The Government’s overall information technology (IT) policy objective is for Sweden to become the first country to create an information society for all. Future efforts in the IT sector are described in an action plan identifying the measures required. Tax relief is proposed as a means of encouraging access to the broadband network. Government funding is also to be made available for the establishment of regional networks and for the purpose of facilitating access to the broadband network in sparsely-populated areas. A total of SEK 5,800 m is to be provided for these two measures. In addition, the Swedish National Grid is to undertake the construction of a backbone network on strictly commercial terms. Extension of the network to all municipal centres in Sweden is expected to cost SEK 2,500 m.

The Bill identifies IT policy goals, orientation and priority areas and also proposes revision of the Utility Easements Act (1973:1144) and of the Employment Protection Act (1982:80). The Government’s 1996 IT Bill is constantly followed up and reports are provided on the measures taken to date. This follow-up has enabled future IT policy goals to be specified more closely and in some cases to be amplified.

The Bill ranges across a broad spectrum and encompasses a number of issues in all policy areas. The advantage of this is that IT policy can be positioned and presented in a broad general framework. Appendices to the Bill describe IT development in both statistical and technological terms and also include other background material.

An information society for all
The Government proposes that state investment be focused primarily on three areas for the purpose of creating an information society for all. These areas are regulatory systems, education and training, and infrastructure, the aim being to boost confidence in IT, competence in the use of IT and accessibility with regard to the services of the information society.

The rapid rise of IT has become a stimulatory factor in the development of a knowledge society. With the powerful impact it is having in every area, IT is affecting us all and changing the way we live. The new economy that is emerging as a result is characterized by speed, interaction and universality. IT advance has led to the appearance of totally new goods and services. All sectors of society are feeling the effects. The world is shrinking, and time and space are gradually losing their significance. Values and life-patterns are undergoing a transformation.

As IT advances, a growing number of people are involved, often with positive results. But there are risks as well. Greater dependence on IT makes a society more vulnerable. Many people experience uncertainty and distrust. This applies both to individual privacy and to people’s willingness to make purchases via the Internet. Consumer protection must be assured, as well as secure payment procedures. The privacy of the individual has to be safeguarded both in the social insurance system and in medical journals. To this end, and in respect of other issues, clear and unambiguous legislation is required.

Many people are missing out on IT development and risk being marginalized. The Government takes the view that the information society must extend nationally. The aim is for all citizens to be given the opportunity to benefit from IT – an information society for all. Broad-based public usage would necessitate enhanced accessibility, know-how and system security.

IT facilitates the accomplishment of many urgent tasks in a variety of sectors and contexts. Today, Sweden is one of the world’s leading IT nations. Much of the growth that the country experienced in the 1990s was a product of IT investment. This sector currently has some 220,000 employees. A leading position in the field and the maintenance of high IT standards can help Sweden attain vital policy goals. These are specified, inter alia, in the Government’s general policy objectives. They include such targets as increased growth, more jobs and less unemployment, sound government finances, security, equity and prosperity, a sound environment and regional balance, to name a few. The Government intends IT policy to contribute favourably to the attainment of these goals. Policy approaches in eight areas are outlined.
Overall IT policy objective

Sweden is already a leading IT nation. The level of ambition is now being raised with a view to making the country an information society for all – primarily by providing universal access, achieving a broad measure of IT competence in the community and promoting strong public confidence in the use of IT.

The task of the state is to ensure that the requisite conditions for development are present and to eliminate any constraints that might obviate fulfilment of this objective. There is however some potential conflict between the need to meet specific requirements from a rapidly-developing IT industry in global competition and the need to introduce a broad-based programme that would afford all citizens access to the information society. The Government takes the view that a broad-based programme would provide an appropriate foundation on the strength of which Sweden could compete internationally in the long term.

IT policy approach

The Government’s aim is for IT policy to contribute significantly over the next few years to a higher level of attainment in respect of the above-mentioned general policy goals. IT policy is to seek to promote:

- **growth** by
  - enhancing the competitiveness of the Swedish IT sector.
  - helping create new markets, greater employment and greater productivity throughout society.
  - boosting the volume of electronic commerce.

- **employment** by
  - improving employability through the provision of IT training emphasizing quality at all levels.
  - helping to create conditions for growth throughout the country by means of a good IT infrastructure.

- **regional development** by
  - helping to create conditions for growth throughout the country by means of a good IT infrastructure.

- **democracy and equity** by
  - making it easier for all to access information about public activities and to participate in political decision-making, both in Sweden and within the EU as a whole.
  - contributing to a more active exercise of citizen’s rights due to the new opportunities that IT offers for applying the principle of freedom of expression.
  - exploiting the opportunities afforded by IT for preserving and developing culture, cultural heritage and language in Sweden.
  - avoiding undue violation of privacy when IT is used.

- **quality of life** by
  - enhancing individual welfare and prosperity through the use of IT in everyday life and working life.
  - improving the quality of life for under-privileged groups.

- **gender equality and cultural diversity** by
  - increasing universal access to the advantages afforded by IT irrespective of gender, age, ethnic background or any disability.
  - helping to ensure that the composition of IT specialist staff reflects the population structure as regards gender and ethnic background.

- **efficient public administration** by
  - letting public administration set a good example in IT usage.
  - helping to ensure that electronic communication between government agencies, private individuals and businesses may be conducted safely and securely.

- **a sustainable society** by
  - using IT to promote ecologically sustainable development.
  - helping to reduce the impact of transportation on the environment and public health.
  - making IT equipment part of a sustainable, cyclic flow of materials.

