtingsraad*) is working on improved access to government and government policy. The website *http://regering.nl/*, launched in 2005, serves as a digital contact point for information about the government. *Postbus 51* (P.O. Box 51) is also developing into a general contact centre for central government, which can be accessed by e-mail, website, telephone and mail. Government's accessibility will be further enhanced with the placement of so-called activity indices on the websites of ministries, which give a continuous insight into the progress made on implementing government policy.[37]

Current strategies acknowledge that citizen involvement in policy formulation extends beyond merely voting periodically. The Dutch government seeks to enable individuals and civil organisations, companies and other social

Box 6.5. **E-Democracy development in the Netherlands**

E-Democracy, or ICT-enabled democracy, is generally a political concept addressed in government strategies – and not robustly supported and prioritised with actions and implementation plans. It usually covers the following issues:

- Access to and interaction with governments and politicians.
- Participation in policy development and policy execution.
- Transparency of and processes for decisions.
- E-Voting – trusted concepts and legality questions.
- Trust and reliability – citizens' trust in governments and policy makers.

In the Netherlands, several e-democracy projects have been initiated by both government and citizens:

- Burger@Overheid – the ICTU project to improve citizens' influence on e-government development.
- A number of municipality projects like *Heel de Wijk* (two municipalities' participation in the European eVoice programme – *www.evoice-eu.net*), *Wijkaandelen* (a project to improve neighbourhood democracy – *www.wijkaandelen.nl*), and *Zestien Miljoen Mensen* (a website to promote society-wide discussions on values and norms – *www.zestienmiljoenmensen.nl*).
- A number of civil society projects like measurement of air traffic to inform political discussions on reducing air traffic sound levels (*www.gluidsnet.nl*) and a website to make it easier to for citizens to sign petitions (*www.petities.nl*).

A society-wide strategic approach does not seem to be in place.

For further information: See Case Study 6: *E-Government and E-Democracy*.

institutions to take personal responsibility by providing them with the tools to do so. This involves accessibility, transparency, responsiveness and accountability on the part of the government, but it also involves making clear agreements. These policy recommendations were built on the ambitious goals formulated in the "Contract with the future: A vision of the electronic relationship between government and citizen",[38] which established a vision for e-government and the new relationship between citizens and an approachable government in the digital age. Four principles for the development of a user-focused, approachable government were presented (see Table 6.2).

Research carried out in the Netherlands and abroad highlights the trend of multi-channel services. Specifically, research by the Ministry of General Affairs and the Ministry of the Interior and Kingdom Relations investigated implementation of an integrated, government-wide telephone counter alongside the integrated government-wide electronic government counter

Table 6.2. **Approachable government principles**

Principles for an approachable government	Obligation of government
Accessibility	Equal opportunities for every citizen to gain access to electronic government and to accessible government information.
Freedom of choice	Options for citizens in structuring their information relationship with electronic government (in its steering role).
Credibility	Clear definition of citizens' rights in relation to electronic government.
Participation	Clear provision to citizens of the scope for electronic participation and the status of such participation.

Source: OECD adaptation.

(working title: "National Government Contact Centre/511"). Discussions are taking place with the Association of Netherlands Municipalities on co-operation for the next stage.[39]

Participatory government

The Internet can make public administration more transparent, involve citizens actively in policy making and reduce the distance between electors and elected officials. Citizen representatives stressed the current decline in trust in democratic institutions measured, for example, by the Euro-barometer.[40] In this context, e-government services were seen as a possible tool to invigorate participation and consultation; however, some evidence points to the opposite – growing disillusionment with the "faceless government". The link between user-focus and the practical level of e-service provision seems rather weak.

The Remote E-Voting Project[41] at the Ministry of the Interior and Kingdom Relations has been developing methods to make voting in elections less dependent on particular locations and to give voters more options. It was made possible by a temporary act on remote electronic voting experiments, which facilitates electronic voting pilot programmes. In the general election held in May 2002, 95% of Dutch municipalities provided electronic voting machines. In addition, voting by computer is available at some polling stations. In 2004, two public water management authorities in the Netherlands conducted the world's largest Internet election, the first large-scale experiment with online voting – 2.2 million citizens had the right to vote, and about 18% (403 270) of them actually voted (30% voting electronically).

As long ago as 1998, the Ministry of the Interior and Kingdom Relations considered whether it would be worthwhile to use the Internet to involve citizens in political decision making and, if so, how this could be arranged. A 1998 publication titled "Guide to Electronic Consultation of Citizens"[42] concluded that electronic consultation presupposes that the government would opt for interactive policy making.

An interesting example of a best practice is provided by the municipality of Almere, where citizens were given the opportunity (in late 1999) to exert influence on the redevelopment of part of the city – through what was termed a "co-production of interactive policy". A so-called consensus meter allowed the inhabitants to choose between various options; as a result, 20 possible redevelopment projects in the town were prioritised. The consensus meter also clearly revealed that there was no agreement about some matters. It seems reasonable that the municipal council would favour plans on which citizens reached consensus and decide itself on matters about which there was no agreement. Another example of a best practice is the website *www.geefmijderuimte.nl*, which gives citizens the opportunity to express their opinions on spatial planning choices facing the Netherlands. A special questionnaire – a so-called "opinion indicator" – has been developed for this purpose and can be completed online. The answers will be taken into account in a nationwide discussion of future spatial planning.

The study "Explaining eDemocracy development: A quantitative empirical study" (2004)[43] concludes that the actual development of e-democracy in Dutch municipalities has been slow. There is no indication that e-democracy is related to problems of voter turnout and there is no sign of deliberate political steering by political parties. Instead, the extent to which e-democracy is applied is basically determined by the availability within each municipality of technology in the context of general electronic service provision via a municipal website. This determines whether the means (technical and financial) and know-how that is necessary to develop and maintain these applications are in place and seems to lead, almost automatically, to playful experimentation with established democratic institutions.

In summary:

- The Netherlands has a long tradition of citizen participation in government as a result of its consensus-oriented culture; this principle is also highlighted in several official policy and strategy documents. Although a number of projects and activities have been developed and implemented, a focused initiative to promote and implement common principles and standards for user-focused e-service provision and e-participation in policy development and decision processes has not occurred (despite stated political and strategic goals). Priority and resources have been devoted to the development of common e-government building blocks with limited consideration of the broader political goals of participative and inclusive government.
- Public administrations everywhere are under considerable pressure to improve the efficiency and effectiveness of their services as well as increase user satisfaction. This has not been sufficiently prioritised in recent years, despite the political and strategic goals stated in government publications.

- In a modern democracy, citizen involvement requires accessibility, transparency, responsiveness and accountability on the part of the government – and a desire or demand to participate on the part of the citizen. In the Netherlands, the government has aimed to improve government information considerably. An area for improvement that has been highlighted is increasing responsiveness of government and government partner organisations.

Notes

1. See Box 5.3, "BKWI – Creating efficient back-office integration in the social security sector".
2. See Annex G: Major E-Government Initiatives.
3. See Case Study 5: IB-Groep – The Dutch Education Grant Administration Agency.
4. VNG, June 2005, Public Service, professional municipalities. Vision 2015, Commission on Municipal Service Provision/Jorritsma Commission.
5. This has been recognised as an issue to be addressed by the Ministry of the Interior and Kingdom Relations: *Actieprogramma "Andere Overheid"* (Action Programme "Modernising Government"), 2 December 2003. See: *www.andereoverheid.nl*: "The Cabinet does not just want to improve the individual contacts with the government, but also those with organisations such as patients' associations, burger@overheid (citizens' debate about digital government) and the *Consumentenbond* (Consumers' Association). These organisations can play a role in assessing government performance."
6. Ministry of the Interior and Kingdom Relations: "*Terug naar de toekomst: over het gebruik van informatie en informatie – en communicatietechnologie in de openbare sector*" (Back to the Future: On the use of Information and Communication Technology in the Public Sector), Den Haag, June 1995.
7. Ministry of the Interior and Kingdom Relations: "*Terug naar de toekomst. Eerste voortgangsrapportage aan de Staten-Generaal*" (Back to the Future. First Progress Report to the Parliament), version 2.2, Gravenhage, July 1996.
8. The Dutch government is looking at services that will have one electronic counter for citizens and one counter for companies, organised in a familiar way (for example, like electronic banking). Building on this general service, a decision-making process will take place to create a service that provides government products linked to citizens' and companies' life events in an inter-related way. A study is underway to determine how to set up this service. An initial version will be operational in 2006. See *http://ec.europa.eu/idabc/servlets/Doc?id=21189#search=%22life%20event%20methodology%20egovernment%20Netherlands%22* (accessed 10 October 2006).
9. The e-government "WebWise" Awards are organised by the Dutch government to promote smarter, more functional web development practices within public administration, and to improve e-governance and services. For more information, see: *www.burger.overheid.nl/award/* (accessed 10 October 2006).

10. Ministry of the Interior and Kingdom Relations: "*Op weg naar de elektronische overheid – basisvoorzieningen*" (Towards the Electronic Government – Basic facilities), 14 June 2004.

11. "Online Availability of Public Services: How Is Europe Progressing? – web Based Survey on Electronic Public Services Report of the 6th Measurement." Capgemini for the EU Commission, June 2006.

12. OECD e-Government Studies. Denmark, OECD, 2005.

13. E-user – Public Online Services and User Orientation. Country Brief: Netherlands, 8/2005. See: *www.euser-eu.org/euser_countrybrief.asp?CaseID=1664&CaseTitleID=745&MenuID=83* (accessed 5 October 2006).

14. According to *Web magazine 03 January 2006 14:00*, publicised by Statistics Netherlands, 458 municipalities existed in the Netherlands on 1 January 2006.

15. Lips, 1998, quoted in Ronald E. Leenes and Jörgen S. Svensson, *Local eGovernment in the Netherlands*.

16. VNG (June 2005), "*Publieke dienstverlening, professionele gemeente. Visie 2015*" (Public Service, Professional Municipalities. Vision 2015), *Commissie Gemeentelijke Dienstverlening/Commissie Jorritsma* (Commission on Municipal Service Provision/ Jorritsma Commission).

17. OECD Survey: More than 60% of respondents identified this as an important or somewhat important constraint, followed by a perceived lack of user-friendliness (almost 50%).

18. EU18 includes EU15, Norway, Iceland and Switzerland, according to the Capgemini report: "Online Availability of Public Services: How is Europe Progressing?", June 2006.

19. EU28 includes EU25, Norway, Iceland and Switzerland, according to the Capgemini report: "Online Availability of Public Services: How is Europe Progressing?", June 2006.

20. Ministry of the Interior and Kingdom Relations: *Actieprogramma* "*Andere Overheid*" (Action Programme "Modernising Government"), 2 December 2003, and subsequent progress reports to the Parliament: "Progress report on the Modernising Government programme", December 2004, *e.g.* action Line 1: "The government will improve its service to the citizen".

21. Developing and implementing common public sector e-government building blocks like key registers, the Citizen Service Number, the Businesses Service Number, eNIK (the e-ID card), etc.

22. Ministry of the Interior and Kingdom Relations (2005), "Progress report on the Modernising Government programme", October 2005.

23. *www.burger.overheid.nl* (accessed 27 July 2006).

24. Further information on the monitor see *http://advies.overheid.nl/monitor/* (accessed 20 October 2006).

25. The Confederation of Netherlands Industry and Employers' official name is *Vereniging VNO-NCW*. *Verbond van Nederlandse Ondernemingen*, or *VNO*, is the former Dutch industry association, and *Nederlands Christelijk Werkgeversverbond*, or *NCW*, is the former Dutch Christian Employers' Federation. The two organisations where merged formally on 31 December 1996. See: *www.vno-ncw.nl*.

26. *De Koninklijke Vereniging MKB-Nederland* (Royal Association MKB-Nederland) is a confederation of 135 trade organisations and 250 regional and local business associations. See: *www.mkb.nl*.

27. OECD (2005), Working Party on the Information Economy "ICT DIFFUSION TO BUSINESS: Peer review Country report: The Netherlands", 29 March 2005, *www.oecd.org/dataoecd/38/48/34695844.pdf#search=%22egovernment%20for%20businesses%20%20Netherlands%22*.

28. DigiD is the Dutch public sector e-authentication concept. See Chapter 5, Box 5.1.

29. PKIoverheid is the Dutch government's security infrastructure handling, *e.g.* digital signatures. See Chapter 5.

30. The Government Transaction Portal is a service to exchange data and information between public institutions. See Chapter 5.

31. GOVCERT.NL is the Dutch public sector computer emergency response team. See Chapter 5, Box 5.2.

32. *Waarschuwingsdiensl.nl* or the National Alerting Service, aims to provide citizens and businesses with timely information regarding security-related incidents. It does so by distributing early warnings and alerts. See Chapter 5.

33. The Standardisation Forum looks at standardisation issues to ensure interoperability of ICT systems, including the use of open standards. See Chapter 5.

34. Ministry of the Interior and Kingdom Relations: *Actieprogramma* "*Andere Overheid*" (Action Programme "Modernising Government"), 2 December 2003.

35. *http://europa.eu.int/ISPO/docs/policy/docs/COM(98)585/gp-annex.html* (accessed 10 October 2006).

36. There are different kinds of government information. A special category includes the basic information of a constitutional democracy – documents from elected bodies such as Parliament, municipal councils, provincial executives or water control corporation boards, as well as legislation and regulations and decisions of the courts. It is important to Dutch society and to the democratic decision-making process that this information be open and accessible.

37. Ministry of the Interior and Kingdom Relations: *Actieprogramma* "*Andere Overheid*" (Action Programme "Modernising Government"), 2 December 2003.

38. "*Contract met de toekomst. Een visie op de elektronische relatie overhead-burger*" (Contract with the Future. A vision of the Electronic Relationship between Government and Citizens). Memorandum presented to the Lower Chamber of the Dutch Parliament by the Minister for Urban Policy and the Integration of Ethnic Minorities, Lower Chamber, session year 1999-2000, 26387, No. 8, 19 May 2000.

39. Ministry of the Interior and Kingdom Relations (2005), "Progress report on the Modernising Government programme", October 2005.

40. *http://europa.eu.int/comm/public_opinion/archives/eb/eb63/eb63_exec_nl.pdf*. Supported by the statement at the OCED Ministerial Conference "Strengthening Trust in Government: What Role for Government in the 21st Century" by Chair Alexander Pechtold, Minister for Government Reform and Kingdom Relations in the Netherlands, 28 November 2005. *www.oecd.org/document/5/0,2340,fr_2649_201185_35760965_1_1_1_1,00.html*.

41. For more information, see overview in the Best Practice Overview by UNPAN *http://unpan1.un.org/intradoc/groups/public/documents/CAIMED/UNPAN019388.pdf#search=%22Remote%20E-Voting%20Project%20Netherlands%22* (accessed 10 October 2006).

42. Ministry of the Interior and Kingdom Relations, 1998.

43. van der Graft, P. and J. Svensson, University of Twente, "Explaining eDemocracy development: a quantitative empirical study", School of Business, Public Administration and Technology. Paper presented at the 1st Biennial European Conference on "ICT, the Knowledge Society and Changes in Work", *www.nwo.nl/nwohome.nsf/pages/NWOP_6CYE3J/$file/ICT_Svensson.pdf#search=%22Explaining%20eDemocracy%20development%3A%20A%20quantitative%20empirical%20study%22* (accessed 20 October 2006).

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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	• **The Netherlands has undertaken significant work to ensure that the legislative and regulatory environment does not present unnecessary barriers to the development of e-government.** The Dutch government has chosen a strategy that addresses potential legal barriers by updating existing laws or by formulating specific laws regulating data usage across sectors and levels of government. The Netherlands follows the general direction of e-government development in Europe – harmonizing the legislative frameworks impacting e-government operations nationally and across borders. This legislative approach is farsighted. The focus on interoperability and the use of common databases is in line with what is seen as a growing necessity in OECD countries to ensure a whole-of-government impact and full benefits realisation of e-government development in the public sector.	• Adopting and implementing separate laws for each building block demands careful co-ordination and standardisation, to prevent confusion or contradictions in the complete set of laws governing the full complement of building blocks. **The Dutch government should therefore consider whether a common legal template for e-government laws should be developed and used for future draft laws** to avoid duplication and to ensure standardised references and terms, and a commonly agreed interpretation.
	• **Dutch officials report that they face legal barriers to e-government**, citing problems related to complexity of regulations, legal impediments to collaboration and lack of legal recognition of e-government processes. Some of these problems demonstrate that **further work on removing legal impediments to e-government is required**. However, it appears that other aspects of this problem stem from **officials' inadequate awareness and understanding of changes that have already occurred** and lack of capacity to interpret revised laws and regulations in innovative ways – along with organisations' failure to accept responsibility for changing their business processes in line with what is allowed in the altered legal environment. This also reflects a broader debate about privacy and data sharing.	• **A broad, common understanding of the legal framework for e-government development, implementation and usage needs to be established across the public sector.** This can be achieved in many ways, but should begin with proactive and development-oriented engagement and dialogue between central government agencies responsible for e-government and the Dutch Data Protection Agency; this collaboration will allow public and quasi-public sector institutions responsible for delivering e-services to the public to receive sound, jointly pre-approved operational and legal advice.

Chapter/section	Assessment(s)	Proposal(s) for action
Budgetary challenges	• **The funding principles of the Electronic Government Programme may not establish the right incentives to support e-government development** that is both efficient and seamless. In particular, the "sow-harvest"[1] problem of e-government investment needs to be addressed. The transformational potential of e-government is going to require less administratively burdensome ways to balance transparency of costs with shared service delivery responsibility by the public sector as a whole.	• To create stronger incentives for e-government development, the Netherlands should consider establishing: ❖ **A common budgetary, financial and decision-making concept for the whole public sector** to enable the Dutch government to gain an overview of e-government spending and establish common evaluation practices for e-government projects. The framework should specify principles for funding and business case analysis (including return-on-investment and total-cost-of-ownership considerations) to be applied throughout the public sector.
	• **The *ad hoc* approach to funding common e-government building blocks is not an effective way of assuring funding for more user-focused services;** this approach increases the possibility of opaqueness and the risk of non-comparability across sectors and levels of government. This could lead to possible difficulties in establishing common whole-of-government monitoring and evaluation activities for e-government projects and initiatives, a necessary pre-condition for the improvement of user-centric government.	❖ **A central e-government fund to finance common e-government building blocks.** A centrally managed e-government fund could simplify the process of creating a budget for common e-government building blocks, and also lever the imbalance of sector institutions funding projects that provide common public sector benefits.
	• A whole-of-public-sector point of view shows that **local-level government lacks a systematic approach to identifying common e-government components and services that can be shared among several or all provinces and municipalities**; this results in sub-optimal benefits realisation for the public sector as a whole. For smaller municipalities, a generally weak financial climate for e-government development has resulted in a heavier dependency on central government support.	• **Shared budgetary mechanisms jointly agreed among provinces and municipalities should be considered** to alleviate the imbalance caused by the e-government "sow-harvest" challenge at these levels of government. **Smaller municipalities need to consider whether partnerships or outsourcing** of e-government development, implementation and operation to other municipalities, or joint e-government operations among a number of municipalities, could strengthen their own individual e-government efforts. A strengthened EGEM programme with special focus on providing e-government resources to weak municipalities could also be considered.
	• **One-year budgetary cycles and shifting political priorities might prevent medium- to longer-term investment planning** for provinces and municipalities, and may constitute a general budgetary challenge that introduces uncertainty on the planning horizon.	• In order to ensure a multi-year budgetary perspective for planning and funding e-government activities, it is necessary to **create budgetary mechanisms or politically establish general conditions that support a medium- to long-term planning and implementation horizon**. Budgetary mechanisms could cover: 1) multi-year budget commitments; 2) reimbursable loans to ensure return on investment; and 3) greater carryover or spending-focused authority to allow public institutions to better manage large ICT investments.

Chapter/section	Assessment(s)	Proposal(s) for action
Digital divide challenges	• More than three-quarters of households in the Netherlands have access to the Internet from home (83% of households had at least one PC, and 78% had access to the Internet in 2005). About 70% of these households used a broadband connection. Figures suggest that adoption of broadband by businesses is statistically weaker. **A low take-up rate by businesses is a matter of concern for e-government, as well as competitiveness considerations.**	• To address the comparatively weaker business take-up of e-services, the Netherlands should consider making **electronic communication and interaction with public authorities mandatory for large and medium-sized businesses.**
	• **While the Netherlands is in general favourably positioned on the digital divide**, it remains necessary to consider the issue as an important challenge for further user take-up of e-government services. In such an advanced country, sophistication and relevance of ICT usage is the new digital divide. It is evident that **only limited research has been undertaken, so little knowledge is available for political and strategic analysis of challenges within this area**.	• With a favourable position concerning the digital divide, **the Netherlands could consider focusing on developing and implementing strategies to reach out to those groups in society that are reluctant to take up ICT and electronic communications**. These groups may have fewer resources (economically and socially) and also may make more use of public resources for services and support. However, limited knowledge of the digital divide, in terms of sophistication and advanced ICT usage, make it difficult to design more user-focused service. **The Dutch government should consider concurrently undertaking further research into this question** to properly address this gap, and supporting take-up of e-government services by developing, adopting and implementing a communication and marketing strategy.
Competencies and skills challenges in society	• Use of computers and the Internet is increasing among people with higher/lower levels of education and among the employed/unemployed; however, challenges remain across all aspects of the skills and competencies landscape. **The labour force in the Netherlands appears to gain ICT skills mainly through "learning by doing".** A long-term, continuous strategic activity to raise ICT literacy in the whole educational system, as well as in society on the whole, may support the goal of eventually increasing public engagement in and usage of e-services.	• To address long-term needs for generic ICT competencies and skills, **the Netherlands should evaluate the need for a renewed effort to strengthen these competencies and skills throughout the educational system by integrating ICT into education and learning**. A special focus on nurturing innovative research and educational environments can be one element in attracting needed advanced skills and competencies in a global competition to prevent long-term skills shortages for research and innovation, and for e-government implementation.

