



E-government in Germany



Stichting Itafit

Staringsstraat 11
Postbus 525
6500 AM Nijmegen

T +31[0]24 365 16 60

F +31[0]24 365 16 70

I www.itafit.nl

Place The Hague
Date 10 oktober 2007
Authors Marco Meesters and Urszula Jaremba
Function
Status

Content

1	Introduction	3
2	History of e-government in Germany	4
3	Governing E-government	5
3.1	Political responsibility	5
3.2	Administrative responsibility	5
3.3	Coordination and collaboration	6
4	Vision of e-government	8
4.1	Philosophy of German e-government	8
4.2	Areas of interest	8
5	Results	10
5.1	Public services for citizens	10
5.2	Public services for businesses	11
5.3	Transformation of organizations structures	12
5.4	E-government for economy	13
5.5	E-government for society	14
6	Conclusions on German e-government	15

1 Introduction

Germany scores low in the international e-government benchmarks. The country ranks 13th in the e-government benchmark of Accenture of 2005 and 19th in the e-government benchmark of the European Union of 2006. The federal nature of the country is often used as an argument for the difficulties with implementing e-government.

The German e-government effort is described in this document. First, the history of e-government is shortly sketched. It is interesting to see in what historical perspective the latest e-government efforts should be placed.

Second, the governance structure in which the e-government effort is taking place is drawn. How does Denmark cope with the challenges of how to implement e-government in a decentralized environment and how to incorporate local and regional governments, as well as (semi-)privatized organizations into it's framework.

Third, the vision on e-government is assessed. What philosophy is behind the e-government effort? Is e-government a way of reducing budget deficits by increasing efficiency, or is e-government an effort to involve citizens in the affairs of government? And is e-government truly citizen-centric or is it government-centric in the end?

Fourth, an assessment of the results of the e-government efforts is presented. Has the e-government program led to visible improvements? Since it is impossible to study all areas of e-government in-depth, five areas were chosen. In this research, the e-government achievements in public service delivery to citizens, to business, the transformation of organization structures, the introduction of e-government concepts in the economy and in society are studied. In the area of public service delivery to citizens, the researchers looked for one-stop shops (online and offline), for one-off data provision (do citizens need to offer the same information several times?) and for web portals for target groups. In the area of service delivery to businesses, the researchers looked for one-off data provision, the automatic transfer of data (e.g. statistical data) to the government and for standards for filing financial reports. In the area of the transformation of organization structures, the researchers looked for shared services, common intranets and for the reduction of administrative procedures between governmental authorities (think of the control procedures for schools). In the area of e-government for the economy and for society, no specific solutions were looked for. In these areas, the researchers looked for projects that tried to enhance the use of ICT in the economy (by businesses) and in society (by citizens).

2 History of e-government in Germany

E-government in Germany can be dated back to the end of 1990s. The first e-government related programme was presented in 1996 under the name: Info 2000: Germany's way to the Information Society. A few months afterwards Forum Info 2000 was created to support the action plan. In March 1998 Media@Komm project was launched in order to develop local e-government concepts. Media@Komm carried out exemplary pioneer work so that other municipalities could learn from their experiences. A year later the government launched Modern State – Modern Administration Programme aimed at general public administration modernisation. In 2000 a very important step towards structural development of e-government was set: BundOnline 2005 Programme was announced by Chancellor Gerhard Schröder. The programme was shortly after followed by the BundOnline2005 Implementation Plan. BundOnline was supposed to be the largest federal e-government programme in Europe. BundOnline aimed at providing as much electronic services as possible for citizens. In 2003 the federal e-government strategy was supported by the Deutschland Online – a countrywide e-government programme across all layers of public administration. Deutschland Online aimed at increasing collaboration and cooperation between various layers of government. BundOnline 2005 was successfully completed by the end of 2005. The Federal Government defined its strategy for the next years in September 2006 by launching E-government 2.0 programme. In recent years German public authorities have achieved substantial progress in developing e-government. In an international comparison, however, Germany is lagging behind other countries investigated in this paper.

