GREECE

Policy environment

General approaches to information technology and infrastructure

In the digital age, economic competition is increasingly based on technology and knowledge. A number of initiatives are thus aimed at improving the exploitation and use of new technologies in the economy: interventions in the product, labour and capital markets, initiatives for the upgrading of the IT industry, and support to small and medium size firms are all examples. For the development of electronic commerce, the government is establishing the proper regulatory framework by amending legislation regarding transactions by electronic means, adopting electronic payments and measures creating a climate of trust and protection for consumers. There are also support measures for the introduction of pilot electronic commerce applications in the private sector. Finally, with the aim of fostering industrial innovation, incentives are offered to enterprises and research entities for co-operation in joint programs.

The Internet economy / information economy

In setting up and implementing the strategy for the Information Society in Greece, some emerging principles of the eEconomy in Europe need to be kept in mind. Over the years ICT investment appears to have had an impact on productivity and growth without, however, always being able to clearly measure the short- and long-term nature of this impact. In any case, there is a very strong need to pursue structural reform throughout the different levels of the emerging eEconomy. We believe that the key to future development is “risk taking” behaviour particularly with respect to innovation. This will create a competitive behaviour in the information sectors leading to more open and efficient public and private sectors.

Finally, any strategies or policies on information economy are built on: retraining of the labour force in terms of general knowledge and skills, with emphasis on ICT skills, and the close co-operation between public authorities, industry and educational actors.

The Information Society

The Greek government attaches particular importance to promoting the information society (IS) in Greece. It considers that new information and communication technologies constitute an essential tool for an open and effective government and for improved competitiveness. They create new ways of work, new skills, and the need for continuous learning and adaptation of the education system. At the same time they allow for a better quality of life with the provision of improved health, transport and environmental services, and contribute to the promotion of cultural heritage and of the Greek language. The government’s concern is to ensure that the emerging Information Society will be a society for all, without discrimination between
“information-haves” and “have-nots”, safeguarding citizens’ rights and the freedom of expression and information.

With the aim of promoting the IS in a coherent and integrated manner, a separate Operational Programme for the Information Society (OPIS) has been approved in the framework of the 2000 - 2006 EU Structural Funds Framework in Greece. This is an innovative horizontal programme, cutting across government departments, which intends to mobilize EUR 2.8 billion (public and private expenditure) and aims to implement the essential features of the White Paper of the Greek government entitled “Greece in the Information Society” of February 1999.

Specific policies and programmes

Technology development

R&D programmes

The Operational Programme Information Society will promote research actions focusing on:

- Processing of sound and language images
- Microelectronics, sensors and automation mechanisms
- Network and communications technologies and services in selected areas
- ICT applications in special areas. Incorporated systems and micro systems for special applications.
- Electronic support for the provision of health services.
- “Smart” cards.

The projects above will be funded in the context of improving university-industry links through the support of partnerships between research and private sector entities, upgrading of ICT infrastructure in research centers.

The Ministry of Finance has implemented a considerable number of IT projects in the field of taxation (TAXIS programme), customs offices, treasury-budget, etc., as part of the “Klisthenis” program, financed by the 2nd Community Support Framework. Such projects refer to areas critical to the operation of the state and contribute significantly to the improvement of services provided to all parties carrying out transactions with the Ministry, the effective support of the decision-making procedures, the stamping out of tax and duty evasion, and the curtailment of public expenses.

Through TAXIS [www.taxisnet.gr], the Ministry of Finance and the General Secretariat of Information Systems have also promoted the development of a system for the electronic exchange of receipts and, in particular, the electronic filing of Value Added Tax statements as well as personal tax. In its first year of operation (2001) 28,594 personal tax and 87,485 VAT statements were submitted on-line. The Ministry is also currently considering the possibility of supplying taxpayers with a smart card identifying its holder in order to allow economic transactions and issuance of standardised tax certificates at special points of service.
**Government procurement**

*Introduction of electronic tendering procedures*, including by public administrations, by 2003 which will be combined with the introduction of electronic procedures in transactions between the State and companies (Public Procurement, submission of proposals for participation in Community programmes etc.)

**Venture finance**

The **New Economy Development Fund S.A.** (NEDF) [http://www.infosociety.gr/taneo] has been formed by article 28 of Law 2843/2000, with the Hellenic Republic as its single shareholder. The purpose of the company is to co-finance the formation of venture capital funds, which will be investing in innovative businesses at early development stages.

NEDF intends to be a minority investor in the venture capital funds it will invest in. These funds should be managed by the private sector, and investment decisions should be taken by the managers on a commercial basis. Its operations were scheduled to start in the autumn of 2001.

**Launching (April 2001) of the New Stock Market (NEXA) trading shares of innovative and dynamic New Economy SMEs.**

**Technology diffusion**

**Technology diffusion to individuals and households**

*Development of local access network infrastructure*, on the basis of the expression of local needs and necessary services, without technological preference, in small towns and remote areas combined with special actions for elderly and disadvantaged persons. This is an action line, of the OPIS, of great importance with a potential to have critical social and economic impact throughout the country and will be launched during 2002.