Chapter/section	Assessment(s)	Proposal(s) for action
Chapter 3. E-Government Leadership		
Leadership	• **Obtaining strong e-government leadership in the Netherlands is a challenge, and an obvious focal point is lacking.** The co-ordination and implementation of e-government policies are spread among a number of different public or semi-public bodies at three levels of government. The lack of leadership for e-government development was frequently mentioned in OECD interviews and is also supported by the results of the OECD survey. Even though co-ordination has been strengthened within central government, and agreements have been reached on the conditions for e-government implementation and a concrete roadmap to reach specific goals, further collaboration has been called for. This signals both ambivalence in the centre about exerting authority in a decentralised system and a lack of effectiveness in communicating the main messages about e-government and its benefits. • **An atmosphere of consensus building has led to pragmatism through extensive dialogues and subsequent compromises;** this seems to have been a successful way of exercising leadership in order to achieve central government's adopted policy and strategy goals. However, **the maturity stage of e-government development has exposed the limitations of this approach**. Several stakeholders in central and local governments have recognised that full benefits realisation of e-government investments will only be realised when the public sector as a whole has adopted and integrated e-government fully in its day-to-day business. This seems to be one of the reasons why **the Dutch government is now pursuing a strategy of adopting laws on the mandatory usage of common public sector e-government building blocks**. • OECD interviews showed that **the perception of e-government leadership by ministries outside the group of co-ordinating ministries is weak**. This perception is supported by the OECD survey, which shows that 65% of the respondents from central government saw a lack of leadership at the political level as a barrier to e-government development. Respondents said e-government goals are less clearly perceived than the political goal of achieving administrative burden reduction.	• The Netherlands should consider whether e-government leadership in the public sector could be strengthened through simpler and clearer organisational setups, and better-communicated roles and responsibilities: ❖ **Central government** should consider whether e-government leadership **could be strengthened and increased through simpler and strengthened co-ordination structures**, which could also increase each ministry's overall leadership role and responsibility for e-government development and implementation within its own sector. ❖ **Provinces and municipalities** should consider whether a **strengthened co-ordination effort could improve overall benefits realisation**. Voluntary collective commitments and joint actions within and across levels of government incorporating, for example, the organisational frameworks of VNG (Association of Netherlands Municipalities) and IPO (Association of Provincial Authorities) should be utilised more systematically as a lever for co-operation and collaboration with central government.

Chapter/section	Assessment(s)	Proposal(s) for action
	• **Centrally communicated e-government policy goals are only taken up and implemented locally if they are prioritised by local governments.** Even though local governments are not obliged to adopt, prioritise and implement central government e-government policies, they have nevertheless been taken up broadly through the EGEM programme (co-operation programme with municipalities) and the e-Provincies programme (co-operation programme with the provinces). The need for stronger leadership from central government, together with a clearer picture of different e-government responsibilities within central government, was expressed strongly in OECD interviews. • **E-Government leadership within municipalities shows a lack of a focal point for joint action by municipalities**, and also a lack of more centralised guidance on e-government development from VNG, and central government. In addition, the leadership of e-government development within municipalities is generally dispersed and unfocused, with a broad range of e-government development stages across the municipalities.	
Adequacy of policies, strategies, goals and actions	• In general, Dutch e-government strategies address all major key issues with special attention to user-focused e-government development and the reduction of administrative burdens. However, **it is not clear how the broader goals for modernisation of the public sector will be achieved outside the elaborated and specified e-government action lines** on establishing key registers, and establishing unique identifiers for citizens and businesses for implementation of the "deliver once, use many times" principle of data management.	• The seeming lack of objectives shared by all levels of government (shown by OECD interviews) may lead to difficulties in maintaining an overall prioritisation mechanism for projects and programmes. To address the weaker connections between e-government and the broader objectives of public sector modernisation, **the government should consider whether implementation of e-government policies could be more directly integrated with public sector reforms**; this was also stated strategically in the 2003 "Modernising Government Programme".
	• Key priorities for the Dutch are to make smart use of ICT, to diminish administrative burdens for citizens and businesses, to improve the quality of services, to reduce regulations, and to reconsider government tasks. Massive back-office development has taken place within recent years to ensure that services are not only made available online, but that the processes surrounding them are more efficient and effective, and integrated across government. **The government seems to recognise the need for both front- and back-office streamlining for e-government to be a success.**	• The short- to medium-term political focus on developing common e-government building blocks, while effective in creating an infrastructure for cross-government service delivery, may have resulted in an imbalance in strategic and implementation goals. The political goal – as stated in recent Dutch policy documents – is delivering services, which seems to be under-prioritised in the current e-government strategy. **The Netherlands should therefore consider balancing the short- to medium-term focus on back-office development with a longer-term perspective placing an equally strong focus on service delivery to users.**
	• OECD survey results point to a general challenge concerning public sector employees' knowledge of their own organisations' e-government plans and understanding of the bigger picture of technology as a catalyst for innovation and transformation. It might also reflect **a limited interest in e-government development by individual ministries outside the group of co-ordinating ministries**; this slows the impact of efforts and developments made through the Dutch government's e-government strategy and its implementation in the public sector as a whole.	• The focus on achieving administrative burden reduction raises the question of whether other broader objectives of public sector modernisation (*e.g.* user-focused service delivery) need to be communicated more strongly in order to balance the objectives of both front- and back-office reforms. **The Netherlands should consider prioritising more systematic communication about e-government development throughout the public sector.**

Chapter/section	Assessment(s)	Proposal(s) for action
Chapter 4. Implementation		
Management of E-Government implementation	• Although government officials **recognise the necessity of making management of e-government more professional through monitoring and evaluation, this is not yet practiced systematically**. The primary purpose of monitoring and evaluation activities seems to be tracking user take-up of e-services, not determining whether overarching e-government goals of efficiency and effectiveness are being met. Evidence from the Netherlands suggests that **e-government services development rarely includes yearly identification of critical success factors**, which are then translated into key performance indicators to assess the service and its relevance to the target user community. • The large number of OECD survey respondents who do not recognise any of the suggested reasons for monitoring suggests **a low level of understanding of broadly communicated e-government goals**. This may also reflect confusion about where e-government fits in the political arena. To many, e-government is a discrete issue – something for the ICT community to worry about – and not significant in the greater modernisation process.	• To address the lack of a common concept for monitoring and evaluation that allows the government to track progress in achieving overarching e-government goals, **the Netherlands should consider developing, adopting and implementing a common concept for monitoring and evaluation, and a set of tools to be used by all public and quasi-public institutions**. Strengthening the focus on harvesting benefits of e-government development could mean that more emphasis should be put on using analytical tools like cost/benefit and business case analysis.
Organisational structures	• **E-Government implementation has been increasingly transferred to "arms-length" organisations** set up as private foundations and fully controlled by government; this opens the possibility of divergent interests and a less transparent environment. Private sector participants in **OECD interviews raised the question that such organisations could render procurement processes less transparent if no clear outsourcing or public-private partnership policies have been defined and broadly communicated**.	• To regain a clear division of e-government roles and activities, the Netherlands should reconsider whether responsibilities are sufficiently delineated between public sector institutions and the private sector. One way of clarifying roles and responsibilities is to **define clear-cut public-private partnerships where possible**, in order to make use of the specific competencies and skills within the private sector.
Skills and competencies in the public sector	• **The generally limited understanding of "whole-of-government" visions of e-government strategies and action plans poses a challenge to focused public sector implementation.** This is supported clearly by the OECD survey and interviews. This may be a symptom of over-emphasising the specific goals and instruments of transformation using ICT.	• **The Netherlands should consider developing a broader initiative to address the challenge of a traditional organisational culture of non-collaboration and a "stove-piped" working environment** with regard to implementation of e-government. A new framework for cross-organisational collaboration on implementation should be developed and put in place, together with clear incentive structures that encourage civil servants to engage in cross-organisational implementation projects. **Developing project-oriented activities within and across public sector institutions could be one tool to break down habitual "stove-piped" work behaviors.**

Chapter/section	Assessment(s)	Proposal(s) for action
	• The **focus on skills and competencies for both front-office and back-office implementation** (showed by the OECD survey) is not surprising. **It underlines the necessity for the public sector to integrate these two lines of application to establish a "whole-of-government" view of e-government implementation.** This view is not commonly shared and should be communicated more strongly to the public sector and its institutions. Perhaps a skills and competencies development, non-ICT building block is required to build a new form of public administration – focusing on the potential of connectivity in the creation of a new paradigm. • **The Netherlands does not seem to have an immediate competence and skills shortage for e-government implementation at the central government level.** Professionalising e-government development, implementation and operational maintenance is addressed by the creation of centres of expertise like ICTU, GBO.OVERHEID, BKWI and RINIS – in addition to a number of in-house ICT organisations in government bodies. Although the OECD survey and interviews did not reveal shortages, municipalities may have issues concerning local delivery capability. • By charging a few "arms-length" implementation organisations with implementation of cross-cutting e-government projects, the Dutch government has succeeded in developing experienced professionals. **The deliberate HR policy of ICTU provides an excellent possibility for knowledge diffusion to the rest of the public sector** when government employees return to positions in their agencies.	• **The Netherlands should consider whether additional efficiencies and effectiveness can be obtained by reinforcing existing "centres of competence" or creating virtual versions**, based in the implementation organisations, to further consolidate and cross-fertilise professional experiences and support the future development of implementation expertise in the public sector. **The ICTU HR strategy and policy concept could be strengthened and expanded to speed the process of changing the organisational culture in the Dutch public sector.**
Chapter 5. Collaboration frameworks		
Common business processes	• The Netherlands has already begun a step-by-step and proactive progress towards **assembling generic e-government services from different parts of central government to be shared broadly across the public sector**. This development is important in supporting a sufficient level of shared services and other e-government building blocks; it will allow the public sector as a whole to properly benefit from synergies of already invested resources and to strengthen and harmonize its user-demand-driven approaches.	• **The Netherlands should strengthen the process of identifying common business processes and services to be maintained and run within a shared service organisation.** It should further consider whether some existing shared service organisations may benefit from being integrated into a joint shared service centre to provide services across sector boundaries and levels of government.

Chapter/section	Assessment(s)	Proposal(s) for action
Data standards	• **Although organisation and verification of data standards was divided among different institutions until 2005, the Netherlands has recently opted for a standardised approach as part of GBO.OVERHEID.** Several OECD interviewees questioned whether the new standardisation bodies have a well-defined role and the necessary mandate to ensure efficient implementation and adequate take-up, and whether they will be able to succeed; although much of the concrete and practical work has already been addressed through existing activities in different sectors, establishing a co-ordinated effort through standardisation seems to be a logical and sound approach at the present stage of e-government development. • For the mid-term future it will be **important to clearly define different organisations' roles and mandates** in order to prevent confusion in the Dutch e-government field.	• Even though standardisation work has been ongoing for some years in different sectors, it is now important for the Netherlands to consider significantly **strengthening co-ordination of these efforts in order to ensure a common public sector approach building upon and the standardisation work already done** as a basis for further development of standards. The co-ordination effort should lead to common agreements within the public sector on which standards should be applied by all.
Enterprise architecture	• **Public sector recognition of the necessity to develop an e-government foundation for the whole public sector seems to be limited and technically oriented without a broader strategic view on interoperability and interconnectivity of e-government services across organisational boundaries and levels of government.** Even the term "enterprise architecture" is ambiguous and suffers from being considered a "technological foundation" by some (its wider definition embraces organisational structures and functionalities as well). **Creating GBO.OVERHEID is an opportunity to generally re-evaluate the development of a foundation for the public sector.** This is a much bigger challenge, which requires engaging political players at all levels. Alternatively, this could be a part of broader efforts on standardisation that strengthen previous accomplishments within existing projects and in different organisations and programmes (ICTU and ICTAL).	• **The Netherlands should consider developing and adopting a common public sector enterprise architecture.** The work should be closely coupled with the development of e-government standards and should be based on previous work by implementation organisations.
Interconnectivity	• **Interconnectivity responsibilities and activities are spread over several organisations and programmes in the public sector with no apparent focal point for co-ordination and collaboration.** As one of the central players working at the municipality and province levels, ICTU should play a role in co-ordination and collaboration within each level.	• **The Netherlands should consider consolidating responsibilities and activities on interconnectivity** to ensure proper, integrated interconnectivity across sectors and levels of government, building on a common public sector enterprise architecture.

Chapter/section	Assessment(s)	Proposal(s) for action
Multi-channel strategies	• **For government, balancing the tensions between the need for efficiency (by limiting costly delivery channels) and the desire for effectiveness (in terms of satisfying user expectations and needs) is difficult.** This may be more a political issue than an administrative problem. Over time, older and lesser-used channels will have to disappear as new possibilities emerge through ubiquitous computing and connectivity with, for example, mobile phone technology. **The lack of systematic usage of multi-channel delivery strategies in e-government development is an area for further consideration and exploration by the different levels of government**, where relevant and needed. Deliberate use of multi-channel delivery strategies as an integrated part of e-government development would probably enable the Dutch public sector to increase user take-up and satisfaction with service delivery while harvesting efficiency gains by channelling users into appropriate services, managing increasing expectations, and providing the right services to the right users.	• In order to take full advantage of multi-channel delivery to increase user take-up of public services, **the Netherlands could consider developing a common public-sector-wide strategic approach for applying multi-channel strategies to accommodate a joint approach to managing delivery channels, incentives and change of habits to the benefit of both users and public sector institutions**. • The Netherlands **could consider whether m-services (service delivery through mobile technology such as mobile phones) should be further explored and developed as a supplementary channel for public sector service delivery**.
Chapter 6. Outputs and Outcomes		
User-focused E-Government services	• The Netherlands has made several attempts to create a flexible and dynamic government that is receptive to the needs of citizens; overall, however, **there does not seem to be a clear and consistent approach to the qualitative and quantitative assessment of users' demands** – despite the fact that a large share of Dutch citizens and businesses communicate with government online. This lack of a standard methodology to assess users' needs does not support the clear aim of developing better services, which is stated in all Dutch e-government strategies.	• Building on existing best practices, the next phase for improvement of e-government service provision at the municipality level will depend on the negotiation of roles among: central government, VNG, independent institutions such as the Consumers' Association, the (local) ombudsman and local advisory committees of citizens and institutions, and, most importantly, municipalities themselves, to reach a common understanding of user demands and how to respond to them. Given the independence of these actors, **the key ministries responsible for e-government development within central government need to take a joint leadership role to reach consensus on a common path forward to improve user take-up**.
Government-to-citizen E-Services	• The Netherlands has for several years focused on delivering citizen-focused e-services. A special central government programme **– Burger@Overheid.nl – provides a foundation for a citizen-focused approach to e-government development**. This has, however, not resulted in increased user take-up of e-services, or the development of equal and fair provision in terms of the number and quality of services.	• In order to address the apparent low level of user take-up of developed e-government services, **the Netherlands should consider how activities conducted by Burger@Overheid.nl can be strategically and practically utilised and integrated in e-government planning and implementation throughout the public sector**.

Chapter/section	Assessment(s)	Proposal(s) for action
	• **Periodic surveys through the e-Citizen Panel have shown that existing e-services do not seem to provide high levels of satisfaction to citizens.** Of particular concern are: 1) the inability to find relevant information; and 2) the turnaround time for requests. OECD survey results support this perception and suggest room for improvement.	• **The Netherlands should consider using survey results from the e-Citizen Panel more systematically** throughout e-government development, and adjusting strategies, planning, design and implementation of e-services accordingly. A common public sector approach to integrating user feedback is essential to improving medium- to long-term user take-up of e-services.
Government-to-business E-Services	• The Netherlands has developed a number of e-services for businesses. However, **it has generally been recognised that the Netherlands is not performing as well as would be desired on the e-services for businesses front**. The political focus on achieving administrative burden reduction has not yet resulted in prioritisation of developing sufficiently integrated e-services for businesses, which mirrors both emerging gaps in ICT diffusion and productivity reviews, and general efficiencies of scale for innovation. **There is a clear need for a significant change in the way the public sector interacts with businesses.** • **The Netherlands has not yet addressed the benefits of developing and implementing electronic public procurement** – e-procurement – as a tool for enhancing transparency and competitiveness in public procurement processes.	• **The Netherlands should consider developing a common strategy and action plan to support and encourage businesses to use e-services provided by the public sector. A "stick and carrot" strategy could be considered** as a part of such an action plan, moving towards mandatory electronic communication with public authorities. Prioritising quick development of fully integrated and seamless services for the Dutch private sector will likely provide rapid return on investment and increase user take-up, with the added benefit of improving the general competitiveness of Dutch companies in a global perspective. • **There is a benefit to reviewing wide-scale electronic public procurement in the Netherlands.** It can be a major catalyst for the introduction of modern information systems and connectivity in businesses, if backed up with appropriate business support programmes.
Government-to-government E-Services	• **The Netherlands is on track in developing shared public sector services.** GBO.OVERHEID has been created as the organisational framework to maintain and run these services for all public sector institutions. By setting up a shared service centre, the Dutch public sector has taken the first step in centralising common operational services without changing the basic authority and autonomy of different levels of government.	• In order to identify and implement shared services, **the Netherlands should strengthen its ongoing activities to gain "whole-of-government" and economy-of-scale benefits from consolidation of common public sector e-services**.

1. The "sow-harvest" problem of e-government concerns the dilemma of who should pay for the development, implementation and daily operation of generic e-services when those e-services have been developed and implemented by one institution or organisational unit but the benefits are mainly harvested by other institutions or organisational units.

ANNEX B

Netherlands E-Government Indicators

Indicators – 2005	Netherlands	EU25
General indicators		
Population (million)	16	461
GNI per capita (USD, current prices and PPP) (*OECD Factbook 2006*)	30 771[1]	28 638[1, 3]
GDP growth (%)	1	2
Number of telephone subscriptions (fixed line) per 100 inhabitants	61	n.a.
Number of households (million)	7	n.a.
Mobile phone subscriptions (per 100 inhabitants) (OECD, 2004)	98[1]	n.a.
Broadband subscriptions (per 100 inhabitants) (OECD, June 2005)	23	n.a.
Internet access[4]		
Internet penetration rate (regular individual use of Internet as % of population)	74	43
Businesses[5] with access to the Internet	91	91
Businesses with access to a broadband connection	71	63
Internet access at home (% of households with Internet access)	78	48
Internet access at work (% of individuals with Internet access)	36	21
Internet access at place of education (% of individuals with Internet access)	8	8
Internet access at public libraries (% of individuals with Internet access)	0	7
Internet access at Internet cafe (% of individuals with Internet access)	1	7
Affordability of Internet access[6] (ITU, *Measuring Digital Opportunity 2005*)	1	n.a.
Internet usage[7] **(in the last three months)**		
Individuals (aged 16-74) regularly using the Internet[8] (%)	81	54
Individuals (16-74) using the Internet, urban (%)	84	60
Individuals (16-74) using the Internet, rural (%)	77	46
Individuals (16-74) using the Internet, male (%)	85	58
Individuals (16-74) using the Internet, female (%)	76	51
E-Government usage		
E-Government online availability[9] (supply side) (composite index) (2006)	53	50
E-Government usage by individuals – total[10] (%)	46	33
E-Government usage by businesses – total[11] (%)	11	21
Rate of electronic submission of annual tax declarations by citizens (% of total tax declarations)	n.a.	n.a.

Indicators – 2005	Netherlands	EU25
Average maturity level of EU12 e-services for citizens (%) (OECD and Capgemini)	73	68[2]
Average maturity level of EU8 e-services for businesses (%) (OECD and Capgemini)	86	86[2]
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, in USD)	n.a.	n.a.
Information technology expenditures (% of GDP)	4	3
E-Commerce		
Individuals who ordered/bought goods or services for private use over the Internet (%)	31	18
E-Commerce – total business turnover from e-commerce (%)	n.a.	2
Businesses that have received orders online (%)	15	12

1. Data for 2004.
2. Data refers to EU28.
3. Number refers to EU15.
4. Indicators taken from Eurostat, at EUROPA/European Commission/Eurostat home page/Data navigation tree/Information Society Indicators, updated in July 2006.
5. In Eurostat data, referred to as "enterprises". Referred to as "businesses" by OECD.
6. Cost of 20 hours of Internet access per month, as a percentage of average monthly income.
7. 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 in July 2006.
8. Percentage of individuals who used Internet in the last 3 months.
9. Defined for each member state as the percentage of the 20 e-services benchmarked by the EU that are fully available online. For the EU, the calculation uses all services in all member states, *i.e.* how many of the 300 services (20 basic services × 15 member states) are fully available online. Techniques of data collection e-government availability: web-based survey tool.
10. Share of individuals using the Internet to interact with public authorities (*i.e.* obtaining information, obtaining forms, returning filled in forms).
11. Share of enterprises using the Internet to interact with public authorities (*i.e.* obtaining information, obtaining forms, returning filled in forms).