3 Governing E-government

How does the German government govern its effort for implementing e-government? The political responsibility and the administrative responsibility for e-government are discussed in the following paragraphs.

3.1 Political responsibility

The responsibility for federal e-government policy lies with the Federal Ministry of the Interior. Within the Ministry other administrative units were created to coordinate the implementation of the strategy. The Federal Minister of the Interior bears political responsibility for e-strategy.

Political coordination of the Deutschland Online strategy is carried out by a Working Group of State Secretaries for E-government in Federal and Länder governments chaired by the Federal Government.

3.2 Administrative responsibility

Within the above-mentioned Ministry a couple of units were established that serve the implementation of the BundOnline2005 strategy.

3.2.1 *BundOnline 2005 Project Group*

BundOnline Project Group, created in 2001, was responsible for drafting the implementation plan, central and general coordination, management and monitoring of the strategy. The Group supported the federal ministries and agencies in their e-government efforts through so-called Catalysts (CATs) – project consultants and managers. Twenty-five CATs helped the BundOnline Project Group to provide substantive and organizational support to the ministries and federal agencies and organized the transfer of knowledge between projects. The group is in charge to provide local governments with support and technical advice as well.

3.2.2 *Federal Co-ordination and Advisory Agency for IT in the Federal Administration (KBSt)*

KBSt has been existing since 1968. Its mission is to ensure that the federal government makes the best possible use of ICT in organizational, economic and technical terms. KBSt is responsible for designing, implementing and running pilot e-projects and infrastructure components. The KBSt advises federal authorities and publishes recommendations and guidelines. It addresses the issues of software architecture and standardization and monitors development of the IT industry. It publishes rules, guidelines and recommendations for the use of IT in the federal administration. It designs and implements central IT pilot projects.

3.2.3 Office of the IT Director (CIO)

The position of the CIO was established in 2002 in order to pull together all e-government related tasks of the Ministry of the Interior. The Office brings together the BundOnline Group, the Federal Co-ordination and Advisory Agency for IT in the Federal Administration (KBSt) and the Federal Information Security Agency. The work of the Office is focused on political and technical coordination of the BMI's responsibilities in the field of e-government and IT.

3.2.4 Committee for Automatic Data Processing at the Federal, Länder and Local Level (KoopA ADV)

KoopADV was established in order to maintain technical coordination of the Deutschland Online Strategy. This committee is supported by the e-Government working group and the e-Government project office.

Since Deutschland-Online was launched, the Conference of State Secretaries has introduced four new project groups, so that more than 24 groups are currently working on specific projects.

3.3 Coordination and collaboration

The BundOnline Project Group, with support of the KBSt, was responsible for overall coordination of the BundOnline Strategy whereas a Working Group of State Secretaries for E-government in Federal and State Governments coordinates the Deutschland Online strategy. Coordination is a difficult task in Germany. Germany has one of the most decentralised state structures in the European Union. The strategy launched in 2000 (BundOnline2005) was limited to the federal administration only. Second generation initiatives as Deutschland Online and Media@Komm-transfer are trying to address the challenges of fragmented administration and decentralized system.

Local governments and Länder can conduct their own policy and their autonomy what is guaranteed by law, common practice and political culture. Most of them have developed their own e-strategies and own concepts what further caused existence of many island solutions that are not bridged. Over the last few decades, the decentralised responsibility structure has created an equally complicated patchwork of IT systems in the administrations which is probably unique in the world (Deutsche Bank Research 2005) A large number of different products are used for identical tasks, and these products are usually incompatible with each other.

The Deutschland Online strategy aims at connecting the services, bridging the layers of administration, developing joint standards and transferring e-solutions between authorities in order to build integrated e-government. The strategy is, however, not based on centralised bureaucracy. Individual partners continue to develop solutions that can be implemented later by other federal, Länder or local partners.

