



# Second National IT Summit 2007 Hannover Declaration

Zweiter Nationaler IT Gipfel

*Hannover, 10 December 2007*

When the first IT Summit was held in Potsdam in 2006, government, commerce and science launched a process designed to make Germany a world leader as a location for information and communication technologies (ICT). The aim is to make “ICT made in Germany” a recognised brand. This brand stands for products and applications that are highly innovative, globally competitive, secure, efficient, environment-friendly and durable.

We want to strengthen the momentum that was set in motion in Potsdam to ensure that the ICT industry continues to serve as a driving force for innovation and growth throughout the entire economy and that Germany remains an attractive location for investment. Today, the ICT industry is already the economic sector with the highest value creation in Germany. It safeguards and creates highly skilled jobs, not least in other sectors of the economy as well.

In order to situate Germany strategically within international competition as a location for information and communication technologies, we intend to take advantage of our current strengths and remedy our deficits. We aim to utilise the know-how derived from close cooperation in Europe and to enhance Germany’s international standing in this field. For this reason, we have established the following priorities for our work: to concentrate on new areas of growth, particularly in the field of innovative services; to ensure the sustainable modernisation of the administrative sector; to pursue innovative policies on education and skills; and to enhance safety and trust in ICT.

## CONCENTRATING ON AREAS OF GROWTH

Telecommunications and information technologies will continue to develop rapidly in the coming years. The convergence of technologies and applications will create new markets. In order to benefit from this dynamic, we need to maintain and expand state-of-the-art, competitive ICT infrastructures since these form the very basis of the knowledge society. The *closure of the broadband gap* in Germany and the *construction of state-of-the-art networks and services* – such as IPTV for private households and new web-based media applications for schools and small and medium-sized enterprises – present challenges that we will confront with a range of concrete new projects. These include information and consultation services, funding to supply broadband coverage to rural areas, and the development of a cluster for IP services which will be test-marketed starting in 2008.

These efforts can succeed only when the right conditions for investment, innovation and competition are put in place and when the dynamics of international telecommunications and media markets are taken into account. Therefore, both government and industry are working together actively on the upcoming review of the European telecommunications framework.

This infrastructure will serve as the basis for the development of future markets. The flagship projects initiated during the first IT Summit as well as other projects launched within the framework of the Federal Government's High-Tech Strategy provide support for this pioneering work.

- The Theseus project, which the Federation conducts jointly with industry and which has been approved by the EU, is in the process of developing new Internet technologies and ICT-based services for an *Internet of Services* that will enable the web to make the leap "from searching to finding". In addition, a new competition directed toward upcoming young talent has been initiated, and another competition is planned that will involve the broad participation of small and medium-sized enterprises.
- RFID is being promoted as the core technology for creating an *Internet of Things*, with the aim of establishing a network of "intelligent" objects. The Next Generation Media project uses RFID applications to combat plagiarism and to optimise supply chains, among other things. Both a high-level intergovernmental conference on the technological and legal aspects of RFID use, which was held during the German EU Presidency, as well as the establishment of a dialog platform, have lent support to these efforts.

- One of the first uses of the Internet of Things will focus on *digital product memory*, which is being developed by both science and industry. The next generation of RFID-based systems will be able to record all relevant product and operational data and share these data with the immediate surroundings. This will pave the way to logistics that conserve resources.
- The leading European equipment suppliers in the communication technology sector have agreed to form an innovation alliance with the research sector. With the project *Transport Services for the New Internet – 100 GET*, European companies are working to design cross-network standards. In addition, mobile communication equipment suppliers in Germany and the two leading network operators have joined forces with research institutions in an initiative to prepare *future mobile communication standards for the year 2011 onward*.
- The implementation of the *e-Energy* project was expedited on the basis of a technology competition to promote model regions with the best concepts for integrated electricity supply systems that ensure a better balance of supply and demand. This provides an effective contribution to improved energy efficiency and environmental performance.
- Germany is the global leader in many environmental technologies – we wish to take advantage of this momentum in the ICT sector as well and to develop new approaches toward *sustainable environmental protection*. The introduction of the Toll Collect system can lead to new IT-based services, e.g. for the coordination of logistical services to prevent unladen journeys and thereby to reduce CO<sub>2</sub> emissions. Starting with CeBIT 2008, we plan to launch an international dialogue on this issue between government, industry and science.
- The successful establishment of a *telematics platform* makes it possible for the first time to use *ICT on a nationwide basis in the health care system*. The telematics infrastructure ensures that the quality and cost-effectiveness of supply is improved for all involved parties. Further, it serves as the platform for new e-health applications. Now it is crucial for the government, business and administrative sectors to work together to unleash the potential that this technology offers.