Source: Eurostat.

ANNEX C

Netherlands Political and Administrative System

E-Government in the Netherlands has developed within the unique political and administrative context of the Dutch system. The Dutch economic environment is healthy, with a 2005 per capita GDP of EUR 30 577, well above the OECD average and in the top one-third of OECD countries. However, growth in GDP in the period 1991-2004 was only 2.3%, slightly below the OECD average.

Political history and structure

The Kingdom of the Netherlands was formed in 1815. The Netherlands is a *constitutional monarchy*, with a bicameral system of parliamentary government. The monarch, currently Queen Beatrix, serves as head of state and appoints the Cabinet of Ministers. The role of the monarch is mainly ceremonial. The Prime Minster, who is usually from the largest party in Parliament, presides over the Cabinet. All central government cabinet ministers are responsible directly to Parliament on policy decisions in their areas of responsibility. The Dutch Parliament, which is elected every four years (however, general elections can be called whenever they are deemed necessary), plays a major role in policy development. The Dutch Constitution, adopted in 1815 at the time of the country's founding, has been amended many times, most recently in 2002.

Although the Prime Minister's formal role is limited to co-ordination of policies, this remains the most important position in Dutch politics. The relationships among ministers are collegial, with explicit division of responsibilities and direct supervision by the Parliament. Ministers work in a co-operative manner both within their individual areas of responsibility and across government. Policy execution seems to depend heavily on constructive dialogue with stakeholders within and outside central government, and on significant co-ordination and consultation primarily within each ministry's area of responsibility.

Table C.1. **Public governance in the Netherlands**

Form of government	**Constitutional monarchy:** The Netherlands is governed under a parliamentary system. The monarch serves as Head of State and appoints the Cabinet of Ministers. The Prime Minster, who is usually from the largest party in Parliament, presides over the Cabinet. The role of the monarch is mainly ceremonial.
State structure	**Three levels of government:** The *central government* includes 13 ministries;[1] ministers are appointed by the monarch. *Twelve provinces* are responsible for regional roads, economic development, mental health care programming, and other services. The *458 municipalities* maintain roads, plan construction and development in residential and urban areas, and manage education, health care, social assistance, and recreation activities.
Central government	All cabinet ministers are appointed by the monarch, but are responsible directly to Parliament. Collaboration on policy making and policy implementation occurs directly between each minister and the Parliament, the *Staten Generaal*. The First Chamber (*Eerste Kamer*) of the Dutch Parliament, with 75 seats, is elected indirectly by the provincial councils. The Second Chamber (*Tweede Kamer*), has 75 seats; members are elected directly by popular votes. All legislative representatives serve four-year terms. The *Eerste Kamer* passes laws in their entirety, without amendments, while the *Tweede Kamer* is the locus for debate, questions and amendments on proposed legislation. The parliamentary structure includes committees, which monitor the work and activities of each ministry. The political representation in the *Staten Generaal* is generally split among several parties, resulting in issue-based compromises.
Centralised/ decentralised	**Decentralised:** Much decision-making power is at the local levels of government, and recent Dutch administrations have decentralised tasks and decisions to local governments. However, these responsibilities often come with centrally imposed standards and mandates, allowing few regional differences and modifications.
Administrative culture	**Consensus-oriented:** The Netherlands is a very consensus-oriented society, with a long tradition of broad and extensive consultation with diverse groups of stakeholders on myriad issues. *Ad hoc*, informal co-ordination bodies and broad consultation practices have been developed to encourage such wide participation in the policy-making process. However, there is some evidence of fragmentation of policy development, management and implementation, which has led to limited consideration of horizontal cohesion and integration.
Diversity of policy advice	**Autonomous agencies and public bodies:** Autonomous administrative authorities – such as chambers of commerce and the Centre for Work and Income – are charged by the government with implementation and oversight of some programmes created by law. Although they generally are responsible to ministers, these organisations have the authority to take decisions that cannot be over-ruled at the ministerial level. Interest groups and associations representing different constituencies are recognised by government, and participate significantly in policy making and administrative processes.
Support for e-government development	The Dutch Parliament has demonstrated broad support for the e-government agenda, raising little political discord on e-government issues. This would suggest that it is an "apolitical" topic. The 12 provinces have a limited role in the overall development of e-government within the public sector. The co-ordination structure is *ad hoc*, limiting collaboration efforts among the provinces. The *Verenigin het Interprovinciaal Overleg* (IPO) or Association of Interprovincial Councils, organises the provinces, but its role seems limited and does not include provincial e-government development. VNG co-ordinates municipality-level activities and negotiations with central government, but its role remains limited due to the very broad and diverse interests of the municipalities, which differ greatly in terms of their stage of e-government development, the number of inhabitants and their demography in general.

1. Ministry of Agriculture, Food and Food Quality; Ministry of Defence; Ministry of Economic Affairs; Ministry of Education, Culture and Science; Ministry of Finance; Ministry of Foreign Affairs; Ministry of General Affairs (includes the Prime Minister's Office); Ministry of Health, Welfare and Sport; Ministry of Housing, Spatial Planning and the Environment; Ministry of the Interior and Kingdom Relations; Ministry of Justice; Ministry of Social Affairs and Employment; Ministry of Transport and Public Works and Water Management.

There are three levels of government in the Netherlands: central, provinces, and municipalities. The Dutch governance system's culture of consensus and dialogue – along with decentralisation policies shifting competencies and decisions to local governments in the municipalities – limits the role and function of central government.

As of 1 January 2006, the Dutch local government was divided into 458 municipalities. Local government elections take place every four years. The 458 municipalities play an important role as providers of public services to citizens and businesses. They are organised within the *Vereniging van Nederlandse Gemeenten* (VNG) or the Association of Netherlands Municipalities. In addition to other responsibilities, the 12 Dutch provinces* oversee the water boards, one of the oldest public authorities in the Netherlands; water boards are elected bodies representing landowners, leaseholders, building owners, companies, and residents. They are financed through water charges paid by all residents.

* Drenthe, Fleboland, Friesland, Gelderland, Groningen, Limburg, Noord-Brabant, Noord-Holland, Overijssel, Utrecht, Zeeland, Zuid-Holland.

ANNEX D

Major E-Government-Related Institutions

The following organisations are the major administrative bodies involved in development and implementation of e-government in the Netherlands (in alphabetical order).

Name	**BKWI: The Bureau of Information Exchange Work and Income (Bureau Keteninformatisering Werk en Inkomen)**
Contact	*www.bkwi.nl*.
Description	The Bureau of Information Exchange Work and Income (BKWI) within the social security sector serves as a central locus for data exchange within the social affairs and work sector. The agency provides an electronic back-office infrastructure for a network of more than 30 000 public sector employees located throughout the Netherlands. These individuals use the BKWI network to share data and information on Dutch citizens' employment benefits and welfare entitlements.
History	BKWI was founded in January 2002 when the Dutch government reorganised its social security operation to make government-citizen interaction more user-friendly.
Major projects	The BKWI system includes two main projects: • Enabling centralised establishment, management and control of which public sector employees have access to what citizen information. • Enforcing a common authentication and authorisation mechanism that works across all departmental systems. Data privacy is paramount for BKWI, which originally developed the electronic authentication concept and product that became DigiD. After its successful implementation in the social affairs sector, the Tax Administration adopted this system, which has now become the national e-authentication concept for the whole public sector. BKWI plans to participate in the central government project that aims to establish Personal Internet Pages for each Dutch citizen. BKWI is also working with the Dutch municipalities, through their association VNG, to connect local-level government to the network. All Dutch municipalities now participate in the BKWI system.
Size	32 FTE employees (2006).
Budget	EUR 8.6 million (2006).

Name	**GOVCERT.NL: The Dutch Computer Emergency Response Team**
Contact	*www.govcert.nl.*
Description	GOVCERT.NL, the Dutch government's Computer Emergency Response Team, assists all Dutch government agencies in preventing and dealing with ICT-related security incidents. GOVCERT.NL is the central crisis management point, co-ordinating emergency response across government.
History	GOVCERT.NL was created in June 2002 by the Ministry of Interior and Kingdom Relations and became part of GBO.OVERHEID – the government-wide shared service centre for ICT – on 1 January 2006.
Major projects	GOVCERT.NL provides the following principal ongoing services: • Advises agencies on protecting their systems against computer viruses and vulnerabilities in software. • Solves ICT security incidents 24 hours a day, 7 days a week. • Shares tactical/strategic recommendations on electronic government development and maintenance. • Offers guidance on security concerns for government infrastructure projects as they evolve though different stages of maturity. • Provides input regarding security and infrastructure of the GBO.OVERHEID initiative. GOVCERT.NL's services focus on preventing ICT security incidents. It disseminates security advice, scans systems for potential security pitfalls, and monitors security programmes. The agency focuses specifically on risks related to the Internet, and provides an agency-specific, tailored report – including recommendations for action – at the conclusion of each evaluation. Additionally, GOVCERT.NL aims to raise awareness of ICT security risks across government organisations. In addition to dealing with incidents when they occur, GOVCERT.NL follows up with agencies, helping them to manage event aftermath and to avoid recurrences or future problems. Public institutions can exchange knowledge and experience, and learn about good practices through GOVCERT.NL's discussion fora and data banks; these resources offer both the expertise of GOVCERT staff and the opportunity to learn from other institutions. Panel discussions with GOVCERT.NL participants occur on a regular basis, and help institutions to keep up to date on the latest developments. GOVCERT.NL is involved with international networks to exchange knowledge and learn about advances in the international context; these collaborations allow GOVCERT.NL to achieve maximum effectiveness with minimum means. International memberships include the European Governmental CERTs (EGC), the Forum of Incident Response and Security Teams (FIRST – a network of 150 CERTs worldwide), TERENA – Trans-European Research and Education Networks Association, the International Information Integrity Institute (I4), and the Information Security Forum (ISF).
Size	
Budget	

Name	**IB-Groep: The Informatie Beheer Groep**
Contact	*www.ibgroep.nl.*
Description	The IB-Groep is the independent government agency responsible for student grants administration and management of related student and educational information. About 3.5 million Dutch residents utilise programmes under the auspices of the IB-Groep, including about 500 000 students and their parents.
History	In an effort to improve performance in the early 2000s, the agency leadership implemented strategic and integrated use of ICT as part of a multi-channel service strategy focused on Internet-based service delivery.
Major projects	IB-Groep aims to provide personal advice to users requiring this level of service while allowing others to manage their own accounts. Main initiatives include the Mijn IB-Groep, an online portal for student loans and grants processes and information. The agency also developed a unique e-authentication concept using mobile phones and SMS; this channel was selected specifically because students often misplace electronic tokens or other e-solutions, but generally do not lose their mobile phones. The programme has been a success, both in enabling efficiency goals and in helping IB-Groep to better meet users' needs. IB-Groep's initial efforts have focused on front-office services and products for its large user base; however the agency plans to shift its priorities towards back-office development in the coming years. A major planned initiative is the introduction of e-forms for student use.
Size	1 613 employees (2005).
Budget	EUR 140.8 million (2005).

Name	**ICTU: The Dutch Organisation for ICT and Government**
Contact	*www.ictu.nl.*
Description	ICTU oversees and administers several e-government programmes on behalf of and in co-operation with Dutch government organisations; the agency is managed by a Board including representatives from all levels of government.
History	ICTU was established in April 2001 to help the Dutch government better use information technology and computers.

Major projects	Some major initiatives are: • *Advies Overheid.nl* (Advice for Government) supports the government's online presence. The programme works with about 1 300 government organisations to improve the information and services provided online. Advies Overheid.nl also develops and maintains the Dutch government portal, *www.overheid.nl*. For more information, see *www.advies.overheid.nl*. • *Architectuur Elektronische Overheid* (Electronic Architecture of Government) aims to enhance collaboration in development of a common information infrastructure across government. The organisation's mission is to further the goals set out in the "Towards Electronic Government" report. • *Burger@overheid.nl* (Citizen@government) is an independent, online forum where the government collects citizen views and demands regarding e-government. A crucial key in building user-focused initiatives, burger@overheid.nl includes regular consultation with a citizen panel. Other initiatives include the Webwijzer Award for government websites, and creation of a common quality standard for online government services (BurgerServiceCode). For more information, see *http://www.burger.overheid.nl*. • *Contactcenter Overheid* (Centre for Contact with Government), established in March 2006, aims to help citizens looking for answers or information to access the relevant government agency. A wide-ranging "helpdesk" based in local contact centres and online, Contactcentre Overheid aims to establish a series of connected, multi-channel "desks" providing citizens, businesses and institutions with reliable government information and contacts by 2015. • *e-Formulieren* (e-Forms) develops and processes digital forms for citizens and business making government transactions. e-Formulieren will eventually be linked to DigiD and other programmes, allowing shared data among government organisations. For more information, see *www.eformulieren.overheid.nl*. • *EGEM* is the local government co-ordinating body; EGEM supports local government in improving service through effective and efficient use of ICT. These efforts include both developing products and services, and facilitating sharing of good practices and knowledge among municipalities (thereby limiting duplication of efforts). EGEM-i assists local governments in implementing specific e-government initiatives. For more information, see *www.egem.nl*. • *e-Provincies* stimulates co-operation and information exchange among the 12 Dutch provinces on ICT issues. The programme allows provinces to share good practices and knowledge, and promotes general e-government development at the province level. For more information, see *www.e-provincies.nl*. • *Personal Internet Page* is developing a personal web domain for citizens and entrepreneurs, allowing individuals to easily "do business" with government. When fully implemented, the initiative will allow users to: easily find, verify and update personal data held by the government; enter data once for use by many government agencies; and apply for various permits or government services. Personal Internet Page aims to increase transparency in dealings with government and decrease administrative burdens of government-citizen and government-business interactions. For more information, see *www.e-overheid.nl/sites/pip/*. • *GBO.OVERHEID* (Common Maintenance Unit) develops and maintains government ICT systems. GBO.OVERHEID is developing standards for information exchange among government, business and citizens; this will improve government service by ensuring continuity, reliability and integrity of ICT services. For more information, see *www.gbo.overheid.nl*. • *DigiD* (Digital Identity) is a system for use by the government in verifying identity and signature of clients using electronic services. DigiD allows citizens and businesses to access online services using a single login code. For more information, see *www.digid.nl*. • *PKIoverheid* (Public Key Infrastructure) provides advice and information to government institutions aiming to communicate electronically and securely across the Dutch government. PKI certificates ensure security of information sent through websites, and provides high-level data authentication and encryption. PKIoverheid oversees providers of PKI certificates and determines standards for PKI services. For more information, see *www.pkioverheid.nl*.
Size	235 FTE employees (2005).
Budget	EUR 27.7 million (2005).

Name	**Inlichtingenbureau**
Contact	*www.inlichtingenbureau.nl.*
Description	The Dutch Information Bureau, Inlichtingenbureau, provides municipalities with online access to citizens' social security files – including tax information, unemployment and disability benefits, and student grants – allowing local providers to verify individuals' eligibility for various government services.
History	Inlichtingenbureau was created in 2001 within the social security sector to ensure that social security benefits are properly paid. This is especially relevant in cases where citizens receive benefit payments from several bodies, for example, when students receive higher education financing and unemployment benefits simultaneously.
Major projects	Inlichtingenbureau streamlines data exchange between social security institutions and municipalities. Its system is a service-oriented, architecture-based network designed and maintained by HP in a public-private partnership. The network includes specific software, an open and modular architecture, and standardised coding of information. The architecture makes it possible for Inlichtingenbureau to link to many external sources, and to homogenize the data it receives from these agencies in various formats while maintaining strict privacy rules. It has facilitated benefits processing for employees of municipal social service organisations, who can access citizen information directly online or print out a paper overview. The next step will be enabling the system to send electronic chain messages.
Size	
Budget	

Name	**RINIS: The Institute for Routing of (Inter)National Information Streams**
Contact	*www.rinis.nl/ENGELS.*
Description	RINIS provides a network allowing Dutch government agencies to exchange data electronically. RINIS ensures accuracy and reliability of data for government agencies, and provides easy-to-manage software, standardisation, data protection, helpdesk facilities, and co-ordination.
History	RINIS, which began in the social security sector, has also been used in the areas of health, education and law enforcement. The Tax Authority adopted RINIS in 2003. The network now supports the exchange of tens of millions of messages each year; the introduction of a broadband network in 2006 has reduced the time needed to process these transactions. Agencies participating in RINIS are required to provide responses to queries within a pre-defined time limit.
Major projects	RINIS servers relay messages in pre-defined formats among organisations using individual, connected computers; agencies connect to the servers through sectoral access points. The RINIS system ensures that messages are exchanged in a secure environment using encryption and electronic signatures – enabling efficient and effective re-use of data. RINIS also serves as a platform where agencies can discuss and determine data exchange agreements.
Size	
Budget	

ANNEX E

E-Government Building Blocks

The Dutch government has prioritised development of a number of basic e-facilities or "building blocks" to support e-government development in the Netherlands. An e-government building block is a generic functional component or service which several or all public institutions can use in their development of e-government services. Examples include key registers and e-authentication.

The building blocks fall into five categories: e-access, e-authentication, numbers, key registers, and management. The most significant initiatives are highlighted in the table below.

E-Access		
Building Blocks: Official Government Information, Findability, e-Forms, Business Service Point, Catalogue Collaboration, Personal Internet Page, Government Contact Centre.		
	Description	Status
Personal Internet Page	PIP – the Personal Internet Page initiative – is fostering development of a personal web domain for citizens and entrepreneurs, allowing individuals to easily "do business" with government. When fully implemented, PIP will allow users to: easily find, verify and update personal data held by public authorities; enter data once for use by many government institutions; and apply for various permits or government services. Personal Internet Page aims to increase transparency in dealings with government and decrease administrative burdens of government-citizen and government-business interactions.	The implementation of the Personal Internet Page is on schedule. A fact-finding study was completed in 2005, and a pilot version of the programme will be in place in late 2006 or early 2007. The official rollout of PIP is expected in mid-2008.
Contact: www.e-overheid.nl/sites/pip/.		

E-Authentication		
Building Blocks: DigiD, e-ID Card.		
	Description	Status
DigiD	DigiD, the Dutch Digital Identity authentication system, allows citizens and businesses to access a growing number of online e-government services with the use of a single login code. The government verifies users' identity based on a unique username and a password. When users apply to participate in DigiD, they receive a personalised code to activate their account. This verification process is generally sufficient for complete security for government transactions, but occasionally stricter verification procedures are employed. The success of DigiD depends on interoperability of online services between government organisations. Government agencies participating in DigiD, which is centrally managed by ICTU, do not have to develop their own authentication systems. Because the DigiD system is already established and tested, agencies using the approach can provide online services very quickly.	DigiD for citizens has been operational since January 2005; the business version has been in place since December 2005. A January 2006 public relations campaign raised awareness about DigiD; the 1 millionth DigiD was issued in April 2006. Taxpayers can use their DigiDs when submitting their 2005 income tax returns and an SMS authentication pilot has been put in place in 2006.
Contact: www.digid.nl.		
	Description	Status
eNIK	eNIK is the electronic identification card for high-level authentication. The eNIK card is intended for use as a general means of identification, as a travel document within Europe, and to facilitate use of online e-government services. It is being introduced in conjunction with the addition of biometric information to Dutch passports. The future goal is for eNIK to integrate the DigiD system.	The technical and organisational preparations are moving forward according to plan; however, this initiative is being delayed due to legislative requirements. Nevertheless, rollout is expected in late 2007.
Contact:		

Numbers		
Building Blocks: Business Service Number, Citizen Service Number.		
	Description	Status
Business Service Number	The Business Service Number (*Bedrijven- en instellingennummer – BIN*) is a unique number assigned to each Dutch company allowing public authorities to exchange data between government institutions (back-office) and with the registered company (front-office), and to increase legal certainty in economic transactions. The BIN will help ensure that public authorities do not request information they already have.	Full rollout of the Business Service Number is expected in late 2006/early 2007, in parallel with the Citizen Service Number. Legislation necessary implement the BIN is expected to be passed no later than 1 January 2007.
Contact: www.andereoverheid.nl.		
	Description	Status
Citizen Service Number	The Dutch Citizen Service Number (Burgerservicenummer – BSN) is a unique number issued to each citizen, allowing the government to store and share citizen data for providing e-government services. Implementation of the BSN and its supporting structure is a major step towards the overall e-government aim of "collect data once, use many times". By facilitating data exchange among government agencies, the BSN will ensure better delivery of government services, reduce administrative burdens, and decrease the potential for identity theft.	Full rollout of the Citizen Service Number is expected in late 2006/early 2007, in parallel with the Citizen Service Number. Legislation necessary implement the BIN is expected to be passed no later than 1 January 2007.
Contact: www.programmabsn.nl.		
Key registers		
Building Blocks: Key Registers for Persons; Businesses; Land Registry; Addresses; Buildings; Topography; Vehicles; Pay, Working Conditions and Benefits; Income and Capital		
	Description	Status
Key registers	The Dutch government aims to introduce a system of key registers to serve as a basis for the "collect once" portion of the data re-use strategy. The six key registers will contain information required by various government bodies and will serve as a hub for exchange of data regarding citizens and businesses.	The registers are being introduced in a phased process; the first three were initiated in July 2005.
Persons (MPRD)	The MPRD Key Register will contain information about Dutch citizens and residents.	The legislation necessary to implement the key register was introduced in the Parliament in March 2006 (several months behind the proposed schedule) and the register is expected to be operational in early 2007.