There are obviously some very good offerings at the local or Länder level but it is rather exceptionally and not universally a case. Deutschland Online strategy assumes that Federal, Länder and local authorities will together provide most important services (e.g. vehicle or trade register) on the web by the end of 2008 and requires that all actors will work effectively together. So far, it has not been the case to the satisfactory extent, e.g. some Länder refuse implementing already developed solutions and components. It seems that Länder are not sufficiently committed to the e-government strategy and prefer developing their own infrastructure and projects, e.g. there are currently 47 different IT systems used in resident registration offices which are moreover incompatible with each other.

More cooperation and greater commitment to the common strategy seem to be very fundamental requirements for success of German e-government and achieving a better position in the international rankings.

4 Vision of e-government

What vision does German government have on the contribution of e-government? The philosophy underlying the German e-government strategy and the areas of interest are discussed in the following paragraphs.

4.1 Philosophy of German e-government

With its Modern state – Modern Administration programme, the Federal authorities aimed at comprehensive modernization of the federal administration. The programme was supposed to pool together action in three fields: modern administrative management, bureaucracy reduction and e-government. E-government is defined as a part of broader modernisation of the state.

The clear objective of BundOnline 2005 was to put all possible federal services on-line and gain far going cost-savings. The goal was reached by the end of 2005, i.e. more than 400 services capable of electronic delivery were made available on-line. BundOnline was a purely quantitative and cost saving operation. Traditional service delivery processes have been put online. Most of those services are limited to pure information provision and only some of them are interactive and provide services such as: downloading forms or submission of electronic application. BundOnline focussed on front-office reorganisation of federal public services.

Deutschland Online was an answer to issues of cooperation and collaboration. The program aims at closing the gaps between different level authorities and supporting networking between the online offers. The program tries to get administrations from various levels of government to work together and to use common solutions for identical problems. Moreover, the program focuses on back office reorganization, mainly by developing a structure of central registers.

4.2 Areas of interest

E-government in Germany focuses heavily on public service delivery and on governance. The strategies do not address issues of benefiting economy or overcoming the digital divide. Neither the concepts of e-democracy, e-participation and e-voting are seriously discussed.

BundOnline focussed on the business community. More than fifty percent of the services put online are directly targeted at companies in Germany (BundOnline Final Report 2005). A strong focus on the needs of business community is loudly articulated in the strategy documents. Nevertheless, the evaluation of existing on-line services brings to two conclusions. The first one is, that most of them cannot benefit business in substantial way

since they provide information only in areas which are not of the most importance for enterprises. The second one is, the government itself is the most important addressee of the services (BundOnline Final Report 2005). Services for citizens are mostly provided by the local authorities which were, as already mentioned, not involved into this strategy.

Deutschland Online focuses on back office reorganization by implementing a structure of central registries.

5 Results

What results have been achieved by the German e-government effort.

5.1 Public services for citizens

In Germany most of the services aimed at citizens are provided by local authorities. The above-described problem of highly decentralized and fragmented administration, followed by the exclusion of local authorities from the common e-government strategy arrived at the situation when there are not many effective, service-oriented solutions for citizens. The Deutschland Online program does not seem to have improved this situation until now.

5.1.1 *One-stop shops*

Some municipalities know and try to implement the concept of Bürger-büros – a single-contact citizen service centres. However, this is not a countrywide trend and the centres differ in levels of services and their maturity. Most of the centres handle “low-complexity” citizen services. There are some multi-channel applications at the Länder level. North Rhine Westphalia offers physical, online and phone access to various services. Similarly, Bavaria provides for a central service portal with an integrated phone-online channel. Hamburg offers a central public call centre that receives 12 000 calls per day and serves as a phone one-stop shop.

The federal portal www.bund.de is aiming to become a virtual one-stop-shop for the citizens. The Portal of the Federal Government in cooperation with the Lander, is the gateway to the services and online information of the German Administration and other public agencies aimed at citizens and businesses. Some Länder have already linked their administrative portals with bund.de. The German-language web portal is organised around life or business events business areas, fields of activity, and other areas (e.g. labour, profession, retirement or foreign trade etcetera). The portal includes sections with the job vacancies in the public administration, public invitations to tender, forms, and contact details of public authorities. The portal mainly provides information.