Small and medium-sized enterprises (SMEs) will play a key role in these forward-looking fields. Innovative solutions are spawned by increased cooperation and networking among small ICT companies. The Federal Government supports this process through SME-specific measures within the framework of its High-Tech Strategy. The “Innovative SMEs” program has led to a tangible improvement in access to research funding.

Within the context of establishing the European Institute of Technology, the Federal Government will undertake efforts to set up a *knowledge and innovation cluster* with an emphasis on ICT in order to enhance *Germany’s overall position as a location for ICT research*. These efforts will allow us to engage in the targeted expansion of our strengths while building upon the Federal Government’s High-Tech Strategy.

## MAKING THE MOST OF ICT IN THE PUBLIC SECTOR

By providing support for technological innovations and acting as a modern service provider for citizens and companies, the state plays a decisive role in ensuring Germany's success as a location for business. Through the use of ICT, the state can maintain its own capacity to perform effectively in the future and increase its efficiency. We have a clear objective: by the year 2010, *Germany should be one of Europe's top three countries in the application of ICT-based administration and justice.*

Germany will fulfil this objective only if it achieves the necessary integration of its ICT systems. The basis for this is the creation of a *network infrastructure* that is organised jointly by the Federation, *Länder* and municipalities and that enables secure electronic access to all public agencies. The construction of this network infrastructure will require technological coordination among the various levels as well as clear decision-making processes and areas of responsibility.

Therefore, for its area of responsibility, the Federal Government will restructure the way in which it coordinates information technology. Accordingly, the Federal Cabinet has adopted a *concept to improve IT coordination within the federal administration*. This concept provides for the establishment of a Federal Government Commissioner for Information Technology (*Beauftragter der Bundesregierung für Informationstechnik*, BfIT), who will serve as the contact person for the *Länder*, the EU, international partners, companies and policymakers. In addition, the Commissioner will chair the interministerial Council of IT Commissioners and will also direct a new political body, the Federal IT Steering Committee. In the future, the Federal Commissioner for Information Technology is to be involved in all federal legislative initiatives that address important IT issues within the federal administration. He will act as the driving force for the consolidation and professionalisation of ICT within the federal administration. This will require a consistent and transparent ICT architecture within the federal administration as well as the ongoing monitoring of federal ICT initiatives. The Federal Commissioner for Information Technology will also be provided with an effective organisational infrastructure that is capable of fulfilling the public administration objectives established within the framework of the IT Summit process.

The IT Summit urges the Federation, *Länder* and municipalities to take advantage of the opportunity that the second stage of Germany's *federalism reform* offers for improving IT coordination between the Federation, *Länder* and municipalities and for establishing the basis for a comprehensive ICT strategy within the public administration. Current policy discussions pertaining to ICT infrastructures within the public administration should be continued at the highest political level. The participants of the IT Summit strongly urge the Federation and the *Länder* to cooperate more closely on the issue of ICT within the public administration and to structure their coordination and decision-making processes in such a way that ensures both the speedy construction of a secure, nationwide ICT network infrastructure as well as the establishment of interoperable interfaces for electronic communication both with and within the public administration.

The Federation is also focusing on the introduction of electronic communication between companies and public administration authorities and is working together closely with the business sector, the *Länder* and municipalities to achieve this aim. Paper-based administrative contact between companies and public authorities will largely be eliminated by 2012. The goal is to establish procedures that are electronic from start to finish, from the submission of electronic documents, to the internal processing of such documents, to the electronic delivery of administrative decisions and notifications. The availability of user- and customer-friendly interfaces is a key factor in creating a business-friendly environment for companies. To achieve this goal, the Federal Government and industry have agreed to work together to fast-track the projects initiated within the *E-Government 2.0* and *Deutschland-Online* programmes. For example, the *Deutschland-Online* project on *motor vehicle administration* will fulfil its goal of introducing online motor vehicle registration at participating agencies by the year 2010, and will pursue this objective on a nationwide basis after that. The *Federal Population Register* project will establish a cross-sectional database within the public administration that will also lend support to e-government applications. The implementation of the *EU Services Directive* brings with it the opportunity to set up an efficient *one-stop government*, which the Federation, *Länder* and municipalities are working together to achieve by 2010. These efforts will also serve to promote new technologies in Germany.