Businesses (New Commercial Register, NCR)	The New Commercial Register, or NCR, will contain information about Dutch businesses.	The legislation necessary to implement this register has been somewhat challenging; an updated version is expected to be submitted in 2006. National coverage for the register is expected to be achieved in 2008, and the service level will be available in 2009, but no timetable for implementation is currently available.
Buildings and addresses	The KRAB Register will contain information about buildings and addresses in the Netherlands.	Although implementation of this register is behind schedule, it is still expected to be operational in 2009. The design of the key register was approved in March 2006. The enabling legislation is expected to be submitted to Parliament in December 2006, but several outstanding policy points may prevent this from happening. In this case, the legislation will be submitted in the first half of 2007.
Land Registry and Topography	The Land Register and the Topography Register have been combined and are being considered simultaneously.	The registers are expected to operational in March 2007.
Vehicles	The proposed Vehicles Register meets the existing requirements for the Dutch system of key registers.	The enabling legislation is expected to be introduced in November 2006, and the register is on schedule to become operational in May 2008.
Pay, Working Conditions and Benefits	With the implementation of the Social Security Records system in early 2006, the Dutch government took a strong step towards putting the Pay, Working Conditions and Benefits Register in place.	The system will form the basis of the register, which is expected to be ready for use in 2009.
Income and capital	This is the newest key register to be identified.	A preliminary study for the policy process was completed in early 2006, followed by political and administrative decision making in the relevant agencies (the Ministry of Finance and the Tax and Customs Administration). Legislation enabling this register is expected to be submitted in May 2007. The register is expected to be operational in 2009, featuring up-to-date 2008 income data.
Contact:		

Information Exchange
Building Blocks: Government Transaction Portal, The Hague Ring, Standardisation.
Management
Building Blocks: Government Shared Services for ICT.

ANNEX F

E-Government Strategies, Decisions and Acts

E-Government policy and strategy in the Netherlands has been developed over more than a decade. This annex provides a brief overview of the history of relevant strategies, decisions and acts of e-government development in the Netherlands.

The current Dutch e-government vision and policy is a key component of the government's wide-ranging "Modernising Government" programme, launched in December 2003; and of the national ICT Agenda "Better Performance with ICT", launched in February 2004. (These policies are further detailed in the policy statement "Towards the Electronic Government", published in September 2004.)

Electronic service delivery is seen as one of the main pillars of modernisation, along with legislative changes and new arrangements between national and local levels of government. The government aims to improve services to citizens, driven by the political target of 25% administrative burden reduction by 2007, and e-government is seen as the key driver to achieve this goal. Once-only data provision is also an important principle.

2005	**Better Performance with ICT: National ICT Agenda 2005-06** This programme follows up the 2004 national ICT agenda, Better Performance with ICT. Its seven priorities are: once-only data provision, electronic identification, increased service provision via the Internet, increased citizen trust and data security, standardisation, improved consumer policy, and encouraging ICT use in the public sector.
2005	**ICT and Sectors: More Effective Use, Better Quality** The action programme covers development of ICT within the traffic and transportation sectors, the education sector, the public safety arena, and the health care sector. It establishes 32 specific actions to encourage ICT usage.
2005	**DigiD** The Dutch Digital Identity Service, DigiD, was launched in January 2005. It provides citizens with centralised online authentication for accessing e-government services based on a user ID and password.

2004	**Towards the Electronic Government** This policy statement elaborates on the e-government aspects of the Modernising Government programme and the national ICT Agenda, offering an overview of the future joint agenda for e-government.
2004	**The ICT Agenda of the Netherlands** This nationwide ICT agenda contains strategies by which the government can make better use of the possibilities offered by ICT and realise improved economic and social returns. It recommends use of ICT to improve access to government services, enhance the quality of the healthcare sector and advance the educational process. The Dutch ICT agenda is based on the European ICT agenda, with specific national additions and adaptations.
2003	**Modernising Government** The goals of the action programme covering the period 2003-07 are to improve services to individuals and businesses, reduce administrative burdens, and make the government more efficient and effective. It also focuses on collaboration between central government and local government levels.
2003	**Overheid.nl** The national e-government portal Overheid.nl was re-launched in March 2003. The new version was designed to provide citizens, businesses and government agencies with easier and more convenient access to government information and services.
2003	**ICTAL** This programme, based in the Ministry of Economic Affairs, aims to develop and implement ICT tools and instruments that significantly reduce administrative burdens for businesses and citizens.
2002	**Better Government for Citizens and Business** The B4 action plan (Beter Beleid voor Burger en Bedrijf) was launched in December 2002 to improve government performance and the quality of public services. The goals are to reduce government spending and bureaucracy while becoming more responsive to social issues. It aims to implement customer-focused information systems in government organisations and increase transparency of government-citizen and/or government-business transactions.
2002	**EGEM Programme** The EGEM programme aims to help municipal governments introduce electronic services. The programme was established and implemented jointly by the Ministry of the Interior and Kingdom Relations and VNG, the Association of Netherlands Municipalities. The programme: develops and disseminates reference models for the municipal e-architecture, develops and implements data interchange standards, and standardises procurement practices for local authorities. **e-Provincies** The e-Provincies programme was created to support provinces in different aspects of e-government development. These include design of a knowledge exchange system, and a forum for co-operation on implementation of the central government's Modernising Government initiative (standardising and clarifying central government tasks and provincial tasks, deregulation and administrative burden reduction, effective monitoring, and e-services provision). The first e-Provincies agreement was signed in 2002. It was operational through 1 January 2004; the Ministry of the Interior and Kingdom Relations joined the agreement in 2003. A new agreement between the Ministry and the provinces was signed for the period 2004-07.
2001	**Citizen and Government in the Information Society: The Need for Institutional Innovation** This report analyses the challenges facing the government in its relationship with citizens; it contains a number of recommendations emphasising the importance of engaging citizens and making government more responsive to citizen needs.
2001	**ICT Unit** The Ministry of Internal Affairs and Kingdom Relations created the ICT Unit (ICTU), charged with co-ordination of ICT development in government, in 2001. ICTU's goal is to contribute to the structural development of e-government. ICTU executes programmes and projects which implement e-government policy.

2000	**Contract with the Future: A Vision of the Electronic Relationship Between Government and Citizens** This policy document describes a new "contract" between government and citizens – using ICT to create a more responsive, accessible, transparent and interactive government. The basic vision, "freedom through connectedness", states that citizens should have the freedom to choose the way they wish to connect with government. The policy document launched a number of surveys and describes a nine-point plan to make the government innovative, reliable, helpful and open to all citizens.
1999	**The Dutch Digital Delta: The Netherlands oN-Line** The Dutch Digital Delta: The Netherlands oN-Line is the official policy framework for the ICT policy of the Dutch government. It lays out the Dutch ICT vision and goals, and establishes the government's role in further development of the Information Society in the Netherlands.
1998	**Electronic Government Action Programme: A More Efficient and Effective Government on the Electronic Highway** The action programme sets out specific goals for e-government development and establishes a number of overall principles for the outputs and outcomes of e-government development. The goals include: increasing electronic access to government through the Internet, providing better services to the public by putting substantial public services online before 2002, and improving national government back-office processes by joining up government departments and entities and improving data exchange.
1996	**Public Counter 2000 project** The Public Counter 2000 project (Overheidsloket 2000 or OL2000) aims to deliver a reference model and toolkit for integrated public service delivery through an electronic counter providing a one-stop shop for citizen interactions with public administration.
1994	**National Action Programme on Electronic Highways: From Metaphor to Action** The action programme provides the basic framework for several e-government initiatives within six key areas: liberalising the telecommunications infrastructure, amending the Media Act, limiting the public domain, removing legal barriers, setting up model projects in the public sector, and encouraging initiatives in the private sector.

ANNEX G

Major Sectoral E-Government Initiatives

As part of its overall e-government implementation, the Netherlands has launched several sectoral e-government initiatives using ICT as an enabler for service delivery to citizens and businesses. This annex details major e-government initiatives in the areas of: e-taxes, social security applications, e-procurement and e-education.

E-Taxes

The Dutch Tax and Customs Administration (within the Ministry of Finance) is responsible for levying and collecting taxes from citizens and businesses. It has local tax offices in 13 tax districts throughout the country. The main e-government focus of the Tax and Customs Administration has been bringing tax reporting processes online as part of the government's overall programme to reduce administrative burdens.

Businesses

As of 1 January 2005, all businesses are required to report their income tax, corporation tax and VAT electronically[1] using a PIN code from the tax administration or DigiD – the Dutch public sector e-authentication system (the Tax and Customs Administration is tentatively planning to phase out the PIN code by 2008 and rely solely on DigiD[2]). VAT transactions alone represent 5 million contacts from about 1 million businesses.

Business taxpayers requiring assistance are able to access an Internet-based information portal known as the Digital Business Desk. The site, which was implemented by the Dutch Association of Chambers of Commerce, contains answers to frequently asked questions, and provides users with their Chamber of Commerce registration numbers and VAT numbers. The eventual goal is for ministries, such as the Ministry of Finance, to link to the Digital Business Desk, expanding its services to a one-stop shop for all government-business interactions.

The e-tax initiatives for businesses have resulted in an administrative burden reduction for businesses of at least EUR 50 million per year, along with a reduction of Tax Administration staff of 750 FTE (full-time employee) equivalents[3] and a reduction of at least EUR 6.5 million in printing and postage in the Tax Administration.[4] The Tax Administration has collaborated widely with other government bodies on the business tax initiatives.

Citizen taxes

Although previous efforts have focused on businesses, the Tax and Customs Administration's future efforts will address citizen taxes. The major goal is to fully implement pre-filled tax forms for citizens by 2008. Re-engineering the tax system is an enormous undertaking, and its success will require many back-office infrastructure elements and procedures to be put in place. Currently, citizens can file their taxes online using a PIN code and DigiD. However, the Tax Administration is playing an instrumental role in the implementation of the Citizen Service Number (BSN). Based on existing citizens' fiscal numbers, the BSN will become the basis for online tax filing.

These preparations include making provisions for ICT security and data quality. The existing security measures for the Tax and Customs Administration's electronic "gateway" are integrity checks of senders and data, and provisions to handle large peaks in traffic and guarantee continuous availability. The work of the Tax and Customs Administration is about information – it is vitally important that this information is accurate, up to date, and processed and stored correctly.

Other ICT developments in the Tax Administration

As part of the Dutch government's goal to provide 65% of all national, provincial and municipal government services online by 2007, the Tax and Customs Administration recently overhauled its website. New features include a "search by keyword" function.

The Tax Department has an internal ICT department of about 3 000 employees.[5] The ICT group builds systems for the Tax and Customs Administration and also develops "source" knowledge working with ICT suppliers. Although IBM is the group's strategic partner, public-private partnerships and outsourcing are limited.

On 1 January 2006, the Tax and Customs Administration turned administration of the DigiD e-authentication system over to GBO.OVERHEID – the Dutch government-wide shared service centre. DigiD was developed by BKW – the Bureau of Information Exchange Work and Income (*Bureau Keteninformatisering Werk en Inkomen*) – and implemented widely throughout the government for e-services provision.

The Tax and Customs Administration is continuing to investigate how ICT can help it to improve its services, efficiency, and effectiveness. The vision for the future is a fully electronic system where electronic data exchange, minimised human interventions, and standardised processes bring efficiency gains and cost reductions.

Social security system applications

The Dutch social security system provides a guaranteed income for individuals who cannot support themselves independently by working. Social security in the Netherlands can be subdivided into social welfare benefits (*sociale voorzieningen*) and social insurance benefits (*sociale verzekeringen*). Other funding arrangements, such as housing subsidies and statutory funding of higher education, also provide government financial assistance. Social welfare benefits are financed from central government funds (principally those provided under the National Assistance Act), while social insurance is primarily financed from mandatory contributions paid by employees.

Although the social security system was overhauled in 1987 in an effort to reduce costs, co-ordinate systems, and bring compliance with EU directives, the structure remains complicated and planned savings have not been achieved. Therefore, the government has recently launched new efforts to re-engineer social security.

Key e-government initiatives

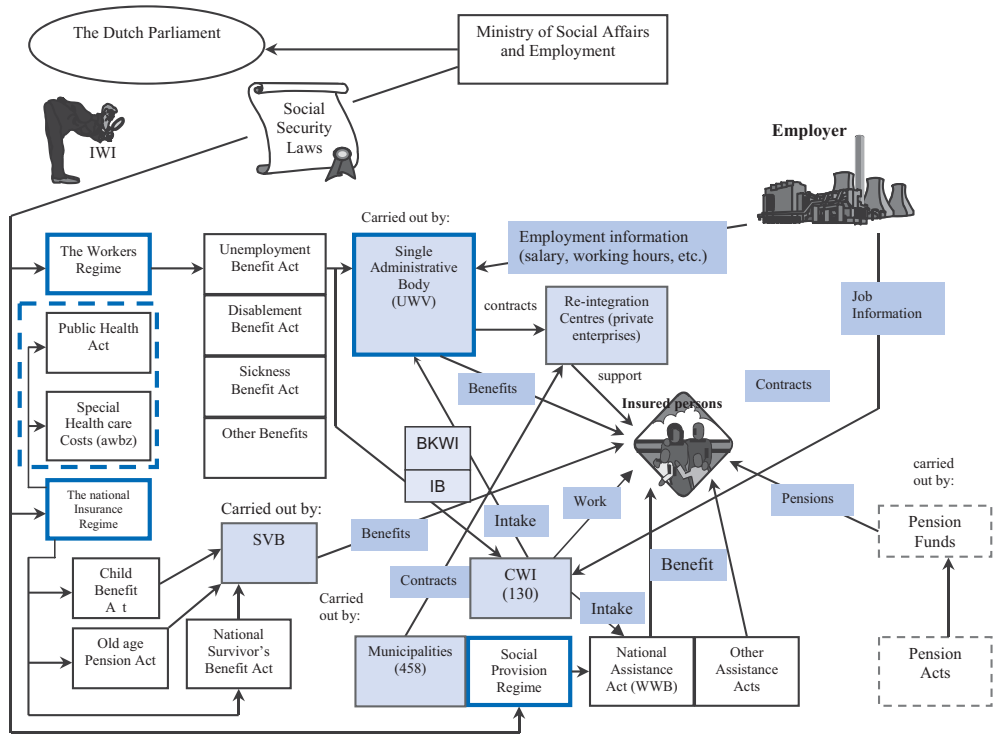
In 2002, the Dutch government reorganised its social security operation in an effort to make government-citizen interaction more user-friendly, and to provide a one-stop shop where citizens could access information about their employment status and associated benefits and entitlements. This operation depended upon the ready availability of citizen information. BKWI was charged with implementation of the network and system that allows social security employees to share data and information nationally across agencies (see Figure G.1 for a diagramme of how information is shared through the BKWI network).

The Institute for the Routing of (Inter)national Information Streams (RINIS), which started in the social security sector, provides a network allowing Dutch government agencies to exchange data electronically.

BKWI

The BKWI – the Bureau of Information Exchange Work and Income (*Bureau Keteninformatisering Werk en Inkomen*) – serves as a central locus for data exchange within the social affairs and work sector (see Figure G.1). Founded in January 2002, BKWI provides an electronic back-office infrastructure for a

Figure G.1. **Data and information flows – social security**



Source: BKWI, 2006.

network of more than 30 000 public sector employees located throughout the Netherlands. These individuals use the BKWI network to access citizens' records relative to employment benefits and welfare entitlements.

BKWI implemented this system through two main projects:

- Enabling centralised establishment, management and control of which public sector employees have access to what citizen information.
- Enforcing a common authentication and authorisation mechanism to be used in all e-government services.

Although the agency principally delivers back-office services to primary users in the municipalities and in central government agencies, BKWI's network has made a difference for citizens. In 2005, the first efficiency gains resulting from the network became evident. A major impact has been in the area of fraud reduction, which has decreased to between 2% and 3% of cases; BKWI's goal is to eliminate social fraud completely.

RINIS

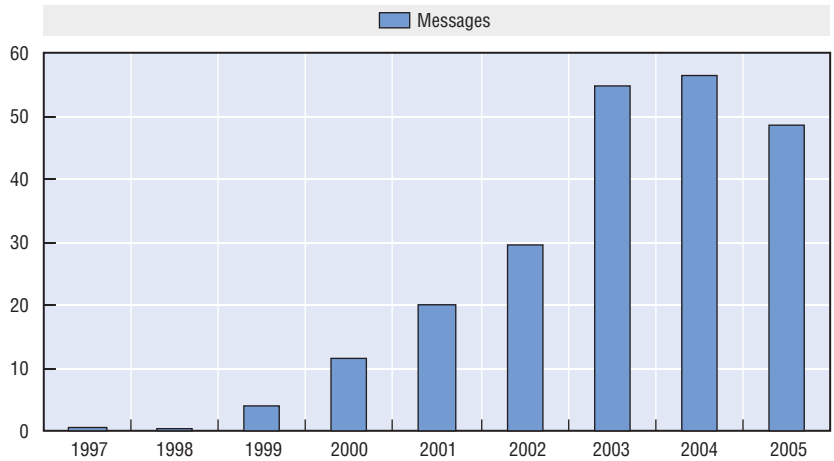
The Institute for the Routing of (Inter)national Information Streams (RINIS) provides a network allowing Dutch government agencies to exchange data electronically. RINIS came into existence in 2003. The network now supports the exchange of tens of millions of messages each year.

RINIS servers relay messages in pre-defined formats among organisations using individual, connected computers; agencies connect to the servers through sectoral access points. The RINIS system uses encryption and electronic signatures, ensuring that messages are exchanged in a secure environment and enabling efficient and effective data re-use. Participating agencies are required to provide responses within a prescribed amount of time.

See Figure G.2 for information about messages exchanged among government organisations in the Netherlands.

Figure G.2. **Number of messages exchanged per year**

Million



Source: www.rinis.nl (accessed 5 October 2006).

E-Procurement

Electronic procurement is not currently regulated by national legislation in the Netherlands, and there is no infrastructure in place. However, the government is developing a strategy for the introduction of electronic public procurement that should be operational within 10 years; this is an effort to comply with new EU directives on public procurement (2004/17/EC and 2004/18/EC), including their e-procurement provisions.[6]

The Ministry of Economic Affairs is responsible for legal aspects and technical solutions regarding public procurement. It plays a key role in overall policy formulation for public procurement, including the introduction of operational electronic public procurement and the collection of experiences on the ministerial use of electronic tendering.

E-Procurement is also supported by the industrial EP.NL project, which addresses standardisation and information provision; the TELematics Institute (TELIN) also produced a set of guidelines for the implementation of electronic catalogue and ordering systems for technical materials.[7]

Public procurement strategy

Two factors have contributed to the lack of a national e-procurement strategy: there is no regulated procurement tradition in the Netherlands; and the government is seeking a strategy that can both meet Dutch needs and comply with the new EU directives on public procurement. In the absence of a national e-procurement strategy, the 2001 "Action Plan on Professional Procurement and Purchase" currently guides policy. The action plan has three main objectives:

1. **Innovative tendering:** Promoting innovation and, if appropriate, co-operation (cluster formation) by presenting a challenge in the invitation to tender and tailoring contract forms accordingly. The government is a demanding customer and invites innovative tenders. This type of tender is increasing.
2. **European tendering:** Publishing the invitation to tender internationally, thereby increasing competition in the market. This creates opportunities for better bids. Furthermore, it is a statutory requirement for government procurement (above certain thresholds). It seems that further incentives are needed for widespread tendering, as compliance levels with this requirement are low.
3. **Electronic tendering:** Publishing announcements and invitations to tender via the Internet, and further deployment of ICT to support the entire procurement process.

At the central level, the Action Plan describes a number of steps to be taken among ministries to strengthen inter-ministerial co-operation; this includes a mandate that ministries publish invitations for tender electronically at the earliest opportunity.

The Action Plan also lists a number of activities, which have already been implemented, including creation of a network of professional purchases within government, a virtual meeting place (*www.PIANOdesk.info*), and an inter-departmental project team on electronic purchasing.

Legal framework

Dutch requirements to comply with the EU Directives on public procurement are expected to be formally implemented in 2007.

Table G.1. **Status of legal framework for procurement**

Public procurement portals	The Dutch government has recently introduced an electronic procurement website for the construction sector. The site, *www.aanbestedingskalender.nl*, provides an overview of current procurement opportunities in construction. It is expected to form a template for the development of a central electronic public procurement portal.
Electronic catalogues	Electronic catalogues have not been used.
Electronic auctions	The Ministry of Social Affairs and Employment and some local hospitals and health departments have gained experience with e-auctions in pilot projects.
Dynamic purchasing systems	Dynamic purchasing systems have not been used.

Source: Ramboll Management for the European Commission (2004).

The total impact of introducing electronic public procurement in the Netherlands has not yet been assessed. Programmes to monitor take-up and progress of e-procurement are not yet in place. However, with the implementation of the forthcoming EU Directives on public procurement, the Ministry of Economic Affairs is expected to implement regular monitoring.