5.1.2 *One-off data provision*

Every district and every municipality administrates its own register of cars and residents. There are examples of registers which are paper-based, e.g. civil status register. Anyone who wants information from the residential register must therefore contact the local community in which the person is believed to live. If the person has changed address, a new request must then be sent to the new local community. These situation occurs also in other areas, i.e. when a child is born, the parents must provide almost one and the same data to the registry office, the residential registration office, the child allowance and maternity benefit

office - they must obtain certificates and carry them from one office to the other. In the framework of Deutschland Online strategy much of work is being done to build common key registers (motor vehicle register and resident register are of utmost importance and are to be set up by 2010) but yet one-off principle is far from being realized.

5.1.3 Web portals for target groups

There are a few examples of web portals that were created for particular groups of citizens, i.e. labour issues portal and student portal.

Federal Labour Agency for (Bundesagentur Für Arbeit) is responsible for and development of the portal aimed at providing all labour-related information: www.arbeitsagentur.de. The portal provides access to databases of job openings and of job seekers and also features an innovative matching application to help job seekers identify opportunities more easily. Another advanced function, though accessible to Labour Office employees only, is a 'job robot' that collects job advertisements from the entire internet. The portal provides also for all information concerning unemployment benefits and family allowances. Citizens can also download forms and fill them on screen. The applications must be further proceeded in the traditional postal channel.

Another example is the student grants portal (www.bafoeg.bmbf.de) under the coordination of the Federal Ministry for Education and Research and Federal Office of Administration. The portal provides for information for students and offers forms to download. Students can also make use of the hotline or write an e-mail with inquiry. The portal offers scholarships applications and some help in student grants handling

5.2 Public services for businesses

Basically, the improvement of services for enterprises was the core business of the BundOnline strategy. Most of the services offered on-line are yet not transactional and aim at providing information only, e.g. the portal Ixpos.de which stands for an information platform for sectors, markets, events and cooperation projects for medium-sized companies operation internationally. Some services are offered exclusively via the internet (e.g. customs notification or application procedure for CO2 emission trading). Nonetheless, use of e-government by businesses is particularly low (Deutsche Bank Research 2005)

5.2.1 One-off data provision

In Germany there is no one central commercial register that would serve as a base for one-off provision of data. Companies registers are handled by the local courts. It results in a situation similar to the above-described services for citizens, i.e. the same documents must be carried from one office to another.

5.2.2 Automatic data transfer from businesses to government

eSTATISTIK.core is a digital procedure that allows enterprises to send their statistical data digitally via the Internet. The system was designed for companies and public authorities. The primary objective of the module is to provide an efficient system for generating and reporting statistical data from Enterprise Resource Planning (ERP) systems. eSTATISTIK.core is part of the Deutschland Online strategy. The system forwards raw data from the central data collection server to the statistical office and makes them available in the proper format. It includes a couple of components, namely a central data collection server, XML-based documents formats, software and reporting system. eSTATISTIK.core checks the validity of incoming data as well. The system is in full operation since early 2005 and since then lessens administrative burden on responding enterprises and improve efficiency of the statistical office.

5.2.3 Standards for financial reports

There is no evidence of standards for financial reports in Germany.

5.3 Transformation of organizations structures

New organizational concepts and transformation of organization structures in the German administration seems to be the core of the cross-departmental modernisation strategy. The aim was also articulated in the Modern State - Modern Administration strategy. Total quality management and modern planning in administration were to become the leitmotifs of change. E-government was expected to be a tool of that modernisation. In practice concepts of building standardisable shared services or creating internal internet networks remain intensively discussed but yet not intensively explored. The same applies to business process optimisation and electronic transaction processing. While the importance of changes is often expressed, little is done to ensure the progress (Habbel, E-government. Guide Germany 2007)

5.3.1 Shared services

The Federal Office of Administration (BVA) is the independent central service agency at federal level. It carries out more than 100 different tasks on behalf of the federal ministries and their agencies. These include specialized and centralized cross-sectional tasks, supervision, planning and monitoring. BVA covers a wide range of specialized tasks, implements administrative efforts in key areas and works in partnership with a large number of other federal, state and local agencies, as well as non-governmental organizations and millions of private citizens. BVA is responsible for the development of some of the country's e-Government infrastructure components such as the bund.de portal or the Content Management System Government Site Builder. The Federal Office for Information Technology (BIT) was created within the BVA in order to maximise IT expertise.