The *single telephone number 115 for government services* will make it substantially easier for citizens to contact public authorities. On the basis of a study on the 115 number prepared by the ISPRAT Institute (Interdisciplinary Studies on Politics, Law,

Administration and Technology), the Federation and the *Land* of Hesse have developed an implementation concept that will now be further refined on the basis of input from selected model regions. The single telephone number for government services can provide a strong impetus for a positive shift in the service culture of Germany's public administration. This single, easy-to-remember number will give direct access to public services, regardless of administrative level and area of responsibility. The project stands as a model of cooperation among the various levels of our federal state, which is placing a higher priority on services to citizens.

Further, we intend to utilise the potential of e-justice more than we have in the past. The *networking of judicial registers* – including the cross-border networking of judicial registers in Europe – represents a key source of information for the business sector. Together with the *Länder*, the Federal Government will continue to push for progress in networking judicial registers and will advocate the implementation – particularly at the European level – of solutions developed in Germany or within the framework of pilot projects in which Germany participates.

## **EXPANDING THE POOL OF SPECIALISTS IN INNOVATIVE HIGH-TECH INDUSTRIES**

Qualified employees are the most important resource for Germany as a location for high-tech industries. The demand for ICT specialists has risen significantly – nearly one-third of companies in the ICT sector are unable to fill vacant positions. One thing is clear: only those who invest in the development of young talent and experts in the ICT field will succeed, over the medium term, in attracting investment and keeping highly skilled employees in Germany. The best and the brightest must view Germany as an attractive place to work, and we will make a powerful effort to be perceived as such in the international competition for specialists.

In order for Germany as a whole to embark on a new education campaign, it is important for the Federation, *Länder*, municipalities and private sector to intensify their efforts and to focus on the entire educational system. With its initiative *Skills Development for Germany*, which is set to begin this year, the Federal Government will help Germany secure a strong pool of young talent. This initiative will contain measures that focus on the promotion of mathematics, informatics, natural sciences and technology (“MINT”) at all levels of the educational system.

The business sector will also be actively involved: two examples include the increased personal involvement of “CEOs in Schools” as well as the “Software for Schools” initiative, which will make software and web-based learning programmes available to schools. Science and academia must also take up the challenge of linking university research and instruction more effectively to actual practice. Courses of study should include time budgets for practical training in the private sector.

The Skills Development Initiative will also focus on enhancing mobility between the various branches of the educational system and increasing the proportion of university students. By introducing a “Voluntary Technical Year”, the Federal Government will seek to attract more young people to university degree programmes in the natural sciences and various fields of technology. The IT sector will be involved in the voluntary technical year programme and will make positions available to interested young people.

Examples of other concrete measures include:

- *Motivating and fostering qualified specialists:* an ICT initiative is being developed with the support of industry and labour unions which focuses on the transition period between school and career, vocational training and apprenticeships. The aim of this initiative will be to enhance the media and information technology skills of young people, educators and vocational trainers. The primary emphasis will be placed on improving the conceptual and practical ICT skills of educators and trainers in relevant fields.
- *Skills development for older workers:* In view of demographic developments, it is increasingly important to provide continuing education to older workers. With the “IT 50 plus” initiative, social partners will engage in continuing education measures for the purpose of better utilising the potential of older workers for a longer period of time.
- *Strengthening the recruitment of women in IT-related degree programmes and careers:* It is important for women to recognise early in life the professional opportunities offered by ICT-related careers. Beginning in 2008, the Skills Development Initiative will feature a national pact for women in MINT careers that will commence, combine and continue relevant measures.