E-Education

The Netherlands has followed the same path as many OECD countries by prioritising e-education initiatives – or ICT-enabled education initiatives – in the late 1990s and the early 2000s as part of a general push to fulfil political goals of developing an Information Society.

This can be a key lever for increasing education and learning levels nationally and ensuring that citizens in the Information Society develop ICT skills. This is a natural progression following the basic e-education prerequisites such as infrastructure, facilities, and computers in schools.[8] However, the Dutch government does not seem to have prioritised a continued focus on e-education as a policy area.

Dutch e-education activities seem to be concentrated in two foundations supported financially by the Ministry of Education, Culture, and Science:

- ***Sticting Kennisnet Ict op School* (Foundation Kennisnet Ict op School)** is a public ICT support organisation that manages the interests of the Dutch education sector, offers ICT-related knowledge, and delivers public educational services and products to re-envision education. In February 2006, Kennisnet Ict op School was reorganised to focus on two areas: ICT services, and supporting schools in improving ICT products and services for integrating ICT in primary and secondary education.

- ***Sticting SURF* (SURF Foundation)** is the Dutch higher education and research partnership organisation for network services and ICT. The goal of SURF is to support higher education institutions in improving the quality of learning, teaching and research through the use of ICT. Its strategic plan for 2003-06[9] focuses on delivering services and products within: basic network infrastructure; electronic software distribution; and middleware, which can be used to build specific applications for education, research and support.

Activities for the two organisations have gradually changed from serving as "centres of expertise" on ICT-enabled education and learning to becoming more technical and product-oriented support organisations.

Notes

1. Tax and Customs Administration: "Tax and Customs Administration Annual Report 2004".
2. According to OECD interviews.
3. The number of employee was 29 100 FTE in 2004, and 28 400 in 2005 according to *Jaarverslag Belastingdienst 2005* (Tax and Customs Admininstration Annual Report 2005).
4. Tax and Customs Administration: *Jaarverslag Belastingdienst 2005* (Tax and Customs Admininstration Annual Report 2005).
5. According to the Tax and Customs Administration's website: *www.belastingsdienst.nl* (accessed 5 October 2006).
6. Ramboll Management for the European Commission (2004), *Electronic Public Procurement in EU Member States: Country Reviews, Extract of the Extended Impact Assessment Study: Action Plan on electronic public procurement*, Part 1 Baseline Analysis, December 2004.
7. Fraunhofer Institute Sichere Informations-Technologie (2006), *Study on Promotion Strategy of Conformity – Assessment System of Information Security*, 28 February 2006.
8. SURF Foundation: "Dutch e-Learning in Europe", ISBN 90-74256-27-9, 2004, describes a number of examples of e-learning in higher education institutions including using streaming media, game-based learning, digital campus concepts, ICT-enabled learning methodologies, and new pedagogical paradigms.
9. SURF Strategic Plan 2003-06: "The Heart of the Matter. Cooperation in the use of ICT. Competition in education and research", SURF 2002.1062, SURF Foundation, Utrecht, April 2002.

ANNEX H

Methodology

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.

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.

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 Mexico (2005), Norway (2005), and Denmark (2006). Further reviews of Turkey (2006), Hungary (2006) and Belgium (2007) are ongoing.

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.

Inputs

The Netherlands 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 the Netherlands. Information was also drawn from recent relevant reports and reviews of the Netherlands 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 the Netherlands. 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 of e-government in the Netherlands

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 Dutch institutional and administrative framework.

In November 2005, the OECD conducted the survey with Dutch 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 Dutch Government (through the Ministry of the Interior and Kingdom Relations, Directorate-General for Public Service Management (*Ministerie van Binnenlandse Zaken en Koninkrijksrelaties – Directoraat-generaal Management Openbare Sector – DGMOS*).

The survey asked representatives of central and local government organisations for their opinions regarding e-government challenges, barriers and priorities. The total sample and number of responses to the survey can be seen in Table H.1. (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.)

Table H.1. **Responses to the OECD survey**

	Total public sector units	OECD sample	Valid answers	Response rate (%)
Central government (including ministries, subordinate departments, agencies, etc.)	34 (13 Ministries)	34	23	68
Municipalities	458	73	41	56
Provinces	12	9	6	67
Water board districts	4	4	2	50
Total	**508**	**118**	**72**	**61**

Interviews with government officials

The review team conducted two sets of interviews with Dutch government officials and other commentators from relevant interest bodies, industry associations and the ICT industry in the Netherlands. All interviews were scheduled by the Ministry of the Interior and Kingdom Relations, Directorate-General for Public Service Management, 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 the Netherlands.

The first set of interviews, which took place 13-16 of November 2005, involved exploratory discussions designed to help the OECD understand the key elements of e-government in the Netherlands. The OECD team met with 11 senior officials and their staffs. These exploratory interviews were not meant to be comprehensive, but to assist the OECD in developing an understanding of areas that merited further research.

The second set of interviews took place 9-13 January 2006. These in-depth interviews were carried out by five members of the OECD Secretariat and three peer reviewers from OECD member governments: Colm Butler (Director of Information Society Policy, Department of the Taoiseach, Ireland), Kim Lindskov Knudsen (Programme Manager and Chief Architect, Agency for Governmental Management, Ministry of Finance, Denmark), Dominique Volon (General Manager of Service Management, *FEDICT – Service Public Federeaux Technologie de l'Information et de la Communication*, Belgium). The interview team undertook 38 interviews. In addition, four focus group sessions – involving several participants from municipal government organisations, citizens' groups, and businesses – were held.

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).

The preliminary findings of the OECD Peer Review of E-Government in the Netherlands were presented to, and discussed by, government officials of the OECD's Network of Senior E-Government Officials in spring 2006. Countries took this opportunity to use their own expertise in e-government to provide insightful commentary on the review. This discussion provided an important input for the finalisation of the report. The report was presented and discussed at the meeting of the Network of Senior E-Government Officials on 26-27 October 2006 in Paris.

Independence, neutrality and verification of inputs

Within a framework agreed with the Dutch Government, the OECD conducted this study with its own staff and independent peer reviewers. The study was conducted with guidance and financing from the Ministry of the Interior and Kingdom Relations, 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 Ireland, Denmark and Belgium. The OECD regularly briefed the Directorate-General for Public Service Management on the progress of the review. The text also benefited from fact-checking, consideration and feedback by the Directorate-General for Public Service Management and other relevant organisations which participated in an ongoing steering group committee that verified the findings in the survey and interviews.

List of interviewees

- Mr. Henk Albeda, Rekenschap (Foundation Accountability).
- Drs. N. Anten, Managing Director, Connekt.
- Professor Victor Bekkers, Centre for Public Innovation – Network of private and public organisation, Erasmus University.
- Mr. Arie van Bellen, ECP.
- Drs. P.J.C.M. van den Berg, Director, State Budget Inspectorate, Ministry of Finance.
- Mr. Jilles van den Beukel, Head of Regulatory Affairs, KPN.
- Mr. Peter Bont, Head of Secretariat, ACTAL (*Adviescollege toetsing administratieve lasten* – Dutch Advisory Board on Administrative Burdens).
- Mr. Pieter de Booij, Policy Officer, Market and Economy, Ministry of Economic Affairs.
- Mr. N.W. Zuiderveen Borgesius, Head of ICT Policy, VNG (*Vereniging van Nederlandse Gemeenten* – Association of Nederlands Municipalities).
- Mr. Michel Bouten, Programme Manager, E-Government Architecture, ICTU.
- MD. Gert-Jan van Boven, Managing Director, NICTIZ – National IT Institute for Healthcare.
- Dr. Mark Bovens, Professor, Professor of Public Administration, Utrecht School of Governance, Utrecht University.
- Mr. H.J. Van Burg, Policy Officer, Directorate-General of the Tax- and Customs Administration, Ministry of Finance.
- Dr. Colette Cuijpers, Assistant Professor, TILT – Tilburg Institute for Law, Technology, and Society.
- Mr. H.H.M. (Hans) Dekkers, Head of Integrated Information Services, Province of North-Brabant.
- Mr. Ivo Eggink, DURP – Project for Digital Exchange of Spatial Plans, Ministry of Housing, Spatial Planning, and the Environment.
- Mr. Siep Eilander, Director, Stichting ICTU (ICTU Foundation).
- Mr. Gerrit-Jan van't Eind, Programme Manager DigiD, ICTU.

- Mr. P.W.J. de Graaf, VNO NCW (Confederation of Nederland's Industry and Employers).
- Mr. Roelof Groen, Programme Manager e-Waarnemen, Central Statistical Office.
- Mr. Arco Groothedde, Member of the Executive Board, Kadaster.
- Mr. Cees Hamers, Director, Product Strategy, Local Public Sector, Getronics Pinkroccade Nederland BV.
- Drs. Hans B. Haveman, Senior Adviser, Ministry of Health, Welfare, and Sport.
- Mr. De Heij, Policy Officer Government, Dutch Data Protection Agency.
- Mr. Bart-Jan Hindriks, Programme Manager BSN, ICTU.
- Mr. Christiaan Holland, Partner, Dialogic.
- Drs. Ingrid van der Holt, Assistant Inspector, State Budget Inspectorate, Ministry of Finance.
- Mr. Noud Hooyman, Ministry of Housing, Spatial Planning, and the Environment.
- Dr. ir. R. M. (Rob) Hootsmans, Head of Geographic Information Services, Province of North-Brabant.
- Mr. Marcel Houtkamp, Nationale Ombudsman.
- Mr. Jeroen van Hulten, Programme Organisation of Transaction Port, Project Electronic Tax Declaration of Companies, Tax Office.
- Ms. Jolanda van Ijzendoorn, Programme Manager for Customer Files, CWI – Centre for Work and Income.
- Mr. Jorrit de Jong, Director for Public Innovation, Executive Education, eGovernment and Innovation, University of Leiden.
- Mr. P.W. (Piet) de Kam, Director, GBO.OVERHEID, former Consultant, ICT and Governance in the Public Sector, Het Expertise Centrum.
- Mr. Kees Keuzenkamp, Head of Division and Deputy Director, Innovation and Public Sector Information Policy Department, Ministry of the Interior and Kingdom Relations.
- Drs. O.M. (Olf) Kinkhorst, Director, BKWI (*Bureau Keteninformatisering Werk en Inkomen* – Bureau of Information Exchange Work and Income), and Inlichtingenbureau (The Dutch Information Bureau).
- Mr. Manuel Kohnstamm, Managing Director of Public Policy and Communications, UPC.
- Mr. J. Kouijzer, Programme Manager of E-Services ad Multi-Channel Services, IB-Groep (*Informatie Beheer Groep*).

- Mr. Piet van der Krieke, Manager Architecture Management, ICT Policy and Projects, Kadaster.
- Mr. Henk Lenos, Institute for Public and Politics, Amsterdam, The Netherlands.
- Mr. Ben van Lier, Account Director Government, Divisioni IT Solutions, Centric.
- Mr. Joop van Lunteren, Senior Consultant, Het Expertise Centrum.
- Mr. Martijn Meijers, Senior Economist, OPTA (*Onafhankelijke Post en Telecommunicatie Autoriteit* – Independant Post and Telecommunication Authority).
- Mr. Frank Ossewaarde, POIR (Personnel, Organisation and Information Central Government)
- Mr. Wouter den Ouden, Senior Policy Officer, Ministry of Health, Welfare, and Sport.
- Mr. Bert Ouwens, Ministry of Education.
- Mr. Matt Poelmans, Programme Manager Burger@Overheid, ICTU.
- Mr. Arnout Ponsioen, Senior Policy Officer, Strategy and Innovation Division, Public Sector Innovation and Information Policy Department, Ministry of the Interior and Kingdom Relations.
- Mr. Ton Ravesloot, MKB-NL (Royal Association MKB Nederland).
- Mr. Frank De Rijk, General Inspector, Education Inspectorate.
- Ms. Sylvia Roelofs, ICT-office (*Brancheverenigingen van IT-, Telecom-, Office- en Internetbedrijven in Nederland* – Trade Organisation for IT, Telecom, Office, and Internet Companies in The Netherlands).
- Mr. Marc de Rooij, Ministry of Housing, Spatial Planning, and the Environment.
- Mr. Willem E. H. Sloots, Independent Consultant.
- Dr. H. van de Stadt, Sector Manager, Macro-Economic Statistics and Publication, Publication and Communication Sector, Central Statistical Office.
- Mr. Rien Stor, Manifest Group.
- Mr. Louis Tinselboar, Senior Policy Officer, Strategy and Innovation Division, Public Sector Innovation and Information Policy Department, Ministry of the Interior and Kingdom Relations.
- Mr. Wicher Venema, Gebruikersvereniging Centric (Centric User Organisation).
- Mr. Martijn Verhagen, Policy Adviser, Legislative Burden Department, Ministry of Finance.

- Mr. Marc Verschuren, Company Analyst, Multimedia and Multi-Channel Services, IB-Groep (*Informatie Beheer Groep*).
- Mr. Jan Vlug, Policy Officer Technology, Dutch Data Protection Agency.
- Ms. Saskia Voortman, Policy Officer, Ministry of Social Affairs and Employment.
- Mr. Dan de Vries, Department of Market Regulation, Directorate-General Telecommunications and Post, Ministry of Economic Affairs.
- Mr. Eric Wijnen, Directorate-General Telecommunications and Post, Ministry of Economic Affairs.
- Drs. K.F. (Klazien) Witteveen, Head of the Architecture and Innovation Division, Integrated Information Services, Province of North-Brabant.
- Mr. Paul Zeef, Programme Manager PiP, ICTU.
- Mr. Harry van Zon, Director, Innovation and Public Sector Information Policy Department, Ministry of the Interior and Kingdom Relations.
- Dr. Arre Zuurmond, Zenc.

ANNEX I

Glossary

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

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

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

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.

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

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

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.

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.

ANNEX J

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ANNEX K

The OECD Survey – Additional Results

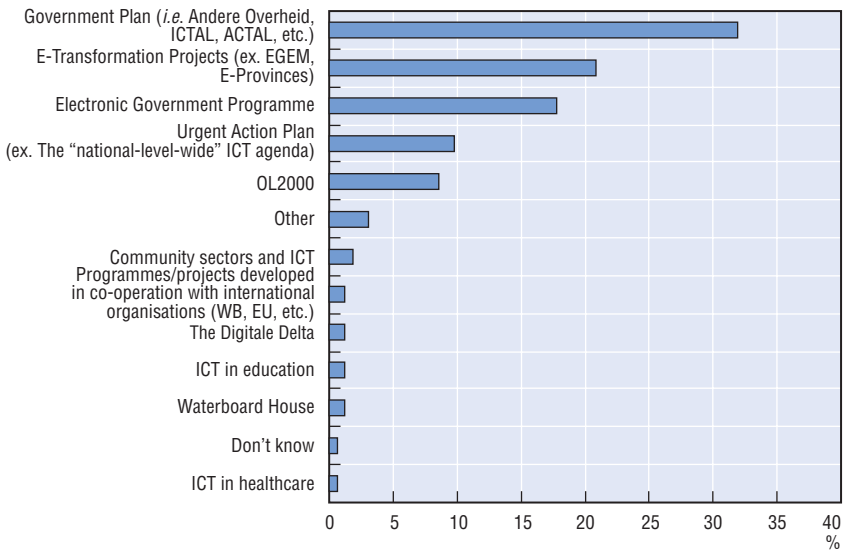
The OECD survey on e-government in the Netherlands provided both a broad profile and a snapshot of the state of the Dutch e-government landscape; its results, along with background documents and interviews with Dutch government officials, were used as background for the analyses in this report. However, a number of results from the survey – though not used in the main chapters of the report – do tell "stories" which are worth exploring further. This annex will analyse and discuss the additional results from the survey within the following themes:

- Incentives for e-government.
- E-Government strategies and action plans.
- Accessibility and usage of e-government services.

Incentives for E-Government

As shown in Chapter 1, Figure 1.3, the two dominant drivers for e-government are *Andere Overheid* (the Modernising Government Programme) and internal drivers such as increasing service quality and/or efficiency. However, the question remains whether other government policies and strategies have had an impact on e-government development. This question is explored in detail in the OECD survey (see Figure K.1). The results show that respondents view government plans (32%) (*e.g. Andere Overheid*, ICTAL) and "e-transformation programmes" (21%) – such as e-Provincies (co-operation programme between central government and the provinces), EGEM (co-operation programme with the municipalities), and the Electronic Government Programme (18%) operational through the end of 2006 – as the main drivers among the different national strategies and programmes. It is interesting to note that the strategy OL2000 (9%)

Figure K.1. **National strategies as drivers for e-government**



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

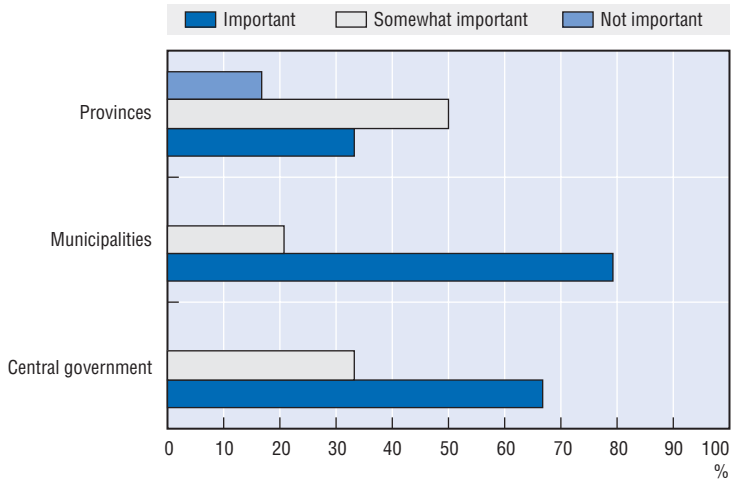
(*Overheidsloket 2000* – Government Counters 2000),* which ended in 2002, is still seen as a driver for e-government development.

Whether this has led to an actual prioritisation of e-government within public sector organisations is shown in Figure K.2. It is interesting to note that municipalities view e-government as a high priority (79% answered "Important"), more so than central government and province respondents (67% and 33%, respectively, answered "Important"). This may be a consequence of the relatively strong pressure on municipalities to deliver front-office services compared with central government or provinces, which do not have as much exposure to public demands and expectations. Over the years, Dutch municipalities have increasingly gained this key role as the main "face" of government services to citizens and businesses due to the deliberate decentralisation policy of the Netherlands.

* *Overheidsloketten 2000* (Government Counters 2000) or OL2000 ran from 1996-2002 and yielded different guidelines and handbooks for local governments. The notion of "government counters" has been substituted by the notion of "no wrong doors", pursued in the EGEM programme supporting municipalities in e-government development and implementation. See *KPMG Bureau voor Economische Argumentatie* (KPMG Office for Economic Issues) for *Programmabureau OL 2000* (Programme Office OL2000), *De gemeentelijke praktijk van Overheidsloket 2000 – eindrapportage* (Municipal Practices from Government Counters 2000), January 1998.

Figure K.2. **Importance of e-government among other priorities in respondent organisation**

By level of government

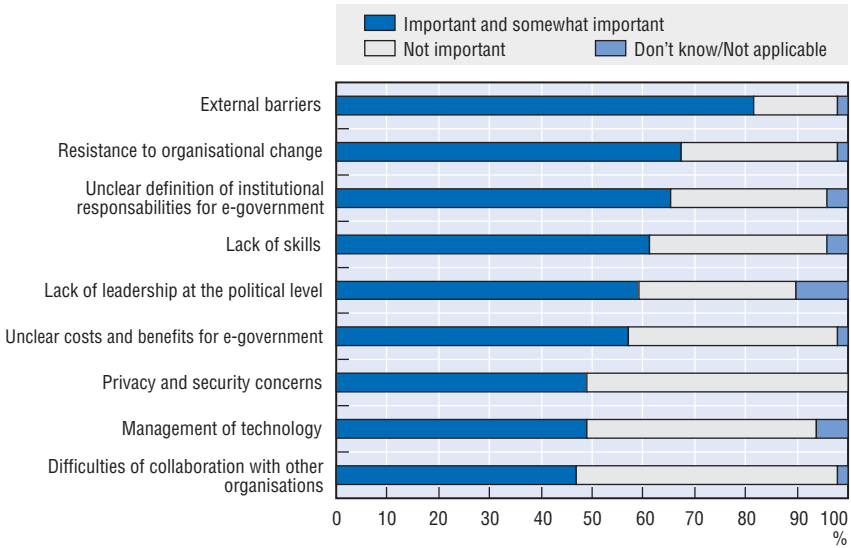


Source: OECD survey on e-government in the Netherlands, 2006.

Dutch public institutions at all levels of government have been free to develop e-government due to the policy of letting "… letting 1 000 tulips blossom" (described in Chapter 1). In doing so, they have been required to deal with challenges ranging from internal change management issues to cross-institution and cross-level concerns. Figure K.3 shows the response on challenges to e-government implementation; respondents especially emphasised "external barriers" (82% answered "Important" or "Somewhat important") and "unclear definition of institutional responsibilities for e-government" (65%) as the most important challenges for e-government in their organisations; they additionally cited internal change management challenges of "resistance to organisational change" (67%) and "lack of skills" (61%). It is also interesting to note that "difficulties of collaboration with other organisations" (47%) is rated the lowest in comparison with other responses, showing that (practical) collaboration does not seem to be as significant a challenge as internal change management and other external challenges mentioned above.