The procedure for compiling the annual budget (budgetary planning) for the federal ministries is run and coordinated by the Federal Ministry of Finance (BMF). All other federal ministries have to provide their data. The enquiry has always been done through paper documents that were filled by hand. The new R_HAV system supports the entire process of drafting ministerial budgets, preparing budget accounts and estimates via the internet. The whole procedure for compiling the federal annual budget has become more transparent, more comprehensible and easier to follow. Information is provided in much more comprehensive way. Paper documents and transport of paper documents are no longer necessary. The time necessary for reaction was reduced. R_HAV system has been developed within the Federal Ministry of Economics and Labour and can be possibly introduced in other ministries.

5.3.2 Common intranet between government bodies

Three networks deserve attention. Since 1999 the Berlin-Bonn Information Network (IVBB) provides secure communication between federal constitutional bodies in Berlin and Bonn. IVBB is currently being expanded into the Federal Administration Information Network (IVBV) to ensure secure communication between all the federal bodies and units.

TESTA-Deutschland network (Trans-European Service for Telematics between Administrations in Germany), launched in March 2004, is a communication platform for all layers of government, for internal administrative use. It is a computer network built on top of an existing network in order to provide countrywide secure communication channel between public authorities (for e-mail, data exchange etcetera). It enables communication with European administrations as well. A closed group of users can use the network. The network is a more secure alternative to the Internet. TESTA network replaces exchanging data on the basis of agreements between individual administrations.

Furthermore, Federal Administration Information Network (IVBV), a private IP-based communication network, serves as intranet between the different public administration departments.

5.3.3 Reduction or simplification of administrative control procedures

There is no evidence of projects aimed at reduction or simplification of administrative control procedures.

5.4 E-government for economy

There is no evidence of e-government projects that would address the issue of contributing to economy.

5.5 E-government for society

In Germany, there are still large differences in accessing ICT and the internet between diverse population groups. Nevertheless, the digital divide, despite of its considerable extent, is not granted any attention in e-government strategy. There are private sector initiatives (i.e. Initiative D21) that promote information society in Germany and partly address the problem of the digital divide.

6 Conclusions on German e-government

E-government in Germany is defined as a means of a broader administration renewal programme. However, e-government is not at the top of the governmental agenda. The country is ranked only as “average” in the international benchmarks. While the government has successfully implemented a number of services at the federal level, much remains to be done at the local level.

The governance structure of the e-government effort of Germany resembles the decentralized structure of the country and lacks centralised capacity. The e-government effort suffers from a lack of interoperability of developed solutions and from a lack of cooperation and collaboration between various levels of government. Local government was hardly involved until Deutschland Online was started and this project did not succeed until now in satisfyingly involving local governments.

The strategy of BundOnline was quite shallow, aimed at providing as much existing services online as possible. It succeeded, offering 440 services online. However, the level of service delivery is quite low, mostly only forms can be downloaded. Moreover, the uptake of e-government is much lower than hoped for. Surveys indicate that an important reason for this is a concern of citizens with the level of security and data protection. The strategy of Deutschland Online focuses on back office reorganization, but until now no striking results have been achieved.

With the E-government 2.0 Programme the Federal Government focuses more on processes and service orientation. Yet, a process-oriented work, establishing satisfactory interface to the customer (front office, multi-channel entries, one-stop shops) and efficient service processes (reorganization of back office processes, shared services, central registries) remain the goals to be pursued in the future.