Areas of priority

1. **Confidence in IT**
   - greater security and confidence.

2. **Competence in IT application**
   - greater know-how as regards developing and using IT, not only among specialists but also by the provision of basic skills to all.

3. **Accessibility to the services of the information society**
   - greater access to IT. This applies both to technological hardware, e.g. lines, cabling and other equipment, and to logical software, including programs, standards, primary information bases and communal services of various kinds.
The Government can influence IT usage by seeking both to enhance competence in the IT field and to improve accessibility to information technology, and also by introducing measures that enhance user confidence in IT. In addition, measures will be taken to promote good practices and new areas of application for IT, especially in public administration.

In many areas, it will be the responsibility of the Government to introduce the requisite measures. Examples of such measures are presented below:

**Measures for enhancing confidence in IT**

Regulations and systems in the IT sector should be such that they inspire confidence through being:
- safe, secure, predictable and technology-neutral.
- international
- protective of individual privacy.

- The Government’s efforts are aimed at inspiring confidence in IT. Three priority areas are identified:
  - protection against information operations
  - enhanced security on the Internet
  - electronic signatures and other security technologies.

- The Government intends to take measures that will lead to a more secure and more stable Internet, such as:
  - working to ensure that the Swedish part of the Internet can function independently of operations in other countries
  - making available a secure and accurate national timing for the Internet via the National Metrology Institute for Time and Frequency

- The Government intends to stimulate the use of electronic signatures by:
  - promoting cooperation between important market actors on how to further a common infrastructure for electronic signatures, e.g. by the use of a solution based on smart cards.
  - proposing legislation this spring relating to electronic signatures. See separate fact sheet, N.2000.17, on further efforts with regard to electronic commerce.

**Measures for enhancing IT competence**

The education system should provide all citizens with basic skills in the use of IT in everyday life and working life. IT levels of competence should be such as to allow employees to keep up with structural change and strengthen their position in the labour market, and to provide employers with sufficiently skilled labour. In addition, specialized IT skills are needed in the research and development sphere.

- Continuation of the special IT Programme for Schools (ItiS) in 2000-2001.
- A two-year IT competence enhancement programme for small businesses starting in 2001.
- Analysis of women’s use of IT.
- Twenty thousand additional openings in higher education nationwide in 2000 and a further 10,000 a year in 2001 and 2002. The emphasis is to be on technology and the natural sciences.
- The Royal Institute of Technology is to launch an ‘IT university’ in Kista.
- Universities and other institutions of higher education should take into consideration the need for competence in the IT sector, for instance in the field of network expansion and IP technology.
- Additional investment in the expansion of a cluster focusing on silicon technology.
- Establishment in the higher education sector of a competence centre for Internet technology, partly in virtual form.

**Measures for improving accessibility**

Over the next few years, households and businesses in all parts of Sweden should acquire access to IT infrastructure with a high transfer capacity. This is primarily to be achieved through market channels. Central government, however, has overall responsibility for ensuring that IT infrastructure with a high transfer capacity is available nationwide. Competition, low prices and rapid development are fostered by a large number of operators and IT companies being given the opportunity to use the networks. Government measures and regulations are to ensure both competition neutrality and diversity in the networks. The technology capable of bridging geographical distances must not be such that it further widens the gap between metropolitan and sparsely-populated areas as a result of major differences in accessibility, charges and
capacity. The infrastructure is also to include databases and services in respect of which central government will have special responsibility for ensuring universal accessibility. A national strategy should be developed to ensure security of public information supply.

- Revision of the Utility Easements Act to facilitate expansion of communications infrastructure with a high transfer capacity.
- Proposals for a national IT infrastructure programme.
- A commercial backbone network extending to all municipal urban centres in Sweden.
- Government funding for regional line connections, prioritized partly for regional development and industrial policy reasons and partly because over the next five years the need for such links is not expected to be fully met by market players.
- Introduction of government grants to local authorities and tax relief to subscribers aimed at encouraging accession to networks with a high transfer capacity in sparsely-populated areas.
- The question of local loop unbundling (LLUB) through legislative action is to be dealt with by the Government Offices.
- In view of the present rapid development of building network for broadband accession, measures are required for the prevention of local monopoly. The Government has commissioned a report.
- Introduction of a broadband programme on a trial basis for persons with disabilities.
- Framing of a strategy to streamline and facilitate the provision of public information and the development of electronic information services.
- Regular publication of statistics on information and communication technology (ICT).

Measures in certain areas of application

- The Government is to stimulate the development of what are termed 24-hour public authorities able to supply information and electronic self-service round the clock.
- Development of forms for certification and electronic signatures in public administration.
- Proposals as to how the EU directive on electronic commerce may be incorporated into Swedish legislation are to be drawn up.
- Greater information on electronic commerce to consumers and smaller businesses.
- A national action plan is to be drawn up for the development and rejuvenation of the health care system, including IT usage. A joint group is to further develop national prerequisites for the broad-based implementation of telemedicine.
- Pilot programmes should be initiated in different living environments with a view to improving popular insight into and participation in the decision-making process.
- Legislation in the telecommunications, computer and media sectors should be coordinated (convergence).
- The Employment Protection Act is to be revised so that security of employment is no longer dependent on the location of distance employees in relation to the principal workplace.
- When procuring IT, central government is to point the way in imposing accessibility and environmental requirements in line with EU legislation. A commission is to be appointed to analyse how IT may be applied in environment protection work.
- Telia’s introduction to the stock exchange is aimed at further enhancing the company’s scope for developing its range of networks and services.