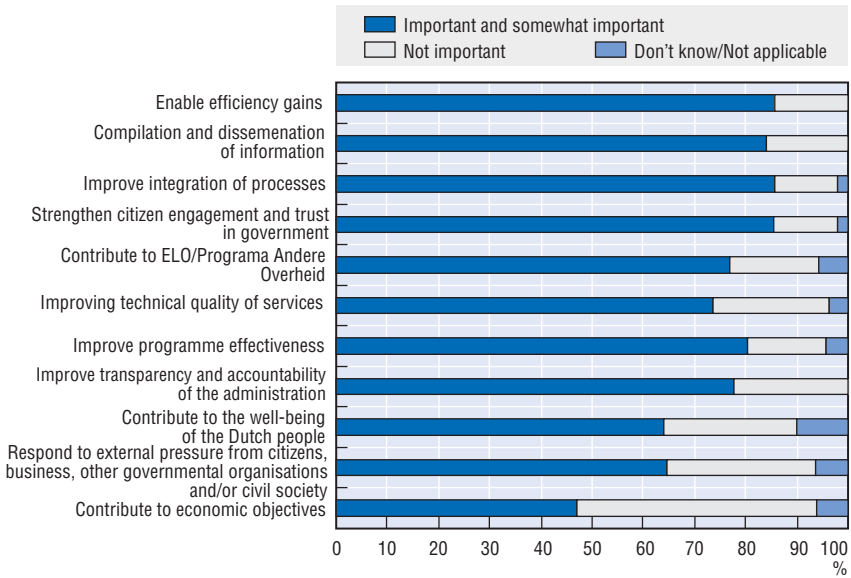
The OECD survey also asked respondents to evaluate the importance of their own organisations' e-government implementation objectives (see Figure K.4). The responses show clearly that efficiency and effectiveness – together with the relations with citizens – are the main objectives for e-government implementation. Respondents find the following objectives as most important or somewhat important: "enable efficiency gains" (86% answered "Important" or "Somewhat important"), "improve integration of processes" (86%), "compilation

Figure K.3. **Importance of challenges to e-government implementation in respondent organisation**



Source: OECD survey on e-government in the Netherlands.

Figure K.4. **Importance of objectives for implementation of e-government in respondent organisation**



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

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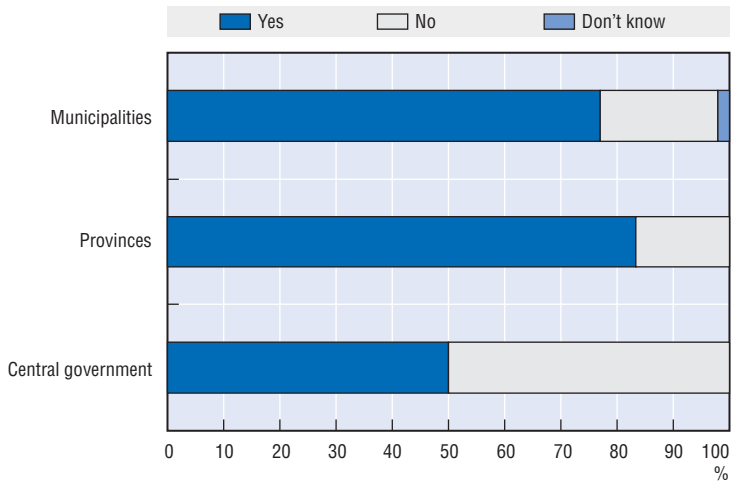
and dissemination of information" (86%), and "strengthen citizen engagement and trust in government" (84%). It is significant to note that the objective "contribute to economic objectives" (47%) was rated lowest.

E-Government strategies and action plans

The impact of e-government leadership is shown in how government organisations have prioritised e-government as an area for action, and whether they have developed and adopted specific strategies and action plans to fulfil central or local government political goals. The OECD survey shows a remarkable range of e-government strategies and action plans across levels of government (see Figure K.5).

Figure K.5. **E-Government plans in respondent organisation**



Source: OECD survey on e-government in the Netherlands.

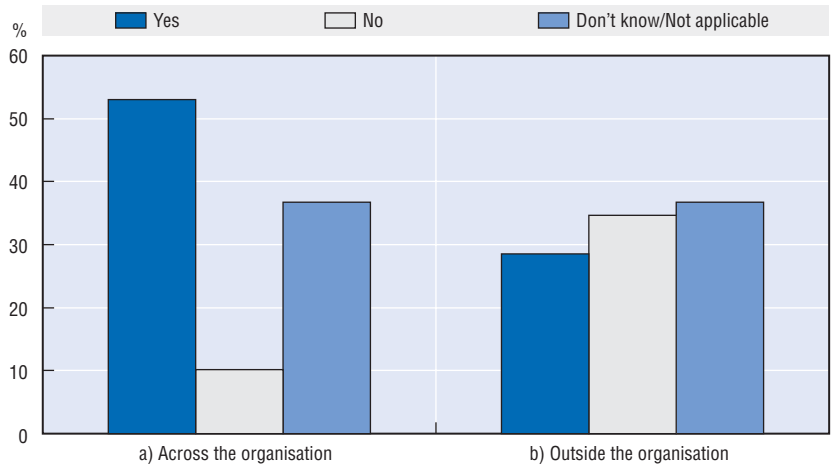
Responses varied as to organisations' specific e-government plans; it is significant that respondents in provinces (83%) and municipalities (76%) said that they have their own e-government plans while central government respondents (50%) were less likely to perceive that such strategies are in place. This may imply that the impact of e-government development is stronger among local governments than OECD interviews showed, and that the different actions taken since the mid-1990s have resulted in an impact on the public sector as a whole.

The low percentage of "Yes" responses (50%) by central government in comparison with local governments could show a lack of impact of e-government leadership in central government – alternatively, it may show that the government's main e-government policy and strategy has left little room for other ministries to act within their own areas of responsibility (see

Chapter 3 on the e-government leadership organisation in the Netherlands, and Chapter 4, Figure 4.1).

The lack of clearly communicated e-government goals was one of the main themes in OECD interviews (as discussed in Chapter 3 and supported by the OECD survey results in Figure 3.2). It is therefore interesting to track whether e-government plans are communicated systematically within public organisations. The OECD survey results (see Figure K.6) show that 53% of the respondents knew that their organisation had a strategy to communicate internally, while many fewer (29%) had strategies to communicate externally. More significant is the large number of "Don't know" answers (37%) from respondents, which imply that communication activities have not been sufficiently prioritised.

Figure K.6. **Existence of communication strategy for organisational e-government plan**

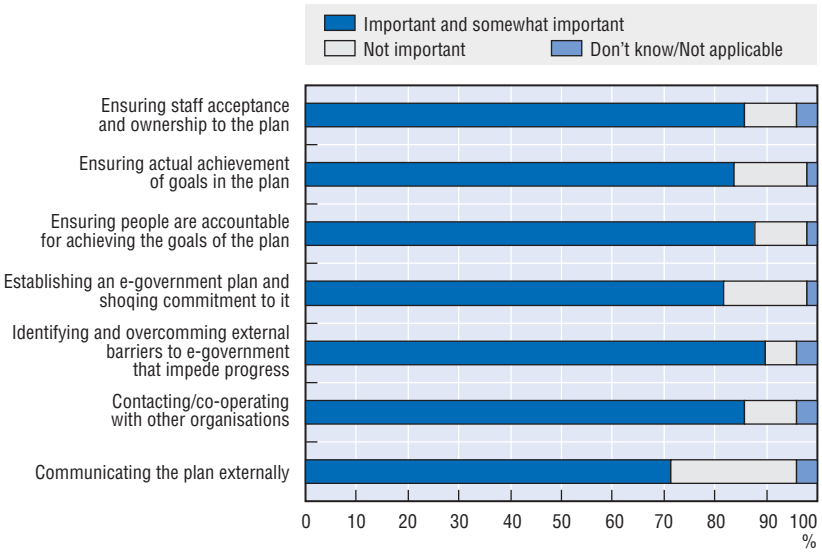


Source: OECD survey on e-government in the Netherlands.

Another aspect is how e-government leaders within an organisation prioritise the management of e-government implementation. The OECD survey results show (see Figure K.7) that "identifying and overcoming external barriers to e-government that impede progress" (90%) and "ensuring people are accountable for achieving the goals of the plan" (88%) are the most important goals. It is significant that the lowest rating is "communicating the plan externally" (71%), which highlights that communication of e-government is not a highly prioritised goal.

Analysis and discussion of the impact of e-government on different levels of government in Chapter 4, Organisational Structures, led to the conclusion that e-government has little impact on public organisations' "whole-of-government"

Figure K.7. **Importance placed by e-government leaders on e-government management tasks**



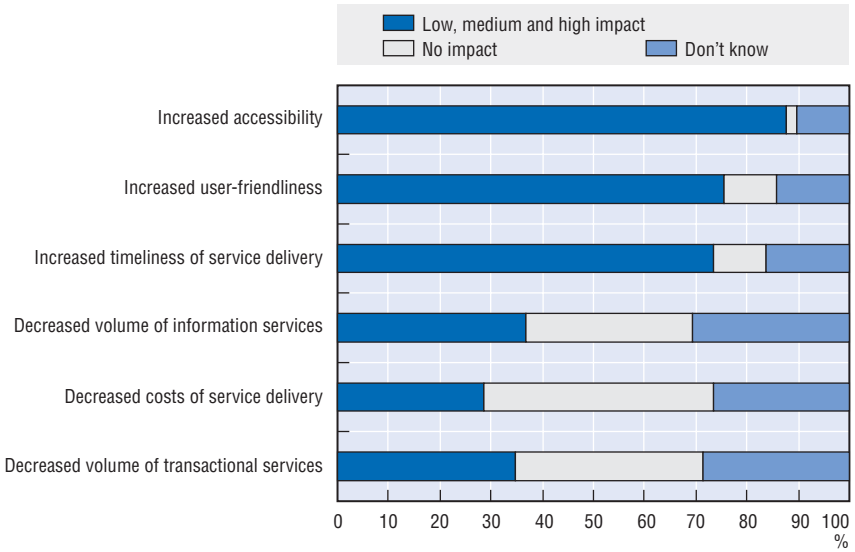
Source: OECD survey on e-government in the Netherlands.

understanding. The OECD survey shows that respondents perceive that their organisations' e-government programmes have strong impact (see Figure K.8) on "increased accessibility" (88% answered "Low", "Medium" or "High"), "increased user-friendliness" (76%), and "increased timeliness of service delivery" (73%). Respondents did not see a significant impact of e-government on decreasing costs of service delivery, volume of transactional services, and volume of information services. This underlines that using e-government development to achieve efficiency and effectiveness is not perceived as important with regard to e-government implementation.

Accessibility and usage of e-government services

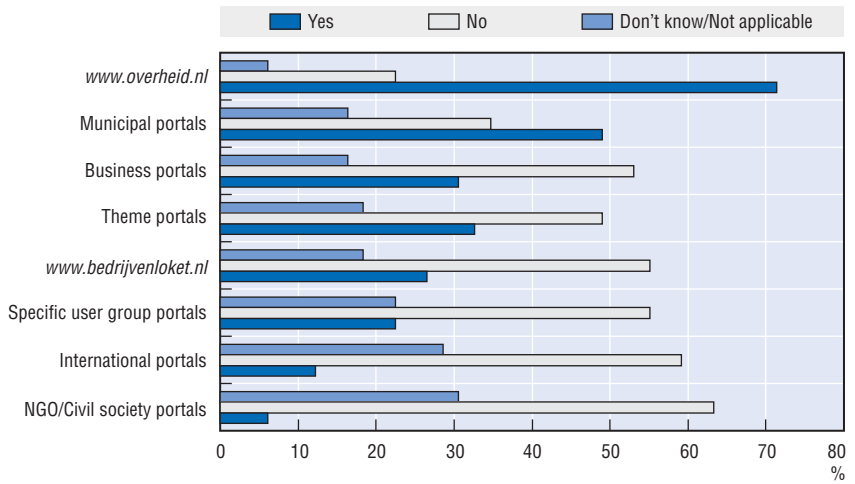
Accessibility of e-government services is a basic prerequisite for increasing user take-up; users must be able to find a relevant and needed e-government service solving a specific problem at a given time. The Netherlands has established a portal strategy, promoting *www.overheid.nl* as the main entrance to all online government information. The impact of this strategy is confirmed by the OECD survey results (see Figure K.9), where 71% of respondents from all levels of government answered that their organisation's e-government services can be accessed through *www.overheid.nl*. The next most important portals through which respondent's organisational e-government services could be accessed were municipal portals (49%), theme portals (33%), and business portals (31%). Even though 71% of the respondents answered that their

Figure K.8. **Impact of e-government on the services provided by respondent organisation**



Source: OECD survey on e-government in the Netherlands.

Figure K.9. **Accessibility of e-government services through portals**



Source: OECD survey on e-government in the Netherlands.

organisation's e-government services can be accessed through the government portal, 22% indicated that this is not the case, showing that full accessibility of all government e-services through the government portal is still not assured.

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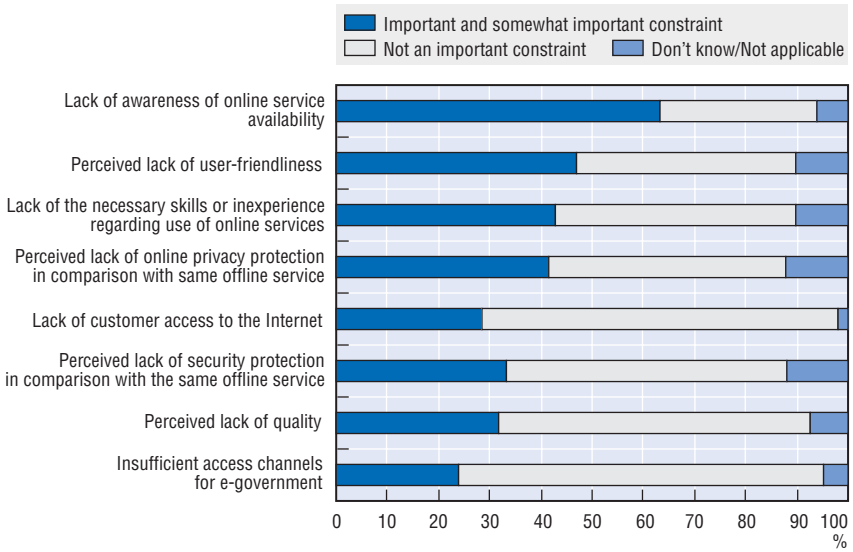
The survey also investigated barriers to user take-up of e-services provided by the public sector. Figure K.10 shows that citizens' most important reason for not using e-government services is the "lack of awareness of online services available" (64%) followed by the "perceived lack of user-friendliness" (49%). This underlines again the lack of external communication about the availability of e-government services. The low rating of "lack of user access to the Internet" (29%) by respondents is contradicted by the results of a 2005 Dutch E-Citizens Panel survey (see discussion in Chapter 6 and the corresponding Figure 6.7).

Figure K.10. **Importance of constraints for user take-up of online services provided by respondent organisation**



Source: OECD survey on e-government in the Netherlands.

CASE STUDY 1

Administrative Burden Reduction

Administrative burden reduction is a major policy priority in the Netherlands. Administrative burdens are defined as the costs incurred by businesses and citizens in their compliance with government laws and regulations. The Dutch government's goal is to reduce this burden by 25% (from year 2000 levels) by the year 2007, in order to improve the quality of public services. E-Government development has been closely tied to this initiative, as ICT is viewed as a powerful enabler for programmes to simplify and streamline services to citizens and businesses.

Working across levels of government and in collaboration with external stakeholders, the Dutch government has carried out a "baseline measurement" to identify the most burdensome government requirements. Reduction proposals have been drawn up based on these findings; citizens and businesses are involved in identifying potential solutions. A web-based hotline serves as a resource for government officials trying to reduce burden and as a focus point for collecting anecdotes on which policy can be based. Practical examples of programmes that have successfully reduced administrative burdens are also available.

Impact of ICT on administrative burdens

The Dutch government recognises that ICT is a strong enabler of administrative burden reduction, allowing the government to streamline business processes and simplify administrative tasks. The flow of information among government agencies – and between government and citizens, and government and businesses – necessitates a system that allows reliable, secure exchange of data and information. The "collect once, use many times" principle for handling data is also an important driver encouraging use of ICT.

In an effort to measure rates of data re-use, the Dutch government has implemented a pilot programme that tracks data requests tied to service provision. Because users are often asked to provide the same data in order to

access multiple services – oftentimes data that the government already has – the government is seeking a method to reduce data collection needs. As less data is requested and more information is provided automatically, citizens and businesses will save time and money.

A research report examined the impact of key ICT programmes on administrative burdens for citizens.[1] Focusing on 51 government services to citizens, the report first determined the burden caused by each operation and the possibility to reduce the burden if the service was provided electronically. The researchers then used these individual figures to create a general total potential burden reduction figure.

The total administrative burden resulting from the 51 selected services was 90.7 million hours and EUR 1.2 billion in out-of-pocket expenses, representing 81% of total hours and 96% of total expenses nationally. Selected services include: applying for a passport, obtaining a national identity card, voting, filing income tax returns, receiving social assistance benefits, reporting a crime, transferring a deed, and receiving medical care and prescriptions.

The report estimated the burden reduction that could be achieved through the use of e-forms, DigiD, the Municipal Personal Records Database (GBA), online administration programmes for taxes and registrations, and other ICT measures. Assuming 100% take-up of these key electronic services, the reduction potential was estimated at 13.1 million hours (a reduction of 11.7%) and EUR 8.4 million (a reduction of 0.66%). When actual expected use of electronic services was factored in, the figures were 11.4 million hours and EUR 6.7 million.

Actal – Dutch advisory body on administrative burden reduction

In order to address administrative burdens from a more policy-related and less technological perspective, the Dutch government established Actal – *Adviescollege toetsing administratieve lasten* – in May 2000. Actal is an independent advisory body charged with advising the government on administrative burden reduction in the Netherlands. Actal frames administrative burden reduction in terms of a "cultural shift" among legislators and regulators, and provides six general pieces of advice: establish an administrative burden ceiling as early as possible, limit incidental administrative burdens, compensate for new burdens, promote a cross-European approach to reduction, promote a cluster approach, and use ICT to reduce burden.

Located outside the "political realm", Actal advises various government agencies and ministries, along with the Dutch Parliament, sharing the most effective and least burdensome ways to achieve policy goals. The secretariat of Actal has a staff of 12, and is overseen by a three-person board, which includes

Table CS1.1. **Maximum attainable reduction in administrative burdens for key ICT programmes**

Key ICT measure	Maximum reduction potential			
	Up to and including 2007		From 2008 to 2013, inclusive	
	Hours	EUR	Hours	EUR
BSN, RNI	–794 503	0	–340 501	0
GBA, BRA	–590 297	0	–1 198 481	0
E-Forms machines	–1 601 999	–4 087 573	–961 200	–2 452 544
DigiD 1 + 2	–1 066 676	–137 086	–355 559	–45 695
DigiD 3, e-Nik	–522 588	0	–2 090 352	0
Policy administration		0	–202 233	0
Income administration		0	–1 534 231	–21 647
Vehicle registration		0	–144 245	0
Reduction potential	–4 576 063	–4 224 659	–6 826 801	–2 519 913
% of total reduction potential	40.13	62.64	59.87	37.36
% of macro total administrative burdens for citizens	–4.09	–0.33	–6.10	–0.20

Source: Potentiële effecten van ICT-basisvoorzieningen op administratieve lasten voor burgers (Potential effects of e-government on administrative burden for citizens), Economisch Instituut voor het Midden en Kleinbedrijf, 2005, Table 4.

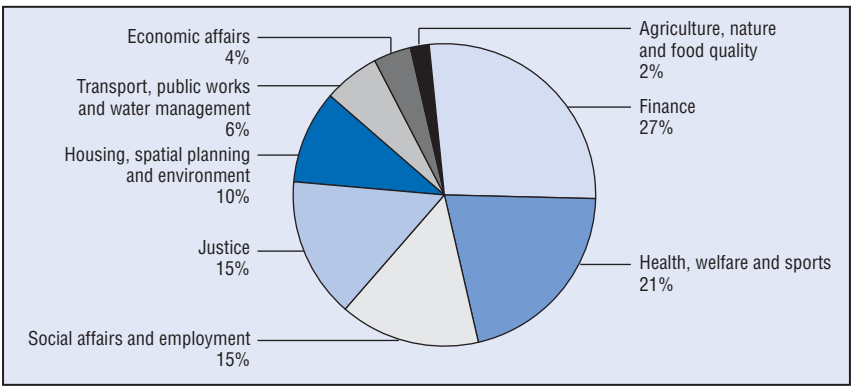
a citizen representative. Actal works closely with the Ministry of Finance and the Ministry of the Interior and Kingdom Relations, which co-ordinate the administrative burden reduction initiative for the Cabinet of Ministers.