Appendix A: other organizations

Next to the above-described units, there are other bodies that support the implementation of the e-government strategy.

German Federal Office of Administration (BVA)

BVA is a central public service agency that is performing many tasks for all federal ministries and agencies. It is developing and implementing, inter alia, some of e-government components.

Federal Information Security Agency (BSI)

BSI is the central IT security service provider for the German government. It conducts basic research within the area of IT security and takes responsibility for the security of society.

Appendix B: Other results

Other concepts for public service delivery to citizens

Tax declaration

The ELSTER website is an electronic tax office. Since 1999 the method ELSTER (ELEktronische STEuerERklaerung = electronic tax return) offers to all taxpayers, companies and tax advisors in Germany the electronic transmission of various tax returns and declarations via the internet. The Bavarian Head Office for taxes is leading the development of the system. In 2005 around 20 percent of the citizens used the system for their tax declaration, the popularity of the system is raising constantly (doubles every year). In contrast to other countries, the system is not based on the electronic signature but on the system of online-registration and authentication (free of charge). The system allows for annual tax return and advance tax return filing, tax certificates, tax account inquiry. The taxpayer has round-the-clock access to the service and is supported by the phone/fax/e-mail ELSTER-hotline that can be reached until 10 p.m. ELSTER is considered to be one of the most important and successful e-government projects in Germany.

E-health card

The German health system is one of the widest self-governing organisations that lack transparency, cohesiveness and efficiency and is based on out-dated concepts (Schumacher *E-government. Guide Germany* 2007). The new version of the e-health card, that replaces an earlier version and has been implemented since 2006, is aimed at improving efficiency in the German health system. The new card stores a citizen's name, address, insurance number and prescription information and can comprise some voluntary applications as emergency data, medication documentation, doctors' reports, blood group, chronic diseases etcetera. Citizens are expected to be using the card while seeing a doctor, buying medications or staying in a hospital. Also, all doctors, hospitals, pharmacists, and service providers in the health system will be equipped with a matching professional card allowing them to read their patients' cards, put prescriptions on the cards, and sign all entries. Logistical problems effect in slower than expected distribution of the cards and a delay of the project.

Digital signature

An electronic ID card including digital signature project has been launched and pilots of electronic services cards were carried out in 2002. Intensive and continuous discussion arrived at a situation that there is currently no central e-identification system and electronic signature has failed to enter widespread use. In Germany as elsewhere, digital certificates have not been as widely adopted by individuals or enterprises, due to issues such as costs, legal and technical complexity, incompatibility of systems from different suppliers, security issues. On 13 September 2006 the cabinet formulated objectives as the introduction of an electronic identity card and drafting e-identity concept. The German electronic ID card is expected to be finally introduced by the end of 2007.

Social security benefits

The Federal Labour Agency is responsible for social security benefits. Unemployment benefits information and forms to download are to be found at the arbeitslosengeld2.arbeitsagentur.de website. The forms can be filled on screen and send by traditional post to the Labour Office. Family allowances information and forms can be found at arbeitsagentur.de website.

Other concepts for public service delivery to business

Tax declaration

The above-mentioned ELSTER system offers the electronic transmission of tax to companies as well. Nearly 90 percent of all German companies use the system. The corporation tax (declaration, notification), and VAT (declaration, notification) can be transmitted on-line to the tax office.

Appendix C: Methodology

The research method was based on desk research and participation in *Advancing E-government Conference* which was held in March 2007 in Berlin. Further, an evaluation of websites was conducted.

List of basic publications and documents include:

Moderner Staat Moderne Verwaltung (Modern State – Modern Administration)

Modernizing the Federal Administration. Strategy for phase 2 of the Government Programme

Modern State Modern Administration.