**Technology diffusion to businesses / Small and medium-sized enterprises**

Adoption of new business practices for **small and medium enterprises** (SME) that will improve their quality of services and convert them to electronic businesses (operational restructuring, installation of integrated management systems for business resources, improved internal communications in the company, logistics systems, etc.).

The project “Go on- line” ([www.goonline.gr](http://www.goonline.gr)) has been launched by the Ministry of Development and aims to introduce 50,000 SMEs to the digital economy. It covers all of the country (13 regions) and focuses on providing PC - Internet access and training to a wide number of SMEs in order to introduce them to the use of new technologies. It will be implemented during the period 2001-2003 with an estimated budget of EUR 100 million.

Reinforcement of support mechanisms for **small and medium enterprises** (SME) in all sectors of the economy (primary, secondary, tertiary) with equipment, networking, and technical knowledge so that integrated information and advisory support can be provided in matters relating to ICTs and to the new business practices based on them.
The project “e – business Forum” [www.ebusinessforum.gr] aims at supporting the introduction of Greek Businesses to the use of ICT and e-business practices. This mechanism of consultation involves the business and academic world, along with social and professional organisations in order to produce relevant guidelines.

Indicators for the above:

- Increase in the proportion of small and medium enterprises that use e-commerce applications, from negligible to 15%.
- Increase of the proportion e-commerce web pages or websites with certification of secure exchanges, from negligible to 30%

*Government on-line, government as model user*

Support the development of broadband services for the public sector

The most important e-government programme that is implemented this year is called “Sizefxis” and its goal is to provide the public administration with a high bandwidth network. “Sizefxis” is a backbone and access network that ran as a pilot project during 2000 – 2001, funded from the Operational Programme “Cleisthenis” of the 2nd CSF (Community Support Framework) with a budget of EUR 1.5 million, aiming at:

- Supporting telematic services for the transmission of voice, image and data services
- Working with a VPN strategy and open architecture
- Offering multiple access and connection possibilities
- Improving the operation and the quality of services of the public administration

An evaluation of the project regarding its quality of service and cost-benefit issues was scheduled for 2001 and was to be funded from the 3rd CSF.

*Improved quality services to citizens and firms by the public administration*, at central, regional and local level *(Government on line)*. More specifically, development of online applications (including public tendering and procurement procedures) as well as the use of ICTs to streamline and re-engineer procedures and communication within and between government departments, covering all of public administration and especially the areas of fiscal and finance, social insurance, justice, regional development and emergency services.

The programme “ARIADNI” (2000 – 2006) focuses on the improvement of the public administration services in the regional and central municipalities, including the use of Internet for most transactions and communication with the central services. A part of “ARIADNI” is the program “ASTERIAS” concerning the islands, which has already been completed. On the site of the Ministry of the Aegean [www.ypai.aegean.gr], 207 procedures concerning the public administration are already available online. At the same time the Ministry of the Interior, Public Administration and Decentralisation is digitising 300 more.
Relevant indicators:

- Proportion of interconnected Public Services: Ministries, from 75% to 100%, Prefectural Governments, from 2% to 100%, Municipalities, from 0.2% to 100%.

- Proportion of public hospitals with Internet access and relevant equipment, from 22% to 100%.

Business environment

In the OPIS, there is a specific line of action planned for the development of an ebusiness environment, involving:

- Trust issues and the creation of a consumer protective environment including:
  - “hard trust”, which typically can be addressed by technical (e.g. cryptography, certification, authentication) or legal solutions (mutual police assistance against computer crime).
  - “soft trust”, which are partly cultural (resistance to credit cards) and require different solutions.

- Completing the legal framework regarding e-commerce and digital signatures

- Standardisation and certification actions in the field of learning technologies, design for all, electronic signatures, smart cards, m-commerce

- Launching of “market driven” Alternative Dispute Resolution Schemes

It is essential that the actions mentioned above are combined with the appropriate training and education initiatives.

Intellectual property rights

The existing legislative framework regarding intellectual property rights (mainly constituted by law 2131/93) is driven by international trends but its regulatory ability is constantly reviewed in view of the developments in digital technology and with reference to the new products and services that require protection (both in the case of online services and of physical content carriers such as CD-ROM, etc.) The new regulatory framework will soon be supplemented with the introduction of database protection provisions into national legislation.

Standards

Defining a single environment for the development of IT systems based on specific technical, functional, organisational and administrative standards. The “Kanon” project is under implementation attempting to formulate a framework of common procedures for the design and follow-up of IT projects, and the operation of IT systems.


**Policies relating to building ICT skills**

**Professional IT skills**

Launching of actions to close the “skills gap” combining advanced ICT skills training and “on-the-job training” for 10,000 people for the period of 2001 – 2002 with a total budget of EUR 38 m (Operational Programme Information Society).

Support of tele-work and tele-training pilot applications, especially in geographically remote areas and the islands mostly with the use of demonstrative applications with multiplier effects aiming at increasing the number of people undergoing tele-training, from negligible to a total of 15,000 for the next three years.