Actal focused its first efforts on administrative burden reduction for businesses. At the beginning of the anti-red-tape initiative in May 2000, annual administrative burden costs were estimated at EUR 16.3 billion for businesses. These sums represent resources that must be allocated to administrative activities rather than invested elsewhere for more productive purposes; costly for individual businesses, this also inhibits economic growth and prosperity in society overall. The proposed 25% reduction would necessitate a cut of EUR 4.1 billion; the Netherlands Bureau for Economic Policy Analysis estimates that this would result in a 1.5% increase in real GDP and a 1.7% increase in labour productivity.

In April 2004, the Dutch government adopted a number of measures aimed at easing administrative burdens on businesses by 18%; these initiatives have been implemented. As of 2005 Actal has enlarged its scope to address administrative burdens on citizens as well, estimated at EUR 6.9 million and 3.4 million hours per year.

Actal was created by the Dutch Advisory Board Act (2000), which gives the agency access to all relevant government information and requires government organisations to provide Actal with all documents requested, including draft legislation and policy. Actal generally reviews all proposed

Figure CS1.1. **Administrative burdens in the Netherlands by ministry**



Source: Actal, 2006.

legislation that will have an impact on overall administrative burdens on Dutch businesses and/or citizens. Measures that will increase administrative burdens by more than EUR 5 million are sent for immediate study; those that will generate an increase of between EUR 500 000 and EUR 5 million are examined selectively. Assessment criteria are:

- Are administrative burdens quantified?
- Is the quantification well-founded?
- Are alternatives that may lead to less administrative burdens considered? And is the least burdensome option chosen?
- Are choices made supported by strong arguments?

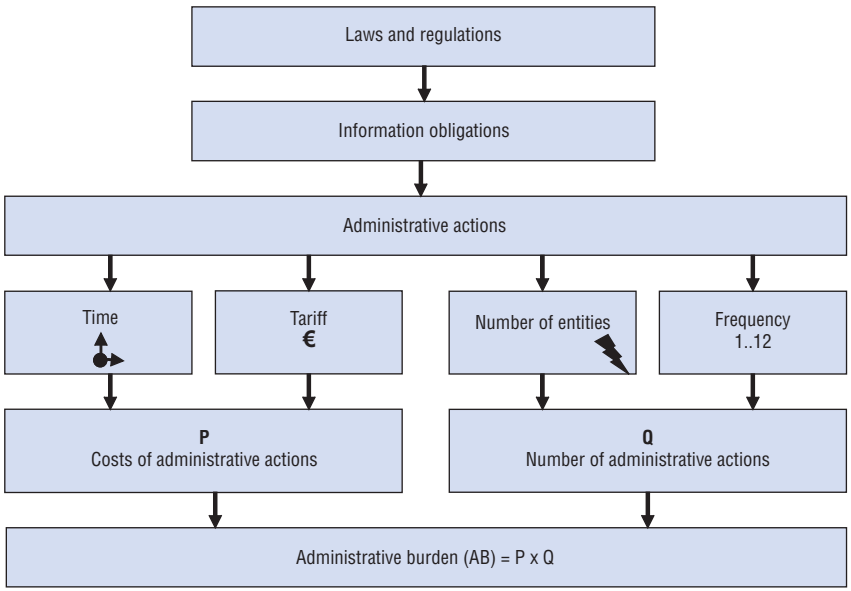
Actal administers all tests according to a standardised process, using expert panels and external research if necessary. Test results are submitted within four weeks to the relevant government officials as a formal judgment. Possible outcomes are: submit the proposal to the Cabinet of Ministers without conditions; submit the proposal to the Cabinet only once comments are taken into account; do not submit the proposal to the Cabinet at all. Between September 2000 and July 2006, Actal reviewed 1 060 laws and produced 230 formal advice memoranda.

Actal advises on existing policy by reviewing the individual ministerial action programmes on administrative burden reduction submitted to Parliament each year; it also carries out independent research on this topic. However, Actal's advice is not binding. It may advise ministers on its own initiative, but must wait for a request before approaching Parliament.

In order to help government officials determine administrative burden, Actal provides standard assessment tools such as a common methodological approach. The approach begins with a standard methodological model,

allowing for systematic analysis and monitoring of administrative burdens within the Netherlands. It is based on the Standard Cost Model (SCM),[2] a reduction tool (stock) for existing legislation and a design tool (flow) for new legislation. SCM can allow for a measurement of some specific fields of existing legislation, or an *ex ante* measurement of administrative burdens from new legislation (see Figure CS1.2). To quantify the burden impact, the time normally spent to fulfil an administrative requirement is valued at national labour cost rates (tariff); multiplying the information requirement costs by the frequency of information obligation and the number of companies or persons involved allows the full burden to be calculated. For example, an Actal study that examined the burden caused by filling out forms found that the burden of the 130 largest report flows (more than 10 000 reports per year) amounts to a total of EUR 1.3 billion per year. The methodology also considers the origins of administrative obligations – European/international-level regulations with international implementation, European/international-level regulations with implementation decisions in the Netherlands, or specific Dutch regulations.

Figure CS1.2. **Administrative burden structure in the Netherlands**



Actal is also working with the SCM Network, an international network formed in 2003 to support use of a common methodology for administrative burden reduction across Europe. All network members use the SCM, which provides transparent measures and is also the basis for the *OECD Red Tape*

Scoreboard, in their national efforts. Current members are Belgium, the Czech Republic, Denmark, Estonia, France, Hungary, Italy, The Netherlands, Norway, Poland, Sweden and the United Kingdom. Actal carried out many international activities during the Dutch Presidency of the European Union (1 July-31 December 2004).

In the Netherlands, the SCM methodology is being applied in various agencies in central government. For example, the Ministry of Education is using it to reduce burden on schools, the Ministry of Finance is addressing burden on provincial and municipal governments imposed by central government policy, and burden on citizens and businesses by local-level government and industrial regulatory organisations are also being examined.

During its six years of operation, Actal has achieved many successes. In the face of obstacles – including lack of commitment by government leaders, resistance to change by civil servants, and initial problems with its measurement instruments – it has:

- Raised awareness of administrative burden issues and reduction responsibilities among ministers and their staffs, including taking burden reduction into account from the earliest planning stages for new legislation.
- Developed tools to measure administrative burdens in both proposed and existing legislation.
- Carried out systematic *ex post* evaluation of legislation.
- In co-operation with ministries, produced detailed administrative burden reduction plans for each ministry.
- Determined administrative caps and individual reduction targets for each ministry.

The Actal chain approach model mapped an information chain that offers multiple opportunities to reduce burden by identifying reports that have common content, are sent for the same reason, and are sent to different government agencies. Actal is also working to produce an information glossary to provide uniformity in terms and reduce administrative burdens.

The administrative burden paradox

The Dutch government has shown a strong commitment to reducing administrative burdens on citizens and businesses. These efforts have been successful in cutting red tape, and in realising the potential of ICT to deliver more streamlined and user-focused services. However, they have also brought to light a notable paradox regarding Dutch citizens – although they appreciate the fact that government agencies organise and manage their information in a way that saves them time, they remain skeptical about the exchange of information among government agencies.

Citizens do not expect ICT to contribute to privacy protection. Although a recent study showed that people believe the Internet offers more privacy than other service delivery channels (such as the telephone or a public counter), citizens do not expect enhanced privacy through electronic transactions.

Additionally, many people in the Netherlands feel that they have insufficient access to the information that government agencies hold about them. A large majority of the Dutch public (68%) said that they would like more insight into this data; rather than providing citizens constant access to summary information, to be consulted at their own initiative, citizens would like the government to compile and send a periodic data summary. Additionally, it is important for citizens to have the ability to amend incorrect information (which is difficult under existing processes). Dutch citizens believe: the opportunity to inspect and correct personal information held by government agencies must be improved.

Notes

1. *Potentiële effecten van ICT-basisvoorzieningen op administratieve lasten voor burgers* (Potential effects of e-government on administrative burdens for citizens), Economisch Instituut voor het Midden en Kleinbedrijf, 2005.
2. For more information about using the Standard Cost Model to evaluate administrative burden, see *The International Standard Cost Model Manual*, published by the OECD, at *www.oecd.org/dataoecd/32/54/34227698.pdf#search='standard%20cost%20model*.

CASE STUDY 2

Monitoring and Evaluation

Although the public sector has invested significant resources in e-government for over a decade, monitoring and evaluation of outputs and outcomes of e-government development is still limited and in its infancy. This situation is changing due to growing concerns within the public sector about whether the full benefits of e-government investments are being realised, and whether stated political goals are met. Measuring e-government development and its impact is therefore a focus in many OECD countries.

A number of monitoring and benchmarking tools have been designed for specific purposes:

- **National monitoring tools:**
  - *Overheid.nl Monitor* (*www.advies.overheid.nl*) provides continuous and annual reports on the state of e-government development in the public sector.
  - *The Webdam Monitor* (*www.webdam.nl*) was designed, developed and launched as a simple tool by the Ministry of the Interior and Kingdom Relations to track the fulfillment of a political goal: having all municipalities online and 25% of government services available online by 2002.[1] The original project was to develop a website to allow municipalities to share experience and ideas.
- **International benchmarks** such as the EU Commission studies tracking 20 e-services.[2]

Overheid.nl Monitor

The main purpose of the Overheid.nl Monitor is to assess reduction in information requests by public institutions from citizens and businesses. The monitor measures the information demand of the public sector, and how it changes over time. It also reveals to what extent the deployment of ICT helps to reduce administrative burdens and improves services to citizens and

businesses. The methodology the same as used to monitor the 20 e-services benchmarked by the European Commission in its yearly measurements. The Overheid.nl Monitor includes an additional 100 e-services that are in high demand; it will run through the end of 2007 – in line with the Dutch policy goal of providing 65% of all services electronically by 2007.[3] The list of 120 also includes e-services that feature prominently in measuring administrative burdens for businesses and citizens (*e.g.* application for social assistance benefits or a permit to establish a business).

The monitor has developed two monitoring tools: a yearly in-depth survey, and a continuous monitor tracking the development of ministry, province, Kadaster, and municipality websites.

Notes

1. According to "*Contract met de toekomst. Een visie op de elektronische relatie overheid-burger*" (Contract with the Future. A vision on the Electronic Relationship between Government and Citizens). Memorandum presented to the Lower Chamber of the Dutch Parliament by the Minister for Urban Policy and the Integration of Ethnic Minorities, Lower Chamber, session year 1999–2000, 26 387, No. 8, 19 May 2000.
2. Since 2001, the EU Commission has measured how 20 basic e-services have developed across the European Union through yearly evaluations. The latest measurement is the Capgemini report for the European Commission: "Online Availability of Public Services: How is Europe Progressing?", June 2006.
3. Ministry of the Interior and Kingdom Relations (2006), *Monitor, Multiple Use of Information*, The Hague, 16 December 2005, accessed on 26 September 2006, *www.minbzk.nl/contents/pages/65347/monitor.pdf*.

CASE STUDY 3

E-Health

The e-health initiative in the Netherlands is part of the Dutch government's larger Modernising Government programme, which seeks to develop an integrated administrative approach in four key areas: transport, education, public safety, and healthcare. Lessons from the Netherlands and other OECD countries on e-health initiatives demonstrate successful implementation strategies.[1]

E-Health drivers and goals

Examining the driving forces behind e-health is important; this process allows policy makers to assess the relevance of their country's existing care policies. In the Netherlands, this analysis is contained in the *ICT in Dutch Healthcare Strategy*.[2] It mentions the following drivers:

1. **Ageing population:** The most frequently cited reason for e-health is population ageing, which will put a heavy strain on countries' healthcare systems. By 2020, the proportion of people aged 65 and over will account for 38% of the Dutch labour force (OECD, 2005). As a result, more people will develop chronic conditions and require medical treatment. The accessibility, affordability and quality of care must continue to be guaranteed accordingly.
2. **Rising citizen expectations:** Healthcare professionals are facing a number of pressures to become more patient focused and to integrate information technologies into their operations. For example, in 2003, 40% of web searches in Europe were health-related.[3] E-Health, because of its capability to process huge amounts of information, can constitute a powerful tool for public administrations, enabling them to become more proactive and to foster public trust.
3. **Rising healthcare costs:** Health expenditures are growing faster than countries' gross domestic products (GDP). According to the OECD, in 2003 health expenditures accounted for an average of 8.6% of a country's GDP.

For the Netherlands, in 2004 (and 2003) health expenditures represented 9.8% of GDP; when compared to other developed countries – such as Germany, France or Canada – the Netherlands spends less, and more than one-third less than the United States. Consequently, and thanks to high levels of performance in the Dutch health sector, the cost driver is less pressing for the Dutch.

The aim of the Dutch healthcare system, as stated in the "ICT in Dutch Healthcare" strategy, is to provide more effective, efficient and customer-focused healthcare. As a result, the ultimate aim of the use of ICT in healthcare is to improve affordability, accessibility and quality.

These goals are in line with other European countries. Another goal pursued by the Dutch government is to help achieve European interoperability. The Netherlands states that EU member countries should prepare themselves for trans-Europe exchange of medical data in the future and reach some form of agreement on standards and processes.

Through its planning body, the Netherlands ICT Institute in Healthcare (NICTIZ),[4] the Dutch government has chosen to implement a nationwide electronic medication system as its near-term objective, aiming for 100% e-medication by the end of 2006. This application will allow health professionals to view patients' medical histories in real time from their computers.

The **benefits of the Dutch e-medication programme** are twofold. One: this system will allow for more accurate diagnoses. Two: it will reduce the number of hospital admissions caused by medication errors. This strategy is buttressed by a business case, according to which 90 000 hospitalisations could be avoided every year, representing an annual saving of EUR 300 million.[5]

From an analytical point of view, the Dutch approach can be represented as a three-step process:

"Better"	➔	By avoiding illness caused by medication errors	➔	90 000 fewer hospital admissions p.a.
"More efficient"	➔	By electronically recording patients' medication	➔	€300 million savings p.a.
		Translation		Quantification

E-Health Boundaries

Countries that have successfully implemented e-health strategies have done so by carefully delineating project boundaries, both in terms of processes and stakeholders.

A successful example is Denmark. Its e-health project (called MedCom) evolved over three stages, each involving a growing number of stakeholders (see Box CS3.1).

Box CS3.1. **The Danish MedCom system**

Denmark started to plan the development of its healthcare data network, MedCom, in the late 1980s. The objective was to move away from the traditional paper-based referral system by allowing seamless electronic communication among all parties in the health sector.

MedCom is now fully operational. In 2005, it was used by 100% of pharmacies and hospitals, 88% of GPs, and 57% of specialists. In terms of efficiency, this system yielded significant savings, including a time savings of 50 minutes per day for doctors and a 66% reduction in followup telephone calls for hospitals.

MedCom also entails a health portal (*www.sundhed.dk*) that allows Danish citizens to: 1) make online appointments ("e-booking"); 2) receive consultations via e-mail ("e-consultations"); and 3) renew prescriptions online.

Source: OECD, Case Study 1, "Standard Based E-Government in the Danish Health Sector", internal document.

Denmark started to offer online services to its citizens only when Internet use in the country was widespread. In general, the size of a country's e-health community (stakeholders) must be commensurate with its ICT maturity level. A country's maturity level can be defined by the following three indicators:

- Internet usage.
- Level of online interaction with public administration.
- Number of people who have access to broadband Internet connections.

With respect to these three indicators, the Netherlands has a high ICT maturity level. Therefore, the Netherlands e-health strategy allows for the involvement of a large number of health stakeholders. These include the Ministry of Health, Welfare and Sport; hospitals; pharmacies; local authorities; and the private sector (with limited access to patient records).

E-Health applications

Many e-health applications are available, and governments should consider two dimensions in e-health implementation: the technical nature of the application (interactive, remote, etc.) and the domain area of the application (administrative and financial, education, consumer health, research, etc.). Choosing the right application is paramount to turning policy goals into reality.

Technical nature of the application

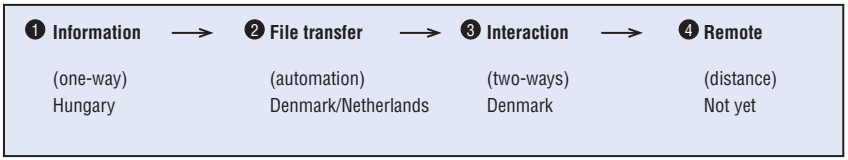
The United States National Research Council identified five key technical capabilities required to support e-health applications. The five key technical characteristics of e-health are:

1. Bandwidth: transmission capacity of a network.
2. Latency: time required for a message to be acknowledged.
3. Availability: likelihood for a network to be up and running.
4. Security: capacity of a network to ensure the confidentiality and the integrity of data transmitted.
5. Ubiquity: degree of access to the Internet.

There are three principal **lessons from the technical nature** of the applications.

First, being aware of the technical requirements of e-health will allow policymakers to formulate ambitious, but achievable, strategies. It is pointless to aim for applications that the country's current IT infrastructure cannot support. In that regard, the five technical criteria constitute a useful checklist in deciding which applications to implement.

Second, the rollout of e-health should follow an incremental path that can be depicted as follows:



Countries like Hungary and Turkey are currently testing electronic health record systems. Pilot projects are useful because they allow governments to gather first-hand experience. When it comes to rolling out e-health nationally, however, the Dutch and Danish experiences have shown that it is wiser to start with file-transfer applications (*e.g.* e-prescription), which involve fewer stakeholders.

A third important lesson to draw from the Danish and Dutch experiences is that it is always better to start with one application and then to move to the next once the first is fully operational. This type of strategy is sometimes described as "freeze – unfreeze – freeze". It helps implementers to plan and sequence their efforts (*e.g.* the successive Danish plan, MedCom).

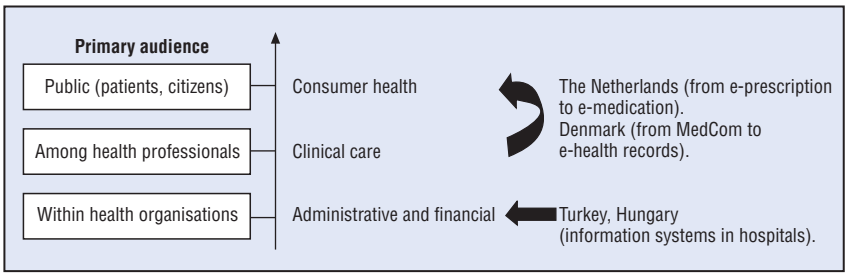
The domain area of e-health applications

Typically, e-health applications encompass six different domain areas:

- **Consumer Health:** health websites, etc.
- **Clinical Care:** online access, file transfer, etc.
- **Administrative and Financial:** information management systems, etc.
- **Public Health:** online epidemiological alerts.
- **Education:** e-learning.
- **Research:** online collaboration on projects.

A careful review of how other countries have successfully built their e-health systems underscores the existence of a migration path. The key lesson is that e-health applications build upon each other. In addition, the Danish and the Dutch experiences have shown that this requires a high level of co-ordination because of the legal and technical complexities involved. The incremental progression is illustrated in Figure CS3.1.

Figure CS3.1. **Domain area evolution**



Dutch E-Health applications

The Dutch e-health strategy revolves around four key applications:

- **e-Prescription:** This programme is already operational nationally. It provides for the electronic transfer of prescriptions; in 2005, 80% of physicians used this system to issue prescriptions.
- **e-Medication:** This programme is in the implementation phase. It allows doctors and pharmacists to access patient information electronically.
- **e-Locum:** This programme is also in the implementation phase. It will allow for sharing of health records when patients see providers other than their regular physicians.
- **e-Expense Claims:** This programme is in the planning phase. It will automate the flow of expense claims between health providers and health insurers.

The cornerstone of Dutch e-health will be the Electronic Health Record (EPD) programme. Working with the Ministry of Health, Welfare and Sport, NICTIZ has planned and begun implementation of this nationwide system for secure and reliable exchange of medical data.

A collection of applications connected to a national infrastructure, the main features of EPD are currently the Electronic Medication Record (EMD) and the Electronic General Practitioner's Record (WDH). The EMD allows health practitioners to access patients' medical histories using ICT. Its goal is to reduce medical errors by ensuring that doctors and pharmacists have complete information before making diagnoses or prescribing medications.

A severe shortage of GPs in the Netherlands currently necessitates that some physicians fill in for their colleagues in so-called Locum Posts (particularly at night and on weekends). Oftentimes, the replacement GPs do not have access to patients' medical records, preventing them from making a correct diagnosis. The WDH allows locum physicians to obtain information from patients' medical records (still housed in the regular GP's office), and to automatically report care given to the patient's regular GP.

The basic Dutch E-Health infrastructure

Dutch health identifiers

Data will be linked and shared, relying on three numbers, which provide e-authentication for different users of the e-medication system:

- The Citizen Service Number (BSN) for identifying patients. This is a universal citizen identification number, used to access multiple government services and processes; special legislation regulates its use in the health sector. The "Use of the BSN in Healthcare" proposal, which is still in the legislative process, would allow patients to access their medical information, have certain data erased, set access limits for their records, and request that some data be excluded.
- The Unique Healthcare Professional Identification (UZI) for identifying healthcare providers. The first UZI cards were issued in January 2006. They include a personalised health practitioner card, a named employee card for health workers, and a service card issued to health organisations for their information systems. The government has allocated EUR 10.6 million to cover the first issuance of the UZI cards.
- The Unique Health Insurer Identification (UZOVI) for identifying health insurers. UZOVI cards will be issued beginning in 2007, with the creation of a register of health insurers.