Apart from grooming a broad pool of skilled employees, we must also continue to discuss the issue of opening the labour market to highly qualified foreign workers on the basis of the Meseberg resolutions. In order to alleviate current shortages in the engineering profession, especially in fields where the demand for specialists is particularly high (e.g. electrical engineering), the Federal Employment Agency has, since 16 October 2007, refrained from giving preferential consideration to German workers when dealing with applicants from the 10 new Member States who specialise in such

fields and to whom transitional rules on the free movement of labour would otherwise apply. Likewise, preferential consideration to German workers is not applied in the case of foreign graduates of German universities who seek to take up employment in their fields of specialisation.

The Federal Government will formulate a proposal for the systematic monitoring of human resource needs in relevant professional fields. Further, we will develop a concept for coordinating the migration of highly skilled specialists to Germany in a manner that suits the needs of the labour market and that takes Germany's interests in the coming decade into account.

## **ENHANCING TRUST IN SECURE AND CONSUMER-FRIENDLY INFORMATION AND COMMUNICATION TECHNOLOGIES**

The security and trust of citizens are decisive factors for the dissemination of ICT technologies and applications. Both citizens and companies depend on the security of their data and their activities on the web. This is especially true for small and medium-sized enterprises.

Both the ICT industry and government share a common responsibility to balance opportunities and risks while at the same time finding solutions that stimulate innovation and that are oriented toward consumers. *Electronic identities* are the key to participating in the digital world. The secure and reliable electronic identification of Internet users is a decisive factor in ensuring sustainable value creation. The ability to use pseudonyms, the assurance of data minimisation and data security, and the protection against identity theft and profiling are fundamental pillars in this regard. The Internet is not immune from crime – not least certain forms of organised crime that have emerged. Such dangers must be counteracted with suitable mechanisms. At the same time, this situation is spawning an attractive and rapidly expanding market for German producers of security technologies who are able to build upon key successes in related research. Germany has the opportunity to become a global leader in the development of forward-looking security technologies.

Important examples in the field of electronic identity include the *electronic identity card* and *citizens' portals* projects developed by the Federal Ministry of the Interior. In the future, the electronic identity card will make it possible to reliably prove one's identity



online. Citizens' portals will make Internet communication easier and more secure in three ways: it will be possible to send e-mails securely using authentic e-mail addresses, to engage in simple identification processes and to deposit electronic documents for extended periods of time in document safes. At the same time, these technologies create the preconditions for innovative services that will help Germany to continue making forward strides as a location for information technology.

At the IT Summit, the Federal Government and industry affirmed their intention to work together closely on both of these projects. This cooperation will be launched through the creation of a working group to develop a pilot project on citizens' portals. Government and industry will also closely coordinate their activities to ensure the successful development of the electronic identity card.

We are developing additional ways to ensure that the Internet is secure and consumer-friendly:

- The association *Germany Secure Online (Deutschland sicher im Netz)*, which was initiated at the first IT Summit, has been in operation for several months. This association has put together a comprehensive programme of action focusing on the education and sensitisation of both private and commercial users. In addition, it has started to implement a package of concrete measures to help Germany gain a leading position in the digital world.
- With the initiative *An Internet for Children (Ein Netz für Kinder)*, the Federal Government and industry have created technical systems and a "positive list" of child-friendly websites that make it possible for parents and educators to ensure that children are able to use the Internet in an age-appropriate manner.
- Consumer-friendly information and communication technologies must also provide good customer services. Accordingly, IT Summit participants developed a set of *guidelines for consumer-friendly customer services*. These guidelines offer concrete proposals that were formulated jointly by consumer advocates, companies, independent groups and the Federal Government. Detailed concepts for user-friendly terminal equipment and possible online services provide a comprehensive guide to the relationship between consumers and services.

## **CONTINUING THE JOINT DIALOGUE**

The second national IT Summit represents an important milestone. In 2008, the Federation, *Länder*, commerce and science will intensify their mutual dialogue and cooperation on the basis of the action programme *iD2010 – Information Society Germany 2010* and the Federal Government's High-Tech Strategy. In this process, we

will combine our strengths more effectively than in the past. The priority issues set forth in this declaration will stand at the forefront of our efforts in 2008: we will focus on promoting key sectors of economic growth – the Internet, the environment and health; establishing the necessary preconditions for a modern state administration; implementing measures to secure a qualified pool of young talent and specialists; and enhancing security and trust in information technology and the Internet.