Creation of training packages taking into account special needs of the disadvantaged groups

**Basic IT skills**

Development of basic IT skills for the wider population through flexible procedures, and especially for socially disadvantaged groups, in connection with re-insertion into the labour market. The main goal is the certification of qualifications for 40,000 people in basic computer skills, for the period 2001 and 2002, mobilising an overall of EUR 25 m, through the Operational Programme Information Society. The group targeted includes mainly the unemployed but also employed persons.

<table>
<thead>
<tr>
<th>OPERATIONAL PROGRAMME &quot;INFORMATION SOCIETY&quot;: STRUCTURE AND FUNDING</th>
<th>IN MILLION EUROS *</th>
<th>PUBLIC EXPENDITURE</th>
<th>Total Public Expenditure</th>
<th>European Funding</th>
<th>National Contr.</th>
<th>Private Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1 Education and culture</strong></td>
<td><strong>421,0</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>1.1 Equipping and networking schools and universities</td>
<td>391,7</td>
<td>17%</td>
<td>293,8</td>
<td>166,8</td>
<td>125,0</td>
<td>97,9</td>
</tr>
<tr>
<td>1.2 New technologies in education</td>
<td>166,7</td>
<td>43%</td>
<td></td>
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</tr>
<tr>
<td>1.3 Documentation, management, promotion of Greek cultural heritage</td>
<td>106,1</td>
<td>27%</td>
<td></td>
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</tr>
<tr>
<td><strong>2 Citizens and quality of life</strong></td>
<td><strong>879,4</strong></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>2.1 Government on line: Business plans, studies, pilot projects</td>
<td>850,0</td>
<td>37%</td>
<td>637,5</td>
<td>558,5</td>
<td>78,9</td>
<td>212,5</td>
</tr>
<tr>
<td>2.2 Government on line</td>
<td>362,0</td>
<td>43%</td>
<td></td>
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<tr>
<td>2.3 Administration of the Structural Funds and transition to the Euro</td>
<td>119,0</td>
<td>30%</td>
<td>96,0</td>
<td>7%</td>
<td></td>
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<tr>
<td>2.4 Regional geographic information systems and innovative actions</td>
<td>99,7</td>
<td>12%</td>
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<tr>
<td>2.5 Training and modernisation in the public administration</td>
<td>166,7</td>
<td>43%</td>
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<tr>
<td>2.6 ICT applications in health and welfare</td>
<td>103,0</td>
<td>12%</td>
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<td>2.7 Training and organisational reform in health and welfare</td>
<td>96,0</td>
<td>11%</td>
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<tr>
<td>2.8 “Intelligent transport”</td>
<td>96,0</td>
<td>11%</td>
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<tr>
<td><strong>3 The Digital Economy and Employment</strong></td>
<td><strong>901,7</strong></td>
<td></td>
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<tr>
<td>3.1 A ‘digital’ environment for the new economy</td>
<td>537,6</td>
<td>24%</td>
<td>403,2</td>
<td>212,0</td>
<td>191,2</td>
<td>134,4</td>
</tr>
<tr>
<td>3.2 Businesses in the digital economy</td>
<td>162,6</td>
<td>30%</td>
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<tr>
<td>3.3 Research and technological development for the IS</td>
<td>52,0</td>
<td>10%</td>
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<td>3.4 Skills upgrading</td>
<td>154,0</td>
<td>29%</td>
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<tr>
<td>3.5 Employment promotion for the IS</td>
<td>101,0</td>
<td>19%</td>
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<tr>
<td><strong>4 Communications</strong></td>
<td><strong>569,3</strong></td>
<td></td>
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<tr>
<td>4.1 Supporting the liberalisation process</td>
<td>422,8</td>
<td>19%</td>
<td>316,9</td>
<td>311,2</td>
<td>5,7</td>
<td>105,6</td>
</tr>
<tr>
<td>4.2 Development of local access network infrastructure</td>
<td>319,7</td>
<td>22%</td>
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<tr>
<td>4.3 Advanced telecommunications services for the citizen</td>
<td>70,0</td>
<td>17%</td>
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<tr>
<td>4.4 Modernisation of postal services</td>
<td>80,0</td>
<td>19%</td>
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<tr>
<td>4.5 Training in the communications sector</td>
<td>7,6</td>
<td>2%</td>
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<tr>
<td><strong>5 Technical Assistance</strong></td>
<td><strong>67,7</strong></td>
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<tr>
<td>5.1 Management and implementation</td>
<td>67,7</td>
<td>3%</td>
<td>50,8</td>
<td>20,7</td>
<td>30,1</td>
<td>16,9</td>
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<td>5.2 Technical Assistance ESF</td>
<td>18,9</td>
<td>27%</td>
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<tr>
<td>5.3 Technical Assistance ERDF</td>
<td>20,7</td>
<td>30%</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>2,839,1</strong></td>
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</tbody>
</table>

* IN MILLION EUROS