As of 31 January 2006, health providers receive patient information through the **National Switch Point (LSP)**, which routes, identifies, authenticates, authorises, and logs data. This initiative will provide the foundation for the

national rollout of the electronic patient record (EPD) and aims to enable different Dutch healthcare organisations to rapidly exchange patient information while ensuring confidentiality. The LSP links hospitals, pharmacies and GPs; users can log on via commercial communication, application and content services. To be effective, the LSP depends on systematic storage and security of data in all local systems.

LSP manages a "national reference index", which tracks patient data when healthcare providers request specific information. It confirms the caregiver using the UZI, and the patient using the BSN. Physicians and pharmacists must work with their technology providers to ensure that they have access to the data on a constant basis, and that their systems are compatible with LSP's Public Key Infrastructure.

In selecting data standards, NICTIZ adopted a pragmatic approach, focusing on: the most recent developments using XML technology and the Internet; a standard that will likely be internationally accepted; and a specific standard adapted for health care. NICTIZ also consulted widely with industry in selecting data standards.

The cost of planning and implementing e-health records in the Netherlands

The national facilities for the system infrastructure are funded by the state (the National Switch Point, health provider and health insurer registers, and the first issuance of the UZI card), along with the pilot EMD/WHD implementation. This has resulted in an initial investment of more than EUR 50 million, or about EUR 1 000 per health provider.

NICTIZ receives EUR 10 million per year from the government to deploy e-medication nationally. This task involves implementing the system at 10 000 different locations, representing 50 000 healthcare providers in total.

NICTIZ was established in 2002 and is supposed to be disbanded in 2006 once e-medication is operational. Thus, the Dutch government will have spent roughly EUR 50 million in planning and implementation. To put this figure into perspective, total health expenditure per capita in the Netherlands was about EUR 2 200 in 2003. This comparison highlights the magnitude of the planning and implementation costs involved.

Pilot implementation of EPD

Five Dutch regions are currently testing a pilot version of EMD/WDH under controlled circumstances; this trial involves more than 1 000 healthcare providers and about 2 million files. The Proof of Concept phase of the pilot process is intended to show whether the national systems are functioning correctly, and if the healthcare systems are able to link to the LSP. The second

pilot phase will bring the EMD and the WDH "live" in one region each. Finally, full implementation in the pilot regions will take place.

When completed, the electronic health records will bring together different types of information – prescriptions, scans, MRIs, lab results – in a single file using the common medium of digital data. As patients' electronic health profiles become more comprehensive, their care will improve with more accurate diagnoses and more individualised care.

The ultimate goal of Dutch e-health is to extend the EPD to cover other sectors. Next planned steps are extension of the WPD to include emergency information, development of an Electronic Child's Record for every child born in the Netherlands after 1 January 2007, and implementation of a system to allow patients to electronically access their own health records.

Security and privacy

E-Health can save lives, but if it is misused, it can undermine public trust and reduce government legitimacy. Therefore, one of the major challenges facing countries implementing electronic health records lies with data storage. Where should patient records be stored to ensure maximum protection? There are four basic options:

1. Central: on a national database.
2. Portable: on a Smart Card that belongs to the patient.
3. Local: at the point of treatment (hospital information systems, doctors' computers, etc.).
4. Distributed: combination of central, portable and local.

No solution is fail proof. A national database opens the risk that the entire population's data might be stolen. A Smart Card may not include sufficient storage space, which could be problematic, especially if the objective is to store large biomedical files such as MRIs. Local storage puts an additional burden on primary healthcare providers, who may not be prepared or willing to undertake this extra task. As a result, most countries lean towards a combination approach.

Security and privacy of medical records is a major priority for the Netherlands; many instruments have been designed to ensure provider and patient confidence in the security of data transport, storage, and access. Access to information is never granted until a user's identity has been determined (identification) and confirmed (authentication). The applicant's right to consult the information is then determined (authorisation). All messages are encrypted to ensure that information cannot be intercepted during transport. The Dutch have also standardised message formats for communication at various levels.

Lessons learned: E-Health in the Netherlands

Governments must be aware of the magnitude of the efforts and costs involved in establishing and administering identifiers. For this reason, new entrants should start by implementing applications that either don't necessitate any identifier at all, or rely only on professional identifiers (because their number is much more limited). The Netherlands started by introducing e-prescription (which does not require patient identifiers), before launching its e-medication system (which does require patient identifiers).

As soon as patient identifiers are introduced, the issue of personal data usage, storage, and protection will inevitably arise. Governments must proactively address this question before data are misused; if this happens, public trust will be severely undermined and the government's efforts in promoting e-health will be compromised.

This means putting in place the necessary regulatory framework before patient identifiers are actually used. A key step is to establish a national data protection body. This agency will not only play a key role in establishing the necessary safeguards and ensuring compliance with EU regulations, but will also empower citizens by giving them greater control over their health records.

E-Health initiatives – which involve a wide variety of stakeholders with very different needs, including doctors, pharmacists, patients and insurance companies – are challenging to implement. It is important to ensure stakeholder buy-in at the earliest stages of any initiative. In 2002, the Dutch government published a report titled *The Price of Mistakes*, which highlighted the human and financial consequences of medication errors. This report led to significant media coverage and supported the need for an electronic patient record.

Finally, an important question is how to undertake the proper and regular training of healthcare workers as ICT capabilities evolve. Health organisations from local hospitals to large insurance companies will be forced to rethink their structures, budgeting processes, and training programmes.

Notes

1. Portions of this research have been contributed by Mr. Benoit Rossi as part of his Masters Thesis at the John F. Kennedy School of Public Management at Harvard University, in co-operation with the OECD.
2. *ICT in Dutch Healthcare, an International Perspective*, Ministry of Health, Welfare and Sport, May 2006.
3. European Institute of Public Administration, "Mapping the Potential of E-health: Empowering the Citizen through E-health Tools and Services", E-health Conference, Cork, Ireland, 5-6 May 2004.
4. NICTIZ is an independent organisation founded in 2002 by various stakeholders in the healthcare sector. NICTIZ is responsible for the design of the nationwide health ICT infrastructure and development of standards for the Electronic Health Record.
5. *Nationaal ICT Institute in de Zorg*, "Better Care Thanks to Better Information", June 2004.

CASE STUDY 4

The Dutch E-Citizen Charter

The Dutch e-Citizen Charter aims to answer an important question: What can citizens[1] expect when e-government is implemented? In answering this question, the government wants to introduce a new partnership between citizens and government, and to ensure that e-government is developing from a citizen-focused point of view.

The Charter includes standards that define the digital relationship between citizens and the government; they take the format of "citizen benefits" and "government obligations". Although citizens generally do not know what they are entitled to and what to expect from e-government, they generally assume that the government will treat them as they are treated by private companies with whom they have electronic interaction.

In 2004, the independent Dutch e-Citizen Programme conducted research to determine what government promises citizens,[2] what citizens are actually being offered, and what citizens consider to be important. This research identified four types of relationships between government and citizens: citizens as customers, citizens as voters/participants in the political process, citizens as subjects to government rules and regulations, and citizens as users of public services. Each relationship brings citizens into contact with a different face of government. Further research found that – despite government promises that e-government would increase transparency of government organisations – almost all agencies remained opaque. Citizens had few opportunities to receive personalised information, make electronic transactions, or monitor progress of their dealings with government.

The results of these two studies were compared with a survey of citizens' opinions on government services. Citizens cited the following major complaints: long lines at government offices, the need to provide the same information over and over, inconvenient hours of operation, too many forms, and slow response time by government offices. All respondents said that they hoped to get more from the government through online services.

Identifying 10 general quality standards for e-government (see Box CS4.1), the Charter helps citizens articulate their wishes, and provides

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Box CS4.1. **The 10 Standards of the Dutch e-Citizen Charter**

The Dutch e-Citizen Charter applies to all citizen contacts with government conducted electronically, including delivery of products (like a passport), supply of information, and political participation. The 10 standards of the Dutch e-Citizen Charter are:

1. **Choice of Channel:** Citizens can choose how they deal with government. Government ensures multi-channel delivery (visit, letter, phone, e-mail, Internet, etc.).
2. **Transparent Public Sector:** Citizens know where to go for official information and public services. Government guarantees one-stop-shop service delivery and operates as one seamless entity.
3. **Overview of Rights and Duties:** Citizens know to which services they are entitled, and under what conditions. Government ensures that these rights are transparent.
4. **Personalised Information:** Citizens are entitled to information that is complete, up to date, and consistent. Government provides appropriate data tailored to citizen needs.
5. **Convenient Services:** Citizens can choose to provide personal data once and to be served in a proactive way. Government makes clear what information about citizens is held, and does not use data without citizen consent.
6. **Comprehensive Procedures:** Citizens can easily ascertain how government works and monitor progress. Government keeps citizens informed through tracking and monitoring systems.
7. **Trust and Reliability:** Citizens can presume that government is electronically competent. Government guarantees secure identity management and reliable storage of electronic documents.
8. **Considerate Administration:** Citizens can lodge complaints and register ideas for improvement. Government compensates for mistakes and improves products and procedures based on feedback.
9. **Accountability and Benchmarking:** Citizens are able to compare, check and measure government outcomes. Government supplies performance benchmark information.
10. **Engagement and Empowerment:** Citizens are invited to participate in decision making, and to promote their interests. Government supports empowerment by ensuring that necessary information and instruments are available.

government with incentives to organise the back office in a way that supports the tangible front-office e-government programme. The standards address the full e-government programme cycle, from the political decision-making process to service delivery. Citizens are empowered to hold the government accountable for the quality of its online services and information.

The e-Citizen Programme keeps up to date on citizens' demands and expectations through quarterly consultations, mainly through Internet-based surveys, with a panel of 2 300 citizens.

The Charter allows government to examine the external quality of e-government, and to increase its accountability to the public. It also stimulates the government to keep citizens' demands and expectations in mind when developing future e-government initiatives. This is particularly true at the local-government level, where mayors are legally required to provide annual reports on local service delivery and political participation. As of 2006, mayors are expected to use the Charter's standards to assess progress and to plan future directions. The e-Citizen Programme also sponsors two annual programmes to award agencies which have excelled in adherence to the standards and to "shame" those which have fallen short.[3]

The Charter has been introduced as a voluntary instrument that can be adopted partially or in full. Some of the standards are already compulsory because they are legally binding or based on EU directives. The government expects that the final Charter will not be mandatory, but will be based on the "Comply or Explain" system whereby central and local government bodies will publicly state which of the 10 standards they adopt and why they do not adopt the others. The implementation goal is to have 1 400 government agencies adopt the Charter by 2007, but full compliance is not expected for several years, as agencies will have to first put back-office systems in order.

The e-Citizen Charter is a major government priority – 2006 has been named the Year of the e-Citizen Charter by the Dutch Parliament. The initiative is managed by ICTU, and its funding comes from the Ministry of the Interior and Kingdom Relations; it is overseen by an independent board, which has the impartiality to criticise government efforts where necessary. Its annual budget is EUR 1.7 million.

Notes

1. The Charter applies the term "citizen" in the broadest sense, including private individuals, businesses, and representatives of societal institutions (such as schools), etc.
2. Matt Poelmans: "The e-Citizen Charter, e-Quality promoting Equality between Citizens and their Government", e-Challenges 2005 Conference, 19-21 October 2005, Ljubljana, Slovenia.
3. Matt Poelmans: "The e-Citizen Charter, e-Quality promoting Equality between Citizens and their Government", e-Challenges 2005 Conference, 19-21 October 2005, Ljubljana, Slovenia.

CASE STUDY 5

Ib-Groep – The Dutch Education Grant Administration Agency

The *Information Beheer Groep* (IB-Groep) is the Dutch government agency responsible for student grants administration and management of related student and educational information. It is under the political umbrella of the Minister of Education, Culture and Science. About 3.5 million Dutch residents utilise programmes under the auspices of the IB-Groep, including about 500 000 students and their parents.

In the late 1990s and the early 2000s, the IB-Groep was in crisis. Users broadly criticised the agency, citing slow responses and poor service provision. Specific issues included long delays in handling cases, and a perceived lack of responsiveness by IB-Groep staff. The situation became politically sensitive due to the lack of responsiveness from IB-Groep.

The intense public pressure forced IB-Groep to quickly and dramatically improve its performance. The agency's leadership took the opportunity to completely re-think its operational strategies; as part of this process, they implemented strategic and integrated use of ICT as part of a multi-channel service strategy.

The strategy focused on Internet-based delivery of services, in an effort to better meet external users' needs and to increase internal efficiency. The two main goals were:

- To re-allocate IB-Groep resources in order to provide personal advice and assistance to users requiring this level of service, while allowing users able to manage their own accounts to do so.
- To change the image of IB-Groep to a service-driven and innovative organisation responsive to customer needs.

Main initiatives include the *Mijn IB-Groep*, an online portal for student loans and grants processes and information. This portal offers prospective students options to search databases, find courses, and apply for some

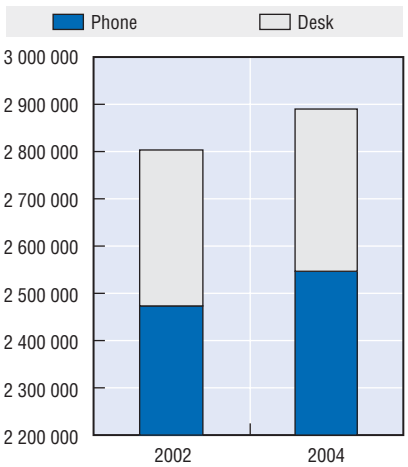
programmes. In March 2005, the IB-Groep won the national "Webwijzer Award 2004", a prize awarded to the best government website by an independent jury.

The agency also developed a unique e-authentication concept using mobile phones and SMS; this channel was selected specifically because students often misplace electronic tokens or other e-solutions, but generally do not lose their mobile phones. The IB-Groep has offered this SMS e-authentication concept to *DigiD*, and it was accepted as the general Dutch middle level e-authentication mechanism.

Yearly user satisfaction surveys are used to monitor the quality of services delivered to the customers of IB-Group. User surveys from 2004 and 2005 show increasing satisfaction with the services delivered by the IB-Group.

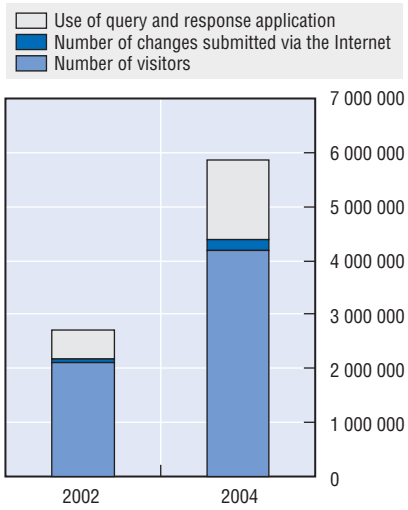
IB-Groep also uses the yearly surveys strategically, to "persuade" users to move from time- and resource-consuming service channels (telephone calls or office visits) (see Figure CS5.1a) to Internet-based services (see Figure CS5.1b). Agency experience has shown that users have different expectations when using different service delivery channels; IB-Groep has used this knowledge to provide the most responsive service through the most efficient means.

Figure CS5.1a. **Traditional Channels**



Source: IB-Groep.

Figure CS5.1b. **Electronic Channels**



Source: IB-Groep.

The programme has been a success, both in enabling efficiency goals and in helping IB-Groep to better meet users' needs. The project cost was EUR 4 million between 2001 and 2004, covering the design and implementation

of Mijn IB-Groep and the overall development of electronic communication. Within two years, the agency had seen a 15% reduction in staff, saving EUR 2.4 million per year.

Today, IB-Groep employs 1 500 people, mainly staffing local offices throughout the Netherlands; this figure also includes an in-house ICT department with 150 employees.

IB-Groep's initial efforts have focused on front-office services and products for its large user base; however the agency plans to shift its priorities towards back-office development in the coming years. A major planned initiative is the introduction of e-forms for student use.

Born out of crisis, the IB-Groep's multi-channel strategy – using physical offices in each region, telephone services, e-mail contacts, and web portal services – has helped this important agency to direct users to the most appropriate service channel. It has succeeded, through intensive use of monitoring and evaluation tools, in changing its image from a slow and bureaucratic agency to a responsive and efficient organisation.

CASE STUDY 6

E-Government and E-Democracy

The Netherlands has a long history of participatory democracy, with government consulting broadly with external stakeholders in designing and implementing policy. E-Democracy generally refers to the use of ICT to provide citizens with access to government, the opportunity to participate in policy development and execution, and the ability to vote online. It implies transparent and process-based decision making by government, building citizen trust in government and the policy process. Research has shown that most citizens' disillusionment about government stems from feeling unimportant and ignored by politicians; increased communication enabled by technology can combat these beliefs. Areas of activity can broadly be clustered into four categories: e-participation, e-voting, e-democracy and e-access to information:

- **E-Participation** – The Dutch experience with e-participation has been based largely on citizen panels and consultation. Government entities at all levels are using the Internet to receive citizen opinions on political and policy issues. Research firms, media outlets and government agencies themselves offer surveys, and some citizen groups have initiated digital panels of their own. On a larger scale, the Ministry of Agriculture joined with its German counterpart in January 2002 to launch a digital debate on the future of agriculture in both countries. The e-consultation was held in three rounds over a period of six weeks, and yielded more than 500 views and proposals; 20 000 individuals visited the "future of food" website. The Dutch government also invited citizen input via the Internet into the formulation of a national strategy for sustainable development. Despite these efforts, however, there is no government-wide strategic approach to implement e-participation on a large scale.
- **E-Voting** – The Ministry of the Interior and Kingdom Relations created the Remote E-Voting Project to provide voters with more options to participate by allowing voting from various points rather than restricting it to a particular location. Although almost half of Dutch citizens (47%) say they would prefer to vote online, a large majority express concerns about security; one-quarter of the population would prefer not to vote online. In 2005, 2.2 million Dutch voters participated in the world's largest Internet election, choosing public water management authorities online.

- **E-Democracy** – A key component of e-democracy (and the supporting e-government) is technological and political support – in the forms of both an information infrastructure and a flexible government open to adapting procedures and projects to electronic means. And any initiative aimed at reaching all citizens must also ensure that the digital divide does not become the democratic divide. Some government agencies in the Netherlands have put in place programmes aimed at fostering e-democracy. These include municipality-level participation in the European eVoice programme (two municipalities are involved), an initiative aimed at increasing democracy in neighbourhoods and small villages through innovative programmes such as Internet cafes for seniors, and a website aimed at promoting discussion on societal values and norms. The *www.nederlandineuropa.nl* website was born from the Dutch "No" vote on the European Constitution referendum; it offers online surveys that can be used by the Ministry of Foreign Affairs to obtain citizen views on European issues. Amsterdam Mail is a free, personalised service that provides email updates to citizens on municipal news regarding pre-identified areas of interest; subscribers fill out personal profiles online, which can be updated at any time. However, overall, e-democracy has been slow to develop in Dutch municipalities. This is principally due to limited availability of necessary technology and skills for such initiatives.
- **E-Access to information** – Information provision can go beyond the traditional expectations of government materials and documents online. For example, local websites can be connected to national government sites or even international resources, so that local issues can be understood in a broader context. The Internet also enables communities of common interest or common location to generate dialogue and to share it with wide audiences. This can allow such interest groups to become better connected nationally and internationally, and to both provide and receive more and better information.

Citizen-driven efforts are often as important as government initiatives. The *Geluidsnet.nl* project offers real-time assessment of air traffic noise; citizens participate by placing special microphones connected to an Internet computer on buildings near flight patterns. The data are then transported to a central interactive map that allows tracking of noise, and has been the basis of discussion with the airport authority on reducing air traffic noise. *Petities.nl* offers citizens an online forum for creating, signing and submitting petitions.

Finally, a 1998 advisory report by the Dutch Council for Public Administration, "Limits on Internet democracy", found that electronic debates could make a valuable contribution to the democratic system in the Netherlands by broadening and deepening the public debate. However, the Council believes that online consultation is not a credible alternative to traditional representative democracy. Nevertheless, the real substance of e-democracy is about the role of the individual citizen, and e-government can provide the means for each citizen to have a meaningful relationship with government.

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OECD e-Government Studies

NETHERLANDS

Rather than pursuing e-government as an end in itself, the Netherlands is seeking to use ICT tools to reduce administrative burdens and improve service delivery. Internationally, the Netherlands is at the forefront of administrative burden reduction, which is a major political priority and an important justification for e-government development.

In order to simplify the relationship with citizens and businesses, and develop new electronic services, the Dutch government depends heavily on using common public sector e-government building blocks. This approach sets the cornerstone for providing seamless public services and implements, among others, the "collect once, use many times" principle to reduce administrative burdens. In line with the traditional Dutch focus on participative and inclusive government, featuring broad citizen consultation and involvement, the Netherlands has developed ambitious programmes and activities that aim to increase user take-up of e-services. But the results are slow to come.

This volume examines questions such as whether the goal of reducing administrative burdens is sufficient in itself for e-government to transform public administrations. Further, how can the public sector build partnerships across levels of government to deliver ICT-enabled end-to-end services that simplify the relationship with citizens and businesses?

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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