Implementation Plan for the *BundOnline 2005* E-government Initiative

E-Government Guide Germany. Strategies, solutions and efficiency

Implementation Plan for the E-government Initiative 2005 – Progress Report on Implementation (2003)

Visited and evaluated websites:

Official website of the federal administration: www.bund.de

Electronic Tax Return – ELSTER : www.elster.de

Federal Insurance Institution for Employees – BFA: www.deutsche-rentenversicherung-bund.de

Commerce Register: www.handelsregister.de

Federal Statistical Office: www-idev.destatis.de

Student grants: www.bafoeg.bmbf.de

Employment portal: www.arbeitsagentur.de

Social Security Benefits: arbeitslosengeld2.arbeitsagentur.de

Enrolment in higher education: www.zvs.de

Customs declaration : www.zoll-d.de

Information platform for enterprises: www.ixpos.de

Appendix D: references

Action plan Deutschland Online, Policy note, Ministry of the Interior 2003.

BundOnline 2005. 3rd implementation plan, Federal Ministry of the Interior, Berlin 2003.

Berlin-Bonn Information Network, Federal Ministry of the Interior, Berlin 2002.

Best practices in the European Countries. Germany, Centre for administrative Innovation in the Euro-Mediterranean region, 2005.

BundOnline 2005. E-Government für moderne Verwaltung, Ministry of the Interior, Berlin 2001.

BundOnline 2005. Implementation plan for the BundOnline 2005 e-Government initiative, Federal Ministry of the Interior , Berlin 2001

BundOnline 2005. 2003 Implementation plan, Federal Ministry of the Interior, Berlin 2003.

BundOnline 2005. 2004 Implementation plan,. Status and outlook, Federal Ministry of the Interior, Berlin 2004.

BundOnline 2005. Final Report – current status and Outlook, Federal Ministry of the Interior, Berlin 2006.

Deutschland-Online. The German national e-government strategy, Federal Ministry of the Interior, Berlin 2004

Deutschland-Online. The joint e-government strategy by the federal government, federal-state governments and municipalities, Federal Ministry of the Interior, Berlin 2003.

DOMEA concept. Organisational Concept 2.0, Federal Ministry of the Interior, Berlin 2005

E-government. Guide Germany. Strategies, solutions and efficiency, Adam Zechner (ed) Fraunhofer eGovernment Zentrum 2007.

E-government in Germany [in:] Digital Economy. Deutsche Bank Research, No 51, June 2005.

E-government 2.0. The federal programme, Federal Ministry of the Interior, Berlin 2006.

Federal Civil Registry. Overview of IT projects, Ministry of the Interior, Berlin 2007.

Focused on the future: innovations for administration. The Government's programme, Federal Ministry of the Interior, Berlin 2007.

Implementation plan for the e-government initiative 2005. Progress report on implementation. Cabinet decision dated 11 December 2002, Federal Ministry of the Interior, Berlin 2002.

Information society Germany 2006. Action Programme by the federal government, Federal Ministry of Economics and Labour, Federal Ministry of Education and Research, Berlin 2004.

Innovation and Jobs in the information society of the 21st century. Action Programme by the German Government, Federal Ministry of Economics and Technology, Federal Ministry of Education and Research, Bonn-Berlin 1999.

IT-security made in Germany. Innovative IT-security solutions in business and government, Federal Ministry of the Interior, Federal Ministry of Economic and Technology 2006.

Leadership in customer service. Building the trust, Accenture 2006.

Modern State Modern Administration. The programme launched by the federal Government, Cabinet decision of 1st December 1999, Federal Ministry of the Interior, Berlin 1999.

Modern State Modern Administration. Progress report 2002, Federal Ministry of the Interior, Berlin 2002.

SAGA. Standards and architectures for e-government applications. Version 1.1., Federal Ministry of the Interior, Berlin 2003

SAGA. Standards and architectures for e-government applications. Version 2.0., Federal Ministry of the Interior, Berlin 2003.

SAGA. Standards and architectures for e-government applications. Version 3.0., Federal Ministry of the Interior, Berlin 2006.

Strategy for modernizing the federal administration. Phase 2 of the government programme Modern State Modern Administration, Federal Ministry of the Interior, Berlin 2004.

The Electronic ID Card. Overview of IT projects, Ministry of the Interior, Berlin 2007.